OFFICE TELEPHONE
915/683-6226

OFFICE ADDRESS
800 N. MARIENFELD
SUITE 200

BEACH EXPLORATION, INC.
OIL AND GAS OPERATORS
P. O. BOX 3669
MIDLAND, TEXAS 79702

December 12, 1990

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

RE: Application for Authority
to Inject, Red Lake Unit
Eddy County, New Mexico

Dear Sir:

Attached for your consideration is Form C-108, "Application for Authorization to Inject," along with the required attachments, relating to the proposed waterflood to be initiated in the Red Lake Unit. Our application and proof of notice have previously been submitted to you on December 5 by Conrad Coffield, the lawyer representing us in this matter.

Should any further information be required, please advise.

Very truly yours,

BEACH EXPLORATION, INC.

Hal Gill
Petroleum Engineer

HG/bw

cc: OCD, District 2, Artesia, New Mexico

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? [ ] yes [ ] no

II. Operator: Beach Exploration, Inc.

Address: 800 N. Marienfeld Ste. 200 Midland, Texas 79701

Contact party: Hal Gill Phone: 915/683-6226

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 [x] 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.

* 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: Hal Gill Title Petroleum Engineer

Signature: Hal Gill Date: 12-13-90

* 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. Test data and copies of logs for the proposed injection wells have been previously submitted upon initial completion of same.

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

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.

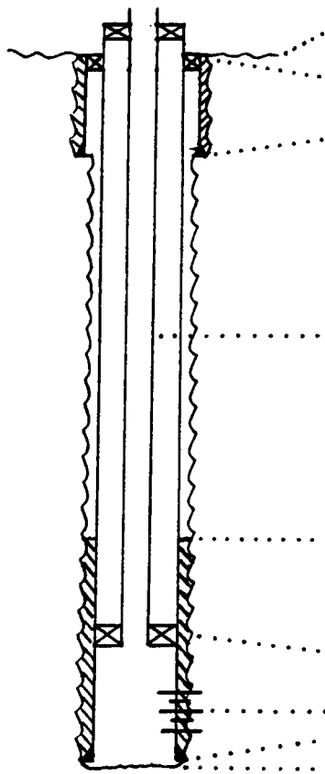
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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.

INJECTION WELL DATA SHEET

Operator	Beach Expl	Beach Expl	Beach Expl	Beach Expl	Beach Expl	Beach Expl
Lease & Well #	Amoco St. # 1	Bogle Farms # 1	Hinkle St. "A" # 1	N. M. State "35" # 1	N. M. State "36" # 3	N. M. State "36" # 4
Location	2310' fsl & 2287' fwl	660' fsl & 990' fwl	2310' fsl & 2310' fel	660' fnl & 660' fel	1980' fnl & 990' fwl	660' fnl & 1980' fwl
Sec., Twn., Rge	25, 16S, 28E	25, 16S, 28E	36, 16S, 28E	35, 16S, 28E	36, 16S, 28E	36, 16S, 28E

TYPICAL SCHEMATIC



GL Elevation	3580'	3576'	3682'	3588'	3580'	3610'
Surface Casing						
Top of cement	Surface	Surface (did not circ.)	30'	Surface	Surface(did not circ.)	Surface
TOC determined by	Circulated	Calculated	Tagged	Circulated	Calculated	Circulated
8 5/8" csg. @	301'	340'	360	244'	356'	325'
Sacks of cement	250	200	185	150	150 (3 yds. ready-mix in top)	170
Hole size	11"	11"	11"	11"	11"	11"
2 3/8" Tubing						
Long String						
Sacks of cement	150	270	150	300	175	175
Top of cement	1200'	748'	1379'	1325'	1154'	1181'
TOC determined by	Calculated	Calculated	Calculated	Cmt. bond log	Calculated	Calculated
Hole size	8"	8"	8" to 1565',6 1/2" to 1869'	8"	7"	8"
Approx. Packer depth	1559'	1525'	1712'	1510'	1568'	1606'
Perforations	1609'- 34'	1575'- 99'	1762'- 1809'	1560'- 85'	1618'- 72'	1656'- 75'
4 1/2" csg. @	1688'	1629'	1867'	1650'	1718'	1751'
Total depth	1690'	1629'	1869'	1650'	1725'	1752'

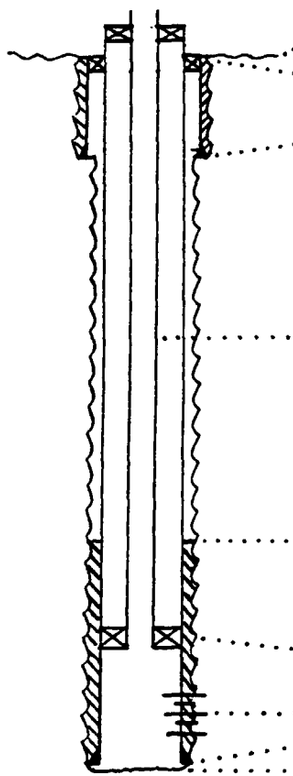
All Wells:

2 3/8" tubing lined with "Freecom" coating (Teflon material).
Baker Model "D" packer set approximately 50' above perfs.
Injection Formation: Penrose Sand member of Queen Formation
Field: Red Lake Queen Grayburg, East
All Wells are existing producers which will be converted to injection.
No other zones have been perforated.
There are no known overlying and/or underlying oil or gas zones.

INJECTION WELL DATA SHEET

Operator	Beach Expl	Beach Expl	Beach Expl	Beach Expl	Beach Expl
Lease & Well #	N. M. State "36" # 5	N. M. State "36" # 6	Government # 1	Government # 4	Government # 5
Location	1986' fnl & 1983' fel	330' fnl & 981' fel	660' fsl & 1980' fel	2310' fnl & 1980' fel	1650' fsl & 990' fel
Sec., Twn., Rge	36, 16S, 28E	36, 16S, 28E	25, 16S, 28E	25, 16S, 28E	25, 16S, 28E

TYPICAL SCHEMATIC



GL Elevation	3697'	3716'	3706'	3596'	3712'
Surface Casing					
Top of cement	100'	Surface	Surface	Surface	Surface
TOC determined by	Tagged	Circulated	Circulated	Circulated	Circulated
8 5/8" csg. @	318'	325'	313'	324'	324'
Sacks of cement	300	150	150	100	100
Hole size	11"	11"	12 1/4"	10"	10"
2 3/8" Tubing					
Long String					
Sacks of cement	175	175	200	100	100
Top of cement	1311'	1329'	1185'	1336'	1564'
TOC determined by	Calculated	Calculated	Calculated	Calculated	Calculated
Hole size	8" to 1592', 6" to 1882'	8" to 1625', 6 1/4" to 1900'	8" to 1604',6 3/4" to 1838'	6 3/4"	8" to 1625',6" to 1890'
Approx. Packer depth	1728'	1764'	1729'	1592'	1766'
Perforations	1778'- 1824'	1814'- 25'	1779'- 1804'	1642'- 60'	1816'- 38'
4 1/2" csg. @	1882'	1898'	1837'	1750'	1890'
Total depth	1882'	1900'	1838'	1750'	1890'

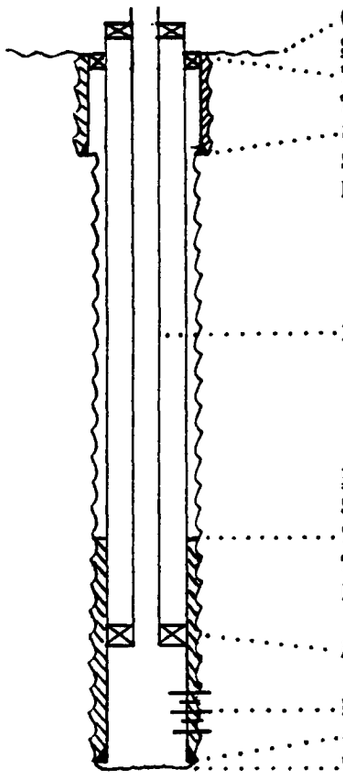
All Wells:

2 3/8" tubing lined with "Freecom" coating (Teflon material).
Baker Model "D" packer set approximately 50' above perfs.
Injection Formation: Penrose Sand member of Queen Formation
Field: Red Lake Queen Grayburg, East
All Wells are existing producers which will be converted to injection.
No other zones have been perforated.
There are no known overlying and/or underlying oil or gas zones.

INJECTION WELL DATA SHEET

Operator	Beach Expl	Eastland Oil	Harken O & G
Lease & Well #	Allen Federal # 1	Max Federal # 3	State "24" # 1
Location	860' fnl & 660' fel	2310' fnl & 330' fwl	660' fsl & 1980' fel
Sec., Twn., Rge	25, 16S, 28E	30, 16S, 29E	24, 16S, 28E

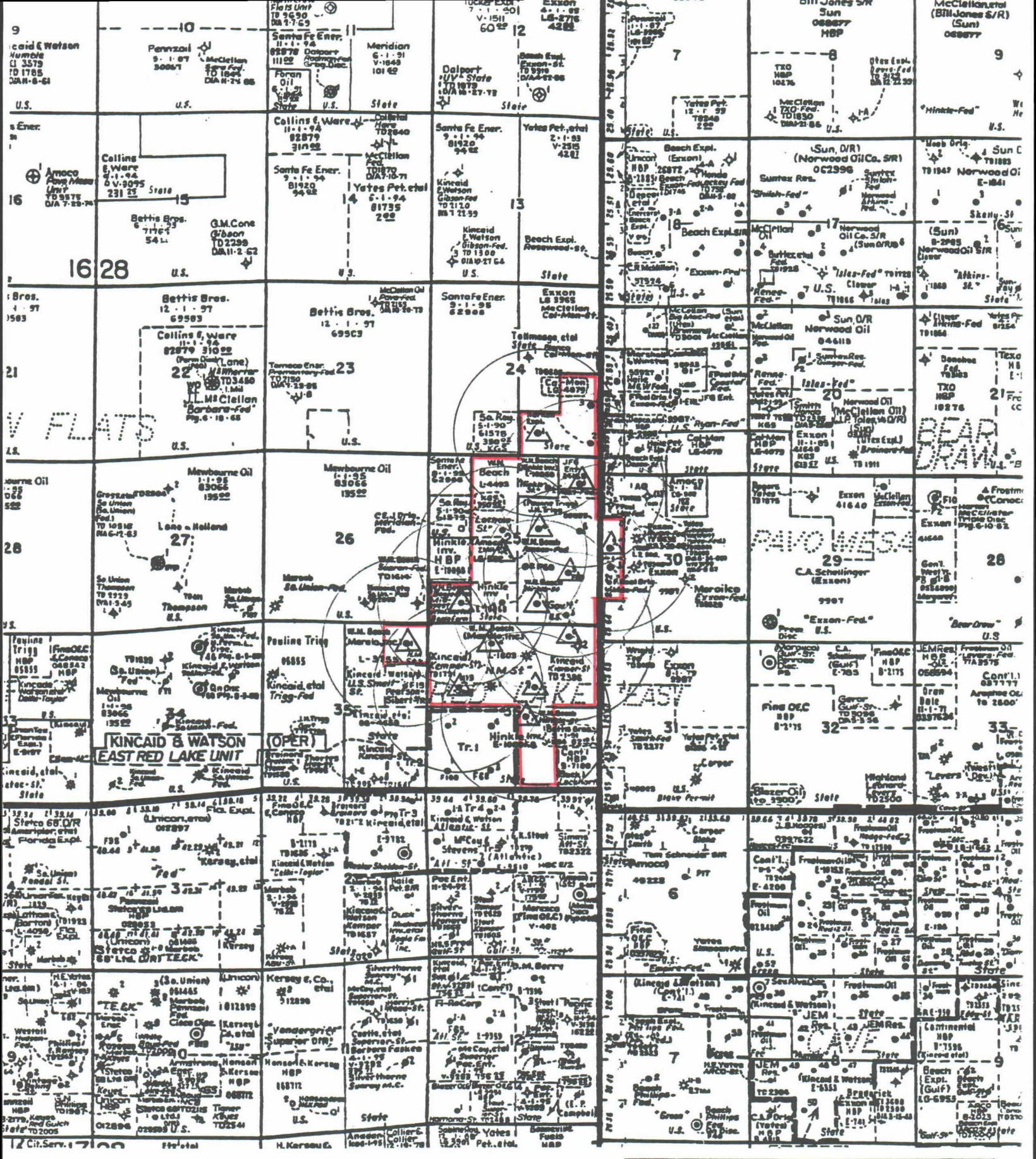
TYPICAL SCHEMATIC



GL Elevation	3663'	3692'	3571'
Surface Casing			
Top of cement	Surface	Surface	Surface
TOC determined by	Circulated	Circulated	Circulated
8 5/8" csg. @	348'	305'	327'
Sacks of cement	225	200	250
Hole size	12 1/4"	11"	12 1/4"
2 3/8" Tubing			
Long String			
Sacks of cement	850	425	190
Top of cement	Surface	513'	1120'
TOC determined by	Circulated	Calculated	Calculated
Hole size	7 7/8"	8"	7 7/8"
Approx. Packer depth	1637'	1850'	1487'
Perforations	1687'- 1807'	1828'- 38'	1537'- 99'
4 1/2" csg. @	5 1/2" @ 2293'	1900'	5 1/2" @ 1740'
Total depth	2300'	1900'	2250'

All Wells:

2 3/8" tubing lined with "Freecom" coating (Teflon material).
Baker Model "D" packer set approximately 50' above perfs.
Injection Formation: Penrose Sand member of Queen Formation
Field: Red Lake Queen Grayburg, East
All Wells are existing producers which will be converted to injection.
No other zones have been perforated.
There are no known overlying and/or underlying oil or gas zones.



LEGEND

PROPOSED RED LAKE UNIT OUTLINE

PROPOSED INJECTION WELL

BEACH EXPLORATION, INC.
PROPOSED RED LAKE UNIT
RED LAKE QUEEN-GRAYBURG, EAST
EDDY COUNTY, NEW MEXICO

AREA OF REVIEW

Scale: 1"= 4000'

FORM C-108, SECTION VI

RED LAKE UNIT
EDDY COUNTY, NEW MEXICO
WELLS WITHIN "AREA OF REVIEW"

OPERATOR	LEASE & WELL NUMBER	TYPE	DATE DRILLED	LOCATION	SEC.	TWN.	RGE.	CASING RECORDS	PERFS	TD	INITIAL TREATMENT	INITIAL POTENTIAL OIL Bbl./day	WATER Bbl./day	GOR SCF/Bbl.
BEACH EXPLORATION	AMOCO STATE #1	GAS	7/80	2310'FSL & 2287'FWL	25	16S	28E	8 5/8"@301' w/250 SXS. 4 1/2"@1688' w/150 SXS.	1609'-34'	1690'	A/500 F/20,000 GALS+19,150#		CAOF 2009 MCFPD	
BEACH EXPLORATION	BOGLE FARMS #1	OIL	4/80	660'FSL & 990' FWL	25	16S	28E	8 5/8"@340' w/200 SXS. 4 1/2"@1629' w/270 SXS.	1575'-99'	1629'	A/500 F/18,280 GALS+30,500#	2	0	555
BEACH EXPLORATION	HINKLE STATE #1	OIL	6/80	660'FSL & 2287'FWL	25	16S	28E	8 5/8"@325' w/150 SXS 4 1/2"@1731' w/125 SXS.	1651'-96'	1735'	A/500 F/20,000 GALS+20,000#	9	1	98,000
BEACH EXPLORATION	HINKLE STATE #2	OIL	11/80	990'FNL & 1650'FEL	25	16S	28E	8 5/8"@297' w/200 SXS 4 1/2"@1694' w/250 SXS	1642'-54'	1700'	A/500 F/20,000 GALS+24,500#	14	0	402
BEACH EXPLORATION	HINKLE STATE "A" #1	OIL	9/81	2310'FSL & 2310'FEL	36	16S	28E	8 5/8"@360' w/185 SXS. 4 1/2"@1867' w/150 SXS.	1762-1809'	1869'	A/500 F/20,000 GALS+8,800#	42	1	833
BEACH EXPLORATION	LATHAM STATE #1	OIL	5/80	2310'FNL & 2287'FWL	25	16S	28E	8 5/8"@325' w/200 SXS. 4 1/2"@1867' w/150 SXS.	1578'-95'	1660'	A/500 F/20,000 GALS+20,000#	35	6	413
BEACH EXPLORATION	N.M. STATE "35" #1	OIL	9/79	660'FNL & 660'FEL	35	16S	28E	8 5/8"@244' w/150 SXS. 4 1/2"@1650' w/300 SXS.	1560'-85'	1650'	A/300 F/20,000 GALS+20,000#	31	16	313
BEACH EXPLORATION	N.M. STATE "36" #1	GAS	11/78	1980'FNL & 1980'FWL	36	16S	28E	8 5/8"@346' w/125 SXS. 4 1/2"@2322' w/264 SXS.	1664'-74'	2322'	A/500 F/15,000 GALS+16,500#		CAOF 700 MCFPD	
BEACH EXPLORATION	N.M. STATE "36" #2	OIL	5/79	990'FNL & 2292'FEL	36	16S	28E	8 5/8"@328' w/100 SXS. 4 1/2"@1885' w/150 SXS.	1802'-56'	1885'	A/500 F/15,000 GALS+15,000#		CAOF 734 MCFPD	
BEACH EXPLORATION	N.M. STATE "36" #3	OIL	1/80	1980'FNL & 990'FWL	36	16S	28E	8 5/8"@356' w/150 SXS. 4 1/2"@1718' w/175 SXS.	1618'-72'	1725'	A/500 F/20,000 GALS+16,500#	2	3	0
BEACH EXPLORATION	N.M. STATE "36" #4	OIL	2/80	660'FNL & 1980'FWL	36	16S	28E	8 5/8"@325' w/170 SXS. 4 1/2"@1751' w/175 SXS.	1656'-75'	1752'	A/300 F/15,000 GALS+15,000#	12	1	1760
BEACH EXPLORATION	N.M. STATE "36" #5	OIL	3/82	1986'FNL & 1983'FEL	36	16S	28E	8 5/8"@318' w/300 SXS. 4 1/2"@1882' w/175 SXS.	1778-1824'	1882'	A/1,000 F/17,000 GALS+20,500#	6	1	1110
BEACH EXPLORATION	N.M. STATE "36" #6	OIL	2/81	330'FNL & 981'FEL	36	16S	28E	8 5/8"@325' w/150 SXS. 4 1/2"@1898' w/175 SXS.	1814'-25'	1900'	A/500 F/20,000 GALS+20,000#	8	1	1482
BLANCO ENGINEERING	CAL-MON STATE #1	OIL	10/87	2310'FNL & 512'FWL	19	16S	29E	10 3/4"@200' w/100 SXS. 4 1/2"@1658' w/100 SXS.	1658'-78' OPEN HOLE	1678'	NR	7	0	TSTM
BLANCO ENGINEERING	CAL-MON STATE #2	OIL	4/88	2260'FSL & 512'FWL	19	16S	29E	10 3/4"@171' w/60 SXS. 7 1/2"@1803' w/200 SXS.	1719'-33'	1804'	NR	40	0	TSTM
JFG ENTERPRISES	ALLEN FEDERAL #1	OIL	6/82	860'FNL & 660'FEL	25	16S	28E	8 5/8"@348' w/225 SXS. 5 1/2"@2293' w/850 SXS.	1687-1707'	2293'	A/5,000 F/7,900 GALS+77,000#	17	29	3372
EASTLAND OIL	MAX-FEDERAL #1	OIL	9/85	2310'FSL & 330'FWL	30	16S	29E	8 5/8"@379' w/300 SXS. 4 1/2"@2494' w/350 SXS.	1842'-85'	2600'	A/1,000	51	0	824
EASTLAND OIL	MAX-FEDERAL #3	OIL	6/86	2310'FNL & 330'FWL	30	16S	29E	8 5/8"@305' w/200 SXS. 4 1/2"@1900' w/425 SXS.	1828'-38'	1900'	A/250 F/30,000 GALS+45,000#	12	0	822
SPECTRUM 7	STATE "24" #1	OIL	12/86	660'FSL & 1980'FEL	24	16S	28E	8 5/8"@327' w/250 SXS. 5 1/2"@1740' w/190 SXS.	1537'-99'	2250'	A/1,000 F/25,000 GALS+38,000#	10	2	6500
SPECTRUM 7	STATE "24" #2	OIL	4/87	430'FSL & 330'FEL	24	16S	28E	8 5/8"@333' w/220 SXS. 4 1/2"@1780' w/490 SXS.	1673'-89'	1780'	A/750 F/30,000 GALS+51,000#	38	5	1368
SPECTRUM 7	STATE "24" #3	OIL	7/87	1653'FSL & 330'FEL	24	16S	28E	8 5/8"@310' w/220 SXS. 4 1/2"@1768' w/490 SXS.	1636'-46'	1770'	A/750 F/30,000 GALS+51,000#	63	8	857
TRIGG, JOHN H.	GOVERNMENT #1	OIL	3/80	660'FSL & 1980'FEL	25	16S	28E	8 5/8"@313' w/150 SXS. 4 1/2"@1837' w/200 SXS.	1779-1804'	1838'	NR	57	NR	NR
TRIGG, JOHN H.	GOVERNMENT #2	OIL	3/81	1740'FSL & 2310'FEL	25	16S	28E	8 5/8"@330' w/100 SXS. 4 1/2"@1721' w/200 SXS.	1672'-84'	1723'	A/750 F/20,000 GALS+22,500#	60	NR	NR

FORM C-108, SECTION VI

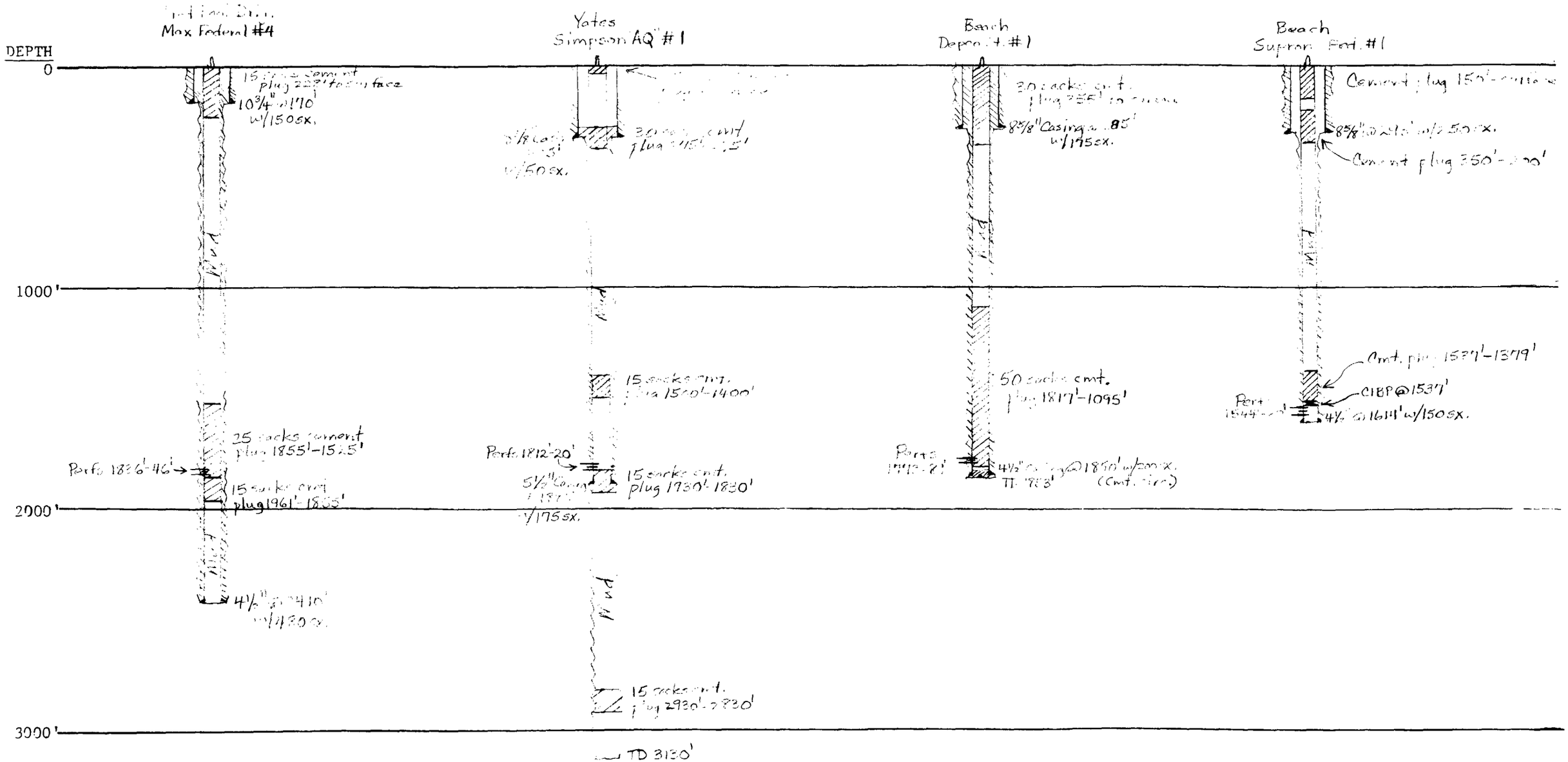
TRIGG, JOHN H.	GOVERNMENT #3	OIL	7/81	330'FSL & 990'FEL	25	16S	28E	8 5/8"@332' w/1000 SXS. 4 1/2"@1920' w/100 SXS.	1814'-30'	1923'	A/1,000 F/20,000 GALS+18,000#	51	2	NR
TRIGG, JOHN H.	GOVERNMENT #4	OIL	9/81	2310'FNL & 1980'FEL	25	16S	28E	8 5/8"@324' w/100 SXS. 4 1/2"@1750' w/100 SXS.	1642'-60'	1750'	A/1,000 F/20,000 GALS+18,000#	53	NR	NR
TRIGG, JOHN H.	GOVERNMENT #5	OIL	12/81	1650'FSL & 990'FEL	25	16S	28E	8 5/8"@324' w/100 SXS. 4 1/2"@1890' w/100 SXS.	1816'-38'	1890'	NR	80	NR	NR
TRIGG, JOHN H.	GOVERNMENT #6	OIL	1/82	2310'FNL & 660'FEL	25	16S	28E	8 5/8"@328' w/100 SXS. 4 1/2"@1898' w/1,000SXS.	1800'-40'	1898'	A/1,200 F/20,000 GALS+18,000#	42	0	NR
McCLELLAN OIL	BIG-MAC FEDERAL #1	OIL	8/85	660'FNL & 3300'FEL	19	16S	29E	8 5/8"@202' w/100 SXS. 4 1/2"@1871' w/190 SXS.	1683'-99'	2100'	A/500 F/20,000 GALS+31,500#	14	0	NR
McCLELLAN OIL	CAL-MON STATE #1	OIL*	12/85	990'FNL & 421'FWL	19	16S	29E	8 5/8"@245' w/250 SXS. 5 1/2'@1775' w/350 SXS.	1629'-43'	1775'	A/1,000 F/22,000 GALS+32,000#	7	1	400
HAILE PETROLEUM	M & W FEDERAL #1	OIL	11/85	2210'FNL & 1833'FWL	19	16S	29E	8 5/8"@290' w/175 SXS. 5 1/2"@1972' w/1,000SXS.	1734'-46'	1974'	A/1,000 F/17,000 GALS+38,500#	80	NR	NR
HAILE PETROLEUM	7-UP FEDERAL #1	OIL	10/85	790'FSL & 1174'FWL	19	16S	29E	8 5/8"@288' w/175 SXS. 5 1/2"@1900' w/425 SXS.	1785'-95'	1900'	A/500 F/11,000 GALS+16,000#	40	10	NR
POOL, FRED DRLG	EXXON-FEDERAL #1-ERL	OIL*	7/85	2310'FSL & 2310'FEL	19	16S	29E	8 5/8"@302' w/200 SXS. 5 1/2"@1916' w/270 SXS.	1704-1814'	1916'	A/1,500 F/28,000 GALS+59,640#	6	0	2100
BEACH EXPLORATION	DEPCO STATE #1	OIL	12/85	230'FSL & 330'FWL	19	16S	29E	8 5/8"@285' w/175 SXS. 4 1/2"@850' w/250 SXS.	1773'-89'	1853'	A/1500 F/34,000 GALS+47,500#	3	5	3333
POOL,FRED DRLG.	MAX-FEDERAL #2	DRY*	11/86	990'FNL & 330'FWL	30	16S	29E	8 5/8"@304' w/200 SXS. 4 1/2"@1928' w/425 SXS.	1808'-14'	1928'	A/1,250 F/40,000 GALS+70,000#	D & A		
YATES PETROLEUM	SIMPSON "AQ" #1	DRY*	5/63	660'FNL & 1505'FWL	30	16S	29E	8 5/8"@325' w/50 SXS. 5 1/2"@1880' w/175 SXS.	1812'-20'	3130'	A/500 F/30,000 GALS+30,000#	D & A		
EXXON	RYAN FEDERAL #1	GAS	2/81	1980'FNL & 1175'FWL	30	16S	29E	13 3/8"@329' w/800 SXS. 8 5/8"@2510' w/1650 SXS.	1828'-44'	10,538'	A/1,500 F/20,000 GALS+42,000#	CAOF 1,211 MFCPD		
POOL, FRED DRLG.	MAX-FEDERAL #4	DRY*	8/87	2310'FSL & 1176'FWL	30	16S	29E	10 3/4"@170' w/150 SXS. 4 1/2"@2410' w/480 SXS.	1835'-46'	2410'	A/1,000 F/20,000 GALS+48,000#	D & A		
KINCAID & WATSON	EAST RED LAKE UNIT-TR.#1	OIL	9/59	660'FSL & 660'FWL	36	16S	28E	7"@1427' 5 1/2"@1668' w/100 SXS.	1625'-36'	1670'	F/43,700 GALS+135,000#	100	NR	NR
KINCAID & WATSON	EAST RED LAKE UNIT-TR.#2	OIL	11/59	1980'FSL & 660'FWL	36	16S	28E	4 1/2"@1679' w/150 SXS.	1631'-43'	1680'	F/35,700 GALS+150,000#	110	NR	NR
KINCAID & WATSON	EAST RED LAKE UNIT-TR.#3	OIL	12/59	660'FSL & 1980'FWL	36	16S	28E	8 5/8"@349' w/100 SXS. 4 1/2"@1700' w/100 SXS.	1650'-58'	1700'	F/25,500 GALS.	60	NR	NR
KINCAID & WATSON	EAST RED LAKE UNIT-TR.#4	OIL	1/60	1980'FSL & 1980'FWL	36	16S	28E	8 5/8"@348' w/100 SXS. 5 1/2"@1700 w/100 SXS.	1653'-66'	1701'	F/30,000 GALS+140,000#	70	NR	NR
KINCAID & WATSON	LOWE STATE #1	OIL	8/59	1980'FNL & 660'FEL	35	16S	28E	5 1/2"@1663' w/100 SXS.	1631'-37'	1674'	F/36,000 GALS+81,000#	15	NR	NR
KINCAID et al	SO. UNION FEDERAL #1	OIL	1/57	660'FSL & 1980'FEL	26	16S	28E	8 5/8"@422'	NR	2659'	NR			
BEACH, W.N.	SUPRON FEDERAL #1	DRY*	5/82	660'FSL & 330'FEL	26	16S	28E	8 5/8"@293' w/250 SXS. 4 1/2" @1614' w/150 SXS.	1544'-80'	1614'	A/1,000 F/42,500#	5	10	0
C & J DRLG.	MERIDIAN FEDERAL #1	T/A	12/88	2310'FNL & 990'FWL	25	16S	28E	8 5/8"@326' w/145 SXS. 7"@1452' w/18 SXS.	NR	2780'	NONE	NR		
TALLMADGE	STATE 24 #1	DRY*	11/40	2310'FNL & FEL	24	16S	28E	10 3/4" @358' w/25 SXS.	NR	2605'	NR	0	3	0
KINCAID & WATSON	KEMPER-STATE #2	DRY*	3/61	660'FNL & 660'FEL	36	16S	28E	NR	NONE	2386'	NONE	D & A		
MORDILCO	EXXON FEDERAL #2	DRY*	5/80	1980'FSL & 1980'FEL	30	16S	29E	8 5/8"@291' @/200 SXS.	1876'-82'	3520'	A/1,000	D & A		

* PLUGGED AND ABANDONED

NR - NONE REPORTED

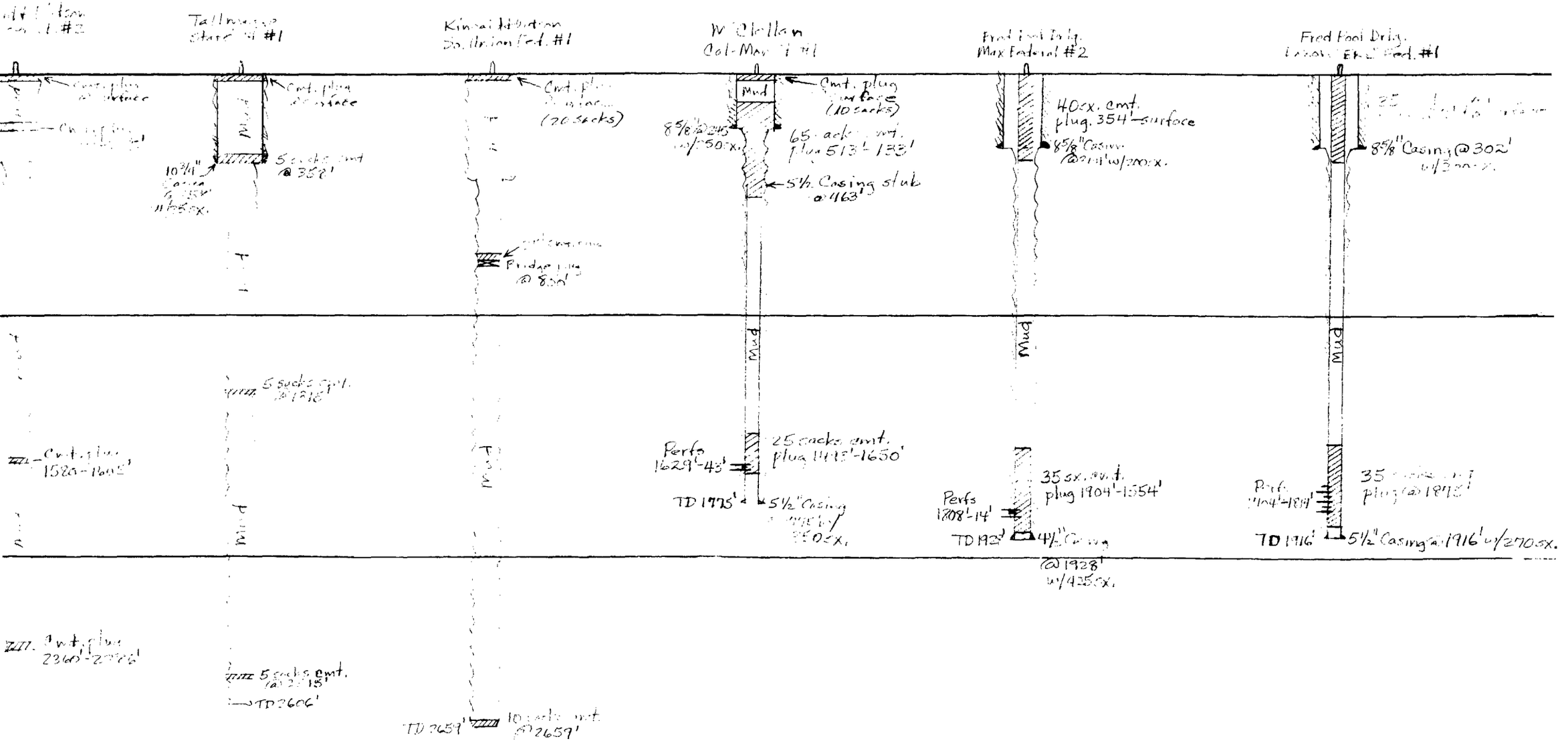
FORM C-108, ITEM VI.
AREA OF REVIEW
PLUGGED WELL SCHEMATICS

RED LAKE UNIT



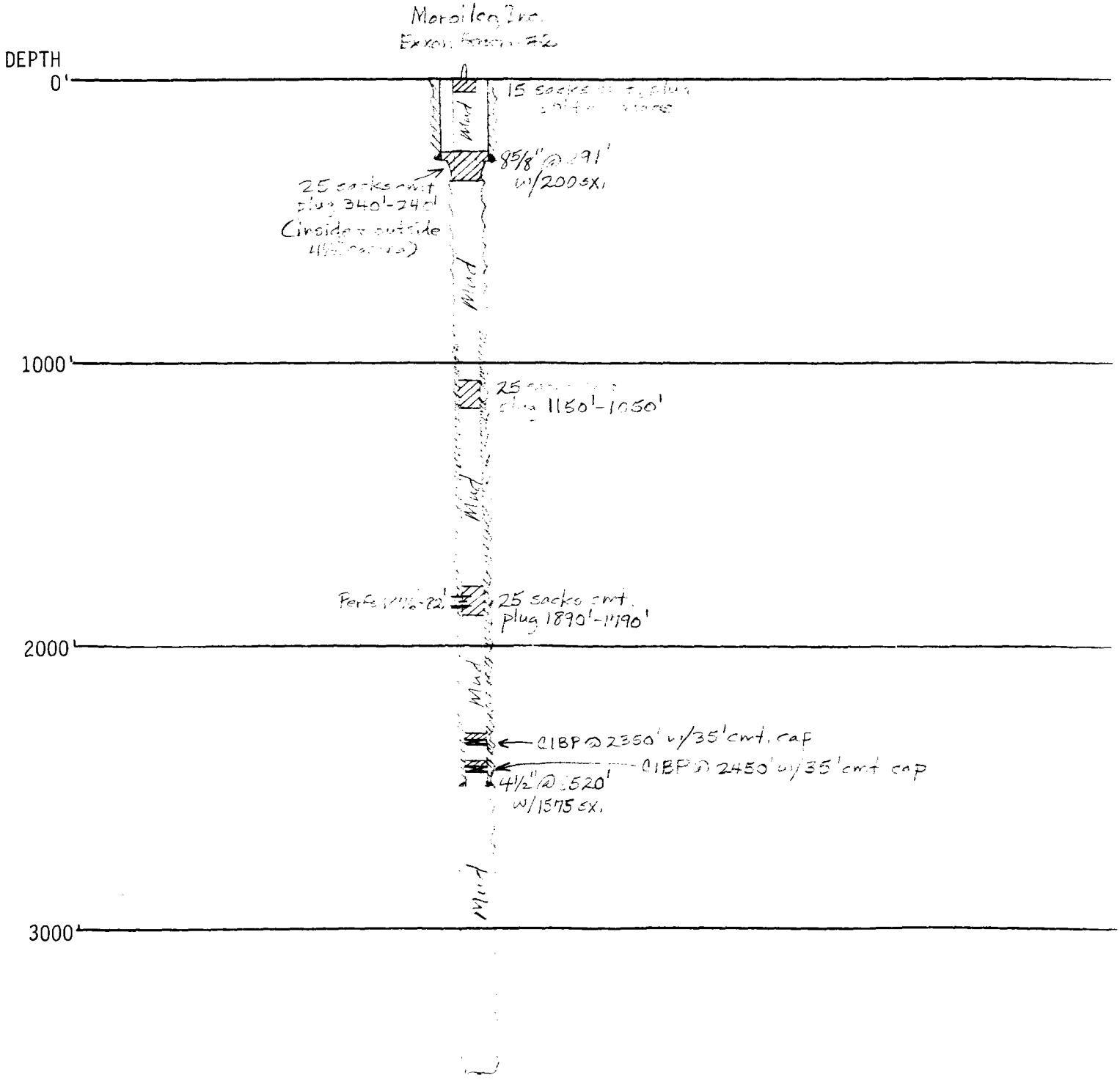
FORM C-108, ITEM VI.
AREA OF REVIEW
PLUGGED WELL SCHEMATICS

RED LAKE UNIT



FORM C-108, ITEM VI.
AREA OF REVIEW
PLUGGED WELL SCHEMATICS

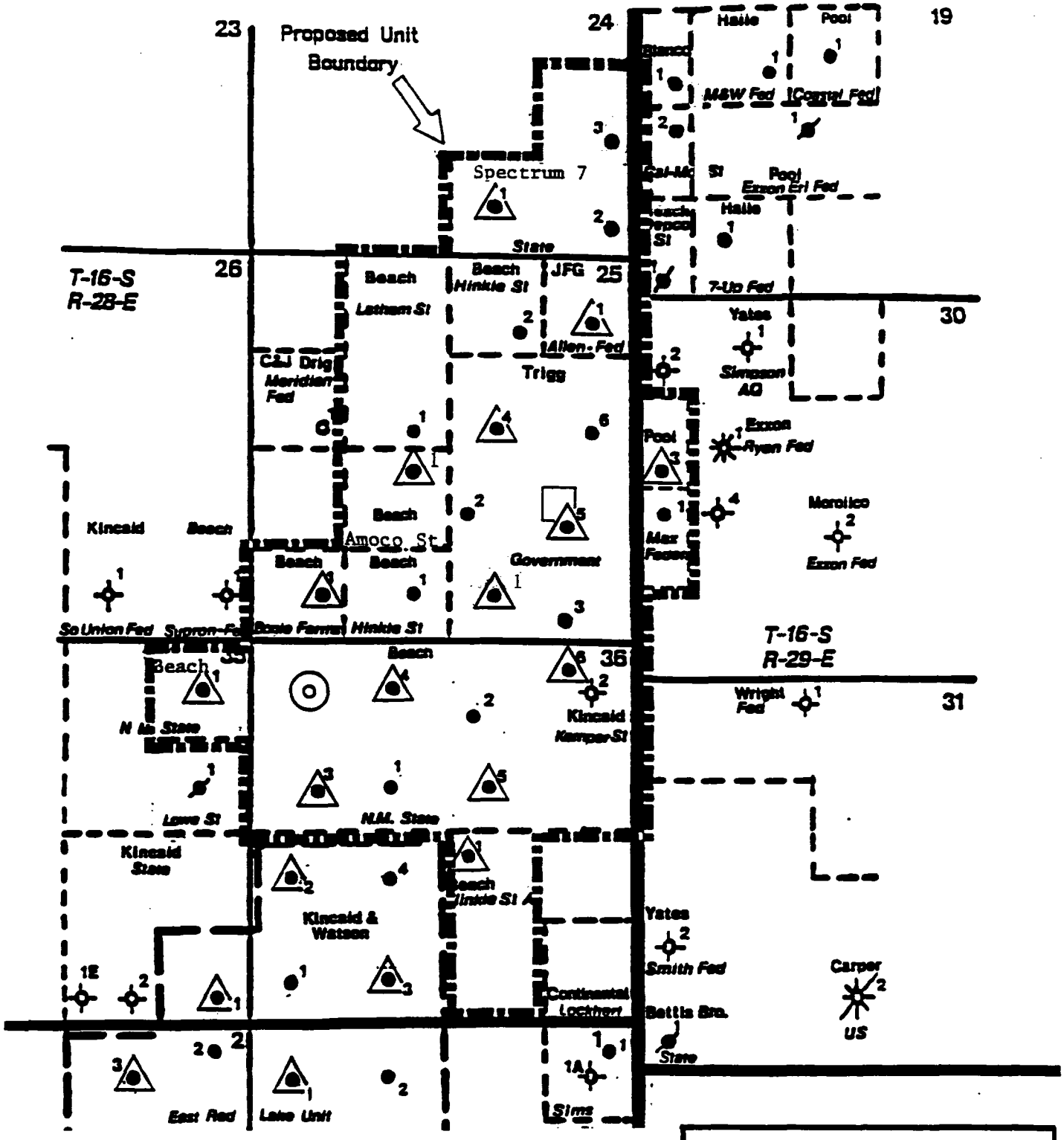
RED LAKE UNIT



RED LAKE UNIT

PLAN OF DEVELOPMENT

Project	Estimated Completion Date
Application for Waterflood Injection	12/13/90
Hearing for Unitization - Oil Conservation Division	1/10/91
Approval of Unit and Waterflood by O.C.D.	2/1/90
Begin Installation of Waterflood	3/1/90
Convert 15 Wells to injection	4/1/90
Consolidate to a central battery	5/1/90
Install Injection Plant and Flowlines	5/15/90
Drill and complete Producer	6/1/90
Begin Injection	6/1/90



LEGEND

- PRODUCER
- PROPOSED INJECTION WELL (CONVERSION)
- PROPOSED LOCATION (PRODUCER)
- PROPOSED CENTRAL BATTERY AND WATERFLOOD STATION

BEACH EXPLORATION, INC.

RED LAKE UNIT
EDDY COUNTY, NEW MEXICO

PROPOSED WATERFLOOD DEVELOPMENT

SCALE
0 2000 4000

Form C-108, Section VII
Data on Proposed Operation
Red Lake Unit
Eddy County, New Mexico

Type of operation:

The project will be a waterflood operation with 14 injection wells and 12 production wells as shown on the attached plat "Proposed Waterflood Development".

Proposed Rates of Injection

Average daily rate expected - 150 BW per well X 14 Wells=2100 BWPD
Maximum daily rate in any well - 250 BWPD

System - Open or Closed

The injection system will be closed.

Proposed Injection Pressure

Expected average injection pressure - 1,000 psig
Proposed maximum injection pressure - 1,500 psig*

*Other Penrose Sand waterfloods near the proposed unit, including the Kincaid & Watson - E. Red Lake Unit, the Armstrong Energy - High Lonesome Penrose Unit, and the Armstrong Energy - E. High Lonesome Penrose Sand Unit, have operated at pressures up to 1,225 psig and have been successful projects.

Many other Penrose Sand waterflood projects are in operation in this district, and all are injecting at maximum pressures of 1400 psi to 1850 psi. Examples of this are the Anadarko-Langlie Mattix Penrose Sand Unit (Pressures to 1850 psi), the Skelly - Penrose "A" Unit (Pressures to 1650 psi), and the Skelly - Penrose "B" Unit (Pressures to 1700 psi). The Penrose sand in the proposed Red Lake Unit is in some cases a fairly tight sand and may require this magnitude of pressure to inject adequate quantities of water to be a viable project. Although it is advisable to limit injection pressures to reasonable ranges, a gradient of 0.2 psi per foot of depth is in no way a reasonable pressure limit for this formation and could threaten its success. In some cases, in tight wells (edge wells or wells with poor pay development), pressures in excess of the fracture gradient are required to inject adequate volumes of water to effectively flood the nearby pay. This results in conservation by increased recovery (not waste).

An injection pressure limit of 1500 psi should allow enough latitude for an effective flood in this unit, and Beach Exploration hereby requests same. Effective flooding will recover the maximum amount of reserves and prevent waste, and this is in our best interest as well as the interests of the other owners and the State of New Mexico.

Sources of Injection Fluid

All produced water will re re-injected, and the necessary make-up water will be purchased from the City of Carlsbad Double Eagle system. No other known sources are available for make-up water in this area. Attached is a copy of the water analysis of the Double Eagle system water. This source has been proven to be compatible with the Penrose formation by its successful use in many projects in this area, including the Kincaid & Watson - East Red Lake Unit, which offsets the propsed Red Lake Unit to the South and shares the same Penrose reservoir.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT **No.** W685, W686, & W687-9(

TO Beach Exploration **Date** December 4, 1990

P. O. Box 3669

Midland, TX 79701

Submitted by **Date Rec.** December 4, 1990

Well No. **Depth** **Formation**

Field **County** **Source**

	(CITY OF CARLSBAD) DOUBLE EAGLE WATER	(WATER WELL # 1) BOGLE MILL #1	(WATER WELL # 2) MILL #2
Resistivity	12.55 @ 70°	3.41 @ 70°	12.55 @ 70°
Specific Gravity ..	1.0011 @ 70°	1.002 @ 70°	1.0011 @ 70°
pH	8.1	7.6	7.7
Calcium	1,571	1,675	1,152
Magnesium	508	762	889
Chlorides	300	1,000	300
Sulfates	Small	Heavy	Heavy
Bicarbonates	214	214	214
Soluble Iron	0	0	0
- - - - - - - - - -			
- - - - - - - - - -			
- - - - - - - - - -			

Remarks:

Respectfully submitted

Analyst: Eric Jacobson - Field Engineer **HALLIBURTON SERVICES**

Geological Data
Red Lake Unit
Eddy County, New Mexico

Red Lake East (Queen) sand production is a result of entrapment within an offshore sand bar which trends northeast - southwest.

The production member is call Penrose and vertically located as a lower member of the Queen section. The pay sand is generally fine grained to medium grained, well sorted, and rounded to sub rounded quartz sand.

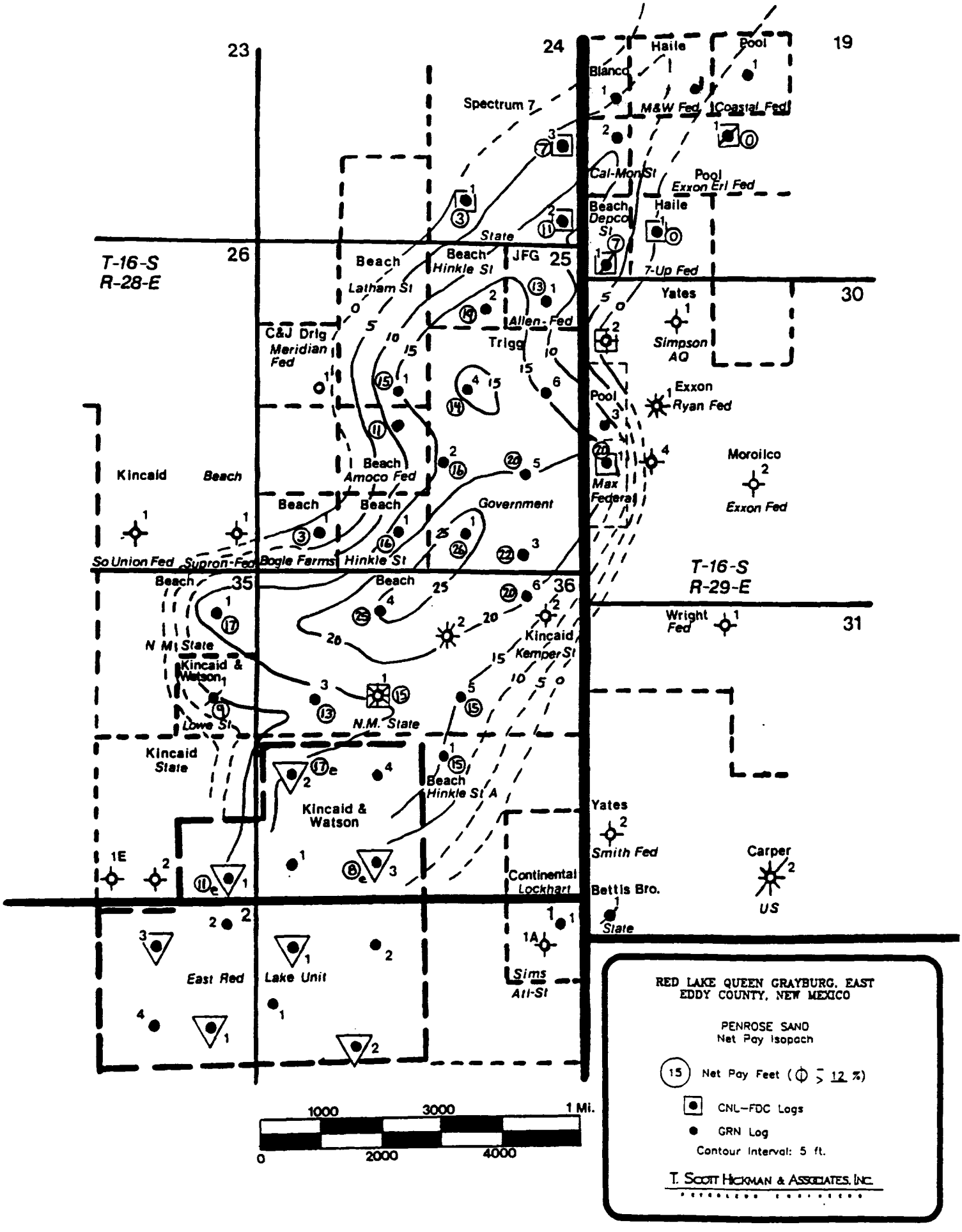
Porosity averages from 12 to 18% with some zones calculating as high as 22%. The sand thickness ranges from 12 feet on the flanks of the field to approximately 26 feet near the apex or center of the reservoir. Please refer to the attached "Penrose Sand - Net Pay Isopach", which shows the next pay in the unit area.

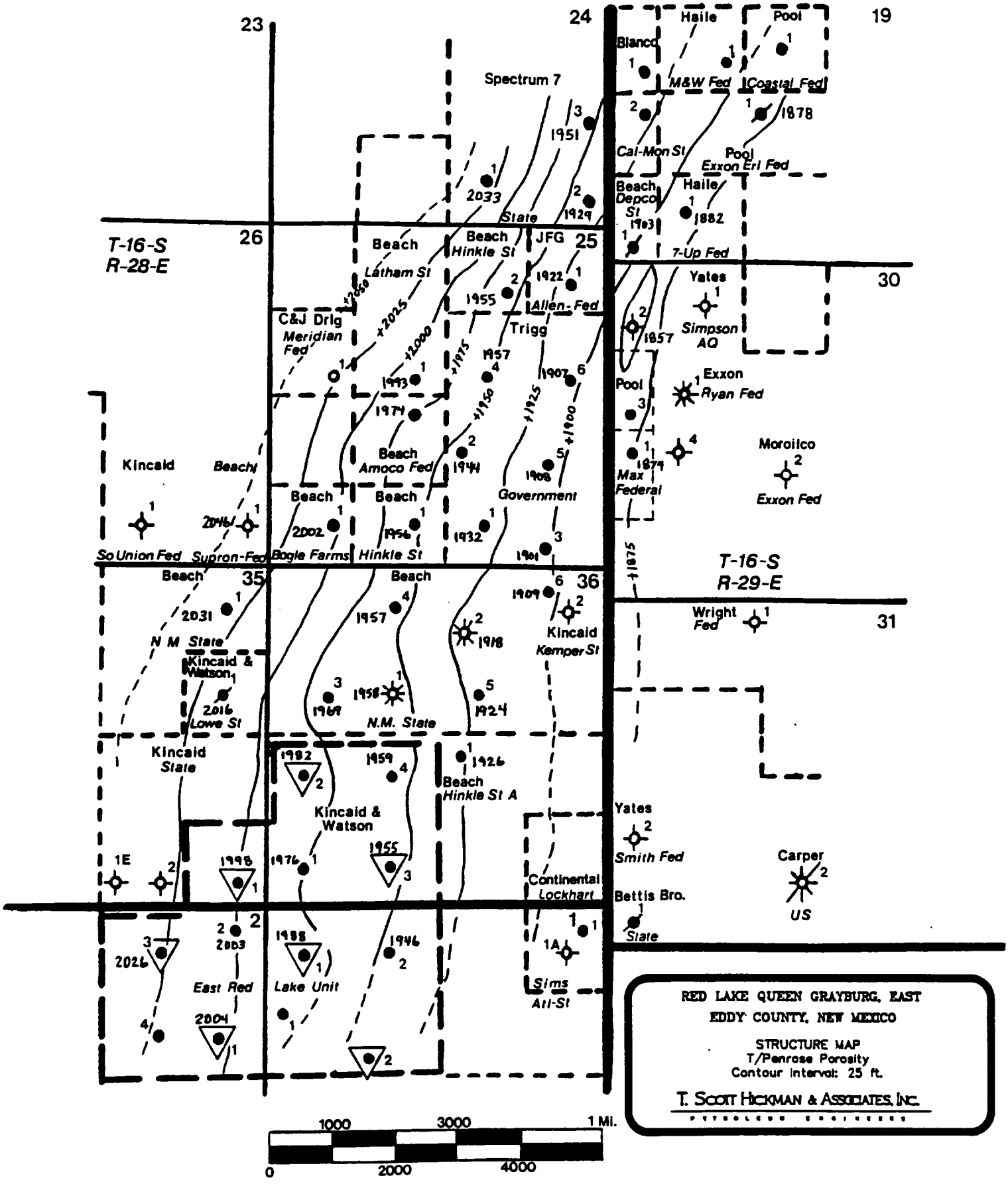
The reservoir is the result of stratigraphic entrapment within a clean lens of sand which facies into a red, shaley sand down dip and becomes tighter up dip as the section becomes more anhydritic and salt filled.

The top of the Penrose pay occurs from 1874' to 2016' above sea level within the proposed unit area. Surface elevations vary considerably within the unit area due to topography, and vertical depths to the Penrose occur from 1537' to 1828' as a result. The attached structure map shows that the Penrose dips in a westerly direction.

Continuity of the Penrose pay within the proposed unit area is shown by the attached cross sections A-A' and B-B'.

The base of the only known source of fresh water, which is the Triassic Sand, occurs at an approximate depth of 75' (in the wells with the lower elevations). There are no known sources of fresh water below the Penrose.


23
24
19
26
25
30
35
36
31
T-16-S
R-28-E
T-16-S
R-29-E
Haile
Pool
Blanco
M&W Fed
Coastal Fed
Spectrum 7
Cal-Mon St
Pool
Exxon Erl Fed
Beach
Depco St
Haile
State
Beach
Beach
Hinkle St
JFG
Latham St
7-Up Fed
Yates
Simpson AQ
C&J Drlg
Meridian Fed
Allen-Fed
Trigg
Exxon
Ryan Fed
Pool
Kincaid
Beach
Beach
Amoco Fed
Moroilco
Max Federal
Exxon Fed
Beach
Beach
Government
So Union Fed
Supron-Fed
Bogle Farms
Hinkle St
Beach
Beach
Wright Fed
N M State
Kincaid &
Watson
Kincaid
Kemper St
Lowe St
N.M. State
Kincaid
State
Beach
Hinkle St A
Kincaid &
Watson
Yates
Smith Fed
Carper
US
1E
Continental
Lockhart
Bettis Bro.
State
East Red
Lake Unit
Sims
Atl-St
1000
3000
1 Mi.
0
2000
4000
RED LAKE QUEEN GRAYBURG, EAST
EDDY COUNTY, NEW MEXICO
PENROSE SAND
Net Pay Isopach
15 Net Pay Feet (Φ ≥ 12 %)
CNL–FDC Logs
GRN Log
Contour Interval: 5 ft.
T. Scott Hickman & Associates, Inc.



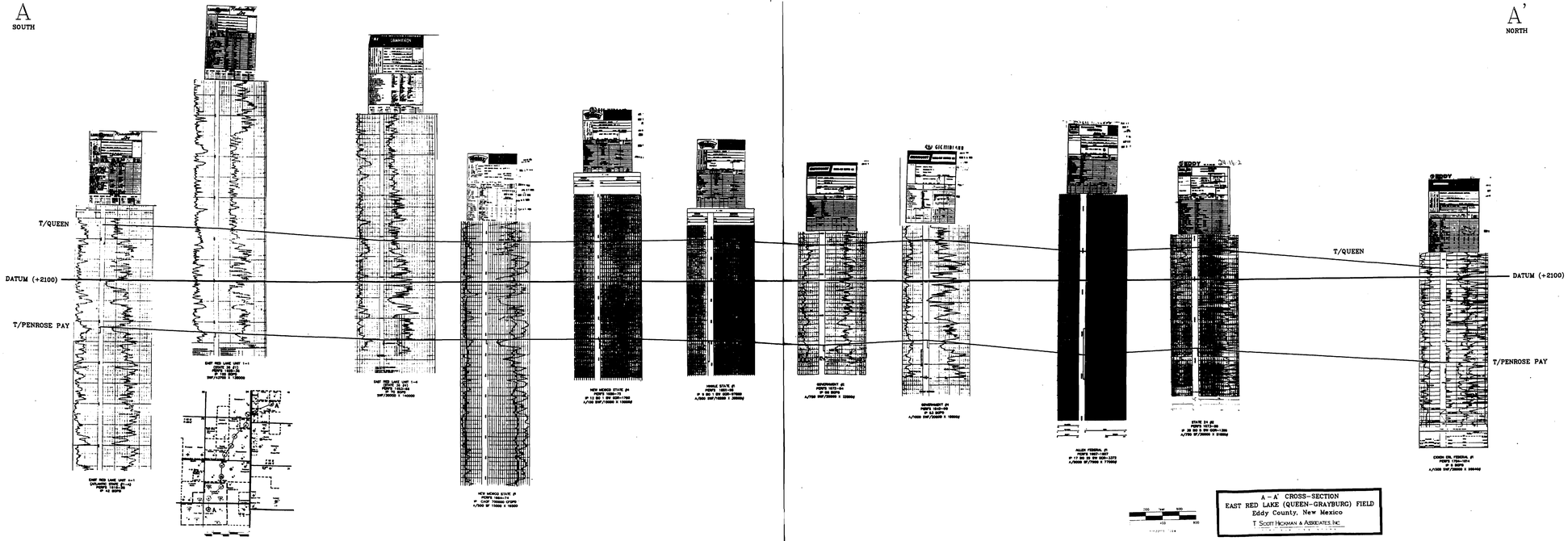
RED LAKE QUEEN GRAYBURG, EAST
EDDY COUNTY, NEW MEXICO

STRUCTURE MAP
T/Penrose Porosity
Contour Interval: 25 ft.

T. SCOTT HICKMAN & ASSOCIATES, INC.
PETROLEUM GEOLOGISTS

A
SOUTH

A'
NORTH



A - A' CROSS-SECTION
EAST RED LAKE (QUEEN-GRAYBURG) FIELD
Eddy County, New Mexico
T. Scott Hickman & Associates, Inc.

B'
EAST

EEN

PAY

DATUM (+2100)

T/QUEEN

T/PENROSE PAY

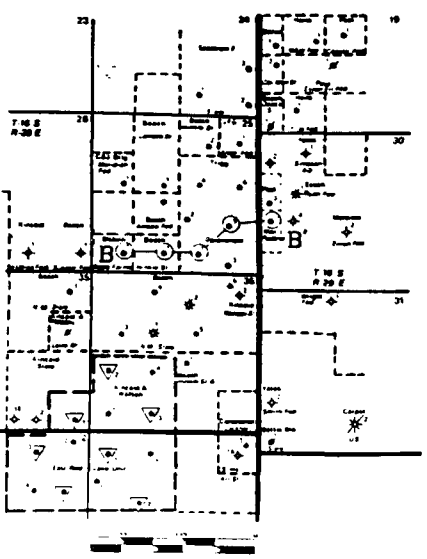
BOGLE FARMS #1
PERFS 1575–99
IP 2 BOPD
A/500 SWF/18280 X 30500#

HINKLE STATE #1
PERFS 1651–96
IP 9 BO 1 BW GOR–97889
A/500 SWF/20000 X 20000#

GOVERNMENT #1
PERFS 1779–1804
IP 57 BOPD

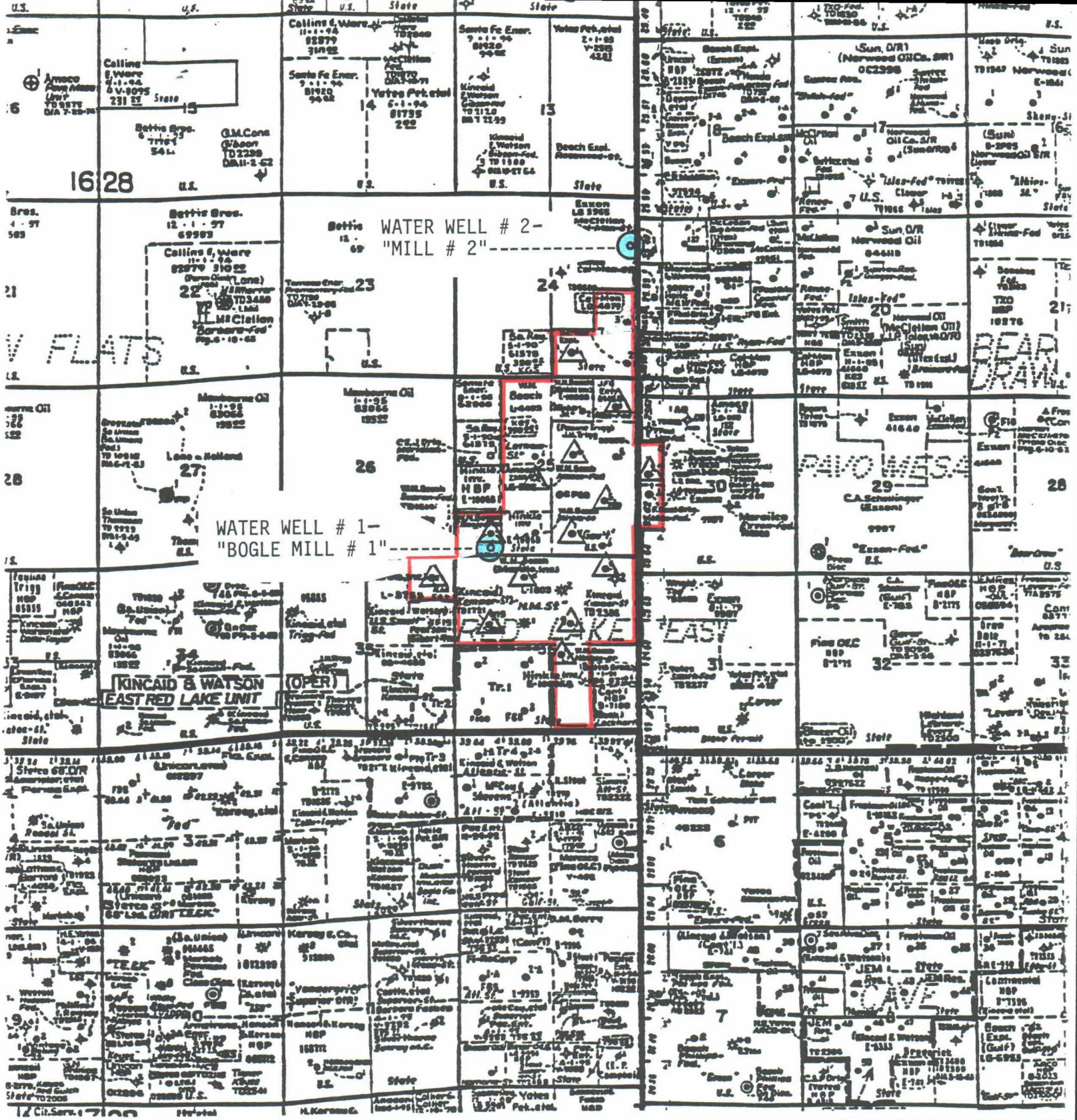
GOVERNMENT #5
PERFS 1816–38 1850–54 1863–67
IP 80 BOPD

MAX FEDERAL #1
PERFS 1842–58 1882–85
IP 51 BOPD GOR–824
A/1000



200 feet 600
0 400 800
Horizontal Scale

B – B' CROSS-SECTION
EAST RED LAKE (QUEEN-GRAYBURG) FIELD
Eddy County, New Mexico
T. Scott Hickman & Associates, Inc.



LEGEND

PROPOSED RED LAKE UNIT OUTLINE

PROPOSED INJECTION WELL

FRESH WATER WELLS WITHIN ONE MILE OF PROPOSED INJECTION WELLS

BEACH EXPLORATION, INC.
PROPOSED RED LAKE UNIT
RED LAKE QUEEN-GRAYBURG, EAST
EDDY COUNTY, NEW MEXICO

FRESH WATER WELLS WITHIN ONE MILE

Scale: 1"= 4000' 12-10-90

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W685, W686, & W687-9

TO Beach Exploration

P. O. Box 3669

Midland, TX 79701

Date December 4, 1990

Submitted by _____ Date Rec. December 4, 1990

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

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Chlorides	300	1,000	300
Sulfates	Small	Heavy	Heavy
Bicarbonates	214	214	214
Soluble Iron	0	0	0

Remarks:

Respectfully submitted

Analyst: Eric Jacobson - Field Engineer

HALLIBURTON SERVICES