

UIC - I - 8-1, 2 & 3

WDWs-1, 2 & 3

PERMITS,

RENEWALS,

& MODS (6 of 18)

2017

over a 30 min time interval. The radioactive tracer survey showed no signs of fluid flow out of the permitted interval above 7650 feet. The OCD witnessed the annular pressure test and the first half of the radioactive tracer survey.

The annulus monitoring system was installed and tested. The well was turned over to Navajo for injection.

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
0 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒



Operator: Navajo Refining Company Telephone: (505) 748-3311 e-mail address: _____
Address: 501 East Main Street, Artesia NM 88210
Facility or well name: WDW #3 API #: 30-015-26575 U/L or Qtr/Qtr _____ Sec 1 T 18 R 27E
County: Eddy Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) <u>50 feet or more, but less than 100 feet</u> (10 points) <u>10</u> 100 feet or more (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) <u>No</u> (0 points) <u>0</u>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points) <u>0</u>
Ranking Score (Total Points) <u>10</u>	

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☒ If offsite, name of facility CRI (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: NAVAJO REFINING COMPANY PLANS TO CLOSE DRILLING PIT ON THE WDW #3 AS PER NEW MEXICO OIL CONSERVATION DIVISION RULE 30 IN THE PIT AND BELOW GRADE TANK GUIDE LINES. NAVAJO PLANS TO REMOVE ALL FLUIDS AND DRILL CUTTINGS. ALL CUTTINGS WILL BE TAKEN TO A N.M.O.C.D. APPROVED SITE FOR DISPOSAL AND BACKFILL WITH ONSITE STOCKPILED SOILS. WE WILL NOTIFY O.C.D. 48 HOURS PRIOR TO BEGINNING WORK.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 2/14/06

Printed Name/Title: Chris Mulligan/Agent

Signature: Chris Mulligan

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

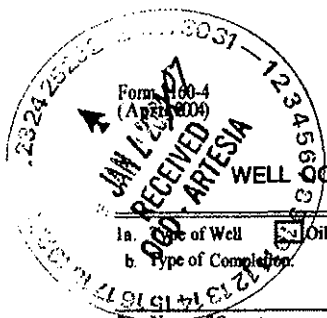
Printed Name/Title:

Jim W. Brown
District II Supervisor

Signature:

Date:

2/12/07



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☐ New Well ☒ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resv.,
Other _____

2. Name of Operator **NAVAJO REFINING COMPANY**

3. Address **P.O. BOX 159, ARTESIA, NM 88211**

3a. Phone No. (include area code)

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface **790' FROM THE SOUTH LINE AND 2250' FROM THE WEST LINE**

At top prod. interval reported below **7650' AT THE SAME LOCATION AS ABOVE**

At total depth **PLUG BACK 10,119' AT THE SAME LOCATION AS ABOVE**

14. Date Spudded
12/22/1996

15. Date T.D. Reached
01/29/1997

16. Date Completed
☐ D & A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
3609'

18. Total Depth: MD **10,119'**
TVD **10,119'**

19. Plug Back T.D.: MD **9022'**
TVD **9022'**

20. Depth Bridge Plug Set: MD **CMT 9051'-9022'**
TVD **CMT 9051'-9022'**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

CBL/VDL, MULTI-ARM CALIPER, TEMP, RADIOACTIVE TRACER (2006)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Shurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8"	54.5	SURF	400'	400'	425 CLASS C		SURF	NONE
12 1/4"	9 5/8"	36	SURF	2604'	2604'	1025 "C"		SURF	NONE
8 3/4"	7"	29 & 26	SURF	9450'	9450'	1350 "H"		900'	NONE
6 1/4"	4 1/2"		9051'	10,119'	10,119'	175 CLASS H		9051'-TOL	NONE

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
4 1/2"	7567'	7567'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) CISCO	7650'	8450'	7660' - 8450'	0.5"	1500	2 JSPPF / 60°
B) CANYON	8540'	8620'	8540' - 8620'	0.5"	160	2 JSPPF / 60°
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
7050' - 7102'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7262' - 7278'	100 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7304' - 7314'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATIONS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZAROUS CLASS I WELL
Choke Size	Tbg. Press. Flwg. SI	Cog. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZAROUS CLASS I WELL
Choke Size	Tbg. Press. Flwg. SI	Cog. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

* (See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

N/A (NON-HAZARDOUS CLASS 1 WELL)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth

32. Additional remarks (include plugging procedure):

THE PLUGGED AND ABANDONED WELL WAS ACQUIRED FROM MEWBOURNE OIL COMPANY BY NAVAJO REFINING. NAVAJO RECOMPLETED THE WELL FOR INJECTING NON-HAZARDOUS WASTE WATER FROM THEIR REFINERY IN ARTESIA, NM. THE EXISTING PLUGS WERE DRILLED OUT TO THE TOP OF THE LINER PLUG AT 9022' AND THE EXISTING PERFORATIONS WERE SQUEEZED OFF WITH CEMENT AT 7054' TO 7102', 7262' TO 7278', AND FROM 7304' TO 7314'. A 4 1/2" 11.6 #/FT TUBING STRING WAS SET WITH A TENSION PACKER AT 7568' AND BOTTOM OF PACKER AT 7575'. MIT WAS WITNESSED BY OCD.

(SEE ATTACHED WELL SUMMARY FOR MORE DETAILS)

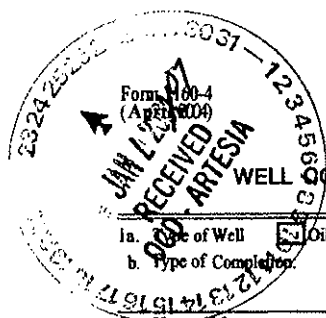
33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☒ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Darrell Moore Title Env. Mgr for Water & Waste
 Signature Darrell Moore Date 1/24/07

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

1a. Name of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☐ New Well ☒ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resv.,
Other _____

2. Name of Operator **NAVAJO REFINING COMPANY**

3. Address **P.O. BOX 159, ARTESIA, NM 88211**

3a. Phone No. (include area code)

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface **790' FROM THE SOUTH LINE AND 2250' FROM THE WEST LINE**

At top prod. interval reported below **7650' AT THE SAME LOCATION AS ABOVE**

At total depth **PLUG BACK 10,119' AT THE SAME LOCATION AS ABOVE**

14. Date Spudded
12/22/1990

15. Date T.D. Reached
01/29/1991

16. Date Completed
☐ D & A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
3609'

18. Total Depth: MD **10,119'**
TVD **10,119'**

19. Plug Back T.D.: MD **9022'**
TVD **9022'**

20. Depth Bridge Plug Set: MD **CMT 9051'-9022'**
TVD **CMT 9051'-9022'**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

CBL/VDL, MULTI-ARM CALIPER, TEMP, RADIOACTIVE TRACER (2006)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Shurry Vol. (EEL)	Cement Top*	Amount Pulled
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8 3/4"	7"	29 & 26	SURF	9450'	9450'	1350 "H"		900'	NONE
6 1/4"	4 1/2"		9051'	10,119'	10,119'	175 CLASS H		9051'-TOL	NONE

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
4 1/2"	7567'	7567'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) CISCO	7650'	8450'	7660' - 8450'	0.5"	1580	2 JSPP / 60°
B) CANYON	8540'	8620'	8540' - 8620'	0.5"	160	2 JSPP / 60°
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
7050' - 7102'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7262' - 7278'	100 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7304' - 7314'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATIONS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZAROUS CLASS I WELL.
Choke Size	Thg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZAROUS CLASS I WELL.
Choke Size	Thg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

* (See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

N/A (NON-HAZARDOUS CLASS 1 WELL)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth

32. Additional remarks (include plugging procedure):

THE PLUGGED AND ABANDONED WELL WAS ACQUIRED FROM MEWBOURNE OIL COMPANY BY NAVAJO REFINING. NAVAJO RECOMPLETED THE WELL FOR INJECTING NON-HAZARDOUS WASTE WATER FROM THEIR REFINERY IN ARTESIA, NM. THE EXISTING PLUGS WERE DRILLED OUT TO THE TOP OF THE LINER PLUG AT 9022' AND THE EXISTING PERFORATIONS WERE SQUEEZED OFF WITH CEMENT AT 7050' TO 7102', 7262' TO 7278', AND FROM 7304' TO 7314'. A 4 1/2" 11.6 #/FT TUBING STRING WAS SET WITH A TENSION PACKER AT 7568' AND BOTTOM OF PACKER AT 7575'. MIT WAS WITNESSED BY OCD.

(SEE ATTACHED WELL SUMMARY FOR MORE DETAILS)

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☒ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Darrell MooreTitle Env. Mgr for Water & WasteSignature Darrell MooreDate 1/24/07

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007Amth - Year
MAR - 5 2007
OCD - ARTESIA, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other

2. Name of Operator NAVAJO REFINING COMPANY

3a. Address
P.O. BOX 159, ARTESIA, NM 88211

3b. Phone No. (include area code)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

S1 - T18S - R27E ; 790' FROM THE SOUTH LINE AND 2250' FROM THE WEST LINE

5. Lease Serial No.

NM-0557371

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

WDW-3

9. API Well No.

30 - 015 - 26575

10. Field and Pool, or Exploratory Area

11. County or Parish, State

EDDY

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input checked="" type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

NON-HAZARDOUS

CLASS I WELL

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

THE PLUGGED AND ABANDONED WELL WAS ACQUIRED FROM MEWBOURNE OIL COMPANY BY NAVAJO REFINING. NAVAJO RECOMPLETED THE WELL FOR INJECTING NON-HAZARDOUS WASTE WATER FROM THEIR REFINERY IN ARTESIA, NM.

10/1/06 -THE EXISTING PLUGS WERE DRILLED OUT TO THE TOP OF THE LINER PLUG AT 9022' AND THE EXISTING PERFORATIONS WERE SQUEEZED OFF WITH NEAT CEMENT AT 7050' TO 7102', 7262' TO 7278', AND FROM 7304' TO 7314'.

10/13/06 - RAN CBL/VDL AND TEMPERATURE SURVEY, PERFORATED INTERVAL FROM 7650' TO 8450' AND FROM 8540' TO 8620'.

10/24/06 - A 4 1/2" 11.6 #/FT TUBING STRING WAS SET WITH A TENSION PACKER AT 7568' AND BOTTOM OF PACKER AT 7575'.

11/4/06 - PERFORMED AN INJECTION/FALLOFF TEST ON THE WELL AT 9 TO 10 BPM.

11/15/06 - MECHANICALLY INTEGRITY TEST WERE PERFORMED AND WITNESSED BY THE OCD. THE MECHANICALLY INTEGRITY TEST CONSISTED OF RADIOACTIVE TRACER TEST AND AN ANNULUS PRESSURE TEST. (SEE THE ATTACHED WELL SUMMARY FOR MORE DETAILS.)

SUBJECT TO LIKE
APPROVAL BY STATE14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Darrell Moore

Title

Env. Mgr. for Water & Waste

Signature

Darrell Moore

Date

1/24/07

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

ACCEPTED FOR RECORD

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

Date

FEB 28 2007

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FREDERICK
PETROLEUM ENGINEER

(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this

form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or

present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

This information is being collected to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer, (WO-630), Mail Stop 401 LS, 1849 C St., N.W., Washington D.C. 20240

SUNDRY NOTICE SPECIAL STIPULATIONS

1. **Approval is granted for the water disposal method presented in the sundry subject to the following conditions:**
2. The operator must provide a water analysis of the water to be injected, together with a copy of the disposal permit granted by the state.

****** Approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.**

Engineering
can be reached at 505-706-2779 for any variances that might be necessary.

F Wright 2/28/07

OCD-ARTESIA

Form 3160-4
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 20075. Lease Serial No.
NM - 05573716. If Indian, Allottee or Tribe Name
N/A

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.
WDW - 39. AFI Well No.
30 - 015 - 26575

10. Field and Pool, or Exploratory

11. Sec., T., R., M., on Block and
Survey or Area S1 - T18S - R27E12. County or Parish B. State
EDDY NM17. Elevations (DF, RKB, RT, GL)*
3689'a. Type of Well ☐ Oil Well ☐ Gas Well ☐ Dry ☐ Otherb. Type of Completion: ☐ New Well ☒ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other _____2. Name of Operator **NAVAJO REFINING COMPANY**3. Address **P.O. BOX 159, ARTESIA, NM 88211**

3a. Phone No. (include area code)

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface **790' FROM THE SOUTH LINE AND 2250' FROM THE WEST LINE**At top prod. interval reported below **7650' AT THE SAME LOCATION AS ABOVE**At total depth **PLUG BACK 10,119' AT THE SAME LOCATION AS ABOVE**14. Date Spudded
12/22/199015. Date T.D. Reached
01/29/199116. Date Completed
☐ D & A ☐ Ready to Prod.18. Total Depth: MD 10,119'
TVD 10,119'19. Plug Back T.D.: MD 9022'
TVD 9022'20. Depth Bridge Plug Set: MD CMT 9051'-9022'
TVD CMT 9051'-9022'

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

CBL/VDL, MULTI-ARM CALIPER, TEMP, RADIOACTIVE TRACER (2006)22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Shurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8"	54.5	SURF	400'	400'	425 CLASS C		SURF	NONE
12 1/4"	9 5/8"	36	SURF	2604'	2604'	1025 "C"		SURF	NONE
8 3/4"	7"	29 & 26	SURF	9450'	9450'	1350 "H"		900'	NONE
6 1/4"	4 1/2"		9051'	10,119'	10,119'	175 CLASS H		9051'-TOL	NONE

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
4 1/2"	7567'	7567'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) CISCO	7650'	8450'	7660' - 8450'	0.5"	1580	2 JSPP / 60"
B) CANYON	8540'	8620'	8540' - 8620'	0.5"	160	2 JSPP / 60"
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
7050' - 7102'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7262' - 7278'	100 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATION
7304' - 7314'	80 SKS PREM 14.8 PPG NEAT CMT FOR PERF SQZ ON PREVIOUS PERFORATIONS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZARDOUS CLASS I WELL
Choke Size	Thg. Press. Flwg. SI	Cog. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						NON-HAZARDOUS CLASS I WELL
Choke Size	Thg. Press. Flwg. SI	Cog. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						WAITING ON STATE APPROVAL TO INJECT

*(See instructions and spaces for additional data on page 2)

ACCEPTED FOR RECORD

FEB 28 2007

FREDERICK WRIGHT
PETROLEUM ENGINEER

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

N/A (NON-HAZARDOUS CLASS I WELL)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth

32. Additional remarks (include plugging procedure):

THE PLUGGED AND ABANDONED WELL WAS ACQUIRED FROM MEWBOURNE OIL COMPANY BY NAVAJO REFINING. NAVAJO RECOMPLETED THE WELL FOR INJECTING NON-HAZARDOUS WASTE WATER FROM THEIR REFINERY IN ARTESIA, NM. THE EXISTING PLUGS WERE DRILLED OUT TO THE TOP OF THE LINER PLUG AT 9022' AND THE EXISTING PERFORATIONS WERE SQUEEZED OFF WITH CEMENT AT 7050' TO 7102', 7262' TO 7278', AND FROM 7304' TO 7314'. A 4 1/2" 11.6 #/FT TUBING STRING WAS SET WITH A TENSION PACKER AT 7568' AND BOTTOM OF PACKER AT 7575'. MIT WAS WITNESSED BY OCD.

(SEE ATTACHED WELL SUMMARY FOR MORE DETAILS)

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☒ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print)

Darrell Moore

Title

Env. Mgr for Water & Waste

Signature

Darrell Moore

Date

1/24/07

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

INSTRUCTIONS

GENERAL: This form is designed for submitting a complete and correct well completion/recompletion report and log on all types of wells on Federal and Indian leases to a Federal agency, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal office.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, and all types electric), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal laws and regulations. All attachments should be listed on this form, see item 33.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal office for specific instructions.

ITEM 17: Indicate which reported elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

ITEM 23: Show how reported top(s) of cement were determined, i.e. circulated (CIR), or calculated (CAL), or cement bond log (CBL), or temperature survey (TS).

PRIVACY ACT

The Privacy Act of 1974 and the regulation in 43 CFR 2.48 (d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. et seq.; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is to be used to evaluate the actual operations performed in the drilling, completing and testing of a well on a Federal or Indian lease.

ROUTINE USES: (1) Evaluate the equipment and procedures used during the drilling and completing/recompleting of a well. (2) The review of geologic zones and formation encountered during drilling. (3) Analyze future applications to drill in light of data obtained and methods used. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this report and disclosure of the information is mandatory once a well drilled on a Federal or Indian lease is completed/recompleted.

The Paperwork Reduction Act of 1995 requires us to inform you that:

This information is being collected to allow evaluation of the technical, safety, and environmental factors involved with drilling and completing/recompleting wells on Federal and Indian oil and gas leases.

This information will be used to analyze operations and to compare equipment and procedures actually used with those proposed and approved.

Response to this request is mandatory only if the operator elects to initiate drilling and completing/recompleting operations on an oil and gas lease.

BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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Well Summary

Navajo Refining Company (Navajo) contracted Subsurface Technology, Inc. (Subsurface), to prepare an application for permit and to reenter a plugged and abandoned (P&A) oil and gas well. The Application for Permit to Drill or Reenter and the Sundry Notices and Reports on Wells was submitted to the Department of the Interior, Bureau of Land Management (BLM), on June 29, 2006 and approved. The Application for Permit to Drill, Re-enter, Deepen, Plug Back, or add a Zone was submitted to the State of New Mexico Oil Conservation Commission (OCD) on June 29, 2006 and approved.

Subsurface prepared an engineering plan to reenter the P&A'ed oil and gas well formally owned by Mewbourne Oil Company. The original well name was Caulk Bluff Federal #1 (API number 30-015-26575), and a Change of Operator application was submitted to the OCD on December 5, 2000 and approved under the well name of WDW-3. Under contract to Navajo, Subsurface commenced field operations on September 25, 2006. The existing location was cleared and prepared for reentry operations. An earthen lined reserve pit was dug to catch returns. All depths unless stated are referenced to rig floor at six feet to seven feet above ground level. The rig floor was moved from six feet to seven feet after drilling out the cast iron bridge plugs.

A workover rig and reverse unit was placed on location and the existing wellhead was removed. The first cast iron bridge plug (CIBP) at 7010 feet was drilled and the perforated interval from 7050 feet to 7102 feet was squeezed off with neat cement and successfully pressured tested to six hundred eighty pounds per square inch gauge pressure (680 psig). The second and third CIBP at 7190 feet and 7279 feet was drilled. There appeared to be ten feet of cement on top of the third CIBP. The perforated interval from 7262 feet to 7278 feet and from 7304 feet to 7314 feet was squeezed with neat cement. The squeezed interval was pressure tested to 920 psig and would not hold. A second cement squeeze was performed across the perforated interval from 7262 feet to 7278 feet and from 7304 feet to 7314. The interval was pressured tested to 630 psig and continued to lose pressure at a rate of two pounds per square inch every thirty minutes (2 psi/30 min). The fourth CIBP at 7595 feet was drilled and at 7838 feet a cement plug was encountered and drilled through. Cement was tagged twenty nine (29) feet above the top of the liner at 9022 feet. The hole was circulated clean and prepared for logging.

A Cement Bond Log (CBL), Variable Density Log (VDL), caliper log, and temperature survey were performed. The CBL/VDL showed that the top of the cement (TOC) behind the 7-inch casing was located 900 feet from the surface. The OCD was notified and approved the existing well condition. The casing was perforated from 7660 feet to 8450 feet and from 8540 feet to 8620 feet at 2-JSPF on sixty degree (60°) phasing.

A packer was set at 7546 feet with 2 7/8-inch PH-6 tubing, the well was swabbed back and samples of the formation fluid were recovered. It was estimated that two hundred twenty six barrels (226 bbls) of formation fluid was returned to the surface. A pressure test on the annulus between the 7-inch and 2 7/8-inch was performed at 660 psig with the annulus losing pressure at a rate of 8 psi/hr.

An injection test was performed on the well down the 2 7/8-inch tubing with the annulus open to the bottom of the well. The open annulus will allow for the calculation of the bottom hole pressure while pumping down the 2 7/8-inch tubing with out the influence of tubing friction pressure on the bottom hole calculations. The injection rates were from two barrels per minute (2 bpm) to ten barrels per minute (10 bpm). From the data collected during the injection test it appears that the well will be able to accept an injection rate up to 10 bpm at the permitted pressure of 1550 psig with 4 1/2-inch, 11.6 pound per foot (11.6 lb/ft) tubing in the wellbore.

At the request of the OCD, Subsurface went back into the wellbore with a retrievable bridge plug (RBP) to test the casing and isolate any leaks to within 1000 feet. The RBP was set at 7550 feet and the packer was set at 6985 feet to isolate the squeezed interval from 7050 feet to 7314 feet. The squeezed interval was pressure tested to 490 psig and the annulus to 632 psig. The squeezed interval was losing pressure at a rate of 6 psi/hr and the annulus was gaining pressure due to thermal affects. The RBP was moved up the wellbore to 1255 feet and casing pressure tested to 569 psig. The casing above 1255 feet was losing pressure at a rate of 2 psi/hr. The casing leaks were isolated to the squeezed interval from 7050 feet to 7314 feet and in the interval from surface to 1255 feet. The OCD was called and approved the 300PSI sealing application to stop the casing leaks across the two intervals.

The 4 1/2-inch tubing was run into the wellbore and the Arrow X-1 packer was set at 7575.73 feet with 37,000 lbs of tension. Prior to running the 4 1/2-inch tubing a new Superior hanging spool was installed. Prior to setting the tubing packer, the annulus between the 4 1/2-inch tubing and the 7-inch casing was filled with inhibited brine, with the 300psi sealant across the squeezed perforations and across the upper section of the 7-inch casing. Once the packer was set and casing hung off in the spool a new Superior wellhead was installed and the P-seals were pressure tested to 3000 psig. After the wellhead was assembled the annulus was squeezed at 545 psig for four hours (4 hrs) as specified by the sealant manufacture representative on site. The annulus was then pressure tested to 480 psig overnight with no pressure loss. Workover rig was disassembled and moved off location with all associated equipment.

A 12 hr pump in and falloff test was performed down the 4 1/2-inch tubing. To maintain a surface injection pressure that was below the permitted pressure of 1550 psi the injection rate was lowered to 9 bpm at the end of the pump in procedure. The BHP gauge was placed at 8630 feet for 14 hrs to monitor BHP, when the gauge was pulled five minute (5 min) gradient stops were made every 1000 feet with the first stop at 7000 feet. The analysis of the data showed interference from the adjacent injection wells, which skewed the results for determination of the skin and possibly the permeability. The equipment used to perform the falloff testing was moved off location to prepare for mechanical integrity testing (MIT).

The MIT was performed and witnessed by the OCD. The MIT consisted of an annulus pressure test, and a radioactive tracer survey. The temperature survey was performed during the CBL/VDL logging event and will be used as a baseline for any future temperature surveys. The annulus pressure test was performed at 530 psia and lost 2.5 psi over a one hour period, which was within the OCD requirements of five percent (5%)

over a 30 min time interval. The radioactive tracer survey showed no signs of fluid flow out of the permitted interval above 7650 feet. The OCD witnessed the annular pressure test and the first half of the radioactive tracer survey.

The annulus monitoring system was installed and tested. The well was turned over to Navajo for injection.



**LOGGING
SERVICES**

R/A TRACER LOG INTERPRETATION

11/27/2006

PLANT: NAVAJO REFINING CO.

C/O: SUBSURFACE TECHNOLOGY

WELL NAME: CHALK BLUFF FEDERAL # 1 WDW # 3

RE: Radioactive Tubing & Packer Survey run on 11/18/2006

A Pre Base Log was run from 9020' to 7350' to detect and record background gamma counts.

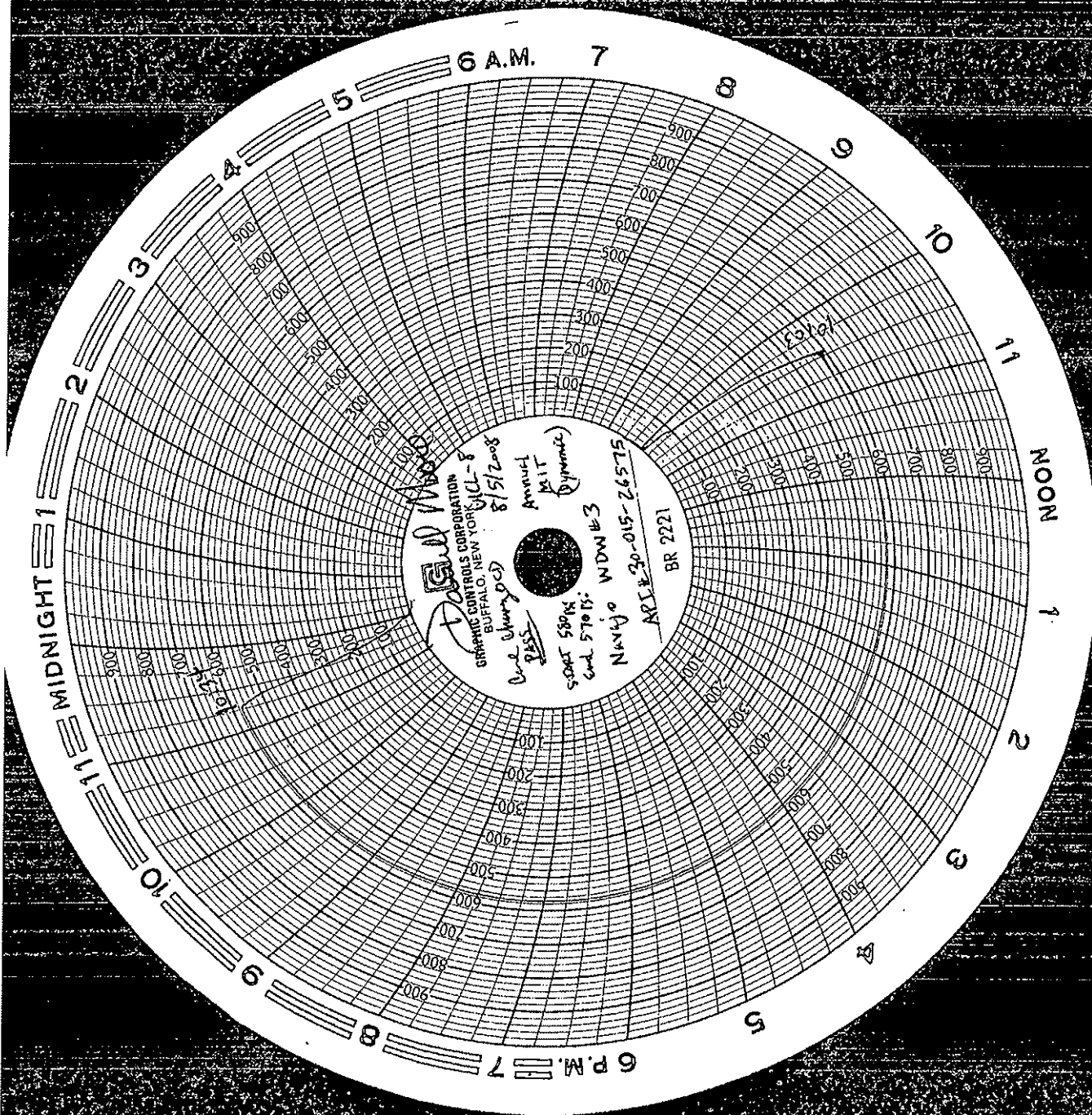
Iodine 131 was then ejected at a depth of 7375' and pumped down the tubing and into the permitted interval. Overlapping logging passes tracked the R/A tracer material as it moved down in the wellbore. The R/A material was seen traveling down the tubing, past the packer, and exiting the permitted injection interval.

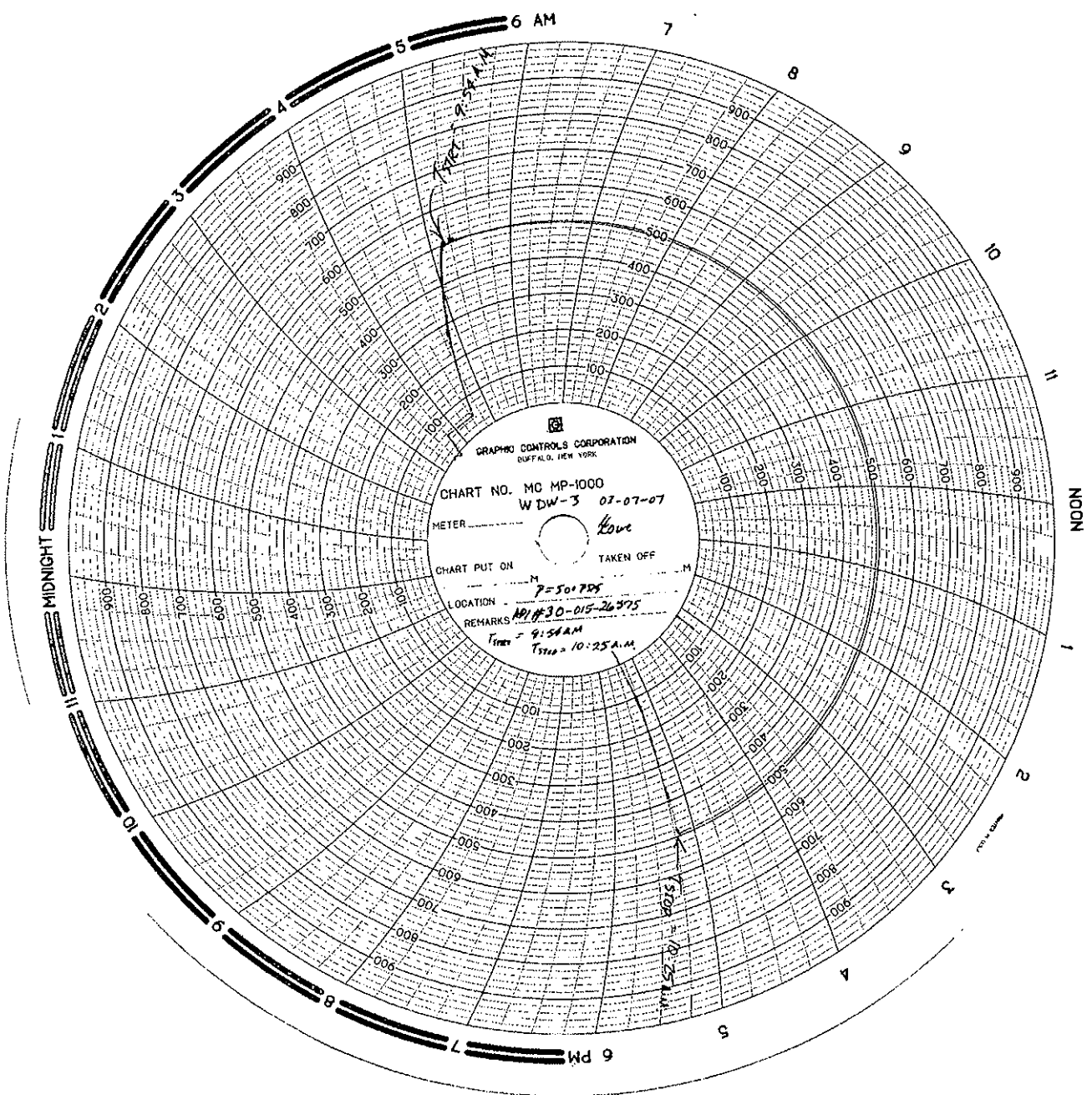
The flow profile log was then repeated and this survey also showed R/A material going out into the permitted interval.

Two Stationary Time Drive surveys were run with the tool at 7640'. No indications of upward migration were recorded.

A Post Base log was then run from 9016' to 7342' and noted that all R/A material was flushed out of the wellbore into the permitted interval.

John Croce





Oil Conservation Division, Environmental Bureau

C/O: Carl Chavez
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

Date of Test June 30, 2010 Operator Navajo Refining API #30-015-26575

Property Name WDW Well No. 3 Location: Unit 0 Section 1 Township 18S Range 27E
Injecting

Well Status (~~Shut-In or Producing~~) Tubing Intermediate Casing Bradenhead

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

TIME	PRESSURES:			BRADENHEAD FLOWED	INTERMEDIATE FLOWED
	BRADENHEAD	INTERMEDIATE	CASING		
5 minutes	0	0		Steady Flow <u>N/A</u>	<u>N/A</u>
10 minutes	N/A	N/A		Surges <u>N/A</u>	<u>N/A</u>
15 minutes	N/A	N/A		Down to Nothing <u>immediately</u>	<u>immediately</u>
20 minutes	N/A	N/A		Nothing <u>X</u>	<u>X</u>
25 minutes	N/A	N/A		Gas <u>N/A</u>	<u>N/A</u>
30 minutes	N/A	N/A		Gas & Water <u>N/A</u>	<u>N/A</u>
				Water <u>N/A</u>	<u>N/A</u>

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR FRESH SALTY SULFUR BLACK

5 MINUTE SHUT-IN BRADENHEAD 0 INTERMEDIATE 0

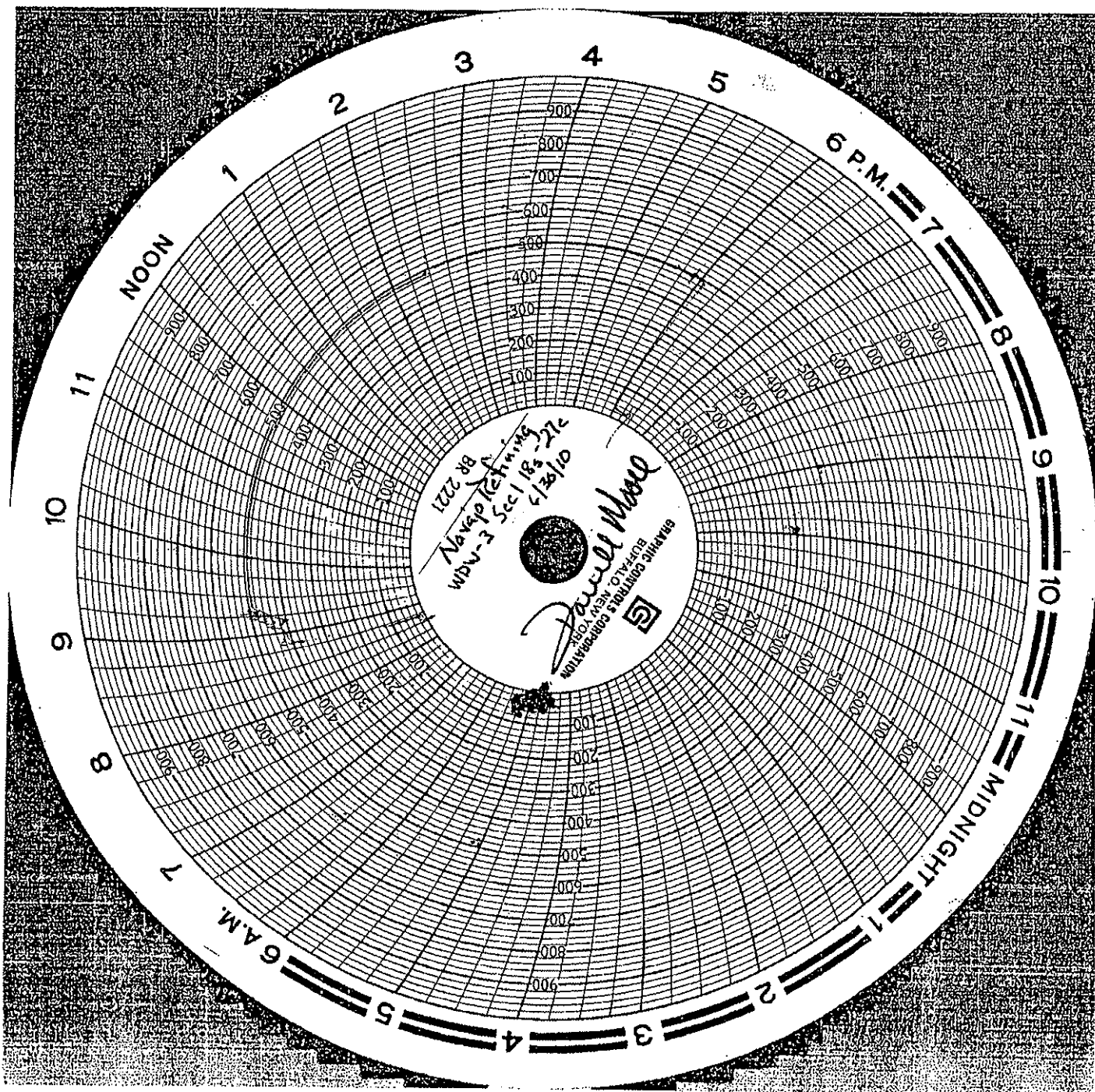
REMARKS:

Both the surface and intermediate bradenheads were opened one at a time. Both
had a puff of air upon opening the valve (from heat build-up) and then nothing.
No flow. No pressure.

By Darrell Moore  Witness

Env. Mgr. for Water & Waste Navajo Refining
(Position)

E-mail address darrell.moore@hollycorp.com



Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Friday, March 05, 2010 8:51 AM
To: Chavez, Carl J, EMNRD
Subject: WDW-3 Qtrl MIT

Carl

Attached, please find the chart for the MIT we did on our WDW-3 on February 24, 2010. We also opened the did a bradenhead test and there was no sustained pressure. There was a slight puff but it dissipated quickly and can be attributed to temperature changes.

If there are any questions concerning this submission, please call me at 575-746-5281.

Darrell Moore

Environmental Manager for Water and Waste

Navajo Refining Company, LLC

Phone Number 575-746-5281

Cell Number 575-703-5058

Fax Number 575-746-5451

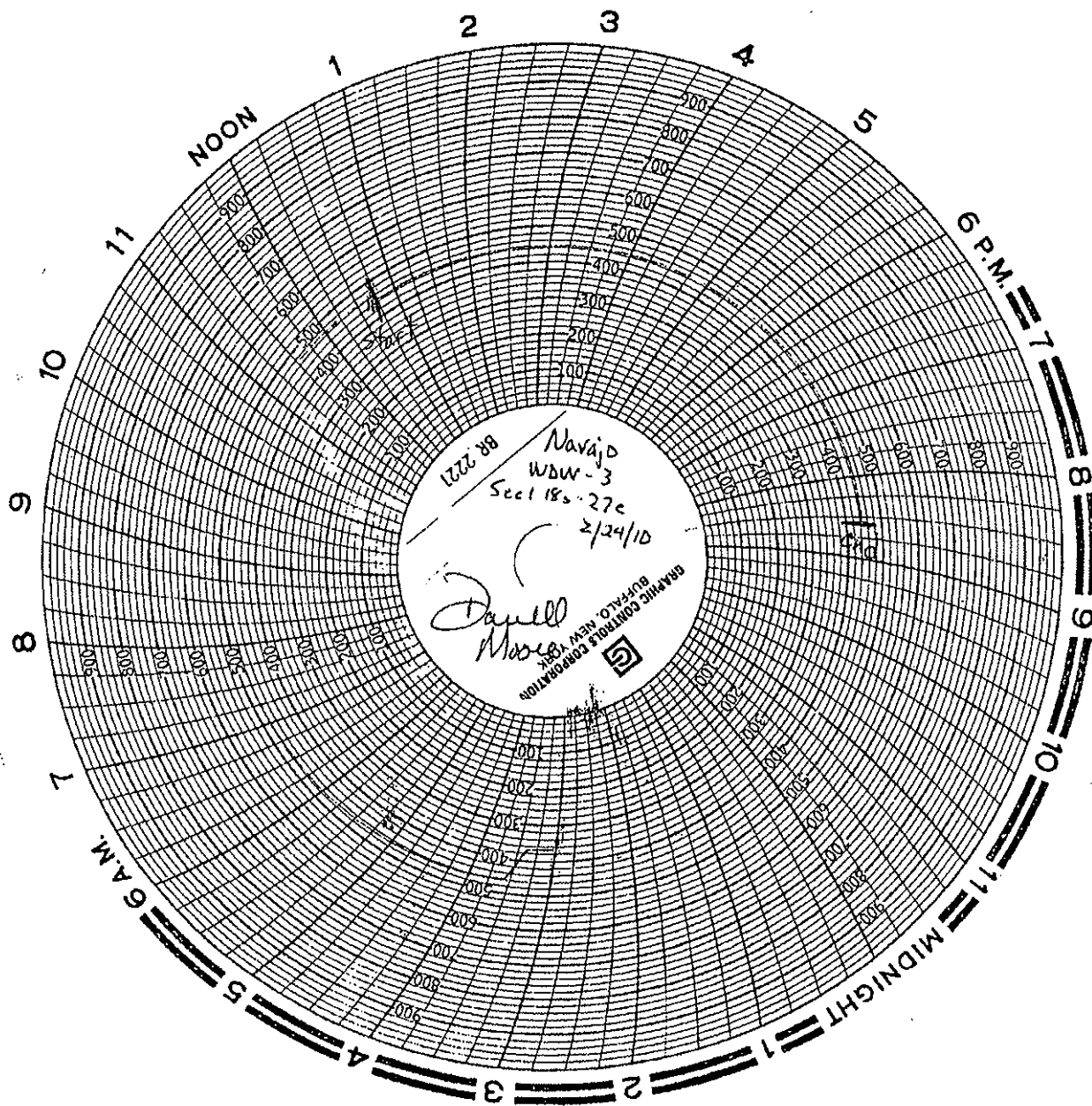
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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, July 06, 2010 9:04 AM
To: 'Moore, Darrell'
Subject: RE: Sewer Testing

Darrell:

Thanks for the notification.

Also, the OCD needs Navajo to complete the quarterly Bradenhead information on the form provided to you last week for our records. Let me know if you have any questions. Staff in Artesia questioned the 30 minutes in the form, and I determine that Navajo just needs to use the form to document compliance with our quarterly Bradenhead testing requirement for WDW-3. The MITs for Class I Wells need to be completed by 9/30/2010 along with Annual Fall-Off Test. OCD can use the MIT pressure chart for WDW-3 to satisfy the MIT requirement this season.

Please contact me if you have questions. Thanks.

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) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Tuesday, July 06, 2010 7:24 AM
To: Chavez, Carl J, EMNRD
Subject: Sewer Testing

Carl

We will be testing sewers in the Vacuum Unit at the Artesia Refinery on Friday July 9, 2010 starting at 8 am. If OCD would like to witness let me know.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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Santa Fe, New Mexico 87505

(Submit 2 copies to above address)

Well Status (Shut-In or Producing)	Tubing	Intermediate	Casing	Bradenhead
---	--------	--------------	--------	------------

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

E-mail address **darrell.moore@hollycorp.com**

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Wednesday, June 30, 2010 1:47 PM
To: Chavez, Carl J, EMNRD; Dade, Randy, EMNRD
Subject: FW:
Attachments: WDW-3.pdf

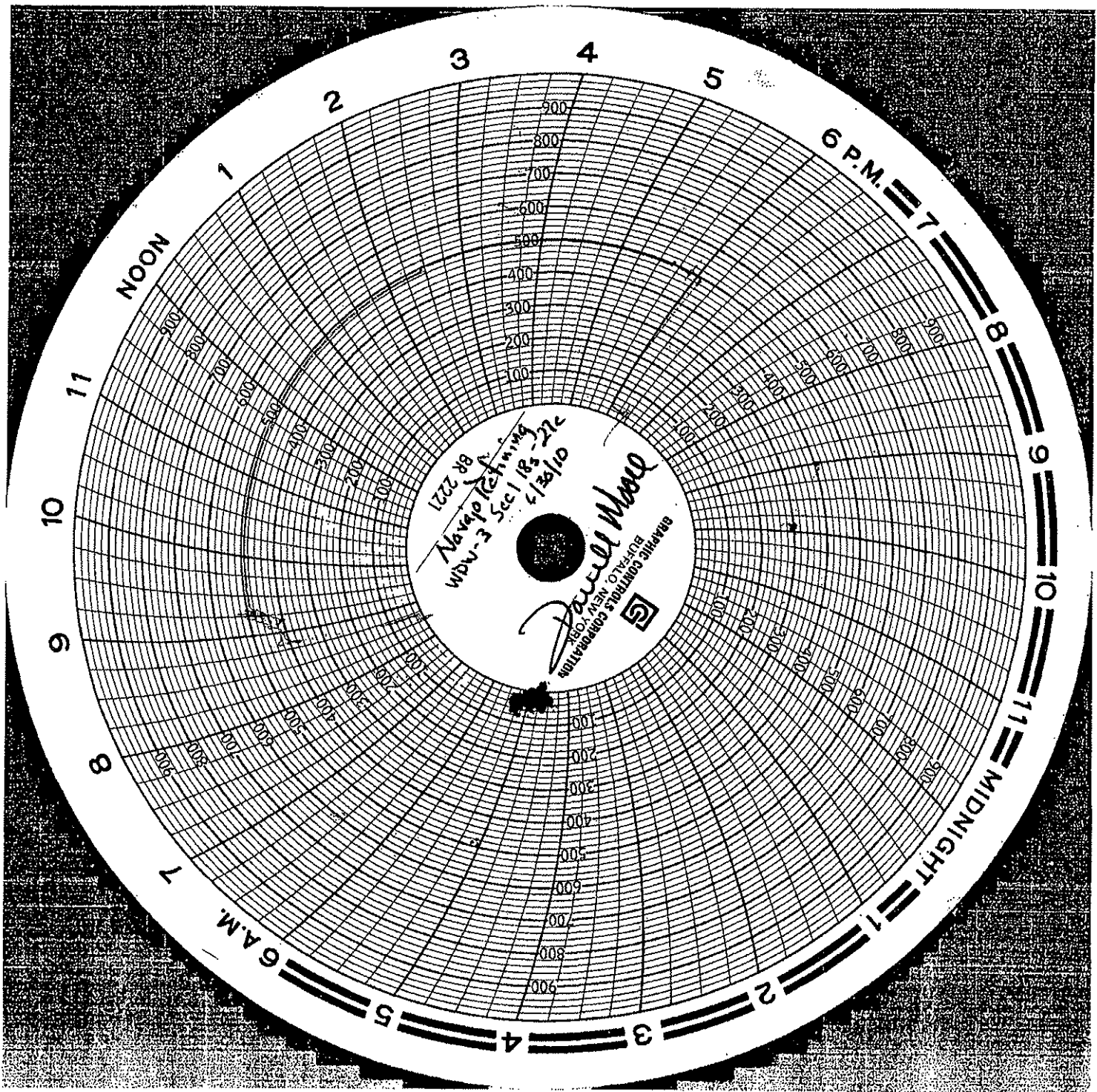
Gentlemen,

Attached, please find the quarterly MIT for Navajo's WDW-3 Injection well located in Sec 1, 18 south 27 east. If there are any questions concerning this submission, please call me at 575-746-5281.

From: Hernandez, Carrie
Sent: Wednesday, June 30, 2010 1:44 PM
To: Moore, Darrell
Subject:

Carrie Hernandez
Environmental Administrative Assistant
Navajo Refining Co, LLC
Direct Line 575-748-6733
Direct Fax 575-746-5451
Life is a Journey. Roll down the Windows and Enjoy the Breeze

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District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-26575
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other Injection Well <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Navajo Refining Company		6. State Oil & Gas Lease No. NM-0557371
3. Address of Operator Post Office Box 159, Artesia, New Mexico 88211		7. Lease Name or Unit Agreement Name Gaines WDW-3
4. Well Location Unit Letter <u>N</u> : <u>790</u> feet from the <u>South</u> line and <u>2250</u> feet from the <u>West</u> line Section <u>01</u> Township <u>18S</u> Range <u>27E</u> NMPM County <u>Eddy</u>		8. Well Number WDW-3
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3609' GL, RKB		9. OGRID Number
		10. Pool name or Wildcat: Navajo Permo-Penn

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER: PERFORM PRESSURE FALLOFF TEST <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

December 12, 2011 - Install bottomhole gauges into WDW-1, WDW-2, and WDW-3 by 11:45am. Continue injection into all three wells.

December 13, 2011 - Continue injection into all three wells.

December 14, 2011 - At 12:15pm, the offset wells WDW-1 and WDW-2 will be shut-in. A constant injection rate will be established for WDW-3 and continue for a 30 hour injection period. Do not exceed 1000 psig wellhead pressure.

December 15, 2011 - At 7:00pm, WDW-3 will be shut in for a 30-hour falloff period. WDW-1 and WDW-2 will remain shut-in.

December 16, 2011 - All three wells will continue to be shut in while monitoring falloff pressure in all three wells.

December 17, 2011 - At 7:00am, acquire downhole pressure gauges from all three wells. Tag bottom of fill and come out of hole very slowly, making 7-minute gradient stops while coming out of WDW-3 every 1000 feet (7000 ft, 6000 ft, 5000 ft, 4000 ft, 3000 ft, 2000 ft, 1000 ft, surface). Run in hole with a temperature tool and conduct temperature survey from the surface to the top of the fill. Turn the wells back to Navajo personnel.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Timothy Jones TITLE Project Engineer DATE 10/3/2011
Type or print name Timothy Jones E-mail address: jones@subsurfacegroup.com PHONE: 713-880-4640
For State Use Only

APPROVED BY: Carl J. Shively TITLE Environmental Engineer DATE 10/19/2011
Conditions of Approval (if any):

See e-mail conditions dated 10/19/2011 attached to WDW-1.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 19, 2011 4:06 PM
To: 'Moore, Darrell'
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Dade, Randy, EMNRD
Subject: Navajo Refining Company UIC Class I (NH) Injection Wells WDWs 1, 2 & 3 (UICI-008) Fall Off Test Plan (August 2011)

Darrell:

The New Mexico Oil Conservation Division (OCD) is in receipt of your above subject test plan. OCD has already approved the Fall-Off Test (FOT) Plan with conditions on July 28, 2009. The OCD notes that it is also in the process of reviewing C-103s Sundry Notices for the upcoming FOTs.

OCD observes some changes in this FOT Plan submittal that are not acceptable to the OCD. For example, Exhibit 1 is not an acceptable exhibit to the OCD for reasons specified in the 2010 FOT report review and later during the May 2011 meeting in Santa Fe. However, the operator continues to submit exhibits with certain assumptions that have not been accepted or approved by the OCD, i.e., that the injection wells are show interconnection with the injection zone during past FOTs. Perhaps the operator can conduct the 2011 FOT with the information and exhibits needed to prove the interconnection of injection wells with the injection zone? The Certified PE should provide the exhibits in the 2011 FOT Report with the analysis and conclusions supporting any claims for the OCD to review and consider before approving. This is apparently a FOT frequency per well issue that the operator is attempting to prove.

The OCD provides the following comments, observations, and/or recommendations on the above subject plan below.

Comments:

- The OCD approved the original Fall-Off Test (FOT) Plan based on OCD Guidance dated December 3, 2007. There should not be any significant changes to this FOT Plan because it is flexible where needed to allow operators to implement it on each injection well.
- OCD likes to be notified to witness the installation of bottom hole gauges and to be present at least one hour before injection shut-off and commencement of FOT monitoring.
- OCD is concerned about the Section VI No. 1(e) WDW-3 Cement Bond Log quality being poor from 900 ft. to 1200 ft- especially at the depths: 2662 – 2160; 4876 – 5372; and 6750 – 7600 ft. micro annulus scenario.

Observations:

- Section V No. 2: The objective of the FOT is NOT to achieve or limit a 100 psig pressure differential before vs. after FOT injection vs. shut-off, but it is a minimum pressure differential that OCD stipulates in its guidance for a successful FOT and injection zone that may still continue to be utilized for disposal, i.e., not too pressured up and subject to continued fracturing under daily allowed maximum surface injection pressure operational limits.
- Section V No. 7 and Exhibit 1: OCD observes a bottom hole pressure chart for WDWs 1, 2 and 3 at 7660 feet that the operator presented in the 2010 FOT and again during a May 2011 meeting in Santa Fe, New Mexico to show the interconnection between injection wells and the injection formation. The OCD had commented that there was no explanation or conclusion provided from the Certified PE who conducted and completed the 2010 FOT report that supports the operator's claim that all injection wells are interconnected based on Exhibit 1.

Furthermore, the OCD requested a statement or information supporting the operator's claim by the Certified PE, but never received one. At the meeting, the OCD explained that based on Exhibit 1, there was no support for the claim. In order to make the interconnection determination, during each FOT at each well and off-set injection wells (WDWs not being FOT'd) before and throughout the FOT would need bottom hole pressures monitored in tandem at each well location to establish the interconnectivity of the injection wells with the receiving injection formation under a uniform time scale. This would be a chart that could be plotted that would show during the test the interconnectivity of the wells for each FOT. The OCD doubts that the operator can make the case for interconnectivity between injection wells and injection formation because of the significant distance between the injection wells and fact that sedimentation in formation varies laterally and uniformity in sedimentation, saturated porosity and permeability due to variation in sedimentation would by chance make the injection formation aerially extensive and uniform over a 3 to 5 mile radius from each injection well. Also, even if by chance there was

uniformity over the mileage specified, the distance between injection wells and corresponding pressure would likely not be observed.

- Exhibit 6: OCD observes in Section B a proposed MIT once every 5 years. OCD's UIC Program requires annual MITs and/or after down hole work is performed on a well.

Recommendations:

- Operator is running survey logs to the bottom of fill or below USDW (fresh water) zones, which excludes an evaluation of casing in the fresh water zone. Please run logs up to surface.
- Be sure to also record and provide injection flow rate and pressure leading up to shut-off and monitoring throughout the FOT monitoring period. OCD needs to confirm that a pseudo steady-state condition was achieved before shut-off. This data is also needed for software modeling of the FOT.
- Please provide electronic data from the FOTs at each well in order for the OCD to run its software model to confirm the results in the report.
- Section V No. 13: Surface pressure monitoring and Horner Plot during injection should be used to confirm radial flow condition is achieved instead of waiting a set period if operator wishes to reduce the injection period.

Disclaimer: *Please be advised that OCD has already approved with conditions Navajo Refining Company's Fall-Off Test (FOT) Plan on July 28, 2009, and is not providing approval of this FOT Plan; however, comments, observations and recommendations herein should help Navajo Refining Company understand the OCD's concerns based on the submittal.*

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) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

District I - (575) 393-6161
1625 N French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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

Form C-103

Revised August 1, 2011

<p>SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)</p>		<p>WELL API NO. 30-015-26575</p>
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<p>2. Name of Operator Navajo Refining Company</p>		<p>6. State Oil & Gas Lease No. NM-0557371</p>
<p>3. Address of Operator Post Office Box 159, Artesia, New Mexico 88211</p>		<p>7. Lease Name or Unit Agreement Name Gaines WDW-3</p>
<p>4. Well Location Unit Letter N : 790 feet from the South line and 2250 feet from the West line Section 01 Township 18S Range 27E NMPM County Eddy</p>		<p>8. Well Number WDW-3</p>
<p>11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3609' GL, ' RKB</p>		<p>9. OGRID Number</p>
<p>10. Pool name or Wildcat: Navajo Permo-Penn</p>		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: PERFORM PRESSURE FALLOFF TEST



OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions. Attach wellbore diagram of proposed completion or recompletion.

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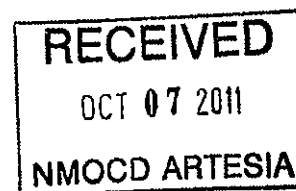
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R. Dade 10/11/11
Accepted for record
NMOCD



Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Timothy Jones TITLE Project Engineer DATE 10/3/2011
Type or print name Timothy Jones E-mail address: tjones@subsurfacegroup.com PHONE: 713-880-4640
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):

SUBSURFACE

NAVAJO REFINING COMPANY

Map ID No. 90

Artificial Penetration Review

OPERATOR BP America Prod.

LEASE Empire ABO Unit

WELL NUMBER 17A

DRILLED 3-26-59

PLUGGED 12-01-08

STATUS Plugged

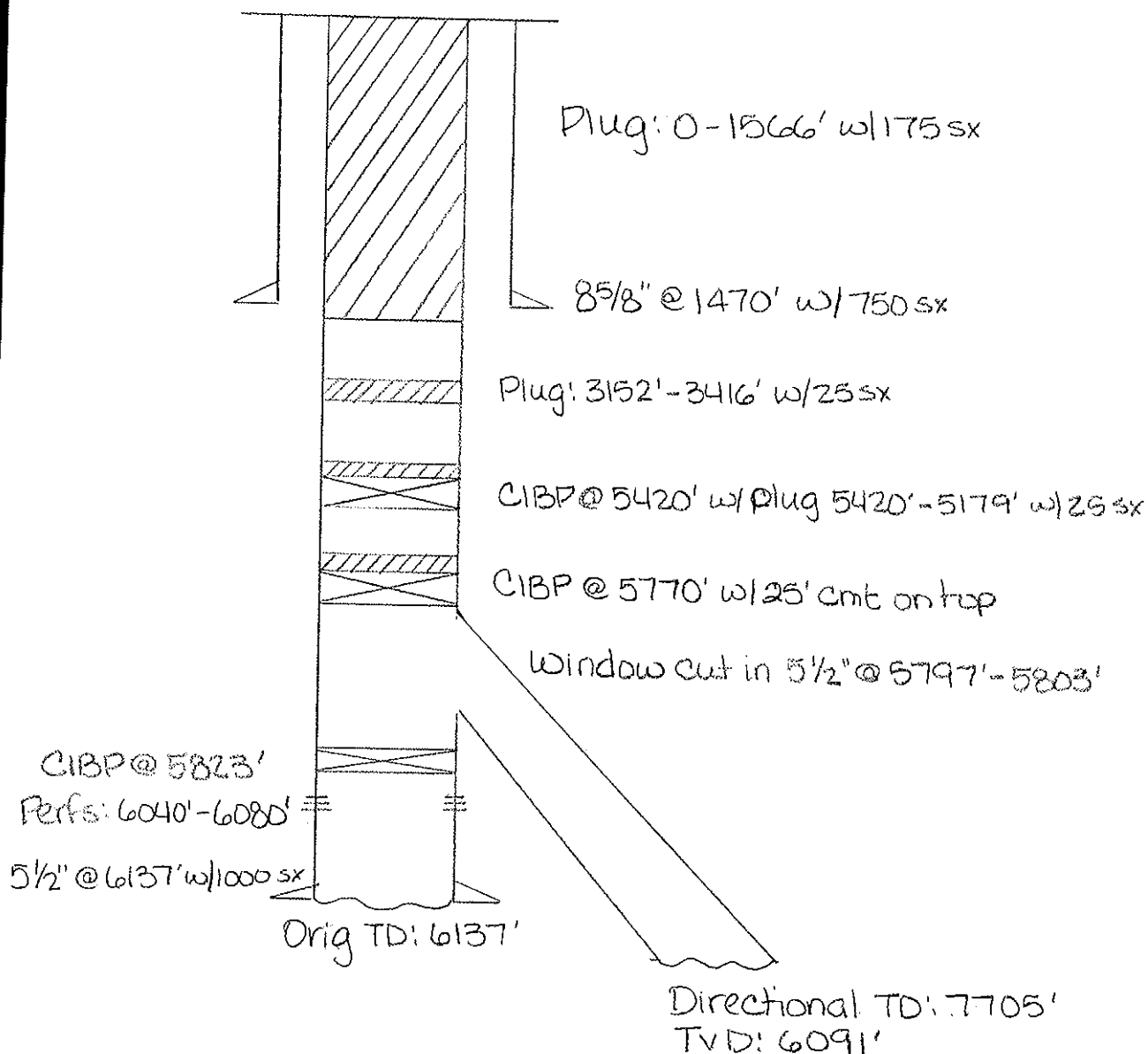
LOCATION Sec. 1 -T18S-R27E

MUD FILLED BOREHOLE NA

TOP OF INJECTION ZONE ~7221' Est.

API NO. 30-015-00703

REMARKS:



COPY TO O. C. G.

Las Cruces

Land Office

Lease No.

Unit

APPROVED	
FEB 18 1959	
ROBERT F. STANS ACTING DISTRICT ENGINEER	

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

USA MALCO REFINERIES *F*

February 16, 1959

Well No. 1 is located 1980 ft. from N line and 660 ft. from E line of sec. 1

NW/4 SW/4 Section 1 13 - S 27 - E NMPN
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Undesignated Eddy New Mexico
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is _____ ft.

furnish later

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

We propose to drill the above well with rotary tools to an approximate depth of 6200' to test the Abo. Casing program will be as follows:

Size of Hole	Size of Casing	Depth	Cement
11	8-5/8	950	Circulate 2% Gel with 100 sacks neat on btm.
7-7/8	5-1/2	6135	150

NOTE: Please insert lease number.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Pan American Petroleum Corporation

Address Post Office Box 68

Hobbs, New Mexico

By

Title Field Superintendent

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

FORM C-128
 Revised 5-1-57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

SECTION A

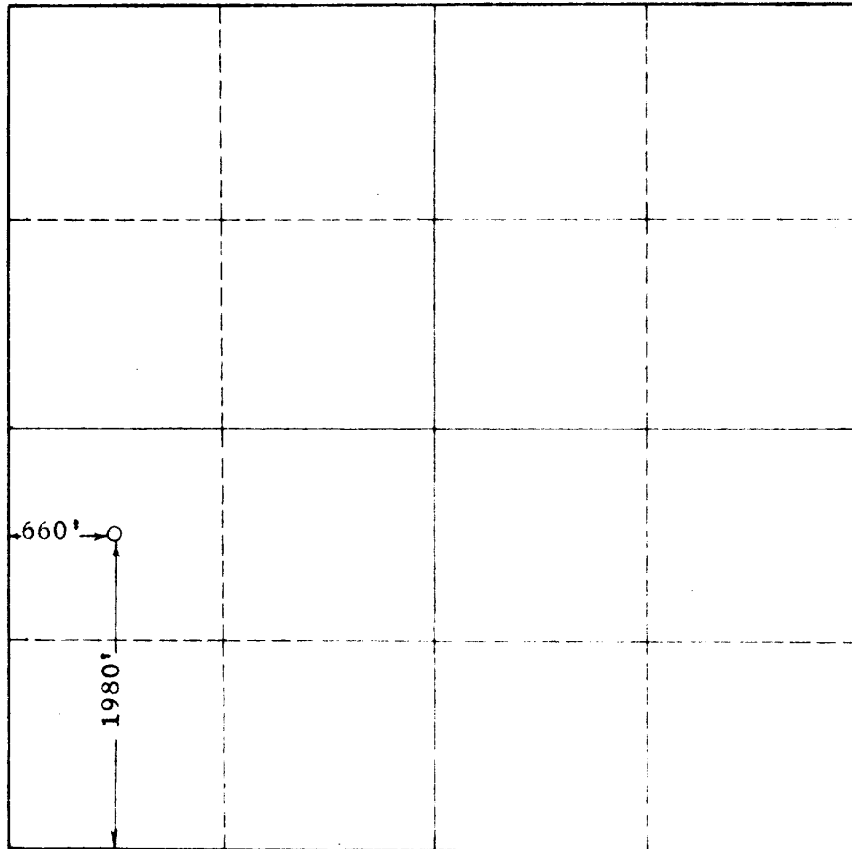
Operator Pan American Pet. Corp.		Lease U.S.A. Malco Refineries F		Well No. 1
Unit Letter L	Section 1	Township 18 S	Range 27 E	County Eddy
Actual Footage Location of Well: 1980 feet from the South line and 660 feet from the West line				
Ground Level Elev. furnish later	Producing Formation Abo	Pool Empire Abo	Dedicated Acreage: 40 Acres	

- Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES ☒ NO ☐ ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1955 (comp.))
- If the answer to question one is "no," have the interests of all the owners been consolidated by common agreement? YES ☐ NO ☐ If answer is "yes," Type of Consolidation _____
- If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

RECEIVED
FEB 18 1959
 U. S. GEOLOGICAL SURVEY
 ALBUQUERQUE, NEW MEXICO

SECTION B



CERTIFICATION

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

Name	Original Signed by E. W. BROWN
Position	Field Superintendent
Company	Pan American Petroleum Corp.
Date	February 16, 1959

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed	2-10-59
Registered Professional Engineer and/or Land Surveyor	JOHN W. WEST
Certificate No.	N.M. - P.E. & L.S. NO. 676

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO
HOBBS, NEW MEXICO

February 12, 1959

Pan American Pet. Corp.
Hobbs, New Mexico

Gentlemen:

On February 10, 1959, a survey was made to locate your U.S.A. Malco Refineries "F" No. 1 well at a point 1980 feet from the South line and 660 feet from the West line of Sec. 1, Township 18 South, Range 27 East, N.M.P.M., Eddy County, New Mexico.

A Flag was set at the USGLO Quarter corner marker common to Sections 1 and 2 and the the Transit was set up at the U.S. G.I.O. Section corner marker common to Sections 1, 2, 11 and 12. Thence chaining North from the Transit on the West line of Section 1 a distance of 1980 feet, thence East 660 feet to the location site of the USA Malco Refineries "F" No. 1 well. As a check on our survey we chained West from the location site 660 feet and thence North 609.5 feet to the USGLO Quarter corner marker common to sections 1 and 2, checking in within 0.6 feet of the distance as shown on the USGLO Township Plats.

I hereby certify that the foregoing survey was made in the field by me and that the same is true and correct to the best of my knowledge and belief.

Respectfully submitted,

John W. West
John W. West

RECEIVED
FEB 18 1959
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

NM MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(Form C-104)
Revised 7/1/57

REQUEST FOR (OIL) - ~~10/451~~/ALLOWABLE

New Well
~~Recompletion~~

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Hobbs, New Mexico

April 24, 1959

(Place)

(Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Pan American Petroleum Corp. - Malco Refineries "F", Well No. 1, in NW 1/4 SW 1/4,

(Company or Operator)

(Lease)

L, Sec. 1, T. 18 S, R. 27 E, NMPM, Empire Abo Pool

Unit Letter

Eddy

County. Date Spudded. 3-26-59

Date Drilling Completed 4-20-59

Please indicate location:

Elevation 3581 RDB Total Depth 6137 PBD 6101

Top Oil/dk Pay 5460 Name of Prod. Form. Abo

PRODUCING INTERVAL -

Perforations 6040-6080 with 2 shots per foot

Open Hole - Depth Casing Shoe 6137 Depth Tubing 6077

OIL WELL TEST -

Natural Prod. Test: bbls, oil, bbls water in hrs, min. Size

Test After Acid 1/1/1/1/1 Treatment (after recovery of volume of oil equal to volume of

load oil used): 82 bbls, oil, no bbls water in 24 hrs, min. Size 10/64"

GAS WELL TEST -

Natural Prod. Test: MCF/Day; Hours flowed Choke Size

Method of Testing (pitot, back pressure, etc.):

Test After Acid or Fracture Treatment: MCF/Day; Hours flowed

Choke Size Method of Testing:

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): Acidized with 500 gallons 15% regular

Casing Press. PKR Tubing Press. 725 Date first new oil run to tanks 4-20-59

Oil Transporter Malco Refineries Inc.

Gas Transporter

Remarks:

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved: 19

PAN AMERICAN PETROLEUM CORPORATION

(Company or Operator) Original Signed by J. W. BROWN

OIL CONSERVATION COMMISSION

By: M. L. Armstrong

By: (Signature)

Title Field Superintendent

Send Communications regarding well to:

Title

Name J. W. Brown

Address Box 68 - Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Pan American Petroleum Corporation Lease Malco Refineries "F"

Well No. 1 Unit Letter L S 1 T 18 SR 27 E Pool Undesignated

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 18 SR 27 E

Authorized Transporter of Oil or Condensate Malco Refineries Inc.

Address Box 660 - Roswell, New Mexico
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas _____
Address _____
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Vented pending market arrangements.

Reasons for Filing: (Please check proper box) New Well _____ (☒)
Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()

Change in Ownership _____ () Other _____ ()
Remarks: _____ (Give explanation below)

Completed as an oil well 4-21-59.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 24th day of April 19 59

Approved _____ 19 _____

OIL CONSERVATION COMMISSION

By M L Armstrong
Title _____

By _____
Original Signed By
J. W. BROWN

Title Field Superintendent

Company Pan American Petroleum Corporation

Address Box 68
Hobbs, New Mexico

COPY TO O. C. C.

Form 9-330

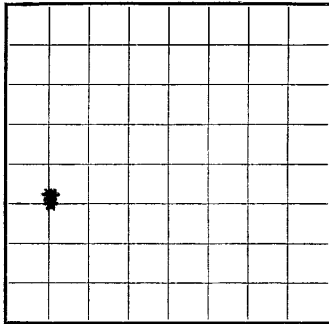
Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

Las Cruces

U. S. LAND OFFICE

SERIAL NUMBER **LC 062412**

LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

APR 23 1959

GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR

UNITED STATES

GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corp. Address Box 68 - Hobbs, New Mexico
 Lessor or Tract USA M&L Refineries "F" Field Empire Abo State New Mexico
 Well No. 1 Sec. 1 T. 18S R. 27E Meridian NMPM County Eddy
 Location 1980 ft. N. of S Line and 660 ft. E. of W Line of Section 1 Elevation 3581 RDB
 (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Original Signed by
L. M. BROWN

Signed

Date April 23, 1959Title Field Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling 3-26, 19 59 Finished drilling 4-20, 19 59

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6040 to 6080 No. 4, from _____ to _____
 No. 2, from _____ to _____ No. 5, from _____ to _____
 No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
 No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<u>8-5/8</u>	<u>24</u>	<u>8</u>	<u>J-55</u>	<u>1468</u>	<u>Float</u>	<u>Surface</u>			<u>Surface</u>
<u>5-1/2</u>	<u>18</u>	<u>8</u>	<u>J-55</u>	<u>6167</u>	<u>Float</u>	<u>6040</u>	<u>6080</u>		<u>Oil String</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8-5/8</u>	<u>1470</u>	<u>750</u>	<u>HOWCO</u>		
<u>5-1/2</u>	<u>6137</u>	<u>1000</u>	<u>HOWCO</u>		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 2-11 feet to 6127 feet, and from _____ feet to _____ feet

FOLD MARK

Cable tools were used from feet to feet, and from feet to feet

DATES

Completed April 21 19 59 Put to producing April 20, 19 59
 The production for the first 24 hours was 82 barrels of fluid of which 100 was oil; %
 emulsion; % water; and % sediment. Gravity, °Bé. 42°
 If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
 Rock pressure, lbs. per sq. in.

EMPLOYEES

B. J. Wright, Driller R. E. Miles, Driller
 J. W. Martin, Driller W. P. Tadlock, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	387	387	Red Bed
387	600	213	Red Bed, Anhy.
600	1025	425	Anhy.
1025	1463	438	Anhy., Gyp
1463	1521	58	Anhy., Lime
1521	4809	3288	Lime
4809	4822	13	Lime and Dolomite
4822	4844	22	Dolomite
4844	4911	67	Lime
4911	5557	646	Dolomite, Lime
5557	6137	580	Lime
			TOPS
			San Andres - 1830
			Glorieta - 3220
			Abu Reef - 5460

[OVER]

16-43094-4

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

Well was drilled to a TD of 6137', perforated 6040'-6080' w/3 shots per foot and acidized with 500 gallons 15% regular acid. On test well flowed 82 BO, no water in 24 hrs., (85.3 MCF) gas on 10/64" choke, TPF 785 COR 1041

HISTORY OF OIL OR GAS WELL

NEW MEXICO

OIL CONSERVATION COMMISSION

Post Office Box 2045

Hobbs, New Mexico

May 26, 1959

Pan American Petroleum Corporation
P. O. Box 68
Hobbs, New Mexico

Re: Undesignated Well
Placed in Pool

Gentlemen:

In accordance with the provisions of Commission
Order K-1397, your Malco Refineries "F" No. 1
oil well in Unit L of Section 1, Township 18 South, Range 27
East, which is currently listed in the "Undesignated Section"
of the Proration Schedule, will appear in the Empire-Abo
Pool in the
Schedule.

Please file Form C-110 showing the change in pool
designation of this well with the Artesia office of the Oil
Conservation Commission.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

RFM:mg

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Pan American Petroleum Corporation Lease Malco Refineries Inc.

Well No. 1 Unit Letter L S 1 T 18 R 27 Pool Empire Abo

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 18 R 27

Authorized Transporter of Oil or Condensate Continental Pipe Line Company

Address Box 367, Artesia, New Mexico
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas _____

Address _____
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Vented pending market arrangements

Reasons for Filing: (Please check proper box) New Well ()

Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()

Change in Ownership () Other Change Transporter ()
(Give explanation below)

Remarks:

Filed to change transporter from Malco Refineries Inc. to Continental Pipe Line Company effective May 1, 1959.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 19th day of May 19 59

Original Signed by
L. W. BROWN

By _____

Approved MAY 25 1959 19 _____

Title Area Superintendent

OIL CONSERVATION COMMISSION

Company Pan American Petroleum Corporation

By M. Hermestrom

Address Box 68 - Hobbs, New Mexico

Title Oil and Gas Inspector

1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2060		2061		2062		2063		2064		2065		2066		2067		2068		2069		2070		2071		2072		2073		2074		2075		2076		2077		2078		2079		2080		2081		2082		2083		2084		2085		2086		2087		2088		2089		2090		2091		2092		2093		2094		2095		2096		2097		2098		2099		2100		2101		2102		2103		2104		2105		2106		2107		2108		2109		2110		2111		2112		2113		2114		2115		2116		2117		2118		2119		2120		2121		2122		2123		2124		2125		2126		2127		2128		2129		2130		2131		2132		2133		2134		2135		2136		2137		2138		2139		2140		2141		2142		2143		2144		2145		2146		2147		2148		2149		2150		2151		2152		2153		2154		2155		2156		2157		2158		2159		2160		2161		2162		2163		2164		2165		2166		2167		2168		2169		2170		2171		2172		2173		2174		2175		2176		2177		2178		2179		2180		2181		2182		2183		2184		2185		2186		2187		2188		2189		2190		2191		2192		2193		2194		2195		2196		2197		2198		2199		2200		2201		2202		2203		2204		2205		2206		2207		2208		2209		2210		2211		2212		2213		2214		2215		2216		2217		2218		2219		2220		2221		2222		2223		2224		2225		2226		2227		2228		2229		2230		2231		2232		2233		2234		2235		2236		2237		2238		2239		2240		2241		2242		2243		2244		2245		2246		2247		2248		2249		2250		2251		2252		2253		2254		2255		2256		2257		2258		2259		2260		2261		2262		2263		2264		2265		2266		2267		2268		2269		2270		2271		2272		2273		2274		2275		2276		2277		2278		2279		2280		2281		2282		2283		2284		2285		2286		2287		2288		2289		2290		2291		2292		2293		2294		2295		2296		2297		2298		2299		2300		2301		2302		2303		2304		2305		2306		2307		2308		2309		2310		2311		2312		2313		2314		2315		2316		2317		2318		2319		2320		2321		2322		2323		2324		2325		2326		2327		2328		2329		2330		2331		2332		2333		2334		2335		2336		2337		2338		2339		2340		2341		2342		2343		2344		2345		2346		2347		2348		2349		2350		2351		2352		2353		2354		2355		2356		2357		2358		2359		2360		2361		2362		2363		2364		2365		2366		2367		2368		2369		2370		2371		2372		2373		2374		2375		2376		2377		2378		2379		2380		2381		2382		2383		2384		2385		2386		2387		2388		2389		2390		2391		2392		2393		2394		2395		2396		2397		2398		2399		2400		2401		2402		2403		2404		2405		2406		2407		2408		2409		2410		2411		2412		2413		2414		2415		2416		2417		2418		2419		2420		2421		2422		2423		2424		2425		2426		2427		2428		2429		2430		2431		2432		2433		2434		2435		2436		2437		2438		2439		2440		2441		2442		2443		2444		2445		2446		2447		2448		2449		2450		2451		2452		2453		2454		2455		2456		2457		2458		2459		2460		2461		2462		2463		2464		2465		2466		2467		2468		2469		2470		2471		2472		2473		2474		2475		2476		2477		2478		2479		2480		2481		2482		2483		2484		2485		2486		2487		2488		2489		2490		2491		2492		2493		2494		2495		2496		2497		2498		2499		2500		2501		2502		2503		2504		2505		2506		2507		2508		2509		2510		2511		2512		2513		2514		2515		2516		2517		2518		2519		2520		2521		2522		2523		2524		2525		2526		2527		2528		2529		2530		2531		2532		2533		2534		2535		2536		2537		2538		2539		2540		2541		2542		2543		2544		2545		2546		2547		2548		2549		2550		2551		2552		2553		2554		2555		2556		2557		2558		2559		2560		2561		2562		2563		2564		2565		2566		2567		2568		2569		2570		2571		2572		2573		2574		2575		2576		2577		2578		2579		2580		2581		2582		2583		2584		2585		2586		2587		2588		2589		2590		2591		2592		2593		2594		2595		2596		2597		2598		2599		2600		2601		2602		2603		2604		2605		2606		2607		2608		2609		2610		2611		2612		2613		2614		2615		2616		2617		2618		2619		2620		2621		2622		2623		2624		2625		2626		2627		2628		2629		2630		2631		2632		2633		2634		2635		2636		2637		2638		2639		2640		2641		2642		2643		2644		2645		2646		2647		2648		2649		2650		2651		2652		2653		2654		2655		2656		2657		2658		2659		2660		2661		2662		2663		2664		2665		2666		2667		2668		2669		2670		2671		2672		2673		2674		2675		2676		2677		2678		2679		2680		2681		2682		2683		2684		2685		2686		2687		2688		2689		2690		2691		2692		2693		2694		2695		2696		2697		2698		2699		2700		2701		2702		2703		2704		2705		2706		2707		2708		2709		2710		2711		2712		2713		2714		2715		2716		2717		2718		2719		2720		2721		2722		2723		2724		2725		2726		2727		2728		2729		2730		2731		2732		2733		2734		2735		2736		2737		2738		2739		2740		2741		2742		2743		2744		2745		2746		2747		2748		2749		2750		2751		2752		2753		2754		2755		2756		2757		2758		2759		2760		2761		2762		2763		2764		2765		2766		2767		2768		2769		2770		2771		2772		2773		2774		2775		2776		2777		2778		2779		2780		2781		2782		2783		2784		2785		2786		2787		2788		2789		2790		2791		2792		2793		2794		2795		2796		2797		2798		2799		2800		2801		2802		2803		2804		2805		2806		28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NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Pan American Petroleum Corporation Lease Malco Refineries "P"

Well No. 1 Unit Letter L S 1 T 18 R 27 Pool Empire Abo

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 18 R 27

Authorized Transporter of Oil or Condensate Continental Pipe Line Company

Address Box 367 Artesia, New Mexico
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas _____
Address _____ Date Connected _____
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:
Vented pending market arrangements.

Reasons for Filing: (Please check proper box) New Well _____ ()

Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()

Change in Ownership _____ () Other Change Pool Designation (X)
(Give explanation below)

Remarks:

Filed to show pool designation as Empire Abo.

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 29th day of May 19 59

Original Signed by
J. W. BROWN

By _____

Approved JUN 8 1959 19 _____

Title Area Superintendent

OIL CONSERVATION COMMISSION

Company Pan American Petroleum Corporation

By W. A. Gressett

Address Box 68

Title _____

Hobbs, New Mexico

OIL CONSERVATION COMMISSION		
ARTIFICIAL DISTRICT OFFICE		
No. Copies	Original	5
DATE		
Copies	17	
Santa Fe	1	
Proration Office	1	
State Land Office		
U. S. G. S.		
Transporter	1	
File	1	✓

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico

April 16, 1959

File: JWM-131-986.510.1

Subject: Request for Exception to
Rule 111 Deviation Tests,
USA Maseo Refineries "F"
No. 1, Empire Abo Field

New Mexico Oil Conservation Commission (2)
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. D. S. Nutter, Chief Engineer

Gentlemen:

This has reference to your conversation with Mr. N. S. Whitmore of Pan American on April 14, 1959, concerning the deviation test requirements of Rule 111. It is our understanding that the Commission may grant exceptions to the requirement for running a directional survey where computation of the deviation surveys periodically run in conjunction with drilling operations indicates the bottom of hole could not conceivably be off the lease.

Currently, Pan American Petroleum Corporation is drilling their joint interest USA Maseo Refineries "F" No. 1 in the Empire Abo Field. This well was staked 1980 feet from the south line and 660 feet from the west line of Section 1, T-18-S, R-27-E, Eddy County, New Mexico. The projected total depth is approximately 6150 feet. At a depth of 4805 feet a deviation test registered $6-1/2^\circ$ which was the first deviation recorded above 5° . Since that depth the deviation has varied between $6-1/4^\circ$ and $6-1/2^\circ$ with the well currently drilling at approximately 5530 feet.

The attached tabulation furnishes the deviation surveys run on the well to date along with a computation of the drift in a continuous direction. The assumption that the drift would remain in a continuous direction was made to analyze the drift under the least desirable condition to determine if the bottom of the hole were possibly approaching a lease line. That drift would be maintained in a continuous straight line is also considered very unlikely to occur under actual drilling conditions.

These data indicate the horizontal drift from the surface to 5500 feet to be approximately 270 feet. Considering the deviation would remain relatively constant for the remaining 650 feet to be drilled, the maximum anticipated horizontal drift would approach 343 feet. Thus it is indicated that deviations to total depth of the magnitude currently encountered would not place the bottom of the well off a lease line for this 660 foot location.

COPY

1. The first part of the report is a general description of the area and the two sides of the street.

2. The second part of the report is a detailed description of the area and the two sides of the street.

3. The third part of the report is a detailed description of the area and the two sides of the street.

4. The fourth part of the report is a detailed description of the area and the two sides of the street.

5. The fifth part of the report is a detailed description of the area and the two sides of the street.

6. The sixth part of the report is a detailed description of the area and the two sides of the street.

7. The seventh part of the report is a detailed description of the area and the two sides of the street.

8. The eighth part of the report is a detailed description of the area and the two sides of the street.

9. The ninth part of the report is a detailed description of the area and the two sides of the street.

10. The tenth part of the report is a detailed description of the area and the two sides of the street.

11. The eleventh part of the report is a detailed description of the area and the two sides of the street.

It is therefore respectfully requested that Pan American Petroleum Corporation be granted an exception to Rule 111 for running a directional survey on their USA Maseo Refineries "F" No. 1. Your early consideration of this request will be sincerely appreciated as it is anticipated that drilling operations will be completed by April 18, 1959.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

J. W. Brown
Field Superintendent

By: J. W. Mack

cc: Mr. M. L. Armstrong
New Mexico Oil Conservation Commission
Artesia, New Mexico

1. The Department of Defense is currently reviewing the proposed legislation and will report to the President on the results of its review. The Department is also conducting a study of the proposed legislation and will report to the President on the results of its study. The Department is also conducting a study of the proposed legislation and will report to the President on the results of its study.

Print view of doc

ATTACHED COPY. 44-38861-1A

1990年12月
 北京

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SECRET
NO FOREIGN DISSEM

Control cell, 1250A

DEVIATION SURVEYS
USA MALCO REFINERIES "F" NO. 1

<u>Depth Toteo Run</u>	<u>Interval Between Toteos</u>	<u>Drift Indicated By Toteo</u>	<u>Horizontal Drift Over Interval</u>	<u>Cumulative Horizontal Drift</u>
500'	500'	3/4°	6.55'	6.55'
970'	470'	3/4°	6.15'	12.70'
1350'	380'	3/4°	4.97'	17.67'
1850'	500'	1-3/4°	15.27'	32.94'
2050'	200'	2°	6.98'	39.92'
2380'	330'	1-1/2°	8.64'	48.56'
2970'	590'	1-3/4°	18.02'	66.58'
3410'	440'	2-3/4°	21.11'	87.69'
3745'	335'	3-1/2°	20.45'	108.14'
4050'	305'	3-1/2°	18.62'	126.76'
4350'	300'	4-1/2°	23.45'	150.21'
4555'	205'	4-3/4°	16.98'	167.19'
4650'	95'	4-3/4°	7.87'	175.06'
4805'	155'	6-1/2°	17.55'	192.61'
4990'	185'	6-1/2°	20.94'	213.55'
5115'	125'	6-1/4°	13.61'	227.16'
5245'	130'	6-1/4°	14.15'	241.31'
5380'	135'	6-1/2°	15.28'	256.59'
5500'	120'	6-1/2°	13.58'	270.17'

Continued from Page 1
1. List of all the items in the collection

Accession Number	Donor Name	Date Received	Description	Quantity
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100.002	100.002	100.002	100.002	100.002
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100.004	100.004	100.004	100.004	100.004
100.005	100.005	100.005	100.005	100.005
100.006	100.006	100.006	100.006	100.006
100.007	100.007	100.007	100.007	100.007
100.008	100.008	100.008	100.008	100.008
100.009	100.009	100.009	100.009	100.009
100.010	100.010	100.010	100.010	100.010
100.011	100.011	100.011	100.011	100.011
100.012	100.012	100.012	100.012	100.012
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100.014	100.014	100.014	100.014	100.014
100.015	100.015	100.015	100.015	100.015
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100.017	100.017	100.017	100.017	100.017
100.018	100.018	100.018	100.018	100.018
100.019	100.019	100.019	100.019	100.019
100.020	100.020	100.020	100.020	100.020
100.021	100.021	100.021	100.021	100.021

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

April 20, 1959

Pan American Petroleum Corporation
P. O. Box 68
Hobbs, New Mexico

Attention: J. W. Brown

Re: Request for Exception to Rule
111 Deviation Tests, USA Malco
Refineries "F" No. 1, Empire-
Abo Pool.

Gentlemen:

Reference is made to your letter of April 16, 1959, concerning the above-captioned subject.

Inasmuch as the deviation survey which you have run establishes conclusively that the USA Malco Refineries "F" No. 1 Well will be bottomed on the lease where it is located, it is my opinion that the requirements of Rule 111 have been fully complied with.

Accordingly a hearing on this matter is unnecessary.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/OEP/ir

cc: ✓ Mr. M. L. Armstrong
Oil Conservation Commission
Artesia, New Mexico

OIL COMMISSION
P.O. BOX 27
SANTA FE, NEW MEXICO

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NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Pan American Petroleum Corporation Lease Malco Refineries F

Well No. 1 Unit Letter L S 1 T 18 R 27 Pool Empire Abo

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 18 R 27

Authorized Transporter of Oil or Condensate McWood Corp. (Trucks)

Address 330 Petroleum Building Abilene, Texas

(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas _____

Address _____

(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Vented pending market arrangements

Reasons for Filing: (Please check proper box) New Well _____ ()

Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()

Change in Ownership _____ () Other Change Transporter (X)

Remarks: (Give explanation below)

Filed to change Transporter from Continental Pipe Line Co. to McWood Corp. (Trucks)

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 29 day of May 19 59

Original Signed by
J. W. BROWN

By _____

Approved J. W. BROWN 19 59

Title Area Superintendent

OIL CONSERVATION COMMISSION

Company PAPC

By McArmstrong

Address Box 68

Title _____

Hobbs, New Mexico

OIL CONSERVATION COMMISSION		
ARTESIA DISTRICT OFFICE		
No. Copies Received <u>5</u>		
DISTRIBUTION		
	C.O. FURNISHED	
President		
State Land Office		
U. S. G. S.		
Transporter		
File		

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

SEP 9 1959

Company or Operator Pan American Petroleum Corporation Lease USA Mules Refineries F

Well No. 1 Unit Letter L S 1 T 183 R 27E Pool Empire Abo

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 183 R 27E

Authorized Transporter of Oil or Condensate Service Pipe Line Co., Box 337, Midland, Texas

Address _____
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas Gas Vented

Address _____ Date Connected _____
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:
Gas Flared

Reasons for Filing: (Please check proper box) New Well _____ ()

Change in Transporter of (Check One): Oil (☒) Dry Gas () C'head () Condensate ()

Change in Ownership _____ () Other _____ ()

Remarks: _____ (Give explanation below)

Change in transporter from McWood Corporation (Trucks) to Service Pipe Line Co., effective 9-10-59

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 8 day of September 19 59

By _____
Original Signed by
J. W. BROWN

Approved SEP 10 1959 19

Title Area Superintendent

OIL CONSERVATION COMMISSION

Company Pan American Petroleum Corporation

By W. L. Armstrong

Address Box 68 - Hobbs, NM

Title _____

OIL CONSERVATION COMMISSION		
ARTESIA DISTRICT OFFICE		
No. Copies Received	5	
Date		
FOR		
BY		
PROF.		
STAFF		
U. S. G.		
GRANT		
DEPT. OF MINES		✓

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110

Revised 7/1/55

RECEIVED

(File the original and 4 copies with the appropriate district office)

NAME CHANGED:

FROM: PAN AMERICAN PETR. CORP.

TO: AMOCO PRODUCTION CO. TO TRANSPORT OIL AND NATURAL GAS

EFFECTIVE: 2-1-71

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION

SEP 19 1960

O. C. C.

ARTESIA, OFFICE

Company or Operator Pan American Petroleum Corporation

Lease

AMOCO

Fidelity

Well No. 1 Unit Letter L S 1 T 183 R 27E Pool Empire Abs

County Eddy Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit F S 1 T 183 R 27E

Authorized Transporter of Oil or Condensate. Eff. 4/1/70 name change from
3411 Knoxville Avenue

Address Lubbock, Texas 79413 Service to Amoco Pipeline Co.

(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas Empire Abs Gasoline Plant

Address Pan American Petr. Corp., Box 68, Hobbs, N.M. Date Connected 9-3-60

(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Effective 2-1-71

Gas Transporter Name Changed:

From: Pan American Petroleum Corp.

To: Amoco Production Co.

Reasons for Filing: (Please check proper box) New Well ()

Change in Transporter of (Check One): Oil () Dry Gas () C'head (x) Condensate ()

Change in Ownership () Other ()

Remarks: (Give explanation below)

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 14th day of September 19 60

Original Signed by
J. W. BROWN

By

Approved SEP 15 1960 19 60

Title Area Superintendent

OIL CONSERVATION COMMISSION

Company Pan American Petroleum Corporation

By McArmstrong

Address Box 68

Title Area Superintendent

Hobbs, New Mexico

OIL CONSERVATION COMMISSION	
ARTESIA DISTRICT OFFICE	
No. Copies Received	5
	D
REPORT	
SAMPLES	
CLERICAL	
STATIONERY	
RECORDS	
TRANSPORT	
FILE	
ATTENDANCE	

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. DRAWER DD
ARTESIA, NEW MEXICO

March, 1968

No. A 1

SUPPLEMENT TO THE OIL PRORATION SCHEDULE

DATE 3/1/68

PURPOSE: ALLOWABLE ASSIGNMENT (BACK ALLOWABLE)

Effective 3/1/68, back allowable is hereby assigned to the following
Pan American Petr. Corp. wells in the Empire Abo Pool in accordance
with Commission Order No. A-220.

Malco F Lease

#1-L, 1-18-27, 18 bbls total
#2-E, " , 18 bbls total
#3-H, " , 18 bbls total
#4-F, " , 15 bbls total
#5-K, " , 16 bbls total
#6-B, " , 18 bbls total
#7-G, " , 18 bbls total
#8-C, " , 18 bbls total
#9-H, " , 18 bbls total
#11-A, " , 18 bbls total
#12-M, " , 18 bbls total

Malco R Lease

#10-D, 1-18-27, 18 bbls total

NAME CHANGED:
FROM: PAN AMERICAN PETR. CORP.
TO: AMOCO PRODUCTION CO.
EFFECTIVE: 2-1-71

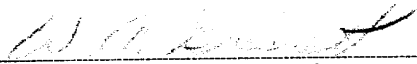
WAG/jw

Pan Am. Petr. Corp.

Service

Amoco 4-1-70

OIL CONSERVATION COMMISSION


SUPERVISOR, DISTRICT NO. 2

EXTRA COPY

RECEIVED STATES
DEPARTMENT OF THE INTERIORSUBMIT IN TR ICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

MAY 15 1972

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
APPLICATION FOR PERMIT— for such proposals.)

1. ARTESIA, OFFICE OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Amoco Production Company	8. FARM OR LEASE NAME MALCO "F" Federal
3. ADDRESS OF OPERATOR BOX 68, HOBBS, N. M. 88240	9. WELL NO. 1
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1980' FSL x 660' FWL Sec 1 (Unit L. NW/4 SW/4)	10. FIELD AND POOL, OR WILDCAT EMPIRE ABO
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3581' R.D.B.
	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA 1-18-27 NMPM
	12. COUNTY OR PARISH EDDY
	13. STATE NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

In an effort to increase productivity propose to acidize perforations 6040-6080' w/ 2500 gal 15% NE. Evaluate and restore to production. latest flow test 4-20-72, 102 BO+ OBW 24 hrs. GOR 961.

TD-6137
PBD-6101

5 1/2" CSA 6137. Cmt Circ.

PERFS: 6040-80' w/2USPF.

18. I hereby certify that the foregoing is true and correct

SIGNED

AREA SUPERINTENDENT

TITLE

DATE

MAY 8 1972

(This space for Federal or State use only)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY

TITLE

DATE

014- USGS- AR-
1- DIV
1- SUSP
1- RRY
1- HONDO

APPROVED
MAY 12 1972
R. L. BECKMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

RECEIVED
MAY 24 1972UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM-0557371

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

MAY 24 1972
SUNDY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
See "APPLICATION FOR PERMIT" for such proposals.)1. OIL WELL ☒ NATURAL WELL ☐ OTHER ☐2. NAME OF OPERATOR
Amoco Production Company

3. ADDRESS OF OPERATOR

BOX 68, HOBBS, N. M. 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1980' FSH x 660' FWL Sec 1 (Unit L, NW 1/4 SW 1/4)

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

3581' R.D.B.

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

MARCO "F" Federal

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

Empire A-2

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

1-18-27 NMPM

12. COUNTY OR PARISH 13. STATE

EDDY

NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☒(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Perforations 6040-80' were acidized w/ 2500 gal
15% HF acid. Evaluated & restored to prod.Prior - Flow 102 BO + 0 BW 24 hrs. GOR 961
after - Flow 152 BO + 0 " " " GOR 691

RECEIVED

MAY 19 1972

U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE AREA SUPERINTENDENT

DATE MAY 17 1972

(This space for Federal or State office use)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

0+4- USGS-A-2
1- DIV
1- SUSP
1- HONDUMAY 23 1972
H. L. BEEKMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

5

DATE	11
TIME	11
S.C.S.	
AND OFFICE	
TRANSPORTER	OIL 1 GAS 1
OPERATOR	1
PERORATION OFFICE	

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

RECEIVED

SEP 26 1973

Operator	Atlantic Richfield Company /	O. C. C.
Address	P. O. Box 1710, Hobbs, New Mexico 88240	ARTESIA, OFFICE
Reason(s) for filing (Check proper box)	Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:	Included in Empire Abo
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/>	Unit eff: 10-1-73. Change in lease
Change in Ownership <input checked="" type="checkbox"/>	Casinghead Gas <input type="checkbox"/>	name from MALCO F Federal #1.
	Dry Gas <input type="checkbox"/>	
	Condensate <input type="checkbox"/>	

If change of ownership give name and address of previous owner AMOCO Production Company P. O. Box 68, Hobbs, New Mexico

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, including formation	Kind of Lease	Lease No.
Empire Abo Unit K	17	Empire Abo	State, Federal or Fee Federal	
Location				
Unit Letter L	1980	Feet From The South	Line and 660	Feet From The West
Line of Section 1	Township 18S	Range 27E	NMPM,	Eddy County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
AMOCO Pipe Line Company	2300 Continental Bk. Bldg., Ft. Worth, Tex. 76102
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
AMOCO Production Company	P. O. Box 68, Hobbs, New Mexico 88240
If well produces oil or liquids, give location of tanks.	Is gas actually connected? When
Unit F Sec. 1 18S 27E	yes 9-3-60

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
Perforations	Depth Casing Shoe							
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allow able for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF
GAS WELL			
Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

OIL CONSERVATION COMMISSION	
SEP 28 1973	
APPROVED	13
BY	W. A. Grissett
TITLE	OIL AND GAS INSPECTOR

A. L. Spackelford
(Signature)
Sr. Acctg. Clerk
(Title)
9-26-73
(Date)

This form is to be filed in compliance with RULE 111.
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviated tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for allowable on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
Separate Forms C-104 must be filed for each pool in multiple completed wells.

REGISTRATION		
AREA		
DATE		
TIME		
OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION **RECEIVED**

NOV - 6 1978

Supersedes Old
C-102 and C-103
Effective 1-1-65

SUNDRY NOTICES AND REPORTS ON WELLS <small>(DO NOT USE THIS FORM FOR APPLICATIONS TO DRILL OR TO RE-DRILL OR TO RE-LEASE TO A DIFFERENT RESERVE.)</small>		5a. Indicate Type of Lease Fed State <input type="checkbox"/> Fed <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.		
7. Unit Agreement Name Empire Abo Unit		
8. Name of Lease Name EAU "K"		
9. Well No. 17		
10. Field and Pool, or Wildcat Empire Abo		
11. Elevation (Show whether DE, KT, GR, etc.) KE 3581'		
12. County Eddy		

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data			
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
<input type="checkbox"/> PERFORM REMEDIAL WORK <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> ALTER OR ALTER CASING <input type="checkbox"/> OTHER	<input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> OTHER	<input type="checkbox"/> REMEDIAL WORK <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> CASING TEST AND CEMENT JOBS <input type="checkbox"/> OTHER	<input type="checkbox"/> ALTERING CASING <input type="checkbox"/> PLUG AND ABANDONMENT <input type="checkbox"/> OTHER
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.			

Piping braden head to surface.

14. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED D.H. Truitt TITLE Dist. Prod. Supervisor DATE 10-31-78
 APPROVED BY BW Weaver TITLE Field Rep DATE 11-8-78
 CONDITIONS OF APPROVAL, IF ANY:

DISTRIBUTION	
SANTA FE	1
FILE	1
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL 1
	GAS 2
OPERATOR	1
PRORATION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

RECEIVED

MAR 14 1979

Operator		ARCO Oil and Gas Company - Division of Atlantic Richfield Company	
Address		P. O. Box 1710, Hobbs, New Mexico 88240	
Reason(s) for filing (Check proper box)		Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:	Change in Operator Name	
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>	effective: 4-1-79	
Change in Ownership <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>		

If change of ownership give name
and address of previous owner

I. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, including Formation	Kind of Lease
Empire Abo Unit "K"	17	Empire Abo	State, Federal or Fee <u>Federal</u>
Location			
Unit Letter	Feet From The		Feet From The
L	1980 South Line and		460 West
Line of Section	Township	Range	NMPM, Eddy County
1	18S	27E	

I. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Amoco Pipeline Company	2300 Continental National Bank Bldg. Ft. Worth, Texas 76102
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Amoco Production Company Phillips Petroleum Company	P.O. Drawer A, Levelland, Texas 79338 4001 Penbrook, Odessa, Texas 79760
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
	F 1 18 27 yes AMO+PP 9-3-60

If this production is commingled with that from any other lease or pool, give commingling order number:

V. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
No Change								
Pool	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
No Change			
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure	Casing Pressure	Choke Size

I. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

OIL CONSERVATION COMMISSION
APR 09 1979
APPROVED BY W. A. Gressett

George V. Parks

(Signature)

District Prod & Drlg Supt.

(Title)

3-7-79

(Date)

TITLE SUPERVISOR, DISTRICT II

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out Sections I, II, III, and VI only for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply

District I
PO Box 1900, Hobbs, NM 88241-1900
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address ARCO Permian A Unit of Atlantic Richfield Co. P.O. Box 1710 Hobbs, NM 88240		OGRID Number 000990	
		Reason for Filing Code JUL 1 1994 CH	
API Number 30 - 0 15-00703	Pool Name Empire ABO	Pool Code 22040	
Property Code 001474	Property Name Empire ABO Unit "K"	Well Number 17	

II. Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
L	1	15S	27E		1980	S	660	W	Eddy

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West Line	County

Lee Code	Producing Method Code	Gas Connection Date	C-129 Permit Number	C-129 Effective Date	C-129 Expiration Date
F	F				

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
000734	AMOCO Pipeline 502 NW Avenue Levelland, TX 79336	2811057	O	D-10 FT-185-27E
000756	AMOCO Production Co. P.O. Box 68 Hobbs, NM 88240	2811047	G	F-1-185-27E
009171	GPM Gas Corp. 4001 Penbrook Odessa, TX 79760	2811047	G	

IV. Produced Water

POD	POD ULSTR Location and Description

V. Well Completion Data

Spud Date	Ready Date	TD	FBTD	Perforations

Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure

Choke Size	Oil	Water	Gas	AOF	Test Method

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

OIL CONSERVATION DIVISION

Signature: <i>Kellie D. Murrish</i>		Approved by: SUPERVISOR, DISTRICT II	
Printed name: Kellie D. Murrish		Title:	
Title: Records Clerk II		Approval Date: JUN 6 1994	
Date: 6-1-94	Phone: 505-391-1649		
* If this is a change of operator fill in the OGRID number and name of the previous operator			
Previous Operator Signature		Printed Name	Title
			Date

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. LC-062412 NM 055737
2. Name of Operator ARCO Permian	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. BOX 1610, MIDLAND, TX 79702 915 688-5672	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980 FSL & 660 FWL (UNIT LETTER L) 1-18S-27E	8. Well Name and No. EMPIRE ABO UNIT "K" # 17
	9. API Well No. 30-015-00703
	10. Field and Pool, or exploratory Area EMPIRE ABO
	11. County or Parish, State EDDY NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other ADD HORIZONTAL EXT	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

PROPOSE TO ADD HORIZONTAL DRAINHOLE AS FOLLOWS:

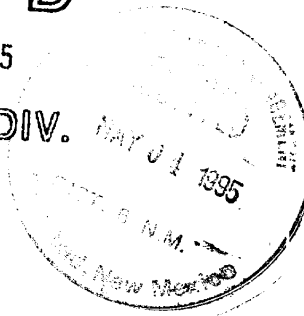
1. POH W/PROD CA.
2. SET RETRIEVABLE WHIPSTOCK.
3. SIDETRACK & DRILL 250' RADIUS CURVE.
4. DRILL 1000' HORIZONTAL LATERAL.
5. RETRIEVE WHIPSTOCK.
6. RIH W/PROD CA.

RECEIVED

MAY - 9 1995

OIL CON. DIV.
DIST. 2

subject to
Like Approval
by State **CCD**



14. I hereby certify that the foregoing is true and correct		
Signed Ken W Gosnell	Title AGENT	Date 05-03-95
(This space for Federal or State office use)		
Approved by (Orig. Sgd.) JOE G. LARA	Title PETROLEUM ENGINEER	Date 5/5/95
Conditions of approval, if any:		

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See instruction on Reverse Side

HORIZONTAL SIDETRACK PROCEDURE

DATE: May 1, 1995

WELL: Empire Abo #K-17 DRILLED: 1959 FIELD: Empire Abo COUNTY: Eddy, NM

BY: P.N. Drennon TD: 6,137' PBD: 6,101' DATUM: 12' KB

	<u>SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>	<u>SET @</u>	<u>SX CMT</u>	<u>TOC</u>
CASING:						
SURFACE:	8 5/8"	24#	J-55	1,470'	750	surf-circ
PROD:	5 1/2"	14#	J-55	6,137'	1,000	surf-circ

PERFORATIONS: Open perms: Abo 6,040'-6,080'

HISTORY AND BACKGROUND: Drilled in 1959, completed as a flowing oil well from the Abo.

SCOPE OF WORK: Set retrievable whipstock, sidetrack and drill 250' radius build curve, 1,000' horizontal lateral, retrieve whipstock, complete as flowing/pumping well from existing Abo perms and new horizontal lateral.

TARGET INFORMATION:	Whipstock Depth:	5,810'
	Kickoff Point:	Same as above
	Azimuth:	E (90°)
	Target Depth:	6,060'
	Planned Displacement:	Total 1,250'
	Surface Location:	1,980' FSL, 660' FWL, Sec. 1, T-18-S, R-27-E, Eddy Co., N.M.

PROCEDURE

1. MIRU PU, pump, swivel, pits. Install H₂S safety equipment. Pull rods and pump, warehouse same. ND tree, NU BOPE. Pull tubing, LD and warehouse.
2. PU 4 3/4" bit and scraper, 10 3-1/2" DC, 2 7/8" AOH DP, TIH to PBTD 6,101, circulate @ TD if necessary. RU & run gyro multi-shot survey via DP. RD survey equipment, TOO, LD bit and scraper.
3. GIH w/ packer and set in vicinity of 5,800'.
4. Test casing and stack to 750 psig.
5. PU anchor, whipstock assembly w/ starter mill, BHA, TIH, hydraulically set anchor @ 5,810'.

Note: Oriented assembly, azimuth E (compass 90°) per O/A Engineer (Gary Smallwood).

6. Shear off whipstock assembly w/ starter mill. Mill out casing and shear bolt assembly to start window, use Abo produced water for circulation. Use polymer additions for additional lift if necessary.
7. TOO, LD starter mill, PU window mill, 1 jt S-135 AOH DP, BHA, TIH.
8. Finish cutting window, drill out into open hole, circulate clean.
9. TOO, LD window mill and inspect for proper wear. PU window mill, watermelon mill, BHA.

Note: Air/foam package to be on location at this point.

10. TIH, clean and dress window, drill 8-10' formation, circulate clean.

11. TOOH, LD window and watermelon mills, check for proper wear. PU 4 3/4" drag bit, bent housing motor, bent sub, non-mag DC, 2 7/8" 8.7# PH-6 tbg DC's (minimum 2 DC's in casing @ TD of build curve), TIH.
12. Displace hole w/ stiff foam (expect 700-800 SCF/min w/ 1.75 BPM water w/ 8-10 gal/1000 foamer).
13. RU wet connect, steering tool, land same, drill build curve, plan to drill 23°/100' build rate (radius 250') to max angle of 87°- 90°- from vertical.
14. RD steering tool/wet connect, TOOH, LD build motor, PU packer on DP, TIH, set packer @ ±5,700'.
15. Open by-pass, jet via DP to kick-off and test production from build curve. If necessary, polymer squeeze build curve to shut off excess gas production.
16. TOOH, LD packer, PU 4 3/4" bit, hold motor, Monel DC, 2 7/8" tbg. DC's (minimum 9 DC's in casing @ TD), DP, TIH, RU wet connect, steering tool, land same drill lateral ±1,000' due East. All drilling done w/ stiff foam.
17. TOOH, LD BHA, PU tbg to go to end of lateral, DP, TIH.
18. Stage in and blow hole w/ air to unload foam, @ EOC blow hole dry, load to kill w/ produced water, TOOH.
19. PU CA and production tubing, TIH.
20. Swab to KO well, test.
21. Kill well w/ produced water, TOOH w/ CA.
22. PU die collar, 4 3 1/2" DC, tubing, TIH, latch and release packer stock, TOOH, LD packer stock, die collar, DC's.
23. TIH w/ CA and production tubing.
24. Swab to KO well, test.
25. If recommended, TIH to EOL w/ 1 1/4" coil tubing, spot 15% HCl w/ adds throughout lateral, POOH w/ coil tubing.
26. Swab to KO well, test.
27. TOPS

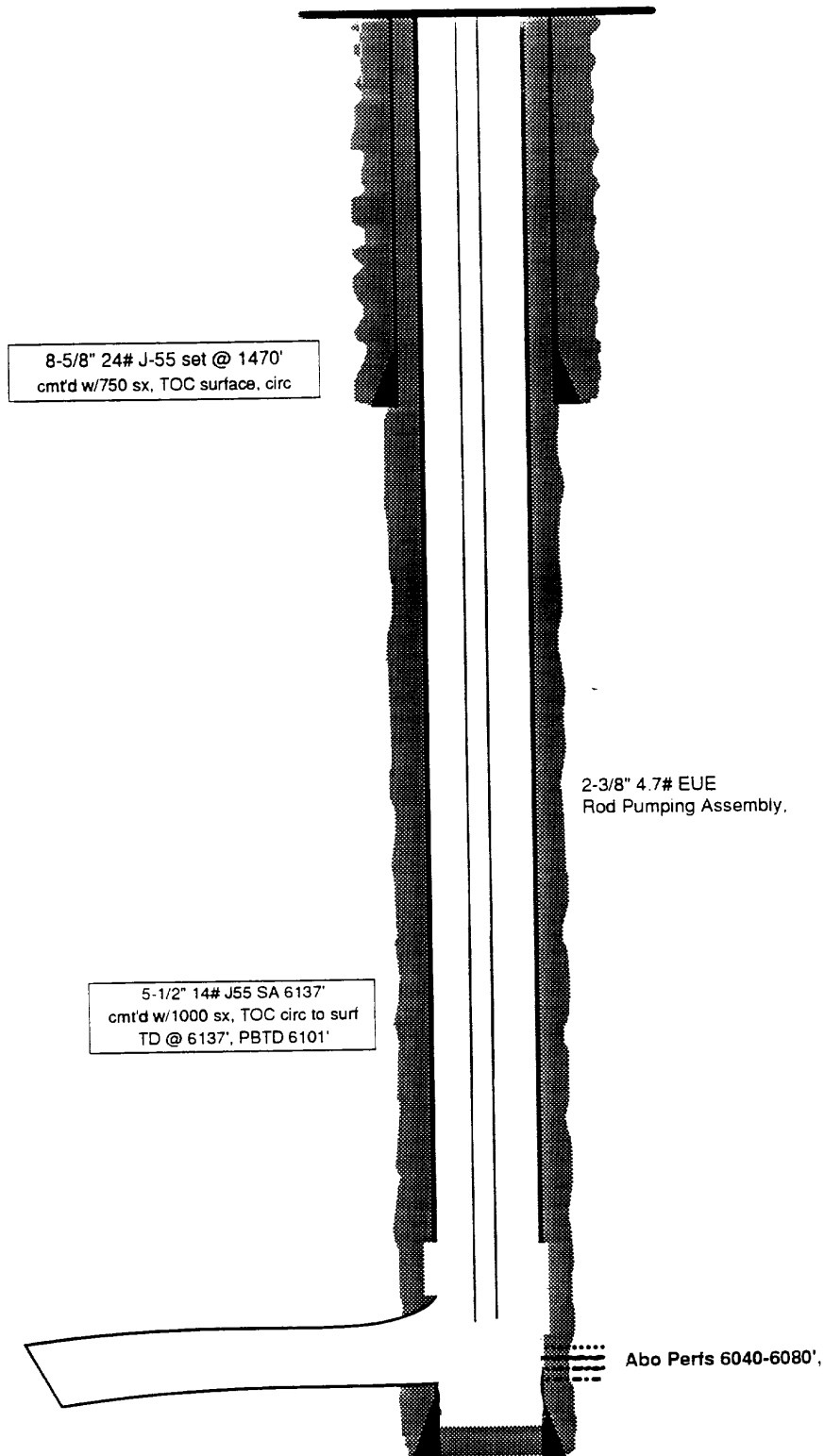
P. N. Drennon

J. E. Shields

EMPIRE ABO K-17

Proposed Status

Drilled 1959



Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
ARCO Permian

3. Address and Telephone No.
P.O. Box 1710 Hobbs, N.M. 88240 505-391-1649

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1980' FSL & 660' FWL, Unit Letter L
Sec. 1, T18S, R27E

Drawer DD

Artesia, NM 88210

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.
LC-062412

6. If Indian, Alottee or Tribe Name

7. If Unit or C/A, Agreement Designation
8910138010

8. Well Name and No.

EMPIRE ABO UNIT K-17

9. API Well No.
30-015-00703

10. Field and Pool, or exploratory Area
EMPIRE ABO

11. County or Parish, State

EDDY

NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Converters on to Injection
	<input checked="" type="checkbox"/> Other ACIDIZE HORIZONTAL	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

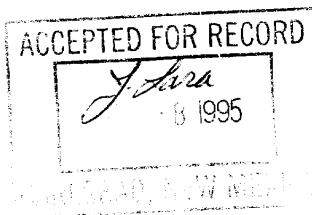
TD: 6137' PBD: 6101' PERFS: 6040-6080' CIBP ABOVE PERFS @ 5823'. WHIPSTOCK @ 5782'.
TOP OF WINDOWS @ 5797', BOTTOM OF WINDOW @ 5803'. HORIZONTAL 5800-7705'

06/21/95: ACIDIZE HORIZONTAL EXTENTION 5800-7705 W/2500 GALS 15% NEFE ACID AND 2500 GALS
CONDENSATE. DISPLACED ACID/CONDENSATE WHILE MOVING C.T. ALONG HORIZONTAL. FLUSH W/20 BPW.

RECEIVED

SEP 12 1995

OIL CON. DIV.
DIST. 2



Aug 16 10 58 AM '95

RECEIVED

14. I hereby certify that the foregoing is true and correct

Signed

Karen D. Marshall

Title Administrative Assistant

Date 8/15/95

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

SPECIFIC INSTRUCTIONS

Item 4 - If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. et. seq.; 43 CFR 3160.

PRINCIPAL PURPOSE - The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operation, on a Federal or Indian lease.

ROUTINE USES:

- (1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.
- (2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2).
- (3) Analyze future applications to drill or modify operations in light of data obtained and methods used.
- (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION - Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) requires us to inform you that:

This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized.

Response to this request is mandatory only for the specific types of activities specified in 43 CFR Part 3160.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20503.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.

LC-062412 NM-0557371

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement Designation

8. Well Name and No.

EMPIRE ABO UNIT "K" 17

9. API Well No.

30-015-00703

10. Field and Pool, or exploratory Area

EMPIRE ABO

11. County or Parish, State

EDDY NM

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

ARCO Permian

3. Address and Telephone No.

P.O. BOX 1610, MIDLAND, TX 79702

915 688-5672

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980 FSL & 660 FWL (UNIT LETTER L)

1-18S-27E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other ADD HORIZONTAL EXT

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

05-22-95. RUPU. POH W/PROD CA. RIH W/4 3/4 BIT TO 6099 PBD. SET CIBP AT 5830. RIH W/WHIPSTOCK. RAN GYRO SURVEY F/SURF-5798. SET WHIPSTOCK PKR ASSEMBLY AT 5812. CUT 6' WINDOW IN 5 1/2 CSG(5797-5803). DIRECTIONAL DRILLED TO 7705 MD. RIH W/PROD CA:2 3/8 TBG & PKR TO 5906. PKR SET AT 5772. RDPU 06-13-95

DEC 18 1995

OIL CON. DIV.
DIST. 2

14. I hereby certify that the foregoing is true and correct

Signed

Ken W. Gosnell

Title AGENT

Date 11-16-95

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

 ===== EAGLE DIRECTIONAL SERVICES, INC =====

Date: 6/8/1995 Time: 7:28: 6

PAGE: 1

Filename: "ARCO.SRV" Description: "ARCO PERMIAN EMPIRE ABO UNIT K17 RE-ENTRY
 HORIZONTAL WELL NW/4 SW/4 SEC 1 T18S R27E EDDY COUNTY, NEW MEXICO
 "

Target Coordinates: 23.6 N 1064.3 E Target TVD: 6048.600

Using Minimum Curvature Method.

S	MEASURED	DRIFT	DRIFT	COURSE	TRUE	VERTICAL	VERTICAL	RECTANGULAR	DOGLEG
#	DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH	SECTION	---	COORDINATES	-SEVERITY
	(feet)	(deg)	(deg)	(feet)	(feet)	(feet)		(feet)	DG/100FT
0	5700.0	5.15	346.670	0.0	5689.8	0.0		210.9 N 168.9 W	0.00
1	5798.0	4.73	350.130	98.0	5787.5	-165.7		219.2 N 170.6 W	0.53
2	5828.0	8.60	48.200	30.0	5817.3	-164.2		221.9 N 169.1 W	24.31
3	5857.0	17.10	64.500	29.0	5845.6	-158.6		225.2 N 163.7 W	31.59
4	5887.0	23.60	76.700	30.0	5873.7	-148.7		228.5 N 153.8 W	25.77
5	5918.0	27.90	93.300	31.0	5901.6	-135.4		229.5 N 140.5 W	26.96
6	5948.0	33.70	97.900	30.0	5927.4	-120.2		228.0 N 125.3 W	20.85
7	5979.0	42.70	97.000	31.0	5951.7	-101.2		225.5 N 106.3 W	29.09
8	6011.0	51.40	95.200	32.0	5973.5	-78.0		223.0 N 83.0 W	27.50
9	6043.0	59.60	96.100	32.0	5991.6	-51.9		220.4 N 56.8 W	25.73
10	6074.0	58.70	97.300	31.0	6007.5	-25.5		217.3 N 30.3 W	4.41
11	6106.0	64.20	100.300	32.0	6022.8	2.1		213.0 N 2.6 W	19.06
12	6136.0	69.40	105.500	30.0	6034.6	28.8		206.8 N 24.3 E	23.54
13	6167.0	76.70	106.200	31.0	6043.7	57.2		198.7 N 52.8 E	23.65
14	6198.0	84.00	104.500	31.0	6048.9	86.4		190.7 N 82.2 E	24.16
15	6230.0	87.00	103.700	32.0	6051.4	117.2		182.9 N 113.2 E	9.70
16	6262.0	87.70	103.200	32.0	6052.8	148.1		175.5 N 144.2 E	2.69
17	6293.0	87.80	103.700	31.0	6054.1	178.1		168.2 N 174.4 E	1.64
18	6323.0	88.10	104.700	30.0	6055.1	207.0		160.9 N 203.4 E	3.48
19	6355.0	87.80	105.200	32.0	6056.3	237.7		152.6 N 234.3 E	1.82
20	6387.0	86.10	103.100	32.0	6058.0	268.5		144.8 N 265.3 E	8.44
21	6418.0	86.00	103.200	31.0	6060.1	298.4		137.8 N 295.4 E	0.46
22	6450.0	85.70	103.200	32.0	6062.4	329.3		130.5 N 326.5 E	0.94
23	6481.0	85.70	103.300	31.0	6064.8	359.2		123.4 N 356.6 E	0.32
24	6512.0	87.20	101.700	31.0	6066.7	389.3		116.7 N 386.8 E	7.07
25	6544.0	87.00	101.000	32.0	6068.3	420.5		110.4 N 418.1 E	2.27
26	6574.0	86.50	100.800	30.0	6070.0	449.8		104.8 N 447.5 E	1.79
27	6604.0	86.50	100.900	30.0	6071.8	479.0		99.1 N 477.0 E	0.33
28	6636.0	88.00	99.300	32.0	6073.4	510.4		93.5 N 508.4 E	6.85
29	6666.0	87.70	99.000	30.0	6074.5	539.9		88.8 N 538.0 E	1.41
30	6697.0	87.40	99.200	31.0	6075.8	570.3		83.9 N 568.6 E	1.16
31	6758.0	88.10	99.400	61.0	6078.2	630.2		74.0 N 628.7 E	1.19
32	6819.0	88.10	100.200	61.0	6080.2	690.1		63.6 N 688.8 E	1.31
33	6848.0	87.90	100.300	29.0	6081.2	718.5		58.5 N 717.3 E	0.77
34	6909.0	88.80	98.400	61.0	6083.0	778.4		48.6 N 777.5 E	3.45
35	6939.0	88.50	98.500	30.0	6083.7	808.0		44.2 N 807.2 E	1.05

S #	MEASURED DEPTH (feet)	DRAFT ANGLE (deg)	DRAFT DIRECTION (deg)	COURSE LENGTH (feet)	TRUE VERTICAL DEPTH (feet)	VERTICAL SECTION (feet)	--- RECTANGULAR COORDINATES (feet)	DOGLEG -SEVERITY DG/100FT
36	7001.0	89.60	98.300	62.0	6084.7	869.1	35.1 N 868.5 E	1.80
37	7062.0	86.60	95.700	61.0	6086.8	929.4	27.7 N 929.0 E	6.51
38	7152.0	89.80	96.500	90.0	6089.6	1018.6	18.1 N 1018.4 E	3.66
39	7214.0	91.30	96.300	62.0	6089.0	1080.0	11.2 N 1080.0 E	2.44
40	7276.0	92.40	96.100	62.0	6087.0	1141.5	4.5 N 1141.6 E	1.80
41	7336.0	92.60	96.500	60.0	6084.4	1200.9	2.1 S 1201.2 E	0.74
42	7362.0	92.90	96.400	26.0	6083.1	1226.6	5.0 S 1227.0 E	1.22
43	7427.0	92.20	97.100	65.0	6080.2	1290.9	12.6 S 1291.5 E	1.52
44	7458.0	90.00	97.600	31.0	6079.6	1321.6	16.6 S 1322.3 E	7.28
45	7520.0	88.30	97.700	62.0	6080.6	1382.8	24.8 S 1383.7 E	2.75
46	7583.0	87.10	98.100	63.0	6083.1	1444.9	33.5 S 1446.0 E	2.01
47	7641.0	86.40	98.500	58.0	6086.4	1502.0	41.8 S 1503.3 E	1.39
48	7672.0	85.80	98.900	31.0	6088.5	1532.5	46.5 S 1533.9 E	2.32
--- Survey #49 is Projected to TD!								
49	7705.0	85.20	98.900	33.0	6091.1	1564.9	51.6 S 1566.4 E	1.82
--- Final Closure Direction:				91.887				
--- Final Closure Distance:				1567.266 feet				

SCIENTIFIC DRILLING INTERNATIONAL
MIDLAND, TEXAS

Finder Survey
for

ARCO OIL & GAS COMPANY
MIDLAND, TEXAS

Job Number : 32F0595215
Well Number : EMPIRE ABO "K" NO. 17
Site Location : EDDY COUNTY, NEW MEXICO
Latitude : 32.750
Survey Date(s) : 24-MAY-95
S.D.C. personnel : GARY DESPAIN
Calculation Method : Minimum Curvature
Survey Depth Zero : RKB
Proposal Direction : 99.000
Depth Unit : Feet
Comments :

Inrun Survey
ARCO OIL & GAS COMPANY

page 1

Well number : EMPIRE ABO "K" NO.

Date : 24-MAY-95

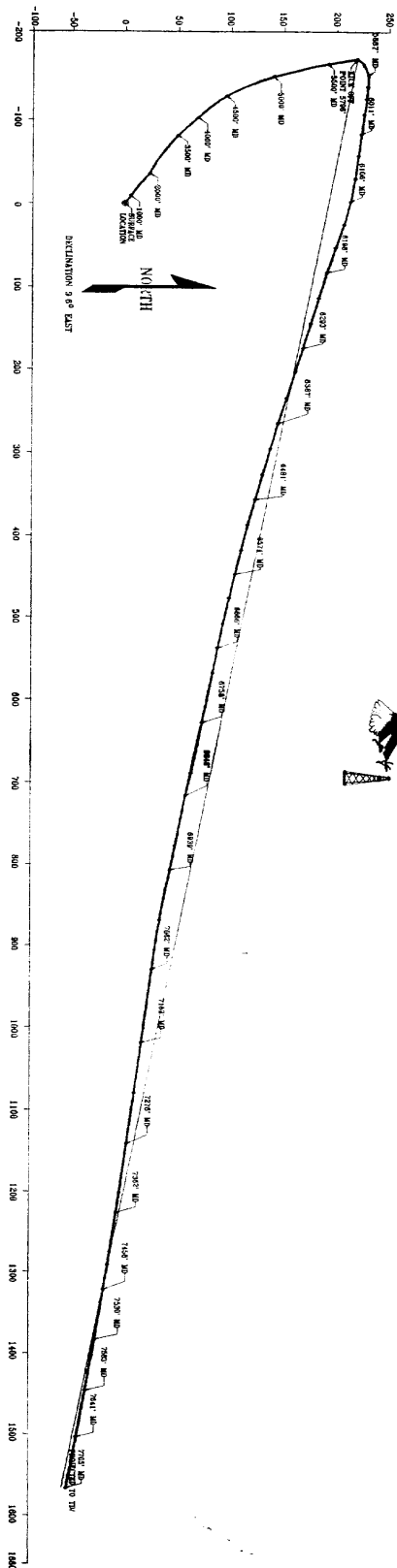
Measured Depth	Vertical Depth	Vert. Section	Inc Deg	Azimuth Deg	Coordinates		D-leg /100ft
					Latitude	Departure	
0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00
100.0	100.00	-0.1	0.26	336.94	0.21	-0.09	0.26
200.0	200.00	-0.3	0.24	338.11	0.61	-0.26	0.02
300.0	300.00	-0.6	0.31	329.92	1.04	-0.47	0.08
400.0	400.00	-1.1	0.41	315.24	1.53	-0.86	0.14
500.0	499.99	-1.7	0.48	316.06	2.08	-1.40	0.07
600.0	599.99	-2.5	0.60	308.21	2.71	-2.10	0.14
700.0	699.98	-3.6	0.77	290.57	3.27	-3.14	0.27
800.0	799.97	-5.1	1.00	281.40	3.68	-4.63	0.27
900.0	899.94	-7.3	1.47	287.75	4.24	-6.70	0.49
1000.0	999.90	-10.0	1.75	293.11	5.23	-9.33	0.32
1100.0	1099.86	-12.9	1.76	300.33	6.61	-12.06	0.22
1200.0	1199.81	-15.8	1.82	301.42	8.21	-14.74	0.07
1300.0	1299.76	-18.7	1.84	305.46	9.97	-17.40	0.13
1400.0	1399.71	-21.6	1.85	307.40	11.88	-19.99	0.06
1500.0	1499.66	-24.4	1.86	309.17	13.89	-22.53	0.06
1600.0	1599.60	-27.2	1.84	309.49	15.93	-25.03	0.02
1700.0	1699.55	-30.0	1.85	306.69	17.92	-27.56	0.09
1800.0	1799.50	-32.9	1.90	305.11	19.84	-30.21	0.07
1900.0	1899.44	-35.9	1.84	298.32	21.55	-32.98	0.23
2000.0	1999.39	-39.0	1.80	295.41	22.99	-35.82	0.10
2100.0	2099.34	-42.0	1.76	292.14	24.24	-38.66	0.11
2200.0	2199.30	-44.9	1.63	289.34	25.29	-41.42	0.15
2300.0	2299.26	-47.7	1.61	285.57	26.14	-44.12	0.11
2400.0	2399.22	-50.5	1.65	289.24	26.99	-46.83	0.11
2500.0	2499.18	-53.4	1.77	292.86	28.06	-49.61	0.16
2600.0	2599.13	-56.4	1.81	295.13	29.33	-52.46	0.08
2700.0	2699.07	-59.5	1.92	297.43	30.78	-55.38	0.13
2800.0	2799.02	-62.7	1.98	298.76	32.38	-58.38	0.07
2900.0	2898.95	-66.0	2.09	300.78	34.14	-61.46	0.13
3000.0	2998.88	-69.5	2.18	304.51	36.15	-64.60	0.17
3100.0	3098.81	-72.9	2.29	307.13	38.44	-67.76	0.15
3200.0	3198.72	-76.5	2.41	308.70	40.96	-70.99	0.14
3300.0	3298.63	-80.3	2.56	310.17	43.71	-74.34	0.16
3400.0	3398.52	-84.2	2.67	310.66	46.67	-77.81	0.11
3500.0	3498.41	-88.3	2.92	310.46	49.84	-81.52	0.25
3600.0	3598.27	-92.8	3.09	311.16	53.27	-85.48	0.17
3700.0	3698.12	-97.4	3.19	310.20	56.84	-89.64	0.11
3800.0	3797.95	-102.2	3.37	313.04	60.64	-93.91	0.24

ARCO PERMIAN
EMPIRE ABO UNIT
WELL #K17 RE ENTRY
NW/4 SW/4 SECTION 1 TOWNSHIP 18 SOUTH RANGE 27 EAST
EDDY COUNTY, NEW MEXICO

SCALE 1"=150' PROPOSAL DRAWN @ 99° AZIMUTH FROM KICK OFF POINT

ARCO REP: MR. DOYLE CATES
EAGLE REPS: MIKE PELLESSIER
ROB PORTER
VOGEL REPS: KENNY GEORGE
BOBBY KLEPPER

SIERRA ENGINEERING: MR. PAT DRENNON
MR. C. D. KEMP



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

C/SF

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>				11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA 1-18S-27E																																																			
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <input checked="" type="checkbox"/> HORIZONTAL EXT				12. COUNTY OR PARISH EDDY																																																			
2. NAME OF OPERATOR ARCO PERMIAN				13. STATE NM																																																			
3. ADDRESS AND TELEPHONE NO. P.O. BOX 1610, MIDLAND, TX 79702 915 688-5672				14. PERMIT NO. DATE ISSUED																																																			
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1980 FSL & 660 FWL (UNIT LETTER L) At top prod. interval reported below At total depth 1928 FSL & 2216 FEL				15. DATE SPURRED 05-22-95																																																			
16. DATE T.D. REACHED 06-08-95				17. DATE COMPL. (Ready to prod.) 06-13-95																																																			
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*				19. ELEV. CASINGHEAD																																																			
20. TOTAL DEPTH, MD & TVD 7705 MD 6091				21. PLUG, BACK T.D., MD & TVD																																																			
22. IF MULTIPLE COMPL., HOW MANY*				23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS																																																			
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD) 5797-7705 ABO				25. WAS DIRECTIONAL SURVEY MADE YES																																																			
26. TYPE ELECTRIC AND OTHER LOGS RUN				27. WAS WELL CORED NO																																																			
28. CASING RECORD (Report all strings set in well) <table border="1"><thead><tr><th>CASING SIZE/GRADE</th><th>WEIGHT, LB./FT.</th><th>DEPTH SET (MD)</th><th>HOLE SIZE</th><th>TOP OF CEMENT, CEMENTING RECORD</th><th>AMOUNT PULLED</th></tr></thead><tbody><tr><td>8 5/8</td><td>24</td><td>1470</td><td>12 1/4</td><td>CIRC - 2</td><td>0</td></tr><tr><td>5 1/2</td><td>14</td><td>6137</td><td>7 7/8</td><td>CIRC</td><td>0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED	8 5/8	24	1470	12 1/4	CIRC - 2	0	5 1/2	14	6137	7 7/8	CIRC	0																														
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34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)						TEST WITNESSED BY																																																	
35. LIST OF ATTACHMENTS DIRECTIONAL SURVEY																																																							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records																																																							
SIGNED <u>Ken W. Hosnell</u>				TITLE <u>AGENT</u>		DATE <u>11-16-95</u>																																																	

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FORMATION		TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM0557371
2. Name of Operator ARCO Permian	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 1089, Eunice, NM 88231 505-394-1649	7. If Unit or CA, Agreement Designation 8910138010
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Unit Letter L, 1980' FSL & 660' FWL Section 1, T18S, R27E	8. Well Name and No. Empire Abo Unit "K" 17
	9. API Well No. 30-015-00703
	10. Field and Pool, or exploratory Area Empire Abo
	11. County or Parish, State Eddy NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

TD: 6137' PBD: 6101' PERFS: 5800-7705'

MIRUPU. POH w/rods & pmp. NDMH. NUBOP. Release TAC @ 5705'. POH w/tbg & TAC.

RIH w/4-3/4" bit & scraper to top of whipstock @ 5782'. POH.

RUWL. GIH w/CIBP & set @ 5770'. POH.

GIH & perf w/2JSPF 5472-5736'. POH. GIH w/PPI tools & breakdown perfs f/5472-5736'

w/50 gals/ft. 15% HCL NEFE. POH.

RIH w/bull plugged MA, perf sub, SN & 2-3/8" tbg. Land SN at +/- 5736'.

NDBOP. NDMH. Swab for test. GIH w/GA, pmp & rods. Hang well on. RDPU. RTP.

APPROVED

14. I hereby certify that the foregoing is true and correct

Signed

[Signature]

Title Sr. Administrative Assistant

Date 01/08/02

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

RECEIVED
2007 JAN -9 AM 9:09
BUREAU OF LAND MANAGEMENT
ROSWELL OFFICE

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

Form C-104A
March 19, 2001

Submit 1 copy of the final affected wells
list along with 1 copy of this form per
number of wells on that list to appropriate
District Office

Change of Operator

Previous Operator Information:

OGRID: 000900
Name: ARCO Permian
Address: P.O. Box 3092
Address: _____
City, State, Zip: Houston, Texas 77253

New Operator Information:

Effective Date: 12/31/2001
New Ogrid: 000778
New Name: BP America Production Company
Address: P.O. Box 3092
Address: _____
City, State, Zip: Houston, TX 77253

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

New Operator
Signature: Mary Corley
Printed name: Mary Corley
Title: Sr. Regulatory Specialist
Date: 12/10/2001 Phone: 281-366-4491



Previous operator complete below:

Previous
Operator: ARCO Permian
Previous
OGRID: 000990
Signature: Mary Corley
Printed
Name: Mary Corley

NMOCD Approval	
Signature:	<u>Jim W. Burns</u>
Printed Name:	<u>District Supervisor</u>
District:	_____
Date:	FEB 07 2002

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM0557371
2. Name of Operator BP America Production Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 1089, Eunice, NM 88231 505-394-1649	7. If Unit or CA, Agreement Designation 8910138010
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Unit Letter L, 1980' FSL & 660' FWL Section 1, T18S, R27E	8. Well Name and No. Empire Abo Unit "K" 17
	9. API Well No. 30-015-00703
	10. Field and Pool, or exploratory Area Empire Abo
	11. County or Parish, State Eddy NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other Workover	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

TD: 6137' CIBP: 5770' PERFS: 5472-5736'

- 05.30.02: Unset pmp & TOH w/rods & pmp. NDWH. NUBOP. Unset at TAC & POH w/tbg.
05.31.02: TIH w/bit & scraper. Testing tbg to 5000# psi below slips. Tag @ 5780'. TOH.
06.03.02: RU & perf 2 JSPF 5472-79', 5492-94', 5498-5516', 5527-29', 5540-48', 5565-75',
5580-86', 5591-97', 5613-17', 5638-59', 5540-58', 5565-75', 5580-86', 5591-97',
5613-17', 5638-59', 5710-15', 5722-36', 230 holes. TIH w/treating pkr. Set @ 5383'.
06.04.02: Drop SV. RU & pmp 20 bbls 7.5% HCL to pickle tbg. Swab back acid. Fish SV. Pmp 5,150
gals 15% HCL w/350 ball sealers. TOH w/pkr. SION.
06.05.02: TIH w/3-3/4" bailer & recover ball seals. TOH. TIH w/production tbg. Set @ 5704' SW
@ 5720'. NDBOP. Set TAC NUWH.
06.07.02: Load & test to 500# psi. Held OK. In 24 hrs pmp 0 BO, 1 BW, 2 MCF.

ACCEPTED FOR RECORD
JUN 21 2002
LES BABYAK
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct

Signed [Signature] Title Sr. Administrative Assistant Date 06.18.02

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

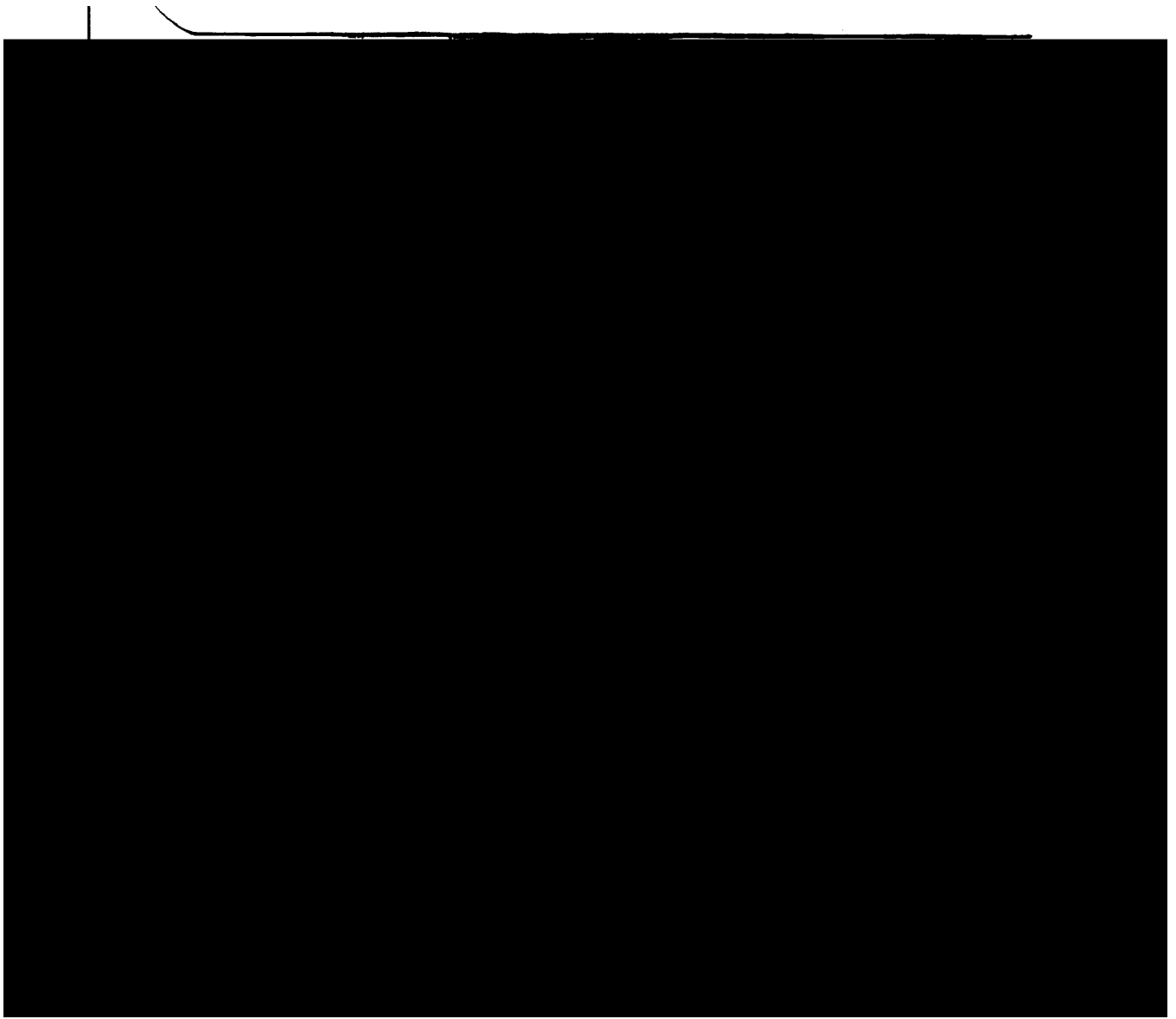
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

30-015-100103

466850-W
2811047-G
2811057-O
2812373-G

DD-105(H)
Appv 1-18-95



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

EC

SUNDRY NOTICES AND REPORTS ON WELLS
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM0557371
2. Name of Operator BP AMERICA PRODUCTION CO		6. If Indian, Allottee or Tribe Name
3a. Address HOUSTON, TX 77253 Eunice, Nm 88231		7. If Unit or CA/Agreement, Name and/or No. NMNM70945X
3b. Phone No. (include area code) Ph: 505.394.1649 Fax: 505.394.1624		8. Well Name and No. EMPIRE ABO K 17
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 1 T18S R27E NWSW 1980FSL 660FWL		9. API Well No. 30-015-00703-00-S1
		10. Field and Pool, or Exploratory EMPIRE
		11. County or Parish, and State EDDY COUNTY, NM

RECEIVED

NOV 19 2004

OCD-ARTESIA

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

TD: 6137' PBD: 5770' CIBP PERFS: 5472-5736'

SET CIBP @ 5442' W/35' CMT ON TOP
CIRC HOLE W/PKR FLUID
TEST TO 500# FOR 30 MINS. CUT CHART
IDLE WELL

ATTACHMENT: WELLBORE SCHEMATIC EAU-N-901

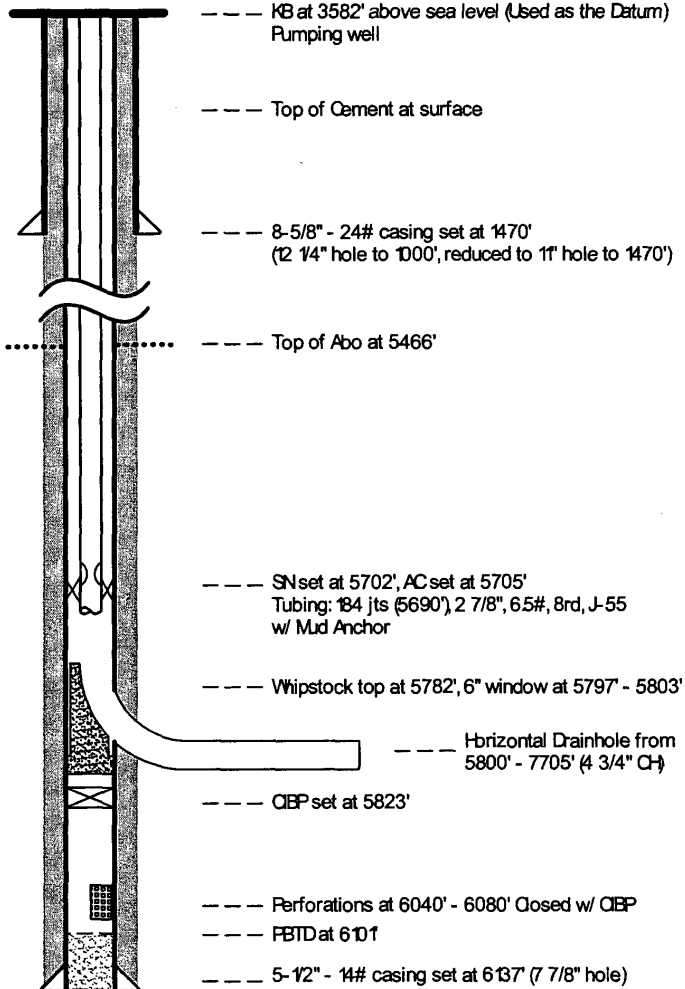
** Perform MIT + submit
justification for TA status.*

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #35932 verified by the BLM Well Information System For BP AMERICA PRODUCTION CO, sent to the Carlsbad Committed to AFMSS for processing by ARMANDO LOPEZ on 09/10/2004 (04AL0355SE)	
Name (Printed/Typed) KELLIE D. MURRISH	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 09/10/2004
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By <u>/s/ Joe G. Lara</u>	Title <u>Petroleum Engineer</u> NOV 16 2004
* Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	
Office CARLSBAD FIELD OFFICE	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Empire Abo Unit 'K' 17

Potential
Perforation
Zones





NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

29-Jul-05

BP AMERICA PRODUCTION COMPANY

PO Box 1089

Eunice NM 88231-0000

NOTICE OF VIOLATION - Inactive Well(s)

Dear Operator:

A review of our records and recent inspection(s) indicate that the subject well(s) has been shut-in for an extended period of time. Rule 201 of the Rules and Regulation of the Oil Conservation Division provides that a well may be shut-in no longer than sixty days after suspension of drilling operations, upon determining that the well is no longer usable (e.g., a dry hole), or one year after last production. To comply with guidelines as established in the Rules and Regulations, corrective actions must be taken immediately and the well(s) brought into compliance.

The detail section below indicates preliminary findings and/or probable nature of the violation.

The following options are available:

1. Immediately restore the well(s) to production, injection or disposal as applicable.
2. Request 'Temporary Abandoned' status pursuant to Rule 203, which requires that you set a plug and conduct a mechanical integrity test.
3. Submit a proposal to 'Plug and Abandon' the well(s) pursuant to Rule 202, proceed with plugging procedures on a timely basis after the proposal has been evaluated, amended and/or approved.

In the event that a satisfactory response is not received to this letter of direction by the "Corrective Action Due By:" date shown above, further enforcement will occur. Such enforcement may include this office applying to the Division for an order summoning you to a hearing before a Division Examiner in Santa Fe to show cause why you should not be ordered to permanently plug and abandon this well. Such a hearing may result in imposition of CIVIL PENALTIES for your violation of OCD rules.

IDLE WELL INSPECTION DETAIL SECTION

EMPIRE ABO UNIT 017A	L-1-18S-27E	30-015-00703-00-00	Inspection No. iCLB0521037721
Inspection Date:	7/29/2005 10:28:39 AM	Corrective Action Due by: 11/1/2005	
Type Inspection	Inspector	Violation?	*Significant Non-Compliance?
Routine/Periodic	Chris Beadle	Yes	No
Comments on Inspection:	idle Well (Rule 201). No flowline attached, no production equipment on site. Last reported production was December 2002. Marker approximately 15 feet from wellhead for new well (AAO Federal 9).		

Thank you for your prompt attention to this matter and your efforts in helping to protect our environment and the infrastructure of the oil and gas industry.

Sincerely,



Artesia OCD District Office

* Significant Non-Compliance events are reported directly to the U.S. Environmental Protection Agency, Region VI, Dallas, Texas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

RECEIVED

OCT 11 2005

OCD-ARTS/BLM

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
BP America Production Company3a. Address
P.O. Box 1089 Eunice NM 882313b. Phone No. (include area code)
505.394.16004. Location of Well (Footage, Sec., T., R., M., or Survey Description)
NMSW, SEC 1, T18S, R27E, 1980' FSL & 660' FWL

5. Lease Serial No.

NMM0557371

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
EMPIRE ABO UNIT 17

9. API Well No.

30.015.00703

10. Field and Pool, or Exploratory Area
EMPIRE ABO

11. County or Parish, State

SUDY NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>IDLE WELL</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

ID: 6137' PBD: 6101' VERTICAL PERFS: 5472-5736' CIBP: 5823'
WHIPSTOCK PERFS: 040-6080'

BP America Production Company requests a 60 day extension for the Notice of Violation
- Idle Well issued by the New Mexico Oil Conservation Commission. The Corrective
Action Due Date for this notice is 11.01.05. }

The current scope of work includes testing the previous perfs @ 6050-6080 by:

MIRUPU
POH RODS & EQUIP
REMOVE WHIPSTOCK & CIBP
RIH W/PKR ASSY & SET BELOW HORIZONTAL SECTION
TEST LOWER PERFORATED INTERVAL
EVALUATE FINDINGS FROM LOWER ZONE

Accepted for record - NMOCB

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Kellie D. Murrish

Title

Scheduler

Date 10.07.05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
N.M. Oil Cons. Div-Dist. 2
1301 W. Grand Avenue
Alamogordo, NM 88210

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

MM0557371

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

EMPIRE ABO UNIT 17

'K'

9. API Well No.

30.015.00703

10. Field and Pool, or Exploratory Area

EMPIRE ABO

11. County or Parish, State

EDDY NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

RECEIVED

OCT 18 2005

ODD-ANTHONY

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

BP America Production Company

3a. Address

P.O. Box 1089 Bmice NM 88231

3b. Phone No. (include area code)

505.394.1600

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

NMSW, SEC 1, T18S, R27E, 1980' FSL & 660' FWL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input checked="" type="checkbox"/> Other IDLE WELL
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

TD: 6137' PHD: 6101' VERTICAL PERFS: 5472-5736' CIBP: 5823'

WHIPSTOCK PERFS: 040-6080'

BP America Production Company requests a 60 day extension for the Notice of Violation
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Action Due Date for this notice is 11.01.05.

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MIRUPU

POH RODS & EQUIP

REMOVE WHIPSTOCK & CIBP

RIH W/PKR ASSY & SET BELOW HORIZONTAL SECTION

TEST LOWER PERFORATED INTERVAL

EVALUATE FINDINGS FROM LOWER ZONE

APPROVED FOR 2 MONTH PERIOD

ENDING 12/15/05

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Kellie D. Murrish

Title

Scheduler

Date **10.07.05**

Accepted for record - NMOCED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) ALEXIS C. SWOBODA

Title

PETROLEUM ENGINEER

Date

OCT 13 2005

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

RFO

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEC 10 2008

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

OCD

ARTESIA

SUNDRY NOTICES AND REPORTS ON WELLS

OCD-ARTESIA

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM0557371
2. Name of Operator BP America Production Company		6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 1089 Eunice NM 88231	3b. Phone No. (include area code) 575-394-1648	7. If Unit or CA/Agreement, Name and/or No. NMNM70945X
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Unit Letter L, 1980 FSL & 660 FWL Section 1, T18S, R27E		8. Well Name and No. Empire Abo Unit 17
		9. API Well No. 30-015-00703
		10. Field and Pool, or Exploratory Area Empire Abo
		11. County or Parish, State Eddy NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
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	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

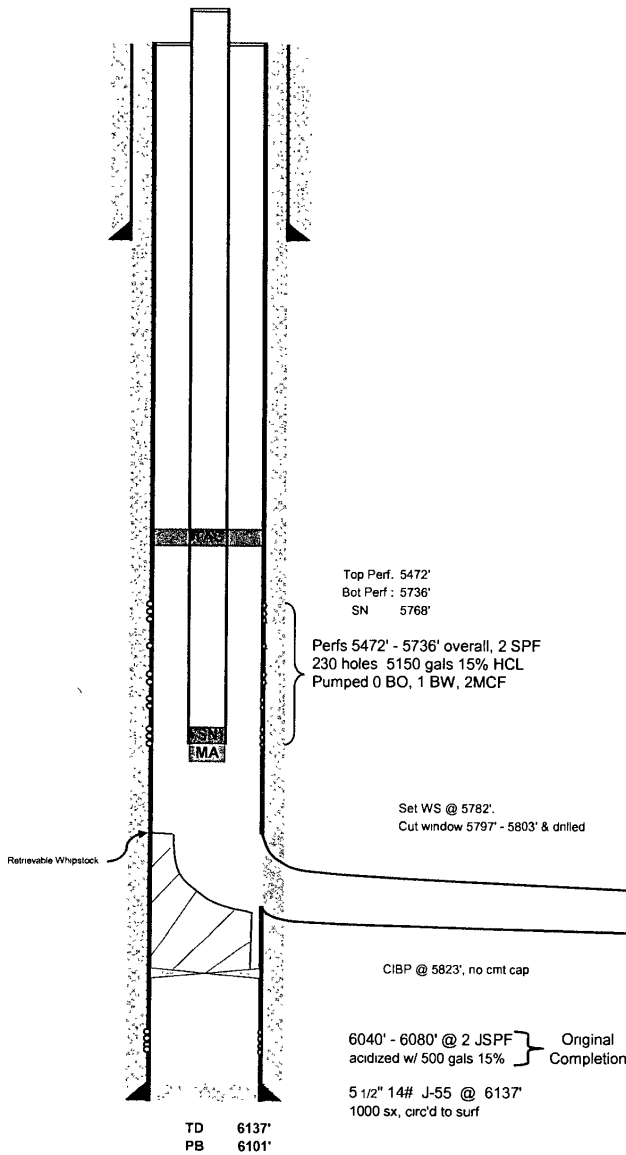
13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

* Remove Retrievable whipstock. place adequate cement to cap CIBP - Top of window. WOC Tag. (5823-5782)

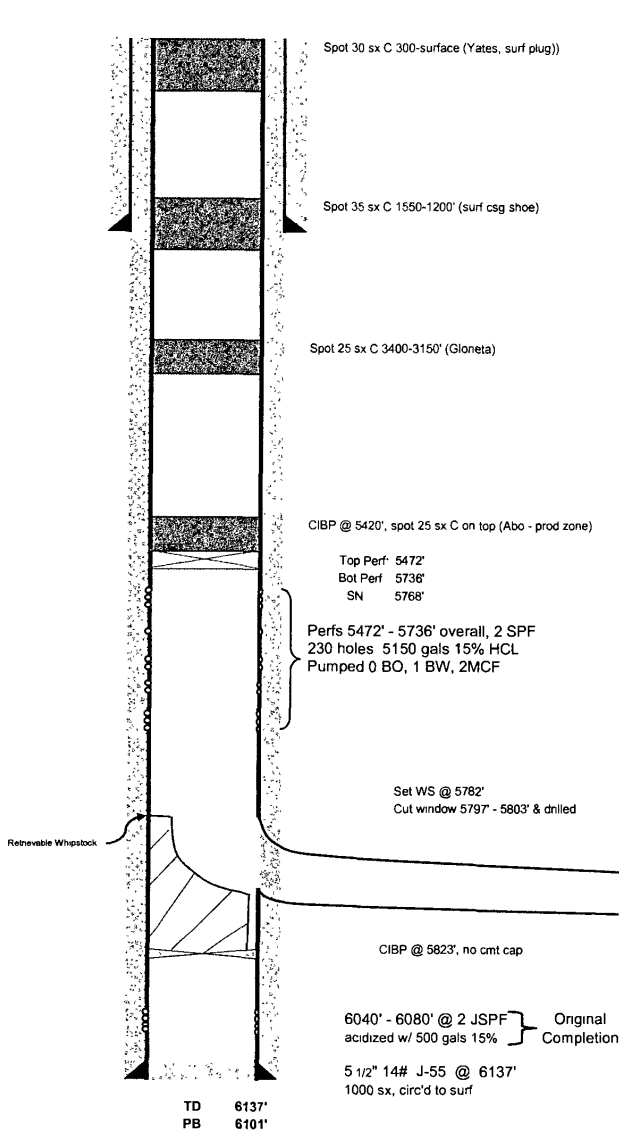
- MIRU PU. Check tubing, casing and surface pipe for pressure - bleed off into containment. Kill well as necessary. Monitor well and assure it's stable. POH LD/warehouse rods and pump.
- Monitor well and assure it is stable. ND WH, NU BOP. Release TAC and TOH.
- TIH with CIBP on 2 3/8" tubing and set at 5420'. Spot 250' cement plug on top of CIBP using 25 sx Class C neat. PU to 5150'. Load hole with mud-laden fluid (9 ppg, 1250# gel/100 bbl).
- TOH to 3400' (Glorieta top = 3290'). Spot 25 sack balanced cement plug from 3400' - 3150'. TOH.
- TIH with bull plug and perf nipple on tubing. Tag Glorieta plug; re-spot if necessary.
- TOH to 1550' (8 5/8" surface casing shoe = 1470'). Spot 35 sack balanced cement plug from 1550' - 1200'. PU and WOC 2 hours. Tag plug, re-spot if necessary.
- TOH to 300' (Yates top = 172'). Fill 5 1/2" casing from 300' to surface with 30 sx Class C neat. TOH LD tubing.
- RD PU.
- Dig out WH and cut-off casingheads to 3' below GL.
- Install regulation dry-hole marker. Clean location and prepare location for BLM inspections

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Barry C. Price		Title Area Operations Team Lead	
Date DEC 10 2008		Date 11/18/08	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE NMOCD District II Artesia		APPROVED	
Approved by James A. Amos		Date DEC 1 2008	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office	
Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			



Existing WB Dia		Empire Abo Unit K-17			
Status	Producing		Operator		BP Ameca
Lease	Empire Abo Unit		Zone		0
Field	0		API		30-015-00703
NMOCD	Empire Abo Unit K-17		NMOCD		
Location	1980' FSL & 660 FWL, S-01 T-18S R-27E				
Reference:					
KB	3,582	TVD	6137'	PBTD	6101'
GL	3,569	MTD		Last CIBP	5770'
Casing					
Weight/Grade	Depth		Cmt Sx	Hole	TOC
5 5/8"	24#/J-55	1468	750 sx	11"	surf
5 1/2"	15.5#/J-55	6137	1000 sx	7 7/8"	surf
0	0	0	0	0	0
Spud					
3/26/1959		Top Perf		5472'	
Completion 4/20/1959		Bot Perf		5736'	
Perforation History					
5472'-5736' (behind cibp.6040' - 6080')					
Packers, Plugs, and Cement					
CIBP @ 5770', 5823'					
Current Tubulars: Blue boxes use drop down boxes for descriptions					
Date sketch checked		2/11/08		by	
Date tubulars checked				by	
Tubing and Rod Assembly				length, ft	Top of Depth from KB, ft
# Jnts	Description of TBG Assembly		RKB	12 00	
173	2 3/8" 4.7# J-55 EUE 8 Rnd.Tbg			5448 98	12 00
1	2 3/8" X 5.5 OD TAC			2 75	5460 98
9	2 3/8" 4.7# J-55 EUE 8 Rnd.Tbg			272 65	5463 73
1	2 3/8" 4.7# J-55 EUE 8 Rnd IPC.Tbg			32 46	5736 38
1	2 3/8" API SN			1 10	5768 84
1	3.1/2" 9.5# J-55 Slotted MA w/Bull Plug			25 68	5769 94
					5795 62
					5795 62
					5795 62
					5795 62
					5795 62
					5795 62
					5795 62
Current Rod Design					
# Rods	Description of Rod Assembly		RKB	12 00	
1	1 1/4" Dia X 22" PR w/1 1/2" X 16" PR liner			22 00	12 00
112	1.00" FG Rods with Couplings			4200 00	34 00
40	7/8" Dia, C Rods			1000 00	4234 00
19	1 5/8" C Sinker Bars			475 00	5234 00
1	1 5/8" C Sinker Bars			25 00	5709 00
1	Pump with gas anchor			36 00	5734 00
					5770 00
					5770 00
					5770 00
					5770 00
					5770 00
	2 0 x 1 5 x 26' w/ gas stinger anchor 1"x10'				5770 00
					5770 00



Proposed WB Dia		Empire Abo Unit K-17			
Status	Producing		Operator		BP America
Lease	Empire Abo Unit		Zone		0
Field	0		API		30-015-00703
NMOCD	Empire Abo Unit K-17		NMOCD		
Location	1980' FSL & 660 FWL, S-01 T-18S R-27E				
Reference					
KB	3,582	TVD	6137'	PBTD	6101'
GL	3,569	MTD		Last CIBP	5770'
Casing	Weight/Grade	Depth	Cmt Sx	Hole	TOC
8 5/8"	24#/J-55	1468	750 sx	11"	surf
5 1/2"	15.5#/J-55	6137	1000 sx	7 7/8"	surf
0	0	0	0	0	0
Spud	3/26/1959		Top Perf	5472'	
Completion	4/20/1959		Bot Perf	5736'	
Perforation History					
5472'-5736' (behind cibp.6040' - 6080')					
Packers, Plugs, and Cement.					
Whipstock 5782-5812', CIBP @ 5823'					
Current Tubulars: Blue boxes use drop down boxes for descriptions					
Date sketch checked		2/11/08	by		
Date tubulars checked			by		
Tubing and Rod Assembly				length, ft	Top of Depth from KB, ft
# Jnts	Description of TBG Assembly		RKB	12 00	
173	2 3/8" 4.7# J-55 EUE 8 Rnd TBG		5448.98	12 00	
1	2 3/8" X 5.5" OD TAC		2.75	5460.98	
9	2 3/8" 4.7# J-55 EUE 8 Rnd TBG		272.65	5463.73	
1	2 3/8" 4.7# J-55 EUE 8 Rnd IPC TBG		32.46	5736.38	
1	2 3/8" API SN		1.10	5768.84	
1	3 1/2" 9.5# J-55 Slotted MA w/Bull Plug		25.68	5769.94	
				5795.62	
				5795.62	
				5795.62	
				5795.62	
				5795.62	
				5795.62	
				5795.62	
Current Rod Design					
# Rods	Description of Rod Assembly		RKB	12 00	
1	1 1/4" Dia X 22' PR w/ 1 1/2" X 16' PR Iner		22.00	12 00	
112	1.00% FG Rods with Couplings		4200.00	34 00	
40	7/8" Dia, "C" Rods		1000.00	4234.00	
19	1 5/8" "C" Sinker Bars		475.00	5234.00	
1	1 5/8" "C" Sinker Bars		25.00	5709.00	
1	Pump with gas anchor		36.00	5734.00	
				5770.00	
				5770.00	
				5770.00	
				5770.00	
				5770.00	
	2 0 x 1 5 x 26' w/ gas stinger anchor 1"x10'			5770.00	
				5770.00	

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Permanent Abandonment of Federal Wells
Conditions of Approval

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within ninety (90) days from the approval date of this Notice of Intent to Abandon.

If you are unable to plug the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. In lieu of a cement plug in a cased hole, a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. **Dry Hole Marker:** All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).

7. **Subsequent Plugging Reporting:** Within 30 days after plugging work is completed, file one original and five copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. **Trash:** All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration conditions of approval will be developed and furnished to you.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FEB 18 2009

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

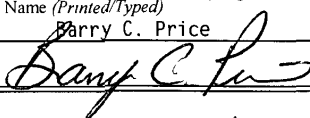
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM0557371
2. Name of Operator BP America Production Company		6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 1089 Eunice NM 88231	3b. Phone No. (include area code) 575-394-1648	7. If Unit or CA/Agreement, Name and/or No NMNM70945X
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Unit Letter L, 1980 FSL & 660 FWL Section 1, T18S, R27E		8. Well Name and No Empire Abo Unit 17 K
		9. API Well No 30-015-00703
		10. Field and Pool, or Exploratory Area Empire Abo
		11. County or Parish, State Eddy NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Remove CIBP</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

SUBSEQUENT REPORT FOR THIS WORK WAS INADVERTENTLY OVERLOOKED AND BP FAILED TO FILE OR NOTIFY OF RTP. REPORT NOW BEING SUBMITTED TO UPDATE BLM RECORDS. 1/20/06: MIRUPU. Unseat pump lay down 66-1' rods, 69 7/8' rods, 82 3/4' rods, 10 7/8' rods w/ g & pump. Prep to NU BOP. 1/23/06: NDWH NU BOP release TAC laydown prod tbg. 1/24/06: TIH w/ 4 3/4' bit picking up 66 jt 2 7/8 DP & 2 7/8 tbg workstring to 5100'. 1/25/06: RU foam air unit break circ w/ air TIP tag CIBP @ 5768' by our SLM. RU power swivel start drlg on CIBP. Plug turned loose in 2 hr. Push to 5779' circ clean w/ foam air blow well down. 1/26/06: TIH push CIBP to end of horizontal @ 7700' TOH laydown 2 7/8". 1/27/06: Pick up hook, bumper sub, jars, & 4 3 1/2" DC - TIH w/tbg fish for Whipstock from 5736 5862' no bite. TOH w/ hook prep to run box tap. 1/30/06: TIH w/ box tap, BS, Jars, 4 3 1/2" DC & tbg tag whipstock @ 5806' work over fish try to work whipstock loose kept pulling off. TOH WOO. 1/31/06: Rig down foam air unit & power swivel - laydown DC - TIH w/ work string & laydown same - chg out tbg & BOP rams. 2/1/06: Pickup 2 3/8 prod tbg test in hole 5000 psi below slips. 2/2/06: ND BOP NUWH. Pickup pump & new rod design space well out left 7' of polish rod out load & test to 500 psi-ok - no pump action - unseat pump flush 10 bbl water - load test to 500 psi-ok-still no pump action. 2/3/06: TOH w/ rods & pump. Run swab to ck fluid level dry. WOO. 2/6/06: Pump 30 bbl while adding 2 jt to lower SN to 5769' swab test no fluid. 2/7/06: Swab test still no fluid. 2/8/06: Run pump & rods L&T to 500 psi-ok. RD. RTP well test 11/5/06-6 mcf gas, 8 bbls oil, 1 bbl water.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Barry C. Price		Title Area Operations Team Lead
		Date 2/2/09
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	File Date 16 2009
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon		Office
Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.		

FOR RECORDS ONLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

MAR 30 2009

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

Rm

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.		5. Lease Serial No. NMNM0557371
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator BP AMERICA PRODUCTION COMPANY		7. If Unit of CA/Agreement, Name and/or No. NMNM70945X
3a. Address P.O. BOX 1089, EUNICE NM 88231	3b. Phone No. (include area code) 575-394-1648	8. Well Name and No. EMPIRE ABO UNIT K 17
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) UNIT LETTER L, 1980 FSL & 660 FWL, SECTION 1, T18S, R27E		9. API Well No. 30-015-00703
		10. Field and Pool or Exploratory Area EMPIRE ABO
		11. Country or Parish, State EDDY NM

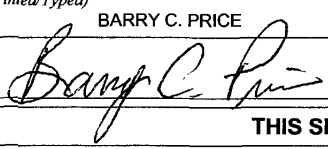
12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)


3/12/09: ND WH. RELEASE TAC. NU BOP. POH LAYING DOWN TBG:
3/13/09: RIH W/ 4 3/4" BIT, CSG SCRAPER & 185 JTS 2 3/8" TBG TO 5787'. POH W/ TBG TO 3523'.
3/16/09: KILL WELL W/ 20 BBL BRINE. POH W/ 2 STANDS TBG. POH W/ TBG & SCRAPER. LAY DOWN SCRAPER. RIH W/ CIBP & TBG. SET CIBP @ 5770'. PUMP 25 BBL FRESH WATER ON VACUUM. PUMP 20 SX CMT ON VACUUM. DISPLACED W/ 20 BBL FRESH WATER ON VACUUM. POH LAYING DOWN 11 JTS TBG. FLUSH TBG W/ 10 BBL FRESH WATER ON VACUUM.
3/17/09: POH W/ TBG. RIH W/ CIBP & 2 3/8" TBG. SET CIBP @ 5420'. DISPLACE CSG W/ FRESH WATER. TEST TO 500 PSI. TEST GOOD. SPOT 25 SX CMT FROM 5420' TO 5179'. LAY DOWN 8 JTS TBG. DISPLACE CSG FROM 5160' TO SURFACE. POH LAYING DOWN TBG TO 3416'. SPOT 25 SX CMT FROM 3416' TO 3175'. POH W/ TBG & SETTING TOOL. RIH W/ SLOTTED SUB ON 2 3/8" TBG.
3/18/09: RIH W/ TBG. TAG CMT @ 3152'. LAY DOWN 51 JTS TBG TO 1566'. MIX & PUMP 170 SX CMT FROM 1566' TO SURF. POH LAYING DOWN TBG. ND BOP. TOP OFF CSG W/ 5 SX CMT. RD.
3/19/09: DIG OUT AROUND WELLHEAD. CUT OFF ALL ANCHORS AND WELL HEAD, WELD IN PLATE, 1" NIPPLE & VALVE, DRY HOLE MARKER, BACKFILL AND LEVEL LOCATION.

**Approved as to plugging of the well bore,
Liability under bond is retained until
Surface restoration is completed.**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) BARRY C. PRICE		Title AREA OPERATIONS TEAM LEAD
Signature 	Date 03/23/2009	<div style="border: 2px solid black; padding: 5px; text-align: center;">APPROVED MAR 26 2009 Date JAMES A. AMOS SUPERVISOR-EPS</div>
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	
Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon		Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

 3/31/09

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

LM

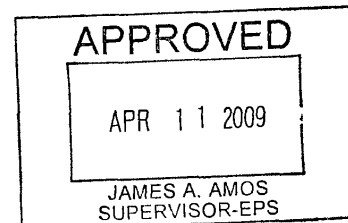
SUNDRY NOTICES AND REPORTS ON WELLS
*Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.*

APR 15 2009

SUBMIT IN TRIPLICATE - Other instructions on reverse side		5. Lease Serial No. NMNM0557371
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator BP America Production Company		7. If Unit or CA/Agreement, Name and/or No. NMNM70945X
3a. Address P.O. Box 1089 Eunice NM 88231	3b. Phone No. (include area code) 575-394-1648	8. Well Name and No. Empire Abo Unit 17 K
4. Location of Well (Footage, Sec, T, R., M., or Survey Description) Unit Letter L, 1980 FSL & 660 FWL Section 1, T18S, R27E		9. API Well No. 30-015-00703
		10. Field and Pool, or Exploratory Area Empire Abo
		11. County or Parish, State Eddy NM
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity	
<input checked="" type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Per BLM letter referencing this well, dated March 27, 2009, all requirements have been met for final abandonment.



14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Barry C. Price	Title Area Operations Team Lead
<i>Barry C. Price</i>	Date 4/7/09

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

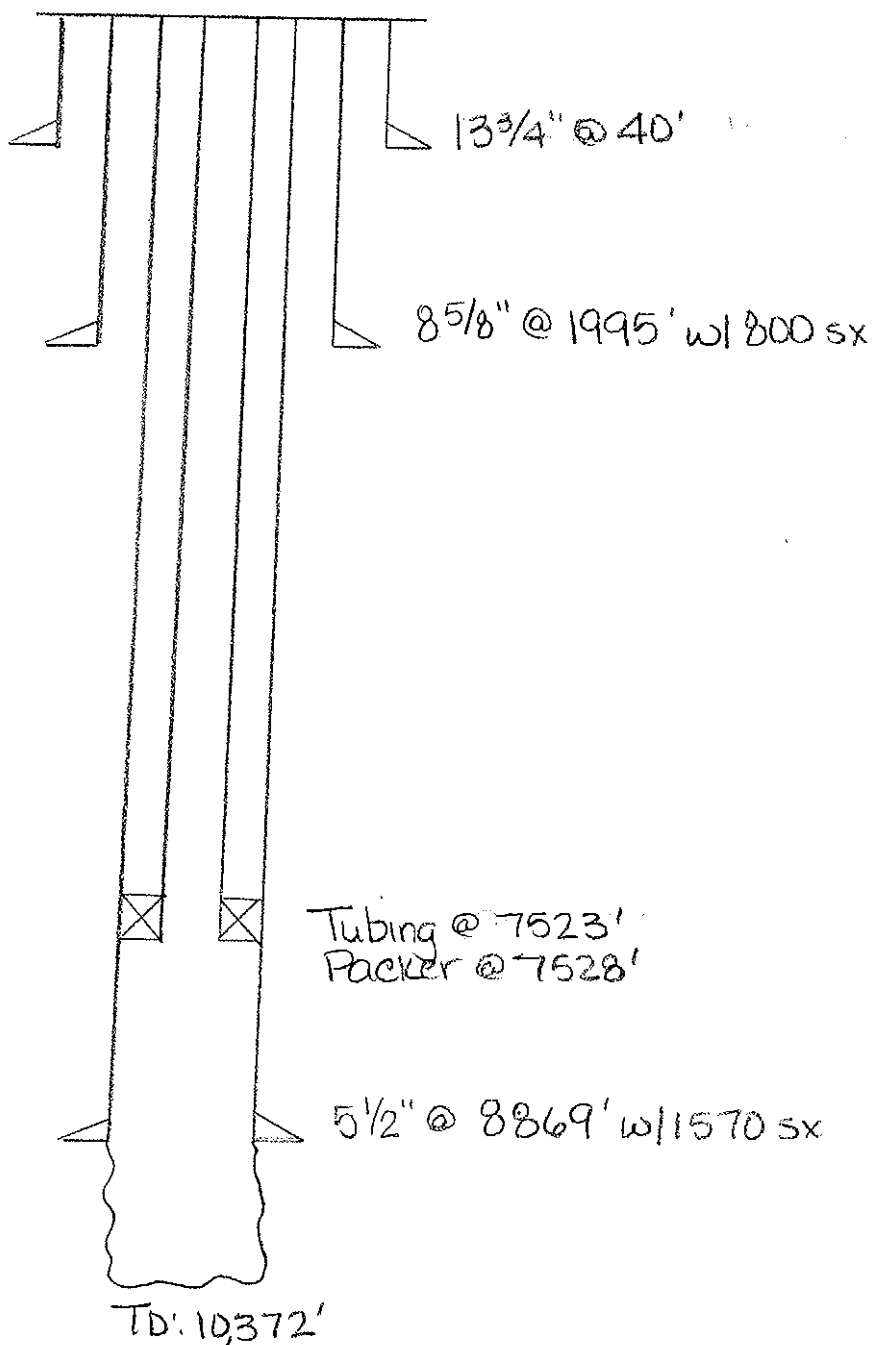
SUBSURFACE

NAVAJO REFINING COMPANY, L.L.C.
Map ID No. 50
Artificial Penetration Review

OPERATOR Navajo Refining Co.
LEASE WDW
WELL NUMBER #2
DRILLED 7/18/73
PLUGGED NA

STATUS Active
LOCATION Sec. 12 -T18S-R27E
MUD FILLED BOREHOLE _____
TOP INJECTION ZONE -3663'
API NO. 30-015-20894

REMARKS:



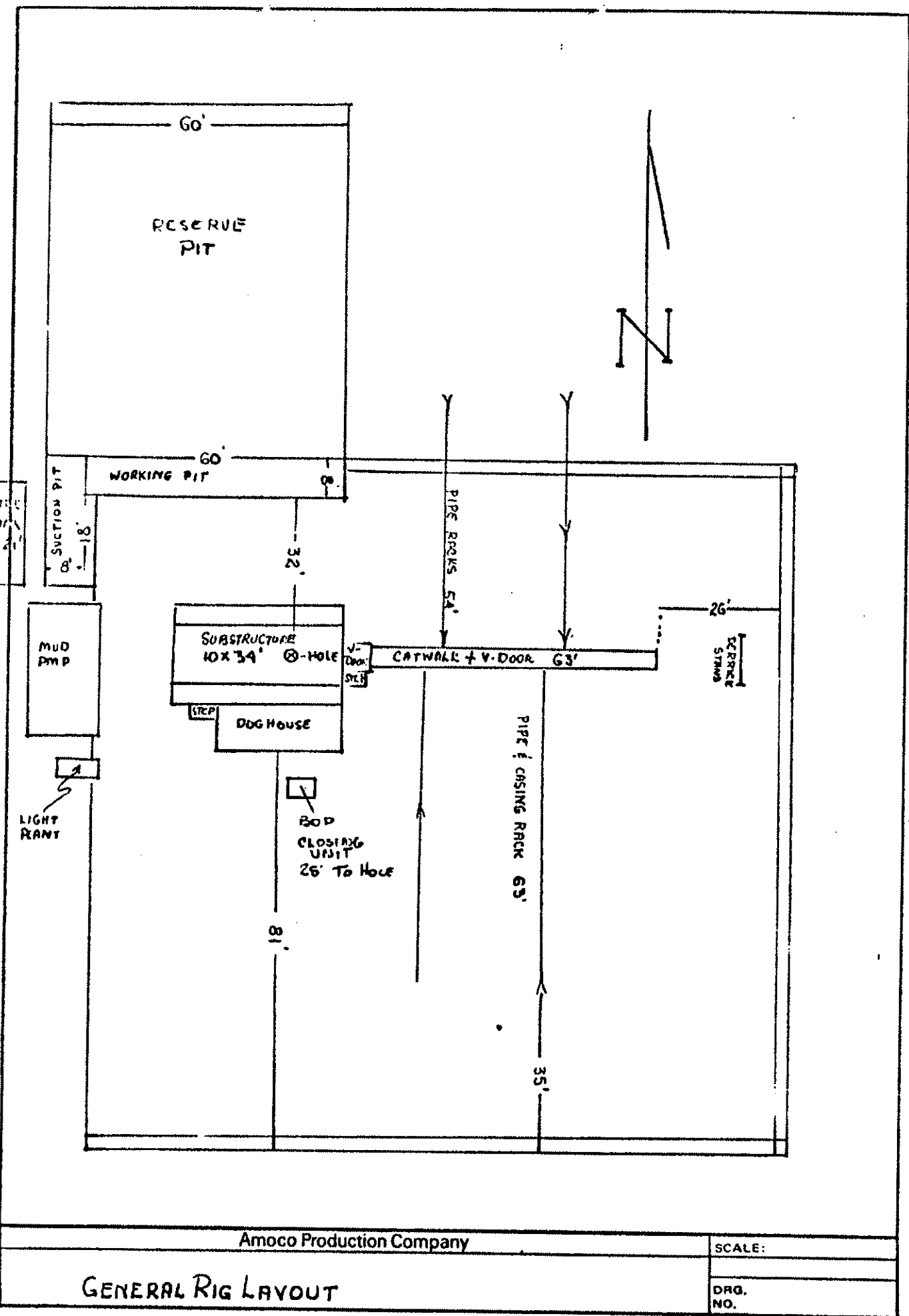
MAP ID NO. 50

**NAVAJOR FEFINING COMPANY
WASTE DISPOSAL WELL NO. 2**

API NO. 30-015-20894

0127

WATER TANK
12' x 21'



Amoco Production Company

SCALE:

GENERAL RIG LAYOUT

DRG.
NO.

- 1. Existing Wells - This Plat
- 2. Planned Access Roads - This plat
- 3. Location of Wells - This Plat
- 4. Internal Roads to well Location this Plat
- 5. Location of Tank Battery & Flow Lines - To be at well loc.
- 6. Location & Types of Water - To be trucked
- 7. Methods for Handling Waste Disposal - In suitable containers and pits on location.
- 8. Camps - None
- 9. Air Strips - None
- 10. Pig Layout - See Attached
- 11. Make location cleanup in accordance with good operating practice and if P&A clean & level location around well.
- 12. None
- 13. There are no houses, buildings, and windmills within 1/4 mile of the location

NM 9 MI

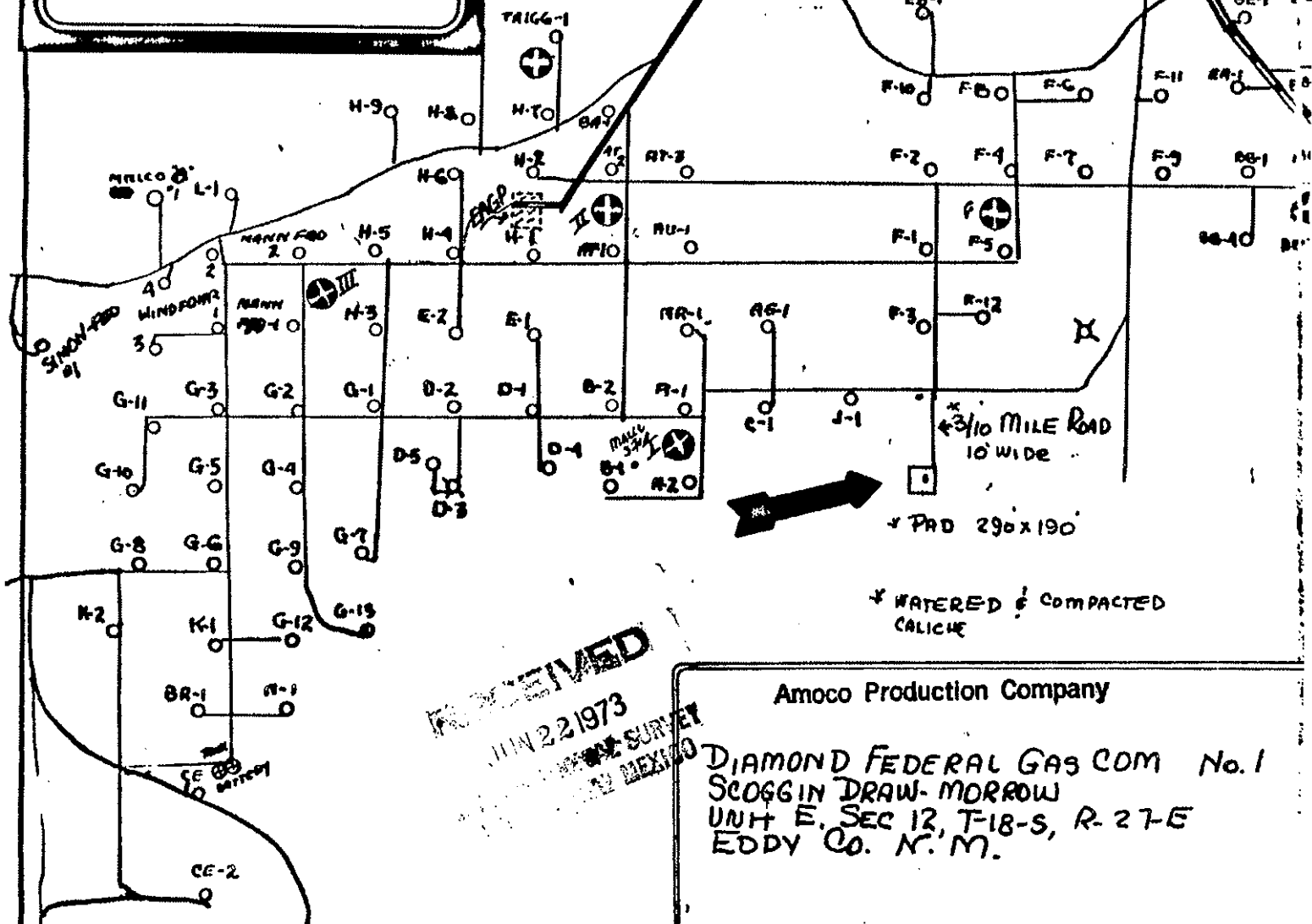
POWER STATION

ST HWAY

1.7

2.2

8

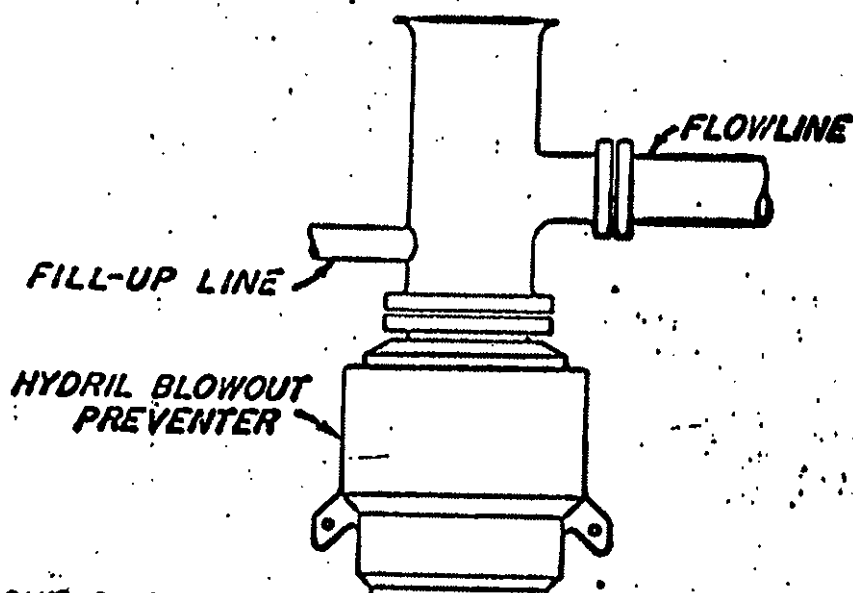


Amoco Production Company

DIAMOND FEDERAL GAS CO. No. 1
SCOGGIN DRAW - MORROW
UNIT E, SEC 12, T-18-S, R-27-E
EDDY CO. N.M.

BLOWOUT PREVENTER HOOK-UP FOR DRILLING BELOW INTERMEDIATE CASING

1. BLOWOUT PREVENTERS AND MASTER VALVE TO BE FLUID OPERATED AND ALL FITTINGS MUST BE IN GOOD CONDITION (MINIMUM: WP - 3000 PSI, TEST - 6000 PSI).
2. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS THE INSIDE DIAMETER OF CASING THAT IS BEING DRILLED THROUGH.
3. KELLY COCK REQUIRED (MINIMUM: 3000 PSI WP, 6000 PSI TEST)
4. OMSCO OR COMPARABLE SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION OR SUB. (MINIMUM: 3000 PSI WP, 6000 PSI TEST)



BLOWOUT PREVENTER

AMOCO PRODUCTION COMPANY

DIAMOND *Federal Gas Com*

1

12 18 SOUTH

27 EAST

EDDY

1230

NORTH

660

WEST

36° 6, 9'

MORROW

SCAGGIN DRAW MORROW (Edd)

320

1. Please place the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

2. If the acreage is dedicated to the well, outline each and identify the ownership thereof by name and address.

3. If the acreage is dedicated to different ownerships dedicated to the well, have the interests of all owners listed for the acreage, including unitization, lease pooling, etc.

4. If the acreage is dedicated to the well, is it a "consolidation" type of consolidation?

5. If the acreage is dedicated to the well, list the owners and tract descriptions which have actually been consolidated. If so, the acreage of the consolidated tract is shown on the plat below.

6. The acreage will be utilized for the well until all interests have been consolidated. The consolidation of interests in the acreage will be continued until a non-stated year eliminating such interests has been approved by the Commission.

NM-6852
Amoco 100%
160 Acres

660' 1

NM-6853
Amoco 100%
160 Acres



J. E. York
AREA ENGINEER

Amoco Production Company

JUN 21 1973

I hereby certify that the information shown on this declaration is true and correct under my personal knowledge and belief.

JUNE 20, 1973

John W. West

drilling into the Wolfcamp formation
and used until production casing is run and cemented. Monitoring
equipment shall consist of the following:

- (1) A recording pit level indicator to determine pit volume gains and losses.
 - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
6. When coming out of the hole with drill pipe, the annulus shall be filled with mud before the mud level drops below 150 feet. The volume of mud required to fill the hole shall be watched, and any time there is an indication of swabbing, or influx of formation fluids, proper blowout prevention precautions must be taken. The mud shall not be circulated and conditioned except on or near bottom, unless well conditions prevent running the pipe to bottom.
7. A copy of these requirements shall be posted on the rig floor or in the dog house during the drilling of the well.


James A. Knauf
District Engineer

Lease No. NM-6852
Well Amoco Production Co. 1-Diamond Federal Gas Com.
Drillsite 1980/N 660/W 12-18S-27E
Depth 10,000' Morrow
Approved July 6, 1973

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-20894
5. LEASE DESIGNATION AND SERIAL NO.
NM-6852

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐
B. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐
2. NAME OF OPERATOR
Amoco Production Company
3. ADDRESS OF OPERATOR
BOX 68, HOBBS, N. M. 88240
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface
1980' FNL x 660' FNL Sec. 12 (Unit E, SE 1/4 NW 1/4)
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

RECEIVED
JUL 9 1973
ARTSIA, OFFICE

10. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3607' GL

16. NO. OF ACRES IN LEASE
17. NO. OF ACRES ASSIGNED
TO THIS WELL
320

20. ROTARY OR CABLE TOOLS
Rotary

22. APPROX. DATE WORK WILL START*
7-1-73

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	32.24"	1000'	Disc.
7 7/8"	4 1/2"	9.5-11.6"	10000'	SUFFICIENT TO FILL 500' ABOVE UPPERMOST PAY.

After drilling well logs will be run and evaluations made,
perforating and/or stimulating as necessary in attempting
commercial production.

BOP program attached.

Mud Program:

0-1000' Native mud & water
1000-5000' Min. quality low solids gel for satisfactory
9000-10000' operations & samples.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED J. E. York TITLE AREA ENGINEER DATE JUN 21 1973

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE JUL 6 1973

APPROVED BY James L. Dray TITLE DISTRICT ENGINEER DATE JUL 6 1973

USGS-Per Subject to attached
"Notice" dated 6-22-73
See Instructions On Reverse Side
1- DIV
1- SUSP
1- RRY
1- ARCO

Copy 6.51

RECEIVED

JUL 10 1973

P. O. Drawer U
Artesia, New Mexico 88210

O. C. C.
ARTESIA, OFFICE

July 9, 1973

Mr. Jim York
Amoco Production Company
Post Office Box 68
Hobbs, New Mexico 88240

Dear Mr. York:

This is to confirm my telephone conversation with you today whereby we requested that the 8-5/8-inch casing string be set in the top of the San Andres formation (approximately 2,000 feet below the surface) in your No. 1 Diamond Federal Gas Com. well on lease MM-6852 in the SW1/4 sec. 12, T. 18 S., R. 27 E., N.M.P.M., Eddy County, New Mexico.

Sincerely yours,

James A. Knauf

James A. Knauf
District Engineer

cc:
Roswell
N.M.O.C.C. (2) ✓

RECEIVED

JUL 10 1973

O. C. C.
ARTESIA, OFFICE

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N. M. O. C. C. COPY
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. NAME OF OPERATOR **DRILLING RECEIVED**

2. ADDRESS OF OPERATOR **Amoco Production Company**

3. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface **JUL 25 1973**

1980' FNL x 660' FWL SEC. 12 (UNIT E, SE 1/4 NW 1/4)

14. PERMIT NO. **3607 GL** 15. ELEVATIONS (Show whether DF, WT, OR, etc.) **3623' R.D.B.**

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input checked="" type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) Spudding <input checked="" type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

*Delta Drilling Co. Spudded 11" hole 3: PM 7-18-73.
On 7-22-73, 8 7/8" OD 32" BR K-55 Casing was set
@ 1955 w/ 7005x Incon 2% Gel + 100 psi meat. Circ. 200 G.
After WO 2 18 hours, tested casing w/ 500 psi for 30 min.
Test O.K.
Reduced hole to 7 7/8" @ 1955 and resumed drilling.*

RECEIVED
JUL 24 1973
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED *[Signature]* TITLE **ADMINISTRATIVE ASSISTANT**

DATE **JUL 23 1973**

(This space for Federal or State office use)

APPROVED **APPROVED**
CONDITIONS OF APPROVAL ANY:
JUL 24 1973
H. L. BEEKMAN
ACTING DISTRICT ENGINEER

TITLE _____ DATE _____

*See Instructions on Reverse Side

0-11SGS-AB
1-DIV
1-SUSP
1-RRY
1-ARCO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-
structions on
reverse side)Form approved,
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> Other _____		5. LEASE DESIGNATION AND SERIAL NO. NM-6852	
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. REVR. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Amoco Production Company		7. UNIT AGREEMENT NAME DIAMOND FED. GAS COM	
3. ADDRESS OF OPERATOR BOX 68, HOBBS, N. M. 88240		8. FARM OR LEASE NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1980' ENL X 660' FWL Sec 12. (Unit F, SE 1/4 NW 1/4) At top prod. interval reported below At total depth		9. WELL NO. 1	
14. PERMIT NO.		DATE ISSUED SEP 24 1973	
15. DATE SPUDDED 7-18-73	16. DATE T.D. REACHED 8-27-73	17. DATE COMPL. (Ready to prod.) P&A	18. ELEVATIONS (DP, RKB, RT, GR, ETC.)* 3623' RDB
20. TOTAL DEPTH, MD & TVD 10,372	21. PLUG BACK T.D., MD & TVD P&A	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY 0-TD
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* NONE			25. WAS DIRECTIONAL SURVEY MADE NO
26. TYPE ELECTRIC AND OTHER LOGS RUN GR-N - DUAL IND LL			27. WAS WELL CORED NO
28. CASING RECORD (Report all strings set in well)			
CASING SIZE 8 7/8	WEIGHT, LB./FT. 32#	DEPTH SET (MD) 1955	HOLE SIZE 11"
CEMENTING RECORD 800 SX		AMOUNT PULLED NONE	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
30. TUBING RECORD			
SIZE	DEPTH SET (MD)		PACKER SET (MD)
31. PERFORATION RECORD (Interval, size and number)			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.		AMOUNT AND KIND OF MATERIAL USED	
DEPTH INTERVAL (MD)			
33. PRODUCTION			
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	
DATE OF TEST		HOURS TESTED	
CHOKE SIZE		PROD'N. FOR TEST PERIOD	
OIL—BSL.		GAS—MCF.	
FLOW. TUBING PRESS.		CASING PRESSURE	
CALCULATED 24-HOUR RATE		OIL—BSL.	
		GAS—MCF.	
		WATER—BSL.	
		GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)			
35. LIST OF ATTACHMENTS			
I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED Rex L. Pratum		TITLE ADMINISTRATIVE ASSISTANT	
DATE 9-10-73			

03- USGS-ART
1- W7
1- DIV
1- RRY

(See Instructions and Spaces for Additional Data on Reverse Side)

RECEIVED
SEP 19 1973
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO
9-13-74

INSTRUMENTS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal land/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. If not filed prior to the time this summary record is submitted, order of completion shall be determined by the date of completion.

tion and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22 and in any attachments, interval or intervals, top(s), bottom(s) and net(s). If not, state "single completion" above the name of the well.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any material used for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

7. SUMMARY OF POROUS ZONES:				38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP
					MEAS. DEPTH
				ABO	5506
				WOLFCLAMP	6728
				CISCO	7485
				STRAWN	8820
				ATOKA	9460
				MORROW	9725
				CHESTER	10158
				Miss Lm	10338

U. S. GEOLOGICAL SURVEY
DEPARTMENT OF THE INTERIOR
UNION OF STATES
N. M. O. C. C. COPY
 SUBMIT IN TRIP (Other instructions on reverse side)

Form approved by the Bureau of Reclamation
 U. S. GEOLOGICAL SURVEY
 NM-6802
 IF INDIAN, ALLOY, OR OTHER CASE

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. NAME OF OPERATOR **AMOCO PRODUCTION COMPANY**

2. ADDRESS OF OPERATOR **BOX 68, HOBBS, N. M. 88240**

3. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
1980' FNLX 660' FWL Sec. 12 (Unit E, SE 1/4 NW 1/4)

4. PERMIT NO. _____

5. ELEVATIONS (Show whether DF, RT, OR, etc.)
3623 R.D.B.

6. UNIT AND NAME OF WELL
DIAMOND FEDERAL CO.

7. WELL NO. _____

8. FIELD AND FOOT OF SURVEY
SCOGGIN DRY MUDROW

9. SEC., T., R., M., OR LBN. AND SURVEY OR AREA
12-18-27 NMPM

10. COUNTY OR PARISH
EDDY

11. STATE
N.M.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) _____

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON* ☒

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) _____

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Drilled to a TD of 10,372' without encountering oil or gas. Logs and evaluations confirmed Dry Hole.

** Propose to P+H as follows: Cement Plugs - Class 14*

INTERVAL	LENGTH	FORMATION	EX CEMENT
9775-9675	100'	MORROW	45
7535-7435	100'	BISCO	50
5556-5456	100'	ABO	40
3720-3620	100'	YESO	50
2045-1945	100'	8 3/8" CSA 1995	40
Surface	10-20'	Fract P+H Marker	105x

all intervals to be filled w/ Arly mud.

Location to be cleaned & levelled.

RECEIVED
 SEP-4 1973
 U. S. GEOLOGICAL SURVEY
 ARTESIA, NEW MEXICO

** Pursuant to Mr. Leon Bukmans verbal approval 8-28-73.*

I hereby certify that the foregoing is true and correct

SIGNED _____ TITLE **AREA ENGINEER** DATE **AUG 31 1973**

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

4 USGS-Aet
 1- DWR
 1- JSP
 1- RRV
 1- ARCO

APPROVED
 SEP 11 1973
 H. L. BEEKMAN
 ACTING DISTRICT ENGINEER

See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYN. M. O. C. C. CO.
SUBMIT IN TRIPL
(Other instructions
verse side)Form approved
Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

NM-6852

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)1. ☐ OIL
WELL ☐ GAS
WELL ☐ OTHER

DRY HOLE

2. NAME OF OPERATOR
Amoco Production Company ✓

SEP - 6 1974

3. ADDRESS OF OPERATOR

BOX 68, HOBBS, N. M. 88240

O. C. C.

4. LOCATION OF WELL (Report location clearly and in accordance with any State regulations.
See also space 17 below.)
At surface

1980 FNLY 660 FWL Sec. 12 (UNIT E, SE 1/4 NW 1/4)

7. UNIT AGREEMENT NAME

DIAMOND FED. GAS COM

8. FARM OR LEASE NAME

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

SCOGGIN DRAW-MORROW

11. SEC. T., R., N., OR S.W., AND
SURVEY OR AREA

12-18-27 NMPM

14. PERMIT NO.

15. ELEVATIONS (Show whether DP, ST, ON, etc.)

3623 R.D. B.

12. COUNTY OR PARISH

EDDY

NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETS

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Note: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-
nent to this work.)

Physical abandonment of well concluded 8-31-73.
Plugged and abandoned as follows:

SX CEMENT	INTERVAL	LENGTH	FORMATION
45	9775-9765	100'	MORROW
50	7535-7435	100'	CISCO
40	5556-5456	100'	ABO
50	3720-3620	100'	YESO
40	2045-1945	876' CSA 1995' circ.	
10	Surface & erected P.A. marker.		

all intervals filled w mud.
Location to be cleaned & leveled.

18. I hereby certify that the foregoing is true and correct

SIGNED

Ray E. Yorkum

TITLE ADMINISTRATIVE ASSISTANT

DATE SEP 5 1973

(This space for Federal or State office use)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

1- USGS
1- Div
1- SusP
1- RRV
1- ARCO

SEP 6 1974
R. L. BEEKMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

RECEIVED
SEP - 6 1973
U.S. GEOLOGICAL SURVEY
ALBUQUERQUE, N.M.

EXHIBIT "D"
SKETCH OF WELL PAD

FRED POOL DRILLING, INC.
Well #2 Chukka Federal
SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 12: T-18-S, R-27-E

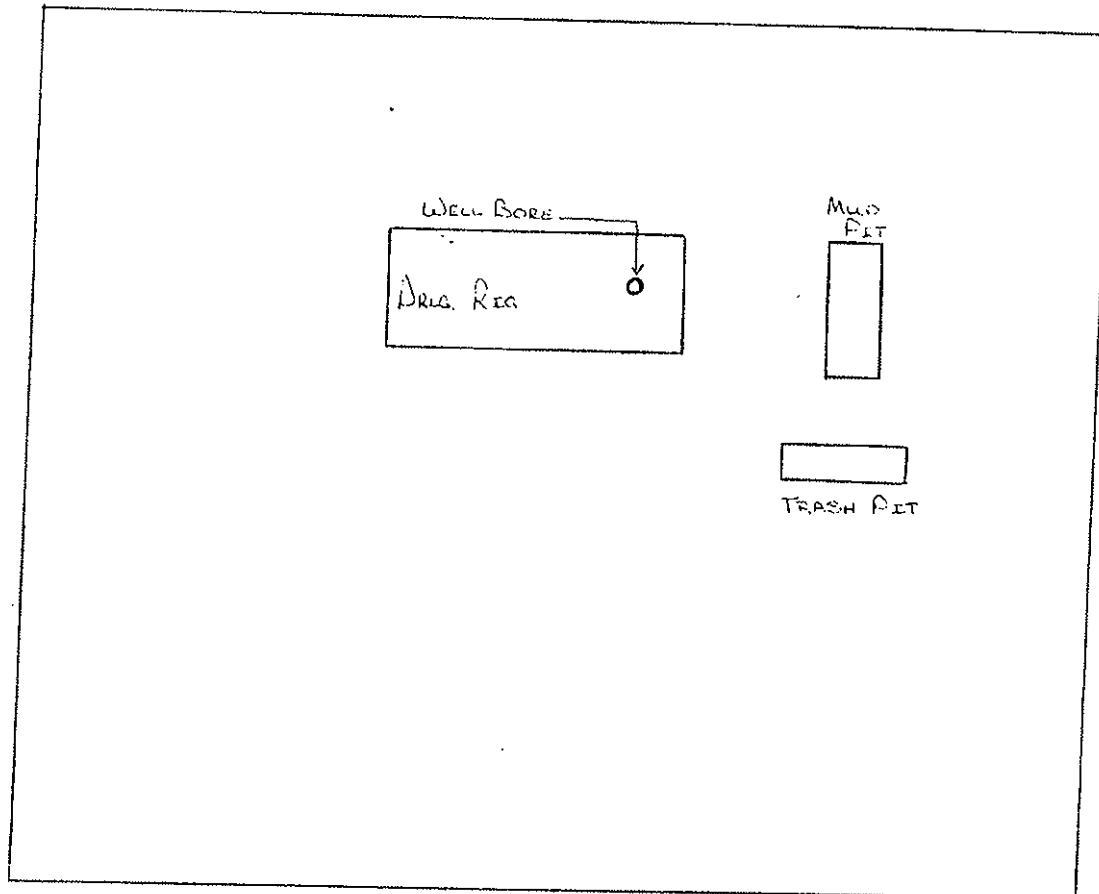
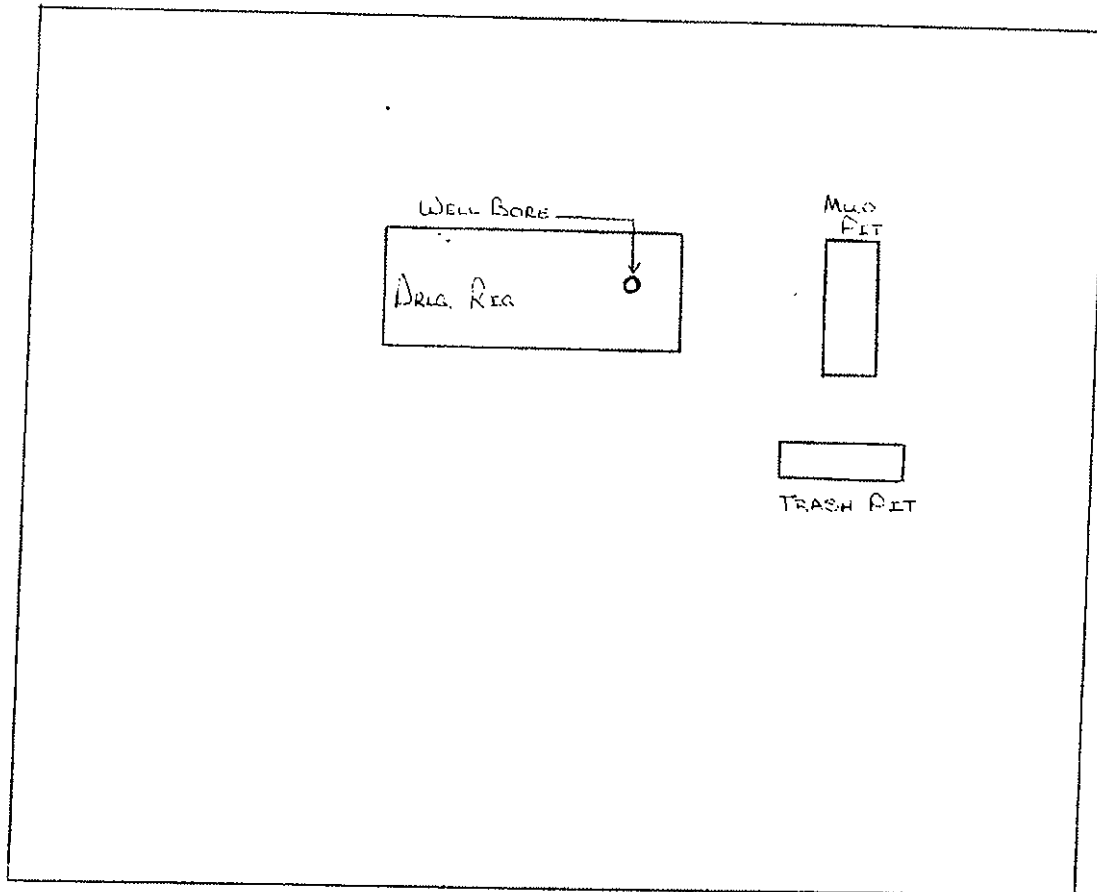


EXHIBIT "D"
SKETCH OF WELL PAD

FRED POOL DRILLING, INC.
Well #2 Chukka Federal
SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 12: T-18-S, R-27-E



All distances must be from the outer boundaries of the Section.

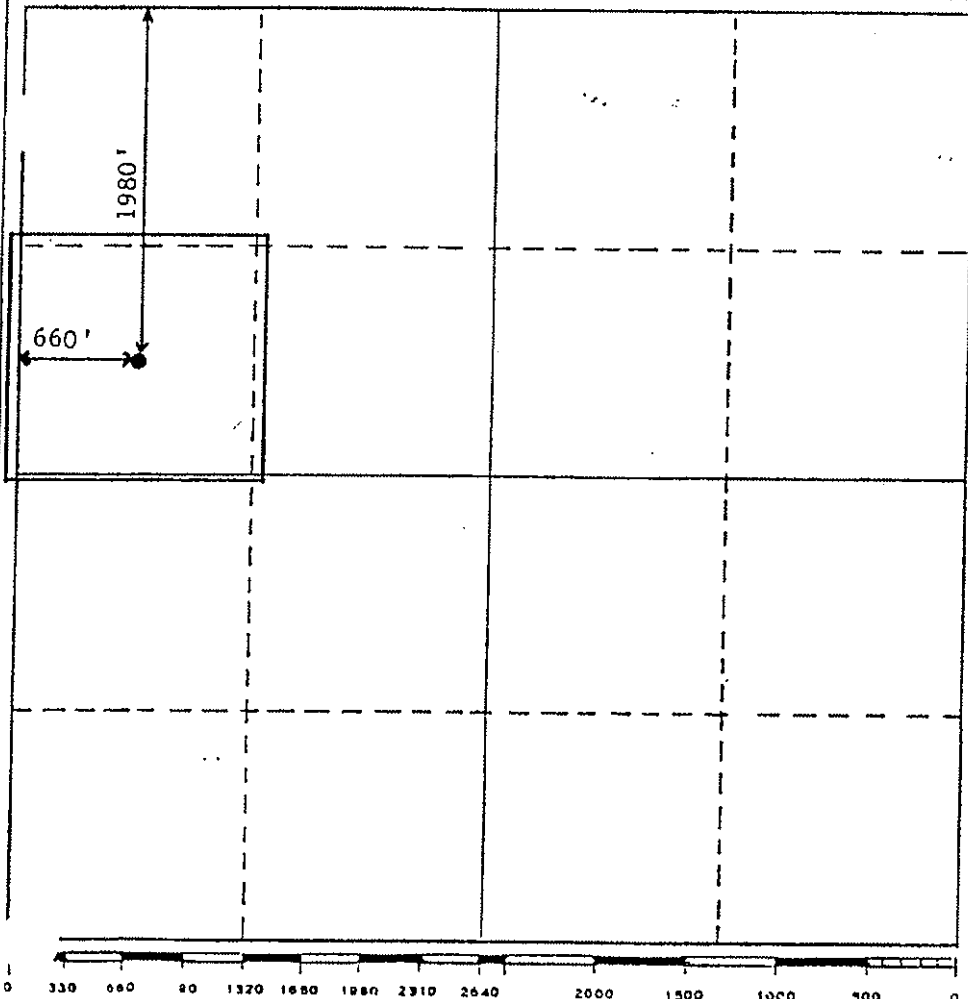
Driller Fred Pool Drilling, Inc.			Lease Chukka Federal			Well No. 2
Unit Letter E	Section 12	Township 18-S	Range 27-E	County Eddy		
Actual Footage Location of Well:						
1980		feet from the North		660		feet from the West
Ground Level Elev. 3607	Producing Formation		Pool Artesia	Dedicated Acreage 40		Acreage

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name *Fred Pool*
Position President
Company Fred Pool Drilling, Inc.
Date 8-16-85

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____
Registered Professional Engineer and/or Land Surveyor _____

Certificate No. _____

RECEIVED BY

AUG 30 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

ARTESIA, OFFICE

B. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐OTHER *Re-entry*SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Fred Pool Drilling, Inc.

3. ADDRESS OF OPERATOR

P. O. Box 1393, Roswell, N.M. 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1980' FNL & 660' FWL
At proposed prod. zone

(Unit E)

(SW $\frac{1}{4}$ NW $\frac{1}{4}$)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

11 air miles east-southeast of Artesia, N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drilg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

160

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1650'

19. PROPOSED DEPTH

1945'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3607 GR

22. APPROX. DATE WORK WILL START*

8-31-85

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
4 1/4"	8 5/8"	32#	2000	Circ.
12 1/4" pipe				
Casing in place				

This is a re-entry of Diamond Fed. Gas Com #1 plugged and abandoned 8-31-73.

OTO: 10,372

- Attached are:
- 1) Well location & acreage dedication plat
 - 2) Supplemental drilling data
 - 3) Surface use plan
 - 4) Designation of operator
 - 5) Original approved application by Amoco Production Co.
for Diamond Federal Gas Com #1

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Fred Pool TITLE President DATE 8-16-85
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY Eng. Sgd. C. H. S. D. TITLE _____ DATE 8-29-85
CONDITIONS OF APPROVAL, IF ANY: _____

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

*See Instructions On Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TR. LOCATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 6852

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Chukka Federal

9. WELL NO.

2

10. FIELD AND POOL OR WILDCAT
8-6-8A
Artesia Oil Pool

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 12-T 18S- R 27E

12. COUNTY OR PARISH 13. STATE

Eddy

NM

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

FRED POOL DRILLING, INC.

3. ADDRESS OF OPERATOR

P. O. Box 1393 Roswell, N.M. 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1980 WNL 660 FWL
Unit E SW 1/4 NW 1/4

14. PERMIT NO.

15. ELEVATIONS (Show whether DP, NT, GR, etc.)

3607 GR

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON* ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) ☐

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

9-5-85: Drilled cement out of surface from 0-30 ft.
Stringers of cement to 50 ft.
Tagged No. 2 plug at 1912 ft. Pulled tubing
back to 1804 ft.; circulated hole with fresh
water.
Preparing to log and perforate well.

18. I hereby certify that the foregoing is true and correct

SIGNED

Santa Pool

TITLE Clerk

DATE 9-6-85

(This space for Federal or State office use)

APPROVED BY

FOR RECORD

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY

SEP 10 1985

*See Instructions on Reverse Side

CAPITOL, NEW MEXICO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NM OIL COMS. CONTROL
DATE: 9-11-85
Artesia, NM 88210

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 6852

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Chukka Federal

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Artesia Oil Pool

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec, 12-T18S-R27E

12. COUNTY OR PARISH

Eddy

13. STATE

NM,

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐ re-entry

2. NAME OF OPERATOR

Fred Pool Drilling, Inc.

3. ADDRESS OF OPERATOR

P.O. Box 1393 Roswell, N.M. 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface

1980 FNL 660 FWL Unit E
SW $\frac{1}{4}$ NW $\frac{1}{4}$

14. PERMIT NO.

3001520894

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

3607 GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETION

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

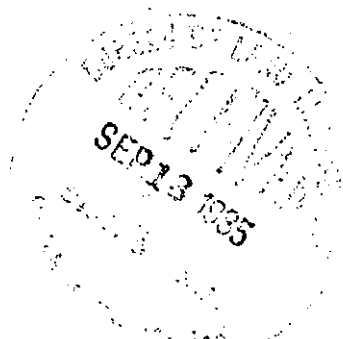
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

September 8, 1985

Perforations: 1446-56 ft. and 1459-62
14 shots.

Acidized with 1000 gallons NE 15%; and 30,000 gallons Versagel; 30,000# 20/40 sand and 12,000 # 10/20 sand.

Pumping well back to test.



18. I hereby certify that the foregoing is true and correct

SIGNED

Fred Pool

TITLE Vice - president

DATE 9-11-85

(This space for Federal or State office use)

APPROVED BY ACCEPTED FOR RECORD

CONDITIONS OF APPROVAL, IF ANY

TITLE

DATE

SEP 16 1985

*See Instructions on Reverse Side

CARLSBAD, NEW MEXICO

SUPPLEMENTAL DRILLING DATA

FRED POOL DRILLING, INC.
WELL #2 CHUKKA FEDERAL
SW $\frac{1}{4}$ NW $\frac{1}{4}$, SEC. 12, T-18-S, R-27-E
EDDY COUNTY, NEW MEXICO

1. SURFACE FORMATION: Artesia Group of Permian Age. (Elev. 3607')
2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Yates	275'	Grayberg	1650'
Seven Rivers	475'		
Queen	1225'		
3. ANTICIPATED POROSITY ZONES:

Water	- Above 300'
Oil	- 1500-2500'
4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
8 5/8"	0 - 2000'	32#		
5. SURFACE CONTROL EQUIPMENT: Control head.
6. CIRCULATING MEDIUM: KCL water.
7. AUXILIARY EQUIPMENT: None considered necessary on this shallow development well.
8. TESTING, LOGGING AND CORING PROGRAM: No coring or DST's are planned. Electric logs will include an cement bond log and a Compensated Neutron Log with Gamma Ray.
9. ABNORMAL PRESSURES, TEMPERATURES OR GASES: None anticipated.
10. ANTICIPATED STARTING DATE: It is planned that operations will commence about August 31, 1985. Duration of drilling, completion and testing operations should be one to five days.
11. RE-ENTRY DETAILS: Drill out cement plug at top of casing. Clean hole to plug at 1945' with tubing. Pressure test casing to be sure it does not leak. Run cement bond log from 1945' to surface. Perforate the Penrose section from 1450' to 1470' acidize and swab test.

RECEIVED BY

SEP 23 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY(See other in-
structions on
reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. WELL IDENTIFICATION: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other RE-entry

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR

Fred Pool Drilling, Inc. ✓

3. ADDRESS OF OPERATOR

P.O. Box 1393 Roswell, N.M. 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1980 FNL660 FWL SW $\frac{1}{4}$ NW $\frac{1}{4}$ Unit E

At top prod. interval reported below

1446- ft.

At total depth

1912 ft.

14. PERMIT NO.

3001520894

DATE ISSUED

9-30-85

12. COUNTY OR PARISH

Eddy

13. STATE

NM

15. DATE SPECDED

8-30-85

16. DATE T.D. REACHED

9-6-85

17. DATE COMPL. (Ready to prod.)

9-10-85

18. ELEVATIONS (DF, RES, BT, GR, ETC.)*

3607 GR

19. ELEV. CASINGHEAD

3607 GR

20. TOTAL DEPTH, MD & TVD

1912 ft.

21. PLUG, BACK T.D., MD & TVD

1912 ft.

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

1446-1462 ft.

Penrose

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

Compensated Neutron

27. WAS WELL CORED

no

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	32#	2000	11"	circulated	0

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	1804 ft.	

31. PERFORATION RECORD (Interval, size and number)

1446-56 ft.
1459-62 ft. 14 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1446-56	1000 gal. NE 15%, 30,000
1459-62	gal. Versagel; 30,000 #
	20/40 sand; 12,000# 10/20 sand.

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)					WELL STATUS (Producing or shut-in)	
9-12-85		Pumping					Producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO	
9-12-85	24	none	→	31	TSTM	0		
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)		
40#	40#	→	31	TSTM	0	35		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

vented

TEST WITNESSED BY

SEP 19 1985 Fred Pool, Jr.

35. LIST OF ATTACHMENTS

Compensated Neutron log, mailed 9-10-85

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Fred Pool

TITLE Vice President

DATE 9-13-85

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUMENTATIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 33.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 16: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:			38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Queen & Grayburg TD	0	65	Caliche and red bed Salt, red bed and anhydrite Dolomite and anhydrite Sand dolomite dolomite		
	65	1100			
	1100	1365			
	1365	1570			
	1570	1912			

OIL CONSERVATION DIVISION

NAME OF OPERATOR	
PERMIT NUMBER	
DATE OF PERMIT	
FILE	
WELL NO.	
CASING OFFICE	
TRANSPORTER	
OPERATOR	
PRODUCTION OFFICE	

RECEIVED BY
SEP 18 1985
O. C. D.
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Operator: Fred Pool Drilling, Inc.
Address: P.O. Box 1393, Roswell, N.M. 88201
Reason(s) for filing (Check proper box):
New Well ☒ Re-entry ☐ Change in Transporter of: Oil ☐ Dry Gas ☐
Completion ☐ Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐
If change of ownership give name and address of previous owner: _____
CASINGHEAD GAS MUST NOT BE FLARED AFTER 10-24-85 UNLESS AN EXCEPTION FROM THE B. L. M. IS OBTAINED

I. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease
Chukka Federal	2	Artesia Oil Pool	State, Federal or Fee	Federal 6852
Location				
Unit Letter E : 1980 Feet From The North Line and 660 Feet From The West				
Line of Section 12- Township 18S Range 27E, N10PM, Eddy Co.				

II. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Navajo Crude Oil Purchasing	Box 159 Artesia, N.M. 88210
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Phillips Petroleum	Bartlesville, Okla.
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
E 12 18S 27E	no

If this production is commingled with that from any other lease or pool, give commingling order number: _____

COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Hst.	Out H
X	X			X				X
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
8-30-85	9-10-85	1912 ft.	1912 ft.					
Elevations (D.F., R.R., RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
GR 3607	Penrose	1446 ft.	1804					
Perforations			Depth Casing Shoe					
1446-56			-					
1459-62								

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
11"	8 7/8"	2400'	200
	2 3/8"	1514'	

Post ID-2
9-27-85

TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or greater than top 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)
9-12-85	9-12-85	pumping
Length of Test	Tubing Pressure	Casing Pressure
24 hrs.	40#	40#
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.
31 bbls	31	0
		Gas-MCF
		TSTM

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MCF	Gravity of Condensate
TSTM	24hrs.	TSTM	-
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size
			none

CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

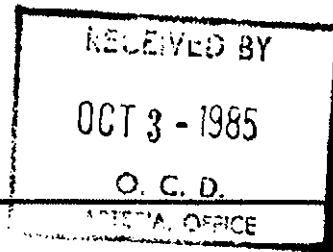
Fred Pool
(Signature)
Vice President
(Title)
9-16-85
(Date)

OIL CONSERVATION DIVISION

APPROVED SEP 24 1985
Original Signed By
Lois A. Clements
Supervisor District II

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deep well, this form must be accompanied by a tabulation of the device tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for all wells on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.
Separate Forms C-104 must be filled for each pool in multi-completed wells.

FRED POOL, JR.



September 25, 1985

P. O. Box 1393
Roswell, NM 88201

New Mexico Energy and Resources Board
P.O.Box 2088
Santa Fe, N.M. 87501

RE: Chukka Federal No. 2
Lease No. 6852
SW/4 NW/4 Sec. 12-18S-27E
Eddy County, N.M.

Gentlemen,

Please be advised that the above well was spudded on 8-3-85 and completed as a producing well on September 10, 1985. This well was potentialed at 31 barrels per day of oil and gas was TSTM.

All necessary records and logs have been filed with the appropriate offices.

Sincerely,


Penta Pool

OIL CONSERVATION DIVISION

Drawer DD Artesia, NM.

DISTRICT OFFICE #2

Sept. thru Dec. 1985

NO. 2038 N

SUPPLEMENT TO THE OIL PRORATION SCHEDULE

DATE September 24, 1985

PURPOSE ALLOWABLE ASSIGNMENT - NEW OIL

Effective September 12, 1985 an allowable of 31 barrels of oil per day
is hereby assigned to Fred Pool Drilling, Incorporated, Chukka Federal
#2-E-12-18-27 in the Artesia Queen Grayburg San Andres Pool.

L - F

MP - P

Sept. Total - 589 bbls.
Oct. Total - 961 bbls.
Nov. Total - 930 bbls.
Dec. Total - 961 bbls.

Perm. - Penrose
Perfs. - 1446' - 1462'
Comp. - 9-10-85
TD - 1912'

LAC:fc

Fred Pool Drig., Inc.

NEC
PP

OIL CONSERVATION DIVISION


DISTRICT SUPERVISOR

THE UNIVERSITY OF CHICAGO

LIBRARY

AND TO THE OF PROPOSAL

OF THE

THE

THE

THE

THE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instruct. on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO

NM 6852

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

CHUKKA FEDERAL

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

ARTESIA Q-G-SA

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

SEC. 12, TWP 18S, RGE. 27E

12. COUNTY OR PARISH

EDDY

NM

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

THE EASTLAND OIL COMPANY

3. ADDRESS OF OPERATOR

P. O. DRAWER 3488, MIDLAND, TX 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

UNIT LETTER E, 1980 FT. FNL AND 660 FWL, SECTION 12, TS 18S,
RG. 27E, EDDY CO., NM

14. PERMIT NO.

30-015-20894

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETION ☐

ABANDON* ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) CHANGE OF OPERATOR ☒

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

LEASE PURCHASED FROM FRED POOL DRILLING, INC. 09/01/90.

RECEIVED
OCT 17 11 09 AM '90
CARR
AREA

18. I hereby certify that the foregoing is true and correct

SIGNED

Travis Reed

TITLE

PRODUCTION SUPERINTENDENT

DATE

10/11/90

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Submit 5 Copies
Appropriate District Office
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED

OCT 18 '90

Form C-104
Revised 1-1-89
See Instructions
at Bottom of Page

C. C. D.
ARTESIA, OFFICE

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Operator THE EASTLAND OIL COMPANY		Well API No. 30-015-20894
Address P. O. DRAWER 3488, MIDLAND, TEXAS 79702		
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)		
New Well <input type="checkbox"/>	Change in Transporter of:	
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>	
Change in Operator <input checked="" type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>	EFFECTIVE 09/01/90
If change of operator give name and address of previous operator FRED POOL DRILLING, INC., P. O. DRAWER 1393, ROSWELL, NM 88201		

II. DESCRIPTION OF WELL AND LEASE

Lease Name CHUKKA FEDERAL	Well No. 2	Pool Name, including Formation ARTESIA Q-G-SA	Kind of Lease State, Federal, or BLM	Lease No. 6852
Location Unit Letter E : 1980 Feet From The North Line and 660 Feet From The West Line Section 12 Township 18S Range 27E , NMPM , EDDY County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> NAVAJO CRUDE OIL PURCHASING	Address (Give address to which approved copy of this form is to be sent) BOX 159, ARTESIA, NM 88210	
Name of Authorized Transporter of Casinghead Gas <input checked="" type="checkbox"/> or Dry Gas <input type="checkbox"/> PHILLIPS PETROLEUM	Address (Give address to which approved copy of this form is to be sent) BARTLESVILLE, OK	
If well produces oil or liquids, give location of tanks.	Unit E	Sec. 12
	Twp. 18S	Rge. 27E
Is gas actually connected?	When ?	
NO		

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.		
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth		
Perforations			Depth Casing Shoe					
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size posted IO-3 10-26-90
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF chg OP

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Travis Reed
Signature
TRAVIS REED PRODUCTION SUPERINTENDENT
Printed Name
10/08/90 **915/683-6293**
Date Telephone No.

OIL CONSERVATION DIVISION

Date Approved **OCT 23 1990**

By **ORIGINAL SIGNED BY**

MIKE WILLIAMS

Title **SUPERVISOR, DISTRICT II**

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

District I
1625 N. French Dr., Hobbs, NM 88240

District II
South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-20894		Pool Code	Pool Name Lower Wolfcamp-Cisco-Canyon Injection Zone
Property Code	Property Name WDW-2		Well Number
OGRID No.	Operator Name Navajo Refining Company		Elevation 3607' GR

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	12	18S	27E		1980	North	660	West	Eddy

11 Bottom Hole Location If Different From Surface

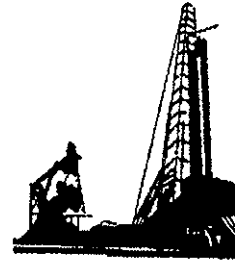
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
				Signature <u>Darrell Moore</u>	
				Printed Name <u>Darrell Moore</u>	
				Title <u>Env. Mgr. for Water & Waste</u> Date <u>4/21/99</u>	
				18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
				Date of Survey Signature and Seal of Professional Surveyor	
				Well is active. Location was not re-surveyed by Navajo.	
				Certificate Number	

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505
(505) 827-7133
Fax: (505) 827-8177

**(PLEASE DELIVER THIS FAX)**

To: TIM GUMM - ARTESIA OGD FAX 748-9720

From: WAYNE PRICE - OGD SF

Date: 4/30/99

Number of Pages (Includes Cover Sheet) 5/6

Message: APPROVED BOND FOR NAWMJO WDW#2

CLASS I INJECTION WELL (COPY)

If you have any trouble receiving this, please call:
(505) 827-7133



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2846 South Pacheco Street
Santa Fe, New Mexico 87606
(505) 827-7131

April 19, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z 559 573 590

J.S. Ward & Son, Inc.
104 South Fourth Street
Artesia, New Mexico 88210-2195

Attention: Mr. Gary Sims

Re: Navajo Refining Company Discharge Plan UIC-CLI-008-2
Bond No. 58 96 12
\$ 95,000.00 One-Well Plugging Bond
to the State of New Mexico for Class I Injection Well WDW#2
1980' FNL and 660' FWL - Sec 12-Ts18s-R27e N.M.P.M.
Eddy, County, New Mexico
J.S. Ward & Son, Inc., Principal

Gulf Insurance Company, Surety
Bond 58 96 12

The New Mexico Oil Conservation Division hereby approves the above-captioned One-Well Plugging Bond.

Sincerely,

RAND CARROLL,
Legal Counsel

RC/wp

cc: OCD Artesia Office
Gulf Insurance Company

PROJECT BILLING INFORMATION SHEET

Proposal No. 71Z5678

Project No. 70D6806

Original Proposal/Project
Submittal Date: 4/23/12

CLIENT INFORMATION

Company Name: * Bio-Lab Inc.

Is this a revision: Yes ☐ No ☒

Attention Line: * Steve Marr

Revision Date:

"Billing" Address: * 1400 East Michigan Street
Adrian, Michigan 49221

Project Manager: * Joe Thatcher

"Main" Telephone No: * (517) 265-6138 Ext. 253 (Steve Marr)

Fax No.

Project Manager's Tele. No.* (517) 605-0908 (Joe Thatcher's Cell #)

Fax No.

Physical (Delivery) Address: *

Salesperson (One Only):

Email Address

Taxable ☐ Nontaxable ☐

Client's PO/Contract No. P.O. 4500349691

PO/Contract Date: 04/23/12

Description of Work (TO BE PRINTED ON INVOICE): * Well No. 1 MIT and Falloff Survey

Subsurface Project Manager: RWS

State Work Performed (One Only): MI

BILLING METHOD: (You must complete only one of the following billing methods):

- (1) ☒ 2011 Price List Less _____%, _____% Handling Charge, or _____% Procurement Fee
- (2) _____ 2004 Price List Less _____%, _____% Handling Charge, or _____% Procurement Fee
- (2) _____ Lump-Sum (Project Manager to Notify Accounting When to Bill)
- (3) _____ Special Billing (Describe:)
- (4) _____ Standard Government Billing: _____% Overhead, _____% Fixed Fee (Attach Form OF-60)

APPROVED PROJECT BUDGET:

Amount to be Billed: (A) \$ 11,670

Subsurface Project Cost: (B) \$

Gross Profit: (C=A-B) \$

Gross Profit: (D=C/A) %

CRITICAL DEADLINES:

Proposal Due Date: 3/20/2012

Project Start-up Date:

Project Completion Date:

PROJECT CODES (One Code Per Line): **

Industry Sector Code:

Business Line Code:

Service Type Code:

Project Type Code:

PREPARATION: ***

RFP Received: Yes ☐ No ☐

Written ☐ Verbal ☐

PBI Prepared By: RWS

* Maximum of 30 characters. This description will appear on all client billing information. Be concise.

** See back of Project Billing Information Sheet for Business Line/Service Type/Project Type codes.

*** A completed (i) RFP for a proposal or (ii) manpower summary and cost estimate for a project should be attached.

Revised 7-27-01



J. S. Ward & Son, Inc.

101 South Fourth Street
(505) 746-2796
FAX (505) 746-4244
Artesia, New Mexico
88210-2195

Insurance
Bonds

April 22, 1999

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505-5472

Attention: Mr. Roger Anderson

Re: Navajo Refining Company
Bond No. 58 96 12
\$95,000 One-Well Plugging Bond
to the State of New Mexico for
Class I Injection Well
Chukka Federal #2

Dear Mr. Anderson:

Enclosed please find the captioned bond through Gulf Insurance Company which we trust you find in order and acceptable for filing.

Very truly yours,

J. S. WARD & SON, INC.

By *J. Gary Sims*

SGS:emb

Enclosure

cc: Navajo Refining Company
Post Office Box 159
Artesia, New Mexico 88211-0159
Attention: Mr. Joe Akins - Copy of Bond & Invoice

UNITED STATES OF AMERICA

Navajo Refining Company

PRINCIPAL

Post Office Box 159

Artesia, New Mexico

Address

By

Signature

President

Title

(Note: Principal, if corporation, affix corporate seal here.)

Gulf Insurance Company

SURETY

101 South Fourth Street

Artesia, New Mexico 88210-2195

Address

Attorney-In-Fact

(Note: Corporate surety affix corporate seal here.)

ACKNOWLEDGEMENT FORM FOR NATURAL PERSONS

STATE OF _____)
COUNTY OF _____) ss.

On this _____ day of _____, 19____, before me personally appeared _____, to me known to be the person (persons) described in and who executed the foregoing instrument and acknowledged that he (they) executed the same as his (their) free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

Notary Public

My Commission Expires _____

ACKNOWLEDGEMENT FORM FOR CORPORATION

STATE OF New Mexico)
COUNTY OF Eddy) ss.

On this 22nd day of April, 1999, before me personally appeared Jack P. Reid, to me personally known who, being by me duly sworn, did say that he is President of Navajo Refining Company and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

Notary Public

1-16-2001
My Commission Expires



OFFICIAL SEAL
Rita Beadle
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 1-16-2001

ACKNOWLEDGEMENT FORM FOR CORPORATE SURETY

STATE OF New Mexico)
COUNTY OF Eddy) ss.

On this 22nd day of April, 1999, before me appeared S. Gary Sims, to me personally known, who, being by me duly sworn, did say that he is Attorney-in-Fact of Gulf Insurance Company and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

Notary Public

7-10-01
My Commission Expires



(Note: Corporate surety attach power of attorney.)

APPROVED BY:

OIL CONSERVATION DIVISION OF NEW MEXICO

By:

Date:

4/30/99



POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That GULF INSURANCE COMPANY, a corporation of the State of Missouri, hereinafter called "Company," does hereby appoint

CHARLENE M. WARD or S. GARY SIMS or JOHN C. KNIGHT

ARTESIA, NEW MEXICO

its true and lawful Attorney-in-fact to make, execute, seal and deliver on its behalf, as surety, any and all bonds and undertakings of suretyship, not to exceed \$250,000.00 or any bond where the penalty is not stated in the bond form. No authority is granted where the attorney in fact is a party at interest in the bond.

The execution of such bonds or undertakings in pursuance of these presents shall be as binding upon the Company as if they had been executed and acknowledged by the regularly elected officers of the Company.

This Power of Attorney is issued pursuant to and by authority of the following resolution of the Board of Directors of the Company, adopted effective July 1, 1983, and now in full force and effect:

"Resolved that the President, or any Senior Vice President, or any Vice President, or the Secretary, or any Assistant Secretary may appoint Attorneys-in-fact in any state, territory or federal district to represent this Company and to act on its behalf within the scope of the authority granted to them, in writing, which authority may include the power to make, execute, seal and deliver on behalf of this Company, its surety, and on its act and deed, any and all bonds and undertakings of suretyship and other documents that the ordinary course of surety business may require, including authority to appoint agents for the service of process in any jurisdiction, state or federal, and authority to attend to the signature of the President, or any Senior Vice President, or any Vice President, or the Secretary, or any Assistant Secretary and to verify any affidavit or other statement relating to the foregoing, and to certify to a copy of any of the bylaws of the Company and to any resolutions adopted by its Board of Directors; and any such Attorney-in-fact may be removed and the authority granted him revoked by the President, or any Senior Vice President, or any Vice President, or the Secretary, or any Assistant Secretary, or by the Board of Directors."

This Power of Attorney and Certificate are signed and sealed by facsimile under and by authority of the following resolution of the Board of Directors of the Company, adopted effective July 1, 1983, and now in full force and effect:

"Resolved that the signature of the President, or of any Senior Vice President, or of any Vice President, or of the Secretary, or of any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Attorneys-in-fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, including any such power of attorney and certificate revoking the authority of the foregoing Attorneys-in-fact, as well as for the appointment of agents for the service of process in any jurisdiction, state or federal, including any such power of attorney and certificate revoking the authority of such agents; and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power of attorney or certificate so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company at the time of its execution and shall be the same with respect to any bond or undertaking to which they are attached."

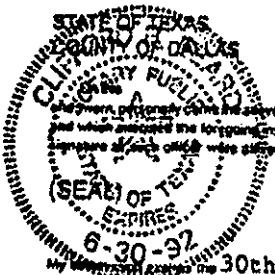


April 12

1991

By

[Signature]
Sr. Vice President



12 day of April

1991, before me, a Notary Public of the State and County aforesaid, residing therein, duly commissioned and sworn, personally came the active named officer of GULF INSURANCE COMPANY, who being by me first duly sworn according to law, did depose and say that he is that officer of the company described in and which executed the foregoing instrument; that he knows the seal of said company; that the seal affixed to such instrument is the corporate seal of said company; and that the corporate seal and his signature of said officer were affixed and subscribed to the said instrument by the authority and direction of said company.

[Signature]
Clifford R. Beard
Notary Public
1992

30th day of June

CERTIFICATE

I, the undersigned, do hereby certify that the original Power of Attorney of which the foregoing is a true and correct copy is in full force and effect, and the foregoing resolutions are true and correct transcripts from the records of GULF INSURANCE COMPANY and that the above named officer was on the date of execution of the foregoing Power of Attorney authorized to execute this Power of Attorney.



I, the undersigned, have hereunto subscribed my name and affixed the corporate seal of Gulf Insurance Company this

22nd day of April

1992.

[Signature]
Vice President

STATE OF NEW MEXICO
ONE-WELL PLUGGING BOND

FOR CHAVES, EDDY, LEA, MCKINLEY, RIO ARRIBA, ROOSEVELT,
SANDOVAL, AND SAN JUAN COUNTIES ONLY

BOND NO. 58 96 12
AMOUNT OF BOND \$95,000.00
COUNTY Eddy

NOTE: For wells less than 5,000 feet deep, the minimum bond is \$5,000.00+
For wells 5,000 to 10,000 feet deep, the minimum bond is \$7,500.00+
For wells more than 10,000 feet deep, the minimum bond is \$10,000.00

Under certain conditions, a well being drilled under a \$5,000.00 or \$7,500 bond may be permitted to be drilled as much as 500 feet deeper than the normal maximum depth, i.e., a well being drilled under a \$5,000.00 bond may be permitted to go to 5,500 feet, and a well being drilled under a \$7,500.00 bond may be permitted to go to 10,500 feet. (See Rule 101)

File with Oil Conservation Division, P. O. Box 7088, Santa Fe 87501

KNOW ALL MEN BY THESE PRESENTS:

That Navajo Refining Company, ~~XXXXXXXXXXXXXXXXXXXX~~
(a corporation organized in the State of New Mexico, with its principal office in the city of Artesia, State of New Mexico, and authorized to do business in the State of New Mexico), as PRINCIPAL, and Gulf Insurance Company, a corporation organized and existing under the laws of the State of Missouri, and authorized to do business in the State of New Mexico, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of New Mexico pursuant to Section 70-2-12, New Mexico Statutes Annotated, 1978 and no/100ths, Compilation, as amended, in the sum of Ninety-Five Thousand Dollars lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas leases, or carbon dioxide (CO₂) gas leases, or helium gas leases, or brine mineral leases with the State of New Mexico; and

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas leases, or carbon dioxide (CO₂) gas leases, or helium gas leases, or brine mineral leases on lands patented by the United States of America to private individuals, and on lands otherwise owned by private individuals; and

WHEREAS, The above principal, individually, or in association with one or more other parties, has commenced or may commence the drilling of one well not to exceed a depth of 9200 feet, to prospect for and produce oil or gas, or carbon dioxide (CO₂) gas or helium gas, or does own or may acquire, own or operate such well, or such well started by others on land embraced in said State oil and gas leases, or carbon dioxide (CO₂) leases, or helium gas leases, or brine minerals, and on land patented by the United States of America to private individuals, and on land otherwise owned by private individuals, the identification and location of said well being being 1980' FNL and 660' FWL, Section 12, Township 18, ~~XXXXXX~~(South)

(Here state exact legal footage description)
Range 27 (East) ~~XXXX~~, N.M.P.M., Eddy County, New Mexico.

NOW, THEREFORE, If the above bounden principal and surety or either of them or their successors or assigns, or any of them, shall plug said well when dry or when abandoned in accordance with the rules, regulations, and orders of the Oil Conservation Division of New Mexico in such way as to confine the oil, gas, brine, and water in the strata in which they are found, and to prevent them from escaping into other strata;

THEN, THEREFORE, This obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

Signed and sealed this 22nd day of April, 1999.

ATTACHMENT A

Sunday, May 9, 1999

Pressure testing the 8-5/8 inch Surface Casing from 1922 feet (KB) to 30 feet (KB) using a fresh water fluid. Pressure testing was performed after the perforations between 1446 feet and 1462 feet were squeezed with cement.

Pressure Test No. 1

Time	Cumulative Time	Pressure	Delta Pressure
(hrs.) (minutes)		(psig)	(psi)
1303	0	660	----
1308	5	660	0
1313	10	660	0
1318	15	660	0
1323	20	660	0
1328	25	659	-1
1333	30	659	0

Total = -1 psi per 30 minutes

Pressure Test No. 2

Time	Cumulative Time	Pressure	Delta Pressure
(hrs.) (minutes)		(psig)	(psi)
1333	0	659	----
1338	5	659	0
1343	10	659	0
1348	15	658	-1
1353	20	658	0
1358	25	657	-1
1303	30	657	0

Total = -2 psi per 30 minutes



TELEPHONE
5) 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) 748-4438 P / L

May 10, 1999

Mr. Tim Gumm
State of New Mexico
Energy, Minerals and Natural
Resources Department
Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210



RE: Re-Entry for Navajo Refining Company's Waste Disposal Well No. 2

Dear Mr. Gumm:

Navajo Refining Company (Navajo) has contracted Subsurface Technology, Inc. to re-enter, test and complete Waste Disposal Well No. 2 (WDW-2), formerly the Chukka Federal No. 2 operated by The Eastland Oil Company. The United States Department of the Interior, Bureau of Land Management approved the Application for Permit to Drill or Deepen on April 27, 1999. Subsequent approval from the State of New Mexico Oil Conservation Commission (OCD) was granted on Tuesday, May 4, 1999.

Navajo initiated field operations on Wednesday, May 5, 1999. The existing pumping equipment, rods, and tubing were removed from the wellbore. The perforations from 1446 feet to 1462 feet were squeezed using 100 sacks of Class 'H' cement (approximately 50 sacks of cement were displaced into the perforated interval). The cement was allowed to cure and drilled out to a total depth of 1922 feet (KB)(1911 feet below ground level).

On Sunday, May 9, 1999, the 8-5/8 inch surface casing, set from 1955 feet (KB) to surface, was pressure tested for internal mechanical integrity between 1922 feet (KB) and 30 feet (KB) using a packer set at 30 feet. The 8-5/8 inch surface casing was pressure tested to 660 pounds per square inch and monitored at the surface for one hour (Attachment A). The fluid used for testing was a clean fresh water fluid. A pressure loss of 1 psi (0.15%) was observed during the first 30 minutes of the test. A pressure loss of 2 psi (0.30%) was observed during the last 30 minutes of the test. The results from the pressure test confirmed internal mechanical integrity of the 8-5/8 inch surface casing from 1922 feet (KB) to 30 feet (KB).

The 8-5/8 inch surface casing was originally set in an 11 inch open-hole to a depth of 1955 feet (KB) and cemented to surface using 700 sacks of Class 'H' cement with 2% gel and 100 sacks of Class 'H' neat. A total of 200 sacks of cement was recorded circulated to surface. The calculated volume between an 11 inch hole and 8-5/8 inch casing is (0.2407 cubic feet per foot X 1955 feet) 471 cubic feet. The volume of cement pumped is (1.18 cubic feet per sack X 800 sacks) 944 cubic feet for an excess of 473 cubic feet or 400 sacks circulated to surface. The calculated volume of cement and apparent volume of actual cement pumped indicated excess cement was circulated to surface.

On Sunday, May 9, 1999, Halliburton Logging Services completed a cement bond and microseismogram (same as a variable density log) logging survey within the 8-5/8 inch casing from a wireline total depth of 1919 feet (KB) to the surface (Attachment B). The results from the survey indicate a continuous column of cement from 1922 feet to surface with good bonding characteristics. The cement behind the 8-5/8 inch casing will provide an effective hydraulic seal to prevent the movement of groundwater fluids into the underground source of drinking water with a base at 473 feet.

Please review and approve the pressure testing and cement bond log results at your earliest convenience. Navajo will proceed with the mobilization of the drilling rig Wednesday, May 12, 1999 and begin re-entry of the WDW-2 wellbore according to the approved drilling program. Navajo will periodically contact the OCD, Artesia office with a status update of the re-entry operations. The Bureau of Land Management will be notified in sufficient time for a representative to witness the cementing of the 5-1/2 inch protection casing.

Should you have any questions or concerns, please call me at (505) 748-3311.

Sincerely yours,



Darrell Moore
Environmental Manager for Water and Waste

c: Mr. David Glass
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

Mr. Brian Rogers
Subsurface Technology, Inc.
7020 Portwest, Suite 100
Houston, Texas 77024

File: Injection Wells



March 30, 1999

Mr. Barry Hunt
Bureau of Land Management
Carlsbad Resource Area
620 East Greene Street
Carlsbad, New Mexico 88220-6292

RE: Navajo Refining Company Proposed WDW-2, Eddy County, New Mexico
Request for On-Site Inspection of Wellsite
Subsurface Project No. 60A4937

Dear Mr. Hunt:

Navajo Refining Company (Navajo) is purchasing an existing well in Eddy County, New Mexico for planned use as a Class I nonhazardous effluent disposal well, and plans to reenter and test the well in the next few months. The well is on federal land. Subsurface Technology, Inc. (Subsurface), formerly Envirocorp Services & Technology, Inc., on behalf of Navajo, requests your participation in an on-site inspection of the wellsite as soon as possible.

Pertinent information about the existing well is provided below:

Lease Number:	NM 6852
Current Operator:	The Eastland Oil Company (September 1990 to present)
Lease:	Chukka Federal No. 2
Former Operator:	Fred Pool Drilling Company (August 1985 to September 1990)
Former Operator:	Amoco Production Company (July 1973 to August 1985)
Former Lease:	Diamond Federal Gas Com. No. 1
Location:	1980' FNL, 660' FWL (SW/4 NW/4, Unit Letter E) 12-T18S-R27E

Topographic Map (Attachment A)

Original Total Depth: 10,372 feet
Plugged-Back Total Depth: 1912 feet
Well Schematic (Attachment B)

Status: The well is producing from the Penrose from perforations between 1446 feet and 1462 feet. Navajo is currently



Mr. Barry Hunt
Bureau of Land Management

March 30, 1999
Page 2

negotiating to purchase the well from Eastland Oil Company. The purchase should be completed by April 1, 1999.

Navajo proposes to reenter the well, squeeze the perforations from 1446 feet to 1462 feet, drill out the plugs and clean out the well to approximately 9200 feet, set 5-1/2 inch casing at 9200 feet and cement it to the surface, and conduct one or more injectivity tests. The proposed injection intervals are porous zones in the lower portion of the Wolfcamp Formation (7270 feet to 7645 feet), the Cisco Formation (7645 feet to 8390 feet), and the Canyon Formation (8390 feet to 8894 feet). Navajo's proposed reentry, testing, and recompletion procedure is included as Attachment C. A schematic of the well after recompletion is included as Attachment D.

Subsurface is currently preparing a discharge plan application for the Class I well for Navajo to submit to the New Mexico Oil Conservation Division and the BLM Roswell office near the end of April 1999. Subsurface is also preparing BLM Form 3160-3 (Application for Permit to Drill) for Navajo to submit to the BLM Roswell office.

Please contact me at (713) 880-4640 to schedule an on-site inspection of the wellsite. Do not hesitate to call me if you need additional information or if you have questions.

Sincerely,

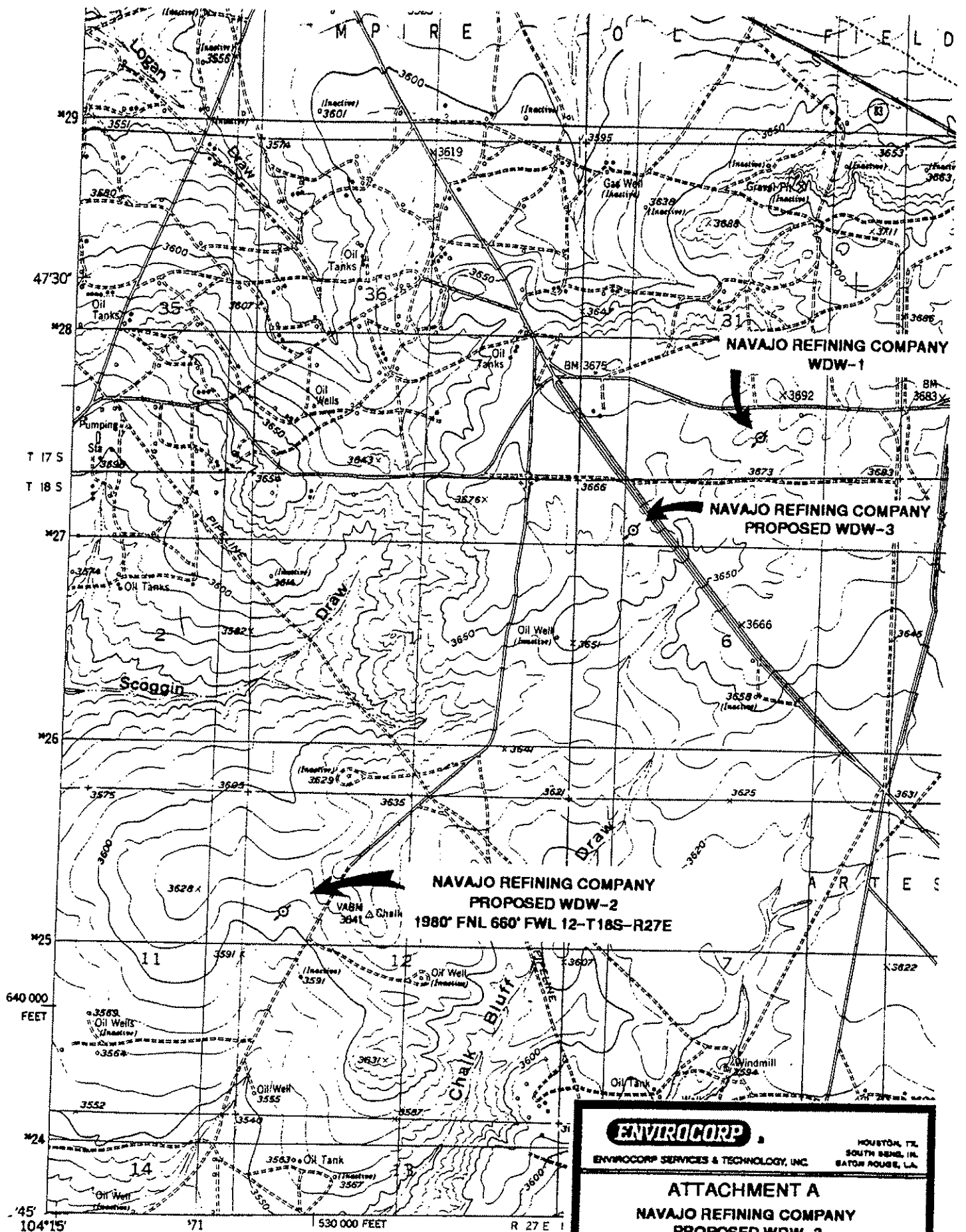


Nancy L. Niemann
Senior Geologist

NLN/paf
Attachments

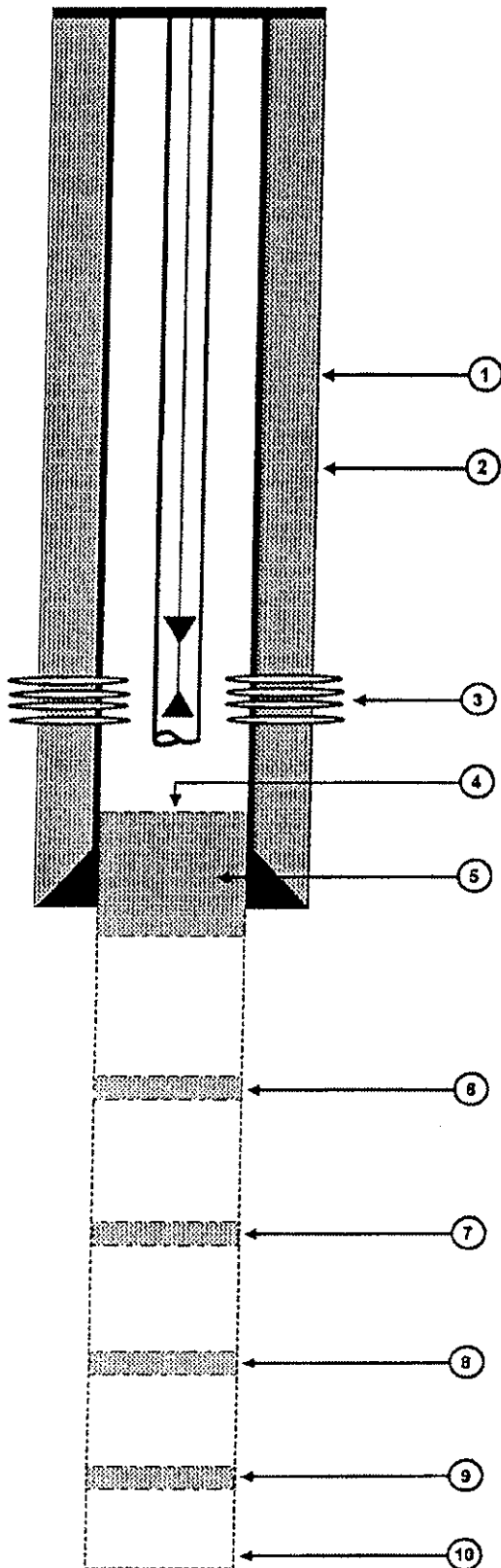
c: Joe Lara – BLM, Carlsbad
David Glass – BLM, Roswell
Wayne Price – OCD, Santa Fe
Tim Gum – OCD, Artesia
Phil Youngblood – Navajo
Darrell Moore – Navajo
George Walbert – Holly Petroleum, Inc.

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RED LAKE QUADRANGLE

ENVIROCORP		
ENVIROCORP SERVICES & TECHNOLOGY, INC.		
HOUSTON, TX SOUTH BEND, IN BATON ROUGE, LA		
ATTACHMENT A		
NAVAJO REFINING COMPANY		
PROPOSED WDW-2		
1980' FNL 660' FWL 12-T18S-R27E		
EDDY COUNTY, NM		
DATE:	CHECKED BY:	JOB NO:
DRAWN BY:	APPROVED BY:	DWG. NO:



Total Depth: 10,372'

BELOW GROUND DETAIL

All depths are referenced to the kelly bushing elevation of 13 feet. The surface elevation is 3610 feet.

1. Base of the USDW at 473'.

2. Casing: 8-5/8", 32 lb/ft, set at 1955' in an 11" hole. Cemented to surface with 700 sacks of cement.

3. Perforations: 1446' - 1462'.

4. PBTD: 1912'.

5. Cement Plug: 40 sacks from 1912' to 2045'.

6. Cement Plug: 50 sacks from 3620' to 3720'.

7. Cement Plug: 40 sacks from 5456' to 5556'.

8. Cement Plug: 50 sacks from 7435' to 7535'.

9. Cement Plug: 45 sacks from 9675' to 9775'.

10. Hole Size: 7-7/8".

ENVIROCORP		HOUSTON, TX. SOUTH BEND, IN. BATON ROUGE, LA.	
ATTACHMENT III-2 NAVAJO REFINING COMPANY CURRENT WELL CONFIGURATION CHUKKA FEDERAL No. 2			
Date: 03/10/99	Checked By: NLN	Job No.: 60A4937	
Drawn By: LKM	Approved By: NLN	File: WDW2A.DS4	

ATTACHMENT C

DRILLING AND RECOMPLETION PROCEDURE FOR NAVAJO REFINING COMPANY'S PROPOSED WDW-2

1. Obtain all permits and approvals for the reentry, testing and completion of a currently existing well.
2. Move in and rig up a workover unit. Remove the pumping equipment and pull the tubing out of the well.
3. Go in the hole with a squeeze packer and squeeze the perforations from 1446 feet to 1462 feet with 100 sacks of Class "H" cement. Allow the cement to cure.
4. Drill out the cement, circulate the well clean and pressure test the squeezed perforations at 500 psig for 30 minutes. Pull the squeeze tools out of the hole.
5. Conduct a CBL/VDL survey from 1912 feet to the surface. Submit the results of the pressure test and CBL/VDL survey to the OCD and the BLM for their review and approval prior to mobilizing the drilling rig.
6. After receiving approval from the OCD and the BLM to continue the reentry, prepare the location for the selected drilling rig. Construct the lined reserve pits, dig out the cellar, and install a mousehole and rathole.
7. Move in and rig up the rotary drilling rig and install the blowout preventers.
8. Drill out the following cement plugs and conduct deviation surveys every 1000 feet or on trips:
 - a. 1912 feet to 2045 feet, 40 sacks
 - b. 3620 feet to 3720 feet, 50 sacks
 - c. 5456 feet to 5556 feet, 40 sacks
 - d. 7435 feet to 7535 feet, 50 sacks
9. Clean the well out to a depth of 9200 feet and circulate and condition the hole for logging. Make a wiper trip to the base of the 8-5/8 inch surface casing while strapping the drillpipe.
10. Conduct a formation microimager (FMI) survey with gamma ray from the well's total depth to 4000 feet. Continue the four-arm caliper survey to the 8-5/8 inch

ATTACHMENT C (Continued)

casing shoe. Process the FMI for fracture identification over the lower 200 feet of the confining zone and zones of interest in the injection zone, if warranted.

11. Spot a gelled pill at 9200 feet and lay down the drillpipe.
12. Run the 5-1/2 inch casing with a packoff shoe and float collar to 9200 feet. Install a "DV" tool at 5500 feet. Run centralizers at approximately 120-foot intervals.
13. Cement the 5-1/2 inch casing in place. Use a minimum of 20% excess cement as calculated from the caliper log. Circulate cement to the surface and allow to cure.
14. Clean out the mud pits and release the drilling rig 12 hours after cementing the 5-1/2 inch casing in place.
15. Stabilize the 5-1/2 inch casing at the surface using ready-mix cement.
16. Move in and rig up the completion rig pump, tank, power swivel, and work string. Install the blowout preventer.
17. Run in the well with a 4-3/4 inch bit to the "DV" tool and test the casing to 1500 psig for 30 minutes.
18. Drill out the "DV" tool and clean out the wellbore to the float collar. Test the casing to 1500 psig for 30 minutes. Circulate the wellbore with clean brine, preceded by 15% HCL to clean the casing. Trip the work string out of the well.
19. Conduct the casing inspection, CBL/VDL, and differential temperature surveys.
20. Perforate the selected injection interval as determined from the open hole logs. (Zone 1).
21. Run in the well with a packer and tailpipe. Set the packer above the top perforation and swab test the perforated interval. Recover at minimum two tubing volumes of the reservoir fluid for analysis (Note: Set up H₂S monitoring equipment prior to swabbing operations).
22. Acidize the zone using diverters. Pull the packer out of the well.
23. Perforate the next selected injection interval as determined from the open hole logs (Zone 2).

ATTACHMENT C (Continued)

24. Run a retrievable bridge plug and packer into the well and isolate Zone 2.
25. Acidize Zone 2 using diverters. Pull the retrievable bridge plug and packer out of the well, laying down the work string.
26. Conduct an injection test down the 5-1/2 inch casing at 420 gpm for 12 hours followed by a pressure falloff test.
27. Conduct a differential temperature survey and radioactive tracer survey to determine the injection profile.
28. Run the injection tubing and packer. Fill the annulus with corrosion inhibited brine.
29. Wait for the well system to come to thermal stabilization (approximately 24 hours).
30. Conduct an annulus pressure test witnessed by the OCD.
31. Rig down and move out all equipment and close the reserve pit.
32. Install the annulus monitoring system and return the well to the client.

BELOW GROUND DETAIL

All depths are referenced to the kelly bushing elevation of 13 feet. Surface elevation is 3810 feet.

1. Base of the USDW at 473'.

2. Casing: 8-5/8", 32 lb/ft, set at 1955' in an 11" hole. Cemented to surface with 700 sacks of cement.

3. Injection Tubing: 3-1/2".

4. DV Tool: at 5500'.

5. Annulus Fluid: Corrosion inhibited brine water.

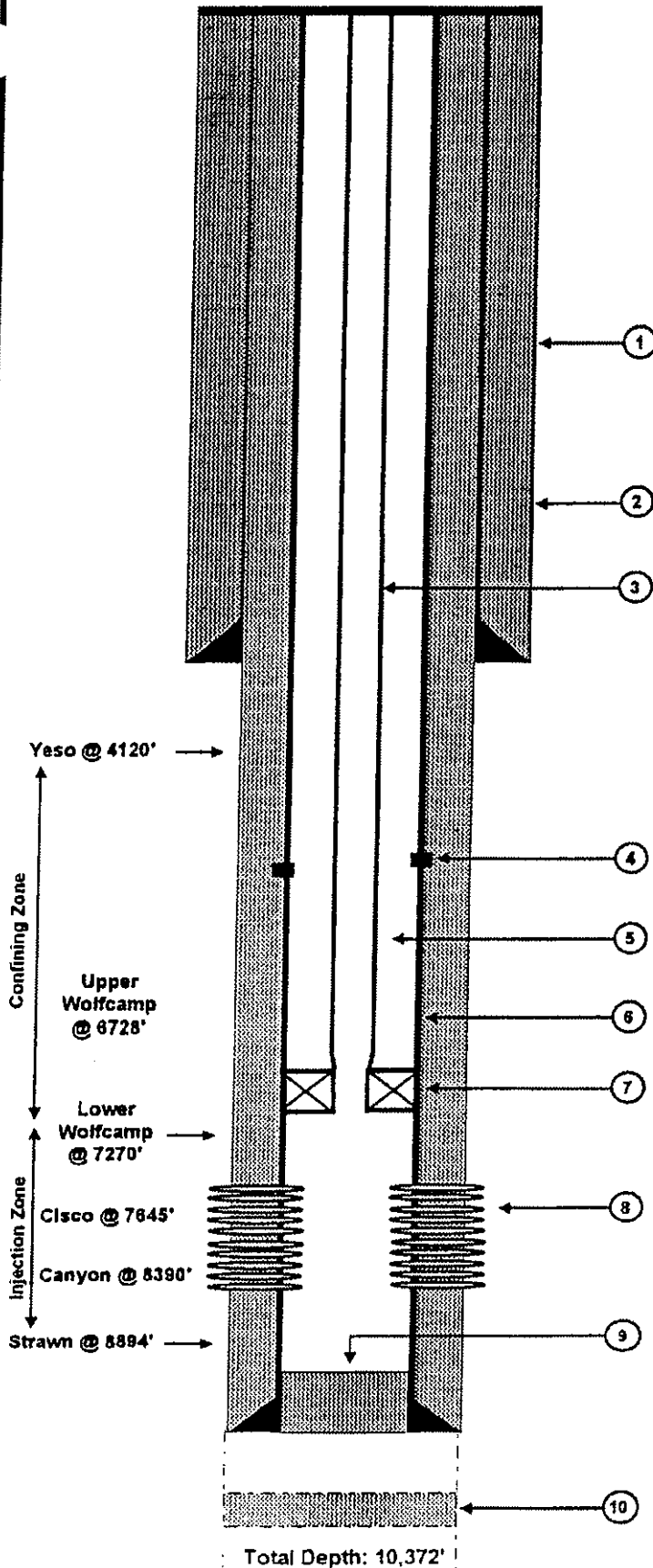
6. Protection Casing: 5-1/2" set in a 7-7/8" hole. Casing cemented to surface. Calipered hole volume plus 20% excess.

7. Packer: Fullbore retrievable packer set 100' above the top perforated injection interval.

8. Perforations:
Perforated in two intervals between 7270' and 8894'.

9. PBTD: 9200'

10. Cement Plug: 45 sacks from 9675' to 9775'.



ENVIROCORP

HOUSTON, TX.
SOUTH BEND, IN.
BATON ROUGE, LA.

ATTACHMENT III-4
NAVAJO REFINING COMPANY
PROPOSED WDW-2
ARTESIA, NEW MEXICO

Date: 03/11/99 | Checked By: NLN | Job No.: 60A4937
Drawn By: LKM | Approved By: NLN | File: WDW2B.DS4

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Navajo Refining Company Well No. 2 - WDW

Location: 1980' FNL & 660' FWL sec. 12, T. 18 S., R. 27 E.

Lease: NM-6852

.....

I. DRILLING OPERATIONS REQUIREMENTS: [Deepening]

1. The Bureau of Land Management (BLM) is to be notified at (505) 887-6544 in sufficient time for a representative to witness:

A. Cementing casing: 5-1/2 inch

2. Unless the injection casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

II. CASING:

1. Minimum required fill of cement behind the 5-1/2 inch injection casing is sufficient to circulate to the surface.

III. PRESSURE CONTROL:

1. Before drilling into the 100 foot 8-5/8 inch surface casing shoe cement plug at approximately 1912 feet, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve

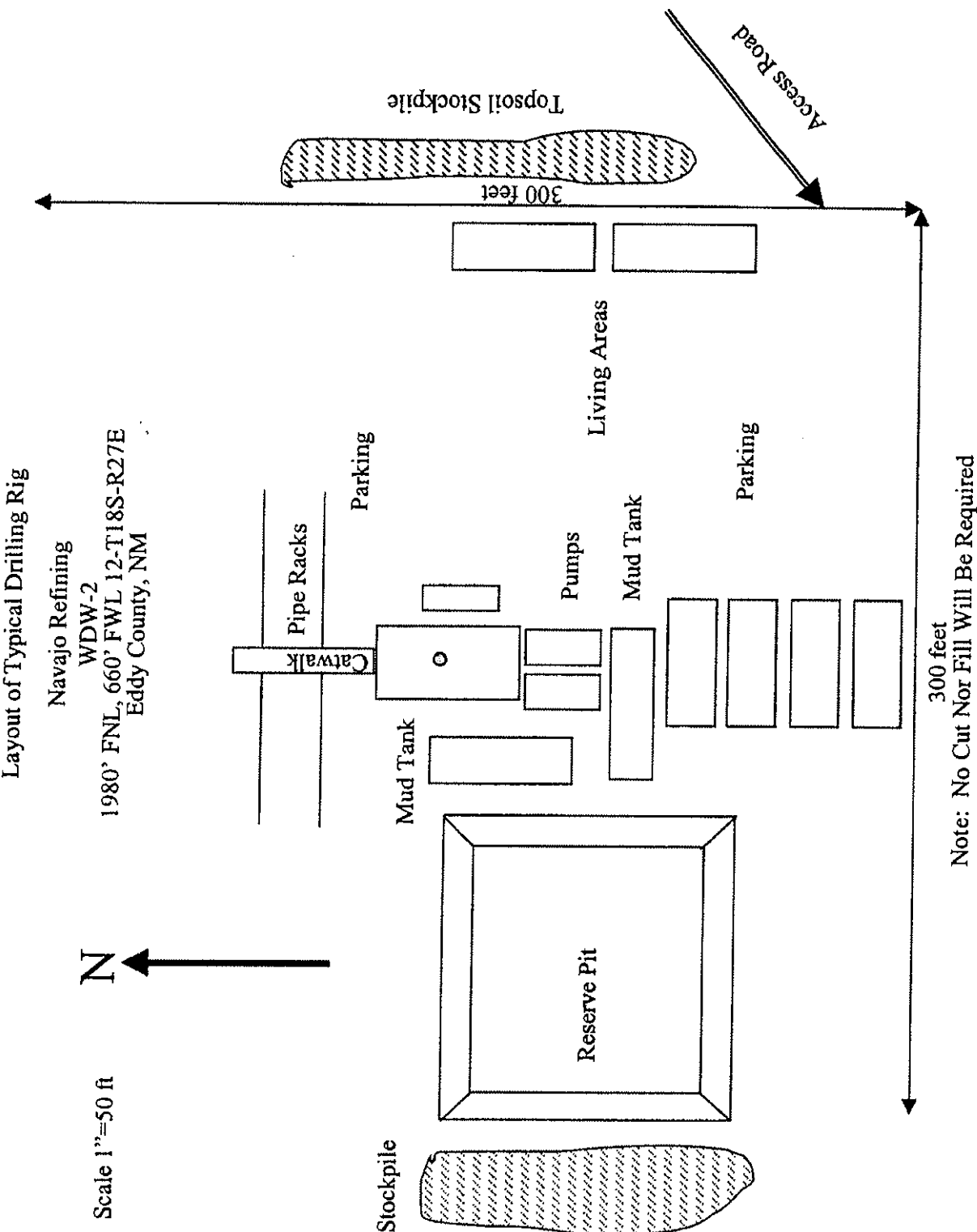
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

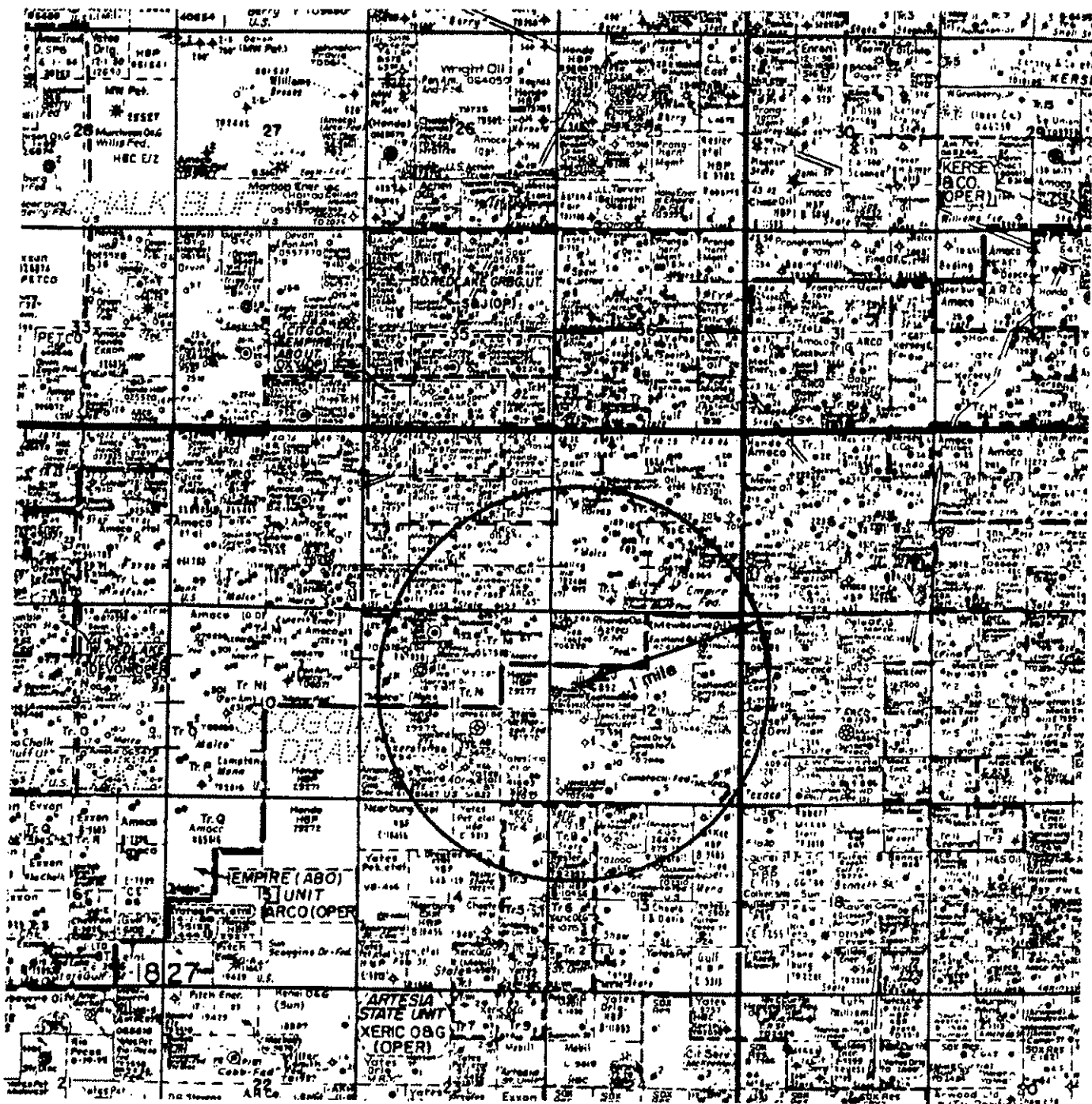
3. After drilling into the 100 foot 8-5/8 inch surface casing shoe cement plug at approximately 1912 feet and before drilling into the 100 foot Abo cement plug at approximately 5450 feet, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

A. The results of the test will be reported to the BLM Carlsbad Resource Area office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.

B. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

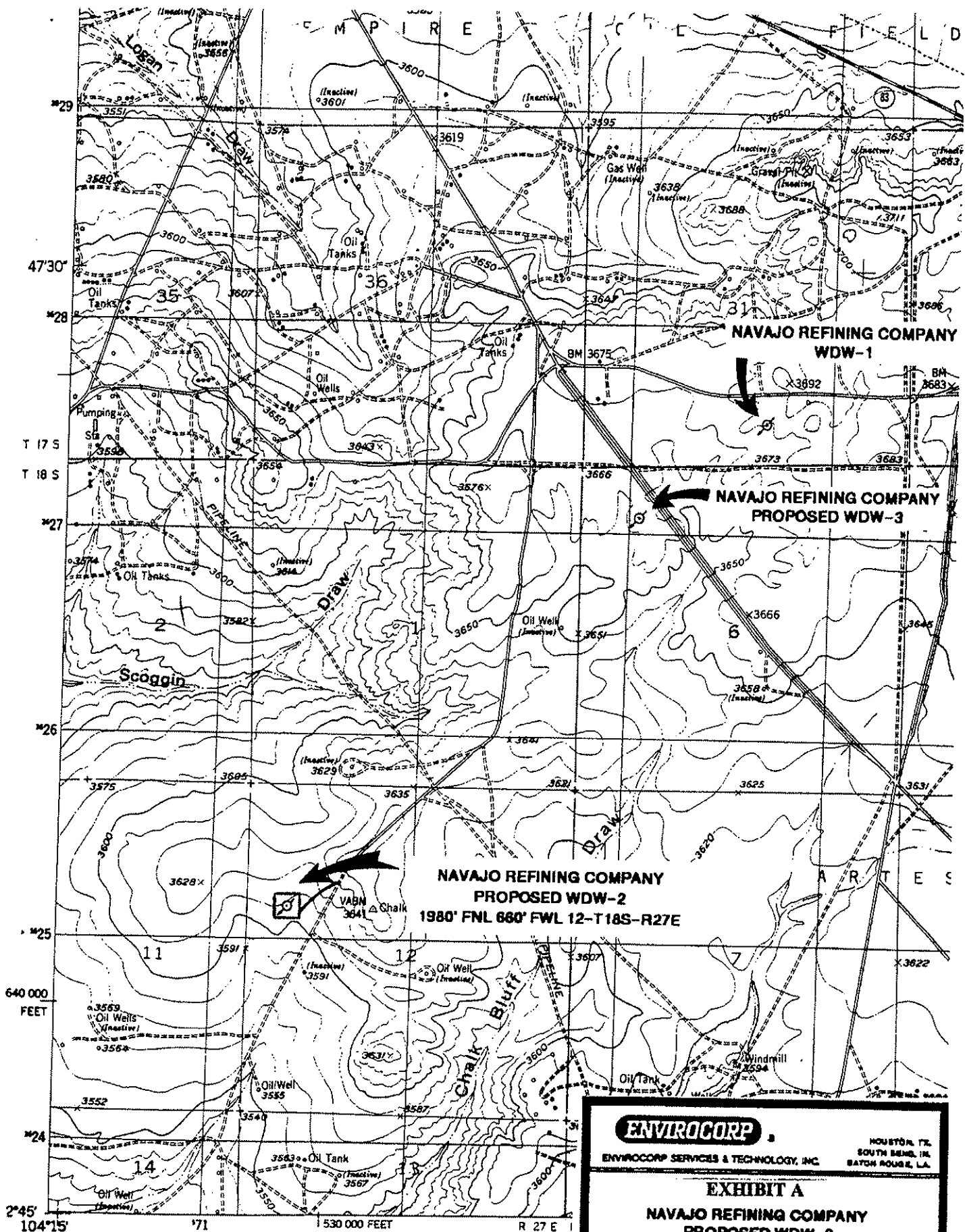
C. Testing must be done in a safe workman like manner. Hard line connections shall be required.





Map courtesy of Midland Map Company

ENVIROCORP		HOUSTON, TX. SOUTH BEND, IN. BATON ROUGE, LA.	
ENVIROCORP SERVICES & TECHNOLOGY, INC.			
EXHIBIT B			
WELLS WITHIN 1 MILE OF			
NAVAJO REFINING COMPANY'S			
PROPOSED WDW-2			
1980' FNL, 660' FWL 12-T18S-R27E			
DATE: 4/7/99	CHECKED BY:	JOB NO:	
DRAWN BY: NLN	APPROVED BY:	DWG. NO:	



RED LAKE QUADRANGLE

SURFACE USE PLAN

NAVAJO REFINING COMPANY PROPOSED WDW-2 1980' FSL, 660' FWL of 12-T18S-R27E EDDY COUNTY, NEW MEXICO

1. Existing Roads: Existing roads that lead to the proposed drillsite are shown on Exhibit A.
2. Access Roads To Be Constructed: No new access road is proposed.
3. Location of Existing Wells: Existing wells within one mile of proposed WDW-2 are shown on Exhibit B.
4. Location of Proposed Facilities If Well Is Completed: The well will be shut in after completion and testing.
5. Location and Type of Water Supply: Water for reentry, testing, and completion operations will be purchased from a commercial water hauler.
6. Source of Construction Materials: Materials required for construction of the site will be taken from a state-owned pit.
7. Methods of Handling Waste Disposal:
 - A. Drill cuttings will be disposed of in the drilling pits.
 - B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
 - C. Water produced during tests will be disposed of in the drilling pits.
 - D. Trash, waste paper, garbage, and junk will be buried in a trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit C.

E. All trash and debris will be buried or removed from the wellsite after finishing drilling and/or completion operations.

8. Ancillary Facilities: None anticipated.

9. Wellsite Layout:

- A. The wellsite will be surveyed, and a 400' x 400' area will be staked and flagged.
- B. The dimensions and relative location of the drill pad, mud pit, and trash pit, with respect to the wellbore, are shown on Exhibit C.
- C. Existing topsoil to a depth of 6 inches will be lifted and stockpiled at the northeastern (uphill) end of the well pad. The stockpiled topsoil will be located uphill to avoid mixing with subsurface materials.
- D. The well pad will be surfaced with material found in place.
- E. The pits for mud and cuttings will be lined with 6-mil plastic.

10. Plans for Restoration of Surface:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash, and junk will be removed and the location cleaned.
- D. The stockpiled topsoil will be spread over the surface of the location.

11. Surface Ownership: U.S. Department of Interior, Bureau of Land Management.

12. Archaeological Survey: An archaeological survey of the drill pad was submitted to the BLM on July 31, 1985, on behalf of Fred Pool Drilling Company. An archeological survey was conducted by Navajo Refining Company and will be submitted by Navajo under separate cover.
13. Operator's Representatives: Representatives responsible for assuring compliance with the approved Surface Use Plan:

Mr. Darrell Moore
Navajo Refining Company
Post Office Box 159
Artesia, New Mexico 88211
505/748-3311

Mr. Jim Bundy
Subsurface Technology, Inc.
7020 Portwest Drive, Suite 100
Houston, Texas 77024
713/880-4640

Exhibits

- A. Topographic Map
- B. Oil and Gas Map
- C. Sketch of Well Pad

14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Navajo Refining Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date

4/15/99

Signature

Darrell Moore

Name

Darrell Moore

Title

Env. Mgr. for Water & Waste

Navajo Refining Company

Company

BOP Minimum Requirements

- a. 11-inch, 3000-psi working pressure double-hydraulic BOP.
- b. 11-inch, 3000-psi working pressure annular BOP.
- c. 3-inch, 3000-psi working pressure manual choke manifold.

A schematic of the BOP stack is included as Exhibit A.

8. Drill out the following cement plugs and conduct deviation surveys every 1000 feet or on trips:
 - a. 1912 feet to 2045 feet, 40 sacks
 - b. 3620 feet to 3720 feet, 50 sacks
 - c. 5456 feet to 5556 feet, 40 sacks
 - d. 7435 feet to 7535 feet, 50 sacks

Estimated Tops of Geologic Formations

San Andres	2005'	Lower Wolfcamp	7270'
Yeso	4210'	Cisco	7645'
Abo	5506'	Canyon	8390'
Wolfcamp	6728'	Strawn	8894'

No fresh water or hydrocarbons are expected to be encountered.

Expected Bottom-Hole Pressure and Hazards

The expected bottom-hole pressure is 3500 psia at the total depth of 9200 feet. The bottom-hole pressure was determined from the pressure measured in Navajo's WDW-1, or 2928 psia, at 7924 feet. Navajo's WDW-1 is completed in the same interval proposed for WDW-2 and is located 11,000 feet northeast of WDW-2 in 31-T17S-R28E. The average specific gravity of the fluid between 7924 feet and 9200 feet is expected to be 1.034, which is the specific gravity of the fluid swabbed from the interval between 8220 feet and 8476 feet in WDW-1. The expected bottom-hole pressure at 9200 feet in proposed WDW-2 is calculated below:

$$\begin{aligned}\text{BHP (9200 feet)} &= 2928 \text{ psia} + (9200 \text{ feet} - 7924 \text{ feet}) \times 0.433 \text{ psi/ft} \times 1.034 \\ &= 3500 \text{ psia}\end{aligned}$$

No abnormal pressures or temperatures or other hazards are expected while drilling or testing the well. Hydrogen sulfide monitoring equipment will be set up prior to swabbing operations.

9. Clean the well out to a depth of 9200 feet and circulate and condition the hole for logging. Make a wiper trip to the base of the 8-5/8 inch surface casing while strapping the drillpipe.
10. Conduct a formation microimager (FMI) survey with gamma ray from the well's total depth to 4000 feet. Continue the four-arm caliper survey to the 8-5/8 inch casing shoe. Process the FMI for fracture identification over the lower 200 feet of the confining zone and zones of interest in the injection zone, if warranted.
11. Spot a gelled pill at 9200 feet and lay down the drillpipe.
12. Run the 5-1/2 inch, 17-lb/ft, J-55, LT&C casing with a packoff shoe and float collar to 9200 feet. Install a "DV" tool at approximately 5800 feet. Run centralizers at approximately 120-foot intervals.
13. Cement the 5-1/2 inch casing in place. Use a minimum of 20% excess cement as calculated from the caliper log. Circulate cement to the surface and allow to cure.

Cement Program

- a. Stage 1 Cement (total depth to 5800 feet): Lightweight Class H with fly ash, gel, friction reducer, and salt mixed with fresh water.
 - b. Stage 2 Lead Cement (5200 feet to the surface): Lightweight Class C with gel and bridging agents mixed with fresh water.
 - c. Stage 2 Tail Cement (5800 feet to 5200 feet): Class C mixed with fresh water.
14. Clean out the mud pits and release the drilling rig 12 hours after cementing the 5-1/2 inch casing in place.
 15. Stabilize the 5-1/2 inch casing at the surface using ready-mix cement.

16. Move in and rig up the completion rig pump, tank, power swivel, and work string. Install the blowout preventer.
17. Run in the well with a 4-3/4 inch bit to the "DV" tool and test the casing to 1500 psig for 30 minutes.
18. Drill out the "DV" tool and clean out the wellbore to the float collar. Test the casing to 1500 psig for 30 minutes. Circulate the wellbore with clean brine, preceded by 15% HCL to clean the casing. Trip the work string out of the well.
19. Conduct the casing inspection, CBL/VDL, and differential temperature surveys.
20. Perforate the selected injection interval as determined from the open hole logs. Depending on the height of the perforated interval, the interval may be perforated in two stages, as Zone Nos. 1 and 2.
21. Run in the well with a packer and tailpipe. Set the packer above the top perforation and swab test the perforated interval. Recover at minimum two tubing volumes of the reservoir fluid for analysis (Note: Set up H₂S monitoring equipment prior to swabbing operations).
22. Acidize the perforated zone (Zone 1) using diverters. Pull the packer out of the well.
23. Perforate the next selected injection interval (Zone 2) as determined from the open hole logs.
24. Run a retrievable bridge plug and packer into the well and isolate Zone 2.
25. Acidize Zone 2 using diverters. Pull the retrievable bridge plug and packer out of the well, laying down the work string.
26. Conduct an injection test down the 5-1/2 inch casing at 420 gpm for 12 hours, followed by a pressure falloff test.
27. Conduct a differential temperature survey and radioactive tracer survey to determine the injection profile.

28. Run the injection tubing and packer. Fill the annulus with corrosion inhibited brine.
29. Wait for the well system to come to thermal stabilization (approximately 24 hours).
30. Conduct an annulus pressure test witnessed by the OCD.
31. Rig down and move out all equipment and close the reserve pit.
32. Install the annulus monitoring system and return the well to the client.

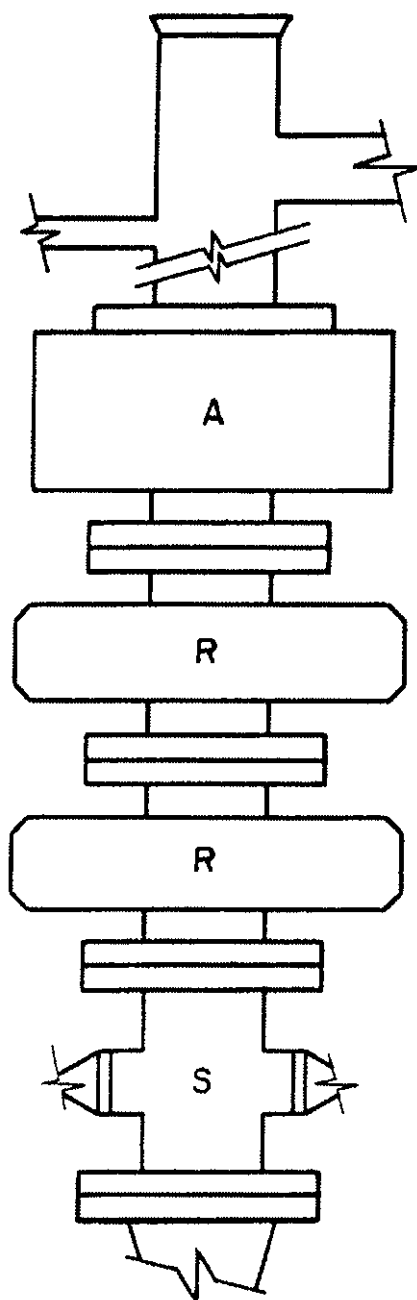
Logging, Testing, And Coring Program

A formation fluid sample will be retrieved from the proposed injection zone in proposed WDW-2. Navajo will conduct injectivity testing in the injection zone of proposed WDW-2.

No coring is planned.

The proposed logging program is described below:

HOLE/CASING	OPEN-HOLE LOGS	CASED-HOLE LOGS
Proposed WDW-2		
11 inch Surface Borehole (8-5/8 inch Casing) 1995 feet		Logs Run in 1973: Gamma Ray Logs Proposed on Reentry: Cement Bond/Variable Density Casing Inspection Log
7-7/8 inch Long-String Borehole (5-1/2 inch Casing) 9200 feet	Logs Run on August 27, 1973: Dual Induction-Laterolog/ Spontaneous Potential Compensated Neutron/ Formation Density Caliper Gamma Ray Logs Proposed on Reentry: Fracture Identification Log 4-Arm Caliper	Logs Proposed on Reentry: Cement Bond/Variable Density Casing Inspection Log Differential Temperature Log Radioactive Tracer Survey



A = ANNULAR-TYPE BLOWOUT PREVENTER
11-inch throughbore, 3000-psi working pressure

R = RAM-TYPE BLOWOUT PREVENTER
11-inch throughbore, 3000-psi working pressure

S = DRILLING SPOOL WITH SIDE OUTLET CONNECTIONS
FOR CHOKE AND KILL LINES

MANUAL CHOKE MANIFOLD
3-inch throughbore, 3000-psi working pressure

Source: API RP 53: Recommended Practices for
Blowout Prevention Equipment Systems

ENVIROCORP		HOUSTON, TX. SOUTH SERRA, IL. BATON ROUGE, LA.
ENVIROCORP SERVICES & TECHNOLOGY, INC.		
EXHIBIT A		
BLOWOUT PREVENTER STACK AND MINIMUM REQUIREMENTS		
DATE: 4/7/98	CHECKED BY: JDB	JOB NO:
DRAWN BY: ALN	APPROVED BY:	DWG. NO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Oil Cons. Division

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. TYPE OF WORK DRILL <input type="checkbox"/> DEEPEEN <input type="checkbox"/> Reenter		5. LEASE DESIGNATION AND SERIAL NO. NM 6852
B. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Class I Waste Disposal Well <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Navajo Refining Company 15694		7. UNIT AGREEMENT NAME 23592
3. ADDRESS AND TELEPHONE NO. Post Office Box 159, Artesia, New Mexico 88210		8. FARM OR LEASE NAME, WELL NO. WDW-#2
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FNL and 660' FWL Unit Letter At proposed prod. zone		9. ANY WELL NO. 30-015-20894
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 11 air miles east-southeast of Artesia		10. FIELD AND POOL, OR WILDCAT Wolfcamp-Cisco-Canyon Injection Zone
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 9200'		11. SEC., T., R., M., OR NE. AND SURVEY OR AREA 12-T18S-R27E
16. NO. OF ACRES ASSIGNED TO THIS WELL		12. COUNTY OR PARISH Eddy
17. NO. OF ACRES ASSIGNED TO THIS WELL		13. STATE NM
18. PROPOSED DEPTH 9200'		20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3607' GR, 3623' KB		22. APPROX. DATE WORK WILL START May 1, 1999

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	32 lb/ft	1995'	800 sx circulated
7-7/8"	5-1/2"	17 lb/ft	9200'	Caliper volume + 20% excess

Proposed reentry of the Eastland Oil Company (originally Fred Pool Drilling, Inc.) Chukka Federal No. 2 (PBD 1912 feet, September 10, 1985) formerly Amoco Production Company Diamond Federal Gas Com. No. 1 (OTD 10,372 feet, P&A August 31, 1973). The well currently produces oil and gas from perforations from 1446 feet to 1462 feet (Penrose).

Navajo will squeeze the perforations from 1446 feet to 1462 feet, drill out cement plugs and clean out the well to 9200 feet, set 5-1/2 inch casing at 9200 feet and cement to the surface, perforate porous intervals in the Lower Wolfcamp, Cisco, and Canyon Formations between 7270 feet and 9200 feet, and conduct injectivity tests.

Attached are the Well Location Plat, Drilling Program, and Surface Use Plan.

SUBJECT TO
LIKE APPROVAL
BY STATE AND RIGHT OF WAY

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

4 ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed zone. If proposal is to drill or open directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give drilling program, if any.

SIGNED David M. Moore TITLE Env. Mgr. DATE 4/15/99
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

(ORIG. SGD.) DAVID R. GLASS

PETROLEUM ENGINEER

APR 27 1999

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

District I
1625 N. French Dr., Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-20894		² Pool Code	³ Pool Name Lower Wolfcamp-Cisco-Canyon Injection Zone
⁴ Property Code	⁵ Property Name WDW-2		⁶ Well Number
⁷ OGRID No.	⁸ Operator Name Navajo Refining Company		⁹ Elevation 3607' GR

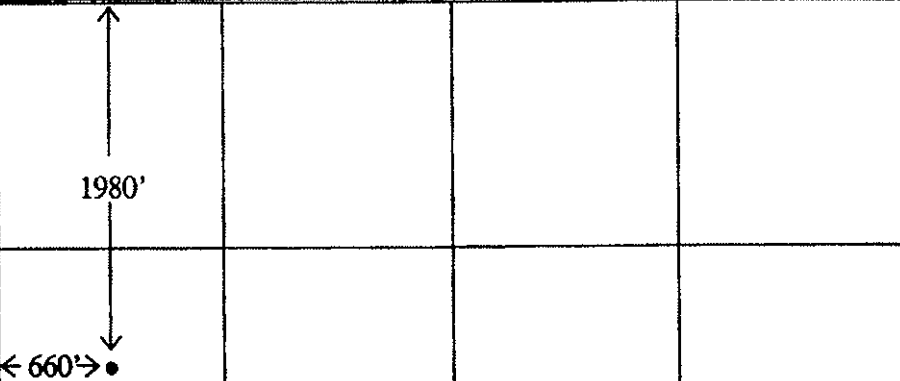
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	12	18S	27E		1980	North	660	West	Eddy

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Darrell Moore</i></p> <p>Signature</p> <p><i>Darrell Moore</i></p> <p>Printed Name</p> <p>Title <i>Env. Mgr.</i></p> <p>Date <i>4/15/99</i></p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p>
				<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Well is active. Location was not re-surveyed by Navajo.</p>
				<p>Certificate Number</p>

14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Navajo Refining Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4/15/99
Date

Darrell Moore
Signature
Darrell Moore
Name
Env. Mgr. for Water & Waste
Title
Navajo Refining Company
Company

TELEPHONE
(505) 748-3311

EASYLINK
62905278



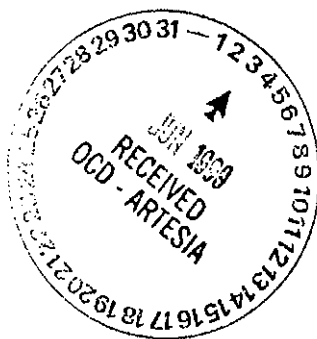
N.M. Oil Cons. Division
811 S. 1st Street
ARTESIA, NEW MEXICO 88210
NAVJO REFINING COMPANY

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

May 10, 1999

Mr. Tim Gumm
State of New Mexico
Energy, Minerals and Natural
Resources Department
Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210



RE: Re-Entry for Navajo Refining Company's Waste Disposal Well No. 2

Dear Mr. Gumm:

Navajo Refining Company (Navajo) has contracted Subsurface Technology, Inc. to re-enter, test and complete Waste Disposal Well No. 2 (WDW-2), formerly the Chukka Federal No. 2 operated by The Eastland Oil Company. The United States Department of the Interior, Bureau of Land Management approved the Application for Permit to Drill or Deepen on April 27, 1999. Subsequent approval from the State of New Mexico Oil Conservation Commission (OCD) was granted on Tuesday, May 4, 1999.

Navajo initiated field operations on Wednesday, May 5, 1999. The existing pumping equipment, rods, and tubing were removed from the wellbore. The perforations from 1446 feet to 1462 feet were squeezed using 100 sacks of Class 'H' cement (approximately 50 sacks of cement were displaced into the perforated interval). The cement was allowed to cure and drilled out to a total depth of 1922 feet (KB)(1911 feet below ground level).

On Sunday, May 9, 1999, the 8-5/8 inch surface casing, set from 1955 feet (KB) to surface, was pressure tested for internal mechanical integrity between 1922 feet (KB) and 30 feet (KB) using a packer set at 30 feet. The 8-5/8 inch surface casing was pressure tested to 660 pounds per square inch and monitored at the surface for one hour (Attachment A). The fluid used for testing was a clean fresh water fluid. A pressure loss of 1 psi (0.15%) was observed during the first 30 minutes of the test. A pressure loss of 2 psi (0.30%) was observed during the last 30 minutes of the test. The results from the pressure test confirmed internal mechanical integrity of the 8-5/8 inch surface casing from 1922 feet (KB) to 30 feet (KB).

The 8-5/8 inch surface casing was originally set in an 11 inch open-hole to a depth of 1955 feet (KB) and cemented to surface using 700 sacks of Class 'H' cement with 2% gel and 100 sacks of Class 'H' neat. A total of 200 sacks of cement was recorded circulated to surface. The calculated volume between an 11 inch hole and 8-5/8 inch casing is (0.2407 cubic feet per foot X 1955 feet) 471 cubic feet. The volume of cement pumped is (1.18 cubic feet per sack X 800 sacks) 944 cubic feet for an excess of 473 cubic feet or 400 sacks circulated to surface. The calculated volume of cement and apparent volume of actual cement pumped indicated excess cement was circulated to surface.

On Sunday, May 9, 1999, Halliburton Logging Services completed a cement bond and microseismogram (same as a variable density log) logging survey within the 8-5/8 inch casing from a wireline total depth of 1919 feet (KB) to the surface (Attachment B). The results from the survey indicate a continuous column of cement from 1922 feet to surface with good bonding characteristics. The cement behind the 8-5/8 inch casing will provide an effective hydraulic seal to prevent the movement of groundwater fluids into the underground source of drinking water with a base at 473 feet.

Please review and approve the pressure testing and cement bond log results at your earliest convenience. Navajo will proceed with the mobilization of the drilling rig Wednesday, May 12, 1999 and begin re-entry of the WDW-2 wellbore according to the approved drilling program. Navajo will periodically contact the OCD, Artesia office with a status update of the re-entry operations. The Bureau of Land Management will be notified in sufficient time for a representative to witness the cementing of the 5-1/2 inch protection casing.

Should you have any questions or concerns, please call me at (505) 748-3311.

Sincerely yours,



Darrell Moore
Environmental Manager for Water and Waste

APPROVED

JUN 02 1999

c: Mr. David Glass
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

~~(ORIG. SGD.)~~ DAVID B. GLASS
AUTHORIZED OFFICER, MINERALS
BUREAU OF LAND MANAGEMENT

Mr. Brian Rogers
Subsurface Technology, Inc.
7020 Portwest, Suite 100
Houston, Texas 77024

**SUBJECT TO
LIKE APPROVAL
BY STATE**

File: Injection Wells



Patterson Drilling Company

410 N. Loraine Street — (915) 682-9401
Midland, Texas 79701

RECEIVED

JUN 04 1999

June 2, 1999

SUBSURFACE TECHNOLOGY, INC.

Drilling Department
Subsurface Construction Corporation
7020 Port West, Ste 100
Houston, TX 77024

RE: Inclination Report
Navajo WDW-2
Sec 12; T-18-S; R-27-E

Gentlemen:

The following is an inclination survey on the above referenced well located in Eddy County, New Mexico:

2898' - 0.25
3838' - 0.25
4783' - 0.50
6106' - 0.75
6633' - 0.50

Sincerely,

Rebecca Edwards

Rebecca A. Edwards
Administrative Assistant

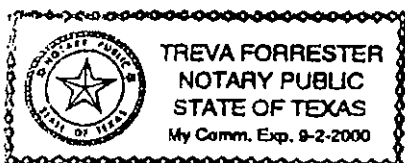
STATE OF TEXAS)
)
COUNTY OF MIDLAND)

The foregoing was acknowledged before me this 2nd day of June, 1999 by Rebecca A. Edwards.

MY COMMISSION EXPIRES:

Treva Forrester

NOTARY PUBLIC



INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or reamed well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy		T. Canyon	8390
T. Salt		T. Strawn	8894
B. Salt		T. Atoka	
T. Yates		T. Miss	
T. 7 Rivers		T. Devonian	
T. Queen		T. Silurian	
T. Grayburg		T. Montoya	
T. San Andres	2005	T. Simpson	
T. Glorieta		T. McKee	
T. Paddock		T. Ellenburger	
T. Blinebry		T. Gr. Wash	
T. Tubb		T. Delaware Sand	
T. Drinkard		T. Bone Springs	
T. Abo	5506	T.	
T. Wolfcamp	6728	T.	
T. Penn		T.	
T. Cisco (Bough C)	7645	T.	

Northwestern New Mexico

T. Ojo Alamo	T. Penn. "B"
T. Kirtland-Fruitland	T. Penn. "C"
T. Pictured Cliffs	T. Penn. "D"
T. Cliff House	T. Leadville
T. Menefee	T. Madison
T. Point Lookout	T. Elbert
T. Mancos	T. McCracken
T. Gallup	T. Ignacio Otzte
Base Greenhorn	T. Granite
T. Dakota	T.
T. Morrison	T.
T. Todilto	T.
T. Entrada	T.
T. Wingate	T.
T. Chinle	T.
T. Permian	T.
T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....
' ' , from.....to.....

No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

Submit To Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies
District I
1625 N. French Dr., Hobbs, NM 87240
District II
833 South First, Artesia, NM 87210
District III
30 Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-105
Revised March 25, 1999

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Federal Well

WELL API NO.

30-015-20894

5. Indicate Type of Lease

STATE ☐ FEE ☒

Federal

State Oil & Gas Lease No. NM 6852

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER ☐ Class I Waste Disposal Well

b. Type of Completion:

NEW ☐ WORK ☐ PLUG ☐ DIFF. ☐
WELL ☐ OVER ☐ DEEPEN ☐ BACK ☐ RESVR. ☒ OTHER ☐ Reentry

Injecting

2. Name of Operator

Navajo Refining Company

3. Address of Operator

Post Office Box 159, Artesia, New Mexico 88211

4. Well Location

Unit Letter E 1980 Feet From The North Line and 660 Feet From The West Line

Section 12 Township 18 South Range 27 East NMPM Eddy County

10. Date Spudded

July 18, 1973

11. Date T.D. Reached

August 27, 1973

12. Date Compl. (Ready to Prod.)

June 8, 1999

13. Elevations (DF& R(B, RT, GR, etc.)

3607 feet GL, 3623 feet RKB

14. Elev. Casinghead

3609 feet GL

15. Total Depth

10,372 feet

16. Plug Back T.D.

8770 feet

17. If Multiple Compl. How Many

Zones? 1

18. Intervals

Drilled By

Rotary Tools

All

Cable Tools

N/A

19. Producing Interval(s), of this completion - Top, Bottom, Name

L. Wolfcamp-Cisco-Canyon

20. Was Directional Survey Made

Yes

21. Type Electric and Other Logs Run

Fracture Finder and Caliper Logs, Dual Induction Laterolog,
Compensated Neutron Formation Density

22. Was Well Cored

No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	N/A	40'	N/A	N/A	None
8-5/8"	32	1995'	11"	800 sacks circulated	None
5-1/2"	17	8869'	7-7/8"	1570 sacks circulated	None

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
3-1/2"	7528'	7528'

26. Perforation record (interval, size, and number)

7570' to 7620', 7676' to 7736', 7826' to 7834', 7858' to 7880',
7886' to 7904', 7916' to 7936', 7944' to 7964', 7990' to 8042',
8096' to 8116', 8191' to 8201', 8304' to 8319', 8395' to 8399'
(2 jsf for total of 598 holes).

DEPTH INTERVAL

7570' to 8399'

AMOUNT AND KIND MATERIAL USED

10,000 gallons of 15% HCl, plus 4600 pounds
of rock salt as diverter

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
N/A	N/A	N/A
Date of Test	Hours Tested	Choke Size
N/A	N/A	N/A
Prod'n For Test Period	Oil - Bbl	Gas - MCF
--	--	--
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate
--	--	--
Oil - Bbl.	Gas - MCF	Water - Bbl.
--	--	--
Oil Gravity - API - (Corr.)		
--		

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

N/A

Test Witnessed By

30. List Attachments

Deviation Report

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature Darrell Moore

Printed Name

Darrell Moore Title Env Mgr.

Date 7/14/99

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
811 S. 1st Street
Artesia, NM 88210-2834
(See other instructions for details)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ DRY ☐ ☒ Other Class I Waste Disposal Well
1b. TYPE OF COMPLETION NEW WELL ☒ DEEPEN ☐ PLUG BACK ☐ DIFF-GENVR ☒ Other Reentry

2. NAME OF OPERATOR Navajo Refining Company

3. ADDRESS AND TELEPHONE NO. Post Office Box 159, Artesia, New Mexico 88211

4. LOCATION OF WELL At surface 1980' FNL and 660' FWL Unit Letter E
At top prod. interval reported below
Same
At total depth Same

14. PERMIT NO. WDW-2 15. DATE ISSUED April 27, 1999 12. COUNTY OR PARISH Eddy 13. STATE New Mexico

15. DATE SPUNDED 7-18-73 16. DATE T.D. REACHED 8-27-73 17. DATE COMP (Ready to prod.) 6-8-99 18. ELEVATIONS (OF, RKB, RT, GR, ETC.)* 3607' GL; 3623' RKB 19. ELEV. CASINGHEAD 3609' GL
20. TOTAL DEPTH, MD & TVD 10,372' TVD 21. PLUG, BACK T.D., MD & TVD 8770' 22. IF MULTIPLE COMPL., HOW MANY* 1 23. INTERVALS DRILLED BY Rotary Tools All Cable Tools --

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM NAME (MD AND TVD)* L. Wolfcamp-Cisco-Canyon 25. WAS DIRECTIONAL SURVEY MADE? Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN Fracture Finder and Caliper Logs, Dual Induction Laterlog, Compensated Neutron, Formation Density 27. WAS WELL CORED? No

CASING RECORD (Report all strings set in well)					
PIPE SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8"	N/A	40'	N/A	Surface	None
8-5/8"	32	1995'	11	Surface, 800 sx ClH	None
5-1/2"	17	8869'	7-7/8"	Surface, 1570 sx ClH and ClC	None

LINER RECORD				TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)
					3-1/2"	7528'
						7528'

PERFORATION RECORD (Interval, size and number)			ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)			AMOUNT AND KIND OF MATERIAL USED	
7570'-7620', 7676'-7736', 7826'-7834', 7858'-7880', 7886'-7904', 7916'-7936', 7944'-7964', 7990'-8042', 8096'-8116', 8191'-8201', 8304'-8319', 8395'-8399' (2 ispf for total of 598 holes)			7570' to 8399' 10,000 gallons 15% HCl, plus 4600 pounds of rock salt as diverter	

DATE FIRST PRODUCTION N/A PRODUCTION METHOD N/A (Flowing, gas lift, pumping-size and type of pump) WELL STATUS (Producing or shut-in) N/A

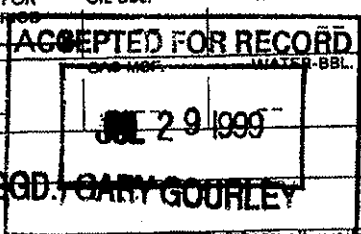
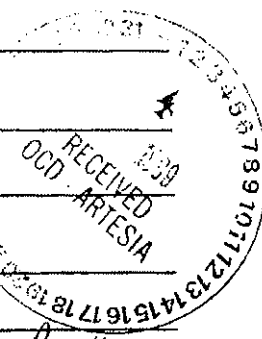
DATE OF TEST N/A HOURS TESTED N/A CHOKE SIZE N/A PRODN. FOR TEST PERIOD OIL-BBL. GAS-MCF. WATER-BBL. GAS-OIL RATIO
FLOW, TUBING PRESS CASING PRESSURE 24-HOUR RATE CALCULATED OIL-BBL. GAS-MCF. WATER-BBL. OIL GRAVITY-API (CORE)
N/A N/A -- -- -- -- --

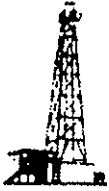
34. DISPOSITION OF (Solid, used for fuel, vented, etc.) N/A 35. LIST OF ATTACHMENTS Deviation Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED David M. Mace TITLE Env. Mgr. DATE 7/19/99

(See Instructions and Spaces for Additional Data on Reverse Side)
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction





Patterson Drilling Company

RECEIVED
10 N. Loraine Street — (915) 682-9401
Midland, Texas 79701

1999 JUL 21 A 10-23
BUREAU OF LAND MGMT.
WILDLAND RESOURCE AREA

RECEIVED

JUN 04 1999

June 2, 1999

SUBSURFACE TECHNOLOGY, INC.

Drilling Department
Subsurface Construction Corporation
7020 Port West, Ste 100
Houston, TX 77024

RE: Inclination Report
Navajo WDW-2
Sec 12; T-18-S; R-27-E

Gentlemen:

The following is an inclination survey on the above referenced well located in Eddy County, New Mexico:

2898' - 0.25
3838' - 0.25
4783' - 0.50
6106' - 0.75
6633' - 0.50

Sincerely,

Rebecca Edwards

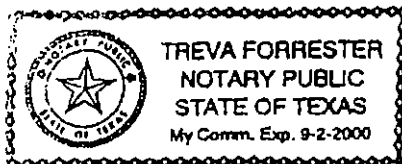
Rebecca A. Edwards
Administrative Assistant

STATE OF TEXAS)
COUNTY OF MIDLAND)

The foregoing was acknowledged before me this 2nd day of June, 1999 by Rebecca A. Edwards.

MY COMMISSION EXPIRES:

Treva Forrester
NOTARY PUBLIC



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

July 19, 1999

Mr. James Amos
United States Department of the Interior
Bureau of Land Management
P.O. Box 1778
Roswell, NM 88220

RE: Well Completion Report for Navajo's WDW-2i in E-12-T18S, R27E

Dear Mr. Amos,

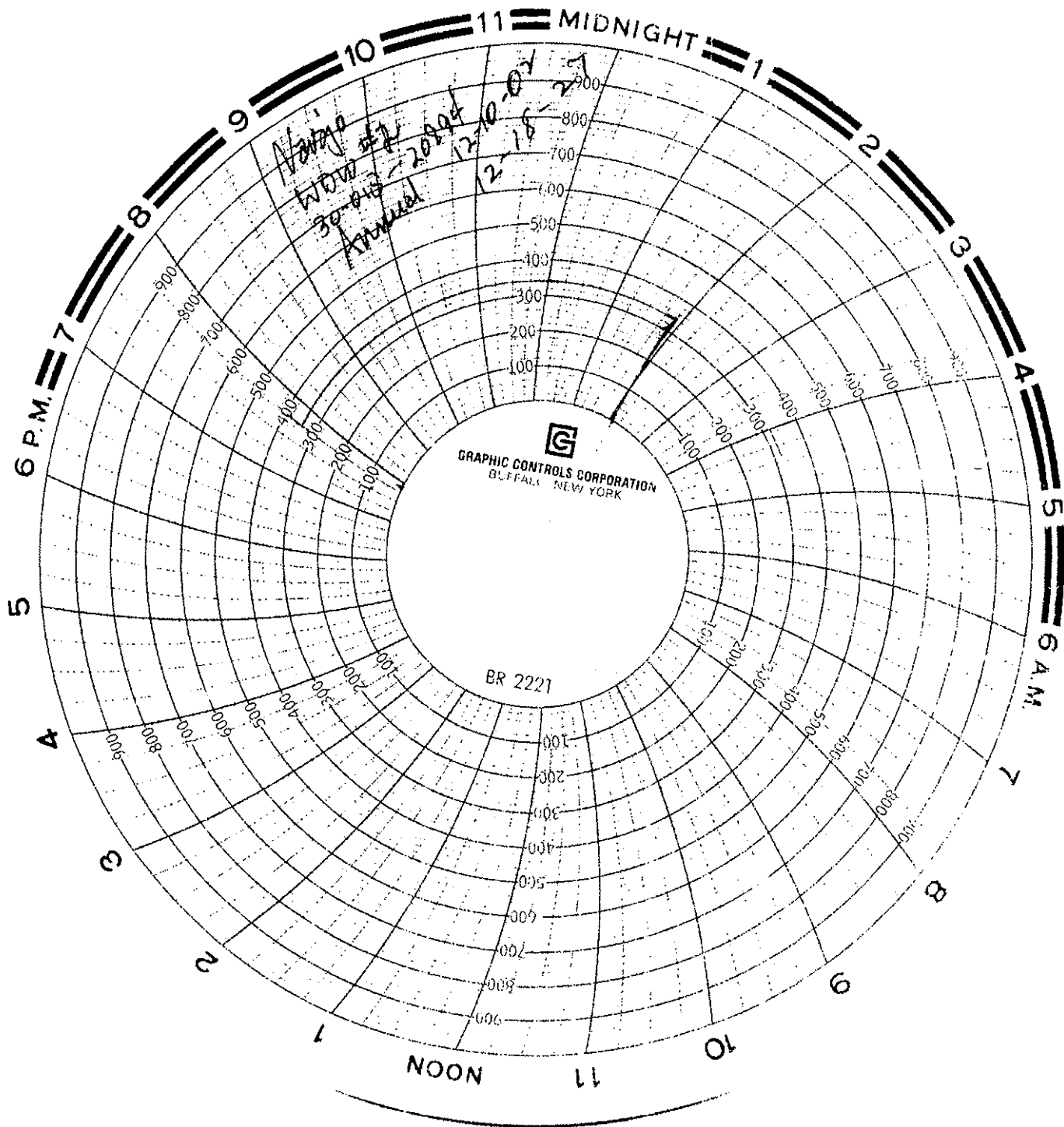
Enclosed, please find two (2) copies of form OMB Form 1004-0137 pertaining to our WDW-2 injection well. If there are any questions concerning this submission, please call me at 505-748-3311. Thank you for your time in this matter.

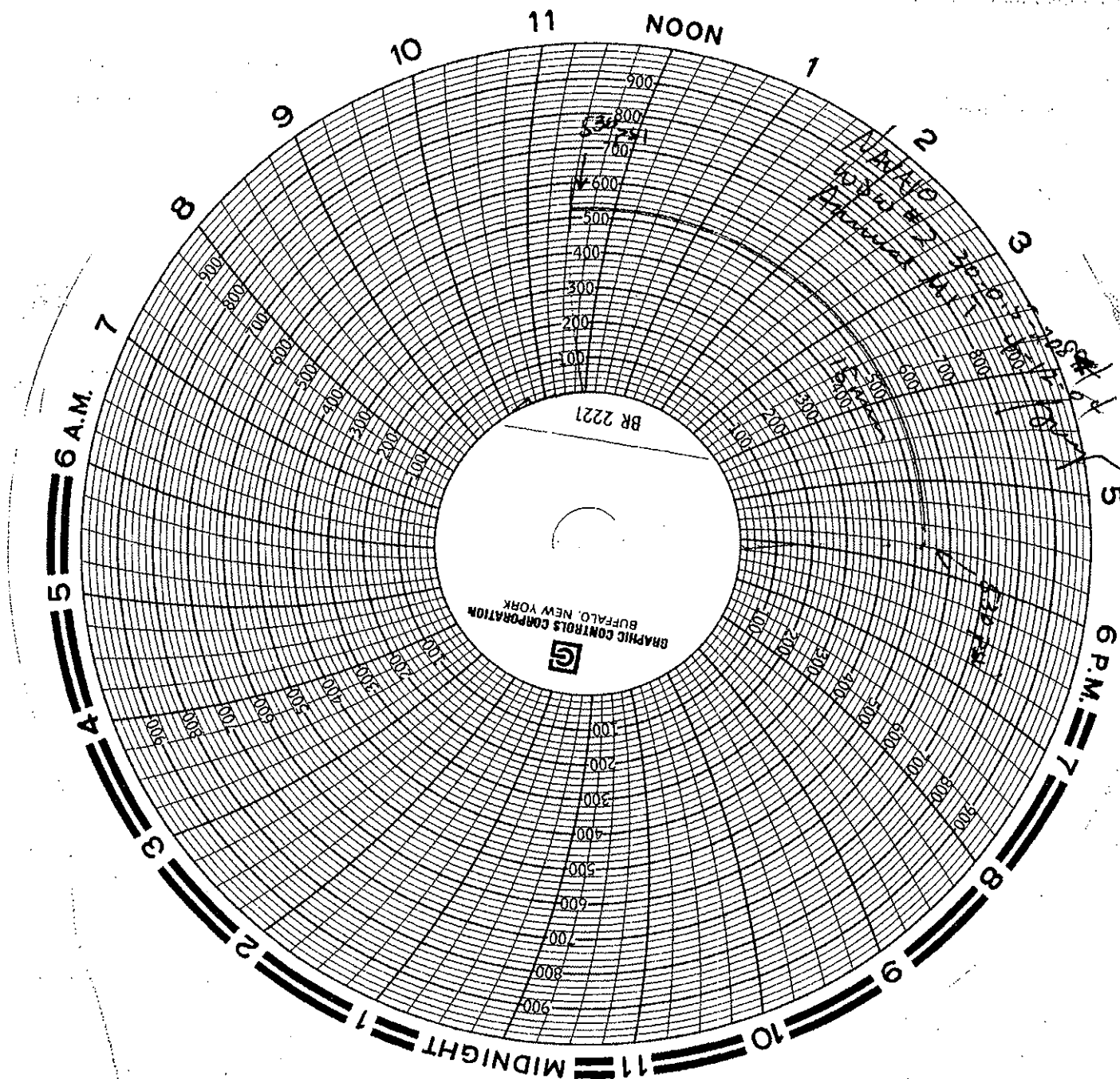
Sincerely,
NAVAJO REFINING COMPANY

Darrell Moore
Environmental Mgr. for Water and Waste

Encl.

RECEIVED
1999 JUL 21 A 10:23
BUREAU OF LAND MGMT
LAND RESOURCE AREA

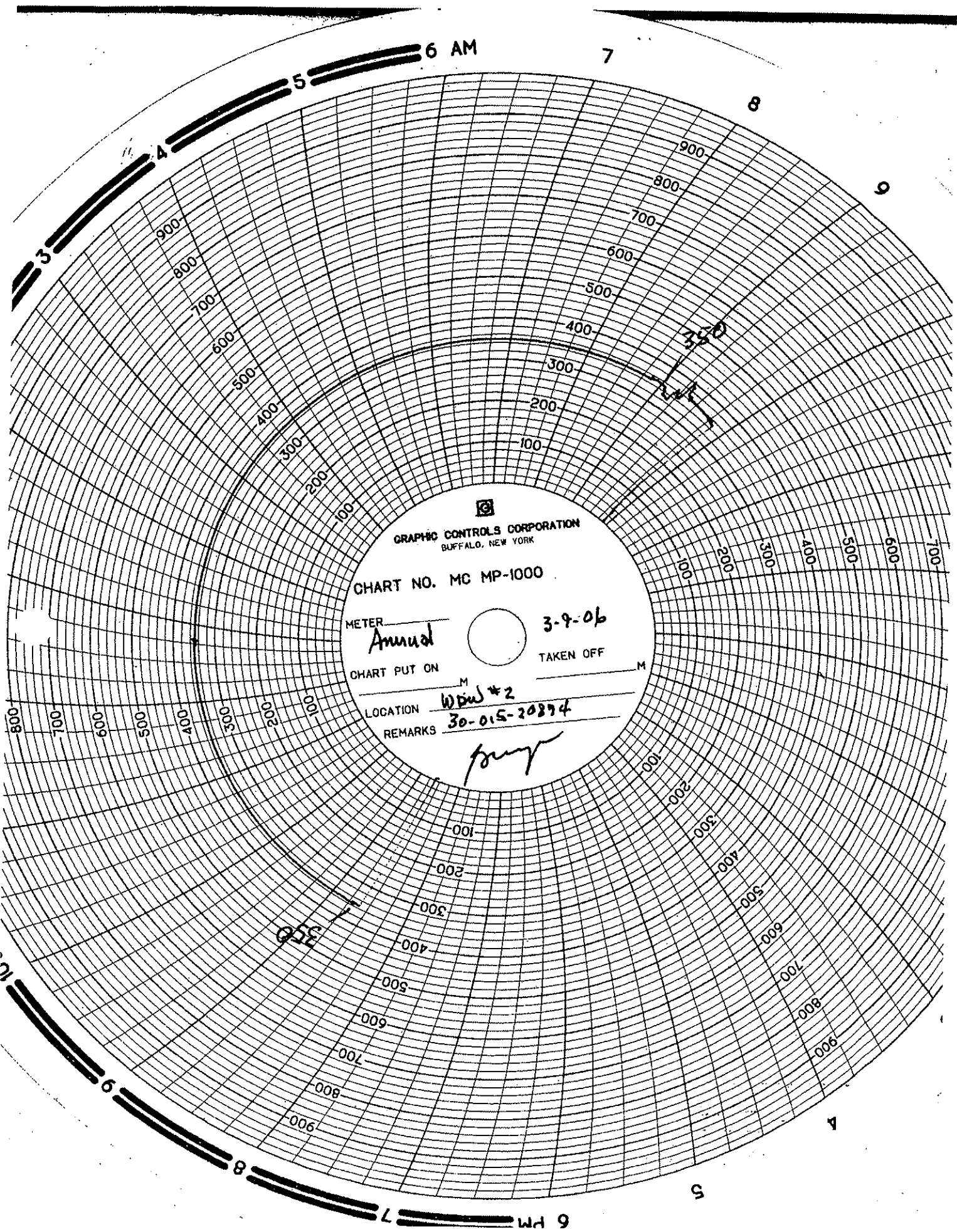




RECEIVED

APR 15 2004

GEB-ARTESIA



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

CHART NO. MC MP-1000

METER

Annual

3-9-06

CHART PUT ON

TAKEN OFF

LOCATION

WPU #2

REMARKS

30-015-20894

Long

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, August 12, 2010 1:55 PM
To: 'Moore, Darrell'; Dade, Randy, EMNRD
Cc: Lackey, Johnny
Subject: RE: Mechanical Integrity Tests

Darrell:

OCD confirms that the annual MITs performed on WDW-1 (UICI-8) and WDW-2 (UICI-8-1) passed.

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) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]
Sent: Thursday, August 12, 2010 10:39 AM
To: Chavez, Carl J, EMNRD; Dade, Randy, EMNRD
Cc: Lackey, Johnny
Subject: MIT's

Carl

Attached, please find the charts for the MIT's that were performed on our Injection wells WDW-1 and WDW-2 today. Both wells passed the Mechanical Integrity Tests with no drop off in pressure. As you know, the MIT on WDW-3 was performed earlier in the year and was submitted to OCD. In addition, there was no pressure on either of the well's bradenhead. If there are any questions concerning this submission, please call me or email me. Thank you.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

CONFIDENTIAL

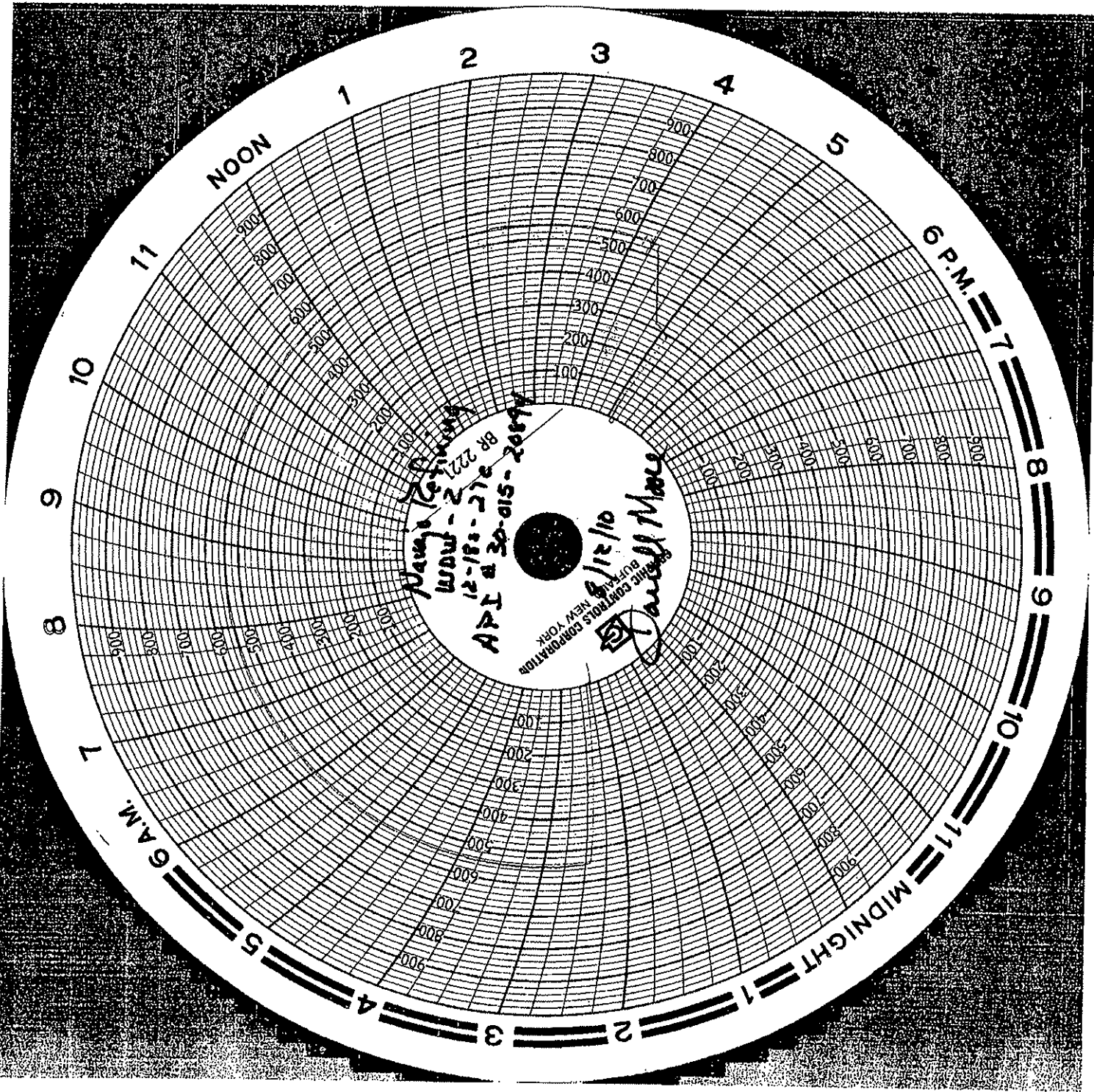
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attachments. Unless expressly stated, nothing contained in this message should be construed as a digital or electronic signature or a commitment to a binding agreement.



Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-015-20894
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other Injection Well <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Navajo Refining Company		6. State Oil & Gas Lease No. 6852
3. Address of Operator Post Office Box 159, Artesia, New Mexico 88211		7. Lease Name or Unit Agreement Name Chukka WDW-2
4. Well Location Unit Letter E : 1980 feet from the North line and 660 feet from the West line Section 12 Township 18S Range 27E NMPM County Eddy		8. Well Number WDW-2
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3607' GL, 3623' RKB		9. OGRID Number
		10. Pool name or Wildcat: Navajo Permo-Penn 96918

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: PERFORM PRESSURE FALLOFF TEST, ANNULUS
PRESSURE TEST

☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER:

☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

October 17, 2011 - Perform an annulus pressure test with an initial pressure of 600 psig and run the test for 30 minutes. Install bottomhole gauges into WDW-1, WDW-2, and WDW-3 by 11:45am. Continue injection into all three wells.

October 18, 2011 - Continue injection into all three wells.

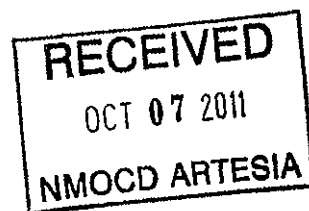
October 19, 2011 - At 12:15pm, the offset wells WDW-1 and WDW-3 will be shut-in. A constant injection rate will be established for WDW-2 and continue for a 30 hour injection period. Do not exceed 1000 psig wellhead pressure.

October 20, 2011 - At 7:00pm, WDW-2 will be shut in for a 30-hour falloff period. WDW-1 and WDW-3 will remain shut-in.

October 21, 2011 - All three wells will continue to be shut in while monitoring falloff pressure in all three wells.

October 22, 2011 - At 7:00am, acquire downhole pressure gauges from all three wells. Tag bottom of fill and come out of hole very slowly, making 7-minute gradient stops while coming out of the WDW-2 every 1000 feet (7000 ft, 6000 ft, 5000 ft, 4000 ft, 3000 ft, 2000 ft, 1000 ft, surface). Run in hole with a temperature tool and conduct temperature survey from the surface to the top of the fill. Turn the wells back to Navajo personnel.

RDade 10/11/11
Accepted for record
NMOCD



Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Timothy Jones TITLE Project Engineer DATE 10/3/2011
Type or print name Timothy Jones E-mail address: jones@subsurfacegroup.com PHONE: 713-880-4640
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-20894
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other Injection Well <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Navajo Refining Company		6. State Oil & Gas Lease No. 6852
3. Address of Operator Post Office Box 159, Artesia, New Mexico 88211		7. Lease Name or Unit Agreement Name Chukka WDW-2
4. Well Location Unit Letter E : 1980 feet from the North line and 660 feet from the West line Section 12 Township 18S Range 27E NMPM County Eddy		8. Well Number WDW-2
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3607' GL, 3623' RKB		9. OGRID Number
		10. Pool name or Wildcat: Navajo Permopenn 96918

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: PERFORM PRESSURE FALLOFF TEST, ANNULUS PRESSURE TEST



SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Timothy Jones TITLE Project Engineer DATE 10/3/2011
Type or print name Timothy Jones E-mail address: jones@subsurfacegroup.com PHONE: 713-880-4640
For State Use Only

APPROVED BY: Carl J. Chavez TITLE Environmental Engineer DATE 10/19/2011
Conditions of Approval (if any): See E-mail conditions dated 10/19/2011 attached to WOW-1.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 19, 2011 4:06 PM
To: 'Moore, Darrell'
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Dade, Randy, EMNRD
Subject: Navajo Refining Company UIC Class I (NH) Injection Wells WDWs 1, 2 & 3 (UICI-008) Fall Off Test Plan (August 2011)

Darrell:

The New Mexico Oil Conservation Division (OCD) is in receipt of your above subject test plan. OCD has already approved the Fall-Off Test (FOT) Plan with conditions on July 28, 2009. The OCD notes that it is also in the process of reviewing C-103s Sundry Notices for the upcoming FOTs.

OCD observes some changes in this FOT Plan submittal that are not acceptable to the OCD. For example, Exhibit 1 is not an acceptable exhibit to the OCD for reasons specified in the 2010 FOT report review and later during the May 2011 meeting in Santa Fe. However, the operator continues to submit exhibits with certain assumptions that have not been accepted or approved by the OCD; i.e., that the injection wells are show interconnection with the injection zone during past FOTs. Perhaps the operator can conduct the 2011 FOT with the information and exhibits needed to prove the interconnection of injection wells with the injection zone? The Certified PE should provide the exhibits in the 2011 FOT Report with the analysis and conclusions supporting any claims for the OCD to review and consider before approving. This is apparently a FOT frequency per well issue that the operator is attempting to prove.

The OCD provides the following comments, observations, and/or recommendations on the above subject plan below.

Comments:

- The OCD approved the original Fall-Off Test (FOT) Plan based on OCD Guidance dated December 3, 2007. There should not be any significant changes to this FOT Plan because it is flexible where needed to allow operators to implement it on each injection well.
- OCD likes to be notified to witness the installation of bottom hole gauges and to be present at least one hour before injection shut-off and commencement of FOT monitoring.
- OCD is concerned about the Section VI No. 1(e) WDW-3 Cement Bond Log quality being poor from 900 ft. to 1200 ft- especially at the depths: 2662 – 2160; 4876 – 5372; and 6750 – 7600 ft. micro annulus scenario.

Observations:

- Section V No. 2: The objective of the FOT is NOT to achieve or limit a 100 psig pressure differential before vs. after FOT injection vs. shut-off, but it is a minimum pressure differential that OCD stipulates in its guidance for a successful FOT and injection zone that may still continue to be utilized for disposal, i.e., not too pressured up and subject to continued fracturing under daily allowed maximum surface injection pressure operational limits.
- Section V No. 7 and Exhibit 1: OCD observes a bottom hole pressure chart for WDWs 1, 2 and 3 at 7660 feet that the operator presented in the 2010 FOT and again during a May 2011 meeting in Santa Fe, New Mexico to show the interconnection between injection wells and the injection formation. The OCD had commented that there was no explanation or conclusion provided from the Certified PE who conducted and completed the 2010 FOT report that supports the operator's claim that all injection wells are interconnected based on Exhibit 1.

Furthermore, the OCD requested a statement or information supporting the operator's claim by the Certified PE, but never received one. At the meeting, the OCD explained that based on Exhibit 1, there was no support for the claim. In order to make the interconnection determination, during each FOT at each well and off-set injection wells (WDWs not being FOT'd) before and throughout the FOT would need bottom hole pressures monitored in tandem at each well location to establish the interconnectivity of the injection wells with the receiving injection formation under a uniform time scale. This would be a chart that could be plotted that would show during the test the interconnectivity of the wells for each FOT. The OCD doubts that the operator can make the case for interconnectivity between injection wells and injection formation because of the significant distance between the injection wells and fact that sedimentation in formation varies laterally and uniformity in sedimentation, saturated porosity and permeability due to variation in sedimentation would by chance make the injection formation aerially extensive and uniform over a 3 to 5 mile radius from each injection well. Also, even if by chance there was

uniformity over the mileage specified, the distance between injection wells and corresponding pressure would likely not be observed.

- Exhibit 6: OCD observes in Section B a proposed MIT once every 5 years. OCD's UIC Program requires annual MITs and/or after down hole work is performed on a well.

Recommendations:

- Operator is running survey logs to the bottom of fill or below USDW (fresh water) zones, which excludes an evaluation of casing in the fresh water zone. Please run logs up to surface.
- Be sure to also record and provide injection flow rate and pressure leading up to shut-off and monitoring throughout the FOT monitoring period. OCD needs to confirm that a pseudo steady-state condition was achieved before shut-off. This data is also needed for software modeling of the FOT.
- Please provide electronic data from the FOTs at each well in order for the OCD to run its software model to confirm the results in the report.
- Section V No. 13: Surface pressure monitoring and Horner Plot during injection should be used to confirm radial flow condition is achieved instead of waiting a set period if operator wishes to reduce the injection period.

Disclaimer: *Please be advised that OCD has already approved with conditions Navajo Refining Company's Fall-Off Test (FOT) Plan on July 28, 2009, and is not providing approval of this FOT Plan; however, comments, observations and recommendations herein should help Navajo Refining Company understand the OCD's concerns based on the submittal.*

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) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

SUBSURFACE

NAVAJO REFINING COMPANY, L.L.C.

Map ID No. 95

Artificial Penetration Review

OPERATOR Apache Corp.

LEASE Federal T

WELL NUMBER 001

DRILLED 9/13/90

PLUGGED NA

STATUS Active

LOCATION Sec. 12 -T18S-R27E

MUD FILLED BOREHOLE NA

TOP INJECTION ZONE -3731'

API NO. 30-015-26404

REMARKS:

MAP ID NO. 95

**APACHE CORPORATION
FEDERAL T NO. 001**

API NO. 30-015-26404

NC Tops Dem 2/10/91

Queen	1219
Grayburg	1712
San Andres	2063
Glorieta	3680
Abo	
Wolfcamp	
Penn	8160
Strawn	8180
Atoka	9520
Morrow	9765

Ogden 14744

prop- 7889

pool - 78890 - N. Illinois Camp Maroon

1920410-0

1920430-6

1920450-W

Identified
14-91

2-14-91

Dual chnl.

2583-9170

Dual lat

9480-10186

Dual spaced section

Dual spaced section

8800-10141

NSL-2785

5-3-90

Cen Bond Log
6000-8090

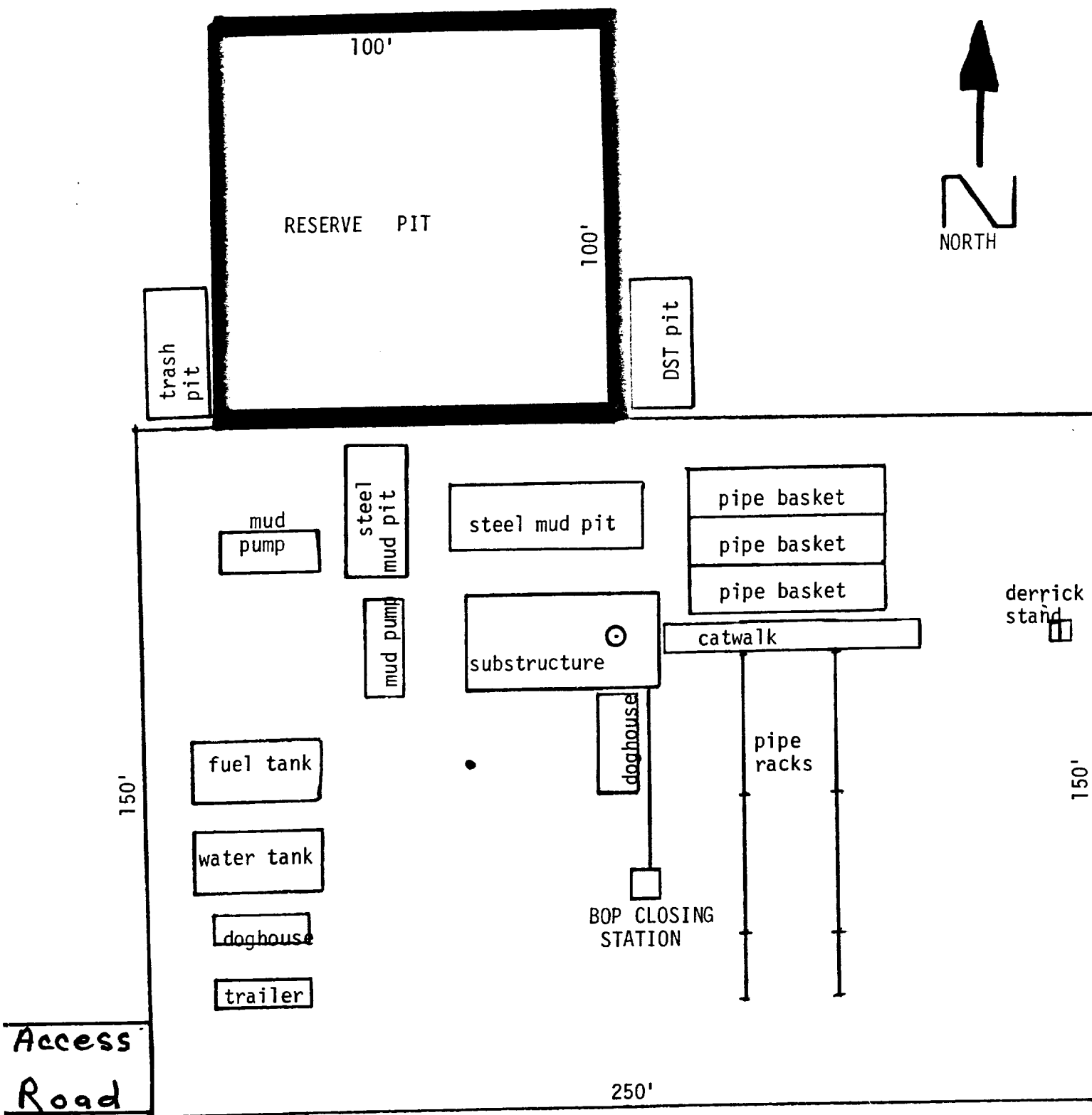


EXHIBIT "C"

MEWBOURNE OIL COMPANY
 FEDERAL "T" # 1
 LEASE # NM-42410
 990' FEL & 660' FNL
 SEC. 12-T18S-R27E
 EDDY COUNTY, NEW MEXICO

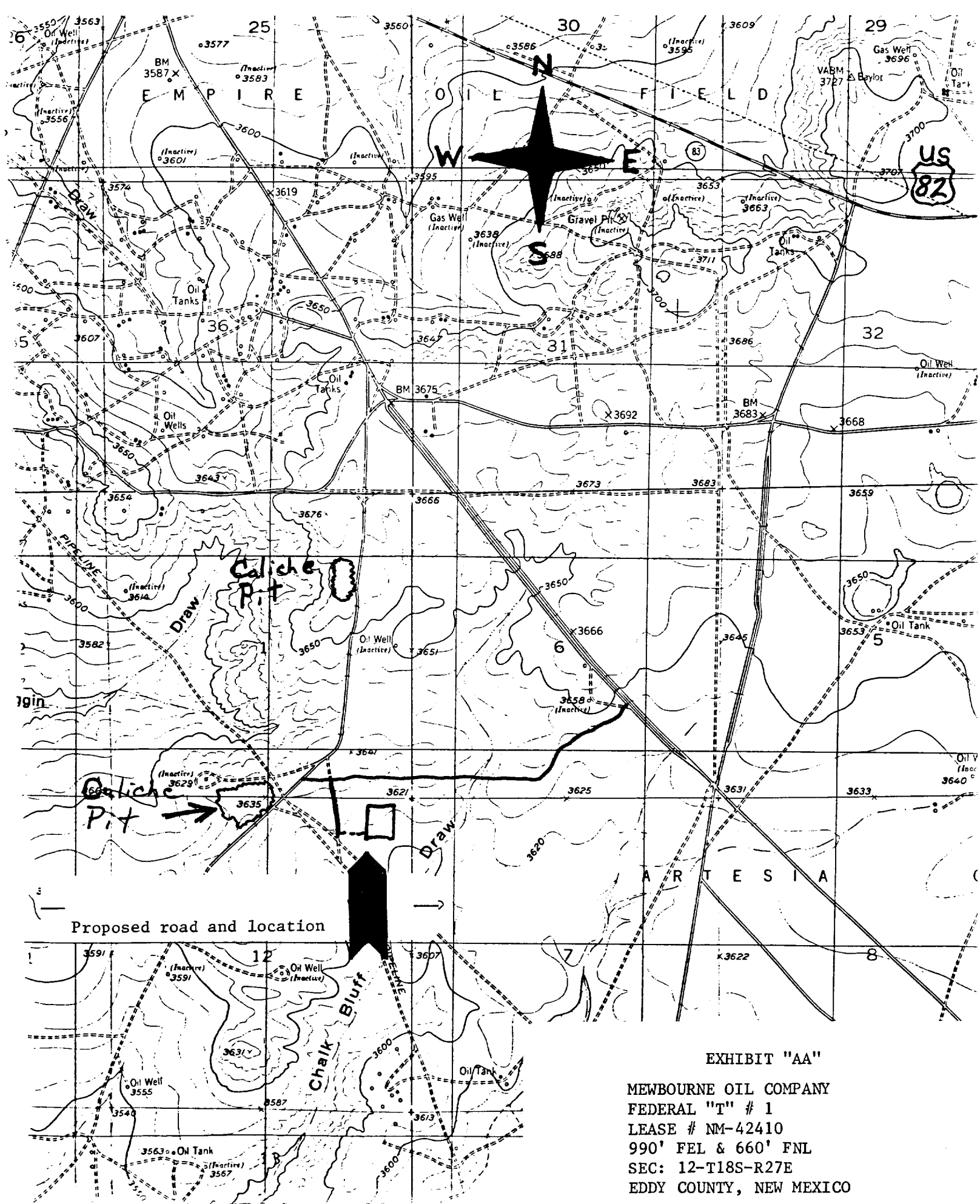


EXHIBIT "AA"

MEWBOURNE OIL COMPANY
 FEDERAL "T" # 1
 LEASE # NM-42410
 990' FEL & 660' FNL
 SEC: 12-T18S-R27E
 EDDY COUNTY, NEW MEXICO

Existing Roads

