PENROC

Penroc Oil Corporation / P. O. Box 5970 / Hobbs, New Mexico 88241 / Telephone (505) 397-3596 / Telecopier (505) 393-7051

December 21, 1987

Case 9297

Re: Conversion of PENROC OIL CORPORATION
State "AF" No. 3 to a disposal well

Dear Sir:

Please find enclosed a copy of PENROC OIL CORPORATION application to convert the State "AF" No. 3 well to a disposal well. This application is being furnished to you per New Mexico Conservation requirements.

No reply is required unless you object to this application. Thank you for your cooperation.

Sincerely,

PENROC OIL CORPORATION

M. Y. (Merch) Merchant
President

MYM/br

Enclosures

CC: N.M.O.C.D. - Santa Fe
N.M.O.C.D. - Hobbs
Arco Oil & Gas - Hobbs
Enron - Midland
Texaco - Hobbs
W.T. Kellahin - Santa Fe
R.D. Lee - Lovington
New Mexico State Land Office - Santa Fe

0+2

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501 Case 9297

Form C-103
Revised 10-1

5a. Indicate Type of Lease
State [X] Fee [ ]

5. State Oil & Gas Lease No.
E - 7723

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.)

1. OIL WELL [ ] GAS WELL [ ] OTHER- CONVERT TO DISPOSAL WELL

7. Unit Agreement Name

2. Name of Operator
PENROC OIL CORPORATION

8. Farm or Lease Name
STATE "AF"

3. Address of Operator
P.O. BOX 5970 HOBBS, NEW MEXICO 88241

9. Well No.
3

4. Location of Well
UNIT LETTER L , 1980 FEET FROM THE SOUTH LINE AND 990 FEET FROM THE WEST LINE, SECTION 8 TOWNSHIP 18S RANGE 35E NMPM.

10. Field and Pool, or Wildcat
VACUUM WOLFCAMP EAST

15. Elevation (Show whether DF, RT, GR, etc.)
3963 DF

12. County
LEA

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	
TEMPORARILY ABANDON	[ ]			COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	
PULL OR ALTER CASING	[ ]	CHANGE PLANS	[ ]	CASING TEST AND CEMENT JOB	[ ]		
OTHER CONVERT TO DISPOSAL WELL			[X]	OTHER			

17. 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.

1) Propose to re-enter well and convert to disposal status

2) Rig up and acidize existing perfs. (9883 - 9927)with 2000 gallons 15% HCL + BS .

3) Run in hole with 2 7/8" plastic coated tubing, and 5 1/2" plastic coated Baker AD - 1 packer and set at 9700'.

4) Begin injection

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

SIGNED [signature] TITLE President DATE 12/21/87

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 9297

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Penroc Oil Corporation

Address: P.O. Box 5970 Hobbs, New Mexico 88241

Contact party: M.Y. Merchant Phone: 505-397-3596

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. attached

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. attached

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). attached

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval. attached

IX. Describe the proposed stimulation program, if any. attached

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. attached

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. attached

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification attached

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

Name: M.Y. Merchant Title President

Signature: M.Y. Merchant Date: 12/1/87

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

attached

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

attached

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

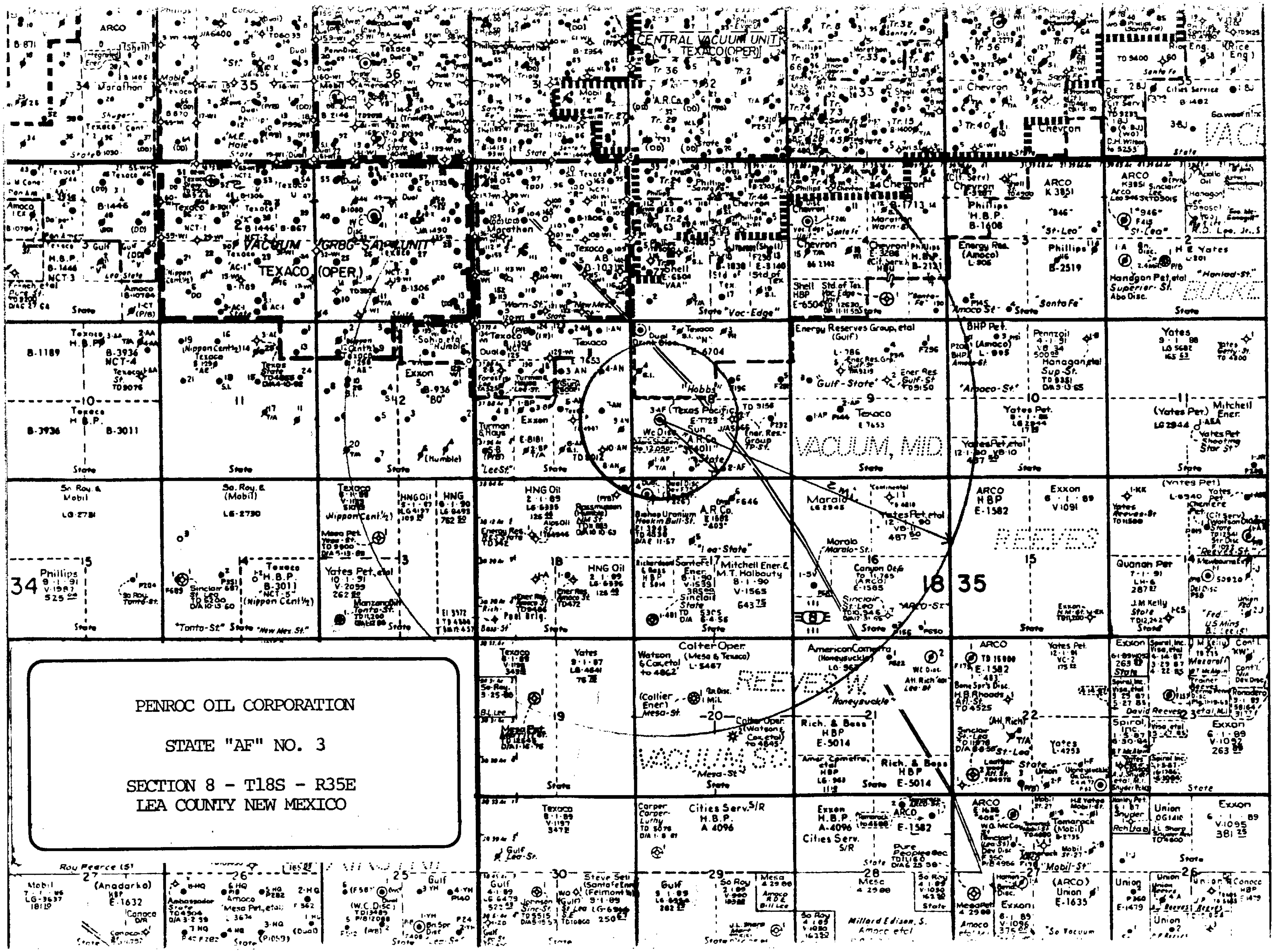
(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.


PENROC OIL CORPORATION
STATE "AF" NO. 3
SECTION 8 - T18S - R35E
LEA COUNTY NEW MEXICO
CENTRAL VACUUM UNIT
TEXACO (OPER)
VACUUM GRBG SA UNIT
TEXACO (OPER)
VACUUM, MID
Texas Pacific
Energy Reserves Group, etal
ARCO
Exxon
Yates Pet.
Chevron
Phillips

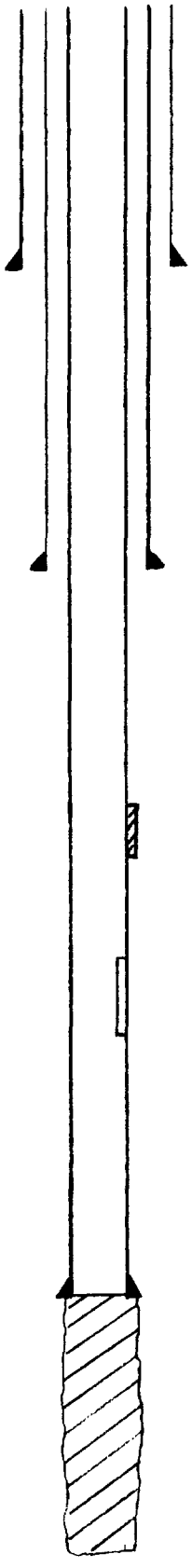
PENROC OIL CORPORATION
STATE "AF" NO, 3
SECTION 8 - T18S - R35S UNIT LETTER K
1980'FSL & 990' FWL
TD 11956'

13 3/8" 48# set @ 360' with 400 sxs circulated
9 5/8" 36, & 40# set @ 3876' with 2300 sxs circulated
5 1/2" 17# set @ 10387' with 2440 sxs TOC 1780' TS
PBTD 10387'

perfs. 8714 - 8770 SQZD with 150 sxs
perfs. 9883 - 9927 TA'D

Penroc Oil Corporation
State "AF" No. 3

Current Wellbore Sketch



13 3/8" 48# set @ 360' with 400 sxs circulated

9 5/8" 36,40# set @ 3876' with 2300 sxs circulated

2 7/8" plastic coated tubing set @ approx. 9700'

perfs. 8714 - 8770 SQZD with 150 sxs

5 1/2" plastic coated Baker AD - 1 packer set @ approx. 9700'

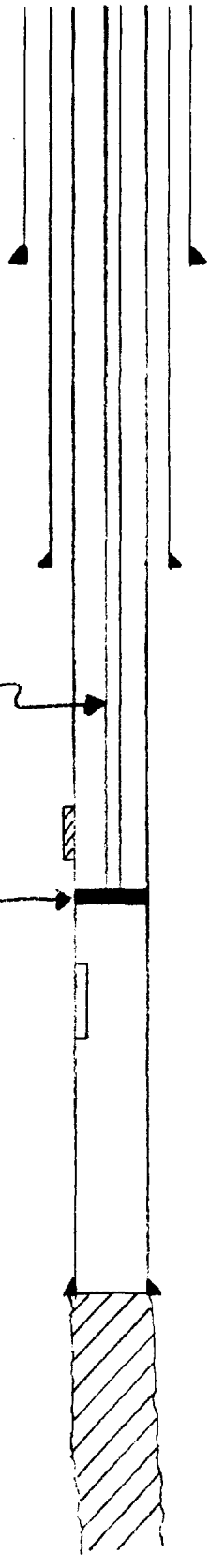
perfs. 9883 - 9927 TA'D

Proposed injection zone

5 1/2" 17# set @ 10,837' with 2440 sxs TOC 1780' TS

Td 11,956' Devonian

Proposed Wellbore Sketch



ATTACHMENT TO FORM C-108

PART III A 1-4 Attached

PART III B

1) The formation to be injected into is the Wolfcamp, in the Vacuum Wolfcamp, East Pool.

2) The injection interval is 9883-9927, and is perforated.

3) The well was drilled in 1964 as an oil well.

4) Attached

5) The next lower oil and/or gas zone is the Devonian at 11500-11600, the next upper zone is the Vacuum Abo Reef at 8700-9050.

PART VII

1) Average daily rate will be 2000 BWPD with a maximum of 3000 BWPD.

2) This will be a closed system.

3) Average injection pressure will be 0 (Zero) with a maximum of 500 psi.

4) The source of the water will be from the Devonian from PENROC OIL CORPORATION STATE "AF" NO. 1, located in unit letter M of Section 8,T18S,R35E. (Analysis attached)

PART VIII The proposed injection zone is the Wolfcamp, and the lithology is a clean limestone. The top of the Wolfcamp is approximately 9515 (-5552), and the injection zone is at 9883-9927. The only fresh water in the area is the Ogallala at 200-250 from surface and there is no fresh water known below the injection zone.

PART IX We plan to acidize the interval from 9883-9727 with 2000 gallons 15% HCL.

PART XII PENROC OIL CORPORATION has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Attachment to Form C - 108

Penroc Oil Corporation

PENROC OIL CORPORATION
STATE "AF" NO. 1
SECTION 8 - T18S - R35E UNIT LETTER M
510' FSL & 660' FWL

13 3/8" 48# @ 385' with 400 sxs circulated
9 5/8" 36, & 40# @ 3970' with 2176 sxs circulated
7" 23,29, & 32# @ 11791' with 1700 sxs TOC 230' TS

perforations; 11513 - 11573
8707 - 8782

Active producer Mid Vacuum Devonian

PENROC OIL CORPORATION
STATE "AF" NO. 2
SECTION 8 - T18S - R35E UNIT LETTER O
330' FSL & 2130' FEL

13 3/8" 48# @ 408' with 400 sxs circulated
9 5/8" 40# @ 4015' with 3554 sxs circulated
7" N - 80 @ 11837' with 2000 sxs TOC 320' TS

perforations; 8937 - 9025, 9053 - 9080

Active producer Vacuum Abo Reef

ARCO OIL and GAS COMPANY
LEA 4011 STATE NO. 1
SECTION 8 - T18S - R35E UNIT LETTER N
330' FSL & 1650' FWL

13 3/8" 48# @ 415' with 400 sxs circulated
9 5/8" 36# @ 4000' with 2700 sxs circulated
7" 26# @ 12000' with 2600 sxs TOC 2650' TS

perforations; 11506 - 11586
8758 - 8785 SQZD with 150 sxs
8834 - 8856 SQZD WITH 150 sxs

Active producer Mid Vacuum Devonian

PHILLIPS PETROLEUM COMPANY
VACUUM ABO UNIT BATTERY NO. 4 TR. 15
SECTION 8 - T18S - R35E UNIT LETTER E
330' FWL & 1650' FNL
TD 9010' ABO

TEXACO PRODUCING COMPANY
HOBBS "N" STATE NO. 6
SECTION 8 - T18S - 35E UNIT LETTER G
1980' FNL & 1980' FEL
TD 9258' ABO

ENERGY RESERVES GROUP, INC.
TP STATE NO. 2
SECTION 8 - T18S - R35E UNIT LETTER J
1980 FSL & 1980 FEL
TD 5066' SAN ANDRES

ENERGY RESERVES GROUP, INC.
TP STATE NO. 2 - Y
SECTION 8 - T18S - R35E UNIT LETTER J
1980'FSL & 1880' FEL
TD 9156' ABO

TEXACO PRODUCING COMPANY
STATE "AN" NO. 4
SECTION 7 - T18S - R35E UNIT LETTER H
1650' FNL & 990' FEL
TD 9001' ABO

TEXACO PRODUCING COMPANY
STATE "AN" NO. 7
SECTION 7 - T18S - R35E UNIT LETTER I
2310' FSL & 990' FEL
TD 9022' ABO

GETTY OIL COMPANY
STATE "AN" NO. 8
SECTION 7 - T18S - R35E UNIT LETTER P
330' FSL & 330' FEL
TD 11833 DEVONIAN

13 3/8" 35.5# set @ 340' with 350 sxs circulated
9 5/8" 36# set @ 3458' with 1992 sxs circulated
4 1/2" 11.6# set @ 11832' with 170 sxs
2 7/8" 6.4# set @ 11037' with 1490 sxs TOC 5150' TS

perf. 4 1/2" csg. @ 11615 - 11660
perf. 2 7/8" csg. @ 10936 - 10948, 10014 - 10058

Set CIBP in 2 7/8" @ 9986' + 9' cmt.
Set CIBP in 4 1/2" @ 11400' + 20' cmt
Shot and pulled 2 7/8", and 4 1/2" @ 5190'
Set 25 sx plug across 2 7/8", and 4 1/2" csg. stubs
Set 50 sx plug @ 9 5/8" csg. shoe (3340 - 3500)
Set 10 sx plug @ surface
P & A

GETTY OIL COMPANY
STATE "AN" NO. 9
SECTION 7 - T18S - R35E UNIT LETTER I
1650' FSL & 330' FEL
TD 11793 DEVONIAN

13 3/8" 36# set @ 344' with 350 sxs circulated
8 5/8" 24, & 32# set @ 4857' with 3840 sxs TOC 500' TS
5 1/2" 15.5, 17# set @ 11792' with 519 sxs TOC 5865' TS

perfs. 11501 - 11577

Set 25 plug @ 7190 - 6940
Shot and pulled 5 1/2" csg @ 5940'
Set 25 sx plug across 5 1/2" csg stub @ 5940'
Set 25 sx plug @ 8 5/8" csg shoe (4775 - 4875)
Set 50 sx plug @ 815 - 915
Set 10 sx @ surface
P & A

GETTY OIL COMPANY
STATE "AN" NO. 8

Set 10 sx plug at surface

13 3/8" 35.5# set @ 340' with 350 sxs circ.

Set 50 sx plug at 9 5/8" csg shoe
(3340 - 3500)

9 5/8" 36# set @ 3458' with 1992 sxs circ.

Set 25 sx plug across 2 7/8", and 4 1/2" csg stub

Shot and pulled 2 7/8", and 4 1/2" csg @ 5190'

Set CIBP in 2 7/8"csg @ 9986' + 9' cement

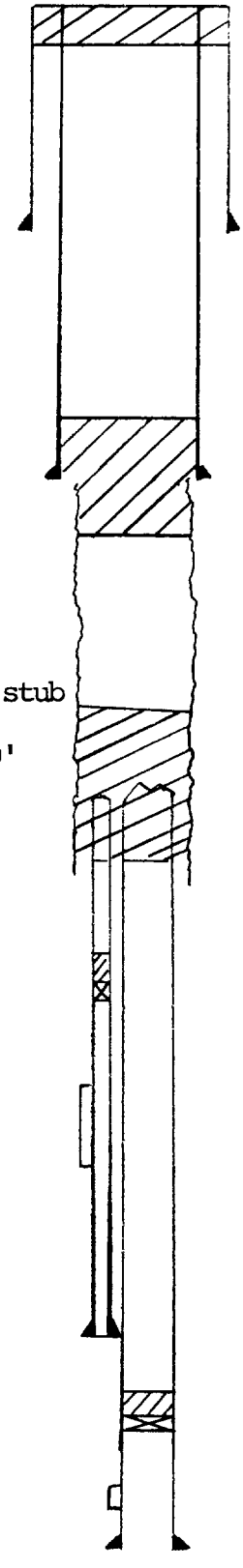
Perf. 2 7/8"csg @ 10936 - 10948
10014 - 10058

2 7/8" 6.4# set @ 11037' with 1490 sxs

Set CIBP in 4 1/2" csg @ 11400' + 20' cement

Perf. 4 1/2" csg @ 11615 - 11660

4 1/2" 11.6# set @ 11832' with 170 sxs



TD 11833'

GETTY OIL COMPANY
STATE "AN" NO. 9

Set 10 sx @ surface

Set 50 sx plug @ 815 - 915

13 3/8" 36# set @ 344' with 350 sxs circ.

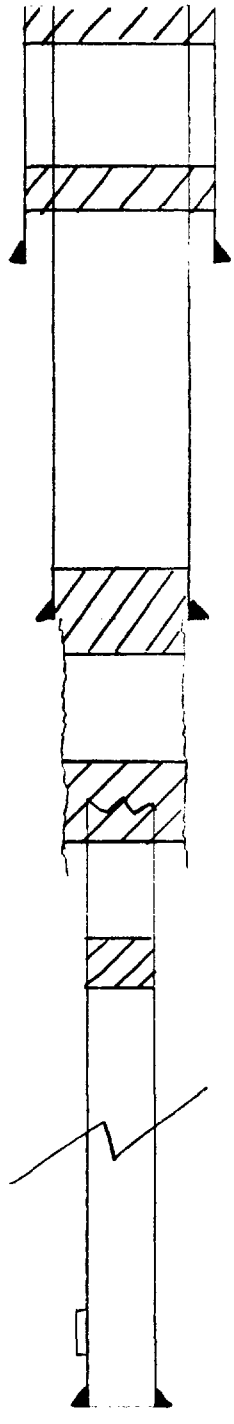
Set 25 sx plug @ 8 5/8" csg shoe (4775 - 4875)

8 5/8" 24, & 32# set @ 4857" with 3840 sxs
TOC 500' TS

Set 25 sx plug @ 5 1/2" csg stub @ 5940'

Shot and pulled 5 1/2" csg @ 5940'

Set 25 sx plug @ 7190 - 6940



Perf. 11501 - 11577

5 1/2" 15.5, &17# set @ 11792 with 519 sxs
TOC 5865' TS

GETTY OIL COMPANY
STATE "AN" NO. 10
SECTION 7 - T18S - R35E UNIT LETTER P
990' FSL &990' FEL
TD 9012' ABO

ARCO OIL AND GAS COMPANY
LEA 403 STATE NO. 4
SECTION 17 - T18S - R35E UNIT LETTER D
510' FNL & 510' FWL
TD 11897 DEVONIAN

13 3/8" 48# set @ 380' with 475 sxs circulated
9 5/8" 36, & 40# set @ 4000' with 1700 sxs TOC 800' TS
7" 23,26,29, & 32# set @ 11896' with 1050 sxs TOC 6400' TS

perf. 11652 - 11720

Set CIBP @ 9550 + 25 sxs cmt
perf 8807 - 8882
Produing Vacuum Abo Reef

BISHOP CANYON URANIUM CORPORATION
HOOKIN BULL NO. 1
SECTION 17 - T18S - R35E UNIT LETTER D
660' FNL & 660 FWL
TD 4530' SAN ANDRES

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. WS-87-243

To Mr. M. Y. Merchant

Date 12-12-87

PENROC

P. O. Box 5970

Hobbs NM 88240

Submitted by M.Y. Merchant Date Rec. 12-10-87

Well No. N.A. Depth N.A. Formation

County Lea Co. NM Field Buckeye Area Source water well / Devonian we

	water well	Devonian well		
Resistivity	3.41 @ 68°F	.09 @ 68°F		
Specific Gravity	1.002	1.066		
pH	7.2	7.6		
Calcium (Ca)	45	2150		*MPL
Magnesium (Mg)	30	330		
Chlorides (Cl)	950	55000		
Sulfates (SO_4)	nil	heavy		
Bicarbonates (HCO_3)	240	1284		
Soluble Iron (Fe)	nil	nil		

Remarks: water taken from wells in the same area for comparison purposes.

*Milligrams per liter

C. R. Moore Charles Ray Moore
Respectfully submitted,

Analyst: crm

HALLIBURTON COMPANY

cc:

By crm
CHEMIST

NOTICE

P 728 609 432

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to R. D. Lee	
Street and No. P.O. Box 363	
P.O., State and ZIP Code Lovington, NM 88260	
Postage	$ .56
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 1.31
Postmark or Date	

PS Form 3800, June 1985

P 728 609 435

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Texaco	
Street and No. P.O. Box 728	
P.O., State and ZIP Code Hobbs, NM 88240	
Postage	$ .56
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 1.31
Postmark or Date	

PS Form 3800, June 1985

P 728 609 434

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Enron	
Street and No. P.O. Box 2267	
P.O., State and ZIP Code Midland, Texas 79702	
Postage	$ .56
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 1.31
Postmark or Date	

PS Form 3800, June 1985

P 728 609 433

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Arco O.I + GAS	
Street and No. P.O. Box 1710	
P.O., State and ZIP Code Hobbs, NM 88240	
Postage	$ .56
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 1.31
Postmark or Date	

PS Form 3800, June 1985