Shell Western E&P Inc.
A Subsidiary of Shell Oil Company

P.O. Box 576
Houston, TX 77001

December 17, 1987

Received Dec 18, 1987

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Gentlemen:

SUBJECT: EXPANSION OF PRESSURE MAINTENANCE PROJECT
SHELL - NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
HOBBS (GRAYBURG/SAN ANDRES) POOL
TOWNSHIP 18 SOUTH, RANGE 37 & 38 EAST
LEA COUNTY, NEW MEXICO

Shell Western E&P Inc. respectfully requests administrative approval for expansion of the subject pressure maintenance project. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell to conduct the North Hobbs (Grayburg/San Andres) Unit pressure maintenance project within the subject pool.

The attached tabulation indicates the locations of 16 wells we propose to convert to water injection service, plus the proposed location of a well to be drilled for injection.

The following information is submitted in support of this request:

1. Plat of Unit with proposed injectors and their project area.

2. "Typical" diagrammatic sketch for the proposed wells, injection tubing, packer, pressure control elements, and identifying the proposed San Andres injection interval.

3. The source of water will be reinjected produced water.

4. Injection will be into the San Andres formation at an approximate well interval of 4030' to 4270'. Surface injection pressure will be limited to .2 psi per foot gradient to the top perforation, with an anticipated initial daily volume of 2000 barrels of water per day per well, increasing to a maximum of 3500 barrels of water per day per well. Average and maximum injection pressures will be in accordance with Rule 11 of Order No. R-6199.

BNBC8731504

5. Well No. 322 (Sec. 31) will be cased through the completion interval and selectively perforated over a 200'± interval in the San Andres Zones II, IIIU, and IIIL and acidized with approximately 150 gals of 15% HCL-NEA per perforation. A similar stimulation program will be applied to the 16 conversions if necessary.

6. An Affidavit of Publication certifying the newspaper legal notice.

7. List of offset operator and surface owners.

8. Tabulations indicating casing detail and the proposed injection interval for each well to be converted.

9. Area of Review Supplement.

10. All entities in Item Seven have been notified by certified mail.

If additional information is required, please advise.

Yours very truly,

A. J. Fore
Supervisor Regulatory and Permitting
Safety, Environmental, and Administration
Western Division

JMW:PEE

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

State of New Mexico
Office of Land Commissioner
P. O. Box 1148
Santa Fe, NM 87501

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

II. Operator: SHELL WESTERN E&P INC.

Address: P. O. BOX 576, HOUSTON, TX 77001 (WCK 4435)

Contact party: A. J. FORE Phone: (713) 870-3787

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 R-6199 (11-30-79).

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. *(Supplemental data for wells drilled since initial Order attached.)*

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate (2000 / 3500) 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: A. J. FORE Title SUPV. REG. & PERMITTING

Signature: A. J. Fore 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. HEARING OCTOBER 3, 1979

CASE NO. 6653, ORDER NO. R-6199

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.

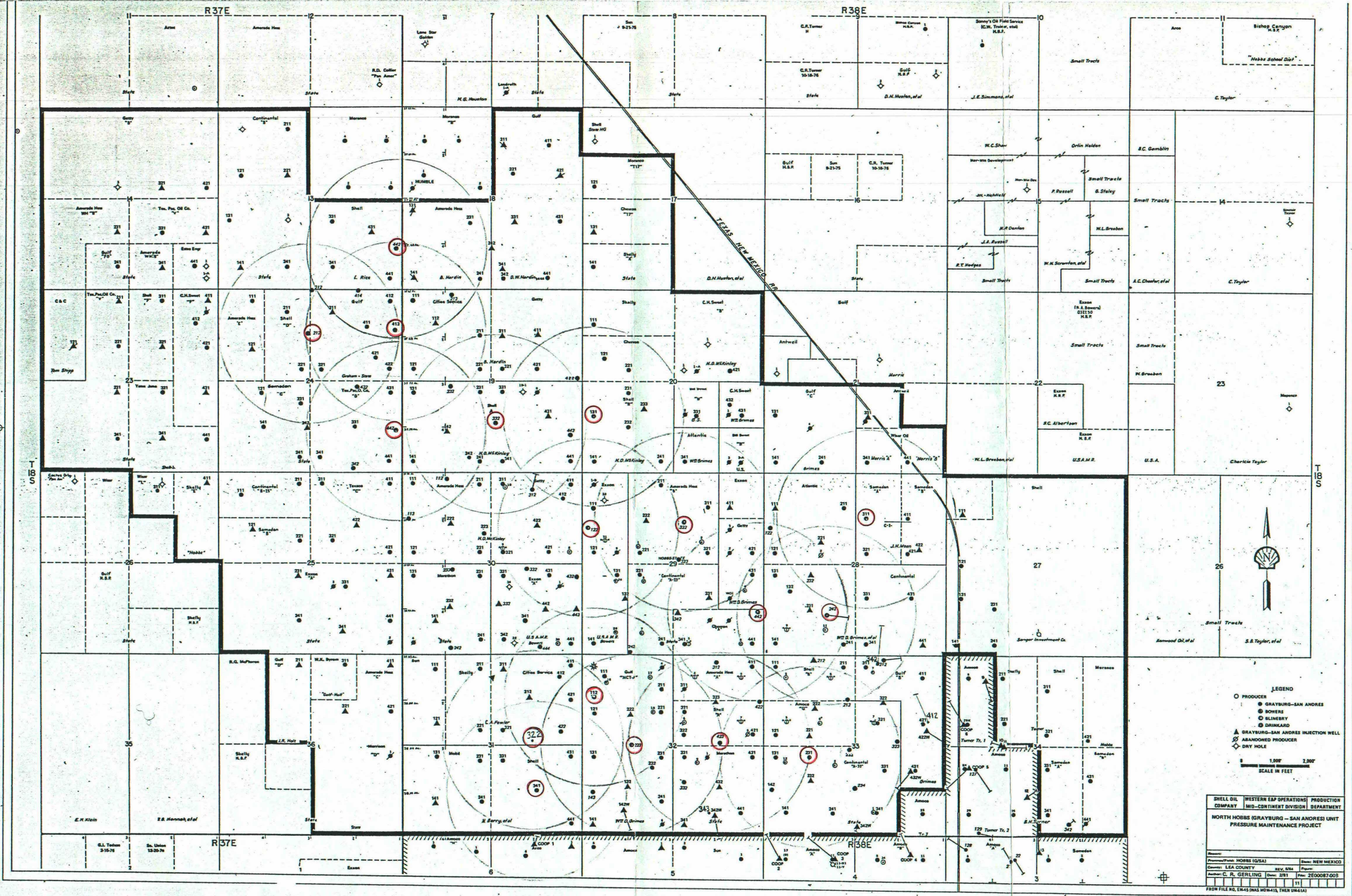
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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.

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
HOBBS (GRAYBURG/SAN ANDRES) POOL
LEA COUNTY, NEW MEXICO

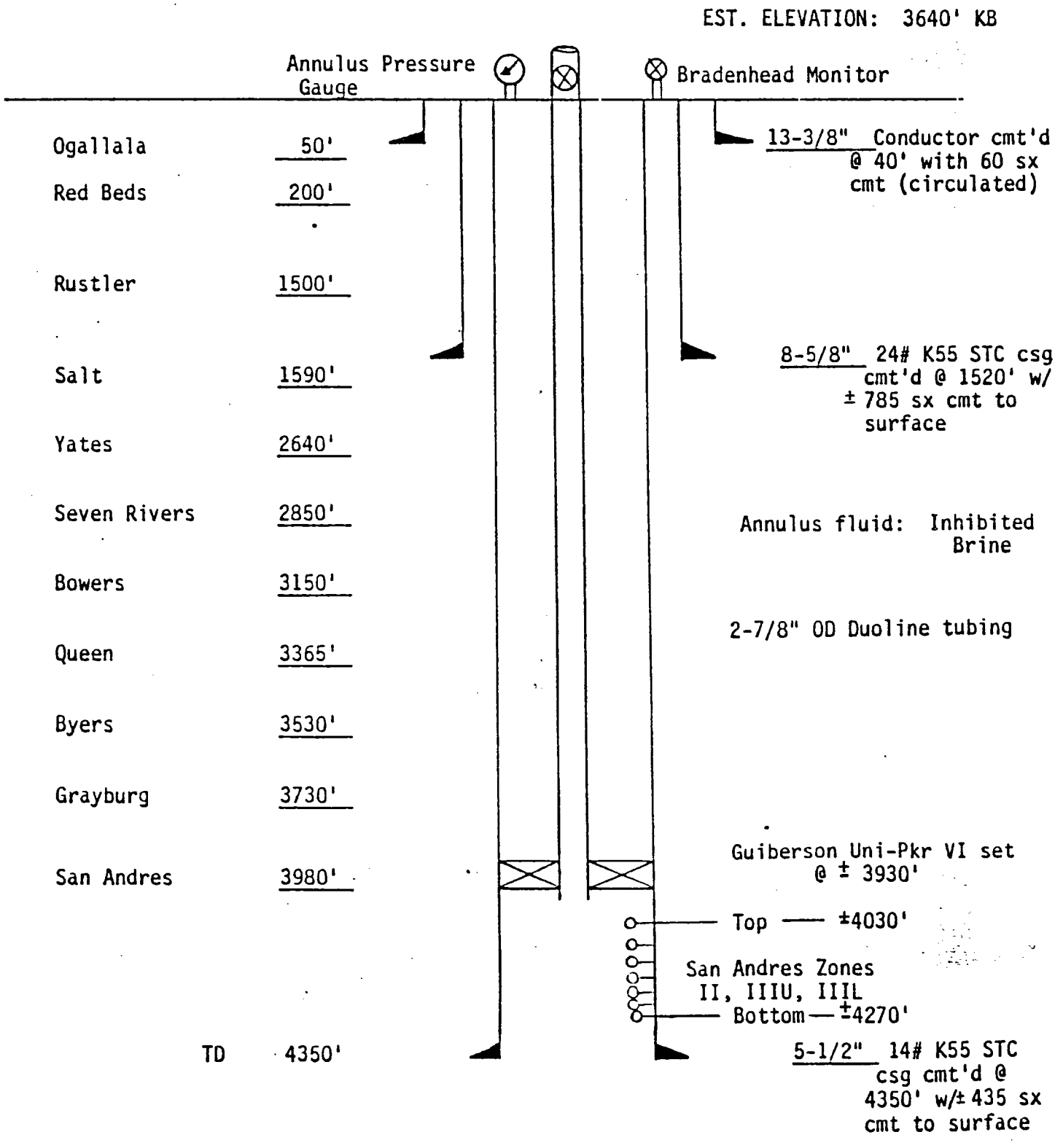
WELL NO.	RGE	TWP	SEC	SURFACE LOCATION
442	37E	18S	13	1220' FSL & 220' FEL
332	38E	18S	19	1430' FSL & 2535' FEL
131	38E	18S	20	1650' FSL & 330' FWL
212	37E	18S	24	1263' FNL & 2605' FWL
413	37E	18S	24	1200' FNL & 206' FEL
442	37E	18S	24	1260' FNL & 200' FEL
242	38E	18S	28	1166' FSL & 1823' FWL
311	38E	18S	28	1315' FNL & 2290' FEL
122	38E	18S	29	1600' FNL & 180' FWL
322	38E	18S	29	1430' FNL & 2350' FEL
442	38E	18S	29	1230' FSL & 220' FEL
*322	38E	18S	31	2480' FNL & 1509' FEL
341	38E	18S	31	1315' FSL & 1325' FEL
112	38E	18S	32	1370' FNL & 330' FWL
223	38E	18S	32	2630' FNL & 1420' FWL
423	38E	18S	32	2540' FNL & 1280' FEL
231	38E	18S	33	2310' FSL & 1320' FWL

* Proposed well location


R37E
R38E
T 18 S
TEXAS NEW MEXICO RR
LEGEND
PRODUCER
GRAYBURG–SAN ANDRES
BOWERS
BLINEBRY
DRINKARD
GRAYBURG–SAN ANDRES INJECTION WELL
ABANDONED PRODUCER
DRY HOLE
0 1,000' 2,000'
SCALE IN FEET
SHELL OIL COMPANY
WESTERN E&P OPERATIONS MID–CONTINENT DIVISION
PRODUCTION DEPARTMENT
NORTH HOBBS (GRAYBURG – SAN ANDRES) UNIT
PRESSURE MAINTENANCE PROJECT
Report:
Province/Field: HOBBS (G/SA)
State: NEW MEXICO
County: LEA COUNTY
REV. 5/84
Figure:
Author: C. R. GERLING
Date: 2/81
File: 2E00087-008
11
FROM FILE NO. EM-45 (WAS MOW-415, THEN UM-61A)

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
EXPANSION OF PRESSURE MAINTENANCE PROJECT
HOBBS (GRAYBURG/SAN ANDRES) POOL, LEA COUNTY, NEW MEXICO

TYPICAL SCHEMATIC



AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I,_____

Mark C. Keeling

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of_____

One weeks.
Beginning with the issue dated

August 20, 19 87
and ending with the issue dated

August 20, 19 87

Mark C Keeling
Business Manager

Sworn and subscribed to before

me this 11 day of

September, 19 87

Vera Murphy
Notary Public.

My Commission expires_____

November 14, 19 88
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
August 20, 1987

NOTICE is hereby given of the application of Shell Western E&P Inc., Attention: A. J. Fore, Supervisor Regulatory and Permitting, P.O. Box 576, Houston, TX 77001, (713) 870-3787, to the Oil Conservation Division, New Mexico Energy & Minerals Department, for approval of the following injection wells for the purpose of ~~pressure~~ maintenance and enhanced recovery.

Well Nos.: 13-442, 19-332, 20-131, 24-212, 24-413, 24-442, 28-242, 28-311, 29-122, 29-322, 29-442, 31-322, 31-341, 32-112, 32-223, 32-423, 33-231

Lease/Unit Name: North Hobbs (Grayburg/San Andres) Unit

Location: Section 13 & 24, T18S, R37E
Sections 19, 20, 28, 29, 31, 32 & 33, T18S, R38E, NMPM, Lea County, New Mexico

The injection formation is the San Andres at a depth of approximately 4040 feet below the surface of the ground. Expected maximum injection rate is 3500 barrels per day, and ~~expected maximum~~ injection pressure is 900 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within fifteen (15) days.

SERVICE LIST
SHELL - NORTH HOBBS (G/SA) UNIT
EXPANSION OF PRESSURE MAINTENANCE PROJECT

WELL NO.	SURFACE OWNER
13-442	Harry G. Huston Estate c/o Alice Huston Cushing 1605 Bayita Lane NW Albuquerque, NM 87107
19-332	Charles "Buck" Jones 2809 N. Bensing Rd. Hobbs, NM 88240
20-131	O. L. Harris 4625 San Jose Hobbs, NM 88240
28-242	Los Cuatro Inc. Box 1461 Hobbs, NM 88240
28-311	Keith Sparks, et al d/b/a KRG Enterprises 301 N. Canal St. Carlsbad, NM 88220
31-322 31-341	V. R. Jones Star Rt. A Box 440 Hobbs, NM 88220
29-322 29-442 29-122 32-112 32-223 32-423	Wm. C. Grimes Estate Trust c/o First Interstate Bank Box 400 Hobbs, NM 88240
33-231 24-212 24-442 24-413	State of New Mexico Commissioner of Public Lands P. O. Box 1148 Santa Fe, NM 87504-1148

XAC8727306

OFFSET OPERATORS

Amoco Production Co.
P. O. Box 3092
Houston, TX 77253

Amerada Hess Corporation
P. O. Box 840
Seminole, TX 79360

Bravo Energy Inc.
P. O. Box 2160
Hobbs, NM 88241

Texaco Producing Inc.
P. O. Box 728
Hobbs, NM 88240

Chevron U.S.A. Inc.
P. O. Box 670
Hobbs, NM 88240

Exxon Company U.S.A.
P. O. Box 1600
Midland, TX 79702-1600

Penroc Oil Corporation
Dr. 831
Midland, TX 79702-0831

Pontotoc Oil Corporation
P. O. Box 5094
Midland, TX 79704

XAC8727306

WELL DATA SHEET

A.

(1) Lease Name: North Hobbs (G/SA) Unit

Location: See tabulation on page 3.

(2) Proposed Casing And Cement Program (Well No. 322; Sec. 31)
(See attached tabulation for the 16 conversions.)

Hole Size	Casing	Weight/Foot	Setting Depth	SX Of CMT	Est. Top
17-1/2"	13-3/8"	Conductor	40'	60 SX	Surface
12-1/4"	8-5/8"	24#	1520'*	700 SX	Surface
7-7/8"	5-1/2"	14#	4350'	1000 SX	Surface

*8-5/8" Casing will be set 20' below the Rustler top

(3) 2-7/8" OD Duoline tubing set at approximately 3950'.

(4) Guiberson Uni-PKR VI set within 100' of the top perforation will be used to isolate the annulus.

B.

(1) The name of the injection formation is San Andres; Hobbs (Grayburg/San Andres) Pool.

(2) See attached tabulation. The new well to be drilled will utilize a perforated injection interval.

(3) Well No. 322 (Sec. 31) will be drilled for the purpose of injection. The 16 wells to be converted were originally drilled as producers.

(4) See attached tabulation.

(5) Next higher oil zone - Queen @ 3365'±
Next lower oil zone - Drinkard @ 6600'±

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
18-18S-38E 1200' FSL & 2600' FWL	242	3665' GL	1/81	4510' 4470'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4510'	875 sx 900 sx	Circ Circ*	12-1/4" 7-7/8"	4150' - 4326'
19-18S-38E 1200' FSL & 1300' FWL	142	3660' GL	12/80	4510' 4437'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4510'	875 sx 900 sx	Circ 3450'**	12-1/4" 7-7/8"	4165' - 4272'
19-18S-38E 160' FNL & 1460' FWL	212	3665' GL	4/85	4370' 4320'	Oil	9-5/8" 7"	36# 20#	1504' 4368'	625 sx 1220 sx	Circ Circ	12-1/4" 8-3/4"	4144' - 4283'
19-18S-38E 2501' FSL & 1410' FWL	232	3661' GL	5/85	4420' 4270'	Oil	9-5/8" 7"	36# 20#	1498' 4419'	625 sx 900 sx	Circ* Circ	12-1/4" 8-3/4"	4207' - 4237'
19-18S-38E 2495' FNL & 119' FEL	422	3653' GL	5/85	4370'	Oil	8-5/8" 5-1/2"	24# 14#	1520' 4368'	750 sx 920 sx	Circ Circ	12-1/4" 7-7/8"	4220' - 4318'
19-18S-38E 1100' FSL & 380' FEL	442	3653' GL	11/84	4370'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1525' 4370'	620 sx 1320 sx	Circ Circ	12-1/4" 7-7/8"	4205' - 4283'
24-18S-37E 1300' FSL & 2600' FWL	242	3667' GL	7/80	4443' 4348'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4443'	785 sx 1350 sx	Circ Surf**	12-1/4" 7-7/8"	4267' - 4336'
24-18S-37E 10' FNL & 2630' FEL	312	3668' GL	3/85	4370'	Oil	9-5/8" 7"	36# 20#	1500' 4369'	600 sx 950 sx	Circ Circ	12-1/4" 8-3/4"	4205' - 4269'
24-18S-37E 145' FSL & 1435' FEL	342	3665' GL	2/85	4371'	Oil	9-5/8" 7"	36# 20#	1531' 4371'	600 sx 850 sx	Circ Circ	12-1/4" 8-3/4"	4115' - 4237'
24-18S-37E 10' FNL & 1280' FEL	414	3671' GL	10/84	4370' 4325'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1512' 4370'	711 sx 730 sx	Circ Circ	12-1/4" 7-7/8"	4216' - 4293'
24-18S-37E 2480' FSL & 1280' FEL	432	3666' GL	3/85	4368'	Oil	9-5/8" 7"	36# 20#	1534' 4368'	625 sx 875 sx	Circ Circ	12-1/4" 8-3/4"	4097' - 4229'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
25-18S-37E 1550' FNL & 1300' FEL	422	3660' GL	10/80	4510' 4374'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4510'	850 sx 1000 sx	Circ ✓ 3760'**	12-1/4" 7-7/8"	4184' - 4294'
28-18S-38E 1579' FNL & 211' FWL	122	3659' GL	11/84	4370'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1525' 4384'	675 sx 740 sx	Circ ✓ 300'**	12-1/4" 7-7/8"	4191' - 4264'
28-18S-38E 2300' FSL & 1350' FWL	232	3650' GL	11/84	4370' 4311'	Injector	8-5/8" 5-1/2"	24, 32# 14#	1520' 4370'	725 sx 1000 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4141' - 4290'
Surf 33-18S-38E 202' FNL & 1764' FEL BHL 28-18S-38E 1057' FSL & 1666' FEL	342	3641' GL	7/87	4570' MD 4320' TVD 4530' PBTD	Oil	9-5/8" 7"	36# 23#	1655' 4569'	675 sx 1050 sx	Circ ✓ Circ	12-1/4" 8-3/4"	4335' - 4468'
28-18S-38E 2199' FNL & 772' FEL	422	3635' GL	2/81	4510' 4474'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4503'	850 sx 1050 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4239' - 4268'
29-18S-38E 1623' FSL & 1218' FWL	132	3641' GL	8/80	4512'	Injector	8-5/8" 5-1/2"	24# 14#	1595' 4512'	785 sx 900 sx	Circ ✓ 90'**	12-1/4" 7-7/8"	4071' - 4318'
29-18S-38E 100' FSL & 1400' FWL	242	3640' GL	12/83	4370' 4195'	Oil	8-5/8" 5-1/2"	24# 14#	1511' 4368'	750 sx 750 sx	Circ ✓ 2330'**	12-1/4" 7-7/8	4071' - 4191'
29-18S-38E 2540' FNL & 2500' FEL	323	3648' GL	1/85	4370' 4190'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1542' 4369'	625 sx 700 sx	Circ* ✓ 575'**	12-1/4" 7-7/8"	3989' - 4095'
29-18S-38E 1230' FSL & 2500' FEL	342	3649' GL	11/84	4375'	Injector	8-5/8" 5-1/2"	24, 32# 14#	1520' 4375'	620 sx 875 sx	Circ ✓ Surf**	12-1/4" 7-7/8"	4083' - 4250'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
30-18S-38E 200' FNL & 1310' FWL	112	3657' GL	2/85	4370' 4323'	Oil	9-5/8" 7"	36# 20#	1520' 4369'	600 sx 990 sx	Circ Surf**	12-1/4" 8-3/4"	4117' - 4240'
30-18S-38E 1310' FNL & 195' FWL	113	3658' GL	1/85	4370'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1495' 4362'	620 sx 990 sx	Circ Surf**	12-1/4" 7-7/8"	4157' - 4285'
30-18S-38E 1470' FNL & 1395' FWL	222	3654' GL	7/80	4350' 4334'	Injector	8-5/8" 5-1/2"	24# 14#	1570' 4349'	950 sx 800 sx	Circ 2609'**	12-1/4" 7-7/8"	4123' - 4329'
30-18S-38E 1770' FNL & 2405' FWL	223	3651' GL	1/84	4397' 4321'	Oil	8-5/8" 5-1/2"	24# 14#	1455' 4394'	650 sx 750 sx	Circ 2496'**	12-1/4" 7-7/8"	4139' - 4280'
30-18S-38E 1400' FSL & 1370' FWL	232	3651' GL	12/80	4555' 4519'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4555'	875 sx 1100 sx	Circ 2614'**	12-1/4" 7-7/8"	4218' - 4310'
30-18S-38E 2455' FSL & 1480' FWL	233	3654' GL	1/85	4383' 4338'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1507' 4383'	620 sx 810 sx	Circ 106'**	12-1/4" 7-7/8"	4148' - 4240'
30-18S-38E 200' FSL & 1400' FWL	242	3650' GL	1/85	4370' 4325'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1514' 4368'	675 sx 775 sx	Circ Circ	12-1/4" 7-7/8"	4165' - 4197'
Surf 30-18S-38E 530' FNL & 1448' FEL BHL 10' FNL & 1330' FEL	312	3652' GL	5/85	4431' MD 4371' TVD 4381' PBTD	Oil	9-5/8" 7"	36# 20#	1500' 4431'	650 sx 700 sx	Circ Circ	12-1/4" 8-3/4	4215' - 4333'
30-18S-38E 2470' FSL & 1600' FEL	332	3650' GL	4/85	4370' 4323'	Oil	9-5/8" 7"	36# 20#	1503' 4369'	650 sx 800 sx	Circ Circ	12-1/4" 8-3/4"	4127' - 4288'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
30-18S-38E 1400' FSL & 2430' FEL	333	3648' GL	12/84	4370' 4328'	Injector	8-5/8" 5-1/2"	24, 32# 14#	1579' 4369'	710 sx 720 sx	Surf ✓ Circ	12-1/4" 7-7/8"	4137' - 4290'
30-18S-38E 1520' FNL & 1300' FEL	422	3651' GL	1/81	4510' 4406'	Injector	8-5/8" 5-1/2"	24# 14#	1524' 4510'	850 sx 1000 sx	Circ ✓ 2500'**	12-1/4" 7-7/8"	4124' - 4265'
30-18S-38E 2260' FSL & 180' FEL	432	3650' GL	12/84	4370' 4324'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1490' 4370'	620 sx 1050 sx	Circ ✓ Cric	12-1/4" 7-7/8"	4110' - 4266'
30-18S-38E 1300' FSL & 1050' FEL	442	3646' GL	11/80	4510' 4420'	Injector	8-5/8" 5-1/2"	24# 14#	1606' 4510'	850 sx 1075 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4162' - 4252'
30-18S-38E 1300' FSL & 160' FEL	443	3648' GL	12/84	4370' 4290'	Injector	8-5/8" 5-1/2"	24, 32# 14#	1513' 4370'	679 sx 700 sx	Circ ✓ 858'**	12-1/4" 7-7/8"	4094' - 4247'
30-18S-38E 215' FSL & 1255' FEL	444	3645' GL	4/85	4370' 4145'	Oil	9-5/8" 7"	36# 20#	1519' 4369'	700 sx 1735 sx	Circ ✓ Surf**	12-1/4" 8-3/4"	4124' - 4131'
31-18S-38E 1262' FNL & 1520' FEL	312	3641' GL	11/80	4510' 4452'	Injector	8-5/8" 5-1/2"	24# 14#	1598' 4510'	950 sx 1050 sx	Circ ✓ 2500'**	12-1/4" 7-7/8"	4189' - 4281'
31-18S-38E 2259' FNL & 600' FEL	422	3636' GL	3/85	4372' 4319'	Oil	9-5/8" 7"	36# 20#	1510' 4371'	625 sx 900 sx	Circ ✓ Circ	12-1/4" 8-3/4"	4105' - 4215'
Surf 32-18S-38E 610' FSL & 1210' FWL BHL 31' FSL & 1377' FWL	142	3627' GL	9/83	4460' TVD 4400' PBTD	Injector	8-5/8" 5-1/2"	24# 14#	1525' 4460'	850 sx 680 sx	Circ ✓ 720'**	12-1/4" 7-7/8"	4135' - 4313'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
32-18S-38E 1185' FSL & 300' FWL	143	3630' GL	3/85	4383' 4339'	Oil	9-5/8" 7"	36# 20#	1534' 4383'	625 sx 820 sx	Circ ✓ Circ	12-1/4" 8-3/4"	4077' - 4181'
32-18S-38E 1720' FNL & 1370' FWL	222	3635' GL	12/80	4510' 4235'	Injector	8-5/8" 5-1/2"	24# 14#	1607' 4510'	800 sx 1075 sx	Circ ✓ 724'**	12-1/4" 7-7/8"	4090' - 4218'
32-18S-38E 210' FNL & 1400' FEL	312	3651' GL	11/84	4370' 4223'	Oil	8-5/8" 5-1/2"	24# 14#	1519' 4369'	650 sx 320 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4073' - 4206'
32-18S-38E 1370' FNL & 1400' FEL	323	3639' GL	9/80	4400' 4292'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4400'	1000 sx 920 sx	Circ ✓ 3624'**	12-1/4" 7-7/8"	4062' - 4276'
32-18S-38E 1550' FSL & 2350' FEL	332	3626' GL	4/85	4356' 4310'	Oil	9-5/8" 7"	36# 20#	1534' 4356'	600 sx 875 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4046' - 4208'
Surf 32-18S-38E 475' FSL & 1437' FEL BHL												
5-19S-38E 5' FNL & 1294' FEL	342	3626' GL	10/83	4430' MD 4377' PBTD	Injector	8-5/8" 5-1/2"	24# 14#	1522' 4380'	700 sx 650 sx	Circ ✓ 1000'**	12-1/4" 7-7/8"	4091' - 4283'
32-18S-38E 660' FSL & 1550' FEL	343	3623' GL	6/87	4370' 4226'	Oil	9-5/8" 7"	36# 20#	1498' 4370'	600 sx 1150 sx	Circ ✓ 3396'**	12-1/4" 8-3/4"	4141' - 4208'
32-18S-38E 1385' FNL & 110' FEL	422	3642' GL	2/85	4370' 4325'	Oil	9-5/8" 7"	36# 20#	1538' 4369'	575 sx 600 sx	Circ ✓ 1470'**	12-1/4" 8-3/4"	4047' - 4220'
33-18S-38E 1250' FSL & 185' FWL	142	3635' GL	12/83	4370' 4301'	Oil	8-5/8" 5-1/2"	24# 14#	1540' 4370'	750 sx 910 sx	Circ ✓ 320'**	12-1/4" 7-7/8"	4067' - 4237'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail						Completion Interval
						Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	
33-18S-38E 205' FNL & 1420' FWL	212	3643' GL	12/84	4370' 4324'	Injector	8-5/8" 5-1/2"	24, 32# 14#	1520' 4370'	625 sx 1070 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4029' - 4159'
33-18S-38E 1300' FNL & 2455' FWL	213	3645' GL	1/85	4370' 4328'	Oil	8-5/8" 5-1/2"	24, 32# 14#	1551' 4370'	675 sx 775 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4027' - 4255'
33-18S-38E 1520' FNL & 1470' FWL	222	3646' GL	10/80	4400' 4322'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4400'	800 sx 1100 sx	Circ ✓ 2430'**	12-1/4" 7-7/8"	4054' - 4276'
33-18S-38E 2380' FSL & 2472' FWL	233	3639' GL	12/83	4370' 4290'	Oil	8-5/8" 5-1/2"	24# 14#	1582' 4350'	750 sx 875 sx	Circ ✓ Circ	12-1/4" 7-7/8"	4047' - 4246'
33-18S-38E 1372' FSL & 2563' FWL	234	3633' GL	6/85	4373' 4334'	Oil	9-5/8" 7"	36# 20#	1503' 4372'	650 sx 1125 sx	Circ ✓ 2450'**	12-1/4" 8-3/4"	4046' - 4224'
Surf 33-18S-38E 151' FNL & 1702' FEL BHL 10' FNL & 1330' FEL	312	3641' GL	6/85	4428' MD 4371' TVD 4379' PBTD	Oil	9-5/8" 7"	36# 20#	1510' 4428'	650 sx 975 sx	Circ ✓ 2625'**	12-1/4" 8-3/4"	4128' - 4270'
33-18S-38E 2525' FNL & 1453' FEL	323	3636' GL	6/85	4370' 4324'	Oil	9-5/8" 7"	36# 20#	1517' 4370'	650 sx 925 sx	Circ ✓ 3010'**	12-1/4" 8-3/4"	4003' - 4221'
Surf 33-18S-38E 125' FSL & 2730' FWL BHL 37' FSL & 2699' FWL	342	3625' GL	10/83	4380' 4331'	Injector	8-5/8" 5-1/2"	24# 14#	1565' 4380'	650 sx 725 sx	Circ ✓ 100'**	12-1/4" 7-7/8"	4068' - 4256'

*Calculated
**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD PBTD	Well Type	Casing Detail Size	Wt.	Setting Depth	Amt. of Cmt	TOC	Hole Size	Completion Interval
Surf 33-18S-38E 1973' FNL & 530' FEL BHL 1175' FNL & 850' FEL	412	3636' GL	6/87	4436' MD 4324' TVD 4328' PBTD	Oil	9-5/8"	32.3, 36#	1542'	650 sx	Circ	12-1/4"	4171' - 4305'
						7"	23#	4436'	1250 sx	Circ	8-3/4"	
Surf 33-18S-38E 2181' FNL & 498' FEL BHL 34-18S-38E 2645' FNL & 22' FEL	422	3636' GL	11/83	4476' 4410'	Injector	8-5/8"	24#	1660'	650 sx	Circ	12-1/4"	4144' - 4313'
						5-1/2"	14#	4476'	750 sx	Circ	7-7/8"	
Surf 33-18S-38E 1842' FSL & 1029' FEL BHL 1371' FSL & 1390' FEL	432	3630' GL	11/83	4445' 4380'	Injector	8-5/8"	24#	1615'	750 sx	Circ	12-1/4"	4107' - 4297'
						5-1/2"	14#	4435'	950 sx	1600'**	7-7/8"	
Surf 34-18S-38E 305' FSL & 1650' FEL BHL 450' FSL & 1540' FEL	342	3605' GL	1/84	4390' TMD 4370' TVD 4386' PBTD	Oil	8-5/8"	24#	1618'	750 sx	Circ	12-1/4"	4131' - 4373'
						5-1/2"	14#	4390'	825 sx	830'**	7-7/8"	

**Calculated
***CBL
****Estimated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
WELL DATA FOR 16 CONVERSIONS

Section	Well No.	TD PBTD	Casing Detail Size	Wt.	Setting Depth	Sx of Cmt	TOC	Hole Size	Completion Data *Denotes Open Interval
13	442	4370' 4065'	8-5/8" 5-1/2"	24# 14#	1508' 4370'	390 800	Circ 1508'***	12-1/4" 7-7/8"	4146' - 4188'* 4213' - 4244' sqzd w/42 sx Cls "C" CIBP @ 4100' capped w/35' cmt
19	332	4370' 4316'	9-5/8" 7"	36# 20#	1510' 4368'	625 955	Circ Circ	12-1/4" 8-3/4"	4184' - 4232'* 4064' - 4105' sqzd w/150 sx Cls "C"
20	131	4276' 4269'	8-5/8" 5-1/2"	24# 15.5#	292' 4266'	300 600	Circ 4226'***	12-1/4" 7-7/8"	4227' - 4256'* 4222' - 4238' sqzd w/285 sx cmt 4266' - 4276' sqzd OH w/55 sx cmt
24	212	4370' 4321'	9-5/8" 7"	36# 20#	1500' 4368'	600 850	Circ Circ	12-1/4" 8-3/4"	4112' - 4114'*
24	413	4400' 4340'	8-5/8" 5-1/2"	24# 14#	1520' 4400'	750 875	Circ 1520'***	12-1/4" 7-7/8"	4181' - 4295'* 4104' - 4123' sqzd w/50 sx Cls "C" cmt 4138' - 4161' sqzd w/150 sx Cls "C" cmt
24	442	4384' 4319'	9-5/8" 7"	36# 20#	1523' 4384'	650 926	Circ Circ	12-1/4" 8-3/4"	4156' - 4271'* 4070' - 4080' sqzd w/100 sx Cls "C" cmt 4141' - 4146' sqzd w/275 sx Cls "C" cmt

**Calculated
***CBL
****Estimated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
WELL DATA FOR 16 CONVERSIONS

Section	Well No.	TD PBTD	Casing Detail Size	Wt.	Setting Depth	Sx of Cmt	TOC	Hole Size	Completion Data *Denotes Open Interval
28	242	4475' MD 4377' TVD 4423' PBTD	9-5/8" 7"	36# 20#	1509' 4470'	650 1005	Circ Circ	12-1/4" 8-3/4"	4200' - 4347'*
28	311	4264'	12-1/2" 7"	55# 22#	235' 4103'	150 500	Circ 2820'***	NA NA	4090' - 4103'* 4103' - 4264' OH*
29	122	4370' 4326'	8-5/8" 5-1/2"	24, 32# 14#	1510' 4370'	500 975	Circ 230'***	12-1/4" 7-7/8"	4157' - 4306'* 4132' - 4136' sqzd w/50 sx Cls "C" cmt
29	322	4384' 4340'	8-5/8" 5-1/2"	24# 14#	1520' 4384'	620 850	Circ Circ	12-1/4" 7-7/8"	4163' - 4252'*
29	442	4370' 4237'	9-5/8" 7"	36# 20#	1536' 4369'	575 1100	Circ Circ	12-1/4" 8-3/4"	4126' - 4210'* 4031' - 4036' sqzd w/250 sx Cls "C" cmt 4065' - 4100' sqzd w/125 sx Cls "C" cmt
31	341	4229'	12-1/2" 9-5/8" 7" 5-1/2" Lnr	50# 36# 24# 15.5#	251' 1526' 3980' 3880' - 4229'	150 200 250 100	33'** 792'** 2448'** 4229'**	17" 11-3/4" 9-3/4"	4161' - 4224'*
32	112	4276' 4227'	15-1/2" 9-5/8" 7" 5" Lnr	70# 36# 24# 15#	238' 2757' 3954' 3841' - 4273'	200 350 200 50	Circ** 1741'** 3086'*** 3841'***	18" 12-1/4"**** 8-3/4"****	4096' - 4175'* 3954' - 4213' sqzd OH w/200 sx Cls "C" cmt

**Calculated
***CBL
****Estimated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
WELL DATA FOR 16 CONVERSIONS

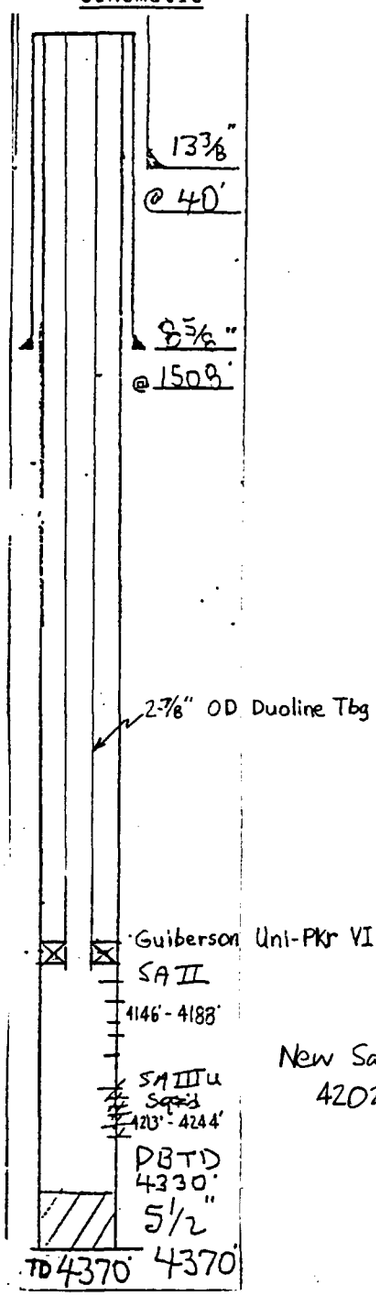
Section	Well No.	TD PBTD	Casing Detail						Completion Data *Denotes Open Interval
			Size	Wt.	Setting Depth	Sx of Cmt	TOC	Hole Size	
32	223	4370'	9-5/8"	36#	1500'	600	Circ	12-1/4"	4079' - 4201'*
		4210'	7"	20#	4369'	975	Circ	8-3/4"	Perfs 4214' - 4251' isolated by CIBP @ 4210'
32	423	4380'	9-5/8"	36#	1508'	580	Circ	12-1/4"	4051' - 4235'*
		4328'	7"	20#	4379'	925	Circ	8-3/4"	
33	231	4259'	15-1/2"	70#	183'	250	Circ	18"	4042' - 4228'*
			9-5/8"	40#	2732'	600	990'**	12-1/4"	4086' - 4097' sqzd w/125 sx Cls "C" smt
			7"	24#	3946'	310	2860'***	8-3/4"	
			5" Lnr	18#	3860' - 4235'	50	3871'***	6-1/4"	

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) — NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

442	1200' FSL & 220' FEL	13	18S	37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



New San Andres perfs to be opened:
4202' - 4293'

Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a _____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

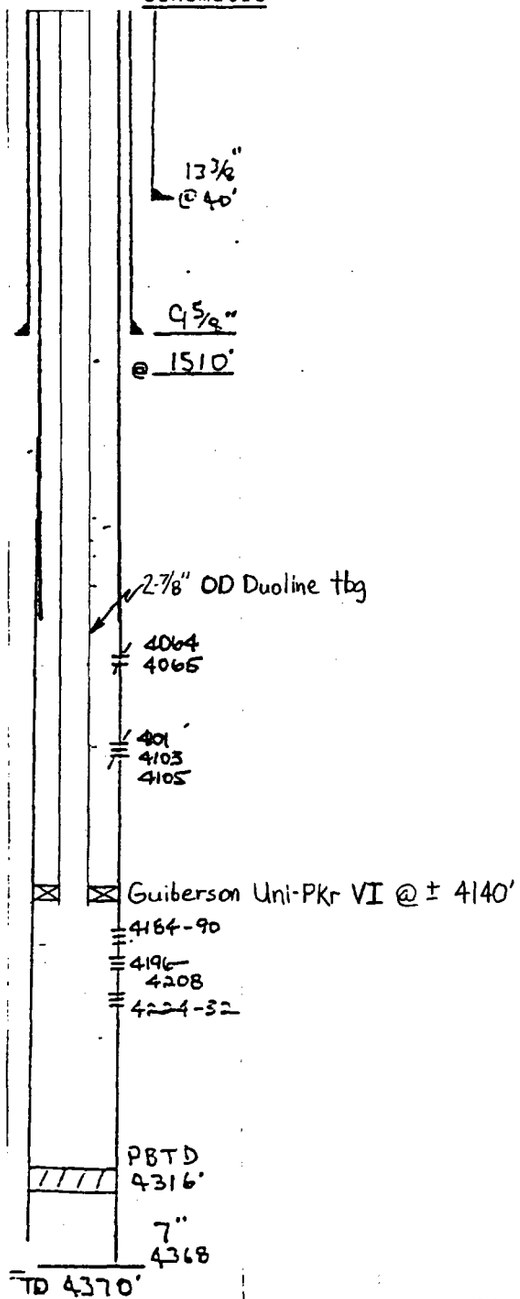
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) — NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
332	1430' FSL & 2535' FEL	19	18S	38E

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a _____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? /7/ Yes /7/ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

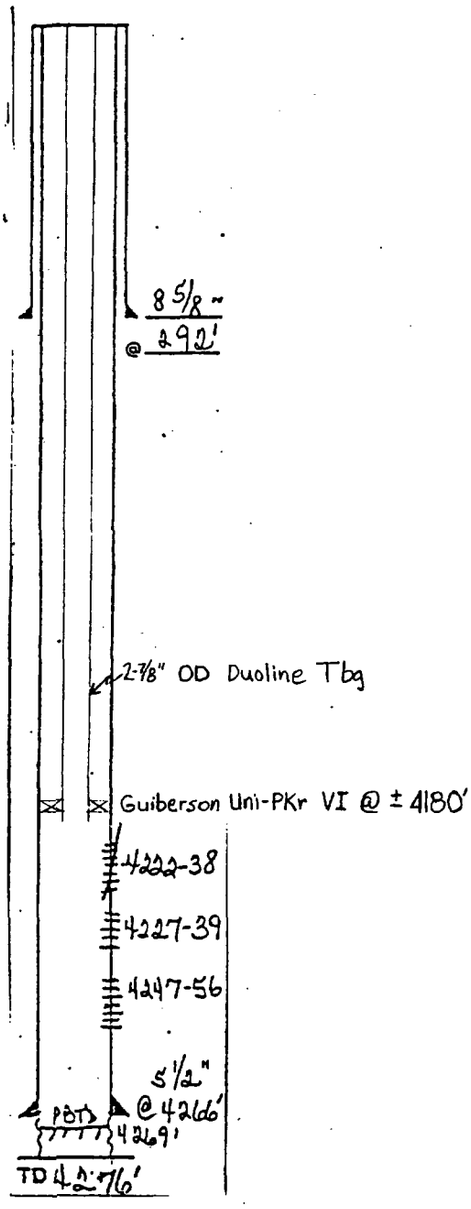
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) — NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

131	1650' FSL & 330' FWL	20	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

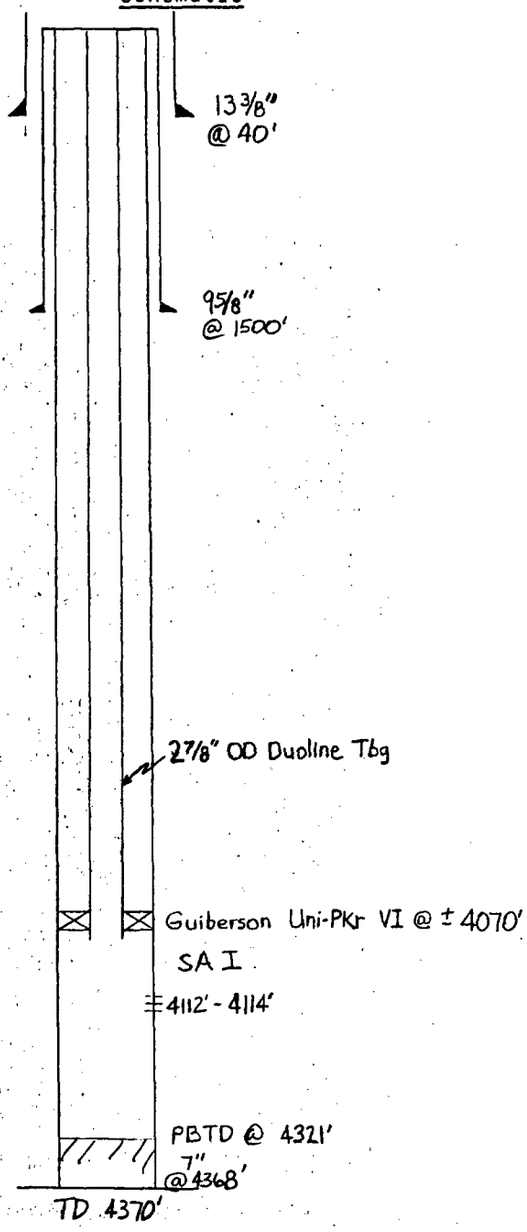
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

212	1263' FNL & 2605' FWL	24	18S	37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

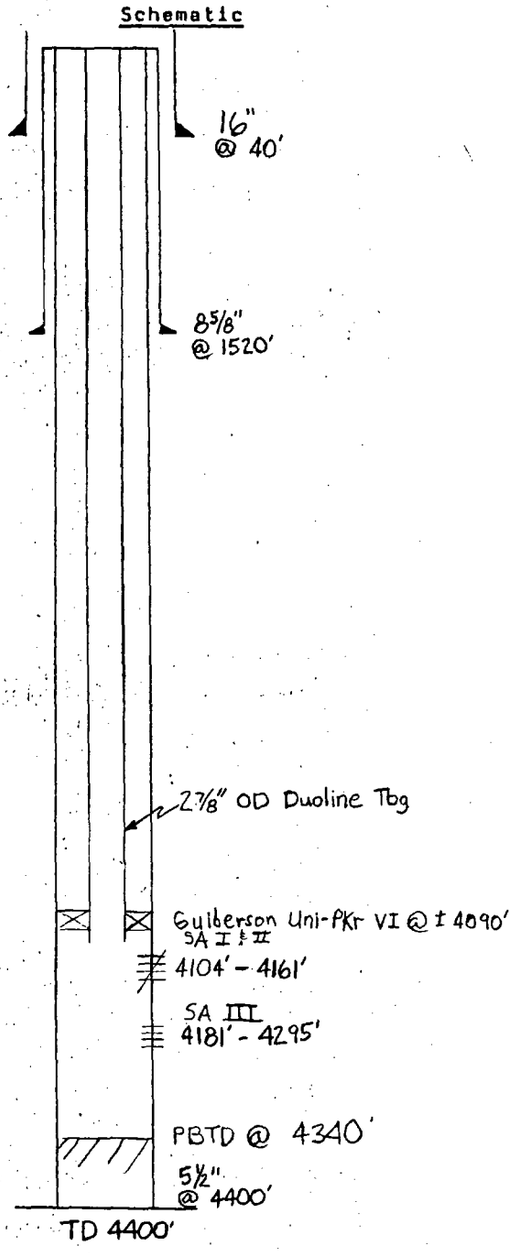
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

413	1200' FNL & 206' FEL	24	18S	37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a _____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data :

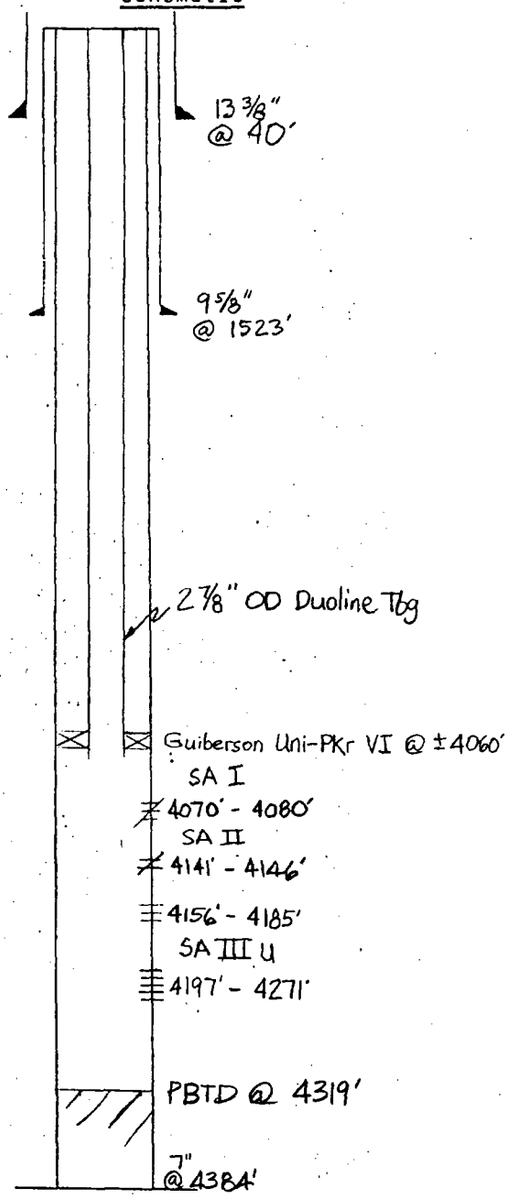
1. Name of the injection formation _____
2. Name of Field or Pool (if applicable) _____
3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
442	1260' FSL & 200' FEL	24	18S	37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data :

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

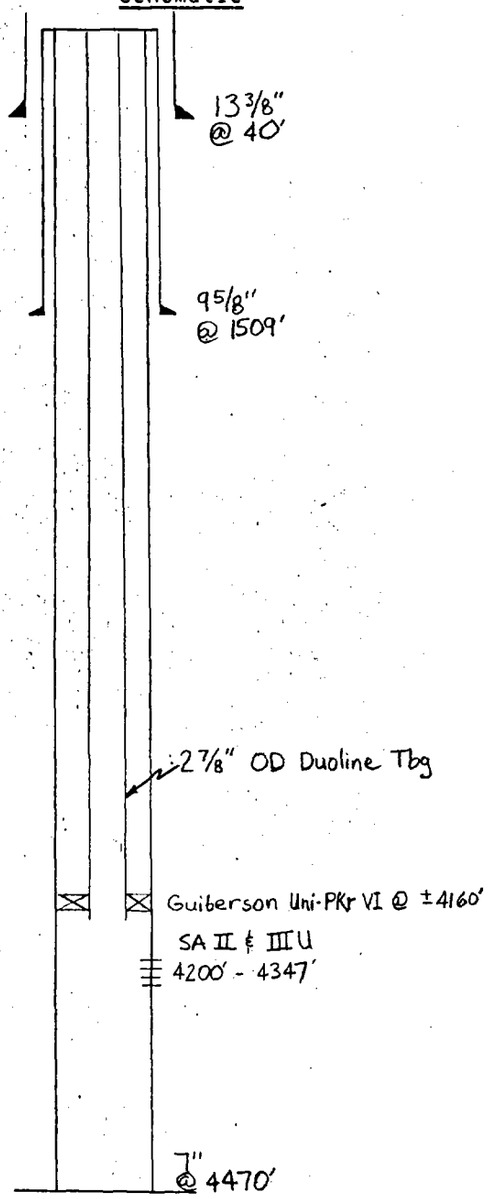
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

WELL NO.	FOOTAGE LOCATION (SURFACE/BOTTOMHOLE)	SECTION	TOWNSHIP	RANGE
242	1166/1100' FSL & 1823/2400' FWL	28	18S	38E

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data :

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

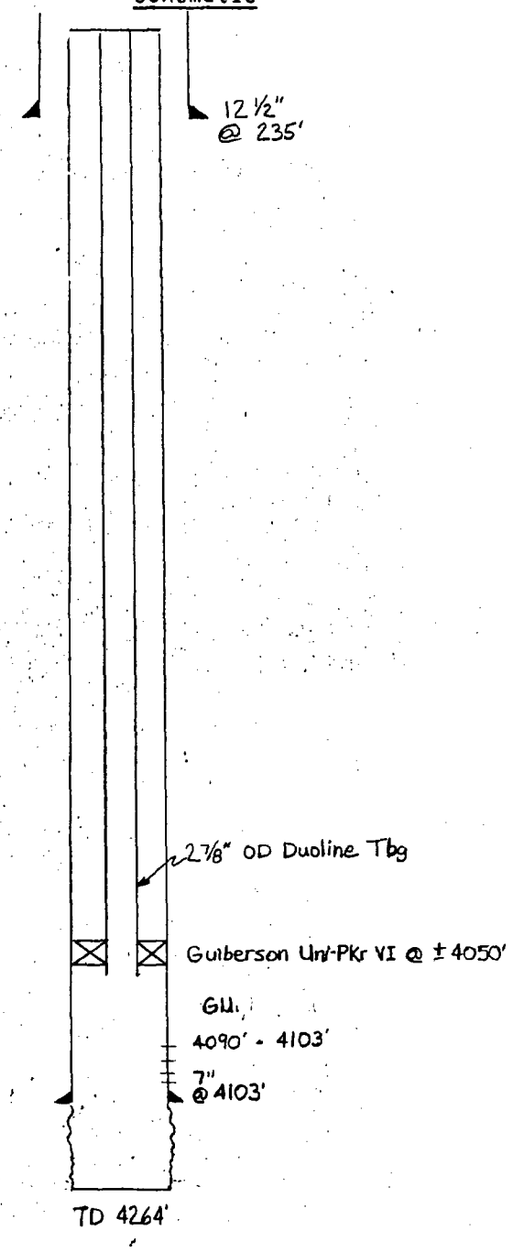
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

311	1315' FNL & 2290' FEL	28	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

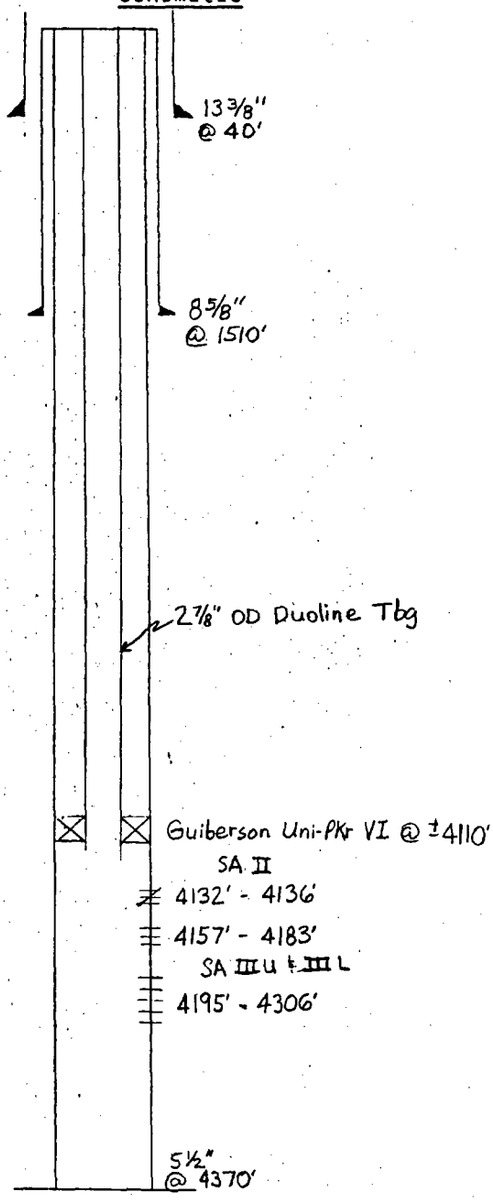
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) — NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
122	1600' FNL & 180' FWL	29	T18S	R38E

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a _____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

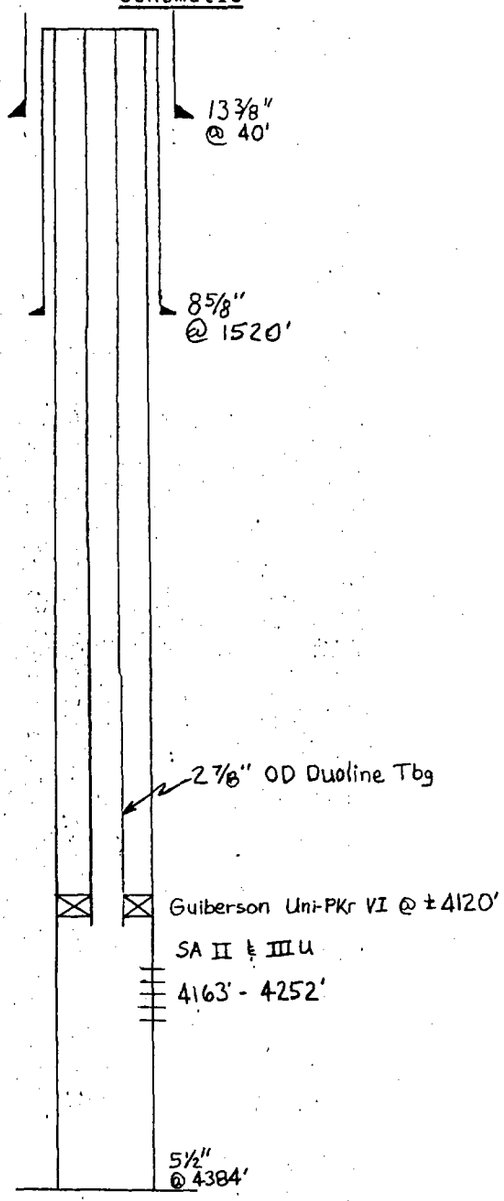
1. Name of the injection formation _____
2. Name of Field or Pool (if applicable) _____
3. Is this a new well drilled for injection? /7/ Yes /7/ No

   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
322	1430' FNL & 2350' FEL	29	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data :

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? /7 Yes /7 No

   If no, for what purpose was the well originally drilled? _____

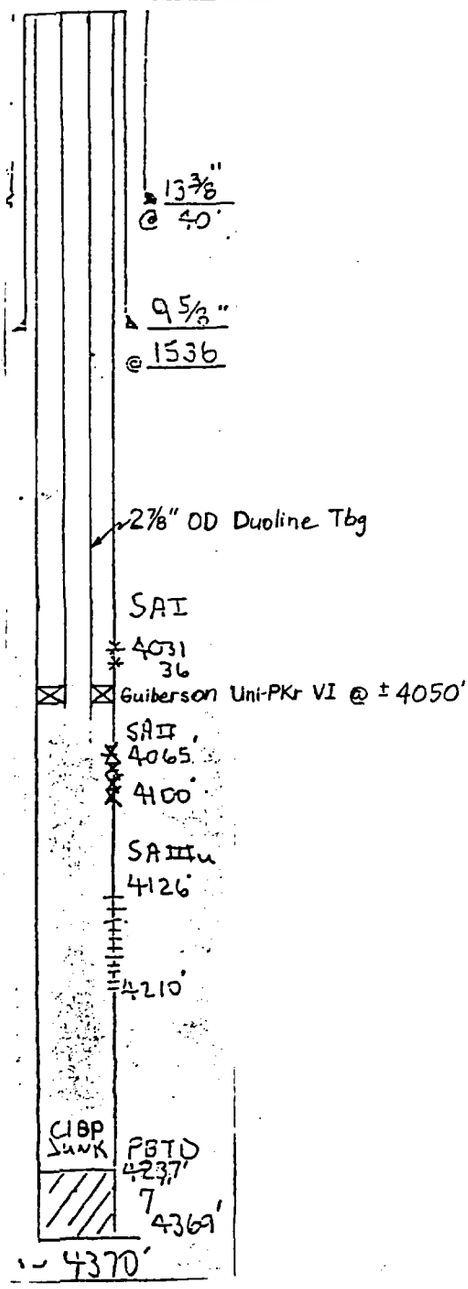
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
442	1230' FSL & 220' FEL	29	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

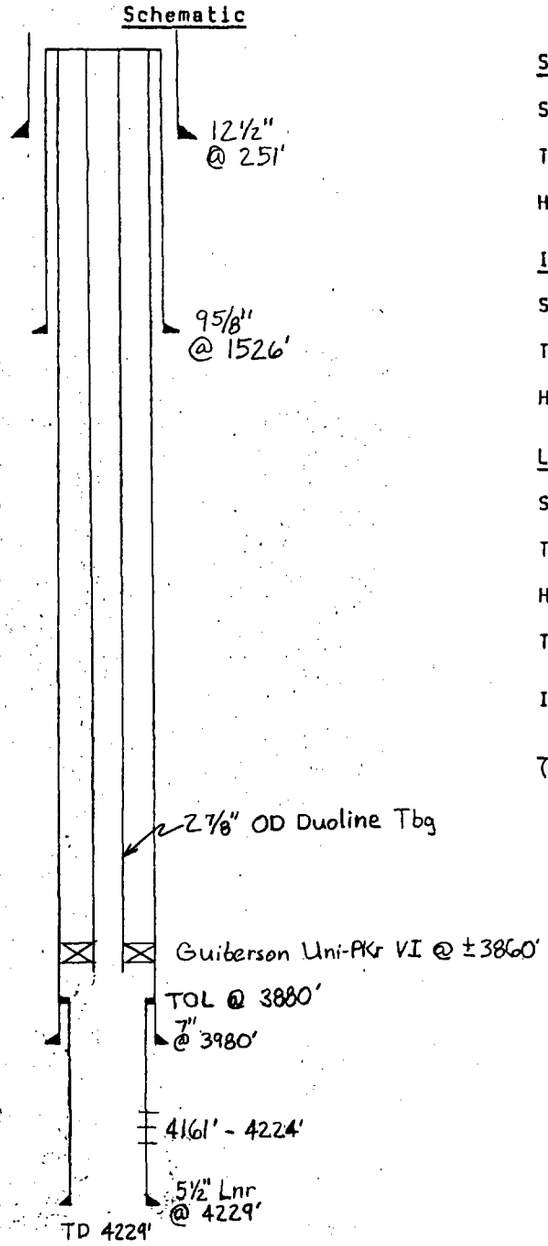
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
341	1315' FSL & 1325' FEL	31	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

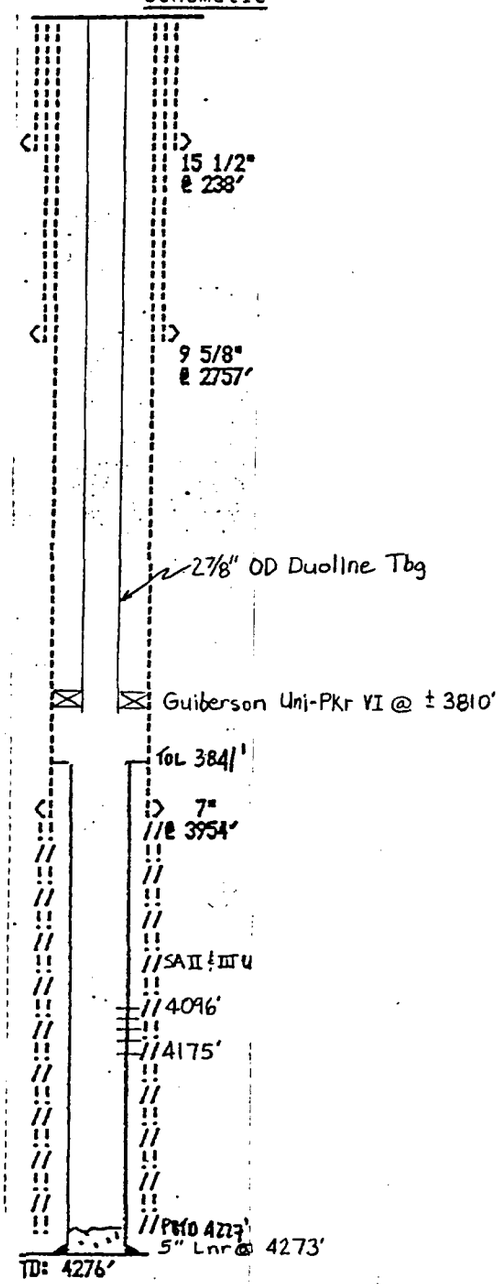
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
112	1370' FNL & 330' FWL	32	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet

(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

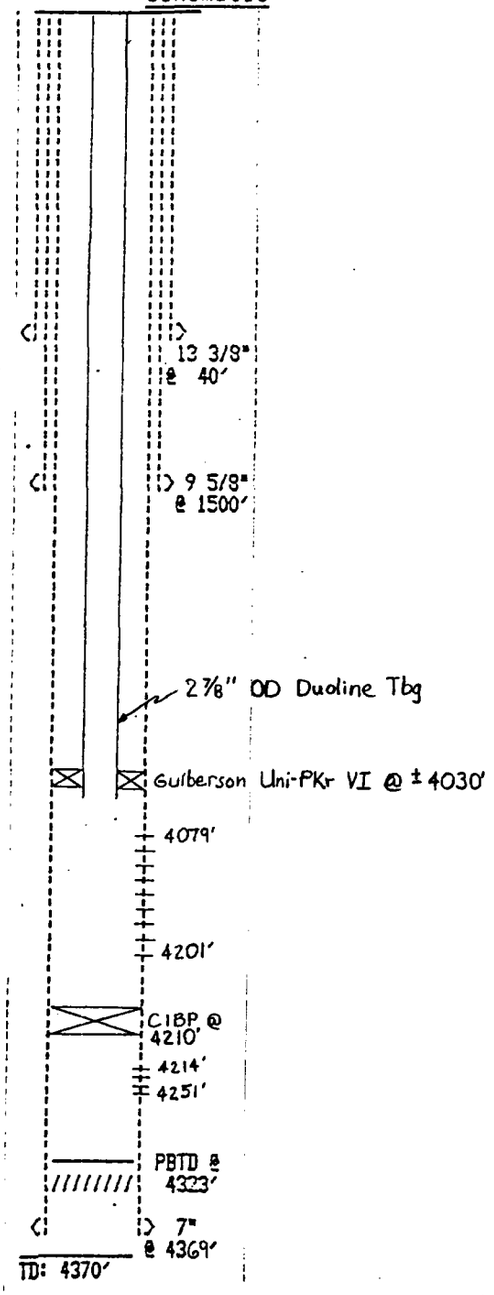
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
223	2630' FNL & 1420' FWL	32	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

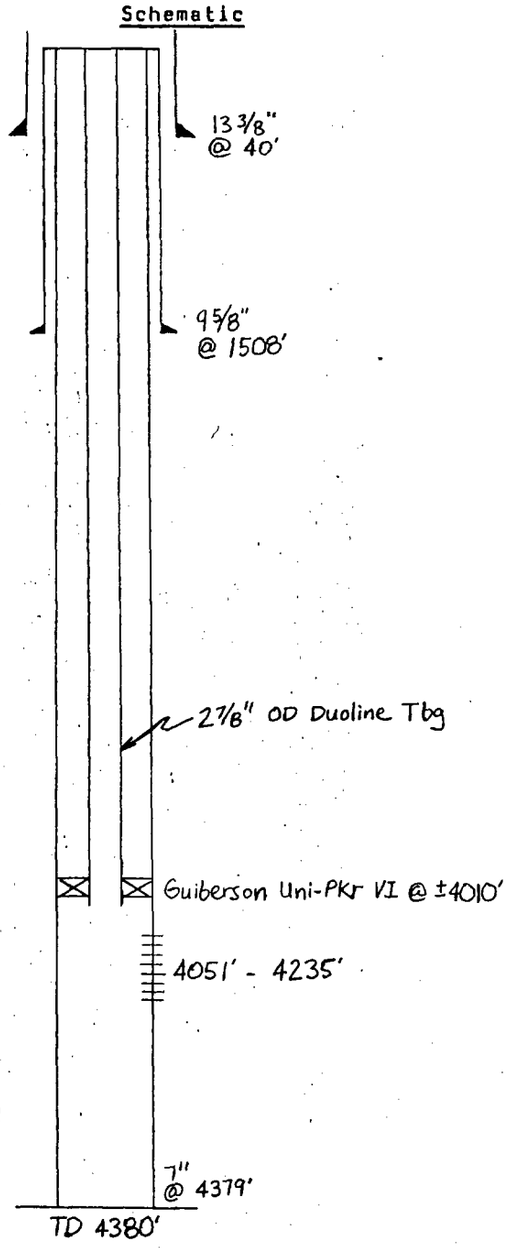
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC. (OPERATOR) NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT) (LEASE)

423	2540' FNL & 1280' FEL	32	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

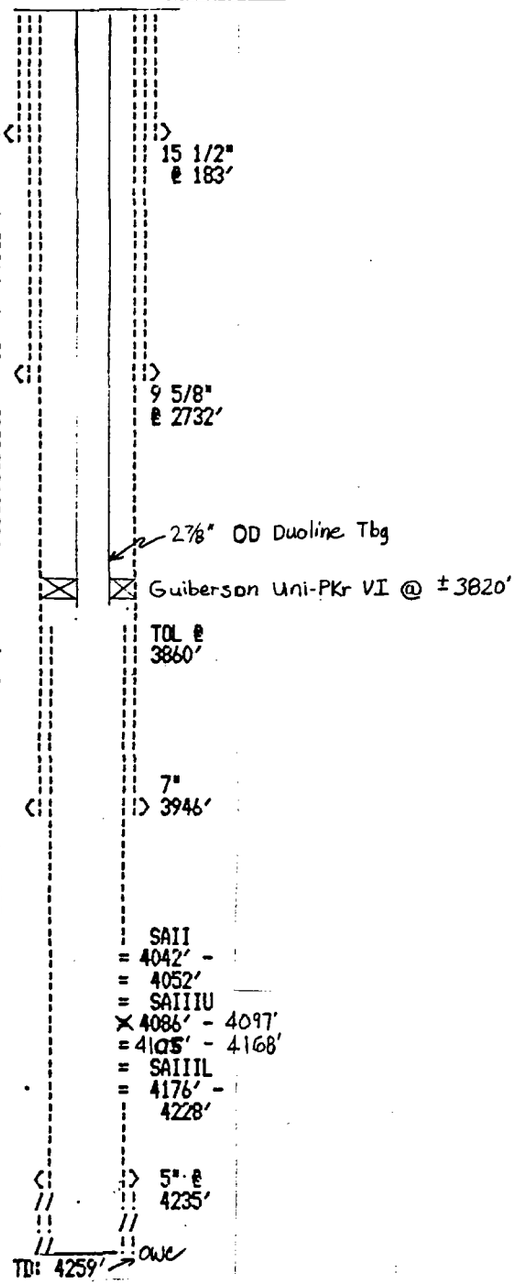
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

INJECTION WELL DATA SHEET

SHELL WESTERN E&P INC.	NORTH HOBBS (GRAYBURG/SAN ANDRES UNIT)			
OPERATOR	LEASE			
231	2310' FSL & 1320' FWL	33	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data (PROVIDED ELSEWHERE)

Surface Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ (material) set in a

_____ (brand and model) packer at _____ feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? /7/ Yes /7/ No

   If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____