

GW - 20

**GENERAL
CORRESPONDENCE**

YEAR(S):

2006-1981

Frontier Field Services, LLC
Southern Ute Indian Tribe

Randy McCollum
Manager of Compliance

Phone: 505-676-3505
Cell: 505-361-0128
Fax: 505-676-2401
rmccollum@frontierfieldservices.com

CERTIFIED MAIL: 7004 0750 0002 5384 6984
RETURN RECEIPT REQUESTED

May 11, 2006

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

**Re: GW-020 Discharge Plan
Maljamar Gas Plant
Annual Sump Inspection
Frontier Field Services**

2006 MAY 15 PM 1 27

Dear Mr. Price:

On April 20, 2006 notice was given to Chris Williams of the local NMOCD office in Hobbs, NM that a planned inspection of sumps as required in our Discharge Plan would be performed beginning April 25, 2006.

During the time period from April 26 through April 28, 2006 the plant sumps and #8 Clark cellar were inspected. Results of the inspections are attached.

If you have any questions or require more information please contact me at 505-676-3505.

Sincerely,



Randy L. McCollum

Chris Williams, OCD-Hobbs

Sump testing April 26, 27, 28 2006

Elect. Building sump	4/26 2:25pm	6'1"	4/27 2:25pm	6'1"
Expander sump #1	4/26 2:30pm	3'2"	4/27 2:30pm	3'2"
Expander sump #2	4/26 2:28pm	3'7"	4/27 2:28pm	3'7"
Ref. sump	4/27 9:20am	6'11"	4/28 9:30am	6'11"

#8 pits visual test good

Test Performed by *Collin Smith*

McCollum, Randy

From: Rudy Lizardo [rlizardo@frontierfieldservices.com]
Sent: Thursday, April 20, 2006 7:18 AM
To: Randy McCollum; Prentiss John
Subject: OCD sump testing

Gentleman, I notified Chris Williams with the New Mexico OCD dept today. In regards to our up coming sump testing on the 25th of this month starting around 8:00 to 9:00 AM.

Rudy Lizardo

Maintenance Foreman

Frontier Field Services LLC

P.O. Box 7

Maljamar, New Mexico 88264

Office: (505) 676-3504

Cell: (505) 361-0135

5/11/2006

Frontier Field Services LLC

Southern Ute Indian Tribe

Facsimile Transmission

Date
09/14/05

To:

Mr. Wayne Price
Energy, Minerals and Natural Resources
Air Quality Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

Phone: 505 476-3487
Fax: 505 476-3462

RECEIVED
SEP 21 2005
OIL CONSERVATION
DIVISION

From:

Randy McCollum
Frontier Field Services, LLC
P.O. Box 7
1001 Conoco Road
Maljamar, NM 88264

Phone: 505 676-3505
Fax: 505 676-2401

7 Pages plus this cover.

Comments:

Dear Mr. Price,

The annual playa lake discharge report for Frontier Field Services' Maljamar Gas Plant is attached. Please let me know if you need any additional information.

Thanks,
Randy McCollum

Special Instructions

Frontier Field Services, LLC
Southern Ute Indian Tribe

Randy McCollum
Manager of Compliance

Phone: 505-676-3505
Cell: 505-361-0128
Fax: 505-676-2401
rmccollum@frontierfieldservices.com

CERTIFIED MAIL: 7004 0750 0002 5384 6564
RETURN RECEIPT REQUESTED

September 14, 2005

State of New Mexico
Attn: Mr. Wayne Price
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

**RE: Annual Discharge Permit for Conoco Playa Lake
Discharge Plan #GW-020
Frontier Field Services, LLC
Maljamar Gas Plant, Lea County**

Dear Mr. Price:

Attached is the water analysis and monthly discharged water meter readings for the Frontier Field Services Maljamar Gas Plant disposal of "Reverse Osmosis" wastewater into ConocoPhillips Playa lake. OCD Discharge Permit # GW-020 requires metering of the discharged water to be recorded monthly and a laboratory analysis of a water sample from this stream on an annual basis.

Please contact me at one of the numbers or address indicated above.

Sincerely,



Randy McCollum

Attachments (2)

Frontier Field Services, LLC

Southern Ute Indian Tribe

Maljamar Gas Plant

Monthly R.O. Discharge to Playa Lake

Date	Meter Reading	Gallons per Month	Barrels per Month	Cumulative BBL	Monthly Average BBL
July 1 2001	0				
Aug 1 2001	15,160	15,160	361	361	361
Sept 1 2001	108,320	93,160	2,218	2,579	1,290
Oct 1 2001	198,560	90,240	2,149	4,728	1,576
Nov 1 2001	272,210	73,650	1,754	6,481	1,620
Dec 1 2001	329,480	57,270	1,364	7,845	1,569
Jan 1 2002	388,570	59,090	1,407	9,252	1,385
Feb 1 2002	436,150	47,580	1,133	10,385	1,270
March 1 2002	495,240	59,090	1,407	11,791	1,316
April 1 2002	536,820	41,580	990	12,781	1,234
May 1 2002	578,070	41,250	982	13,764	1,184
June 1 2002	625,650	47,580	1,133	14,896	1,175
July 1 2002	667,170	41,520	989	15,885	1,149
Aug 1 2002	674,070	6,900	164	16,049	1,026
Sept 1 2002	696,270	22,200	529	16,578	970
Oct 1 2002	711,110	14,840	353	16,931	909
Nov 1 2002	739,510	28,400	676	17,607	888
Dec 1 2002	768,100	28,590	681	18,288	870
Jan 1 2003	796,610	28,510	679	18,967	856
Feb 1 2003	817,210	20,600	490	19,457	585
March 1 2003	837,820	20,610	491	19,948	553
April 1 2003	858,420	20,600	490	20,439	538
May 1 2003	879,030	20,610	491	20,929	528
June 1 2003	897,990	18,960	451	21,381	515
July 1 2003	908,110	10,120	241	21,622	476
Aug 1 2003	918,320	10,210	243	21,865	447
Sept 1 2003	928,360	10,040	239	22,104	424
Oct 1 2003	951,590	23,230	553	22,657	437
Nov 1 2003	973,130	21,540	513	23,170	444
Dec 1 2003	996,150	23,020	548	23,718	452
Jan 1 2004	1,020,710	24,560	585	24,303	463
Feb 1 2004	1,040,370	19,660	468	24,771	526
March 1 2004	1,066,010	25,640	610	25,381	554
April 1 2004	1,089,200	23,190	552	25,933	554
May 1 2004	1,113,520	24,320	579	26,512	559
June 1 2004	1,136,110	22,590	538	27,050	555
July 1 2004	1,156,700	20,590	490	27,540	546
Aug 1 2004	1,179,930	23,230	553	28,094	547
Sept 1 2004	1,207,210	27,280	650	28,743	558
Oct 1 2004	1,222,210	15,000	357	29,100	538
Nov 1 2004	1,234,810	12,600	300	29,400	517
Dec 1 2004	1,247,440	12,630	301	29,701	499

Frontier Field Services, LLC

Southern Ute Indian Tribe

Maljamar Gas Plant

Monthly R.O. Discharge to Playa Lake

Date	Meter Reading	Gallons per Month	Barrels per Month	Cumulative BBL	Monthly Average BBL
	1,247,440				
Jan 1 2005	1,259,940	12,500	298	298	298
Feb 1 2005	1,272,490	12,550	299	596	298
March 1 2005	1,284,790	12,300	293	889	296
April 1 2005	1,299,070	14,280	340	1,229	307
May 1 2005	1,314,830	15,760	375	1,605	321
June 1 2005	1,324,270	9,440	225	1,829	300
July 1 2005	1,333,040	8,770	209	2,038	217
Aug 1 2005	1,336,230	3,190	76	2,114	170
Sept 1 2005	1,345,110	8,880	211	2,325	180
Oct 1 2005		-1,345,110	-32,026	-29,701	-6,261
Nov 1 2005		0	0	-29,701	-5,218
Dec 1 2005		0	0	-29,701	-4,472
Jan 1 2006		0	0	-29,701	-3,913
Feb 1 2006		0	0	-29,701	-3,478
March 1 2006		0	0	-29,701	-3,131
April 1 2006		0	0	-29,701	-2,846
May 1 2006		0	0	-29,701	-2,609
June 1 2006		0	0	-29,701	-2,408
July 1 2006		0	0	-29,701	0
Aug 1 2006		0	0	-29,701	0
Sept 1 2006		0	0	-29,701	0
Oct 1 2006		0	0	-29,701	0
Nov 1 2006		0	0	-29,701	0
Dec 1 2006		0	0	-29,701	0
Jan 1 2007		0	0	-29,701	0
Feb 1 2007		0	0	-29,701	0
March 1 2007		0	0	-29,701	0
April 1 2007		0	0	-29,701	0
May 1 2007		0	0	-29,701	0
June 1 2007		0	0	-29,701	0
July 1 2007		0	0	-29,701	0
Aug 1 2007		0	0	-29,701	0
Sept 1 2007		0	0	-29,701	0
Oct 1 2007		0	0	-29,701	0
Nov 1 2007		0	0	-29,701	0
Dec 1 2007		0	0	-29,701	0

*Mobile Analytical Laboratories, Inc.*

LABORATORIES IN ODESSA, GIDDINGS & STACY DAM

Billing Address: P.O. BOX 69210 • ODESSA, TEXAS 79769-0210

Shipping Address: 2800 WESTOVER STREET • ODESSA, TEXAS 79764

PHONE (432) 337-4744

FAX (432) 337-8781

September 14, 2005

Mr. Jerry Wright
Frontier Energy
P.O. Box 7
Maljamar, New Mexico 88264

Sample ID: Lab No. 1775
Playa Lake Discharge
Received 09/07/05
RCI

Compound	Method	Concentration	Units
Corrosivity	SW846.9045C	7.90	pH
Ignitability	ASTM D92	> 200	Deg F
Reactive Cyanide	SW846.7.3.3	< 20	mg/L
Reactive Sulfide	SW846.7.3.4	< 20	mg/L

NOTE: Results are from another Laboratory.

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,

Stephen Reid
SR/dt





Mobile Analytical Laboratories, Inc.

LABORATORIES IN ODESSA, GIDDINGS & STACY DAM

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Shipping Address: 2800 WESTOVER STREET • ODESSA, TEXAS 79764

PHONE (432) 337-4744

FAX (432) 337-8781

MR. JERRY WRIGHT
FRONTIER ENERGY
P.O. BOX 7
MALJAMAR, NEW MEXICO 88264

SEPTEMBER 14, 2005

DEAR MR. WRIGHT:
THE FOLLOWING ARE THE RESULTS OF THE PLAYA LAKE DISCHARGE
WATER SAMPLE FOR TCLP VOLATILES, RECEIVED 09/07/05,
LAB NO. 1775:

ANALYTE	CONCENTRATION mg/L	DETECTION LIMIT mg/L	REGULATORY LIMIT mg/L
BENZENE	< 0.01	0.010	0.5
CARBON TETRACHLORIDE	< 0.01	0.010	0.5
CHLOROBENZENE	< 0.01	0.010	100.0
CHLOROFORM	< 0.01	0.010	6.0
1,2-DICHLOROETHANE	< 0.01	0.010	0.5
2-BUTANONE (MEK)	< 0.01	0.010	200.0
1,1-DICHLOROETHENE	< 0.01	0.010	0.7
TETRACHLOROETHENE	< 0.01	0.010	0.7
TRICHLOROETHENE	< 0.01	0.010	0.5
VINYL CHLORIDE	< 0.01	0.010	0.2

SURROGATE STANDARDS	RECOVERY	QA/QC LIMITS
TOLUENE-D8	97.55	84-110%
4-BROMOFLUOROBENZENE	101.25	86-115%

METHOD: EPA SWA-8260B

NOTES: RESULTS ARE FROM ANOTHER LAB.
< = LESS THAN

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,

STEPHEN REID
SR/dt



Mobile Analytical Laboratories, Inc.

LABORATORIES IN ODESSA, GIDDINGS & STACY DAM

Billing Address: P.O. BOX 69210 • ODESSA, TEXAS 79769-0210

Shipping Address: 2800 WESTOVER STREET • ODESSA, TEXAS 79764

MR. JERRY WRIGHT
FRONTIER ENERGY
P.O. BOX 7
MALJAMAR, NEW MEXICO 88264

PHONE (432) 337-4744
FAX (432) 337-8781

SEPTEMBER 14, 2005

DEAR MR. WRIGHT:
THE FOLLOWING ARE THE RESULTS OF THE PLAYA LAKE DISCHARGE
WATER SAMPLE FOR TCLP SEMI-VOLATILES, RECEIVED 09/07/05,
LAB NO. 1775:

ANALYTE	CONCENTRATION mg/L	DETECTION LIMIT mg/L	REGULATORY LIMIT mg/L
M+P-CRESOL	< 0.1	0.1	200.0
O-CRESOL	< 0.1	0.1	200.0
NITROBENZENE	< 0.1	0.1	2.0
1,4-DICHLOROBENZENE	< 0.1	0.1	7.5
3,3-DICHLOROBENZIDINE	< 0.1	0.1	0.8
2,4-DINITROTOLUENE	< 0.1	0.1	0.13
HEXACHLOROBENZENE	< 0.1	0.1	0.13
HEXACHLORO-1,3-BUTADIENE	< 0.1	0.1	0.5
HEXACHLOROETHANE	< 0.1	0.1	3.0
PENTACHLOROPHENOL	< 0.1	0.1	100.0
PYRIDINE	< 0.1	0.1	5.0
2,4,5-TRICHLOROPHENOL	< 0.1	0.1	400.0
2,4,6-TRICHLOROPHENOL	< 0.1	0.1	2.0

SURROGATE STANDARDS	RECOVERY	QA/QC LIMITS
2-FLUOROPHENOL	47.86	35-114%
2-FLUOROBIPHENYL	100.78	43-116%
1,2-DICHLOROBENZENE-d4	96.13	33-141%

METHOD: EPA SWA-8270C

NOTES: RESULTS ARE FROM ANOTHER LAB.
< = LESS THAN

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,

STEPHEN REID
SR/dt



Mobile Analytical Laboratories, Inc.

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Shipping Address: 2800 WESTOVER STREET • ODESSA, TEXAS 79764

PHONE (432) 337-4744

FAX (432) 337-8781

SEPTEMBER 14, 2005

MR. JERRY WRIGHT
FRONTIER ENERGY
P.O. BOX 7
MALJAMAR, NEW MEXICO 88264

DEAR MR. WRIGHT:
THE FOLLOWING ARE THE RESULTS OF THE PLAYA LAKE DISCHARGE
WATER SAMPLE FOR TCLP METALS, RECEIVED 09/07/05,
LAB NO. 1775:

TEST REQUESTED	TCLP METALS mg/L	REGULATORY LIMIT mg/L	DETECTION LIMIT mg/L
ARSENIC	0.026	5.00	0.001
BARIUM	0.002	100.00	0.001
CADMIUM	< 0.001	1.00	0.001
CHROMIUM	0.006	5.00	0.001
LEAD	< 0.001	5.00	0.001
SELENIUM	0.010	1.00	0.002
SILVER	< 0.001	5.00	0.001
MERCURY	< 0.001	0.20	0.001

NOTE: RESULTS ARE FROM ANOTHER LAB.

NOTE: < = LESS THAN

METHODS: METALS EPA SW846-1311/6010B/7470A

SAMPLES CONTAINING HAZARDOUS AND TOXIC SUBSTANCES WILL BE RETURNED TO THE POINT OF ORIGIN FOR DISPOSAL. IF THIS IS NOT POSSIBLE AND MOBILE LABS HAS TO DISPOSE OF THE SAMPLE IN ACCORDANCE WITH EPA REGULATIONS, THEN ADDITIONAL CHARGES WILL BE BILLED TO COVER THE COST OF DISPOSAL OF THIS SAMPLE.

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,

STEPHEN REID
SR/dt

THE SANTA FE
NEW MEXICAN

Founded 1849

RECEIVED
JUN 21 2005
OIL CONSERVATION
DIVISION

NM OIL CONSERVATION Div
Attn: Wayne Price
1220 ST. FRANCIS DR

SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00124047 ACCOUNT: 00002212
LEGAL NO: 77275 P.O. #: 05-199-050185
233 LINES 1 TIME(S) 102.52
AFFIDAVIT: 5.50
TAX: 7.90
TOTAL: 115.92

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, B. Perner, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 77275 a copy of which is hereto attached was published in said newspaper 1 day(s) between 06/16/2005 and 06/16/2005 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 16th day of June, 2005 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

B Perner

/s/ _____
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 16th day of June, 2005

Notary *Janet L. Montoya*

Commission Expires: *12/30/07*

APPROVED
7/5/05
[Signature]



10th day of June 2005.

STATE OF
NEW MEXICO
OIL CONSERVATION
DIVISION

SEAL

Mark Fesmire;
Director

Legal #77275
Pub. June 16, 2005

concentration of approximately 3240 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 70-150 feet with a total dissolved solids concentration of approximately 440 mg/l. The discharge plan addresses how oil-field products and waste will be properly managed, including groundwater monitoring and remediation. The plan also includes prevention and response methods for spills, leaks, and other accidental discharges.

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. The discharge permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The draft discharge permit may also be viewed at OCD's web site

<http://www.emnrd.state.nm.us/ocd/>. Prior to ruling on any proposed discharge permit 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 and a public hearing may be requested by any interested person. Requests for a 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 permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this

**NOTICE OF
PUBLICATION**

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge permit application(s) has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-020) - Frontier Field Services., Randy L. McCollum, P.O. Box 07, 1001 Conoco Road, Maljamar, NM 88260 has submitted an application for renewal of its previously approved discharge plan for its Maljamar Gas Plant in the SE/4 of the SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 90 barrels per day of wastewater is disposed of via truck off-site. The wastewater has a total dissolved solids

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 4/11/05
or cash received on _____ in the amount of \$ 100⁰⁰
from FRONTIER FIELD SER
for MALJAMAN GAS PLANT GW-020
Submitted by: W PRICE (Facility Name) Date: 6/10/05
Submitted to ASD by: [Signature] Date: 11
Received in ASD by: _____ Date: _____
Filing Fee New Facility _____ Renewal _____
Modification _____ Other _____
Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.
Full Payment _____ or Annual Increment _____

THE FACE OF THIS DOCUMENT HAS A VOID FEATURE, MICRO PRINTING AND AN ARTIFICIAL WATERMARK ON THE BACK.

Frontier Field Services, LLC
4200 E. Skelly Dr.
Suite 700
Tulsa, OK 74135



32-75
1110

CHECK NO. [redacted]

Pay *****100 Dollars and 00 Cents

DATE

AMOUNT

04/11/05

*****\$100.00

TO THE ORDER OF:

NMED Water Quality Management Fund

[Signature]

MP

MP

AUTHORIZED SIGNATURE



DRAFT

June 13, 2005

Randy L. McCollum
Frontier Field Services, LLC
P.O. Box 07
1001 Conoco Road
Maljamar, New Mexico 88260

Re: Discharge Permit GW-020 Renewal
Maljamar Gas Permit

Dear Mr. McCollum:

The groundwater discharge permit renewal for the Frontier Field Services, LLC Maljamar Gas Plant GW-020 located in the SE/4 SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge permit was approved on June 10, 1985 with an expiration date of June 10, 1990 and subsequently renewed on February 24, 1995, May 18, 2000 and amended on July 27, 2000. The discharge permit renewal application dated May 14, 2005 including attachments, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve Frontier Field Services, LLC of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Frontier Field Services, LLC of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

**ATTACHMENT TO THE DISCHARGE PERMIT
Frontier Field Services, LLC, Maljamar Gas Plant (GW-020)
DISCHARGE PERMIT APPROVAL CONDITIONS
June 13, 2005**

1. Payment of Discharge Permit Fees: The \$100.00 filing fee has been received. The \$4000.00 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.
2. Commitments: The permit holder will abide by all commitments submitted in the discharge permit renewal application and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plan. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified herein, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the

Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.

14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Plan: Stormwater runoff plans and controls shall be maintained. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then immediate corrective actions shall be taken to stop the discharge. OCD shall be notified within 24 hours of discovery and the permit shall be modified within 15 days and submitted for OCD approval.
16. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation plans were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit.

Special Note: The existing groundwater investigation and remediation systems are being maintained by the previous owner ConocoPhillips.

17. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.
18. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

19. **Certification: Frontier Field Services, LLC** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Frontier Field Services, LLC** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Frontier Field Services, LLC**

Company Representative- print name

Date _____
Company Representative- Sign

Title _____

Randy L. McCollum

June 13, 2005

Page 7

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge permit application(s) has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-020) – Frontier Field Services., Randy L. McCollum, P.O. Box 07, 1001 Conoco Road, Maljamar, NM 88260 has submitted an application for renewal of its previously approved discharge plan for its Maljamar Gas Plant in the SE/4 of the SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 90 barrels per day of wastewater is disposed of via truck off-site. The wastewater has a total dissolved solids concentration of approximately 3240 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 70-150 feet with a total dissolved solids concentration of approximately 440 mg/l. The discharge plan addresses how oilfield products and waste will be properly managed, including groundwater monitoring and remediation. The plan also includes prevention and response methods for spills, leaks, and other accidental discharges.

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. The discharge permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The draft discharge permit may also be viewed at OCD's web site <http://www.emnrd.state.nm.us/oed/>. Prior to ruling on any proposed discharge permit 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 and a public hearing may be requested by any interested person. Requests for a 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 permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit 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 June 2005.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Wayne

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled
Legal Notice

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of June 12, 2005 and ending with the issue of June 12, 2005.

And that the cost of publishing said notice is the sum of \$ 56.76 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 22nd day of July 2005

Debbie Schilling
Debbie Schilling

Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2006

LEGAL NOTICE NOTICE OF PUBLICATION

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

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concentration of approximately 3240 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 70-150 feet with a total dissolved solids concentration of approximately 440 mg/l. The discharge plan addresses how oilfield products and waste will be properly managed, including groundwater monitoring and remediation. The plan also includes prevention and response methods for spills, leaks, and other accidental discharges.

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

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 10th day of June 2005.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION
Mark Fesmire, Director
SEAL
Published in the
Lovington Daily Leader
June 12, 2005.

Price, Wayne

From: Price, Wayne
Sent: Friday, June 10, 2005 4:17 PM
To: 'legals@sfnewmexican.com'
Subject: Public Notice Frontier Field Ser. GW-020

Contacts: Legals SFNM

Att: Besty Perner

Please publish the attached Notice(s): PO # is 05-199-050185



2005GW PUBNOT.D
OC

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

Price, Wayne

From: Price, Wayne
Sent: Friday, June 10, 2005 4:14 PM
To: Lovington Daily Leader
Subject: Public Notice for Frontier Field Ser. GW-020

Contacts: Legals Lovington

ATT: Judy

Please publish the attached Notice(s): PO # is 05-199-050190



2005GWPUBNOT.D
OC

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

Frontier Field Services, LLC
Southern Ute Indian Tribe

Randy McCollum
Manager of Compliance

Phone (505) 676-3505
Cell (505) 361-0128
rmccollum@frontierfieldservices.com

May 14, 2005

CERTIFIED MAIL # 7004 0750 0002 5384 6144
RETURN RECEIPT REQUESTED

Mr. Wayne Price
New Mexico Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

**Re: Request for GW-020 Discharge Plan Renewal and Modification
Maljamar Gas Plant
Lea County, New Mexico
Frontier Field Services, LLC**

Dear Mr. Price:

Discharge Plan GW-020 for the Maljamar Gas Processing Plant was last renewed July 27, 2000. The current plan expires June 10, 2005. In 2000 NMOCD approved the plan submitted by Conoco which transferred to ConocoPhillips. In 2003 the plant was purchased by Frontier Energy Services, LLC and ownership changed again January 1, 2005 when Frontier Field Services, LLC became the owner.

Modifications to the plant since the last renewal include:

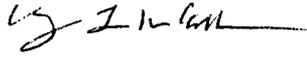
- Waste water from the plant is no longer piped to ConocoPhillips' production facility;
- Reject water from the plant reverse osmosis unit is commingled with water from ConocoPhillips to feed Conoco playa lake southeast of Maljamar Plant;
- All other waste water is trucked from the plant;
- Low pressure inlet scrubbers now utilize blowcases to deliver scrubber liquids to a pressurized separation tank, instead of dumping to the open skimmer;
- ConocoPhillips retained ownership of hydrocarbon contaminated groundwater around the plant and is currently engaged in monitoring and abatement of the contamination.

Frontier Field Services, LLC requests the discharge plan approval be renewed with the above modifications. Enclosed are the original and one copy of the application and supporting

documentation. The application filing fee is also enclosed. An additional copy is being forwarded to Chris Williams at NMOCD's District 1 office in Hobbs, NM.

Please contact me 505 676-3505 if you have any questions or require additional information. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy L. McCollum".

Randy L. McCollum

Chris Williams, OCD-Hobbs
File: Env 1054

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

**DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS,
REFINERIES, COMPRESSOR, GEOTHERMAL FACILITIES
AND CRUDE OIL PUMP STATIONS**

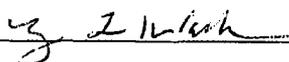
(Refer to the OCD Guidelines for assistance in completing the application)

New Renewal Modification

1. Type: Gas Processing, Gas Plant
2. Operator: Frontier Field Services, LLC
Address: P.O. Box 7, 1001 Conoco Road, Maljamar, New Mexico 88260
Contact Person: Randy McCollum Phone: (505) 676-3505
3. Location: SE /4 SW /4 Section 21 Township 17S Range 32E
Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATION: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Randy L. McCollum Title: Manager of Compliance

Signature:  Date: May 14, 2005

E-mail Address: rmccollum@frontierfieldservices.com

Frontier Field Services, LLC
Discharge Plan GW-020
Maljamar Gas Plant
Renewal Application 2005

1. **Type of Operation**

The Maljamar Gas Plant sweetens inlet natural gas streams and extracts ethane and heavier hydrocarbon components as liquid products. The residue natural gas is sold via pipeline to Transwestern Pipeline (TW) and/or Public Service Company of New Mexico (PNM). Heavy liquid products (Condensate) are trucked out of the plant. Light liquid products (EPBC Product) is sold via pipeline to Duke Energy Field Services.

2. **Operator/Legally Responsible Party and Local Representative**

Operator/Legally Responsible Party

Mr. Mike Hicks
Director Operations
Frontier Field Services, LLC
4200 E. Skelly Drive, Suite 700
Tulsa, OK 74135
(918) 388-8417

Local Representative

Mr. Randy McCollum
Manager of Compliance
Frontier Field Services, LLC
P.O. Box 7
Maljamar, NM 88264
(505) 676-3505

3. **Location of Discharge Plan Facility**

The facility is located 3 miles south of Maljamar, NM off County Road 126. The physical address is 1001 Conoco Road. The legal description is Section 21 and 28, Township 17 South, Range 32 East, Lea County, NM.

4. **Landowners**

Frontier Energy, LLC bought the facility from ConocoPhillips in 2003. Conoco had fully owned and operated the facility since 1960. On January 1, 2005 ownership passed to Frontier Field Services, LLC. Contact information is as shown in Item 2. above.

5. **Facility Description**

The Maljamar Gas Processing Plant is designed to recover gas liquids (ethane and heavier) from a low, intermediate and high pressure gas gathering system. The plant capacity is 60 mmscfd, with normal throughput ranging from 40 to 60 mmscfd. Most of the products produced from the natural gas streams are gases at atmospheric pressure and will vaporize quickly rather than migrate to ground water.

Frontier Field Services, LLC
 Discharge Plan GW-020
 Maljamar Gas Plant
 Renewal Application 2005

Air Permit 319-M7 has been issued by NMED to permit an additional 20 mmcf of sweet gas into the plant and the installation of a 20 mmcf TEG gas dehydrator. At the time of this submittal Frontier had not yet made a final determination to proceed with the TEG unit installation.

6. Materials Stored or Used at the Facility

Material	Composition	Inventory	Location	Storage
Diethanolamine	Liquid	3,000 gallons	Process Area	Tank
Methanol	Liquid	2,000 gallons	Process Area	Tanks
Antifoam	Liquid	110 gallons	Process Area	Drum
Detergent/Soap				
• F-20 Low pH	Liquid	400 gallons	Shop Area	Tank
• LCS 20	Liquid	1,000 gallons	Clark Area	Tanks
Stoddard Solvent	Liquid	2,000 gallons	Clark, Electric Area	Tanks
Emulsotron XZ-409	Liquid	55 gallons	Drum Storage Area	Drum
Elmar 3000 Engine Oil	Liquid	6,000 gallons	Clark Storage Area	Tank
Elmar Ashless Engine Oil	Liquid	6,000 gallons	Yard	Tank
Kerosene	Liquid	1,000 gallons	Electric Building Area	Tank
Antifreeze	Liquid	2,000 gallons	Clark Storage and Electric Building Area	Tanks
Diesel	Liquid	1,000 gallons	North of Office	Tank
Unleaded Gasoline	Liquid	1,000 gallons	North of Office	Tank
Turbine Oil	Liquid	110 gallons	Drum Storage	Drums

7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

A.1. Separators, Scrubbers, and Slug Catchers

Produced Water: 90 Bpd, no additives
 Hydrocarbon Liquids: 100 Bpd, no additives

Liquids from low pressure and intermediate pressure separators, scrubbers and slug catchers are directed to Tanks 13 & 14. These liquid streams can consist of heavy hydrocarbons and some produced water. The water is separated from the hydrocarbons. Water is stored in an above ground storage tank inside a lined berm from where they are trucked out. The hydrocarbons are transferred to Tank 12 from where they are trucked out by the condensate purchaser.

A.2. Boilers, Waster Heat Recovery Units, Cogeneration Facilities, and Cooling Towers/Fans

Frontier Field Services, LLC
Discharge Plan GW-020
Maljamar Gas Plant
Renewal Application 2005

There are no boilers, waste heat recovery units, cogeneration facilities, or cooling towers to create effluent at this facility.

A.3. Wash-down/Steam-out effluent from process and storage equipment internals and externals (Wash-down)

Wash-down and steam from equipment cleaning: 200 gallon/month, soap
Wash-down and steam from internal cleaning: 100 gallon/year, soap

Wash-down from the Electric Building is collected from around each compressor and is piped to Tank 420.

Wash-down from the Clark Building is collected in the cellar around #8 compressor. It is manually pumped out of the cellar and combined with other plant waste water.

Wash-down from the Electric Inlet Compressor building is collected via curbing and drains built into the compressor skids. The wash-down is piped to a holding tank from where it is combined with lube oil drained from the compressors for maintenance. The tank contents are then trucked by a lube oil recycler.

Wash-down from the Refrigeration Compressor Building is collected within the building and drained to a sump located at the southeast corner of the building. The collected liquid is then sucked out of the sump by a vacuum truck.

A.4. Solvent/degreaser use

Parts cleaner, Safety Kleen. Parts washer liquids are contained and maintained in drum storage. Safety Kleen picks up the used parts cleaner liquid and replaces it with clean liquid. 50 gallon/month, no additives

A.5. Spent acids or caustics

Spent diethanolamine. This is exempt oilfield waste. When spent the material has a pH within the range suitable for disposal.
Spent diethanolamine: 200 gallons/month, no additives

A.6. Used engine coolants

Engine coolant is considered valuable and is not regularly drained for disposal. When engine coolant is drained it is captured in a tank and returned to the engine when maintenance is complete. If disposed of, it will go with the used oil, where it is trucked out by Pro-Cycle. Less than 100 gallons/month

A.7. Used lubrication and motor oils

Used lubrication oil from engine and compressor maintenance:
100 gallons/month, no additives

Frontier Field Services, LLC
Discharge Plan GW-020
Maljamar Gas Plant
Renewal Application 2005

A.8. Used lube oil and process filters

Spent Lube Oil Filters	6 cubic yards/yr., no additives
Spent Amine Filters	16 cubic yards/yr., no additives
Spent Dust Filters	6 cubic yards/yr., no additives
Used Oil Sorbent Pads	2 cubic yards/yr., no additives

A.9. Solids and sludges from tanks

Tank bottoms/sludge are seldom generated. In the event such materials are generated they will be disposed of in accordance with NMOCD rules.

A.10. Painting wastes

Painting wastes are seldom generated. In the event such materials are generated they will be disposed of in accordance with NMOCD rules.

A.11. Sewage

All sewage is discharged to septic tanks which then discharge to leach fields. No other wastes are mixed with the sewage. Total domestic water consumption is estimated at 13 Barrels/Day

A.12. Laboratory wastes

Wastes, mainly methanol, from gas and product quality testing is contained in a container and trucked out using hazardous waste shipment rules.

A.13. Other waste liquids

Backwash from the plant Reverse Osmosis unit is commingled with water from ConcoPhillips operations and piped to a NMOCD approved playa lake project located southeast of the plant.

A.14. Other waste solids

Used Drums	
Spent Molecular Sieve	40,000 lbs/2-3 yr., no additives
Charcoal Filter Media	15,000 lbs/yr., no additives
Plant Trash	72 cubic yards/year, no additives

B.1 through B.6.

Wastewater analysis is found in Appendix C.

Frontier Field Services, LLC
 Discharge Plan GW-020
 Maljamar Gas Plant
 Renewal Application 2005

8. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

Liquid/Solid Waste	Storage	Disposal
Process Water	Tanks	Trucked off Site
Used Motor Oil	Tanks	Trucked by ProCycle for recycling
Methanol Alcohol (Hazardous Waste)	Drum	Trucked by Safety Kleen for disposal
Molecular Sieve	*	*
Charcoal Filter Media	*	*
Spent Lube Filters	Special Dumpster	Picked up by CRI after draining
Spent Amine Filters	Special Dumpster	Picked up by CRI after draining
Spent Dust Filters	Special Dumpstere	Picked up by CRI
Oil Spill Pads	Special Dumpster	Picked up by CRI after draining
Plant Trash	Dumpster	Picked up by Waste Management
Used Drums	Impermeable Berm	Returned to vendor
Spent Amine	Tank	Trucked off site

* Spent molecular sieve and charcoal filter media are not regularly stored at this facility. When the material is changed out, the spent material is tested. If results show the spent material to be non-hazardous it is disposed of at a local industrial landfill. In the event the material is shown to be hazardous, it will be handled in accordance with hazardous waste regulations.

Drum Storage

All drums are stored on pad and curb type containment.

Berms

All tanks that contain materials other than fresh water are bermed to contain on and one-third the capacity of the largest tank within the berm, or one and one-third the total capacity of all interconnected tanks.

Above Grade Tanks

All above ground tanks are on impermeable pad and curb type or bermed containment.

Pads

All compressor pads have adequate containment to prevent contamination from running onto the ground surface. Run off is directed to sumps or other containment.

Process skids have pads and curb type containment that either contains run-off or directs it to sumps.

Frontier Field Services, LLC
Discharge Plan GW-020
Maljamar Gas Plant
Renewal Application 2005

Labeling

All tanks, drums and containers are clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

9. Proposed Modifications

No modifications are planned at this time.

10. Inspection, Maintenance and Reporting

General Facility

The facility is visually inspected by plant personnel for possible malfunctions on each twelve-hour shift.

Sump Inspections

All sumps at this facility are tested for leaks annually. The test consists of isolating the sump from the process and drains, establishment of a water level and monitoring for 24 hours. If a measurable change in the water level is not detected the sump is determined to be leak free.

The cellar around #8 Clark compressor is cleaned, and visually inspected for cracks/leaks annually.

Pressure Testing

All underground piping that operates at less than 10 psig is tested in accordance with the Discharge Plan prior to renewal of the plan (approximately every five years). Piping tested includes:

- Acid Gas Flare Knockout Tank to Amine Sump;
- Electric Inlet Compressors Skid Drains to 110 Barrel Used Oil Tank;
- Load Line from Spent Amine Tank to Loading Connection;
- Amine Line from Amine Sump to Spent Amine Tank;
- Electric Inlet Compressors Oil Drains to 110 Barrel Used Oil Tank;
- Electric Building Drains to 420 Tank;

11. Spill/Leak Prevention and Reporting (Contingency Plans)

The Maljamar Gas Plant uses pump transfer, trucking and offsite wastewater injection to dispose of plant process and cooling waters. The total wastewater handled is approximately 84 barrels per day.

The skimmer basin, tanks 13 and 14, and the plant wastewater holding tanks would be utilized for storage in the event of a pump failure or discontinuance. Under such circumstances, wastewater would be hauled offsite to a commercial injection well for disposal.

All systems designed for spill collection/prevention are inspected to ensure proper operation and to prevent overtopping or system failure. Spills of any materials are cleaned-up in a timely

Frontier Field Services, LLC
Discharge Plan GW-020
Maljamar Gas Plant
Renewal Application 2005

manner using environmentally sound methods. If necessary, a contractor specializing in spill clean-up and remediation will be engaged. In the event that reporting is required, Maljamar personnel will contact the applicable regulatory agency in accordance with OCD Rule 116 and WQCC 1203.

12. Site Characteristics

Hydrological Features

Within one mile of the Maljamar Gas Plant, there are no bodies of water, streams, or other watercourses. In addition, no groundwater discharge sites (marshes, springs, seeps, etc.) or water wells are located within one mile of the facility.

A manmade playa lake is located to the southeast of the plant. It is operated by ConocoPhillips with NMOCD approval. Water from ConocoPhillips facilities is piped to the playa commingled with a smaller stream from the Maljamar Plant reverse osmosis unit. A topographical map is included in Appendix D.

Appendix E contains a water well log taken in the close proximity to the site. This log was run in 1980 and indicated that the upper most aquifer is located 70-150 feet below the ground surface. Analysis of the water quality is not available. AS a result, it is not possible to determine if this aquifer meets drinking water standards.

ConocoPhillips also operates several monitoring wells outside of the Maljamar Plant property. Information concerning these wells has been deemed to be confidential by ConocoPhillips so analysis of the well depth and water quality is not available to Frontier Field Services.

The 1980 well log is consistent with the 1961 United States Geologic Ground Water Report 6 that documented water in this area to be 60-176 feet below surface. The source of the water was documented to be sand and gravel (alluvial) of the Tertiary and Quaternary age.

Geologic Description of Discharge Sites

The predominant soil type in the area is a silty sand.

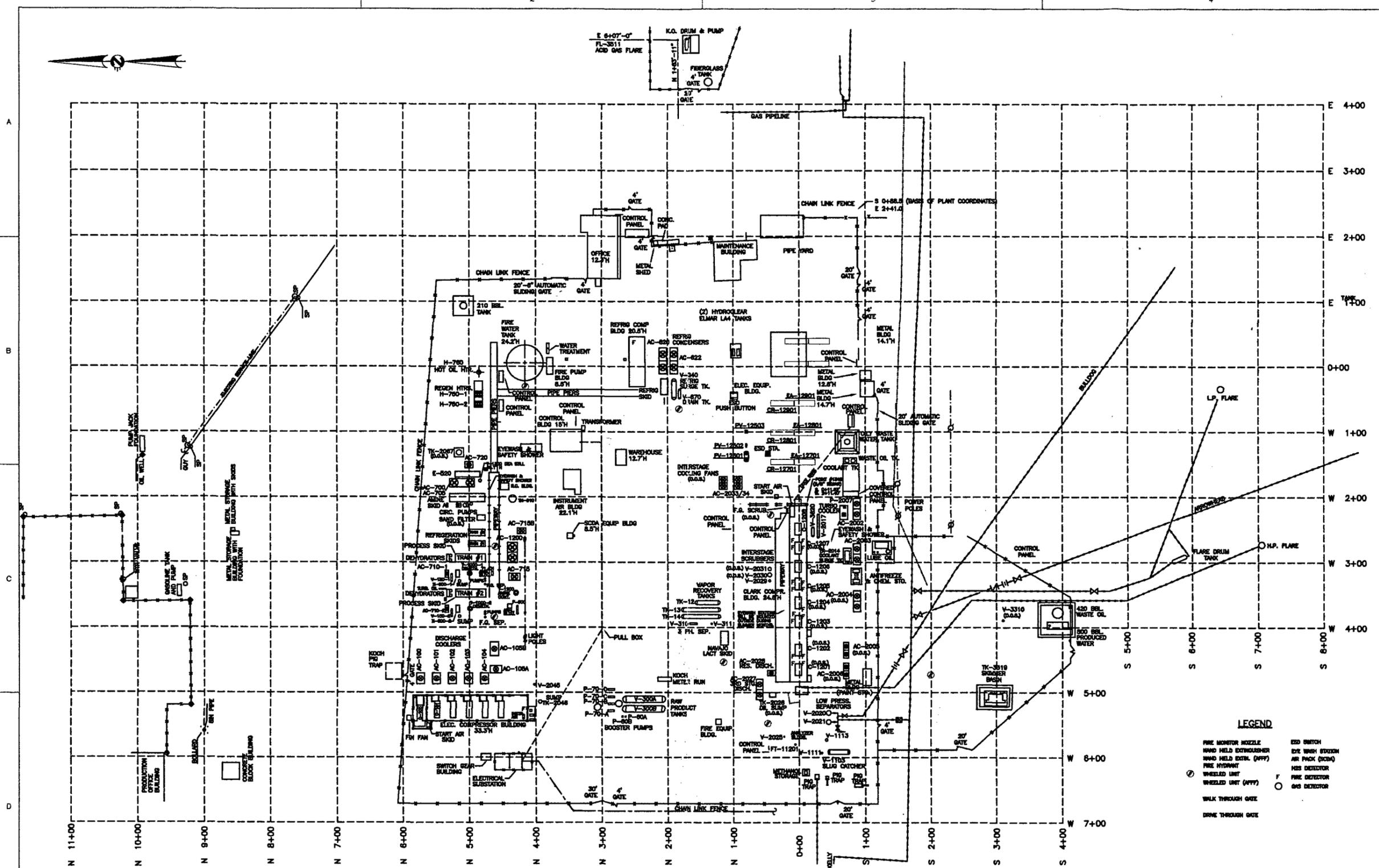
The primary and top most aquifer in the area is the Ogallala formation. The shallower Alluvium and Ogallala geologic units form this continuous aquifer.

Flood Protection

The area of New Mexico in which the plant is located is classified as semi-arid to arid. The annual precipitation is 12-13 inches. The surrounding topography, annual precipitation history, and plant operating history show no significant flood potential at this site.

APPENDIX A

SITE PLAN



REFERENCE DRAWINGS:

NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.	NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.
2	5/16/02	REVISED PER AS BUILT FIELD NOTES	MSR	MSR			1	10/08/01	REVISED PER INLET COMPL. PRODUCT	COFF	JP		
4	6/5/02	MOVED WASTE OIL & PROD. WATER TANKS	MSR	JRP			0	6/13/00	ISSUE AS BUILT, REV. SAFETY EQUIP.	MSR	RRO		
3	5/16/02	REMOVED 300 BBL. AMINE TK., ADDED 210	MSR	MSR			B	6/5/97	ADDED 3 VRU VESSELS & GAS DETECTORS	ROK	VAC		

NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.	NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.
5	10/07/03	REVISED BORDER	MSR	MSR			1	10/08/01	REVISED PER INLET COMPL. PRODUCT	COFF	JP		
4	6/5/02	MOVED WASTE OIL & PROD. WATER TANKS	MSR	JRP			0	6/13/00	ISSUE AS BUILT, REV. SAFETY EQUIP.	MSR	RRO		
3	5/16/02	REMOVED 300 BBL. AMINE TK., ADDED 210	MSR	MSR			B	6/5/97	ADDED 3 VRU VESSELS & GAS DETECTORS	ROK	VAC		



MALJAMAR GAS PLANT
**PLOT PLAN FOR
 GW-020 SUBMITTAL, 2005**

LEGEND

○	FIRE MONITOR NOZZLE	○	ESD SWITCH
○	HAND HELD EXTINGUISHER	○	EYE WASH STATION
○	HAND HELD EXTINGUISHER (DIFF)	○	AIR PACK (SCBA)
○	FIRE HYDRANT	○	MIS DETECTOR
○	WHEELED UNIT	○	FIRE DETECTOR
○	WHEELED UNIT (DIFF)	○	GIS DETECTOR
○	WALK THROUGH GATE		
○	DRIVE THROUGH GATE		

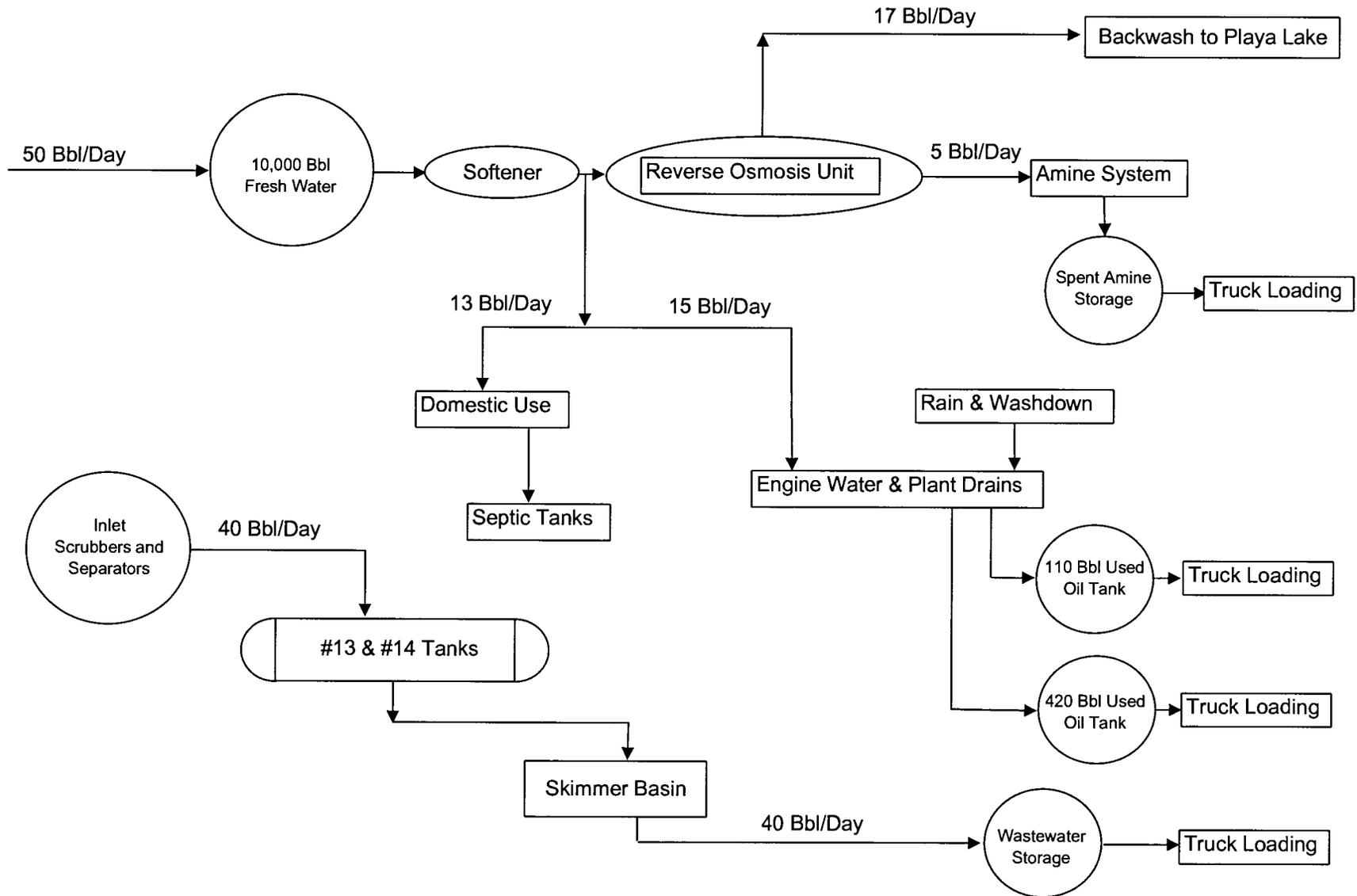
SCALE: 1"=80'	PLOT SCALE: 1"=360'
DATE: 5/16/02	LOCATION: LEA COUNTY, NM.
DWG. NO.: MJ-20004-GW020	REV.: 5

APPENDIX B

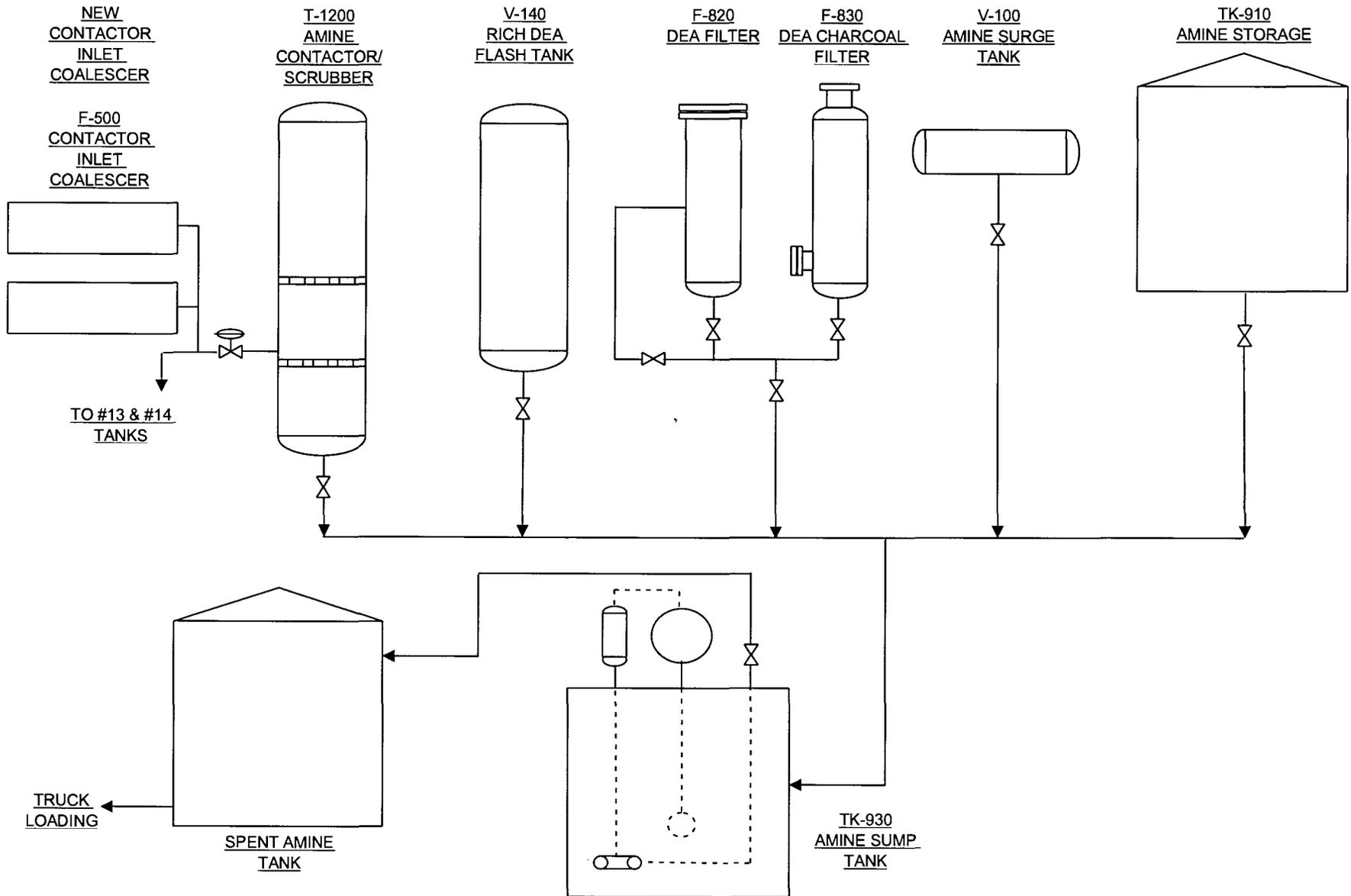
PLANT WATER BALANCE

**AMINE WASTE CONTAINMENT & DRAINAGE
SYSTEM**

MALJAMAR GAS PLANT WATER BALANCE



MALJAMAR GAS PLANT AMINE WASTE CONTAINMENT & DRAINAGE SYSTEM



APPENDIX C

WASTEWATER ANALYSIS

**Certificate of
Analysis**

Quanterra Incorporated
5307 Industrial Oaks Boulevard, Suite 160
Austin, Texas 78735

512 892-6684 Direct
512 892-6652 Fax



ANALYTICAL REPORT

PROJECT NO. MALJAMAR NM

Conoco Plant Discharge

Lot #: IOA140146

Rudy Quiroz

Conoco Inc

QUANTERRA INCORPORATED

A handwritten signature in black ink, appearing to read "Carla M. Butler".

Carla M. Butler
Project Manager

January 24, 2000

CASE NARRATIVE

I0A140146

Samples received in good condition at a cooler temperature of 4 degrees C.

Because pH was not performed at the time of collection, the analysis is considered out of hold time.

Recovery of benzene was outside limits for the Matrix Spike of the non-project specific QC sample for 8021B batch 0019335.

Recovery of chloride was outside limits for the Matrix Spike Duplicate of sample 001 for 325.2 batch 0021166.

EXECUTIVE SUMMARY - Detection Highlights

I0A140146

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
GW-20 DISCHARGE 01/13/00 07:10 001				
Benzene	68000	500	ug/L	SW846 8021B
Ethylbenzene	1700	500	ug/L	SW846 8021B
Toluene	31000	500	ug/L	SW846 8021B
Xylenes (total)	4100	500	ug/L	SW846 8021B
Calcium	7.1	5.0	mg/L	SW846 6010B
Potassium	9.3	5.0	mg/L	SW846 6010B
Sodium	98.1	5.0	mg/L	SW846 6010B
pH (liquid)	9.6 H	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	515	10.0	mg/L	MCAWW 160.1
Carbonate Alkalinity	1100	5.0	mg/L	MCAWW 310.1
Chloride - Automated	78.1	2.0	mg/L	MCAWW 325.2
Sulfate	38.7	20.0	mg/L	MCAWW 375.4
Bicarbonate Alkalinity	2630	5.0	mg/L	MCAWW 310.1

ANALYTICAL METHODS SUMMARY

IOA140146

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
pH (Electrometric)	MCAWW 150.1
Bicarbonate Alkalinity	MCAWW 310.1
Carbonate Alkalinity	MCAWW 310.1
Chloride (Colorimetric, Automated Ferricyanide)	MCAWW 325.2
Filterable Residue (TDS)	MCAWW 160.1
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Sulfate	MCAWW 375.4
Volatiles by GC	SW846 8021B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

I0A140146

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 150.1	David A. Tocher	800002
MCAWW 160.1	Renvye Byrd	090000
MCAWW 310.1	James Gwaltney	002355
MCAWW 325.2	Renvye Byrd	090000
MCAWW 375.4	Heidi Marchette	003289
SW846 6010B	Lynette Scott	013264
SW846 8021B	Mark Shafer	001952

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

I0A140146

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
D7F6D	001	GW-20 DISCHARGE	01/13/00	07:10

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

CONOCO INC.

Client Sample ID: GW-20 DISCHARGE

GC Volatiles

Lot-Sample #....: IOA140146-001 Work Order #....: D7F6D101 Matrix.....: WATER
Date Sampled....: 01/13/00 07:10 Date Received...: 01/14/00
Prep Date.....: 01/18/00 Analysis Date...: 01/18/00
Prep Batch #....: 0019335
Dilution Factor: 500 Method.....: SW846 8021B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Benzene	68000	500	ug/L
Ethylbenzene	1700	500	ug/L
Toluene	31000	500	ug/L
Xylenes (total)	4100	500	ug/L

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Bromofluorobenzene	101	(70 - 130)

CONOCO INC.

Client Sample ID: GW-20 DISCHARGE

General Chemistry

Lot-Sample #...: IOA140146-001 Work Order #...: D7F6D Matrix.....: WATER
 Date Sampled...: 01/13/00 07:10 Date Received...: 01/14/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	9.6 H	0.10	No Units	MCAWW 150.1	01/14/00	0014324
		Dilution Factor: 1				
Bicarbonate Alkalinity	2630	5.0	mg/L	MCAWW 310.1	01/20/00	0020189
		Dilution Factor: 1				
Carbonate Alkalinity	1100	5.0	mg/L	MCAWW 310.1	01/20/00	0020190
		Dilution Factor: 1				
Chloride - Automated	78.1	2.0	mg/L	MCAWW 325.2	01/21/00	0021166
		Dilution Factor: 1				
Sulfate	38.7	20.0	mg/L	MCAWW 375.4	01/24/00	0024164
		Dilution Factor: 4				
Total Dissolved Solids	515	10.0	mg/L	MCAWW 160.1	01/19-01/20/00	0021171
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

H The sample was prepared or analyzed after the EPA recommended holding time had been exceeded.

CONOCO INC.

Client Sample ID: GW-20 DISCHARGE

TOTAL Metals

Lot-Sample #...: IOA140146-001

Matrix.....: WATER

Date Sampled...: 01/13/00 07:10 Date Received...: 01/14/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...:	0018304					
Calcium	7.1	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7F6D104
		Dilution Factor: 1				
Potassium	9.3	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7F6D107
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7F6D106
		Dilution Factor: 1				
Sodium	98.1	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7F6D105
		Dilution Factor: 1				

QC DATA ASSOCIATION SUMMARY

I0A140146

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 150.1		0014324	0014108
	WATER	MCAWW 160.1		0021171	0021052
	WATER	MCAWW 310.1		0020190	
	WATER	MCAWW 325.2		0021166	0021048
	WATER	SW846 6010B		0018304	0018126
	WATER	SW846 8021B		0019335	0019139
	WATER	MCAWW 375.4		0024164	
	WATER	MCAWW 310.1		0020189	

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: IOA140146 Work Order #...: D7KJN101 Matrix.....: WATER
 MB Lot-Sample #: IOA190000-335
 Prep Date.....: 01/18/00
 Analysis Date...: 01/18/00 Prep Batch #...: 0019335
 Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Benzene	ND	1.0	ug/L	SW846 8021B
Ethylbenzene	ND	1.0	ug/L	SW846 8021B
Toluene	ND	1.0	ug/L	SW846 8021B
Xylenes (total)	ND	1.0	ug/L	SW846 8021B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	103	(70 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: IOA140146

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: IOA180000-304 Prep Batch #...: 0018304						
Calcium	ND	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7JFD116
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7JFD117
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7JFD118
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	01/18-01/19/00	D7JFD10C
		Dilution Factor: 1				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #....: IOA140146

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	PREP
		LIMIT	UNITS		ANALYSIS DATE	BATCH #
Chloride - Automated	ND	Work Order #: D7MX3101 2.0	mg/L	MB Lot-Sample #: MCAWW 325.2	B0A210000-166 01/21/00	0021166
		Dilution Factor: 1				
Sulfate	ND	Work Order #: D7QN9101 5.0	mg/L	MB Lot-Sample #: MCAWW 375.4	B0A240000-164 01/24/00	0024164
		Dilution Factor: 1				
Total Dissolved Solids	ND	Work Order #: D7N00101 10.0	mg/L	MB Lot-Sample #: MCAWW 160.1	B0A210000-171 01/19-01/20/00	0021171
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: I0A140146 Work Order #....: D7KJN102 Matrix.....: WATER
 LCS Lot-Sample#: I0A190000-335
 Prep Date.....: 01/18/00 Analysis Date...: 01/18/00
 Prep Batch #....: 0019335
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Methyl tert-butyl ether	95	(67 - 128)	SW846 8021B
Benzene	93	(78 - 125)	SW846 8021B
Ethylbenzene	103	(84 - 116)	SW846 8021B
Toluene	97	(82 - 119)	SW846 8021B
Xylenes (total)	100	(86 - 114)	SW846 8021B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	104	(70 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: I0A140146

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: I0A180000-304 Prep Batch #...: 0018304					
Sodium	106	(80 - 120)	SW846 6010B	01/18-01/19/00	D7JFD11C
		Dilution Factor: 1			
Calcium	106	(80 - 120)	SW846 6010B	01/18-01/19/00	D7JFD126
		Dilution Factor: 1			
Magnesium	103	(80 - 120)	SW846 6010B	01/18-01/19/00	D7JFD127
		Dilution Factor: 1			
Potassium	106	(80 - 120)	SW846 6010B	01/18-01/19/00	D7JFD128
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #....: I0A140146

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride - Automated		WO#:D7MX3102-LCS/D7MX3103-LCSD			LCS Lot-Sample#:	B0A210000-166	
	108	(82 - 110)			MCAWW 325.2	01/21/00	0021166
	93 *	(82 - 110)	15	(0-10)	MCAWW 325.2	01/21/00	0021166
		Dilution Factor: 1					
Sulfate		WO#:D7QN9102-LCS/D7QN9103-LCSD			LCS Lot-Sample#:	B0A240000-164	
	92	(90 - 110)			MCAWW 375.4	01/24/00	0024164
	101	(90 - 110)	8.8	(0-20)	MCAWW 375.4	01/24/00	0024164
		Dilution Factor: 1					
Total Dissolved Solids		WO#:D7N00102-LCS/D7N00103-LCSD			LCS Lot-Sample#:	B0A210000-171	
	98	(80 - 114)			MCAWW 160.1	01/19-01/20/00	0021171
	96	(80 - 114)	2.0	(0-10)	MCAWW 160.1	01/19-01/20/00	0021171
		Dilution Factor: 1					

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Relative percent difference (RPD) is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: IOA140146

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH (liquid)	95	(90 - 110)	MCAWW 150.1 Dilution Factor: 1	Work Order #: D7FV1101 LCS Lot-Sample#: IOA140000-324 01/14/00	0014324

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: I0A140146 Work Order #....: D7AQM105-MS Matrix.....: WATER
 MS Lot-Sample #: I0A120167-002 D7AQM106-MSD
 Date Sampled....: 01/07/00 15:30 Date Received...: 01/12/00
 Prep Date.....: 01/18/00 Analysis Date...: 01/18/00
 Prep Batch #....: 0019335
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Methyl tert-butyl ether	84	(70 - 130)			SW846 8021B
	93	(70 - 130)	1.6	(0-30)	SW846 8021B
Benzene	79 a, MSC	(80 - 118)			SW846 8021B
	80 MSC	(80 - 118)	0.09	(0-11)	SW846 8021B
Ethylbenzene	100	(77 - 120)			SW846 8021B
	100	(77 - 120)	0.39	(0-14)	SW846 8021B
Toluene	97	(84 - 116)			SW846 8021B
	96	(84 - 116)	0.67	(0-10)	SW846 8021B
Xylenes (total)	98	(85 - 116)			SW846 8021B
	98	(85 - 116)	0.60	(0-11)	SW846 8021B

<u>URROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	106	(70 - 130)
	107	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters
 MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.
 a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: IOA140146

Matrix.....: WATER

Date Sampled...: 01/11/00 12:25 Date Received...: 01/11/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: IOA160103-001 Prep Batch #...: 0018304							
Calcium	105	(75 - 125)			SW846 6010B	01/18-01/19/00	D7GTK138
	107	(75 - 125)	1.5	(0-20)	SW846 6010B	01/18-01/19/00	D7GTK139
Dilution Factor: 1							
Magnesium	101	(75 - 125)			SW846 6010B	01/18-01/19/00	D7GTK13C
	103	(75 - 125)	1.4	(0-20)	SW846 6010B	01/18-01/19/00	D7GTK13D
Dilution Factor: 1							
Potassium	90	(75 - 125)			SW846 6010B	01/18-01/19/00	D7GTK13F
	97	(75 - 125)	3.9	(0-20)	SW846 6010B	01/18-01/19/00	D7GTK13G
Dilution Factor: 1							
Sodium	83	(75 - 125)			SW846 6010B	01/18-01/19/00	D7GTK10Q
	93	(75 - 125)	2.6	(0-20)	SW846 6010B	01/18-01/19/00	D7GTK10R
Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: IOA140146

Matrix.....: WATER

Date Sampled...: 01/13/00 07:10 Date Received...: 01/14/00

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride - Automated			WO#:	D7F6D10F-MS/D7F6D10G-MSD	MS Lot-Sample #:	IOA140146-001	
	107	(82 - 110)			MCAWW 325.2	01/21/00	0021166
	77 N, MSC	(82 - 110)	3.4	(0-10)	MCAWW 325.2	01/21/00	0021166
			Dilution Factor: 1				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: I0A140146

Work Order #...: D7JVVF-SMP
D7JVVF-DUP

Matrix.....: WATER

Date Sampled...: 01/18/00 16:50 Date Received...: 01/18/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids	285	309	mg/L	8.1	(0-10)	MCAWW 160.1	01/19-01/20/00	0021171
Dilution Factor: 1							SD Lot-Sample #: B0A190106-003	

APPENDIX D

TOPOGRAPHICAL MAP

Send To Printer Back To TerraServer Change to 11x17 Print Size Show Grid Lines Change to Landscape

USGS 281 km NE of Ciudad Juárez, Chihuahua, Mexico 01 Jul 1975

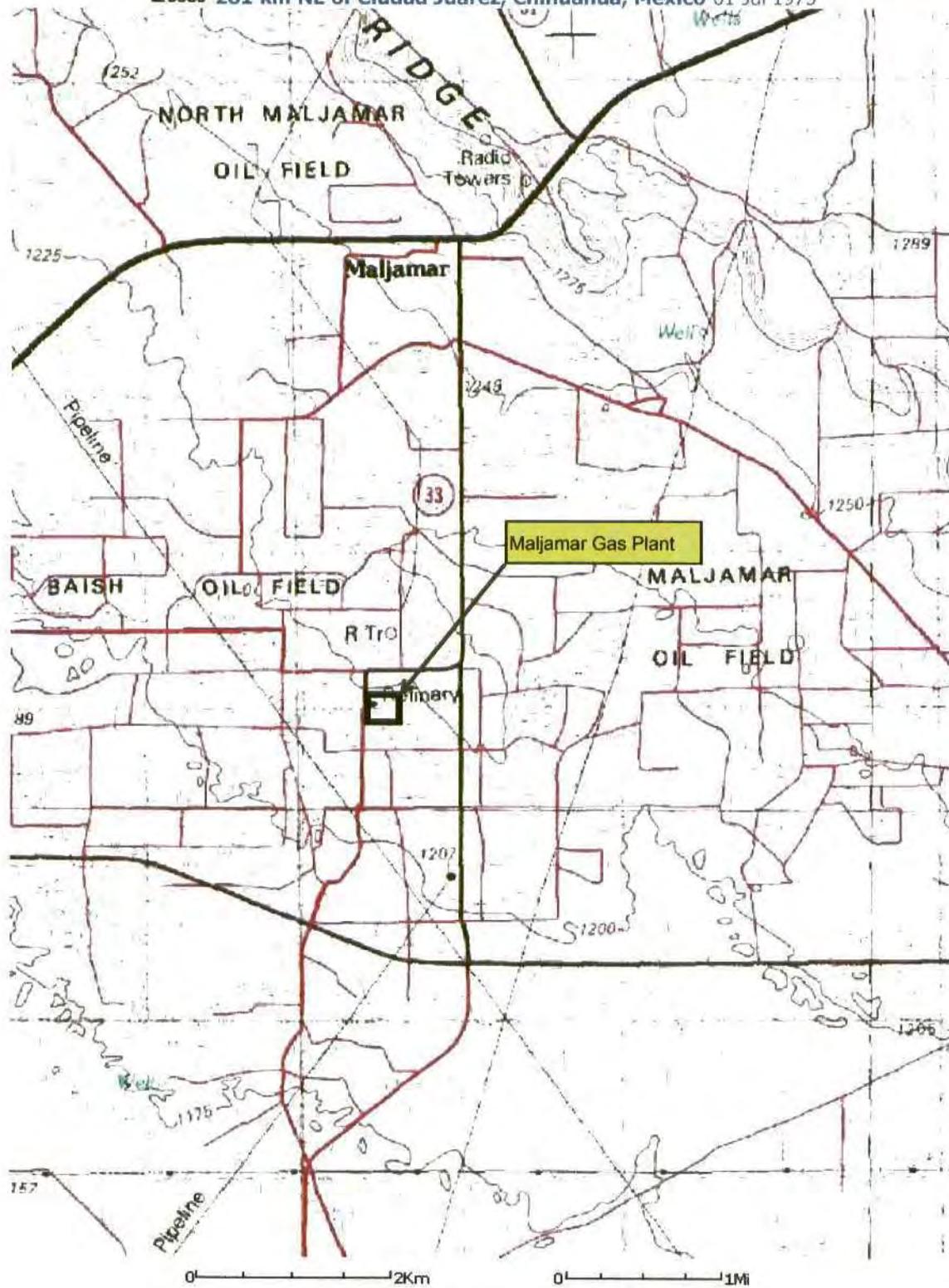


Image courtesy of the U.S. Geological Survey
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Send To Printer Back To TerraServer Change to 11x17 Print Size Show Grid Lines Change to Landscape
USGS 281 km NE of Ciudad Juárez, Chihuahua, Mexico 22 Oct 1996

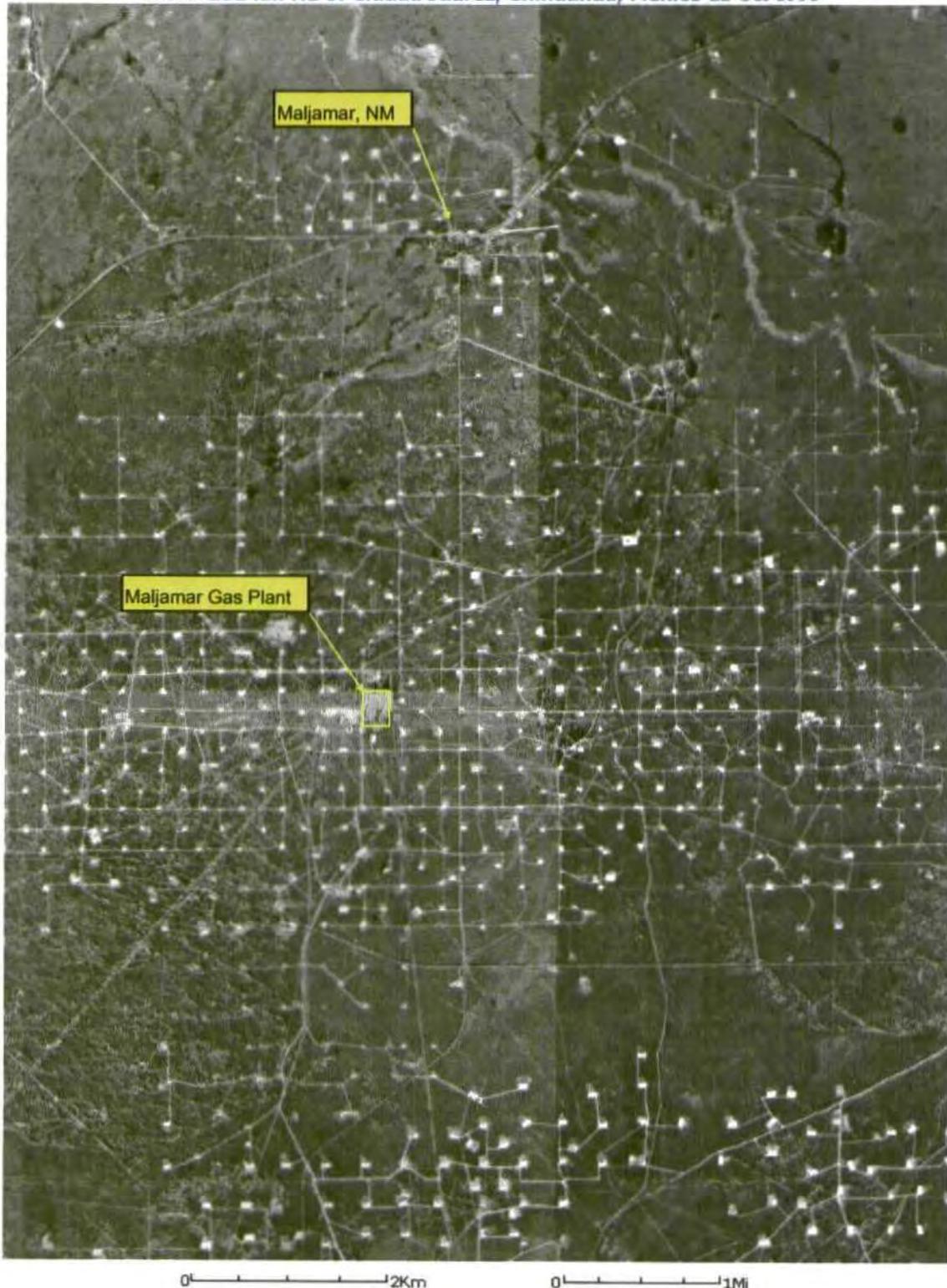


Image courtesy of the U.S. Geological Survey
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Send To Printer Back To TerraServer Change to 11x17 Print Size Show Grid Lines Change to Landscape

USGS 5 km S of Maljamar, New Mexico, United States 01 Jul 1985

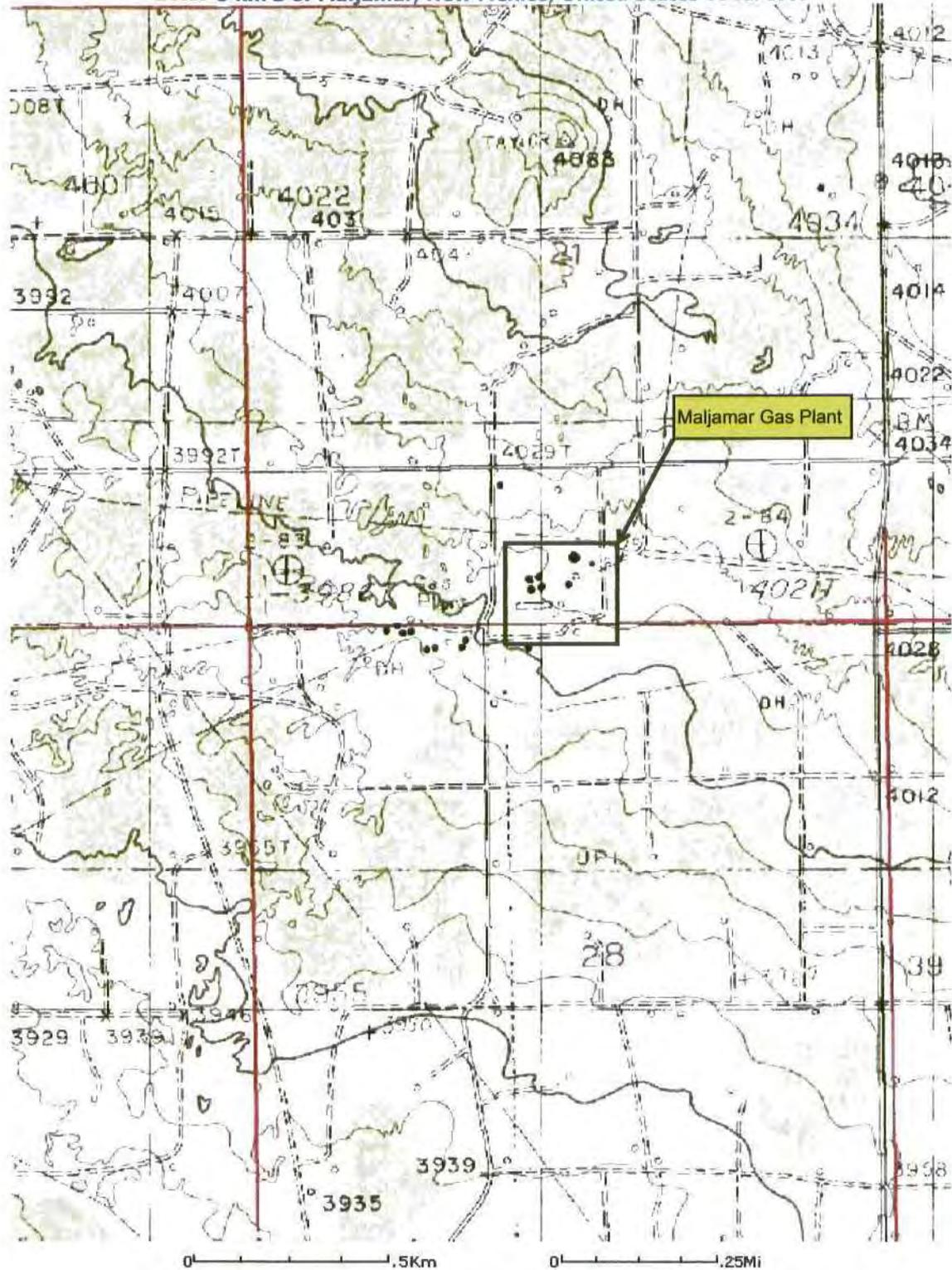
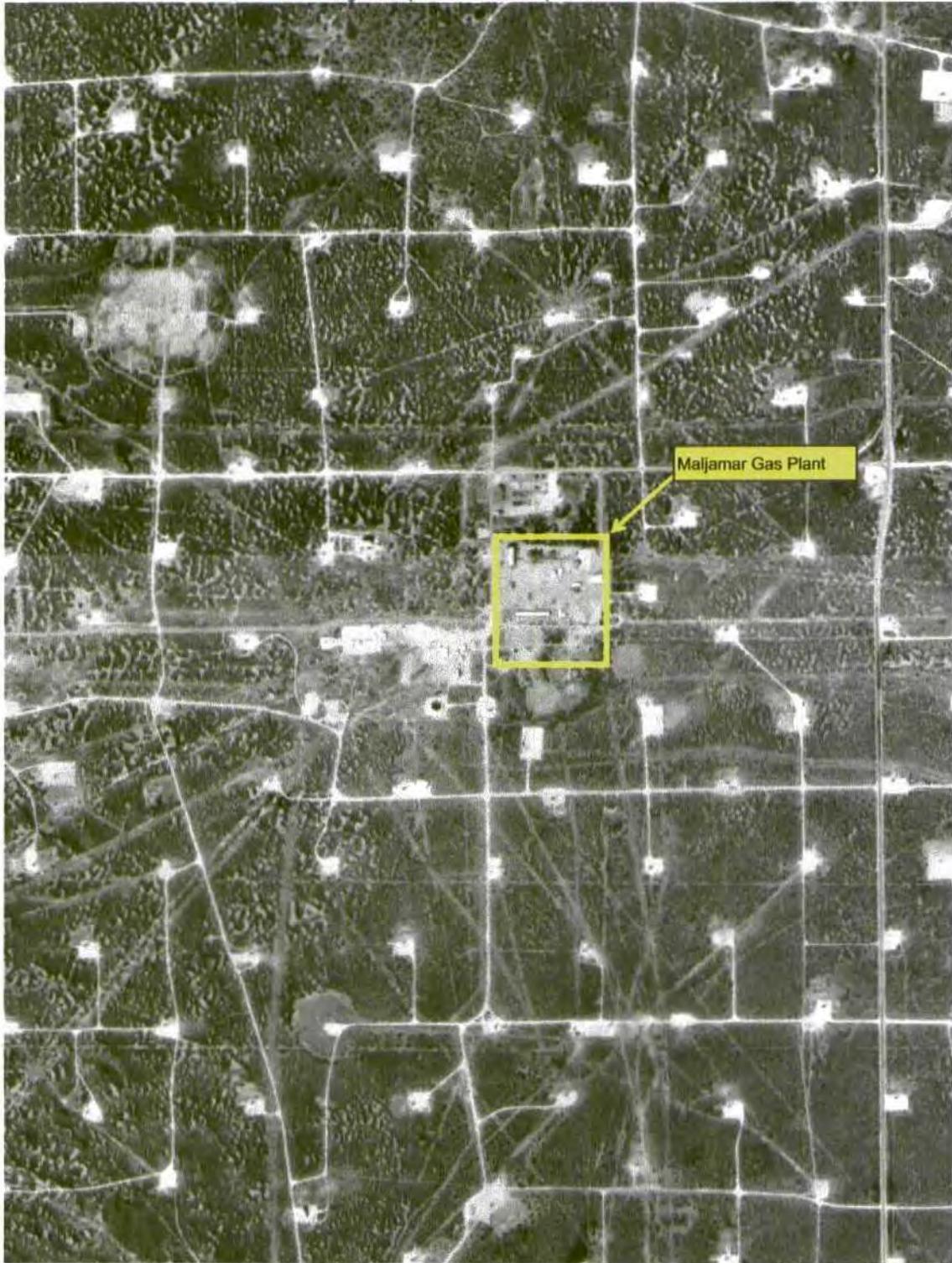


Image courtesy of the U.S. Geological Survey
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[Send To Printer](#) [Back To TerraServer](#) [Change to 11x17 Print Size](#) [Show Grid Lines](#) [Change to Landscape](#)

USGS 5 km S of Maljamar, New Mexico, United States 22 Oct 1996



0 1.5Km

0 1.25Mi

Image courtesy of the U.S. Geological Survey

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APPENDIX E

WATER WELL LOG

WILLIAM MITCHELL "B" NO. 20 FIELD BAISH-MALJAMAR-PEARSALL DATE 9/22/80

EST. CRD 3963' KB 3975' PROPOSED T.U. 4200'

SURFACE) 660' FSL & 1980' FEL OF SECTION 18 T-17S R-32E

LEA STATE NM SPACING

ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT (O=Oil, G=Gas, W=Water)</u>
WATER SS.	70'-150'	FRESH WATER
RUSTLER ANHY.	700'	-
SALADO SALT	810'	-
BASE SALT	1870'	-
YATES SS.	2030'	O,W,G
SEVEN RIVERS DOLO.	2390'	O,W,G
QUEEN SS.	2990'	O,W,G
GRAYBURG DOLO.	3390'	O,W,G
SAN ANDRES DOLO.	3770'	O,W,G

REYS - (List types by code numbers as follows: Directional and/or Deviation (1); Caliper (2); Temperature (3); Electrical (4); Radioactive (5); Geolograph (6); Geolograph (7); Geolograph (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
	(7) Geolograph	17-1/2" & 7-7/8"	One every 250' to base of salt. One every 500' thereafter.
0'	(1) Deviation	17-1/2" & 7-7/8"	
0'	(5) DLL-GR	7-7/8"	2" & 5" Scales
0'	(6) FDC-CNL-GR-CAL	7-7/8"	2" & 5" Scales
0'	(6) PDC(GR-COLLAR)	5-1/2" Casing	Depth Control
	(4) Temperature	5-1/2" Casing	Determine top of cement if necessary

PROVISIONAL WATER, CONTRACTOR TO FURNISH FUEL.

APPENDIX F

**2005 SUMP AND UNDERGROUND PIPING
INSPECTIONS**

Frontier Field Services, LLC
Southern Ute Indian Tribe

Randy McCollum
Manager of Compliance

Phone (505) 676-3505
Cell (505) 361-0128
rmccollum@frontierfieldservices.com

May 14, 2005

CERTIFIED MAIL # 7004 0750 0002 5384 6137
RETURN RECEIPT REQUESTED

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

**Re: GW-020 Discharge Plan
Maljamar Gas Plant
Annual Sump and Five Year Underground Piping Inspection
Frontier Field Services**

Dear Mr. Price:

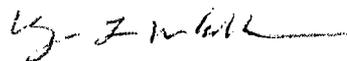
On April 10, 2005 notice was given to Paul Sheeley and Chris Williams of the local NMOCD office in Hobbs, NM that a planned inspection of sumps and underground piping as required in our Discharge Plan would be performed beginning April 14, 2005.

During the time period from April 14 through April 27, 2005 the #8 Clark cellar, plant sumps, and underground piping was inspected. Copies of the inspection records are attached. A copy of this letter is also appended to the GW-020 renewal application.

For the underground piping inspection a circular chart was used to record each inspection. The recorder was calibrated by a Frontier Field Services employee skilled in meter calibration. The chart range is from 0% to 100%, calibrated to 50 psig at 100%. The piping inspections were performed at approximately 20 psig held for at least 4 hours.

If you have any questions or require more information please contact me at 505-676-3505.

Sincerely,



Randy L. McCollum

Paul Sheeley, OCD-Hobbs
File: Env 1054

Frontier Field Services, LLC
Southern Ute Indian Tribe

April 27, 2005

OCD Drain Line Test for 2005

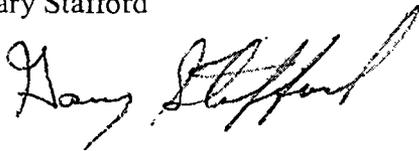
East and West Expander Sumps 3' ¾"; Start test 11:00 a.m. on 4/13/05
End test 11:00 a.m. on 4/14/05

Refridge Sump 6'8"; Start test 2:30 p.m. on 4/14/05
End test 3:00 p.m. on 4/15/05

Sump Southside of Old Electric Building; Start test 7:30 a.m. on 4/18/05 6'8"
End test 7:30 a.m. on 4/19/05 6'8"

Amine Sump; Start test 7:30 a.m., on 4/25/05 43 ½"
End test 7:30 a.m., on 4/26/05 43 ½"

Gary Stafford



Frontier Field Services, LLC

Southern Ute Indian Tribe

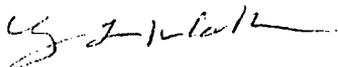
April 15, 2005

#8 Clark was shutdown and the cellar surrounding the unit was emptied, mopped and steam cleaned. The cellar was allowed to dry overnight, April 14, 2005, and was visually inspected on April 15 by Randy McCollum.

The inspection consisted of entry into the cellar and making a close examination of the cellar floor and walls, looking for cracks or other evidence that fluids might be leaking.

No evidence of leaks was found during the inspection. The unit was left down for several hours to give NMOCD personnel time to arrive at the site. The unit was then returned to service.

Randy McCollum



3 4 5 6 AM

Calibrated
4-22-05
100[°] Spring
JDN

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO.
MC MP-100

METER

4-22-05
CHART PUT ON
1445

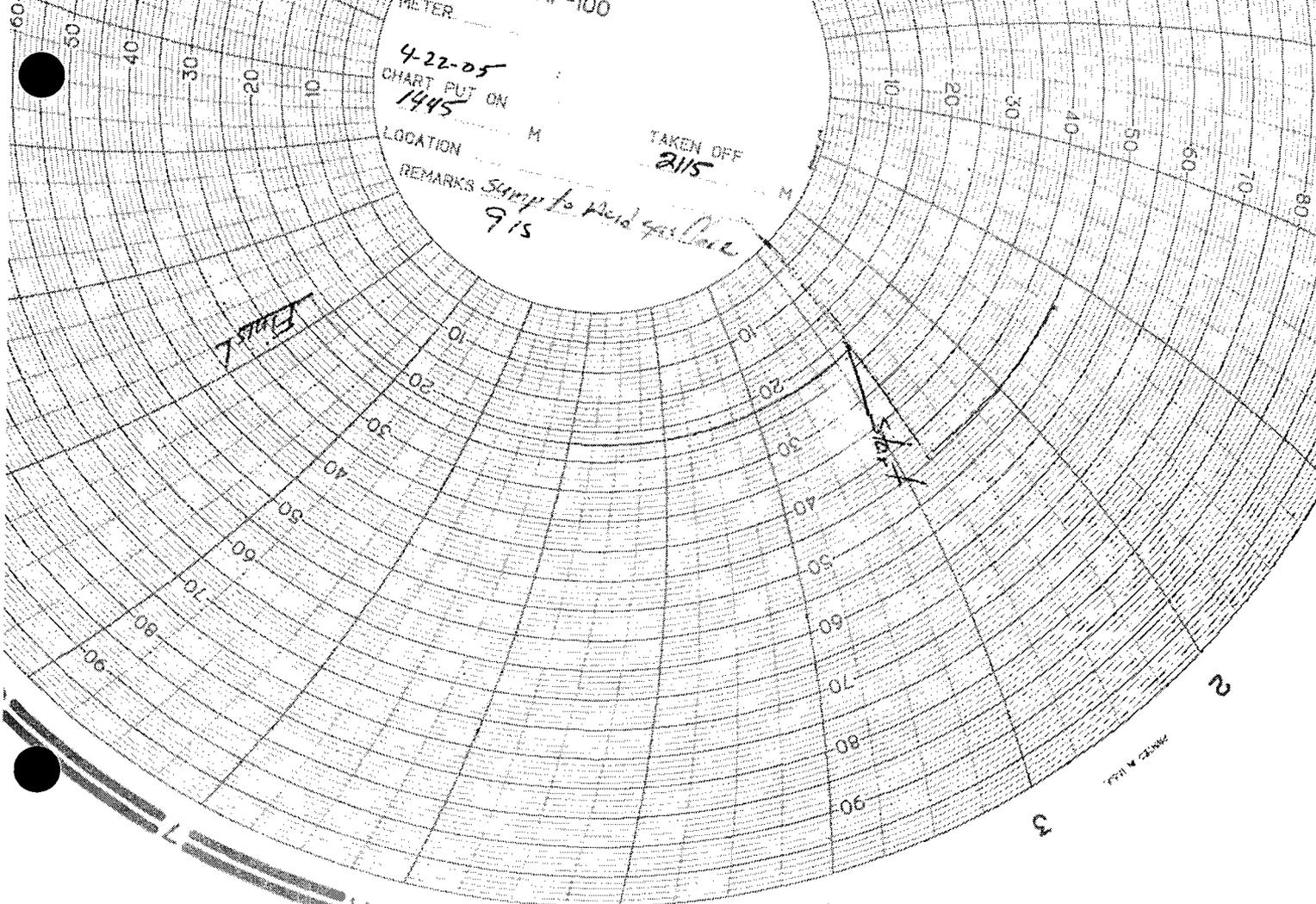
LOCATION M

TAKEN OFF
2115

REMARKS *Symp to Acid eyes
9/15*

FLUENT

FLUENT



6 PM

C

A

3

2

7711 M 1445

Calibrated
4-5-05
50# Spring
SDW


GRAPHO CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO.
MC MP-100

METER _____

CHART PUT ON
1400 M

TAKEN OFF
1900 M

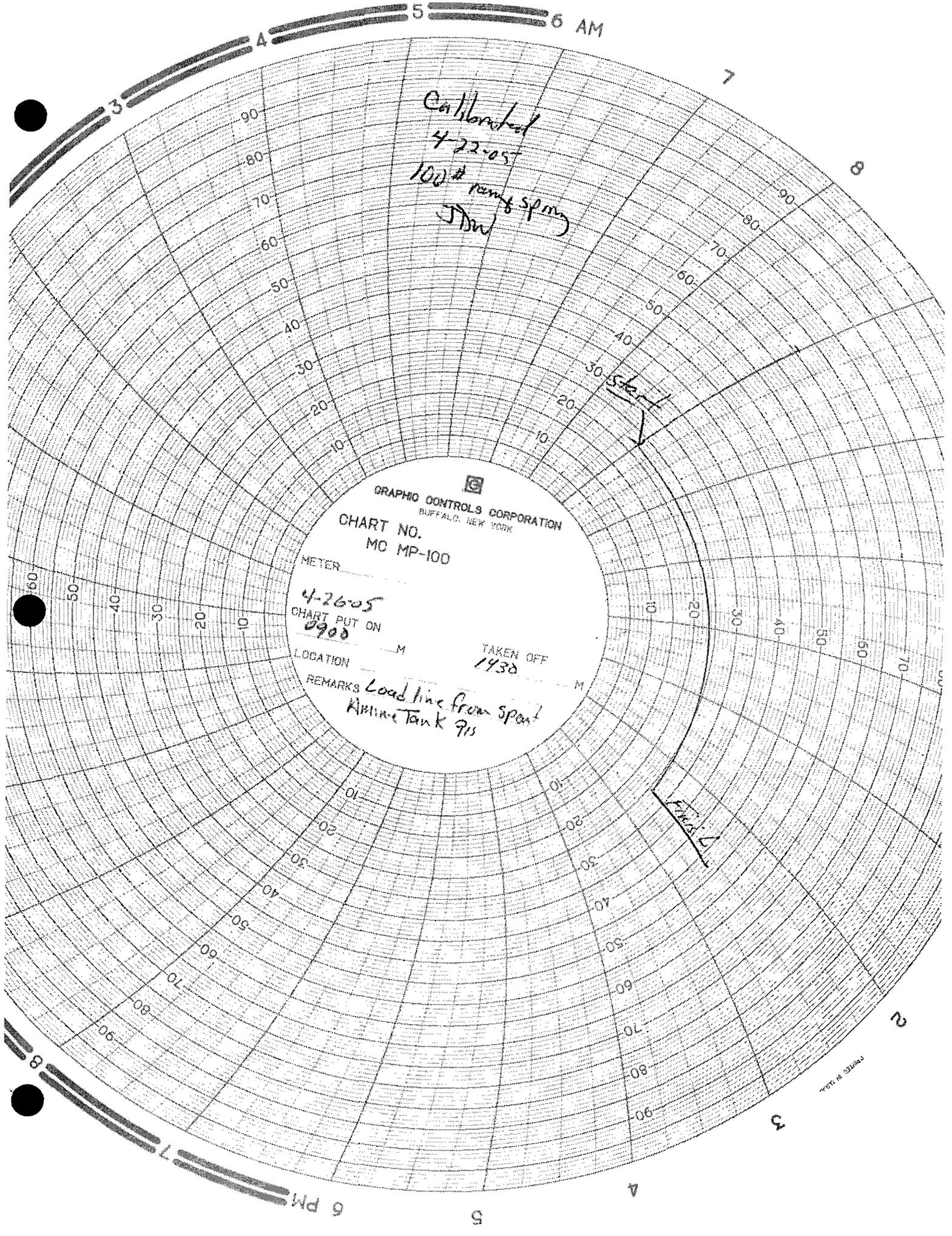
LOCATION _____

REMARKS 1" to 110 Tank
4-19-05 9B

Start

Finish

11-11-11



Calibrated
4-22-05
100# ramp spring
JTW

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO.
MC MP-100

METER

4-26-05
CHART PUT ON
0900

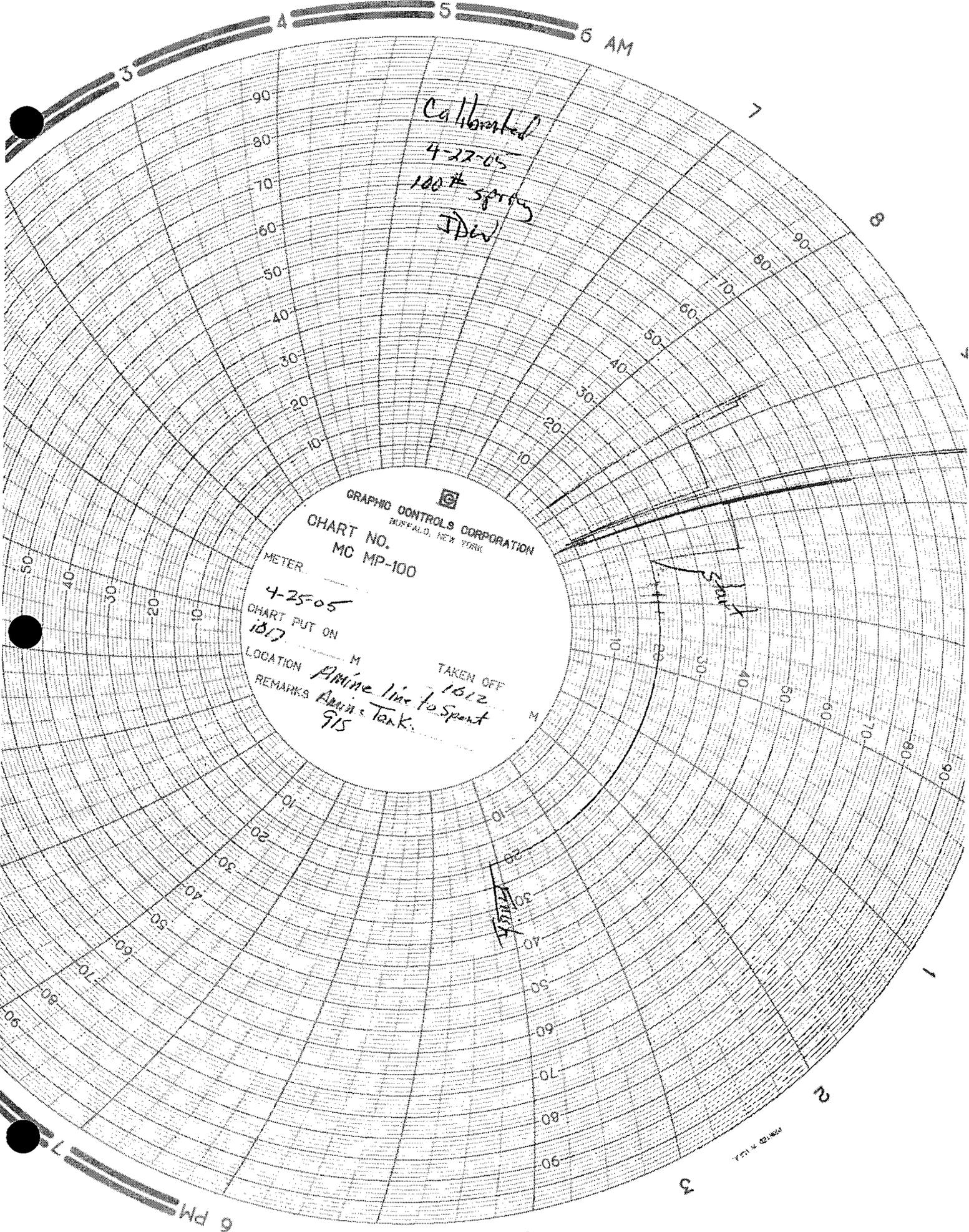
TAKEN OFF
1430

LOCATION

REMARKS Load line from Spent
Airline Tank 715

START

FINISH



Calibrated

4-22-05

100# spring

IDW

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO.
MC MP-100

METER

4-25-05

CHART PUT ON
1817

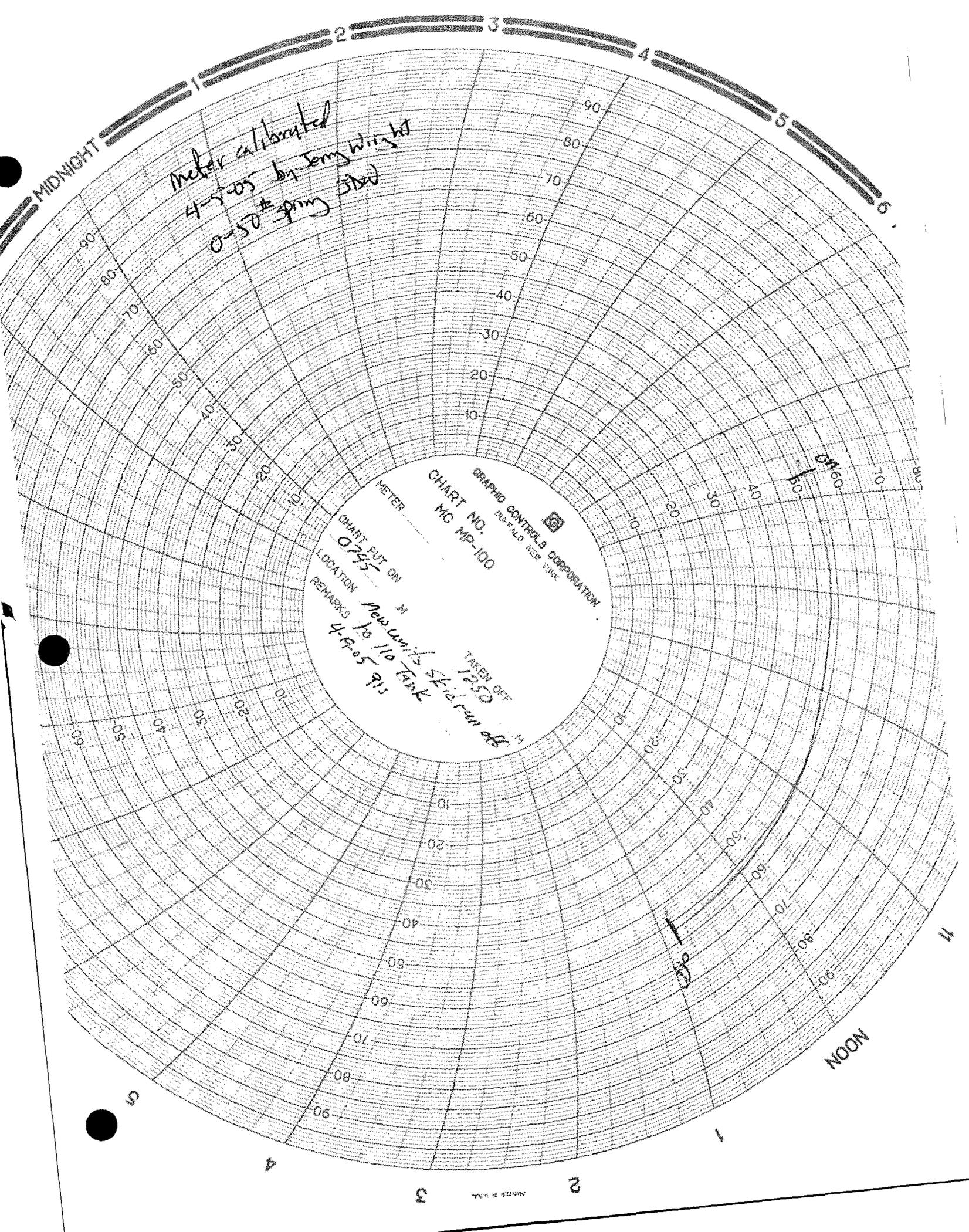
LOCATION M

REMARKS Pipeline line to Spent
Amine Tank
915

TAKEN OFF
1812

M

7711 52-1063



3 4 5 6 AM

meter calibration
4-9-05 by Jerry Wright
0-50# range springs
JDW

GRAPHIC CONTROLS CORPORATION
SUFFALD, NEW YORK

CHART NO.
MC MP-100

METER

CHART PUT ON
1330

APR 18, 2005

LOCATION M

TAKEN OFF
6:00 P.M.

REMARKS elec bulb to 420
100% of Chart - 50# spring
40% of Chart - 20# spring
7/11

↑
End of Test

↑
End of Test

7 6 PM

5 4

GRAPHIC CONTROLS CORPORATION

Randy McCollum

From: Randy McCollum [rmccollum@frontierfieldservices.com]
Sent: Sunday, April 10, 2005 1:55 PM
To: 'psheeley@state.nm.us'; 'cwilliams@state.nm.us'; 'wprice@state.nm.us'
Cc: 'jprentiss@frontierfieldservices.com'; 'rlizardo@frontierfieldservices.com'; 'smaker@frontierfieldservices.com'
Subject: 72 Hour Notice of Sump and Underground Piping Test
Importance: High

To: Paul Sheeley, NMOCD, District 1
Chris Williams, NMOCD, District 1
Wayne Price, NMOCD, Santa Fe

Please be advised that Frontier Field Services will be conducting the annual sump(s) and 5-year underground piping tests beginning at 8:00 am, Thursday, April 14, 2005 at its Maljamar Gas Plant located 3 miles south of Maljamar, NM. These tests are required by Discharge Plan GW-020 and are being conducted in preparation for submittal of the GW-020 renewal application.

This note serves as 72 hour notice of the planned tests and I have requested delivery and read receipts.

Please contact me with any questions or guidance you might have.

Randy McCollum
Manager of Compliance
Frontier Field Services, LLC
505 676-3505
505 361-0128 cell
505 676-2401 fax

4/10/2005

Randy McCollum

From: System Administrator [postmaster@state.nm.us]
Sent: Sunday, April 10, 2005 1:55 PM
To: rmccollum@frontierfieldservices.com
Subject: Delivered:



Delivered:

our message

was delivered to the following recipient(s):

Williams, Chris on Sun, 10 Apr 2005 15:54:28 -0600
MSEXCH:MSExchangeMTA:saf2:NMEMNRDDEPT
Sheeley, Paul on Sun, 10 Apr 2005 15:54:28 -0600
MSEXCH:MSExchangeMTA:saf2:NMEMNRDDEPT
Price, Wayne on Sun, 10 Apr 2005 15:54:28 -0600
MSEXCH:MSExchangeMTA:saf2:NMEMNRDDEPT

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This email has been scanned by the MessageLabs Email Security System.

Randy McCollum

From: System Administrator
To: Williams, Chris; Sheeley, Paul; Price, Wayne
Sent: Sunday, April 10, 2005 1:55 PM
Subject: Delivered:

Your message

To: Unknown
Subject:

was delivered to the following recipient(s):

Williams, Chris on 4/10/2005 2:54 PM
Sheeley, Paul on 4/10/2005 2:54 PM
Price, Wayne on 4/10/2005 2:54 PM

Frontier Field Services, LLC

4200 E. Skelly Dr.

Suite 700

Tulsa, OK 74135

VENDOR**CHECK DATE**

022134

NMW001

04/11/05

INVOICE NUMBER	INVOICE DATE		DISCOUNT TAKEN	AMOUNT PAID
41105	04/11/05	22118 APP. FEE RENEWAL NMOCD	\$0.00	\$100.00
		Total:	\$0.00	\$100.00

Price, Wayne

From: Price, Wayne
Sent: Wednesday, March 24, 2004 2:36 PM
To: 'Clyde Yancey'
Cc: Neal Goates (E-mail)
Subject: RE: Maljamar

OCD is in receipt of the Comprehensive Groundwater Report for the Maljamar Gas Plant. OCD hereby approves of the plan.

Please be advised that NMOCD approval of this plan does not relieve (ConocoPhillips) of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (ConocoPhillips) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

[Price, Wayne]

-----Original Message-----

From: Clyde Yancey [mailto:CYancey@maximusa.com]
Sent: Wednesday, March 24, 2004 1:41 PM
To: Price, Wayne
Subject: Maljamar

Wayne,

How are you today? Was checking on the status of your review on the Maljamar report we submitted. The report presents the chronology of the investigations over the past 4 years and presents the path forward plan of installing a groundwater recovery well, routing water to the MCA water flood station for reinjection, and monitoring over time.

Thanks,
Clyde

Clyde L. Yancey, P.G.
Maxim Technologies, Inc.
10601 Lomas Blvd. NE, Suite 106
Albuquerque, NM 87112
(505) 237-8440

This email has been scanned by the MessageLabs Email Security System.
For more information please visit <http://www.messagelabs.com/email>

Price, Wayne

From: Price, Wayne
Sent: Thursday, January 16, 2003 2:32 PM
To: Price, Wayne; 'Neal.Goates@conocophillips.com'
Cc: 'Clyde Yancey (E-mail)'
Subject: RE: Interim Groundwater Investigation Report dated Jan 15, 2003

This approval is for the Maljamar Gas Plant GW-20

-----Original Message-----

From: Price, Wayne
Sent: Thursday, January 16, 2003 2:20 PM
To: 'Neal.Goates@conocophillips.com'
Cc: Clyde Yancey (E-mail)
Subject: Interim Groundwater Investigation Report dated Jan 15, 2003

Dear Mr. Goates:

The OCD has reviewed the above subject document and hereby approves of the plan.

Please be advised that NMOCD approval of this plan does not relieve Conoco-Phillips of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco-Phillips of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Sincerely:

<< OLE Object: Picture (Metafile) >>

Wayne Price

New Mexico Oil Conservation Division

1220 S. Saint Francis Drive

Santa Fe, NM 87505

505-476-3487

fax: 505-476-3462

E-mail: WPRICE@state.nm.us



Joyce M. Miley
Environmental Director
Natural Gas & Gas Products

ConocoPhillips Inc
Humber 3036
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-4498
Fax: (281) 293-1214

September 15, 2002

Butch Tongate
Chief, Solid Waste Bureau
New Mexico Environmental Department
1190 St Francis Drive
P.O. Box 26110
Santa Fe, NM 87502-0110

RE: ConocoPhillips

Dear Mr. Tongate:

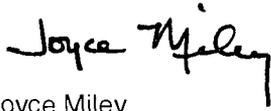
Recently Bob Ridge, the ConocoPhillips Vice President of Safety, Health and Environment, sent the following correspondence to the executive officers of all federal, state, regional and local agencies with environmental permitting authority over the operations of Phillips Petroleum and Conoco Inc. I want to make sure that you also have this information for your files.

As you may know, on August 30, 2002, Phillips Petroleum Company and Conoco Inc. became wholly-owned subsidiaries of newly-formed ConocoPhillips. Phillips Petroleum Company and Conoco Inc., as well as their subsidiaries such as Tosco Corporation, [and Raptor] continue to exist in their previous forms and all relevant corporate names, identification numbers, structures and asset holdings existing prior to the merger have been maintained. Therefore, we will not submit change in ownership or name filings at this time. ConocoPhillips may soon integrate its assets or possibly change subsidiary names. At that time, any necessary notices and permit amendments will be filed in accordance with your agency's regulations.

Safety and sound environmental performance were always core values at both Phillips Petroleum Company and Conoco Inc. From this heritage, we plan to forge a new commitment that will establish ConocoPhillips as the safest and most environmentally responsible company in the industry. If you have any questions about ConocoPhillips, please contact David Duncan of our Legal Department at (918) 661-6500.

A list of heritage Conoco facilities is attached for your reference. Let me know if you have any questions or comments. You can reach me at 281-293-4498.

Sincerely,



Joyce Miley

Environmental Director

cc:

Mr. James Bearzi
General Manager
New Mexico Environmental Department
Hazardous Waste Bureau
1190 St Francis Drive
P.O. Box 26110
Santa Fe, NM 87502-0110

Mr. Roger Anderson
Energy, Minerals & Natural Resources Department
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe NM 87505

Marshall Honeyman – Hobbs
Chuck White – Wingate
Lane Ayers – San Juan

File: ENV 1002

Site	Physical Location	County/Parish, State	RCRA ID Number	Owner (if not Conoco Inc.)	Comments
Lee	SW SEC 35, T13S, R35E	Lea County, NM	NMR000006429	Raptor Gas Transmission LLC	
Majamar Gas Plant	Sec 21/28, T17S, R32E	Lea County, NM	NMD000758953		
San Juan Gas Plant	Sec 14, R11W, T29N	San Juan County, NM	NMD986670297		
Wingate Gas Plant	68 El Paso Circle Gallup, NM	McKinley County, NM	NMD000004325		



Joyce M. Miley
Environmental Director
Natural Gas & Gas Products

ConocoPhillips Inc
Humber 3036
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-4498
Fax: (281) 293-1214

September 16, 2002

Mr. Roger Anderson
Energy, Minerals & Natural Resources Department
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe NM 87505

RE: ConocoPhillips

Dear Mr. Anderson:

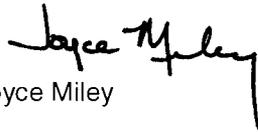
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A list of heritage Conoco facilities is attached for your reference. Let me know if you have any questions or comments. You can reach me at 281-293-4498.

Sincerely,

A handwritten signature in black ink that reads "Joyce Miley". The signature is written in a cursive style with a large initial "J" and a long, sweeping tail.

Joyce Miley

Environmental Director

cc:

Marshall Honeyman – Hobbs
Chuck White – Wingate
Lane Ayers – San Juan

File: ENV 1002

Site	Physical Location	County/Parish, State	Water Permit	Owner (if not Conoco Inc.)	Comments
Maljamar Gas Plant	Sec 21/28, R32E, T17S	Lea County, NM	OCD - GW-020 (5/18/00)		
San Juan Gas Plant	Sec 14, R11W, T29N	San Juan County, NM	OCD - GW-035		
Wingate Gas Plant	68 El Paso Circle Gallup, NM	McKinley County, NM	OCD - GW-054 Water Use 600-17		
Calmon	NW/4 SEC 35, T23S, R31E	Eddy County, NM	OCD - GW-143 (1/99)	Raptor Gas Transmission LLC	
Zia Gas Plant		Lea County, NM	OCD - GW-145		
Pure Gold 28	NW SEC 28, T23S, R32E	Eddy County, NM	OCD - GW-150 (4/99)	Raptor Gas Transmission LLC	
Yates Bright	T19S, R33E, Sec 21	Lea County, NM	OCD - GW-160 (4/28/99)	Raptor Gas Transmission LLC	
Antelope Ridge Gas Plant	SE/4 SEC 15, T23S, R34E	Lea County, NM	OCD - GW-162 (8/00)	Raptor Natural Gathering & Processing LLC	
Apex	NW SEC 36, T18S, R36E	Lea County, NM	OCD - GW-163 (8/00)	Raptor Natural Pipeline LLC	
Hobbs Gas Plant	SW/4, NE/4, SEC 36, T18S, R36E	Lea County, NM	OCD - GW-175 (2/00)	Raptor Gas Transmission LLC	

Site	Physical Location	County/Parish, State	Water Permit	Owner (if not Conoco Inc.)	Comments
Bootleg	SW SEC 18, T22S, R33E	Lea County, NM	OCD - GW-176 (2/00)	Raptor Gas Transmission LLC	
Lee	SW SEC 35, T13S, R35E	Lea County, NM	OCD - GW-227 (10/01)	Raptor Gas Transmission LLC	
Northeast Carlsbad	Lot 9 SEC 6, T21S, R28E	Eddy County, NM	OCD - GW-280 (6/97)	Raptor Gas Transmission LLC	
Oryx Pardue (aka Pardue)	SE/4 NW/4 SEC 10, T23S, R28E	Eddy County, NM	OCD - GW-288 (11/97)	Raptor Gas Transmission LLC	
Cedar Canyon (aka Buckstate)	SE SEC. 9, T4S, R29E	Eddy County, NM	OCD - GW-296 (7/98)	Raptor Gas Transmission LLC	
Cotton Draw	NW SEC 18, T25S, R32E	Lea County, New Mexico	OCD - GW-311	Raptor Gas Transmission LLC	
Hat Mesa #2	NE SEC 11, T21S, R32E	Lea County, NM	OCD - GW-316 (1/00)	Raptor Gas Transmission LLC	
Titan Malaga (aka P&P Malaga)	NE SEC 3, T24S, R28E	Eddy County, NM	OCD GW-167	Raptor Gas Transmission LLC	
New Mexico Hydrostatic Test Water Discharge Permit			HBP-NM-016		

Price, Wayne

From: Price, Wayne
Sent: Tuesday, August 27, 2002 4:23 PM
To: 'Clyde Yancey'
Cc: 'r-neal.goates@conoco.com'
Subject: RE: Maljamar Work Plan

Dear Mr. Goates:

The OCD is in receipt of the Work Plan dated August 08, 2002 and hereby approves of the plan with the following conditions:

1. Notify the OCD Santa Fe office and the OCD District office at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.
2. Provide a progress report to the OCD Santa Fe and District offices by November 15, 2002
3. Provide the Hobbs District office a copy of the Work Plan dated August 08, 2002.

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

-----Original Message-----

From: Clyde Yancey [mailto:CYancey@maximusa.com]
Sent: Tuesday, August 20, 2002 9:00 AM
To: 'wprice@state.nm.us'
Subject: Maljamar Work Plan

Wayne,

Good morning. I was checking on the status of the recently submitted work plan for Maljamar. Have any questions?

Thanks
Clyde

8/27/2002

Price, Wayne

From: Price, Wayne
Sent: Tuesday, June 18, 2002 4:39 PM
To: 'Tom Tangen'; Price, Wayne
Cc: 'r-neal.goates@conoco.com'
Subject: RE: Maljamar South Storage Area

Tracking:

Recipient	Read
'Tom Tangen'	
Price, Wayne	Read: 6/18/2002 4:39 PM
'r-neal.goates@conoco.com'	

APPROVED!

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

-----Original Message-----

From: Tom Tangen [mailto:TTangen@maximusa.com]
Sent: Friday, June 07, 2002 4:38 PM
To: Wayne Price (wprice@state.nm.us)
Subject: Maljamar South Storage Area

Hello Wayne,

I am cleaning up some follow-ups I had on my schedule and am asking whether you ever had time to review that complete data package on the Maljamar South Storage Area soil remediation project I forwarded to you. If you remember, that was the one I sent up last October before I knew that you couldn't comment on plans submitted by consultants versus the client. I believe Clyde and Neal Goates came up and visited with you about status of several of our projects, and this one was among them? Anyway, I was just curious whether you had approved the approach or not.

Thanks Wayne, have a great weekend.

Tom Tangen
Maxim Technologies, Inc.
10601 Lomas NE, Suite 106
Albuquerque, NM 87112
ph: 505.237.8440
fax: 505.237.8656
email: ttangen@maximusa.com

6/18/2002



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

April 29, 2002

CERTIFIED MAIL
RETURN RECEIPT NO. 7923 4245

Neal Goates
Conoco Inc.
P.O. 3030
600 N. Dairy Ashford
Houston, Texas 77079-6651

Re: Maljamar Gas Plant and MCA Production Unit Area
Groundwater Investigation.

Dear Mr. Goates:

The New Mexico Oil Conservation Division (OCD) is in receipt of Conoco Inc.'s preliminary groundwater investigation findings dated April 10, 2002 for the Maljamar Gas Plant and the MCA Production Unit. The findings indicate there is a potential that extensive groundwater contamination has occurred in the area and the major source(s) of the contamination are still unknown.

Conoco Inc. is hereby required to submit for OCD approval a comprehensive work plan to determine the extent and source(s) of the contamination. The plan shall include a survey of all production wells and gas plant operations in the area and a contingency plan to protect public health and the environment. **The Plan shall be submitted by July 29, 2002.**

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail WPRICE@state.nm.us.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/lwp

xc: OCD Hobbs Office

Price, Wayne

From: Clyde Yancey [CYancey@maximusa.com]
Sent: Friday, April 19, 2002 12:16 PM
To: 'WPrice@state.nm.us'
Cc: Neal Goates (E-mail)
Subject: Maljamar Path Forward from 4/10/02

Wayne,

Good Friday morning to you.

Neal wanted me to e-mail you with a synopsis of the Maljamar path forward discussed during our recent meeting, specifically the letter OCD is to prepare and send to Conoco. OCD is to send a letter to Conoco demanding an action plan from Conoco to address assessment of the groundwater impacts relative to Maljamar with time restraints (90 days). The point of the letter is to help Conoco facilitate rapid approval from the BLM with regard to land clearance. Roger indicated at the time that it would be useful to cite state statutes with regard to "royalty ownerships transferring back to BLM if approval is not granted in a timely manner." (quotes are from the notes Neal made on the flip chart).

Other Maljamar issues were:

- gather additional aerial photos prior to flare installation
- check producing/injection wells w/District office in Hobbs (Braden head tests, etc)
- Check repairs without confirmatory integrity
- Put plan together that OCD approves with time line "urgent" matter.

This is the extent of the Maljamar-related notes.

Hope this helps
Clyde

Clyde L. Yancey, P.G.

Maxim Technologies, Inc.
10601 Lomas Blvd. NE, Suite 106
Albuquerque, NM 87112
505-237-8440
505-237-8656 fax

4/29/2002



April 10, 2002
New Mexico Oil Conservation Division – Conoco Inc.
Joint Meeting, Santa Fe, New Mexico

Agenda

Maljamar Gas Plant Facility, Lea County, NM

Apex Compressor Station, Lea County, NM

Reed A Pit Closure – Tuffy Cooper Ranch, Lea County, NM

Maljamar Gas Plant Facility/South Storage Area, Lea County, NM

PCA Junction, Eddy County, NM

Lockhart A27 Pit Closure – Cannan Ranch, Lea County, NM

Price, Wayne

From: Clyde Yancey [CYancey@maximusa.com]
Sent: Tuesday, March 12, 2002 8:18 AM
To: 'Miley, Joyce M.'; Goates, R. Neal; Dosch, Jim T.; Crouch, Ronald P.; Holland, Suzanne P; Clyde Yancey; Tom Tangen; Brooks, Hiram L.; Honeyman, Marshall C.; Deen, Larry E.; Johansen, Larry D.; Mark A. Bishop (E-mail)
Cc: Wayne Price; Skopak, John E.; Dan Erskine
Subject: RE: Maljamar Bailing

We have ordered the skimmer pump and are looking at a March 29th delievery date. Therefore, we hope to have it installed during early April. We will work logistics with appropriate operational people through Neal.

We are receiving results from product sampling, and will have a status memo out this week.

Thanks

Clyde

-----Original Message-----

From: Miley, Joyce M. [mailto:Joyce.M.Miley@conoco.com]
Sent: Friday, March 08, 2002 8:32 AM
To: Goates, R. Neal; Dosch, Jim T.; Crouch, Ronald P.; Holland, Suzanne P; Clyde L. Yancey; Tom Tangen; Frank Lichnovsky; Brooks, Hiram L.; Honeyman, Marshall C.; Deen, Larry E.; Johansen, Larry D.
Cc: Wayne Price; Skopak, John E.
Subject: RE: Maljamar Bailing

Thank you. Keep us informed on the drilling schedule and you can let Maxim know that we can suspend hand bailing provide we move forward in a timely manner with the installation of a recovery well and the design & installation of a product recovery system.

joyce

-----Original Message-----

From: Goates, R. Neal
Sent: Thursday, March 07, 2002 9:50 AM
To: Miley, Joyce M.; Dosch, Jim T.; Crouch, Ronald P.; Holland, Suzanne P; 'Clyde L. Yancey'; 'Tom Tangen'; 'Frank Lichnovsky'; Brooks, Hiram L.; Honeyman, Marshall C.; Deen, Larry E.; Johansen, Larry D.
Cc: 'Wayne Price'; Skopak, John E.
Subject: RE: Maljamar Bailing

I talked to Wayne Price with the NMOCD yesterday evening and caught him up to speed on our meetings and planned activities for this month and early April. He agreed with the path forward and wanted to know where OCD could assist Conoco on the project. I told him that we hoped to have results from our next 3 monitor wells in early April and that we would meet with OCD in Santa Fe and go over the findings to date. My request to OCD is that Conoco/NMOCD partner together on a BLM visit to go over the findings; Wayne agreed. The desired outcome of joint Conoco/OCD would be to expedite the permit process for unit boundary assessment and the placement for additional monitor/recovery well activities.

In addition, OCD agreed that additional hand bailing is not warranted and progressing with the automated skimmer system is the way to go related to the hydrocarbon plume.

4/29/2002

Neal Goates
Remediation Project Manager
Mid-Continent BU, EP Americas, NG&GP

Conoco Inc.
600 N. Dairy Ashford
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-3822
Fax (281)293-3305
Cell Phone: 832-465-4123

-----Original Message-----

From: Miley, Joyce M.
Sent: Wednesday, March 06, 2002 3:52 PM
To: Goates, R. Neal
Subject: RE: Maljamar Bailing

I agree, I just want to make sure OCD is on board and can see that Conoco is attentive to the situation.

thanks

joyce

-----Original Message-----

From: Goates, R. Neal
Sent: Wednesday, March 06, 2002 3:49 PM
To: Miley, Joyce M.
Subject: RE: Maljamar Bailing

I told Frank yesterday to not go out this week. My analogy was that we are trying to put out a fire with an ice pick. I will be talking to NMOCDC this week on path forward. If we can eliminate the tasks and show that our focus is on more long-term solutions I'll let you know. If the read is to continue, we will continue.

Thanks.

Neal Goates
Remediation Project Manager
Mid-Continent BU, EP Americas, NG&GP

Conoco Inc.
600 N. Dairy Ashford
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-3822
Fax (281)293-3305
Cell Phone: 832-465-4123

-----Original Message-----

4/29/2002

From: Miley, Joyce M.
Sent: Wednesday, March 06, 2002 1:06 PM
To: Goates, R. Neal
Subject: RE: Maljamar Bailing

I would like to continue to show that we are at least trying to address the issue but will consider revising the frequency to two times a month and include a check in the other local wells for additional impacts. I believe that we should have the well drilled by the end of March so this should only be a short term issue.

joyce

-----Original Message-----

From: Goates, R. Neal
Sent: Monday, March 04, 2002 1:02 PM
To: Miley, Joyce M.
Subject: FW: Maljamar Bailing

I think we should suspend this activity until a permanent system is in place. The value is limited and I think we know bailing is not the answer. Let me know if you think other wise. I'll try to remember when I see you tomorrow.

Take care.

Neal Goates
Remediation Project Manager
Mid-Continent BU, EP Americas, NG&GP

Conoco Inc.
600 N. Dairy Ashford
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-3822
Fax (281)293-3305
Cell Phone: 832-465-4123

-----Original Message-----

From: Clyde Yancey [<mailto:CYancey@maximusa.com>]
Sent: Monday, March 04, 2002 10:40 AM
To: Goates, R. Neal
Subject: Maljamar Bailing

Neal

We are at the end of the budget for the bailing work (scheduled 4 visits). I assume we want to continue weekly until the skimmer system is in? Let me know, and I will submit a change order.

Frank indicated that an H&S audit occurred last week during his visit. He said the JSA were more onerous and that someone was periodically scanning air levels.

cy

4/29/2002

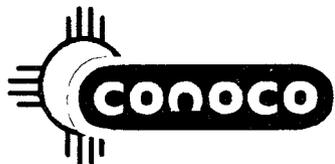


Maljamar Gas Plant Groundwater Investigation

April 10, 2002

New Mexico Oil Conservation
Division

Santa Fe, New Mexico



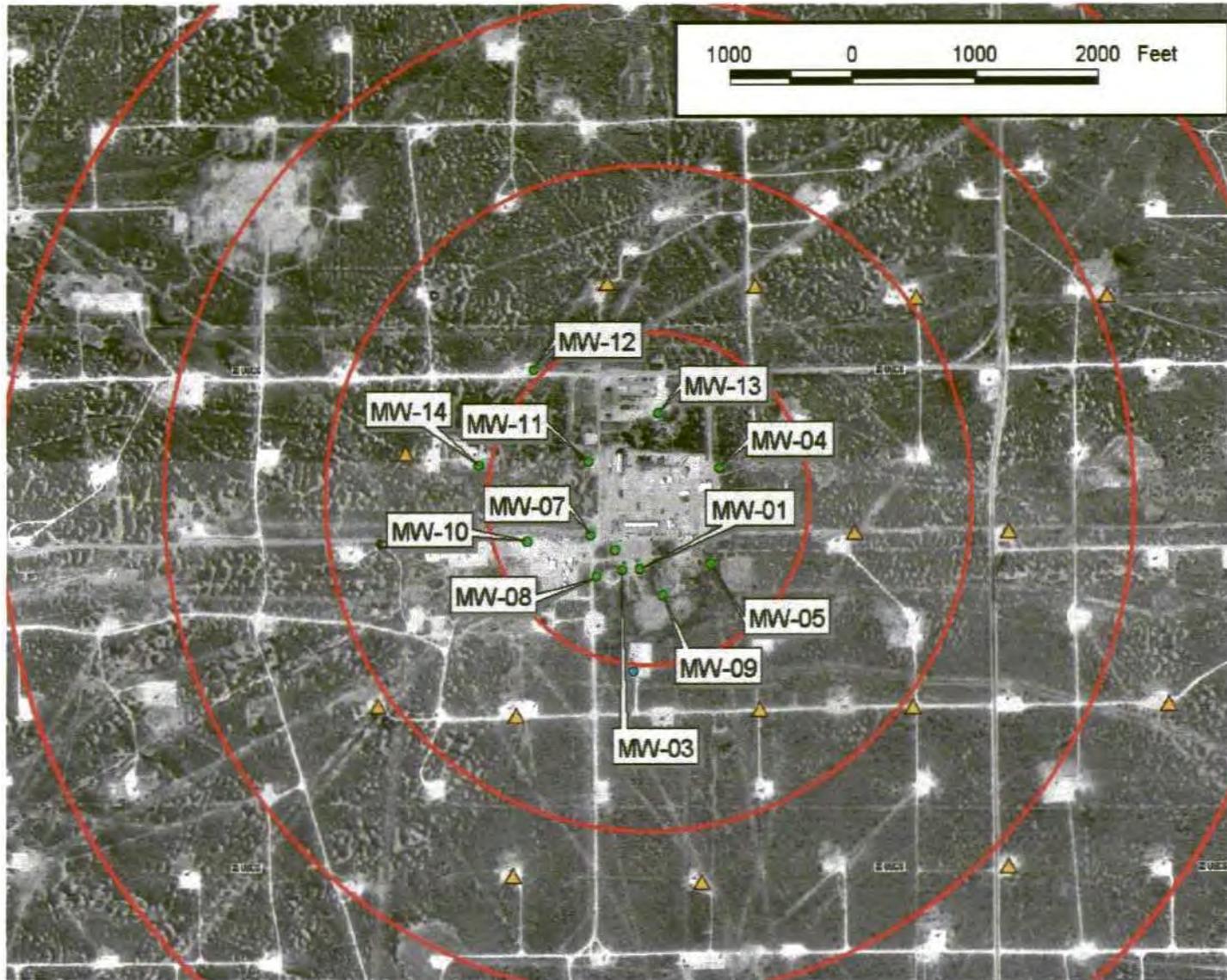
Maljamar

- **History**

- February 13, 2000 – 15 bbl Condensate Release at the Skimmer Basin
- April 27-28, 2000 Field Investigation (6 soil borings)
- June 21-22 Field Investigation (6 soil borings and MW-1)
- September 28-29, 2000 Field Investigation (MW-2 and MW-3, limited trenching at skimmer basin)
- May 21-24, 2001 (MW-4, 5, 7, 8, and 9)
- December 3-5, 2001 (MW-10, 11, 12, and 13)
- Initiated Plume Containment – February 6, 2002
- March 20-22, 2002 (MW-14, and borings B1C & B2C)



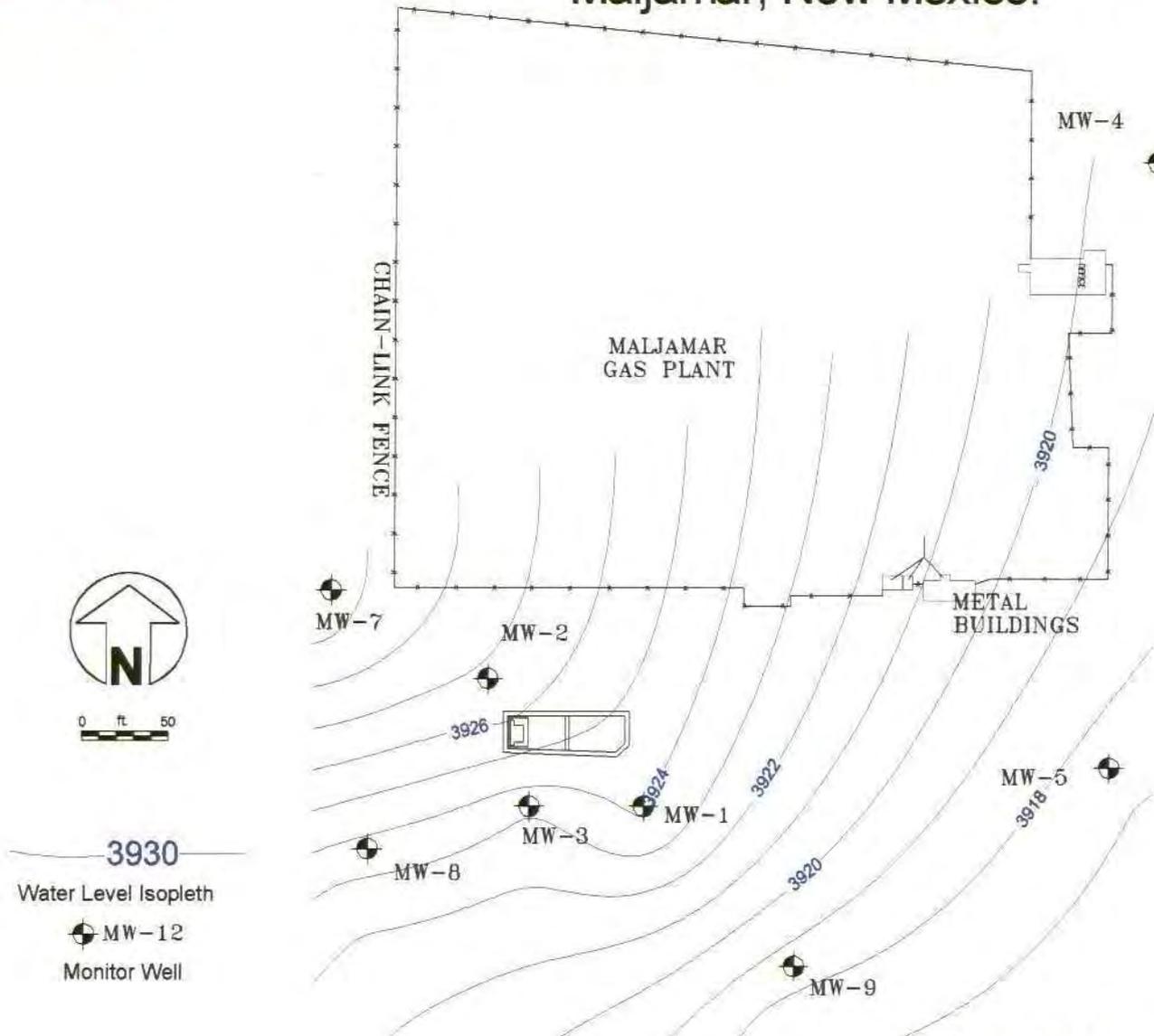
CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.



Site Map



CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.

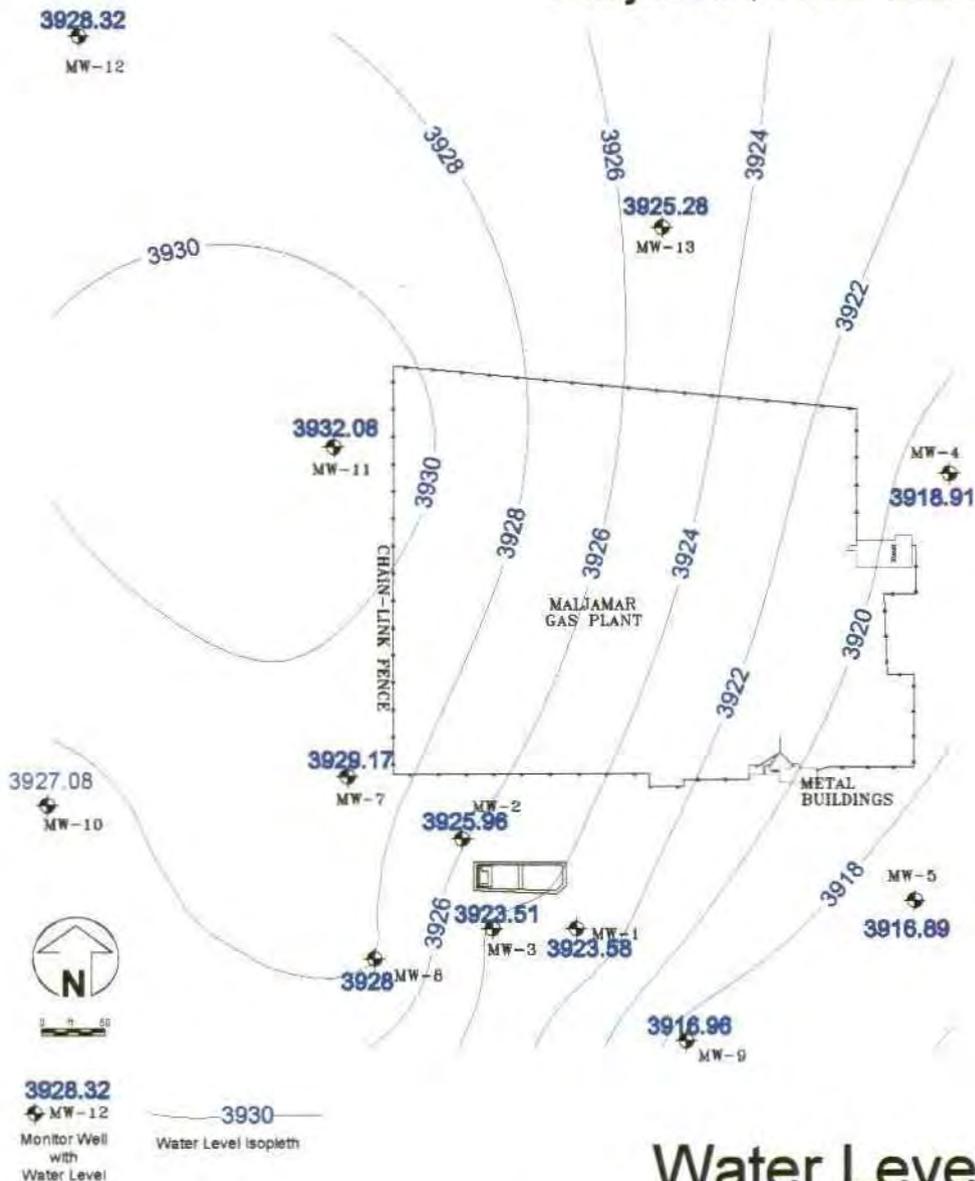


Water Levels Using Data
From May 25, 2001





CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.

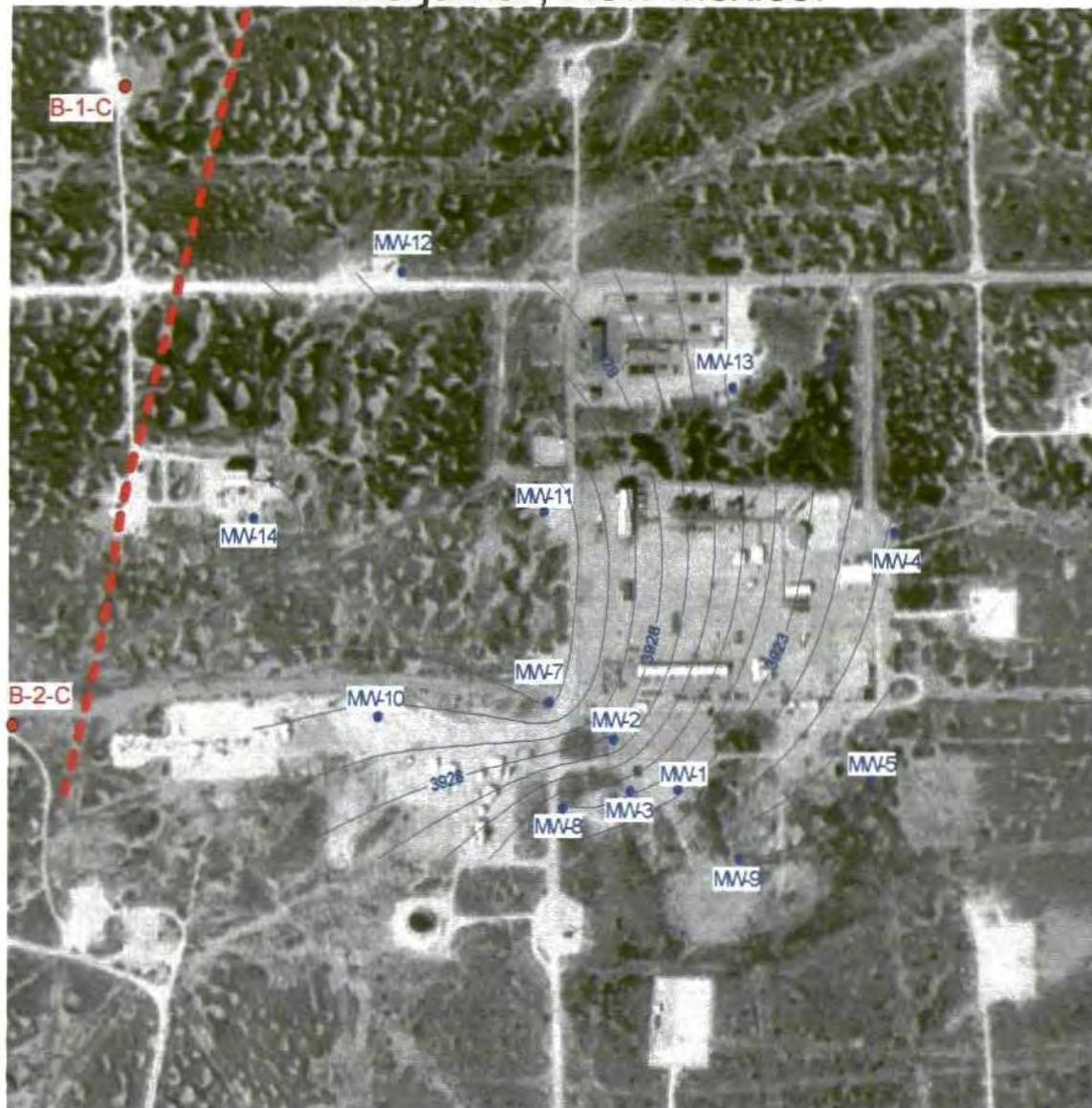


Water Levels Using Data From December 7, 2001





CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.



Water Levels Using Data
From March 25, 2002





**ANALYTICAL RESULTS FROM DECEMBER 2001 SAMPLING EVENT
MALJAMAR GAS PLANT
LEA COUNTY, NEW MEXICO**

Analytical Test Results - Groundwater

Well	Date	Benzene (µg/L)	Total Xylenes (µg/L)	Ethyl benzene (µg/L)	Toluene (µg/L)	Napthalene (µg/L)	TDS (mg/L)	Chloride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Barium (mg/L)	Chromium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)
MW-1	12/05/2001	2400	36	76	93	ND	931	233	0.130	0.0086	1.10	0.018	107.0	20.3
MW-2	12/04/2001	33000E / 36000D	ND	440	10000 / 9500	ND	1310	328	0.024	0.011	1.5	0.017	62.8	33.5
MW-3	NS													
MW-4	12/05/2001	850E / 960D	74.7	150	37	16 / 13	1080	448	0.066	ND	3.7	ND	84.5	ND
MW-5	12/05/2001	140	370	390E / 480D	88	21F / 21	1180	312.0	0.055	ND	2.0	ND	171	14.3
MW-7	NS													
MW-8	12/05/2001	21000	ND	ND	1900	ND	922	332.0	0.049	ND	1.6	ND	46.9	22.2
MW-9	12/04/2001	460	22.4	31	260	12 / ND	748	151	0.160	0.0042	3.70	0.0089	166.0	19.7
MW-10	12/06/2001	73	6.6	6.7	35	ND	10,400	5,680	0.019	0.0160	0.46	0.024	1460	462.0
MW-11	12/06/2001	160	4.2	4.2	21	ND	1,780	837	0.011	0.0059	0.34	0.010	86.0	78.4
MW-11Dup	12/06/2001	190	ND	ND	ND	ND	1,600	844	ND	0.0063	0.33	0.017	91.4	84.0
MW-12	12/06/2001	ND	ND	ND	ND	ND	100,000	59,500	ND	ND	ND	ND	10600	1490
MW-13	12/06/2001	76	8.1	8.4	40	ND	940	208	0.042	0.0460	0.50	0.061	67.5	227.0
Action Levels*		10	620	750	750	10			0.1	0.05	1.0	0.05		

*NM Water Quality Control Commission

ND - not detected

NS - not sampled because of presence of free product

D - Result was obtained from the analysis of a dilution

E - Estimated result. Result concentration exceeds the calibration range

F - Reported value estimated due to interference. Co-elution with nontarget analyte

Napthalene reported from VOC List / SVOC List if detected



Maljamar Analyses Summary

SPL Product Analyses

ANALYTE	MW-3	MW-7	MCA-116	Lact Unit
Paraffin Wt%	29.232	25.303	38.739	40.958
Isoparaffin Wt%	28.946	29.34	21.393	22.059
Naphthenics Wt%	31.839	33.103	18.105	17.34
Aromatics Wt%	5.298	8.908	17.169	15.302
Olefins Wt%	1.995	1.985	1.559	1.482
Unknown Wt%	2.69	1.361	2.511	2.301
Research Octane	67.89	68.16	80.77	81.21
N-Hexane Wt%	5.382	6.624	2.5	2.646
Benzene Wt%	0.282	1.348	0.954	0.986
Ethylbenzene Wt%	0.647	0.967	1.815	1.142
Toluene Wt%	0.041	2.68	3.059	2.874
Total Xylenes Wt%	0.755	2.166	2.241	2.06
Specific Gravity @ 60oF	0.7587	0.7388	0.8319	0.8314
API Gravity @ 60oF	55	60	38.58	38.68
Color	Straw	Medium Straw	Dark Straw	Dark Straw
Odor	Condensate	Condensate	Crude	Crude
Carbon Range	C4-C20	C3-C25	C2-C25+	C2-C25+
Major Range	C6-C9	C5-C9	C5-C11	C5-C11
Napthalene Wt%	0.024	0.01	0.202	0.183

Mobile Analytical Product Analyses

ANALYTE	MW-3	MW-7	MCA-16	Lact Unit
Carbon Range	C4-C16	C4-C12	C4-C35+	C4-C35+
Specific Gravity @ 60oF	0.7587	0.7436	0.8423	0.8309
API Gravity @ 60oF	55	58	36.5	38.8



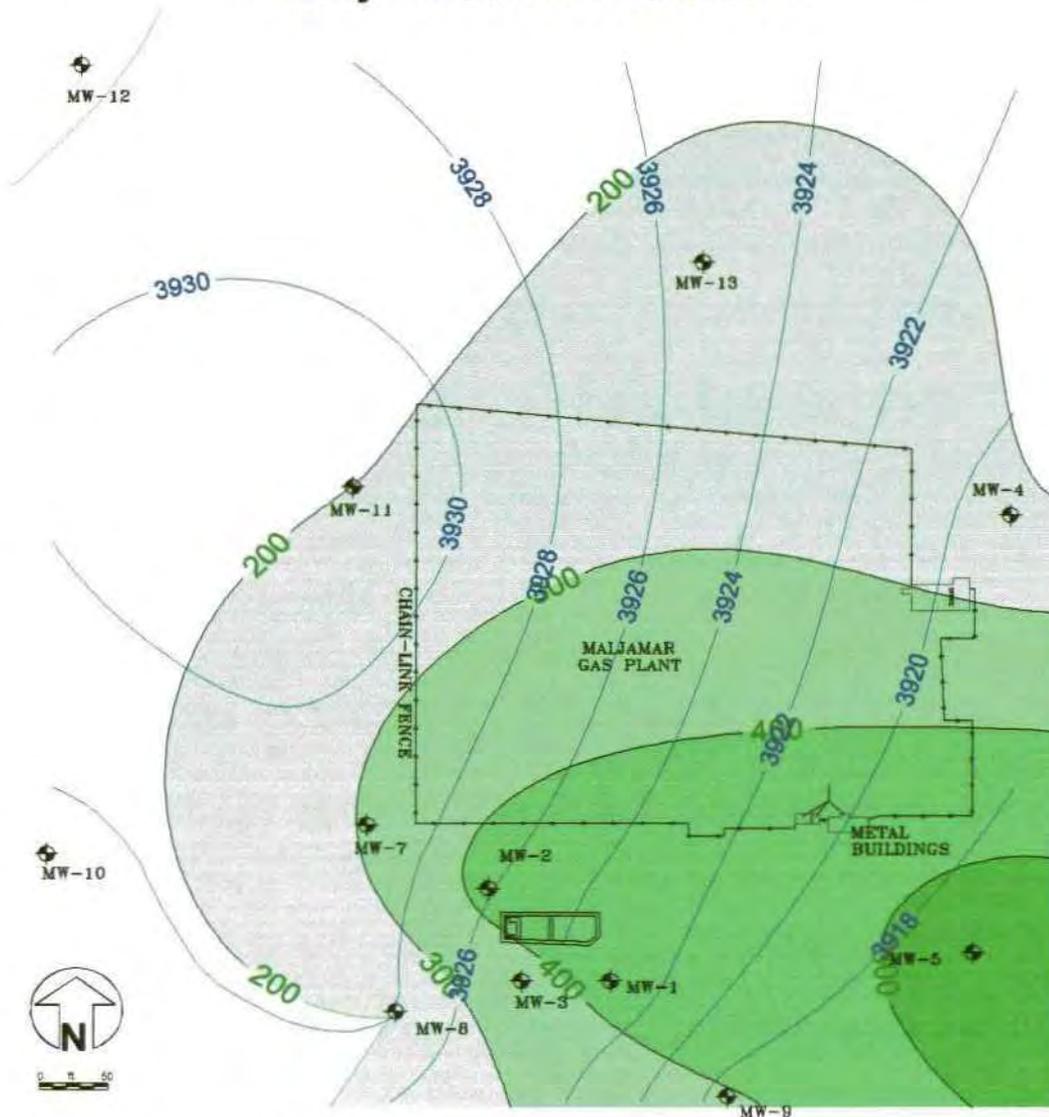
Maljamar Groundwater Analyses Summary

STL Water Analyses

ANALYTE	MW-12	MCA-67	Water Station	Water Well
Calcium (mg/L)	5830	2220	2100	191
Magnesium (mg/L)	1550	748	789	61.7
Sodium (mg/L)	10600	25500	26100	146
Chloride (mg/L)	59500	51600	53900	525
Sulfate (mg/L)	1490	3340	3490	182
Bicarbonate Alkalinity (mg/L)	81.9	1030	983	223
Benzene (ug/L)	<1	5800	6000	<1
Ethylbenzene (ug/L)	<1	660	700	2.7
Toluene (ug/L)	<1	3700	5200	<1
Total Xylenes (ug/L)	<1.5	1590	1870	1.1



CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.



Bicarbonate Concentration

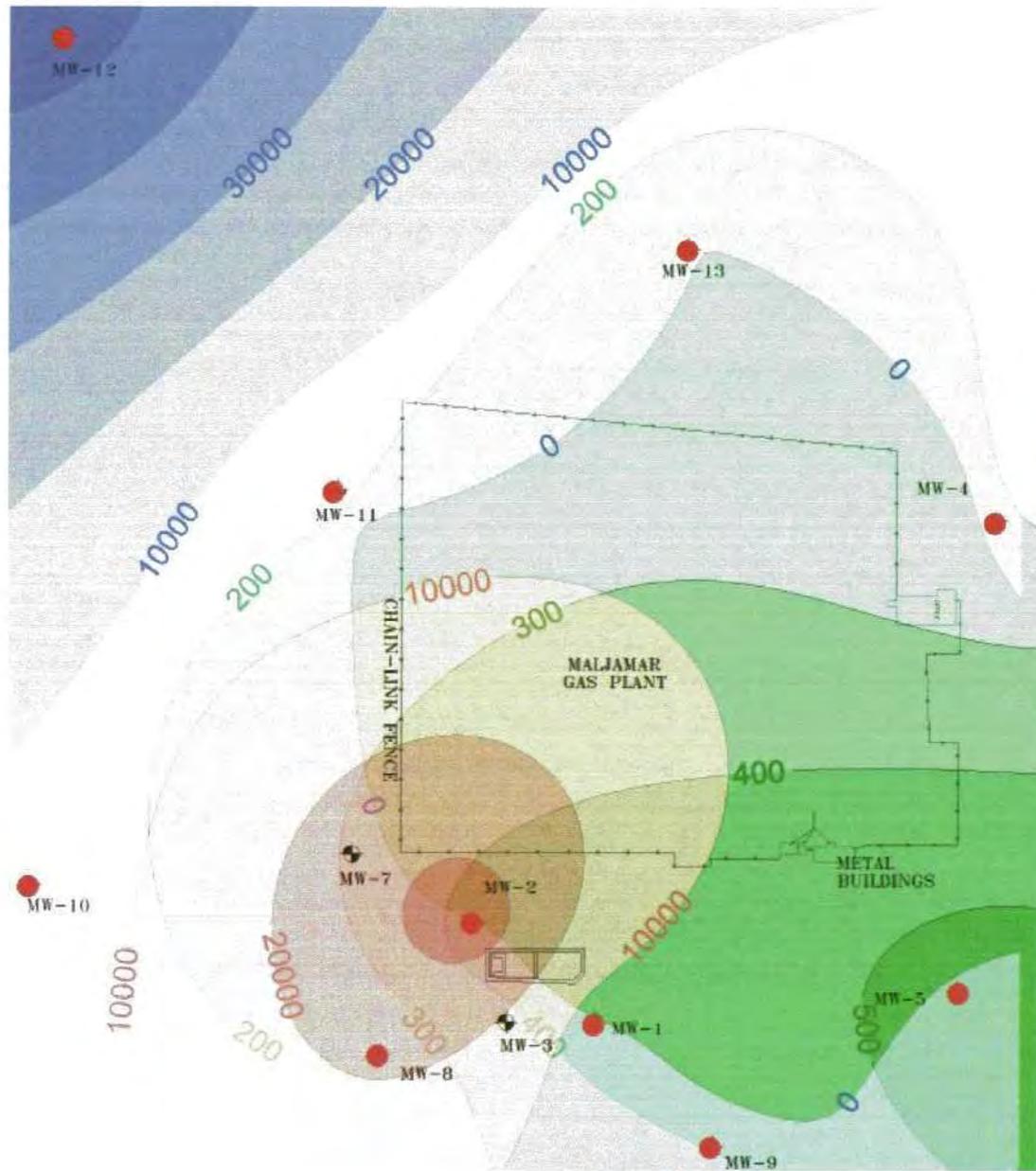




CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.



Chloride Concentration



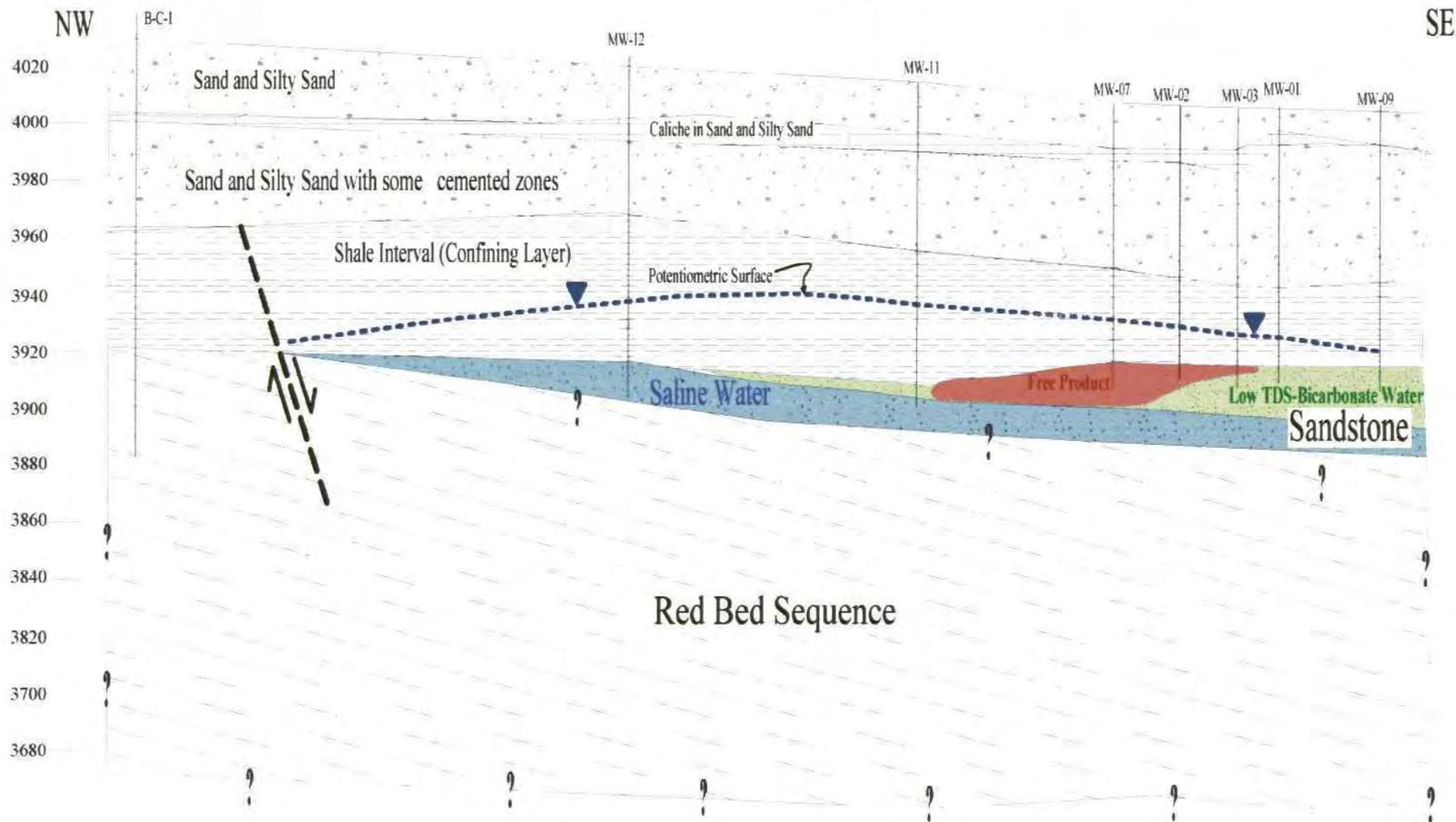
CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.

- Well with Concentration Data
- Red/Pink Isopleths = Benzene Concentrations (ug/L)
- Green Isopleths = Bicarbonate Concentrations (mg/L)
- Blue Isopleths = Chloride Concentrations (mg/L)





CONOCO Maljamar Natural Gas Plant Maljamar, New Mexico.



Conceptual Model





Maljamar

- **Status**

- State Notified of Presence of Free Product (6/00) & Elevated Chlorides (12/01)
- Product Samples From MW-7 and MW-3 Collected February 13, 2002 and Submitted For Laboratory Analyses (SPL & Mobile Labs)
- Product Recovery Initiated 2/02 - Bailing
- No Historic Oil/Gas Wells Were Identified In Immediate Area of Plant
- Free Product Migration, MW-7 (5/01), MW-3 (12/01), and MW-5 (3/02)
- Data Assessment Underway

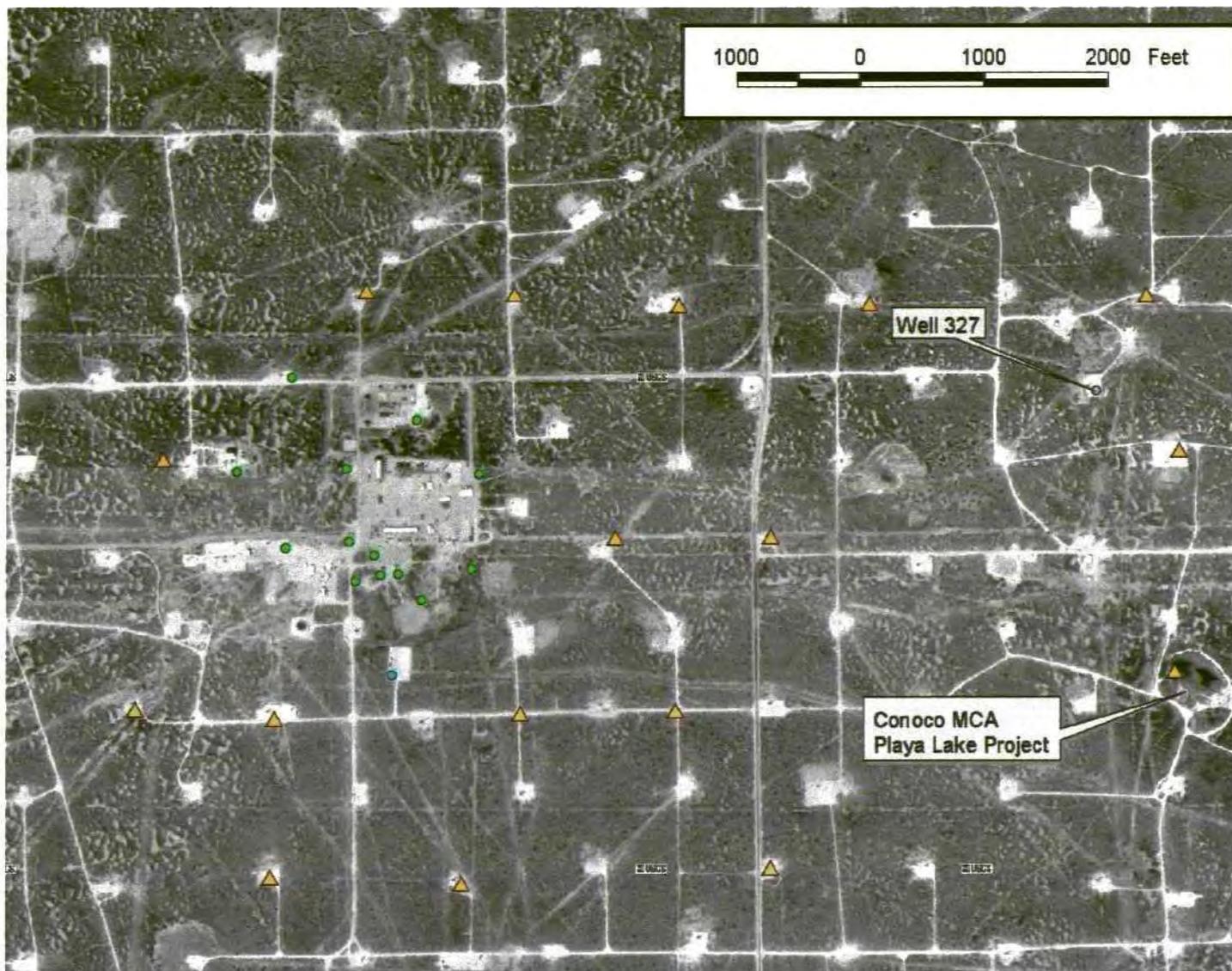


Maljamar

- Path Forward
 - Additional Monitor Wells to Define and Confirm Dissolved Phase Hydrocarbon, Elevated Chloride, & Extent of Confined Aquifer
 - Determine Overall Thickness and Geochemical Stratification of Saturated Horizon
 - Determine Downgradient Extent of Plume
 - United Approach with Oil Conservation Division To Approach BLM Regarding Land Clearances
 - Purpose of United Approach is to Expedite Investigatory Work



Maljamar Proposed Wells





**A Remediation Approach For
Groundwater At Apex
Compressor Station, Hobbs, New
Mexico**

**Calcium Nitrate Amendment
Technology**



Key Constraints

- Caliche layers at 25-28 feet, 48-50 feet, and 62-65 feet.
- Water first encountered below caliche at 62-65 feet. Groundwater potentiometric surface at 60 feet.
- Highest groundwater BTEX concentrations on the order of 16 ppm.
- Area of the plume with benzene greater than 10 ppb = 80,000 sq. feet.
- No use of groundwater in the vicinity.
- Hydrocarbon source is uncertain (condensate tank? produced water pond?) but not active.
- Original investigation found little hydrocarbon in soil.
- Subsequent investigations found moderate levels of organic constituents in soils at upgradient locations. Organic constituents were not detected in groundwater at these locations.



Implications

- Caliche layers may be aquitards/aquicludes and also may complicate movement of hydrocarbons to groundwater thereby complicating remediation.
- May not have vadose zone source characterized, so there is a possibility that organic material could bleed into groundwater for an unknown amount of time causing continued contaminant release and remediation efforts to fail.
- Vadose zone source remediation is difficult or impossible by traditional dig and haul due to caliche layers and depths of up to 60 feet.
- Pump and treat technology for groundwater requires long timeframe.
- SVE/Air Sparge may be problematic due to caliche layers.



Remediation Options

- Monitored Natural Attenuation
 - Risk Assessment
 - Long term (15-20 years)
 - Analytical/labor costs high
 - Acceptance by regulators
- In-situ bioremediation
 - Regenix magnesium peroxide socks
 - Calcium nitrate bioremediation



Regenis Magnesium Peroxide Socks (ORC)

- Won't work for vadose zone
- Remediation 2-3 years
- 7-12 four- to six-inch wells
- Chemical costs
- Analytical/labor costs
- Has been used - easier to approve



Calcium Nitrate Bioremediation

- Remediation in 1-2 years
- Might work for vadose zone
- 7-12 two-inch wells
- Chemical cost
- Analytical/labor costs
- Has not been used –regulatory approval?
- Use Regenix HRC barrier to ensure nitrate does not migrate



Calcium Nitrate Theory

- Nitrate's affinity for electrons is only slightly less than that of oxygen and it serves as a substitute for oxygen in the bioremediation process.
- The solubility of calcium nitrate is more than 8 lbs per gallon of cold water. This is equivalent to approximately 2,100 mg/L nitrate in solution.
- Oxygen solubility only about 7 mg/L.
- The primary reason that nitrate is not routinely used to remediate organic contamination, even though the nitrate is used up in the remediation process, is that it is itself an EPA listed contaminant



APPLICATION TO APEX GROUNDWATER

- Two inch wells can be effectively used for injection, in contrast to four or six inch wells required by Regenix socks (in order to bring treatment times down to a 2-3 year time frame).
- Site data indicates consumption of both nitrate and organic constituents by microbial activity.
- Maxim proposes the installation of six to nine two-inch injection wells in the highest concentrations of the plume.
- Injection of 4 to 10 gallons of calcium nitrate solution in each well, depending on location within the plume.
- Maxim proposes to install four two-inch wells at the downgradient edge of the plume and inject them with Regenix Hydrogen Release Compound (HRC[®]).



Chemical Evidence

Results of laboratory analysis of groundwater samples for general chemistry, total dissolved solids, and RCRA metals, Apex Compressor Station, west of Hobbs, New Mexico. All concentrations reported in parts per million (ppm). Duplicate sample

	MW-1	MW-1 (Dup)	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	NM GW Standards
Arsenic	0.067	0.067	nd	0.075	0.012	nd	nd	0.026	0.026	0.017	0.1
Barium	2.5	2.5	0.21	4.5	0.2	nd	nd	0.24	0.8	0.32	1
Calcium	276	296	178	193	262	389	271	357	642	449	
Cadmium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.01
Chromium	0.0054	0.0057	0.007	nd	0.01	0.014	nd	0.013	0.04	0.022	0.05
Magnesium	86.3	86	16.4	77.6	14.7	20.5	29.2	55.5	42.7	20.5	
Selenium	nd	nd	nd	nd	nd	nd	nd	nd	0.0059	nd	0.05
Sodium	200	203	38.7	192	36.8	66.6	107	232	38.8	37	
Lead	nd	nd	nd	nd	nd	nd	nd	nd	0.0058	0.0066	0.05
TDS	1430	1400	542	1120	486	597	1150	1530	440	400	
Chloride	448	451	23.8	209	20.2	43.3	170	249	31.4	24.6	
Sulfate	1.5	1.6	49.7	nd	66.7	85.4	178	340	87.4	70.2	
Nitrate	nd	nd	2.4	nd	2.1	2.2	1.6	nd	2.9	2.6	
Total Alkalinity	577	575	310	729	262	285	486	511	161	161	

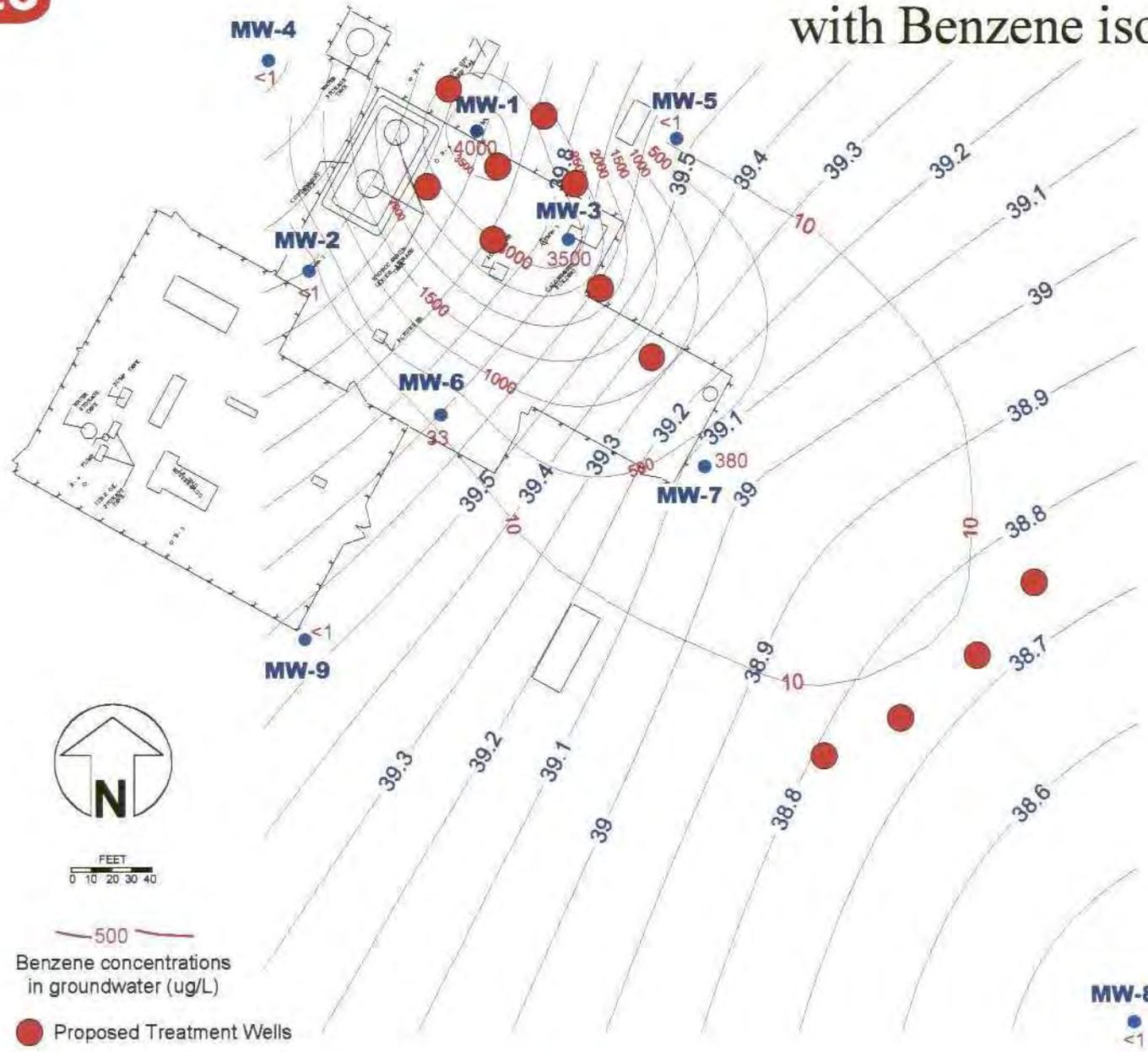


Chemical Evidence

- Chloride = Indicator of impact. Background 20-40 mg/L, Plume 200-400 mg/L.
- Nitrate = Indicator of Biodegradation. Background 2-3 mg/L, Plume mostly gone.
- Alkalinity = Indicator of Biodegradation. Background 100-300 mg/L, Plume 500-700 mg/L. Organic \rightarrow CO₂ \rightarrow HCO₃⁻
- Sulfate = Indicator of Biodegradation. Background 50-90 mg/L, Main plume mostly gone. Leading edge of plume = unstable system = sulfate dissolution 200-300 mg/L.
- Barium: BaSO₄ \rightarrow Ba²⁺ + SO₄²⁻ removal of sulfate by biodegradation causes BaSO₄ dissolution, barium in solution = 2.5-4.5 mg/L. A little sulfate in solution = barium gone. Barium is removed from solution by precipitation of insoluble BaSO₄.

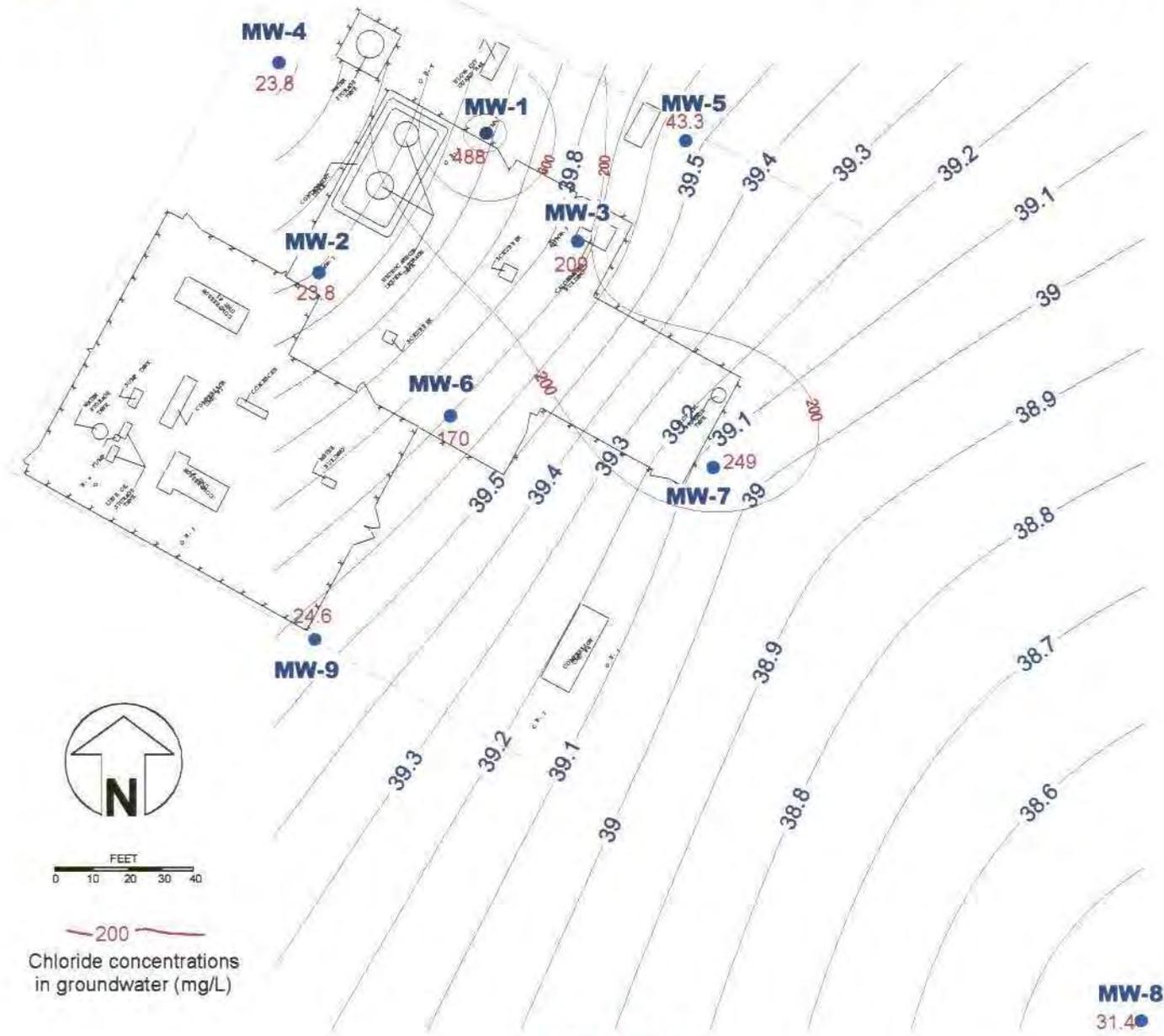


Proposed Well Locations with Benzene isopleths





Chloride Isopleths





Reed A Site Site Investigation

April 10, 2002

New Mexico Oil Conservation
Division

Santa Fe, New Mexico



Reed A Site Site Investigation

April 10, 2002

New Mexico Oil Conservation
Division

Santa Fe, New Mexico



Reed A Site History

- Maxim first on site in March, 2001
- Noted two impact areas
 - North area appeared to be decommissioned tank battery
 - South area appeared to be vestigial pit
 - Excavation with standing water in South area
- Prepared PEPA in May, 2001
- Developed work plan in March, 2001

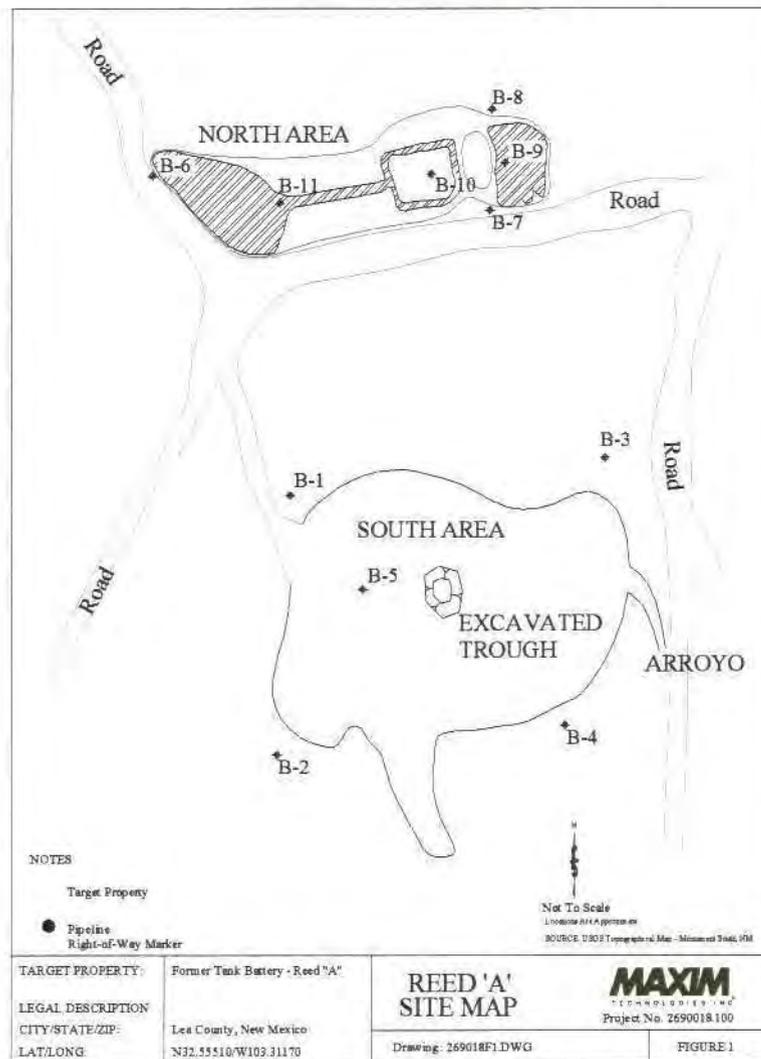


Reed A Site Field Work

- Commenced in March, 2002
- Drilled 11 shallow borings (max. 46' b.g.s)
 - 5 around and inside South area footprint
 - 6 around and inside North area footprint
- Dug 15 shallow backhoe pits in South area
- Observed 4 pits for water infiltration
 - No infiltration after approximately 24 hours
- Gathered soil samples (GRO, DRO, and C1)
- Gathered SPLP composites



Site Map





Sample Results

Sample Location	Date Sampled	Sample Depth (feet bgs)	Results Reported in Parts Per Million (mg/kg)				ASTM D 2216-90
			EPA Method MCAWW 300.0A	EPA Method SW-846, 8015B			
			Chloride	TPH-GRO	TPH-DRO	Total TPH	% Moisture
B-1	03/12/02	19-21	144	<0.089	<1.7	<LDL	17.3
B-2	03/12/02	19-21	146	<0.092	1.8	1.8	22.4
B-3	03/12/02	19-21	<10	<0.098	<1.7	<LDL	15.9
B-4	03/12/02	19-21	31.5	<0.094	3.1	3.1	13.7
B-5	03/13/02	45-46	89.2	<0.095	3.2	3.2	6.0
B-6	03/13/02	13-15	<10	<0.098	1.8	1.8	8.5
B-7	03/13/02	13-15	<10	<0.090	2.5	2.5	8.7
B-8	03/13/02	13-15	<10	<0.094	2.2	2.2	20.3
B-9	03/13/02	13-15	<10	<0.094	2.4	2.4	14.5
B-10	03/13/02	15-17	<10	4.0	250	254	16.7
B-11	03/13/02	13-15	<10	<0.094	2.5	2.5	13.2
Applicable OCD Cleanup Levels			NE	NE	NE	100	NA

- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
- TPH-DRO = Total petroleum hydrocarbons - diesel range organics
- <LDL = Less than laboratory detection limits
- NE = Not established by ODC
- NA = Not Applicable
- bgs = Below land surface



SPLP Sample Results

Sample ID	Date Sampled	Composite Collection Location	Results Reported in Parts Per Million (mg/kg)								
			EPA Method MCAWW 300.0A	EPA Method SW-846, 8260B				EPA Method SW-846, 8015B			
			Chloride	Benzene	Ethylbenzene	Toluene	Xylenes	Total BTEX	TPH-GRO	TPH-DRO	Total TPH
SPLP 1	03/12/02	Depression Area	8.9	<0.0010	<0.0010	<0.0010	<0.0020	<LDL	<0.100	1.1	1.1
SPLP 2	03/13/02	Former Tank Battery Area	<1.0	<0.0010	<0.0010	<0.0010	<0.0020	<LDL	<0.100	0.31	0.31
Applicable OCD Cleanup Levels			NE	10	NE	NE	NE	50	NE	NE	100

- SPLP = Synthetic precipitation leaching procedure
- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
- TPH-DRO = Total petroleum hydrocarbons - diesel range organics
- BTEX = Benzene, toluene, ethylbenzene, and xylenes
- <LDL = Less than laboratory detection limits
- NE = Not established by OCD
- OCD = Oil and Conservation Department
- EPA = Environmental Protection Agency
- SPLP 1 = Composite sample obtained from excavations within natural depression area
- SPLP 2 = Composite sample obtained from borings located in former tank battery area



Reed A Site Status

- Data assessment underway
- Preliminary results indicate:
 - South Area
 - Groundwater is deeper than 46 feet b.g.s.
 - Impacts noted to approximately 44 feet b.g.s.
 - North Area
 - No subsurface lateral migration noted
 - 60% of site impacted to approximately 12-15 feet b.g.s.
 - 40% of site impacted at surface (less than 3 feet b.g.s.)



Reed A Site Path Forward

- Develop work plan to dig and haul impacted soil from site.
- Identify site to receive impacted soil
- Identify contractor to remove and haul soil

Price, Wayne

From: Price, Wayne
Sent: Tuesday, February 05, 2002 12:08 PM
To: 'Bishop, Mark A.'
Subject: RE: Non-exempt waste disposal for Conoco CG&P

OCD hereby approves of your request and will place a copy of this approval in each Discharge Plan.

-----Original Message-----

From: Bishop, Mark A. [mailto:Mark.A.Bishop@conoco.com]
Sent: Tuesday, February 05, 2002 11:24 AM
To: WPrice@state.nm.us
Subject: Non-exempt waste disposal for Conoco CG&P facilities

Mr. Price,

A reevaluation of preferred non-exempt waste handling facilities has been completed for southeast New Mexico and a team of Conoco personnel has chosen Sundance waste handling facility at Eunice, NM to be our primary non-exempt waste handling facility. Controlled recovery Inc. will be the secondary facility. We would like to amend the following OCD Groundwater discharge permits to include the Sundance facility for disposal of non-exempt fluids. Thank you for your consideration of our request

Maljamar Gas Plant	GW-020
Maljamar Area Blanket OCD permit	
Antelope Ridge Gas Plant	GW-162
Hobbs Gas Plant	GW-175
Apex compressor Station	GW-163
Bootleg Compressor Station	GW-176
Bright /Yates Compressor Station	GW-160
Cedar Canyon Compressor Station	GW-296
Cal-Mon Compressor Station	GW-143
NE Carlsbad Compressor Station	GW-280
Cotton Draw Compressor Station	GW-311
Hat Mesa Compressor Station	GW-316
Lee Compressor Station	GW-227
Pardue Compressor Station	GW-288
Pure Gold Compressor Station	GW-150
Malaga Compressor Station	GW-167

Mark Bishop
 Environmental Specialist
 Conoco Inc. CG&P
 SE New Mexico Operating Unit
 505-391-1956

2/6/2002



Mark Bishop
Environmental Specialist
SH&E Services
Conoco Gas & Power

Conoco Inc.
921 W. Sanger
Hobbs, NM 88240
Phone 505-391-1956
Cell (281) 380-0018
E-mail mark.a.bishop@usa.conoco.com

1/17/2002

**Return Receipt Requested
Certified Mail No.
7099 3220 0001 4997 0604**

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

**RE: GW-020 Discharge Plan
Maljamar Gas Plant
Testing of, Underground process/ Wastewater Lines and Below Grade Tanks
and Sumps**

Dear Mr. Price:

In our earlier E-mail correspondence you had waived OCD testing in 2001 due to imminent replacement of our underground closed drain system. Since that time there have been numerous delays in construction. Because of those delays we agreed in our last telephone conversation to perform the testing in 2001 since the construction would not be completed during the course of the year. I apologize for any confusion this may have caused.

In accordance with our OCD discharge plan the following actions were performed. Mr. Paul Sheeley of the Oil conservation Division in Hobbs was notified on December 15, 2001 of scheduled integrity tests to be performed at our Maljamar Gas Plant. On December 20 the required integrity tests were performed with no underground leaks or lack of integrity observed as witnessed by Mr. Paul Sheeley of your department. A copy of the test notes and circle charts are included for your inspection.

If you have any questions or require more information please contact me at, 505-391-1956.

Sincerely,


Mark Bishop

CC: Joyce Miley
Jeff Driver
H. L. Brooks

File: 215-5-23-6

Enclosed: Circle charts
Testing Procedure & results

CONOCO MALJAMAR GAS POINT
OCD OPEN DRAIN TEST RECORDS
12-20-01

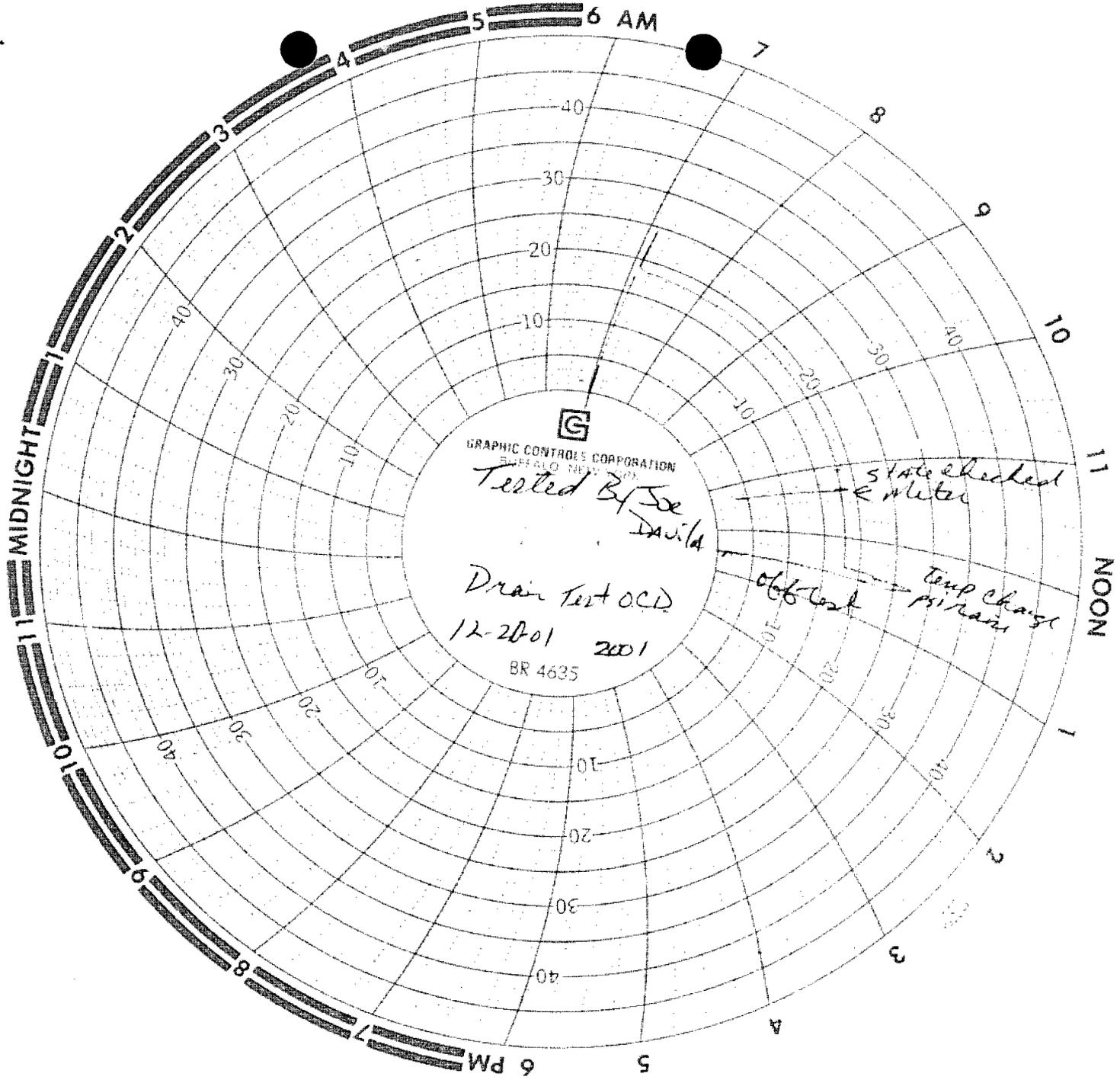
Sump testing

It was agreed to with Mr. Sheely the method of testing would involve filling the sumps with water, measure the water level and mark the water level on the side of the sump allow the sumps to sit over night and measure the level again to verify the integrity of the sump.

- **Train #1 expander drain sump;** Filled sump to 3'6" at approximately 3:00PM 12-19-01. Inspected water level at 9:00AM 12-20-01 water level was 3'6" with no leakage.
- **Train #2 expander drain sump;** Filled sump to 3'4" at approximately 3:45PM 12-19-01. Inspected water level at 9:00AM 12-20-01 water level was 3'4" with no leakage.
- **Refrigeration skid drain sump;** Filled sump to 7'2" at approximately 9:00AM 12-20-01. Inspected water level at 5:00PM 12-20-01 water level was 7'2" with no leakage.
- **Amine skid drain sump;** Filled sump to 3'9" at approximately 5:00PM 12-19-01. Inspected water level at 9:00AM 12-20-01 water level was 3'9" with no leakage.
- **Electric compressor building drain sump;** Filled sump to 7'3" at approximately 2:50PM 12-19-01. Inspected water level at 9:00AM 12-20-01 water level was 7'3" with no leakage.

Underground drainpipe testing (copies of charts are included in report)

- **Skimmer pit area to Conoco production tank battery** this line has been inactive all year but was tested in association with Maljamar underground drilling program in efforts to locate any source of free condensate that was found in a nearby well. On 6-9-01 the line was pressure tested to 50 PSI for 5 hours without any loss in pressure.
- **Electric compressor building sump to skimmer pit area;** This line was pressure tested to 18 PSI on 12-20-01 for 5 hours and inspected by OCD at 9:30 AM with no loss in pressure.



GRAPHIC CONTROLS CORPORATION
PLAT PAT. NEW YORK

6-9-01
DAVID PATRISON

INCHES
FIELD OF
WATER

SKIMMER
TO

Compo EPNA-PROD. BATTERY

75#

BR 4850 79

This test was done to determine if
free condensate disc covered atop of
water tanks may be the source
The test was good and this line
is not believed to be the source

NOON

6 PM

Wed 9

Price, Wayne

From: Clyde Yancey [CYancey@maximusa.com]
Sent: Friday, December 07, 2001 3:55 PM
To: 'Price, Wayne'
Subject: RE: Disposition of Monitor Well/Soil Boring Drill Cuttings

Thanks Wayne! Have a good weekend.
Clyde

-----Original Message-----

From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Friday, December 07, 2001 4:48 PM
To: 'Clyde Yancey'
Subject: RE: Disposition of Monitor Well/Soil Boring Drill Cuttings

Approved!

-----Original Message-----

From: Clyde Yancey [mailto:CYancey@maximusa.com]
Sent: Friday, December 07, 2001 11:04 AM
To: 'Price, Wayne'
Subject: RE: Disposition of Monitor Well/Soil Boring Drill Cuttings

Wayne, Please note revisions to original document. Thanks, Clyde

-----Original Message-----

From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Thursday, December 06, 2001 5:51 PM
To: 'Clyde Yancey'
Subject: RE: Disposition of Monitor Well/Soil Boring Drill Cuttings

Dear Clyde:

In order for me to approve please make it site specific. I do not feel comfortable in approving a blanket wide approval.

-----Original Message-----

From: Clyde Yancey [mailto:CYancey@maximusa.com]
Sent: Thursday, December 06, 2001 4:37 PM
To: 'wprice@state.nm.us'
Subject: Disposition of Monitor Well/Soil Boring Drill Cuttings

TO Mr. Wayne Price
New Mexico Oil Conservation Division

Dear Wayne,

Per our conversation today regarding the disposition of drill cuttings resulting from monitor well installation and/or soil boring installation, we discussed the following:

1. If the drill cuttings resulting from monitor well installations are not impacted, i.e. register less than 100 ppm on a PID, it is permissible in New Mexico to spread the cuttings on the ground following drilling. During drilling, the cuttings will be maintained on plastic until PID scanning is completed.

12/11/2001

2. If the drill cuttings are impacted, i.e. greater than 100 ppm on a PID, it is permissible to spread the cuttings on a bermed, plastic sheet, and "work" them over a period of time until they register less than 100 ppm on a PID as a result of natural attenuation. At that point, it would be permissible to spread them directly on the ground.

3. If the drill cuttings are "highly contaminated" as defined by the NMOCD in their Guidelines for Remediation of Leaks, Spills and Releases document (1993), and not amenable to rapid natural attenuation, we will likely drum them and transport to an appropriate disposal facility.

Please indicate if this is an acceptable methodology to follow [Clyde Yancey] during the current Conoco Maljamar Gas Plant monitor well installation effort. I will include the above language in all further Conoco work plans sent to you for approval.

Regards,
Clyde Yancey
Maxim Technologies, Inc.

12/11/2001

October 26, 2001

RECEIVED
OCT 29 2001
Environmental Bureau
Oil Conservation Division

Mr. Wayne Price
Oil Conservation Division
NM Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87504

**RE: Maljamar gas Plant, Maljamar, New Mexico
Vadose Zone Investigation of South Storage Area
Maxim Project No. 2007216**

Dear Mr. Price:

Attached you will find a letter report addressed to Mr. Neal Goates of Conoco, Inc., discussing the findings of soil boring work performed at the Maljamar Gas Plant in May 2001. The letter suggests a path-forward for dealing with the impacts found at the site. This communication is being submitted for your review and comment. Please forward comments to the Maxim Albuquerque office, or if you have questions, contact Tom Tangen or Clyde Yancey at 505-237-8440. Thank you.

Sincerely,

Maxim Technologies, Inc.



Tom Tangen
Environmental Engineer

Enclosures

Cc: N. Goates, Conoco, Inc.
Mark Bishop, Conoco Inc.
Joyce Miley, Conoco Inc.
Clyde Yancey, Maxim Technologies, Inc.



RECEIVED

OCT 29 2001

Environmental Bureau
Oil Conservation DivisionElectronic
copy in
EDMS

August 23, 2001

Mr. Neal Goates
Conoco Inc.
600 North Dairy Ashford
Houston, TX 77079-1175**RE: Maljamar Gas Plant, Maljamar, New Mexico
Vadose Zone Investigation of South Storage Area
Maxim Project 2007216**

Dear Neal:

This letter discusses findings of additional soil boring work conducted by Maxim Technologies (Maxim) at the Maljamar Gas Plant South Storage Area on May 21, 2001. Other investigations carried out during the May site visit to the gas plant are discussed in separate communications. A potential path forward for the South Storage Area is proposed herein.

BACKGROUND

In May 2000, the Oil Conservation Division (OCD) conducted an inspection of the South Storage Area adjacent to the Maljamar Gas Plant. Historically, the land was used by Conoco, Inc. (Conoco) for storage of non-essential and out-of-service equipment. OCD expressed concerns about possible subsurface impacts at the site, which prompted Conoco to request Maxim visit the site, develop a plan to determine if impacts have occurred, and characterize any potential impacts. Maxim initially visited the site on June 22 2000, and noted several meter houses, an empty 200-gallon storage tank, and assorted soil stockpiles in the area. The stockpiled soil was derived from cleanup of a condensate release, and was stored on bermed, plastic-lined containment areas. At the time of the initial vadose zone investigation (September 28, 2000), the South Storage Area had been completely cleared of all equipment and soil piles. There was no evidence of surficial soil staining in the storage area.

Ten borings were advanced in or near areas of current or historical storage activity. Soil samples were collected from each of the borings. Results of the initial round of borings indicated an area roughly in the center of the South Storage Area was impacted by hydrocarbons (Figure 1). Borehole B-6-B contained stained soil from just below surface to approximately 11 feet below ground surface (bgs). Borehole B-7-B contained stained soil from 3 feet bgs to approximately 15.5 feet bgs. Laboratory analyses from borehole B-6-B and B-7-B indicated the stained soil contained elevated Total Petroleum Hydrocarbons (TPH) in sampled strata (Table 1).

Maxim proposed a plan to further delineate the area that included installation of three additional borings with laboratory analysis for TPH, Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), as well as synthetic precipitation leaching procedure (SPLP). SPLP analysis was proposed in order to develop mobility data for the constituents of concern in this environment.



An additional monitor well was planned for the area downgradient of the site to determine if groundwater is being affected by the impacts.

SOIL ASSESSMENT

Maxim returned to the site on May 21, 2001 to install the additional borings. Borehole B-12-B was installed on an approximate centerline between boreholes B-6-B and B-7-B (Figure 1). Borehole B-12-B yielded impacted core from 6 to 9 feet bgs, and 11 to 14 feet bgs (Table 1). Two more boreholes, intended to approximately delineate the extent of impacts north and south of the known impacts, were installed based on presence/absence of soil impacts (stained soil) within five feet of the surface in the area. Potential drilling locations were screened by first boring to 5 feet bgs with a hand auger. If any stained soil was encountered, the site was rejected and another hand boring would be advanced further north or south from the point of known concentration.

Borehole B-13-B was installed approximately 110 feet north of B-12-B. It contained impacted soil from approximately 9 feet bgs to approximately 10.6 feet bgs. Borehole B-11-B was installed 70 feet south of the original impact area and did not yield any impacted soil. The edge of impact to the south was identified as the last surface hand boring that contained stained soil (approximately 60 feet south of the original impact area). Exact edges of impacts to the east and west of boreholes B-6-B and B-7-B have not been delineated, but based on available data, Maxim is projecting that subsurface soil impacts in the South Storage Area cover approximately 3,700 square feet. Due to widely varying vertical extents of stained and impacted soil, Maxim has not projected the volume of impacted soil.

Soil samples collected from boreholes installed at Maljamar were sampled for TPH identified as gasoline-range organics (GRO) and diesel-range organics (DRO). The soil was also tested for BTEX. The impacted soil analyses (for all samples except B-11-B) indicated TPH values in excess of recommended remediation action levels, as determined from guidance in *Guidelines for Remediation of Leaks, Spills and Releases, New Mexico Environmental Bureau, Oil Conservation Division, August 13, 1993*. There were no exceedances of BTEX or benzene remediation action levels reported for the soil samples (Table 1).

Samples of stained soil were forwarded to STL laboratories for SPLP testing. The SPLP results would provide an indication of whether the soil impacts could potentially produce leachate that could adversely impact groundwater quality. SPLP analysis of the three soil samples obtained from the site resulted in one sample with a benzene concentration of 0.015 milligram per liter (mg/L). This value is slightly elevated over the New Mexico Water Quality Control Commission groundwater standard for benzene of 0.010 mg/L. However, while the SPLP results indicate an exceedance in one sample, that exceedance is for a groundwater standard. There is a significant distance between soil impacts at 6 to 9 feet bgs and groundwater (approximately 86 feet bgs in the area). It is unlikely that soil pore water with a benzene concentration of 0.15 mg/L could migrate to groundwater without measurable decreases in the benzene concentration

Mr. Neal Goates
August 23, 2001
Page 3 of 3

due to degradation, dilution, and other naturally-occurring attenuation mechanisms. All other SPLP results were either lower than groundwater standards or were non-detect.

Recommendations

Analytical data indicate that the soil in the South Storage Area is impacted with TPH (primarily DRO, and to a lesser extent, GRO) and low levels of BTEX. However, SPLP analysis indicated that the leachability of the material is low (Table 2), and the impacts are unlikely to adversely impact underlying groundwater. These data, coupled with the depth to groundwater in the area, led Maxim to propose the following steps to close the South Storage Area in a manner that is protective of subsurface soil and groundwater resources. Since the horizontal extent of the impacts to the east and west of boreholes B-6-B and B-7-B has not been confirmed, the first step of the proposed site treatment is, in part, intended to close that data gap.

Proposed activities intended to achieve a protective site closure include the following:

- Propose site treatment including:
 - ♦ Delineate vertical and horizontal extent of the impact area by removal of overlying soil. Depending upon impact level in overburden, it will be sent offsite for disposal or staged nearby for reuse as a cap.
 - ♦ Fill the excavation with low permeability material.
 - ♦ Top dress with native soils for natural vegetation.

If you have any questions regarding this communication, please contact Clyde Yancey or Tom Tangen at 505-237-8440.

Sincerely,

Maxim Technologies, Inc.



Tom Tangen
Environmental Engineer

Enclosures

TABLE

Table 1
 Conoco Inc.
 Maljamar Gas Plant
 South Storage Area Sampling Event
 21-May-01

SOIL SAMPLING RESULTS

Sample #	Description	Sample Interval (bgs)	TPH		BTEX			
			DRO mg/kg	GRO mg/kg	Benzene mg/kg	Ethylbenzene mg/kg	Toluene mg/kg	Xylenes mg/kg
B-11-B	Boring south of impacted area	14 ft - 16 ft	3.1	<0.1	<0.001	<0.001	<0.001	<0.003
B-12-B	Boring between B-6-B and B-7-B	6 ft - 9 ft.	4200	410	0.34	11	0.42	10
B-12-B	Boring between B-6-B and B-7-B	11 ft - 14 ft	1900	17	0.012	0.87	0.029	0.95
B-13-B	Boring on north edge of impact	9 ft - 10.6 ft	1600	380	0.11	11	0.39	12
B-6-B*	Boring on west edge of impacted area	5 ft - 7 ft	2700	480	<1.5	16	<1.5	14
B-7-B*	Boring on east edge of impacted area	5 ft - 7 ft	3800	170	<0.3	3	<0.3	2.3

*sampled September 28, 2000

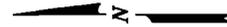
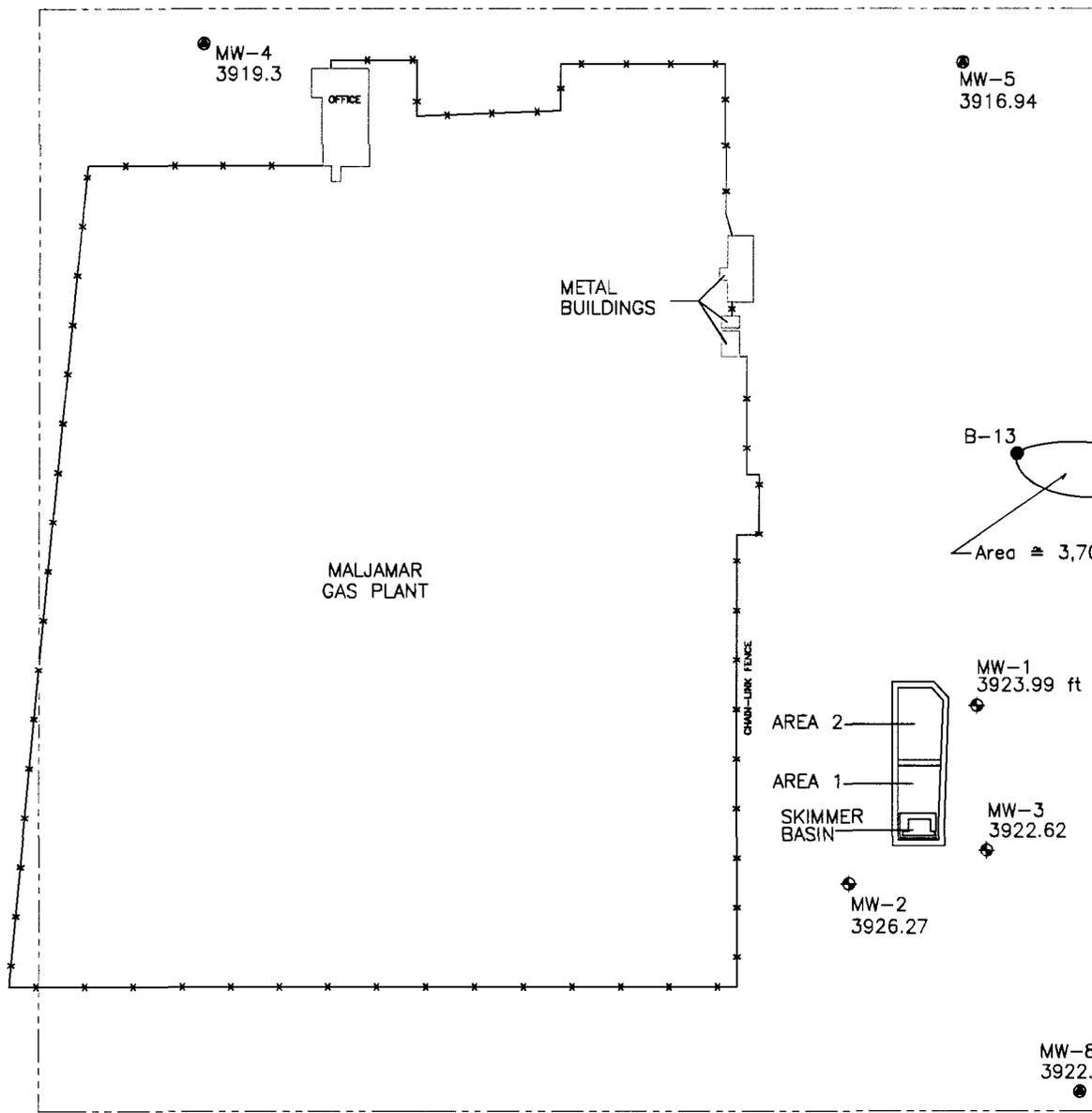
Table 2
 Conoco Inc.
 Maljamar Gas Plant
 South Storage Area Sampling Event
 21-May-01

SPLP SOIL SAMPLING RESULTS

Sample #	Description	Sample Interval (bgs)	Benzene mg/L	n-Butylbenzene mg/L	sec-Butylbenzene mg/L	Ethylbenzene mg/L	Hexachlorobutadiene mg/L	Isopropylbenzene mg/L	p-Isopropyltoluene mg/L	Naphthalene mg/L	n-Propylbenzene mg/L	Toluene mg/L	1,2,3-Trichlorobenzene mg/L	1,2,4 Trichlorobenzene mg/L	1,2,4-Trimethylbenzene mg/L	1,2,5-Trimethylbenzene mg/L
B-12-B	Boring between B-6-B and B-7-B	6 ft - 9 ft.	0.015	0.0063	0.0065	0.028*	<0.005	0.031	<0.005	0.032	0.036	.022*	<0.005	<0.005	0.085	0.021
B-12-B	Boring between B-6-B and B-7-B	11 ft - 14 ft	<0.005	0.0059	<0.005	0.037*	<0.005	0.01	<0.005	0.012	0.015	<0.005	<0.005	<0.005	0.023	0.006
B-13-B	Boring on north edge of impact	9 ft - 10.6 ft	0.0053	0.011	0.0085	.18*	0.011	0.025	0.0062	0.033	0.031	.016*	0.007	0.0077	0.08	0.024

* Method blank contamination. The associated method blank contains the target analyte at a reportable level
 mg/L = milligrams per liter (parts per million)

FIGURE



LEGEND:

- PROPERTY BOUNDARY
- EXISTING MONITOR WELL LOCATION
- INSTALLED MONITOR WELL LOCATION
- SOIL BORING LOCATION

FIGURE 1 - SITE MAP LOCATIONS		
CONOCO GAS PLANT MALJAMAR, NEW MEXICO		
DRAWING BY: JD	DATE: 11/17/00	SCALE: 1" = 100'
CHECKED BY: CY	DATE: 11/17/00	
PROJECT NO. 2007210	MAXIM TECHNOLOGIES INC.	
FILE NAME: 2007210B.DWG		

Price, Wayne

From: Bishop, Mark A. [Mark.A.Bishop@usa.conoco.com]
Sent: Tuesday, July 24, 2001 11:26 AM
To: Wayne Price [WPrice@state.nm.us] (E-mail)
Cc: Miley, Joyce M.
Subject: Maljamar Plant RO water to Conoco Playa Lake Project

Mr. Price,

On Friday July 20 Conoco began discharging our reverse osmosis regeneration water to the Conoco Playa lake (approximately 26 BBL/day). All equipment required by the permit modification is in place. A sample of the water is now being analyzed for impurities specified in the modified discharge plan. The water being discharged smells and tastes like tap water. Conoco is currently constructing a permanent 210 BBL tank with concrete containment to handle the amine waste that was being mixed with the RO water. The temporary frac tank which is now being used will be released when the permanent tank construction is completed.

Mark Bishop

Price, Wayne

From: Clyde L. Yancey[SMTP:cyancey@swcp.com]
Sent: Friday, May 25, 2001 1:09 PM
To: Price, Wayne
Cc: Ashley.M.Finnan@usa.conoco.com; Bishop, Mark A.; Skopak, John E.
Subject: Maljamar

Wayne,

I wanted to let you know that during the installation of monitor wells at the Maljamar Gas Plant this past week, free product was encountered in one of the newly installed wells. The well with free product is directly off the southwest corner of the fenced gas plant enclosure (not the property corner). The well is roughly northwest of and upgradient (based on current understanding) of the skimmer basin as defined in our recent report to your office (11/00).

We did not install any of the offsite wells on BLM property because of this recent discovery. We wanted to get analyticals back, survey water levels and come back to the site with a better understanding of hydrogeologic conditions before we continue offsite delineation.

Please call me if you have any comments or questions.
Thanks,
Clyde

Price, Wayne

From: Price, Wayne
Sent: Tuesday, May 22, 2001 10:19 AM
To: Price, Wayne; 'Clyde L. Yancey'
Subject: RE: Maljamar

Dear Clyde:

Please find attached a copy of the MCA Playa Lake project approval. It is in the mail to Mark Bishop. Please note Roger wanted you and Conoco to know that in some cases Conoco may be required to have an NPDES permit for such discharges.



Playapp.doc

From: Clyde L. Yancey[SMTP:cyancey@swcp.com]
Sent: Wednesday, May 16, 2001 8:54 AM
To: Price, Wayne
Subject: Re: Maljamar

Thanks!

----- Original Message -----

From: Price, Wayne <WPrice@state.nm.us>
To: Price, Wayne <WPrice@state.nm.us>; 'Clyde L. Yancey' <cyancey@swcp.com>
Cc: Bishop, Mark A. <Mark.A.Bishop@usa.conoco.com>; Sheeley, Paul <PSheeley@state.nm.us>
Sent: Wednesday, May 16, 2001 10:12 AM
Subject: RE: Maljamar

> Telephone # 505-393-6161 ext 113 E-Mail PSHEELEY@state.nm.us
>
> > -----
> > **From:** Clyde L. Yancey[SMTP:cyancey@swcp.com]
> > **Sent:** Tuesday, May 15, 2001 1:19 PM
> > **To:** Price, Wayne
> > **Cc:** Bishop, Mark A.
> > **Subject:** Maljamar
> >
> > Wayne,
> >
> > Wanted to let you know that we will be installing monitor wells at the
> > Maljamar Gas Plant, starting Monday the 21st. Could you please let me
> > know Don Sheeley's e-mail and phone # in Hobbs? Thanks.
> > Clyde
> >
>

Price, Wayne

From: Price, Wayne
Sent: Friday, February 23, 2001 4:32 PM
To: 'john.e.skopak@usa.conoco.com'
Cc: 'cyancey@maxim.usa'
Subject: Conoco Maljamar Gas Plant GW-020 Groundwater Contamination

Dear Mr. Skopak:

The New Mexico Oil Conservation Division (OCD) is in receipt of the Vadose Zone Investigation of South Storage Area report dated November 27, 2000 and the Installation & Sampling of MW-2 and MW-3 Shallow Soil Investigation @ the bermed Area report dated November 27, 2000.

Both reports contained recommendations for further work. The OCD hereby approves of the plans with the following conditions:

1. All Monitor Wells shall be installed as permanent wells.
2. Conoco Inc. will notify the OCD Santa Fe office and the OCD District office at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

A report of the findings, conclusions and recommendations shall be submitted to the OCD by May 01, 2001.

Please be advised that NMOCD approval of this work plan does not relieve Conoco Inc. of responsibility should their closure activities have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.



Mark Bishop
Environmental Specialist
SH&E Services
Natural Gas & Gas Product

Conoco Inc.
P.O. Box 90
Maljamar NM 88264
Phone 505-676-3519
Cell (281) 380-0018
E-mail mark.a.bishop@usa.conoco.com

February 19, 2001

Return Receipt Requested
Certified Mail No.
7099 3220 0001 4997 3858

Mr. Wayne Price
State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505



Re: Reactivation of Clark Sump Proposal

Dear Mr. Price:

Thank you for your response your recent E-mail on January 17 concerning reactivation of the Clark sump. In investigating our long term needs of the Clark building we have decided not to reactivate the sump. As you may already know, Conoco is in the process of replacing most of the Clark compressors with new and much cleaner, Caterpillar 3606 engine compressor packages. That project is due to be completed around May 10. Only one Clark engine will continue running in the Clark building, (#8). Number 8 Clark is on the far side of the building from the Clark sump in question. When the other Clarks are deactivated, we plan to cap off the concrete wall between #8 and #7 to isolate the rest of building from any fluids. Isolating the rest of the building will keep maintenance, spill risks, cleaning and inspections etc. to a minimum. This solution will be much better than allowing fluids to stand in or drain across the large unused part of the building cellar.

If you have any questions or require more information please contact me at 505-676-3519.

Sincerely,

Mark Bishop

Mark Bishop

CC: Joyce Miley
File

Price, Wayne

From: Price, Wayne
Sent: Wednesday, February 07, 2001 4:47 PM
To: 'Bishop, Mark A.'
Subject: RE: GW-020, Maljamar Gas Plant, Clark Cellar Inspection

Thank You!

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Wednesday, February 07, 2001 12:54 PM
To: Wayne Price [WPrice@state.nm.us] (E-mail)
Subject: GW-020, Maljamar Gas Plant, Clark Cellar Inspection

Mr. Price,

Today, Conoco finished cleaning out and inspecting our Clark engine room cellar as required in our OCD GW-020 Discharge Plan. I inspected the area, and found no leaks or cracks in the containment area of the cellar. A 72 hour notice was issued and there were no OCD representatives on hand for the inspection.

Mark Bishop

Price, Wayne

GL-020

From: Price, Wayne
Sent: Wednesday, January 17, 2001 4:20 PM
To: 'Bishop, Mark A.'
Subject: RE: Conoco, Maljamar Gas Plant, Clark sump reactivation plan

Your request is hereby approved with the following additional condition(s):

Conoco shall submit a vadose zone investigation plan for NMOCD approval by March 15, 2001. The plan shall address possible contamination generated by the Clark sump and basement area.

Please note if the new sump collection system is designed with secondary containment with leak detection then OCD does not require any mechanical integrity testing as long as the secondary device is checked on some routine basis.

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Friday, January 12, 2001 3:17 PM
To: 'wprice@state.nm.us'
Subject: Conoco, Maljamar Gas Plant, Clark sump reactivation plan

Mr. Wayne Price
New Mexico OCD

for your consideration and timely response. If you have any questions or require more information please call me at 505-676-3519.

Mark Bishop
Environmental Specialist
Conoco Inc.
Natural Gas and Gas Products
Maljamar, New Mexico

Price, Wayne

GW-020

From: Price, Wayne
Sent: Thursday, January 11, 2001 8:38 AM
To: 'Bishop, Mark A.'
Subject: RE: Conoco Inc. Concrete removal at Maljamar Plant

Your submitted plan is hereby approved with the following conditions:

1. Waste disposal shall utilize the C-138 process.
2. Conoco shall investigate and report any contamination found during
3. Conoco shall up-date the discharge plan showing all new containment

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of responsibility should their activities have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Thursday, January 11, 2001 8:24 AM
To: 'wprice@state.nm.us'
Subject: Conoco Inc. Concrete removal at Maljamar Plant

Mr. Wayne Price
New Mexico OCD,

Price, Wayne

GW-020

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Thursday, January 11, 2001 8:24 AM
To: 'wprice@state.nm.us'
Subject: Conoco Inc. Concrete removal at Maljamar Plant

Mr. Wayne Price
New Mexico OCD,

Conoco is in the process of upgrading our inlet compressors which will involve replacement of seven of our old Clark compressors with new Caterpillar driven compressors. This project will require the removal of our current maintenance shop building (on the east side of the Clark compressor building). The steel frame of the building will be sold for scrap to a recycling company. There will be approximately 40 cubic yards of concrete waste from the floor of the building that we would like to dispose of at an OCD approved facility. Concrete waste is not in our approved OCD waste discharge plan. Control Recovery Inc. has been contacted and will accept the concrete upon your approval. We would like to begin disposal the week of January 15. Thankyou for your consideration and approval of our plan. If you have any questions or require more information I can be reached at 505-676-3519.

Mark Bishop
Environmental Specialist
Conoco Inc.
Natural Gas and Gas Products
Maljamar Gas Plant
Maljamar, New Mexico

Price, Wayne

GW-020

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Friday, January 12, 2001 3:17 PM
To: 'wprice@state.nm.us'
Subject: Conoco, Maljamar Gas Plant, Clark sump reactivation plan

Mr. Wayne Price
New Mexico OCD

This E-mail is a follow-up to our phone conversation on 10-10-01 as you requested. In that conversation we discussed the earlier abandonment of the collection sump near and associated with the Clark engine building. Before abandonment of the sump, engine lube oil and coolant water that leaked onto the cellar floor from our engines drained into a pipe and flowed from the Clark engine room to the Clark sump pit. Last year it was determined that the Clark sump either was, or may have been leaking and it would be necessary to discontinue its use. We agreed to plug the drain in the engine room cellar and collect the fluids there and occasionally remove the liquids with a vacuum truck. Problems arose from this method because there are several pipes that run through the cellar wall that are connected to our engines, and, try as we might to maintain the integrity between the pipes and wall, the pulsation and vibration transferred from the engines through the pipe will not allow a seal for any length of time. Some of those pipes are only 8" above the floor. This lead to a situation of constant monitoring to maintain fluid levels below 8" which is prone to error and, which did result in a couple of small leaks. We would like to propose a solution of reactivating the Clark cellar by fabricating a water tight steel liner that would fit inside of the old sump. Inside of the steel liner we would install an automatically activated blowcase (a JATCO pump). The new sump will either be equipped with a high level alarm on the blowcase or a

Price, Wayne

GW-020

From: Bishop, Mark A.[SMTP:Mark.A.Bishop@usa.conoco.com]
Sent: Thursday, January 11, 2001 10:05 AM
To: 'wprice@state.nm.us'
Subject: Maljamar Plant empty drums

Mr. Wayne Price
New Mexico OCD,

Conoco has accumulated several empty lube oil drums at the plant site that we would like to dispose of. One solution that was proposed was to remove the bungs and drain the residual into our sump then remove the top from the drum and thoroughly wash the inside into our sump. Then crush the drums and place them in a recycle bin. If you approve of our plan or have another solution please let us know and thank you for your consideration. If you have any questions or comments I can be reached at 505 676-3519. Conoco has a policy that calls for every vendor to remove their empty drums from our locations. This policy will be more forcefully adhered to in the future.

Mark Bishop
Environmental Specialist
Conoco Inc.
Natural Gas and Gas Products
Maljamar Gas Plant
Maljamar. NM



Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

RECEIVED
NOV 27 2000
OIL CONSERVATION DIVISION

November 17, 2000

Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

**RE: Minor Modification GW - 020 Discharge Plan
Maljamar Gas Plant
Conoco Inc. Natural Gas & Gas Products**

Dear Mr. Price:

The Conoco Maljamar Gas Plant is submitting for approval the following minor modifications to the GW - 020 Discharge Plan. The Maljamar Gas Plant would like to modify the handling of wastewater and include amine/RO waste, and waste lube oil water mixture waste to our discharge plan for disposal.

The Maljamar Gas Plant discharges an average of 84 barrels of wastewater a day. This wastewater will be pumped to the Conoco production water tank for their injection wells under normal operation. The Maljamar Gas Plant would like to request the approval to truck the wastewater out to the Local Hills Disposal an OCD approved site when the Conoco Production Department is unable to accept the wastewater.

The Maljamar Gas Plant would like to include Amine/Reverse Osmosis waste to our discharge plan. These two waste streams are currently combined in a tank and the gas plant produces an average of 38 barrels of this waste a day. The Maljamar Gas Plant would like to request approval to have two different options with this waste stream. The first option would be to truck this combined waste streams to Controlled Recovery Inc. an OCD approved facility for disposal. The second option would be to separate these waste streams and truck the amine to Controlled Recovery Inc. and pump the R/O waste water to the Conoco Production water tank for their injection wells.

The Maljamar Gas Plant would like to include lube oil/water mixture waste to our discharge plan. The Maljamar Gas Plant generates an average of 10 barrels of lube oil/water mixture a day. The Maljamar Gas Plant would like to request approval to truck this waste to Controlled Recovery Inc. an OCD approved facility.

Conoco Inc. appreciates your cooperation in this matter. If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,


Rudy Quiroz

CC: Ms. Donna Williams
District 1
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

Price, Wayne

From: Skopak, John E.[SMTP:John.E.Skopak@usa.conoco.com]
Sent: Tuesday, November 14, 2000 7:36 AM
To: 'WPrice@state.nm.us'
Cc: Clyde Yancey (E-mail); Miley, Joyce M.; Quiroz, Rudy R.; Zotzky, Laurie; Kitchen, William A.; 'Wrottenbery, Lori'
Subject: FW: Extention on Maljamar Gas Plant Report

Thank you again for your very timely response in granting us an extension to submit our Maljamar Gas Plant Report. As I mentioned to you earlier this year, I work with no other regulator across the United States who is so quick to respond to our requests and is so easily accessible. Your use of the E-mail system makes us all so much more efficient and enables us to move our projects forward in a expeditious manner.

Clyde probably mentioned to you that we had a very detailed and comprehensive strategy meeting for the Maljamar Gas Plant site in our Houston Office on Friday 11/10. We feel that we have put together a very clear and concise path forward that we are anxious to share with you in the December 1 report.

Thank you again for the 2 week extension and for being so prompt to meet our request and needs! I truly appreciate it. Please call or E-mail me if you ever require any additional information.

John E. Skopak
Senior Project Manager
Remediation Technology

Conoco Inc.
600 N. Dairy Ashford
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-5584
Fax (240) 359-4098
Pager: 1-888-348-0836
john.e.skopak@usa.conoco.com <mailto:john.e.skopak@usa.conoco.com>

-----Original Message-----

From: Clyde L. Yancey [SMTP:cyancey@swcp.com]
<mailto:[SMTP:cyancey@swcp.com]>
Sent: Monday, November 13, 2000 5:36 PM
To: Skopak, John E.
Subject: Fw: Extention on Maljamar Gas Plant Report

----- Original Message -----

From: Price, Wayne <WPrice@state.nm.us <mailto:WPrice@state.nm.us> >
To: 'Clyde L. Yancey' <cyancey@swcp.com <mailto:cyancey@swcp.com> >
Sent: Monday, November 13, 2000 5:13 PM
Subject: RE: Extention on Maljamar Gas Plant Report

> Approved!

>

> > -----

> > From: Clyde L. Yancey[SMTP:cyancey@swcp.com]
<mailto:[SMTP:cyancey@swcp.com]>
> > Sent: Monday, November 13, 2000 3:19 PM
> > To: wprice@state.nm.us <mailto:wprice@state.nm.us>

> > Cc: Skopak, John E.
> > Subject: Extention on Maljamar Gas Plant Report
> >
> > Wayne,
> >
> > Per our phone discussion today, I am writing an e-mail

formally
requesting

report. The
current

a new due date
of

report regarding the

vadose zone

> > an extension on the due date of the above referenced
> > due date is November 15, 2000. I would like to request
> > December 1, 2000. This extension includes both the
> > monitor well installation and sampling as well as the
> > investigation of the South Storage Area.
> >
> > Please advise.
> >
> > Sincerely,
> > Clyde Yancey
> > Maxim
> > 505-237-8440
> >

>

Price, Wayne

From: Price, Wayne
Sent: Monday, November 13, 2000 4:13 PM
To: 'Clyde L. Yancey'
Subject: RE: Extention on Maljamar Gas Plant Report

Approved!

From: Clyde L. Yancey[SMTP:cyancey@swcp.com]
Sent: Monday, November 13, 2000 3:19 PM
To: wprice@state.nm.us
Cc: Skopak, John E.
Subject: Extention on Maljamar Gas Plant Report

Wayne,

Per our phone discussion today, I am writing an e-mail formally requesting an extension on the due date of the above referenced report. The current due date is November 15, 2000. I would like to request a new due date of December 1, 2000. This extension includes both the report regarding the monitor well installation and sampling as well as the vadose zone investigation of the South Storage Area.

Please advise.

Sincerely,
Clyde Yancey
Maxim
505-237-8440



Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

October 26, 2000

Ms. Donna Williams
District 1
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

RECEIVED
OCT 30 2000
OIL CONSERVATION DIVISION

**RE: Disposal of Exempt Process Waste Water
Maljamar Gas Plant
Conoco Inc. Natural Gas & Gas Products**

Dear Ms. Williams:

Conoco Inc. submits the following information in accordance with OCD discharge plan requirements for disposing of oilfield wastes. The Conoco Production facility continues not to accept our process wastewater. The Maljamar Gas Plant needs to dispose of this exempt water waste. The Gas Plant has been disposing the wastewater at an approved O.C.D. facility temporarily for a two- month period since August 15, 2000 through October 15, 2000. Conoco Inc. is requesting another one-time two-month approval to haul this wastewater to disposal while the Production facility is making repairs to their injection wells. Conoco Inc. has chosen Loco Hills Disposal as the disposal location.

Generator Name: Conoco Inc., Natural Gas & Gas Products
Maljamar Gas Plant
Location: 1001 Conoco Road
Maljamar, N.M. 88264
Waste Hauler Name: Hughes Steve Carter
Waste Stream: Process Water
Approximate Quantity: 130 barrels every 2 days
Disposal Site: Loco Hills Disposal
P.O Box 68
Loco Hills, N.M. 88255
OCD Permit No.: R6811B

Conoco Inc. appreciates your cooperation in this matter. If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505



Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

October 26, 2000

Ms. Donna Williams
District 1
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

OCT 30 2000

**RE: Disposal of Clark Sump Pit Waste
Maljamar Gas Plant
Conoco Inc. Natural Gas & Gas Products**

Dear Ms. Williams:

Conoco Inc. submits the following information in accordance with OCD discharge plan requirements for disposing of oilfield wastes. The Maljamar Gas Plant generated 130 barrels of Clark sump pit waste. This waste was generated by old Clark engines, which leak lube oil and water. This waste has been tested and is non-hazardous. Conoco Inc. has chosen Controlled Recovery Inc. as the disposal location.

Generator Name:	Conoco Inc., Natural Gas & Gas Products Maljamar Gas Plant
Location:	1001 Conoco Road Maljamar, N.M. 88264
Waste Hauler Name:	Hughes Steve Carter
Waste Stream:	Lube Oil and Water Mix
Approximate Quantity:	130 barrels
Disposal Site:	Controlled Recoveries P.O Box 388 Hobbs, N.M. 88241
OCD Permit No.:	R9166

Conoco Inc. appreciates your cooperation in this matter. If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

September 19, 2000

Lori Wrotenberg

Director

Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 50514911

Mr. Rudy Quiroz-PSM
Conoco Inc.
P.O. Box 90
Maljamar, New Mexico 88264

Re: Engineering Plan to Modify the Skimmer Pit Area and Install Impermeable Containment
Pursuant to Section 14D. Discharge Plan GW-020 Maljamar Gas Plant.

Dear Mr. Rudy Quiroz:

The New Mexico Oil Conservation Division (OCD) is in receipt of your plan dated September 11, 2000. In order for the OCD to properly evaluate your plan please provide the following information:

1. What type of impermeable containment will be used, i.e. concrete, synthetic, etc.
2. How will the evaporation pond be constructed?

Please provide this information by September 30, 2000. You may E-mail this information to WPRICE@state.nm.us or write.

Sincerely:

Wayne Price-Pet. Engr. Spec.

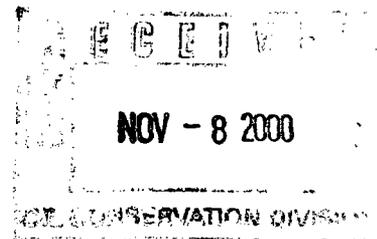


Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

September 8, 2000

Ms. Donna Williams
District 1
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240



**RE: Disposal of Amine and Reverse Osmosis Waste
Maljamar Gas Plant
Conoco Inc. Natural Gas & Gas Products**

Dear Ms. Williams:

Conoco Inc. submits the following information in accordance with OCD discharge plan requirements for disposing of oilfield wastes. The Maljamar Gas Plant is disposing 1155 barrels of Amine and R/O water waste for the month of October 2000. This amine waste is generated by treating process gas. The R/O waste is generated by circulating water through a reverse osmosis filter. These two waste streams are stored in the same frac tank. I received OCD approval August 18, 2000 from Martyne Kieling to consider this as an exempt waste and can dispose of this waste at an OCD approved disposal site. Conoco Inc. has chosen Controlled Recoveries Inc. as the disposal location.

Generator Name:	Conoco Inc., Natural Gas & Gas Products Maljamar Gas Plant
Location:	1001 Conoco Road Maljamar, N.M. 88264
Waste Hauler Name:	Hughes Steve Carter
Waste Stream:	Amine and Reverse Osmosis Water
Approximate Quantity:	1155 barrels
Disposal Site:	Controlled Recoveries P.O Box 388 Hobbs, N.M. 88241
OCD Permit No.:	R9166

Conoco Inc. appreciates your cooperation in this matter. If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505



Conoco Inc.

Request for Facsimile
TransmissionDate
8/18/00**From**

Employee Rudy Quiroz	Ext. 505-676-3528
City, State, Country Maljamar, N.M.	Room No.
Acct. No. 505-676-2401	

To

Name Wayne Price	Phone No. Fax 505-827-8177
Department Oil Conservation Division	Room No.
City, State Country Santa Fe, N.M.	

No. of Pages

1+Cover**Note:**

1. Your originals must have good contrast (dark detail on light background).
2. Legible.
3. 1/2 inch margin on all sides of sheet.
4. Number all pages.

Special Instructions

This is your fax notice and you will also receive a copy via certified mail.**Thank You,
Rudy Quiroz**



Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

August 18, 2000

Ms. Donna Williams
District 1
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

**RE: Disposal of Exempt Process Waste Water
Maljamar Gas Plant
Conoco Inc. Natural Gas & Gas Products**

Dear Ms. Williams:

Conoco Inc. submits the following information in accordance with OCD discharge plan requirements for disposing of oilfield wastes. The Conoco Production facility is having maintenance problems with their injection wells and is unable to take our process waste water. The Maljamar Gas Plant needs to dispose of this exempt water waste. The Gas Plant will be disposing the water at an approved O.C.D. facility temporarily until the Production facility is able to accept the water. Conoco Inc. is requesting a one-time approval to haul this wastewater to disposal while the Production facility is making repairs to their injection wells. Conoco Inc. has chosen Loco Hills Disposal as the disposal location.

Generator Name: Conoco Inc., Natural Gas & Gas Products
Maljamar Gas Plant
Location: 1001 Conoco Road
Maljamar, N.M. 88264
Waste Hauler Name: Hughes Steve Carter
Waste Stream: Process Water
Approximate Quantity: 130 barrels every 2 days
Disposal Site: Loco Hills Disposal
P.O Box 68
Loco Hills, N.M. 88255
OCD Permit No.: R6811B

Conoco Inc. appreciates your cooperation in this matter. If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 27, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5208

Mr. Rudy Quiroz-PSM
Conoco Inc.
P.O. Box 90
Maljamar, New Mexico 88264

Re: Maljamar Gas Plant
Discharge Plan GW-020
Work Plan to Address Materials/Waste Stored in South Plant Area, including an Investigation of
the Vadose Zone Pursuant to Section 14 A. Discharge Plan GW-020 Renewal.

Dear Mr. Rudy Quiroz:

The New Mexico Oil Conservation Division (OCD) is in receipt of Conoco Inc.'s Work Plan dated July 13, 2000. The plan is hereby approved subject to the following additional conditions:

1. The south plant storage area shall be screened for TPH, BTEX, and Total WQCC Metals. There shall be a minimum of four composite surface samples collected (0-6") and analyzed for the above constituents using EPA methods.
2. All soil samples collected from borings that are retained for laboratory analysis will also be analyzed for General Chemistry (major cations and anions) using EPA methods.
3. All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. NMOCD approves on a one-time basis the disposal of Items 1, 2, and 4, of the Conoco Maljamar Gas Plant "Scope of Work for the South Plant storage area. to be disposed of at the Lea County Landfill. Conoco shall retain all waste disposal records.

Mr. Rudy Quiroz-PSM

07/28/00

Page 2

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely Yours;

A handwritten signature in black ink, appearing to read "Wayne Price-Pet". The signature is stylized and cursive.

Wayne Price-Pet. Engr. Spec.

cc: OCD Hobbs Office
 Joyce Woodfin-Conoco Inc.
 Don Beardsley-NMED-SWB



John E. Skopak
Senior Project Manager
Remediation Technology
Room PO3054
281-293-5584
Fax: 240-359-4098

Conoco Inc.
P. O. Box 2197
Houston TX 77252-2197

JUL 28 2000

July 21, 2000

Mr. Roger Anderson
Oil Conservation Division, Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

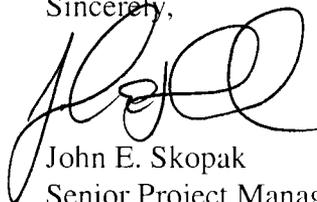
**RE: Notice of Groundwater Impact
Maljamar Gas Plant
Maljamar, New Mexico**

Dear Mr. Anderson:

On June 21, 2000, Conoco Inc. advanced a boring to 96 feet bgs in our Maljamar Gas Plant to test for the presence of groundwater as per our approved work plan dated June 15, 2000. The well was developed as a permanent monitoring well and a sample of the groundwater was collected for analysis. The results of the analysis indicated a benzene concentration of 1.8 mg/l.

Detailed information regarding the monitoring well and the analytical analysis of the groundwater sample will be included in our report of this investigative work. We will also include in this report our recommended path forward to further test the groundwater based upon the results of this initial test. This report will be submitted to you by our due date of August 15, 2000.

Sincerely,



John E. Skopak
Senior Project Manager

cc: Joyce Woodfin – Conoco NG&GP
Marshall Honeyman – Conoco Maljamar
Clyde Yancey – Maxim Technologies



Joyce M. Woodfin
Environmental Consultant
Natural Gas & Gas Products

Conoco Inc
Humber 3036
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-4498
Fax: (281) 293-1214

JUN 30 2000

June 21, 2000

Certified Mail: 7099 3220 0005 0587 0968
Return Receipt Requested

Mr. Wayne Price
NMEMNRD, Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

**RE: Discharge Plan GW-20 Approval Conditions
Conoco Maljamar Gas Plant**

Dear Mr. Price:

We are in receipt of your Discharge Plan Approval Conditions for our Maljamar Gas Plant dated May 18, 2000 and following our phone conversation of June 16, 2000 would like to request modifications to these conditions. Conoco requests that the following items be taken into consideration.

Item 10. Class V Wells - The plant has two active septic systems that drain into leach fields. These systems were installed by the mid 1950s to handle sanitary wastes. We have contacted several septic services to address your request to "permit" these systems with the New Mexico Environmental Department and have been informed that the companies can only permit new installations. We request that the requirement to permit older "Grandfathered" septic systems be removed from the approval conditions.

Item 11. Housekeeping - This item makes the statement that "All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery." Conoco requests two changes based on the site conditions. The first change is to add the descriptor of "contaminated liquid or petroleum" so the statement now reads; "All spill collection and/or secondary containment devices will be emptied of contaminated liquid or petroleum fluids within 48 hours of discovery." The intent of the change is to allow uncontaminated snow melt or stormwater to remain within the containment area longer than 48 hours provided it does not compromise the storage capacity.

Item 11. Housekeeping - The second change addresses the liquid collected in the containment vaults under the Clark engines. These vaults receive drips from the Clarks due to normal operations. Most of this liquid consists of engine water, however, there will be some engine oil and other petroleum based fluids dripped into the vaults. The design of the vaults is such that a daily removal of this liquid is not practical. Conoco would like to offer a routine vac truck removal of the liquid (e.g. at least monthly or as the

liquid level builds up) and change the vault inspection schedule to semi-annual from annual to verify the structural integrity of the vaults.

Item 14B. Skimmer Pit Investigation - We would like to request an extension of the due date to August 15, 2000 to allow for the laboratory results to be returned and give our consultant time to analyze the data and write the report.

Item 14D. Skimmer Pit Containment - We would like to request an extension on developing the plan to install impermeable containment and berms at the plant's wastewater/skimmer pit area until September 15, 2000. This extension will allow time for an engineering study to redesign the system since a simple pouring of concrete will not address your concerns.

Item 15. Stormwater Plan - Conoco has been exempt from the stormwater regulations at this site due to the following reasons:

- There is no surface water body near the Maljamar Plant for runoff or spills to enter.
- Maljamar does not have point source discharge locations for plant area stormwater.
- Maljamar qualifies for the "Oil & Gas exclusion".
- This location has not had a reportable release of a hazardous substance since November 16, 1987.
- The only record of a spill of oil was a condensate spill during February 2000 that remained within secondary containment and was estimated below 25 barrels. Therefore, we do not feel that we meet the definition of a reportable spill since November 16, 1987.
- We are not aware of any discharge from the Maljamar Gas Plant that contributed to a violation of a water quality standard.

We would like to request that Item 15 Stormwater Plan be removed from the discharge plan approval conditions.

If you should have any questions, please feel free to contact me at 281-293-4498.

Sincerely,



Joyce Woodfin

cc: Marshall Honeyman - Maljamar
John Skopak - RemediationTechnology
Clyde Yancey - Maxim Technologies

File: ENV 216-9-4



Joyce M. Woodfin
Environmental Consultant
Engineering and Compliance
Natural Gas & Gas Products Department

Conoco Inc.
600 N. Dairy Ashford Rd.
P.O. Box 2197, HU3036
Houston, TX 77252
Telephone: (281) 293-4498
Facsimile: (281) 293-1214

June 1, 2000

Certified Mail No. 7099 3220 0005 0587 0913
Return Receipt Requested

Ms. Donna Williams
District 1
Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Disposal of Amine Waste
Maljamar Gas Plant
Conoco Inc., Natural Gas & Gas Products Department

Dear Ms. Williams:

Conoco Inc. submits the following information in accordance with OCD discharge plan requirements for disposing of oilfield wastes. The Maljamar Gas Plant generated 390 barrels of amine mixed with a cleaning solution and rinsewater and neutralized using soda ash during turnaround last week. Conoco Inc. has chosen Controlled Recovery Inc. as the disposal location.

Generator Name:	Conoco Inc., Natural Gas & Gas Products Department Maljamar Gas Plant
Location:	1001 Conoco Road Maljamar, New Mexico 88264
Waste Hauler Name:	I & W Transports
Waste Stream:	Neutralized Amine and Rinsewater
Approximate Quantity:	390 barrels
Disposal site:	Controlled Recovery, Inc.
Disposal Location:	P.O. Box 388 Hobbs, New Mexico 88241
OCD Permit No.:	R9166

Conoco Inc. appreciates your cooperation in this matter. If you have any questions concerning this information, please call Mr. Rudy Quiroz at (505) 676-3528 or myself at (281) 293-4498. Thank you for your assistance.

Sincerely,

Joyce M. Woodfin

cc: Wayne Price
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Certified Mail No. 7099 3220 0005 0587 0920
Return Receipt Requested

Price, Wayne

From: Price, Wayne
Sent: Thursday, September 21, 2000 3:17 PM
To: 'Quiroz, Rudy R.'
Subject: RE: Engineering Plan Response

Approved!

From: Quiroz, Rudy R.[SMTP:Rudy.R.Quiroz@usa.conoco.com]
Sent: Thursday, September 21, 2000 9:32 AM
To: Price, Wayne
Subject: RE: Engineering Plan Response

Dear Mr. Wayne Price:

In response to the two questions, which I received via E-mail:

1. Conoco Inc. will use concrete as the impermeable containment on the new tank installations.
2. The construction of the evaporation pond will be dictated by the analytical results of the water. Conoco Inc. will build the pond accordingly to meet all water quality standards and requirements. Conoco Inc. will submit the analytical test results and engineering plan to build the pond to the OCD for approval prior to construction.

If you have any questions please call me at 505-676-3528 or E-mail me rudy.r.quiroz@usa.conoco.com <rudy.r.quiroz@usa.conoco.com> .

Thank You,
Rudy R. Quiroz
Operations Tech III

-----Original Message-----
From: Price, Wayne [SMTP:WPrice@state.nm.us]
Sent: Wednesday, September 20, 2000 12:14 PM
To: 'rudy.r.quiroz@usa.conoco.com'
Subject: Engineering Plan Response

<< File: Mod.doc >>



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

September 19, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 4904

Mr. John E. Skopak
Conoco Inc.
P.O. Box 2197
Houston, Texas 77252-2197

Re: Maljamar Gas Plant
Discharge Plan GW-020
Subsurface Investigation, Maljamar Gas plant

Dear Mr. Skopak:

The New Mexico Oil Conservation Division (OCD) is in receipt of Conoco Inc.'s Subsurface Investigation Plan dated August 8, 2000 for the Maljamar Gas Plant, addendum to the plan dated September 19, 2000 for the Area 1/bermed Area Impacted by the February 13, 2000 Fifteen (15) Barrel Condensate Release at the Maljamar Gas Plant and E-mail sent on September 19, 2000. **The plan is hereby approved. Please submit the results of the investigation by November 15, 2000.**

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely Yours;

Wayne Price-Pet. Engr. Spec.

cc: OCD Hobbs Office

Price, Wayne

From: YanceyCL@aol.com[SMTP:YanceyCL@aol.com]
Sent: Tuesday, September 19, 2000 1:58 PM
To: Price, Wayne
Cc: john.e.skopak@usa.conoco.com; joyce.m.miley@usa.conoco.com;
rudy.r.quiruz@usa.conoco.com
Subject: Closure, 15 bbl condensate release



091500.doc

Wayne,

Attached is the letter you requested presenting Conoco's plan to approach closure on the 15 barrel condensate release at the Maljamar Gas Plant. If you have any questions regarding the plan, please call me at 505-237-8440.

We are currently planning to start field work at Maljamar next week. The work will consist of (1) carrying out the "vadose zone" investigation of the South Plant Storage Area (we have received your approval on the plan), (2) install the two additional monitor wells (constructed and developed per OCD guidance), sample the two new wells and the existing well for the list of constituents we discussed today (VOCs/8260, Semi-VOCs/8270, major cations/anions, and WQCC metals/6010). You have provided a verbal approval for this plan, and (3) carry out the field work associated with obtaining closure on the 15-bbl condensate release, providing we receive concurrence on the plan from you.

Prior to initiating any field work, I will personally contact both you and Donna Williams/Hobbs District.

Again, please call me with any questions you might have.
Sincerely,
Clyde

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Conoco Inc.	Contact Rudy R. Quiroz
Address 1001 Conoco Rd. Maljamar, N.M. 88264	Telephone No. (505)-676-3528
Facility Name Maljamar Gas Plant	Facility Type Gas Processing Plant

Surface Owner Conoco Inc.	Mineral Owner N/A	Lease No. N/A
------------------------------	----------------------	------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	21	17S	32E					Lea

NATURE OF RELEASE

Type of Release Condensate	Volume of Release 15 Barrels	Volume Recovered None
Source of Release Frac tank overflow.	Date and Hour of Occurrence 2/13/00 4:30 AM	Date and Hour of Discovery 2/13/00 5:45AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NotRequired	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The problem was a frac tank overflow. The operator on shift started the RO unit and was making up water to the amine water storage tank. The wastewater from the RO unit was dumping to the frac tank and over filled the tank. The lighter hydrocarbons in the tank spilled over. The frac tank is contained in a dirt berm so liquids were contained in this area. The frac tank was drained. The frac tank level will be checked more frequent to eliminate this problem from reoccurring.

Describe Area Affected and Cleanup Action Taken.*

The spill was contained in the dirt berm surrounding the frac tank. The frac tank will be moved and the contaminated soil will be removed and disposed of properly. The excavation of the contaminated soil will begin on Monday the 21st of February.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: <i>Rudy R. Quiroz</i>	Approved by	
Printed Name: <i>Rudy R. Quiroz</i>	District Supervisor:	
Title: <i>Operations Tech III</i>	Approval Date:	Expiration Date:
Date: <i>2/18/00</i> Phone: <i>505-676-3528</i>	Conditions of Approval:	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary



Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
 COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice of Publication GW-020

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for One(1) DAY, beginning with the issue of February 17, 2000 and ending with the issue of February 17, 2000.

And that the cost of publishing said notice is the sum of \$ 57.20 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this day of February 17, 2000.

Debbie Schilling

Debbie Schilling
 Notary Public, Lea County, New Mexico
 My Commission Expires June 22, 2002

OK W.P.

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-020) - Conoco Inc. Rudy Quiroz, Operation Tech III, P.O. Box 90, Maljamar, NM 88264 has submitted an application for renewal of its previously approved discharge plan for its Maljamar Gas Plant in the SE/4 of the SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 3500 gallons per day of waste water is disposed in Conoco's waterflood project for secondary oil recovery. The waterflood project consists of Class II injection wells and was approved by Oil Conservation Division Order No. R-2403. The wastewater has a total dissolved solids concentration of approximately 3240 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 70-150 feet with a total dissolved solids concentration of approximately 440 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be man-

aged.

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. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan application, 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 and a public hearing may be requested by any interested person. Requests for a 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 the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 11th day of February, 2000.

STATE OF
 NEW MEXICO
 OIL
 CONSERVATION
 DIVISION
 LORI WROTENBERY,
 Director

SEAL
 Published in the Lovington Daily Leader February 17, 2000.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

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And that the cost of publishing said notice is the sum of \$ 57.20 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this day of February 17, 2000.

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

dkc wpa

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

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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 the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 11th day of February, 2000.

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION
LORI WROTENBERY,
Director

SEAL
Published in the
Lovington Daily Leader
February 17, 2000.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

June 16, 2000

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 50515635

Mr. Rudy Quiroz-PSM
Conoco Inc.
P.O. Box 90
Maljamar, New Mexico 88264

Re: Discharge Plan GW-020 Renewal
Maljamar Gas Plant

Subject: Subsurface Investigation

Dear Mr. Rudy Quiroz:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Conoco's letter and work plan dated June 14, 2000 submitted by John E. Skopak. The NMOCD hereby approves of the plan with the following conditions:

Conoco Inc. will notify the OCD Santa Fe office and the OCD District office at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

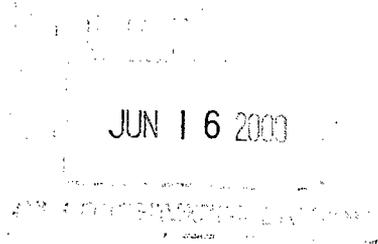
Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs Office
John E. Skopak-Conoco

Marshall C. Honeyman
Plant Manager
Maljamar Gas Plant
Natural Gas & Gas Products

Conoco Inc.
P. O. Box 90
Maljamar, NM 88264
505-676-3501

June 15, 2000



CERTIFIED MAIL

New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Attention: Wayne Price

Subject: Renewal Fee

Dear Mr. Price:

Enclosed you will find a check for \$1667.50. This check is for the Maljamar Gas Plant GW-20 Discharge Plan renewal fee. In accordance with WQCC Regulation 3114 the Maljamar Gas plant has paid the filing fee of \$50 and is paying the renewal flat rate fee of \$1667.50 for a gas plant.

If you have any questions concerning this notification, please contact me.

Sincerely,

Rudy R. Quinoz For

Marshall C. Honeyman
Plant Manager

cc: Joyce Woodfin, Houston
File 214-3-20

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 6/12/00
or cash received on _____ in the amount of \$ 1,667.50
from CONOCO INC.

for MALJAMAN GAS PLANT GW-20

Submitted by: ^(Facility Name) WAYNE PRICE Date: ^(DP No.) 6/19/2000

Submitted to ASD by: [Signature] Date: 6/19/2000

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal

Modification _____ Other _____
(optional)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment or Annual Increment _____



CONOCO INC
PONCA CITY, OK 74602

No. [redacted]

62-20
311

To: Citibank Delaware
New Castle, DE 19720

JUNE 12, 2000

*** VOID AFTER 90 DAYS ***

Vendor Code: 217921R01

Exactly *****\$1,667.50**

Pay
To the
Order
Of

|||||
OIL CONSERVATION DIVISION
WATER QUALITY MANAGEMENT FUND
2040 S PACHECO ST
SANTA FE NM 87505-5472

[Signature]

Authorized Signature



The Santa Fe New Mexican

Since 1849. We Read You.

FEB 22 2000

NM OIL CONSERVATION DIVISION
ATTN: DONNA DOMINGUEZ
2040 S. PACHECO ST.
SANTA FE, NM 87505

OIL CONSERVATION DIVISION

AD NUMBER: 133420 ACCOUNT: 56689
LEGAL NO: 66899 P.O.#: 00199000278
185 LINES 1 time(s) at \$ 81.55
AFFIDAVITS: 5.25
TAX: 5.43
TOTAL: 92.23

AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLICATION

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

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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 11th day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION
LORI WROTENBERY,
Director

Legal #66899
Pub. February 18, 2000

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, B. Perner being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #66899 a copy of which is hereto attached was published in said newspaper 1 day(s) between 02/18/2000 and 02/18/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 18 day of February, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ Betsy Perner
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this
16 day of February A.D., 2000

Notary Candace R. Alvarado

Commission Expires 11/16/2003

OK FOR PAYMENT
Judge Price
2/23/00



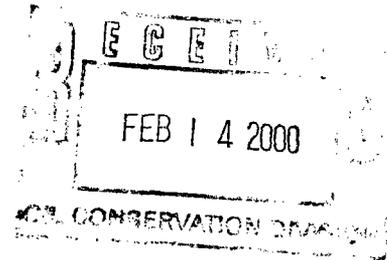
Rudy Quiroz
Operations Tech III
Natural Gas & Gas Products

Conoco Inc.
P.O. Box 90
Maljamar, NM 88264
505-676-3528

Certified Mail P 247 784 652

Return Receipt Requested

February 7, 2000



Mr. Roger Anderson, Chief
Oil Conservation Division
Energy and Minerals Department
State Land Office Building
P.O. Box 2088
Santa Fe, NM 87505

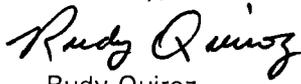
Dear Mr. Anderson:

Discharge Plan GW-20 for the Maljamar Gas Processing Plant was sent in for renewal February 2, 2000. The current plan expires June 10, 2000.

In accordance with New Mexico Water Quality Control Commission Regulations the following actions were performed. The Oil Conservation Division in Hobbs, New Mexico was contacted on January 27, 2000. The Maljamar Gas Plant was giving it's 72 hour notice that on February 1, 2000 we would be testing our underground wastewater lines and inspecting the below grade sumps. Enclosed are two copies of the testing and inspection.

If you have any questions or require additional information, please call me at (505) 676-3528. Thank you for your assistance.

Sincerely,


Rudy Quiroz

CC: Joyce Woodfin
File: 215-5-1

Discharge Plan GW-20
Maljamar Gas Plant

Underground Process/Wastewater Lines

The underground process/wastewater pipelines were tested to demonstrate mechanical integrity. The method of test was a hydro pressure test. The pipeline was pressure tested to 20 pounds per square inch gauge. This is 15 pounds above normal working pressure. The results of this test were recorded on a chart recorder. The pressure was held for three consecutive hours with no detection of any pressure loss. A copy of the chart is included with this report.

Below Grade Sumps

The Maljamar Gas Plant existing sumps are open to the atmosphere and can not be pressure tested. These sumps were cleaned and visually inspected for integrity. The sumps showed no signs of deterioration or leakage. These sumps will be visually inspected every year. A copy of the pump truck ticket is included with this report.

SUNDAY

MONDAY

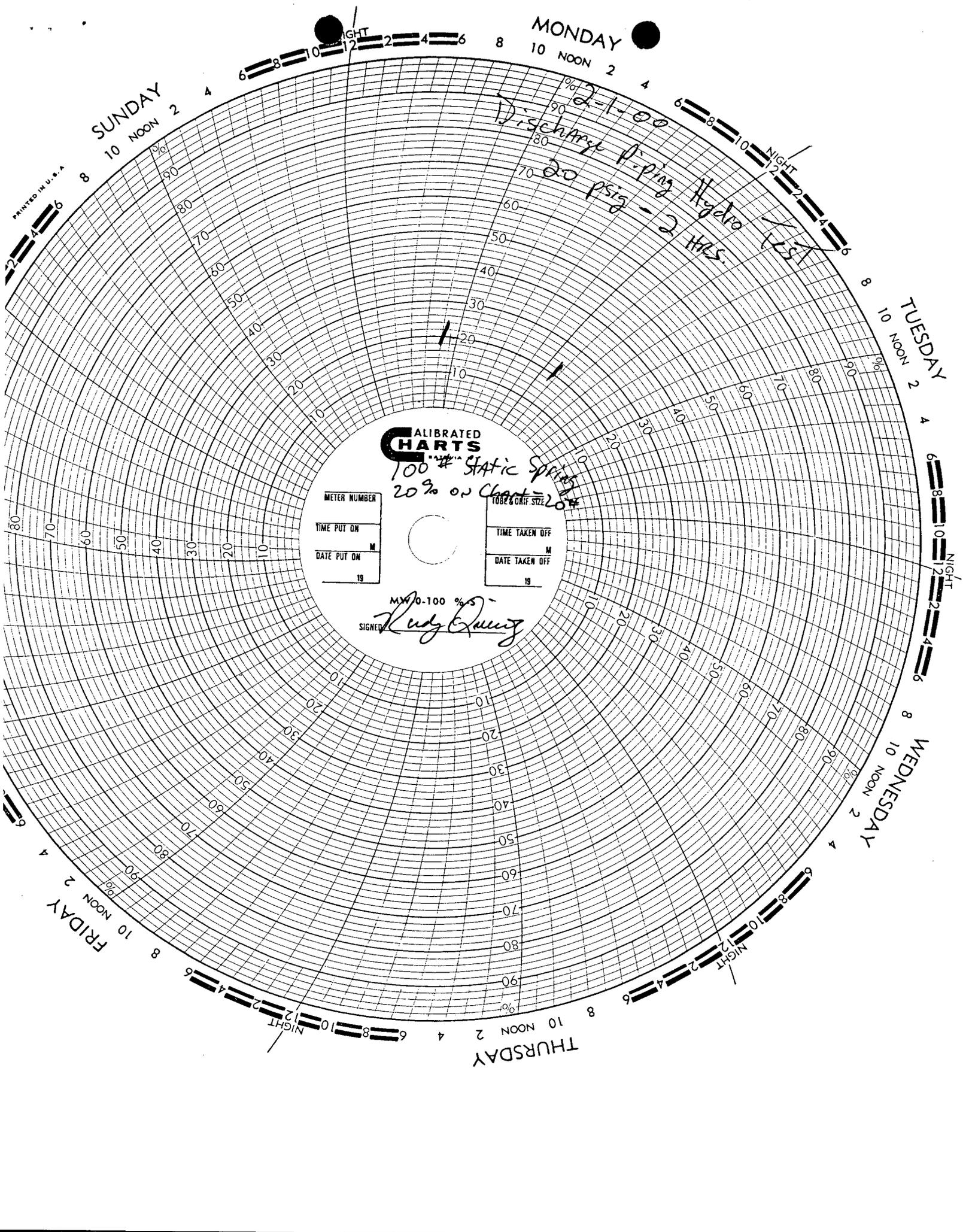
TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

PRINTED IN U.S.A.



CALIBRATED
HARTS

100# STATIC SPRING
20% on Chart = 20#
TUBE & ORIF. SIZE 20#

METER NUMBER

TIME PUT ON

DATE PUT ON

19

TIME TAKEN OFF

DATE TAKEN OFF

19

MW 0-100 % S
SIGNED *Rudy Goring*

ACCOUNTING ADDRESS:
P. O. BOX 26
LOCO HILLS, N.M. 88255

STEVE CARTER, INC.

55876

PHONE:
(505) 677-2320

HOT OIL UNITS — OIL FIELD TRANSPORTS — PUMP TRUCK

DAY OR NIGHT NUMBER:
(505) 677-8113

LOCO HILLS, NEW MEXICO

DATE 2-1-00

DRIVER Murray Peverale TRUCK NO. 40 CAPACITY 130 BBLS.

SHIPPED FROM Murray AT Canon Gas plant

SHIPPED TO SMW LEASE plant

DESCRIPTION	HRS. OR BBLS	RATE	AMOUNT	TAX	TOTAL
<u>Empty sample usual completion.</u>	<u>100</u>				

TIME 7:00am
STARTED _____
TOTAL HOURS _____

TIME _____
FINISHED _____

COMPANY NAME Canon Gas plant
BY: Kathy

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 11 th day of February, 2000.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



LORI WROTENBERY, Director

SEAL



Environmental & Energy Services
Natural Gas Products Department

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

RECEIVED
JUL - 6 1987
July 2, 1987
OIL CONSERVATION DIVISION
SANTA FE

Mr. Dave Boyer, Chief
Oil Conservation Division
Energy and Minerals Department
State Land Office Building
P.O. Box 2088
Santa Fe, NM 87501

RE: Revised Discharge Plan (GW-20)
Conoco Inc., Natural Gas & Gas Products Department
Maljamar Gas Processing Plant
Maljamar, Lea County

Dear Mr. Boyer:

Enclosed are two copies of the subject discharge plan with minor revisions reflecting current operations. The current plan was approved on June 10, 1985. In accordance with New Mexico regulations, Conoco Inc. submits the revised plan for approval.

The following outlines the specific revisions made to the existing plan:

- | | |
|-------------------|--|
| Section A, page 1 | Inlet gas to the plant is now only low pressure. |
| Section A, page 2 | A 500 barrel slop oil tank was added to the existing tank battery at the south end of plant. |
| Section B, page 1 | The Caswell Ranch is now the Smith Ranch. |
| Section B, page 3 | Caswell Ranch was changed to Smith Ranch. |
| Section B, page 4 | The 500 barrel tank was added to the flow diagram. |
| Section D, page 1 | Bottled water is now the source of drinking water. Fresh water from wells is utilized for plant process, cooling, and sanitary usage only. |

Mr. Dave Boyer, Chief
Oil Conservation Division
Energy and Minerals Department
July 2, 1987
Page 2

Section E, page 1 After adding the 500 barrel tank, total capacity became 1,360 barrels for retention up to 5.5 days of wastewater and slop oil production.

There have been no process or volume changes which effect the discharge plan.

Conoco Inc. submits the enclosed plan for review and approval. If you have any questions, please call me at (713)293-1123.

Sincerely,

Rick McCalip

Rick McCalip
Coordinator

MALJAMAR GAS PROCESSING PLANT
DISCHARGE PLANT (GW-20)

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PLANT DESCRIPTION

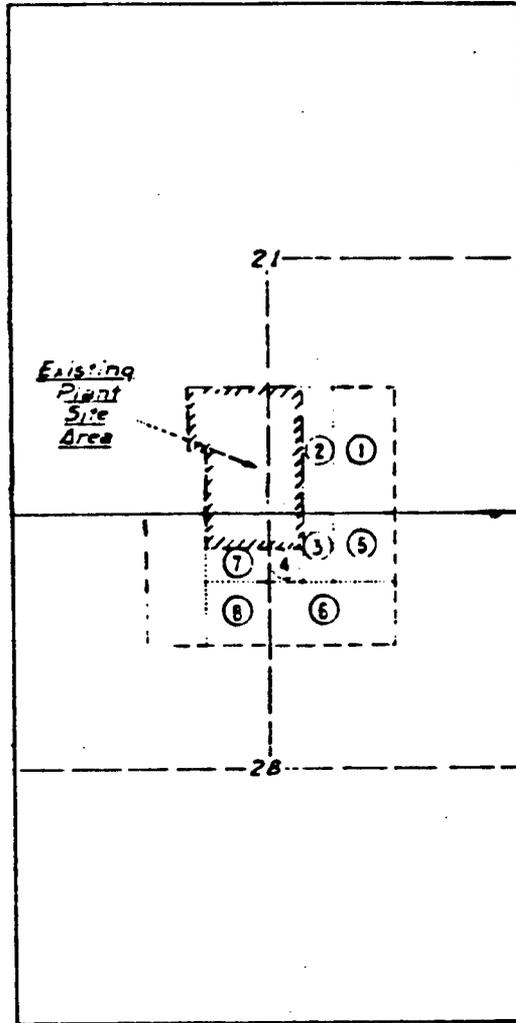
The Maljamar Gas Processing Plant is fully owned and operated by Conoco Inc. The plant is located three (3) miles south of Maljamar, Lea County, New Mexico on Farm Road 126. The plant is designed to recover natural gas liquids (ethane, propane, butanes, and pentanes+) from 50 million cubic feet per day (MMCFD).

Conoco Inc. purchased the Maljamar Plant in 1969, at which time it consisted solely of one refrigerated oil absorption train. In 1981, an additional cryogenic process train was installed with a design capacity of 50 MMCFD, resulting in a total plant capacity of 60 MMCFD. In 1982, the refrigerated oil absorption (ROA) process train was shutdown and subsequently dismantled. This resulted in a decreased wastewater flow, due to the shutdown of the cooling tower associated with ROA process train.

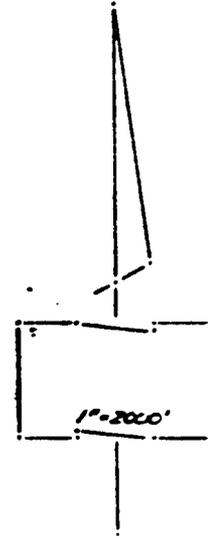
Currently, low pressure gas is gathered from six (6) gathering systems (Ajax, Anderson, Caprock, Greenwood, Lush, and Skelly), compressed and processed. Plant throughput varies between 16 MMCFD and 44 MMCFD.

The plant produces an EPBC (ethane, propane, butane, and condensate) product stream which is delivered to Mont Belvieu, Texas via Chaparral Pipeline. Residue gas is delivered to Gas Company of New Mexico and Transwestern Pipeline.

The Plant Manager is Mr. C. W. Sirmons.



7
17
5



No	Sub Division	Sect	Twp	Rng.	Area
①	E/2 SW/4 SE/4	21	175	32E	20.0 Ac.
②	E/2 W/2 SW/4 SE/4	21	175	32E	10.0 Ac.
③	E/2 NW/4 NW/4 NE/4	28	175	32E	5.0 Ac.
④	SW/4 NW/4 NW/4 NE/4	28	175	32E	2.5 Ac.
⑤	NE/4 NW/4 NE/4	28	175	32E	10.0 Ac.
⑥	S/2 NW/4 NE/4	28	175	32E	20.0 Ac.
⑦	S/2 NE/4 NE/4 NW/4	28	175	32E	5.0 Ac.
⑧	SE/4 NE/4 NW/4	28	175	32E	10.0 Ac.
Total:					82.5 Acres



ENGINEERS STATE

Joe J. Hewett Jr. states
 survey of the gasoline
 by him and under
 1972; and that

APPLIC

WATER BALANCE: DESCRIPTION

The Maljamar Gas Processing Plant uses fresh water produced from five 120 foot deep wells. Conoco owns three water wells; the others are leased from Hudson & Hudson. All fresh water flows to a 10,000 barrel (Bbl.) storage tank. Exhibit B-2 is a plot plan of the fresh water system.

Approximately 116 Bbl. per day flow from the storage tank to the users. Of this amount, 20 Bbl. per day goes to the Smith Ranch, and 56 Bbl. per day to Hudson & Hudson Oil Company. These are private, non-Conoco users.

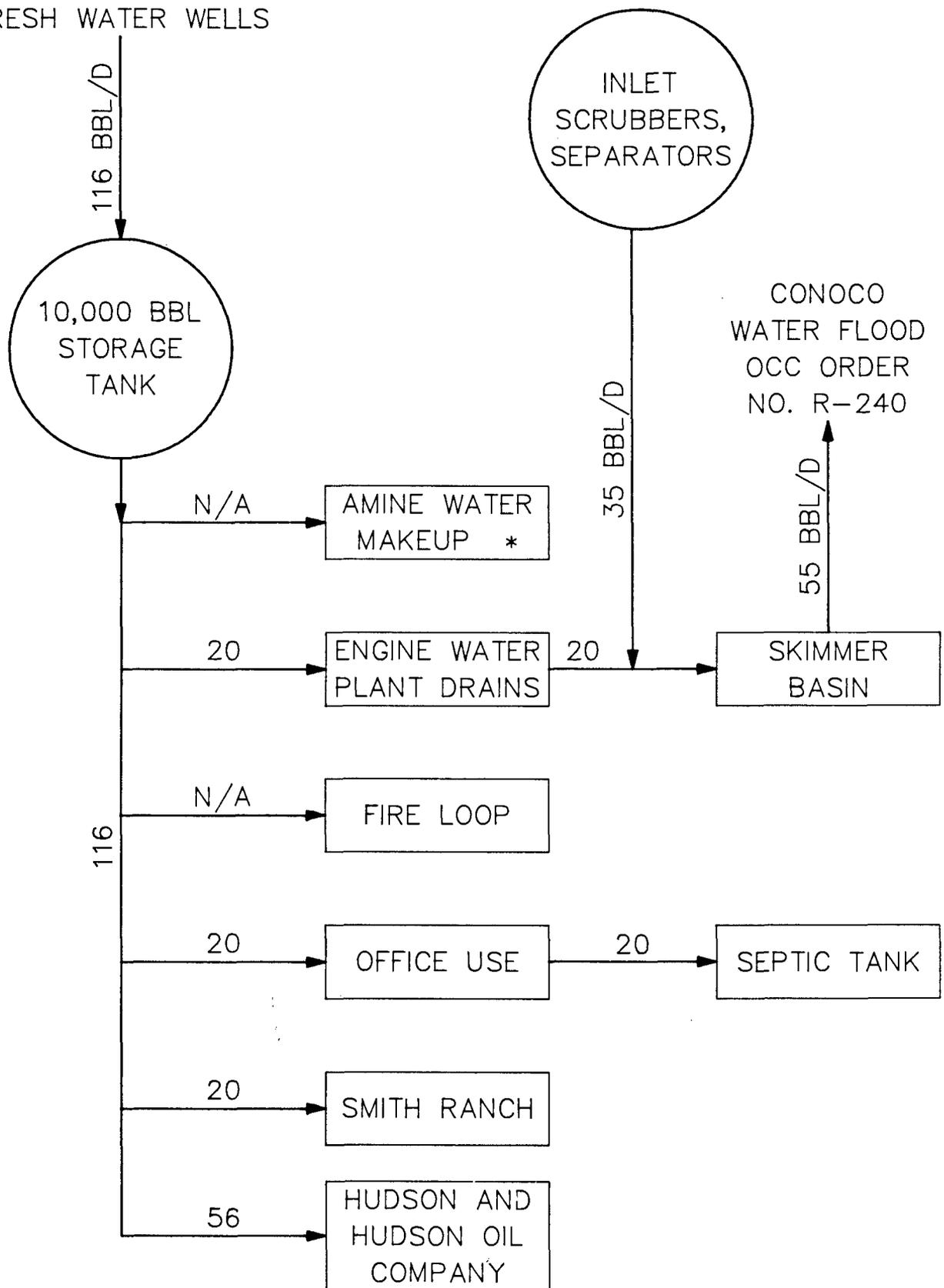
The Maljamar Plant uses 40 Bbl. per day - approximately 20 Bbl. for office use and 20 Bbl. for plant use and engine jacket water.

Water is metered to each user. The water allocation between plant and office use is calculated, based upon office use of 25 gallons per person per day, and 33 employees.

All water use in the office is discharged to a sanitary septic system. Plant drains and engine jacket water discharge to the skimmer basin (20 Bbl/day). Approximately 35 Bbl/day of water is also discharged from the plant inlet scrubbers and separators to the skimmer basin. Oil is separated in the skimmer basin and pumped to an adjacent storage tank. All water (55 Bbl/day) from the skimmer basin is pumped to Conoco's waterflood project for reinjection.

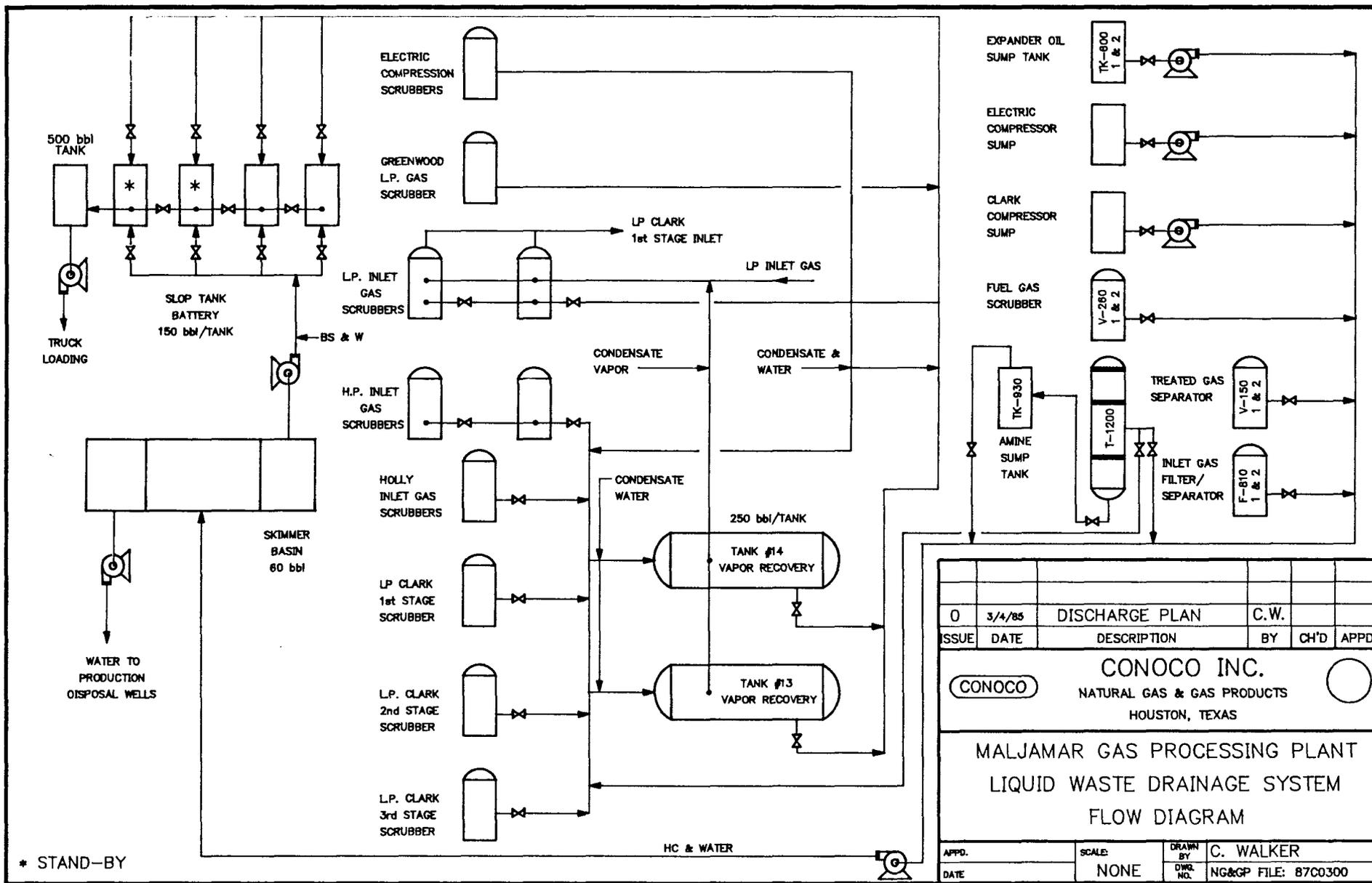
PLANT WATER BALANCE

FRESH WATER WELLS



* CLOSED SYSTEM

NG&GP FILE: 87C0299



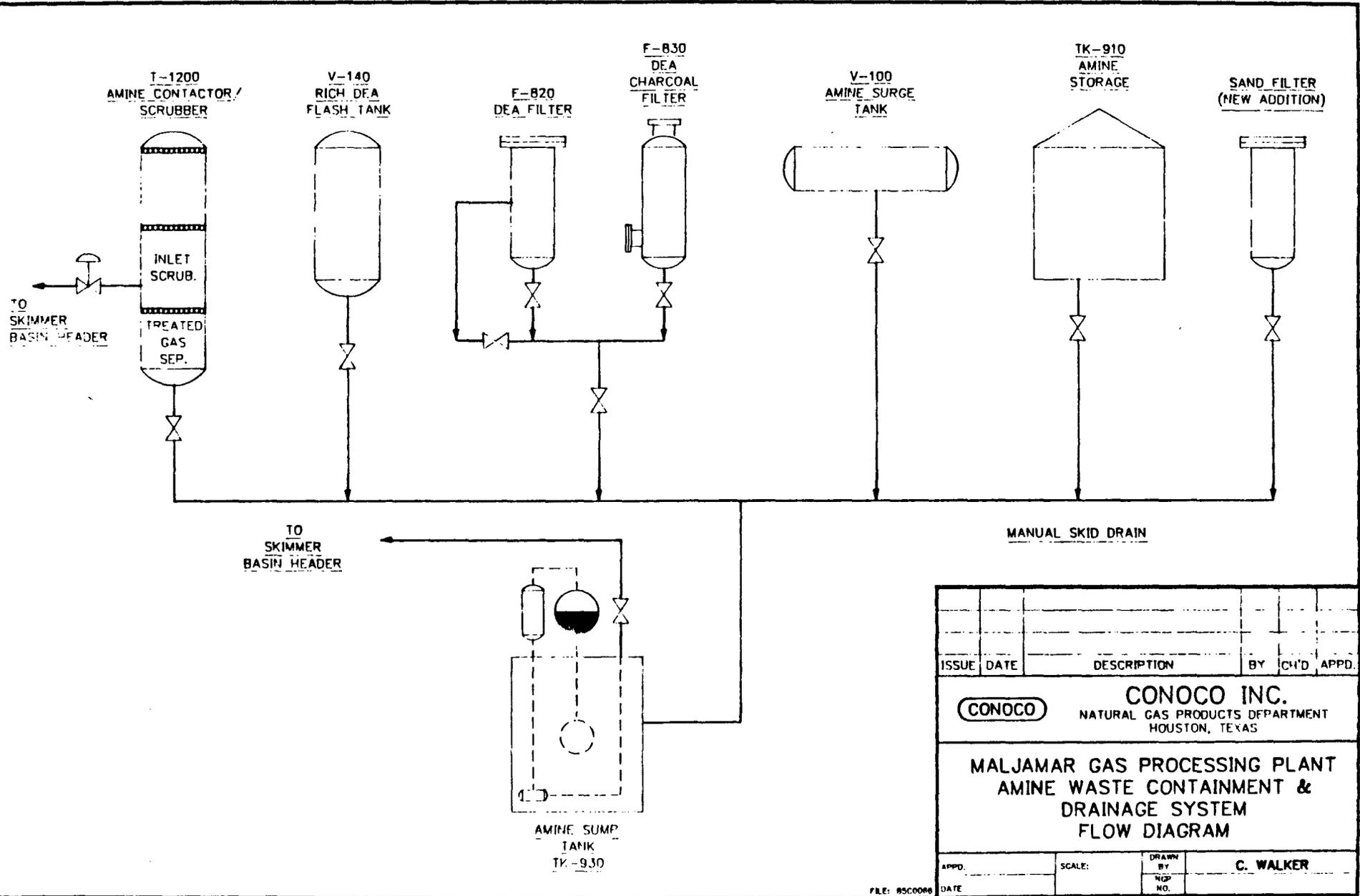
0	3/4/85	DISCHARGE PLAN	C.W.		
ISSUE	DATE	DESCRIPTION	BY	CH'D	APPD

CONOCO INC.
 NATURAL GAS & GAS PRODUCTS
 HOUSTON, TEXAS

MALJAMAR GAS PROCESSING PLANT
LIQUID WASTE DRAINAGE SYSTEM
FLOW DIAGRAM

APPD.	SCALE:	DRAWN BY:	C. WALKER
DATE	NONE	DWG. NO.	NG&GP FILE: 87C0300

* STAND-BY



ISSUE	DATE	DESCRIPTION	BY	CH'D	APP'D.

CONOCO INC.
 NATURAL GAS PRODUCTS DEPARTMENT
 HOUSTON, TEXAS

**MALJAMAR GAS PROCESSING PLANT
 AMINE WASTE CONTAINMENT &
 DRAINAGE SYSTEM
 FLOW DIAGRAM**

APP'D.	SCALE:	DRAWN BY NGP NO.	C. WALKER
DATE			

FILE: 85C0086

SWL

SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services
1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

File No. C-1950-W

Report No. 36204

Report Date 3-4-85

Date Received 2-26-85

Report of tests on: **Water**

Client: **Conoco, Inc.**

Identification: **Fresh Water to Plant, Sampled at office tap,
Sampled 2-26-85 @ 1:50 PM by SWL/Jack Barton**

mg/L

Arsenic-----	Less Than	0.05
Barium-----	Less Than	0.1
Boron-----	Less Than	0.1
Chromium-----	Less Than	0.05
Iron-----		1.0
Lead-----	Less Than	0.05
Mercury-----	Less Than	0.002
Zinc-----		0.11
Sulfate-----		30
Chloride-----		11
Fluoride-----		0.6
Nitrate-----		6.3
Cyanide-----	Less Than	0.005
Phenols-----	Less Than	0.005
Total Dissolved Solids @ .180°C-----		442
Fecal Coliforms-----	Less Than 10 colonies/100 mls	
pH-----	6.87	

Technician: **KLH, RY**

Copies **Conoco, Inc - Maljamar, NM
Conoco, Inc - Houston, Tx.**

SOUTHWESTERN LABORATORIES

Larry M. Bunch



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services
1703 W. Industrial Avenue [915 - 683-3348] • P.O. Box 2150 • Midland, Texas 79701

File No. C-1950-W

Report No. 36205

Report Date 3-4-85

Date Received 2-26-85

Report of tests on: **Water**

Client: **Conoco, Inc.**

Identification: **Plant Waste Water, Sampled down stream of discharge pump,
Sampled 2-26-85 by SWL/Jack Barton**

	<u>mg/L</u>
Arsenic-----	0.08
Barium-----Less Than	0.1
Boron-----Less Than	0.1
Chromium-----Less Than	0.05
Iron-----Less Than	0.2
Lead-----Less Than	0.05
Mercury-----Less Than	0.002
Zinc-----Less Than	0.05
Sulfate-----	5
Chloride-----	28
Fluoride-----Less Than	0.1
Nitrate-----	10.0
Cyanide-----Less Than	0.005
Phenols-----Less Than	0.005
Total Dissolved Solids @ 180°C-----	46
Fecal Coliforms-----Less Than 10 colonies/100 mls	
pH-----	7.32

Technician: **KLH, RY**

Copies **Conoco, Inc. - Maljamar, NM
Conoco, Inc. - Houston, Tx.**

SOUTHWESTERN LABORATORIES

Larry M. Bunch

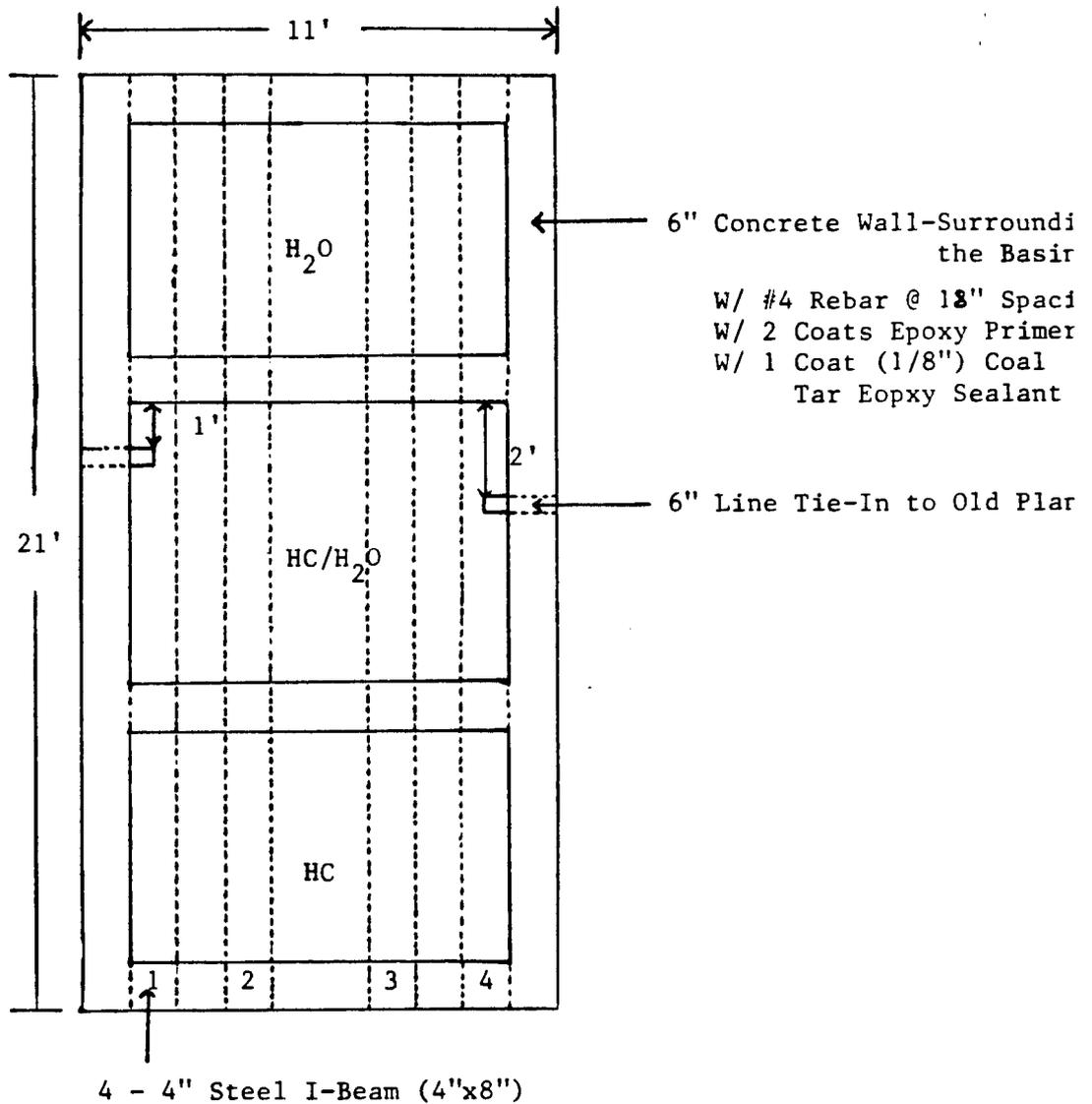
WATER TREATMENT AND DISPOSAL

The Maljamar Plant utilizes fresh water for sanitary usage in the office, plant process and cooling. All wastewater from the office flows to a septic system for treatment and disposal.

Plant wastewaters flow to a skimmer basin where free oil is removed. This recovered oil is pumped to a slop tank for storage until it is sold. Water from the skimmer basin is pumped to Conoco's adjacent waterflood oil and gas production operations, where it is reinjected.

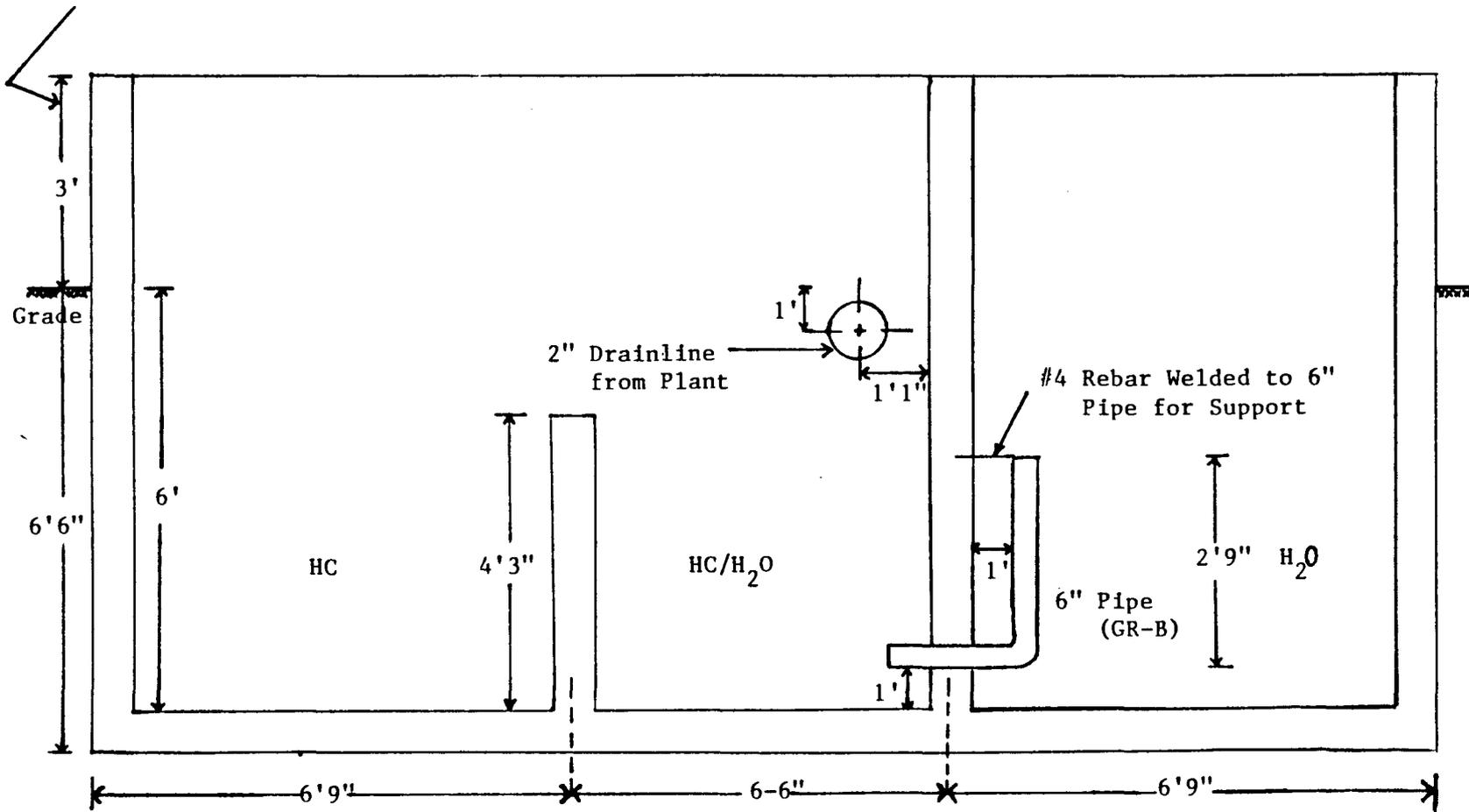
MALJAMAR GAS PLANT

HC/Water Skimmer Basin



Basin Cover: 3/8" Corrugated Carbonsteel Plating. Cover Rests on the I-Beams.

Not Shown: 4x8 Steel I-Beam Across Top and Level With Top of Concrete



SANITARY SEWAGE TREATMENT

Sanitary wastewaters from the Maljamar Gas Processing Plant offices are discharged to three (3) 1200 gallon septic tanks. (See Section A, Page 2, Plot Plan for location of these tanks.) Wastes discharged to these septic tanks receive no chemical treatment. All septic tanks discharge to leach fields.

INJECTION WELLS

Wastewaters collected in the Maljamar Plant skimmer basin are ultimately reinjected. Conoco Inc.'s North American Production Department operates a repressuring (waterflood) project adjacent to the Maljamar Plant. Wastewaters from the plant are combined with other produced water and reinjected, in compliance with Oil Conservation Commission Order No. R-2403. A copy of this order is included on Page 6, Section D of this plan.

Page 8 New Mexico

SECTION IV

R. W. Byram & Co., - Feb., 1970

MALJAMAR POOL
(Maljamar Cooperative Area Consolidated Order)
Lea County, New Mexico

Order No. R-2403, Approving a Supplemental Cooperative Agreement, Full Unitization, and Determining Other Matters Relating to the Maljamar Cooperative Agreement Area, Maljamar Pool, Lea County, New Mexico, December 21, 1962, as Amended by Order No. R-2403-A, February 9, 1970.

See separate Order No. R-3375, March 1, 1968, deleting references to State Engineer or State Engineer office.

Application of Continental Oil Company, as Operator, for Approval of a Supplemental Cooperative Agreement Unitizing Certain Leases, a Plan of Operation for Continued Gas and Water Injection, Modification of Allocation Method for Transfer of Allowables, Certain Administrative Procedures, and Permission to Produce More Than 16 Wells Into a Single Tank Battery, Maljamar Pool, Lea County, New Mexico.

CASE NO. 2718
 Order No. R-2403

ORDER OF THE COMMISSION

THE COMMISSION: This cause came on for hearing at Santa Fe, New Mexico, on December 6, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 31st day of December, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter hereof.

(2) That, by Order No. 485, the Commission approved the Maljamar Cooperative Repressuring Agreement, said agreement having been entered into on August 5, 1941, by the parties signatory thereto, for pressure maintenance in the Grayburg-San Andres formations under the Maljamar Cooperative Repressuring Agreement area in the Maljamar Pool, Lea County, New Mexico, unitizing gas in the area, making provisions for gas injection wells and the expansion thereof by administrative approval. The order further provided that the proration units within the committed area should not exceed the production of 44 barrels of oil daily; provided for expansion of the committed area by administrative approval; provided for the management of said project by the Operators Committee; and included other provisions for the conduct of the repressuring program.

(3) That, by Order No. 595, the Commission amended Order No. 485 and provided a method of allocation to the committed area and the reallocation to the respective proration units on a basis which included an acreage allowable up to 15 barrels per day, a maximum marginal well allowable of 20 barrels per day, and a void space allowable determined by reservoir conditions as reflected by each well's bottomhole pressure and gas-oil ratio.

(4) That numerous other orders have been entered approving additional injection wells for expansion of the repressuring program and for non-standard locations for both injection and producing wells. The order number or date of administrative approval providing for the present injection wells or non-standard locations is set out in the attached Exhibit "A".

(5) That, by Order No. R-841, the Commission approved the injection of water into the Pearl "B" Well No. 26, located 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico. By Order No. R-1075 the Commission authorized the expansion of Order No. R-841 to include the drilling and conversion of certain wells to water injection wells, said wells also being listed on Exhibit "A" attached. The order further provided for administrative approval for expansion of the water injection program.

(6) That by adoption of Supplement No. 4 to the Maljamar Cooperative Repressuring Agreement, the applicant, the Continental Oil Company, was elected Chairman of the Operators Committee and the name was changed to the Maljamar Cooperative Agreement.

(7) That the owners of the Maljamar Cooperative Agreement area have adopted Supplement No. 5 to the Maljamar Cooperative Agreement with Continental Oil Company as Operator of the Participating Area. The effect of Supplement No. 5 is to unitize all liquid hydrocarbons in the Grayburg-San Andres formations underlying the Participating Area, and to adopt a Plan of Operations for the expansion of the pressure maintenance program by gas and water injection.

(8) That the pressure maintenance program heretofore carried out has been successful and that approval of Supplement No. 5 and the Plan of Operation contemplated thereunder, and the revision of the allocation method for transferring allowables should increase the efficiency and ultimate recovery of the pressure maintenance program.

(9) That said repressuring project was instituted during the early primary life of the Maljamar Pool; that the Maljamar Pool, without the benefit of fluid injection, would be in or approaching a "stripper" state of depletion, and that any secondary recovery project instituted at the present time would in all probability be classified by the Commission as a waterflood project subject to Commission Rule 701-E governing waterflood projects.

(10) That to afford continuity of operations under the existing pressure maintenance rules, the present void space formula for the project should remain in effect, with the added privilege of allowable transfer for injection tracts, for wells shut-in for engineering reasons, and for wells incapable of making their computed share of the void space allowable. Provided however, that the maximum allowable assigned to any 40-acre proration unit should be limited to the Southeast New Mexico Waterflood Allowable Factor currently in effect or as modified by future orders of the Commission.

(11) That, by application in this case, Continental Oil Company, as Chairman for the Maljamar Cooperative Agreement area and operator of the Participating Area, seeks the consolidation of prior orders, modification of the allocation method for transfer of allowables, an administrative procedure for expansion or revision of the fluid injection program and expansion of the Participating Area within the Maljamar Cooperative Agreement boundaries; further, applicant seeks an exception to the provisions of Rule 309-A of the Commission Rules and Regulations to permit production of more than sixteen proration units into a single tank battery.

(12) That the proposed program will promote conservation and will tend to prevent waste through the production of oil which might not otherwise be recovered.

R. W. Byram & Co., - Feb., 1970

SECTION IV

New Mexico Page 129

(MALJAMAR (MALJAMAR COOPERATIVE AREA CONSOLIDATED ORDER) POOL - Cont'd.)**IT IS THEREFORE ORDERED:**

(1) That the Maljamar Cooperative Repressuring Agreement and its supplements, including Supplement 4 which changed the name to Maljamar Cooperative Agreement and appointed Continental Oil Company as Chairman of the Operators Committee, are hereby continued in effect.

(2) That Supplement No. 5, being a Supplemental and Amending Agreement to the Maljamar Cooperative Agreement, and the Initial Plan of Operations pursuant thereto, are hereby approved.

(3) That all oil produced from the Grayburg-San Andres formations underlying the Participating Area, as hereinafter defined, is fully unitized as provided in said Supplement No. 5, and all gas produced and utilized as provided in said Supplements No. 4 and No. 5 is fully utilized as provided therein.

(4) That the Cooperative Area, heretofore approved by this Commission for pressure and maintenance of the Grayburg-San Andres formations and hereinafter called MCA Unit Area, consists of the following lands:

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Sections 14 to 23, inclusive
Sections 25 to 35, inclusive

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: W/2
containing 13,786.66 acres, more or less.

That the following-described lands lying within such Cooperative Area are hereby designated and recognized as constituting the Participating Area for the Grayburg-San Andres formations:

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 15: SW/4 SW/4
Section 16: S/2 S/2, W/2 NW/4, and NE/4 NW/4
Section 17: E/2 E/2 and NW/4 NE/4 SE/4 NW/4, and S/2 SW/4
Section 18: SW/4 SW/4
Section 19: All
Section 20: All
Section 21: All
Section 22: NW/4 NW/4, S/2 NW/4, S/2 NE/4, and S/2
Section 23: W/2, S/2 NE/4, and SE/4
Section 25: N/2, N/2 SW/4, N/2 SE/4 and SE/4 SE/4
Section 26: N/2, SW/4, and NW/4 SE/4
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: NE/4 NW/4
Section 33: N/2
Section 34: W/2 NW/4, NE/4 NW/4, and NW/4 NE/4

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: NW/4 and N/2 SW/4
containing 8,055.16 acres, more or less.

That the Participating Area described above and the following-described lands lying outside of the Participating Area but

within the Cooperative Area, are hereby designated and recognized as constituting the committed acreage to the Maljamar Cooperative Agreement.

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 14: SW/4 (156.25 acres of 160-acre tract), and E/2
Section 16: NE/4, N/2 SE/4, and SE/4 NW/4
Section 17: SW/4 NE/4, W/2 SE/4, N/2 NW/4, SW/4 NW/4, and N/2 SW/4
Section 18: E/2, E/2 W/2, and Lots 1, 2 and 3
Section 22: N/2 NE/4 and NE/4 NW/4
Section 23: N/2 NE/4
Section 25: SW/4 SE/4, and S/2 SW/4
Section 26: NE/4 SE/4, and S/2 SE/4
Section 31: N/2, SE/4 NW/4, E/2 SW/4, and Lots 1, 2, 3, and 4
Section 32: NE/4 and N/2 NW/4, below 5000 feet only
Section 33: S/2
Section 34: N/2 SE/4 below 5000 feet only, NE/4 NE/4, S/2 NE/4, and SE/4 NW/4
Section 35: W/2

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: Lot 4, and SE/4 SW/4

(5) That the fully Unitized Area shall be those lands designated above as the Participating Area of the MCA Unit for the Grayburg-San Andres formation.

(6) That the Participating Area may be enlarged as provided in said Supplement No. 5 and additional acreage committed to the MCA Unit; provided, however, that administrative approval for the expansion of the Participating Area or the committed acreage must be obtained from the Secretary-Director of the Commission; and provided, further, that any extension of the Cooperative Area, or of the Unitized Area beyond the boundaries of the Cooperative Area as described herein, shall be made only after notice and hearing.

(7) That the MCA Unit Operator shall file with the Commission an executed original or executed counterpart of the Supplement No. 5 within thirty (30) days after the effective date thereof. In the event of subsequent joinder by any party or expansion of the Participating Area, the unit operator shall file with the Commission within thirty (30) days thereafter counterparts of the unit agreement reflecting the subscription of those interests having subsequently joined or ratified.

IT IS FURTHER ORDERED:

(1) That the applicant, Continental Oil Company, an operator, is hereby authorized to continue the gas and water injection project authorized by Orders 485,595, and R-841, and to continue and expand the water injection project as further authorized by Order No. R-1075 and as proposed by the Plan of Operations submitted with Supplement No. 5.

(2) That the MCA Unit approved gas and water injection wells shall be those wells listed in Exhibit "A" attached hereto. Additional wells may be drilled for gas or water injection, gas injection wells may be converted to water injection, water injection wells may be converted to gas injection wells, and producing wells may be converted to injection wells and injection wells to producing wells within the boundaries of the Maljamar Cooperative Agreement Area upon administrative approval of the Secretary-Director of the Commission without notice or hearing; provided, however, that all information required by Rule 701-B of the Commission Rules and Regulations shall be included in the application for administrative approval; and provided, further, that all offset operators to the well, if

**(MALJAMAR (MALJAMAR COOPERATIVE AREA
CONSOLIDATED ORDER) POOL - Cont'd.)**

any there be, whose acreage is not included within the Participating Area, and the State Engineer shall also be notified by registered or certified mail of such request for administrative approval. The Secretary-Director may approve the application if no such offset operator or the State Engineer has objected within 20 days. The Secretary-Director may grant immediate approval of the application upon receipt of written waivers of objection from all such offset operators and the State Engineer.

(As Added by Order No. R-2403-A, February 9, 1970) The Secretary-Director of the Commission is hereby also authorized to approve such additional producing wells and injection wells at unorthodox locations within the boundaries of the Maljamar Cooperative Agreement Unit Area as may be necessary to complete an efficient production and injection pattern; provided said wells are drilled no closer than 330 feet to the outer boundary of said MCA Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701-B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all operators owning acreage offsetting the quarter-quarter section upon which the well is to be located, if any there be, and no such operator has objected within 20 days. The Secretary-Director may grant immediate approval of the application upon receipt of written waivers of objection from all such offset operators.

(3) That the allocation to the Participating Area and other committed leases within the MCA Unit Area and the reallocation to the respective proration units therein shall be made upon the following plan:

(a) The unit operator shall submit to the Commission for approval the nomination in total barrels daily and schedule of reallocation to the respective proration units. Said nomination and schedule shall be submitted to the Commission and a duplicate shall be supplied to the Hobbs District Office of the Commission not later than the twentieth day of each month preceding the next proration month.

(b) Each proration unit shall be assigned an acreage allowable in whatsoever amount it is capable of producing up to but not exceeding fifteen (15) barrels daily, unless the unit operator nominates a lesser amount per proration unit.

(c) Each proration unit capable of producing the acreage allowable but incapable of producing the acreage allowable plus the allowable assignable through the application of the void space formula hereinafter provided shall be assigned an allowable equal to that volume of oil shown on its production test.

(d) All proration units capable of producing said acreage allowable plus the allowable allocated through the application of the void space formula shall be assigned a proportionate part of the total void space allowable so that each said proration unit will share in the void space allocation in inverse proportion to the amount of reservoir space voided as reflected by its production tests in strict accordance with the following formula:

Proration Unit Reciprocal

$$\frac{\text{Void Space Factor}}{\text{Summation of MCA Unit Reciprocal Void Space Factors}} \times \text{Void Space equals Number of Allowable Barrels}$$

The reciprocal void space factors to be determined from the attached Exhibit "B" being a table of "BARRELS OF RESERVOIR SPACE VOIDED IN PRODUCING ONE BARREL OF STOCK TANK OIL, AND THE RECIPROCAL FACTOR THEREOF, AT GIVEN GAS-OIL RATIOS AND RESERVOIR PRESSURES."

(e) A proration unit upon which is located a newly completed or reconditioned well shall be assigned an allowable in accordance with its acreage and void space allowable from the first day of production of new oil.

(f) The proration units within the MCA Unit Area shall have a top daily oil allowable equal to the Southeast New Mexico Waterflood Allowable Factor currently in effect or as modified by future orders of the Commission, subject to the acreage and void space allowable allocations. A proration unit must have either a producing well, an injection well or a shut-in well capable of production before it can receive an allowable assignment.

(g) Bottomhole pressure surveys and gas-oil ratio tests shall be taken and filed with the Commission in accordance with the Commission Rules and Regulations every six (6) months or at such periods as the Commission in its discretion may prescribe from time to time. All bottomhole pressures shall be computed to a common datum of sea level.

(h) In no event shall any well producing from horizons other than the Grayburg-San Andres formations be prorated under this plan of allocation.

(4) That the operator is hereby authorized to transfer the top unit allowable from any proration unit containing only an injection well, or a well shut-in for engineering reasons and approved by the Commission, to any well or wells assigned a top unit allowable under the void space formula and capable of making the transferred allowable or portion thereof. Where a well is incapable of producing its calculated void space allowable, the difference between its capability and that allowable assigned by the void space formula may likewise be transferred to any well or wells assigned a top unit allowable under the void space formula capable of making the transferred allowable or a portion thereof. Provided, however, that no allowable shall be transferred across the boundary of the Participating Area or across the boundary of any lease outside the Participating Area without notice and hearing.

(5) That an exception is hereby granted to the provisions of Rule 309-A of the Commission Rules and Regulations to permit the production of more than sixteen wells into a single tank battery. Operator shall notify the Commission of the location of any central tank battery at the time of its installation.

(6) That no well in the MCA Unit Area that is within the Participating Area and is closer than 1000 feet to the boundary thereof or that is outside the Participating Area and is closer than 1000 feet to the Participating Area or to another lease shall produce in excess of two times the top unit allowable for the MCA Unit Area. The Secretary-Director may, upon application filed in due form, approve production in excess of two times the top unit allowable if all offset operators have been notified of the application and no objection has been received within ten days. The Secretary-Director may grant immediate approval of such application upon receipt of written waivers of objection from all such offset operators.

(7) That all previous orders pertaining to the MCA Unit are hereby superseded insofar as they are inconsistent with this order.

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

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

CONTINGENCY PLAN

Currently, the Maljamar Plant depends upon pump transfer and wastewater injection to dispose of plant process and cooling waters. The total wastewater handled in this method is approximately 55 barrels per day.

In the event of a pump failure or a discontinuance of the waterflood reinjection program, all plant wastewater would be stored in the skimmer basin, tanks #13 and #14, and the slop tanks. (See Section B, Page 4.) Two of the slop tanks (150 Bbl/Tank) are empty at all times, the other three tanks (2-150 Bbl. tanks and 1-500 Bbl.) are used for slop oil storage. The plant produces approximately 195 Bbl/day of slop oil. This results in a total daily wastewater and slop oil production of 250 Bbl/day. Given a total capacity of 1,360 Bbls. in the slop oil tanks, tanks #13 and #14, and the skimmer basin, the plant maintains the capacity to retain up to 5.5 days of wastewater and slop oil production. Under such circumstances, wastewater would be hauled offsite to a commercial injection well for disposal.

HYDROLOGY AND GEOLOGY

The results of the enclosed well log (Section F, Page 2) are believed to closely approximate the geological formations underlying the Conoco Maljamar Gas Processing Plant.

The log was run on a well drilled in 1980 in the Maljamar Field. It indicates a water-bearing sandstone formation between 70 and 150 feet. No analyses of this water are available; therefore it is not possible to determine whether or not it may be considered a potential source of drinking water. The sedimentology above this formation is not known.

WELL NAME WILLIAM MITCHELL "B" NO. 20 FIELD BAISH-MALJAMAR-PEARSALDATE 9/22/80
 E ATION EST. GRD 3963' KB 3975' PROPOSED T.D. 4200'
 LOCATION (SURFACE) 660' FSL & 1980' FEL OF SECTION 18 T-17S R-32E
 COUNTY LEA STATE NM SPACING

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT</u> (O=Oil, G=Gas, W=Water)
WATER SS.	70'-150'	FRESH WATER
RUSTLER ANHY.	700'	-
SALADO SALT	810'	-
BASE SALT	1870'	-
YATES SS.	2030'	O,W,G
SEVEN RIVERS DOLO.	2390'	O,W,G
QUEEN SS.	2990'	O,W,G
GRAYBURG DOLO.	3390'	O,W,G
SAN ANDRES DOLO.	3770'	O,W,G

WELL SURVEYS - (List types by code numbers as follows: Directional and/or Deviation (1); Deflection (2); Caliper (3); Temperature (4); Electrical (5); Radioactive (6); Geograph (7); Photoclinometer (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0'-4200'	(7) Geograph	17-1/2" & 7-7/8"	One every 250' to base of salt. One every 500' thereafter.
0'-4200'	(1) Deviation	17-1/2" & 7-7/8"	
2000'-4200'	(5) DLL-GR	7-7/8"	2" & 5" Scales
2000'-4200'	(6) FDC-CNL-GR-CAL	7-7/8"	2" & 5" Scales
2000'-4200'	(6) PDC(GR-COLLAR)	5-1/2" Casing	Depth Contol
0'-4200'	(4) Temperature	5-1/2" Casing	Determine top of cement if necessary

CONSCO TO FURNISH WATER, CONTRACTOR TO FURNISH FUEL.

NAME: WILLIAM MITCHELL "B" NO. 20

COUNTY: LEA

ION: 660' PSI & 1980' FFL
 Sec. 18, T-17S, R-32E.

STATE: NM
 EST. KB: 3975'
 EST. GL: 3963'

DEPTH	FORMATION TOPS & TYPE PLEISTOCENE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE (IN)	CASING		(PPG) FRACTURE GRADIENT	(PPG) FORMATION PRESSURE GRADIENT	MUD	
					SIZE (IN)	DEPTH (FT)			(PPG) WEIGHT	TYPE
	WATER SS	70'-150'	GEOLOGRAPH DEVIATION 0'-TD							
	RUSTLER ANHY.	700'		17-1/2	54.5# K-55 STC	750'		8.3- 8.5	8.5- 9.0	SPEC
1000	SALADO SALT	810'								
		Possible water flows encountered 810'-4200'								
2000	BASE SALT	1870'								
	YATES SS.	2030'								
	SEVEN RIVERS DOLO.	2390'								
3000	QUEEN SS.	2990'								
	GRAYBURG DOLO.	3390'	DLL-GR FDC-CNL-GR-CAL 2000'-4200' 2" & 5"							
4000	SAN ANDRES DOLO.	3770'	PDC (GR-COLLAR) 2000'-4200'		15.5# K-55 STC					
	TD - 4200'		Temperature 0'-4200'	7-7/8	5-1/2	4200'	12-13	8.5- 10.5	9.0- 11.0	Salt Gel

FLOOD POTENTIAL AND PROTECTION

The Maljamar Plant is located in a semi-arid region of southeastern New Mexico. Due to the surrounding topography and Conoco's experience as the plant operator since 1969, Conoco does not believe that there is any significant flood potential at this site.

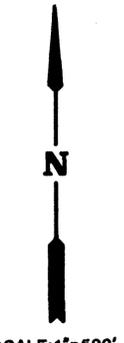
All slop oil tanks and the skimmer basin are diked to prevent any accidental releases resulting from equipment malfunction. Plant operators visually inspect for leaks on each eight-hour shift.

SOLID WASTE HANDLING

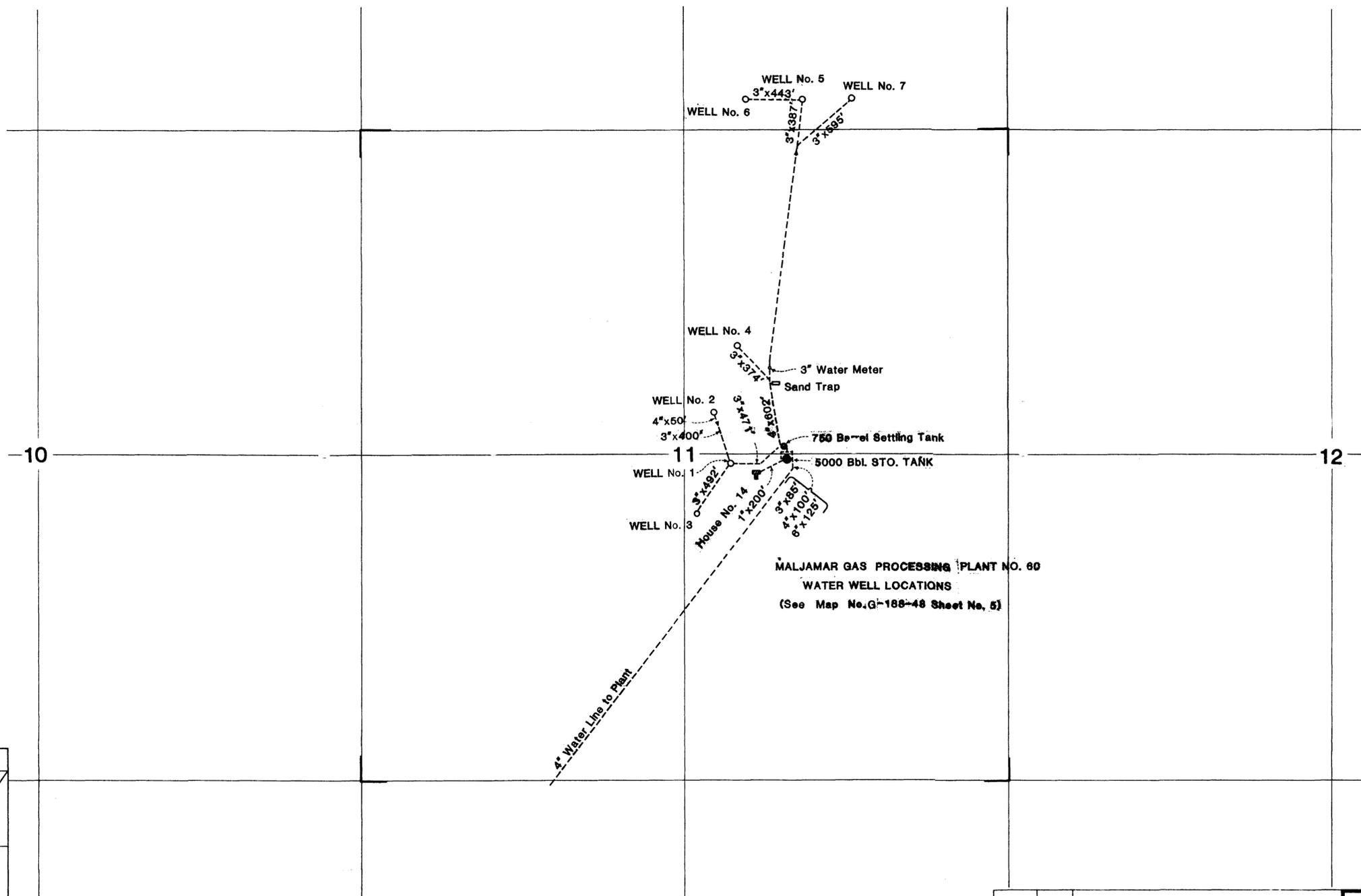
Solid wastes generated by the Maljamar Plant fall into one of four categories: (1) slop oil; (2) empty chemical drums; (3) oil and diethanolamine (DEA) filters; and (4) paper trash. Slop oil is separated from the process and cooling wastewater stream in the skimmer basin. This oil is then pumped to the plants slop oil tank battery, where it is held until it is sold to Navajo Pipeline. All empty chemical drums are picked up by the chemical supplier to be re-used. Used oil and DEA filters have been analyzed to be non-hazardous, as described in EPA regulations, 40 CFR 261. Used filters and paper trash are hauled to Conoco's production site where they are periodically burned.

The Maljamar Plant does not generate any RCRA-hazardous wastes during normal operations.

LEA COUNTY, NEW MEXICO
R 32 E / T 17 S

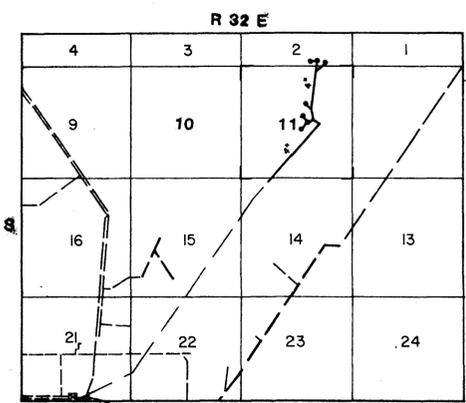


SCALE: 1" = 500'



MALJAMAR GAS PROCESSING PLANT NO. 60
WATER WELL LOCATIONS
(See Map No. G-188-48 Sheet No. 5)

REF. DWG. No. G-188-48
SHEET 5A



MALJAMAR GAS PLANT No. 60
VICINITY MAP
N. T. S.

ISSUE NO.	DATE	DRAWN BY	TRACED BY	CHECKED BY	APPROVED BY
1	11/2/81	H.S.			

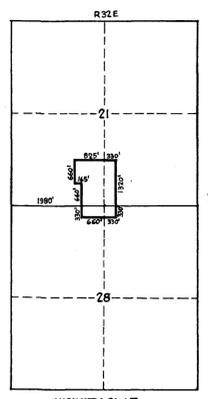
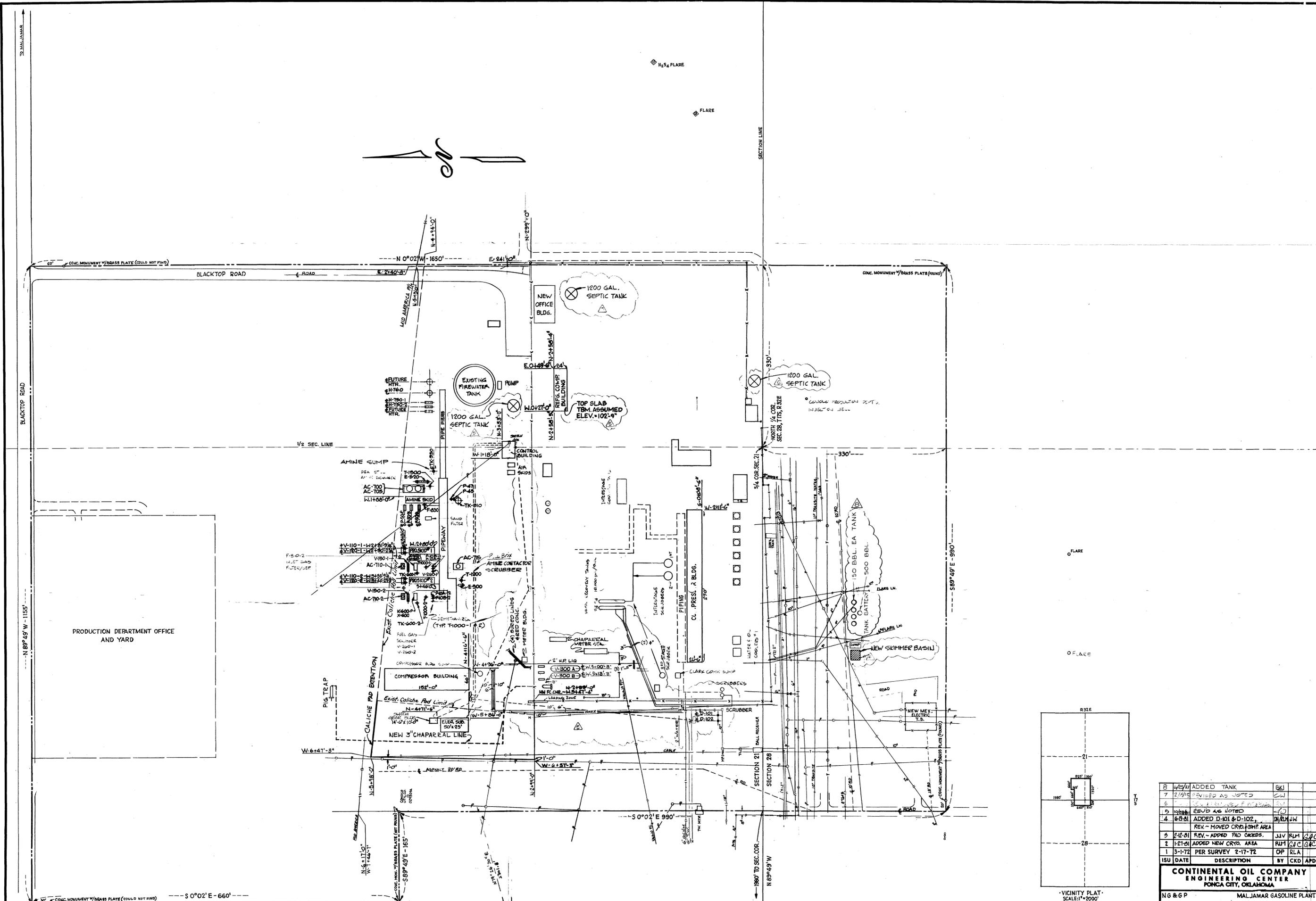
CONOCO INC.
NATURAL GAS PRODUCTS DEPARTMENT

**MALJAMAR GAS PLANT NO. 60
GAS GATHERING, REPRESSURE
& WATER LINE SYSTEMS**

LEA COUNTY, NEW MEXICO

APPROVED: *[Signature]* NGP No. 4-162-90

Changes in Progress, Revise, Redrawn



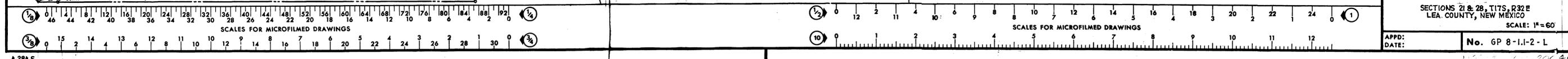
8	10/25/71	ADDED TANK	CKD	
7	2/15/73	REVISED AS NOTED	CKD	
6	10/25/71	REVISED AS NOTED	CKD	
5	10/25/71	REVISED AS NOTED	CKD	
4	6-19-71	ADDED D-101 & D-102	CKD/RLA	
3	1-12-71	REV. - MOVED CRYD. COMP. AREA	JLV/RLA/CKD	
2	1-21-71	ADDED NEW CRYD. AREA	RLA/CKD/CKD	
1	3-1-72	PER SURVEY 2-17-72	OP/RLA	
ISU	DATE	DESCRIPTION	BY	CKD/ADP

CONTINENTAL OIL COMPANY
ENGINEERING CENTER
PONCA CITY, OKLAHOMA

NG & GP MALJAMAR GASOLINE PLANT
 SECTIONS 21 & 28, T17S, R32E
 LEA COUNTY, NEW MEXICO
 SCALE: 1" = 60'

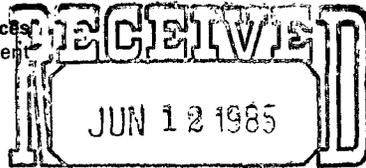
APPD: _____
 DATE: _____

No. GP 8-1-2-L





Environmental & Energy Services
Natural Gas Products Department



Conoco Inc.
P.O. Box 2197
Houston, TX 77252

OIL CONSERVATION DIVISION
SANTA FE

June 7, 1985

Mr. R. L. Stamets
Oil Conservation Division
Energy and Minerals Dept.
P.O. Box 2088
Santa Fe, NM 87501

Re: Discharge Plan Revisions: Additional Wastewater Analysis
Conoco Inc., Maljamar Gas Processing Plant

Dear Mr. Stamets:

Per my conversation today with Mr. Philip Baca of your office, I am enclosing an additional analysis of total dissolved solids on the plant wastewater stream.

Sincerely yours,

for 
Laura G. Daniel
Coordinator

/nl

Enclosure



SOUTHWESTERN LABORATORIES

119904

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

Client No. 1614002

File No. C-1950-W

Report No. 36433

Report Date 4-22-85

Date Received 4-19-85

Report of tests on: Water

Client: Conoco, Inc.

Identification: Skimmer Pit Water sampled at pump, 4-19-85

Total Dissolved Solids @ 180°C----- 3248 mg/l

Technician: GMB, KLH

Copies Conoco, Inc. - Maljamar Plant
Attn: Leon Sherrill

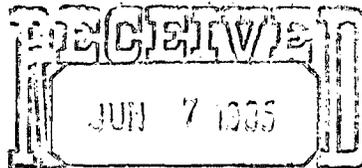
SOUTHWESTERN LABORATORIES



Environmental & Energy Services
Natural Gas Products Department

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

May 31, 1985



OIL CONSERVATION DIVISION
SANTA FE

Mr. R. L. Stamets, Director
Oil Conservation Division
Energy and Minerals Dept.
P.O. Box 2088
Santa Fe, NM 87501

Re: Discharge Plan Revisions: Additional Wastewater Analyses
Conoco Inc., Maljamar Gas Processing Plant

Dear Mr. Stamets:

Attached please find the additional wastewater analyses to be incorporated into the Maljamar Gas Processing Plant Discharge Plan. These analyses were inadvertently omitted from our May 28, 1985 submittal.

Sincerely yours,

Laura G. Daniel
Coordinator

Attachment



SOUTHWESTERN LABORATORIES

119904

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue [915 - 683-3348] • P.O. Box 2150 • Midland, Texas 79701

Client No. 1614002

File No. C-1950-W

Report No. 36450

Report Date 5-9-85

Date Received 5-3-85

Report of tests on: Water

Client: Conoco, Inc.

Identification: Maljamar Plant Waste Water

	<u>mg/L</u>
Aluminum-----Less Than	2
Cadmium-----Less Than	0.05
Manganese-----Less Than	0.1
Molybdenum-----	0.1
Selenium-----Less Than	0.01
Benzene-----	52.8
Ethyl-Benzene-----	1.1
Ortho-Xylene-----	1.0
Meta-Xylene-----	4.1
Para-Xylene-----	0.1
Toluene-----	23.2
 Total Dissolved Solids @ 180°C-----	 4984

Technician: KDT, LT, JA

Copies Conoco, Inc. - Maljamar - Charles Sirmons
Conoco, Inc. - Houston - Laura G. Daniel

SOUTHWESTERN LABORATORIES

Larry M. Bunch



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

Client No. 1614002

File No. C-1950-W

Report No. 36450

Report Date 5-9-85

Date Received 5-3-85

RECEIVED

MAY 10 1985

MALJAMAR GAS PLANT

Report of tests on: Water

Client: Conoco, Inc.

Identification: Maljamar Plant Waste Water

	<u>mg/L</u>
Aluminum-----Less Than	2
Cadmium-----Less Than	0.05
Manganese-----Less Than	0.1
Molybdenum-----	0.1
Selenium-----Less Than	0.01
Benzene-----	52.8
Ethyl-Benzene-----	1.1
Ortho-Xylene-----	1.0
Meta-Xylene-----	4.1
Para-Xylene-----	0.1
Toluene-----	23.2
Total Dissolved Solids @ 180°C-----	4984

Technician: KDT, LT, JA

Copies Conoco, Inc. - Maljamar - Charles Sirmons
Conoco, Inc. - Houston - Laura G. Daniel

SOUTHWESTERN LABORATORIES

Larry M. Burch

STATE OF
NEW MEXICO



OIL
CONSERVATION
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 8:30	Date 6/7/85
---	-----------------------------------	--------------	----------------

<u>Originating Party</u>	<u>Other Parties</u>
P. BACA - CCD	L. DANIEL - CONOCO

Subject
MALJAMAR DISCHARGE PLAN

Discussion
I informed Ms. Daniel that the wastewater analysis was missing from her letter of 5/28/85. She will send a copy (it has been sent). I asked her about the underground tank referenced in the same letter. She said it was an amine surge tank and wouldn't be subject to UST in her opinion as it is an in-process vessel.

Conclusions or Agreements

Distribution _____
Signed P. L. Baca



Environmental & Energy Services
Natural Gas Products Department

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

May 28, 1985

Mr. R. L. Stamets, Director
Oil Conservation Division
Energy and Minerals Department
P.O. Box 2088
Santa Fe, NM 87501

Re: Discharge Plan Revisions
Conoco Inc., Maljamar Gas Processing Plant

Dear Mr. Stamets:

Enclosed please find the subject revisions, as requested by Mr. Philip Baca's letter dated April 17, 1985. Specifically, that letter requested additional information on five (5) issues. Conoco's response to that request is summarized in this and, where appropriate, included in the attached plan revisions.

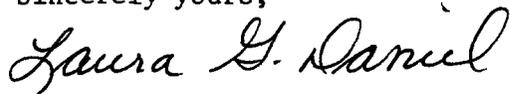
ISSUES

1. Water and Wastewater Analyses: The additional chemical analyses requested were completed for the wastewater stream. These analyses are enclosed and should be incorporated in to the March 7, 1985 Revised Discharge Plan. No additional analyses were made of the fresh water supply. There is no reason to suspect that the water quality has changed significantly since the September 1981 analyses were conducted. Mr. Baca agreed in a phone conversation on March 4, 1985 that additional analyses of the water supply were not necessary.
2. Plant Water Balance: I have reconfirmed the effluent discharge rate of 55 BPD, as indicated in Section 13, Page 3 of the March 7, 1985 plan submittal. This volume is substantially lower than the 1780 BPD shown in the May 7, 1984 submittal due to modifications to the plant process, including the elimination of the plant cooling tower.
3. Contingency Plan: A revised contingency plan is enclosed. Additionally, minor revisions were made to the flow diagram in Section B, Page 4 of the Plan. This revised diagram, as well as an additional tank battery/skim basin detail diagram are enclosed.

4. & 5. The plant does contain some underground piping and tankage. Most of this piping and tankage are cathodically protected. Mr. Baca indicated that additional information would not be required at this time.

Please contact the undersigned at (713) 293-1123 if you have any questions about the information provided herein. We look forward to your approval of this Discharge Plan.

Sincerely yours,



Laura G. Daniel
Coordinator

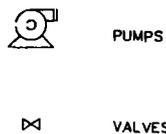
Enclosure

CONTINGENCY PLAN

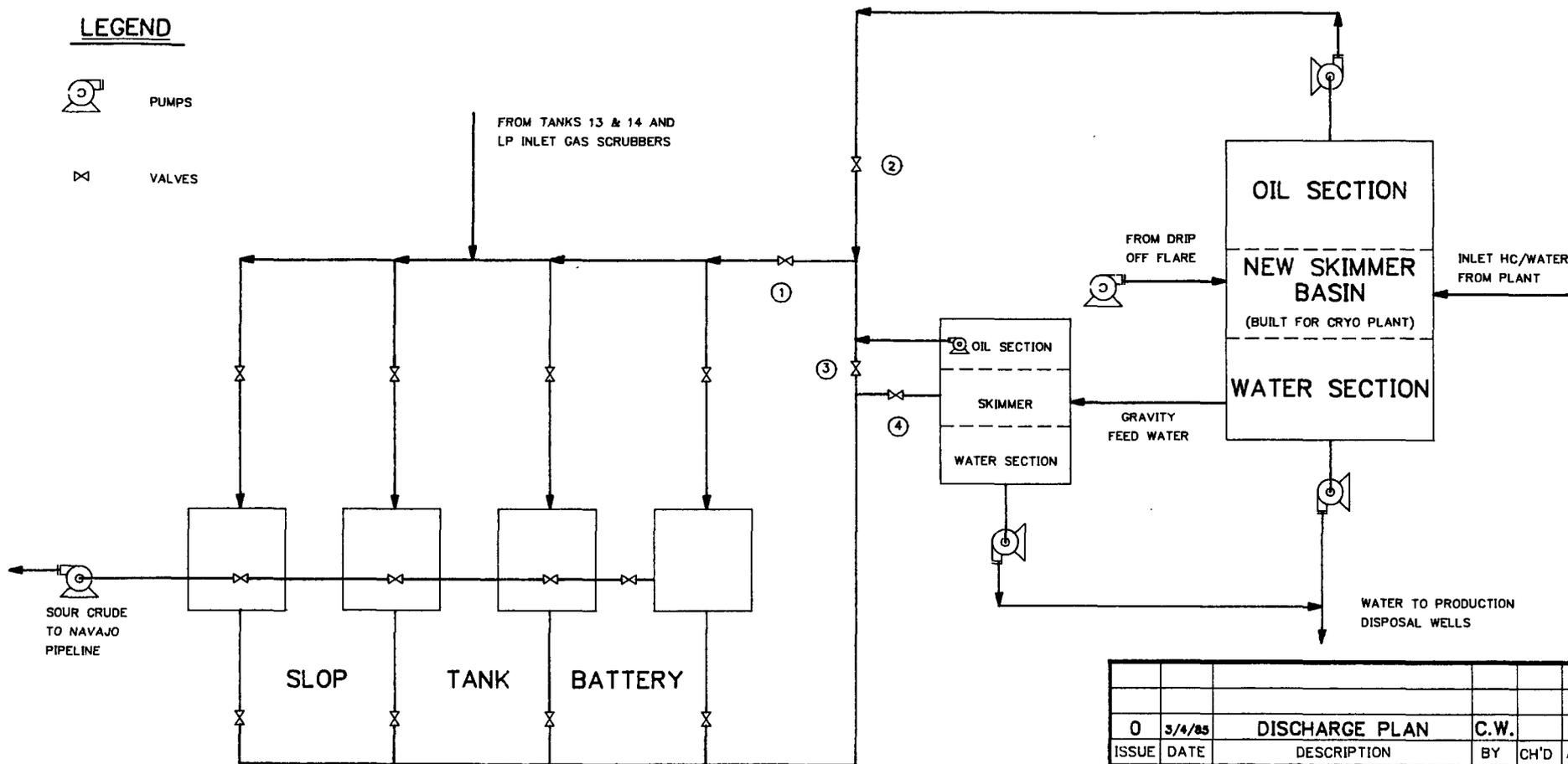
Currently, the Maljamar Plant depends upon pump transfer and wastewater injection to dispose of plant process and cooling waters. The total wastewater handled in this method is approximately 55 barrels per day.

In the event of a pump failure or a discontinuance of the waterflood reinjection program, all plant wastewater would be stored in the skimmer basin, tanks #13 and #14, and the slop tanks. (See Section B, Page 4.) Two of the slop tanks (150 bbl/tank) are empty at all times, with the other two tanks being used for slop oil storage. The plant produces approximately 195 bbl/day of slop oil. This results in a total daily wastewater and slop oil production of 250 bbl/day. Given a total capacity of 860 bbls in the slop oil tanks, tanks #13 and #14, and the skimmer basin, the plant maintains the capacity to retain up to 3.4 days of wastewater and slop oil production. Under such circumstances, wastewater would be hauled offsite to a commercial injection well for disposal.

LEGEND



FROM TANKS 13 & 14 AND
LP INLET GAS SCRUBBERS



DRAIN LINE OFF BOTTOM
OF TANKS OR FILL LINE

0	3/4/85	DISCHARGE PLAN	C.W.		
ISSUE	DATE	DESCRIPTION	BY	CH'D	APPD.

 **CONOCO INC.**
 NATURAL GAS PRODUCTS DEPARTMENT
 HOUSTON, TEXAS

MALJAMAR GAS PROCESSING PLANT
DETAIL FLOW DIAGRAM OF SKIMMER
BASIN AND SLOP TANKS

APPD.	SCALE:	DRAWN BY	C. WALKER
DATE	NONE	NGP NO.	
			FILE: 85C0142

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.

Conoco Inc., Maljamar Gas Processing Plant (S/2 Section 21, N/2 Section 28, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico), L. G. Daniel, Authorized Agent, P.O. Box 2197, Suite 410 RT, Houston, Texas 77252, proposes to continue discharging approximately 2300 gallons per day of industrial wastewater into Conoco Inc.'s waterflood project located nearby. The waterflood project consists of Class II injection wells and was approved by Oil Conservation Commission Order R-2403. The wastewater has a total dissolved solids concentration of approximately 3240 mg/l. The ground water most likely to be affected is at a depth of approximately 120 feet with a concentration of approximately 440 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.

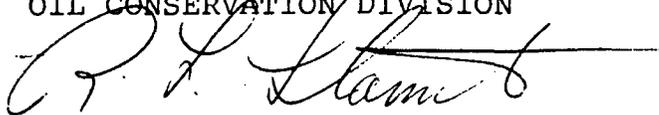
Published

Abb (5/7/85)

Harris (5/3/85)

GIVEN Under the Seal of the New Mexico Oil Conservation
Commission at Santa Fe, New Mexico, on this 30th day of
April, 1985.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, appearing to read "R. L. Stamets", written over a horizontal line.

R. L. STAMETS
Director

S E A L



MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 11:55 am	Date 4/24/85
---	-----------------------------------	------------------	-----------------

<u>Originating Party</u> L. Daniel - Conoco	<u>Other Parties</u> P. Baca - OCD
--	---------------------------------------

Subject Conoco Meljamar D.P.

Discussion
 Ms. Daniel stated that the most recent wastewater analysis shows a TDS value of 3240 ppm. Ms. Daniel also inquired as to the D.P. procedures for their new plant to be constructed near Farmington. I told her to send us a letter containing project schedule information. Ms. Daniel also requested a copy of the WQCB regulations.

Conclusions or Agreements
 Ms. Daniel will send the wastewater results to OCD.

<u>Distribution</u>	Signed
---------------------	--------

STATE OF
NEW MEXICO



OIL
CONSERVATION
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone Personal

Time 11:00 am

Date 4-18-85

Originating Party

Other Parties

L. Daniel - Conoco

P. Baca - OCD

Subject Maljamas Gas Plant D.P.

Discussion Ms. Daniel asked if it would be alright not to have the raw water (plant supply) re-analyzed. I told her that wouldn't be a problem.

Conclusions or Agreements

Distribution

Signed P. L. Baca



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION



1935 - 1985

April 17, 1985

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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Conoco Inc.
P.O. Box 2197
Suite 410 RT
Houston, Texas 77252

Attention: Ms. Laura Daniel

Dear Ms. Daniel:

We have received the additional information requested by OCD concerning your revised discharge plan (GW-20) for the Maljamar Gas Processing Plant. Upon review of the most recent information submitted by Conoco (3-7-85), we have found some inconsistencies between the information submitted and the revised discharge plan submitted 5-31-84. To continue with the review process, the inconsistencies must be rectified and the following information must be submitted:

1) The chemical analysis of the plant supply water and plant wastewater indicates that the TDS for the wastewater (46 ppm) is less than the TDS of the supply water (442 ppm). Is this a typographical error? The chemical analysis of the water samples also varies greatly with respect to the TDS values in your revised discharge plan submitted on 5-7-84 (copies of both analysis attached). Please comment on this. In addition, your most recent analysis does not contain any values for cadmium, selenium, benzene, ethylbenzene, toluene, ortho-, para-, and meta-xylenes, manganese, aluminum, and molybdenum. Please submit an analysis report for the above mentioned constituents for the supply water and wastewater. The analysis for cadmium, manganese, aluminum, and molybdenum can be analyzed for by one ICAP Scan, while selenium can be analyzed for by atomic absorption. The analysis for benzene, toluene, ethylbenzene, and the xylenes can be accomplished by one gas chromatograph scan.

2) The plant water balance illustrated in Section B, pg. 3, indicates a total effluent discharge of 55BPD. The water balance illustrated on pg. B-3 of your revised discharge plan submitted on 5-7-84 indicates an effluent discharge rate of 1780 BPD. Please explain the change. Which value is correct?

3) Your contingency plan in the event of a disposal well pump shutdown indicates that the skimmer basin and Tanks 13 and 14 will be used to store the effluent until water trucks can be summoned. According to the illustration in Section B, pg. 4, the bulk of the storage capacity (500 Bbl) is from Tanks 13 and 14; however, only seven scrubbers feed directly to the tanks. The remainder of the waste drainage system bypasses the tanks and the effluent is conveyed directly to the skimmer basin. Is this flowrate to the skimmer basin low enough to provide enough time to bring in a water truck (Note: if the flowrate is 55 BPD, you have approximately 1 day before the basin overflows, if the flowrate is 1780 BPD, you have approximately 50 minutes before the basin overflows). You may wish to incorporate the Slop Tank Battery and BS & W pump as part of your contingency plan. Please comment on this and describe in detail the contingency plan procedure.

4) Does the plant contain any underground piping? If so, what is the approximate age of the underground piping system and what methods, if any, are used for detecting leaks?

5) Does the plant contain any underground tanks? If so, are they ever inspected for leaks?

By a letter dated January 24, 1985, Conoco was granted an extension to operate the Maljamar Gas Processing Plant without an approved discharge plan until May 31, 1985. Section 3-108 of the Water Quality Control Commission regulations requires that prior to the approval of a discharge plan, a public notice must be published and a period of at least 30 days must be allowed for public comment. The public notice must include a statement pertaining to the quantity, quality, and flow characteristics of the discharge. Your expediency in obtaining accurate quantity (flowrate) and quality (TDS or conductivity) data, will greatly aid us in meeting the May 31, 1985 deadline.

If you have any questions regarding this letter or the discharge plan process, please feel free to contact me or Dave Boyer at (505) 827-5812.

Sincerely,

PHILIP L. BACA
Environmental Engineer

PLB/dp

Encs.

cc: R. L. Stamets
Hobbs OCD Office



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

SUBMITTED TO **OCD**
3-7-85

File No. C-1950-W

Report No. 36204

Report Date 3-4-85

Date Received 2-26-85

Report of tests on: **Water**

Client: **Conoco, Inc.**

Identification: **Fresh Water to Plant, Sampled at office tap,
Sampled 2-26-85 @ 1:50 PM by SWL/Jack Barton**

mg/L

Arsenic-----	Less Than	0.05
Barium-----	Less Than	0.1
Boron-----	Less Than	0.1
Chromium-----	Less Than	0.05
Iron-----		1.0
Lead-----	Less Than	0.05
Mercury-----	Less Than	0.002
Zinc-----		0.11
Sulfate-----		30
Chloride-----		11
Fluoride-----		0.6
Nitrate-----		6.3
Cyanide-----	Less Than	0.005
Phenols-----	Less Than	0.005
Total Dissolved Solids @ 180°C-----		442
Fecal Coliforms-----	Less Than 10 colonies/100 mls	
pH-----	6.87	

Technician: **KLH, RY**

Order: **Conoco, Inc - Maljamar, NM
Conoco, Inc - Houston, TX.**

SOUTHWESTERN LABORATORIES



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

SUBMITTED TO OLD
3-7-85

File No. C-1950-W

Report No. 36205

Report Date 3-4-85

Date Received 2-26-85

Report of tests on: **Water**

Client: **Conoco, Inc.**

Identification: **Plant Waste Water, Sampled down stream of discharge pump,
Sampled 2-26-85 by SWL/Jack Barton**

mg/L

Arsenic-----	0.08
Barium-----Less Than	0.1
Boron-----Less Than	0.1
Chromium-----Less Than	0.05
Iron-----Less Than	0.2
Lead-----Less Than	0.05
Mercury-----Less Than	0.002
Zinc-----Less Than	0.05
Sulfate-----	5
Chloride-----	28
Fluoride-----Less Than	0.1
Nitrate-----	10.0
Cyanide-----Less Than	0.005
Phenols-----Less Than	0.005
Total Dissolved Solids @ 180°C-----	46
Fecal Coliforms-----Less Than 10 colonies/100 mls	
pH-----	7.32

Technician: **KLH, RY**

Conoco, Inc. - Midland, NM
Conoco, Inc. - Houston, TX

SOUTHWESTERN LABORATORIES

Larry M. Burch

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION 110089
 INVOICE NO.

SUBMITTED TO OGD
 5-7-84

REPORT OF
 ANALYSIS

SAMPLES RECEIVED 9/18/81 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water

<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>mg/l</u>
Conoco Maljamar Wastewater-no additives Collected 9/17/81 @ 1:30 pm		
	Boron	0.6
	Chloride	559
	Fluoride	2.1
	Nitrogen, Nitrate (as N)	7.6
	pH Units	7.8
	Solids, Total Dissolved	2145
	Sulfate	618
	Benzene	< 1.0
	Toluene	< 1.0
	Ethylbenzene	< 1.0
	Pentachlorophenol	< 0.001

Conoco Maljamar Well Water-no additives Collected 9/17/81 @ 2:00 pm		
	Boron	0.2
	Chloride	2.6
	Fluoride	0.8
	Nitrogen, Nitrate (as N)	4.5
	pH Units	8.1
	Solids, Total Dissolved	279
	Sulfate	32.5



APPROVED BY 

10/21/81 John D. Ritts, Manager Technical
 PAGE 1 OF 1 PAGE Services

STATE OF
NEW MEXICO

OIL
CONSERVATION
DIVISION



MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 1:15 pm	Date 4-17-85
<u>Originating Party</u> P. Baca - OCD		<u>Other Parties</u> L. Daniel - Conoco	
<u>Subject</u> Maljamar Gas Plant D.P.			
<u>Discussion</u> Informed Ms. Daniel of the letter being sent to her concerning the information submitted by Conoco on 3-1-85. I expressed our need for obtaining accurate IDs (or conductivity) values and flowrate values expeditiously so that the D.P. can be advertized with enough time so that the 30 day comment period does not exceed the May 31, 1985 deadline to operate without an approved D.P. Ms. Daniel stated that the correct efficient discharge rate is 35 BPD. The change is due to the complete shutdown of their cooling towers.			
<u>Conclusions or Agreements</u> Ms. Daniel will obtain IDs or conductivity info on the efficient and share it in. She will also follow up in writing.			

Distribution

Signed

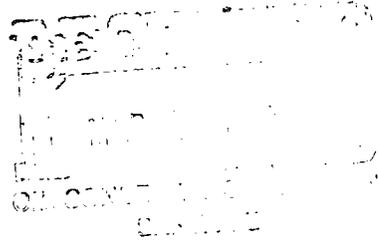
P. L. Baca



Environmental & Energy Services
Natural Gas Products Department

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

March 7, 1985



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

Re: Revised Discharge Plan (GW-20)
Conoco Inc. Maljamar Gas Processing Plant

Dear Mr. Stamets:

Enclosed please find the subject discharge plan. The revisions were made in response to the OCD's letter of December 19, 1984. Specifically, in that letter Mr. Baca of your office requested additional information on eleven (11) issues. Our response to that request is summarized in this letter and, where appropriate, included in the revised discharge plan.

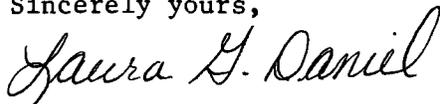
ISSUES

1. Water Analyses: Complete analyses were rerun on both the fresh water supply and the plant wastewater. These analyses are included in Section C of the Plan.
2. Effluent Flow Rate: Methods for determining various flow rates are described in Section B.
3. Liquid Waste Drainage Schematic: A new, more detailed schematic has been included in Section B. We have also included a more detailed drawing of the diethanolamine drainage system.
4. Injection Well: The well in the S.E. corner of the plant is not operated or utilized by the plant. It is operated by Conoco's North American Production Department under OCC Order No. R-2403.
5. Skimmer Basin Sump: The sump near the skimmer basin contains the pump to transfer skim oil to the slop oil tanks.
6. Leak Detection System: The skimmer basin is not equipped with a leak detection system. The corrugated plating is used as a cover for the skimmer basin, not as flooring. The basin is of epoxy-coated concrete construction.

7. Plant-Wide Inspection Program: As described in Section H, plant operators visually inspect the plant for leaks on each eight (8) hours shift.
8. Contingency Plan: These items are included in Section E.
9. Tank Battery: The tank battery is used for temporary storage of slop oils. The drawing on Page 4, Section B details the source of these slop oils.
10. Dry Pit: The pit referenced in this item previously contained an emergency ground-level flare. With the installation of a new flare system, this emergency flare was taken out of service. The pit was leveled and closed in November 1984.
11. Flooding Potential: This item is described in Section H of the Plan.

Please contact the undersigned if you have any questions or you require additional information. We look forward to your review and approval of this Discharge Plan.

Sincerely yours,



Laura G. Daniel
Coordinator

/nl

Enclosures

TABLE OF CONTENTS

MALJAMAR GAS PROCESSING PLANT
DISCHARGE PLAN
3RD REVISION

<u>SECTION</u>	<u>PAGE</u>	<u>TOPIC</u>
A	1	Plant Description
	2	Plot Plan
	3	Survey
B	1	Water Balance: Description
	2	Fresh Water System: Plot Plan
	3	Water Balance: Schematic
	4	Flow Diagram: Liquid Waste Drainage
	5	Diethanolamine System
C	1	Water Quality: Fresh Water Analysis
	2	Waste Water Analysis
D	1	Water Treatment and Disposal: Description
	2	Skimmer Basin: Plan View
	3	Side View
	4	Sanitary Sewage Treatment
	5	Injection Wells
	6	OCD Order No. R-2403
E	1	Contingency Plan
F	1	Hydrology and Geology: Description
	2	Well Log
G	1	Solid Waste Handling: Description
H	1	Flood Potential: Description

PLANT DESCRIPTION

The Maljamar Gas Processing Plant is fully owned and operated by Conoco Inc. The plant is located three (3) miles south of Maljamar, Lea County, New Mexico on Farm Road 126. The plant is designed to recover natural gas liquids (ethane, propane, butanes, and pentanes+) from 50 million cubic feet per day (MMCFD).

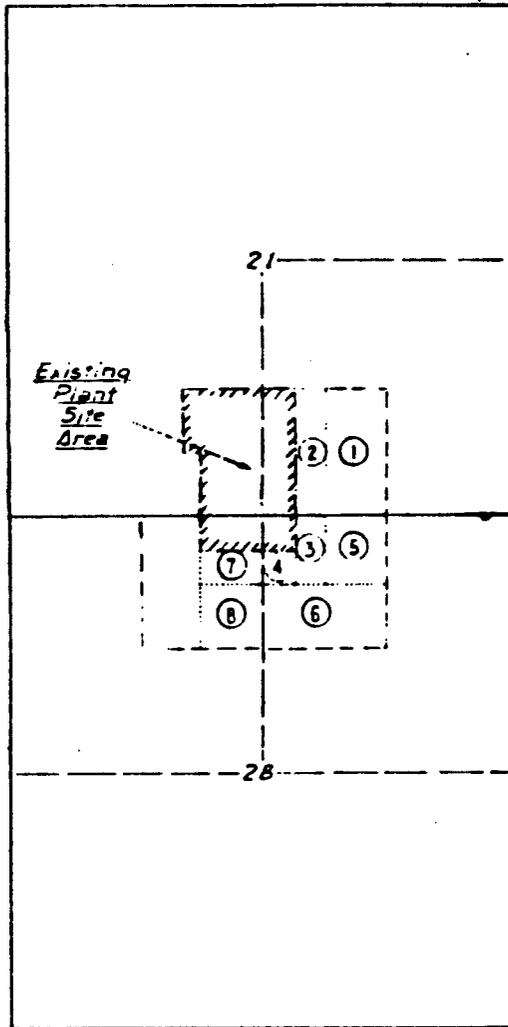
Conoco Inc. purchased the Maljamar Plant in 1969, at which time it consisted solely of one refrigerated oil absorption train. In 1981, an additional cryogenic process train was installed with a design capacity of 50 MMCFD, resulting in a total plant capacity of 60 MMCFD. In 1982, the refrigerated oil absorption (ROA) process train was shutdown and subsequently dismantled. This resulted in a decreased wastewater flow, due to the shutdown of the cooling tower associated with ROA process train.

Currently, low pressure gas is gathered from six (6) gathering systems (Ajax, Anderson, Caprock, Greenwood, Lush, and Skelly), is compressed, and is processed with high pressure gas from Transwestern's Kemnitz, Turkey Track, and Holly systems. Plant throughput varies between 16 MMCFD and 44 MMCFD.

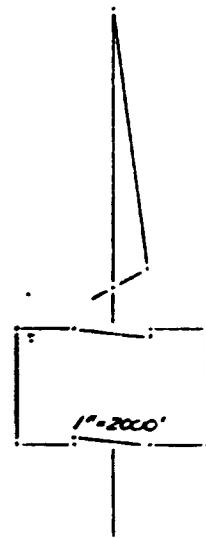
The plant produces an EPBC (ethane, propane, butane, and condensate) product stream which is delivered to Mont Belvieu, Texas via Chaparral Pipeline. Residue gas is delivered to Gas Company of New Mexico and Transwestern Pipeline.

The Plant Manager is Mr. C. W. Sirmons.

R-32-E



T
17
S



No	Sub Division	Sec	Twp	Rng.	Area
①	E/2 SW/4 SE/4	21	17S	32E	20.0 Ac.
②	E/2 W/2 SW/4 SE/4	21	17S	32E	10.0 Ac.
③	E/2 NW/4 NW/4 NE/4	28	17S	32E	5.0 Ac.
④	SW/4 NW/4 NW/4 NE/4	28	17S	32E	2.5 Ac.
⑤	NE/4 NW/4 NE/4	28	17S	32E	10.0 Ac.
⑥	S/2 NW/4 NE/4	28	17S	32E	20.0 Ac.
⑦	S/2 NE/4 NE/4 NW/4	28	17S	32E	5.0 Ac.
⑧	SE/4 NE/4 NW/4	28	17S	32E	10.0 Ac.
Total:					82.5 Acres



ENGINEERS STATEMENT

Joe J. Hewett Jr states he is by occupation a civil engineer employed Continental Oil Company to make the survey of the gasoline plant site described and shown on this map; that the survey of said works was made by him and under authority commencing on the 31st day of May 1972; and ending on the 31st day of May, 1972; and that such survey is accurately represented upon this map.

Joe J. Hewett Jr.
Reg. PE # LS 3280

APPLICANTS CERTIFICATE

This is to certify that Joe J. Hewett Jr who subscribed the statement hereon is the person employed by the undersigned applicant to prepare this map which has been adopted as the approximate final location of the works thereby shown; and that this map is filed as part of the complete application and in order that the applicant may obtain the benefits of Section 28 of the act of February 25, 1920, as amended by the act of August 21, 1935, and I further certify that the right-of-way herein described is for gasoline plant site.

Signed _____
Title _____

CONTINENTAL OIL COMPANY

PROPOSED PLANT SITE ADDITION
To
MALJAMAR GASOLINE PLANT
In Sections 21 & 28, T-17-S, R-32-E
Lea County, New Mexico

Date Of Survey:
5-31-72

Prepared By:
CIRCLE CROSS ENGINEERING

File No.

WATER BALANCE: DESCRIPTION

The Maljamar Gas Processing Plant uses fresh water produced from five (5), 120 foot deep Conoco-owned wells. All fresh water flows to a 10,000 barrel (Bbl.) storage tank. Exhibit B-2 is a plot plan of the fresh water system.

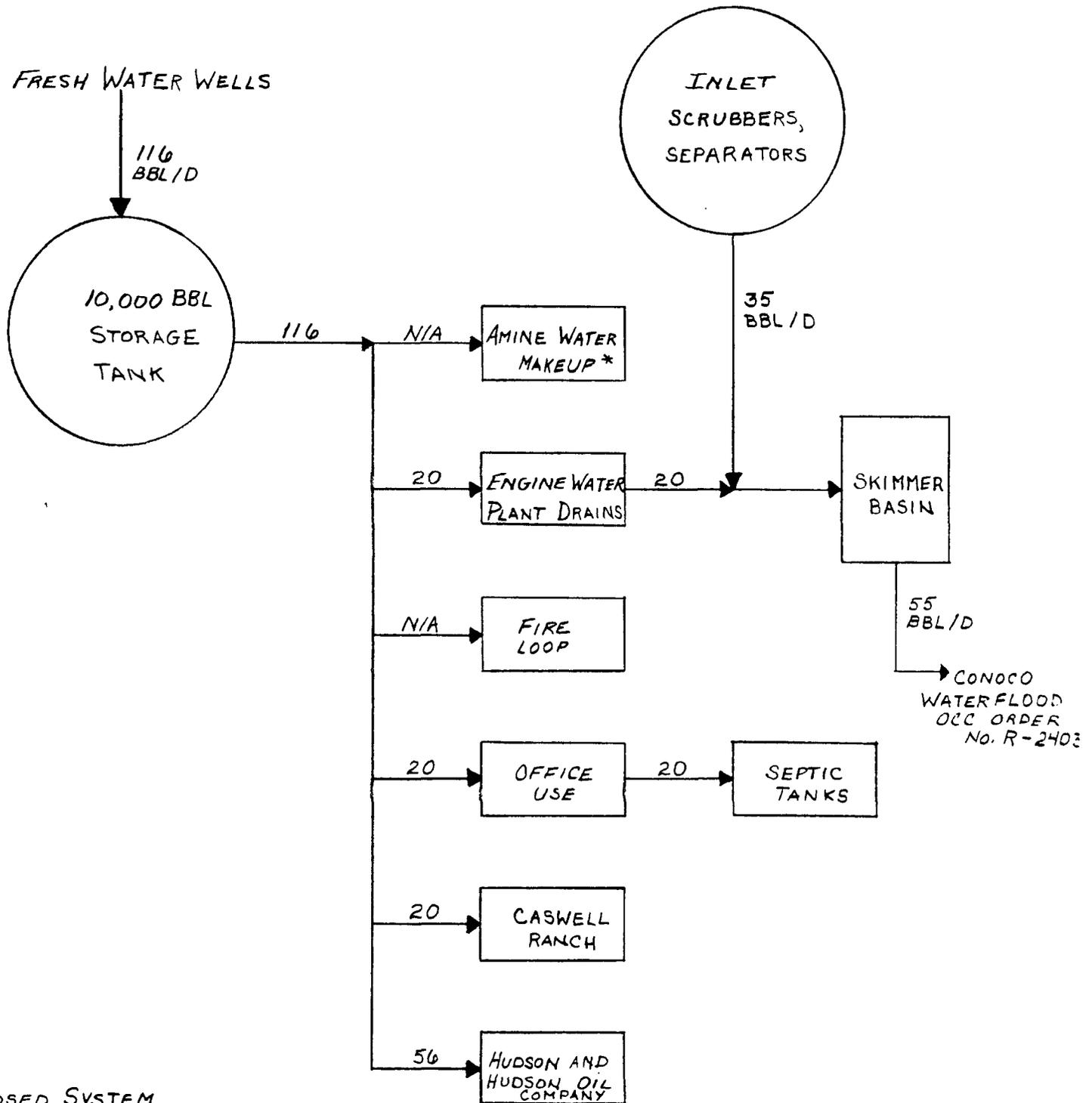
Approximately 116 Bbl. per day flow from the storage tank to the users. Of this amount, 20 Bbl. per day goes to the Caswell Ranch, and 56 Bbl. per day to Hudson and Hudson Oil Company. These are private, non-Conoco users.

The Maljamar Plant uses 40 Bbl. per day - approximately 20 Bbl. for office use and 20 Bbl. for plant use and engine jacket water.

Water is metered to each user. The water allocation between plant and office use is calculated, based upon office use of 25 gallon per person per day, and 33 employees.

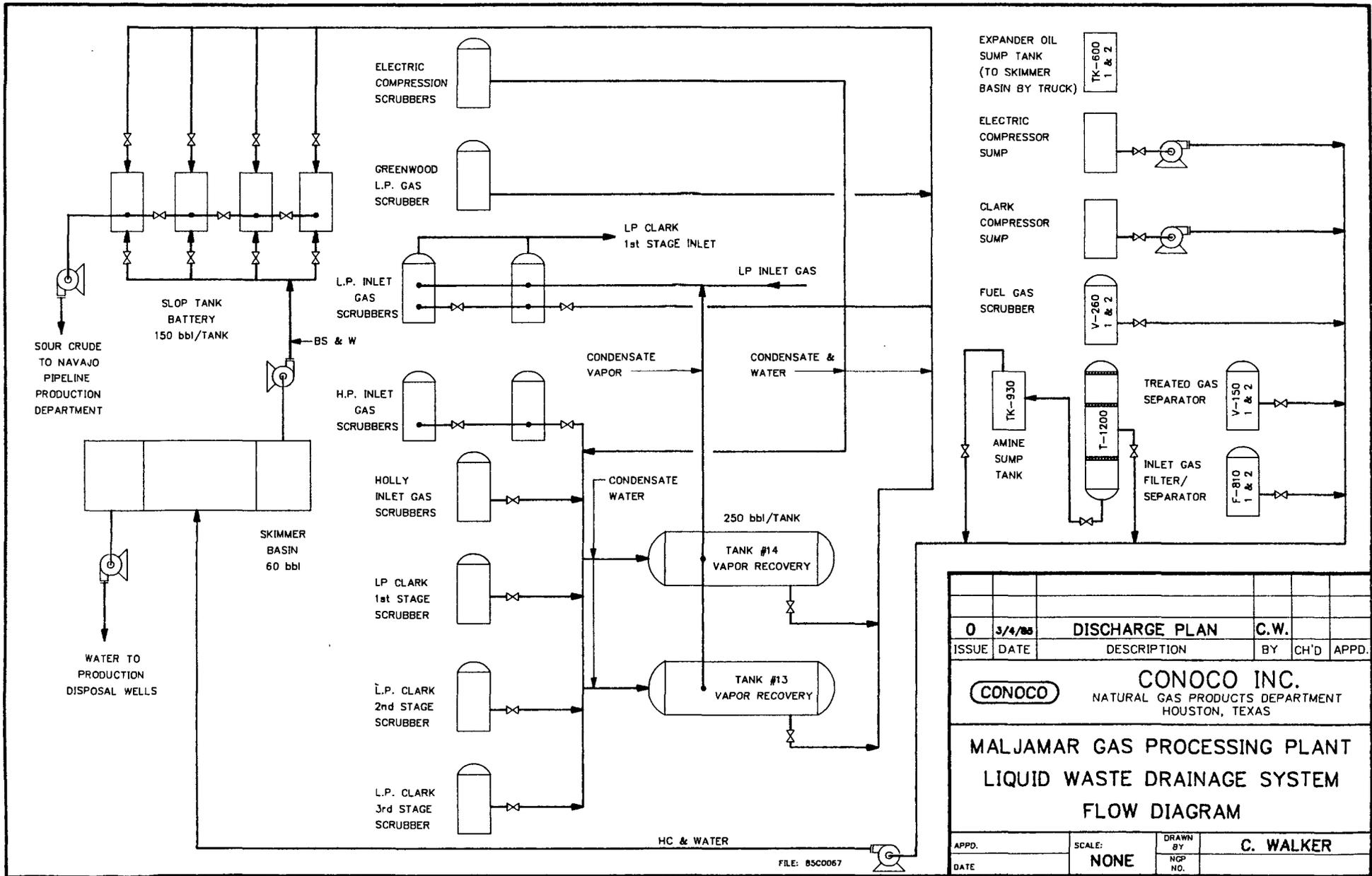
All water use in the office is discharged to a sanitary septic system. Plant drains and engine jacket water discharge to the skimmer basin (20 Bbl/day). Approximately 35 Bbl/day of water is also discharged from the plant inlet scrubbers and separators to the skimmer basin. Oil is separated in the skimmer basin and pumped to an adjacent storage tank. All water (55 Bbl/day) from the skimmer basin is pumped to Conoco's waterflood project for reinjection

PLANT WATER BALANCE



*CLOSED SYSTEM

LGD
3-4-85



0	3/4/85	DISCHARGE PLAN	C.W.		
ISSUE	DATE	DESCRIPTION	BY	CH'D	APPD.

CONOCO NATURAL GAS PRODUCTS DEPARTMENT
HOUSTON, TEXAS

**MALJAMAR GAS PROCESSING PLANT
LIQUID WASTE DRAINAGE SYSTEM
FLOW DIAGRAM**

APPD.	SCALE:	DRAWN BY:	C. WALKER
DATE	NONE	NGP NO.	

FILE: 85C0067

SWL**SOUTHWESTERN LABORATORIES***Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services*

1703 W. Industrial Avenue (915 - 683-3348) • P.O. Box 2150 • Midland, Texas 79701

File No. C-1950-WReport No. 36204Report Date 3-4-85Date Received 2-26-85Report of tests on: **Water**Client: **Conoco, Inc.**Identification: **Fresh Water to Plant, Sampled at office tap,
Sampled 2-26-85 @ 1:50 PM by SWL/Jack Barton**

	<u>mg/L</u>
Arsenic-----Less Than	0.05
Barium-----Less Than	0.1
Boron-----Less Than	0.1
Chromium-----Less Than	0.05
Iron-----	1.0
Lead-----Less Than	0.05
Mercury-----Less Than	0.002
Zinc-----	0.11
Sulfate-----	30
Chloride-----	11
Fluoride-----	0.6
Nitrate-----	6.3
Cyanide-----Less Than	0.005
Phenols-----Less Than	0.005
Total Dissolved Solids @ 180°C-----	442
Fecal Coliforms-----Less Than 10 colonies/100 mls	
pH-----	6.87

Technician: **KLH, RY**Copies **Conoco, Inc - Maljamar, NM
Conoco, Inc - Houston, Tx.****SOUTHWESTERN LABORATORIES***Larry M. Bunch*



SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services

1703 W. Industrial Avenue [915 - 683-3348] • P.O. Box 2150 • Midland, Texas 79701

File No. C-1950-W

Report No. 36205

Report Date 3-4-85

Date Received 2-26-85

Report of tests on: **Water**

Client: **Conoco, Inc.**

Identification: **Plant Waste Water, Sampled down stream of discharge pump,
Sampled 2-26-85 by SWL/Jack Barton**

mg/L

Arsenic-----	0.08
Barium-----Less Than	0.1
Boron-----Less Than	0.1
Chromium-----Less Than	0.05
Iron-----Less Than	0.2
Lead-----Less Than	0.05
Mercury-----Less Than	0.002
Zinc-----Less Than	0.05
Sulfate-----	5
Chloride-----	28
Fluoride-----Less Than	0.1
Nitrate-----	10.0
Cyanide-----Less Than	0.005
Phenols-----Less Than	0.005
Total Dissolved Solids @ 180°C-----	46
Fecal Coliforms-----Less Than 10 colonies/100 mls	
pH-----	7.32

Technician: **KLH, RY**

Copies **Conoco, Inc. - Maljamar, NM
Conoco, Inc. - Houston, Tx.**

SOUTHWESTERN LABORATORIES

Lary M. Burch

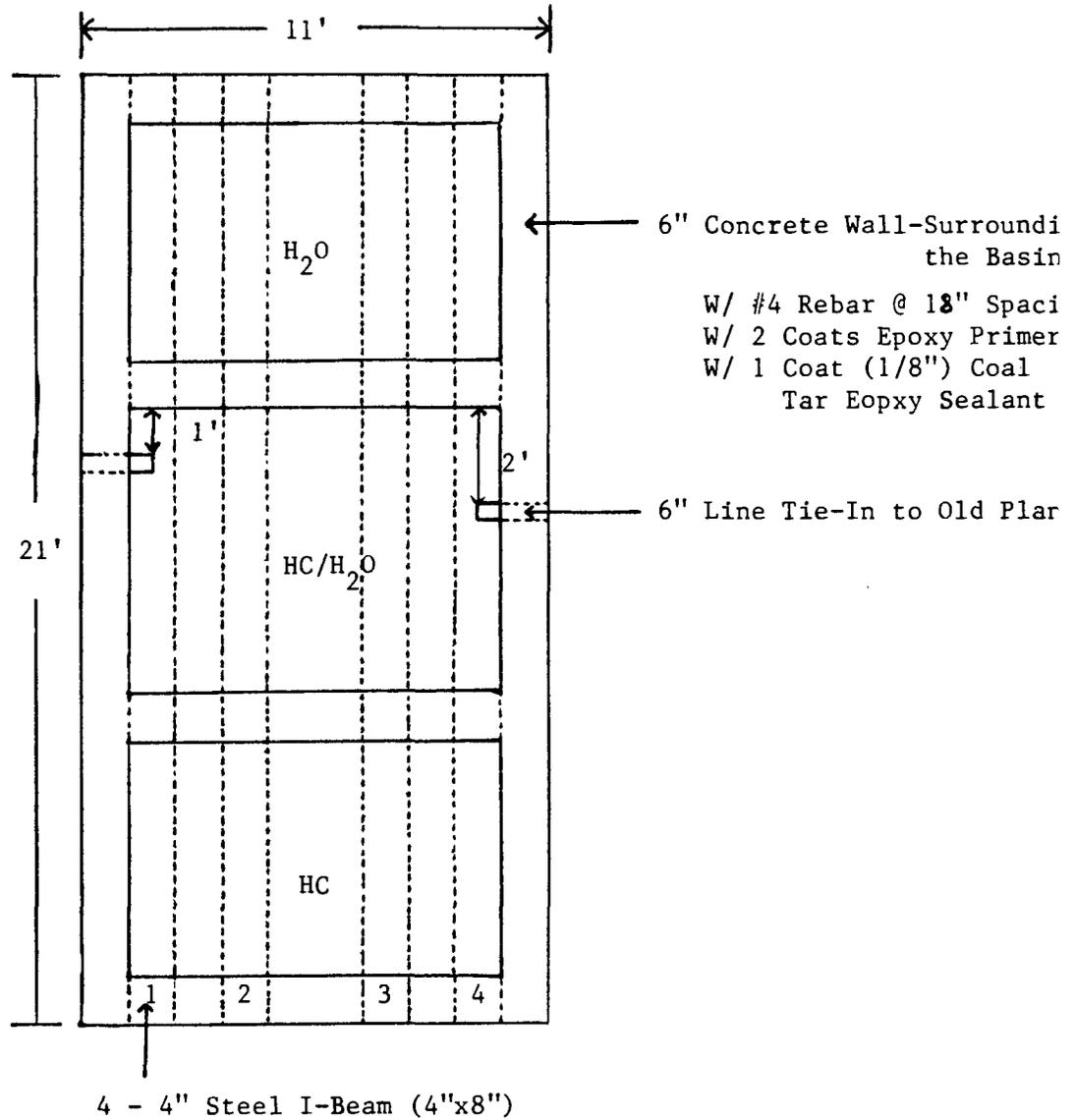
WATER TREATMENT AND DISPOSAL

The Maljamar Plant utilizes fresh water for two primary purposes: (1) drinking water and sanitary usage in the office; and (2) plant process and cooling. All wastewater from the office flows to a septic system for treatment and disposal.

Plant wastewaters flow to a skimmer basin where free oil is removed. This recovered oil is pumped to a slop tank for storage until it is sold. Water from the skimmer basin is pumped to Conoco's adjacent waterflood oil and gas production operations, where it is reinjected.

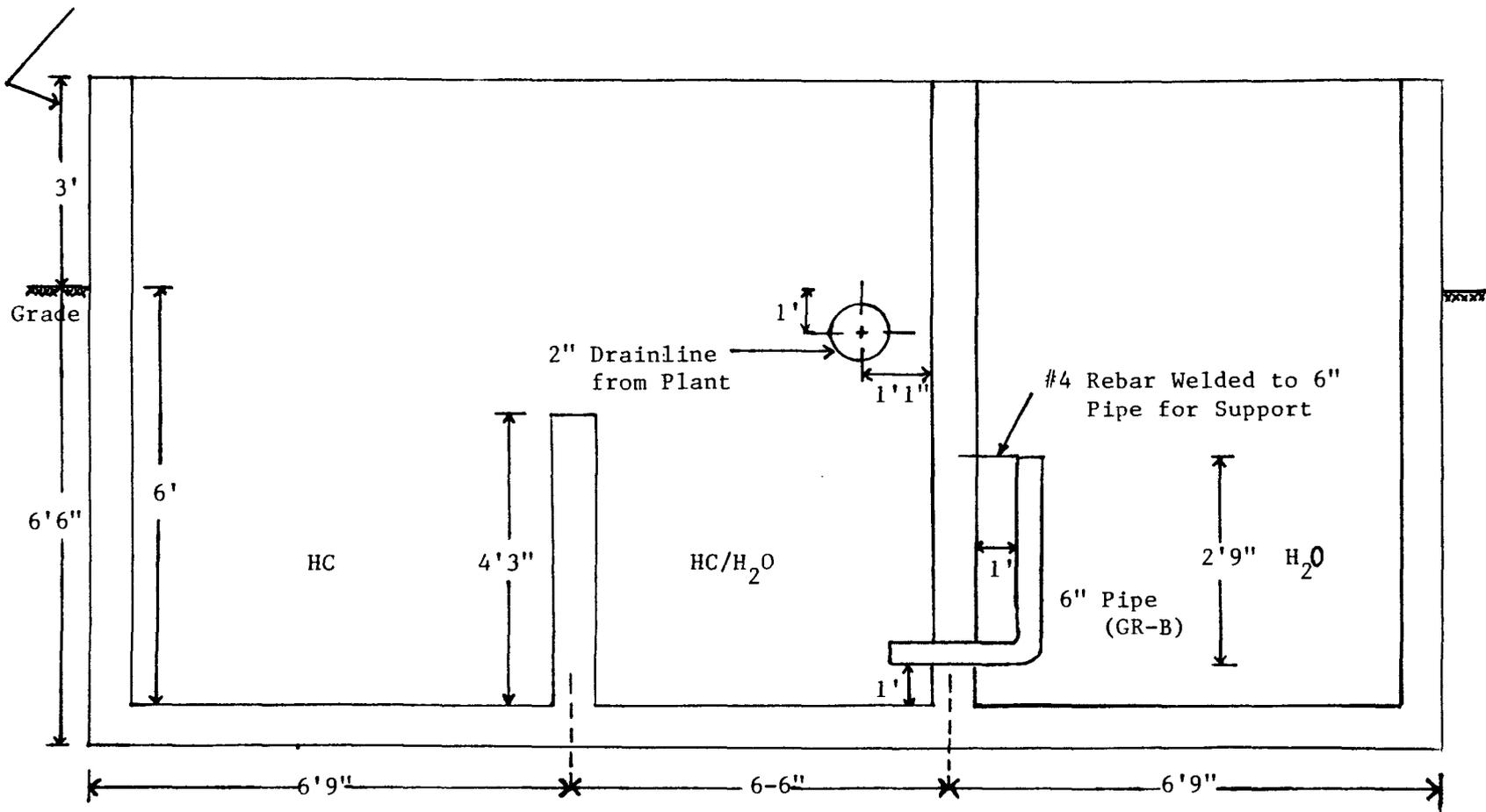
MALJAMAR GAS PLANT

HC/Water Skimmer Basin



Basin Cover: 3/8" Corrugated Carbonsteel Plating. Cover Rests on the I-Beams.

Not Shown: 4x8 Steel I-Beam Across Top and Level With Top of Concrete



SANITARY SEWAGE TREATMENT

Sanitary wastewaters from the Maljamar Gas Processing Plant offices are discharged to three (3) 1200 gallon septic tanks. (See Section A, Page 2, Plot Plan for location of these tanks.) Wastes discharged to these septic tanks receive no chemical treatment. All septic tanks discharge to leach fields.

INJECTION WELLS

Wastewaters collected in the Maljamar Plant skimmer basin are ultimately reinjected. Conoco Inc.'s North American Production Department operates a repressuring (waterflood) project adjacent to the Maljamar Plant. Wastewaters from the plant are combined with other produced water and reinjected, in compliance with Oil Conservation Commission Order No. R-2403. A copy of this order is included on Page 6, Section D of this plan.

MALJAMAR POOL
(Maljamar Cooperative Area Consolidated Order)
Lea County, New Mexico

Order No. R-2403, Approving a Supplemental Cooperative Agreement, Full Unitization, and Determining Other Matters Relating to the Maljamar Cooperative Agreement Area, Maljamar Pool, Lea County, New Mexico, December 21, 1962, as Amended by Order No. R-2403-A, February 9, 1970.

See separate Order No. R-3375, March 1, 1968, deleting references to State Engineer or State Engineer office.

Application of Continental Oil Company, as Operator, for Approval of a Supplemental Cooperative Agreement Unitizing Certain Leases, a Plan of Operation for Continued Gas and Water Injection, Modification of Allocation Method for Transfer of Allowables, Certain Administrative Procedures, and Permission to Produce More Than 16 Wells Into a Single Tank Battery, Maljamar Pool, Lea County, New Mexico.

CASE NO. 2718
Order No. R-2403

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on December 6, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 31st day of December, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter hereof.

(2) That, by Order No. 485, the Commission approved the Maljamar Cooperative Repressuring Agreement, said agreement having been entered into on August 5, 1941, by the parties signatory thereto, for pressure maintenance in the Grayburg-San Andres formations under the Maljamar Cooperative Repressuring Agreement area in the Maljamar Pool, Lea County, New Mexico, unitizing gas in the area, making provisions for gas injection wells and the expansion thereof by administrative approval. The order further provided that the proration units within the committed area should not exceed the production of 44 barrels of oil daily; provided for expansion of the committed area by administrative approval; provided for the management of said project by the Operators Committee; and included other provisions for the conduct of the repressuring program.

(3) That, by Order No. 595, the Commission amended Order No. 485 and provided a method of allocation to the committed area and the reallocation to the respective proration units on a basis which included an acreage allowable up to 15 barrels per day, a maximum marginal well allowable of 20 barrels per day, and a void space allowable determined by reservoir conditions as reflected by each well's bottomhole pressure and gas-oil ratio.

(4) That numerous other orders have been entered approving additional injection wells for expansion of the repressuring program and for non-standard locations for both injection and producing wells. The order number or date of administrative approval providing for the present injection wells or non-standard locations is set out in the attached Exhibit "A".

(5) That, by Order No. R-841, the Commission approved the injection of water into the Pearl "B" Well No. 26, located 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico. By Order No. R-1075 the Commission authorized the expansion of Order No. R-841 to include the drilling and conversion of certain wells to water injection wells, said wells also being listed on Exhibit "A" attached. The order further provided for administrative approval for expansion of the water injection program.

(6) That by adoption of Supplement No. 4 to the Maljamar Cooperative Repressuring Agreement, the applicant, the Continental Oil Company, was elected Chairman of the Operators Committee and the name was changed to the Maljamar Cooperative Agreement.

(7) That the owners of the Maljamar Cooperative Agreement area have adopted Supplement No. 5 to the Maljamar Cooperative Agreement with Continental Oil Company as Operator of the Participating Area. The effect of Supplement No. 5 is to unitize all liquid hydrocarbons in the Grayburg-San Andres formations underlying the Participating Area, and to adopt a Plan of Operations for the expansion of the pressure maintenance program by gas and water injection.

(8) That the pressure maintenance program heretofore carried out has been successful and that approval of Supplement No. 5 and the Plan of Operation contemplated thereunder, and the revision of the allocation method for transferring allowables should increase the efficiency and ultimate recovery of the pressure maintenance program.

(9) That said repressuring project was instituted during the early primary life of the Maljamar Pool; that the Maljamar Pool, without the benefit of fluid injection, would be in or approaching a "stripper" state of depletion, and that any secondary recovery project instituted at the present time would in all probability be classified by the Commission as a waterflood project subject to Commission Rule 701-E governing waterflood projects.

(10) That to afford continuity of operations under the existing pressure maintenance rules, the present void space formula for the project should remain in effect, with the added privilege of allowable transfer for injection tracts, for wells shut-in for engineering reasons, and for wells incapable of making their computed share of the void space allowable. Provided however, that the maximum allowable assigned to any 40-acre proration unit should be limited to the Southeast New Mexico Waterflood Allowable Factor currently in effect or as modified by future orders of the Commission.

(11) That, by application in this case, Continental Oil Company, as Chairman for the Maljamar Cooperative Agreement area and operator of the Participating Area, seeks the consolidation of prior orders, modification of the allocation method for transfer of allowables, an administrative procedure for expansion or revision of the fluid injection program and expansion of the Participating Area within the Maljamar Cooperative Agreement boundaries; further, applicant seeks an exception to the provisions of Rule 309-A of the Commission Rules and Regulations to permit production of more than sixteen proration units into a single tank battery.

(12) That the proposed program will promote conservation and will tend to prevent waste through the production of oil which might not otherwise be recovered.

R. W. Byram & Co., - Feb., 1970

SECTION IV

New Mexico Page 129

(MALJAMAR (MALJAMAR COOPERATIVE AREA CONSOLIDATED ORDER) POOL - Cont'd.)**IT IS THEREFORE ORDERED:**

(1) That the Maljamar Cooperative Repressuring Agreement and its supplements, including Supplement 4 which changed the name to Maljamar Cooperative Agreement and appointed Continental Oil Company as Chairman of the Operators Committee, are hereby continued in effect.

(2) That Supplement No. 5, being a Supplemental and Amendatory Agreement to the Maljamar Cooperative Agreement, and the initial Plan of Operations pursuant thereto, are hereby approved.

(3) That all oil produced from the Grayburg-San Andres formations underlying the Participating Area, as hereinafter defined, is fully unitized as provided in said Supplement No. 5, and all gas produced and utilized as provided in said Supplements No. 4 and No. 5 is fully utilized as provided therein.

(4) That the Cooperative Area, heretofore approved by this Commission for pressure and maintenance of the Grayburg-San Andres formations and hereinafter called MCA Unit Area, consists of the following lands:

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Sections 14 to 23, inclusive
Sections 25 to 35, inclusive

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: W/2
containing 13,786.66 acres, more or less.

That the following-described lands lying within such Cooperative Area are hereby designated and recognized as constituting the Participating Area for the Grayburg-San Andres formations:

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 15: SW/4 SW/4
Section 16: S/2 S/2, W/2 NW/4, and NE/4 NW/4
Section 17: E/2 E/2 and NW/4 NE/4 SE/4 NW/4, and S/2 SW/4
Section 18: SW/4 SW/4
Section 19: All
Section 20: All
Section 21: All
Section 22: NW/4 NW/4, S/2 NW/4, S/2 NE/4, and S/2
Section 23: W/2, S/2 NE/4, and SE/4
Section 25: N/2, N/2 SW/4, N/2 SE/4 and SE/4 SE/4
Section 26: N/2, SW/4, and NW/4 SE/4
Section 27: All
Section 28: All
Section 29: All
Section 30: All
Section 31: NE/4 NW/4
Section 33: N/2
Section 34: W/2 NW/4, NE/4 NW/4, and NW/4 NE/4

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: NW/4 and N/2 SW/4
containing 8,055.16 acres, more or less.

That the Participating Area described above and the following-described lands lying outside of the Participating Area but

within the Cooperative Area, are hereby designated and recognized as constituting the committed acreage to the Maljamar Cooperative Agreement.

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 14: SW/4 (156.25 acres of 160-acre tract), and E/2
Section 16: NE/4, N/2 SE/4, and SE/4 NW/4
Section 17: SW/4 NE/4, W/2 SE/4, N/2 NW/4, SW/4 NW/4, and N/2 SW/4
Section 18: E/2, E/2 W/2, and Lots 1, 2 and 3
Section 22: N/2 NE/4 and NE/4 NW/4
Section 23: N/2 NE/4
Section 25: SW/4 SE/4, and S/2 SW/4
Section 26: NE/4 SE/4, and S/2 SE/4
Section 31: N/2, SE/4 NW/4, E/2 SW/4, and Lots 1, 2, 3, and 4
Section 32: NE/4 and N/2 NW/4, below 5000 feet only
Section 33: S/2
Section 34: N/2 SE/4 below 5000 feet only, NE/4 NE/4, S/2 NE/4, and SE/4 NW/4
Section 35: W/2

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Section 30: Lot 4, and SE/4 SW/4

(5) That the fully Unitized Area shall be those lands designated above as the Participating Area of the MCA Unit for the Grayburg-San Andres formation.

(6) That the Participating Area may be enlarged as provided in said Supplement No. 5 and additional acreage committed to the MCA Unit; provided, however, that administrative approval for the expansion of the Participating Area or the committed acreage must be obtained from the Secretary-Director of the Commission; and provided, further, that any extension of the Cooperative Area, or of the Unitized Area beyond the boundaries of the Cooperative Area as described herein, shall be made only after notice and hearing.

(7) That the MCA Unit Operator shall file with the Commission an executed original or executed counterpart of the Supplement No. 5 within thirty (30) days after the effective date thereof. In the event of subsequent joinder by any party or expansion of the Participating Area, the unit operator shall file with the Commission within thirty (30) days thereafter counterparts of the unit agreement reflecting the subscription of those interests having subsequently joined or ratified.

IT IS FURTHER ORDERED:

(1) That the applicant, Continental Oil Company, an operator, is hereby authorized to continue the gas and water injection project authorized by Orders 485,595, and R-841, and to continue and expand the water injection project as further authorized by Order No. R-1075 and as proposed by the Plan of Operations submitted with Supplement No. 5.

(2) That the MCA Unit approved gas and water injection wells shall be those wells listed in Exhibit "A" attached hereto. Additional wells may be drilled for gas or water injection, gas injection wells may be converted to water injection, water injection wells may be converted to gas injection wells, and producing wells may be converted to injection wells and injection wells to producing wells within the boundaries of the Maljamar Cooperative Agreement Area upon administrative approval of the Secretary-Director of the Commission without notice or hearing; provided, however, that all information required by Rule 701-B of the Commission Rules and Regulations shall be included in the application for administrative approval; and provided, further, that all offset operators to the well, if

**(MALJAMAR (MALJAMAR COOPERATIVE AREA
CONSOLIDATED ORDER) POOL - Cont'd.)**

any there be, whose acreage is not included within the Participating Area, and the State Engineer shall also be notified by registered or certified mail of such request for administrative approval. The Secretary-Director may approve the application if no such offset operator or the State Engineer has objected within 20 days. The Secretary-Director may grant immediate approval of the application upon receipt of written waivers of objection from all such offset operators and the State Engineer.

(As Added by Order No. R-2403-A, February 9, 1970) The Secretary-Director of the Commission is hereby also authorized to approve such additional producing wells and injection wells at unorthodox locations within the boundaries of the Maljamar Cooperative Agreement Unit Area as may be necessary to complete an efficient production and injection pattern; provided said wells are drilled no closer than 330 feet to the outer boundary of said MCA Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701-B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all operators owning acreage offsetting the quarter-quarter section upon which the well is to be located, if any there be, and no such operator has objected within 20 days. The Secretary-Director may grant immediate approval of the application upon receipt of written waivers of objection from all such offset operators.

(3) That the allocation to the Participating Area and other committed leases within the MCA Unit Area and the reallocation to the respective proration units therein shall be made upon the following plan:

(a) The unit operator shall submit to the Commission for approval the nomination in total barrels daily and schedule of reallocation to the respective proration units. Said nomination and schedule shall be submitted to the Commission and a duplicate shall be supplied to the Hobbs District Office of the Commission not later than the twentieth day of each month preceding the next proration month.

(b) Each proration unit shall be assigned an acreage allowable in whatsoever amount it is capable of producing up to but not exceeding fifteen (15) barrels daily, unless the unit operator nominates a lesser amount per proration unit.

(c) Each proration unit capable of producing the acreage allowable but incapable of producing the acreage allowable plus the allowable assignable through the application of the void space formula hereinafter provided shall be assigned an allowable equal to that volume of oil shown on its production test.

(d) All proration units capable of producing said acreage allowable plus the allowable allocated through the application of the void space formula shall be assigned a proportionate part of the total void space allowable so that each said proration unit will share in the void space allocation in inverse proportion to the amount of reservoir space voided as reflected by its production tests in strict accordance with the following formula:

Proration Unit Reciprocal

$$\frac{\text{Void Space Factor}}{\text{Summation of MCA Unit Reciprocal Void Space Factors}} \times \text{Void Space equals Number of Allowable Barrels}$$

The reciprocal void space factors to be determined from the attached Exhibit "B" being a table of "BARRELS OF RESERVOIR SPACE VOIDED IN PRODUCING ONE BARREL OF STOCK TANK OIL, AND THE RECIPROCAL FACTOR THERETO, AT GIVEN GAS-OIL RATIOS AND RESERVOIR PRESSURES."

(e) A proration unit upon which is located a newly completed or reconditioned well shall be assigned an allowable in accordance with its acreage and void space allowable from the first day of production of new oil.

(f) The proration units within the MCA Unit Area shall have a top daily oil allowable equal to the Southeast New Mexico Waterflood Allowable Factor currently in effect or as modified by future orders of the Commission, subject to the acreage and void space allowable allocations. A proration unit must have either a producing well, an injection well or a shut-in well capable of production before it can receive an allowable assignment.

(g) Bottomhole pressure surveys and gas-oil ratio tests shall be taken and filed with the Commission in accordance with the Commission Rules and Regulations every six (6) months or at such periods as the Commission in its discretion may prescribe from time to time. All bottomhole pressures shall be computed to a common datum of sea level.

(h) In no event shall any well producing from horizons other than the Grayburg-San Andres formations be prorated under this plan of allocation.

(4) That the operator is hereby authorized to transfer the top unit allowable from any proration unit containing only an injection well, or a well shut-in for engineering reasons and approved by the Commission, to any well or wells assigned a top unit allowable under the void space formula and capable of making the transferred allowable or portion thereof. Where a well is incapable of producing its calculated void space allowable, the difference between its capability and that allowable assigned by the void space formula may likewise be transferred to any well or wells assigned a top unit allowable under the void space formula capable of making the transferred allowable or a portion thereof. Provided, however, that no allowable shall be transferred across the boundary of the Participating Area or across the boundary of any lease outside the Participating Area without notice and hearing.

(5) That an exception is hereby granted to the provisions of Rule 309-A of the Commission Rules and Regulations to permit the production of more than sixteen wells into a single tank battery. Operator shall notify the Commission of the location of any central tank battery at the time of its installation.

(6) That no well in the MCA Unit Area that is within the Participating Area and is closer than 1000 feet to the boundary thereof or that is outside the Participating Area and is closer than 1000 feet to the Participating Area or to another lease shall produce in excess of two times the top unit allowable for the MCA Unit Area. The Secretary-Director may, upon application filed in due form, approve production in excess of two times the top unit allowable if all offset operators have been notified of the application and no objection has been received within ten days. The Secretary-Director may grant immediate approval of such application upon receipt of written waivers of objection from all such offset operators.

(7) That all previous orders pertaining to the MCA Unit are hereby superseded insofar as they are inconsistent with this order.

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

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

CONTINGENCY PLAN

Currently, the Maljamar Plant depends upon pump transfer and wastewater injection to dispose of plant process and cooling waters. The total waste handled in this method is approximately 55 barrels per day.

In the event of a pump failure or a discontinuance of the waterflood reinjection program, all plant wastewater would be stored in the skimmer basin and tanks #13 and #14. (See Section B, Page 4). The capacity of these vessels totals 360 barrels. At 55 barrels per day, the plant maintains a capacity to retain up to 6.5 days of wastewater production. Water stored in this manner would be hauled by truck to a commercial injection well for disposal.

HYDROLOGY AND GEOLOGY

The results of the enclosed well log (Section F, Page 2) are believed to closely approximate the geological formations underlying the Conoco Maljamar Gas Processing Plant.

The log was run on a well drilled in 1980 in the Maljamar Field. It indicates a water-bearing sandstone formation between 70 and 150 feet. No analyses of this water are available; therefore it is not possible to determine whether or not it may be considered a potential source of drinking water. The sedimentology above this formation is not known.

WELL NAME WILLIAM MITCHELL "B" NO. 20 FIELD BAISH-MALJAMAR-PEARSALDATE 9/22/80
 E ION EST. GRD 3963' KB 3975' PROPOSED T.D. 4200'
 LOCATION (SURFACE) 660' FSL & 1980' FEL OF SECTION 18 T-17S R-32E
 COUNTY LEA STATE NM SPACING

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT</u> (O=Oil, G=Gas, W=Water)
WATER SS.	70'-150'	FRESH WATER
RUSTLER ANHY.	700'	-
SALADO SALT	810'	-
BASE SALT	1870'	-
YATES SS.	2030'	O,W,G
SEVEN RIVERS DOLO.	2390'	O,W,G
QUEEN SS.	2990'	O,W,G
GRAYBURG DOLO.	3390'	O,W,G
SAN ANDRES DOLO.	3770'	O,W,G

WELL SURVEYS - (List types by code numbers as follows: Directional and/or Deviation (1); Deflection (2); Caliper (3); Temperature (4); Electrical (5); Radioactive (6); Geolograph (7) Photoclinometer (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0'-4200'	(7) Geolograph	17-1/2" & 7-7/8"	One every 250' to base of salt. One every 500' thereafter.
0'-4200'	(1) Deviation	17-1/2" & 7-7/8"	
2000'-4200'	(5) DLL-GR	7-7/8"	2" & 5" Scales
2000'-4200'	(6) FDC-CNL-GR-CAL	7-7/8"	2" & 5" Scales
2000'-4200'	(6) PDC(GR-COLLAR)	5-1/2" Casing	Depth Contol
0'-4200'	(4) Temperature	5-1/2" Casing	Determine top of cement if necessary

CONOCO TO FURNISH WATER, CONTRACTOR TO FURNISH FUEL.

WELL NAME: WILLIAM MITCHELL "B" NO. 20

COUNTY: LEA

LOCATION: 660' FSL & 1980' FEL
Sec. 18, T-17S, R-32E.

STATE: NM
 EST. KB: 3975'
 EST. GL: 3963'

DEPTH	FORMATION TOPS & TYPE PLEISTOCENE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE (IN)	CASING		(PPG) FRACTURE GRADIENT	(PPG) FORMATION PRESSURE GRADIENT	MUD	
					SIZE (IN)	DEPTH (FT)			(PPG) SHEAR	TYPE
	WATER SS	70'-150'	GEOLOGRAPH DEVIATION 0'-TD							
	RUSTLER ANHY.	700'			54.5# K-55 STC			8.3- 8.5	8.5- 9.0	SFC
	SALADO SALT	810'			17-1/2	13-3/8	750'			
1000		Possible water flows encountered 810'-4200'								
	BASE SALT	1870'								
2000	YATES SS.	2030'								
	SEVEN RIVERS DOLO.	2390'								
3000	QUEEN SS.	2990'								
	GRAYBURG DOLO.	3390'	DLL-GR FDC-CNL-GR-CAL 2000'-4200' 2" & 5"							
	SAN ANDRES DOLO.	3770'	PDC (GR-COLLAR) 2000'-4200'		15.5# K-55 STC					
4000	TD - 4200'		Temperature 0'-4200'	7-7/8	5-1/2	4200'	12-13	8.5- 10.5	9.0- 11.0	S-70 Gr-1

SOLID WASTE HANDLING

Solid wastes generated by the Maljamar Plant fall into one of four categories: (1) slop oil; (2) empty chemical drums; (3) oil and diethanolamine (DEA) filters; and (4) paper trash. Slop oil is separated from the process and cooling wastewater stream in the skimmer basin. This oil is then pumped to the plants slop oil tank battery, where it is held until it is sold to Navajo Pipeline. All empty chemical drums are picked up by the chemical supplier to be re-used. Used oil and DEA filters have been analyzed to be non-hazardous, as described in EPA regulations, 40 CFR 261. Used filters and paper trash are hauled to Conoco's production site where they are periodically burned.

The Maljamar Plant does not generate any RCRA-hazardous wastes during normal operations.

FLOOD POTENTIAL AND PROTECTION

The Maljamar Plant is located in a semi-arid region of southeastern New Mexico. Due to the surrounding topography and Conoco's experience as the plant operator since 1969, Conoco does not believe that there is any significant flood potential at this site.

All slop oil tanks and the skimmer basin are diked to prevent any accidental releases resulting from equipment malfunction. Plant operators visually inspect for leaks on each eight-hour shift.



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 24, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

CONOCO INC.
P.O. Box 2197
Suite 410 RT
Houston, Texas 77252

Attention: Ms. Laura G. Daniel

Re: Revised Discharge Plan
(GW-20)
Conoco Maljamar Gas
Processing Plant

Dear Mr. Daniel:

We have received your letter dated January 18, 1985, requesting an extension to discharge without an approved discharge plan. By your letter we understand that the information requested by the OCD in a letter dated December 19, 1984, will be submitted no later than March 8, 1985.

Pursuant to Section 3-106.A of the New Mexico Water Quality Control Commission Regulations and for good cause shown, Conoco is hereby granted an extension until May 31, 1985, to operate the Maljamar Gas Plant without an approved discharge plan with the provision that all information requested by the OCD in a letter dated December 19, 1984, is submitted by March 8, 1985.

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,

A handwritten signature in black ink, appearing to read "R. L. Stamets", written over a horizontal line.

R. L. STAMETS
Director

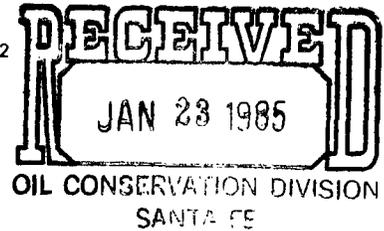
RLS/PB/dp

cc: OCD-Hobbs District Office



Environmental & Energy Services
Natural Gas Products Department

Conoco Inc.
P.O. Box 2197
Houston, TX 77252



January 18, 1985

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

Attn: Philip L. Baca

Re: Revised Discharge Plan (GW-20)
Conoco Maljamar Gas Processing Plant

Dear Mr. Baca:

We have reviewed your request for additional information in regard to the subject plan. We are in the process of collecting the necessary data to address the questions stated in your request. It is anticipated that a revised plan will be submitted to your office no later than March 8, 1985.

In lieu of an approved plan, Conoco requests that the Director allow the Maljamar Gas Processing Plant to continue to discharge, until such time that the required plan is approved.

If you have any questions, please call me at (713) 293-1123.

Sincerely yours,

Connie J. Keating

for Laura G. Daniel
Coordinator

/nl



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

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

December 19, 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Conoco Inc.
P.O. Box 2197
Suite 410 RT
Houston, Texas 77252

Attention: Ms. Laura G. Daniel

Dear Ms. Daniel:

We have received your revised discharge plan (GW-20) for the Conoco Maljamar Gas Processing Plant. To continue with the review process, we must request the following information:

1) The waste water analysis included in your plan was made on September 18, 1981. This was prior to the shut-down of your cooling towers. At that time, effluent from the scrubbers, separators, and plant drains (1200 BPD) contributed to 47% of your total effluent (2580 BPD). Under present operating conditions, this effluent now contributes to 67% of your total effluent (1780 BPD). Therefore, the concentrations of the various constituents in the effluent have probably changed. Please send an updated water analysis for the Conoco Maljamar water supply and waste water. The analysis should include a search for constituents listed in your discharge plan analysis dated September 18, 1981, except for radium and uranium. Briefly describe the location and technique used in obtaining the samples.

2) Describe the method used in measuring the effluent flow rate.

3) Please modify the liquid waste drainage schematic illustrated on page 3-5 of your discharge plan with sufficient detail to show individual treatment and process

units. If necessary, provide larger scale diagrams for complex processes. A general (product) process flow diagram would be helpful, if available.

4) Drawing No. NGP-4-160-20040 shows an injection well at the S.E. corner of the plant. Describe (and send a chemical analysis) the effluent injected, depth, formation, OCD permit number and approval date.

5) Drawing No. NGP-4-160-20040 shows a sump adjacent to the skimmer basin. Describe its use, construction details and location of discharge.

6) Is there any leak detection system for the skimmer basin? Is there a periodic inspection of the 3/8-inch corrugated floor plating in the skimmer basin? What is your contingency plan should a leak occur in this floor plating?

7) Do you have a plant-wide inspection program for leaks? What is the frequency?

8) Your contingency plan (Exhibit D-1 of your discharge plan) indicates that in the event of a pump failure or injection well shut-down, the waste water would be stored in on site storage until such time as a local waste water transport could be made available. How and where do you plan to store the waste water? Show this on Drawing No. NGP-4-160-20040. What volume is the storage facility? Provide construction details.

9) Drawing No. NGP-4-160-20040 shows a tank battery directly east of the skimmer basin. What is the disposition of the tanks and what is their contents?

10) In the cover letter to your discharge plan you indicate that the disposal pits have been closed and leveled; however, Drawing No. NGP-4-160-20040 indicates the existence of a dry pit south of the skimmer basin. Are there any plans to use this pit? If so, is this pit lined? Please send construction details. If the pit is not to be used, are there any plans to close and level it? If the pit is unlined and you plan to discharge effluent to it, you must 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 must include a detailed hydrogeological study of the area (e.g., ground water availability and movement, water quality, vadose zone interactions, etc.), and your

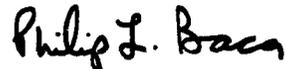
plans for sampling and monitoring both the effluent and groundwater (via likely use of monitoring wells) for the lifetime of the plant and possibly longer (see Section 3-107 of the WQCC regulations for what may be required).

11) Please provide information on the flooding potential at the discharge site and flood protection measures (berms, channels, etc.), if applicable.

WQCC regulation 3-106 A. provides that after receipt of written notification from the director that a discharge plan is required, you may discharge for 240 days without an approved discharge plan unless the Director, for good cause shown, allows a longer time. No permission to continue the discharge without an approved plan has been requested by Conoco, 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 requested in this letter, Conoco should provide an estimate of time needed to obtain the requested information, 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 feel free to contact me or Dave Boyer at (505) 827-5812.

Sincerely,



PHILIP L. BACA
Environmental Engineer

PLB/dp

cc: R. L. Stamets
Hobbs OCD Office

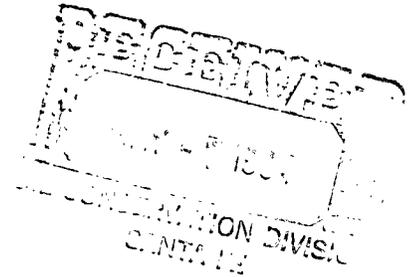
Certified Mail No F 594 294
Return Receipt Requested



Environmental & Energy Services
Natural Gas Products

Conoco Inc.
P.O. Box 2197, Suite 410 RT
Houston, TX 77252

May 31, 1984



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

Dear Mr. Ramey:

In reply to your letter of March 5, 1984, we have revised the discharge plan for Conoco's Maljamar Gas Processing Plan per your instructions. Specifically, the following changes have been made:

1. Former Disposal Pits. These pits were closed and leveled several years ago. No storm runoff accumulates in the area of these pits.
2. Plant Description. Section "A" of the plan has been revised to reflect current plant operation.
3. Water Balance. Section "B" has been revised to reflect changes due to cooling tower shutdown.
4. Water Treatment. This Section has been deleted because no process water treatment is done at this plant.
5. Contingency Plan. A new Section D has been added to discuss contingencies for wastewater handling.

We are hopeful that this additional information will enable you to process this discharge plan. Thank you for your assistance in this matter.

Sincerely yours,

(713) 293-1123

Laura G. Daniel
Coordinator, Environmental
and Energy Services

The Maljamar Gas Processing Plant is fully owned and operated by Conoco Inc. The plant is located three (3) miles south of Maljamar, Lea County, New Mexico on Farm Road 126.

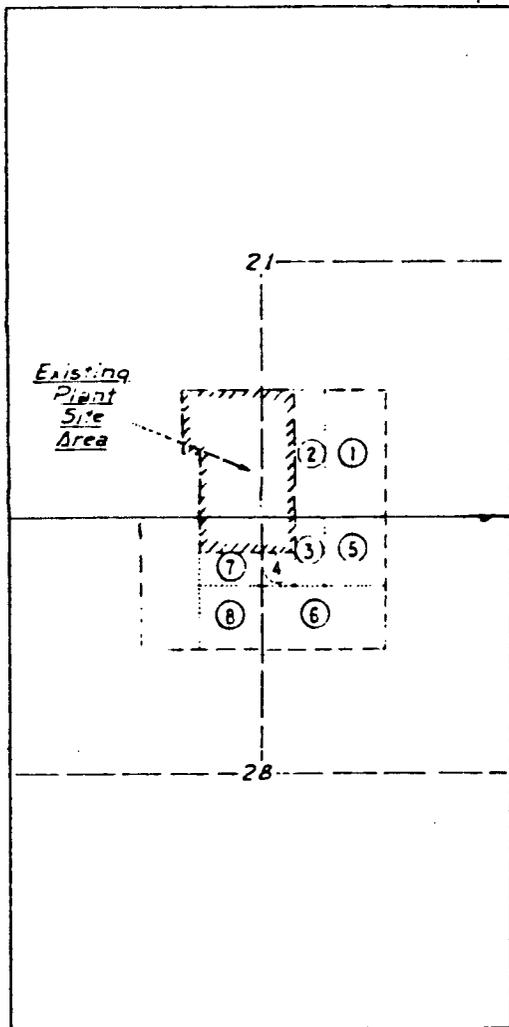
Conoco Inc. purchased the Maljamar Plant in 1969 which was comprised of a refrigerated oil absorption plant (10 MMCFD) and a fractionation train. In 1981, a cryogenic processing facility was commissioned with a capacity of 50 MMCFD, bringing the total plant capacity to 60 MMCFD. In 1982, the refrigerated oil absorption plant and fractionation plant shut down leaving only the cryogenic processing plant.

Currently, low pressure gas is gathered from six (6) gathering systems (Ajax, Anderson, Caprock, Greenwood, Lusk, and Skelly), is compressed, and processed with high pressure gas from Transwestern's Kemnitz, Turkey Track, and Holly systems. Plant throughput varies between 30 MMCFD and 40 MMCFD.

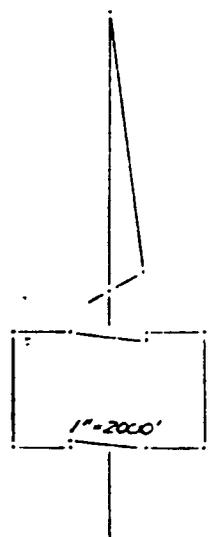
The plant produces an EPBC product stream which is delivered to Mont Belvieu via Chaparral Pipeline. Liquid production is approximately 1340 BPD ethane, 874 BPD propane, 410 BPD butanes, and 328 BPD of natural gasoline. Residue gas is delivered to Gas Company of New Mexico and Transwestern.

The plant manager is Mr. C. W. Sirmons.

R-32-E



T
17
S



No.	Sub Division	Sect	Twp	Rng.	Area
①	E/2 SW/4 SE/4	21	17S	32E	20.0 Ac.
②	E/2 W/2 SW/4 SE/4	21	17S	32E	10.0 Ac.
③	E/2 NW/4 NW/4 NE/4	28	17S	32E	5.0 Ac.
④	SW/4 NW/4 NW/4 NE/4	28	17S	32E	2.5 Ac.
⑤	NE/4 NW/4 NE/4	28	17S	32E	10.0 Ac.
⑥	S/2 NW/4 NE/4	28	17S	32E	20.0 Ac.
⑦	S/2 NE/4 NE/4 NW/4	28	17S	32E	5.0 Ac.
⑧	SE/4 NE/4 NW/4	28	17S	32E	10.0 Ac.
Total:					82.5 Acres



ENGINEERS STATEMENT

Joe J. Hewett Jr. states he is by occupation a civil engineer employed Continental Oil Company to make the survey of the gasoline plant site described and shown on this map; that the survey of said works was made by him and under authority commencing on the 31st day of May, 1972; and ending on the 31st day of May, 1972; and that such survey is accurately represented upon this map.

Joe J. Hewett Jr.
 Reg. PE & LS 3288

APPLICANTS CERTIFICATE

This is to certify that Joe J. Hewett Jr. who subscribed the statement hereon is the person employed by the undersigned applicant to prepare this map which has been adopted as the approximate final location of the works thereby shown; and that this map is filed as part of the complete application and in order that the applicant may obtain the benefits of Section 28 of the act of February 25, 1920, as amended by the act of August 21, 1935, and I further certify that the right-of-way herein described is for gasoline plant site.

Signed _____

 Title

CONTINENTAL OIL COMPANY

PROPOSED PLANT SITE ADDITION
 To
 MALJAMAR GASOLINE PLANT
 In Sections 21 & 28, T-17-S, R-32-E
 Lea County, New Mexico

Date Of Survey: 5-31-72	Prepared By: CIRCLE CROSS ENGINEERING	File No.
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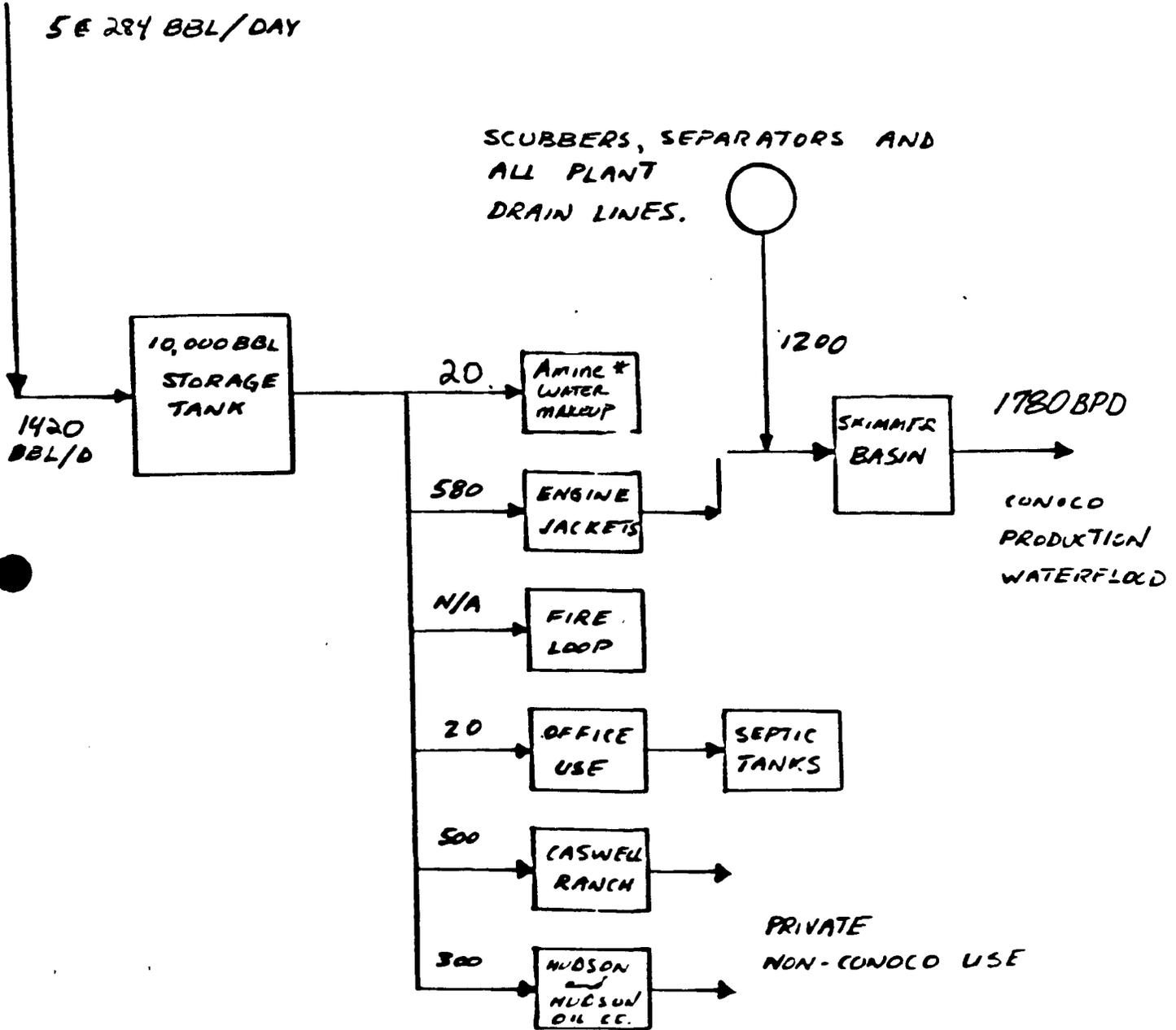
Maljamar produces approximately 1420 barrels of fresh water from five, 120 foot deep Conoco-owned wells. A drawing showing the exact location of these wells is enclosed. The wells are located approximately five miles northeast of the plant. The well water is pumped to a settlement tank and on to a 10,000 barrel storage tank. These wells supply the Maljamar Gas Plant (600 BPD) with process water as well as supplying water to the Caswell Ranch (500 BPD), and the Hudson and Hudson Oil Company (300 BPD).

Water use at the Maljamar Gas Plant includes amine makeup, fire fighting system water and office facility water. A water balance and flow schematic are included in this section. Wastewater from the office buildings is disposed of in three 1200 gallon septic tanks. These septic tanks are shown on the plot plan in Section A of this report. Plant liquid wastes are piped to a newly constructed epoxy-coated skimmer basin. After gravity separation, oily wastes are pumped to a slop oil tank and sold to a refiner. Water from the skimmer basin is piped to the Conoco Maljamar Projected Field where it is reinjected as part of the secondary recovery water flood project. The analyses of the plant wastewater sent to the production field are included in Section C of this report.

MALJAMAR WATER FLOW CHART

FRESH WATER WELLS
5 @ 284 BBL/DAY

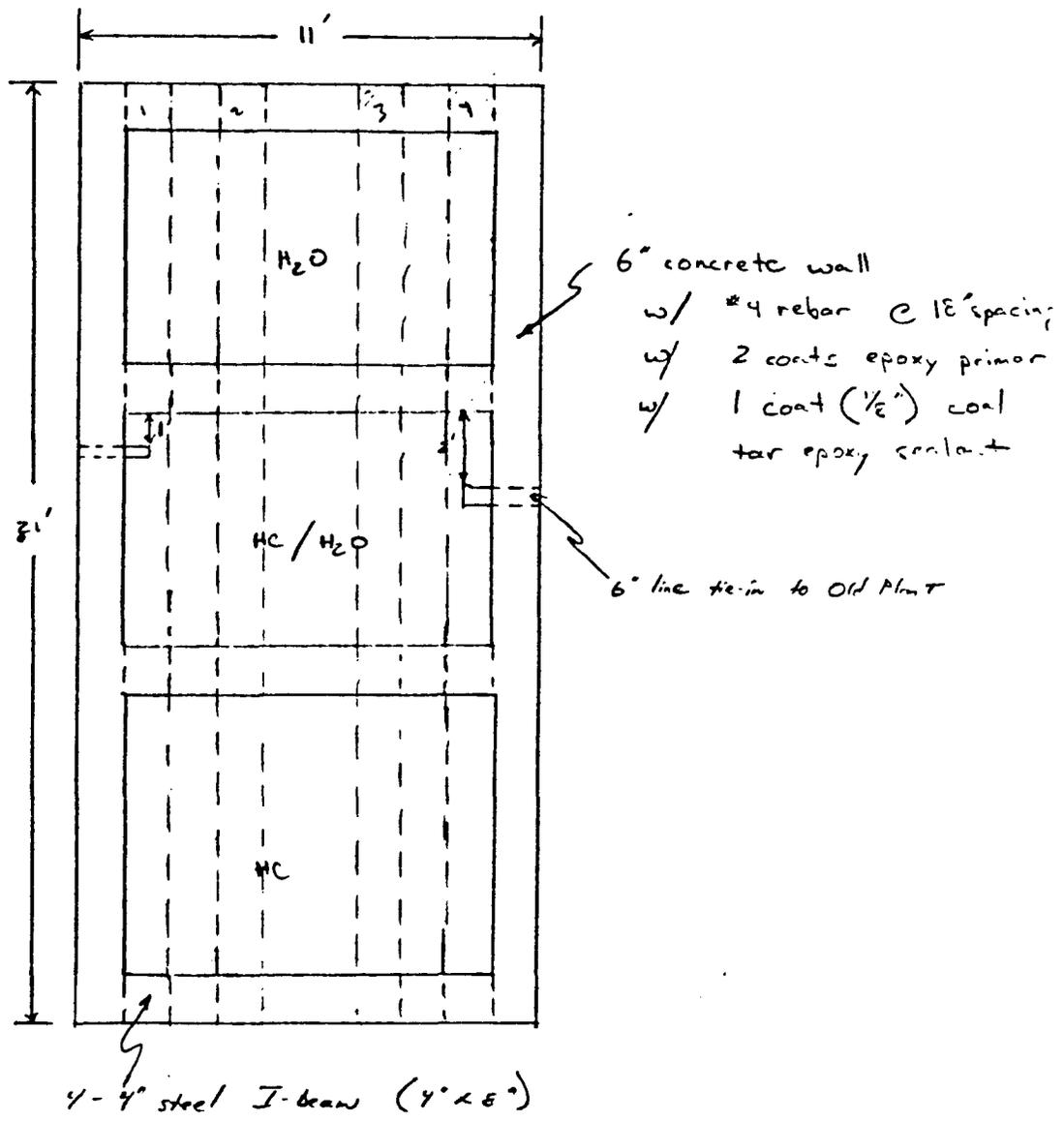
SCUBBERS, SEPARATORS AND
ALL PLANT
DRAIN LINES.



* CLOSED SYSTEM

McJannet Gas Plant

HC/water Skimmer Basin

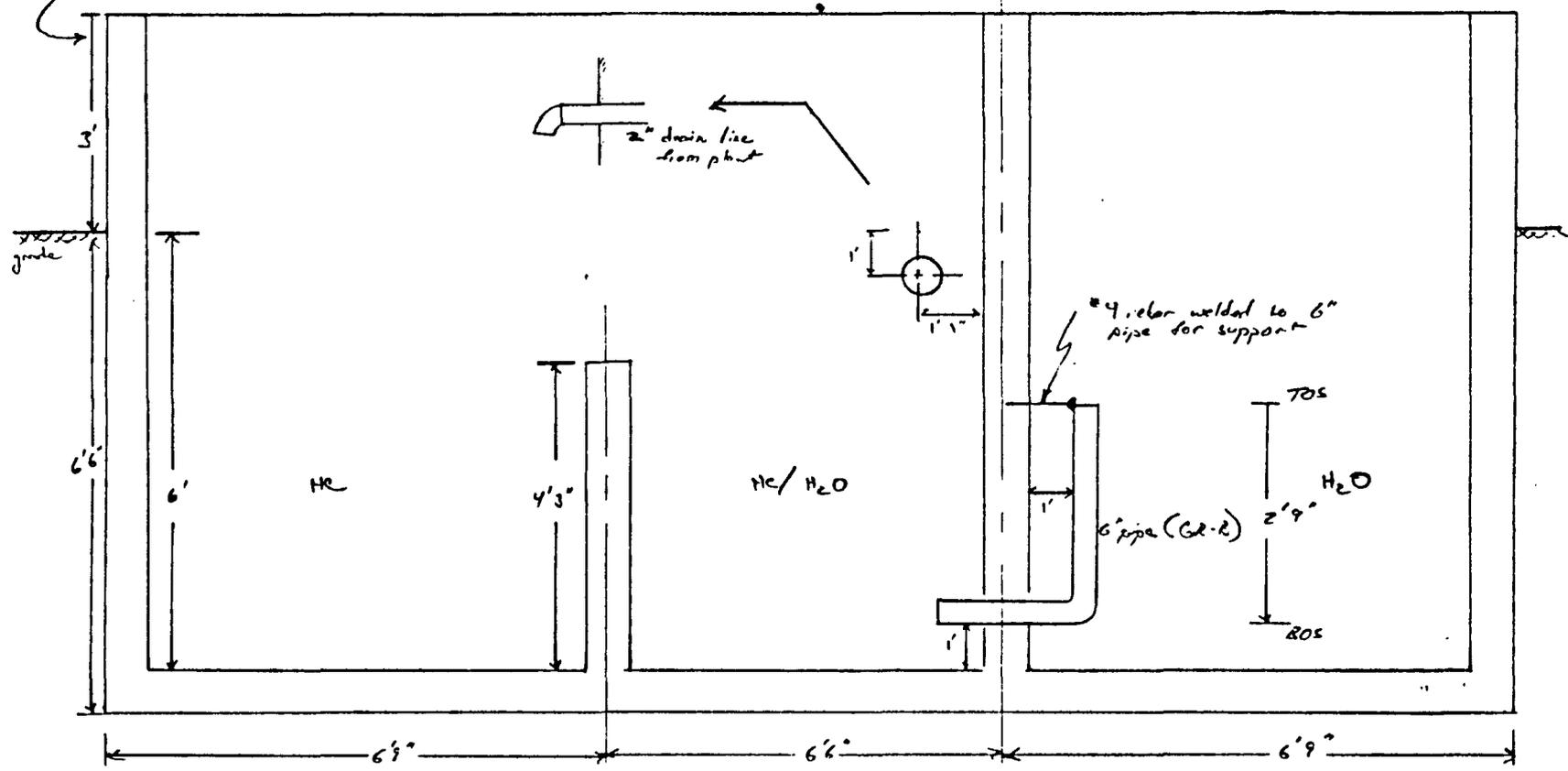


Cover = $\frac{3}{8}$ " corrugated floor plating (carbon steel) which rests on the I-beam

James G. Hill

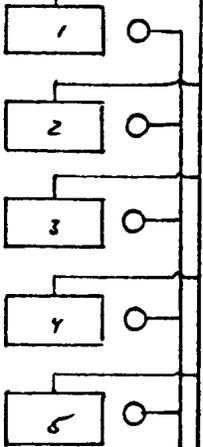
Net Slabs:

4x8 Steel I-beam across top and level w/ Top of concrete



Flare Gas Plant

Compressors



Water drains from slide
4" line

Oil drains from compressors
2" line

2"

2"

To basin

T-1200
Treated gas separator drain



2"

Plant #2 Sump



2"

Plant #1 Sump



2"

2"

CUSTOMER ADDRESS CITY ATTENTION OFFICE NO. G.A. Baca & Associates 330 Garfield Santa Fe, NM 87501 110089

C-1
REPORT OF ANALYSIS

SAMPLES RECEIVED 9/18/81 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water

<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>mg/l</u>
Conoco Maljamar Well Water Collected 9/17/81 @ 2:00 pm	Aluminum	< 0.1
	Arsenic	0.01
	Barium	0.3
	Cadmium	< 0.001
	Chromium	0.002
	Cobalt	< 0.01
	Copper	0.020
	Iron	0.05
	Lead	0.002
	Manganese	0.007
	Mercury (total)	0.0004
	Molybdenum	< 0.001
	Nickel	< 0.01
	Selenium	< 0.01
Silver	< 0.01	
Zinc	< 0.1	

Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	Aluminum	0.2
	Arsenic	0.03
	Barium	0.4
	Cadmium	0.003
	Chromium	0.054
	Cobalt	< 0.01
	Copper	< 0.001
	Iron	1.1
	Lead	0.004
	Manganese	0.032
	Mercury (total)	< 0.0004
	Molybdenum	< 0.001
	Nickel	0.01
	Selenium	< 0.01
Silver	< 0.01	
Zinc	4.1	



10/20/81

APPROVED BY

John D. Ritts

John D. Ritts, Manager Technical Services
PAGE 1 OF PAGE

REPORT OF ANALYSIS

CUSTOMER
ADDRESS
CITY
ATTENTION
INVOICE NO.

G.A. Baca & Associates
330 Garfield
Santa Fe, NM 87501
110089

SAMPLES RECEIVED	9/18/81	CUSTOMER ORDER NUMBER	
TYPE OF ANALYSIS	Water		
<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>mg/l</u>	
Conoco Maljamar Wastewater-no additives Collected 9/17/81 @ 1:30 pm	Boron	0.6	
	Chloride	559	
	Fluoride	2.1	
	Nitrogen, Nitrate (as N)	7.6	
	pH Units	7.8	
	Solids, Total Dissolved	2145	
	Sulfate	618	
	Benzene	< 1.0	
	Toluene	< 1.0	
	Ethylbenzene	< 1.0	
	Pentachlorophenol	< 0.001	
Conoco Maljamar Well Water-no additives Collected 9/17/81 @ 2:00 pm	Boron	0.2	
	Chloride	2.6	
	Fluoride	0.8	
	Nitrogen, Nitrate (as N)	4.5	
	pH Units	8.1	
	Solids, Total Dissolved	279	
	Sulfate	32.5	



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10/21/81

John D. Ritts, Manager Technical

PAGE 1 OF 1 PAGE Services

Controls for Environmental Pollution, Inc.

P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502

Telephone 505/982-9841

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

REPORT OF ANALYSIS

SAMPLES RECEIVED 9/18/81 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water for Cyanide

<u>Sample Identification</u>	<u>mg/l</u>
Conoco Maljamar Well Water Collected 9/17/81 @ 2:00 pm	< 0.1
Conoco Maljamar Wastewater Collected 9/17/81 @ 1:30 pm	2.4



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10/21/81

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John D. Ritts
 John D. Ritts, Manager Technical

PAGE 1 OF 1 PAGE Services

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

**REPORT OF
ANALYSIS**

SAMPLES RECEIVED 9/18/81 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water for Phenols

<u>Sample Identification</u>	<u>mg/l</u>	<u>Pentachlorophenol mg/l</u>
ConocoMaljamar Well Water Collected 9/17/81 @ 2:00 p.m.	< 0.001	-
Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	0.003	< 0.001



10/21/81

APPROVED BY *John D. Ritts*
 John D. Ritts, Manager Technical
 PAGE 1 OF 1 PAGE Services

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

REPORT OF ANALYSIS

SAMPLES RECEIVED 9/18/81 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water

<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>pCi/l</u>	<u>ug/l</u>
Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	Radium-226 Radium-228 Total Uranium	1.5 ± 0.8 1.8 ± 0.9	8
Conoco Maljamar Well Water Collected 9/17/81 @ 2:00 pm	Radium-226 Radium-228 Total Uranium	< 0.6 3.1 ± 2.0	8



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 P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502
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10/21/81

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 John D. Ritts, Manager Technical
 PAGE 1 OF 1 PAGE Services

CONTINGENCY PLAN

WASTE WATER HANDLING

Currently, the Maljamar plant depends upon pump transfer and waste water injection to dispose of only engine jacket cooling water, and plant separator waste water (1780 BPD).

In the event of a pump failure, injection well shutdown, or both, the waste water would be stored in on site storage until such time as a local waste water transport could be made available. This procedure would be maintained until the malfunction could be rectified.

Attached are the results of logs on a well drilled in the Maljamar field in 1980. It is believed that the results of these logs closely approximate the geological formations underlying the Conoco Maljamar Gas Plant.

The results show a water-containing sandstone between 70 and 150 feet. However, no analyses of this water are available to determine whether or not it could be considered a potential source of drinking water. The sedimentology above this water zone is not known.

WELL NAME WILLIAM MITCHELL "B" NO. 20 FIELD BAISH-MALJAMAR-PEARSALDATE 9/22/80

ELEVATION EST. GRD 3963' KB 3975' PROPOSED T.D. 4200'

LOCATION (SURFACE) 660' FSL & 1980' FEL OF SECTION 18 T-17S R-32E

COUNTY LEA STATE NM SPACING

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT</u> (O=Oil, G=Gas, W=Water)
WATER SS.	70'-150'	FRESH WATER
RUSTLER ANHY.	700'	-
SALADO SALT	810'	-
BASE SALT	1870'	-
YATES SS.	2030'	O,W,G
SEVEN RIVERS DOLO.	2390'	O,W,G
QUEEN SS.	2990'	O,W,G
GRAYBURG DOLO.	3390'	O,W,G
SAN ANDRES DOLO.	3770'	O,W,G

WELL SURVEYS - (List types by code numbers as follows: Directional and/or Deviation (1); Deflection (2); Caliper (3); Temperature (4); Electrical (5); Radioactive (6); Geograph (7); Photoclinometer (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0'-4200'	(7) Geograph	17-1/2" & 7-7/8"	One every 250' to base of salt. One every 500' thereafter.
0'-4200'	(1) Deviation	17-1/2" & 7-7/8"	
2000'-4200'	(5) DLL-GR	7-7/8"	2" & 5" Scales
2000'-4200'	(6) FDC-CNL-GR-CAL	7-7/8"	2" & 5" Scales
2000'-4200'	(6) PDC (GR-COLLAR)	5-1/2" Casing	Depth Contol
0'-4200'	(4) Temperature	5-1/2" Casing	Determine top of cement if necessary

CONOCO TO FURNISH WATER, CONTRACTOR TO FURNISH FUEL.

PROPOSED WELL PLAN OUTLINE

WELL NAME: WILLIAM MITCHELL "B" NO. 20

COUNTY: LEA

LOCATION: 660' FSL & 1980' FEL
Sec. 18, T-17S, R-32E.

STATE: NM

EST. KB: 3975'

EST. GL: 3963'

DEPTH	FORMATION TOPS & TYPE PLEISTOCENE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE (IN)	CASING		(PPG) FRACTURE GRADIENT	(PPG) FORMATION PRESSURE GRADIENT	MUD	
					SIZE (IN)	DEPTH (FT)			(PPG) WEIGHT	TY
	WATER SS	70'-150'	GEOLOGRAPH DEVIATION 0'-TD							
	RUSTLER ANHY.	700'		17-1/2	54.5# K-55 STC	750'		8.3- 8.5	8.5- 9.0	SPE
1000	SALADO SALT	810'								
		Possible water flows encountered 810'-4200'								
2000	BASE SALT	1870'								
	YATES SS.	2030'								
	SEVEN RIVERS DOLO.	2390'								
3000	QUEEN SS.	2990'								
	GRAYBURG DOLO.	3390'	DLL-GR FDC-CNL-GR-CAL 2000'-4200' 2" & 5"							
	SAN ANDRES DOLO.	3770'	PDC (GR-COLLAR) 2000'-4200'							
4000	TD - 4200'		Temperature 0'-4200'	7-7/8	15.5# K-55 STC	4200'	12-13	8.5- 10.5	9.0- 11.0	Salt Gel

Sanitary wastewaters from the offices at the Maljamar Gas Plant are discharged to three septic tanks. The locations of these tanks are shown on the facility plot plan in Section A of this report. These wastewater streams receive no chemical treatment.

Industrial solid wastes generated by the Maljamar facility generally fall into one of four categories: (1) waste slop oil; (2) empty chemical drums; (3) oil and amine filters; (4) paper trash. Slop oil is separated from the process wastewater stream and temporarily stored in three on-site tanks. This waste oil is periodically picked up by a refiner to be recycled. All empty chemical drums are picked up by the chemical supplier for re-use. Oil and amine filters, which have been analyzed and determined to be non-hazardous as prescribed under the EPA guidelines for the Resource Conservation and Recovery Act, as well as all paper trash is hauled to the Conoco Production site where it is burned periodically.

A copy of the letter written to the Environmental Protection Agency, Region VI, regarding the status of the plant under the Resource Conservation and Recovery Act is attached.

C. J. Hanan
Manager, Operations
Natural Gas Products

Conoco Inc.
P. O. Box 218
Houston, TX 77001

G-2

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 267769

CONFIDENTIAL

November 17, 1980

U.S. EPA Region VI
1201 Elm Street
Dallas, Texas 75270

Attention: Mrs. Adlene Harrison

Dear Mrs. Harrison:

Re: Maljamar Gas Processing Plant
EPA I.D. # NM D000758953

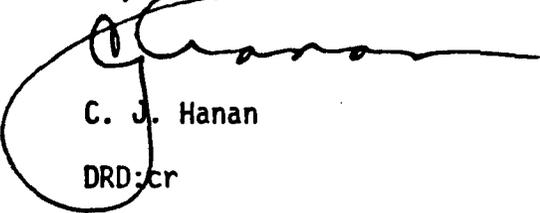
We have determined the above gas processing plant should be delisted as a treatment and storage facility.

We do not treat or store waste determined by analysis to be hazardous over ninety days.

We feel this plant may be exempt as a small generator under paragraph 261.5 or 261.6, Resource Conservation and Recovery Act of 1976 (RCRA).

If you have further questions please contact Don Derby, Environmental Coordinator, Natural Gas Products at (713) 965-1189.

Sincerely,



C. J. Hanan

DRD:cr

cc:
New Mexico Environmental Improvement Agency
Hazardous Wastes Division
Post Office Box 2348
Santa Fe, New Mexico 87503

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

Notice Dates:
11/11/82 (Santa Fe)
11/19/82 (HOBBS)

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed 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, telephone (505) 827-3260.

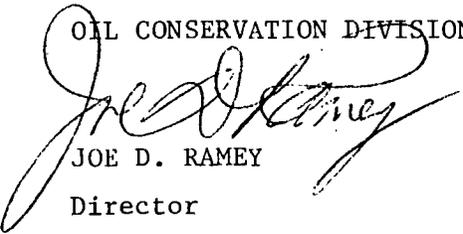
CONOCO INC., P. O. Box 460, Hobbs, New Mexico 88240, telephone (505) 393-4141, requests approval of their discharge plan for their brine in situ extraction well and facility located in Section 2, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico. Conoco produces approximately 1650 barrels of brine water per day to be used in their Warren Unit McKee Waterflood. The total dissolved solids content of brine water is approximately 270,000 mg/L.

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

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

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 12th day of November, 1982.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY

Director



Operations Engineering
Natural Gas Products

Certified Mail No. P25 7980967
Return Receipt Requested

Conoco Inc.
P. O. Box 2197
Houston, TX 77001

*Received
11-23-81*

November 18, 1981

Energy and Minerals Department
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Oscar A. Simpson III

Dear Mr. Simpson:

As required by Section 3-104 of the regulations of the New Mexico Water Quality Control Commission, Conoco Inc., Natural Gas Products Department hereby submits a Proposed Discharge Plan for the Maljamar Gas Processing Plant (Section 21, Township 17 South, Range 32 East). The plan is divided into seven sections including:

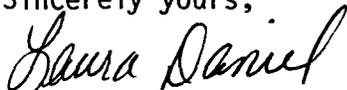
- A. Plant Description: This section describes the plant purpose, throughput and production capacities, location, and historical aspects of the plant. A plot plan is included.
- B. Water Balance: This section reviews the source of the plant process water and the final disposition of plant wastewater. It includes a flow schematic and the plant water balance.
- C. Water Quality: This section presents the lab analyses of the incoming process water and all wastewater streams.
- D. Water Treatment: In this section we discuss use of chemical treatments for cooling and process water.
- E. Hydrology and Geology: In this section a well log is presented for a typical well near the plant. The log shows the strata underlying the plant as well as the depth of the fresh water aquifer.
- F. Sewage Treatment: Method of treating the plant sanitary sewage is described in this section.

November 18, 1981
Page 2

G. Solid Waste Handling: This section describes the volumes, composition, and disposal of plant-generated solid wastes.

If you have any questions or require more information, please feel free to contact me at (713) 965-1123.

Sincerely yours,



Laura Daniel
Coordinator, Environmental and Energy Conservation

ENV-215-2-8

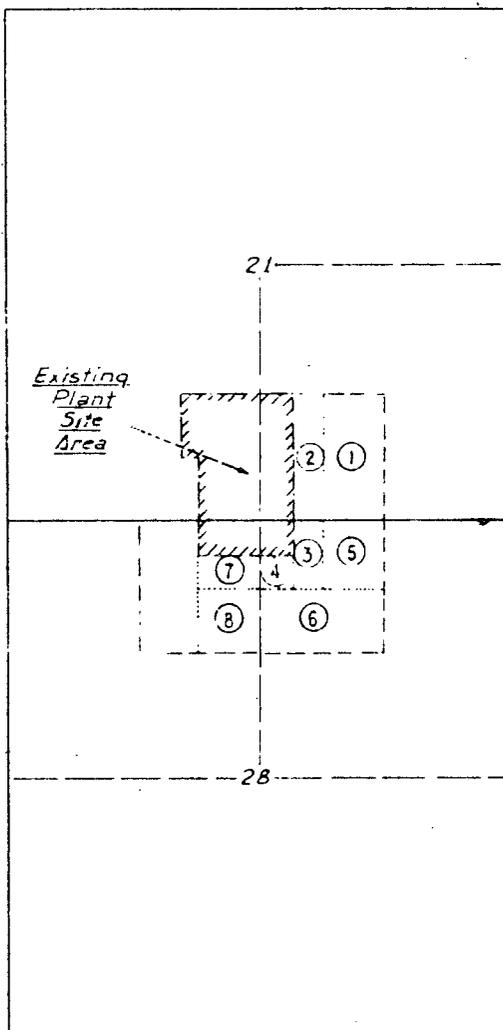
The Maljamar Gas Processing Plant is fully owned and operated by Conoco Inc. The plant is located three (3) miles south of Maljamar, Lea County, New Mexico on Farm Road 126. Approximately 60 MMCF of natural gas is processed daily to recover natural gas liquids.

Conoco Inc. purchased the Maljamar Plant in 1969, at which time it consisted of only one refrigerated oil absorption train. In 1981, an additional cryogenic process train was added with a capacity of 50 MMCF per day, bringing total plant capacity to 60 MMCFD. Low pressure gas from four (4) gathering systems (Ajax, Lusk, Anderson, and Skelly) is compressed and processed in the refrigerated oil absorption plant. High pressure gas gathered from Conoco's Greenwood system (5 MMCFD) and Transwestern's Kemnitz (25 MMCFD) and Turkey Track (20 MMCFD) system and processed by the cryogenic plant.

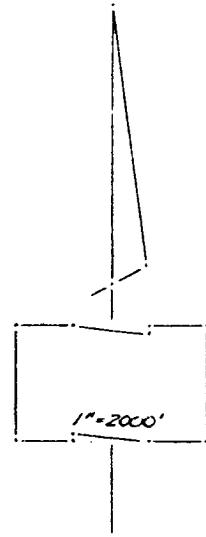
Ethane and propane product is delivered to customers by the Chaparral Pipeline, while butanes and natural gasolines are piped to the nearby Navajo Refinery. Residue gas is delivered to the Gas Company of New Mexico and to Transwestern. The projected daily liquid production is 100.1 MGPD of ethane, 56.2 MGPD of propane, 32.0 MGPD of butanes, and 26.9 MGPD of natural gasolines.

The present plant manager is Mr. G. L. Ayers.

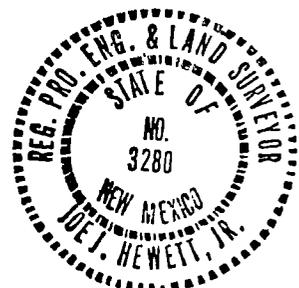
R-32-E



T
17
S



No.	Sub-Division	Sect.	Twp	Rng.	Area
①	E/2 SW/4 SE/4	21	17S	32E	20.0 Ac.
②	E/2 W/2 SW/4 SE/4	21	17S	32E	10.0 Ac.
③	E/2 NW/4 NW/4 NE/4	28	17S	32E	5.0 Ac.
④	SW/4 NW/4 NW/4 NE/4	28	17S	32E	2.5 Ac.
⑤	NE/4 NW/4 NE/4	28	17S	32E	10.0 Ac.
⑥	S/2 NW/4 NE/4	28	17S	32E	20.0 Ac.
⑦	S/2 NE/4 NE/4 NW/4	28	17S	32E	5.0 Ac.
⑧	SE/4 NE/4 NW/4	28	17S	32E	10.0 Ac.
Total:					82.5 Acres



ENGINEERS STATEMENT

Joe J. Hewett Jr states he is by occupation a civil engineer employed Continental Oil Company to make the survey of the gasoline plant site described and shown on this map; that the survey of said works was made by him and under authority commencing on the 31st day of May 1972; and ending on the 31st day of May, 1972; and that such survey is accurately represented upon this map.

Joe J. Hewett Jr.
 Reg. PE # LS 3280

APPLICANTS CERTIFICATE

This is to certify that Joe J. Hewett Jr who subscribed the statement hereon is the person employed by the undersigned applicant to prepare this map which has been adopted as the approximate final location of the works thereby shown; and that this map is filed as part of the complete application and in order that the applicant may obtain the benefits of Section 28 of the act of February 25, 1920, as amended by the act of August 21, 1935, and I further certify that the right-of-way herein described is for gasoline plant site.

Signed: _____

Title _____

CONTINENTAL OIL COMPANY

PROPOSED PLANT SITE ADDITION
 To
MALJAMAR GASOLINE PLANT
 In Sections 21 & 28, T-17-S, R-32-E
 Lea County, New Mexico

Date Of Survey:
5-31-72

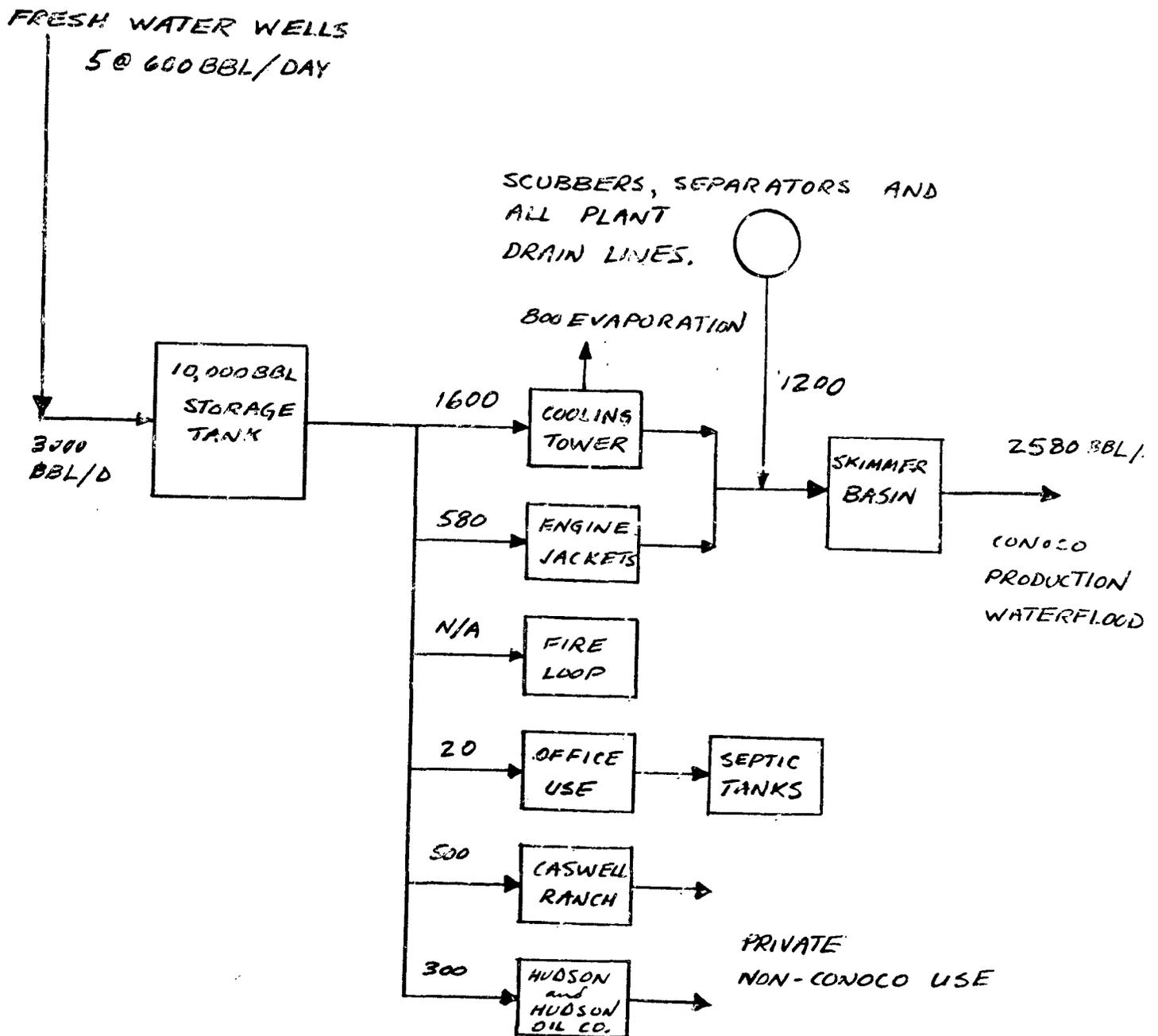
Prepared By:
CIRCLE CROSS ENGINEERING

File No.

Maljamar produces approximately 3000 barrels of fresh water from five, 120 foot deep Conoco-owned wells. A drawing showing the exact location of these wells is enclosed. The wells are located approximately five miles northeast of the plant. The well water is pumped to a settlement tank and on to a 10,000 barrel storage tank. These wells supply the Maljamar Gas Plant (2200 BPD) with both process and drinking water as well as supplying water to the Caswell Ranch (500 BPD), and the Hudson and Hudson Oil Company (300 BPD).

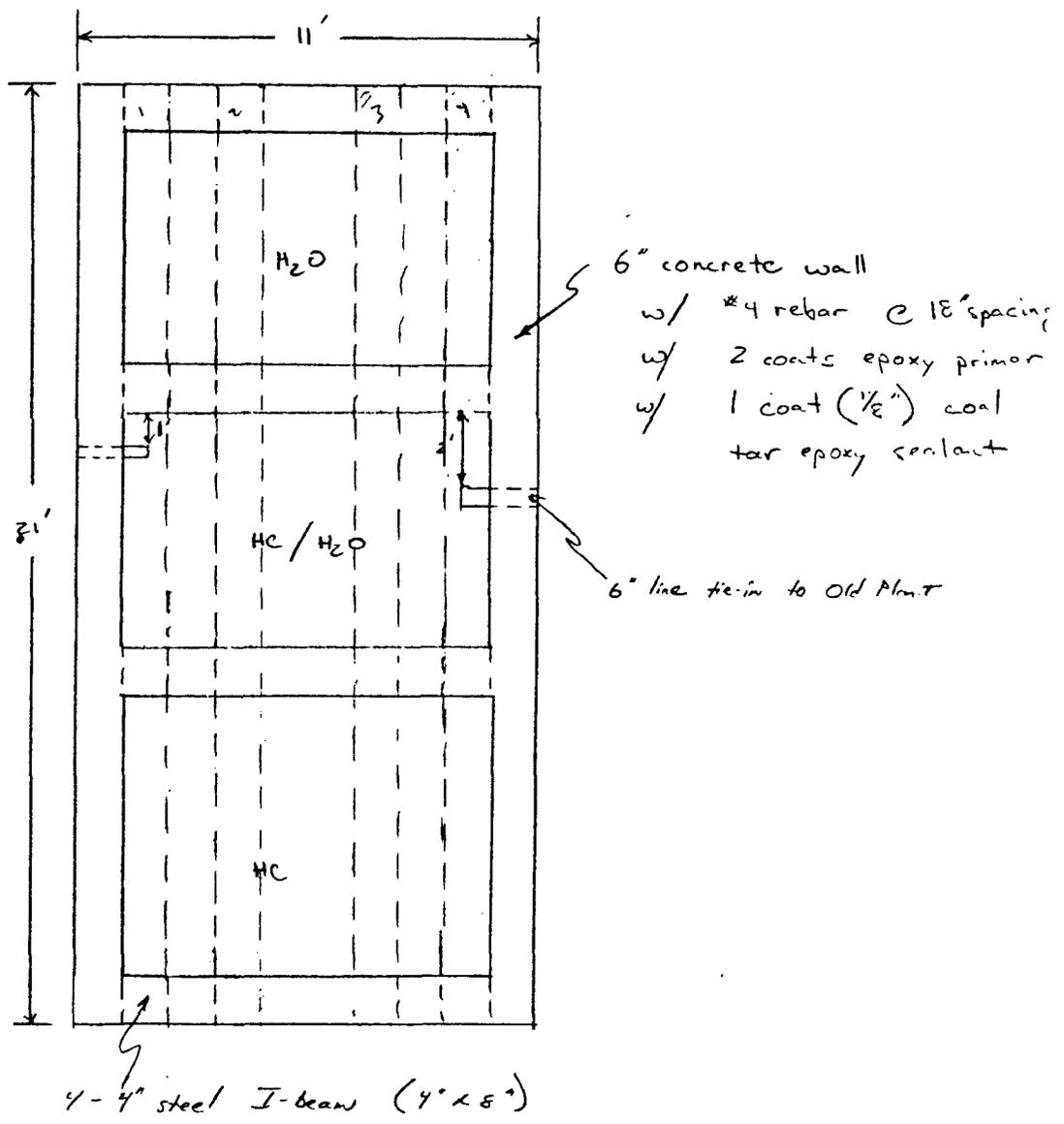
Water use at the Maljamar Gas Plant includes cooling tower water, fire fighting system water and drinking water. A water balance and flow schematic are included in this section. Wastewater from the office buildings is disposed of in three 1200 gallon septic tanks. These septic tanks are shown on the plot plan in Section A of this report. Plant liquid wastes are piped to a newly constructed epoxy-coated skimmer basin. After gravity separation, oily wastes are pumped to a slop oil tank and sold to a refiner. Water from the skimmer basin is piped to the Conoco Maljamar Projection Field where it is reinjected as part of the secondary recovery waterflood project. The analyses of the plant wastewater sent to the production field are included in Section C of this report.

MALJAMAR WATER FLOW CHART



Majoran Gas Plant

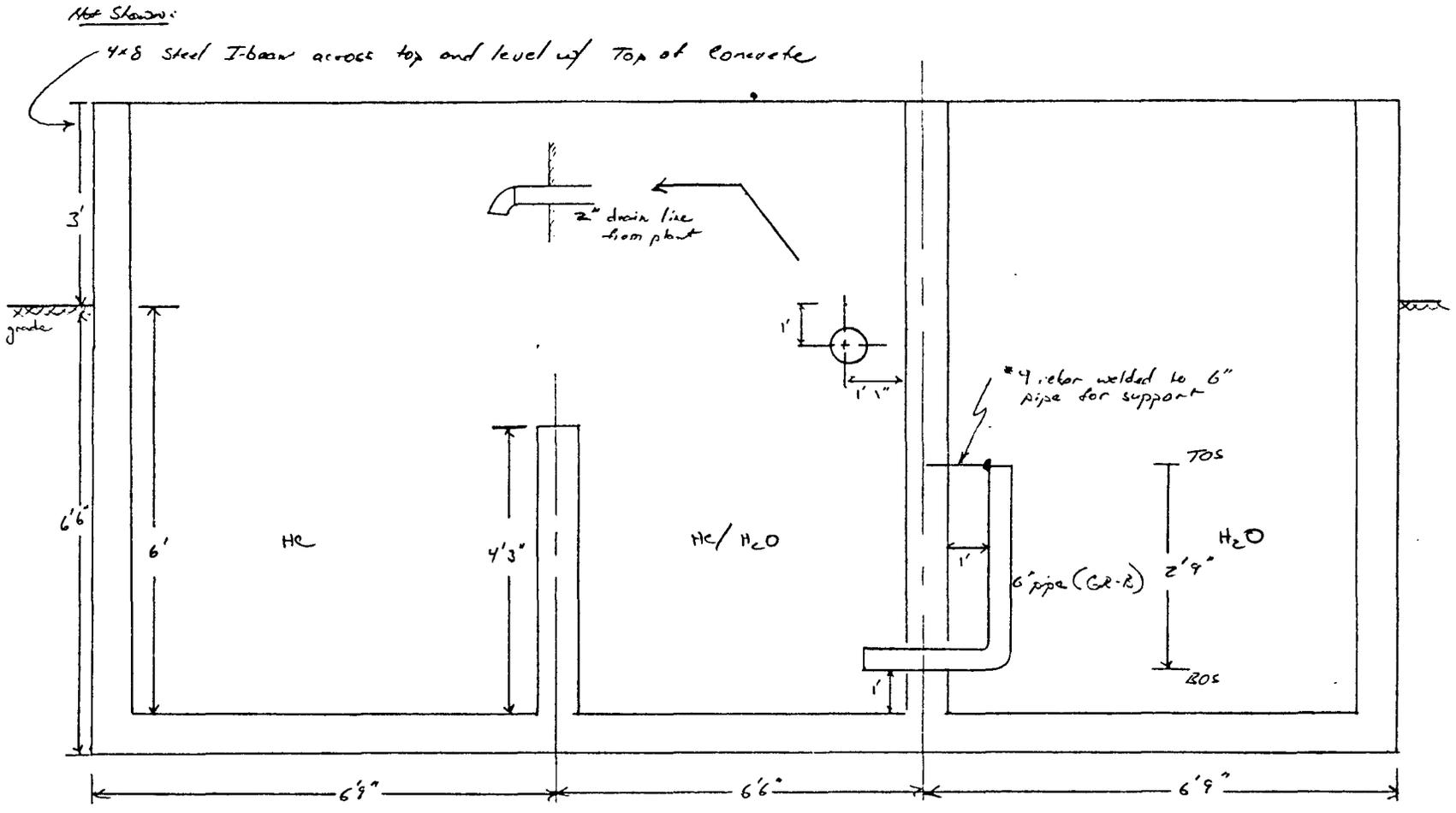
HC/water skimmer Basin



Cover: 3/8" corrugated floor plating (carbon steel) which rests on the I-beam

2
A

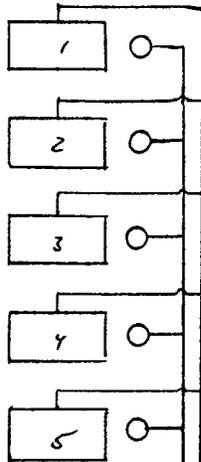
McLain Co. Inc.



B-4
Skimmer Basin: Side View

Malabar Gas Plant

Compressors



Water drains from slide
4" line

Oil drains from compressors
2" line

2"

2"

To basin

T-1200
Treated gas separator drain



2"

Plant #2 Sump



2"

Plant #1 Sump



2"

2"

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 VOICE NO. 110089

C-1
**REPORT OF
 ANALYSIS**

SAMPLES RECEIVED	9/18/81	CUSTOMER ORDER NUMBER	
TYPE OF ANALYSIS	Water		
<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>mg/l</u>	
Conoco Maljamar Well Water Collected 9/17/81 @ 2:00 pm	Aluminum	< 0.1	
	Arsenic	0.01	
	Barium	0.3	
	Cadmium	< 0.001	
	Chromium	0.002	
	Cobalt	< 0.01	
	Copper	0.020	
	Iron	0.05	
	Lead	0.002	
	Manganese	0.007	
	Mercury (total)	0.0004	
	Molybdenum	< 0.001	
	Nickel	< 0.01	
	Selenium	< 0.01	
	Silver	< 0.01	
	Zinc	< 0.1	
Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	Aluminum	0.2	
	Arsenic	0.03	
	Barium	0.4	
	Cadmium	0.003	
	Chromium	0.054	
	Cobalt	< 0.01	
	Copper	< 0.001	
	Iron	1.1	
	Lead	0.004	
	Manganese	0.032	
	Mercury (total)	< 0.0004	
	Molybdenum	< 0.001	
	Nickel	0.01	
	Selenium	< 0.01	
	Silver	< 0.01	
	Zinc	4.1	



10/20/81

APPROVED BY John D. Ritts
 John D. Ritts, Manager Technical Services
 PAGE 1 OF PAGE

REPORT OF ANALYSIS

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

SAMPLES RECEIVED	9/18/81	CUSTOMER ORDER NUMBER	
TYPE OF ANALYSIS	Water		
<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>mg/l</u>	
Conoco Maljamar Wastewater-no additives Collected 9/17/81 @ 1:30 pm	Boron	0.6	
	Chloride	559	
	Fluoride	2.1	
	Nitrogen, Nitrate (as N)	7.6	
	pH Units	7.8	
	Solids, Total Dissolved	2145	
	Sulfate	618	
	Benzene	< 1.0	
	Toluene	< 1.0	
	Ethylbenzene	< 1.0	
	Pentachlorophenol	< 0.001	
Conoco Maljamar Well Water-no additives Collected 9/17/81 @ 2:00 pm	Boron	0.2	
	Chloride	2.6	
	Fluoride	0.8	
	Nitrogen, Nitrate (as N)	4.5	
	pH Units	8.1	
	Solids, Total Dissolved	279	
	Sulfate	32.5	



Controls for Environmental Pollution, Inc.

P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502
 Telephone 505/982-9841

APPROVED BY

10/21/81

John D. Ritts
 John D. Ritts, Manager Technical

PAGE 1 OF 1 PAGE Services

REPORT OF ANALYSIS

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

SAMPLES RECEIVED 9/18/81	CUSTOMER ORDER NUMBER
--------------------------	-----------------------

TYPE OF ANALYSIS Water for Cyanide

Sample Identification mg/l

Conoco Maljamar
 Well Water
 Collected 9/17/81
 @ 2:00 pm < 0.1

Conoco Maljamar
 Wastewater
 Collected 9/17/81
 @ 1:30 pm 2.4



10/21/81

APPROVED BY John D. Ritts
 John D. Ritts, Manager Technical
 PAGE 1 OF 1 PAGE Services

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

REPORT OF ANALYSIS

SAMPLES RECEIVED 9/18/81

CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water for Phenols

<u>Sample Identification</u>	<u>mg/l</u>	<u>Pentachlorophenol mg/l</u>
ConocoMaljamar Well Water Collected 9/17/81 @ 2:00 p.m.	< 0.001	-
Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	0.003	< 0.001



10/21/81

APPROVED BY

John D. Ritts
 John D. Ritts, Manager Technical

PAGE 1 OF 1 PAGE Services

Controls for Environmental Pollution, Inc.

P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502
 Telephone 505/982-9841

**REPORT OF
ANALYSIS**

CUSTOMER G.A. Baca & Associates
 ADDRESS 330 Garfield
 CITY Santa Fe, NM 87501
 ATTENTION
 INVOICE NO. 110089

SAMPLES RECEIVED 9/18/81

CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Water

<u>Sample Identification</u>	<u>Type of Analysis</u>	<u>pCi/l</u>	<u>ug/l</u>
Conoco Maljamar Waste Water Collected 9/17/81 @ 1:30 pm	Radium-226	1.5 ± 0.8	
	Radium-228	1.8 ± 0.9	
	Total Uranium		8
Conoco Maljamar Well Water Collected 9/17/81 @ 2:00 pm	Radium-226	< 0.6	
	Radium-228	3.1 ± 2.0	
	Total Uranium		8



10/21/81

APPROVED BY

John D. Ritts
 John D. Ritts, Manager Technical
 PAGE 1 OF 1 PAGE Services

Controls for Environmental Pollution, Inc.

P.O. Box 5351 • 1925 Rosina • Santa Fe, New Mexico 87502
 Telephone 505/982-9841

WESTERN ENVIRONMENTAL MANAGEMENT

COOLING WATER TREATMENT CONTROL DATA

TREATMENT PROGRAM PROPOSED BY (Company and/or representative) Steve Young		DATE 7-26-81
FOR COOLING WATER SYSTEM OF (Company) CONOCO, Maljamar Plant		Person(s) to contact Bill Thompson, Steve Howry
Location Maljamar, New Mexico		(505) 676-2961
Number or other identification of cooling water system to be treated		Telephone number
COOLING WATER USED FOR <input checked="" type="checkbox"/> PROCESS COOLING <input type="checkbox"/> AIR CONDITIONING <input type="checkbox"/> REFRIGERATION <input type="checkbox"/> HUMIDIFICATION <input type="checkbox"/> EVAPORATIVE CONDENSER <input type="checkbox"/> ENGINE JACKETS <input type="checkbox"/> AIR WASH SYSTEM <input type="checkbox"/> OTHER (describe)		
TYPE OF COOLING WATER SYSTEM <input checked="" type="checkbox"/> OPEN RECIRCULATING <input type="checkbox"/> ONCE-THROUGH <input type="checkbox"/> CLOSED <input type="checkbox"/> OTHER (describe)		
OPERATING DATA*		
OPERATED <u>24</u> hours/day <u>7</u> days/week <u>52</u> weeks/year		DESIGN HEAT LOAD (kJ/h), (kcal./hr.), (Btu/hr.), (tons)
WATER CAPACITY (Volume) <u>210,000</u> (XXX), (gal.)		OPERATING WATER TEMPERATURE Maximum <u>93</u> Minimum <u>75</u> (XX), (°F)
CIRCULATION RATE <u>3400</u> (XXXX), (gal./min.)		EVAPORATION RATE (Estimated) <u>49,000</u> (XXXX), (gal./day)
MAKEUP RATE <u>69,000</u> (gal./day) (XXXX XXXXX), (gal./min.)		BLEEDOFF RATE <u>20,000</u> (gal./day) (XXXXXXXXXXXX)
*Actual operating temp. spreads = 10 - 12°		
SOURCE & QUALITY OF MAKEUP WATER <u>Caprock - good quality, slightly high silica</u>		
HOW IS BLEEDOFF CONTROLLED? <u>Chloride test - cycles of concentration</u>		
IS pH CONTROLLED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO pH Control Range <u>6.5-8.0</u> Chemicals used for pH control: <u>Sulfuric Acid</u>		
ARE LOW POINTS EQUIPPED WITH DRAINAGE FACILITIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO How often are they drained? <u>As needed</u>		
IS SYSTEM WASHED OUT PERIODICALLY <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO How often? <u>As needed</u>		
DESCRIPTION OF COOLING TOWER - coil & shed type		
<input type="checkbox"/> NATURAL DRAFT <input type="checkbox"/> Hyperbolic <input type="checkbox"/> Atmospheric <input checked="" type="checkbox"/> MECHANICAL DRAFT: <input type="checkbox"/> Forced <input checked="" type="checkbox"/> Induced <input checked="" type="checkbox"/> Crossflow <input type="checkbox"/> Counterflow		
MANUFACTURER & MODEL NO. <u>Marley</u>		
MATERIALS OF CONSTRUCTION (Basin, fill, etc.) <input type="checkbox"/> PVC <input type="checkbox"/> Copper <input type="checkbox"/> Mild steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> Other (describe) <u>Basin-cement, no fill, hoppers - redwood</u>		
OTHER INFORMATION ON THE TOWER		
DESCRIPTION OF EQUIPMENT COOLED		
TYPE OF EQUIPMENT COOLED <u>Process heat exchangers</u>		REFRIGERATION CAPACITY <u>Varies with exchanger</u>
MATERIALS OF CONSTRUCTION (Waterside: pumps, piping, etc.) <input type="checkbox"/> PVC <input type="checkbox"/> Copper <input checked="" type="checkbox"/> Mild steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> Other (describe) <u>Some copper alloys</u>		
MANUFACTURER & MODEL NO.		
PROBLEMS EXPERIENCED IN COOLING WATER SYSTEM (Scaling, corrosion, biological fouling, etc.) <u>Some biological and scale buildup on tower and heat exchangers</u>		

WATER ANALYSIS					
TEST	UNITS*	MAKEUP WATER	CIRCULATING WATER	Cycles	
pH	-	7.5	6.7		
PHENOLPHTHALEIN (P) ALKALINITY	ppm	0	0		
TOTAL (M) ALKALINITY	"	164	20		
CHLORIDES	"	54	172	3.2	
CALCIUM HARDNESS	"	180	740	4.3	
TOTAL HARDNESS	"	214	960	4.5	
SULFATES	"	23	95		
PHOSPHATES	"	0	12		
SILICA	"	38	171		
IRON	"	Nil	0.3		
TOTAL DISSOLVED SOLIDS	"	514	1965		
CONDUCTIVITY	MmHO	580	2200	3.8	
OTHER (specify)					
Stability Index @ 90°F		6.7	8.4		
				Avg. = 4.0	

* It is important to show units in which analytical results are expressed, since practices vary in different parts of the world.

COOLING WATER TREATMENT PROGRAM		
	PRESENT	RECOMMENDED
CYCLES OF CONCENTRATION	4-5	3.0-3.5
BLEEDOFF RATE		
MICROBICIDE	Alpha 570	WEMCIDE CW 103
	Alpha 542	WEMCIDE CW 105
SCALE INHIBITOR	SH 1320	WEM CW 154
CORROSION INHIBITOR	TS 250	WEM CW 154
DISPERSANT	None	None
pH CONTROL	6.5 - 8.0	7.2 - 7.6
CLEANING -FLUSHING	As needed	
WATER TESTS	pH, alkalmity, chlorides,	Same
	TDS, phosphate	



P. O. BOX 1499
HOBBS, NEW MEXICO 88240

707 NORTH LEECH
PHO. (505) 393-7751

Attention: Mr. Billy Thompson

WATER ANALYSIS REPORT

(Expressed in ppm Unless Indicated Otherwise)

FOR: Conoco Inc.
Maljamar Plant
PLANT: P.O. Box 1206
Maljamar, New Mexico 88248
LOCATION:

DATE SAMPLED:
DATE SUBMITTED: 01-07-81
DATE ANALYZED: 01-07-81

SAMPLE SOURCE:	COOLING	COOLING		
	TOWER	TOWER		
	MAKEUP			
pH	6.7	8.1		
Pheno. Alkalinity (CaCO ₃)	Nil	Nil		
Total Alkalinity (CaCO ₃)	144	240		
Bicarbonate (HCO ₃)				
Carbonate (CO ₃)				
Hydroxide (OH)				
Total Hardness (CaCO ₃)	292	1128		
Calcium (CaCO ₃)	212	832		
Magnesium (CaCO ₃)	80	296		
Chloride (CL)	84	420		
Sulfate (SO ₄)	108	778		
Total Phosphate (PO ₄)		28		
Orthophosphate (PO ₄)		14		
Polyphosphate (PO ₄)				
Silica (SiO ₂)	36.8	110		
Iron (Fe)				
Chromate (CrO ₄)				
Specific Conductance (MMHOS)	567	2113		
Chloride Concentrations		5.0		
Hardness Concentrations				

Increase sulfuric acid feed to maintain total alkalinity within the range of 50-100 ppm. SCORHIB 1320 could be decreased slightly to maintain a total phosphate residual of 5-10 ppm. Other controls to the cooling tower appear to be satisfactory at this sampling.

cc: Mr. Joe Thurmond
Mr. James Wedgeworth
Mr. Pudgie Black
Mr. Eddie Slavens
Mr. Roger Davis

Thanks,
Jim Britton
Jim Britton

Attached are the results of logs on a well drilled in the Maljamar field in 1980. It is believed that the results of these logs closely approximate the geological formations underlying the Conoco Maljamar Gas Plant.

The results show a water-containing sandstone between 70 and 150 feet. However, no analyses of this water are available to determine whether or not it could be considered a potential source of drinking water. The sedimentology above this water zone is not known.

WELL NAME WILLIAM MITCHELL "B" NO. 20 FIELD BAISH-MALJAMAR-PEARSALDATE 9/22/80

ELEVATION EST. GRD 3963' KB 3975' PROPOSED T.D. 4200'

LOCATION (SURFACE) 660' FSL & 1980' FEL OF SECTION 18 T-17S R-32E

COUNTY LEA STATE NM SPACING

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT</u> (O=Oil, G=Gas, W=Water)
WATER SS.	70'-150'	FRESH WATER
RUSTLER ANHY.	700'	-
SALADO SALT	810'	-
BASE SALT	1870'	-
YATES SS.	2030'	O,W,G
SEVEN RIVERS DOLO.	2390'	O,W,G
QUEEN SS.	2990'	O,W,G
GRAYBURG DOLO.	3390'	O,W,G
SAN ANDRES DOLO.	3770'	O,W,G

WELL SURVEYS - (List types by code numbers as follows: Directional and/or Deviation (1); Deflection (2); Caliper (3); Temperature (4); Electrical (5); Radioactive (6); Geolograph (7) Photoclinometer (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0'-4200'	(7) Geolograph	17-1/2" & 7-7/8"	One every 250' to base of salt. One every 500' thereafter.
0'-4200'	(1) Deviation	17-1/2" & 7-7/8"	
2000'-4200'	(5) DLL-GR	7-7/8"	2" & 5" Scales
2000'-4200'	(6) FDC-CNL-GR-CAL	7-7/8"	2" & 5" Scales
2000'-4200'	(6) PDC(GR-COLLAR)	5-1/2" Casing	Depth Contol
0'-4200'	(4) Temperature	5-1/2" Casing	Determine top of cement if necessary

CONOCO TO FURNISH WATER, CONTRACTOR TO FURNISH FUEL.

PROPOSED WELL PLAN OUTLINE

WELL NAME: WILLIAM MITCHELL "B" NO. 20

COUNTY: LEA

LOCATION: 660' FSL & 1980' FEL
Sec. 18, T-17S, R-32E.

STATE: NM

EST. KB: 3975'
 EST. GL: 3963'

DEPTH	FORMATION TOPS & TYPE PLEISTOCENE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE (IN)	CASING		(PPG) FRACTURE GRADIENT	(PPG) FORMATION PRESSURE GRADIENT	MUD	
					SIZE (IN)	DEPTH (FT)			(PPG) WEIGHT	TYPE
	WATER SS	70'-150'	GEOLOGRAPH DEVIATION 0'-TD							
	RUSTLER ANHY.	700'		17-1/2	54.5# K-55 STC 13-3/8	750'		8.3- 8.5	8.5- 9.0	SFW
1000	SALADO SALT	810'								
		Possible water flows encountered 810'-4200'								
2000	BASE SALT	1870'								
	YATES SS.	2030'								
	SEVEN RIVERS DOLO.	2390'								
3000	QUEEN SS.	2990'								
	GRAYBURG DOLO.	3390'	DLL-GR FDC-CNL-GR-CAL 2000'-4200' 2" & 5"							
	SAN ANDRES DOLO.	3770'	PDC (GR-COLLAR) 2000'-4200'		15.5# K-55 STC					
4000	TD - 4200'		Temperature 0'-4200'	7-7/8	5-1/2	4200'	12-13	8.5- 10.5	9.0- 11.0	Salt Gel

Sanitary wastewaters from the offices at the Maljamar Gas Plant are discharged to three septic tanks. The locations of these tanks are shown on the facility plot plan in Section A of this report. These wastewater streams receive no chemical treatment.

Industrial solid wastes generated by the Maljamar facility generally fall into one of four categories: (1) waste slop oil; (2) empty chemical drums; (3) oil and amine filters; (4) paper trash. Slop oil is separated from the process wastewater stream and temporarily stored in three on-site tanks. This waste oil is periodically picked up by a refiner to be recycled. All empty chemical drums are picked up by the chemical supplier for re-use. Oil and amine filters, which have been analyzed and determined to be non-hazardous as prescribed under the EPA guidelines for the Resource Conservation and Recovery Act, as well as all paper trash is hauled to the Conoco Production site where it is burned periodically.

A copy of the letter written to the Environmental Protection Agency, Region VI, regarding the status of the plant under the Resource Conservation and Recovery Act is attached.

C. J. Hanan
Manager, Operations
Natural Gas Products

Conoco Inc.
P. O. Box 2197
Houston, TX 77001

G-2

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 267769

CONFIDENTIAL

November 17, 1980

U.S. EPA Region VI
1201 Elm Street
Dallas, Texas 75270

Attention: Mrs. Adlene Harrison

Dear Mrs. Harrison:

Re: Maljamar Gas Processing Plant
EPA I.D. # NM D000758953

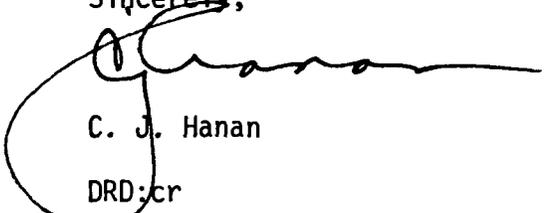
We have determined the above gas processing plant should be delisted as a treatment and storage facility.

We do not treat or store waste determined by analysis to be hazardous over ninety days.

We feel this plant may be exempt as a small generator under paragraph 261.5 or 261.6, Resource Conservation and Recovery Act of 1976 (RCRA).

If you have further questions please contact Don Derby, Environmental Coordinator, Natural Gas Products at (713) 965-1189.

Sincerely,



C. J. Hanan

DRD:cr

cc:
New Mexico Environmental Improvement Agency
Hazardous Wastes Division
Post Office Box 2348
Santa Fe, New Mexico 87503