GW - 14

GENERAL CORRESPONDENCE

YEAR(S):

2007 - 1980

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 476-6000
Fax (505) 476-6030
www.nmenv.state.nm.us

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 17, 2007

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Randy Schmaltz
Environmental Supervisor
Giant Refining Company
P.O. Box 159
Bloomfield, New Mexico 87413

Ed Riege
Environmental Superintendent
Giant Refining Company
Route 3, Box 7
Gallup, New Mexico 87301

RE: NORTH BOUNDARY BARRIER COLLECTION SYSTEM PHASE II ANNUAL REPORT MAY 2005 TO MAY 2006; HWB-GRCB-06-004
RCRA PERMIT NO. NMD 089416416

Dear Messrs. Schmaltz and Riege:

The New Mexico Environment Department (NMED) has completed its review of Giant Refining Company, Bloomfield Refinery (GRCB) response letter dated December 27, 2006 titled *Approval North Boundary Barrier Collection System Phase II Annual Report May 2005 to May 2006.*

In response to Comment # 7, NMED concurs, that GRCB should include the data collected from May 2006 through December 2006 (6 month monitoring report) for the North Boundary Barrier Wall in the Annual Groundwater Monitoring Report due April 15, 2007. The report must include the information required in the November 2, 2006 letter from NMED to GRCB titled *Approval North Boundary Barrier Collection System Phase II Annual Report May 2005 to May 2006.*

Please contact Hope Monzeglio of my staff with any questions regarding this letter at (505)-476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

JEK:hm

cc: D. Cobrain, NMED, HWB
H. Monzeglio, NMED HWB
W. Price, OCD, Santa Fe Office
B. Powell, OCD Aztec Office
B. Wilkinson, EPA Region VI
File: Reading and GRCB 2007 File
HWB-GRCB-06-004

2007 JAN 16 PM 12 03

HOLLY
CORPORATION

100 Crescent Court
Suite 1600
Dallas, Texas 75201-6927

Executive Offices

Phone: (214) 871-3555

December 21, 2006

To Whom It May Concern:

Holly Corporation and its subsidiaries (Holly), is in the process of centralizing incoming invoices. We are requesting that all vendors send invoices to the address listed below. No other address should be used for invoices except on a case by case basis (maybe where confidentiality is an issue). Please note that this change is effective immediately and continuing to send invoices to any other address may delay payment.

Invoices associated with purchase orders (PO) issued after November 30, 2006 should follow the billing instructions on the PO. The billing address on PO's issued prior to November 30, 2006 should be changed to conform with this notice. **Be sure to include the PO Number on the face of your invoice.**

In addition, Holly Corporation has reviewed our internal control process related to "House Accounts" or "Open Direct Charge Accounts". Please close them if you have one. It is Holly's intent to implement a company wide practice of utilizing "purchase orders" or Credit Cards for obtainment of materials and supplies. Since we cannot validate the authorizing person(s) on a "House Account", Holly Companies will no longer remit payments to vendors for those accounts.

Vendors should be made aware of the fact that Holly operates under several different names and therefore invoices submitted with an improper name may be returned as either "invalid" or requires "additional information". **Additionally, please include a contact name associated with the company you are doing business with.** The following is a listing of Holly companies impacted by this change and the appropriate address to use when invoicing.

Navajo Refining Company	*Holly Corporation*	*Rio Grande Pipeline*
Holly Asphalt	*Holly Petroleum Inc.*	*Holly Logistic Services*
Holly Refining and Marketing	*Holly Energy Partners*	*Navajo Pipeline*

At this time there is no address change for invoices addressed to

PO Box 1290	**Or**	**311 W. Quay**
Artesia, NM 88210		**Artesia, NM 88210**

All others please change mailing address to

Company Name
Attn: Vendor Payable Group
P.O. Box 1490
Artesia, New Mexico 88210

We appreciate your attention in this matter. If you have any questions regarding this change please contact me at (505)746-5326.

Sincerely,

Dorinda Johnson
Accounts Payable Supervisor

GW-14

NAVAJO REFINING COMPANY, L.P.

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXEC/MKTG
(505) 746-5421 ENGINEERING
(505) 746-5480 PIPELINE

October 13, 2006

Mr. Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Tank Bottom Spill at Lea Refinery, Lea County, New Mexico

Dear Wayne,

As you are aware, on October 4, 2006, at approximately 7:00 am, a vacuum bin containing waste from Tank 1201-D (Wastewater tank) slid off of the back of a truck and spilled about 25 barrels of F037 waste onto the ground. This spill was inside the refinery fence. Specifically, it was under the flare at this facility on the northwest side of the refinery. The spill covered an area about 25' wide and 60' long.

An onsite backhoe was immediately mobilized and dug a small low spot to allow the spill to flow to this low area where an onsite vacuum truck picked up 20 barrels of the spill. Due to both of these pieces of equipment being onsite, all of this was accomplished within 40 minutes.

We then had a front end loader remove any visually contaminated soil and place it on plastic. These piles of dirt have since been transferred to three roll-off bins. This material will all be disposed as hazardous waste at Clean Harbors facility at Lone Mountain, Oklahoma. I have included some photos to show the area. After removal of the contaminated soil, three bottom hole samples were collected from north to south along the spill. The sample identified as F037 Spill BH #1 was taken at the bottom of the low spot that the backhoe dug. These samples were collected on October 6, 2006 and were analyzed for TPH and BTEX. I have included that analysis with this report.

There are no surface water bodies in the area and the depth to groundwater is about 110 feet. Based on the results of TPH and BTEX, it is our conclusion that the spill has been cleaned up. We are awaiting your approval to put clean dirt back in the excavated area and bring it back to grade.

I am sending a copy of this letter to Steve Connolly with the New Mexico Environment Department Incidence Response group. If there are any questions concerning this submission, please call me at 505-746-5281.

Sincerely,
NAVAJO REFINING COMPANY, LLP

Darrell Moore

Darrell Moore
Environmental Manager for Water and Waste

Encl.

e-Lab Analytical, Inc.

Date: *October 11, 2006*

CLIENT: Navajo Refining Company
Work Order: 0610156
Project: F037 Spill
Lab ID: 0610156-01

Client Sample ID: F037 Spill BH #1
Collection Date: 10/6/2006 10:20:00 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX, SOIL			**SW8021B**			Analyst: **WLR**
Benzene	**2.9**		**1.0**	**µg/Kg**	1	10/10/2006 9:07:00 PM
Toluene	**7.3**		**1.0**	**µg/Kg**	1	10/10/2006 9:07:00 PM
Ethylbenzene	**6.6**		**1.0**	**µg/Kg**	1	10/10/2006 9:07:00 PM
Methyl tert-butyl ether	ND		5.0	µg/Kg	1	10/10/2006 9:07:00 PM
Xylenes, Total	**13**		**3.0**	**µg/Kg**	1	10/10/2006 9:07:00 PM
Surr: 4-Bromofluorobenzene	*91.0*		*75-131*	*%REC*	1	10/10/2006 9:07:00 PM
Surr: Trifluorotoluene	*118*		*73-130*	*%REC*	1	10/10/2006 9:07:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: *October 10, 2006*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	F037 Spill BH #1
Work Order:	0610112	**Collection Date:**	10/6/2006 10:10:00 AM
Project:	F037 Spill		
Lab ID:	0610112-01	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **10/9/2006**	Analyst: **JFT**
nC6 to nC12	ND		50	mg/Kg	1	10/9/2006 6:47:00 PM
>nC12 to nC28	**1,900**		**50**	**mg/Kg**	1	10/9/2006 6:47:00 PM
>nC28 to nC35	**100**		**50**	**mg/Kg**	1	10/9/2006 6:47:00 PM
Total Petroleum Hydrocarbon	**2,000**		**50**	**mg/Kg**	1	10/9/2006 6:47:00 PM
Surr: 2-Fluorobiphenyl	*108*		*70-130*	*%REC*	1	10/9/2006 6:47:00 PM
Surr: Trifluoromethyl benzene	*97.8*		*70-130*	*%REC*	1	10/9/2006 6:47:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: *October 11, 2006*

CLIENT: Navajo Refining Company
Work Order: 0610156
Project: F037 Spill
Lab ID: 0610156-02

Client Sample ID: F037 Spill BH#2
Collection Date: 10/6/2006 10:20:00 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX, SOIL			**SW8021B**			Analyst: **WLR**
Benzene	**2.0**		**1.0**	**µg/Kg**	1	10/10/2006 10:34:00 PM
Toluene	**3.5**		**1.0**	**µg/Kg**	1	10/10/2006 10:34:00 PM
Ethylbenzene	**3.2**		**1.0**	**µg/Kg**	1	10/10/2006 10:34:00 PM
Methyl tert-butyl ether	ND		5.0	µg/Kg	1	10/10/2006 10:34:00 PM
Xylenes, Total	**7.4**		**3.0**	**µg/Kg**	1	10/10/2006 10:34:00 PM
Surr: 4-Bromofluorobenzene	*103*		*75-131*	*%REC*	1	10/10/2006 10:34:00 PM
Surr: Trifluorotoluene	*122*		*73-130*	*%REC*	1	10/10/2006 10:34:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: *October 10, 2006*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	F037 Spill BH #2
Work Order:	0610112	**Collection Date:**	10/6/2006 10:20:00 AM
Project:	F037 Spill		
Lab ID:	0610112-02	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **10/9/2006**	Analyst: **JFT**
nC6 to nC12	ND		50	mg/Kg	1	10/9/2006 7:26:00 PM
>nC12 to nC28	**630**		**50**	**mg/Kg**	1	10/9/2006 7:26:00 PM
>nC28 to nC35	**110**		**50**	**mg/Kg**	1	10/9/2006 7:26:00 PM
Total Petroleum Hydrocarbon	**740**		**50**	**mg/Kg**	1	10/9/2006 7:26:00 PM
Surr: 2-Fluorobiphenyl	*78.9*		*70-130*	*%REC*	1	10/9/2006 7:26:00 PM
Surr: Trifluoromethyl benzene	*94.5*		*70-130*	*%REC*	1	10/9/2006 7:26:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: *October 11, 2006*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	F037 Spill BH#3
Work Order:	0610156	**Collection Date:**	10/6/2006 10:30:00 AM
Project:	F037 Spill		
Lab ID:	0610156-03	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX, SOIL			**SW8021B**			Analyst: **WLR**
Benzene	**2.1**		**1.0**	**µg/Kg**	1	10/10/2006 11:03:00 PM
Toluene	**4.2**		**1.0**	**µg/Kg**	1	10/10/2006 11:03:00 PM
Ethylbenzene	**5.0**		**1.0**	**µg/Kg**	1	10/10/2006 11:03:00 PM
Methyl tert-butyl ether	ND		5.0	µg/Kg	1	10/10/2006 11:03:00 PM
Xylenes, Total	**10**		**3.0**	**µg/Kg**	1	10/10/2006 11:03:00 PM
Surr: 4-Bromofluorobenzene	*89.4*		*75-131*	*%REC*	1	10/10/2006 11:03:00 PM
Surr: Trifluorotoluene	*109*		*73-130*	*%REC*	1	10/10/2006 11:03:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: *October 10, 2006*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	F037 Spill BH #3
Work Order:	0610112	**Collection Date:**	10/6/2006 10:30:00 AM
Project:	F037 Spill		
Lab ID:	0610112-03	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **10/9/2006**	Analyst: **JFT**
nC6 to nC12	ND		50	mg/Kg	1	10/9/2006 8:05:00 PM
>nC12 to nC28	**1,400**		**50**	**mg/Kg**	1	10/9/2006 8:05:00 PM
>nC28 to nC35	**120**		**50**	**mg/Kg**	1	10/9/2006 8:05:00 PM
Total Petroleum Hydrocarbon	**1,520**		**50**	**mg/Kg**	1	10/9/2006 8:05:00 PM
Surr: 2-Fluorobiphenyl	*104*		*70-130*	*%REC*	1	10/9/2006 8:05:00 PM
Surr: Trifluoromethyl benzene	*101*		*70-130*	*%REC*	1	10/9/2006 8:05:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab Analytical
QUALITY • INTEGRITY • SERVICE

10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Chain of Custody Form

Page ____ of ____

e-Lab Project Manager: | e-Lab Work Order #: 610612

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	[redacted]	A	[redacted]
Work Order		Project Number		B	TPH
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	
Send Report To	[redacted] Darrell Moore	Invoice Attn	[redacted] Darrell Moore	D	
Address	PO Box 159	Address	PO Box 159	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	(505) 748-3311	Phone	(505) 748-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	F037 Spill BH #1	10/6/06	10:10	Soil		1		X									
2	F037 Spill BH #2	"	10:20	"		1		X									
3	F037 Spill BH #3	"	10:30	"		1		X									
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: [redacted]

Shipment Method:

Required Turnaround Time: (Check Box) RUSH (ASAP)

Results Due Date:

Relinquished by: Darrell Moore | Date: 10/6/06 | Time: 16:20

Relinquished by: | Date: | Time:

Received by:

Received by (Laboratory): 10/7/06 0940

Logged by (Laboratory): | Date: | Time:

Checked by (Laboratory):

Notes:

e-Lab Analytical Cooler ID	Cooler Temp.

QC Package: (Check One Box Below) ☑ Level II Std QC ☐ TRRP Checklist

☐ Level III Std QC/Raw Data ☐ TRRP Level IV

☐ Level IV SW846/CLP

☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to e-Lab Analytical, Inc.

2. Unless otherwise agreed in a formal contract, services provided by e-Lab Analytical, Inc. are expressly limited to the terms and conditions stated on the reverse.


F037 Spill
BH #1
F037 Spill
BH #2
F037 Spill
BH #3
10.06.2006 09:54


F037 Spill
BH#1
F037 Spill
BH#3
F037 Spill
BH#2
10.06.2006 09:54

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Thursday, August 31, 2006 1:12 PM

To: 'Moore, Darrell'

Subject: Discharge Permit Fees for Navajo Artesia & Lovington Facilities

Darrell:

Hey. I am in receipt of two checks each in the amount of $100 for the filing fees for the Navajo Lovington Refinery (GW-14) and the Navajo Artesia Refinery (GW-28). Per Section 20.6.2.3114 (1)(A) Table 1 (see renewal fee at http://www.nmenv.state.nm.us/NMED_Regs/gwb/20_6_2_NMAC.pdf), you appear to be shy $8,400 for each facility and/or a total amount of $16,800 for the permit renewal.

In addition, the OCD is awaiting the deliverables from your July 25, 2006 letter addressing the GW-28 Section H permit. The deliverables are due today. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

GW-014

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Tuesday, June 27, 2006 11:25 AM
To: Chavez, Carl J, EMNRD
Cc: Price, Wayne, EMNRD
Subject: FW: discharge plan

Carl,

Enclosed, please find our renewal notice for our discharge plans for our Lovington and Artesia facilities. Hard copies and filing fees will follow by US Mail. If you have any questions, please call me at 505-746-5281.

From: Byrd, Jeff
Sent: Tuesday, June 27, 2006 11:21 AM
To: Moore, Darrell
Subject: discharge plan

Jefferson L. Byrd
Sr. Environmental Speicialist
Navajo Refining - Environmental Department
Artesia New Mexico
Office - 505-746-5468
Cell - 505-703-5068

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 FACILITES AND CRUDE OIL PUMP STATIONS

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

☐ New ☒ Renewal ☐ Modification

1. Type: Oil Refinery
2. Operator: Navajo Refining Company

   Address: PO Box 159 Artesia, NM 88211

   Contact Person: Darrell Moore Phone: 505-746-5281
3. Location: 4 /4 1/2 /4 Section 9 Township 17s Range 26e
   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. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Darrell Moore Title: Env. Mgr. for Water & Waste

Signature: Darrell Moore Date: 6/27/06

E-mail Address: darrell.moore@navajo-refining.com

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 FACILITES AND CRUDE OIL PUMP STATIONS

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

☐ New ☒ Renewal ☐ Modification

1. Type: Oil Refinery
2. Operator: Navajo Refining Company

   Address: PO Box 159 Artesia, NM 88211

   Contact Person: Darrell Moore Phone: 505-746-5281
3. Location: _____/4 _____/4 Section 36 Township 16s Range 36e

   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.
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10. Attach a routine inspection and maintenance plan to ensure permit compliance.
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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. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Darrell Moore Title: Env. Mgr. for Water & Waste

Signature: Darrell Moore Date: 6/27/06

E-mail Address: darrell.moore@navajo-refining.com

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 03, 2006 5:23 PM
To: carrasco, felix, NMENV
Cc: Price, Wayne, EMNRD; 'Moore, Darrell'
Subject: RE: Septic Tank

Felix:

Good afternoon. Mr. Darrell Moore of the Navajo Refinery sent me the message below. According to our OCD permit, Section 10. Class V Wells: "No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department."

I think that Navajo should follow the technical requirements of the NMED for installing a septic system. At Giant Ciniza, they treat septage in aeration lagoons with refinery wastes and then discharge to evaporation ponds (lined) under the OCD permit, but only because they are mixing refinery wastes with septage.

Navajo is planning to install a temporary septic system. Some links to septic systems to assist you with design and NMED permit requirements for a septic system are:

http://www.nmenv.state.nm.us/gwb/New%20Pages/PPS.htm
http://www.nmenv.state.nm.us/gwb/New%20Pages/forms/DPApplication.doc
http://www.epa.gov/safewater/uic/classv/index.html
http://www.epa.gov/safewater/uic/classv/class5_types_lcss.html

Any design links and assistance that you can provide Darrell would be appreciated beyond what I have provided. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/
(Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Wednesday, May 03, 2006 1:33 PM
To: Chavez, Carl J, EMNRD
Subject: Septic Tank

Carl,

We have a situation here where a portion on the North end of this refinery has a plugged sewer line. We are going to replace the sewer line in August but in the meantime we would like to install a septic tank for temporary use. The man we contacted to install the septic system said he had to notify NMED-Carlsbad before he could proceed and we told him to go ahead. When he notified Felix Carrasco NMED, Felix told him this was an OCD issue since Navajo has a Discharge Plan thru NMED. Ive never installed a septic tank before. Can you give me some guidance?

Darrell Moore
Environmental Manager for Water and Waste

Navajo Refining Company, L.P.
P.O. Box 159
Artesia, NM 88211-0159
Darrell.moore@navajo-refining.com
phone: 505.746.5281
cell: 505.703.5058
fax: 505.746.5451

Chavez, Carl J, EMNRD

From: Price, Wayne, EMNRD
Sent: Tuesday, May 02, 2006 2:09 PM
To: Moore, Darrell
Cc: Chavez, Carl J, EMNRD
Subject: RE: Lovington RO water

It's good to know we are communicating! This project looks Like a good one so rather than continue in this infinite loop of waiting on OCD to tell you what to do, please submit the following so OCD can evaluate the project.

1. A plan to modify the current discharge permit pursuant to WQCC 20.6.2.3107.C.
2. The plan shall contain the contents listed in WQCC 20.6.2.3106.C.
3. A monitoring plan pursuant to WQCC 20.6.2.3107
4. Public Notice requirements pursuant to WQCC 20.6.2.3108

After OCD receives a complete modification application with all of the required elements then OCD will proceed pursuant to 20.6.2.3109.

Looking forward to working with you on this project.

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Tuesday, May 02, 2006 1:18 PM
To: Price, Wayne, EMNRD
Subject: RE: Lovington RO water

".....but have not given us any plan on how water will be protected and monitoring. The ball's in your court. " THAT'S why I have been trying to get you guys to talk to us so we can talk about a plan! THAT'S why I gave you my cell number so you would call me and you didn't call the cell! I cant ever get you guys on the phone so I gave you my cell number because its always with me! This has been going on now for 2 months!! The balls in my court?!?!?! Do we have to drive to Santa Fe and camp in your offices until one of you can talk to us?

When we had the discussion with NMED about our monitoring plan, just before we hung up on THAT conversation I asked you if we could discuss the RO at Lovington. YOURE statement was....." let us call you back." Im still waiting for that call! The balls in my court?!?!?!

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Tuesday, May 02, 2006 12:31 PM
To: Moore, Darrell
Cc: Chavez, Carl J, EMNRD
Subject: Lovington RO water

Hi Darrell,

We will be tied up most of this week, so probably will not be able to discuss the issue with you. I have looked at the water analysis and there are some constituents that exceed the water quality standards. How do you propose to address that issue. I feel this would be a great beneficial use of water but we have to make sure underlying groundwater in protected. So far, you have only proposed the concept but have not given us any plan on how water will be protected and monitoring. The ball's in your court.

Wayne Price
Oil Conservation Div.
1220 S. Saint Francis
Santa Fe New Mexico 87505

phone: 505-476-3490

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, March 24, 2006 8:49 AM
To: 'Moore, Darrell'
Cc: Price, Wayne, EMNRD
Subject: Navajo- Lovington: Pit & RO Lab ID: 0404204-01 Inquiry

Darrell:

Good afternoon. After discussing the intent behind your E-Lab analytical data (0404204-01) with Wayne Price this week, and in addition to my preliminary message with concerns to you (see below), the OCD is providing you with the following recommendations and requirements in order for the OCD to adequately evaluate your request to discharge onto nearby farm property.

Wayne explained the intent behind your e-mail messages to me. Basically, Navajo-Lovington would like to provide RO reject water (RW) from the refinery to water the alfalfa field(s) several miles south of the refinery at Buster Goff's dairy farm. In order for your request to discharge RW to be evaluated by the OCD, we require that you review WQCC regulations 20.6.2 NMAC; i.e., 20.6.2.3103, 3104 and 3106-3109.

Reference to 20.6.2 NMAC
http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0002.htm

Your request to discharge RW will require a major modification to Navajo- Lovington's OCD Permit, which will require a fee of $8,400 and full public notice. Navajo must demonstrate that the discharge will not contaminate ground water. A new RW water quality sample with comparison to 20.6.2.3103 that meets NM water quality objectives and analytical QA/QC. Navajo's modification should describe the volume or quantity of RW and its quality; the location of the discharge; existing ground water quality; outline a monitoring plan or program; provide a contingency plan in case monitoring detects an impact above acceptable levels; etc.

Please review 20 NMAC 6.2 to determine the requirements and information the OCD will need to evaluate and approve or disapprove your permit modification.

Please contact me if you have questions. Thank you.

From: Chavez, Carl J, EMNRD
Sent: Monday, March 20, 2006 3:20 PM
To: 'Moore, Darrell'
Cc: Price, Wayne, EMNRD
Subject: RE: Pit & RO Lab ID: 0404204-01

Darrell:

Good afternoon. I notice that you exceeded holding times on your sample for BOD and residual chlorine and I don't see lab results for those parameters in the RO analytical lab results (Lab ID 0404204-01). In the lab report, several of the metals, anions, and volatile recoveries were outside of the control limits of the lab and I must question the analytical data results based on this. Also, the reporting limit on the organics; i.e., benzene RQ and BTE in general was 5 ppb seem elevated. Xylenes were 15 ppb RQ.

Did you take a look at the analytical data results? If so, are there exceedences to any of the WQCC water quality standards? If so, which parameters exceed and by how much? I think you need to provide OCD with your preliminary assessment of your raw data and indicate the basis for your request for pit construction and use for farm irrigation water supply. I could not find a statement of your intention that accompanied the water quality raw data results.

The OCD generally regards RO reject water as elevated in chlorides and other constituents and OCD requires storage in pits to be constructed in accordance with OCD standard pit construction with leak detection requirements. I believe your request is to construct a pit at the Navajo-Lovington Refinery to store irrigation water for a nearby farmer to use the water off-site for irrigation purposes. Is this correct? If so, this may require a modification to Navajo's discharge permit. We need to know if the water is going off-site and exactly where the water is going? It would seem the farmer would need to pipe the water off refinery property onto the farmland to be irrigated and depending on the farmland property location and the discharge, there could be some discharge

issues to discuss.

Regarding pit construction and leak detection, we can talk with Wayne of Wednesday. We'll give you a call. I recommend that you look into the above comments and questions for Wednesday.

Thank you.

From: Moore, Darrell [mailto:Darrell.Moore@navajo-refining.com]
Sent: Tuesday, March 14, 2006 9:26 AM
To: Chavez, Carl J, EMNRD
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Sent: Tuesday, March 14, 2006 9:12 AM
To: Moore, Darrell; Price, Wayne, EMNRD
Subject: RE: Pit

Darrell:

Good morning. I am in receipt of your e-mail msg. below. Thanks.

From: Moore, Darrell [mailto:Darrell.Moore@navajo-refining.com]
Sent: Tuesday, March 14, 2006 9:02 AM
To: Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Subject: Pit

Are you receiving these e mails?

Darrell Moore

Environmental Manager for Water and Waste

Navajo Refining Company, L.P.

P.O. Box 159

Artesia, NM 88211-0159

Darrell.moore@navajo-refining.com

phone: 505.746.5281

cell: 505.703.5058

fax: 505.746.5451

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, March 20, 2006 3:21 PM
To: Price, Wayne, EMNRD
Subject: FW: Pit & RO Lab ID: 0404204-01

Wayne:

See attached the water quality comparisons for Wednesday's call to Darrell. Thnx.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
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Thank you.

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P.O. Box 159
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Darrell.moore@navajo-refining.com
phone: 505.746.5281
cell: 505.703.5058
fax: 505.746.5451

Navajo Lovington Refinery RO Water Sample Results
Date: 4/16/2004

Lab ID	0404204-01	WQCC	SDWA	SMCL
Metals				
Arsenic:	12.5 ppb	100 ppb	10 ppb	
Barium:	293 ppb	2000 ppb	2000 ppb	
Boron:	342 ppb	750 ppb		
Cadmium	1 ppb	10 ppb	5 ppb	
Chromium (total):	12.9 ppb	100 ppb	100 ppb	
Lead	5 ppb	50 ppb	15 ppb	
Molybdenum:	6.6 ppb	1000 ppb		
Nickel:	5 ppb	100 ppb		
Potassium:	6,780 ppb			
Selenium:	13 ppb	5 ppb	50 ppb	
Vanadium:	67 ppb	100 ppb		
VOCs:	ND			
SVOCs	ND			
BOD:	?			
COD:	60 mg/L			
Phenolics:	50 ppb	21 mg/L		
Chloride:	1,050 mg/L			250 mg/L
Fluoride:	2.4 mg/L	4 mg/L		2 mg/L
Nitrogen:	8 mg/L	10 mg/L		
Sulfate:	251 mg/L			
Residual chlorine	?	11 ppb		
Alkalinity:	110 mg/L			
Specific Cond.:	3,790 umhos/cm			
pH:	6.11			6.5 - 8.5
TDS:	2,990 mg/L			500 mg/L
TSS:	4 mg/L			

Chavez, Carl J, EMNRD

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Sent: Monday, March 20, 2006 3:21 PM
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Selenium:	13 ppb	5 ppb	50 ppb	
Vanadium:	67 ppb	100 ppb		
VOCs:	ND			
SVOCs	ND			
BOD:	?			
COD:	60 mg/L			
Phenolics:	50 ppb	21 mg/L		
Chloride:	1,050 mg/L			250 mg/L
Fluoride:	2.4 mg/L	4 mg/L		2 mg/L
Nitrogen:	8 mg/L	10 mg/L		
Sulfate:	251 mg/L			
Residual chlorine	?	11 ppb		
Alkalinity:	110 mg/L			
Specific Cond.:	3,790 umhos/cm			
pH:	6.11			6.5 - 8.5
TDS:	2,990 mg/L			500 mg/L
TSS:	4 mg/L			

Abbr ~~k or bo~~
~~- propos prody~~ modern directly to land
- public notice & comment.

- modify cost ~ $8400
- Demonstrate discharge will not contam gw.

Buster Goff

Dairy - alfalfa Fields. plan shout complete discharge plan modify. describe detailed
Impact use of gw
Qty
Qlty
location of discharge i.e., waters of the state - NPDES discharge

- Exist GW quality
- proposed monitor program
- ~~CA plan~~
Contingency plan in event contam gw

New discharge - WQCC 20.6.2.3104
discharge permit Reqd

~~Major mod~~
Add conditions 20.6.2.3106
3107, 8, 9

Price, Wayne

From: Darrell Moore [darrell@navajo-refining.com]
Sent: Wednesday, April 02, 2003 12:32 PM
To: Price, Wayne
Subject: RE: Navajo Lovington facility GW-14 Tank 1206 Hydo- discharge

Wayne,

The tank is 1206 and it holds 85000 bbls of fluid.

Darrell

-----Original Message-----
From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Wednesday, April 02, 2003 10:19 AM
To: Darrell Moore
Cc: Sheeley, Paul; Johnson, Larry
Subject: Navajo Lovington facility GW-14 Tank 1206 Hydo- discharge

Dear Darrell:

OCD is in receipt of the analysis that you faxed today. OCD herby approves
of your verbal request to discharge hydro-test water from tank #1206 with
the following conditions:

1. The discharged water must be contained on Navajo property and liquids shall be not allowed to accumulate or pond.
2. The discharge shall be a minimum of 200 feet from any domestic or
commercial water well or monitor well.

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

Sincerely:
<<...OLE_Obj...>>
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: Wednesday, April 02, 2003 10:19 AM
To: Darrell Moore (E-mail)
Cc: Sheeley, Paul; Johnson, Larry
Subject: Navajo Lovington facility GW-14 Tank 1206 Hydo- discharge

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OCD is in receipt of the analysis that you faxed today. OCD herby approves of your verbal request to discharge hydro-test water from tank #1206 with the following conditions:

1. The discharged water must be contained on Navajo property and liquids shall be not allowed to accumulate or pond.
2. The discharge shall be a minimum of 200 feet from any domestic or commercial water well or monitor well.

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

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

TANK #

GALLONS/BBLS

LAT REF

TELEPHONE
(505) 746-3311

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

ACCOUNTS RECEIVABLES FAX NUMBER: 505/746-5419

PLEASE DELIVER 4 PAGES, INCLUDING THIS COVER SHEET

TO: Wayne Price PHONE: _____

COMPANY / DEPARTMENT: OCD

MESSAGE:

Wayne, Trace didn't have it up on their website. We haven't received the analysis for cyanide yet but there is no cyanide I'm sure

FROM: D. Moore DATE: 4/2/03

If you do not receive all pages, please call _____ at 505/746-5_____

Summary Report

Darrell Moore
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: March 31, 2003

Work Order: 3031108

Project Location: Lovington
Project Number: 1206 Hydro
Project #: 1206 Hydro

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
2036	1206 Hydor	water	2003-03-10	09:30	2003-03-11

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (isomers) (mg/L)
2036 - 1206 Hydor	<0.00100	<0.00100	<0.00100	<0.00100

Sample: 2036 - 1206 Hydor

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/Kg as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/Kg as CaCo3	1.00
Bicarbonate Alkalinity		174	mg/Kg as CaCo3	1.00
Total Alkalinity		174	mg/Kg as CaCo3	1.00
Chloride		257	mg/L	0.500
Fluoride		1.32	mg/L	0.200
Sulfate		87.0	mg/L	0.500
MTBE		<0.00100	mg/L	0.00100
Nitrate-N		3.42	mg/L	0.200
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	0.000200
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
Total Silver		<0.0125	mg/L	0.0125
Total Arsenic		<0.0100	mg/L	0.0100

continued ...

sample 2036 continued ...

Param	Flag	Result	Units	RL
Total Barium		0.146	mg/L	0.0100
Total Cadmium		<0.00500	mg/L	0.00500
Total Chromium		<0.0100	mg/L	0.0100
Total Mercury		<0.000200	mg/L	0.000200
Total Lead		<0.0100	mg/L	0.0100
Total Selenium		<0.0500	mg/L	0.0500
Total Cyanide		<0.0100	mg/L	0.0100

2036

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

1rs McCutcheon,Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3031108

Company Name: NAVAJO-LEA REFINING
Phone #: 505-746-5281
Address: (Street, City, Zip)
Fax #:
Contact Person: DARRELL MOORE
Invoice to: (If different from above)
Project #: 1206 HYDRO
Project Name:
Project Location: LOVINGTON
Sampler Signature: Darrell Terry

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
2036	1206 HYDRO	1	500ml	X					X			X		3-10-03	1430
		1	1 LTR	X								X	X		
		1	1 LTR	X								X	X		
		1	1 LTR	X							X	X			
		2	VOA	X				X				X			

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	General Chemistry - Cations and Anions	CYANIDE						Turn Around Time if different from standard	Hold
				X											X	X							
			X													X							
X	X																						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Terry	3-10-03	1600			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			[illegible]	3-11-03	1000

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 1° C
Log-In Review: MM

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier # Fedex 8255-2707-6180

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Price, Wayne

From: Price, Wayne
Sent: Monday, March 10, 2003 1:29 PM
To: 'darrell@navajo-refining.com'
Cc: Olson, William; Sheeley, Paul; Johnson, Larry
Subject: Discharge Plan Permit GW-014

Contacts: Darrell Moore

Dear Darrell:

The OCD has not received the permit sign-off sheet or the fees for the recently approved discharge plan, please submit ASAP.

The OCD is in receipt of the latest Quarterly Monitoring report and herby requires that Navajo submit a plan to investigate the groundwater extent in the following areas.

A. The plant north water well and south of this area.
B. The south tank farm area.

Please provide a plan for OCD approval by May 15, 2003.

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

REFINING COMPANY

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXECUTIVE
(505) 746-5421 ENGINEERING
(505) 746-5480 P / L

May 31, 2002

Wayne Price
New Mexico Oil Conservation Division
1220 S. St Francis
Santa Fe, NM 87505

RE: Discharge Plan Inspection GW-014 for Lea Refinery

Dear Wayne,

As part of our Discharge Plan renewal, the Oil Conservation Division (OCD) conducted an inspection of this facility on September 20, 2001. As a result of that inspection, OCD required Navajo to address the following items:

1. **Waste pile located within the berm of crude tank 1201 B.** This pile of contaminated material was sampled and disposed at CRI.
2. **Bone Yard area asphalt pile and liquid waste in open top tank.** This whole area has been cleaned up and disposed. Sampling and process knowledge allowed us to profile and dispose this waste in this area to CRI. Clean soil was used to fill in low spots in the refinery and scrap metal was sold to a metal recycler.
3. **The Vacuum Unit north and west side shows evidence of oily contamination on ground surface. This area needs containment.** Contaminated soil in this area was removed and disposed at CRI. A cement pad was then poured to give the area secondary containment.
4. **Asphalt Truck and Railroad loading areas. Pictures show improvement made in this area from last inspection. No action required.**
5. **Navajo shall classify the Reverse Osmosis Reject water to determine if it qualifies for disposal in Class II wells. Navajo shall submit an addendum to the recently submitted discharge plan renewal application to include this waste stream and all waste streams generated in the refinery. OCD recommends a waste flow diagram to simplify this process.** This addendum is included in this submission.
6. **The groundwater recovery well is inoperable. Please repair and place back into service.** The pump has been repaired and is back in service.

7. **<u>Mechanical Integrity of Wastewater Lines and Single Wall Sumps:</u> Navajo shall submit an addendum to the recently submitted discharge plan renewal application to include an up-to-date detail utility drawing with legers showing all old and new underground wastewater lines, sumps, below grade tanks, etc. A cross reference sheet shall be provided to indicate when last test was performed and pass-fail results.** These drawings are included in this submission. These results can not be located at this time. We are still searching.

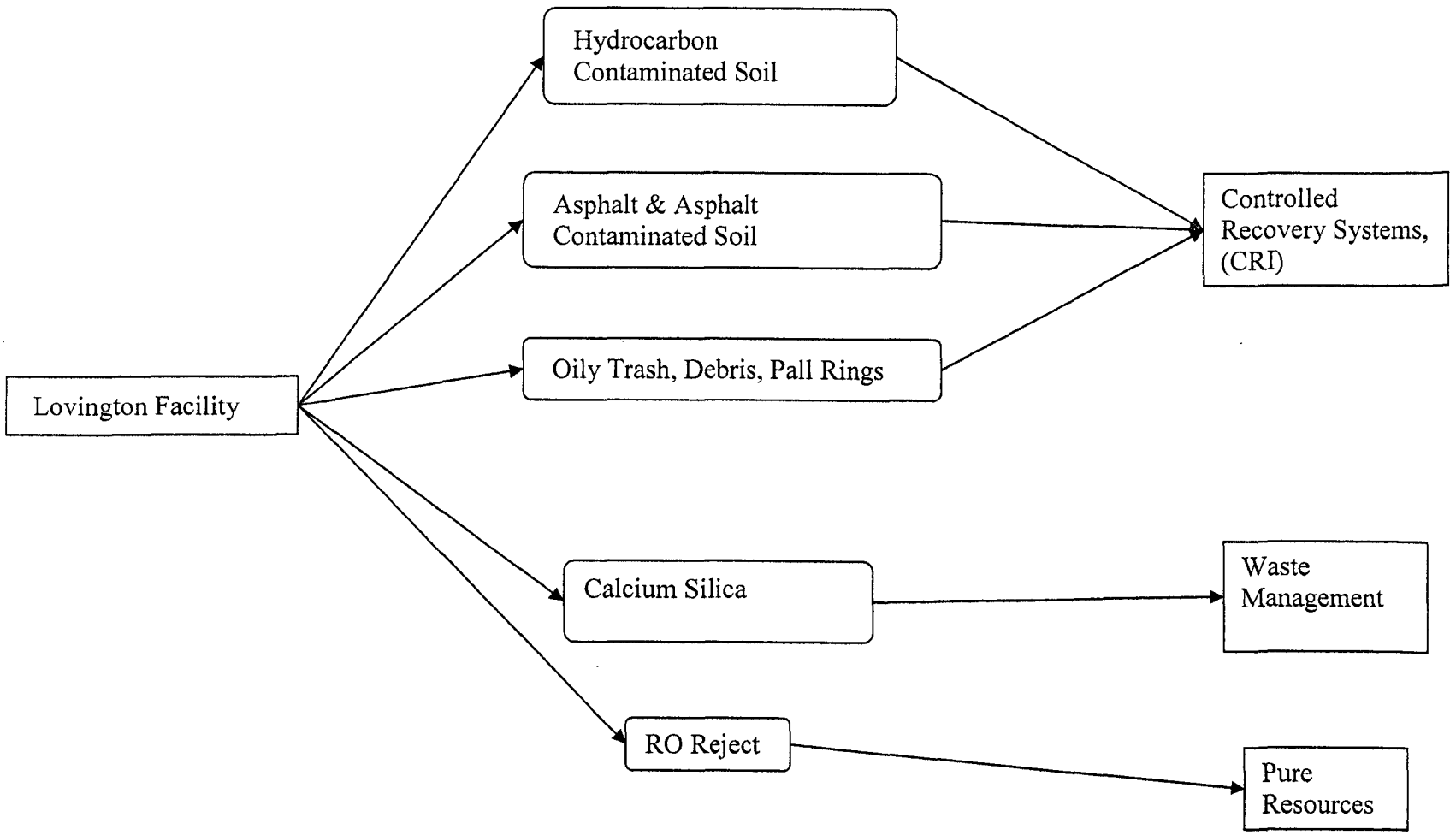
If there are any questions concerning this submittal, please feel free to contact me. Navajo looks forward to finalizing this Discharge Plan Renewal with OCD. I can be reached at 505-748-3311.

Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore

Darrell Moore
Environmental Manager for Water and Waste

Lovington Refinery Non-Hazardous Waste Flow Diagram



Price, Wayne

From: Price, Wayne
Sent: Thursday, March 28, 2002 3:17 PM
To: 'darrell@navajo-refining.com'
Cc: Olson, William; 'david_cobrain@nmenv.state.nm.us'
Subject: Artesia GW-028 and Lea GW-014 Refineries

Contacts: Darrell Moore

Dear Darrell:

Please find enclosed draft permits for the two facilities. I am waiting until you submit the addendums on May 31, 2002 before I issue the final permit. I have dated them June 10, 2002.

Please look them over. If you have suggestions that will streamline the process, be more cost effective, etc. we would like to have your input. Also, if you find any discrepancies or problem time lines please let us know. It is important that you complete your addendums by May 31, 2002. Also please review your DP payments and make sure they are up to date, late payments may be a reason to ask for the full amount.

I have listed the following permit conditions Item numbers that I think you may want to concentrate on during your review.

Artesia: Items 8,9,13 (please note on 13 if you have waste other than shown please include in addendum),15,19 (please note updated fluoride) and 20.
Please note item 20 is from 5 years ago and probably needs to be updated. This probably will require a meeting with you, myself, Bill Olson and Dave Cobrain.

Lea: Items 8,9,13(same comment as above), 15,18(written in generic form in order to provide greater flexibility).


Artesia 01DPAPP.DOC


Lov o1 DPAPP.DOC

Price, Wayne

From: Darrell Moore [darrell@navajo-
Sent: Friday, March 15, 2002 4:28 PM
To: Price, Wayne
signed copy to come via snail mail

March 15, 2002

Wayne Price
New Mexico Oil Conservation Division
1220 S. St Francis
Santa Fe, NM 87505

RE: Discharge Plan Inspection GW-014 for Lea Refinery

Dear Wayne,

As part of our Discharge Plan renewal, the Oil Conservation Division (OCD) conducted an inspection of this facility on September 20, 2001. As a result of that inspection, OCD required Navajo to address the following items:

1. **Waste pile located within the berm of crude tank 1201 B.** This pile of contaminated material was sampled and disposed at CRI.
2. **Bone Yard area asphalt pile and liquid waste in open top tank.** This whole area has been cleaned up and disposed. Sampling and process knowledge allowed us to profile and dispose this waste in this area to CRI. Clean soil was used to fill in low spots in the refinery and scrap metal was sold to a metal recycler.
3. **The Vacuum Unit north and west side shows evidence of oily contamination on ground surface. This area needs containment.** Contaminated soil in this area was removed and disposed at CRI. A cement pad was then poured to give the area secondary containment.
4. **Asphalt Truck and Railroad loading areas. Pictures show improvement made in this area from last inspection. No action required.**
5. **Navajo shall classify the Reverse Osmosis Reject water to determine if it qualifies for disposal in Class II wells. Navajo shall submit an addendum to the recently submitted discharge plan renewal application to include this waste stream and all waste streams generated in the refinery. OCD recommends a waste flow diagram to simplify this process.** This addendum will be submitted to OCD by May 31, 2002.
6. **The groundwater recovery well is inoperable. Please repair and place back into service.** The pump has been repaired and is back in service.
7. **Mechanical Integrity of Wastewater Lines and Single Wall Sumps: Navajo shall submit an addendum to the recently submitted discharge plan renewal application to**

include an up-to-date detail utility drawing with legers showing all old and new underground wastewater lines, sumps, below grade tanks, etc. A cross reference sheet shall be provided to indicate when last test was performed and pass-fail results. This addendum will be submitted to OCD by May 31, 2002.

If there are any questions concerning this submittal, please feel free to contact me. Navajo looks forward to finalizing this Discharge Plan Renewal with OCD. I can be reached at 505-748-3311.

Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore
Environmental Manager for Water and Waste

CRUDE OIL MARKETING COMPANY

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXECUTIVE
(505) 746-5421 ENGINEERING
(505) 746-5480 P / L

02 FEB 22 PM 4:24

February 4, 2002

To Whom It May Concern:

Effective November 15, 2001, Navajo Refining Company converted into a limited partnership. The conversion was made under Section 266 of the Delaware General Corporation Law, and the employee federal tax identification number did not change. Accordingly, please change your records to reflect the new name of the permit holder to Navajo Refining Company, L.P.

E.E. Cox
Manager Crude Acquisition & Trucking

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Carol Leach
Acting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

January 29, 2002

Mr. Darrel Moore
Navajo Refining
P.O. Box 159
Artesia, NM 88211-0159

RE: **Solid Waste, Calcium Silicate Insulation "demolition debris"**
Generator, Navajo Refinery
Disposal Location, New Mexico Environment Department RCRA Subtitle D Solid Waste Facility

Dear Mr. Moore:

The New Mexico Oil Conservation Division (OCD) has received Navajo's request dated January 29, 2002 to dispose calcium silicate insulation at a landfill permitted by the New Mexico Environment Department. The OCD has reviewed the request and hereby approves the above-referenced solid waste pursuant to OCD Rule 712.D.3.f. "demolition debris"

Please be advised that our approval does not relieve Navajo of liability should your operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Navajo of responsibility for compliance with other federal, state or local laws and/or regulations. If you have any questions please contact me at (505) 476-3488.

Sincerely,

Martyne J. Kieling
Environmental Geologist

cc: OCD Hobbs District Office
OCD Artisia District Office
GW-014

Kieling, Martyne

From: Darrell Moore [darrell@navajo-

Sent: Tuesday, January 29, 2002 8:17 AM

To: mkieling@state.nm.us

Subject: Calcium Silicate Insulation

Martine,

This e mail is in regards to our request to ship calcium silicate insulation from our Lea Refining facility to Waste Managements landfill in Lea County. This insulation is taken off of piping that is removed from our process units. We have been shipping this material to Waste Management for the last 10 years.

Darrell Moore

Price, Wayne

From: Price, Wayne

Sent: Tuesday, January 22, 2002 3:14 PM

To: 'Darrell Moore'

Subject: RE: Discharge Plans for Lovington and Artesia

Extension granted to March 15, 2002.

-----Original Message-----
From: Darrell Moore [mailto:darrell@navajo-refining.com]
Sent: Tuesday, January 22, 2002 2:41 PM
To: WPRICE@state.nm.us
Subject: Discharge Plans for Lovington and Artesia

Wayne,

As per our phone conversation of January 22, 2002, Navajo is requesting an extension of the December 15, 2001 deadline for submittal of progress in the action items of your letters of October 22, 2001. We are diligently working towards completing the items and, in fact, have finished a majority of them. The December 15th date totally slipped by me. Thanks for your understanding.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Co.

NAVAJO REFINING COMPANY

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXECUTIVE
(505) 746-5421 ENGINEERING
(505) 746-5480 P / L

January 18, 2002

Mr. Roger Anderson
New Mexico Oil Conservation Division
Environmental Bureau
1220 S. St. Francis
Santa Fe, NM 87505

RE: Change in name of Navajo Refining Company to Navajo Refining Company, L.P.

Dear Roger,

Effective November 15, 2001, Navajo Refining Company converted into a limited partnership. The conversion was made under Section 266 of the Delaware General Corporation Law, and the employee federal tax identification number did not change. Accordingly, please change your records to reflect the new name of the permit holder for Discharge Permits UIC-CLI-008-1, UIC-CLI-008-2, GW-028 AND GW-014 to Navajo Refining Company, L.P.

If there are any questions concerning this matter, please call me at 505-748-3311. Thank you for your attention to this matter.

Sincerely,
NAVAJO REFINING COMPANY, L.P.

Darrell Moore
Environmental Manager for Water and Waste

Cc: PLY

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 Lea Refining Co.	Contact Darrell Moore
Address P.O. Box 159 Artesia NM	Telephone No. 505-748-3311
Facility Name Lea Refinery	Facility Type Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

NATURE OF RELEASE

Type of Release Disel	Volume of Release 760 lbs	Volume Recovered 550 bbls
Source of Release overfill of Tank 103B	Date and Hour of Occurrence 12/16/01 4:30-6:30	Date and Hour of Discovery 12/16/01 6:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Hobbs OCD	
By Whom? Darrell Moore	Date and Hour 12/16/01 9:00 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Diesel tank 103B was overrun while transferring product to Artesia facility. Due to human error.

Describe Area Affected and Cleanup Action Taken.* Area affected is within the tank dike. Vacuum trucks recovered 550 bbls. The contaminated soil is being turned over and aerated. In addition, microbes have been applied.

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.

Signature: Darrell Moore	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env. Mgr. for Water & Waste	Approval Date: / Expiration Date:
Date: 12/26/01 Phone: 505-748-3311	Conditions of Approval: / Attached ☐

* Attach Additional Sheets If Necessary

116 RELEASE NOTIFICATION AND CORRECTIVE ACTION [1-1-50...2-1-96 ; A, 3-15-97]

116.A. NOTIFICATION

(1) The Division shall be notified of any unauthorized release occurring during the drilling, producing, storing, disposing, injecting, transporting, servicing or processing of crude oil, natural gases, produced water, condensate or oil field waste including Regulated NORM, or other oil field related chemicals, contaminants or mixture thereof, in the State of New Mexico in accordance with the requirements of this Rule. [1-1-50...2-1-96 ; A, 3-15-97]

(2) The Division shall be notified in accordance with this Rule with respect to any release from any facility of oil or other water contaminant, in such quantity as may with reasonable probability be detrimental to water or cause an exceedance of the standards in 19 NMAC 15.A.19. B(1), B(2) or B(3). [3-15-97]

116.B. REPORTING REQUIREMENTS: Notification of the above releases shall be made by the person operating or controlling either the release or the location of the release in accordance with the following requirements: [5-22-73...2-1-96; A, 3-15-97]

(1) A **Major Release** shall be reported by giving **both** immediate verbal notice and timely written notice pursuant to Paragraphs C(1) and C(2) of this Rule. A Major Release is:

(a) an unauthorized release of a volume, excluding natural gases, in excess of 25 barrels;

(b) an unauthorized release of any volume which:

(i) results in a fire;

(ii) will reach a water course;

(iii) may with reasonable probability endanger public health; or

(iv) results in substantial damage to property or the environment;

(c) an unauthorized release of natural gases in excess of 500 mcf; or

(d) a release of any volume which may with reasonable probability be detrimental to water or cause an exceedance of the standards in 19 NMAC 15.A.19. B(1), B(2) or B(3). [3/15/97]

(2) A **Minor Release** shall be reported by giving timely written notice pursuant to Paragraph C(2) of this Rule. A Minor Release is an unauthorized release of a volume, greater than 5 barrels but not more than 25 barrels; or greater than 50 mcf but less than 500 mcf of natural gases. [3-15-97]

116.C. CONTENTS OF NOTIFICATION

(1) **Immediate verbal notification** required pursuant to Paragraph B shall be reported within twenty-four (24) hours of discovery to the Division District Office for the area within which the release takes place. In addition, immediate verbal notification pursuant to Subparagraph B .(1).(d). shall be reported to the Division's Environmental Bureau Chief. This notification shall provide the information required on Division Form C-141. [5-22- 73 . 2-1-96; A, 3-15-97]

(2) **Timely written notification** is required to be reported pursuant to Paragraph B within fifteen (15) days to the Division District Office for the area within which the release takes place by completing and filing Division Form C-141. In addition, timely written notification required pursuant to Subparagraph B .(1).(d). shall also be reported to the Division's Environmental Bureau Chief within fifteen (15) days after the release is discovered. The written notification shall verify the prior verbal notification and provide any appropriate additions or corrections to the information contained in the prior verbal notification. [5-22-73...2-1-96; A, 3-15-97]

116.D. CORRECTIVE ACTION: The responsible person must complete Division approved corrective action for releases which endanger public health or the environment. Releases will be addressed in accordance with a remediation plan submitted to and approved by the Division or with an abatement plan submitted in accordance with Rule 19 (19 NMAC 15.A. 19). [3-15-97]

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 22, 2001

COPY

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7454

Mr. Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

Re: Discharge Plan Inspection GW-014 for Lea Refinery

Dear Mr. Moore:

The New Mexico Oil Conservation Division (OCD) conducted a Discharge Plan inspection on September 20, 2001. Enclosed is a copy of the inspection report with photos for your records. As a result of the inspection the OCD requires Navajo Refining Company to address the following action items:

1. Waste pile (see picture #1) located within the berm of crude tank 1201 B.

2. Bond yard area asphalt pile and liquid waste in open top tank (see picture #2).

3. The Vacuum unit north and west side shows evidence of oily contamination on ground surface. This area needs containment. (see picture # 3,4 & 5).

4. Asphalt Truck and Railroad loading areas (see picture # 6 & #8). Pictures shows improvements made in this area from last inspection. No action required.

5. Navajo shall classify the Reverse Osmosis Reject water to determine if it qualifies for disposal in Class II wells. Navajo shall submit an addendum to the recently submitted discharge plan renewal application to include this waste stream and all waste streams generated in the refinery. OCD recommends a waste flow diagram to simplify this process.

6. The Groundwater recovery well is inoperable. Please repair and place back into service.

7. Mechanical Integrity of Wastewater Lines and Single Wall Sumps: Navajo shall submit an addendum to the recently submitted discharge plan renewal application to include an up-dated detail utility drawing with legers showing all old and new underground wastewater lines, sumps, below grade tanks, etc. A cross-reference sheet shall be provided to indicate when last test was performed and pass-fail results.

In order for OCD to continue processing the discharge plan renewal application the above action items shall be completed and submitted to OCD by December 15, 2001. If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely,

Wayne Price-Environmental Engineer

cc: Hobbs Office
Dave Cobrain-NMED

Attachments-1

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

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 applications 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-077) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Middle Mesa Natural Gas Compressor Station located in the SW/4 SW/4 of Section 10, Township 31 North, Range 7 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported off-site to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 150-200 feet with an estimated total dissolved solids concentration of approximately 1400 mg/I. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-239) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Quinn Natural Gas Compressor Station located in the NW/4 SW/4 of Section 16, Township 31 North, Range 8 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported off-site to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with an estimated total dissolved solids concentration of approximately 1700 mg/I. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-255) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Buena Vista Natural Gas Compressor Station located in the NW/4 NE/4 of Section 13, Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported off-site to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 30 feet with an estimated total dissolved solids concentration of approximately 1100 mg/I. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-258) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Cedar Hill Natural Gas Compressor Station located in the SW/4 SW/4 of Section 29, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported off-site to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with an estimated total dissolved solids concentration of approximately 1100 mg/I. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-032) - GIANT REFINING Company, Ms Dirinda Mancini, (505)-722-3833Route 3, Box 7, Gallup, New Mexico, 87301 has submitted a modification application for the previously approved discharge plan for their Ciniza Refinery located in Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, Mckinley County, near Gallup, New Mexico. The total discharge of process and non-process wastewater from the facility is about 160,000 gallons/day with an estimated total dissolved solids concentration with a range of about 2,000 mg/l to 3,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface varies in depth from 70 feet to 140 feet with an approximate total dissolved solids concentration of 950 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-28) - Navajo Re[redacted]ng Company, Darrell Moore, (505)[redacted]-5281, P.O. Box 159, Artesia, New Mexico, 88211-0159 has submitted an application for renewal of its previously approved discharge plan for the Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, New Mexico. Approximately 400,000 gallons per day of treated refinery waste water with a total dissolved solids concentration of approximately 2,300 mg/l is discharged from the facility waste water treatment plant by pipeline to two Class I (non-hazardous) deep injection wells located in Sec 31- Ts 17s-R 28 e and Sec 12-Ts 18s-R27e of Eddy County, New Mexico and discharges approximately 150,000 gallons per day of Reverse-Osmosis Reject water used to irrigate two adjacent farms owned and operated by Navajo Refining Company. Ground water most likely to be affected by an accidental discharge in the refinery area is at a depth of approximately 10 feet with a total dissolved solids concentration of approximately 2,500 mg/l, and in the pond area ground water is at a depth of 5 to 10 feet with a total dissolved solids concentration of approximately 6,000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed including methods and procedures for handling products, waste, waste water management, and site investigation/ abatement plans.

(GW-014) - Navajo Refining Company, Darrell Moore, (505) 748-5281, P.O. Box 159, Artesia, New Mexico, 88211-0159 has submitted an application for renewal of its previously approved discharge plan for the Lovington Refinery located in the SW/4 of Section 31, Township 16 South, Range 37 East; the SE/4 of Section 36, Township 16 South, Range 36 East; the NW/4 of Section 6, Township 17 South, Range 37 East; and the NE/4 of Section 1, Township 17 South, Range 36 East NMPM, Lea County, New Mexico. Approximately 101,000 gallons per day of treated refinery waste water with a total dissolved solids concentration of approximately 1,300 mg/l will undergo treatment in a USEPA regulated pretreatment unit prior to discharge to the City of Lovington publicly owned treatment works (POTW). Ground water most likely to be affected by an accidental discharge is at a depth of approximately 90 feet with a total dissolved solids concentration of approximately 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed including methods and procedures for handling products, waste, waste water management, and site investigation/ abatement plans.

(GW-35) - Conoco, Inc., Mr. Lane Ayers, (505)-632-4906, P.O. Box 217 Bloomfield, New Mexico 87413, has submitted a Discharge Plan Renewal Application for their San Juan Gas Plant located in the NW/4 NW/4, Section 14, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico. Approximately 790,950 gallons per month of waste water is discharged onsite into an above ground bermed closed top tank and two double lined surface evaporation ponds with leak detection prior to transport offsite at an approved OCD disposal facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 15 to 55 feet with a total dissolved solids concentration of approximately 4,400 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-019) - Key Energy Services, Inc., Royce Crowell, (505) 393-9171, P.O. Box 2040 Hobbs, New Mexico, 88241 has submitted an application for renewal of its previously approved discharge plan for the Carlsbad Brine Station, located in the SE/4 NE/4 of Section 36, Township 22 South, Range 26 East, NMPM, Eddy County, New Mexico. Fresh water is injected to an approximate depth of 710 feet and brine water is extracted with an average total dissolved solids concentration of 300,000 mg/l. Ground water most likely to be affected by any accidental discharge is at a depth exceeding 150 feet and has a total dissolved solids content of approximately 1,800 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. 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 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 New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 21st day of August 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

for LORI WROTENBERY, Director

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 Advertisting 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

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 August 29, 2001 and ending with the issue of August 29, 2001.

And that the cost of publishing said notice is the sum of $ 62.04 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 10th day of September 2001.

Debbie Schilling

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

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 applications 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-014) - Navajo Refining Company, Darrell Moore, (505) 748-5281, P.O. Box 159, Artesia, New Mexico, 88211-0159 has submitted an application for renewal of its previously approved discharge plan for the Lovington Refinery located in the SW/4 of Section 31, Township 16 South, Range 37 East; the SE/4 of Section 36, Township 16 South, Range 36 East; the NW/4 of Section 6, Township 17 South, Range 37 East; and the NE/4 of Section 1, Township 17 South, Range 36 East NMPM, Lea County, New Mexico. Approximately 101,000 gallons per day of treated refinery waste water with a total dissolved solids concentration of approximately 1,300 mg/l will undergo treatment in a USEPA regulated pretreatment unit prior to discharge to the City of Lovington publicly owned treatment works (POTW). Ground water most likely to be affected by an accidental discharge is at a depth of approximately 90 feet with a total dissolved solids concentration of approximately 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed including methods and procedures for handling products, waste, waste water management, and site investigation/ abatement plans.

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 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 New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 21st day of August 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY,
Director

SEAL

Published in the Lovington Daily Leader August 29, 2001.

Approved
cc: mary

THE SANTA FE
NEW MEXICAN
Founded 1849

NEW MEXICO OIL CONSERVATION DIVISION
ATTN: WAYNE PRICE
1220 S. ST. FRANCIS DRIVE
SANTA FE, NM 87505

AD NUMBER: 224378 ACCOUNT: 56689
LEGAL NO: 69935 P.O.#: 02199000249
734 LINES 1 time(s) at $ 323.54
AFFIDAVITS: 5.25
TAX: 20.55
TOTAL: 349.34

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, M M Weideman 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 #69935 a copy of which is hereto attached was published in said newspaper 1 day(s) between 08/30/2001 and 08/30/2001 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 30 day of August, 2001 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ M M Weideman
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this
30 day of August A.D., 2001

Notary Laura E. Harding

Commission Expires 11/23/03

Approved
W.P. 9/19/01

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 applications 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-077) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Middle Mesa Natural Gas Compressor Station located in the SW/4 SW/4 of Section 10, Township 31 North, Range 7 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported offsite to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 150-200 feet with an estimated total dissolved solids concentration of approximately 1400 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-239) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Quinn Natural Gas Compressor Station located in the NW/4 SW/4 of Section 16, Township 31 North, Range 8 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks to being transported offsite to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with an estimated total dissolved solids concentration of approximately 1700 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-255) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Buena Vista Natural Gas Compressor Station located in the NW/4 NE/4 of Section 13, Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported offsite to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 30 feet with an estimated total dissolved solids concentration of approximately

1100 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-258) - Burlington Resources, Greg Wurtz, Environmental Representative, P.O. Box 4289, Farmington, New Mexico 87499-4289, has submitted a discharge plan renewal application for their Cedar Hill Natural Gas Compressor Station located in the SW/4 SW/4 of Section 29, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico. Natural gas products, waste oil and water is stored in above ground tanks prior to being transported offsite to OCD approved facilities. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with an estimated total dissolved solids concentration of approximately 1100 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-032) - GIANT REFINING Company, Ms Dirinda Mancini, (505)-722-3833Route 3, Box 7, Gallup, New Mexico, 87301 has submitted a modification application for the previously approved discharge plan for their Ciniza Refinery located in Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, Mckinley County, near Gallup, New Mexico. The total discharge of process and non-process wastewater from the facility is about 160,000 gallons/day with an estimated total dissolved solids concentration with a range of about 2,000 mg/l to 3,000 mg/l. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface varies in depth from 70 feet to 140 feet with an approximate total dissolved solids concentration of 950 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-28) - Navajo Refining Company, Darrell Moore, (505) 746-5281, P.O. Box 159, Artesia, New Mexico, 88211-0159 has submitted an application for renewal of its previously approved discharge plan for the Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, New Mexico. Approximately 400,000 gallons per day of treated refinery waste water with a total dissolved solids concentration of approximately 2,300 mg/l is discharged from the facility waste water treatment plant by pipeline to two Class I (non-hazardous) deep injection wells located in Sec 31- Ts 17s-R 28 e and Sec 12-Ts 18s-R27e of Eddy County, New Mexico and discharges approximately 150,000 gallons per day of Reverse-Osmosis Reject water used to irrigate two adjacent farms owned and operated by Navajo Refining Company. Ground water most likely to be affected by an accidental discharge in the refinery area is at a depth of approximately [redacted] feet with a total dissolved solids concentration of approximately 2,500 mg/l, and in the pond area ground water is at a depth of 5 to 10 feet with a total dissolved solids concentration of approximately 6,000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed including methods and procedures for handling products, waste, waste water management, and site investigation/ abatement plans.

(GW-014) - Navajo Refining Company, Darrell Moore, (505) 748-5281, P.O. Box 159, Artesia, New Mexico, 88211-0159 has submitted an application for renewal of its previously approved discharge plan for the Lovington Refinery located in the SW/4 of Section 31, Township 16 South, Range 37 East; the SE/4 of Section 36, Township 16 South, Range 36 East; the NW/4 of Section 6, Township 17 South, Range 37 East; and the NE/4 of Section 1, Township 17 South, Range 36 East NMPM, Lea County, New Mexico. Approximately 101,000 gallons per day of treated refinery waste water with a total dissolved solids concentration of approximately 1,300 mg/l will undergo treatment in a USEPA regulated pretreatment unit prior to discharge to the City of Lovington publicly owned treatment works (POTW). Ground water most likely to be affected by an accidental discharge is at a depth of approximately 90 feet with a total dissolved solids concentration of approximately 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed including methods and procedures for handling products, waste, waste water management, and site investigation/ abatement plans.

(GW-35) - Conoco, Inc., Mr. Lane Ayers, (505)-632-4906, P.O. Box 217 Bloomfield, New Mexico 87413, has submitted a Discharge Plan Renewal Application for their San Juan Gas Plant located in the NW/4 NW/4, Section 14, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico. Approximately 790,950 gallons per month of waste water is discharged onsite into an above ground bermed closed top tank and two double lined surface evaporation ponds with leak detection prior to transport offsite at an approved OCD disposal facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 15 to 55 feet with a total dissolved solids concentration of approximately 4,400 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-019) - Key Energy Services, Inc., Royce Crowell, (505) 393-9171, P.O. Box 2040 Hobbs, New Mexico, 88241 has submitted an application for renewal of its previously approved discharge plan for the Carlsbad Brine Station, located in the SE/4 NE/4 of Section 36, Township 22 South, Range 26 East, NMPM, Eddy County, New Mexico. Fresh water is injected to an approximate depth of 710 feet and brine water is extracted with an average total dissolved solids concentration of 300,000 mg/l. Ground water most likely to be affected by any accidental discharge is at a depth exceeding 150 feet and has a total dissolved solids content of approximately 1,800 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. 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 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 New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 21st day of August 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director
Legal #69935
Pub. August 30, 2001

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Memorandum of Meeting or Conversation

Telephone __X___
Personal _____
E-Mail ___X___
FAX: _____

Date:

Originating Party: Wayne Price-OCD

Other Parties: Darrell Moore- Navajo Refining

Subject: Discharge Plan Renewal Notice for the following Facilities:

GW-028	**Navajo Artesia Refinery**	**expires 10/21/01**
GW-014	**Navajo Lovington Refinery**	**expires 10/30/01**
GW-___	**Name**	**expires**
GW-___	**Name**	**expires**

WQCC 3106.F. If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

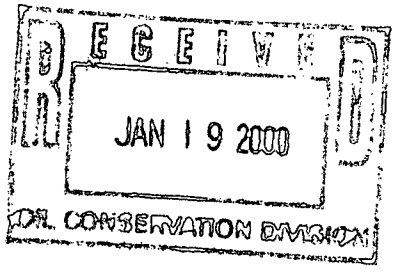
Discussion: Discussed WQCC 3106F and gave notice to submit Discharge Plan renewal application with $100.00 filing fee for the above listed facilities.

Conclusions or Agreements:

Please send DP application and filing Fee ($100 each) before 6/21/01 to retain WQCC 3106.F provision.

Signed: _____

TRW Systems & Information Technology Group
415 West Wall Street, Suite 1818
Midland, TX 79701



January 12, 2000

Mr. William C. Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

Attached is the 1999 Annual Groundwater Monitoring and Sampling and Remediation System Performance Report for Navajo Refining Company' Lea Refinery in Lea County, New Mexico.

The next sampling event for the site is scheduled for January 2000. The OCD will be notified at least one week in advance of any scheduled activity at the site.

Sincerely,

Gilbert J. Van Deventer
Project Manager

cc: Darrell Moore - Navajo Refining Company, Artesia, NM
Steve Terry - Navajo Refining Company, Lovington, NM
Donna Williams – OCD, Hobbs District
Bob Carter – City Manager, Lovington, NM

TRW

FACSIMILE TRANSMISSION

415 W. Wall St., Ste. 1818
Midland, Texas 79701

DATE: August 7, 2000

TO: Bill Olson FAX: (505) 827-8177

COMPANY: NMOCD Phone: (505) 827-7154

FROM: Gil Van Deventer FAX: (915) 682-0028

COMPANY: TRW Inc. (Energy & Environmental Systems) Phone: (915) 682-0008

Number of Pages (including cover page): 1

RE: Notification of field activities

TRW has scheduled the Third Quarter 2000 Groundwater Sampling Event at the Navajo Lea Refinery near Lovington in Lea County on August 14th (weather permitting).

Work will consist of measuring depth to groundwater in all monitoring wells on site (MW-1 - MW10), sampling monitoring wells (MW-3, MW-6, MW-8, MW-9, & MW-10) for BTEX analysis, and performing operation & maintenance of the groundwater remediation system in accordance with work plan requirements.

Please call me at 915-682-0008 if you have any questions.

Thanks,

cc: Bill Olson, OCD Environmental Bureau (Santa Fe, NM)
Donna Williams, OCD Hobbs District (Hobbs, NM)
Darrell Moore, Navajo Refining Company (Artesia, NM)
Steve Terry, Navajo Refining Company (Lovington, NM)

FACSIMILE TRANSMISSION

415 W. Wall St., Ste. 1818
Midland, Texas 79701

DATE: January 21, 2000

TO: Bill Olson FAX: (505) 827-8177
COMPANY: NMOCD Phone: (505) 827-7154

FROM: Gil Van Deventer FAX: (915) 682-0028
COMPANY: TRW Inc. (Energy & Environmental Systems) Phone: (915) 682-0008

Number of Pages (including cover page): 1

RE: Notification of field activities

TRW has scheduled the First Quarter 2000 Groundwater Sampling Event at the Navajo Lea Refinery near Lovington in Lea County on January 26th (weather permitting).

Work will consist of measuring depth to groundwater in all monitoring wells on site (MW-1 - MW10), sampling monitoring wells (MW-3, MW-6, MW-8, MW-9, & MW-10) for BTEX analysis, and performing operation & maintenance of the groundwater remediation system in accordance with work plan requirements.

Please call me at 915-682-0008 if you have any questions.

Thanks,

cc: Donna Williams, OCD District 1 (Hobbs, NM)
Darrell Moore, Navajo Refining Company (Artesia, NM)
Steve Terry, Navajo Refining Company (Lovington, NM)

TRW

FACSIMILE TRANSMISSION

415 W. Wall St., Ste. 1818
Midland, Texas 79701

DATE: 2/1/99

TO: Bill Olson FAX: (505) 827-8177

COMPANY: NMOCD Phone: (505) 827-7154

FROM: Gil Van Deventer FAX: (915) 682-0028

COMPANY: TRW Inc. (Midland, Texas) Phone: (915) 682-0008

Number of Pages (including cover page): 1

COMMENTS:

Re: Notification of Field Activities at the following facilities

TRW has scheduled the First Quarter 1999 Groundwater Sampling Events at the following facilities (weather permitting/dates estimated):

GPM - Monument Booster Station near Monument, NM (2/9/99)
GPM - Linam Ranch Plant near Hobbs, NM (2/10/99)
GPM - Lee Plant near Buckeye, NM (2/16/99)
Navajo - Lea Refinery near Lovington, NM (2/17/99)

Work will consist of gauging all monitoring wells on site and sampling monitoring wells in accordance with work plan requirements.

Please call me at 915-682-0008 if you have any questiions.

Thanks,

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

February 22, 1999

Ms. Donna Williams
New Mexico Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88241-1980

Dear Ms. Williams,

Enclosed, please find Form C-141 pertaining to a spill of Crude Oil and Asphalt mix that happened Friday morning, February 12, 1999. Due to a valve failure, 10 bbls of product was released to the ground. As the C-141 says, most of the spilled material was captured in the draw box and its secondary containment.

The spill was cleaned up by putting approximately 30 yds of contaminated soil in a roll-off bin and the rest on plastic inside the tank's dike. A TCLP will be performed on the contaminated soil and it will be disposed of properly.

Per OCD regulation 116.B.(2), this spill is considered a **minor** spill (greater than 5 barrels but less than 25 barrels) and is therefore reportable under 116.C.(2) ***timely written notification*** which is within 15 days after release is discovered.

If there are any questions concerning this submittal, please call me at 505-748-3311. Thank you for your attention to this matter.

Sincerely,
NAVAJO REFINING CO.

Darrell Moore

Darrell Moore
Env. Manager for Water and Waste

Encl.

cc: Roger Anderson, OCD Env. Bureau Chief

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

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	Contact
Navajo Refinging Co.	Darrell Moore
Address P.O. Box 159 Artesia NM 88211-0159	**Telephone No.** (505) 748-3311
Facility Name Lea Refining - Lovington NM	**Facility Type** Petroleum Refining

Surface Owner	Mineral Owner	Lease No.
Lea Refining		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	36	16s	36e					Lea County

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Crude Oil and Asphalt Mix	10 bbls.	none
Source of Release Overfill of Draw Box at Tk 1215	**Date and Hour of Occurrence** 2/12/99 7:00 am	**Date and Hour of Discovery** 2/12/99 8:00 am
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	**If YES, To Whom?**	
By Whom?	**Date and Hour**	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.**	

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary) Malfunction of valve allowed product to over fill box and then overfill secondary containment. Valve has been replaced.

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary) The area affected is about 20 ft. x 20 ft. Approximately 30 yds. of cont. soil was dug up and placed into roll-off bins and the rest placed on plastic inside the dike. Soil will be tested and disposed of properly.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

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.

Signature: Darrell Moore	**OIL CONSERVATION DIVISION**
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env. Mgr. for Water and Waste	Approval Date: / Expiration Date:
Date: 2/15/99 Phone: 505-748-3311	Conditions of Approval: / Attached ☐

TRW Systems & Information Technology Group
415 West Wall Street, Suite 1818
Midland, TX 79701

December 7, 1998

Mr. William C. Olson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, New Mexico 87505

DEC - 9

Dear Mr. Olson:

Attached is the 1998 Annual Groundwater Monitoring and Sampling and Remediation System Performance Report for Navajo Refining Company' Lea Refinery in Lea County, New Mexico.

The next sampling event for the site is scheduled for January 1999. The OCD will be notified at least one week in advance of any scheduled activity at the site.

Sincerely,

Gilbert J. Van Deventer
Project Manager

cc: Darrell Moore - Navajo Refining Company, Artesia, NM
Steve Terry - Navajo Refining Company, Lovington, NM
Chris Williams – OCD, Hobbs District
Bob Carter – City Manager, Lovington, NM

FACSIMILE TRANSMISSION

Date: October 27, 1998
Time: 11:20 AM
Operator: gjv

TO: **Company:** New Mexico Energy, Minerals & Natural Resources Dept.
Attention: Bill Olson
FAX No.: 505-827-8177 **Telephone No.:** 505-827-7154

FROM: Gil Van Deventer
TRW Inc.
Energy & Environmental Services
415 West Wall, Suite 1818
Midland, TX 79701
Telephone No.: (915) 682-0008 **FAX No.:** (915) 682-0028

Number of Pages (including lead page): 1

Comments:

TRW has scheduled the Fourth Quarter 1998 Groundwater Sampling Event at the Navajo - Lea Refinery for October 28-29, 1998.

Work will consist of gauging and sampling all monitoring wells. The samples will be analyzed for BTEX (EPA Method 8021), WQCC Metals (As,B,Ba,Fe,Mn,&V), and ions (Cl, F, NO_3, SO_4, & TDS).

Monthly operation & maintenance operations of the remediation system will also be conducted on this date.

Please call me at 915-682-0008 if you have any questions.

cc: Darrell Moore - Navajo Refining Company, Artesia, NM
Steve Terry - Navajo Refining Company, Lovington, NM
Wayne Price - New Mexico Oil Conservation Division

FACSIMILE TRANSMISSION

Date: April 16, 1998
Time: 3:45 PM
Operator: gjv

TO: **Company:** New Mexico Oil Conservation Division
Attention: Bill Olson
FAX No.: 505-827-8177 **Telephone No.:** 505-827-7154

FROM: Gil Van Deventer
Environmental Services Unit
BDM International, Inc.
415 West Wall, Ste. 1818
Midland, TX 79701
Telephone No.: (915) 682-0008 **FAX No.:** (915) 682-0028

Number of Pages (including lead page): 1

Comments:

BDM has scheduled the Second Quarter 1998 Groundwater Sampling Event at the Navajo - Lea Refinery for April 22, 1998.

Work will consist of gauging all monitoring wells on site and sampling the following monitoring wells: MW-3, MW-6, MW-8, MW-9, & MW-10. The samples will be analyzed for BTEX (EPA Method 8020) as outlined in the approved workplan.

Monthly operation & maintenance operations of the remediation system will also be conducted on this date.

Please call me at 915-682-0008 if you have any questiions or would like to reschedule this sampling event.

cc: Wayne Price - New Mexico Oil Conservation Division
Steve Terry - Navajo Refining Company, Lovington, NM
Darrell Moore - Navajo Refining Company, Artesia, NM

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 2:00 PM	Date 5-26-98
Originating Party: MARK ASHLEY	Other Parties: BARRELL MOORE	

Subject: LOVINGTON REFINERY - ASSAULT (3-3-98) & GAS OIL (4-12-98)

Discussion: DISCUSSED CLEANUP OF THE TWO SPILLS. DIDN'T INSPECTED, AND DIDN'T SEE CONCLUSIVE EVIDENCE THAT THE SPILLS WERE BEING CLEANED UP.

Conclusions or Agreements: BARRELL SAID THEY WERE IN THE PROCESS OF CLEANUP & THAT HE WOULD COPY ME ON ALL ACTIVITIES.

Distribution

Signed: Mark Ashley

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

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	Contact
Lea Refining Company	Steve Terry
Address	**Telephone No.**
5 mi South of Lovington	(505) 396-5821
Facility Name	**Facility Type**
Lea Refining Company	Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Vacuum Gas Oil	300 bbls.	260 bbls.
Source of Release	**Date and Hour of Occurrence**	**Date and Hour of Discovery**
	4/12/98 5:00 p.m.	4/12/98 5:00 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	**If YES, To Whom?**	
By Whom?	**Date and Hour**	
Was a Watercourse Reached? ☐ Yes ☒ No	***If YES, Volume Impacting the Watercourse.***	

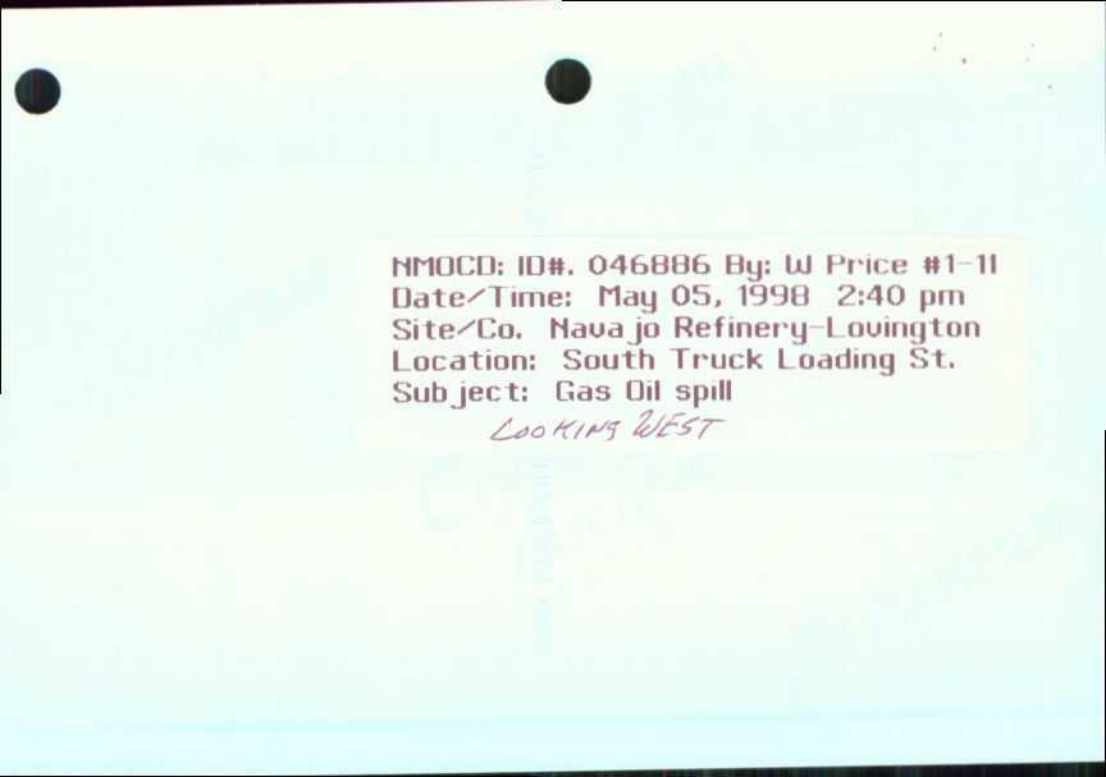
If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
Strainer Pot on Vacuum Gas Oil loading mechanism built up pressure and sheared bolts on lid. When the lid blew off, vacuum gas oil was sprayed out into a mostly contained area. However, due to high winds, about 40 bbls. was blown off the cement containment.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)
The area affected is about 150 sq. ft. to the north and east of the loading rack. 260 bbls. was contained in the cement containment and recovered by our vacuum truck. The affected soil will be cleaned up and tested to determine disposal options.

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.

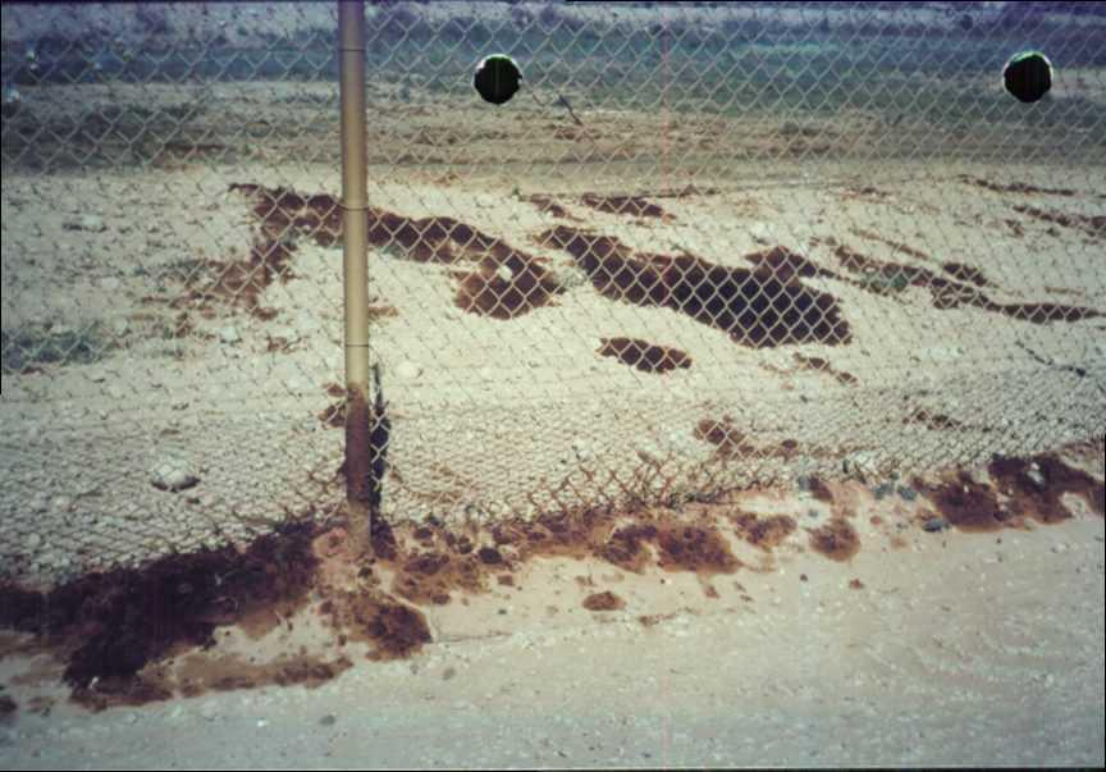
Signature: Darrell Moore	**OIL CONSERVATION DIVISION**
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env Mngr for Water & Waste	Approval Date: / Expiration Date:
Date: April 15, 1998 Phone: (505) 748-3311	Conditions of Approval: / Attached ☐


NMOCD: ID#. 046886 By: W Price #1-11
Date/Time: May 05, 1998 2:40 pm
Site/Co. Navajo Refinery-Lovington
Location: South Truck Loading St.
Subject: Gas Oil spill
LOOKING WEST

OR6886

07-688-6

04886



07-6556

Mark Ashley

From: Price, Wayne
Sent: Friday, May 15, 1998 8:40 AM
To: Mark Ashley
Cc: Chris Williams
Subject: Navajo Refinery-Lovington Asphalt & Gas Oil Spills.

Re: Site Inspection:

Dear Mark:

Per your request I have made an inspection at the Navajo Refinery with Darrell Moore. I took photos and will drop those in the mail today so you can put in their DP file.

Gas Oil Spill:

Occurred at south truck loading dock. Navajo has picked up approximately 20-30 yards and placed in roll-off box. There is free liquid still around this area.

There was some confusion as to when Navajo should report. I informed Darrell Moore a spill this size will require an immediate notice. This happened on a Sunday and they didn't think there was any one to report to. I informed him the NMOCD is on 24 hr. call.

Recommend: Navajo submit a closure plan to include sampling and testing of
Area and to dispose of properly.

Asphalt Spill:

50 bbls of asphalt spilled in this area. Navajo has scraped up some of the asphalt between the RR tracks and piled up, other areas have not been attended too. (see photos) Oils in asphalt are leaching out of pile and tracks.

There is a steam condensate sump between tracks, it is full of asphalt and causing the water to overflow and discharge onto the ground. This water has a oil sheen on it.

Recommend: They pick-up asphalt and clean-out sump in a timely manner.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 31, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-259-048

Mr. Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: Authorization to Discharge of Hydrotest Water From Tank 1201B
Lea County, New Mexico

Dear Mr. Moore:

The New Mexico Oil Conservation Division (OCD) has completed a review of Navajo Refining Company's (Navajo) letter dated March 30, 1998, received via fax, requesting the authorization to discharge of approximately 120,000 barrels of test water to the ground surface from the hydrostatic test of tank 1201B. The proposed location for the discharge is the SE/4 NE/4 of Section 35, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. The requested discharge is hereby approved with the following conditions:

1. Permission will be obtained from the landowner(s) prior to discharge.
2. The test water will be discharged onto the ground surface in a manner to prevent erosion, pooling, or ponding.
3. No test waters will be discharged to any lakes, perennial streams, rivers, or any surface bodies of water upon completion of a test.
4. The water will not exceed Water Quality Control Commission standards for ground water.

Please be advised that OCD approval does not relieve Navajo of liability should it later be found that contamination exists which could pose a threat to surface water, ground water, human health or the environment.

If you have any questions please feel free to contact Mark Ashley at (505) 827-7155.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/mwa
xc: OCD Hobbs Office

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

April 15, 1998

Mr. Wayne Price
NMOCD-District 1
100 W. Broadway
Hobbs, NM 88240

RE: Vacuum Gas Oil Spill at Lea Refining, Lea County, NM

Dear Wayne,

Enclosed, please find 2 copies of form C-141 pertaining to a recent spill of Vacuum Gas Oil (VGO) at our Lea Refining facility. Approximately 300 Bbls. of product were spilled with 260 Bbls. recovered. The affected soil, is being cleaned up and placed into roll-off bins. It will be tested to determine our disposal options.

If there are any questions concerning this matter, please call me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
NAVAJO REFINING CO.

Darrell Moore

Darrell Moore
Env. Mgr. for Water and Waste

Encl.

cc.: Mark Ashley, NMOCD, Santa Fe

file: Lovington Spill Reports

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

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	Contact
Lea Refining Company	Steve Terry
Address	**Telephone No.**
5 mi South of Lovington	(505) 396-5821
Facility Name	**Facility Type**
Lea Refining Company	Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Vacuum Gas Oil	300 bbls.	260 bbls.
Source of Release	**Date and Hour of Occurrence**	**Date and Hour of Discovery**
	4/12/98 5:00 p.m.	4/12/98 5:00 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	**If YES, To Whom?**	
By Whom?	**Date and Hour**	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.**	

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
Strainer Pot on Vacuum Gas Oil loading mechanism built up pressure and sheared bolts on lid. When the lid blew off, vacuum gas oil was sprayed out into a mostly contained area. However, due to high winds, about 40 bbls. was blown off the cement containment.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)
The area affected is about 150 sq. ft. to the north and east of the loading rack. 260 bbls. was contained in the cement containment and recovered by our vacuum truck. The affected soil will be cleaned up and tested to determine disposal options.

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 responsibibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Darrell Moore	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env Mngr for Water & Waste	Approval Date: / Expiration Date:
Date: April 15, 1998 Phone: (505) 748-3311	Conditions of Approval: / Attached ☐

TELEPHONE
(505) 748-3311

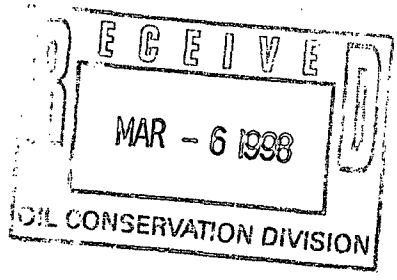
EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

March 4, 1998



Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: Asphalt spill of March 3, 1998 at Navajo Refining Co., Lea Plant, Lea County, NM

Dear Mark:

Enclosed is the Form C-141 for the spill of March 3, 1998. The asphalt on the shoulder of the tracks is being picked up and will be recycled if possible. Clean up methods that will be used on the asphalt that accumulated on and in between the tracks will be determined after further investigation. I can assure you that this asphalt is contained and does not present a threat to contamination of ground water. If there are any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

cc: Wayne Price
OCD
1000 W. Broadway,
Hobbs, NM 88240

cc: JGT

file: Spill Reports

District I - (505) 393-6161
P. O. Box 1940
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C- 141
Originated 2/13/97

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	Contact
Navajo Refining Company	Bryan Madrid
Address	**Telephone No.**
18 mi South of Lovington	(505) 748-3311
Facility Name	**Facility Type**
Lea Refining Company	Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.
Navajo Refining Company	N/A	N/A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Asphalt	50 bbls	None as yet *
Source of Release	**Date and Hour of Occurrence**	**Date and Hour of Discovery**
Asphalt Loading Pump	8:30 p.m. 3/3/98	8:30 p.m. 3/3/98
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Mark Ashley/Sylvia Dickey	
By Whom? Bryan Madrid	**Date and Hour** 3/4/98 9:00 a.m. & 3/4/98 9:15 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.**	

If a Watercourse was Impacted, Describe Fully.*

MAR 1998 Received Hobbs OCD

Describe Cause of Problem and Remedial Action Taken.* * The safety chain on a loading arm broke while a railcar was being loaded with asphalt. This caused the arm to move uncontrollably which resulted in the asphalt spill. The emergency shut off switch could not be reached so the operator had to shut the pump off at the breaker. The result was approx. 50 bbls spilled on the ground.

Describe Area Affected and Cleanup Action Taken.* * The area affected is about 15' X 70' contained inside the railroad tracks and about 15' x 30' on the shoulder of the tracks. The asphalt on the shoulder is being picked up. The clean up action for the asphalt on the tracks will be determined after further investigation.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.).* Temp. 45 degrees, clear, calm

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
Signature: Bryan Madrid
Printed Name: Bryan Madrid
Title: Environmental Specialist
Date: 3/4/98 Phone: (505) 748-3311

OIL CONSERVATION DIVISION

Approved by District Supervisor:
Approval Date: Expiration Date:
Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

NMOCD: ID#. 046887 By: W Price #1-11
Date/Time: May 05, 1998 2:40 pm
Site/Co. Navajo Refinery-Lovington
Location: Railroad Siding Loading St
Subject: Asphalt spill

046887

096887

046887

046887

NMOCD: ID#. 046887 By: W Price #7
Date/Time: May 05, 1998 2:40 pm
Site/Co. Navajo Refinery-Lovington
Location: Railroad Siding Loading St.
Subject: Steam Condensate Sump
full of asphalt & Running out.

046887

SEWER
INSERT
096887

TELEPHONE
(505) 748-3311

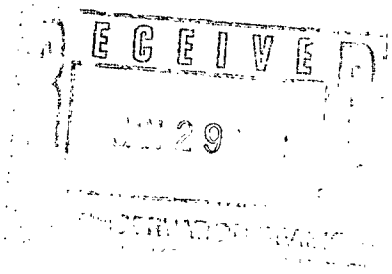
EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

January 27, 1998



Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: Testing and Repairs of Sewers at Lea Refining Co., Lea County, NM

Dear Mark,

As per our telephone conversation of January 21, 1998, Navajo is requesting an extension of the deadline to have the sewers repaired at our facility in Lea County. Due to turnaround of the plant, the fact that the same company is repairing the sewers at both Artesia and Lovington, and the unusually cold and wet winter we have had, Navajo Refining requests that the deadline be extended to **December 31, 1998.**

If there are any questions concerning this matter, please contact me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore

Darrell Moore
Environmental Mgr. for Water and Waste

cc: Jesse Hilliard, Maintenance Supervisor

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

March 26, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-235-437-248

Mr. Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: ANNUAL REPORT
LEA REFINERY

Dear Mr. Moore:

The New Mexico Oil Conservation Division has reviewed Navajo Refining Company's (NAVAJO) December 11, 1997 "ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT, NAVAJO REFINING COMPANY - LEA REFINERY, LEA COUNTY, NEW MEXICO". These documents contain the results of NAVAJO's 1997 ground water remediation and monitoring program at NAVAJO's Lea Refinery. The documents also recommend eliminating WQCC metals and major cations and anions from the ground water monitoring program with the exception of manganese, chloride, sulfate, nitrate, fluoride and TDS.

The OCD **approves** of the above referenced recommendations with the following conditions:

1. The ground water metals analyses will also include analysis for concentrations of arsenic, barium, boron, iron and vanadium.

Please be advised that OCD approval does not relieve NAVAJO of liability if the proposed plan fails to adequately monitor contamination resulting from NAVAJO's activities, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve NAVAJO of responsibility for compliance with any other federal, state or local laws and regulations.

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

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Wayne Price, OCD Hobbs District Office
Gilbert Van Deventer, BDM International

FACSIMILE TRANSMISSION

Date: October 27, 1997
Time: 9:40 AM
Operator: gjv

BDM

TO: **Company:**
Attention: Bill Olson - New Mexico Oil Conservation Division
FAX No.: 505-827-8177 **Telephone No.:** 505-827-7154

FROM: Gil Van Deventer
Environmental Services Unit
BDM International, Inc.
415 West Wall, Ste. 1818
Midland, TX 79701
Telephone No.: (915) 682-0008 **FAX No.:** (915) 682-0028

Number of Pages (including lead page): 1

Comments:

BDM has scheduled the Fourth Quarter 1997 Groundwater Sampling Event at the Navajo - Lea Refinery for October 28, 1997. This is the annual sampling event.

Work will consist of gauging all monitoring wells on site and sampling the following monitoring wells: MW-3, MW-6, MW-8, MW-9, & MW-10. The samples will be analyzed for BTEX (EPA Method 8020) as outlined in the approved workplan.

Monthly operation & maintenance operations of the remediation system will also be conducted on this date.

Please call me at 915-682-0008 if you have any questiions or would like to reschedule this sampling event.

cc: Wayne Price - New Mexico Oil Conservation Division
Steve Terry - Navajo Refining Company, Lovington, NM
Darrell Moore - Navajo Refining Company, Artesia, NM

FACSIMILE TRANSMISSION

BDM

Date: January 14, 1997
Time: 11:25 AM
Operator: gjv

To: Company: New Mexico Energy,Minerals & Natural Resources Department

Attention: Bill Olson

FAX No: 505-827-8177 **Telephone No.:** 505-827-7154

From: Gil Van Deventer
BDM International, Inc.
Engineering Services Division
415 West Wall Street, Suite 1818
Midland, TX 79701

Telephone No.: (915) 682-0008 **FAX No.:**(915) 682-0028

Number of Pages (Including Lead Page): 1

Re: Notification of Field Activities at the Navajo - Lea Refinery near Lovington, NM

BDM has scheduled the First Quarter 1997 Groundwater Sampling Event at the Navajo - Lea Refinery for January 21, 1997 (weather permitting).

Work will consist of gauging all monitoring wells on site and sampling the following monitoring wells: MW-3, MW-6, MW-8, MW-9, & MW-10. The samples will be analyzed for BTEX (EPA Method 8020) as outlined in the OCD-approved workplan.

Monthly operation & maintenance operations of the remediation system will also be conducted on this date.

Please call me at 915-682-0008 if you have any questiions.

GVD

BDM
415 West Wall, Suite 1818
Midland, Texas 79701
915-682-0008
915-682-0028 (Fax)

January 30, 1997

Mr. William Olson - Hydrogeologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
State Land Office Building
Santa Fe, New Mexico 87505

Dear Mr. Olson:

Enclosed is the Fourth Quarter 1996 Sampling and Monitoring Event - Annual Report for the Lea Refinery near Lovington (Lea County), New Mexico. The report documents the latest sampling event conducted at the site and includes performance data for the remediation system. The following conclusions support our opinion that the remediation system has been very effective in reducing the hydrocarbons from the subsurface media.

- A benzene concentration of 0.679 mg/l in MW-9 was the only BTEX constituent that exceeded the WQCC groundwater standard of 0.010 mg/l.
- The large decrease in BTEX concentrations in monitoring wells MW-6 and MW-9, which are located within the boundaries of the hydrocarbon plume, is attributed to the successful performance of the air sparging/soil vapor extraction system.
- Based on the analytical results of the soil vapor extraction (SVE) exhaust and measured flow rates, the SVE system has recovered an estimated 5,854 kilograms (2,660 lbs.) of total volatile hydrocarbons during the fourth quarter of 1996.
- The decrease in product thicknesses in MW-1 and MW-7 can be attributed to the successful removal of free product from recovery well RW-1.
- Based on the results of the PAH, halogenated and aromatic volatiles, and major cation and anion analyses from samples submitted by the OCD during the annual sampling event, the groundwater in the area of monitoring wells MW-3, MW-8, and MW-10 is not adversely affected or impacted with these constituents.

BDM appreciates your assistance with this project. Please call me at 915-682-0008 or David Griffin at 505-748-3311 if you have any questions.

Sincerely,
BDM International, Inc.
Engineering Services Division

Gilbert J. Van Deventer, REM
Project Manager /Hydrogeologist

xc: Jerry Sexton, OCD-Hobbs, NM
David Griffin, Navajo Refining Company - Artesia, NM
Steve Terry, Navajo Refining Company - Lovington, NM

D:\2033\OCD-4-96.LTR

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

AUG 1 4 1997

August 11, 1997

Mr. Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: GW-14 Discharge Plan for Lea Refining Co., Lea County, NM

Dear Mark,

On May 14, 1997, Navajo submitted a schedule for work and testing that would be done at our facility in Lea County concerning the discharge plan renewal for that plant. Among those things to be tested and repaired was process waste water lines. In that letter we committed to having the lines tested by October 31, 1997. Because of a turnaround that has been scheduled, that date is no longer feasible. The turnaround will start at Lovington on September 13, 1997 and run for 6 weeks. We would like to submit a new date for testing and repairs as follows:

Testing will be completed by January 1, 1998
Repairs will be completed by July 31, 1998

Also, in that same letter, we committed to testing these same lines every year. Per our telephone conversation and your letter of December 18, 1996, testing will be done every 5 years.

Thank you for your time in this matter. If you have any questions, please do not hesitate to call me at 505-748-3311.

Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore
Environmental Mgr. for Water and Waste

Energetics Corporation
Farmaries Energy Refinery
(Nor Southern Union Refining Co.)

1	2-11-80	Energetics letter to EID - requesting information on permits
2	3-5-80	EID letter To OCD directing Engertics request to the OCD
3	3-7-80	OCD letter to Engertics - request further data
4	~~3~~-3-80	Engertics letter To OCD - reply to OCD letter of 3-7-80
5	4-10-80	- OCD requested additional data
6	4-30-80	OCD telephon conversation - clarification of OCD - 4-10-80 letter
7	6-30-80	OCD telephon conversation - plant moved to different location - will supply info later
8	10-83	Present Status plant shut down no - discharge plan required

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

May 14, 1997

RECEIVED
MAY 16 1997
OIL CONSERVATION DIVISION

Mr. Mark Ashley
Geologist - Environmental Bureau
N.M. Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505

CERTIFIED MAIL/RETURN RECEIPT
P 155 358 601

RE: Discharge Plan GW-14 Approval Conditions, Lea Refinery, Lea County, New Mexico

Dear Mr. Ashley,

This letter is sent in response to your letter of December 18, 1996 outlining the conditions and requirements that Navajo must meet to get this discharge plan renewed. As you will remember, when David Griffin resigned, Navajo applied for, and was granted, an extension until May 14, 1997 to submit a plan and schedule for these conditions. Our plan and schedule for each follows:

Drum Storage: To our knowledge there are no drums at this refinery that are not stored on an impermeable pad with containment. Also, all empty drums are stored on their sides with the bungs in and lined up on a horizontal plane.

Process Area: During the 1996 OCD inspection, it was noted that the liner under the crude oil unloading rack did not extend far enough out to keep all product from reaching the ground in the event of a spill. Navajo will extend the liner to take in both pumps by August 31, 1997. To our knowledge, all other areas are in compliance.

Above Ground Tanks: It was noted during the inspection that the waste water skimmer tank does not **appear** to have proper berming and containment. This tank sets on a cement pad with a berm on it that drains into a 140 bbl. sump. The fluid in this sump is then pumped into the separators and eventually goes to the large waste water tanks on the north end of the refinery. It is Navajo's position that this tank **does** have the necessary berming and containment and to our knowledge all other tanks do also.

Above Ground Saddle Tanks: The tank at the reverse osmosis trailer that contains brine water does not have a curb or containment. Navajo will have this tank on an impervious pad with containment to hold 1/3 more than the volume of the tank by August 31, 1997. To our knowledge, all othet saddle tanks are in compliance.

Labeling: Labels for the skimmer tank and brine tank have been added since the inspection. To our knowledge, all other tanks, drums and containers have labels.

Below Grade Tanks and Sumps: The pipeline terminal sump does not have secondary containment. Navajo will commit to testing this sump for leaks by July 31, 1997 and annually thereafter. OCD will be notified 72 hours prior to any test so that OCD may witness the testing. Also, all pre-existing sumps and below grade tanks will be tested for integrity by October 31, 1997.

Underground Process/Wastewater Lines: We are currently in the process of testing all underground lines and will be finished by October 31, 1997. Repairs will be made as necessary and testing will be repeated annually thereafter. OCD is welcome to witness any part of the testing and will be notified 72 hours prior to any testing.

We look forward to working with the OCD in finalizing the discharge plan for our Lovington refinery. If there are any questions concerning this submittal, please do not hesitate to call me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
Navajo Refining Company

Darrell Moore
Sr. Environmental Specialist

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

January 8, 1997

Mr. Gilbert Van Deventer
BDM International, Inc.
415 West Wall, Suite 1818
Midland, Texas 79701

RE: SAMPLE ANALYSES
NAVAJO REFINERY
EDDY COUNTY, NEW MEXICO

Dear Mr. Van Deventer:

Enclosed you will find the laboratory analytical results of the New Mexico Oil Conservation Division's (OCD) November 19, 1996 monitor well sampling at the Navajo Lea Refinery in Lovington, New Mexico.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

Enclosure

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

December 18, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-882

Mr. Phillip Youngblood
Navajo Refining Company
P. O. Drawer 159
Artesia, New Mexico 88211-0159

RE: Discharge Plan GW-014
Permit Condition Amendment
Lovington Refinery
Lea County, New Mexico

Dear Mr. Youngblood:

Pursuant to the request received from Navajo Refining Company (Navajo), permit condition 8 has been amended. Enclosed are two copies of the conditions of approval with the amended condition. Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.

Please be advised that the amendment of this plan does not relieve Navajo of liability should operations result in pollution of surface water, ground water, or the environment.

The OCD hopes that this has clarified your concern, and we appreciate your input into this process.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/mwa

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN GW-014 RENEWAL
NAVAJO REFINING COMPANY
LOVINGTON REFINERY
DISCHARGE PLAN APPROVAL CONDITIONS (AMENDED)
(December 18, 1996)

1. Payment of Discharge Plan Fees: The $50 filing fee is due upon receipt of this approval. The $3,910 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 plan, with the first payment due upon receipt of this approval.

2. Navajo Commitments: Navajo will abide by all commitments submitted in the discharge plan application dated June 19, 1996.

3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment. A plan and schedule will be provided to the OCD by February 14, 1997 for properly storing all drums which do not meet OCD requirements.

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. A plan and schedule will be provided to the OCD by February 14, 1997 for properly containing all process areas which do not meet OCD requirements.

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. A plan and schedule will be provided to the OCD by February 14, 1997 for properly containing all above ground tanks which do not meet OCD requirements.

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. A plan and schedule will be provided to the OCD by February 14, 1997 for properly containing all above ground saddle tanks which do not meet OCD requirements.

7. Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite. A plan and schedule will be provided to the OCD by February 14, 1997 for properly labeling all tanks, drums and containers which do not meet OCD requirements.

8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing so that an OCD representative may witness the testing. A plan and schedule will be provided to the OCD by February 14, 1997 for properly containing, repairing and/or replacing all below grade tanks, sumps, and pits which do not meet OCD requirements.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after, or prior to discharge plan renewal. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing so that an OCD representative may witness the testing.

10. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject fluid other than domestic waste sewage below the surface are considered Class V injection wells under the EPA UIC program. All class V wells will be closed unless, it can be demonstrated that protectable groundwater will not be impacted in the reasonably foreseeable future. Class V wells must be closed through the Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, environment and groundwater as defined by the WQCC, and are cost effective.

11. Housekeeping: All systems designed for spill collection/prevention should be inspected to ensure proper operation and to prevent overtopping or system failure.

    Any non-exempt contaminated soils that are collected at the facility will be tested for hazardous constituents, and after receiving OCD approval, will be disposed of at an OCD approved site.

12. Product and Waste Disposal:

    All recovered product, waste filters or treatment system waste products will be recycled and/or disposed of at an OCD approved facility or in an OCD approved manner. Commercial solid waste from Navajo's offices, warehouses and lunch rooms, which

include but is not limited to paper trash, packaging materials, and food scraps along with construction and demolition debris, which include but is not limited to steel, glass, brick, concrete, roofing materials, pipe, wallboard, lumber, rocks, soil, trees and other vegetative matter is approved for disposal at a municipal solid waste facility servicing the area. The disposal of these commercial solid wastes, construction and demolition debris as defined in 20 NMAC 9.1.105.O and T shall not result in a violation of 20 NMAC 9.1.107.C or any other applicable section of the New Mexico solid waste regulations or the New Mexico Oil Conservation Division regulations.

13. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. 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 plan 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.

16. Certification: Navajo, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Navajo 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.

Accepted:

NAVAJO REFINING COMPANY

by_____
Title

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

November 21, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-269-269-216

Mr. David G. Griffin
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: GROUND WATER CONTAMINATION REMEDIATION AND MONITORING
NAVAJO LEA REFINERY
LEA, COUNTY, NEW MEXICO

Dear Mr. Griffin:

The New Mexico Oil Conservation Division (OCD) has completed a review of Navajo Refining Company's (Navajo) October 11, 1996 "SOIL AND GROUNDWATER INVESTIGATION AND REMEDIATION WORK PLAN, LEA REFINERY, LEA COUNTY, NEW MEXICO". This document contains the results of Navajo's additional investigations of the extent of ground water contamination and installation of a ground water remediation system at Navajo's Lea Refinery in Lovington, New Mexico. The document also contains Navajo's proposed long term monitoring plan for the ground water remediation system.

The investigation activities conducted to date are satisfactory and the proposed long term monitoring plan is approved with the following conditions:

1. In addition to the proposed monitoring, during the annual sampling Navajo will sample and analyze ground water from all monitor wells for New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods.

2. Navajo will submit the annual monitoring report to the OCD by March 1 of each year. The annual report will contain:

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

   b. A tabular summary of all past and present laboratory analytic results of water quality and remediation system sampling for each monitoring point and the laboratory analyses and associated quality assurance/quality control data for the all samples taken during the past calendar year.

c. Quarterly ground water isoconcentration maps for contaminants of concern (ie. TDS, chloride, benzene, metals) monitored during the quarter.

d. Quarterly water table elevation maps using the water table elevation of the ground water in all monitor wells.

e. Plots of water table elevation vs. time for each ground water monitoring well.

f. Plots of concentration vs. time for contaminants of concern for each monitoring point.

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

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

Please be advised that OCD approval does not relieve Navajo of liability should contamination exist which is beyond the scope of the remediation and monitoring plan, or if the activities fail to adequately remediate and monitor contamination related to Navajo's activities. In addition, OCD approval does not relieve Navajo of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price , OCD Hobbs Office
Gil Van Deventer, Geoscience Consultants, Ltd.

TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

October 16, 1996

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: Report on Remediation System - Lovington Refinery

Dear Mr. Olson:

Enclosed is a report on the remediation system for Navajo's Lovington Refinery. The report was prepared by Navajo's contractor, Geoscience Consultants, Ltd. The report recaps the investigative work done previously and details the installation of the remediation system. The remediation system has now been started up and is working satisfactorily at this time.

If you have any questions, please call me at (505) 748-3311 or Mr. Gil Van Deventer at GCL's office in Midland (915) 682-0008.

Sincerely,

David G. Griffin
Manager of Environmental
Affairs for Water & Waste

DGG/sb

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 1130	Date 10/3/96
Originating Party		**Other Parties**
Gil Vandeventer - GCL		Bill Olson - Envir. Bureau

Subject

Navajo Lovington Refinery

Discussion

GW Investigation report late.
Delays in installation of SVE system
SVE system now running
Expect to submit report in approx 2 weeks

Conclusions or Agreements

Distribution

Signed Bill Olson

GCL
Environmental Science and Engineering
A BDM International Company

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

July 26, 1996

Mr. William C. Olson
New Mexico Energy, Mineral and Natural Resources Department
Oil Conservation Division
2040 Pacheco
Santa Fe, NM 87505

Re: HYDROGEOLOGIC INVESTIGATION REPORT FOR LOVINGTON REFINERY, LEA COUNTY, NEW MEXICO

Dear Mr. Olson;

As an integral part of installing a groundwater remediation system at the Lovington Refinery, Geoscience Consultants, Ltd. (GCL) conducted a hydrogeologic investigation that included groundwater sampling. According to your March 18, 1996 letter to the Navajo Refining Company, a report of the investigation was due in your office by July 1, 1996. However, system installation was only completed on June 28, 1996. Therefore, to provide sufficient time to prepare the report and allow for client review, GCL requests a completion date of August 19, 1996.

Please call me at (505) 842-0001 if you have any questions regarding this change.

Sincerely,
Geoscience Consultants, Ltd. (GCL)

Bernie A. Lauctes, PE
Senior Engineer

S:\PROJECTS\2033\OLSON1.LTR

cc: project file

GEOSCIENCE CONSULTANTS, LTD.
306 WEST WALL, SUITE 818
MIDLAND, TEXAS 79701
(915) 682-0008

March 28, 1996

Mr. John Hernandez - Area Supervisor
State Engineer Office
1900 W. Second St.
Roswell, NM 88201-1712

RE: Application for Recovery Well Permit
Navajo Refining Company
Lovington Refinery
Lea County, New Mexico

Mr. Hernandez:

Geoscience Consultants, Ltd. (GCL) has been retained by Navajo Refining Company (NRC) to implement groundwater remediation activities at the above-referenced site. On behalf of NRC, GCL respectfully requests your approval to operate one groundwater recovery well to aid in pollution control. Enclosed are copies of the February 8, 1996, "Work Plan for Soil and Groundwater Remediation at the Navajo Refining Company Lovington Refinery". Also enclosed is the March 18, 1996 letter from Bill Olson of the New Mexico Oil Conservation Commission (OCD) which documents OCD approval of the work plan. The third enclosure is the completed "Application For Permit". NRC will submit a notice of the filing of the application to be published in the local Lovington newspaper (The Lovington Daily Leader).

As stated in the workplan, the recovery well will be installed to about 25 feet below the present water table, about 115 feet below ground surface. A well construction diagram is included in the workplan and also attached to this application. To remove the free product and groundwater containing dissolved hydrocarbons, a submersible total fluids pump will be installed in the 4-inch diameter recovery well. The conveyance line for the total fluids will contain a shut-off valve, totalizing meter, flow rate meter, and sampling port. Groundwater withdrawal volumes will be submitted to the State Engineer Office on a quarterly basis as per current requirements.

The recovery well pump rate will be adjusted as necessary to assure hydrocarbon plume capture, but will not likely exceed 20 gallons per minute. The recovered water will replace water currently supplied by two registered on-

site process water supply wells. The recovered water will be utilized in the desalting system as make-up water for crude oil washing purposes. Therefore, there will be no net increase in total groundwater withdrawal as a result of the proposed recovery operations. After leaving the desalter system, the water undergoes additional treatment (product separation and volatile stripping) prior to being released into the City of Lovington publicly owned treatment works along with site discharge water.

Upon completion of the groundwater remediation project, which is expected to take approximately two years, the recovery well will be properly plugged. If you have any questions, please call me at 915-682-0008.

Sincerely,
Geoscience Consultants, Ltd.

Gilbert J. Van Deventer, REM
Project Hydrogeologist

GJV/cat

cc: David Griffin - NRC (Artesia)
Bill Olson - OCD (Sante Fe)
Jerry Sexton - OCD (Hobbs)
Bob Carter - City Manager of Lovington, NM

GCL
Environmental Science and Engineering
A BDM International Company

ENGINEERING CALCULATION

Sheet 1 of 1
Date 3-29-96
By GJV
File

NAVAJO REFINING COMPANY - LOVINGTON REFINERY

1 cm²—0 1550 in²
1 in²—6.452 cm²
1m²—10.764 ft²
1 ft²—929.0 cm²

1 acre—43,560 ft²
—4049 m²

1 hectare—10.000 m²
—2.471 acres

1 mi²—2.590 km²
—640 acres

Volume

1 m³—1000 liters
—35.314 ft³
—264 gal (U.S.)

1 ft³—28.320 liters
—7 481 gal (U.S.)

1 gal—3.785 liters

1 acre foot—43.560 ft³
—3.259 × 10⁵ gal
—1234 m³

Discharge

1ft³/min—0.472 liters/sec
1 acre foot/day
—3.259 × 10⁵ gal/day
1 ft³/sec—448.8 gal/min
—724 acre feet/year

Density

Water 1.000 g/cm³ at 4°C
0 998 g/cm³ at 20°C
Sea water 1.025 g/cm³ at 15°C
Mercury 13.55 g/cm³ at 20°C
Air 1.29 × 10⁻³ g/cm³ at 20°C and atmospheric pressure

Specific weight water in air

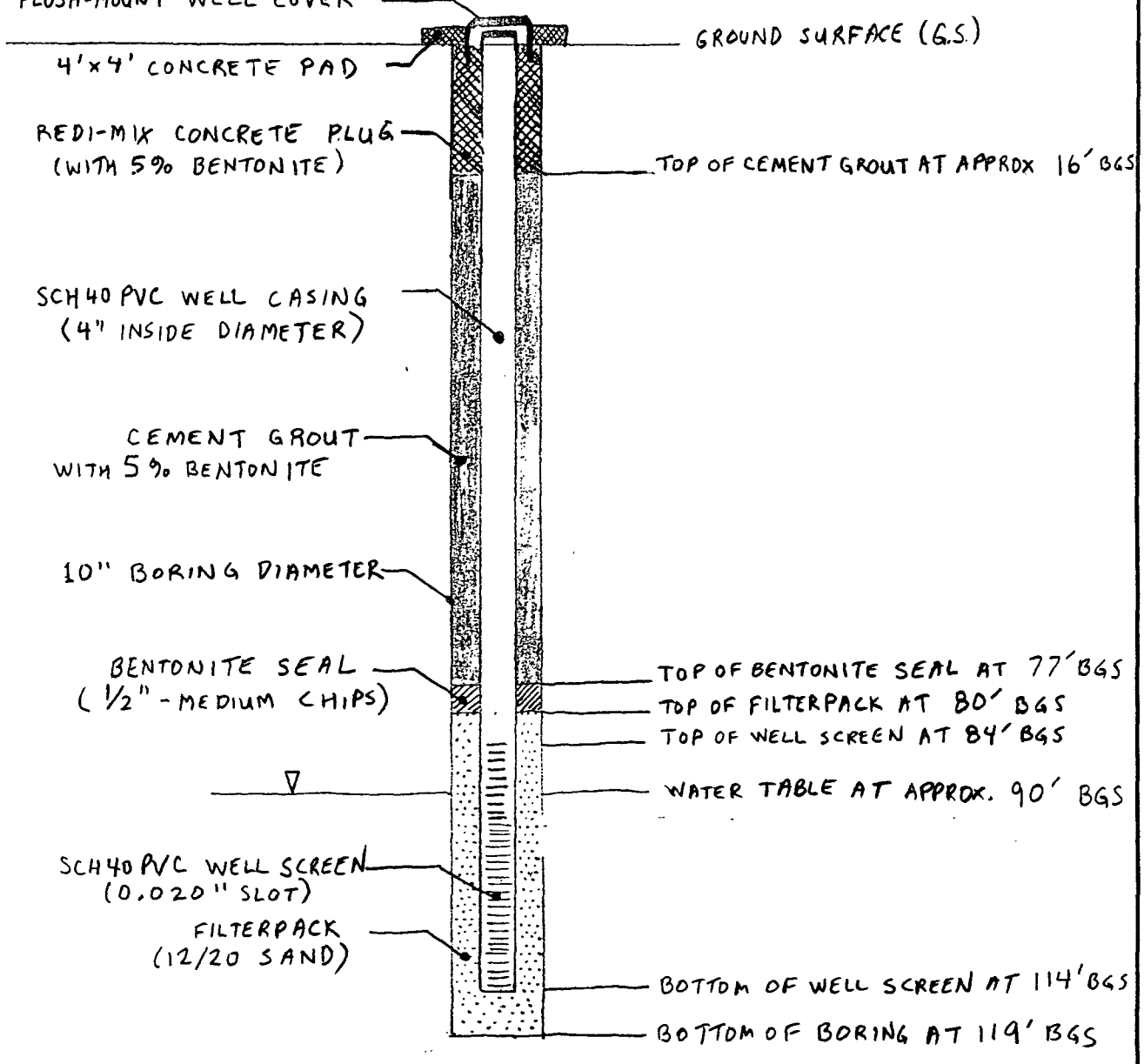
8.335 lb/gal at 0°C
8.328 lb/gal at 60° F
8.322 lb/gal at 20° C
62.18 lb/ft³ at 60° F

Pressure

1 bar—0 9869 atmosphere
—10⁶ dynes/cm²
—14.50 lb/in²

pressure developed from static liquid
1 cm mercury
—0 01316 atmosphere
1 ft water
—0.02950 atmosphere
33.90 ft water
—1 00 atmosphere

WELL CONSTRUCTION DIAGRAM FOR RECOVERY WELL (RW-1)



IMPORTANT—READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM

APPLICATION FOR PERMIT

Supplement
To ~~Appropriate~~ the Underground Waters of the State of New Mexico

Date Received _____ File No. _____

1. Name of applicant Navajo Refining Company
   Mailing address 501 East Main Street
   City and State Artesia, New Mexico 88211
2. Source of water supply Shallow Water Aquifer located in Lea County Basin
   (artesian or shallow water aquifer) (name of underground basin)
3. The well is to be located in the ___ ¼ SE ¼ NE ¼, Section ___ Township 16S
   Range 36E N.M.P.M., or Tract No. ___ of Map No. ___ of the ___ District,
   on land owned by Navajo Refining Company (Leasee) City of Lovington (Owner).
4. Description of well: name of driller Pool Environmental Drilling, Inc.;
   Outside Diameter of casing 4-1/2" inches; Approximate depth to be drilled 115 feet;
5. Quantity of water to be appropriated and beneficially used 35 acre feet,
   (consumptive use, diversion)
   for ground water remediation (industrial) purposes.
6. Acreage to be irrigated or place of use Not applicable acres.

Subdivision	Section	Township	Range	Acres	Owner

7. Additional statements or explanations The proposed recovery well will be used for the purpose of groundwater recovery to aid in pollution control. The recovery well pump rate will be adjusted as necessary to assure hydrocarbon plume capture, but will not likely exceed 20 gallons per minute. The recovered water will replace water currently supplied by a water well owned by the City of Lovington and, as such, will be utilized in the desalting system as make-up water for crude oil washing purposes; therefore, there will be no net increase in total groundwater withdrawal as a result of the proposed recovery operations. After leaving the desalter system, the water stream undergoes additional treatment (product separation, volatile stripping, steam heating, etc.) prior to being released into the City of Lovington publicly owned treatment works along with site discharge water.

I, David G. Griffin, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Navajo Refining Co., Permittee,

By: David G. Griffin.

Subscribed and sworn to before me this 27 day of March, A.D. 19 96.

My commission expires September 16, 1998

Notary Public

Number of this permit _____

ACTION OF STATE ENGINEER

After notice pursuant to statute and by authority vested in me, this application is approved provided it is not exercised to the detriment of any others having existing rights; further provided that all rules and regulations of the State Engineer pertaining to the drilling of _____ wells be complied with; and further subject to the following conditions: _____

Proof of completion of well shall be filed on or before _____, 19____

Proof of application of water to beneficial use shall be filed on or before _____, 19____

Witness my hand and seal this _____ day of _____, A.D., 19____.

S. E. Reynolds, State Engineer

By: _____.

INSTRUCTIONS

This form shall be executed, preferably typewritten, in triplicate and shall be accompanied by a filing fee of $5.00. Each of triplicate copies must be properly signed and attested.

A separate application for permit must be filed for each well used.

Secs. 1–4—Fill out all blanks fully and accurately.

Sec. 5—Irrigation use shall be stated in acre feet of water per acre per annum to be applied on the land. If for municipal or other purposes, state total quantity in acre feet to be used annually.

Sec. 6—Describe only the lands to be irrigated or where water will be used. If on unsurveyed lands describe by legal subdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily located natural object.

Sec. 7—If lands are irrigated from any other source, explain in this section. Give any other data necessary to fully describe water right sought.

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

March 18, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-765-962-558

Mr. David G. Griffin
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: GROUND WATER CONTAMINATION INVESTIGATION/REMEDIATION
LOVINGTON REFINERY
LEA, COUNTY, NEW MEXICO

Dear Mr. Griffin:

The New Mexico Oil Conservation Division (OCD) has completed a review of Navajo Refinery's December 14, 1995 "WORK PLAN FOR SOIL AND GROUND WATER REMEDIATION AT THE LOVINGTON REFINERY, NAVAJO REFINING COMPANY, LEA COUNTY, NEW MEXICO" and February 9, 1996 "REVISED WORK PLAN FOR THE LOVINGTON REFINERY GROUNDWATER REMEDIATION PROJECT". These documents contain Navajo's plan for remediation and additional investigation of contaminated ground water at Navajo's Lovington Refinery.

The above referenced work plan is approved with the following conditions:

1. All monitor wells, recovery wells and vapor extraction wells will be sealed from the bentonite plug to the surface with cement grout containing 5% bentonite.

2. Each monitor well and recovery well will be developed upon completion using EPA approved procedures.

3. Navajo will sample ground water from all monitor wells during the initial sampling event. Ground water from all monitor wells will be sampled and analyzed for concentrations of aromatic and halogenated volatile organics, total dissolved solids (TDS), major cations and anions, heavy metals and polynuclear aromatic hydrocarbons using EPA approved methods.

4. The OCD defers approval of the long term ground water monitoring plan until the OCD has reviewed a comprehensive ground water investigation report.

5. Navajo will submit a comprehensive report on all soil and ground water investigations to OCD by July 1, 1996 which will contain:

   a. A description of all activities which occurred during all past and present investigations, conclusions and recommendations. The recommendations should include a proposed long term ground monitoring program based upon the investigation results.

   b. A summary of all past and present laboratory analytic results of water quality and soil sampling and the laboratory analyses. The summary will include tables for each monitor well which will list all past and present sampling results.

   c. Ground water isoconcentration maps for contaminants of concern (ie. TDS, chloride, benzene, metals).

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

   e. A geologic log and as built well completion diagram for all past and present monitor wells and soil borings.

6. Navajo will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

7. All documents will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve Navajo of liability should the investigation activities determine that contamination exists which is beyond the scope of the work plan, if the activities fail to adequately determine the extent of contamination related to Navajo's activities, or if the remedial action plan fails to adequately remediate contamination related to Navajo's activities. In addition, OCD approval does not relieve Navajo of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price , OCD Hobbs Office
Bernard Lauctes, Geoscience Consultants, Ltd.

GCL
Environmental Science and Engineering
A BDM International Company

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

February 9, 1996

Bill Olsen
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: REVISED WORK PLAN FOR THE LOVINGTON REFINERY GROUNDWATER REMEDIATION PROJECT

Dear Mr. Olsen:

I have enclosed the final version of the work plan to remediate groundwater at the Lovington Refinery. Changes were made based on your comments. If you have any further questions or changes, please call David Griffin of the Navajo Refining Company at (505) 748-3311 or me at (505) 842-0001 after February 19, as I am on vacation from February 12 to 19. If everything goes as planned, we can be drilling in March, with the system coming on-line probably in early April.

Sincerely,
Geoscience Consultants, Ltd. (GCL)

Bernard A. Lauctes, PE
Senior Engineer

cc: David Griffin, Navajo Refining Company

/2033/OLSEN1.LTR

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 0845	Date 1/26/96

Originating Party	Other Parties
Bill Olson - Envir. Bureau	Dave Griffen - Navajo

Subject

Lovington Refinery GW Remediation Work Plan

Discussion

Work plan is missing - Monitor well & vapor extraction well proposed construction
- Map showing locations of proposed monitor wells

OCD would also like to see a comprehensive report on investigations, but can wait until this phase of work is complete

Conclusions or Agreements

He will get well construction info and proposed location map ASAP

Distribution

Signed Bill Olson

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

December 14, 1995

Mr. William C. Olson, Hydrogeologist
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division - Environmental Bureau
2040 South Pacheco
Santa Fe, NM 87502

RE: Work Plan for Soil and Groundwater Remediation at the Lovington Refinery, Navajo Refining Company, Lea County, New Mexico

Dear Mr. Olson:

Attached is a copy of the work plan entitled *Work Plan for Soil and Groundwater Remediation at the Navajo Refining Company Lovington Refinery* (dated December 12, 1995). The purpose of the work plan is to present our proposed approach to remediate petroleum hydrocarbons from soil and groundwater at the site. The goal of the remedial design is to aggressively remediate the source while allowing the remainder to undergo natural processes (intrinsic bioremediation, adsorption, and volatilization).

The remedial response includes the following:

- Source removal of phase-separated hydrocarbons and groundwater at the source using a total fluids submersible pump.
- Air sparging/vapor extraction system to remediate groundwater with total benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations of 1,000 parts per billion (ppb) or greater.
- Installation of additional monitoring wells to finalize plume delineation and provide performance monitoring points for the remedial design.
- Submission of a system installation/startup report, quarterly reports, and an annual report.

If you have any questions or concerns regarding this project, please advise. I can be reached at (505) 748-3311.

Sincerely,

David G. Griffin
Manager of Environmental
Affairs for Water & Waste

DGG/sj

cc: NM Oil Conservation Division, Hobbs
Bob Carter, City Manager, Lovington, New Mexico
Gilbert J. Van Deventer, GCL, Midland
Bernard A. Lauctes, GCL, Albuquerque

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET ◦ P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

October 17, 1995

Bill Olson
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

Dear Bill,

This letter is sent to verify our conversation of October 12, 1995 at Lea Refining concerning the weekly reports on our leak in the oil/water separator. Per your suggestion, we are discontinuing these reports. As we discussed, once we decide on a contractor to do the remediation, a plan will be submitted as to the scope of their proposed work. If you have any questions concerning this matter please call me at 505-748-3311. Thank you for your time.

Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore

Darrell Moore
Sr. Environmental Specialist

cc: Jerry Sexton Hobbs-OCD
Bob Carter City of Lovington

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	11:00 AM	11-22-96

Originating Party	Other Parties
DAVE GRIFFIN - NAVAJO	ROGER ANDERSON, PAT SANCHEZ, MARK ASHLEY

Subject DISCHARGE PLAN RENEWALS FOR ARTESIA & LOVINGTON

Discussion NAVAJO WANTS TO PROPOSE ALTERNATIVES TO CONDITIONS #3, 4, 8, & DISPOSAL OF CONSTRUCTION TRASH. THEY ALSO WANT TO EXTEND THEIR RESPONSE TIME FOR APPROVAL FROM 5 DAYS TO 10 DAYS.

Conclusions or Agreements THE OCD ASKED NAVAJO TO SUBMIT ALTERNATIVES, AND THE OCD ALLOWED AN EXTENSION FOR SUBMITTAL OF THE SIGNED CONDITIONS.

Distribution xc: FILE, PAT SANCHEZ, ROGER ANDERSON

Signed Mark Ashley

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 18, 1995

Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: SEPARATOR LEAK AT NAVAJO'S LEA REFINERY, LEA COUNTY, NM

Dear Mark,

This letter is sent to update you on our progress for the week of September 11-15, 1995. We drilled a total of four borings to the water table. These are borings 6,8,9,and 10 on the attached map. The results of borings 4-9 are enclosed. Boring #3 has been sampled but results are not available yet. Borings #1 and #2 did not go to the water table. In addition to the 5 monitor wells that were installed initially, we turned two other borings (#7 and #10) into monitor wells.

To get you up to date, MW-1 and MW-7 are the only holes that have found free product on the water table. We pumped 110 gallons of fluid out of MW-1 on September 8, 1995, and by September 11, 1995 we had over 6' of product in the well again. MW-7 had .5' of product in it on September 14, 1995. We have not had a chance as yet to develop this well. No other boring or monitor well has had free product. As you can see by the enclosed results, the dissolved phase of the plume is located between borings 4 and 8 to the south and between borings 5 and 9 to the south east.

Further investigation will be done to the west of MW-7 since that well had free product. Pool Drilling, who is doing the work for us, had to start work on another project September 18, 1995. However, as soon as they are free, we will continue our work at Lovington. That should be about the first of October.

In the mean time, we are discussing inserting pumps in MW-1 and 7 and pumping as much product as we can. Further remediation will be discussed in the near future and implemented. If there are any questions, concerning this report, please call me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
NAVAJO REFINING CO.

Darrell Moore

Darrell Moore
Sr. Env. Spec.

Encl.

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 06, 1995
Receiving Date: 09/01/95
Sample Type: Water
Project No: NA
Project Location: Lovington & Artesia, NM

Prep Date: 09/05/95
Analysis Date: 09/05/95
Sampling Date: 08/31/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	MTBE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL-BENZENE (ug/L)	M,P,O XYLENE (ug/L)	TOTAL BTEX (ug/L)
T40649	Lea Refining Boring 4	<1	74	21	39	19	153
QC	Quality Control	99	105	103	99	296	
Reporting Limit		1	1	1	1	1	
RPD		5	3	2	2	3	
% Extraction Accuracy		123	110	101	99	93	
% Instrument Accuracy		99	105	103	99	99	

METHODS: EPA SW 846-5030, 8020.
BTEX SPIKE AND QC: 100 ug/L BTEX.

BS

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-6-95
Date

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/09/95
Analysis Date: 09/09/95
Sampling Date: 09/05, 07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL-BENZENE (ug/L)	M,P,O XYLENE (ug/L)	TOTAL BTEX (ug/L)
T40892	Lea Refining Boring #7 (MW-6)	1,741	21	962	972	3,696
T40893	Lea Refining Boring #5	41	<1	<1	<1	41
T40894	Lea Refining Boring #6	583	30	87	108	808
QC	Quality Control	93	94	96	289	
Reporting Limit		1	1	1	1	
RPD		3	4	7	4	
% Extraction Accuracy		92	93	94	95	
% Instrument Accuracy		93	94	96	96	

METHODS: EPA SW 846-5030, 8020.
BTEX SPIKE AND QC: 100 ug/L BTEX.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
Date

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/12/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

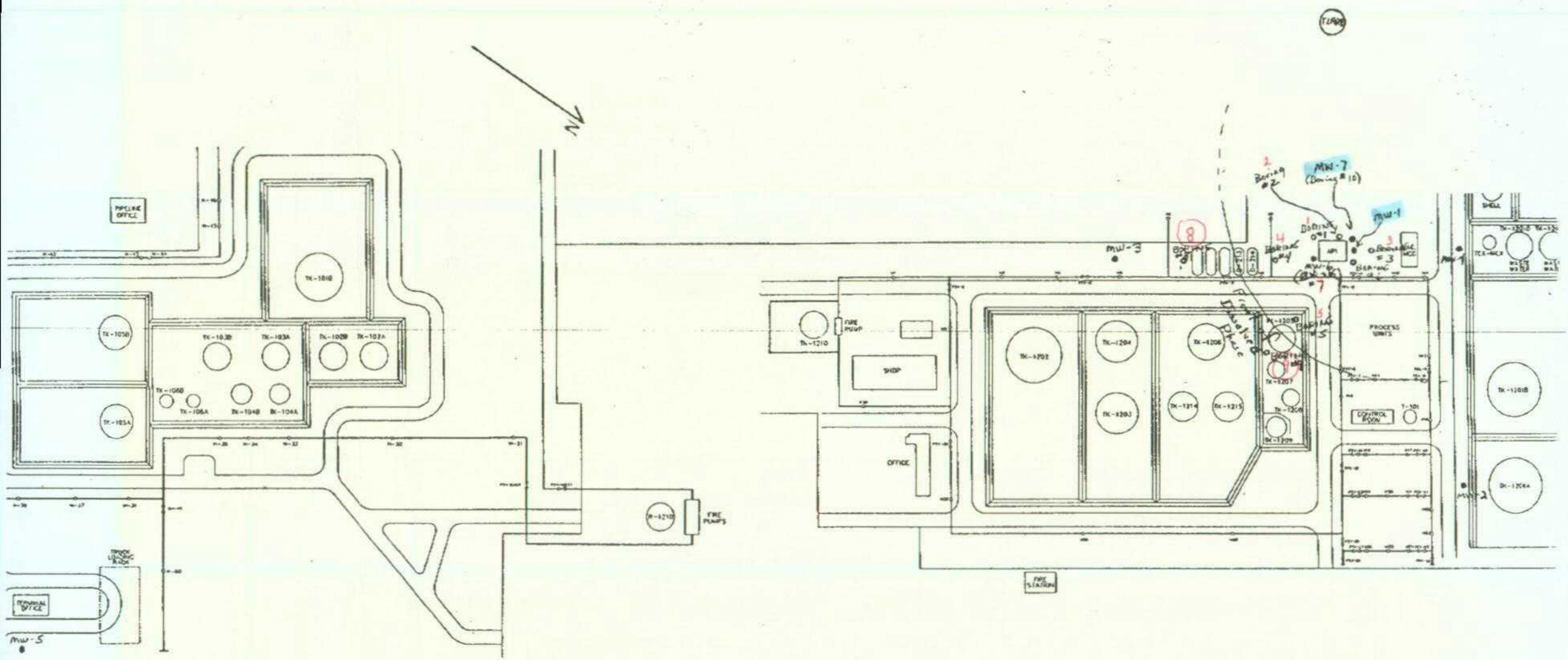
Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: 09/11/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL-BENZENE (ug/L)	M,P,O XYLENE (ug/L)	TOTAL BTEX (ug/L)
741113	Lea Refining Boring #8	<1	<1	<1	<1	<1
741119	Lea Refining Boring #9	<1	<1	<1	<1	<1
QC	Quality Control	103	101	108	310	
Reporting Limit		1	1	1	1	
RPD		9	3	0	1	
% Extraction Accuracy		107	106	109	107	
% Instrument Accuracy		103	101	108	103	

METHODS: EPA SW 846-5030, 8020.
BTEX SPIKE AND QC: 100 ug/L BTEX.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

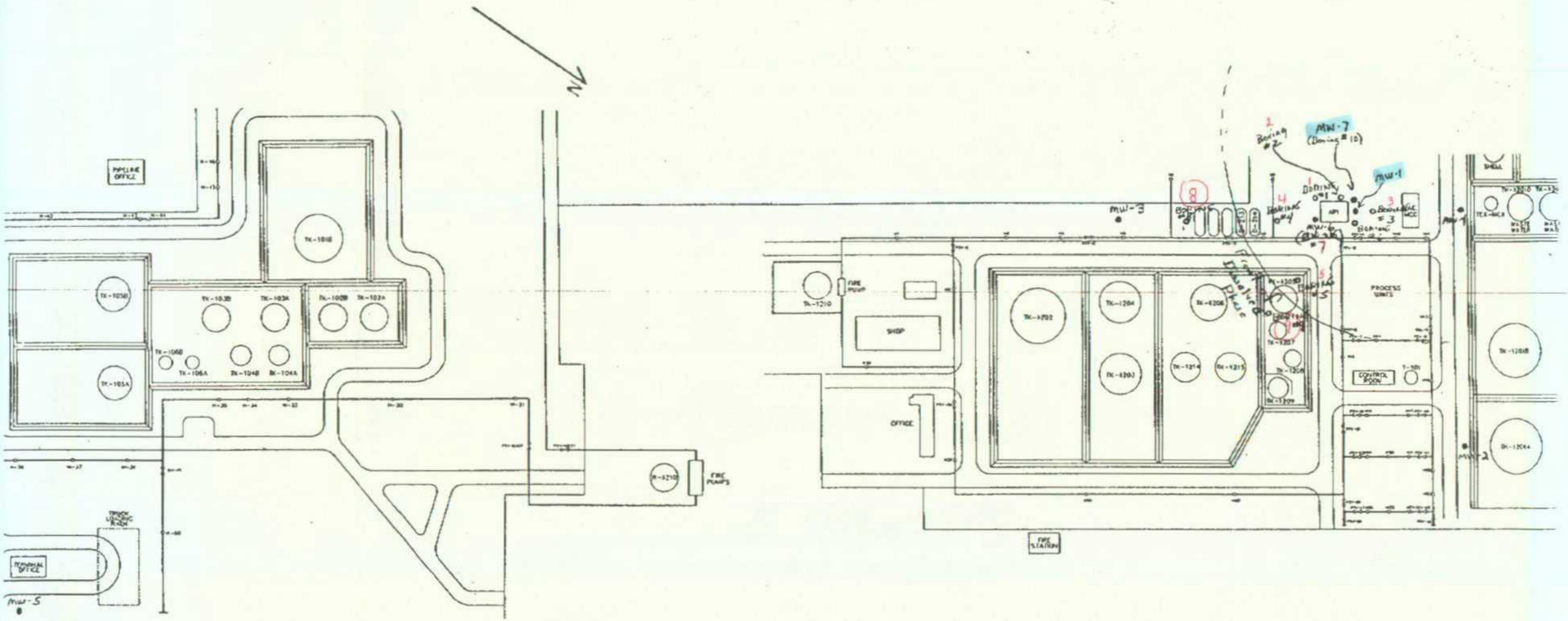


FREE PRODUCT

CORRIDOR TO WATER TABLE

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

7/18/94



FREE PRODUCT

BOUNDARY TO WATER TABLE

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

-	-	-
DATE	APPR. BY	DRAWING NUMBER
7/18/94	-	-

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #: 505-748-3311
FAX #: 505-748-9077

Company Name & Address: Navajo Refining Co.

Project #:
Project Name:

Project Location: Artesia & Lovington, NM
Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	Metals (Same as RO Reject) Method 6Z4 incl. CBTEX + Hydrocarbons	General H2O Chemistry	PAH's by 625
40890	RA-4798	2	40ml	X						X		9/6/95	5:30	X											
91	Lea Refining MW-5	5		X					(1) X	(all) X	(4) X	9/7/95	11:52										X	X	X	X
92	Lea Refining Boring #7	2	40ml	X						X		"	13:00	X												
93	Lea Refining Boring #5	2	40ml	X						X		"	11:00	X												
94	" " " " #6	2	40ml	X						X		9/5/95	19:00	X												
95	" " " MW-2	5		X					(1) X	(all) X	(4) X	9/7/95	14:06										X	X	X	X

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

See List

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Moore	9/7/95	14:30			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: MS CI	Date: 9-8-95	Time:

REMARKS: Lea Refining Boring #6 was kept refrigerated from 9/5/95.

251AB

251AB

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 25, 1995

Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: SEPARATOR LEAK AT NAVAJO'S LEA REFINERY, LEA COUNTY, NM

Dear Mark,

This letter is sent to update you on our progress for the week of September 18-22, 1995. We have scheduled meetings on October 2-3, 1995 with Groundwater Technology, KWBrown, and H+GCL for them to submit proposals to us on re mediating the spill. Once their proposals are in, we will select one of them to start the remediation phase.

On the drilling front, we will probably hold off on that until a consultant is selected. This will allow them to determine if and where any additional borings are needed. We feel at this time, we have the plume pretty well delineated.

If there are any questions concerning this letter, please call me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
NAVAJO REFINING CO.

Darrell Moore

Darrell Moore
Sr. Env. Spec.

Encl.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 6, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-846

Mr. Phillip Youngblood
Navajo Refining Company
P. O. Drawer 159
Artesia, New Mexico 88211-0159

Re: Inspection Report
Artesia and Lovington Refineries

Dear Mr. Youngblood:

The New Mexico Oil Conservation Division (OCD) would like to thank you and your staff for your cooperation during the July 29, 1996 to August 1, 1996 inspections of the Artesia and Lovington refineries. Comments from the inspections conducted are as follows:

1. Drum Storage: All drums that contain 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 and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad with curbing.

   Artesia Refinery
   Numerous empty drums, and drums containing fluids were located throughout the refinery that were not properly stored (see pictures 1-15, 1-16,1-20, 2-4, 2-5 and 2-6).

2. Process Area: 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.

   Artesia Refinery
   Pump 104 show evidence of hydrocarbons reaching the ground surface (see picture 1-23).

   Wastes generated at the steam cleaner area are not being completely contained within the existing pad and curb containment (see picture 2-2).

Lovington Refinery
The crude off-loading area shows evidence that leaks and spills are reaching the ground surface (see picture 2-22).

3. 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.

Artesia Refinery
The diesel storage tank in picture 1-2 does not appear to have the required containment.

Lovington Refinery
The waste water skimmer tank does not appear to proper berming and containment (see picture 2-24).

4. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable type pad and curb containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

Artesia Refinery
The above ground saddle tanks located in pictures 1-10, 1-16, 1-22 and 2-15 do not appear to have proper pad and curb containment.

Lovington Refinery
The above ground saddle tank located in picture 2-23 does not appear to have proper pad and curb containment.

5. Labeling: All drums, tanks and containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.

Artesia Refinery
Numerous containers were located throughout the refinery do not appear to be properly labeled (see pictures 1-3, 1-11, 1-15, 1-20, 1-22 and 2-15).

Lovington Refinery
Containers located in pictures 2-23 and 2-24 do not appear to be properly labeled.

6. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade

tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps.

Artesia Refinery
Sumps in pictures 1-1, 1-6, 1-8, 1-10 and 1-14 do not appear to have secondary containment. What is Navajo's schedule for inspection of sumps. Please respond to the OCD by September 30, 1996.

What is the status of the pit/sump in picture 1-21? Is it going to be closed? Please respond to the OCD by September 30, 1996.

What is the status of the asphalt API separator in picture 1-13? Please respond to the OCD by September 30, 1996.

Lovington Refinery
The pipeline terminal sump does not appear to have secondary containment (see picture 2-19).

7. Underground Process/Wastewater Lines: All underground process/wastewater lines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD.

   Navajo is in the process of testing and repairing/replacing all below grade lines at both refineries.

8. Housekeeping: All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.

9. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the appropriate OCD District Office.

10. Lead Contamination: At the Artesia refinery, signs indicating lead contamination are present between tanks 417 and 418. What is the purpose of these signs? Is lead contamination present beneath these signs? Please respond to the OCD by September 30, 1996.

Sample results from OCD sampling of both refineries is enclosed for your review. Please submit Navajo's sample results to the OCD by September 30, 1996.

Once again, thank you for your time during our recent visit to Navajo's refineries. If you have any questions, please call me at (505) 827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Artesia Office

City of Lovington

Phone 505/396-2884 P. O. Box 1268
LOVINGTON, NEW MEXICO 88260

FAX 505/396-6328

TELECOPY COVER SHEET
FAX 505-396-6328

DATE 9-5-95

TIME 3:10

PLEASE DELIVER THE FOLLOWING TO:

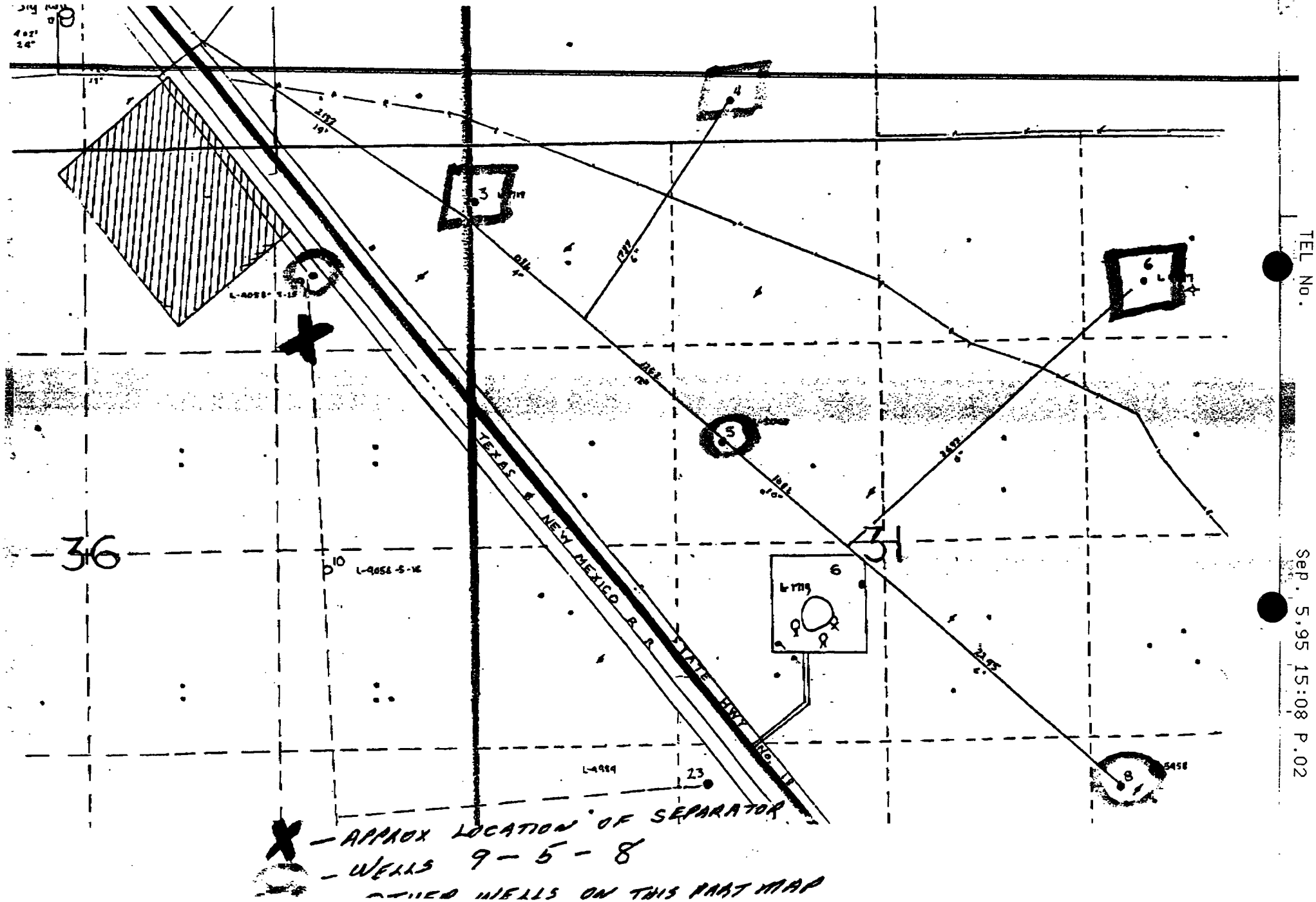
MARK ASHLEY TELECOPY NUMBER 827-6177

FROM: CHARLES KELLY

NUMBER OF PAGES INCLUDING COVER SHEET: 12

IF ALL PAGES WERE NOT RECEIVED OR IF ANY MATERIAL CANNOT BE READ, CONTACT BOB CARTER OR JUANICE ROBINSON AT 505-396-2884.

REMARKS:



– APPROX LOCATION OF SEPARATOR
– WELLS 9 – 5 – 8
– OTHER WELLS ON THIS PLAT MAP

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 23, 1994

Request ID No. 078564

ANALYTICAL REPORT
SLD Accession No. OR-94-2789

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A water sample submitted to this laboratory on August 25, 1994**

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
Myra Meyers
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 23-Aug-94 *By:* Dre . . .
At: 14:30 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #5 Source #004 EP#
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Note	POL	Units
SDWA VOC's-I (63)	0.00	N	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
PQL = Practical Quantitation Level.
A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.
Evidentiary Seals: Not Sealed [x]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-94-2789

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

February 24, 1995

Request ID No. 053832

ANALYTICAL REPORT
SLD Accession No. OR-95-0592

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supply
PO Box 1268
Lovingtion, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on January 26, 1995

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 24-Jan-95 *By:* Jac . . .
At: 13:30 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #5 Source #004

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	MDL	Units
SDWA VOC's-I	0.00	U	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [x]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-0592
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 057
Level: (low/med) Low Date Received: 1/26/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 1/31/95

(Continued on page 2.)

STATE OF NEW MEXICO — DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 — 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 — [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 23, 1994

Request ID No. 078573

ANALYTICAL REPORT
SLD Accession No. OR-94-2787

Distribution
(X) User 55000
(X) Submitter 68
(X) Client
(X) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovingtion, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A water sample submitted to this laboratory on August 25, 1994**

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
Myra Meyers
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 23-Aug-94 *By:* Dre . . .
At: 15:15 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #8 Source #007 EP#
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Note	POL	Units
Halogenated Volatiles (42)	0.00	N	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
PQL = Practical Quantitation Level.
A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.
Evidentiary Seals: Not Sealed [X]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:
A possible trace of Benzene at 0.2 ppb was detected by the photoionization detector.

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-94-2787

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

February 24, 1995

Request ID No. 053838

ANALYTICAL REPORT
SLD Accession No. OR-95-0595

Distribution
(x) User 55000
(x) Submitter 68
(X) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water,Purgeable sample submitted to this laboratory on January 26, 1995

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 24-Jan-95 *By:* Jac . . .
At: 14:10 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #8 Source #007
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	MDL	Units
Halogenated Volatiles	0.00	U	0.50	ppb
Benzene	0.90		0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [✓]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-0595
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 057
Level: (low/med) Low Date Received: 1/26/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

May 8, 1995

Request ID No. 102321

ANALYTICAL REPORT
SLD Accession No. OR-95-1953

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supply
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on April 20, 1995

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 18-Apr-95 *By:* Bye . . .
At: 13:50 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #8
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	POL	Units
Halogenated Volatiles	0.00	U	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [x]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:
A possible trace of benzene was observed at 0.3 ppb.

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-1953
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 206
Level: (low/med) Low Date Received: 4/20/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 4/27/95

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 23, 1994

ANALYTICAL REPORT
SLD Accession No. OR-94-2780

Request ID No. 078586

Distribution
(x) User 55000
(x) Submitter 68
(X) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water sample submitted to this laboratory on August 25, 1994

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
Myra Meyers
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 23-Aug-94 *By:* Dre . . .
At: 15:45 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #9 Source #008 EP#
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Note	PQL	Units
Halogenated Volatiles (42)	0.00	N	0.50	ppb
Benzene	0.70		0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
PQL = Practical Quantitation Level.
A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.
Evidentiary Seals: Not Sealed [ ], Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-94-2780

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH

SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

October 27, 1994

Requested Priority 2
ID No. 086166

ANALYTICAL REPORT
SLD Accession No. OR-94-3421

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Attn: Bill Drewry
City of Lovington
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water,Purgeable sample submitted to this laboratory on October 25, 1994

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
Myra Meyers
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 24-Oct-94 *By:* Dre . . .
At: 10:30 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well 9
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	MDL	Units
Halogenated Volatiles (42)	0.00	N	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [X]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:
A possible trace of benzene was observed on the photoionization detector at approximately 0.3 ppb.

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-94- 3421

Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 485
Level: (low/med) Low Date Received: 10/25/94

(Continued on page 2.)

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: City of Lovington
Address: P.O. Box 1268
City, State: Lovington, NM 88261

Date: 10/24/94
Lab #: H1835

Project Name: not given
Location: Well #9
Sampled by: BL Date: 10/21/94 Time: 1:30
Analyzed by: MF Date: 10/24/94 Time: 10:25
Sample Type: Water Sample Condition: Intact Units: mg/l

Samp #	Field Code	BENZENE
1	Well #9	<0.001
	QC Recovery	0.959
	QC Spike	0.881
	Accuracy	108.8%
	Air Blank	<0.001

Methods - GAS CHROMOTOGRAPHY
- EPA SW-846, 8020

Michael R. Fowler

10/25/94
Date

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

February 24, 1995

Request ID No. 117140

ANALYTICAL REPORT
SLD Accession No. OR-95-0588

Distribution
(x) User 55000
(x) Submitter 68
(X) Client
(x) SLD Files

To: Bill Drewry
City of Lovington
PO Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on January 26, 1995

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 24-Jan-95 *By:* Jac . . .
At: 13:00 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well 9

ANALYTICAL RESULTS: SDWA_VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	MDL	Units
Halogenated Volatiles	0.00	U	0.50	ppb

See Laboratory Remarks for Additional Information

Notation & Comments:
Evidentiary Seals: Not Sealed [X]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:
A possible trace of benzene was observed at 0.4 ppb.

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-0588
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 057
Level: (low/med) Low Date Received: 1/26/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 2/1/95

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

February 24, 1995

Request ID No. 117000

ANALYTICAL REPORT
SLD Accession No. OR-95-0596

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A water,Purgeable sample submitted to this laboratory on January 26, 1995**

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 24-Jan-95 *By:* Jac . . .
At: 14:30 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #9 Source #008
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	MDL	Units
Halogenated Volatiles	0.00	U	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [x]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:
A possible trace of benzene was detected at 0.3 ppb.

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-0596
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 057
Level: (low/med) Low Date Received: 1/26/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 1/31/95

(Continued on page 2.)

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

May 30, 1995

Request ID No. 102320

ANALYTICAL REPORT
SLD Accession No. OR-95-1868

Distribution
(x) User 55000
(x) Submitter 68
(x) Client
(x) SLD Files

To: Bill Drewry
Lovington Municipal Water Supp
P.O. Box 1268
Lovington, NM 88260

From: Organic Chemistry Section
Scientific Laboratory Division
700 Camino de Salud, NE
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: A water,Purgeable sample submitted to this laboratory on April 13, 1995

User:
Richard Asbury
Drinking Water Bureau
NM-ED Dist. #3 Office
1001 N. Solano Drive
Las Cruces, NM 88001

Submitter:
ED Field Office, Hobbs
Suite 165
726 E. Michigan Avenue
Hobbs, NM 88240

DEMOGRAPHIC DATA

COLLECTION
On: 11-Apr-95 *By:* Bye . . .
At: 14:00 hrs. *In/Near:* Lovington

LOCATION
WSS #: 218-13; Well #9
Lovington Municipal Water Supp

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	POL	Units
SDWA VOC's-I	0.00	U	0.50	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:
Evidentiary Seals: Not Sealed [Y]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

SAFE DRINKING WATER ACT
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water Lab Sample ID: OR-95-1868
Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 181
Level: (low/med) Low Date Received: 4/13/95
% Moisture: not dec. N/A dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 4/15/95
GPC Cleanup: (Y/N) No pH: 3 Dilution Factor: 1

(Continued on page 2.)

40642, 40648

42

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Phone #:

FAX #:

Company Name & Address: NAVAJO

Project #:

Project Name :

Project Location:

Sampler Signature:

ANALYSIS REQUEST

SPECIAL HANDLING

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
40648	Soil from Cleanup	1	L		✓												✓	✓	✓	✓		
49	Sea refining Boring 4	2	VOA	✓										✓								

SPECIAL HANDLING	
Turn around # of days	
Fax ASAP	
Hold	

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	Relinquished by:	Date:	Time:	Received at Laboratory by: MS CI	Date: 9-1-95	Time:

REMARKS

10-03-1995 08:16AM CRI/INLAND P.30

TOTAL P.30

TELEPHONE
(505) 748-3311

EASYLINK
62905078

NAVAJO REFINING COMPANY

601 EAST MAIN STREET • P O BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

October 6, 1995

Mark Ashley
Geologist
Environmental Bureau
Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, NM 87505-5472

RE: SEPARATOR LEAK AT NAVAJO'S LEA REFINERY, LEA COUNTY, NM

Dear Mark,

This letter is sent to update you on our progress on the leak at our Lovington refinery. We have had preliminary meetings on October 2-3, 1995 with Groundwater Technology, KWBrown, H+GCL, Re\Spec, and TriTechnics for them to submit proposals to us on re mediating the spill. Once their proposals are in, we will select one of them to start the remediation phase. Those proposals are to be submitted by October 11, 1995.

I have enclosed some additional analytical results from the monitor wells we drilled. You now have all the analytical that has been done on this spill up to this time. As you can see, none of the monitor wells, with the exception of MW-1, has been impacted by this release.

If there are any questions concerning this letter, please call me at 505-748-3311. Thank you for your time in this matter.

Sincerely,
NAVAJO REFINING CO.

Darrell Moore

Darrell Moore
Sr. Env. Spec.
cc: OCD - Hobbs, City of Lovington, Dave Griffin

Encl

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Artesia & Lovington, NM

Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

Prep Date: 09/11/95
Analysis Date: 09/11/95
Sampling Date: 09/7-8/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	FIELD CODE	TDS (mg/L)	NO3-N (mg/L)	pH (s.u.)	CHLORIDE (mg/L)	FLUORIDE (mg/L)	SULFATE (mg/L)	ALKALINITY (mg/L as CaCo3) HCO3	CO3	CONDUCTIVITY (uMHOS/cm)
T41049	Lea Refining MW-4	438	1.19	7.9	23	1.0	88	254	0	590
T41050	Lea Refining MW-3	454	2.54	7.8	35	1.0	93	223	0	618
T41051	Lea Refining MW-1	1,275	<0.15	7.5	509	1.2	<5	349	0	2,007
QC	Quality Control	---	1.04	7.0	489	1.0	10.0	---	---	1,427
RPD		2	2	0	2	2	8	2	2	0
% Extraction Accuracy		---	103	---	100	9	119	---	---	---
% Instrument Accuracy		---	102	100	98	10	98	---	---	100
REPORTING LIMIT		---	0.01	---	1	0.1	1	10	10	---

METHODS: EPA 375.4, 310.1, 340.2; 4500 Cl-B, 160.1, 150.1, 120.1, 350.3.
QC: 500 mg/L CHLORIDE; 1.0 mg/L FLUORIDE; 10.0 mg/L SULFATE.
NO3-N SPIKE: 4.33 mg/L as N. NO3-N QC: 1.0 mg/L as N.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
Date

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Artesia & Lovington, NM

Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

Prep Date: 09/19/95
Analysis Date: 09/19/95
Sampling Date: 09/7-8/95
Sample Condition: Intact & Cool
Sample Received by: McD
Project Name: NA

TA#	Field Code	POTASSIUM (mg/L)	MAGNESIUM (mg/L)	CALCIUM (mg/L)	SODIUM (mg/L)
T41049	Lea Refining MW-4	3.0	13.1	110	49.8
T41050	Lea Refining MW-3	2.9	13.5	108	58.7
T41051	Lea Refining MW-1	4.5	15.5	116	380.0
QC	Quality Control	3.66	3.74	18.87	20.26
Reporting Limit		0.3	0.1	0.01	0.40
RPD		2	4	4	4
% Extraction Accuracy		100	120	121	134
% Instrument Accuracy		92	93	94	101

METHODS: EPA 200.7.
QC: 4.0 mg/L POTASSIUM, MAGNESIUM; 20.0 mg/L CALCIUM, SODIUM.
SPIKE: 20.0 mg/L POTASSIUM; 200.0 mg/L MAGNESIUM, CALCIUM, SODIUM.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
Date

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Artesia & Lovington, NM

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

Prep Date: 09/14/95
Analysis Date: 09/14/95
Sampling Date: 09/7-8/95
Sample Condition: Intact & Cool
Sample Received by: McD
Project Name: NA

TOTAL METALS

TA#	FIELD CODE	As (mg/L)	Cr (mg/L)	Cd (mg/L)	Ba (mg/L)	U (mg/L)	Mo (mg/L)	Zn (mg/L)	Ni (mg/L)	Be (mg/L)	Fe (mg/L)	Mn (mg/L)
T41049	Lea Refining MW-4	0.2	<0.05	<0.02	0.11	<0.5	0.1	0.05	<0.2	<0.01	0.46	0.04
QC	Quality Control	5.3	1.98	5.2	2.0	4.9	1.98	1.9	1.8	1.97	1.86	1.95
REPORTING LIMIT		0.2	0.05	0.02	0.03	0.5	0.1	0.02	0.20	0.01	0.03	0.01
RPD		6	10	4	2	4	2	6	8	4	2	2
% Extraction Accuracy		68	82	98	92	110	86	93	76	88	86	87
% Instrument Accuracy		107	99	104	100	99	99	97	92	98	93	98

TA#	FIELD CODE	Co (mg/L)	V (mg/L)	Cu (mg/L)	Al (mg/L)	B (mg/L)	Hg (mg/L)	Se (mg/L)	Pb (mg/L)	Ag (mg/L)
T41049	Lea Refining MW-4	<0.03	<0.05	0.04	0.5	0.16	<0.001	<0.001	<0.001	<0.0001
QC	Quality Control	1.96	1.9	1.97	1.9	2.0	0.0049	0.045	0.02	0.030
REPORTING LIMIT		0.03	0.05	0.05	0.20	0.03	0.001	0.001	0.001	0.0001
RPD		4	2	2	8	0	6	0	6	0
% Extraction Accuracy		82	85	85	115	97	99	120	100	107
% Instrument Accuracy		98	93	99	97	99	99	98	80	120

METHODS: EPA 200.7, 239.2, 270.2, 272.2, 245.1.
QC: 2.0 mg/L As, Cr, Cd, Ba, Mo, Zn, Ni, Be, Fe, Mn, Cu; 8.0 mg/L Al, B, Co, V; 9.0 mg/L U; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.050 mg/L Se.
SPIKE: 2.0 mg/L As, Cr, Cd, Ba, U, Ni, Mn, V, Al, Mo, Zn, Be, Fe, Co, Cu; 1.0 mg/L B; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.020 mg/L Se.

BS
Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-29-95
DATE

EPA 624 Compounds (ug/L)	T41049 Lea Refining MW - 4	Reporting Limit
Dibromochloromethane	ND	1
Tetrachloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
m & p-Xylene	ND	1
Bromoform	ND	1
Styrene	ND	1
o-Xylene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
trans 1,4-Dichloro-2-butene	ND	5
cis 1,4-Dichloro-2-butene	ND	5
1,4-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,2-Dichlorobenzene	ND	2
Acetone	ND	100
Acetonitrile	ND	100
Acrolein	ND	5
MTBE	ND	1

SURROGATES	**% RECOVERY**
Dibromofluoromethane	104
Toluene-d8	103
4-Bromofluorobenzene	*84

ND = Not Detected

***NOTE: Surrogate out of limits.**

METHODS: EPA 624.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
800•784•1230
FAX 806•794•1298

ANALYTICAL RESULTS FOR
[illegible]
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: [illegible]
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: [illegible]
Sample Condition: [illegible]
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T41045 MW - 4	Detection Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	6
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	50
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	10
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2-Trichloroethane	ND	1
2-Hexanone	ND	50

6701 Aberdeen Avenue
Lubbock, Texas 79424
800•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/13/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MG
Project Name: NA

EPA 624 Compounds (ug/L)	T41049 Lea Refining MW - 4	Reporting Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	5
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans 1,2 Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	50
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloropropane	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	50
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2 Trichloroethane	ND	1
2-Hexanone	ND	50

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T41049 Lea Refining MW - 4	Reporting Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	5
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	50
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloropropane	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	50
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2-Trichloroethane	ND	1
2-Hexanone	ND	50

6701 Aberdeen Avenue
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806•794•1296
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ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Sample Condition: I & C
Sample Received by: MS
Project Name: NA
Location: Artesia & Lovington, NM
Sampling Date: 09/7-8/95
Extraction Date: 09/13/95
Analysis Date: 09/13/95

T41049
Lea

PAH Compounds (mg/L)	Reporting Limit	MW-4	QC	RPD	%EA	%IA
Naphthalene	0.001	ND				
Acenaphthylene	0.001	ND				
Acenaphthene	0.001	ND				
Fluorene	0.001	ND				
Phenanthrene	0.001	ND				
Anthracene	0.001	ND				
Fluoranthene	0.001	ND				
Pyrene	0.001	ND				
Benzo[a]anthracene	0.001	ND				
Chrysene	0.001	ND				
Benzo[b]fluoranthene	0.001	ND				
Benzo[k]fluoranthene	0.001	ND				
Benzo[a]pyrene	0.001	ND				
Indeno[1,2,3-cd]pyrene	0.001	ND				
Dibenz[a,h]anthracene	0.001	ND				
Benzo[g,h,i]perylene	0.001	ND				

*ND = Not Detected

	% RECOVERY
Nitrobenzene-d5 SURR	90
2-Fluorobiphenyl SURR	91
Terphenyl-d14 SURR	94

METHODS: EPA 625.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Artesia & Lovington, NM

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

Prep Date: 09/14/95
Analysis Date: 09/14/95
Sampling Date: 09/7-8/95
Sample Condition: Intact & Cool
Sample Received by: McD
Project Name: NA

TOTAL METALS

TA#	FIELD CODE	As (mg/L)	Cr (mg/L)	Cd (mg/L)	Ba (mg/L)	U (mg/L)	Mo (mg/L)	Zn (mg/L)	Ni (mg/L)	Be (mg/L)	Fe (mg/L)	Mn (mg/L)
T41050	Lea Refining MW-3	<0.2	<0.05	<0.02	0.10	<0.5	0.2	0.06	<0.2	<0.01	0.48	<0.01
QC	Quality Control	5.3	1.98	5.2	2.0	4.9	1.98	1.9	1.8	1.97	1.86	1.95
REPORTING LIMIT		0.2	0.05	0.02	0.03	0.5	0.1	0.02	0.20	0.01	0.03	0.01
RPD		6	10	4	2	4	2	6	8	4	2	2
% Extraction Accuracy		68	82	98	92	110	86	93	76	88	86	87
% Instrument Accuracy		107	99	104	100	99	99	97	92	98	93	98

TA#	FIELD CODE	Co (mg/L)	V (mg/L)	Cu (mg/L)	Al (mg/L)	B (mg/L)	Hg (mg/L)	Se (mg/L)	Pb (mg/L)	Ag (mg/L)
T41050	Lea Refining MW-3	<0.03	<0.05	<0.02	1.0	0.15	<0.001	0.003	<0.001	<0.0001
QC	Quality Control	1.96	1.9	1.97	1.9	2.0	0.0049	0.045	0.02	0.030
REPORTING LIMIT		0.03	0.05	0.05	0.20	0.03	0.001	0.001	0.001	0.0001
RPD		4	2	2	8	0	6	0	6	0
% Extraction Accuracy		82	85	85	115	97	99	120	100	107
% Instrument Accuracy		98	93	99	97	99	99	98	80	120

METHODS: EPA 200.7, 239.2, 270.2, 272.2, 245.1.
QC: 2.0 mg/L As, Cr, Cd, Ba, Mo, Zn, Ni, Be, Fe, Mn, Cu; 8.0 mg/L Al, B, Co, V; 9.0 mg/L U; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.050 mg/L Se.
SPIKE: 2.0 mg/L As, Cr, Cd, Ba, U, Ni, Mn, V, Al, Mo, Zn, Be, Fe, Co, Cu; 1.0 mg/L B; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.020 mg/L Se.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
DATE

EPA 624 Compounds (ug/L)	T41050 Lea Refining MW - 3	Reporting Limit
Dibromochloromethane	ND	1
Tetrachloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
m & p-Xylene	ND	1
Bromoform	ND	1
Styrene	ND	1
o-Xylene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
trans 1,4-Dichloro-2-butene	ND	5
cis 1,4-Dichloro-2-butene	ND	5
1,4-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,2-Dichlorobenzene	ND	2
Acetone	ND	100
Acetonitrile	ND	100
Acrolein	ND	5
MTBE	ND	1

SURROGATES	% RECOVERY
Dibromofluoromethane	104
Toluene-d8	102
4-Bromofluorobenzene	*82

ND = Not Detected

***NOTE: Surrogate out of limits.**

METHODS: EPA 624.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: 09/08/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T41050 Lea Refining MW - 3	Reporting Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	5
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	50
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloropropane	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	50
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2-Trichloroethane	ND	1
2-Hexanone	ND	50

6701 Aberdeen Avenue
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806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Sample Condition: I & C
Sample Received by: MS
Project Name: NA
Location: Artesia &
Lovington, NM
Sampling Date: 09/7-8/95
Extraction Date: 09/13/95
Analysis Date: 09/13/95

T41050
Lea

PAH Compounds (mg/L)	Reporting Limit	MW-3	QC	RPD	%EA	%IA
Naphthalene	0.001	ND				
Acenaphthylene	0.001	ND				
Acenaphthene	0.001	ND				
Fluorene	0.001	ND				
Phenanthrene	0.001	ND				
Anthracene	0.001	ND				
Fluoranthene	0.001	ND				
Pyrene	0.001	ND				
Benzo[a]anthracene	0.001	ND				
Chrysene	0.001	ND				
Benzo[b]fluoranthene	0.001	ND				
Benzo[k]fluoranthene	0.001	ND				
Benzo[a]pyrene	0.001	ND				
Indeno[1,2,3-cd]pyrene	0.001	ND				
Dibenz[a,h]anthracene	0.001	ND				
Benzo[g,h,i]perylene	0.001	ND				

*ND = Not Detected

	% RECOVERY
Nitrobenzene-d5 SURR	89
2-Fluorobiphenyl SURR	93
Terphenyl-d14 SURR	91

METHODS: EPA 625.

9-28-95

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Artesia & Lovington, NM

Prep Date: 09/14/95
Analysis Date: 09/14/95
Sampling Date: 09/7-8/95
Sample Condition: Intact & Cool
Sample Received by: MD
Project Name: NA

TOTAL METALS

TA#	FIELD CODE	As (mg/L)	Cr (mg/L)	Cd (mg/L)	Ba (mg/L)	U (mg/L)	Mo (mg/L)	Zn (mg/L)	Ni (mg/L)	Be (mg/L)	Fe (mg/L)	Mn (mg/L)
T41051	Lea Refining MW-1	0.5	<0.05	<0.02	2.12	<0.5	0.1	0.05	<0.2	<0.01	1.38	0.39
QC	Quality Control	5.3	1.98	5.2	2.0	4.9	1.98	1.9	1.8	1.97	1.86	1.95
REPORTING LIMIT		0.2	0.05	0.02	0.03	0.5	0.1	0.02	0.20	0.01	0.03	0.01
RPD		6	10	4	2	4	2	6	8	4	2	2
% Extraction Accuracy		68	82	98	92	110	86	93	76	88	86	87
% Instrument Accuracy		107	99	104	100	99	99	97	92	98	93	98

TA#	FIELD CODE	Co (mg/L)	V (mg/L)	Cu (mg/L)	Al (mg/L)	B (mg/L)	Hg (mg/L)	Se (mg/L)	Pb (mg/L)	Ag (mg/L)
T41051	Lea Refining MW-1	<0.03	<0.05	<0.02	1.2	0.66	<0.001	<0.001	<0.001	<0.0001
QC	Quality Control	1.96	1.9	1.97	1.9	2.0	0.0049	0.045	0.02	0.030
REPORTING LIMIT		0.03	0.05	0.05	0.20	0.03	0.001	0.001	0.001	0.0001
RPD		4	2	2	8	0	6	0	6	0
% Extraction Accuracy		82	85	85	115	97	99	120	100	107
% Instrument Accuracy		98	93	99	97	99	99	98	80	120

METHODS: EPA 200.7, 239.2, 270.2, 272.2, 245.1.
QC: 2.0 mg/L As, Cr, Cd, Ba, Mo, Zn, Ni, Be, Fe, Mn, Cu; 8.0 mg/L Al, B, Co, V; 9.0 mg/L U; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.050 mg/L Se.
SPIKE: 2.0 mg/L As, Cr, Cd, Ba, U, Ni, Mn, V, Al, Mo, Zn, Be, Fe, Co, Cu; 1.0 mg/L B; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.020 mg/L Se.

BE
Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/09/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/13/95
Analysis Date: 09/13/95
Sampling Date: 09/08/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T41051 Lea Refining MW - 1	Reporting Limit
Dichlorodifluoromethane	ND	50
Chloromethane	ND	50
Vinyl chloride	ND	50
Bromomethane	ND	250
Chloroethane	ND	50
Trichlorofluoromethane	ND	50
1,1-Dichloroethene	ND	50
Iodomethane	ND	250
Carbon disulfide	ND	50
Methylene chloride	ND	250
trans-1,2-Dichloroethene	ND	50
1,1-Dichloroethane	ND	50
Vinyl acetate	ND	50
2-Butanone	ND	2,500
Chloroform	ND	50
1,1,1-Trichloroethane	ND	50
1,2-Dichloroethane	ND	50
Benzene	650	50
Carbon Tetrachloride	ND	50
1,2-Dichloropropane	ND	50
Trichloroethene	ND	50
Bromodichloromethane	ND	50
cis-1,3-Dichloropropene	ND	50
4-Methyl-2-pentanone	ND	2,500
trans-1,3-Dichloropropene	ND	50
Toluene	453	50
1,1,2-Trichloroethane	ND	50
2-Hexanone	ND	2,500

EPA 624 Compounds (ug/L)	T41051 Lea Refining MW - 1	Reporting Limit
Dibromochloromethane	ND	50
Tetrachloroethene	ND	50
Chlorobenzene	ND	50
Ethylbenzene	268	50
m & p-Xylene	291	50
Bromoform	ND	50
Styrene	ND	50
o-Xylene	156	50
1,1,2,2-Tetrachloroethane	ND	50
trans 1,4-Dichloro-2-butene	ND	250
cis 1,4-Dichloro-2-butene	ND	250
1,4-Dichlorobenzene	ND	100
1,3-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100
Acetone	ND	5,000
Acetonitrile	ND	5,000
Acrolein	ND	250
MTBE	ND	50

SURROGATES	% RECOVERY
Dibromofluoromethane	100
Toluene-d8	102
4-Bromofluorobenzene	*83

ND = Not Detected

***NOTE: Surrogate out of limits.**

METHODS: EPA 624.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 28, 1995
Receiving Date: 09/09/95
Sample Type: Water
Sample Condition: I & C
Sample Received by: MS
Project Name: NA
Location: Artesia &
Lovington, NM
Sampling Date: 09/7-8/95
Extraction Date: 09/13/95
Analysis Date: 09/13/95

T41051
Lea

PAH Compounds (mg/L)	Reporting Limit	MW-1	QC	RPD	%EA	%IA
Naphthalene	0.01	0.094				
Acenaphthylene	0.01	ND				
Acenaphthene	0.01	ND				
Fluorene	0.01	0.010				
Phenanthrene	0.01	ND				
Anthracene	0.01	0.011				
Fluoranthene	0.01	ND				
Pyrene	0.01	ND				
Benzo[a]anthracene	0.01	ND				
Chrysene	0.01	ND				
Benzo[b]fluoranthene	0.01	ND				
Benzo[k]fluoranthene	0.01	ND				
Benzo[a]pyrene	0.01	ND				
Indeno[1,2,3-cd]pyrene	0.01	ND				
Dibenz[a,h]anthracene	0.01	ND				
Benzo[g,h,i]perylene	0.01	ND				

*ND = Not Detected

	% RECOVERY
Nitrobenzene-d5 SURR	88
2-Fluorobiphenyl SURR	95
Terphenyl-d14 SURR	95

METHODS: EPA 625.

BS

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
DATE

P.017/029

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #: 505-748-3311
FAX #: 505-748-9077

Company Name & Address: Navajo Refining

Project #:
Project Name :

Project Location: Artesia & Lovington, NM
Sampler Signature: Darrell Moore

ANALYSIS REQUEST

SPECIAL HANDLING

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI	As the other 3 MW at Lea Refining				Turn around # of days	Fax ASAP	Report TWC direct	Hold
49	Lea Refining MW-4	5		X						(1) X	(ak) X	(1) X		9/7/95	15:00									X	X	X	X				
50	Lea Refining MW-3	5		"						"	"	"		9/8/95	8:55									X	X	X	X				
51	" " MW-1	5		"						"	"	"		" "	11:05									X	X	X	X				
52	Ro Reject B: Wkly	2		X						(3) X	(2) X	(1) X		9/8/95	13:30			See List													
53	[redacted] RA-2723	2		X							X			" "	14:00	X		[redacted]													

Relinquished by:	Date:	Times:	Received by:
Darrell Moore	9/8/95	16:30	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date:	Times:	Received by Laboratory: 9/8/95 1555

REMARKS

252 252AL

252AL

nov.

OCT-06-1995 11:16

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moo
501 E. Main
Artesia, NM 88210

September 28, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09_ /95
Analysis Date: 09/ /95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	FIELD CODE	TDS (mg/L)	NO3-N (mg/L)	pH (s.u.)	CHLORIDE (mg/L)	FLUORIDE (mg/L)	SULFATE (mg/L)	ALKALINITY (mg/L as CaCO3) HCO3	CO3	CONDUCTIVITY (uMHOS/cm)
T40891	Lea Refining MW-5	853	1.49	7.2	198	0.7	119	230	<	1,089
T40895	Lea Refining MW-2	523	1.65	7.4	61	1.2	105	283	<	733
QC	Quality Control	---	1.00	7.0	489	1.0	10.0	---	---	1,427
RPD		2	0	0	2	2	8	2	=	0
% Extraction Accuracy		---	103	---	100	97	119	---	---	---
% Instrument Accuracy		---	101	100	98	100	98	---	---	100
REPORTING LIMIT		---	0.01	---	0.5	0.1	1	---	---	---

METHODS: EPA 375.4, 310.1, 340.2; 4500 Cl-B, 160.1, 150.1, 120.1, 353.3.
NO3-N SPIKE: 1.33 mg/L NO3-N. NO3-N QC: 1.0 mg/L NO3-N.
CHLORIDE SPIKE AND QC: 500 mg/L CHLORIDE.
FLUORIDE SPIKE AND QC: 1.0 mg/L FLUORIDE.
SULFATE SPIKE AND QC: 10 mg/L SULFATE.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-28-95
Date

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/13/95
Analysis Date: 09/14/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TOTAL METALS

TA#	FIELD CODE	As (mg/L)	Cr (mg/L)	Cd (mg/L)	Ba (mg/L)	U (mg/L)	Mo (mg/L)	Zn (mg/L)	Ni (mg/L)	Be (mg/L)	Fe (mg/L)	Mn (mg/L)
T40895	Lea Refining MW-2	0.3	<0.05	<0.02	0.12	<0.5	0.2	<0.02	<0.2	<0.01	0.16	0.07
QC	Quality Control	5.3	5.38	5.2	2.0	4.9	2.0	1.9	1.8	2.0	1.9	1.95
REPORTING LIMIT		0.20	0.05	0.02	0.03	0.5	0.10	0.02	0.2	0.01	0.03	0.01
RPD		6	4	4	2	4	2	6	8	4	2	2
% Extraction Accuracy		68	99	98	92	110	86	93	76	88	86	87
% Instrument Accuracy		107	108	104	100	99	99	97	92	98	93	98

TA#	FIELD CODE	Co (mg/L)	V (mg/L)	Cu (mg/L)	Al (mg/L)	B (mg/L)	Hg (mg/L)	Se (mg/L)	Pb (mg/L)	Ag (mg/L)
T40895	Lea Refining MW-2	<0.03	<0.05	0.05	0.5	0.25	<0.001	<0.001	<0.001	<0.0001
QC	Quality Control	1.96	1.9	1.97	1.94	2.0	0.005	0.045	0.02	0.03
REPORTING LIMIT		0.03	0.05	0.02	0.20	0.03	0.001	0.001	0.001	0.0001
RPD		4	2	2	8	0	6	0	6	0
% Extraction Accuracy		82	85	85	115	97	99	120	100	107
% Instrument Accuracy		98	93	99	97	99	99	98	80	120

METHODS: EPA 200.7, 239.2, 270.2, 272.2, 245.1.
QC: 5.0 mg/L As, Cr, Cd, Ba, Mo, Zn, Ni, Be, Fe, Mn, Cu, Al, B, Co, V; 9.0 mg/L U; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.050 mg/L Se.
SPIKE: 2.0 mg/L As, Cr, Cd, Ba, U, Ni, Mn, V, Al, Mo, Zn, Be, Fe, Co, Cu; 1.0 mg/L B; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.020 mg/L Se.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-29-95
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T40895 Lea Refining MW - 2	Reporting Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	5
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	50
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloropropane	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	50
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2-Trichloroethane	ND	1
2-Hexanone	ND	50

EPA 624 Compounds (ug/L)	T40895 Lea Refining MW - 2	Reporting Limit
Dibromochloromethane	ND	1
Tetrachloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
m & p-Xylene	ND	1
Bromoform	ND	1
Styrene	ND	1
o-Xylene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
trans 1,4-Dichloro-2-butene	ND	5
cis 1,4-Dichloro-2-butene	ND	5
1,4-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,2-Dichlorobenzene	ND	2
Acetone	ND	100
Acetonitrile	ND	100
Acrolein	ND	5
MTBE	ND	1

SURROGATES	% RECOVERY
Dibromofluoromethane	103
Toluene-d8	102
4-Bromofluorobenzene	*85

ND = Not Detected

*NOTE: Surrogate out of limits.

METHODS: EPA 624.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Sample Condition: I & C
Sample Received by: MS
Project Name: NA
Location: Lovington, NM
Project No: NA
Sampling Date: 09/07/95
Extraction Date: 09/13/95
Analysis Date: 09/13/95

PAH

T40895
Lea

PAH Compounds (mg/L)	Reporting Limit	MW-2	QC	RPD	%EA	%IA
Naphthalene	0.001	ND	93			93
Acenaphthylene	0.001	ND	97			97
Acenaphthene	0.001	ND	100	1	77	100
Fluorene	0.001	ND	97			97
Phenanthrene	0.001	ND	100			100
Anthracene	0.001	ND	100			100
Fluoranthene	0.001	ND	102			102
Pyrene	0.001	ND	111	4	82	111
Benzo[a]anthracene	0.001	ND	105			105
Chrysene	0.001	ND	87			87
Benzo[b]fluoranthene	0.001	ND	92			92
Benzo[k]fluoranthene	0.001	ND	93			93
Benzo[a]pyrene	0.001	ND	96			96
Indeno[1,2,3-cd]pyrene	0.001	ND	114			114
Dibenz[a,h]anthracene	0.001	ND	119			119
Benzo[g,h,i]perylene	0.001	ND	122			122

*ND = Not Detected

	% RECOVERY
Nitrobenzene-d5 SURR	91
2-Fluorobiphenyl SURR	92
Terphenyl-d14 SURR	94

METHODS: EPA 625.

9-29-95

Director, Dr. Blair Leftwich — DATE

Director, Dr. Bruce McDonell

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/14/95
Analysis Date: 09/14/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	POTASSIUM (mg/L)	MAGNESIUM (mg/L)	CALCIUM (mg/L)	SODIUM (mg/L)
T40895	Lea Refining MW-2	2.3	16.9	133	65.7
QC	Quality Control	18.24	3.7	18.9	20.26
Reporting Limit		0.3	0.01	0.01	0.4
RPD		4	4	4	4
% Extraction Accuracy		96	120	121	134
% Instrument Accuracy		91	93	94	101

METHODS: EPA 200.7.
QC: 20.0 mg/L POTASSIUM, CALCIUM, SODIUM; 4.0 mg/L MAGNESIUM.
SPIKE: 20.0 mg/L POTASSIUM; 200.0 mg/L MAGNESIUM, CALCIUM, SODIUM.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-29-95
Date

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/14/95
Analysis Date: 09/14/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	POTASSIUM (mg/L)	MAGNESIUM (mg/L)	CALCIUM (mg/L)	SODIUM (mg/L)
T40891	Lea Refining NW-5	3.0	23.6	196	82.4
QC	Quality Control	18.24	3.7	18.9	20.26
Reporting Limit		0.3	0.01	0.01	0.4
RPD		4	4	4	4
% Extraction Accuracy		96	120	121	134
% Instrument Accuracy		91	93	94	101

METHODS: EPA 200.7.
QC: 20.0 mg/L POTASSIUM, CALCIUM, SODIUM; 4.0 mg/L MAGNESIUM.
SPIKE: 20.0 mg/L POTASSIUM; 200.0 mg/L MAGNESIUM, CALCIUM, SODIUM.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-29-95
Date

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/13/95
Analysis Date: 09/14/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TOTAL METALS

TA#	FIELD CODE	As (mg/L)	Cr (mg/L)	Cd (mg/L)	Ba (mg/L)	U (mg/L)	Mo (mg/L)	Zn (mg/L)	Ni (mg/L)	Be (mg/L)	Fe (mg/L)	Mn (mg/L)
T40891	Les Refining MW-5	0.5	<0.05	<0.02	<0.03	<0.5	0.3	0.04	<0.2	<0.01	0.32	0.05
QC	Quality Control	5.3	5.2	5.2	5.2	4.9	2.0	1.9	1.8	2.0	1.9	1.95
REPORTING LIMIT		0.20	0.05	0.02	0.03	0.5	0.10	0.02	0.2	0.01	0.03	0.01
RPD		20	0	0	0	1	2	6	8	4	2	2
% Extraction Accuracy		77	86	87	96	110	86	93	76	88	86	87
% Instrument Accuracy		106	103	104	105	99	99	97	92	98	93	98

TA#	FIELD CODE	Co (mg/L)	V (mg/L)	Cu (mg/L)	Al (mg/L)	B (mg/L)	Hg (mg/L)	Se (mg/L)	Pb (mg/L)	Ag (mg/L)
T40891	Les Refining MW-5	<0.03	<0.05	0.05	1.8	0.26	<0.001	0.003	<0.001	<0.0001
QC	Quality Control	1.96	1.9	1.97	1.94	2.0	0.005	0.045	0.02	0.03
REPORTING LIMIT		0.03	0.05	0.02	0.20	0.03	0.001	0.001	0.001	0.0001
RPD		4	2	2	8	0	6	0	6	0
% Extraction Accuracy		82	85	85	115	97	99	120	100	107
% Instrument Accuracy		98	93	99	97	99	99	98	80	120

METHODS: EPA 200.7, 239.2, 270.2, 272.2, 245.1.
QC: 5.0 mg/L As, Cr, Cd, Ba, Mo, Zn, Ni, Be, Fe, Mn, Cu, Al, B, Co, V; 9.0 mg/L U; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.050 mg/L Se.
SPIKE: 2.0 mg/L As, Cr, Cd, Ba, U, Ni, Mn, V, Al, Mo Zn, Be, Fe, Co, Cu; 1.0 mg/L B; 0.005 mg/L Hg; 0.025 mg/L Pb; 0.003 mg/L Ag; 0.020 mg/L Se.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-29-95
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 13, 1995
Receiving Date: 09/08/95
Sample Type: Water
Project No: NA
Project Location: Lovington, NM

Prep Date: 09/12/95
Analysis Date: 09/12/95
Sampling Date: 09/07/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

EPA 624 Compounds (ug/L)	T40891 Lea Refining MW - 5	Reporting Limit
Dichlorodifluoromethane	ND	1
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane	ND	5
Chloroethane	ND	1
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Iodomethane	ND	5
Carbon disulfide	ND	1
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Vinyl acetate	ND	1
2-Butanone	ND	10
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
1,2-Dichloroethane	ND	1
Benzene	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloropropane	ND	1
Trichloroethene	ND	1
Bromodichloromethane	ND	1
cis-1,3-Dichloropropene	ND	1
4-Methyl-2-pentanone	ND	50
trans-1,3-Dichloropropene	ND	1
Toluene	ND	1
1,1,2-Trichloroethane	ND	1
2-Hexanone	ND	50

NAVAJO REFINING COMPANY
Project Location: Lovington, NM

EPA 624 Compounds (ug/L)	T40891 Lea Refining MW - 5	Reporting Limit
Dibromochloromethane	ND	1
Tetrachloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
m & p-Xylene	ND	1
Bromoform	ND	1
Styrene	ND	1
o-Xylene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
trans 1,4-Dichloro-2-butene	ND	5
cis 1,4-Dichloro-2-butene	ND	5
1,4-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,2-Dichlorobenzene	ND	2
Acetone	ND	100
Acetonitrile	ND	100
Acrolein	ND	5
MTBE	ND	1

SURROGATES	**% RECOVERY**
Dibromofluoromethane	102
Toluene-d8	102
4-Bromofluorobenzene	*82

ND = Not Detected

***NOTE: Surrogate out of limits.**

METHODS: EPA 624.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-13-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

September 29, 1995
Receiving Date: 09/08/95
Sample Type: Water
Sample Condition: I & C
Sample Received by: MS
Project Name: NA
Location: Lovington, NM
Project No: NA
Sampling Date: 09/07/95
Extraction Date: 09/13/95
Analysis Date: 09/13/95

PAH

T40891
Lea

PAH Compounds (mg/L)	Reporting Limit	MW-5	QC	RPD	%EA	%IA
Naphthalene	0.001	ND	93			93
Acenaphthylene	0.001	ND	97			97
Acenaphthene	0.001	ND	100	1	77	100
Fluorene	0.001	ND	97			97
Phenanthrene	0.001	ND	100			100
Anthracene	0.001	ND	100			100
Fluoranthene	0.001	ND	102			102
Pyrene	0.001	ND	111	4	82	111
Benzo[a]anthracene	0.001	ND	105			105
Chrysene	0.001	ND	87			87
Benzo[b]fluoranthene	0.001	ND	92			92
Benzo[k]fluoranthene	0.001	ND	93			93
Benzo[a]pyrene	0.001	ND	96			96
Indeno[1,2,3-cd]pyrene	0.001	ND	114			114
Dibenz[a,h]anthracene	0.001	ND	119			119
Benzo[g,h,i]perylene	0.001	ND	122			122

*ND = Not Detected

	% RECOVERY
Nitrobenzene-d5 SURR	88
2-Fluorobiphenyl SURR	93
Terphenyl-d14 SURR	94

METHODS: EPA 625.

Director, Dr. Blair Leftwich

9-29-95
DATE

Director, Dr. Bruce McDonell

8-28-95 9:45 AM

CROSS IN SUMP INVESTIGATED WELLS.

15' NORTH OF SUMP @ 6' BELOW SURFACE, WENT TO 92' & HIT GW. DEVELOPED WELL ... , 1/2 PINT IN 6 GALLONS.

~~[illegible]~~

LIGHTER PRODUCTS (C_5 - C_9) ARE NOT THERE ... A SLOP OIL, ... [illegible]

#5, 9, N 45 WELLS WERE TESTED AT MAVAJO

1 PPB IN ALL 3 (BENZENE)

... [illegible] -1 PPB IN #9 + NONE IN #5 (10-94)

" " (1-21-95) <1 PPB

" " (4-...) NIL

MAVAJO WILL TEST #5 9 8, N 45 WELL TODAY (8-28-95) & ... [illegible]

WORK PLAN

#1 MW BETWEEN SUMP & #9 (BETWEEN ...),

#2 MW " " " NS WELLS,

#3 MW SOUTH OF BERM (...),

WILL KEEP MOVING SOUTH UNTIL CLEAN IS FOUND

15' S OF SUMP WAS CLEAN TO 25'   10' N OF SUMP CLEAN TO 30'

15' W OF SUMP DIRTY @ 6' @ 54' CLEAN

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 1:15 PM	Date 8-28-95

Originating Party	Other Parties
PHIL YOUNGBLOOD, DAVE GRIFFIN	MARK ASHLEY

Subject NAVAJO - LOVINGTON MONITOR WELL INSTALLATION.

Discussion AFTER TALKING TO BILL OLSON, I INFORMED THEM OF OUR REQUIREMENTS FOR MONITOR WELL INSTALLATION, INITIAL SAMPLING, AND TIME FRAMES FOR SUBMITTAL OF A WORKPLAN.

Conclusions or Agreements THEY WOULD COMPLY WITH OUR REQUIREMENTS

Distribution

Signed Mark Ashley

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 9:45AM	Date 8-28-95

Originating Party	Other Parties
PHIL YOUNGBLOOD, DAVE GRIFFIN	MARK ASHLEY

Subject NAVAJO LOVINGTON GROUNDWATER CONTAMINATION

Discussion NAVAJO DISCOVERED GROUNDWATER CONTAMINATION @ 92' DEPTH, LOCATED ~ 15' NORTH OF API SEPERATOR. COMPLETED BORES AS A MONITOR WELL. THEY BORED ~15' SOUTH OF SUMP TO 25'. NO CONTAMINATION. THEY BORED 15' WEST OF SUMP TO ~54'. CONTAMINATION PRESENT FROM 6' TO 54'. THEY BORED 60' NORTH OF SUMP TO 30', NO CONTAMINATION. THEIR TWO WATER WELL LOCATED SOUTH OF SEPERATOR ARE CLEAN. THEY WILL INSTALL THREE MONITOR WELLS LOCATED SOUTH, NORTHEAST, & NORTHWEST OF THE SEPERATOR TO DEFINE GRADIENT, & DEFINE LATERAL EXTENT. OTHER WELLS WILL BE DRILLED AS NEEDED. CITY OF LOVINGTON WELLS # 5, 8, 9 WILL BE SAMPLED FOR BTEX. THEY WILL NOTIFY ACCORDING TO WQCC 1-203 OF DISCHARGE.

Conclusions or Agreements

I DISCUSSED FINDINGS WITH BILL LEMAY, & BILL OLSON.

Distribution

Signed Mark Ashley

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 11:30 AM | Date 12/21/84

Originating Party	Other Parties
Dave Boyer OCD	Energetics Corp Hobbs

Subject: Southern Union Refinery Discharge Plan

Discussion: Person that answered the phone said Lee Wilson no longer worked there and that company was out of business. Former president to call back later.

Conclusions or Agreements

Distribution
Southern Union File
Energetics Corp. File.

Signed: David R Boyer

ENERGETICS CORPORATION
The Energy Company

TEXAS ENERGETICS CORPORATION
1201 Richardson Drive
Suite 216
Richardson, Texas 75080
(214) 783-4731

ENERGETICS CORPORATION
Post Office Box 1596
Lovington, New Mexico 88260
(505) 396-5889

April 13, 1984

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

Attn: Joe D. Ramey

RE: Solar Project at Southern Union Refinery, Discharge Plan

Gentlemen:

We have obtained quotes for the chemical analysis of the waste water per regulations 3-103A, B, and C from a lab in Santa Fe and a lab in Dallas (see attached quotes). The lab in Monahans was not able to perform radiographic or organic analysis.

While discussing the feedwater and discharge analysis for this project with Southern Union, we have learned that the refinery plans to change over to a demineralized feedwater system on or about May 1, 1984. Since this would significantly affect the chemical content of the waste water for this project, it is recommended that the waste water samples be taken after the changeover by Southern Union has been performed.

Also, it should be noted that the wastewater discharge to the drywell (steam condensate and boiler blowdown) have been significantly reduced from the original 1980 discharge plan submittal. At that time 10% boiler blowdown was considered. This has been reduced to one manual boiler blowdown per month (approximately half the steam generator content or 150 gallons). A change to a demineralized feedwater system would further reduce the need for boiler blowdown and waste water discharge for this project.

Sincerely,

Lee E. Wilson

Lee E. Wilson
Project Manager
Texas Energetics Corporation

LEW/dr

QUOTATION

Ship To:
Controls for Environmental Pollution, Inc.
1925 Rosina Street, Santa Fe, NM 87502
Phone: (505) 982-9841 New Mexico
1-800-545-2188 Out-of-State

All Correspondence To:
Post Office Box 5351
Santa Fe, NM 87502

TO: Energetics Corporation
1201 Richardson Drive
Suite 216
Richardson, TX 75080

ATTENTION: Lee Wilson
DATE: April 3, 1984

Quotation No: CEP-84-S125

We are pleased to submit our quotation for the items listed below. The prices are firm for 90 days and based on the assumption that they will be sent FOB to Controls for Environmental Pollution, Inc., Santa Fe, New Mexico.

Item	Qty	Description	Unit Price	Total Price
1	1	Analyze Water for Part 3-103 Sections A,B&C (New Mexico Water Quality Control Commission Regulations) Inorganic Parameters: Arsenic, Barium, Cadmium, Chromium, Cyanide, Fluoride, Lead, Total Mercury, Nitrate, Selenium, Silver, Chloride, Copper, Iron, Manganese, Sulfate, Total Dissolved Solids, Zinc, pH, Aluminum, Boron, Cobalt, Molybdenum, Nickel.	$ 223.00	$ 223.00
		TOTAL		

Terms are net 30 days, after 30 days add 1½% to invoice

Type of Service

( ) Emergency 24 to 72 hours Unit Price plus 50% plus overtime

( ) Rush 5 to 7 days Unit Price plus 50%

(X) Routine 2 weeks Unit Price

By: Rex C. Bickmore

Rex C. Bickmore, Vice President

If you have any questions pertaining to this Quotation Contact Rex C. Bickmore

QUOTATION

Ship To:
Controls for Environmental Pollution, Inc.
1925 Rosina Street, Santa Fe, NM 87502
Phone: (505) 982-9841 New Mexico
1-800-545-2188 Out-of-State

All Correspondence To:
Post Office Box 5351
Santa Fe, NM 87502

TO: Energetics Corporation
1201 Richardson Drive
Suite 216
Richardson, TX 75080

ATTENTION: Lee Wilson
DATE: April 3, 1984

Quotation No: CEP-84-S125

We are pleased to submit our quotation for the items listed below. The prices are firm for 90 days and based on the assumption that they will be sent FOB to Controls for Environmental Pollution, Inc., Santa Fe, New Mexico.

Item	Qty	Description	Unit Price	Total Price
		Organic Parameters: Benzene, Polychlorinated biphenols, Toluene, Carbon Tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, 1,1,2,2-tetrachloroethylene, 1,1,2-trichloroethylene and Phenol	$ 450.00	$ 450.00
		Radiochemical Parameters: Uranium, Radium-226 and Radium-228	86.00	86.00
		TOTAL		$ 759.00

Terms are net 30 days, after 30 days add 1½% to invoice

Type of Service

( ) Emergency 24 to 72 hours Unit Price plus 50% plus overtime

( ) Rush 5 to 7 days Unit Price plus 50%

(X) Routine 2 weeks Unit Price

By: Rex C. Bickmore

Rex C. Bickmore - Vice President

If you have any questions pertaining to this Quotation Contact Rex C. Bickmore

SwL

SOUTHWESTERN LABORATORIES
Dallas Division

Materials, environmental and geotechnical consultation, fundamental testing and analytical services
P.O. Box 224227 • 2575 Lone Star Drive • Dallas, Texas 75264 • 214/631-2700 Metro 263-1133

April 12, 1984

Texas Energetics Corporation
1201 Richardson Drive
Suite 216
Richardson, TX 75080

Dear Sir,

In response to our phone conversation 9 April 84, the following is the cost per test for the items requested:

Section A

Arsenic (As)
Barium (Ba)
Cadmium (Cd)
Chromium (Cr)
Cyanide (Cn)
Fluoride (F)
Lead (Pb)
Total Mercury (Hg)
Nitrate (NO_3 as N)
Selenium (Se)
Silver (Ag)
Uranium (U)
Radium-226
Radium-228
Benzene
Polychlorinated Biphenyls
Tolune
Carbon Tetrachloride
1,2-dichloroethane
1,1-dichloroethane
1,1,2,2-tetrachloroethylene
1,1,2-trichloroethylene

Cost for Section A - $605.00/sample

Section B

Chloride (Cl)
Copper (Cu)
Iron (Fe)

Manganese (Mn)
Phenols
Sulfate (SO_4)
Total Dissolved Solids (TDS)
Zinc (Zn)
pH

Cost for Section B - $208.00/sample

Section C

Aluminum (Al)
Boron (B)
Cobalt (Co)
Molybdenum (Mo)
Nickel (Ni)

Cost for Section C - $75.00/sample

Total Cost for Sections A,B & C - $888.00/sample

We look forward to assisting you in the future. If any questions should arise, please contact me at the above number.

Sincerely,

Ronald G. Yarbrough

Ronald G. Yarbrough
Analytical Manager

RGY/gdw

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

March 9, 1984

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

Energetics Corporation
Box 1596
Lovington, New Mexico 88260

Gentlemen:

I have looked over your proposed discharge plan which was submitted in 1980. The plan appears to be complete except for a complete chemical analysis of the waste stream.

Please submit a complete analysis (those items listed under 3-103 A, B and C of the Water Quality Control Commission Regulations) of the combined waste water stream by May 1, 1984.

If your waste water exceeds any of the standards listed, you should investigate and report on another disposal method other than the dry well disposal when submitting the above requested information.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Energetics Corporation

April 30, 1980 —
Talked to Lee Wilson. about G-W. Anal. and Recommended NMBM&MR Socorro. talked about Sample anal. procedures - glass bottle filled to top; 30 to 48 hr time to start Anal.

I asked him for top of water table in area. Explained what was needed for Sodium Zeolite information.

He told me work was to be done soon and what would occur if discharge plan needed.

June 16, 1980 — move plant to another location. Delay due to D.O.E. Will complete information requested on April 30, 1980 with estimate of chem. quality of water after it has gone through refining process.

Lynn Brandvold — April 9, 1980

Sodium Zeolite - Al silicate — Sodium Aluminosilicate

exchange Sodium for Calcium — Just a water softners

EDTA - (ethylenediaminetetraacetic acid) $C_{10}H_{16}N_2O_8$

Complexes divalent cations — Ca^{++}, Mg^{++}, Fe^{++}

This has known effects on humans being
effects on caliche (Calcium Carbonate $CaCO_3$) - might dissolve it

Call back on Friday (4-11-80) for Sodium Zeolite information.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

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

April 10, 1980

Lee E. Wilson
Project Manager
Energetics Corporation
P. O. Box 1596
Lovington, New Mexico 88260

Dear Mr. Wilson:

Your letter of April 3, 1980, brings up the question about the chemical quality of the water injected into the dry well.

We should have chemical analyses of the water feed into the plant as it comes from the ground and another analysis of the water injected into the dry well. Chemical analysis should include the following determinations:

Total Dissolved Solids, Chloride, Sodium, Magnesium, pH, Iron, Sulfates, Chromates, Arsenic, Barium, Cadium, Cyanide, Manganese, Fluoride, Lead, Total Mercury, Nitrate (NO_3 as N), Selenium, Silver, Uranium, Radioactivity; combined Radium-226 and Radium-228 /pCi/l, Copper, Zinc, Aluminum Boron; Cobalt, Molybdenum, Nickel, and Phenols.

I would also like further information on sodium zeolite and what it does. It is my understanding that sodium zeolite is a water softening agent which exchanges ions in its structure for other ions in the water. To demineralize water completely, one has to pass water through beds of two entirely different types of ion-exchange resins, one for cations and the other for anions.

The O.C.D can make determination of the necessity of a discharge plan following the receipt of the requested materials.

Very truly yours,

THOMAS A. PARKHILL
Hydrogeologist

TP/og

ENERGETICS CORPORATION
The Energy Company

833 E. Arapaho Road
Suite 202
Richardson, Texas 75081
(214) 783-4731

Post Office Box 1596
Lovington, New Mexico 88260
(505) 396-5889

3 April 1980

Energy & Minerals Department
State of New Mexico
Oil Conservation Division
Mr. Thomas A. Parkhill, Hydrogeologist
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Reference: Your letter dated 7 March 1980

Dear Sir:

In response to your question regarding the occurance of oil spills, I would like to emphasize that we are referring to 400 gallons of heat transfer oil (Texatherm) that is used in the solar collector piping loop and that we have no connection or contact with refinery oil.

Loss of collector system heat transfer oil would occur from piping or valve rupture or a pressure relief valve discharge. None of these failures are likely to occur under normal operating conditions and any failure that does occur will automatically shut down the collector system, which in turn will activate a warning light in the refinery process control room. If any oil spillage were to occur, it would be noticed immediately by trained refinery personnel. If full system draindown were to occur, it would result in a maximum oil spill of 400 gallons which could easily be contained by ditching around the collector field. This field lies fully within the refinery property and appropriate clean-up could be directed by refinery personnel to prevent any runoff.

In regard to your questions concerning the drywell, I have enclosed a detail drawing (12, M-5), showing the ½" blowdown line from the steam generator, a ½" condensate line from the steam trap, and a 2" floor drain line from the 20' x 20' solar building. We expect to discharge 175 gallons/day of blowdown water, 10 gallons/day of condensate, and essentially none from the floor drain.

We will use approximately 1650 gallons/day of feedwater from the refinery in the steam generator to produce 12,000 lbs/day of steam (which is less the previously mentioned blowdown and condensate discharges to the drywell). Feedwater is supplied from groundwater which has been demineralized with a sodium zeolite bed and containes EDTA (approximately 15 ppm) and sulfides (approximately 50 ppm) as additives for feedwater treatment.

4-5 BPD

$$42\overline{)185}\ 4 \quad 168 \quad 17$$

Periodic well inspection and maintenance was planned to be done annually unless solids accumulation indicate a more frequent need.

I am also enclosing a "Sub-Surface Exploration" report for the refinery which you may find useful.

If you need more information, please let me know.

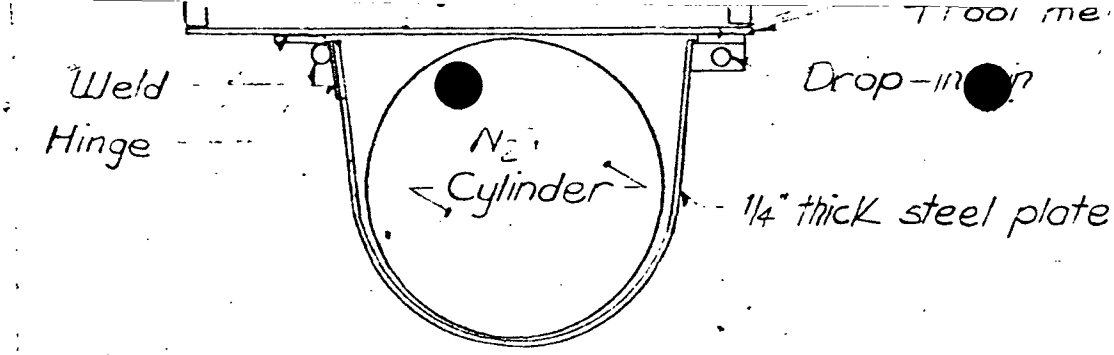
Sincerely,

Lee E. Wilson

Lee E. Wilson
Manager, Engineering

LEW/wp

enclosures

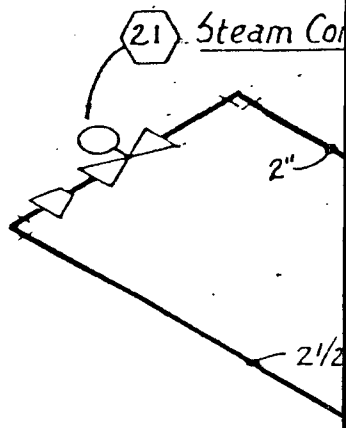


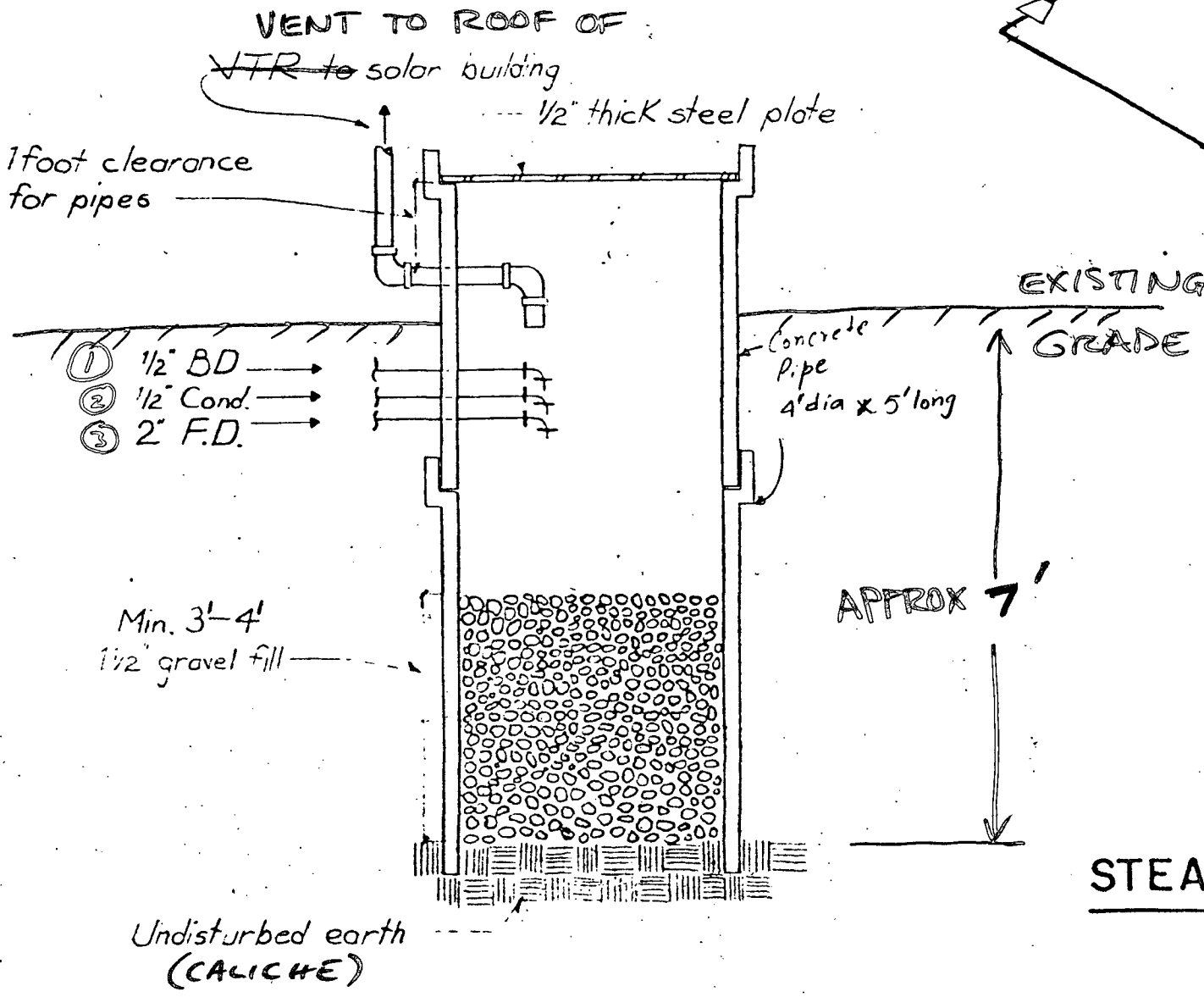
SAMPL

CYLINDER ANCHOR

SCALE: NONE

11
M-5



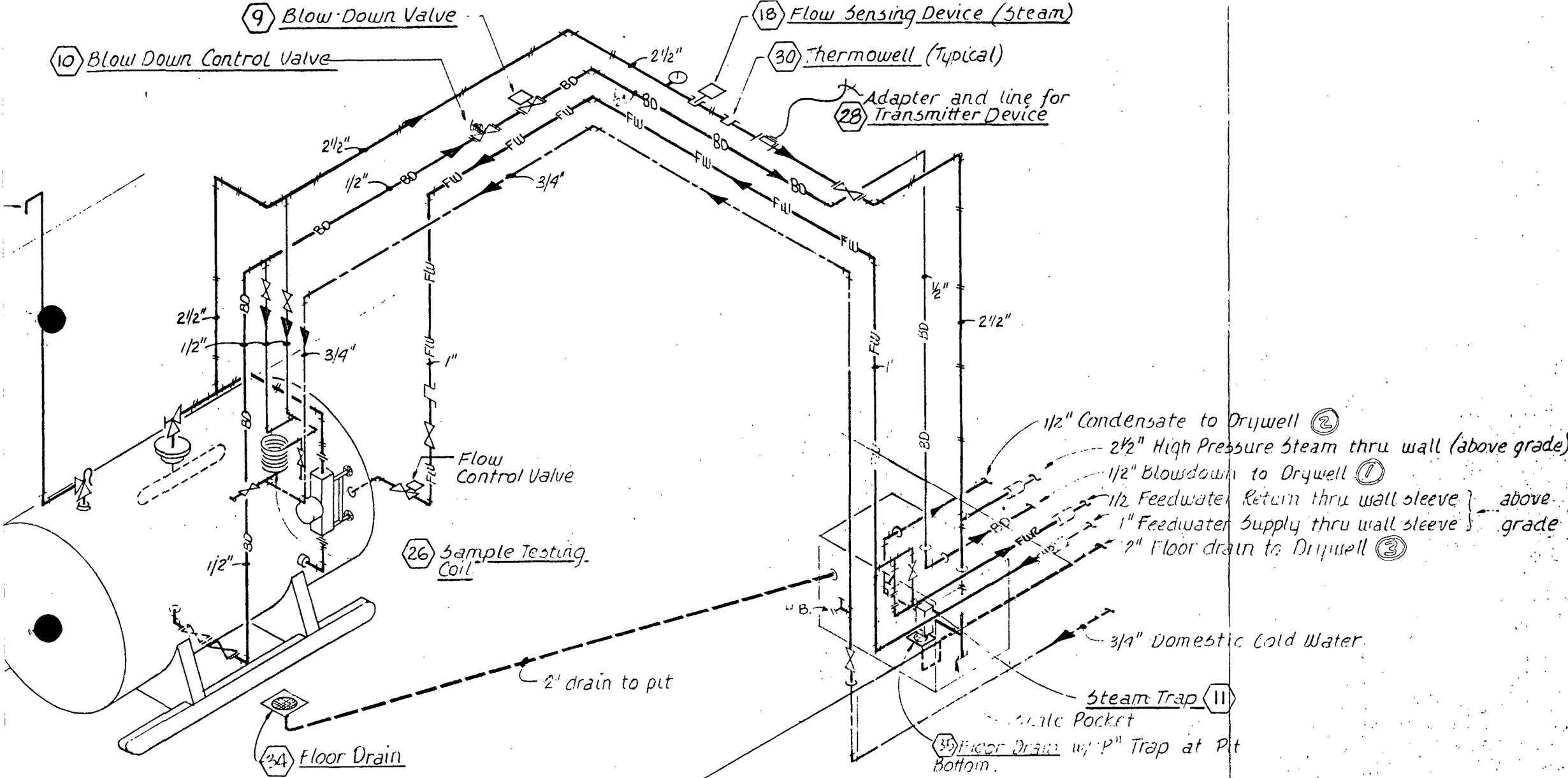


STEAM

DRYWELL DETAIL

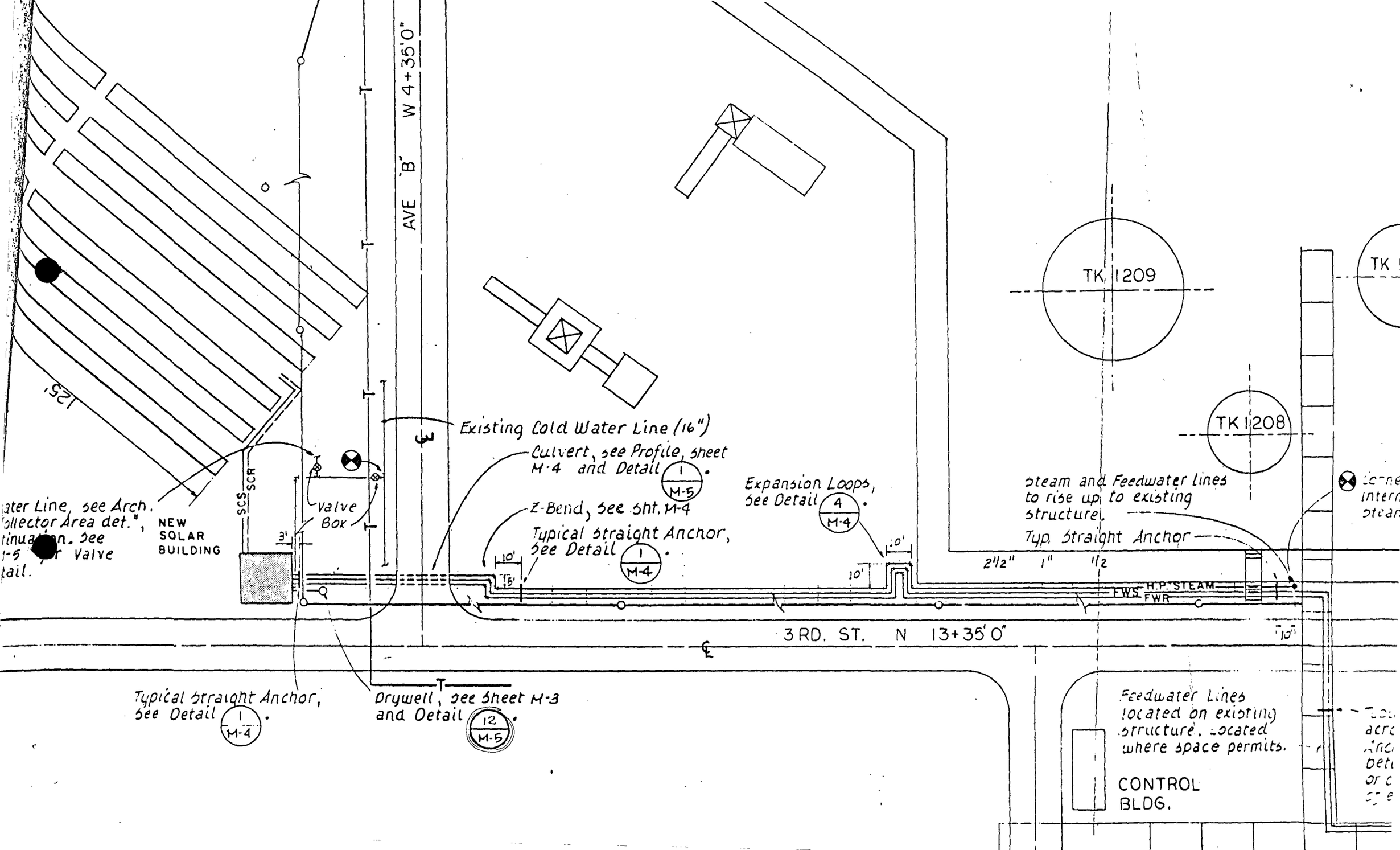
SCALE: NONE

12
M-5



ISOMETRIC (STEAM)

SCALE : NONE


AVE 'B' W 4+35'0"
TK 1209
TK 1208
TK
Existing Cold Water Line (16")
Culvert, see Profile, sheet M-4 and Detail 1/M-5
Z-Bend, see sht. M-4
Typical Straight Anchor, See Detail 1/M-4
Expansion Loops, See Detail 4/M-4
Steam and Feedwater lines to rise up to existing structure.
Typ. Straight Anchor
2 1/2" 1" 1/2
H.P. STEAM
FWS FWR
Valve Box
SCS SCR
NEW SOLAR BUILDING
ater Line, see Arch. ollector Area det.", tinuation. See 1-5 for Valve tail.
3RD. ST. N 13+35'0"
Typical Straight Anchor, See Detail 1/M-4
Drywell, See Sheet M-3 and Detail 12/M-5
Feedwater Lines located on existing structure. Located where space permits.
CONTROL BLDG.
10'
3'

Lee Wilson March 19, 1980

closed system and oil would get [illegible] caught in reflectors someone closes wrong valve less than 200 gal, could escape. Other safety equipment to prevent loss of oil from system when it [illegible] below 200 gals of total fluid

[illegible] ft in diameter — 10 ft

[illegible] ft in ground

in. gravel 3 to 4 in

depth — in caliche

4 lines — ½ in line steam line

½ in. condensate line

2 in. flow line — from solar

D.T.R. with line of [illegible] 3000

1000 to 3000 lb. = 100 to 2.5 gals

Small amount of chem. for prevention of scale.

Not sure about chem. quality of water — some chromates present + however

Soil conditions information in area of hole

Water Qual. Control advised him to talk to them about other water regulations

Will send letter and diagrams of items talked about today within next few days.

March 18, 1980

Tom: - -

Lee Wilson

Energetic Corp.

214-783-4731

I Called him on March 19, 1980

I called L.W on April 1, 1980
Information will be sent by end of week. Chem. Anal. not yet made

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

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

March 7, 1980

Lee E. Wilson
Project Manager
Energetics Corporation
P. O. Box 1596
Lovington, New Mexico

Dear Mr. Wilson:

Your letter of February 11, 1980, to the Environmental Improvement Division has been referred to the Oil Conservation Division for reply. We do have questions about possible oil spillage and the well itself.

The O.C.D. would like to have further information on how possible oil spills could occur, how they will be contained on the property and how they will be cleaned up?

The information we will need on the dry well is its depth, casing program and how the well will be cemented in? Information about the planned well maintenance program should also be included. We would be concerned about any high concentrations of chromates, phenolics, chlorides, total dissolved solids and any other discharge which might enter the dry well or which might otherwise alter the character of ground water.

Determination as to the necessity of a discharge plan will be made following receipt of this requested information.

Very truly yours,

THOMAS A. PARKHILL
Hydrogeologist

TP/og

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

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

March 7, 1980

Lee E. Wilson
Project Manager
Energetics Corporation
P. O. Box 1596
Lovington, New Mexico

Dear Mr. Wilson:

Your letter of February 11, 1980, to the Environmental Improvement Division has been referred to the Oil Conservation Division for reply. We do have questions about possible oil spillage and the well itself.

The O.C.D. would like to have further information on how possible oil spills could occur, how they will be contained on the property and how they will be cleaned up?

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Determination as to the necessity of a discharge plan will be made following receipt of this requested information.

Very truly yours,

THOMAS A. PARKHILL
Hydrogeologist

TP/og

HEALTH & ENVIRONMENT department

WATER POLLUTION CONTROL BUREAU

STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87503
(505) 827-5271

Thomas E. Baca, M.P.H., Director

Bruce King
GOVERNOR

George S. Goldstein, Ph.D.
SECRETARY

Larry J. Gordon, M.S., M.P.H.
DEPUTY SECRETARY

March 5, 1980

Mr. Joe Ramey
State Petroleum Engineer
Director, Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87503

Dear Joe:

We have received the attached letter from Energetics Corporation regarding an industrial process solar installation.

It is my opinion that since this installation deals with the refinement of crude oil, that this properly belongs under your jurisdiction.

If, after reviewing this material you have any questions, please contact me.

Sincerely,

Joseph A. Pierce
Chief

JAP:fmg

Enclosure

ENERGETICS CORPORATION
The Energy Company

833 E. Arapaho Road
Suite 202
Richardson, Texas 75081
(214) 783-4731

Post Office Box 1596
Lovington, New Mexico 88260
(505) 396-5889

11 February 1980

Environmental Improvement Division
Thomas E. Baca, Director
Cubia Clayton,Chief,Statewide Services Bureau
Crown Building, 725 St. Michael's Drive
P.O. Box 968
Santa Fe, New Mexico 87503

Reference: Permit requirements for an industrial process solar installation

Dear Sirs:

Energetics Corporation has contractual approval and funding from the U. S. Department of Energy (Contract #DE-AC03-78CS32223) to install a solar collector system at the Famariss Energy Refinery (Southern Union Refining Company located between Hobbs and Lovington, New Mexico on State Highway 18) which will provide steam to process crude oil.

At this time, we have received notice from Don Klein, Assistant Attorney General, State of New Mexico, that we are not required to obtain permits or liscenses under the Construction Industries Liscensing Act in bidding and construction of this solar project under DOE contract so long as it is being done pursuant to federal laws and regulations.

However, it has been brought to our attention that we may need permits from the Environmental Improvement Division, particularly the Water Quality Control Commission for this project.

I am enclosing copies of a brief explanation of the solar project which I hope will provide the necessary information for evaluation of permit requirements. Would you please provide this information to the concerned areas in your division so we may obtain a release, exemption or permit(s) if required. If there are further questions or requirements needed, please let me know.

If permits are not required, we would appreciate notification so we may proceed with the installation. Your prompt attention to this would be greatly appreciated.

Sincerely yours,

Lee E. Wilson

Lee E. Wilson
Project Manager
Energetics Corporation
(214) 783-4731

Enclosures

ENCLOSURE 1

INDUSTRIAL PROCESS STEAM FOR SOUTHERN UNION REFINERY

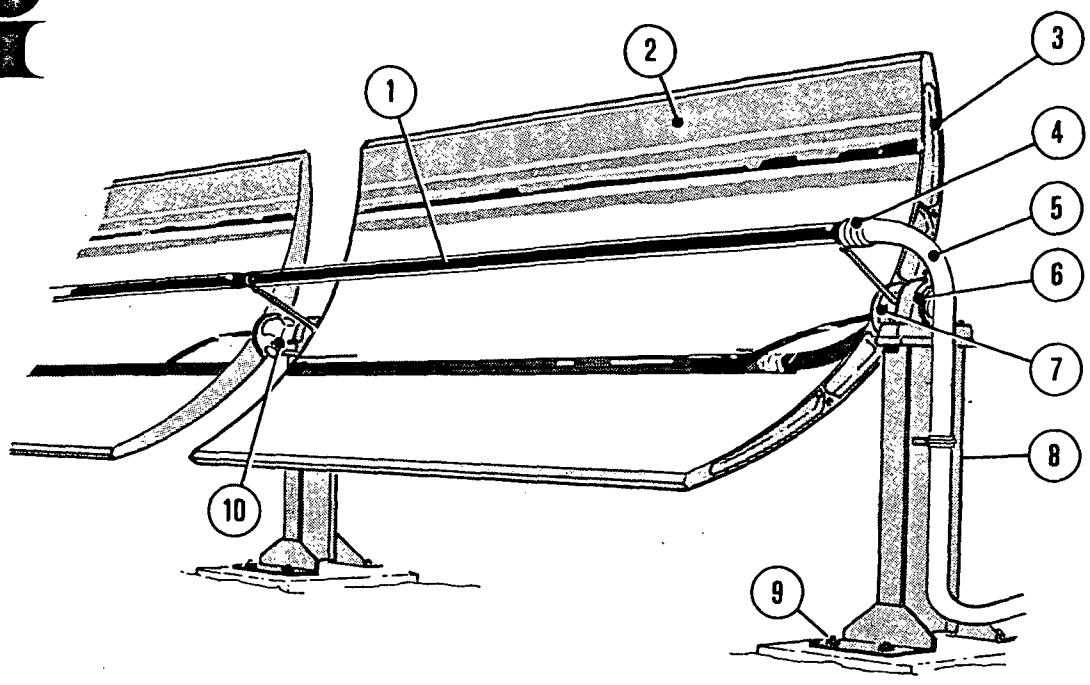
Energetics Corporation under contract with the U.S. Department of Energy will install 10,800 square feet of solar collectors at the Famariss Energy Refinery (between Hobbs and Lovington, New Mexico on State Highway 18) which will provide steam at 375°F to process crude oil. This system will displace part of the fossil fuels presently being used by the refinery to fire their boilers, so it will actually decrease the amount of air pollution from combustion at the refinery.

The system utilizes 72 Model T-700 linear parabolic trough collectors manufactured by Solar Kinetics, Inc. (See attached data sheet). The fluid system is a two loop design, with a heat transfer oil (Texatherm) being circulated through the collectors with an operating pressure at approximately 50 psig and an operating temperature varying between 375°F and 500°F. The oil heats feedwater from the refinery in the heat exchanger (an unfired boiler) and produces steam during solar operation which is returned to the refinery. Feedwater is supplied from the refinery at 220°F and returned as 170 psig, 375°F steam. All piping is closed loop between the collectors, the heat exchanger and the refinery and all pipes are field welded together, tested, and insulated. All feedwater is supplied by the refinery and the amount of oil used in the collector closed loop is less than 400 gallons. Water is supplied from the refinery to the solar field for minor cleaning.

There is no intent to discharge any oil except under an emergency condition through pressure relief valves in the collector field. Any spillage would be small and easily contained within the refinery property.

The only intent to discharge will be blowdown steam and hot water from the heat exchanger. This should be on the order of 1400 lbs/day and will be discharged into a drywell. what is drywell?

There are no wells, sewerage system, or products of combustion associated with this installation.



SOLAR KINETICS

SOLAR COLLECTORS FOR PROCESS HEAT UP TO 650°F

Solar Kinetics' rigid monocoque* aluminum mirror and no-lash hydraulic tracking* along with proven engineering concepts provide long life and low cost. Features of the system are:

1. The black chrome plated steel receiver tube is surrounded by a dry air/argon annulus protected by Pyrex® glass tubing. Focus is adjustable during installation.
2. A precisely constructed mirror surface is covered with metallized acrylic film, combining weather resistance and high reflectivity.
3. The parabolic contour of the cast aluminum ribs is N/C machine generated for an accurate focus.
4. The thermal expansion bellows allows for expansion of the receiver assembly and maintains a sealed, dry environment in the annulus.
5. An insulated stainless steel flex hose allows rotation of the collector with unrestricted flow.
6. Self aligning sealed ball bearings absorb structural loads maintaining collector motion without binding.
7. A forged steel flange carries torsional loads into the collector structure. Allows mirror installation with eight bolts.
8. The steel support pylon is galvanized for corrosion protection.
9. Mounting studs are a standard pattern for each collector.
10. This load bearing joint* protects the collector structure from strains induced by misalignment from foundation shifts.

*PAT PENDING

SPECIFICATIONS	T-700	T-600
MODULE WIDTH	89.0 IN	56.0 IN
MODULE LENGTH	20 FT	20 FT
MIRROR WIDTH	84.5 IN	48.0 IN
SOLAR AREA	140 FT²	80 FT²
REFLECTANCE	0.84	0.84
MAX VERT HEIGHT	102 IN	65 IN
ROTATION AXIS HT	57 IN	39 IN
TRACKING ANGLE	270°	235°
STOW ANGLE	45°	45°
SYSTEM WEIGHT	4.0 LB/FT²	4.0 LB/FT²
RECEIVER TUBE	1.63 OD	1.25 OD
ANNULUS MEDIUM	ARGON OR DRY AIR	
SELECTIVE SURFACE	BLACK CHROME	
ABSORPTIVITY	0.94-0.97	
EMISSIVITY	0.18 @ 500°F	
RECEIVER COVER	PYREX GLASS	
MAX OPER TEMP	650° F	
MAX OPER PRESS	250 PSI	

SOLAR KINETICS, INC., 8120 CHANCELLOR ROW, DALLAS, TEXAS 75247 214-630-9328

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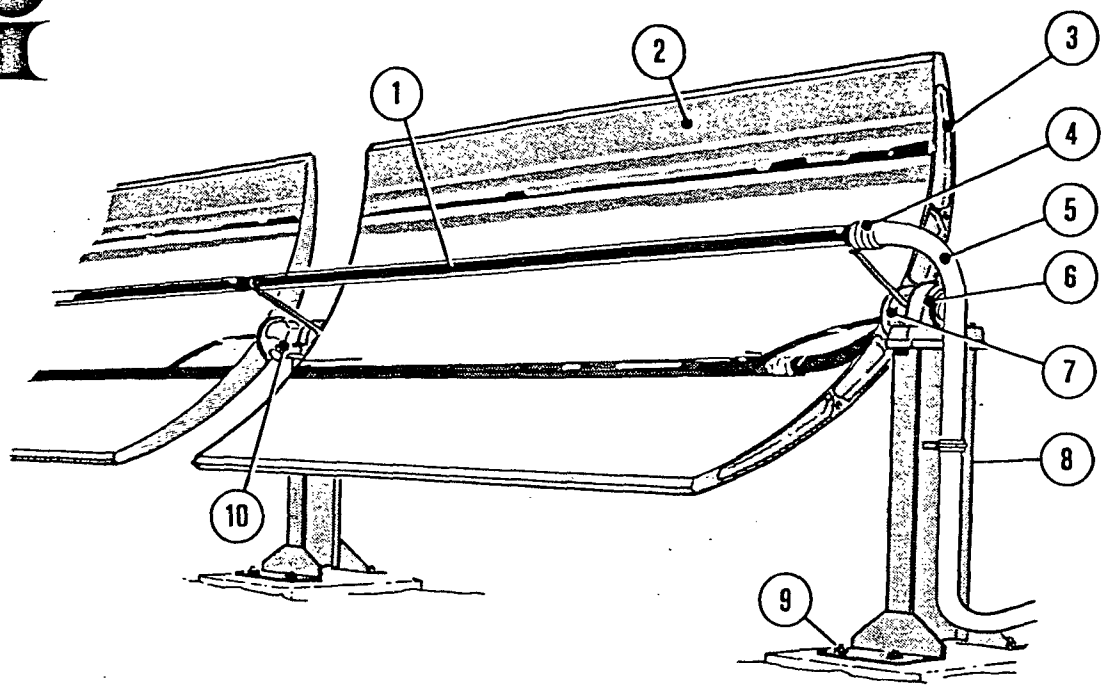

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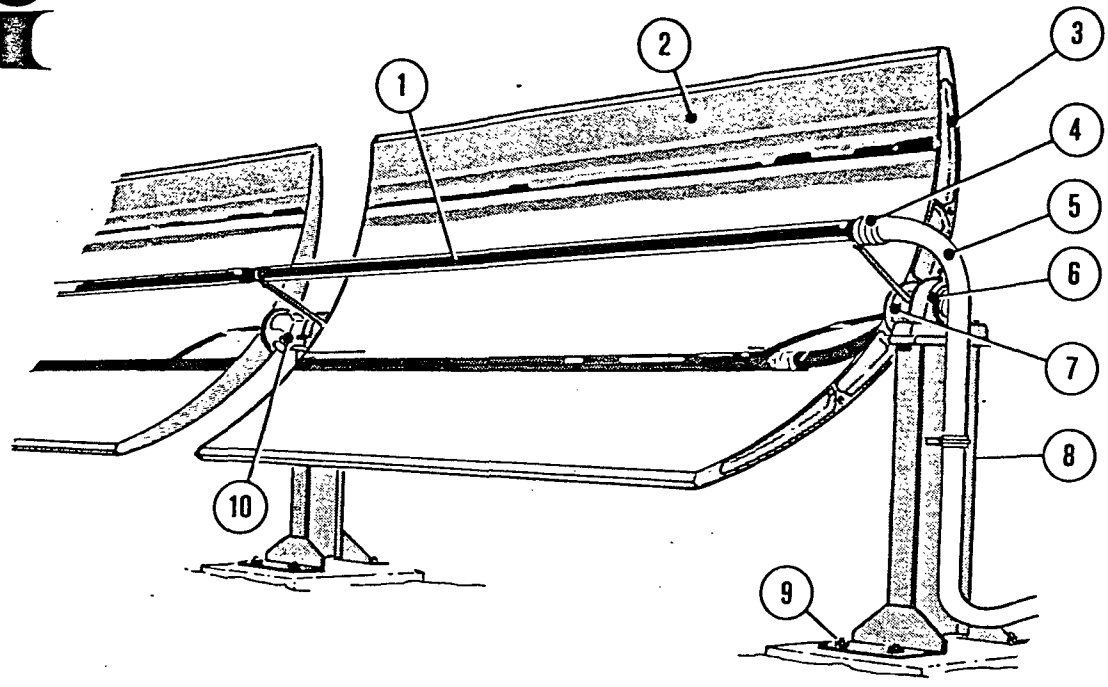

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