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

5-24-93

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WFX-643

RE: Proposed:
MC
DHC
NSL
NSP
SWD
WFX X
PMX

#18-A 5-23-37
#26-E 5-23-37
#28-G 5-23-37
#30-F 4-23-37
#31-I 5-23-37
#33-K 5-23-37
#37-M 5-23-37
#39-O 5-23-37
#44-B 8-23-37

Gentlemen:

I have examined the application for the:

Cixy USA Inc. Skelly Penrose B Unit
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Work is previously permitted & data on file.

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

OXY USA INC.
Box 50250, Midland, TX 79710

May 14, 1993

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Attention: Mr. Bill Lemay, Director

Re: Application of OXY USA Inc. for Expansion of Authorization to Inject (C-108) for the Skelly Penrose "B" Unit, Queen Formation, Langlie-Mattix Pool, Lea County, New Mexico

Dear Mr. Lemay:

Please find enclosed our application to expand our existing C-108 authority for the Skelly Penrose "B" Unit. Publication of the legal notice has been requested and will be forwarded as soon as it is available. All parties listed on the attached service list have been sent a copy of this application. Proof of such will also be sent as soon as possible. If you have any questions relating to this request please call me at 915/685-5913 or Scott Gengler at 915/685-5825. Thank you for considering our application.

Sincerely,

Richard E. Foppiano

Richard E. Foppiano
Regulatory Affairs Advisor
Western Region - Midland

REF/ref

XC: NMOCD, Santa Fe (orig + 2 copies)
NMOCD, Hobbs
Tom Kellahin
Parties on Service List, certified mail

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

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [X] yes [ ] no

II. Operator: OXY USA Inc.

Address: P. O. Box 50250 Midland, TX 79710

Contact party: Scott E. Gengler Phone: (915) 685-5825

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? [X] yes [ ] no
If yes, give the Division order number authorizing the project ~~R-2915~~ R-2956.

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.

* 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.

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.).

*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.

IX. Describe the proposed stimulation program, if any.

* 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.

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.

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

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: Scott E. Gengler Title Engineering Advisor

Signature: Scott E. Gengler Date: 5/14/93

* 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. R-2956, original application

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.

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.

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.

SERVICE LIST

OFFSET OPERATORS:

Texaco Exploration and Production
P. O. Box 730
Hobbs, New Mexico 88241-0730

Anadarko Petroleum Corp.
P. O. Box 130
Artesia, New Mexico 88211-0130

BC & D Oil and Gas Corp.
P. O. Box 5926
Hobbs, New Mexico 88241

Doyle Hartman
500 N. Main
Midland, Texas 79701

Conoco Inc.
3817 NW Expressway, Suite 400
Oklahoma City, OK 73018

Samedan Oil Corp.
10 Desta Drive, Suite 240E.
Midland, Texas 79705

Earl Bruno
P. O. Box 5456
Midland, Texas 79704

Surface Owners:

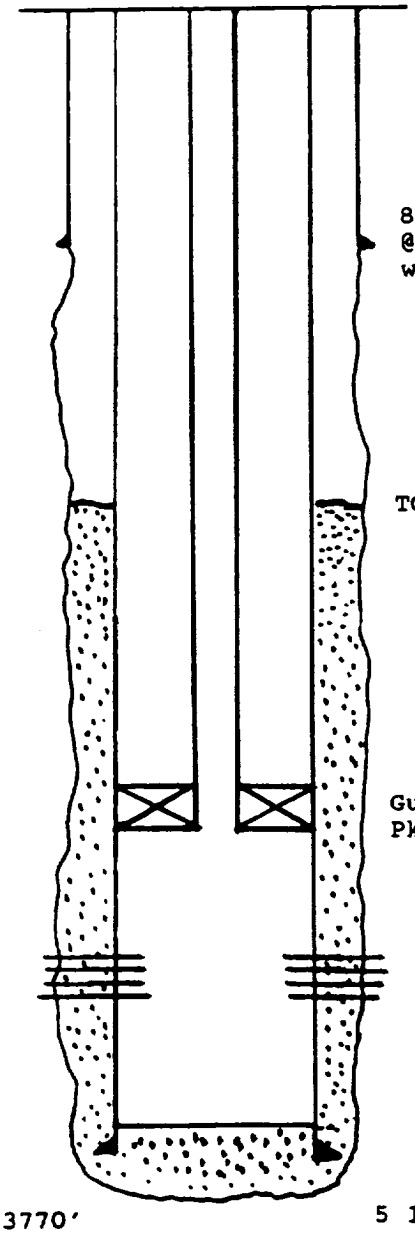
Jimmy Weir
c/o Byno Salsman
P. O. Box 184
Centerpoint, Texas 78010

Millard Deck Estate
P. O. Box 2546
Fort Worth, Texas 76113

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #18
660' FNL & 660' FEL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	200 sx	Surface by Circulation	11"
Production	5 1/2"	850 sx	1535' by Temperature Survey	7 7/8"



Injection Perforations 3614' to 3744'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3550'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

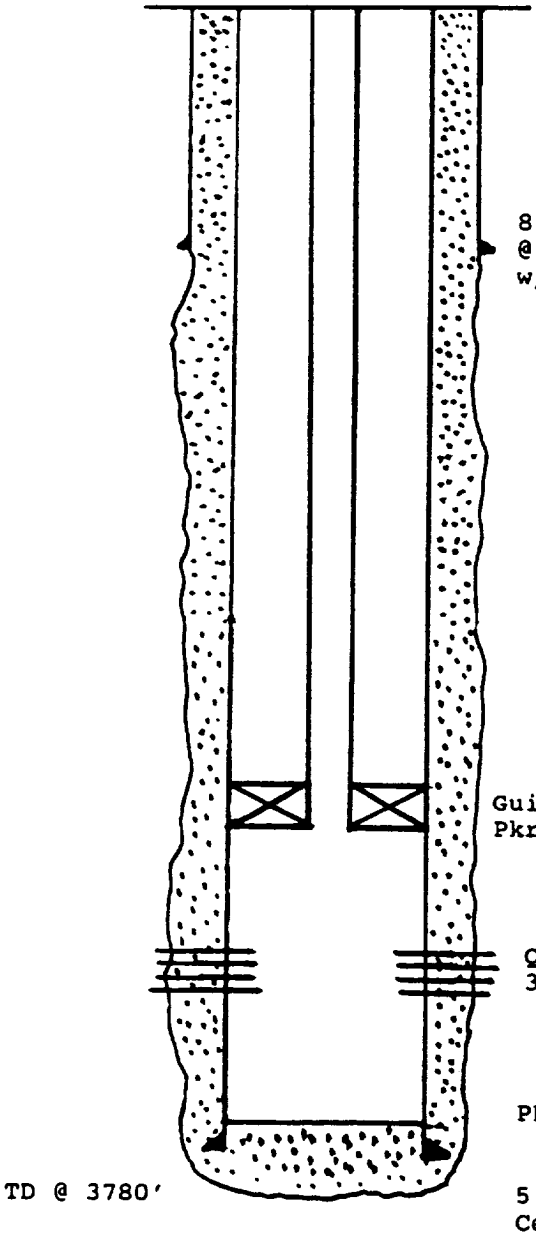
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #26
1980' FNL & 990' FEL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	275 sx	Surface by Circulation	11"
Production	5 1/2"	1200 sx	Surface by Circulation	8 5/8"



Injection Perforations 3659' to 3768'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3600'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

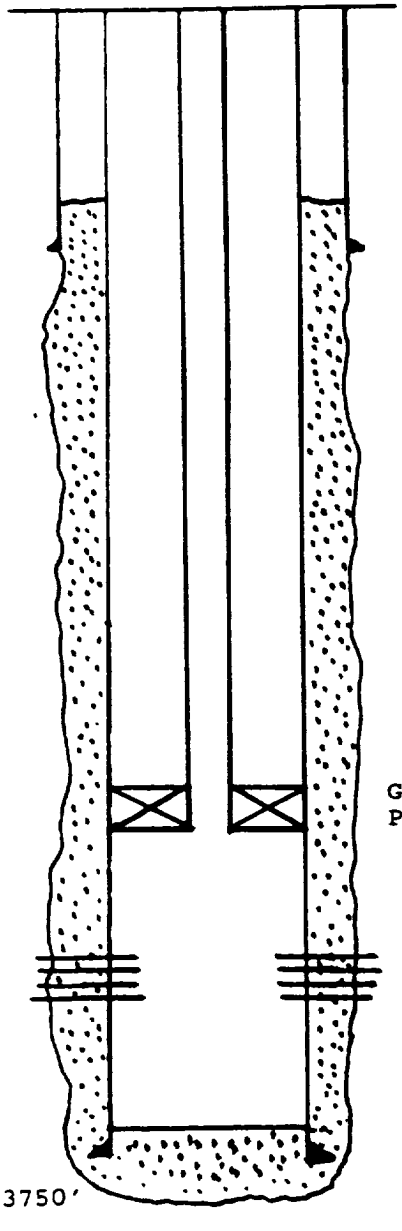
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #28
1980' FNL & 1980' FEL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	200 sx	Surface by Circulation	11"
Production	5 1/2"	1100 sx	320' by Temperature Survey	7 7/8"



Injection Perforations 3628' to 3724'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3550'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

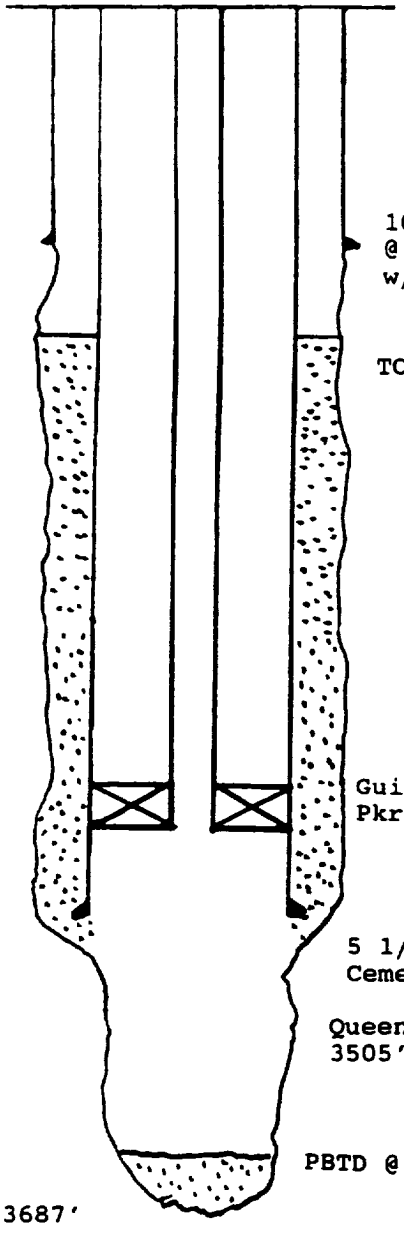
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #30
1980' FNL & 660' FWL, Section ~~5~~ 4, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	10 3/4"	150 sx	Surface by Circulation	12 1/2"
Production	5 1/2"	175 sx	1100' by Temperature Survey	7 1/4"



Injection Interval 3505' to 3666' (Open Hole)

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3450'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

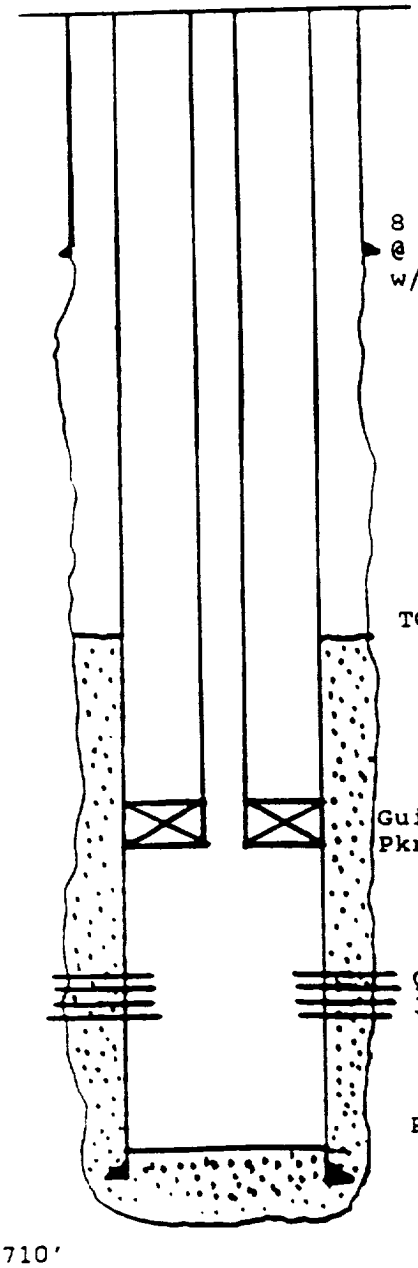
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #31
1980' FSL & 660' FEL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	250 sx	Surface by Circulation	11"
Production	5 1/2"	200 sx	2685' by Temperature Survey	7 7/8"



Injection Perforations 3580' to 3698'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3500'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

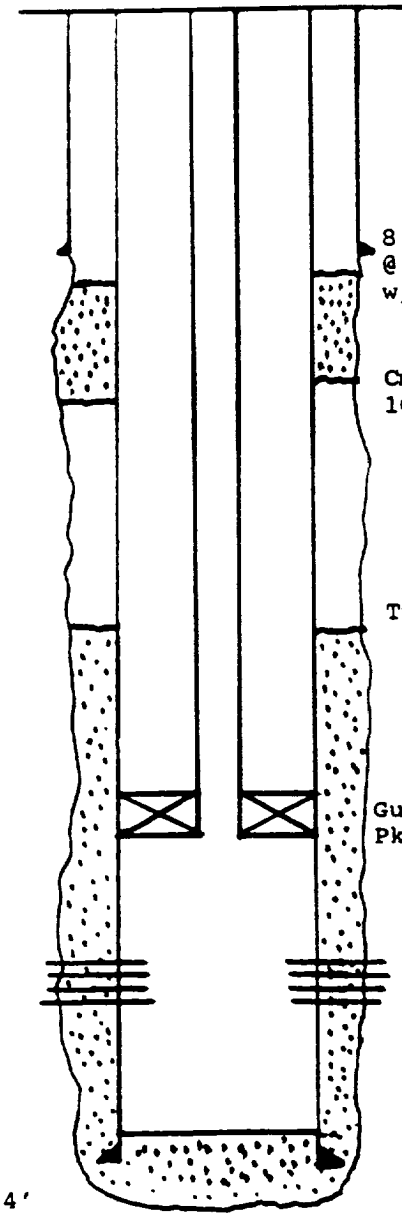
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #33
1980' FSL & 1980' FWL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	175 sx	Surface by Circulation	11"
Production	5 1/2"	200 sx	3724' to 2564' by Temp Svy 1010' to 490' by Cmt Bond Log	7 7/8"



Injection Perforations 3610' to 3719'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3550'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

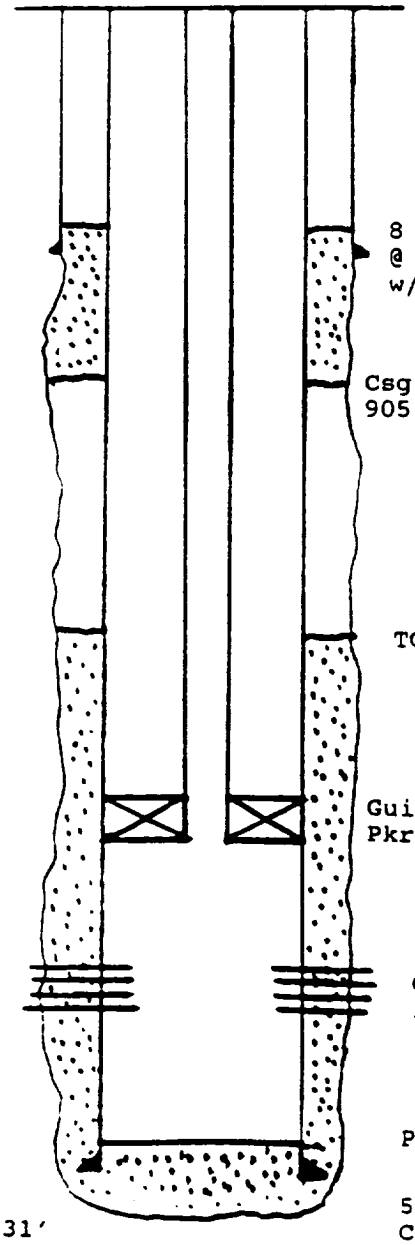
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #37
660' FSL & 660' FWL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	150 sx	Surface by Circulation	11"
Production	5 1/2"	200 sx	3731' to 2867' by Temp Svy 905' to 350' by Squeezing Cmt	7 7/8"



Injection Perforations 3606' to 3730'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3550'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

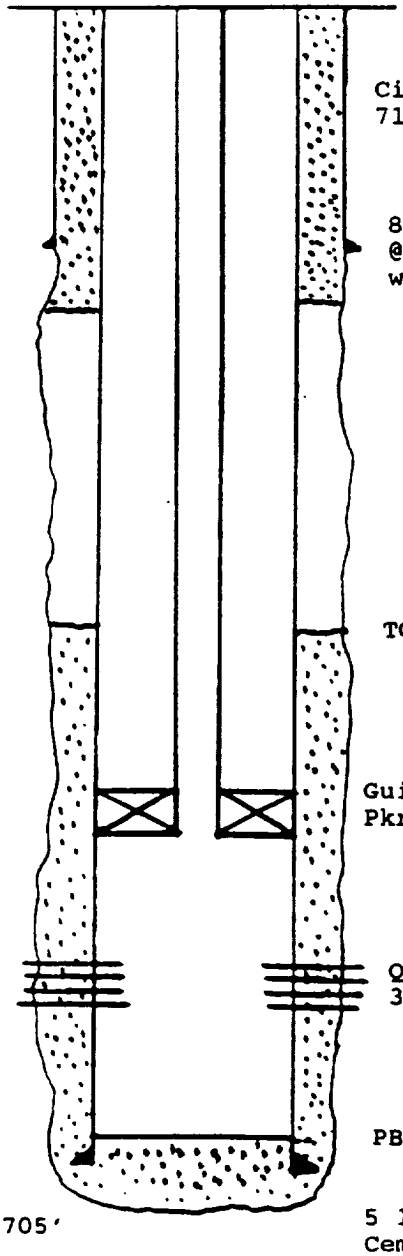
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #39
660' FSL & 1980' FEL, Section 5, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	8 5/8"	250 sx	Surface by Circulation	11"
Production	5 1/2"	200 sx	3705' to 2534' by Temp Svy 780' to Surface by Circulation	7 7/8"



Injection Perforations 3554' to 3685'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3500'

Injection Formation Queen (Penrose)

Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

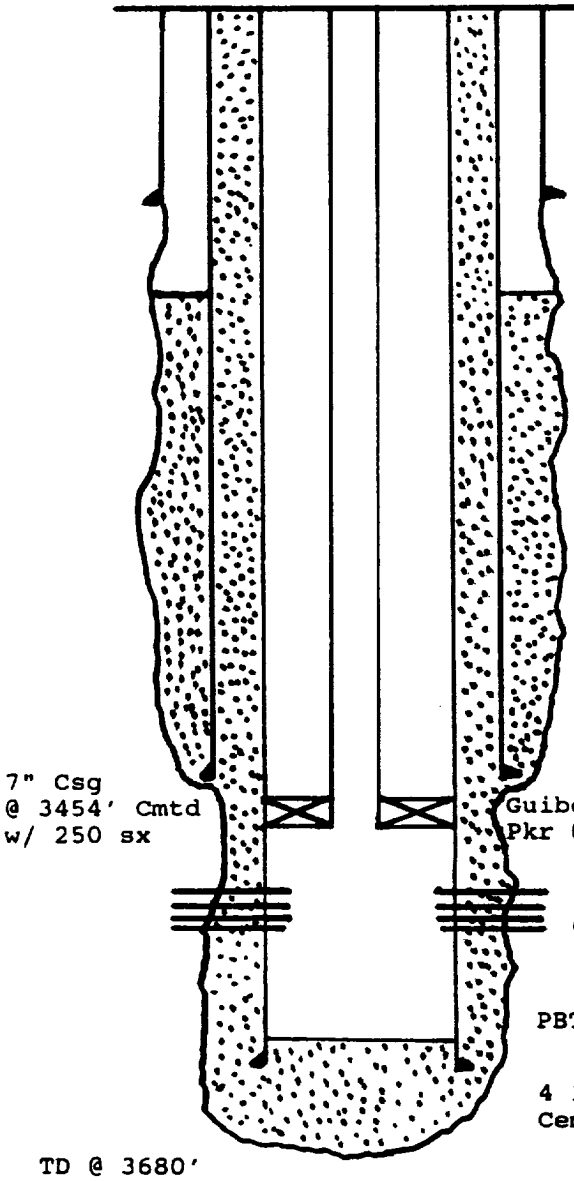
Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'

INJECTION WELL DATA SHEET

OXY USA Inc.
Skelly Penrose B Unit #44
660' FNL & 1980' FWL, Section ~~X~~ 8, T-23-S, R-37-E

	Size	Cement	Top of Cement - Determined By	Hole Size
Surface	15 1/2"	100 sx	Surface by Circulation	18"
Intermediate	7"	250 sx	765' by Calculation	8"
Production	4 1/2"	880 sx	Surface by Circulation	6 1/8"



Injection Perforations 3544' to 3655'

Injection Tubing 2 3/8" Polyethylene Lined

Injection Packer Guiberson G-6 @ 3500'

Injection Formation Queen (Penrose)

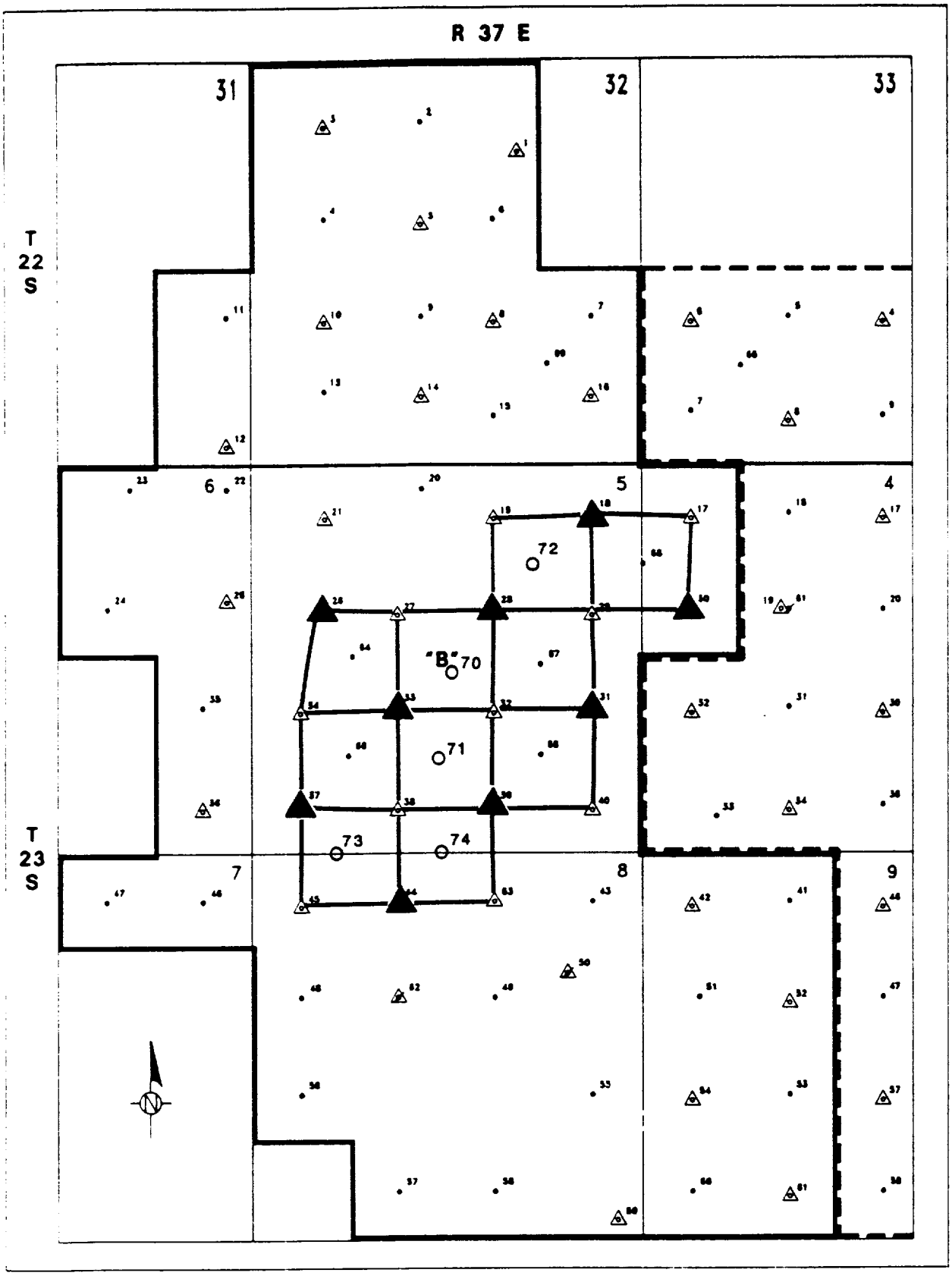
Field Langlie Mattix (SR-Queen-Grayburg)

New well drilled for injection No

If new well, for what purpose was the well originally drilled Producer

Has the well ever been perforated in any other zones No

Give the depth to and name of any other overlying or underlying oil or gas zones
North Teague Ellenburger - 10,200'
North Teague Fusselman - 8850'
Lea Co. Undes Group 4A (Devonian) - 7500'
Lea County Undes. Blinebry Gas - 5600'
Jalmat Tansill-Yates-7 Rvrs - 3000'



- PRODUCER
- WATER INJECTOR
- PLUGGED & ABANDONED
- PENROSE UNIT "B"
- PENROSE UNIT "A"

▲ CONVERT TO INJECTION

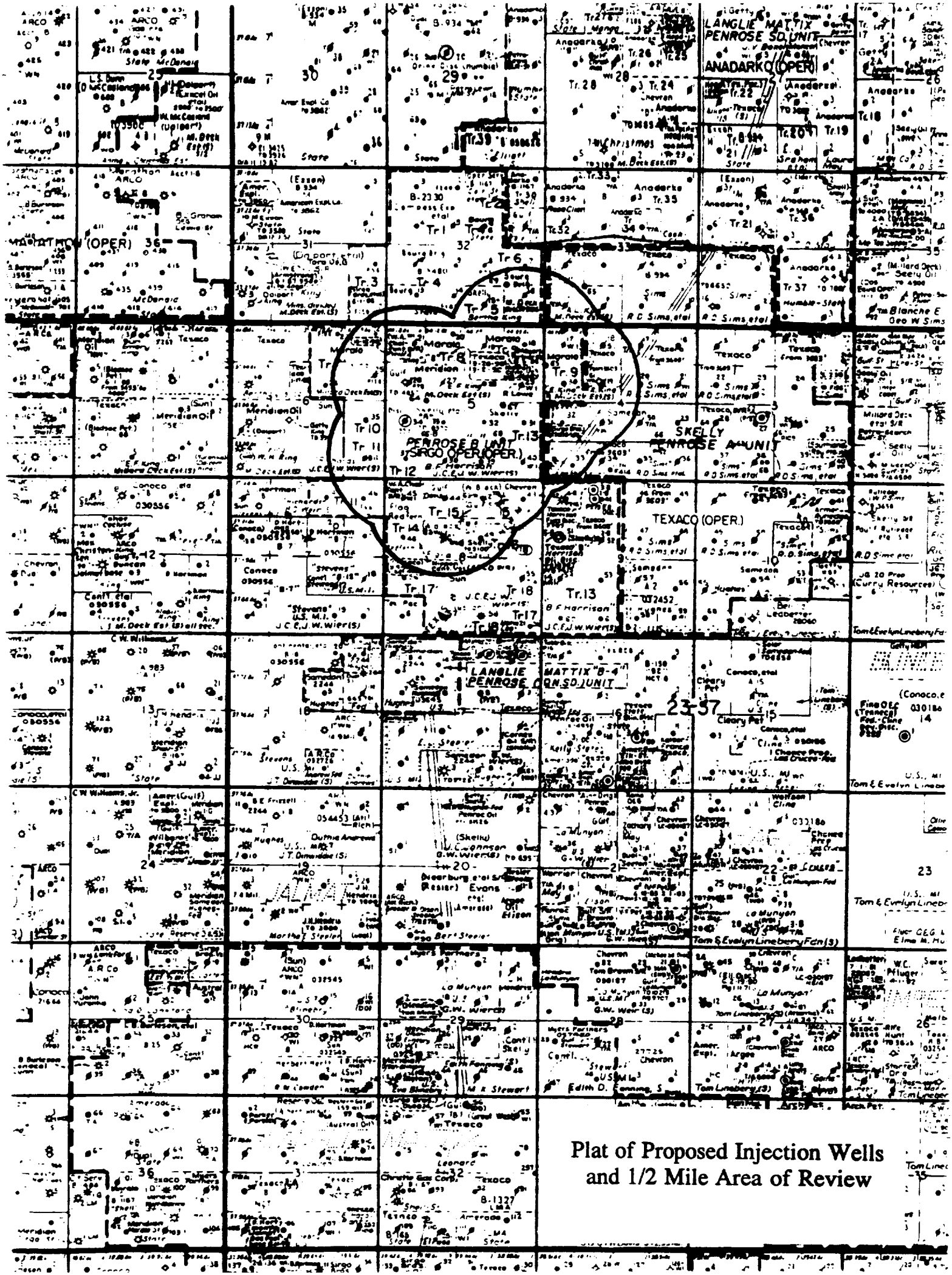
○ NEW PRODUCER

GETTY OIL & GAS CORP. - OPERATOR

PENROSE "B" UNIT

Lea County, New Mexico

Scale: 1"=2000' Revised: 2/17/93



Plat of Proposed Injection Wells and 1/2 Mile Area of Review

OFFSET WELL DATA

	Skelly Penrose B Unit #12	Skelly Penrose B Unit #7	Skelly Penrose B Unit #69	Skelly Penrose B Unit #15	Skelly Penrose B Unit #16
Location	330' FSL & 330' FEL Sec 31, T22S, R37E	1980' FSL & 660' FEL Sec 32, T22S, R37E	1360' FSL & 1250' FEL Sec 32, T22S, R37E	660' FSL & 1980' FEL Sec 32, T22S, R37E	990' FSL & 660' FEL Sec 32, T22S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	September 17, 1958	September 26, 1956	July 20, 1988	March 24, 1936	January 23, 1957
Well Type	Injector	Producer	Producer	Producer	Injector
Casing	8 5/8" @ 319' Cmtd w/ 200 sx	8 5/8" @ 350' Cmtd w/ 200 sx	8 5/8" @ 430' Cmtd w/ 300 sx	13" @ 261' Cmtd w/ 225 sx	8 5/8" @ 310' Cmtd w/ 250 sx
	5 1/2" @ 3798' Cmtd w/ 300 sx	5 1/2" @ 3695' Cmtd w/ 200 sx	5 1/2" @ 3940' Cmtd w/ 1000 sx	7" @ 3452' Cmtd w/ 400 sx	5 1/2" @ 3725' Cmtd w/ 200 sx
Total Depth	3798'	3690'	3940'	3680'	3725'
Completion	Penrose perfs (3677' – 3739')	Penrose perfs (3578' – 3676')	Penrose perfs (3598' – 3720')	Penrose Open Hole (3588' – 3680')	Penrose perfs (3610' – 3658')

	Skelly Penrose A Unit #7	Skelly Penrose A Unit #18	Skelly Penrose B Unit #17	Skelly Penrose B Unit #65	Skelly Penrose B Unit #30
Location	720' FSL & 660' FWL Sec 33, T22S, R37E	660' FNL & 1980' FWL Sec 4, T23S, R37E	660' FNL & 660' FWL Sec 4, T23S, R37E	1357' FNL & 15' FWL Sec 4, T23S, R37E	1980' FNL & 660' FWL Sec 5, T23S, R37E
Operator	Texaco	Texaco	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	October 25, 1942	August 29, 1940	May 26, 1957	March 27, 1988	January 20, 1949
Well Type	Producer	Producer (P&A)	Injector	Producer	Producer
Casing	16" @ 127' Cmtd w/ 100 sx	16" @ 120' Cmtd w/ 100 sx	8 5/8" @ 328' Cmtd w/ 250 sx	8 5/8" @ 421' Cmtd w/ 250 sx	10 3/4" @ 385' Cmtd w/ 150 sx
	7" @ 3411' Cmtd w/ 250 sx	7" @ 3397' Cmtd w/ 250 sx	5 1/2" @ 3720' Cmtd w/ 800 sx	5 1/2" @ 3944' Cmtd w/ 1375 sx	5 1/2" @ 3505' Cmtd w/ 150 sx
Total Depth	3716'	3706'	3720'	3944'	3687'
Completion	Penrose Open Hole (3411' – 3716')	Penrose Open Hole (3397' – 3706')	Penrose perfs (3562' – 3629')	Penrose perfs (3569' – 3712')	Penrose Open Hole (3505' – 3666')

OFFSET WELL DATA

	Skelly Penrose A Unit #61	Skelly Penrose A Unit #19	Skelly Penrose A Unit #20	Skelly Penrose A Unit #31	Skelly Penrose A Unit #32
Location	1900' FNL & 1870' FWL Sec 4, T23S, R37E	1980' FNL & 1980' FWL Sec 4, T23S, R37E	1980' FNL & 1980' FEL Sec 4, T23S, R37E	1980' FSL & 660' FWL Sec 4, T23S, R37E	1980' FSL & 660' FWL Sec 4, T23S, R37E
Operator	Texaco	Texaco	Texaco	Texaco	Texaco
Date Drilled	April 7, 1969	April 1936	February 9, 1936	October 15, 1936	April 3, 1958
Well Type	Injector	Injector (P&A)	Producer	Producer	Injector
Casing	8 5/8" @ 309' Cmtd w/ 150 sx	13" @ 270' Cmtd w/ 200 sx	13" @ 252' Cmtd w/ 200 sx	8 1/4" @ 1152' Cmtd w/ 500 sx	8 5/8" @ 254' Cmtd w/ 300 sx
	4 1/2" @ 3698' Cmtd w/ 900 sx	7" @ 3350' Cmtd w/ 600 sx	7" @ 3392' Cmtd w/ 200 sx	7" @ 3380' Cmtd w/ 300 sx	5 1/2" @ 3684' Cmtd w/ 375 sx
Total Depth	3700'	3683'	3687'	3638'	3684'
Completion	Penrose perfs (3547' – 3605')	Penrose Open Hole (3350' – 3683')	Penrose Open Hole (3392' – 3687')	Penrose Open Hole (3380' – 3638')	Penrose perfs (3560' – 3643')

	Skelly Penrose A Unit #33	Skelly Penrose B Unit #18	Skelly Penrose B Unit #19	Skelly Penrose B Unit #20	Skelly Penrose B Unit #21
Location	500' FSL & 990' FWL Sec 4, T23S, R37E	660' FNL & 660' FEL Sec 5, T23S, R37E	660' FNL & 1980' FEL Sec 5, T23S, R37E	330' FNL & 2310' FWL Sec 5, T23S, R37E	660' FNL & 990' FWL Sec 5, T23S, R37E
Operator	Texaco	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	February 23, 1958	April 28, 1957	June 21, 1957	October 10, 1957	January 18, 1958
Well Type	Producer	Producer	Injector	Producer	Injector
Casing	8 5/8" @ 370' Cmtd w/ 225 sx	8 5/8" @ 330' Cmtd w/ 200 sx	8 5/8" @ 330' Cmtd w/ 280 sx	8 5/8" @ 343' Cmtd w/ 200 sx	8 5/8" @ 350' Cmtd w/ 200 sx
	5 1/2" @ 3650' Cmtd w/ 200 sx	5 1/2" @ 3770' Cmtd w/ 850 sx	5 1/2" @ 3750' Cmtd w/ 950 sx	5 1/2" @ 3780' Cmtd w/ 1200 sx	5 1/2" @ 3780' Cmtd w/ 800 sx
Total Depth	3650'	3770'	3750'	3780'	3780'
Completion	Penrose perfs (3526' – 3636')	Penrose perfs (3614' – 3744')	Penrose perfs (3645' – 3707')	Penrose perfs (3656' – 3779')	Penrose perfs (3643' – 3707')

OFFSET WELL DATA

	Skelly Penrose B Unit #26	Fred C. King #1	Skelly Penrose B Unit #27	Skelly Penrose B Unit #64	Skelly Penrose B Unit #28
Location	1980' FNL & 990' FWL Sec 5, T23S, R37E	1980' FNL & 660' FWL Sec 5, T23S, R37E	1980' FNL & 1980' FWL Sec 5, T23S, R37E	2617' FNL & 1366' FWL Sec 5, T23S, R37E	1980' FSL & 660' FWL Sec 5, T23S, R37E
Operator	OXY USA Inc.	Gulf	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	February 12, 1958	September 19, 1936	September 8, 1957	March 19, 1988	June 25, 1957
Well Type	Producer	Dry Hole (P&A)	Injector	Producer	Producer
Casing	8 5/8" @ 354' Cmtd w/ 275 sx	10 3/4" @ 298' Cmtd w/ 250 sx	8 5/8" @ 345' Cmtd w/ 200 sx	8 5/8" @ 410' Cmtd w/ 200 sx	8 5/8" @ 335' Cmtd w/ 200 sx
	5 1/2" @ 3780' Cmtd w/ 1200 sx	7 5/8" @ 3639' Cmtd w/ 650 sx	5 1/2" @ 3769' Cmtd w/ 1200 sx	5 1/2" @ 3905' Cmtd w/ 1000 sx	5 1/2" @ 3750' Cmtd w/ 1100 sx
Total Depth	3780'	4051'	3770'	3905'	3684'
Completion	Penrose perfs (3659' – 3768')	Grayburg/Penrose OH (3639' – 4051')	Penrose perfs (3660' – 3705')	Penrose perfs (3648' – 3790')	Penrose perfs (3628' – 3724')

	Skelly Penrose B Unit #29	Skelly Penrose B Unit #31	Skelly Penrose B Unit #67	Skelly Penrose B Unit #68	Skelly Penrose B Unit #33
Location	2112' FNL & 660' FEL Sec 5, T23S, R37E	1980' FSL & 660' FEL Sec 5, T23S, R37E	2555' FSL & 1350' FEL Sec 5, T23S, R37E	1340' FSL & 1350' FEL Sec 5, T23S, R37E	1980' FSL & 1980' FWL Sec 5, T23S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	June 5, 1957	September 13, 1957	June 10, 1988	June 20, 1988	December 23, 1957
Well Type	Injector	Producer	Producer	Producer	Producer
Casing	10 3/4" @ 325' Cmtd w/ 150 sx	8 5/8" @ 370' Cmtd w/ 250 sx	8 5/8" @ 420' Cmtd w/ 350 sx	8 5/8" @ 427' Cmtd w/ 350 sx	8 5/8" @ 370' Cmtd w/ 175 sx
	5 1/2" @ 3805' Cmtd w/ 900 sx	5 1/2" @ 3710' Cmtd w/ 200 sx	5 1/2" @ 3870' Cmtd w/ 3700 sx	5 1/2" @ 3920' Cmtd w/ 875 sx	5 1/2" @ 3724' Cmtd w/ 200 sx
Total Depth	3805'	3710'	3870'	3920'	3724'
Completion	Penrose perfs (3590' – 3720')	Penrose perfs (3580' – 3698')	Penrose perfs (3599' – 3721')	Penrose perfs (3570' – 3686')	Penrose perfs (3610' – 3719')

OFFSET WELL DATA

	Skelly Penrose B Unit #32	Skelly Penrose B Unit #34	Skelly Penrose B Unit #66	Skelly Penrose B Unit #37	Skelly Penrose B Unit #38
Location	1980' FSL & 1980' FEL Sec 5, T23S, R37E	1980' FSL & 660' FWL Sec 5, T23S, R37E	1330' FSL & 1307' FWL Sec 5, T23S, R37E	660' FSL & 660' FWL Sec 5, T23S, R37E	660' FSL & 1980' FWL Sec 5, T23S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	October 15, 1957	December 2, 1935	March 7, 1988	February 22, 1958	January 4, 1958
Well Type	Injector	Injector	Producer	Producer	Injector
Casing	8 5/8" @ 360' Cmtd w/ 250 sx	13" @ 254' Cmtd w/ 150 sx	8 5/8" @ 432' Cmtd w/ 250 sx	8 5/8" @ 370' Cmtd w/ 150 sx	8 5/8" @ 370' Cmtd w/ 150 sx
	5 1/2" @ 3710' Cmtd w/ 200 sx	8 1/4" @ 2715' Cmtd w/ 150 sx	5 1/2" @ 3964' Cmtd w/ 1045 sx	5 1/2" @ 3731' Cmtd w/ 200 sx	5 1/2" @ 3720' Cmtd w/ 200 sx
	4 1/2" Liner (3278' – 3798') Cmtd w/ 25 sx	4 1/2" @ 3850' Cmtd w/ 250 sx			
Total Depth	3800'	3850'	3972'	3731'	3720'
Completion	Penrose perfs (3592' – 3711')	Penrose perfs (3642' – 3773')	Penrose perfs (3612' – 3740')	Penrose perfs (3606' – 3730')	Penrose perfs (3577' – 3710')

	Skelly Penrose B Unit #39	Skelly Penrose B Unit #40	Skelly Penrose B Unit #22	Skelly Penrose B Unit #25	Skelly Penrose B Unit #35
Location	660' FSL & 1980' FEL Sec 5, T23S, R37E	1980' FSL & 660' FWL Sec 5, T23S, R37E	330' FNL & 330' FEL Sec 6, T23S, R37E	1788' FNL & 330' FEL Sec 6, T23S, R37E	1980' FSL & 660' FWL Sec 6, T23S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	December 4, 1957	November 13, 1957	April 29, 1958	August 25, 1958	May 25, 1936
Well Type	Producer	Injector	Producer	Injector	Producer
Casing	8 5/8" @ 373' Cmtd w/ 200 sx	8 5/8" @ 374' Cmtd w/ 200 sx	8 5/8" @ 346' Cmtd w/ 200 sx	8 5/8" @ 351' Cmtd w/ 250 sx	10 3/4" @ 371' Cmtd w/ 125 sx
	5 1/2" @ 3705' Cmtd w/ 200 sx	5 1/2" @ 3680' Cmtd w/ 200 sx	5 1/2" @ 3795' Cmtd w/ 1000 sx	5 1/2" @ 3800' Cmtd w/ 1200 sx	5 1/2" @ 3565' Cmtd w/ 600 sx
Total Depth	3705'	3680'	3795'	3800'	3798'
Completion	Penrose perfs (3554' – 3685')	Penrose perfs (3524' – 3644')	Penrose perfs (3670' – 3786')	Penrose perfs (3677' – 3752')	Penrose Open Hole (3565' – 3798')

OFFSET WELL DATA

	Skelly Penrose B Unit #24	Skelly Penrose B Unit #36	Skelly Penrose B Unit #46	Skelly Penrose B Unit #43	Skelly Penrose B Unit #63
Location	2117' FNL & 1966' FEL Sec 6, T23S, R37E	660' FSL & 660' FEL Sec 6, T23S, R37E	660' FNL & 660' FEL Sec 7, T23S, R37E	660' FNL & 660' FEL Sec 8, T23S, R37E	660' FNL & 1980' FEL Sec 8, T23S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	October 13, 1958	January 15, 1959	December 3, 1958	July 12, 1937	November 30, 1957
Well Type	Producer	Injector	Producer	Producer	Injector
Casing	10 3/4" @ 309' Cmtd w/ 200 sx	8 5/8" @ 382' Cmtd w/ 250 sx	8 5/8" @ 364' Cmtd w/ 250 sx	8 5/8" @ 1343' Cmtd w/ 49 sx	8 5/8" @ 385' Cmtd w/ 325 sx
	7" @ 2860' Cmtd w/ 400 sx	5 1/2" @ 3780' Cmtd w/ 1000 sx	5 1/2" @ 3770' Cmtd w/ 1000 sx	7" @ 3402' Cmtd w/ 125 sx	5 1/2" @ 3732' Cmtd w/ 1400 sx
	5 1/2" @ 3815' Cmtd w/ 225 sx			4 1/2" @ 3660' Cmtd w/ 530 sx	4 1/2" @ 3730' Cmtd w/ 200 sx
Total Depth	3815'	3780'	3770'	3712'	3732'
Completion	Penrose perfs (3700' – 3804')	Penrose perfs (3636' – 3699')	Penrose perfs (3606' – 3736')	Penrose perfs (3469' – 3614')	Penrose perfs (3507' – 3662')

	Skelly Penrose B Unit #44	Skelly Penrose B Unit #45	Skelly Penrose B Unit #48	Skelly Penrose B Unit #62	Skelly Penrose B Unit #49
Location	660' FNL & 1980' FWL Sec 8, T23S, R37E	660' FNL & 660' FWL Sec 8, T23S, R37E	1980' FNL & 660' FWL Sec 8, T23S, R37E	1980' FNL & 1980' FWL Sec 8, T23S, R37E	1980' FNL & 1980' FEL Sec 8, T23S, R37E
Operator	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.	OXY USA Inc.
Date Drilled	March 4, 1940	August 18, 1957	September 18, 1957	May 9, 1961	October 29, 1956
Well Type	Producer	Injector	Producer	Injector (P&A)	Producer
Casing	15 1/2" @ 118' Cmtd w/ 100 sx	8 5/8" @ 364' Cmtd w/ 250 sx	8 5/8" @ 381' Cmtd w/ 300 sx	8 5/8" @ 360' Cmtd w/ 300 sx	8 5/8" @ 226' Cmtd w/ 150 sx
	7" @ 3454' Cmtd w/ 250 sx	5 1/2" @ 3750' Cmtd w/ 1000 sx	5 1/2" @ 3740' Cmtd w/ 1300 sx	5 1/2" @ 3725' Cmtd w/ 1400 sx	5 1/2" @ 3690' Cmtd w/ 200 sx
	4 1/2# @ 3669' Cmtd w/ 880 sx			3 1/2" @ 3552' Cmtd w/ 200 sx	
Total Depth	3680'	3750'	3740'	3725'	3690'
Completion	Penrose perfs (3544' – 3655')	Penrose perfs (3594' – 3725')	Penrose perfs (3560' – 3684')	Penrose perfs (3596' – 3680')	Penrose perfs (3552' – 3604')

OFFSET WELL DATA

	Skelly Penrose B Unit #50
Location	1650' FNL & 990' FEL Sec 8, T23S, R37E
Operator	OXY USA Inc.
Date Drilled	August 20, 1956
Well Type	Injector (P&A)
Casing	8 5/8" @ 250' Cmtd w/ 125 sx
	5 1/2" @ 3700' Cmtd w/ 300 sx
Total Depth	3700'
Completion	Penrose perfs (3542' – 3648')

PENROSE B UNIT #62
1980' FNL & 1980' FWL SEC 8 T23S R37E
LEA COUNTY, NEW MEXICO

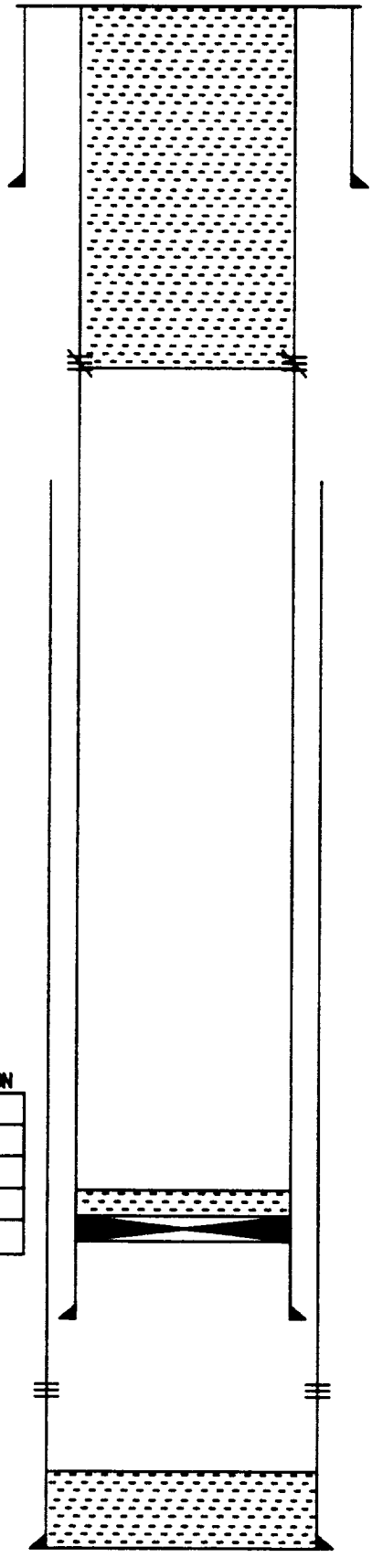
ELEVATION: KB: 3330'
GL: N.A.

WELL COMPLETED : MAY 9, 1961

WELL PLUGGED: MAY 9, 1961

WELL RE-ENTERED: JULY 10, 1967

WELL RE-PLUGGED: APRIL 25, 1975



40 SX CMT PLUG (1100' - 0')

8 5/8" SURFACE CASING @ 360'
CMTD W/ 300 SX CMT CIRC

PERF 3 1/2" CSG @ 1100'
SQUEEZED W/ 225 SX

TOP OF 5 1/2" CSG STUB @ 1526'

10 SX CMT PLUG (3400' - 3500')
CIBP @ 3500'

3 1/2" CSG @ 3552' CMTD W/ 200 SX

PENROSE PERFS (3596' - 3680')

PBTD @ 3618'
5 1/2" CSG @ 3725' CMTD W/ 1400 SX
TD @ 3725'

	SURFACE	PRODUCTION	PRODUCTION
SIZE	8 5/8"	5 1/2"	3 1/2"
WEIGHT	32 #	15.5 #	9.3 #
GRADE	J-55	J-55	J-55
THREAD	ST&C	ST&C	8 RD
DEPTH	360'	3725'	3552'

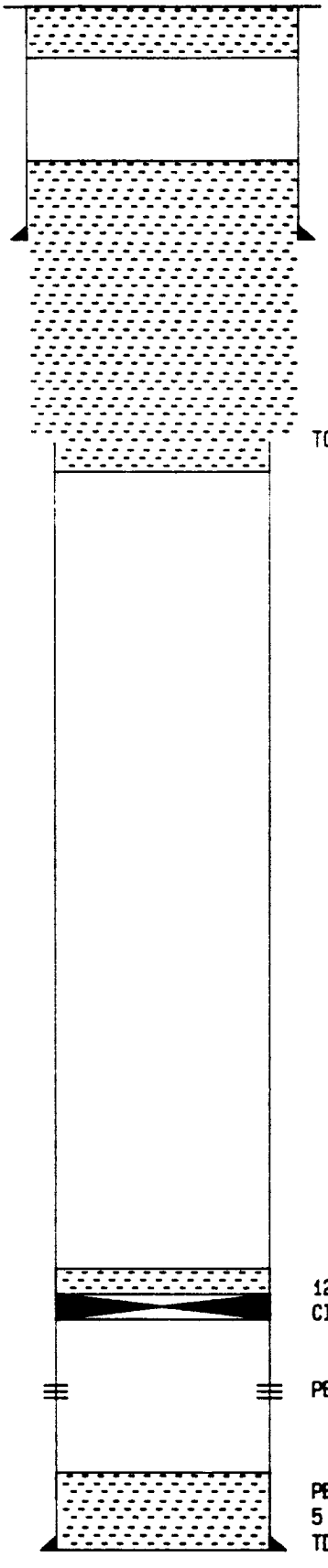
PREPRD BY: SCOTT E. GENGLER
DATE : May 7, 1993

PENROSE B UNIT #50
1650' FNL & 990' FEL SEC 8 T23S R37E
LEA COUNTY, NEW MEXICO

ELEVATION: KB: 3320'
GL: 3310'

WELL COMPLETED : AUGUST 20, 1956

WELL PLUGGED: MAY 4, 1975



2 SX CMT PLUG (60' - 0')

8 5/8" SURFACE CASING @ 250'
CMTD W/ 125 SX CMT CIRC

185 SX CMT PLUG (1480' - 220')

TOP OF 5 1/2" CSG STUB @ 1474'

12 SX CMT PLUG (3358' - 3458')
CIBP @ 3458'

PENROSE PERFS (3542' - 3648')

PBTD @ 3695'
5 1/2" CSG @ 3700' CMTD W/ 300 SX
TD @ 3770'

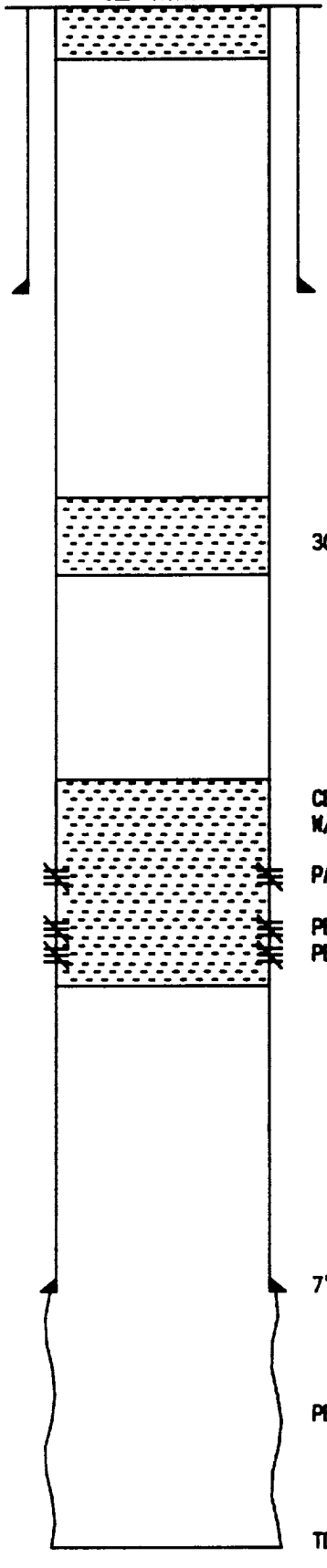
	SURFACE	PRODUCTION
SIZE	8 5/8"	5 1/2"
WEIGHT	32 #	14 #
GRADE	J-55	J-55
THREAD	ST&C	ST&C
DEPTH	250'	3700'

PREPRD BY: SCOTT E. GENGLER
DATE : May 6, 1993

TEXACO - PENROSE A UNIT #19
1980' FNL & 1980' FWL SEC 4 T23S R37E
LEA COUNTY, NEW MEXICO

ELEVATION: KB: N.A.
GL: N.A.

WELL PLUGGED: MAY 24, 1968



10 SX CMT PLUG (50' - 0')

13" SURFACE CASING @ 270'
CMTD W/ 200 SX CMT CIRC

30 SX CMT PLUG (1220' - 1070')

CEMENT INSIDE AND OUTSIDE 7" CSG
W/ 450 SX CMT (2144' - 2513')

PARTED 7" CASING (2280' - 2300')

PERFORATED 7" CSG (2455' - 2465')
PERFORATED 7" CSG (2493' - 2503')

7" CSG @ 3350' CMTD W/ 600 SX

PENROSE OPEN HOLE (3350' - 3683')

TD @ 3683'

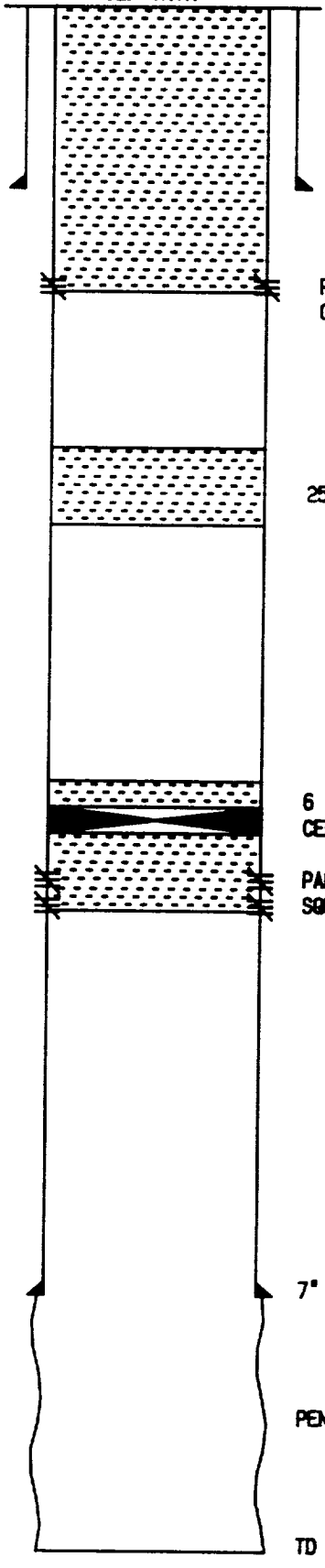
	SURFACE	PRODUCTION
SIZE	13 "	7 "
WEIGHT	45 #	24 #
GRADE	N.A.	N.A.
THREAD	N.A.	N.A.
DEPTH	270'	3350'

PREPAD BY: SCOTT E. GENGLER
DATE : May 7, 1993

TEXACO - PENROSE A UNIT #18
660' FNL & 1980' FWL SEC 4 T23S R37E
LEA COUNTY, NEW MEXICO

ELEVATION: KB: N.A.
GL: N.A.

WELL PLUGGED: OCTOBER 14, 1992



16" SURFACE CASING @ 120'
CMTD W/ 100 SX CMT CIRC

PERFORATE 7" CSG @ 200', TIED ONTO
CSG AND PMPD 150 SX CMT. CIRC CMT.

25 SX CMT PLUG (1300' - 1158')

6 SX CMT PLUG (2390' - 2354')
CEMENT RETAINER @ 2392'

PARTED 7" CASING (2440' - 2557')
SQUEEZED W/ 500 SX

7" CSG @ 3397' CMTD W/ 250 SX

PENROSE OPEN HOLE (3397' - 3706')

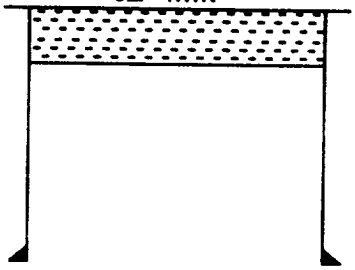
TD @ 3706'

	SURFACE	PRODUCTION
SIZE	16 "	7 "
WEIGHT	70 #	15 #
GRADE	N.A.	N.A.
THREAD	N.A.	N.A.
DEPTH	120'	3397'

PREPRD BY: SCOTT E. GENGLER
DATE : May 7, 1993

GULF - FRED C. KING #1
1980' FNL & 660' FWL SEC 5 T23S R37E
LEA COUNTY, NEW MEXICO

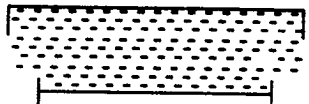
ELEVATION: KB: N.A.
GL: N.A.



35 SX CMT PLUG (15' - 0')

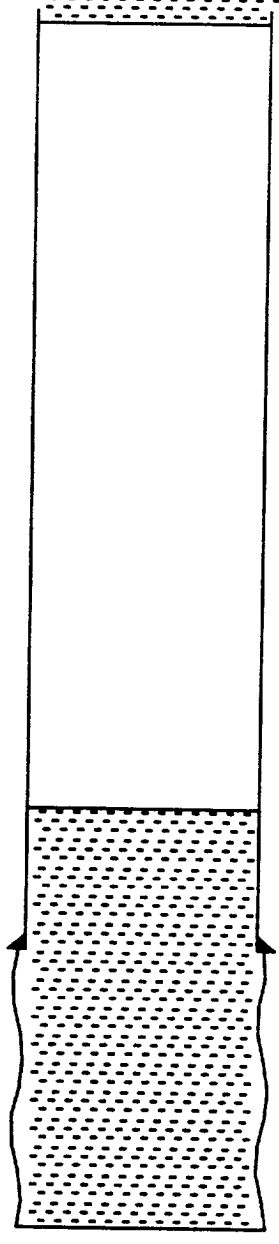
WELL PLUGGED: SEPTEMBER 21, 1936

10 3/4" SURFACE CASING @ 298'
CMTD W/ 250 SX CMT CIRC



CMT PLUG @ 1500' (AMOUNT OF CMT UNKNOWN)

TOP OF 7 5/8" CSG STUB @ 1500'



7 5/8" CSG @ 3639' CMTD W/ 650 SX

160 SX CMT PLUG (4051' - 3560')

TD @ 4051'

	SURFACE	PRODUCTION
SIZE	10 3/4"	7 5/8"
WEIGHT	32 #	26 #
GRADE	N.A.	N.A.
THREAD	N.A.	N.A.
DEPTH	298'	3639'

PREPRD BY: SCOTT E. GENGLER
DATE : May 7, 1993

VII.

1. Average Daily Injection Rate - 300 BWPD per well
   Maximum Daily Injection Rate - 500 BWPD per well

2. The proposed system is a closed system.

3. Average Injection Pressure - 1200 psi
   Maximum Injection Pressure - 1800 psi

4. Sources of water:
   a. Produced water from the Skelly Penrose B Unit.
   b. Produced water from Texaco's King C Lease.
   c. Supply water from Texaco's Jal Water System.

5. Injection is not for disposal purposes.

VIII. Previously Submitted

IX. Each of the proposed injection wells will be acidized with 3000 gals of acid.

X. Previously Submitted

XI. Previously Submitted

XII. Not Applicable

TRETOLITE

PETROLITE

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713 558-5200 • Fax: 713 589-4737

Reply to: P.O. Box 5250
Hobbs, New Mexico 88241
505 392-6711 Phone
505 392-3759 Fax

WATER ANALYSIS REPORT

Company : OXY USA
Address : HOBBS, NEW MEXICO
Lease : PENROSE B
Well :
Sample Pt. : PUMP SUCTION

Date : 3-29-93
Date Sampled : 3-26-93
Analysis No. : 418

	ANALYSIS		mg/L		* meq/L
1.	pH	6.6			
2.	H2S	125 PPM			
3.	Specific Gravity	1.025			
4.	Total Dissolved Solids		42369.2		
5.	Suspended Solids		86 mg/L		
6.	Dissolved Oxygen		0.4 PPM		
7.	Dissolved CO2		100 PPM		
8.	Oil In Water		20 PPM		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	1159.0	HCO3	19.0
12.	Chloride	Cl	22724.3	Cl	641.0
13.	Sulfate	SO4	3250.0	SO4	67.7
14.	Calcium	Ca	1659.3	Ca	82.8
15.	Magnesium	Mg	1414.9	Mg	116.4
16.	Sodium (calculated)	Na	12150.2	Na	528.5
17.	Iron	Fe	2.2		
18.	Barium	Ba	0.1		
19.	Strontium	Sr	9.2		
20.	Total Hardness (CaCO3)		9969.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

83	*Ca <----- *HCO3	19
	/------->	
116	*Mg -----> *SO4	68
	<----------/	
529	*Na -----> *Cl	641

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	19.0	1540
CaSO4	68.1	63.8	4342
CaCl2	55.5		
Mg(HCO3)2	73.2		
MgSO4	60.2	3.9	233
MgCl2	47.6	112.5	5357
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	528.5	30886

REMARKS: WAYNE DICKERSON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

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Hobbs, New Mexico 88241
505 392-6711 Phone
505 392-3759 Fax

WATER ANALYSIS REPORT

Company : OXY USA
Address : HOBBS, NEW MEXICO
Lease : PENROSE B
Well : TEXACO JAL WTR SPPLY
Sample Pt. : INLET LINE

Date : 3-29-93
Date Sampled : 3-26-93
Analysis No. : 422

	ANALYSIS		mg/L		* meq/L
1.	pH	6.8			
2.	H2S	170 PPM			
3.	Specific Gravity	1.010			
4.	Total Dissolved Solids		10846.8		
5.	Suspended Solids		12 mg/L		
6.	Dissolved Oxygen		0.8 PPM		
7.	Dissolved CO2		320 PPM		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	1207.8	HCO3	19.8
12.	Chloride	Cl	5187.6	Cl	146.3
13.	Sulfate	SO4	1200.0	SO4	25.0
14.	Calcium	Ca	1450.9	Ca	72.4
15.	Magnesium	Mg	1059.9	Mg	87.2
16.	Sodium (calculated)	Na	724.7	Na	31.5
17.	Iron	Fe	1.0		
18.	Barium	Ba	0.1		
19.	Strontium	Sr	14.8		
20.	Total Hardness (CaCO3)		7987.2		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

72	*Ca <----- *HCO3	20
	/------->	
87	*Mg -----> *SO4	25
	<----------/	
32	*Na -----> *Cl	146

Compound	Equiv wt	X meq/L	= mg/I
Ca(HCO3)2	81.0	19.8	1605
CaSO4	68.1	25.0	1701
CaCl2	55.5	27.6	1532
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	87.2	4151
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	31.5	1842

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

REMARKS: WAYNE DICKERSON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

TRETOLITE

16010 Barker's Point Lane, Suite 450
Houston, Texas 77079-4021
713 558-5200 • Fax: 713 589-4737

Reply to: P.O. Box 5250
Hobbs, New Mexico 88241
505 392-6711 Phone
505 392-3759 Fax

WATER ANALYSIS REPORT

Company : TEXACO
Address : HOBBS, NEW MEXICO
Lease : TEXACO KING C
Well :
Sample Pt. : WATER TANK

Date : 3-29-93
Date Sampled : 3-26-93
Analysis No. : 421

	ANALYSIS		mg/L		* meq/L
1.	pH	6.9			
2.	H2S	185 PPM			
3.	Specific Gravity	1.035			
4.	Total Dissolved Solids		57683.0		
5.	Suspended Solids		59 mg/L		
6.	Dissolved Oxygen		0.4 PPM		
7.	Dissolved CO2		10 PPM		
8.	Oil In Water		80 PPM		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	2379.0	HCO3	39.0
12.	Chloride	Cl	32915.9	Cl	928.5
13.	Sulfate	SO4	1350.0	SO4	28.1
14.	Calcium	Ca	4497.0	Ca	224.4
15.	Magnesium	Mg	1356.5	Mg	111.6
16.	Sodium (calculated)	Na	15164.7	Na	659.6
17.	Iron	Fe	6.0		
18.	Barium	Ba	0.3		
19.	Strontium	Sr	13.6		
20.	Total Hardness (CaCO3)		16815.1		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

224	*Ca <----- *HCO3	39
112	*Mg -----> *SO4	28
660	*Na -----> *Cl	929

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	39.0	3160
CaSO4	68.1	28.1	1913
CaCl2	55.5	157.3	8728
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	111.6	5313
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	659.6	38548

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

REMARKS: WAYNE DICKERSON / FILE

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Respectfully submitted,
ROZANNE JOHNSON

Legal Notice

OXY USA Inc., P.O. Box 50250, Midland TX, 79710, (915) 685-5825, Scott Gengler - Engineer, proposes to inject water for secondary recovery purposes into the Skelly Penrose B Unit Well Nos: 18,26, 28,30,31,33,37,39,44 located in sections 4,5, and 8, T-23-S, R-37-E, Lea County, New Mexico. Water will be injected into the Queen formation at an average depth of 3650' at a rate of 300 BWPD per well and a maximum pressure of 1800#. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM, 87501 within 15 days.