



580 WestLake Park Blvd.  
Houston, TX 77079  
PO Box 4294  
Houston, TX 77210-4294  
Phone: 281-552-1000

September 14, 2000

State of New Mexico  
Energy, Minerals & Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, NM 87505

RECEIVED  
SEP 18 2000  
NEW MEXICO  
DEPARTMENT OF  
ENERGY, MINERALS &  
NATURAL RESOURCES  
OIL CONSERVATION DIVISION

RE: Expansion of Pressure Maintenance Project  
North Hobbs (Grayburg/San Andres) Unit  
Hobbs; Grayburg – San Andres Pool  
Well No. 332  
Letter G, Section 28, T-18-S, R-38-E  
Lea County, NM

Gentlemen:

Occidental Permian Limited Partnership respectfully requests administrative approval for expansion of the subject pressure maintenance project by converting North Hobbs (G/SA) Unit Well No. 332 from production to water injection. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell Western E&P Inc. (Occidental Permian Limited Partnership's predecessor) to conduct the North Hobbs (G/SA) Unit pressure maintenance project within the Hobbs; Grayburg – San Andres Pool.

The following data is submitted in support of this request:

- Form C-108 with miscellaneous data attached
- Form C-102
- A map reflecting the location of the proposed injection well (No. 332). The map identifies all wells located within a two-mile radius of the proposed injector and has a one-half mile radius circle drawn around the proposed injection well which identifies the well's Area of Review.
- An injection well data sheet
- A tabulation of data on all wells of public record within the well's Area of Review



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- Schematics of plugged wells of public record within the well's Area of Review
- A list of Offset Operators and Surface Owners (these parties have been notified of this application by certified mail)
- An Affidavit of Publication and copy of the legal advertisement that was published in the county in which the well is located.

Your favorable consideration of our request will be appreciated. If you have any questions of a technical nature, please call David Nelson at (505) 397-8211. Otherwise, please call me at (281) 552-1158.

Very truly yours,

*Mark Stephens*

Mark Stephens  
Business Analyst (SG)

CC: Oil Conservation Division  
Hobbs District Office  
1625 N. French Drive  
Hobbs, NM 88240

State of New Mexico  
Commissioner of Public Lands  
P.O. Box 1148  
Santa Fe, NM 87504-1148

Offset Operators (see attached list)

Surface Owners (see attached list)

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  Yes  No
- II. OPERATOR: Occidental Permian Limited Partnership  
ADDRESS: P.O. Box 4294, Houston, TX 77210-4294  
CONTACT PARTY: Mark Stephens, Rm. 338-B, WL2 PHONE: (281) 552-1158
- 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.
- 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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: Mark Stephens TITLE: Business Analyst (SG)

SIGNATURE: Mark Stephens DATE: 9/14/00

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: Hearing October 3, 1979; Case No. 6653, Order No. R-6199

### 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 the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

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

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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.

Attachment To Form C-108  
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit  
Well No. 332  
Letter G, Section 28, T-18-S, R-38-E  
Lea County, New Mexico

**III. Well Data**

- B.(5) Next higher oil zone -- Grayburg @ +/- 3700'  
Next lower oil zone -- Glorieta @ +/- 5300'

**VII. Proposed Operation**

1. Average Injection Rate      1500 BWPD  
Maximum Injection Rate      4000 BWPD
2. Closed Injection System
3. Average Injection Pressure      500 PSIG  
Maximum Injection Pressure      805 PSIG (approx.)  
(will not exceed 0.2 psi/ft. to top perforation)
4. Source Water – San Andres Produced Water  
(Mitchell Analytical Laboratory analysis attached)

**IX. Stimulation Program**

Acid treatment of unitized perforations will be performed during conversion work

**XI. Fresh Water Sample Analysis**  
(Laboratory Services, Inc. analysis attached – 2 ea.)

**XII. Occidental Permian Limited Partnership affirms that available geologic and engineering data has been examined resulting in the finding of no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.**

# MITCHELL ANALYTICAL LABORATORY

2638 Faudree  
Odessa, Texas 79765-8538  
561-5579

## Water Analysis

Company.... Nalco/Exxon Energy Chemicals

Well # .... WIS DISCHARGE PUMP

Lease..... ALTURA NHU

Location...

Date Run... 11/08/1999

Lab Ref #.. 99-NOV-N05126

Sample Temp... 70.0

Date Sampled.. 11/05/1999

Sampled by.... Mike Athey

Employee # ... 27-008

Analyzed by... DANIEL

### Dissolved Gasses

			Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H2S)		486.00	16.00	30.38
Carbon Dioxide	(CO2)	Not Analyzed			
Dissolved Oxygen	(O2)	Not Analyzed			

### Cations

Calcium	(Ca++)	804.00	20.10	40.00
Magnesium	(Mg++)	195.20	12.20	16.00
Sodium	(Na+)	3,459.66	23.00	150.42
Barium	(Ba++)	Not Analyzed		
Manganese	(Mn++)	Not Analyzed		

### Anions

Hydroxyl	(OH-)	Not Analyzed		
Carbonate	(CO3=)	0.00	30.00	0.00
Bicarbonate	(HCO3-)	1,869.66	61.10	30.60
Sulfate	(SO4=)	1,700.00	48.80	34.84
Chloride	(Cl-)	5,005.50	35.50	141.00
Total Iron	(Fe)	0.30	18.60	0.02
Total Dissolved Solids		13,520.32		
Total Hardness As CaCO3		2,810.32		
Conductivity MICROMHOS/CM		23,500		

pH 6.500 Specific Gravity 60/60 F. 1.009

CaSO4 Solubility @ 80 F. 46.63 MEq/L, CaSO4 scale is unlikely

### CaCO3 Scale Index

70.0	0.190
80.0	0.310
90.0	0.530
100.0	0.530
110.0	0.790
120.0	0.790
130.0	1.090
140.0	1.090
150.0	1.370

*Nalco/Exxon Energy Chemicals*

**Laboratory Services, Inc.**

4016 Fiesta Drive  
Hobbs, New Mexico 88240  
Telephone: (505) 397-3713

**Water Analysis**

**COMPANY** Altura Energy Ltd.,

**SAMPLE** Fresh Water Well for Well NHU 28332  
**SAMPLED BY**

**DATE TAKEN** 8/8/00  
**REMARKS** T18S-R38E-Sec28; Qtr Sec 2,3,2

Barium as Ba	0
Carbonate alkalinity PPM	60
Bicarbonate alkalinity PPM	212
pH at Lab	7.44
Specific Gravity @ 60°F	1
Magnesium as Mg	169
Total Hardness as CaCO <sub>3</sub>	292
Chlorides as Cl	127
Sulfate as SO <sub>4</sub>	120
Iron as Fe	0.1
Potassium	0.1
Hydrogen Sulfide	0
Rw	13 @ 23° C
Total Dissolved Solids	815
Calcium as Ca	123
Nitrate	3

Results reported as Parts per Million unless stated

Langelier Saturation Index -0.23

Analysis by: Vickie Walker  
Date: 8/11/00

**Laboratory Services, Inc.**

4016 Fiesta Drive  
Hobbs, New Mexico 88240  
Telephone: (505) 397-3713

**Water Analysis**

**COMPANY** Altura Energy Ltd.,

**SAMPLE** Fresh Water Well for Well NHU 28332  
**SAMPLED BY**

**DATE TAKEN** 8/8/00

**REMARKS** T18S-R38E-Sec28; Qtr Sec 2,3,2

Barium as Ba	0
Carbonate alkalinity PPM	36
Bicarbonate alkalinity PPM	228
pH at Lab	7.52
Specific Gravity @ 60°F	1
Magnesium as Mg	162
Total Hardness as CaCO <sub>3</sub>	280
Chlorides as Cl	118
Sulfate as SO <sub>4</sub>	165
Iron as Fe	0
Potassium	0.1
Hydrogen Sulfide	0
Rw	14
Total Dissolved Solids	831
Calcium as Ca	118
Nitrate	4

Results reported as Parts per Million unless stated

Langelier Saturation Index -0.05

Analysis by: Vickie Walker  
Date: 8/11/00

DISTRICT I  
P.O. Box 1988, Hobbs, NM 88241-1988

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0718

DISTRICT III  
1000 Rio Bravos Rd., Artesia, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code		Pool Name			
30-025-31655		31920		HOBBS; GRAYBURG - SAN ANDRES			
Property Code 19520		Property Name NORTH HOBBS G/SA UNIT				Well Number 332	
OGRID No. 157984		Operator Name Occidental Permian Limited Partnership				Elevation 3638	

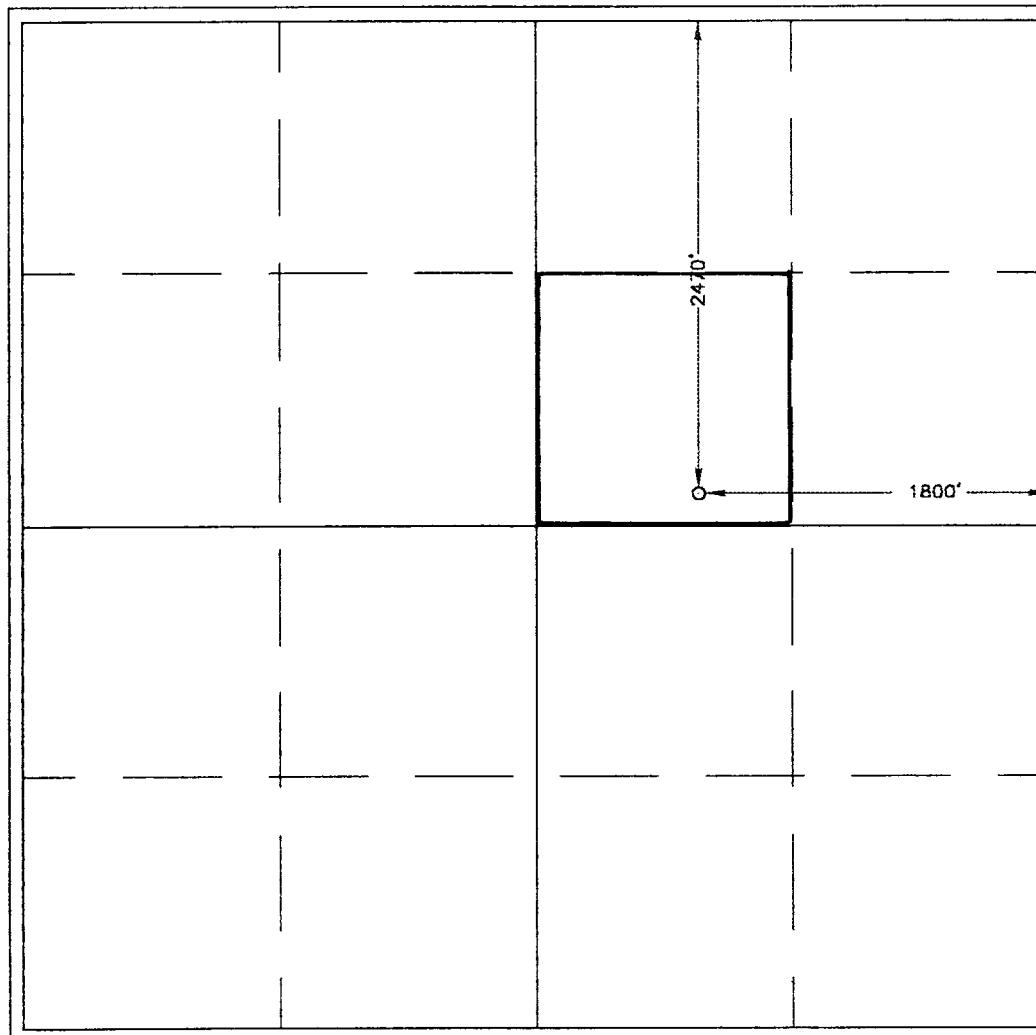
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	28	18 S	38 E		2470	NORTH	1800	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code		Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Mark Stephens

Signature

Mark Stephens

Printed Name

Business Analyst (SG)

Title

September 12, 2000

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 6, 2000

Date Surveyed DC  
Signature & Seal of Professional Surveyor

Barry Edson 1/28/2000

00-13-0019

Certificate No. RONALD J. EIDSON 3239  
GARY EIDSON 12841  
MACON McDONALD 12185

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Bravos Rd., Artesia, NM 88410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

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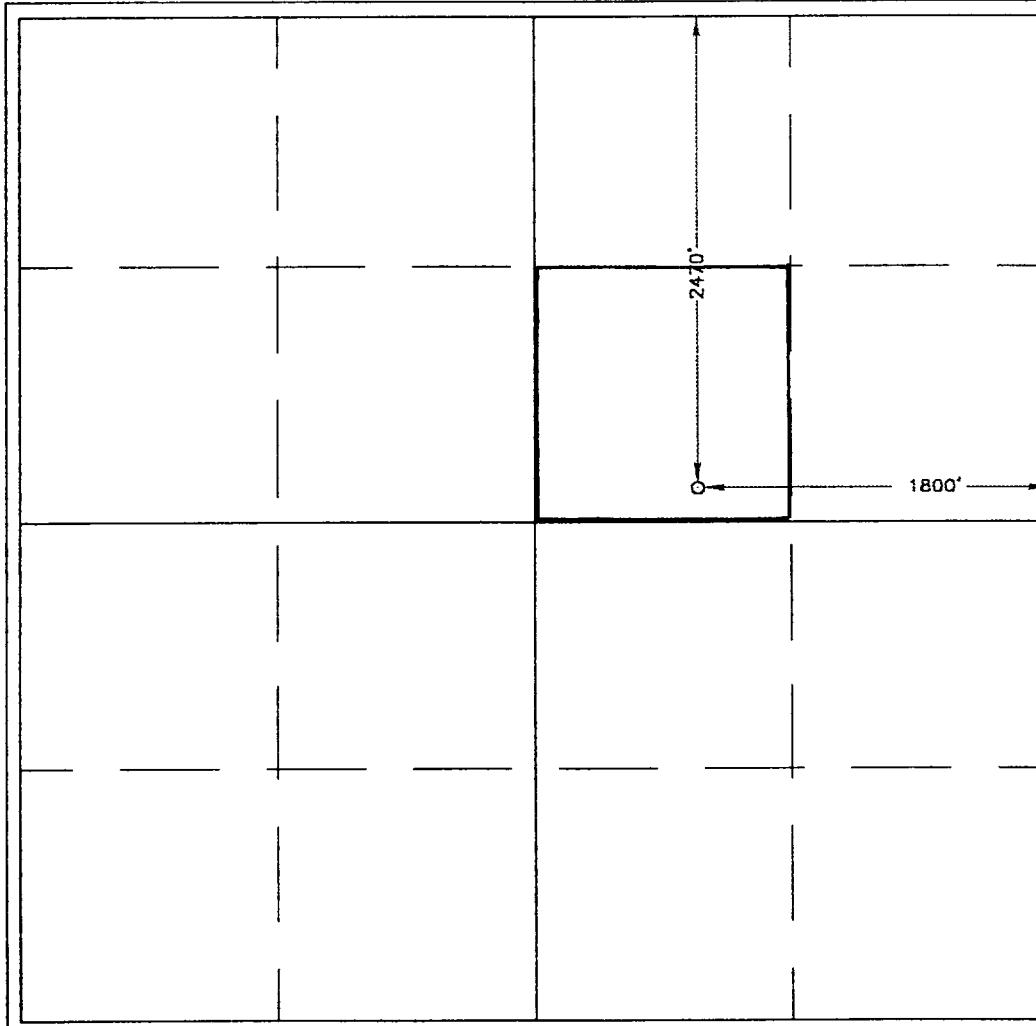
Surface Location

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Bottom Hole Location If Different From Surface

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Mark Stephens

Signature

Mark Stephens

Printed Name

Business Analyst (SG)

Title

September 12, 2000

Date

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I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 6, 2000

Date Surveyed DC

Signature & Seal of  
Professional Surveyor

NEW MEXICO

Gary Edson 1/6/2000

00-13-0019

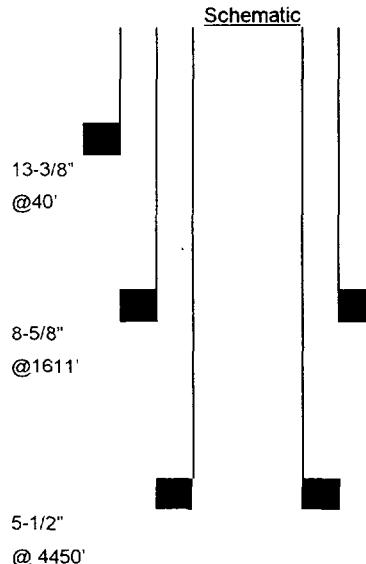
Certificate No. RONALD L. EDSON 3239  
GARY EDSON 12541  
WALCON McDONALD 12185



LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

# INJECTION WELL DATA SHEET

Operator Occidental Permian Limited Partnership	Lease North Hobbs G/SA Unit	County Lea
Well No. 28-332	Footage Location 2470' FNL & 1800' FEL	Section 28 Township 18-S Range 38-E Unit Letter G/B



<u>Tubular Data</u>					
<u>Surface Casing</u>					
Size	13-3/8"	Cemented with	NA	sxs.	
TOC	SURF	Determined by	NA		
Hole size					
<u>Intermediate Casing</u>					
Size	8-5/8"	Cemented with	850	sxs.	
TOC	SURF	Determined by	CIRC		
Hole size					
<u>Long string Casing</u>					
Size	5-1/2"	Cemented with	850	sxs.	
TOC	SURF	Determined by	CIRC		
Hole size					
<u>Liner</u>					
Size		Cemented with		sxs.	
TOC		Determined by			
Hole size					
<u>Total depth</u>	4455'				

Injection interval  
4100 feet to 4300 feet

Completion type      Perforated Casing

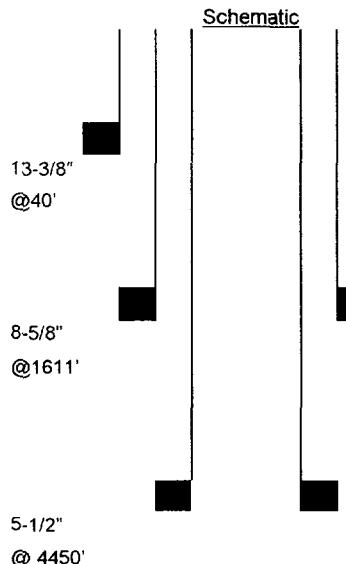
Tubing size	<u>2-7/8"</u>	lined with	<u>Duoline (Fiberglass liner)</u>	set in a
Guiberson – Uni VI		(brand and model)	packer at	<u>4000'</u> feet

Other Data

1. Name of the injection formation      San Andres
2. Name of field or Pool      Hobbs
3. Is this a new well drilled for injection?  
If no, for what purpose was the well originally drilled?      Yes  No   
Producer
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)  
San Andres : 4198'-4306'
5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.  
Grayburg – 3270, Glorieta – 5300

# INJECTION WELL DATA SHEET

Operator Occidental Permian Limited Partnership	Lease North Hobbs G/SA Unit	County Lea
Well No. 28-332	Footage Location 2470' FNL & 1800' FEL	Section 28 Township 18-S Range 38-E Unit Letter G/B



<u>Tubular Data</u>		
<u>Surface Casing</u>		
Size	13-3/8"	Cemented with
TOC	SURF	Determined by
Hole size	_____	
<u>Intermediate Casing</u>		
Size	8-5/8"	Cemented with
TOC	SURF	Determined by
Hole size	_____	
<u>Long string Casing</u>		
Size	5-1/2"	Cemented with
TOC	SURF	Determined by
Hole size	_____	
<u>Liner</u>		
Size	_____	Cemented with
TOC	_____	Determined by
Hole size	_____	
Total depth	4455'	

Injection interval      4100 feet to 4300 feet

Completion type      Perforated Casing

Tubing size      2-7/8" lined with      Duoline (Fiberglass liner) set in a  
Guiberson - Uni VI      (brand and model)      packer at      4000' feet

Other Data

1. Name of the injection formation      San Andres

2. Name of field or Pool      Hobbs

3. Is this a new well drilled for injection?  
 If no, for what purpose was the well originally drilled?      Yes       No      Producer

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)  
San Andres : 4198'-4306'

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

Grayburg - 3270, Glorieta - 5300

## OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

## FOR WELLS 28332,29231,29321,30223,32312,32431

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTID	Top	Bot.	Sqz. Perf	Csg. Perf	Hole Size	Depth	No. of Sxs.	TOC
Operator																
19241	30-025-07364	19 -18S	-38E	N	9//30	SI	4244	4144	4232	NONE	12.5	18	246	200	CIRC	
Oxy							PBTID			9.625	12	2750	600	CIRC		
										7	8.75	3975	225	3230		
										5.5	7.875	3936-4246	100	3936		
19242	30-025-23481	19 -18S	-38E	N	5//70	P	4186	4276	4179	4020-4058	13.375	17.5	360	360	CIRC**	
Oxy										4192-4196	9.625	12.25	3794	500	CIRC**	
										5.5	8.75	3537-7103	950	CIRC**		
19341	30-025-12491	19 -18S	-38E	O	9//30	TA	4005	4140	4272	NONE	9.625	12.25	2750	600	330**	
Oxy							CIBP			7	8.75	3975	225	3299 CBL		
										5.5 Lnr	6.125	3937-4245	100	3937		
27121	30-025-12494	27 -18S	-38E	E	6//36	P	4244	4108	4250	1730	12.5	17.5	270	150	CIRC	
Oxy							PBTID			2475	9.625	12.25	1705	575	CIRC	
										7	8.75	4108	275	CIRC**		
27131	30-025-07410	27 -18S	-38E	L	6//35	P	4252	4034	4252	NONE	12.5	16.5	259	150	CIRC**	
Oxy										9.625	12.25	1645	200	1202**		
										7	8.75	4075	250	2818**		
27221	30-025-30910	27 -18S	-38E	E/L	12//91	I	4509	4430	4495	NONE	14	17.5	53	NA	NA	
Oxy							PBTID			8.625	12.25	1658	850	CIRC		
										5.5	8.875	4546	1035	CIRC		
27231	30-025-12495	27 -18S	-38E	K	7//37	P	4375	4086	4375	NONE	13	17.5	274	150	CIRC	
Oxy							OPEN HOLE			9.625	12.25	1718	450	CIRC		
										7	8.75	4086	250	3225-CBL		
28111	30-025-07422	28 -18S	-38E	D	7//34	I	4288	4214	4273	4041-4053	15.5	18	296	200	CIRC	
Oxy										4073-4097	10	12.75	2704	150	2304	
										4106-4120	7	8.75	3956	250	2244	
										4147-4160	4.5	6.25	3913-4234	50	CIRC**	
										4172-4182						

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator				Ltr	Date	Type	PBTID	Perf	Perf	Perf	Size	Size	Depth	Sxs.	
28121	30-025-07420	28	-18S	-38E	E	9//30	P	4247	4139	4233	NONE	12.5	16	228	245
Oxy							PBTID				9.625	11.75	2750	700	
											7	8.75	3942	300	
											4.5	6.25	3893-4250	65	
28122	30-025-28964	28	-18S	-38E	E	12//84	P	4326	4034	4264	NONE	13.375	17.5	40	NA
Oxy							Cmt				8.625	12.25	1525	675	
											5.5	7.875	4384	740	
28131	30-025-12497	28	-18S	-38E	L	9//30	P	4263	4048	4263	3190-3202	12.5	16	238	200
Oxy							PBTID	4124-4151	9.625	9.625	12	12	2751	600	
											7	8.75	3973	225	
											5.5	7.875	3932-4233	100	
28132	30-025-23277	28	-18S	-38E	L	11//69	P	4257	4019	4255	4144-4146	13.375	17.5	352	200
Oxy							PBTID	4158-4172	9.625	9.625	12	12	3816	1400	
											7	8.75	3611-7143	335	
														3611	
28141	30-025-12496	28	-18S	-38E	M	9//30	P	4228	4066	4220	4033	12.5	16	236	225
Oxy							CIBP	4035	9.625	9.625	12	12	2750	475	
								4038	7	8.75	8.75	3960	350	2450	
								4040	5	6.5	6.5	4228	65	2990	
28142	30-025-23246	28	-18S	-38E	M	10//69	P	4030	3890	3968	NONE	13.375	17.5	372	350
Oxy							PBTID				9.625	12.25	3787	1400	
											7	8.75	3589-7102	720	
														CIRC	
28211	30-025-07425	28	-18S	-38E	C	9//35	I	4171	4036	4262	NONE	15.5	18	243	300
Oxy											10.75	15	2733	200	
											7	8.75	4036	680	
														2715-TS	
28311	30-025-07417	28	-18S	-38E	B	7//35	I	4264	4090	4264	NONE	12.5	16	235	150
Oxy											7	8.75	4103	500	
														CIRC**	
28321	30-025-07416	28	-18S	-38E	G	2//35	P	4234	4000	4260	NONE	12.5	16	264	150
Oxy														CIRC	

\*\* Denotes calculated TOC with 50% efficiency

## OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	TOC	
Operator							Type	PBTID	Perf	Perf	Perfs	Size	Size	Sxs.	TOC	
Oxy							PBTID	PBTID			7	8.75	4000	500	976**	
28331	30-025-07412	28	-18S	-38E	J	5//35	P	4280	4015	4268	4081-4093	10.75	13.5	245	150	CIRC
Oxy												7.625	9.625	1635	300	186
												5.5	6.25	4015	300	2662-CBL
												4.5	6.5	3987-4280	100	3987
28411	30-025-07419	28	-18S	-38E	A	4//36	P	4223	4133	4225	15	12.5	16	227	160	CIRC**
Oxy								PBTID			17	7	8.75	4133	750	2550-CBL
												475				
28421	30-025-07418	28	-18S	-38E	H	5//35	TA	4262	4020	4262	NONE	12.5	16	235	150	CIRC
Oxy												7	8.75	4020	200	2677-CBL
28422	30-025-27243	28	-18S	-38E	H	5//48	I	4470	4239	4268	4222-4228	16	20	40	40	CIRC
Oxy											4242-4244	8.625	12.25	1600	850	CIRC
											4252-4256	5.5	7.875	4503	1050	CIRC
											4269-4271					
28431	30-025-07413	28	-18S	-38E	I	8//35	P	4225	3993	4218	2660	10.75	13.5	225	150	CIRC**
Oxy											7.625	9.625	1634	400	400	
											5.5	7.875	3993	400	2698-CBL	
28441	30-025-07411	28	-18S	-38E	P	1//35	I	4272	4102	4257	NONE	10.75	13.5	243	150	CIRC
Oxy								PBTID				7.625	9.625	1634	300	185
											5.5	6.25	4015	300	CIRC	
29111	30-025-23919	29	-18S	-38E	D	12//71	P	4287	4183	4287	3905-4250	8.625	11	310	150	CIRC
Oxy								PBTID				5.5	7.875	3905	300	2427**
29121	30-025-07449	29	-18S	-38E	E	3//47	P	4275	3924	4275	4070-85	9.625	12.25	2739	650	890
Oxy											4110-20	7	8.75	3104	100	2640 CBL
											4130-50	4.5 Lmr	6.25	2900-4201	100	2900
29122	30-025-28953	29	-18S	-38E	E	2//85	I	4215	4154	4211	NONE	13.375	17.5	40	NA	CIRC
Oxy								(CIBP)				8.625	11	1510	785	CIRC
												5.5	7.875	4370	435	CIRC

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name Operator	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	PBTD	TD or Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
29131 Oxy	30-025- 07447	29 -18S	-38E	L	10/30	P	4168	4050	4210	NONE	12.5	18	225	250	CIRC 660**	
								PBTID			9.625	12	2750	650		
										7	8.75	3976	300	1504-CBL		
										5	6.125	3870-4220	50	3930-CBL		
29132 Oxy	30-025- 26917	29 -18S	-38E	L	12/80	I	4470	4025	4245	NONE	16	20	40	40	CIRC CIRC**	
								PBTID			8.625	12.25	1595	785		
										5.5	7.875	4510	900			
29141 Oxy	30-025- 07448	29 -18S	-38E	M	8/30	I	4238	3690	4228	3960-4108	12.5	18	203	200	CIRC	
								PBTID			9.625	12	2736	650	1000**	
										7	8.75	3960	300	1850**		
										5.5	7.875	3941	250	3460-CBL		
										4.5	6.25	3417-4238	50	3774-CBL		
29211 Oxy	30-025- 07433	29 -18S	-38E	C	11/30	TA	4003	4217	4270	4053-4150	12.5	18	243	250	CIRC	
								CIBP			9.625	12	2796	400	CIRC	
										7	8.75	4007	500	3014**		
										5.5	6.25	3957-4238	50	3957		
29221 Oxy	30-025- 07430	29 -18S	-38E	F	9/30	P	4210	4118	4176	4154-4162	12.5	18	210	200	CIRC	
								PBTID			9.625	12	2704	400	1236	
										7	8.75	3979	500	2753		
										4.5	6.125	3910-4213	50	3910		
29222 Oxy	30-025- 26934	29 -18S	-38E	F	4//81	I	4465	4175	4265	NONE	16	20	40	40	CIRC	
											8.625	12.25	1605	950	CIRC	
											5.5	7.875	4510	1050	CIRC	
29231 Oxy	30-025- 07438	29 -18S	-38E	K	10/30	P	4255	4106	4255	NONE	15.5	18	252	1000	CIRC**	
											9.625	12.25	2729	600	CIRC	
											7	8.75	3953	300	2718	
											5	6.25	3906-4220	50	3906	
29241 Oxy	30-025- 07437	29 -18S	-38E	N	10/30	I	4255	4076	4239	NONE	12.5	18	217	160	CIRC	
											9.625	12	2730	500	895	
											7	8.75	3929	350	1850	

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator								Perf	Perf	Perf	Size	Size	Depth	Sxs.	TOC
29242	30-025-28413	29 -18S	-38E	N	3/84	P	4370	4005	4257	4019	16	20	30	NA	CIRC
Oxy									4037	8.625	12.25	1511	750	750	CIRC
29311	30-025-07432	29 -18S	-38E	B	10/30	P	4269	4044	4269	4090-4110	12.5	16	241	250	113
Oxy									4171	9.625	11.75	2776	400	400	2750
29321	30-025-07431	29 -18S	-38E	G	9/30	P	4301	4137	4271	3895	12.5	16	211	250	CIRC
Oxy							PBTID		4100	9.625	11.75	2756	250	250	921
29322	30-025-28883	29 -18S	-38E	G	11//84	I	4342	4160	4256	NONE	13.375	17.5	40	NA	CIRC
Oxy							PBTID			8.625	12.25	1520	620	620	CIRC
29323	30-025-28941	29 -18S	-38E	G	1//85	P	4180	3089	4272	NONE	13.375	17.5	40	NA	CIRC
Oxy							PBTID			5.5	7.875	4384	850	850	CIRC
29331	30-025-07436	29 -18S	-38E	J	9/30	I	4261	4100	4258	4044-4065	9.625	12.25	1542	375	CIRC
Oxy							PBTID			5.5	7.875	4370	450	450	575-CBL
29341	30-025-07445	29 -18S	-38E	O	10/30	P	4090	4050	4146	4010-4035	13.375	15	2742	500	907
Oxy							PBTID			9.625	12	3929	300	300	2115
29342	30-025-28884	29 -18S	-38E	O	11//84	I	4375	4083	4250	NONE	13.375	17.5	40	NA	NA
Oxy										8.625	12.25	1520	620	620	CIRC
29411	30-025-07454	29 -18S	-38E	A	10/30	I	4335	4200	4335	4102-4137	12.5	16	245	250	CIRC

\*\* Denotes calculated TOC with 50% efficiency

## OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name Operator	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
29431 Oxy	30-025-07458	29	-18S	-38E	I	10//30	P	4227	4155	4225	4010	15.5	18	228	200	CIRC**
								PBTD		4075		9.625	12.25	2720	600	CIRC**
											7	8.75	3900	400	978**	
											5.5	6.25	3941-4223	30	2231**	
															30	3941**
29441 Oxy	30-025-07444	29	-18S	-38E	P	10//30	P	4211	4058	4266	4020-4028	13.375	18	232	150	CIRC**
								PBTD			9.625	12	2743	1400	CIRC**	
											7	8.75	3950	300	CIRC**	
											5	6.5	4172	22	3240-CBL	
															22	4020
29442 Oxy	30-025-28885	29	-18S	-38E	P	2//85	I	4237	4065	4210	4031	13.375	17.5	40	NA	CIRC
								CIBP		4036		9.625	12.25	1536	575	CIRC
											7	7.875	4370	1100	CIRC	
29544 Oxy	30-025-34644	29	-18S	-38E	P	7//99	P	4359	4124	4256	NONE	14	18	40	50	CIRC
								PBTD			8.625	12.25	1565	725	CIRC	
											5.5	7.875	4400	775	CIRC	
30112 Oxy	30-025-29063	30	-18S	-38E	D	3//85	TA	4000	4034	4264	NONE	13.375	17.5	40	NA	NA
								CIBP			9.625	12.25	1520	250	CIRC	
											7	8.75	4369	675	CIRC	
30113 Oxy	30-025-29064	30	-18S	-38E	D	1//85	P	4310	4042	4285	NONE	13.375	17.5	55	NA	CIRC
								CIBP			8.625	12.25	1495	620	CIRC	
											5.5	7.875	4370	990	CIRC	
30121 Oxy	30-025-07464	30	-18S	-38E	E	9//30	I	4115	4160	4271	4042-4096	12.5	16	212	200	CIRC**
								PBTD			9.625	11.75	2749	400	1281**	
											7	8.75	3994	425	2738-CBL	
											5	6.125	3841-4312	40	CIRC-CBL	
30131 Oxy	30-025-07481	30	-18S	-38E	L	10//30	P	4256	4082	4270	4006-70	9.625	11.75	2751	550	733
								CIBP			4116-40	7	8.75	3900	350	1783

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name Operator	API No.	Sec.	T	R	Un	Drill Ltr	Well Date	Type PBTD	TD or Perf	Top Bot. Perf	Sqz. Perf	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
30211 Oxy	30-025-07463	30 -18S	-38E	C	8/30	P	4254	4149	4250	4078	9.625	12.25	2647	400	2940**	
										4086	6.625	7.875	3972	250	3130 CBL	
										4100	5 Lnr	6.5	3867-4310	100	CIRC**	
30221 Oxy	30-025-07462	30 -18S	-38E	F	4/30	P	4279	4072	4208-79	4023-4025	9.625	11.75	2750	535	787	
										OH	4081-4104	7	8.25	3852	250	1500 CBL
										4120-4128	4.5 Lnr	6.25	3799-4207	125	3799	
30222 Oxy	30-025-26833	30 -18S	-38E	F	10//80	I	4290	4123	4302	3718	16	20	40	40	CIRC	
										CIBP	4322-29	8.625	12.25	1570	950	CIRC
												5.5	7.875	4349	800	2608 CBL
30231 Oxy	30-025-07479	30 -18S	-38E	K	7//30	TA	4015	4119	4256	943-955	20	22	215	75	67	
										4166-4190	9.625	12.25	2750	400	1589	
											7	8.75	3930	550	604	
												5	6.25	4200	60	3193-CBL
30232 Oxy	30-025-26935	30 -18S	-38E	K	12//80	I	4519	4138	4310	4170-78	16	18	40	40	CIRC	
										4186-94	8.625	11	1600	875	CIRC	
											5.5	7.875	4555	1155	2614 CBL	
30233 Oxy	30-025-28942	30 -18S	-38E	K	2//85	P	4210	4148	4240	NONE	13.375	17.5	55	NA	NA	
											8.625	11	1507	620	CIRC	
											5.5	7.875	4383	1070	CIRC	
											2.375	5	4060	NA	NA	
30311 Oxy	30-025-07469	30 -18S	-38E	B	8//30	TA	3950	3998	4121	2601	13.5	16	245	200	CIRC	
										RBP	9.625	11.75	2753	600	551	
											7	8.75	3998	250	3154	
30312 Oxy	30-025-29197	30 -18S	-38E	B	5//85	P	4380	4215	4333	NONE	13.375	17.5	40	NA	NA	
											9.625	12.25	1500	650	CIRC	
											7	8.75	4431	700	CIRC	
30313	30-025-23270	30 -18S	-38E	B	11//69	TA	4065	5871	5951	5805-53	13.375	17.5	382	400	CIRC	

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator								Perf	Perf	Perf	Perf	Size	Depth	Sxs.	TOC
Oxy															
30321	30-025-07467	30	-18S	-38E	G	7//30	P	4257	4130	4196	4030-60	9.625	11.75	2755	600
Oxy															553
30331	30-025-07472	30	-18S	-38E	J	8//30	P	4238	4014	4225	4068-4072	12.5	15	242	225
Oxy															CIRC
															CIRC
30332	30-025-28954	30	-18S	-38E	J	5//85	I	4323	4127	4236	NONE	13.375	17.5	40	NA
Oxy															NA
															CIRC
30333	30-025-28955	30	-18S	-38E	J	2//85	I	4328	4137	4290	NONE	9.625	12.25	1503	650
Oxy															CIRC
															CIRC
30412	30-025-23384	30	-18S	-38E	A	1//70	P	4440	4009	4261	4142-4200	13.375	17.5	379	400
Oxy															CIRC
															CIRC
30421	30-025-07468	30	-18S	-38E	H	7//30	P	4258	4114	4258	NONE	9.625	11.75	2756	600
Oxy															554
															CIRC
30422	30-025-27059	30	-18S	-38E	H	5//81	I	4477	4110	4265	4108-23	16	20	40	40
Oxy															CIRC
															CIRC
30431	30-025-07474	30	-18S	-38E	I	8//30	P	4213	4085	4201	4034-4035	12.5	16	214	200
Oxy															CIRC**
															CIRC**

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of		
Operator				Ltr	Date	Type	PBTID	Perf	Perf	Perf	Size	Size	Depth	Sxs.		
30432	28957	30	-18S	-38E	1	12//84	I	4325	4110	4266	NONE	13.375	17.5	55	REDIMIX	
Oxy							PBTID				8.625	12.25	1490	370	CIRC	
											5.5	7.875	4370	350	CIRC	
30443	28958	30	-18S	-38E	P	12//84	I	4290	4094	4247	NONE	13.375	17.5	40	54	CIRC
Oxy							PBTID				8.625	12.25	1470	425	440-TS	
											5.5	5.5	4370	340	858-CBL	
32211	07525	32	-18S	-38E	C	4//31	P	4252	4083	4206	NONE	13.375	17	189	200	CIRC**
Oxy											9.625	12.25	2736	600	977**	
											6.625	8.75	3860	300	2210-CBL	
32212	30258	32	-18S	-38E	C	4//88	P	4303	4135	4256	NONE	14	17	53	NA	NA
Oxy							PBTID				9.625	12.25	1504	650	CIRC	
											7	8.75	4348	1150	CIRC	
32221	07520	32	-18S	-38E	F	8//30	P	4215	4084	4252	3940-4065	12.5	16	207	200	CIRC**
Oxy							CMT				9.625	12.25	2752	600	333**	
											6.625	8.75	3940	200	2892-CBL	
											4.5	6.25	3748-4289	65	CIRC	
32231	07521	32	-18S	-38E	K	8//30	P	4030	3876	4222	4068-4083	15.5	17.5	207	200	CIRC
Oxy							PBTID				9.625	12.25	2738	600	996	
											7	8.75	3946	300	2246	
											4	6.25	3701-4194	90	3701	
32313	30263	32	-18S	-38E	B	4//88	P	4300	4120	4229	NONE	14	17	53	NA	NA
Oxy							PBTID				9.625	12.25	1510	650	CIRC	
											7	8.75	4346	1250	CIRC	
32321	12506	32	-18S	-38E	G	8//30	I	4220	4114	4200	3145-3150	12.5	16	230	225	CIRC**
Oxy							PBTID				3156-3172	9	12.25	2759	600	983**
											3881-3942	6.625	8.75	3950	225	2472-CBL
											3971-4247					
32322	07518	32	-18S	-38E	G	9//30	P	4250	4148	4210	4035-4037	12.5	16	240	200	CIRC**
Oxy							PBTID				9.625	12.25	2750	600	330**	
											7	8.75	3960	225	2900-CBL	

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name Operator	API No.	Sec.	T	R	Un	Drill Date	Well Type	PBTID	TD or Perf	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
32323 Oxy	30-025-26973	32	-18S	-38E	G	12//80	I	4292	4062	4276	4293-4332	16	20	40	40	40	CIRC
32331 Oxy	30-025-07538	32	-18S	-38E	J	9//30	I	4220	3940	4200	1414	15.5	18	300	250	250	CIRC
32332 Oxy	30-025-29173	32	-18S	-38E	J	4//85	P	4310	4055	4208	4019-4021	13.375	17.5	40	NA	NA	CIRC
32342 Oxy	30-025-28266	32	-18S	-38E	O/A	10//83	I	4380	4091	4283	NONE	16	20	30	40	40	CIRC
32343 Oxy	30-025-28906	32	-18S	-38E	O	6//87	P	4220	4141	4208	4000-4002	14	18	40	NA	NA	CIRC
32411 Oxy	30-025-07516	32	-18S	-38E	A	9//30	P	4272	3939	4160	NONE	12.5	16	224	200	200	CIRC**
32421 Oxy	30-025-07517	32	-18S	-38E	H	8//30	P	4210	4092	4202	4046-4056	12.5	16	245	200	200	CIRC**
32422 Oxy	30-025-29074	32	-18S	-38E	H	3//85	P	4257	3874	4222	4047-4057	13.375	17.5	40	NA	NA	CIRC
32423 Oxy	30-025-29198	32	-18S	-38E	H	5//85	I	4328	4051	4235	NONE	13.375	17.5	40	NA	NA	CIRC

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTID	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Operator																
Oxy																
32424	30-025-23130	32 -18S	-38E	H		P	5210	4128	4244	NONE	13.375	17.5	350	350	CIRC**	
Oxy																
32432	30-025-26974	32 -18S	-38E	I	10//80	I	4216	4062	4214	4227-4252	16	20	40	40	CIRC	
Oxy																
32441	30-025-07536	32 -18S	-38E	P	8//30	P	4244	4112	4244	4060-4087	12.5	16	188	125	CIRC	
Oxy																1595**
32531	30-025-34374	32 -18S	-38E	J	6//98	P	4354	4098	4233	4052-4075	14	18	40	50	CIRC**	
Oxy																
32542	30-025-34375	32 -18S	-38E	I	7//98	P	4444	4105	4250	NONE	14	18	40	50	CIRC**	
Oxy																
33111	30-025-12505	33 -18S	-38E	D	9//30	P	4160	4050	4176	4011-4021	12.5	16	240	200	CIRC	
Oxy																
33121	30-025-07559	33 -18S	-38E	E	8//30	P	4279	4053	4223	NONE	12.5	16	184	NA	NA	
Oxy																
33123	30-025-23263	33 -18S	-38E	E	9//69	P	6215	4051	6933	NONE	13.375	17.5	425	400	CIRC	

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name Operator	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTID	Top PBTID	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
33141 Oxy	30-025-07543	33 -18S	-38E	M	9/30	P	4254	4062	4249	NONE	12.5	16	209	165	CIRC	
										9.625	11.75	2738	500	903**		
										7	8.75	3976	275	2313**		
										5	6.25	3828-4261	45	3828		
33142 Oxy	30-025-28411	33 -18S	-38E	M	12/83	I	4296	4067	4236	4027	16	20	40	NA	CIRC	
										4040	8.625	12.25	1540	750	CIRC	
										4068-4116	5.5	7.875	4370	910	320-CBL	
33221 Oxy	30-025-07560	33 -18S	-38E	F	9/30	I	4185	4047	4230	606	12.5	16	237	125	CIRC	
										3145-3146	9.625	11.75	2770	400	CIRC	
										4043-4052	7	8.75	4012	275	CIRC	
										5	6.25	4242	100	2850-CBL		
33222 Oxy	30-025-26975	33 -18S	-38E	F	10/80	I	4322	4054	4276	4206-4210	16	20	40	40	CIRC	
										4214-4218	8.625	12.25	1600	800	CIRC	
										5.5	7.875	4400	1100	CIRC		
33231 Oxy	30-025-07545	33 -18S	-38E	K	10/30	I	4259	4042	4228	4043-4050	15.5	18	183	250	CIRC	
										9.625	12.25	2732	600	990**		
										7	8.75	3946	310	2860-CBL		
										5	6.25	3860-4235	50	3871		
33232 Oxy	30-025-26834	33 -18S	-38E	K	9/80	I	4395	4130	4148	4050-4054	16	20	40	40	CIRC	
										4096-4101	8.625	12.25	1590	700	CIRC	
										5.5	7.875	4439	750	CIRC		
State A #1 Oxy	30-025-12504	32 -18S	-38E	G	6/30	P	3750	3585	3685	NONE	12.5	16.5	222	135	CIRC*	
										9	12.25	2755	600	977**		
										7	8.75	3850	200	3139**		
State A #6 Oxy	30-025-222944	32 -18S	-38E	G	4/69	P	5861	5805	5929	NONE	13.375	17.5	357	350	CIRC	
										8.625	11.75	3820	800	CIRC		
										5.5	7.875	3566	500	CIRC		

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Hole	No. of
Operator				Ltr	Date	Type	PBTID	Perf	Perf	Perf	Perfs	Size	Sxs.
State B #1	30-025-12505	33	-18S	-38E									
Now	33111												
Oxy													
State G #6	30-025-23334	33	-18S	-38E	F	11//69	P	6441	6204	6148	450-452	11.75	420
Oxy							PBTID		3410-3412	8.625	11	1831	540
									5930-5962	5.5	7.875	6009	370
										4	4.75	5815-7041	3500-TS
												75	5815**
27111	30-025-23375	27	-18S	-38E	D	2//77	PA	4077	4161	4360	NONE	8.625	12.25
Oxy							PBTID				5.5	7.875	4222
29421	30-025-07459	29	-18S	-38E	H	11//30	PA	308	3880	4232	NONE	12.5	16
Oxy							CICR				9.625	11.75	220
											7	8.75	2720
											5.5	6.25	3880
												3796-4236	300
32311	30-025-07515	32	-18S	-38E	B	8//30	PA	2700	3938	4160	NONE	12.5	16
Oxy							PBTID				9.625	11.75	200
											6.625	8.75	2914-CBL
													3866
State A #5	30-025-08409	32	-18S	-38E	H	10//48	PA	2200	NA	NA	NONE	8.625	11
Oxy							CMT				5.5	7.75	3120
State B #4	30-025-12508	33	-18S	-38E	D	12//47	PA	3192	3145	3186	NONE	8.625	11
Oxy											4.5	7.875	3938
													2740-CBL
State G #4	30-025-07563	33	-18S	-38E	E	12//49	PA	3210	3187	3190	NONE	10.75	15
Oxy											5.5	7.375	448
													400
													800
													800
													CIRC*
													CIRC*
													CIRC*

\*\* Denotes calculated TOC with 50% efficiency

## OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

FOR WELLS 28332,29231,29321,30223,32312,32431																
Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of		
Operator			Ltr	Date	Type	PBTD	Perf	Perf	Perf	Perf	Size	Size	Depth	Sxs.	TOC	
St A #4 Amerada	30-025-23076	32	-18S	-38E	B	4//69	TA	5325	5375	5966	NA	11.75	15	380	350	CIRC
							CIBP					8.625	11	3810	590	2400
												5.5	7.875	5998	325	5281**
St A #5 Amerada	30-025-23116	32	-18S	-38E	A	6//69	P	6954	6674	6936	NA	11.75	15	385	400	CIRC**
												8.625	11	3798	590	1099**
												5.5	7.875	7000	501	4772**
State B #5 Collins & Ware	30-025-07434	29	-18S	-38E	G	12//48	P	3224	3136	3224	1680-1682	10.75	13.75	220	200	CIRC**
												7.625	9.875	1665	300	CIRC**
												5.5	6.75	3136	300	CIRC**
State B #6 Collins & Ware	30-025-07435	29	-18S	-38E	F	1//47	P	3219	3137	3219	NONE	7.625	9.875	414	200	390
												5.5	6.75	3137	394	CIRC**
St I #5 Texland Pet.	30-025-23173	29	-18S	-38E	O	7//69	P	6970	6648	6930	NONE	8.625	12.25	3808	300	3418**
												6.625	8.75	3575	530	CIRC**
												5.5	7.875	7022	NA	NA
State A #7 Conoco	30-025-22934	29	-18S	-38E	N	2//69	P	6050	5823	5941	NONE	11.75	15	360	250	CIRC**
												8.625	11	3800	240	2515-TS
												5.5	7.875	6050	405	3300-TS
State A #8 Conoco	30-025-23048	29	-18S	-38E	K	4//69	TA	3567	3652	5787	5824-5924	11.75	15	360	250	CIRC**
							CIBP					8.625	11	3800	240	3064**
												5.5	7.875	5960	405	4309**
State A-33 # 12 Conoco/Brothers Prod.	30-025-23195	33	-18S	-38E	L	9//69	P	6985	6686	6946	NONE	13.375	17.5	422	375	CIRC
							PBTID					9.625	12.5	3750	325	2850
												7	8.75	7018	525	3700

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTD	Top	Bot.	Sqz.	Csg.	Hole	No. of Sxs.	TOC
Operator		Ltr	Date	Type	Perf	Perf	Perf	Perfs	Size	Size	Depth				
Bowers A Fed. #28	30-025- 23022	29	-18S	-38E	M	4//69	P	5345	5856	5928	NONE	11.75	15	374	300 CIRC**
Exxon							CIBP					8.625	11	3850	500 1879**
												5.5	7.875	5989	450 3833**
Bowers A Fed. #29	30-025- 23131	29	-18S	-38E	L	5//69	P	6000	5808	5889	NONE	11.75	15	370	300 CIRC**
Exxon												8.625	11	3849	500 1877**
Bowers A Fed. #38	30-025- 28580	30	-18S	-38E	I	4//84	P	7006	6764	6962	NONE	13.375	17.5	1476	1220 CIRC
Exxon												10.75	12.25	4491	1650 CIRC
WD Grimes #6	30-025- 23400	29	-18S	-38E	I	2//70	P	7018	6631	6984	NONE	13.375	17.5	377	400 CIRC**
Lewis B. Burleson							PBTD					9.625	12.25	3847	2300 CIRC**
												7	8.75	7049	540 3458**
HD McKinley #8	30-025- 23151	30	-18S	-38E	H	6//69	P	5615	3676	3754	NONE	13.375	17.5	360	340 CIRC
Getty												8.625	11	3842	1400 CIRC
												5.5	7.875	6057	650 3300 1933**
HD McKinley #9	30-025- 23221	30	-18S	-38E	G	8//69	TA	6961	5761	6965	NONE	13.375	17.5	378	400 CIRC**
Getty							CIBP					9.625	12.25	3851	1748 CIRC**
												7	8.75	6999	650 1933**
Grimes A #4	30-025- 07522	32	-18S	-38E	C	9//30	P	3884	3604	3700	270	15.5	20	220	200 CIRC**
Gulf							PBTD					9.625	12.25	2742	600 318**
												6.625	7.875	3931	400 CIRC**
Grimes NCT-A #17	30-025- 22792	32	-18S	-38E	C	11//68	P	6051	5780	5996	NONE	13.375	17.5	366	370 CIRC
Gulf/Chevron							PBTD					9.625	12.25	3399	1450 CIRC**
												7	8.75	6149	545 2510
Grimes NCT-A #18	30-025- 22915	32	-18S	-38E	F	2//69	P	6000	5772	5928	NONE	13.375	17.5	351	335 CIRC

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTD	Top	Bot.	Sqz.	Csg.	Hole	No. of Sxs.	TOC	
Operator						Ltr	Date	Type	Perf	Perf	Perf	Size	Depth			
Gulf/Chevron								PBTD				8.625	11	3799	500	
												5.5	7.875	6019	505	
															2470	
Bowers A Fed. # 1	30-025- 07471	30	-18S	-38E	1	1/30	PA	6000	5878	5922	3669-3726	12.25	17	205	180	
Exxon								PBTD				5812-5849	9.625	11.5	2750	630
												7	8.75	3962	528	
												4.5	6.25	6000	275	
Bowers A Fed. #CT21	30-025- 21968	30	-18S	-38E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2200-TS	
Humble																
Bowers A Fed. #CT22	30-025- 21961	29	-18S	-38E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Humble																
Bowers A Fed. #CT23	30-025- 21962	29	-18S	-38E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Humble																
Bowers Fed. #2	30-025- 07472	30	-18S	-38E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Humble																
Now NHU 30331																
St #5	30-025- 07483	30	-18S	-38E	K	2/48	P	3246	3194	3244	NA	8.625	11	300	125	
Marathon												5.5	7	3160	1350	
State A #6	30-025- 07540	32	-18S	-38E	O	6/48	TA	3240	3156	3198	NONE	8.625	11	301	125	
Marathon/Saga												5.5	7	3116	750	
State #7	30-025- 07541	32	-18S	-38E	P	6/48	SI	3213	3116	3213	NONE	8.625	11	301	125	
															CIRC**	

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bat.	Sqz.	Csg.	Hole	No. of		
Operator							Type	PBTD	Perf	Perf	Perfs	Size	Depth	Sxs.	TOC	
Marathon												5.5	7	3116	1000	CIRC
State #8	30-025- 07542	32	-18S	-38E	I	7/1/48	P	3192	3124	3192	NONE	8.625	11	300	125	CIRC
St #8	30-025- 07486	30	-18S	-38E	L	4/1/48	P	3180	3223	3271	NA	8.625	11	3124	1000	CIRC
Marathon									OH			5.5	7	3173	900	CIRC
Hobbs State #1	30-025- 23585	29	-18S	-38E	F	10/1/70	P	7032	6680	6992	NONE	12.75	17.5	356	400	CIRC
Marcum Drilling								PBTD				8.625	11	3795	300	260
												5.5	7.875	7050	150	3839-CBL
Conoco-State #2	30-025- 23856	33	-18S	-38E	K	11//71	P	7075	5830	6533	NONE	13.375	17	402	410	CIRC
Penroc												9.625	12.25	3797	350	998
												7	8.75	7075	600	3503
Hobbs State #2	30-025- 23620	29	-18S	-38E	G	1//71	P	6397	6705	7031	6318-6350	9.625	12.75	358	200	CIRC
Marcum Drilling								PBTD				7	8.75	3850	250	2481**
												4.5	6.125	7075	425	1672**
Hobbs SWD F #WD29	30-025- 12802	29	-18S	-38E	F	2//60	I	5050	4469	5050	NA	9.625	12.25	400	300	CIRC**
Rice									OH			7	8.75	4700	700	CIRC**
State Land S32 #9	30-025- 23309	32	-18S	-38E	J	1//70	P	6710	5954	6560	NONE	13.375	17.5	364	160	90**
Saga								CIBP				9.625	12.25	3799	1140	CIRC**
												7	8.75	573-6998	490	CIRC**
Seed St 30 #1	30-025- 22994	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
C.E. Seed																

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name Operator	API No.	Sec.	T	R	Un Ltr	Drill Date	TD or PBTD Type	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC	
Seed St 30 #2 C.E. Seed	30-025- 222995	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #3 C.E. Seed	30-025- 222996	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #4 C.E. Seed	30-025- 222997	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #5 C.E. Seed	30-025- 222998	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #6 C.E. Seed	30-025- 222319	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #7 C.E. Seed	30-025- 222320	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #8 C.E. Seed	30-025- 222321	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Seed St 30 #9 C.E. Seed	30-025- 222322	30	-18S	-38E	K	2//69	P	45	10	45	NONE	7	8.5	10	2	CIRC**
Hobbs State #3	30-025- 23621	29	-18S	-38E	B	12//70	SWD	6060	5144	6029	NONE	9.625	12.25	350	200	CIRC

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator														Sxs.	
HRC, Inc.														TOC	
Std of Tx	30-025- 23252	29	-18S	-38E	P	8//69	P	6986	6652	6929	NA	9.625	12.25	3800	600
St I #6	30-025- 23252	29	-18S	-38E	P	8//69	P	6986	6652	6929	NA	7	8.75	3549	700
HD McKinley #5	30-025- 07465	30	-18S	-38E	F	3//47	PA	3230	3197	3206	NONE	7.625	9.875	432	200
Amerada												5.5	6.75	3130	600
HD McKinley #6	30-025- 07466	30	-18S	-38E	C	3//47	PA	3229	3145	3229	NONE	7.625	9.875	416	200
Amerada												5.5	6.75	3145	625
HD McKinley #9	30-025- 22172	30	-18S	-38E	F	6//67	PA	37	10	37	NONE	5.5	6.75	10	21
Amerada															
State A #3	30-025- 07517	32	-18S	-38E	B	1//47	PA	3164	3149	3150	NA	10.75	13.75	221	200
Amerada												7.625	9.875	1570	300
Bowers Fed. A #1	30-025- 22124	30	-18S	-38E	J	6//67	PA	42	10	38	NONE	6.625	6.75	10	3
ARC Ind.												5.5	6.75	3164	600
Bowers A Fed. #2	30-025- 22125	30	-18S	-38E	J	5//67	PA	38	32	38	NONE	6.625	6.75	10	3
ARC															

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name Operator	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Bowers Fed. A #3 ARC Ind.	30-025- 22126	30	-18S	-38E	J	6//67	PA	38	10	38	NONE	7	7.875	10	3	CIRC**
Bowers Fed. A #4 ARC Ind.	30-025- 22127	30	-18S	-38E	J	7//67	PA	38	10	38	NONE	6	6.625	6.75	10	3
Bowers Fed. A #5 ARC Ind.	30-025- 22189	30	-18S	-38E	J	7//67	PA	38	10	38	NONE	6	6.625	6.75	10	3
Bowers Fed. A #6 ARC Ind.	30-025- 22276	30	-18S	-38E	J	10//67	PA	45	10	45	NONE	5.5	6.75	10	3	CIRC**
Bowers Fed. A #10 ARC Ind.	30-025- 22147	30	-18S	-38E	J	6//67	PA	38	10	38	NONE	7	7.875	10	3	CIRC**
Bowers Fed. A #11 ARC Ind.	30-025- 22148	30	-18S	-38E	J	6//67	PA	38	10	38	NONE	6	6.625	6.75	10	3
Bowers Fed. A #12 ARC Ind.	30-025- 22190	30	-18S	-38E	J	10//67	PA	45	10	45	NONE	6	6.625	6.75	10	3
F.A Bowers #13 ARC Ind.	30-025- 22277	30	-18S	-38E	J	10//67	PA	45	10	45	NONE	5.5	6.75	10	3	CIRC**
Grimes #5 Conoco	30-025- 07414	28	-18S	-38E	O	12//47	PA	3218	3199	3209	3199-3209	10.75	13.75	422	300	CIRC**
Grimes #6	30-025- 07415	28	-18S	-38E	J	12//47	PA	3255	3236	3249	NONE	10.75	12.25	424	350	CIRC**

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill Date	TD or Type	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Operator															
Conoco															
St A #4	30-025- 07439	29	-18S	-38E	J	2//47	PA	3215	3167	3194	NA	10.75	15	200	250 CIRC**
Conoco												5.5	7.875	3200	600 CIRC**
State A #5	30-025- 07440	29	-18S	-38E	K	3//47	PA	3200	3168	3188	NONE	10.75	15	280	200 CIRC**
Conoco												7.625	9.875	1573	425 CIRC**
State A #6	30-025- 07441	29	-18S	-38E	N	7//47	PA	3172	3158	3166	NONE	12.75	15	260	200 CIRC
Conoco												8.625	10.75	1562	475 CIRC**
State A-33 #8	30-025- 07549	33	-18S	-38E	L	9//48	PA	3200	3148	3197	3148-3197	13.375	17.5	362	300 CIRC**
Conoco												5.5	7.875	3199	1200 CIRC**
State A-33 #9	30-025- 07550	33	-18S	-38E	M	10//48	PA	3235	3100	3235	NONE	10.75	13.375	371	300 CIRC**
Conoco												5.5	7.875	3210	1000 CIRC**
Grimes A #11	30-025- 07529	32	-18S	-38E	F	12//47	PA	3169	3140	3169	NA	9.625	12.25	294	200 CIRC**
Chevron												7	8.75	3130	600 CIRC**
Bowers #2	30-025- 08045	30	-18S	-38E	J	5//30	PA	106	NA	NA	NONE	12.5	16	106	25 CIRC**
Humble															
B.A. Bowers #6	30-025- 07475	30	-18S	-38E	I	11//30	PA	3190	NA	NA	NA	12.5	18	217	200 CIRC
Exxon												9.625	12	2750	650 CIRC**
Bowers A #12	30-025- 07450	29	-18S	-38E	L	4//47	PA	3088	NA	NA	NA	8.625	11	236	100 CIRC**
Exxon												5.5	7.625	3144	675 880-TS

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

Well Name Operator	API No.	Sec.	T	R	Un	Drill Ltr	TD or Type	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC		
Bowers A #14 Exxon	30-025- 07451	29	-18S	-38E	O	8//47	PA	3207	3162	3207	NONE	8.625	11	496	400	CIRC**	
												5.5	7.625	3120	1350	CIRC**	
Bowers A-B #1 Exxon	30-025- 07453	29	-18S	-38E	D	9//48	PA	3238	3179	3238	NA	8.625	11	260	150	CIRC**	
												5.5	7.625	3179	1050	CIRC**	
Bowers A Fed. #9 Exxon	30-025- 07446	29	-18S	-38E	E	8//30	PA	4259	NA	NA	NA	9.625	12	2750	650	CIRC**	
												7	8.75	3976	300	2011**	
Bowers A Fed. #13 Exxon	30-025- 07476	30	-18S	-38E	J	7//47	PA	3189	3148	3189	NA	8.625	11	225	200	CIRC**	
												5	6.25	4259	NA	NA	
Bowers A Fed. #17 Exxon	30-025- 21900	30	-18S	-38E	J	10//66	PA	50	10	50	NONE	7	8	12	6	CIRC**	
Bowers A Fed. #31 Exxon	30-025- 23176	29	-18S	-38E	E	6//69	PA	7050	6075	6991	NONE	8.625	11	3836	500	1853**	
												5.5	7.875	7038	650	3125**	
												2	7.875	7005	NA	NA	
Bowers A Fed. #33 Exxon	30-025- 23222	29	-18S	-38E	D	7//69	PA	3970	4144	5953	4256-66	13.375	17	416	400	CIRC**	
												5939	9.625	12.25	3836	350	2555-TS
												7	8.75	5988	550	2900-TS	
Bowers A Fed. #34 Exxon	30-025- 23260	30	-18S	-38E	J	8//69	PA	7010	5822	6979	5848-98	9.625	12.25	3850	550	2296**	
												6932-75	3.5 B	7.875	6088	895	2600**
												3.5 D	7.875	6098	895	2615**	
Bowers A Fed. #CT24 Humble	30-025- 21963	29	-18S	-38E	E	1//67	PA	35	NA	NA	NA	NA	NA	NA	NA	NA	
Bowers A Fed. #CT25	30-025- 21964	29	-18S	-38E	E	1//67	PA	35	NA	NA	NA	NA	NA	NA	NA	NA	

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator				Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Depth	Sxs.	TOC
Bowers A Fed. #CT26	30-025-21969	30	-18S	-38E	J	1//67	PA	35	NA	NA	NA	NA	NA	NA
Exxon														
Bowers A Fed. #CT27	30-025-21970	30	-18S	-38E	H	1//67	PA	35	NA	NA	NA	NA	NA	NA
Exxon														
WD Grimes #2	30-025-07455	29	-18S	-38E	A	2//48	PA	4045	NA	NA	8.625	11	242	150
Humble											5.5	7.375	3205	450
G.O. McKinley #3	30-025-07461	30	-18S	-38E	H	7//30	PA	3199	NA	NA	9.625	12.25	2755	600
Marathon/Getty											7	8.25	3166	100
G.O. McKinley #6	30-025-07488	30	-18S	-38E	G	6//47	PA	3200	1453	NA	8.625	11	1474	400
Marathon/Getty											5.5	5.875	3178	200
G.O. McKinley #7	30-025-07489	30	-18S	-38E	B	7//47	PA	3224	NA	NA	8.625	11	1504	400
Marathon/Getty											5.5	6.5	3192	200
Hobbs State #5	30-025-23662	29	-18S	-38E	F	1//71	PA	5959	5813	5879	NA	9.625	12.25	364
Ne-O-Tex											7	8.75	3826	200
State-Northrup #1	30-025-07535	32	-18S	-38E	J	6//30	PA	3227	3140	3203	NONE	12.5	16	1482
Ohio Oil											10.75	12.25	2776	200
WD Grimes #6	30-025-07428	28	-18S	-38E	F	11//47	PA	3325	NONE	NONE	9.625	13	441	300
Repollo/Sinclair											7	9	3185	800

\*\* Denotes calculated TOC with 50% efficiency

OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or PBTD	Top	Biot	Sqz.	Csg.	Hole	No. of Sxs.	TOC
Operator								Perf	Perf	Perf	Perf	Size	Depth		
WD Grimes #5	30-025- 07424	28	-18S	-38E	L	7//47	PA	3150	3191	3197	NONE	8.625	11	409	195 CIRC**
Shell								CMT				4.5	7.875	1958	600 CIRC**
WD Grimes #6	30-025- 12500	28	-18S	-38E	M	7//47	PA	3090	3155	3161	NONE	8.625	11	411	200 CIRC**
Shell								CMT				5.5	7.875	2778	1400 CIRC**
Grimes #8	30-025- 07423	28	-18S	-38E	L	9//47	PA	3120	3215	3221	NONE	8.625	11	402	200 CIRC**
Shell								CMT				4.5	7.875	2108	850 CIRC**
McKinley A #9	30-025- 12492	19	-18S	-38E	N	8//47	PA	3247	3205	3247	NA	8.625	11	407	200 CIRC**
Shell												4.5	7.875	3168	850 CIRC**
WD Grimes #5	30-025- 07426	28	-18S	-38E	E	10//47	PA	3222	3212	3222	NONE	9.625	13	441	300 CIRC**
Sinclair												7	9	3185	600 CIRC**
St #1	30-025- 07442	29	-18S	-38E	P	8//30	PA	4191	3150	4191	NA	13.375	17.5	217	200 CIRC**
Std of Tx											OH	9	12.25	2735	500 1473**
St #2	30-025- 07443	29	-18S	-38E	O	9//30	PA	4171	3155	4156	NA	13	17.5	225	150 CIRC**
Std of Tx												7	8.75	3907	174 2374**
WD Grimes #1	30-025- 07456	29	-18S	-38E	I	8//30	PA	4160	3168	3189	3259-61	12.5	17.5	236	200 CIRC**
Tidewater												9.625	12.25	2810	725 CIRC**
Grimes #2	30-025- 07457	29	-18S	-38E	H	10//30	PA	4176	3255	3086-3088	15.5	18	230	200 CIRC**	
Tidewater												3270-3272	9.625	12.25	2718 600 282**
Grimes #5	30-025- 07460	29	-18S	-38E	H	12//30	PA	4196	NA	NA	NA	12.5	16	214	250 CIRC

\*\* Denotes calculated TOC with 50% efficiency

**OFFSET WELLS WITHIN ONE HALF MILE OF PROPOSED INJECTORS**

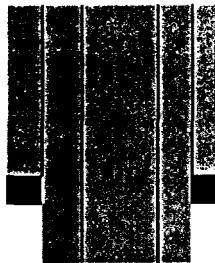
Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	No. of	
Operator					Ltr	Date	Type	PBTD	Perf	Perf	Perf	Size	Size	Depth	
Tidewater												9,625	12,25	2715	600
												7	8,75	3911	400

\*\* Denotes calculated TOC with 50% efficiency

**North Hobbs Unit 27-111**  
**Altura Energy**  
**Unit D, 1200 FNL & 470 FWL**  
**Sec 27, T-18S, R-38E**

WELL PLUGGED:  
12/31/97

Size: 8.625"  
Depth: 347'  
Hole size: 12.25"  
Cmt: 275 sxs  
TOC: CIRC- Calc.  
With 50% effic.



Circ. Hole with 150 sxs from surf to 375'

Perfed at 375, circ to surf.

Perfed at 1807, could not pump into



Perfed at 3002, could not pump into  
Spotted 25 sxs 2832-3079'

Spotted 25 sxs from 3823-4070'

PBTD: 4077'

CIBP @ 4100' + cmt cap.

Perfs, 4161-4222

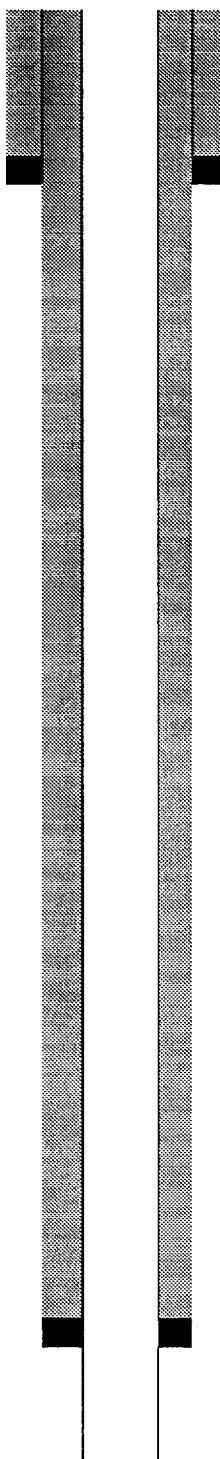
Size: 5.5"  
Depth: 4222'  
Hole size: 7.875"  
Cmt: 450 sxs  
TOC: 2676'-CBL

TD: 4360

W. D. Grimes #5  
Conoco  
Unit O, 1980 FEL & 660 FSL  
Sec 28, T-18S, R-38E

WELL PLUGGED:  
1/20/71

Size: 10.75"  
Depth: 422'  
Hole size: 13.75"  
Cmt: 300 sxs  
TOC: Circ.- Calc.  
50% efficiency



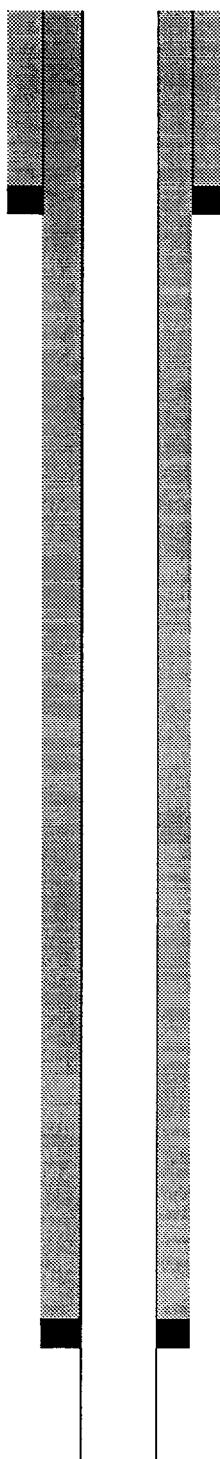
Size: 5.5"  
Depth: 3204'  
Hole size: 7.375"  
Cmt: 650 sxs  
TOC: Circ.- Calc.  
50% efficiency

TD: 3218'

W. D. Grimes #6  
Conoco  
Unit J, 1980 FEL & 1980 FSL  
Sec 28, T-18S, R-38E

WELL PLUGGED:  
1/20/71

Size: 10.75"  
Depth: 424'  
Hole size: 12.25"  
Cmt: 350 sxs  
TOC: Circ.- Calc.  
50% efficiency



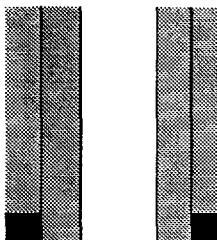
Size: 7"  
Depth: 3255'  
Hole size: 8.75"  
Cmt: 550 sxs  
TOC: Circ.- Calc.  
50% efficiency

TD: 3255'

W. D. Grimes #6  
Repollo/Sinclair  
Unit F, NW/4  
Sec 28, T-18S, R-38E

WELL PLUGGED:  
11/27/47

Size: 9.625"  
Depth: 441'  
Hole size: 13"  
Cmt: 300 sxs  
TOC: Circ.- Calc.  
50% efficiency



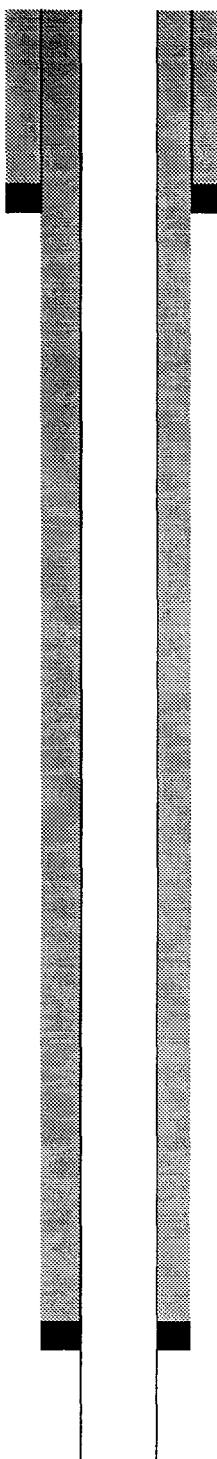
Size: 7"  
Depth: 3185'  
Hole size: 9"  
Cmt: 800 sxs  
TOC: Circ.- Calc.  
50% efficiency

TD: 3325'

Grimes #8  
Shell Oil Co.  
Unit K, NW/4 of SW/4  
Sec 28, T-18S, R-38E

WELL PLUGGED:  
10/3/53

Size: 8.625"  
Depth: 402'  
Hole size: 11"  
Cmt: 200 sxs  
TOC: Circ.- Calc.  
50% efficiency



## LIST OF OFFSET OPERATORS & SURFACE OWNERS

---

North Hobbs (Grayburg/San Andres) Unit  
Well No. 332  
Letter G, Section 28, T-18-S, R-38-E  
Lea County, New Mexico

### Offset Operators

---

Occidental Permian Limited Partnership  
P.O. Box 4294  
Houston, TX 77210-4294

### Surface Owners

---

Belvue Baptist Church  
1701 N. Coleman  
Hobbs, NM 88240

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Belvue Baptist Church  
1701 N. Coleman  
Hobbs, NM 88240

2. Article Number (*Copy from service label*)  
7000 0520 0017 5308 9081**COMPLETE THIS SECTION ON DELIVERY**A. Received by (*Please Print Clearly*)      B. Date of Delivery

C. Signature

X                           Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

## 3. Service Type

Certified Mail     Express Mail  
 Registered        Return Receipt for Merchandise  
 Insured Mail       C.O.D.

4. Restricted Delivery? (*Extra Fee*)     Yes

# AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a  
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 1  
                                   weeks.

Beginning with the issue dated

December 31 1999

and ending with the issue dated

December 31 1999

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 3rd day of

January 2000

Jodi Henson

Notary Public.

My Commission expires  
October 18, 2000  
(Seal)

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

## LEGAL NOTICE

December 31, 1999

Notice is hereby given of the application of Altura Energy LTD, Attn: Mark Stephens, P.O. Box 4294, Rm. 338-B, Houston, TX 77210-4294 (281/552-1158), to the Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department, for approval of the following injection wells for the purpose of secondary recovery:

Pool Name: Hobbs; Grayburg-San Andres  
Lease/Unit Name: North Hobbs G/SA Unit  
Well No. 231  
Loc.: 2310' FSL & 2310' FWL, Unit Letter K, Sec. 19, T-18-S, R-38-E, Lea Co., NM  
Well No. 422  
Loc.: 2310' FNL & 330' FWL, Unit Letter H, Sec. 24, T-18-S, R-37-E, Lea Co., NM  
Well No. 431  
Loc.: 2310' FSL & 330' FEL, Unit Letter I, Sec. 25, T-18-S, R-37-E, Lea Co., NM  
Well No. 131  
Loc.: 2310' FSL & 330' FWL, Unit Letter L, Sec. 28, T-18-S, R-38-E, Lea Co., NM  
Well No. 332  
Loc.: 2470' FNL & 1800' FEL, Unit Letter G, Sec. 28, T-18-S, R-38-E, Lea Co., NM  
Well No. 231  
Loc.: 2310' FSL & 1650' FWL, Unit Letter K, Sec. 29, T-18-S, R-38-E, Lea Co., NM  
Well No. 321  
Loc.: 2310' FNL & 1650' FEL, Unit Letter G, Sec. 29, T-18-S, R-38-E, Lea Co., NM  
Well No. 223  
Loc.: 1770' FNL & 2405' FWL, Unit Letter F, Sec. 30, T-18-S, R-38-E, Lea Co., NM  
Well No. 411  
Loc.: 330' FNL & 3300' FEL, Unit Letter A, Sec. 30, T-18-S, R-38-E, Lea Co., NM  
Well No. 211  
Loc.: 440' FNL & 2310' FWL, Unit Letter C, Sec. 31, T-18-S, R-38-E, Lea Co., NM  
Well No. 144  
Loc.: 765' FNL & 1175' FWL, Unit Letter M, Sec. 32, T-18-S, R-38-E, Lea Co., NM  
Well No. 312  
Loc.: 210' FNL & 1400' FEL, Unit Letter B, Sec. 32, T-18-S, R-38-E, Lea Co., NM  
Well No. 431  
Loc.: 2310' FSL & 330' FEL, Unit Letter I, Sec. 32, T-18-S, R-38-E, Lea Co., NM  
Well No. 111  
Loc.: 330' FNL & 330' FWL, Unit Letter D, Sec. 33, T-18-S, R-38-E, Lea Co., NM  
Well No. 211  
Loc.: 330' FNL & 2310' FWL, Unit Letter C, Sec. 33, T-18-S, R-38-E, Lea Co., NM

The injection formation is the Hobbs; Grayburg - San Andres Pool between the intervals of +/- 3700' and +/- 5300' below the surface of the ground. Expected maximum injection rate is 4000 BWPD and the expected maximum injection pressure is approximately 805 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, NM 87505 within fifteen (15) days.  
#17073

02101173000      02533892

altura  
P. O. Box 4294  
Houston, TX 77210-4294



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

**GOVERNOR**

9/18/00

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

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

RE: Proposed:

MC  
DHC  
NSL  
NSP  
SWD  
WFX  
PMX X

Gentlemen:

I have examined the application for the:

Occidental Permian Ltd N Hobbs 6B/SF Unit #332-6-28-185-38E  
Operator                    Lease & Well No.    Unit    S-T-R    30-025-31655

and my recommendations are as follows:

OK

Yours very truly,

*Wm. W. Gilman*

Chris Williams  
Supervisor, District 1

/ed