

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

NM-91078

6. If Indian, Alottee or Tribe Name

7. If Unit or CA, Agreement Designation

SUBMIT IN TRIPLICATE

1. Type of Well. ☒ OIL WELL ☐ GAS WELL ☐ OTHER

2. Name of Operator
CHEVRON USA INC

3. Address and Telephone No. 15 SMITH ROAD, MIDLAND, TX 79705

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit Letter D : 1000' Feet From The NORTH Line and 1125' Feet From The

WEST Line Section 1 Township 23-S Range 28-E

8. Well Name and Number

LENTINI FEDERAL 1

15

9. API Well No.

30-015-28230

10. Field and Pool, Exploatory Area

HERRADURA BEND, DELAWARE, EAST

11. County or Parish, State

EDDY, NM

12. Check Appropriate Box(s) To Indicate Nature of Notice, Report, or Other Data

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ OTHER: CONVERT TO INJECTION

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

CHEVRON U.S.A. INC. INTENDS TO CONVERT THE SUBJECT WELL FROM A PRODUCER TO AN INJECTION WELL.

THE FORM C-108 AND ALL ATTACHMENTS HAS BEEN SENT TO, AND WAS RECEIVED FROM FLORENE DAVIDSON IN SANTA FE ON 5-30-03.

14. I hereby certify that the foregoing is true and correct.

SIGNATURE *Denise Leake*

TITLE Regulatory Specialist

DATE 6/9/2003

TYPE OR PRINT NAME Denise Leake

(This space for Federal or State office use)

APPROVED (ORIG. SGD.) ALEXIS C. SWOBODA PETROLEUM ENGINEER

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

JUN 17 2003

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Chevron U.S.A. Inc.
George F. Pritchard
Geologist
15 Smith Road
Midland, Texas 79705

ChevronTexaco

May 27, 2003

LENTINI FEDERAL 1 #15
CONVERSION TO INJECTION
HERRADURA BEND, EAST - DELAWARE
EDDY, NEW MEXICO

Gentlemen:

Chevron U.S.A. Inc., as operator of the Lentini Federal 1 #15, submits this request with the New Mexico Oil Conservation Division to convert the Lentini Federal 1 #15 to injection. This conversion is designed as a Herradura Bend, East - Delaware produced water disposal well and reservoir pressure maintenance project.

Attached are the original and one copy of the OCD Form C-108 with information relative to the water injection conversion of the referenced well. If further information is required please contact me at (432) 687-7206.

Sincerely,

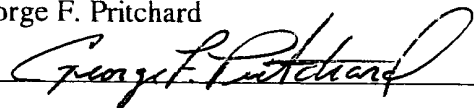


George F. Pritchard
Geologist
New Mexico Area

Attachments

Cc: State of New Mexico
c/o District 2 Office
1301 W. Grand Avenue
Artesia, NM 88210

APPLICATION FOR AUTHORIZATION TO INJECT

- I. **PURPOSE:** _____ Secondary Recovery ☒ Pressure Maintenance ☒ Disposal _____ Storage
Application qualifies for administrative approval? ☒ Yes _____ No
- II. **OPERATOR:** CHEVRONTEXACO
ADDRESS: 15 SMITH ROAD MIDLAND, TEXAS 79705
CONTACT PARTY: George F. Pritchard **PHONE:** 423-687-7206
- III. **WELL DATA:** Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes ☒ No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
See Attached Maps: Exhibits #1, #2
- 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. See Attached Chart: Exhibit #3
- 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: George F. Pritchard **TITLE:** Geologist
SIGNATURE:  **DATE:** 5/14/03
- * 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: _____

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.
Lentini Federal 1 #15 well located in the Herradura Bend, East - Delaware field. The project is a pressure maintenance injection into the Delaware [Brushy Canyon] sands.
- (2) The injection interval and whether it is perforated or open-hole.
The Lentini Federal 1 #15 well is perforated through pipe over the intervals 5912' - 5965', 6045' - 6071', 6077' - 6099'.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
Well was originally drilled and completed in January 1995 as a Delaware [Brushy Canyon] producer. A work over in May 2003 opened additional pay. This producer will be converted to a water injection well for field water disposal and reservoir pressure maintenance.
- (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.
The lower Brushy Canyon was originally perforated and produced from 6168' - 6182'. A cast iron bridge plug was set at 6160' in May 2003 work over to isolate these lower 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.
Within the 2 mile radius, both the Atoka [11514' - 12777'] and the Morrow [12244' - 12700'] produce below the Delaware injection interval and no formation above the Delaware currently produces.

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. See attached Exhibit #8.

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:

See attached Exhibit #9

- (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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: CHEVRONTEXACO

WELL NAME & NUMBER: LENTINI FEDERAL 1 #15

WELL LOCATION: 1000 FNL, 1125 FWL, Section 1, T23S - R28E

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATICProposed
Wellbore Diagram

Elevations:
GL: 3060'
KB: 3072'
DF: 3071'

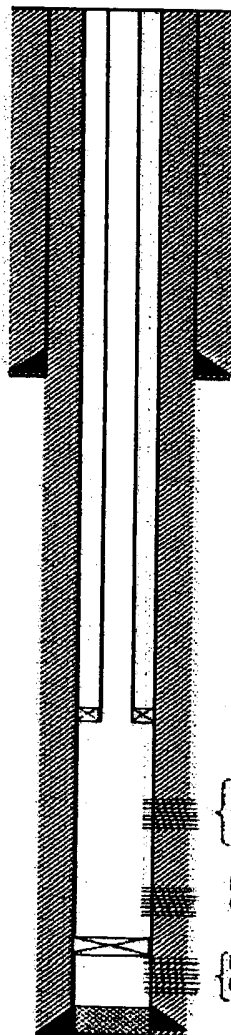
Log Formation Tops	
Lamar	2745
Cherry Canyon	3582
Brushy Canyon	4778
Bone Spring	6282

TUBING DETAIL - Proposed
2-7/8" Duolined J-55 tbg
1 Baker Model M Packer
Duo-Lined

EOT landed @ 5800'

CIBP set @ 6160'

COTD: 6273'
PBD: 6160'
TD: 6365'



EOT @ 5800'

Perfs
5912-5922, 5922-5945 &
5945-5965

Perfs
6045-6071' & 6077-6099'

Perfs
6188-6182'

WELL CONSTRUCTION DATASurface Casing

Hole Size: 12-1/4" Casing Size: 8 5/8" @ 270'

Cemented with: 200 sx. or ft³

Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size: Casing Size:

Cemented with: sx. or ft³

Top of Cement: Method Determined:

Production Casing

Hole Size: 7-7/8" Casing Size: 5 1/2" @ 6365'

Cemented with: 1250 sx. or ft³

Top of Cement: Surface Method Determined: Circulation

Total Depth: 6365'

Injection Interval

Perforated from 5912 feet to 6099 feet

(Perforated or Open Hole: indicate which)

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: Rice DuolineType of Packer: Baker Model MPacker Setting Depth: 5800'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes X No

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

Drilled and completed 3/15/1995 as a producing Delaware [Brushy Canyon] well. Currently producing 10 BO, 40MCF 4/03.

2. Name of the Injection Formation: Delaware [Brushy Canyon]
3. Name of Field or Pool (if applicable): Herradura Bend, East - Delaware
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
All current perforations are Delaware. Open perforations include: 5912' - 5965', 6045' - 6071', 6077' - 6099'; and isolated by CIBP @ 6160' perforations 6168' - 6182'.
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
Within the 2 mile radius, both the Atoka [11514' - 12777'] and the Morrow [12244' - 12700'] produce below the Delaware injection interval and no formation above the Delaware currently produces.

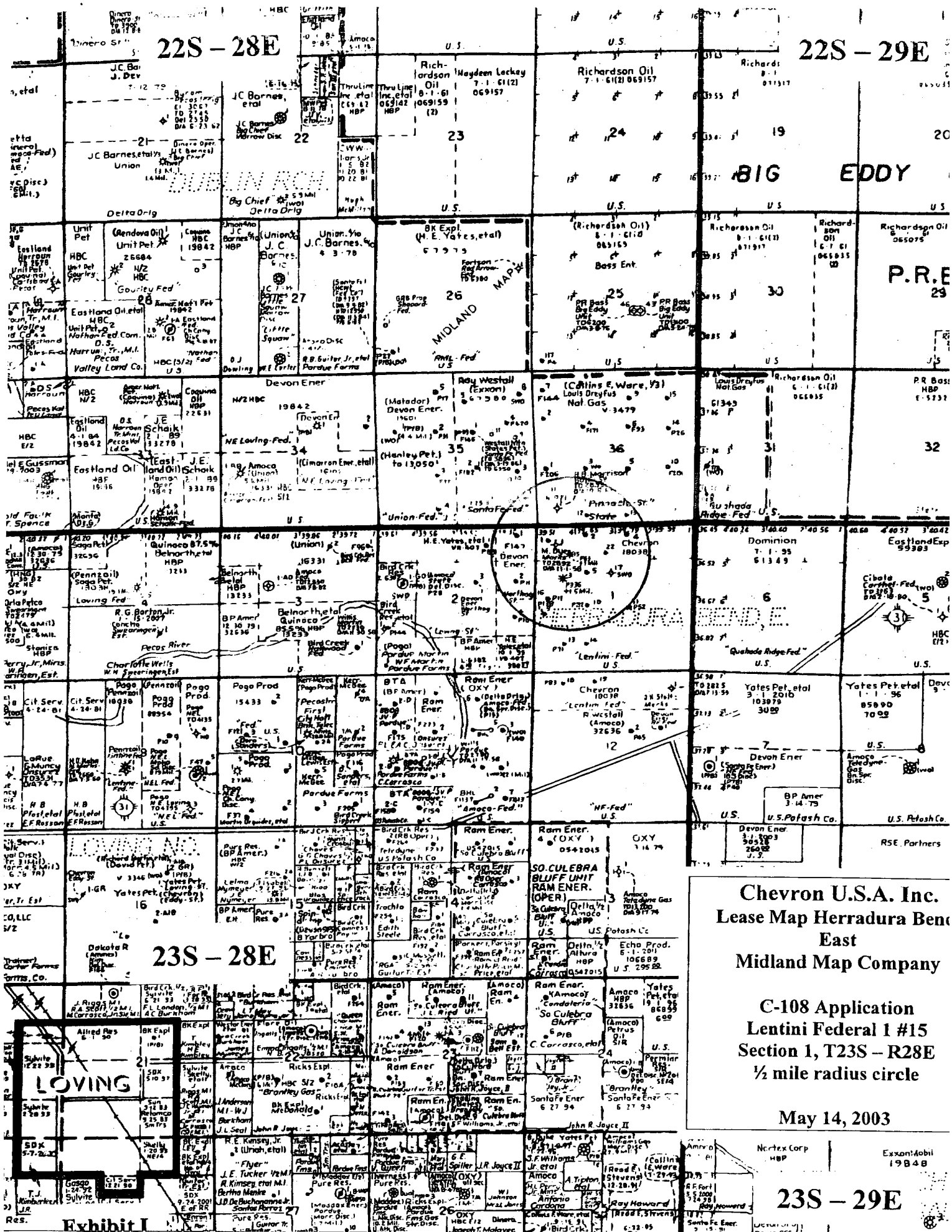
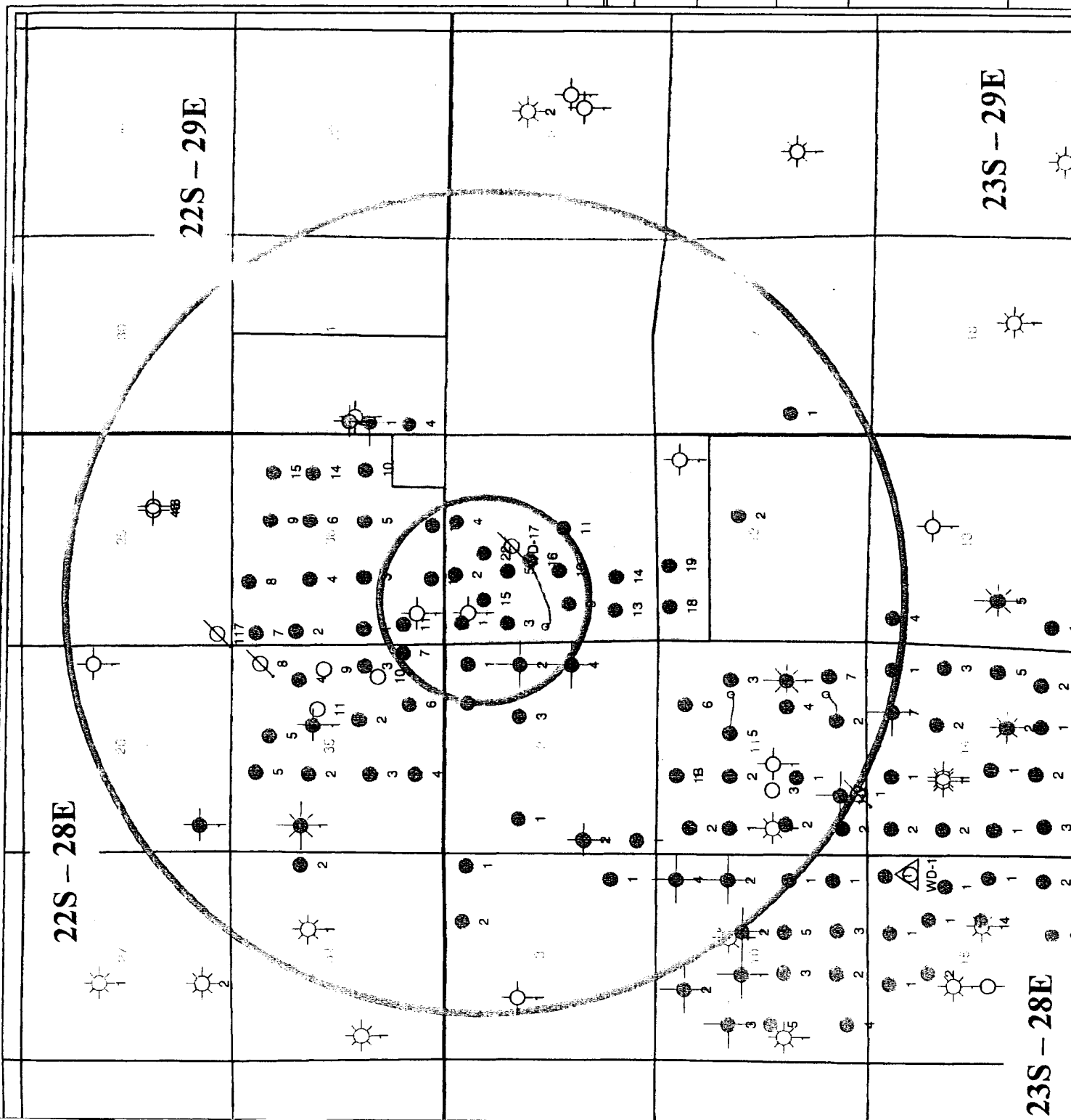


Exhibit II



Lentini Fedral 1 #15 C-108 Application

Project Area - Herradura Bend

Operator	Lease Name	Well #	API #	T-R-S	Location Footages	County	Casing			Top of Cement	Spud Date	Comp Date	Record of Completion			Formation	Status	Total Depth
							Size (in)	Depth (ft)	Cmnt (ax)				Perfs	Comp	A / C			
ChevronTexaco	Lentini Federal 1	1	3001527533	23S-28E-1	500 FNL 400 FWL	Eddy	8-5/8 5-1/2	514 8400	575 1300	surf surf	7/20/1993	9/17/1993	5878-6128	acidz, sd frac	A	Brushy Canyon	Prod	6400
ChevronTexaco	Lentini Federal 1	2	3001527534	23S-28E-1	330 FNL 1850 FWL	Eddy	8-5/8 5-1/2	517 6400	600 1350	surf surf	8/3/1993	10/21/1993	5220-6184	acidz, sd frac	A	Brushy Canyon	Prod	6400
ChevronTexaco	Lentini Federal 1	3	3001527535	23S-28E-1	1650 FNL 400 FWL	Eddy	8-5/8 5-1/2	320 6385	200 900	surf surf	2/8/1994	3/2/1994	5570-6184	acidz, sd frac	A	Brushy Canyon	Prod	6385
ChevronTexaco	Lentini Federal 1	4	3001527594	23S-28E-1	330 FNL 2310 FEL	Eddy	8-5/8 5-1/2	380 6450	350 2100	surf surf	10/1/1993	11/3/1993	5425-6070 6229-6247	acidz, sd frac	A C	Brushy Canyon Brushy Canyon	Prod	6450
ChevronTexaco	Lentini Federal 1	5	3001527565	23S-28E-1	1650 FNL 1725 FWL	Eddy	8-5/8 5-1/2	417 6395	375 1700	surf surf	10/14/1993	11/29/1993	5645-6174	acidz, sd frac	A	Brushy Canyon	Prod	6400
ChevronTexaco	Lentini Federal 1	9	3001527569	23S-28E-1	2080 FSL 900 FWL	Eddy	8-5/8 5-1/2	290 6340	200 1325	surf surf	6/8/1994	7/13/1994	5897-6138	acidz, sd frac	A	Brushy Canyon	Prod	6340
ChevronTexaco	Lentini Federal 1	10	3001527570	23S-28E-1	2310 FSL 1750 FWL	Eddy	8-5/8 5-1/2	255 6350	200 1600	surf surf	5/25/1994	7/7/1994	5863-6240	acidz, sd frac	A	Brushy Canyon	Prod	6350
ChevronTexaco	Lentini Federal 1	11	3001527571	23S-28E-1	2310 FSL 2180 FEL	Eddy	8-5/8 5-1/2	267 6390	200 1410	surf surf	4/23/1995	4/23/1995	5230-6264	acidz, sd frac	A	Brushy Canyon	Prod	6390
ChevronTexaco	Lentini Federal 1	15	3001528230	23S-28E-1	1000 FNL 1125 FWL	Eddy	8-5/8 5-1/2	270 6365	200 1250	surf surf	12/20/1994	3/15/1995	5912-6182	acidz, sd frac	A	Brushy Canyon	Prod	6365
ChevronTexaco	Lentini Federal 1	16	3001529614	23S-28E-1	2576 FNL 435 FWL	Eddy	8-5/8 5-1/2	300 5972	225 1317	surf surf	7/23/1997	5/14/1998	5972-7470	acidz, sd frac	A-OH	Brushy Canyon	Prod	7470
ChevronTexaco	Lentini Federal 1	WD-17	3001529735	23S-28E-1	2314 FSL 2160 FEL	Eddy	8-5/8 5-1/2	312 3159	200 985	surf surf	7/16/1997	9/17/1997	2855-3159	acidz, sd frac	A	Bell Canyon	SDW	3200
ChevronTexaco	Lentini Federal 1	22	3001528475	23S-28E-1	990 FNL 2310 FWL	Eddy	8-5/8 5-1/2	289 6429	450 1340	surf surf	5/16/1995	5/16/1995	5956-5976	acidz, sd frac	A	Brushy Canyon	Prod	6430
Murphy-Dyer	Marks	1	3001502480	23S-28E-1	660 FNL 660 FWL	Eddy	8-5/8 5-1/2	268 2892	125 100	??? ???	7/29/1958	11/1/1958	2798-2812	sd frac	C	Bell Canyon	D&A	2892
Devon Energy	Warthog 2 State	1	3001527169	23S-28E-2	660 FNL 660 FEL	Eddy	8-5/8 5-1/2	410 6390	250 1780	surf surf	11/23/1992	12/19/1992	5930-5980	acidz, sd frac	A	Brushy Canyon	Prod	6390
Devon Energy	Warthog 2 State	2	3001527180	23S-28E-2	1980 FNL 660 FEL	Eddy	8-5/8 5-1/2	400 6356	250 1850	surf surf	12/14/1992	3/3/1993	5910-5980 6126-6172	acidz, sd frac plugged	C	Brushy Canyon	P&A	6356
Devon Energy	Warthog 2 State	4	3001527182	23S-28E-2	1980 FSL 660 FEL	Eddy	8-5/8 5-1/2	400 6392	500 1650	surf surf	1/11/1993	4/8/1993	5950-5980	acidz, sd frac	C	Brushy Canyon	P&A	6392
Yates Harvey Co	Loving 2 State	1	3001527287	23S-28E-2	660 FNL 1650 FEL	Eddy	8-5/8 5-1/2	417 6400	300 1750	??? ???	2/2/1993	3/23/1993	5907-5945	acidz, sd frac	A	Brushy Canyon	Prod	6400
Westall Ray	Santa Fe Federal	7	3001527118	22S-28E-35	990 FSL 330 FEL	Eddy	8-5/8 5-1/2	421 6380	300 1450	??? ???	11/3/1992	11/29/1992	6099-6220	acidz, sd frac	A	Brushy Canyon	Prod	6380
Dominion TX/OK Exploration	Pinnacle State	11	3001527254	22S-28E-36	1225 FSL 2000 FWL	Eddy	8-5/8 5-1/2	555 6373	425 805	surf ???	10/22/1992	2/20/1993	5968-6214	acidz, sd frac	A	Brushy Canyon	Prod	6400
Dominion TX/OK Exploration	Pinnacle State	12	3001527782	22S-28E-36	330 FSL 1650 FWL	Eddy	8-5/8 5-1/2	520 6250	350 1550	surf surf	10/4/1995	9/7/1996	5216-6198	acidz, sd frac	A	Brushy Canyon	Prod	6250
Dominion TX/OK Exploration	Pinnacle State	13	3001527783	22S-28E-36	330 FSL 2310 FEL	Eddy	8-5/8 5-1/2	503 6372	320 1600	surf surf	9/18/1996	2/2/1996	6184-6194	acidz, gel frac	A	Brushy Canyon	Prod	6372
Morrison RR	Gulf-State	1	3001502479	22S-28E-36	660 FSL 660 FWL	Eddy	8-5/8	255	25	???	8/25/1960	10/6/1960	N/A	N/A	C	Bell Canyon	D&A	2893

ITEM VII

OPERATIONAL DATA

PROPOSED OPERATION	<u>AVE</u>	<u>MAX</u>
(1). Daily Injection Rate	800 BWPD	2500 BWPD
(2). Daily Injection Volume	800 BW	2500 BW
(3). Wellhead Injection Pressure	1000 psi	1500 psi

Injection system will be a closed system.

- (4). Source of injection water : Lower Delaware zones (Brushy Canyon / Cherry Canyon) from Chevron U.S.A. Inc. Herradura Bend, East - Delaware wells.

Analysis of waters attached : Exhibits #4, #5, #6; Fluid compatibility testing is not necessary since the injection and receiving fluids are both in the Delaware formation.

- (5). Analysis of injection zone water attached.
The injection interval is productive in this field and the injected fluids are from the injection zone.

Exhibit IV



REEF
CHEMICAL

Company: Chevron USA Inc.	Location: Lentini 1 Federal #1
Source: Swab Top Zone - H1, BRUSHY CANYON (DELAWARE)	Attention:
Number: 41	Date Sampled: January 6, 1997
Salesman: Dennis Autry	Date of Analysis: January 7, 1997

ANALYSIS	mg/L	EQ. WT.	MEQ/L
1. pH	6.79		
2. Specific Gravity 60/60 f.	1.187		
3. Hydrogen Sulfide	0 PPM		
4. Carbon Dioxide	Not Determined		
5. Dissolved Oxygen	Not Determined		
6. Hydroxyl (OH-)	0 /	17.0 =	0.00
7. Carbonate (CO3=)	0 /	30.0 =	0.00
8. Bicarbonate (HCO3-)	147 /	61.1 =	2.41
9. Chloride (Cl-)	161.963 /	35.5 =	4,562.34
10. Sulfate (SO4=)	1,025 /	48.0 =	21.00
11. Calcium (CA++)	16,433 /	20.1 =	817.56
12. Magnesium (Mg++)	3,161 /	12.2 =	259.10
13. Sodium (Na+)	80,709 /	23.0 =	3,509.09
14. Barium (Ba++)	Not Determined		
15. Total Iron (Fe)	900.00		
16. Dissolved Solids	263,438		
17. Filterable Solids	0.00		
18. Total Solids	263,438		
19. Total Hardness As CaCO3	54,048		
20. Suspended Oil	0.0000		
21. Volume Filtered (ml)	0		
22. Resistivity @ 75 F. (calculated)	0.0300 /cm.		

23. CAC03 Saturation Index

@80 F.	0.3356
@100 F.	0.6456
@120 F.	0.9056
@140 F.	1.2656
@160 F.	1.6156

24. CASO4 Supersaturation Ratio

@70F	1.6899
@90F	1.8535
@110F	1.6481
@130F	1.6096
@150F	1.6084

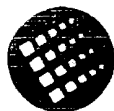
Ratio Greater than 1 indicates Scale

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L = mg/L
Ca(HCO3)2	81.04	2.41	195
CaSO4	68.07	21.00	1,429
CaCl2	55.50	794.15	44,075
Mg(HCO3)2	73.17	0.00	0
MgSO4	60.19	0.00	0
MgCL2	47.62	259.10	12,338
NaHCO3	84.00	0.00	0
NaSO4	71.03	0.00	0
NaCl	58.46	3,509.09	205,141

RAY SHAFFNER
Chemist

Exhibit V


REEF
CHEMICAL

Company: Chevron USA Inc.
 Source : Swab Middle Zone-UPPER H₂, BRUSHY CANYON
 Number : 42
 Salesman: Dennis Autry

6021'-28' (DELAWARE)

Location: Lentini 1 Federal #1
 Attention: *****
 Date Sampled: January 6, 1997
 Date of Analysis: January 7, 1997

ANALYSIS	mg/L	EQ. WT.	MEQ/L
1. pH	6.75		
2. Specific Gravity 60/60 f.	1.187		
3. Hydrogen Sulfide	0 PPM		
4. Carbon Dioxide	Not Determined		
5. Dissolved Oxygen	Not Determined		
6. Hydroxyl (OH ⁻)	0 /	17.0 =	0.00
7. Carbonate (CO ₃ ⁼)	0 /	30.0 =	0.00
8. Bicarbonate (HCO ₃ ⁻)	73 /	61.1 =	1.19
9. Chloride (Cl ⁻)	181,959 /	35.5 =	5,125.61
10. Sulfate (SO ₄ ⁼)	1,525 /	48.6 =	31.25
11. Calcium (Ca ⁺⁺)	6,413 /	20.1 =	319.05
12. Magnesium (Mg ⁺⁺)	2,188 /	12.2 =	179.34
13. Sodium (Na ⁺)	107,172 /	23.0 =	4,659.66
14. Barium (Ba ⁺⁺)	Not Determined		
15. Total Iron (Fe)	525.00		
16. Dissolved Solids	299,330		
17. Filterable Solids	0.00		
18. Total Solids	299,330		
19. Total Hardness As CaCO ₃	25,022		
20. Suspended Oil	0.0000		
21. Volume Filtered (ml)	0		
22. Resistivity @ 75 F. (calculated)	0.0260 /cm.		
23. CAC03 Saturation Index			
@80 F.	-0.4170		
@100 F.	-0.1070		
@120 F.	0.1530		
@140 F.	0.5130		
@160 F.	0.8630		
24. CASO4 Supersaturation Ratio			
@70F	0.9915		
@90F	1.1512		
@110F	0.9688		
@130F	0.9479		
@150F	0.9473		
Ratio Greater than 1 indicates Scale			

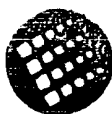
PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L = mg/L
----------	---------	---	--------------

Ca(HCO ₃) ₂	81.04	1.19	96
CaSO ₄	68.07	31.25	2,127
CaCl ₂	55.50	286.61	15,907
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	179.34	8,540
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	4,659.66	272,404

RAY SHAFFNER
 Chemist

Exhibit VI



REEF
CHEMICAL

Company: Chevron USA Inc.

Source: Swab Bottom Zone - LOWER H₂, BRUSHY CANYON

Number: 43

Salesman: Dennis Autry

6117'-26' (DELAWARE)

Location:

Attention:

Date Sampled:

Date of Analysis:

Lentini 1 Federal #1

January 6, 1997

January 7, 1997

ANALYSIS

mg/L

EQ. WT.

MEQ/L

1. pH	6.68			
2. Specific Gravity 60/60 f.	1.187			
3. Hydrogen Sulfide	0 PPM			
4. Carbon Dioxide	Not Determined			
5. Dissolved Oxygen	Not Determined			
6. Hydroxyl (OH-)	0	/	17.0	= 0.00
7. Carbonate (CO ₃ =)	0	/	30.0	= 0.00
8. Bicarbonate (HCO ₃ -)	73	/	61.1	= 1.19
9. Chloride (Cl-)	181,959	/	35.5	= 5,125.61
10. Sulfate (SO ₄ =)	1,175	/	48.8	= 24.08
11. Calcium (CA++)	12,826	/	20.1	= 638.11
12. Magnesium (Mg++)	1,216	/	12.2	= 99.67
13. Sodium (Na+)	101,501	/	23.0	= 4,413.10
14. Barium (Ba++)	Not Determined			
15. Total Iron (Fe)	400.00			
16. Dissolved Solids	298,750			
17. Filterable Solids	0.00			
18. Total Solids	298,750			
19. Total Hardness As CaCO ₃	37,033			
20. Suspended Oil	0.0000			
21. Volume Filtered (ml)	0			
22. Resistivity @ 75 F. (calculated)	0.0260	/cm.		

23. CAC03 Saturation Index

@80 F.	-0.1860
@100 F.	0.1240
@120 F.	0.3840
@140 F.	0.7440
@160 F.	1.0940

24. CASO4 Supersaturation Ratio

@70F	1.5087
@90F	1.8116
@110F	1.4718
@130F	1.4377
@150F	1.4367

Ratio Greater than 1 indicates Scale

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L	= mg/L
Ca(HCO ₃) ₂	81.04		1.19	96
CaSO ₄	68.07		24.08	1,639
CaCl ₂	55.50		612.84	34,013
Mg(HCO ₃) ₂	73.17		0.00	0
MgSO ₄	60.19		0.00	0
MgCl ₂	47.62		99.67	4,746
NaHCO ₃	84.00		0.00	0
NaSO ₄	71.03		0.00	0
NaCl	58.46		4,413.10	257,990

RAY SHAFFER
Chemist

ITEM VIII

GEOLOGICAL DATA

INJECTION ZONE

Lithological description : sandstone, gray, fine to very fine grained, poorly consolidated, friable, poor calcareous cement.

Geologic name : Delaware (Brushy Canyon member)

Zone thickness : 104 feet ; Depth : 5912-6099 feet

FRESH WATER SOURCES

Geologic name : Quaternary Alluvium

Depth to bottom of zone : less than 250 feet

There are no known aquifers that underlie the Bell Canyon formation at the top of the Delaware.

ITEM IX

STIMULATION PROGRAM

ACIDIZE :

Volume : 16000 gal Type acid : 7 ½% NEFE HCL

Rate : 6-10 BPM ; Misc. : 8000 lbs rock salt

Flush with 2% KCL water ; Acid job to be done in 2 stages

FRACTURE :

Fluid volume : 34000 gal ; Type : YF130ST

Prop type : 16/30 Brady Sand ; Volume : 100000 lbs

Rate : 30 BPM ; Conductor : 2 7/8 in

Misc. : Flush with 9174 gal WF110

Frac job to be done in 2 stages

ITEM X

LOGGING PROGRAM

Logging program : Logs were filed with the Oil Conservation Division with initial completion filing. A neutron/density log copy of the perforated intervals in the Lentini Federal 1 #15 is attached. Exhibit #7.

ITEM XI

FRESH WATER ANALYSIS

Fresh water well within 1 mile radius : Yes X No
Chemical analysis from well(s) located : It was documented in Chevron USA Inc.'s C108 administrative order SWD-659 that as of 2/21/1997 Craig Helper, State Engineers Office, Roswell, New Mexico confirmed that no fresh water wells are filed on record within one mile of the proposed disposal well location. ChevronTexaco's lease operator for this area agrees and to the best of his knowledge and belief, there are no fresh water wells existing within one mile of the proposed disposal well location.

ITEM XII

HYDROLOGY

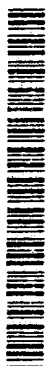
Various geologic data including well logs, structure maps and modern seismic data reveal no evidence that there might exist an hydrologic connection between the intended injection zone (Brushy Canyon, Delaware) and the shallow surface aquifer, the Quaternary Alluvium, above 250 feet. The Castille formation composed of evaporates immediately overlies the Bell Canyon [upper most Delaware] and provides a seal between the Delaware and any shallow aquifer.

ITEM XIII ["Proof of Notice"]

See attachments Exhibits #8, #9.

CS400

COMPUTALOG

SPECTRAL Pe DENSITY
COMPENSATED NEUTRON
GAMMA RAY

D001292624

COMPANY CHEVRON USA PRODUCTION CO.

WELL LENTINI 1 FEDERAL 15

FIELD HERRADURA BEND EAST

COUNTY EDDY STATE N. MEXICO

LOCATION

API # 30-015-28230

1000' FNL & 1125' FWL

(N.M.P.M) , REF. QW4545

OTHER SERVICES:

DLL-MSFL

SFT

SEC. 1 TWP. 23S RGE 28E

PERMANENT DATUM GROUND LEVEL ELEV. 3060.0

LOG MEASURED FROM KB 11.6 FT. ABOVE PERMANENT DATUM

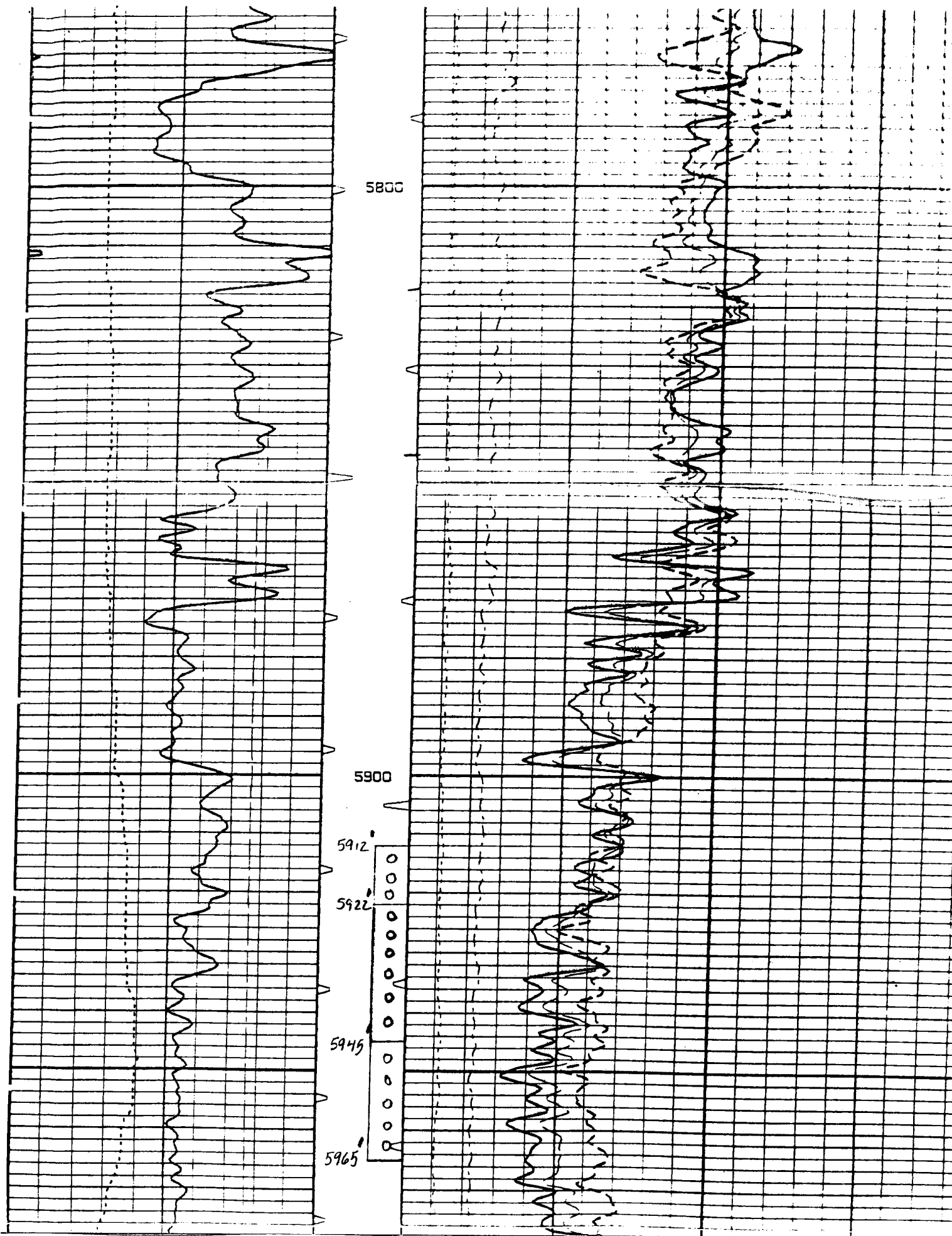
DRILLING MEASURED FROM KELLY BUSHING

ELEV.: K.B. 3071.6

J.F. 3070.6

G.L. 3060.0

DATE	01-04-95				
RUN NO.	ONE				
DEPTH-DRILLER	6350				
DEPTH-LOGGER	6354				
BTM. LOG INTER.	6352				
TOP LOG INTER.	SURF				
CASING-DRILLER	8-5/8 @ 270	@	@	@	@
CASING-LOGGER	270				
BIT SIZE	7-7/8				
FLUID TYPE	BRINE				
DENS. VISC.	10.1 35				
PH FLUID LOSS	10 11 ML	ML	ML	ML	ML
SOURCE OF SAMPLE	CIRC				
RM @ MEAS. TEMP.	.064 @ 65.2 F	@ F	@ F	@ F	@ F
RMF @ MEAS. TEMP.	.064 @ 65.1 F	@ F	@ F	@ F	@ F
RMC @ MEAS. TEMP.	NA @ NA F	@ F	@ F	@ F	@ F
SOURCE: RMF/RMC	MEAS NA				
RM @ BHT	.041 @ 107 F	@ F	@ F	@ F	@ F
TIME SINCE CIRC.	17.0 HOURS				
MAX. REC. TEMP.	107 F @ TD	F @	F @	F @	F @
EQUIP. LOCATION	3028 ODES				
RECORDED BY	PAVLAKOS				
WITNESSED BY	RITTERSBACHER				



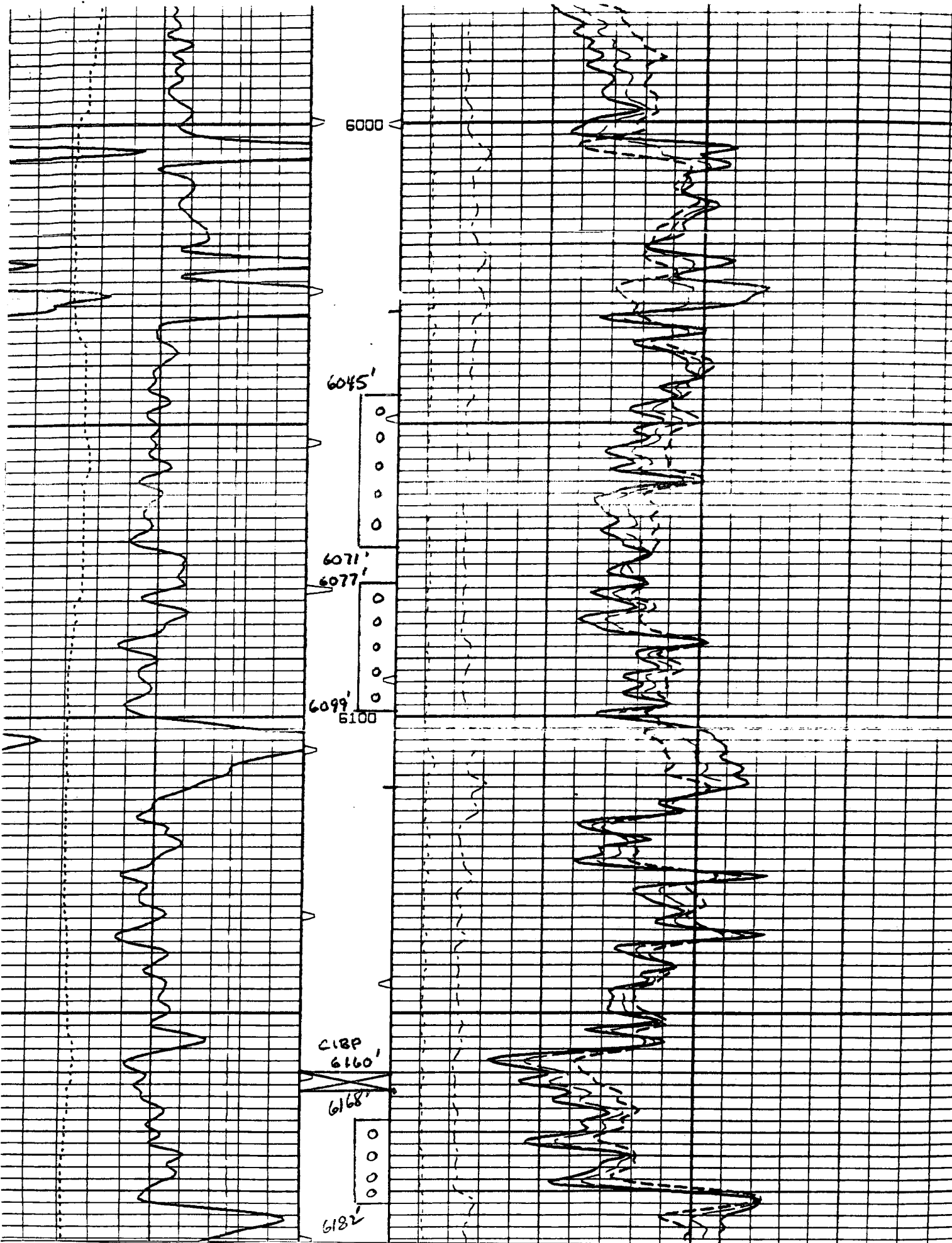


Exhibit VIII

Chevron U.S.A. Inc.
George F. Pritchard
Geologist
15 Smith Road
Midland, Texas 79705

ChevronTexaco

May 14, 2003

LENTINI FEDERAL 1 #15
CONVERSION TO INJECTION
HERRADURA BEND, EAST - DELAWARE
EDDY, NEW MEXICO

Attention: Leasehold Owners and Land Owners

Gentlemen:

Chevron U.S.A. Inc., as operator of the Lentini Federal 1 #15, has filed an application with the New Mexico Oil Conservation Division to convert the Lentini Federal 1 #15 to injection. This conversion is designed as a Herradura Bend, East - Delaware produced water disposal well and reservoir pressure maintenance project.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the referenced well. Also, a copy of the legal notice to be posted in the Carlsbad Current Argus is included. If further information is required please contact me at (432) 687-7206.

Sincerely,



George F. Pritchard
Geologist
New Mexico Area

Attachments

LENTINI FEDERAL 1 #15
Conversion to Injection
Herradura Bend, East - Delaware
Eddy County, NM

Following is the leasehold ownership of the lands within 1/2 mile of the Lentini Federal 1 #15 well:

SE/4 of Section 35, T22S-R28E, Eddy Co., NM

Operating Rights from surface to the base of the Delaware formation:

Dominion Texas Oklahoma Exploration and Production Company 50%
14000 Quail Springs Parkway, Suite 600
Oklahoma City, Oklahoma 73134

Ray Westall, et al 50%
P. O. Box 4
Loco Hills, New Mexico 88255

Operating Rights below the base of the Delaware formation:

ExxonMobil Corporation 100%
P. O. Box 4697
Houston, Texas 77210

S/2 of Section 36, T22S-R28E, Eddy Co., NM, save and except the SE/4 SE/4

Dominion Texas Oklahoma Exploration and Production Company 100%
14000 Quail Springs Parkway, Suite 600
Oklahoma City, Oklahoma 73134

SE/4 SE/4 of Section 36, T22S-R28E, Eddy Co., NM

Chevron U.S.A. Inc. 100%

All of Section 1, T23S-R28E, Eddy Co., NM

Chevron U.S.A. Inc. 100%

E/2 of Section 2, T23S-R28E, Eddy Co., NM

(NW/4 NE/4, NW/4 SE/4 and SE/4 SE/4)

Devon Energy Production Company *
20 N. Broadway, Suite 1500
Oklahoma City, Oklahoma 73120

Harvey E. Yates Company
P. O. Box 1933
Roswell, New Mexico 88202

*

*Unable to determine percentage of ownership.

(E/2 NE/4, SW/4 NE/4, NE/4 SE/4 and SW/4 SE/4)
OXY Permian Ltd. Partnership (record title owner) 100%
P. O. Box 50250
Midland, Texas 79710

The United States of America owns the surface estate to the E/2 of Section 35, T22S-R28E, and all of Section 1, T23S-R28E, Eddy Co., NM.

U.S. Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Carlsbad, New Mexico 88220-6292

The State of New Mexico owns the surface estate to the S/2 of Section 36 and the E/2 of Section 2, T23S-R28E, Eddy Co., NM.

State of New Mexico
c/o State Land Office
P.O. Box 1148
Santa Fe, NM 87504-1148

Legal Notice

(5/14/2003)

Chevron U.S.A. Inc. has applied to Oil Conservation Division of the State of New Mexico for approval to convert the Lentini Federal 1 #15 to a water injector for reservoir pressure maintenance within the Herradura Bend, East – Delaware Field and for the disposal of produced field water from the Herradura Bend, East - Delaware Field. The well is located in the following location: Section 1, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. Water will be injected into the Brushy Canyon – Delaware formation from 5912 to 6099 feet. Injection will be at an expected maximum rate of 2500 barrels of water per day and an expected maximum pressure of 1500 pounds per square inch. Persons wanting to contact Chevron U.S.A. Inc. should direct their inquiries to George F. Pritchard, ChevronTexaco Inc., 15 Smith Road, Midland, TX 79705, phone (432) 687-7206.

Interested Parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.

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.

Article Addressed to:

Harvey E. Yates Company
P. O. Box 1933
Roswell, New Mexico
88202

Article Number
(Transfer from service label)

7001 1140 0002 8318 1825

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1035

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Harvey Yates* ☒ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
5-16-03

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

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

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:

Dominion Texas Oklahoma Exploration
and Production Company
14000 Quail Springs Parkway, Suite 600
Oklahoma City, Oklahoma 73134

2. Article Number
(Transfer from service label)

7001 1140 0002 8318 1788

PS Form 3811, August 2001

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Shirley Pearson* ☒ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
D. Is delivery address different from item 1? ☐ Yes ☒ No
If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

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.

Article Addressed to:

ExxonMobil Corporation
P. O. Box 4697
Houston, Texas 77210

Article Number
(Transfer from service label)

7001 1140 0002 8318 1795

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1035

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *GEE* ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
Ann

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

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

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:

Devon Energy Production Company
20 N. Broadway, Suite 1500
Oklahoma City, Oklahoma 73120

2. Article Number
(Transfer from service label)

7001 1140 0002 8318 1818

PS Form 3811, August 2001

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *[Signature]* ☒ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
D. Is delivery address different from item 1? ☐ Yes ☒ No
If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

Chevron U.S.A. Inc.
George F. Pritchard
Geologist
15 Smith Road
Midland, Texas 79705

ChevronTexaco

May 14, 2003

REQUEST TO PUBLISH
LEGAL NOTICE

Carlsbad Current Argus
P.O. Box 1629
Carlsbad, NM 88221 – 1629
Sent via email: sarninstrong@currentargus.com

Attention: Classified Department

Chevron U.S.A. Production Company requests that you publish the attached notice in your newspaper, one time only, as soon as possible.

Please mail the invoice to the letterhead address, attention George Pritchard. Also, please attach a copy of the notice as run in your newspaper and an affidavit certifying publication of the attached notice and the date of publication.

Your prompt assistance in this matter will be greatly appreciated. Questions may be directed to George Pritchard at (432) 687-7206.

Sincerely,



George F. Pritchard

Attachment

Legal Notice

(5/14/2003)

Chevron U.S.A. Inc. has applied to Oil Conservation Division of the State of New Mexico for approval to convert the Lentini Federal 1 #15 to a water injector for reservoir pressure maintenance within the Herradura Bend, East – Delaware Field and for the disposal of produced field water from the Herradura Bend, East - Delaware Field. The well is located in the following location: Section 1, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. Water will be injected into the Brushy Canyon – Delaware formation from 5912 to 6099 feet. Injection will be at an expected maximum rate of 2500 barrels of water per day and an expected maximum pressure of 1500 pounds per square inch. Persons wanting to contact Chevron U.S.A. Inc. should direct their inquiries to George F. Pritchard, ChevronTexaco Inc., 15 Smith Road, Midland, TX 79705, phone (432)-687-7206.

Interested Parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Dawn Higgins

being first duly sworn, on oath says:

That she is Business Manager
of the Carlsbad Current-Argus, a newspaper published
daily at the City of Carlsbad, in said county of Eddy,
state of New Mexico and of general paid circulation in
said county; that the same is a duly qualified
newspaper under the laws of the State wherein legal
notices and advertisements may be published; that the
printed notice attached hereto was published in the
regular and entire edition of said newspaper and not in
supplement thereof on the date as follows, to wit:

May 18, 2003

 , 2003

 , 2003

 , 2003

 , 2003

 , 2003

That the cost of publication is \$ 41.99
and that payment thereof has been made and will be
assessed as court costs.

Dawn Higgins

Subscribed and sworn to before me this

21 day of May, 2003

Stephanie Dobson

My commission expires 12/13/05

Notary Public

May 18, 2003

Legal Notice

Chevron U. S. A. Inc. has
applied to Oil Conserva-
tion Division of the State
of New Mexico for ap-
proval to convert the
Lentini Federal 1 #15 to a
water injector for reservoir
pressure maintenance
within the Herradura
Bend, East - Delaware
Field and for the disposal
of produced field water
from the Herradura Bend,
East - Delaware Field.

The well is located in the
following location: Section
1, Township 23 South,
Range 28 East, NMPM,
Eddy County, New Mexi-
co. Water will be injected
into the Brushy Canyon -
Delaware formation from
5912 to 8099 feet. Injec-
tion will be at an expected
maximum rate of 2500
barrels of water per day
and an expected maxi-
mum pressure of 1500
pounds per square inch.
Persons wanting to con-

tact Chevron Texaco Inc.
should direct their inquir-
ies to George F.
Pritchard, Chevron Texa-
co Inc., 15 Smith Road,
Midland, TX 79705,
phone (432)-687-7206.

Interested Parties must
file objections or requests
for hearing with the Oil
Conservation Division,
1220 South St. Francis
Drive, Santa Fe, NM
87505, within 15 days of
this notice.

