PENROC

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

RECEIVED

DEC 1 - 1987

OIL CONSERVATION DIVISION

Case 9287

Re: Conversion of PENROC OIL CORPORATION's
George McGonagill No. 1 to a disposal well

Dear sir:

Please find enclosed a copy of PENROC OIL CORPORATION application to convert the George McGonagill No. 1 well to a disposal well. This application is being furnished to you per New Mexico Oil 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: NMOCD - Santa Fe
NMOCD - Hobbs
Exxon - Hobbs
H.E. Yates - Roswell
Cities Service - Midland
Southwestern, Inc. - Lovington
B T A - Midland
Hondo Oil & Gas - Roswell
R.D. Lee - Lovington
W.T. Kellahin - Santa Fe

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 9287

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. ATTACHED

XIV. Certification

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: [signature] Date: December 14, 1987

* 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.

ATTACHED

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;

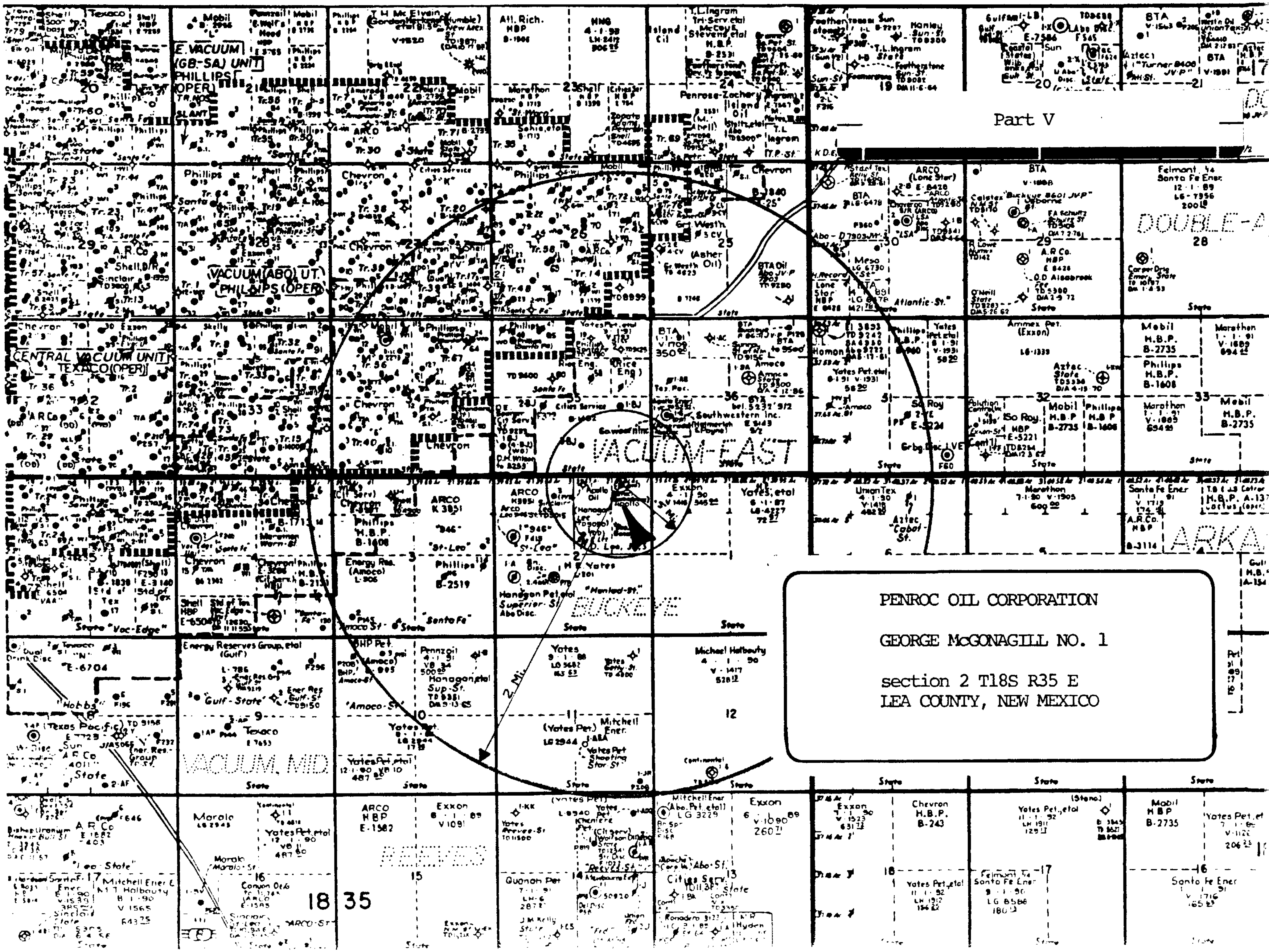
(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(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.



Part V
PENROC OIL CORPORATION
GEORGE McGONAGILL NO. 1
section 2 T18S R35 E
LEA COUNTY, NEW MEXICO
2 Mi.
E. VACUUM (GB-SA) UNIT PHILLIPS (OPER)
VACUUM (ABO) UT. PHILLIPS (OPER)
CENTRAL VACUUM UNIT TEXACO (OPER)
VACUUM-EAST
BUCKEYE
VACUUM, MID
DOUBLE-A
18 35

ATTACHMENT TO FORM C-108

PENROC OIL CORPORATION

GEORGE McGONAGILL NO. 1

PART III A

1) PENROC OIL CORPORATION
George McGonagill No. 1
Section 2, T18S, R35E
330' FNL and 990' FEL

2) See Attachment

3) 2 7/8" J-55 Plastic Coated Tubing set at about 4600'

4) A 5 1/2" Plastic Coated Baker AD-1 Packer will be used and set at about 4600'.

PART III B

1) The formation name is the San Andres in the Vacuum Grayburg San Andres Pool.

2) The injection interval is 4790 - 5086, and is perforated.

3) The well was originally drilled for oil in 1961.

4) See Attachment

5) The Queen sand is productive at about 4200' and the ABO at about 8700'.

PART VII

1) The proposed average daily rate is 2500 BWPD. The maximum will be 5000 BWPD.

2) The system will be open.

3) The average injection pressure will be on Vacuum. The maximum will be 500 PSI.

4) The sources will be mostly from San Andres and ABO water from the Vacuum field, some trucked water, and water from waterflows in the area during drilling of new wells.

PART VIII

The lithology of the San Andres to be injected into is a limestone grading to a sand. The San Andres is approximately 800' thick in the area (4650-5450). The Ogallala is the only fresh water aquifer in the area, and is located between 200' to 250' below the surface.

PART IX

Propose to acidize injection zone with 5000 gallons 15% HCL + BS.

PART XII

PENROC OIL CORPORATION has examined the available geological 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.

Penroc Oil Corporation
George McGonagill No. 1
Section 2 - T18S - R35E
330' FNL and 990' FEL
Unit letter A

Part VI

Casing;

13 3/8" 48# set @ 320' with 330 sxs circulated
8 5/8" 24 & 32# set @ 3498' with 1365 sxs circulated
5 1/2" 15.5 & 17# set @ 9259' with 720 sxs TOC 3500' TS

5 1/2 shot and pulled at 2888'

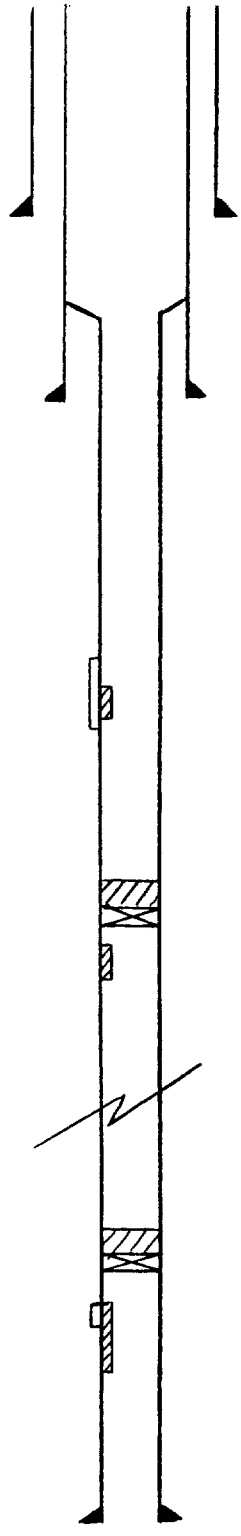
Record of perforations;

8780 - 9080 SQZD with 50 sxs
4832 - 4844 SQZD with 25 sxs
5060 - 5068 SQZD with 25 sxs
4832 - 4844 SQZD with 25 sxs
8780 - 8790, 8794 - 8808
set CIBP at 8600' + 2 sxs cmt
set CIBP at 4970' + 2 sxs cmt
4790 - 4846 open

Penroc Oil Corporation
George McGonagill No. 1

Part VI

Current Wellbore Sketch



13 3/8" 48# set @ 320' with 330 sxs circulated

Top of 5 1/2" casing stub @ 2888'

8 5/8" 24 & 32# set @ 3498' with 1365 sxs circ.

perfs. 4790 - 4846 open
perfs. 4832 - 4844 SQZD with 25 sxs

CIBP @ 4970' + 2 sxs cmt

perfs. 5060 - 5068 SQZD with 25 sxs

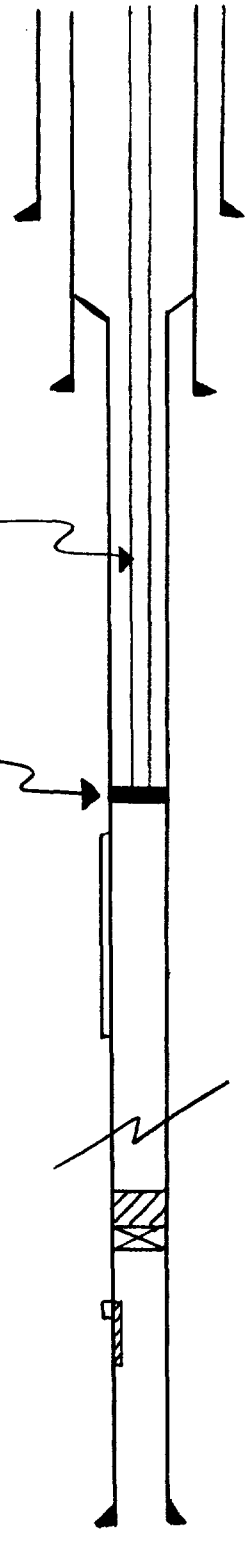
CIBP @ 8600' + 2 sxs cmt

perfs. 8780 - 8808 open
perfs. 8780 - 9080 SQZD with 50 sxs

5 1/2" 15.5 & 17 # set @ 9259' with 720 sxs
TOC 3500' TS

Penroc Oil Corporation
George McGonagill No. 1

Proposed Wellbore Sketch



13 3/8 " 48# set @ 320' with 330 sxs circulated

Top of 5 1/2" casing stub @ 2888'

8 5/8" 24 & 32# set @ 3498' with 1365 sxs circ.

2 7/8" plastic coated tubing set @ approx. 4600'

5 1/2" plastic coated Baker AD - 1 packer @ 4600'

Perforate 4970-5086 (selective)
Injection interval

CIBP @ 8600' + 2 sxs cmt.

perfs. 8780 - 8808 open
perfs. 8780 - 9080 SQZD with 50 sxs

5 1/2" 15.5 & 17# set @ 9259' with 720 sxs
OC 3500' TS

Apollo Energy Inc.
Lee No. 2
Section 2 - T18S - R35E
330' FNL 2310' FEL
Unit letter B

Casing;

13 3/8" 48# set @ 373' with 400 sxs circulated
8 5/8" 24 &32# set @ 3600' with 1250 sxs TOC 300' TS
4 1/2" 11.6 & 10.5# set @ 9010 with 1171 sxs TOC 2660' TS

Record of perforations;

9010 - 9015 SQZD with 50 sxs
8936 - 8973 SQZD with 175 sxs
8967 - 8992 SQZD with 25 sxs
5082 - 5094 SQZD with 100 sxs
8650 - 8680 SQZD with 100 sxs
8510 - 8530, 8400 - 8420 SQZD with 100 sxs
4222 - 4232 set CIBP @ 4306' + 100' cmt

Cut 4 1/2" casing @ 2590' and recovered
100' plug @ 2650 - 2750
100' plug @ 1550 - 1650
10 sxs plug @ surface
P&A

Apollo Energy Inc.
Lee No. 2

Current Wellbore Sketch

10 sx plug @ surface

13 3/8" 48# set @ 373' with 400 sxs circ.

100' plug @ 1550 - 1650

100' plug @ 2650 - 2750
4 1/2" casing cut and pulled @ 2590'

8 5/8" 24 &32# set @ 3600' with 1250 sxs
TOC 2660' TS

perfs. 4222 - 4232
CIBP @ 4306 + 100' plug to 4200'

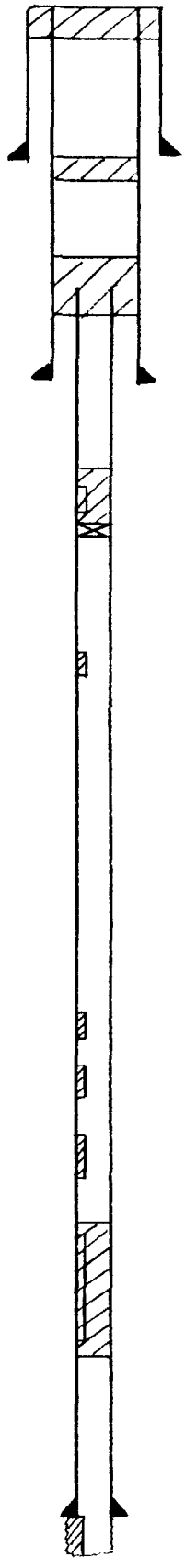
perfs. 5082 - 5094 SQZD with 100 sxs

perfs. 8400 - 8420, 8510 - 8530
SQZD WITH 100 sxs

perfs. 8650 - 8680 SQZD with 100 sxs

perfs. 8936 - 8973 SQZD with 175 sxs
perfs. 8976 - 8992 SQZD with 25 sxs
plug 8800 - 8996

4 1/2" 11.6 & 10.5# set @ 9010 with 1171 sxs
TOC 2660 TS
perfs. 9010 - 9015 SQZD with 50 sxs



Cities Service Oil and Gas Corporation
State BJ No. 1
Section 35 - T17S - R35E
2310' FSL 990' FEL
Unit letter I

13 3/8" 48# set @ 325' with 325 sxs + 1.5 yds pea gravel
8 5/8" 24 &32# set @ 3512' with 1485 sxs circulated
5 1/2" 15.5 & 17# set @ 9009' with 800 sxs TOC 5085 TS

perfs. 8793 - 8944 active producer Vacuum Abo Reef

Cities Service Oil and Gas Corporation
State BJ No. 3
Section 35 - T17S - R35E
990' FSL 2310'FEL
Unit letter O

13 3/8" 48# set @ 354' with 375 sxs circulated
8 5/8" 24 & 32# @ 3510' with 1850 sxs circulated
5 1/2" 15.5 & 17# set @ 9018' with 1170 sxs TOC 1050' TS

perfs. 8904 - 8952 active producer Vacuum Abo Reef

Hondo Oil and Gas Company
Lea 946 State No. 3
Section 2 - T18S - R35E
660' FNL 1980' FWL
Unit letter C

13 3/8" 48# set @ 375' with 375 sxs circulated
8 5/8" 24 & 32# set @ 3596' with 1300 sxs TOC 2460' TS
4 1/2" 9.5, 10.5 & 11.6 set @ 9000' with 1290 sxs TOC 3430' TS

perfs. 8937 - 8975 SQZD with 150 sxs
8805 - 8855
CIBP @ 8790' with 10' cmt
8681 - 8768 active producer Buckeye Abo

Penroc Oil Corporation
Lee No. 1
Section 2 - T18S - R35E
2310 FEL 1980 FNL
Unit letter G

13 3/8" 44# set @ 344' with 300 sxs circulated
8 5/8" 24 & 32# set @ 3585' with 231 sxs TOC 2800'
5 1/2" 15.5 &17# set @ 9200' with 1900 sxs circulated

perfs. 9126 - 9146 SQZD with 100 sxs
9010 - 9080 CIBP @ 8950'
8688 - 8710 active producer Vacuum Abo Reef

Disposal wells in the area of the George McGonagill No.1

1) Rice Engineering Corporation unit F sec. 35-T17S-R35E

Injection interval: OH 4885-5855 San Andres

2) Rice Engineering Corporation unit G sec. 35-T17S-R35E

Injection interval: perfs. 4973-5713 San Andres

3) Rice Engineering Corporation unit H sec. 35-T17S-R35E

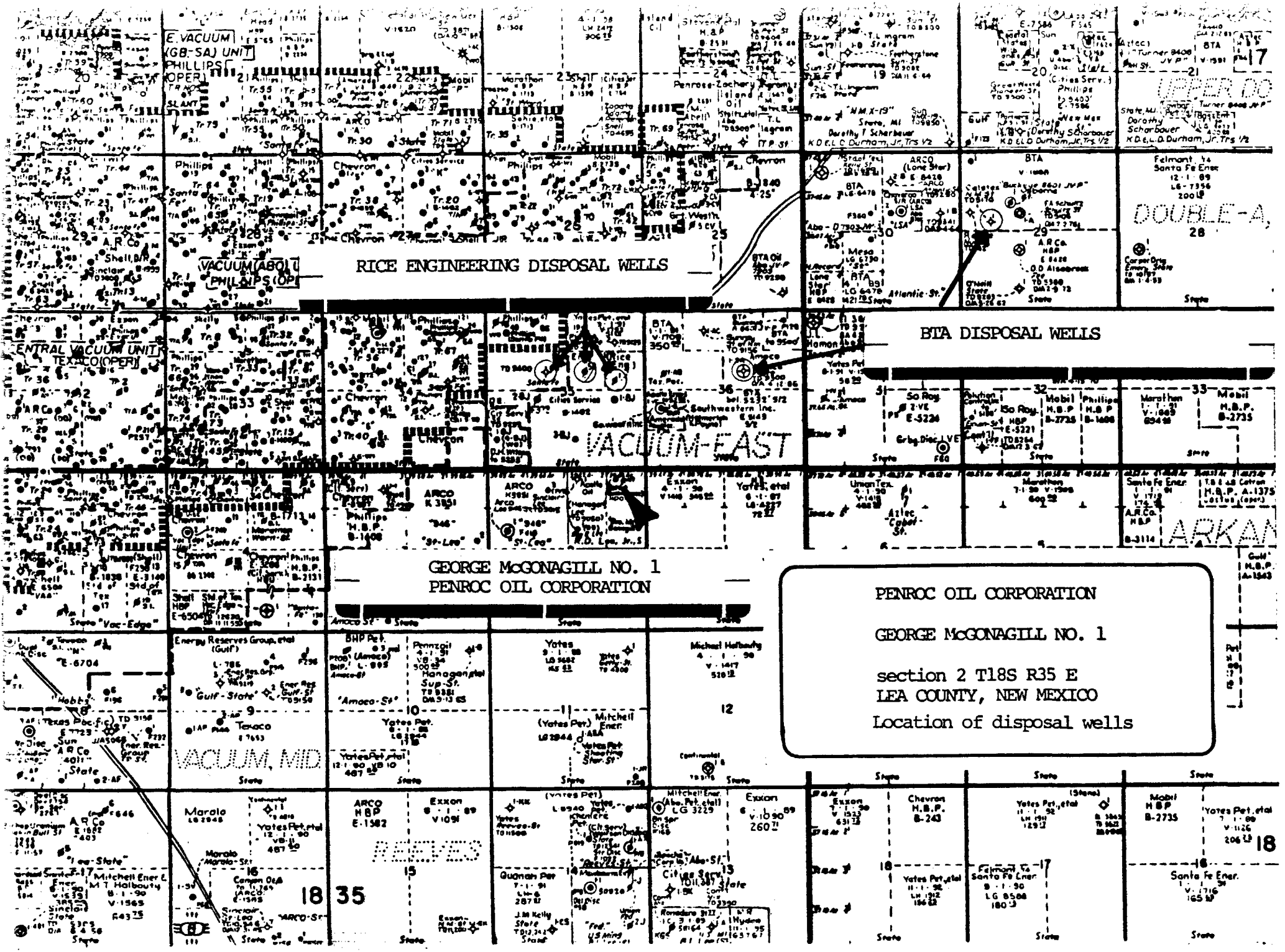
Injection interval: perfs. 5230-5755 San Andres

4) BTA #2 Buckeye B 8601 JV-P unit G sec.36-T17S-R35E

Injection interval: OH 9300-9580 Abo

5) BTA #2 Buckeye B 8601 JV-P unit E sec. 29-T17S-R36E

Injection interval: perfs. 5082-5130 San Andres


RICE ENGINEERING DISPOSAL WELLS
BTA DISPOSAL WELLS
GEORGE McGONAGILL NO. 1
PENROC OIL CORPORATION
PENROC OIL CORPORATION
GEORGE McGONAGILL NO. 1
section 2 T18S R35 E
LEA COUNTY, NEW MEXICO
Location of disposal wells
E. VACUUM (GB-SA) UNIT
PHILLIPS (OPER)
CENTRAL VACUUM UNIT
TEXACO (OPER)
VACUUM (ABO)
PHILLIPS (OPER)
VACUUM-EAST
VACUUM, MID
DOUBLE-A
ARKAN
PENROSE

1942 A

HALLIBURTON DIVISION LABORATORY

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 well

	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-562 873 258

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. R. D. Lee	
Street and No. P. O. Box 363	
P.O., State and ZIP Code Lovington, NM 88260	
Postage	$ .22
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	$ .97
Postmark or Date	

PS Form 3800, June 1985 U.S.G.P.O. 153-506

P-562 873 259

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Exxon Company, U.S.A.	
Street and No. P. O. Box 2100	
P.O., State and ZIP Code Hobbs, NM 88240	
Postage	$ .22
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	$ .97
Postmark or Date	

PS Form 3800, June 1985 U.S.G.P.O. 153-506

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P-562 873 260

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to H. E. Yates	
Street and No. Box 1933	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	$ .22
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	$ .97
Postmark or Date	

PS Form 3800, June 1985 U.S.G.P.O. 153-506

P-562 873 261

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Southwestern, Inc.	
Street and No. Box 1116	
P.O., State and ZIP Code Lovington, NM 88260	
Postage	.22
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	.97
Postmark or Date	

PS Form 3800, June 1985 U.S.G.P.O. 153-506

P-562 873 262

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Hondo Oil & Gas	
Street and No. P. O. Box 2208	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	$ .22
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	$ .97
Postmark or Date	

PS Form 3800, June 1985 U.S.G.P.O. 153-506

P-562 873 264

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

P-562 873 263

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to B T A	
Street and No. 104 S. Pecos	
P.O., State and ZIP Code Midland, Texas 79701	
Postage	$ .22
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	$ .97
Postmark or Date	

PS Form 3800, June 1985

U.S.G.P.O. 153-506

P-562 873 263

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Cities Service Oil & Gas	
Street and No. Box 1919 6 Desta Dr.	
P.O., State and ZIP Code Midland, Texas 79702	
Postage	$
Certified Fee	.22
Special Delivery Fee	.75
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	$ .97
Postmark or Date	

PS Form 3800, June 1985

U.S.G.P.O. 153-506