

7/19/12 DATE IN	SUSPENSE	ENGINEER <i>E. Scanyine</i>	7/25/12 LOGGED IN	TYPE WFX	APP NO. PUNK1220734612
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*Lost info*  
*9/3/12*

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



RECEIVED OCD  
JUL 19 P 12:45

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication**  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement**  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery**  
☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_**

*4323 Chevron USA INC*  
*Central Vaccume Unit 274, 284*  
*30-025-40466, 30-025-40468*  
*30-025-40469*  
*ULE 31 175 3SE ULM 31 175 3SE*  
*ULN 31 175 3SE*

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

- [A] ☒ Working, Royalty or Overriding Royalty Interest Owners**  
**[B] ☒ Offset Operators, Leaseholders or Surface Owner**  
**[C] ☒ Application is One Which Requires Published Legal Notice**  
**[D] ☐ Notification and/or Concurrent Approval by BLM or SLO**  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
**[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,**  
**[F] ☐ Waivers are Attached**

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

*Carolyn Harnie*  
Print or Type Name

*Carolyn Harnie*  
Signature

NM Petro Engineering Technical Assistant  
Title

*7-17-12*  
Date

*chav@chevron.com*  
e-mail Address

*[Signature]*



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 18, 2012

New Mexico Oil Conservations Division  
1220 South San Francis Drive  
Santa Fe, New Mexico 87504

RE: Application for Authorization to Inject  
OCD Form C-108  
Central Vacuum Unit  
Lea, County, New Mexico

Chevron U.S.A. Inc., respectfully requests administrative approval to place the Central Vacuum Unit wells # 258, (API # 30-025-40463; # 259, (API # 30-025-40464; and # 273, (API # 30-025-40465), on Water and CO<sub>2</sub> injection in the Grayburg San Andres formation.

Chevron plans to inject water, CO<sub>2</sub>, and produced gas into the Grayburg San Andres formations from approximately 4710' to 5000'.

Attached is an OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice has been submitted to the Hobbs News-Sun and the affidavit will be submitted to your office upon our receipt. The enclosed map highlights the location of the referenced wells in relation to your offset operations.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie". The signature is fluid and cursive, with the first name "Carolyn" being more prominent than the last name "Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 11, 2012

New Mexico Oil Conservations Division  
1220 South San Francis Drive  
Santa Fe, New Mexico 87504

RE: Application for Authorization to Inject  
OCD Form C-108  
Central Vacuum Unit  
Lea, County, New Mexico

Chevron U.S.A. Inc., respectfully requests administrative approval to place the Central Vacuum Unit wells # 284, 285, and 274 on Water and CO<sub>2</sub> injection in the Grayburg San Andres formation.

Chevron plans to inject water, CO<sub>2</sub>, and produced gas into the Grayburg San Andres formations from approximately 4710' to 5000'.

Attached is an OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice has been submitted to the Hobbs News-Sun and the affidavit will be submitted to your office upon our receipt. The enclosed map highlights the location of the referenced wells in relation to your offset operations.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Sincerely,

A handwritten signature in cursive script that reads "Carolyn Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE:   X   Secondary Recovery            Pressure Maintenance            Disposal            Storage  
Application qualifies for administrative approval?            Yes            No
- II. OPERATOR: CHEVRON U.S.A. INC.  
ADDRESS: 15 SMITH ROAD; MIDLAND, TX 79705  
CONTACT PARTY: PAUL BROWN PHONE: 432-687-7351
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project?   X   Yes            No  
If yes, give the Division order number authorizing the project: R-5530
- 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. **ATTACHED**
- 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. **ATTACHED**
- VII. Attach data on the proposed operation, including:  
1. Proposed average and maximum daily rate and volume of fluids to be injected; **3,000 bbls water/day 10,000 MCF CO<sub>2</sub>/day.**  
2. Whether the system is open or closed; **The system will be closed**  
1. 3. Proposed average and maximum injection pressure; **1500 psi when injecting water, 2,200 psi when injecting CO<sub>2</sub>**  
2. 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, **CO2 for injection will either be purchased or CVU produced gas that is stripped of NGLS and re-injected.**  
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.). **Injection is not for disposal purposes, but for oil production enhancement**
- \*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. **The injection wells will be acid stimulated with 15% HCL**
- \*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. **Previously Provided**
- 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. **Attached, and confirmed by the Hobbs News Sun by email. Official affidavit will be sent upon receipt.**
- 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: Paul Brown TITLE: Vacuum Project Engineer  
SIGNATURE: Paul Brown by Carolyn DATE: 7-17-12  
E-MAIL ADDRESS: PaulBrown@chevron.com

- \* 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: \_\_\_\_\_

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

Side 2

### 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, 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.~~

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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

RE: Central Vacuum Unit # 285, 284, and 274

PART I Chevron Corporation plans to add three new wells to the Central Vacuum Unit and inject water, produced gas and CO<sub>2</sub> in the Grayburg San Andres formation.

PART II Chevron U.S.A. INC.  
15 Smith Road  
Midland, TX 79705

PART III Well Data Sheets attached

PART IV This is an expansion of an existing project. Order #R-5530-E

PART V Map attached designating ½ mile and 2 mile radius of review area.

PART VI Well tabulation are attached. There are no P&A wells.

PART VII

1. Proposed average daily and maximum daily rate: 3,000 bbls water/day 10,000 MCF CO<sub>2</sub>/day.
2. **The system will be closed.**
3. Proposed average and maximum injection pressure: **1500 psi when injecting water, 2,200 psi when injecting CO<sub>2</sub>**
4. Water for injection will consist of CVU produced water. **CO<sub>2</sub> for injection will either be purchased or CVU produced gas that is stripped of NGLS and re-injected.**

**Injection is not for disposal purposes, but for oil production enhancement.**

PART VIII This data has been submitted under NMOCD Order No. #R-5530-E.

PART IX The injection wells will be acid stimulated with 15% HCL.

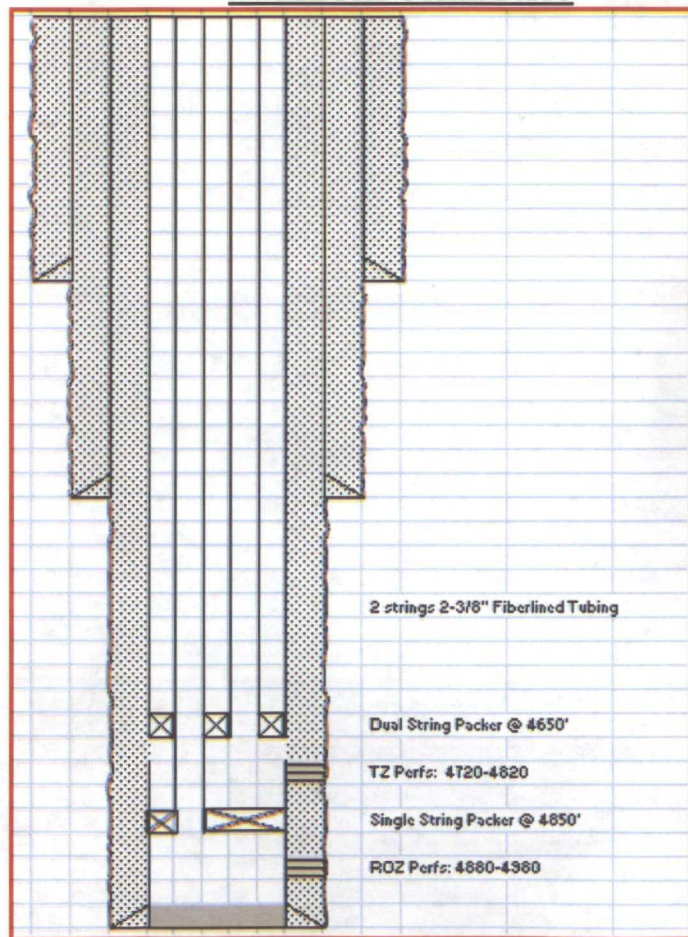
PART X Logs will be submitted as soon as possible after the well is recompleted.

PART XI This data has been submitted under NMOCD Order No. #R-5530-E.

PART XII Chevron U.S.A. INC. has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

PART XIII Copies of the OCD Form C108, the Well Data Sheet and map have been sent to the offset operators and surface owner as per the listing below.

## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 273WELL LOCATION: 2346' FNL & 481' FEL  
FOOTAGE LOCATIONH  
UNIT LETTER36  
SECTION17S  
TOWNSHIP34E  
RANGE**WELLBORE SCHEMATIC****WELL CONSTRUCTION DATA**Surface CasingHole Size: 17.5"Casing Size: 13.375"Cemented with: 1514 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircIntermediate CasingHole Size: 12-1/4"Casing Size: 9-5/8"Cemented with: 970 sxs sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircProduction CasingHole Size: 8-3/4"Casing Size: 7"Cemented with: 980 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircTotal Depth: 5200'Injection Interval4710' feet to 5000'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2-7/8" Two Strings Lining Material: FiberglassType of Packer: Peak Hydro II Dial Packer / Peak ASIXPacker Setting Depth: 4700' / 4850'

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

Additional Data

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

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

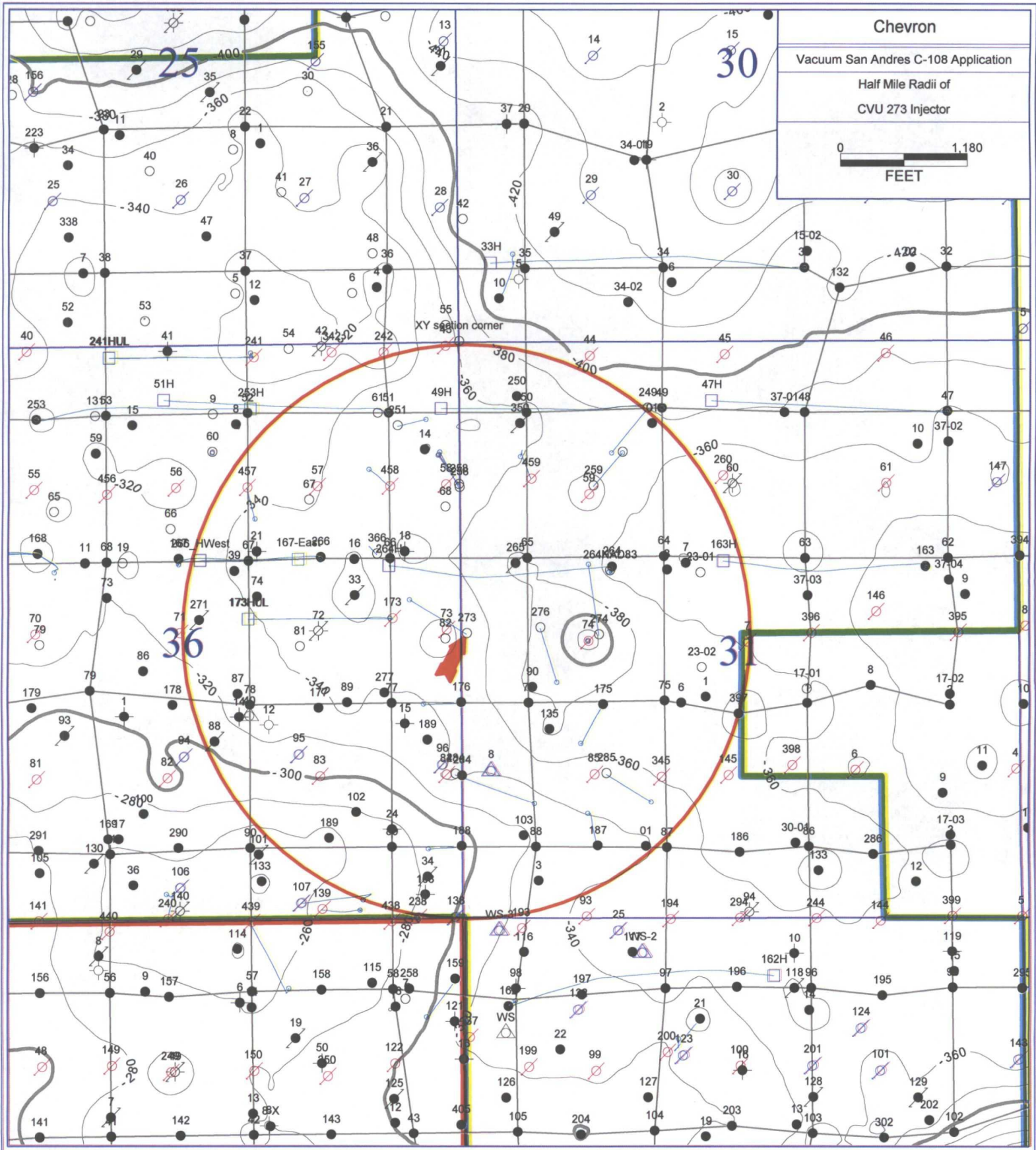
2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

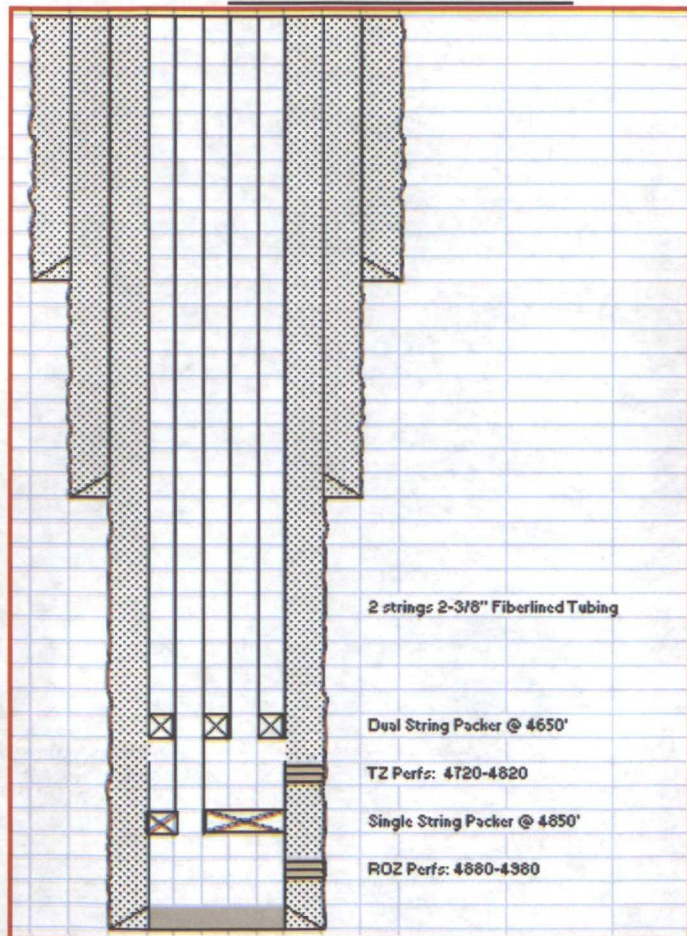
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Glorieta 5900'



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 258WELL LOCATION: 1005' FNL & 185' FEL  
FOOTAGE LOCATIONA  
UNIT LETTER36  
SECTION17S  
TOWNSHIP34E  
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17.5"Casing Size: 13.375"Cemented with: 1514 sx. *or*                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircIntermediate CasingHole Size: 12-1/4"Casing Size: 9-5/8"Cemented with: 970 sxs sx. *or*                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircProduction CasingHole Size: 8-3/4"Casing Size: 7"Cemented with: 980 sx. *or*                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircTotal Depth: 5200'Injection Interval4710' feet to 5000'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2-7/8" Two Strings Lining Material: FiberglassType of Packer: Peak Hydro II Dial Packer / Peak ASIXPacker Setting Depth: 4700' / 4850'

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

**Additional Data**

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

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

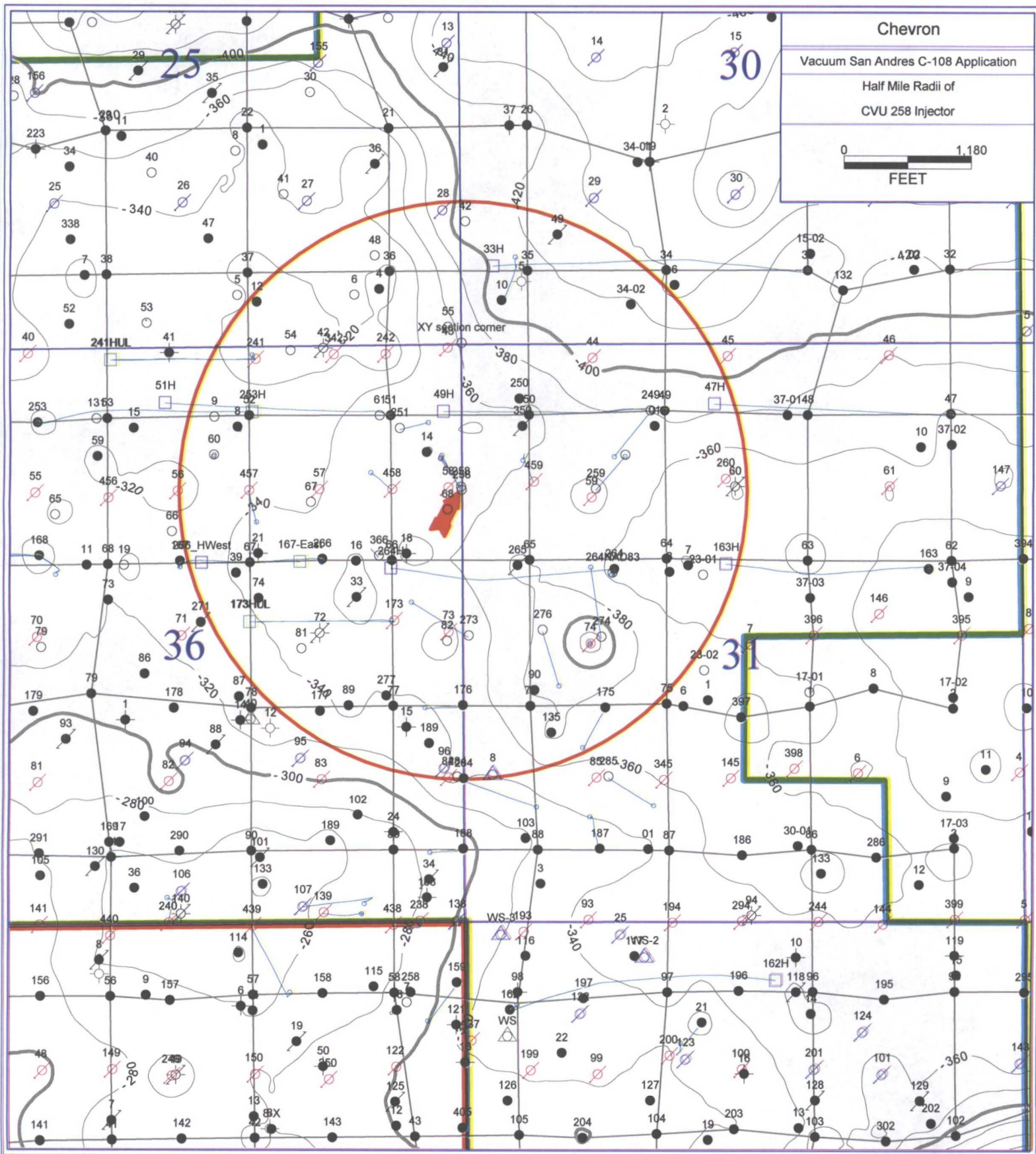
2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

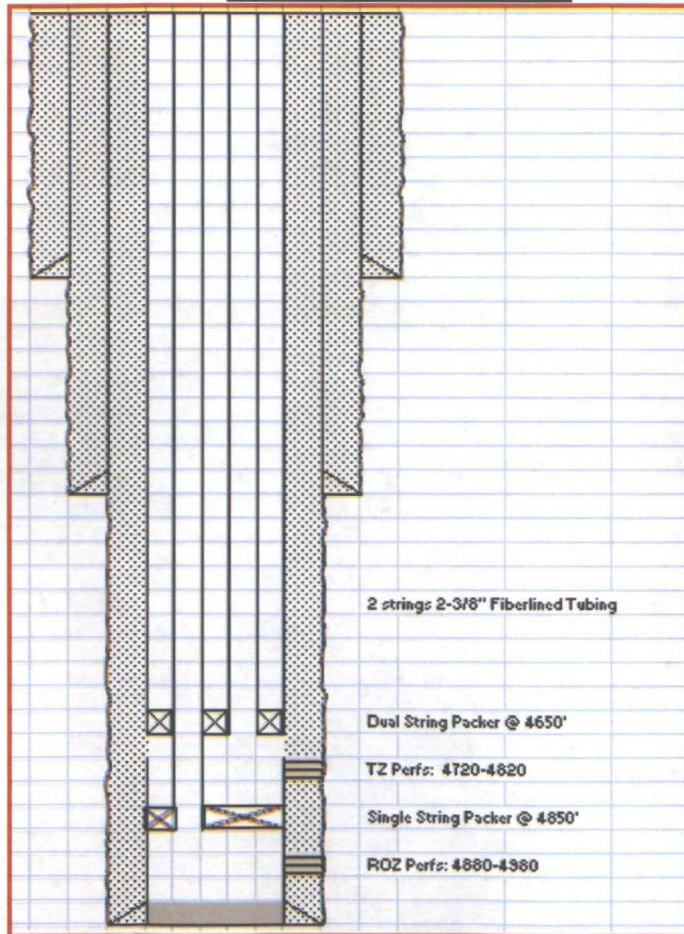
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Glorieta 5900'



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 259WELL LOCATION: 1019' FNL & 1514' FWL  
FOOTAGE LOCATIONC  
UNIT LETTER31  
SECTION17S  
TOWNSHIP35E  
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17.5"Casing  
Size: 13.375"Cemented with: 1514 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircIntermediate CasingHole Size: 12-1/4"Casing Size: 9-5/8"Cemented with: 970 sxs sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircProduction CasingHole Size: 8-3/4"Casing Size: 7"Cemented with: 980 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircTotal Depth: 5200'Injection Interval4710' feet to 5000'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2-7/8" Two Strings Lining Material: FiberglassType of Packer: Peak Hydro II Dial Packer / Peak ASIXPacker Setting Depth: 4700' / 4850'

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

**Additional Data**

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

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

2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

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. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

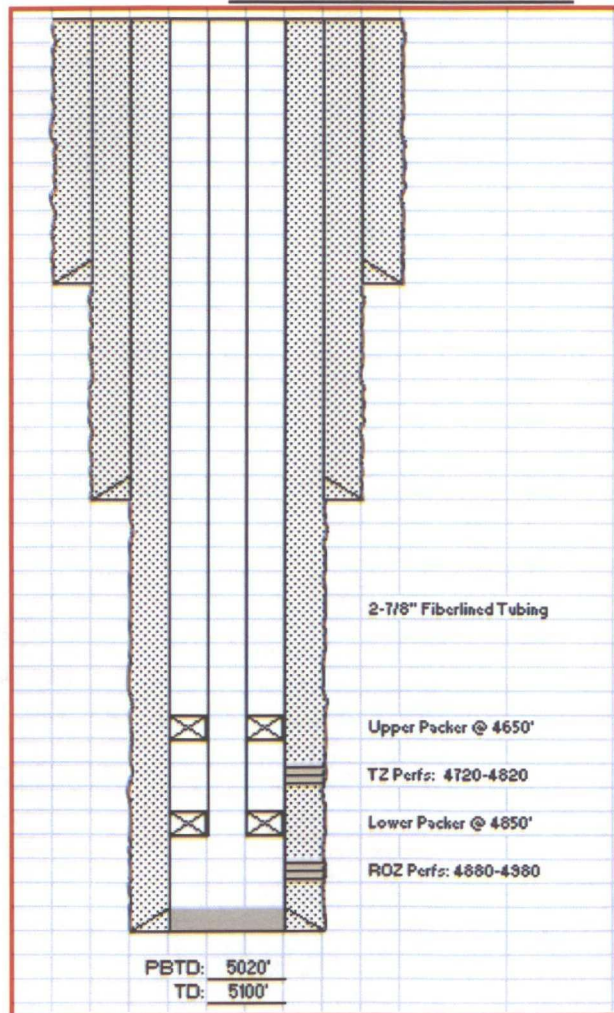
Glorieta 5900'



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 274

WELL LOCATION: 2033' FNL & 1187' FEL E 31 17S 35E  
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

**WELLBORE SCHEMATIC****WELL CONSTRUCTION DATA**Surface CasingHole Size: 15.5"Casing Size: 11.75"Cemented with: 1248 sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircIntermediate CasingHole Size: 11"Casing Size: 8-5/8"Cemented with: 656 sxs sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircProduction CasingHole Size: 7-875"Casing Size: 5.5"Cemented with: 1086 sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircTotal Depth: 5100'Injection Interval4710' feet to 5000'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2-7/8" Lining Material: FiberglassType of Packer: Double Grip Mechanical Set/ Double Element Hydro IV Hydraulic SetPacker Setting Depth: 4700' / 4850'Other Type of Tubing/Casing Seal (if applicable): Additional Data

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

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

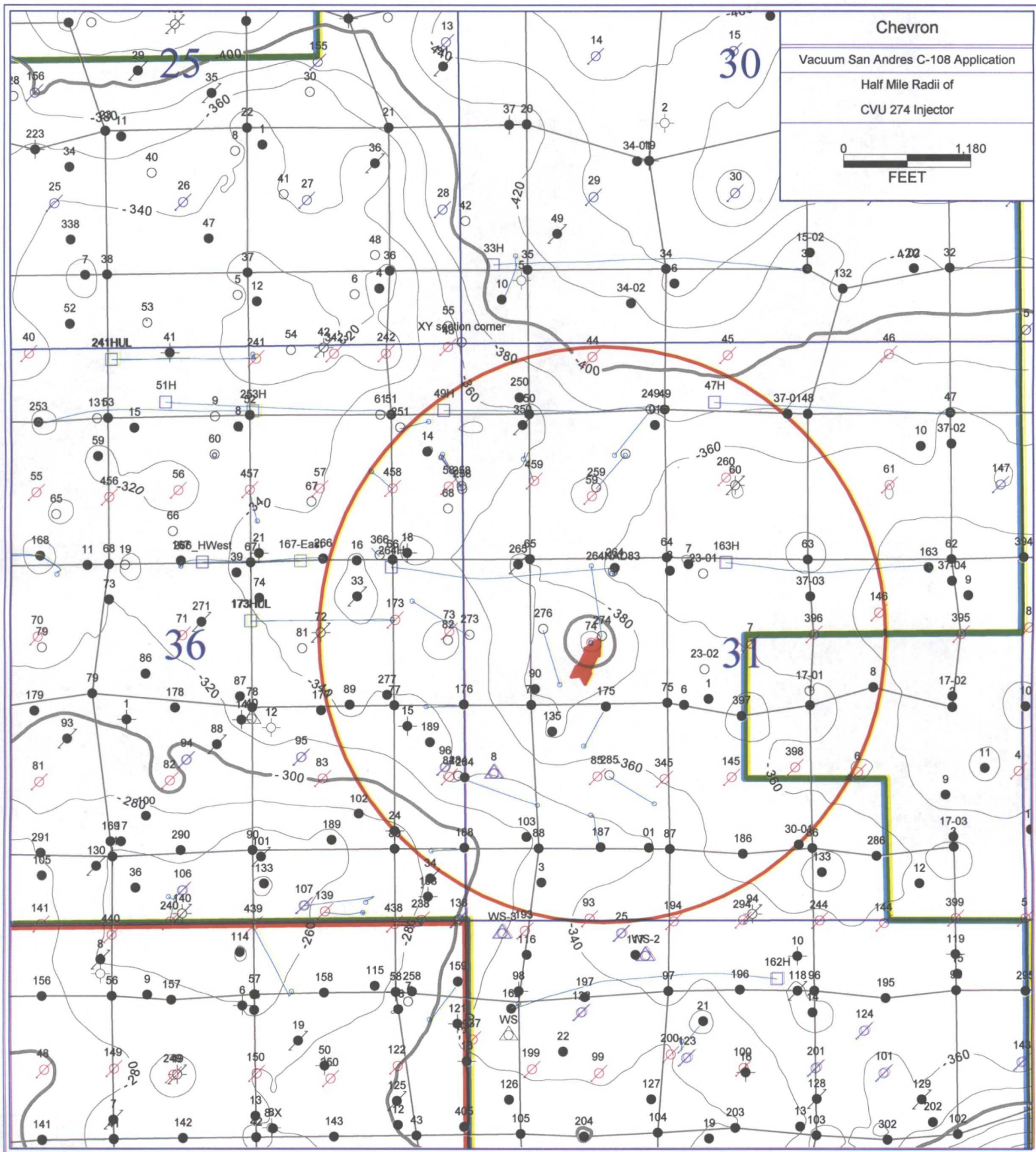
2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

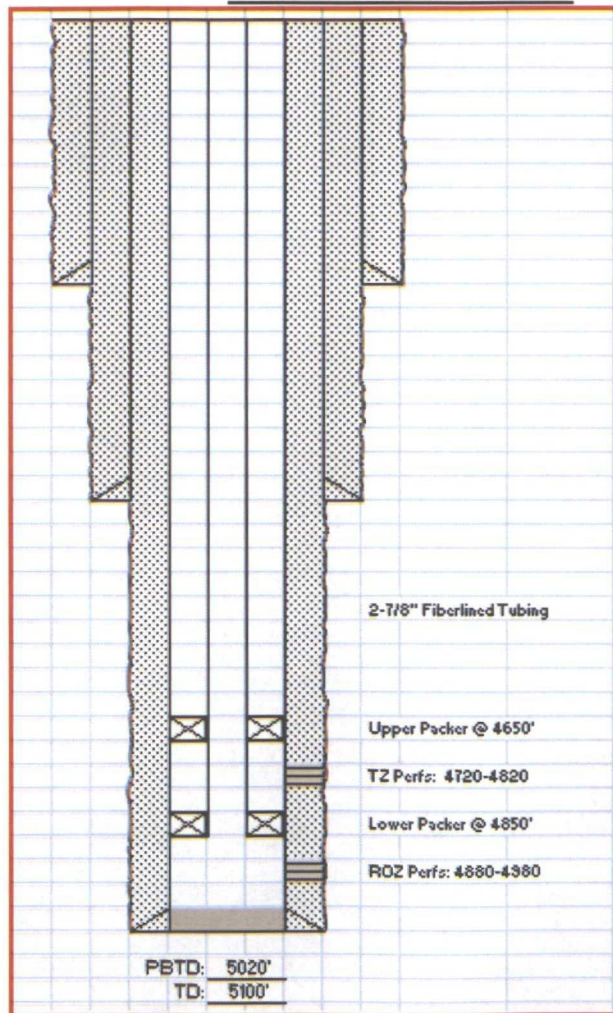
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Glorieta 5900'



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 284WELL LOCATION: 1070'' FSL & 665' FWL  
FOOTAGE LOCATIONM  
UNIT LETTER31  
SECTION17S  
TOWNSHIP35E  
RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 15.5"Casing Size: 11.75"Cemented with: 1248 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircIntermediate CasingHole Size: 11"Casing Size: 8-5/8"Cemented with: 656 sxs sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircProduction CasingHole Size: 7-875"Casing Size: 5.5"Cemented with: 1086 sx.or                      ft<sup>3</sup>Top of Cement: SurfaceMethod Determined: CircTotal Depth: 5100'Injection Interval4710' feet to 5000'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2-7/8" Lining Material: FiberglassType of Packer: Double Grip Mechanical Set/ Double Element Hydro IV Hydraulic SetPacker Setting Depth: 4700' / 4850'

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

**Additional Data**

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

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

2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

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. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

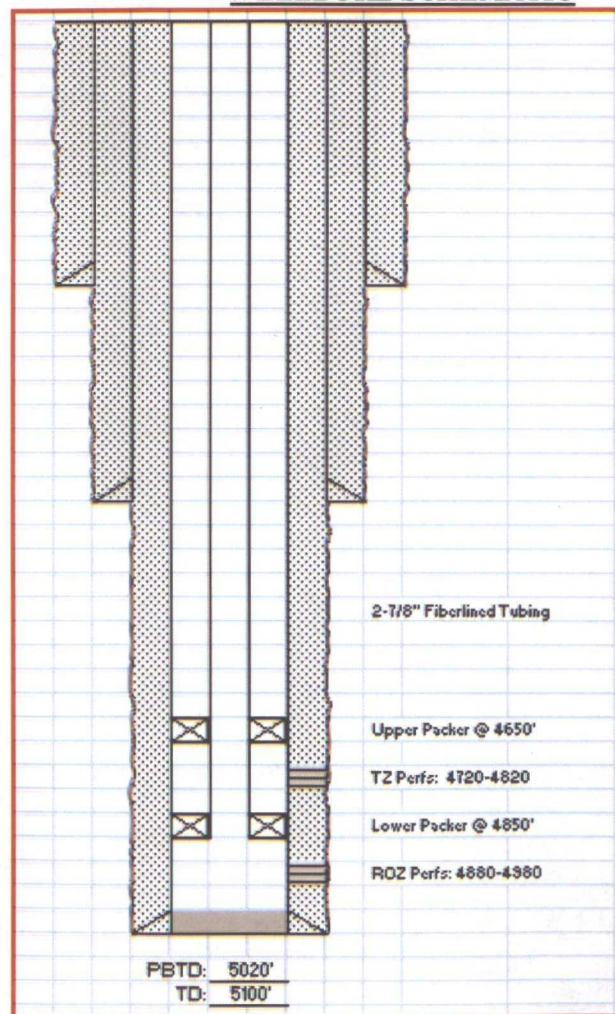
Glorieta 5900'



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 285

WELL LOCATION: 1083' FSL & 1753' FWL N 31 17S 35E  
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

**WELLBORE SCHEMATIC****WELL CONSTRUCTION DATA**Surface Casing

Hole Size: 15.5" Casing Size: 11.75"

Cemented with: 1248 sx. *or*                      ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circ

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8"

Cemented with: 656 sxs sx. *or*                      ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circ

Production Casing

Hole Size: 7-875" Casing Size: 5.5"

Cemented with: 1086 sx. *or*                      ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circ

Total Depth: 5100'

Injection Interval

4710' feet to 5000'

(**Perforated** or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 2-7/8" Lining Material: Fiberglass

Type of Packer: Double Grip Mechanical Set/ Double Element Hydro IV Hydraulic Set

Packer Setting Depth: 4700' / 4850'

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

Additional Data

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

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

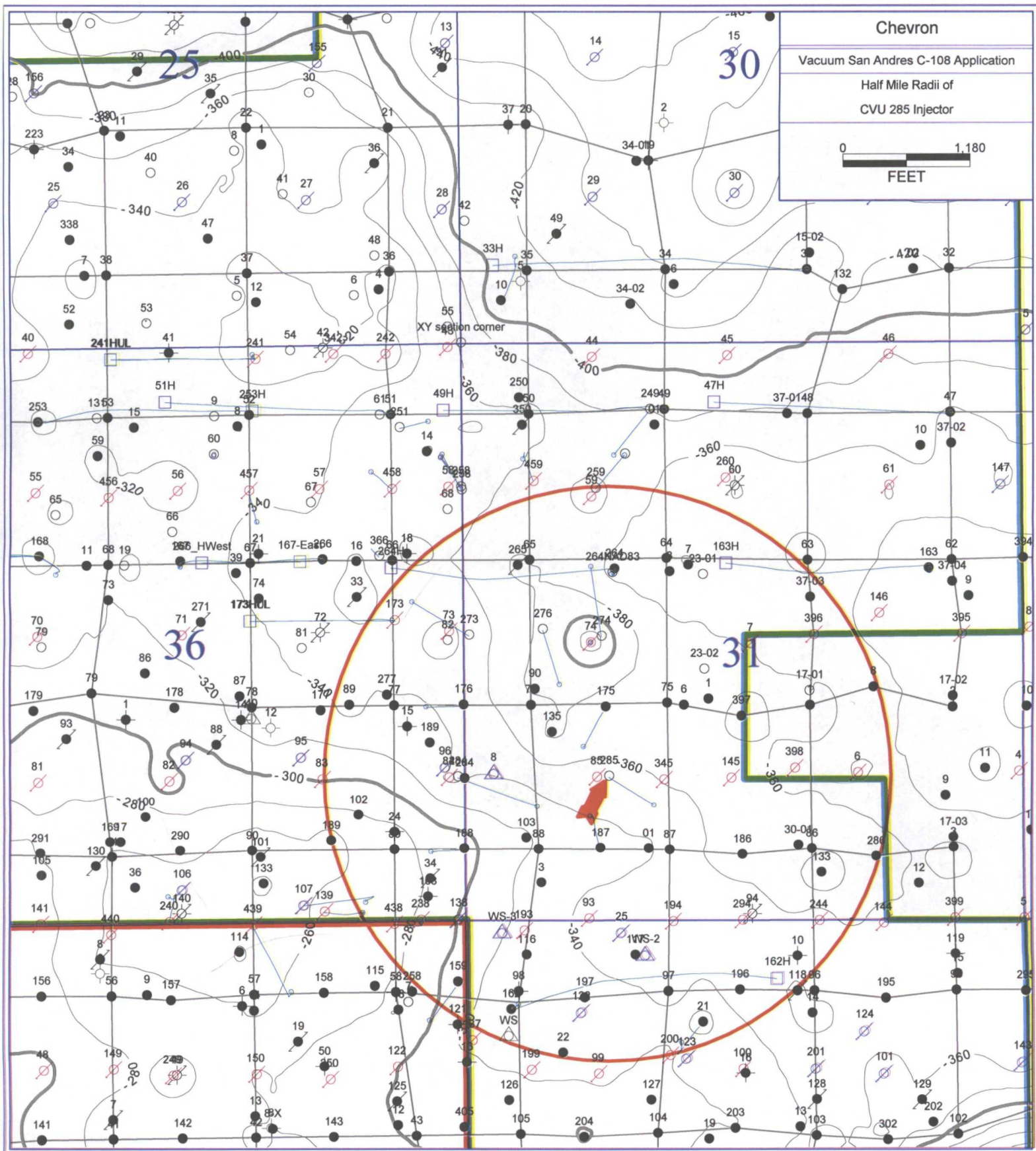
2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): VACUUM (Grayburg – San Andres)

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. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Glorieta 5900'



CVU Well Nos 274, 284, 285, *u etc*  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

RIGLESS

1. Set anchors. Ensure that all exclusion zones for overhead hazardous areas are identified and flagged. Ensure power line height / placement is in compliance with MCA SWP. Ensure that all exclusion zones are marked clearly and honored.
2. Open needle valve on the dry hole cap and & check for trapped pressure above the BPV (if installed – verify with drilling). Check pressure on the 8-5/8" X 5-1/2" annulus & the 11-3/4" x 8-5/8" annulus. Bleed any pressure if necessary.
3. Remove dry hole cap.
4. NU Vetco 11" 5M x 7-1/16" 5M tubing head.
5. NU Guardian 5M frac stack.
6. Lubricate out Vetco 5" H BPV (if installed – verify with drilling)
7. Bleed pressure from bradenhead valves (if there is any pressure) and load the surface & intermediate annuli with FW. Ensure that production casing was displaced with FW. Load production casing with FW and pressure test casing to 4000 psi (80% WH pressure rating) prior to perforating.
8. RU E-line unit, mast/crane, & lubricator. Test lubricator to 1000 psi. RIH w/ GR-Radial bond log – CCL & tie into existing OH log. Log from PBDT (estimated @ 5172') to surface'. Run the CET with 0 psi on the repeat pass & 1000 psi on the main pass. Send digital copy of logs to Paul Brown (Paul [Brown@chevron.com](mailto:Brown@chevron.com)), Nate Brummert ( [nbgn@chevron.com](mailto:nbgn@chevron.com) ), & Scott Ingram ( [ScottIngram@chevron.com](mailto:ScottIngram@chevron.com) ). Scott Ingram will provide perforations based on OH & cased hole logs.
9. Perforate the 5-1/2" casing as per Technical Team recommendation (Scott Ingram) using 3-3/8" predator guns w/ 2 JSPF @ 120 degree phasing. Perf charge specs: 35 gram, 0.41" EHD, 47.56" ATP.
10. Rig down wireline truck and mast unit.
11. MIRU Petroplex. Acidize perfs with 20,000 gallons 15% NEFE HCl. Pump acid at 10 BPM. Maximum pressure = 3800 psi. Drop 50% excess 7/8" 1.18 S.G. bio-ball sealers for diversion.
12. Close frac valve. Bleed pressure off treating lines above frac valve and RD acid crew & equipment.
13. NU B-1 adapter with ball valve on top of Frac Valve

CVU Well Nos ~~274, 284, 285~~  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

14. RU 2-man flow back crew, flowback manifold / lines (*ensure that lines are hobbled and are delivered with certification tags*), & flowback tank. Open well up and flow back load. Record flowback details in Wellview.
15. Once well is dead, close frac valve & RDMO flowback crew / equipment.
16. ND B-1 adapter
17. RU WL unit & lubricator on top of frac valve. RIH & set WL conveyed 5-1/2" composite bridge plug (CBP) +/- 50' above top perf.
18. Load casing & test CBP to 1000 psi.
19. Dry rod in Vetco 5" H BPV
20. ND Frac Valve.
21. NU 7-1/16" 5M tubing head, B-1 adapter with needle valve & pressure gauge.

WITH RIG

22. Rig up pulling unit.
23. Check pressure on well – well should be dead due to CBP. Bleed pressure if necessary.
24. ND B-1 adapter & NU 5M hydraulic BOP & 3M hydraulic annular.
25. Check for pressure under the BPV & dry rod out the 5" BPV.
26. Close blind rams & test against CBP to 250 low / 1000 psi high for 5 minutes each.
27. Caliper & inspect elevators/lifting equipment. TIH with 4-3/4" 5 blade junk mill & 6 x 3-1/2" DC's on 2-7/8" 6.5# L80 workstring. Tag CBP.
28. Test pipe rams & annular to 250 low / 1000 psi high for 5 minutes each.
29. Caliper swivel bail & PU power swivel. Establish returns with 10# BW & drill up CBP & make C/O run to PBTB.
30. Circ hole clean.
31. TOH LD WS, DC's & mill.
32. Install Maverick Oil Tools' Single String, Dual Zone Injection Packer assembly as follows:

CVU Well Nos ~~274, 284, 285~~  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

\*\*\***NOTE:** For the bottom injection interval, space out so that the 1.62" Injection Segregation valve is +/- 20' below the bottom perf & so that the bottom packer is +/- 60' above upper perforation.

- a. 2-7/8" 316 SS bull plug with SS coupling (ensure BP box coupling was prepped for Fiberline's CBR & flange installation).
- b. 1 joint 2-7/8" 6.5# L80 8RD EUE externally Ryt-wrapped / fiberlined FL-II injection "scab" tubing (mud anchor)

\*\*\***ENSURE THAT A PERMIAN ENTERPRISES REP IS ON LOCATION TO "PAINT" DAMAGED RYT-WRAP TUBING. PERMIAN ENTERPRISES: 432-332-0903.**

- c. 2-7/8" Tuboscope 316 SS TAS (Tuboscope Adapter Sub)
- d. 2-7/8" 316 SS Segregation Injection Valve with pre-installed segregation valve (3.063" OD, 1.62" No-Go) prepped for Fiberline's CBR & flange.
- e. 2-7/8" 6.5# L80 8RD EUE externally Ryt-wrapped / Fiberlined FL-II injection "scab" tubing (scab tubing refers to the ryt-wrapped tubing that will be placed in between the two packers & below the lower packer).
- f. 2-7/8" Tuboscope 316 SS TAS (Tuboscope Adapter Sub).
- g. Lower 5-1/2" x 2-7/8" hydraulic set double grip HydroSeal nickel plated / IPC injection packer.
- h. 2-7/8" 316 SS Segregation Injection Valve (3.668" OD x 1.812" No-Go) prepped for Fiberline's CBR & flange.
- i. 2-7/8" 316 SS extended length overshot prepped with 1.812" 'F' Profile & prepped for Fiberline's CBR & flange installation
- j. 1 joint 2-7/8" 6.5# L80 workstring.
- k. 5-1/2" x 2-7/8" LH set compression packer (space out according to
- l. 2-7/8" 6.5# L80 WS to surface.

33. Pressure up on tubing to 3000 psi to set lower hydraulic packer. Hold pressure for 10 minutes.

34. Bleed pressure off of tubing pull 5K over string weight to ensure packer is set.

35. Release on off tool.

36. Pull up hole +/- 5' & set compression packer.

CVU Well Nos ~~274, 284, 285~~  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

37. Load tubing & test lower packer to 500 psi for 5 minutes.
38. Release test compression packer.
39. TOH LD workstring & test packer.
40. PU upper part of injection assembly as follows:
  - a. 316 SS on/off tool with extended seal body
  - b. 2-7/8" 6.5# L-80 8RD EUE externally Ryt-Wrapped / TK-fiberlined tubing (space out so that upper injection packer is +/- 30' above the top perforation of the upper injection zone.)
  - c. Upper hydraulic set nickel plated / IPC injection packer.
  - d. Standard length 316 SS On/Off tool with 1.875" 'F' profile
  - e. 2-7/8" 6.5# L-80 8RD EUE TK-fiberlined injection tubing to surface.
41. Load tubing and pressure up to +/- 3000 psi & set upper injection packer. Hold pressure for 10 minutes to ensure that on/off tool seals are holding.
42. Bleed pressure from tubing & pressure up on backside to 550 psi for 5 minutes to ensure packer is set and holding. Bleed pressure from casing.
43. Release upper on/off tool & circulate well with packer fluid.
44. Re-engage on/off tool.
45. Perform Pre-MIT test. Load casing & test to 550 psi for 30 minutes & chart. Send chart to ALCR.
46. Release pressure from casing.
47. Lubricate Vetco BPV into tubing hanger.
48. ND BOP.
49. NU wellhead & injection tree.
50. Lubricate out Vetco BPV & close master valve on injection tree.
51. Rig down pulling unit.
52. Provide OCD 24 hours notice of MIT. Perform and chart MIT; give chart to ALCR.
53. RU slickline unit & lubricator. Pressure test lubricator to 1000 psi against master valve.

CVU Well Nos ~~274, 284, 285~~  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

54. RIH with slickline & remove isolation sleeves & install orifice sleeves into segregation valves per the instructions of production engineer Paul Brown.

PTB 3/12/12

NCB 5/22/12

**Contacts:**

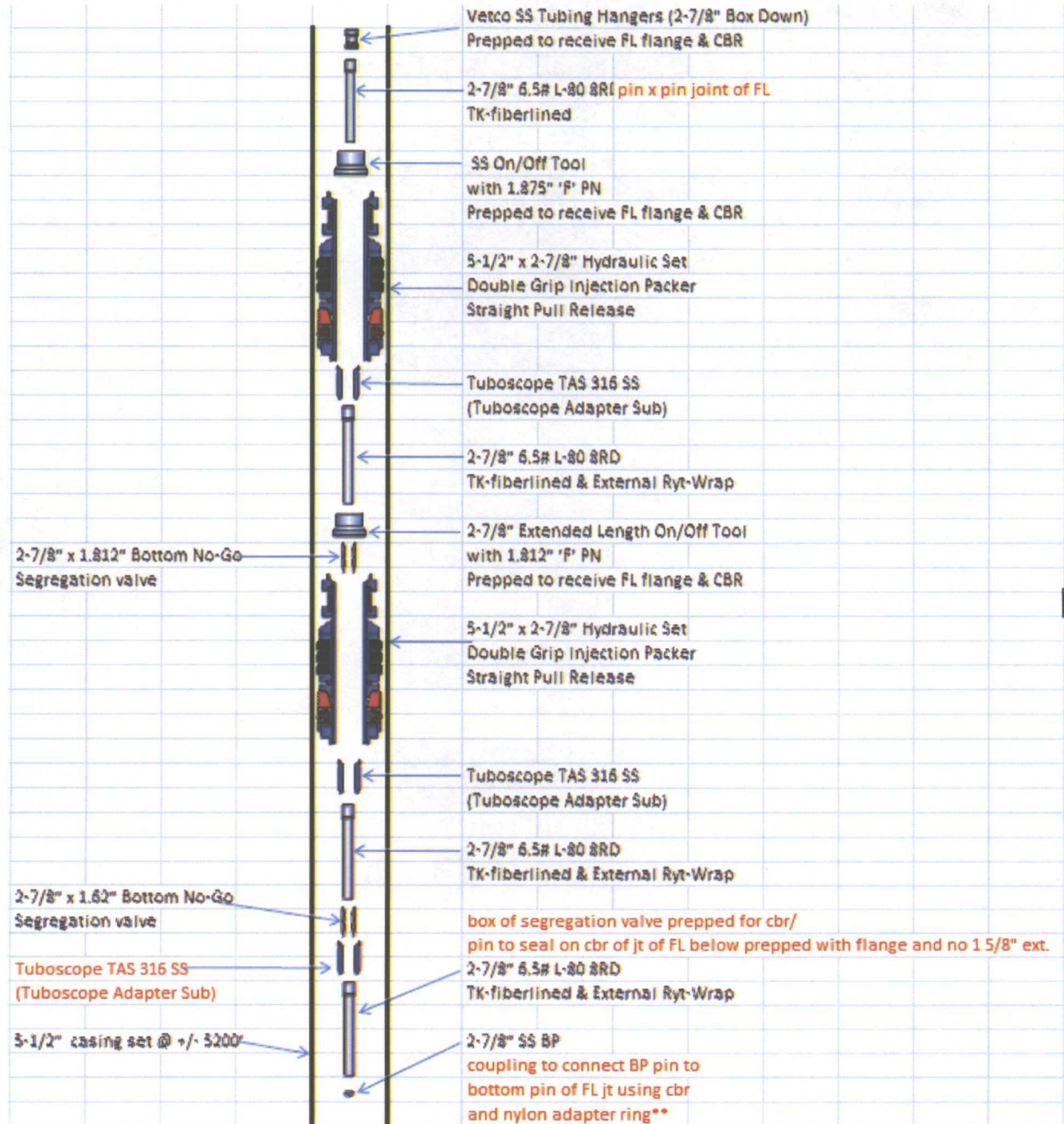
Nate Brummert – Remedial Engineer (office: 432-687-7512, cell: 713-409-6170)  
Paul Brown – Production Engineer (office: 432-687-7351, cell: 432-238-8755)  
Heath Lynch - Drilling Supt. (office: 432-687-7402, cell: 432-238-8667)  
Danny Acosta – ALCR (cell: 432-631-9033)  
Nick Moschetti – OS (cell: 432-631-0646)  
Jim Dane – Maverick Oil Tools (cell: 432-238-6288)

CVU Well Nos 274, 284, 285  
 Vacuum (Grayburg-San Andres) Field  
 Lea County, NM

## Completion Procedure

### APPENDIX A:

#### As Installed:

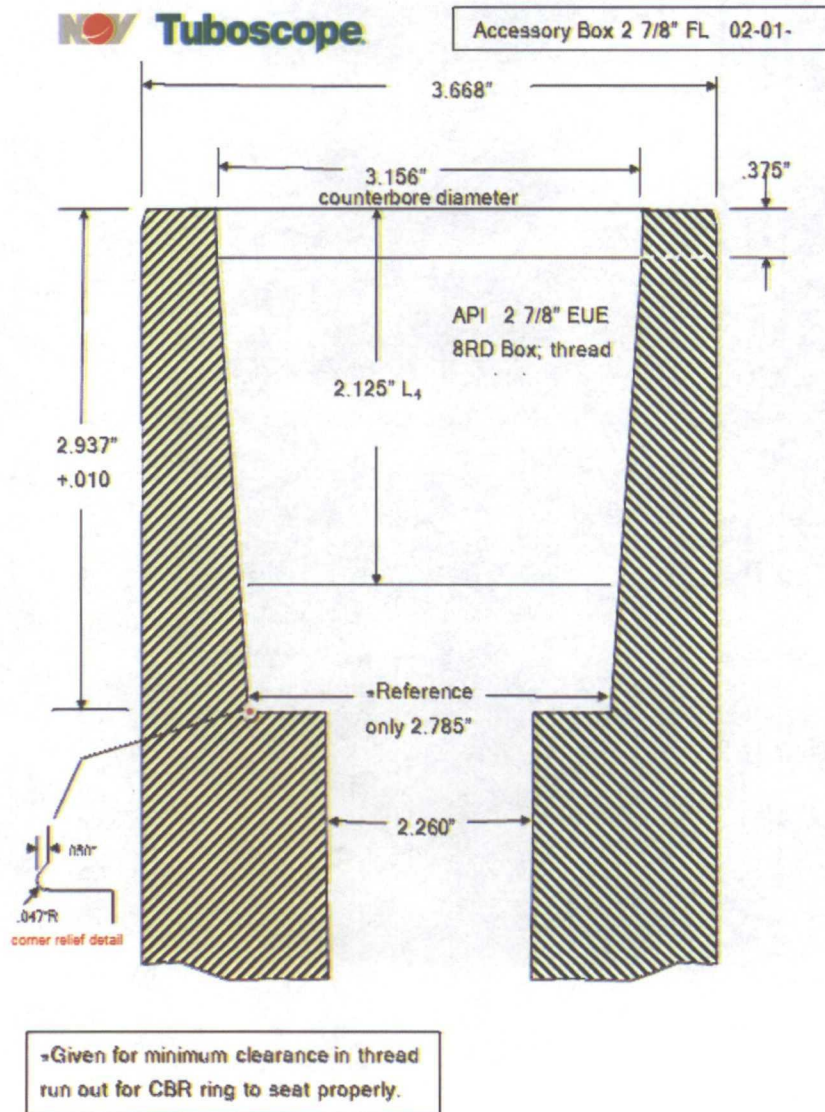


CVU Well Nos 274, 284, 285  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

### Completion Procedure

#### Appendix B:

#### 2-7/8" 8rd Fiberline Accessory Box Prep

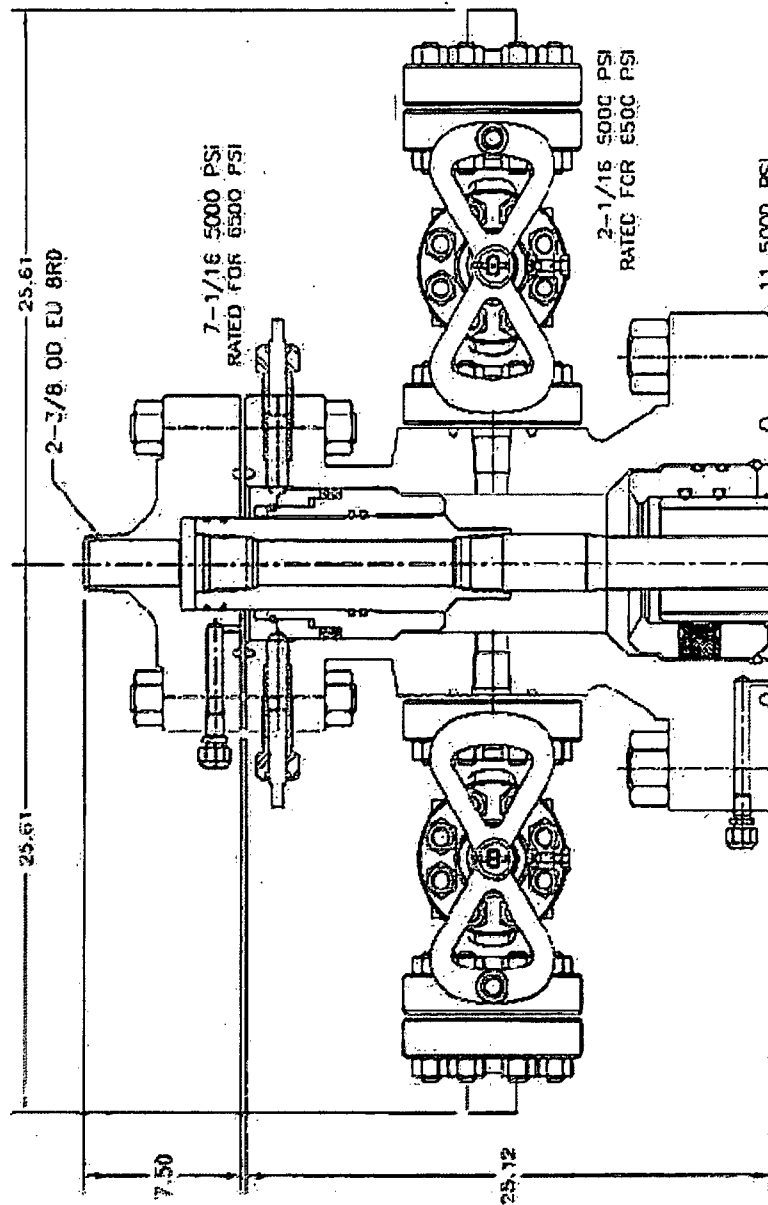


CVU Well Nos 274, 284, 285  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

Appendix C:

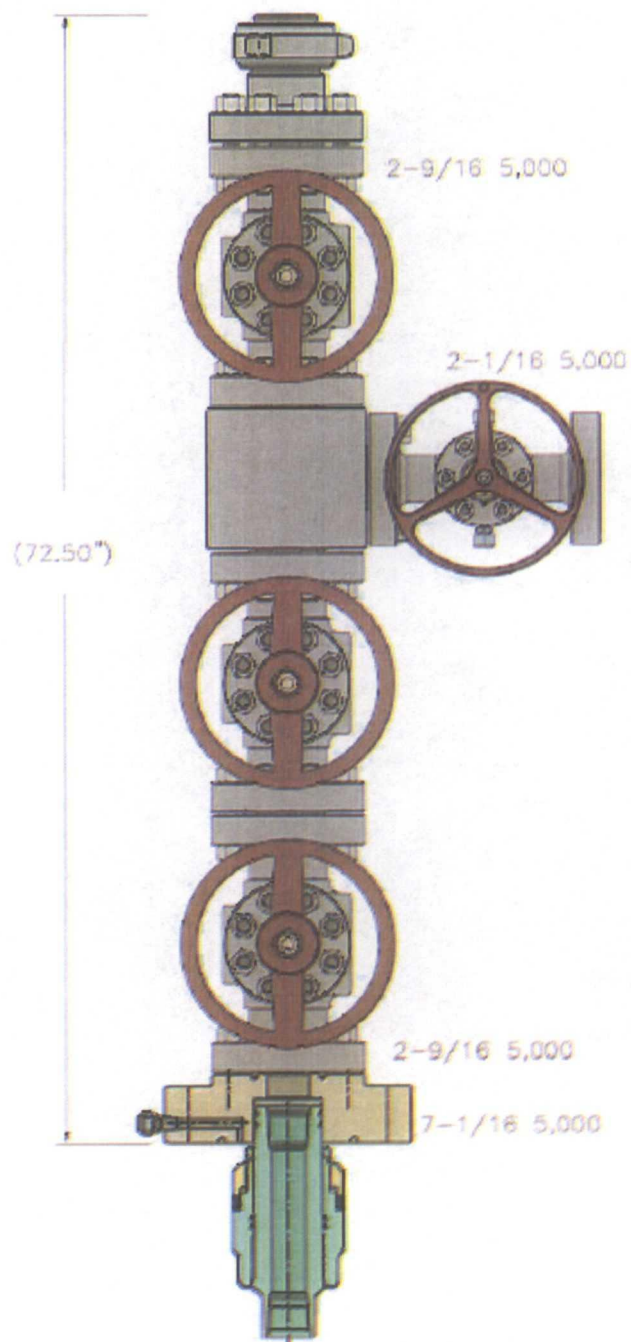
Tubing Head:



CVU Well Nos 274, 284, 285  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Completion Procedure

Injection Tree:





# 274, 284, 285

CVU 273 CVU 258, CVU 259, Wells within Half Mile Radius - Offsets

UWI (APINum)	Operator	Well Name	Well Number	Status	Location	Unit Letter	Section	Twnshp	Range	County	TD	Address
30-025-32034	APACHE CORP	WARN_ST_A_C_2	22	Active	1219' FNL & 890' FWL	D	6	18S	35E	Lea	8138'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-33139	APACHE CORP	WARN_ST_AC_2	25	Inactive	113' FNL & 1429' FWL	C	6	18S	35E	Lea	8150'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-20748	MARATHON OIL	WARN_ST_AC_1_3	3	P&A'd	2080 FNL & 1980' FWL	F	31	17S	35E	Lea	10,301'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-31969	APACHE CORP	WARN_ST_A_C_2	21	Inactive	1109' FNL & 1993' FWL	C	6	18S	35E	Lea	8200'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-32311	APACHE CORP	WARN_ST_A_C_1	6	Active-Oil	1980' FSL & 2030' FWL	K	31	17S	35E	Lea	10,335'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-33951	APACHE CORP	WARN_ST_AC_1_7	7	Active-Oil & Gas	2036' FNL & 2089 FWL	F	31	17S	35E	Lea	11,610'	303 Veterans Airpark Ln, Ste 3000; Midland, TX 79705
30-025-32413	XTO ENERGY, INC.	STATE_K_12	12	Active-Oil	330' FSL & 990' FEL	P	31	17S	35E	Lea	8093'	200 N. Loraine St.; Midland, TX 79701
30-025-02960	CONOCOPHILLIPS	EAST Vacuum (GSA) Unit	1	Inactive	1980' FSL & 1980' FEL	J	31	17S	35E	Lea	6234'	3401 E. 30th St.; Farmington, NM 87402
30-025-20290	CONOCOPHILLIPS	VGEU_37_03	3	TA'd	2310' FNL & 1980' FEL	G	31	17S	35E	Lea	6900'	3401 E. 30th St.; Farmington, NM 87402
30-025-20749	CONOCOPHILLIPS	VGEU_23_02	2	TA'd	2311' FNL & 2226' FWL	K	31	17S	35E	Lea	6250'	3401 E. 30th St.; Farmington, NM 87402
30-025-20750	CONOCOPHILLIPS	VGEU_23_01	1	TA'd	2122' FNL & 2227' FWL	F	31	17S	35E	Lea	6900'	3401 E. 30th St.; Farmington, NM 87402
30-025-20796	CONOCOPHILLIPS	VGEU_30_01 TRACT 30	1	Active-Oil	690' FSL & 2110' FEL	O	31	17S	35E	Lea	6200'	3401 E. 30th St.; Farmington, NM 87402
30-025-20819	CONOCOPHILLIPS	VGEU_37_01	1	TA'd	660' FNL & 2180' FEL	B	31	17S	35E	Lea	6311'	3401 E. 30th St.; Farmington, NM 87402
30-025-20823	CHESAPEAKE OPERATING, INC.	CONCHO E. STATE	2	Active-Oil	660' FSL & 1700' FWL	N	31	17S	35E	Lea	10,406'	Box 18496; Oklahoma City, OK 73154
30-025-21009	CONOCOPHILLIPS	VGEU TRACT 34	2	Active-Oil	330' FSL & 1576' FWL	N	30	17S	35E	Lea	6150'	3401 E. 30th St.; Farmington, NM 87402
30-025-21096	CONOCOPHILLIPS	VGEU	17-01	TA'd	2110' FSL & 1980' FEL	J	31	17S	35E	Lea		3401 E. 30th St.; Farmington, NM 87402

30-025-26863	CONOCOPHILLIPS	EAST Vacuum (GSA) Unit	6	Active-Inj	1330' FSL & 1530' FEL	J	31	17S	35E	Lea	4811'	3401 E. 30th St.; Farmington, NM 87402
30-025-26864	CONOCOPHILLIPS	EVGSAU_27_7	7	WG	2560' FSL & 2550' FEL	J	31	17S	35E	Lea	4800'	3401 E. 30th St.; Farmington, NM 87402
30-025-30278	CONOCOPHILLIPS	EVGSAU_27_8	8	Active-Oil	2173' FSL & 1410' FEL	J	31	17S	35E	Lea	4800'	3401 E. 30th St.; Farmington, NM 87402
30-025-32333	CONOCOPHILLIPS	SANTA FE_133	133	Active-Oil	435' FSL & 1930' FEL	O	31	17S	35E	Lea	8100'	3401 E. 30th St.; Farmington, NM 87402
30-025-32438	CONOCOPHILLIPS	SANTA FE	135	Active-Oil	1743' FSL & 808' FWL	L	31	17S	35E	Lea	8052'	3401 E. 30th St.; Farmington, NM 87402
30-025-34833	CONOCOPHILLIPS	EAST Vacuum (GSA) Unit	396	Active-Inj	2630' FSL & 1950' FEL	J	31	17S	35E	Lea	4850'	3401 E. 30th St.; Farmington, NM 87402
30-025-34834	CONOCOPHILLIPS	EAST Vacuum (GSA) Unit	397	Active-Oil	1885' FSL & 2630' FEL	J	31	17S	35E	Lea	4850'	3401 E. 30th St.; Farmington, NM 87402
30-025-34835	CONOCOPHILLIPS	EAST Vacuum (GSA) Unit	398	WG	1415' FSL & 2140' FEL	J	31	17S	35E	Lea	4842'	3401 E. 30th St.; Farmington, NM 87402
30-025-32298	CHESAPEAKE OPERATING, INC.	STATE D	3	Active-Oil	330' FSL & 695' FWL	M	31	17S	35E	Lea	8049'	Box 18496; Oklahoma City, OK 73154
30-025-33052	CHESAPEAKE OPERATING, INC.	WARN_ST_A_C_1	1	Active-Oil	2036' FSL & 2260' FWL	K	31	17S	35E	Lea	12,740'	Box 18496; Oklahoma City, OK 73154

Wells drilled within Affected Area subsequent to Injection Orders: R5530-E, R6856 & 74442-C						PART VI								
UWI (APINum)	Operator	Well Name	Well Number	Status	Location	UL	Sec	T/S	Rge	Co	TOC	TD	SPUD	Comp Date
30-025-38785	Chevron	VGSAU	438	Active WG INJ	10' FNL & 420' FEL	A	1	18S	34E	Lea	Surf	5020'	2/21/2009	4/23/2009
30-025-38786	Chevron	VGSAU	439	Active Injector	634' FNL & 1632' FEL	B	1	18S	34E	Lea	Surf	5156'	3/4/2009	5/1/2009
30-025-38640	Chevron	CVU	458	Active WG INJ	1153' FNL & 848' FEL	A	36	17S	34E	Lea	Surf	5035'	11/17/2008	3/12/2009
30-025-38641	Chevron	CVU	459	Active WG INJ	1050' FNL & 566' FWL	D	31	17S	35E	Lea	Surf	5005'	12/20/2008	3/18/2009
30-025-38849	Chevron	CVU	238	Active WG INJ	10' FSL & 420' FEL	P	36	17S	34E	Lea	Surf	5210'	1/27/2009	4/22/2009
30-025-35212	Chevron	CVU	173H	Active WG INJ	2509' FNL & 660' FEL	H	36	17S	34E	Lea	Surf	5913'	12/18/2000	1/17/2001
30-025-33712	Chevron	CVU	177	Active FI - Oil	1955' FSL & 1335' FEL	J	36	17S	34E	Lea	Surf	4850'	12/19/1996	1/11/1997
30-025-33722	Chevron	CVU	175	Active FI - Oil	1617' FSL & 1107' FWL	L	31	17S	35E	Lea	Surf	4890'	1/3/1997	2/12/1997
30-025-37233	Chevron	CVU	260	Active WG INJ	1235' FNL & 2456' FWL	C	31	17S	35E	Lea	Surf	4815'	7/1/2005	8/3/2005
30-025-35628	Chevron	CVU	264H	Active SP - Oil	2100' FNL & 1390' FWL	F	31	17S	35W	Lea	Calc-Circ'd	6707'	8/17/2001	10/2/2001
30-025-35398	Chevron	CVU	294	Active WG INJ	10' FNL & 2630' FEL	B	6	18S	35E	Lea	1824' Calc @ 50% fill-up	4700'	6/6/2001	9/19/2001
30-025-34943	Chevron	CVU	286	Active SP - Oil	584' FSL & 1383' FEL	O	31	17S	35E	Lea	Surf	4843'	3/26/2000	4/18/2000
30-025-34834	CONOCOP HILLIPS	EVGSAU	397	NON-OP-Oil	1885' FSL & 2630' FEL	J	31	17S	35E	Lea	Surf	4850'	4/15/2000	6/27/2000
30-025-34835	CONOCOP HILLIPS	EVGSAU	398	NON-OP-WG	1415' FSL & 2140' FEL	J	31	17S	35E	Lea	Calc-Circ'd	4842'	5/12/2000	6/22/2000
30-025-34833	CONOCOP HILLIPS	EVGSAU	396	NON-OP-WG	2630' FSL & 1950' FEL	J	31	17S	35E	Lea	Surf	4850'	4/23/2000	6/14/2000
30-025-30278	CONOCOP HILLIPS	EVGSAU	8	NON-OP-Oil	2173' FSL & 1410' FEL	J	31	17S	35E	Lea	Surf	4800'	7/1/1988	8/22/1988
30-025-38140	Chevron	NM 'O' STATE NCT-1	40	Active-WD	1885' FSL & 1978' FEL	J	36	17S	34E	Lea	Surf	13,300'	1/19/2007	5/7/2007
30-025-38639	Chevron	CVU	457 WI	Active WG INJ	1593' FNL & 1912 FEL	G	36	17S	34E	Lea	Surf	5026'	10/30/2008	1/21/2009

30-025-38002	Chevron	CVU	342 WI	Active WG INJ	82' FNL & 1186' FEL	A	36	17S	34E	Lea	Surf	5204'	9/13/2006	12/22/2006
30-025-35213	Chevron	CVU	241 WI	Active WG INJ	74' FNL & 1940' FEL	B	36	17S	34E	Lea	230' by TS	5988'	1/13/2001	3/27/2001
30-025-33711	Chevron	CVU	167	Active FI - Oil	2000' FNL & 2630' FEL	G	36	17S	34E	Lea	Surf	5497'	12/26/1996	1/21/1997

# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, JUDY HANNA  
PUBLISHER

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

of 1 issue(s).  
Beginning with the issue dated  
July 08, 2012  
and ending with the issue dated  
July 08, 2012

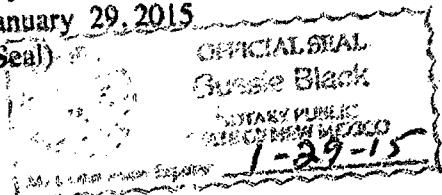
  
PUBLISHER

Sworn and subscribed to before me  
this 9th day of  
July, 2012

  
Notary Public

My commission expires  
January 29, 2015

(Seal)



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

## 9061, EGAL NOTICE July 8, 2012

Notice is hereby given of the application of  
CHEVRON U.S.A. INC.,

15 Smith Road, Midland, TX 79705, to the Oil Conservation of the State of New Mexico,  
and the Commissioner of Public Lands, State of New Mexico for approval to drill and com-  
plete the Central Vacuum Unit #285, 274, 284; as injection wells. Injection into these wells  
is designed to enhance production from the Central Vacuum Unit. These wells are in the  
following locations in Lea County, New Mexico:

Well #	Sec-Twn-Rng	Unit Letter	Surface Location	Bottom Hole Location
285	31-17S-35E	N	1083' FSL & 1763' FWL	1341' FSL & 1343' FWL
274	31-17S-35E	E	2032' FSL & 1167' FWL	2615' FSL & 1275' FWL
284	31-17S-35E	M	1070' FSL & 865' FWL	1338' FSL & 89' FEL

Water, produced gas, & CO2 will be injected into the Grayburg San Andres pool of the  
Vacuum field. Water injection in each well will be at an expected maximum rate of 3,000  
barrels of water per day and an expected maximum surface pressure of 1500 psi. CO2  
and produced gas injection per well will be at an expected maximum rate of 10 MMCF per  
day and an expected maximum surface pressure of 2200 psi. For additional information,  
please contact Carolyn Haynie, at 432-687-7261, or project engineer, Paul Brown,  
432-687-7351, at Chevron U.S.A., 15 Smith Road, Midland, TX 79705.

Interested Parties must file objections or requests for hearing with the Oil Conservation Di-  
vision, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice  
#27448

01102480

00096165

CHEVRON USA INC.  
15 SMITH ROAD  
MIDLAND, TX 79705



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 16, 2012

STATE OF NEW MEXICO  
COMMISSIONER OF PUBLIC LANDS  
P.O. BOX 1148  
SANTA FE, NE 87504-1148

RE: Application for Authorization to Inject  
OCD Form C-108  
Central Vacuum Unit  
Lea, County, New Mexico

Surface Owner:

For your information, Chevron USA Inc. as operator, filed an application with the New Mexico Oil Conservation Division to place the Central Vacuum Unit wells # 284, (API 30-025-40468), # 285, (API 30-025-40469), and # 274, (API 30-025-40466) on injection. Chevron plans to inject produced water, gas, and CO<sub>2</sub>.

Attached is the OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice has been submitted to the Hobbs News-Sun and was published on July 8, 2012. The enclosed map highlights the location of the referenced wells.

Any objection to this application must be sent to the **New Mexico Oil Conservation Division; 1220 South St. Francis Drive; Santa Fe, NM 87504**, within 15 days of receipt of this notification.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Sincerely,

A handwritten signature in cursive script that reads "Carolyn Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 11, 2012

CO2 & WATER INJECTION EXPANSION  
LEA COUNTY, NEW MEXICO

RE: Central Vacuum Unit Wells # 285, 284, 274  
Offset Operators:

For your information, as an offset operator, Chevron North America, operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to place Wells # 284, 285 and 274, on water and CO<sub>2</sub> injection in the Grayburg San Andres formation...

Attached is an OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice posted in the Hobbs News-Sun is included. The enclosed map highlights the location of the referenced wells in relation to your offset operations.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Interested parties must file objections with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505, within 15 days.

Sincerely,

A handwritten signature in cursive script that reads "Carolyn Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure

**OFFSET OPERATORS:**

APACHE CORPORATION  
303 VETERANS Airpark Lane  
Suite 300  
MIDLAND, TX 79705

MARATHON OIL COMPANY  
ATTN: ROBERT ANGEL  
P.O. BOX 3487  
HOUSTON, TX 77253-3487

XTO ENERGY INC.  
ATTN: Mr. Steven Cobb  
810 Houston Street, Ste 2000  
Ft. Worth, Texas, 76102

CONOCOPHILLIPS PETRO CO.  
ATTN: Land Department  
P.O. BOX 2197  
Houston, TX 77210-4707

CHESAPEAKE OPERATING, INC.  
BOX 18496  
OKLAHOMA CITY, OK 73154

**Surface Owner**

STATE OF NEW MEXICO  
COMMISSIONER OF PUBLIC LANDS  
P.O. BOX 1148  
SANTA FE, NM 87504-1148

A copy of the Legal Notice has been published in the Hobbs News Sun and a Certified copy will be forwarded as soon as it is received in this office.

*For well  
No. 274281285*

## LEGAL NOTICE

July 11, 2012

Notice is hereby given of the application of  
CHEVRON U.S.A. INC.,  
15 Smith Road, Midland, TX 79705, to the Oil Conservation of the State of New Mexico,  
and the Commissioner of Public Lands, State of New Mexico for approval to drill and  
complete the Central Vacuum Unit #285, 274, 284, as injection wells. Injection into these  
wells is designed to enhance production from the Central Vacuum Unit. These wells are in  
the following locations in Lea County, New Mexico:

Well #	Sec-Twn-Rnge	Unit		Surface Location	Bottom Hole Location
		Letter			
285	31-17S-35E	N		1083' FSL & 1753' FWL	1341' FSL & 1343' FWL
274	31-17S-35E	E		2033' FNL & 1187' FWL	2615' FSL & 1275' FWL
284	31-17S-35E	M		1070' FSL & 665' FWL	1338' FSL & 69' FEL

Water, produced gas, & CO2 will be injected into the Grayburg San Andres pool of the Vacuum field. Water injection in each well will be at an expected maximum rate of 3,000 barrels of water per day and an expected maximum surface pressure of 1500 psi. CO2 and produced gas injection per well will be at an expected maximum rate of 10 MMCF per day and an expected maximum surface pressure of 2200 psi. For additional information, please contact Carolyn Haynie, at 432-687-7261, or project engineer, Paul Brown, 432-687-7351, at Chevron U.S.A., 15 Smith Road, Midland, TX 79705.

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 Lea,

I, JUDY HANNA  
PUBLISHER

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

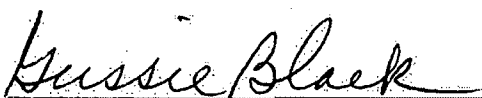
of 1 issue(s).

Beginning with the issue dated  
July 08, 2012

and ending with the issue dated  
July 08, 2012

  
PUBLISHER

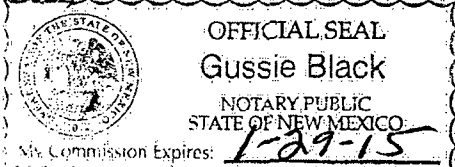
Sworn and subscribed to before me  
this 9th day of  
July, 2012



Notary Public

My commission expires  
January 29, 2015

(Seal)



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

## LEGAL NOTICE

July 8, 2012

Notice is hereby given of the application of  
CHEVRON U.S.A. INC.

15 Smith Road, Midland, TX 79705, to the Oil Conservation of the State of New Mexico,  
and the Commissioner of Public Lands, State of New Mexico for approval to drill and com-  
plete the Central Vacuum Unit #273, 258, 259, as injection wells. Injection into these wells  
is designed to enhance production from the Central Vacuum Unit. These wells are in the  
following locations in Lea County, New Mexico:

Well #	Sec-Twn-Range	Unit Letter	Surface Location	Bottom Hole Location
273	36-17S-34E	H	2346' FNL & 1481' FEL	2827' FSL & 48' FWL
258	36-17S-34E	A	1005' FNL & 185' FEL	1344' FNL & 5' FEL
259	31-17S-35E	C	1019' FNL & 1514' FWL	1327' FNL & 1239' FWL

Water, produced gas, & CO2 will be injected into the Grayburg San Andres pool of the  
Vacuum field. Water injection in each well will be at an expected maximum rate of 3,000  
barrels of water per day and an expected maximum surface pressure of 1500 psi. CO2  
and produced gas injection per well will be at an expected maximum rate of 10 MMCF per  
day and an expected maximum surface pressure of 2200 psi. For additional information,  
please contact Carolyn Haynie, at 432-687-7261, or project engineer, Paul Brown,  
432-687-7351, at Chevron U.S.A., 15 Smith Road, Midland, TX 79705.

Interested Parties must file objections or requests for hearing with the Oil Conservation Di-  
vision, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.  
#27447

01102480

00096168

CHEVRON USA INC.  
15 SMITH ROAD  
MIDLAND, TX 79705



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 18, 2012

STATE OF NEW MEXICO  
COMMISSIONER OF PUBLIC LANDS  
P.O. BOX 1148  
SANTA FE, NE 87504-1148

RE: Application for Authorization to Inject  
OCD Form C-108  
Central Vacuum Unit  
Lea, County, New Mexico

Surface Owner:

For your information, Chevron USA Inc. as operator, filed an application with the New Mexico Oil Conservation Division to place the Central Vacuum Unit wells # 258, (API 30-025-40463), # 259, (API 30-025-40464), and # 273, (API 30-025-40465) on injection. Chevron plans to inject produced water, gas, and CO<sub>2</sub>.

Attached is the OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice has been submitted to the Hobbs News-Sun and was published on July 8, 2012. The enclosed map highlights the location of the referenced wells.

Any objection to this application must be sent to the **New Mexico Oil Conservation Division; 1220 South St. Francis Drive; Santa Fe, NM 87504**, within 15 days of receipt of this notification.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Sincerely,

A handwritten signature in black ink that reads "Carolyn Haynie". The signature is fluid and cursive, with the first name "Carolyn" being more prominent than the last name "Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent/Alaska SBU**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7703  
chay@chevron.com

July 18, 2012

**CO2 & WATER INJECTION EXPANSION**  
**LEA COUNTY, NEW MEXICO**

RE: Central Vacuum Unit Wells # 258, 259, 273  
Offset Operators:

For your information, as an offset operator, Chevron North America, operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to place Wells # 258, 259, and 273 on water and CO<sub>2</sub> injection in the Grayburg San Andres formation...

Attached is an OCD form C-108 and the information relative to the proposed expansion. A copy of the legal notice posted in the Hobbs News-Sun is included. The enclosed map highlights the location of the referenced wells in relation to your offset operations.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Paul Brown, at (432-687-7351).

Interested parties must file objections with the Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505, within 15 days.

Sincerely,

A handwritten signature in cursive script that reads "Carolyn Haynie".

Carolyn Haynie  
NM PE Technical Assistant

Enclosure

**OFFSET OPERATORS:**

APACHE CORPORATION  
303 VETERANS Airpark Lane  
Suite 300  
MIDLAND, TX 79705

MARATHON OIL COMPANY  
ATTN: ROBERT ANGEL  
P.O. BOX 3487  
HOUSTON, TX 77253-3487

XTO ENERGY INC.  
ATTN: Mr. Steven Cobb  
810 Houston Street, Ste 2000  
Ft. Worth, Texas, 76102

CONOCOPHILLIPS PETRO CO.  
ATTN: Land Department  
P.O. BOX 2197  
Houston, TX 77210-4707

CHESAPEAKE OPERATING, INC.  
BOX 18496  
OKLAHOMA CITY, OK 73154

**Surface Owner**

STATE OF NEW MEXICO  
COMMISSIONER OF PUBLIC LANDS  
P.O. BOX 1148  
SANTA FE, NM 87504-1148

For well's  
# 258, 259, #273

A copy of the Legal Notice has been published in the Hobbs News Sun and a Certified copy will be forwarded as soon as it is received in this office.

## **NOTIFICATION LIST**

**Prepared 7/20/2012 by Daniel Pequeno, Senior Land Representative**

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

**Central Vacuum Unit Well No. 273 (API #30-025-40465)**

2,346' FNL & 481' FEL

Section 36, T-17-S, R-34E, Unit Letter H

Lea County, New Mexico

**Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

Dabb Energy Company  
6088 Bryant Irvin Road  
Fort Worth, Texas 76132

**Offset Operators, Leaseholders, Working Interest Owners, for SW/4 of Section 30, T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Marathon Oil Company  
P. O. Box 3487  
Houston, Texas 77253

Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Dwight A. Tipton  
P. O. Box 1025  
Lovington, NM 88260

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:**

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 31,  
T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Apache Corporation  
303 Veterans Airpark Lane, Suite 3000  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 1,  
T18S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 6,  
T18S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

Apache Corporation  
303 Veterans Airpark Lane, Suite 3000  
Midland, Texas 79705

Marathon Oil Company  
P. O. Box 3487  
Houston, Texas 77253

**Surface Owner for All of Section 36, T-17-S-R35E:**

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

Signed By: \_\_\_\_\_

  
Daniel Pequeno, Landman

Date: July 20, 2012

## NOTIFICATION LIST

Prepared 7/20/2012 by Daniel Pequeno, Senior Land Representative

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

**Central Vacuum Unit Well No. 258 (API #30-025-40463)**

1,005' FNL & 185' FEL

Section 36, T-17-S, R-34E, Unit Letter A

Lea County, New Mexico

**Offset Operators, Leaseholders, Working Interest Owners, for S/2 of Section 25, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

Dabb Energy Company  
6088 Bryant Irvin Road  
Fort Worth, Texas 76132

Apache Corporation  
303 Veterans Airpark Lane, Suite 3000  
Midland, Texas 79705

Marathon Oil Company  
P. O. Box 3487  
Houston, Texas 77253

**Offset Operators, Leaseholders, Working Interest Owners, for S/2 of Section 30, T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Marathon Oil Company  
P. O. Box 3487  
Houston, Texas 77253

Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Dwight A. Tipton  
P. O. Box 1025  
Lovington, NM 88260

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:**

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 31,  
T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Apache Corporation  
303 Veterans Airpark Lane, Suite 3000  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for N/2 of Section 1,  
T18S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

**Surface Owner for All of Section 36, T-17-S-R35E:**

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

Signed By:   
Daniel Pequeno, Landman

Date: July 20, 2012

**NOTIFICATION LIST**

**Prepared 7/20/2012 by Daniel Pequeno, Senior Land Representative**

Application of Chevron U.S.A. Inc. for Administrative Approval of a Water Injection Well Location:

**Central Vacuum Unit Well No. 259 (API #30-025-40464)**

1,019' FNL & 1,514' FWL

Section 31, T-17-S, R-35E, Unit Letter C

Lea County, New Mexico

**Offset Operators, Leaseholders, Working Interest Owners, for SE/4 of Section 25, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

Dabb Energy Company  
6088 Bryant Irvin Road  
Fort Worth, Texas 76132

**Offset Operators, Leaseholders, Working Interest Owners, for S/2 of Section 30, T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Marathon Oil Company  
P. O. Box 3487  
Houston, Texas 77253

Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Dwight A. Tipton  
P. O. Box 1025  
Lovington, NM 88260

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 36, T17S-R34E:**

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

**Offset Operators, Leaseholders, Working Interest Owners, for All of Section 31,  
T17S-R35E:**

Chevron U.S.A. Inc.  
15 Smith Road  
Midland, Texas 79705

ConocoPhillips Petroleum Company  
P. O. Box 2197  
Houston, Texas 77252-2197

Mobil Producing Texas & New Mexico Inc.  
c/o XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

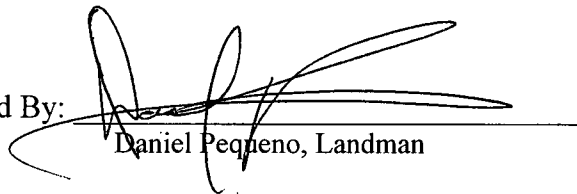
Chesapeake Operating Inc.  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

Apache Corporation  
303 Veterans Airpark Lane, Suite 3000  
Midland, Texas 79705

**Surface Owner for All of Section 31, T-17-S-R35E:**

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

Signed By:



Daniel Pequeno, Landman

Date: July 20, 2012

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 or PO Box No.  
 City, State, ZIP+4

**CONOCOPHILLIPS PETRO CO.**  
**ATTN: Land Department**  
**P.O. BOX 2197**  
**Houston, TX 77210-2194**

Postmark Here  
 25 2012

CVU 258, 259, 273

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<p>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p> <p>Article Addressed to:</p> <p><b>CONOCOPHILLIPS PETRO CO.</b>  <b>ATTN: Land Department</b>  <b>P.O. BOX 2197</b>  <b>Houston, TX 77210-2194</b></p>	<p>A. Signature  <input checked="" type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)          C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes          If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number          (Transfer from service label)</p>	<p>7011 1570 0000 7913 2431</p>

7011 1570 0000 7913 2400

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Sent To Street, Apt. No., or PO Box No. City, State, ZIP+4	<b>MARTHON OIL COMPANY</b> <b>ATTN: ROBERT ANGEL</b> <b>P.O. BOX 3487</b> <b>HOUSTON, TX 77253-3487</b>

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	A. Signature X <input type="checkbox"/> Agent <input type="checkbox"/> Addressee B. Received by (Printed Name) C. Date of Delivery JAMES E. ... D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> NO
Article Addressed to:  <b>MARTHON OIL COMPANY</b> <b>ATTN: ROBERT ANGEL</b> <b>P.O. BOX 3487</b> <b>HOUSTON, TX 77253-3487</b>	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes
2. Article Number (Transfer from service label)	7011 1570 0000 7913 2400

7011 1570 0000 7913 2417

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 Street, Apt. No., or PO Box No.  
 City, State, ZIP+4

**XTO ENERGY, INC.**  
**ATTN: MR. STEVEN COBB**  
**810 HOUSTON ST., STE 2000**  
**FT. WORTH, TX 76102**

PS Form 3811, August 2004

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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7011 1570 0000 7913 2424

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**BOX 18496**  
**OKLAHOMA, OK 73154**

CVH 258, 759, 973

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<p>2. Article Number (Transfer from service label)</p> <p>7011 1570 0000 7913 2424</p>	

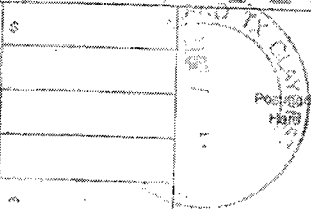
7011 1570 0000 7913 2370

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**200 N. LORAIN ST.**  
**Midland, TX 79705**

PS Form 3800, Aug 2001

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**BOX 18496**  
**OKLAHOMA, OK 73154**

**NIDLAND TX CLERK**  
**1782**  
**50287**

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7011 1570 0000 7913 2356

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**CONOCOPHILLIPS PETRO CO.**  
**ATTN: Land Department**  
**P.O. BOX 2197**  
**Houston, TX 77210-2194**

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PS Form 3811, A

CWA 284 985 274

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Article Addressed to:  <b>CONOCOPHILLIPS PETRO CO.</b> <b>ATTN: Land Department</b> <b>P.O. BOX 2197</b> <b>Houston, TX 77210-2194</b>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
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PS Form 3811, February 2004 Domestic Return Receipt 102565-02-M-1540	

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**Santa Fe, New Mexico 87504-1148**

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PS Form 3800, April 2003

7011 1570 0000 7913 2387

CV 284, 285, 274

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<p>1. Article Addressed to:</p> <p><b>State of New Mexico</b>  <b>Commissioner of Public Lands</b>  <b>P. O. Box 1148</b>  <b>Santa Fe, New Mexico 87504-1148</b></p>		<p>B. Received by (Printed Name) C. Date of Delivery</p> <p><b>JUL 20 2012</b></p>	
<p>2. Article Number (Transfer from service label) <b>7011 1570 0000 7913 2387</b></p>		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          If YES, enter delivery address below:</p>	
<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>		<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	

PS Form 3811, February 2004 Domestic Return Receipt 102-15-12-1A-1548

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APACHE Corporation  
 303 Veterans Airpark Ln  
 Suite 3000  
 Midland, TX 79705

7011 1570 0000 7913 2349

MIDLAND TX 79705

7/26/12

7/26/12

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<p>2. Article Number _____          (Transfer from service label)</p>	<p>7011 1570 0000 7913 2349</p>

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102595-02-M-1540



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2012 AUG 23 P 12: 36

August 20, 2012

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Application for Authorization to Inject  
Central Vacuum Unit #284, 285 and 274  
Section 31, T17S-R35E  
Lea County, NM

To Whom It May Concern:

By letter dated August 6, 2012, Apache Corporation ("Apache") objected to the Central Vacuum Unit Wells #274 and #285 being placed on injection by Chevron U.S.A. Inc. ("Chevron"), pursuant to their Application for Authorization to Inject dated July 11, 2012 (the "Application") and filed with your office.

Apache hereby withdraws our previously filed objections to Chevron's Application.

Should you have any questions, please contact the undersigned at (432) 818-1097 or by email at [dylan.park@apachecorp.com](mailto:dylan.park@apachecorp.com).

Very truly yours,

**APACHE CORPORATION**

Dylan C. Park  
Landman

cc: Scott Ingram – Chevron  
Lee Ivanhoe - Chevron



August 6, 2012

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Application for Authorization to Inject  
Central Vacuum Unit #284, 285 and 274  
Section 31, T17S-R35E  
Lea County, NM

To Whom It May Concern:

By letter dated July 11, 2012, and received by Apache Corporation ("Apache") on July 24, 2012, Chevron U.S.A Inc. ("Chevron") has requested administrative approval from the Oil Conservation Division (the "Division") to place the Central Vacuum Unit wells #284, 285 and 274 on water and CO<sub>2</sub> injection in the Grayburg San Andres formation. Apache, as operator of the offsetting Warn State A/C wells, objects to the conversion of Central Vacuum Unit wells #274 and 285.

Attached are Apache's technical objections to Chevron's conversion of the aforementioned wells.

Should you have any questions, please contact the undersigned at (432) 818-1097 or by email at [dylan.park@apachecorp.com](mailto:dylan.park@apachecorp.com).

Very truly yours,

APACHE CORPORATION

Dylan C. Park  
Landman

cc: Carolyn Haynie – Chevron

RECEIVED OGD  
2012 AUG -7 A 10:46

## Objection

Apache objects to Chevron's application for Water and CO2 injection in the CVU #274 and #285 wells. The wells are offset to two of Apache's deep wells in the area: the Warn St A/C-1 #6 and Warn St A/C-1 #7. See *Exhibit 1* for a base map of the area. The #6 well is producing approx. 60 bopd collectively from the Abo and Wolfcamp (*Exhibits 2 and 3*) and the #7 is producing approx. 10 bopd collectively from the Abo, Upper Penn, and Wolfcamp formations (*Exhibits 4 and 5*). The CVU #274 is approx. 900' from the #7 well. The CVU #285 is approx. 950' from the #6 well. Wellbore diagrams for the #6 and #7 wells are in *Exhibits 8 & 9*, respectively.

Apache's cause for concern in the two aforementioned wells stems from recent wellbore failures in two of its other wells just to the south that it believes were caused by offset CO2 injection. The Warn St A/C-2 #19 is offset two WAG injectors, the closest of which is 710' away, and experienced a casing collapse in 2010 and 2011 caused by high pressure CO2. Apache was able to salvage the wellbore but the remedial work was costly. The Warn St A/C-2 #21 is surrounded by four WAG injectors, the closest of which is 470' away, and experienced a casing leak in 2006 and 2008 that had continuous CO2 flows that are attributed to the CO2 injection. Apache was unable to repair the casing due to high pressure CO2 migration into the wellbore. The well is now P&A'd. Both wells are highlighted on the base map in *Exhibit 1*, with distances to offset WAG injectors shown.

The #19 and #21 wells are closer to offset WAG injectors than the #6 & #7 wells are to the proposed injectors, but one cannot be certain that the proposed injectors will not affect the wells from those distances. Additional CO2 injection from the two proposed injectors will only serve to increase the formation pressure and, thus, the strain on the #6 and #7 wellbores.

## *Wellbore History*

Warn St A/C-2 #19 (*Exhibit 6*): drilled to a depth of 8,180' in 1993. The primary cement job did not effectively isolate the wellbore thus holes were perforated at 6620' and squeezed with 1000 sxs of class H cement. The TOC was identified at 4190'. The well was complete in three stages in the Drinkard from 7632'-7702'; 7714-7785'; 7807-8044' respectively in 1993. In September 2010, the casing collapsed at 4,309'. This was successfully swadged with a 4-3/4" swadge and the well was placed back on production. In June 2011, the casing again collapsed from 4309-4315'. The well was successful swadged again with a 4-3/4" swadge and place back on production. The well is now being closely monitored for CO2.

Warn St A/C-2 #21 (*Exhibit 7*): drilled to a depth of 8,200' in 1993. The well was completed in three stages in the Drinkard from 7,623'-7,693'; 7,712'-7,771'; 7,800'-7,989' respectively in 1993. In May 2006, casing leaks were identified at 4,350' and 4,430'. These leaks were flowing CO2 and H2S. It was attempted to squeeze these leaks with bentonite gel. This was successful but at a cost of \$173,000. In August 2008, it was attempted to squeeze these leaks with a total of 225 sacks of cement in two attempts. This was unsuccessful at a cost of \$311,000. The well was then plugged in November 2009 due to the casing leaks.

### *Cement Integrity*

The biggest concern is the integrity of the cement for the Warn St A/C-1 #6 & #7. Both had DV tools set above the offset injection zone and CBL's were never run, thus, the wells' cement integrity is unknown. CBL logs were only run on the Warn St A/C-2 #19 and the Warn St A/C-2 #21 (*Exhibits 10 and 11*). As mentioned above, #21 had good cement through the injection zone (by CBL) and the injected gas still compromised the integrity of the wellbore and caused Apache to lose the well. In the #19, the CBL indicates that we do not have adequate cement through the injection zone and the well bore has had several integrity issues; it is only a matter of time before this wellbore is lost. As such, regardless of cement integrity, the #6 and #7 wellbores and combined 70 bopd x 240 mcf/d production face a severe risk of loss with the conversion of the CVU #274 and #285 to injection. This is not in Apache's best interest and Apache objects to Chevron's proposal.

## **LIST OF EXHIBITS**

- Exhibit 1: Base Map
- Exhibit 2: Production Curve – Warn St A/C-1 #6
- Exhibit 3: Well Tests – Warn St A/C-1 #6
- Exhibit 4: Production Curve – Warn St A/C-1 #7
- Exhibit 5: Well Tests – Warn St A/C-1 #7
- Exhibit 6: Wellbore Diagram - Warn St A/C-2 #19
- Exhibit 7: Wellbore Diagram - Warn St A/C-2 #21
- Exhibit 8: Wellbore Diagram - Warn St A/C-1 #6
- Exhibit 9: Wellbore Diagram - Warn St A/C-1 #7
- Exhibit 10: Cement Bond Log – Warn St A/C-2 #19
- Exhibit 11: Cement Bond Log – Warn St A/C-2 #21

# EXHIBIT 1: BASE MAP

- APACHE WELLS AFFECTED BY OFFSET CO<sub>2</sub> INJ.
- GBSA WAG INJ.
- GBSA WTR INJ.
- APACHE WELLS OF CONCERN
- PROPOSED WAG INJ.

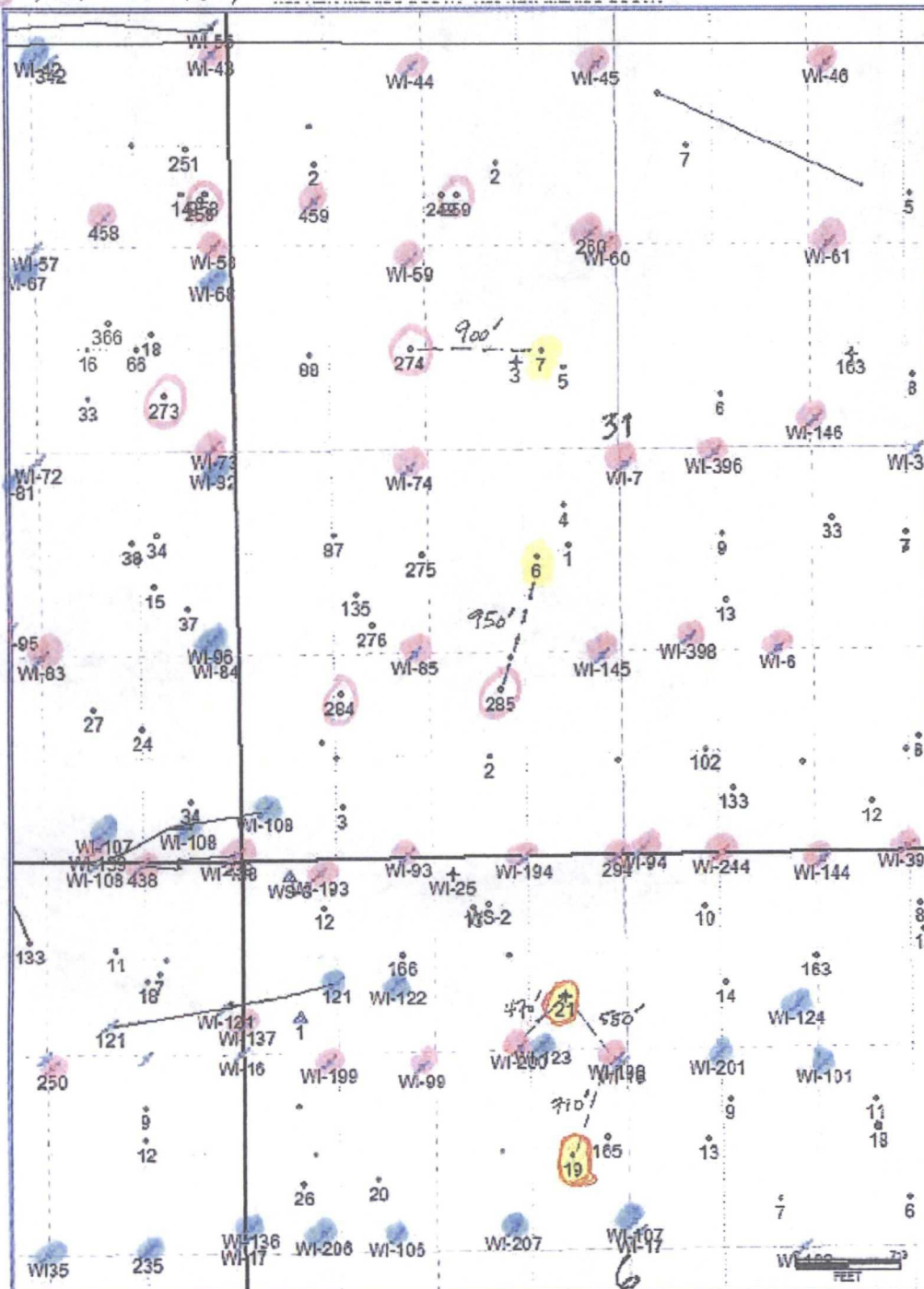
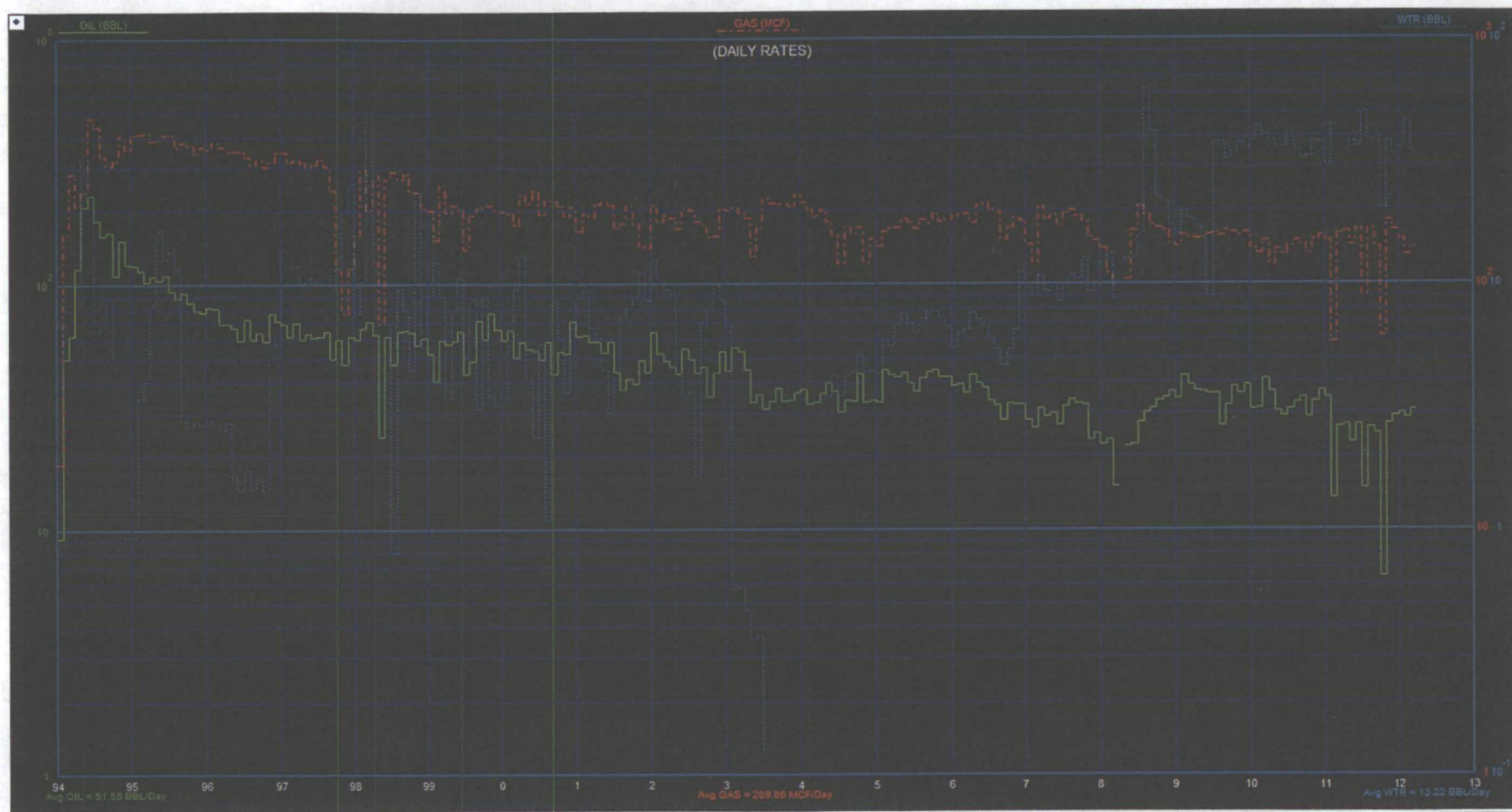


EXHIBIT 2: PRODUCTION CURVES – WARN ST A/C-1 #6

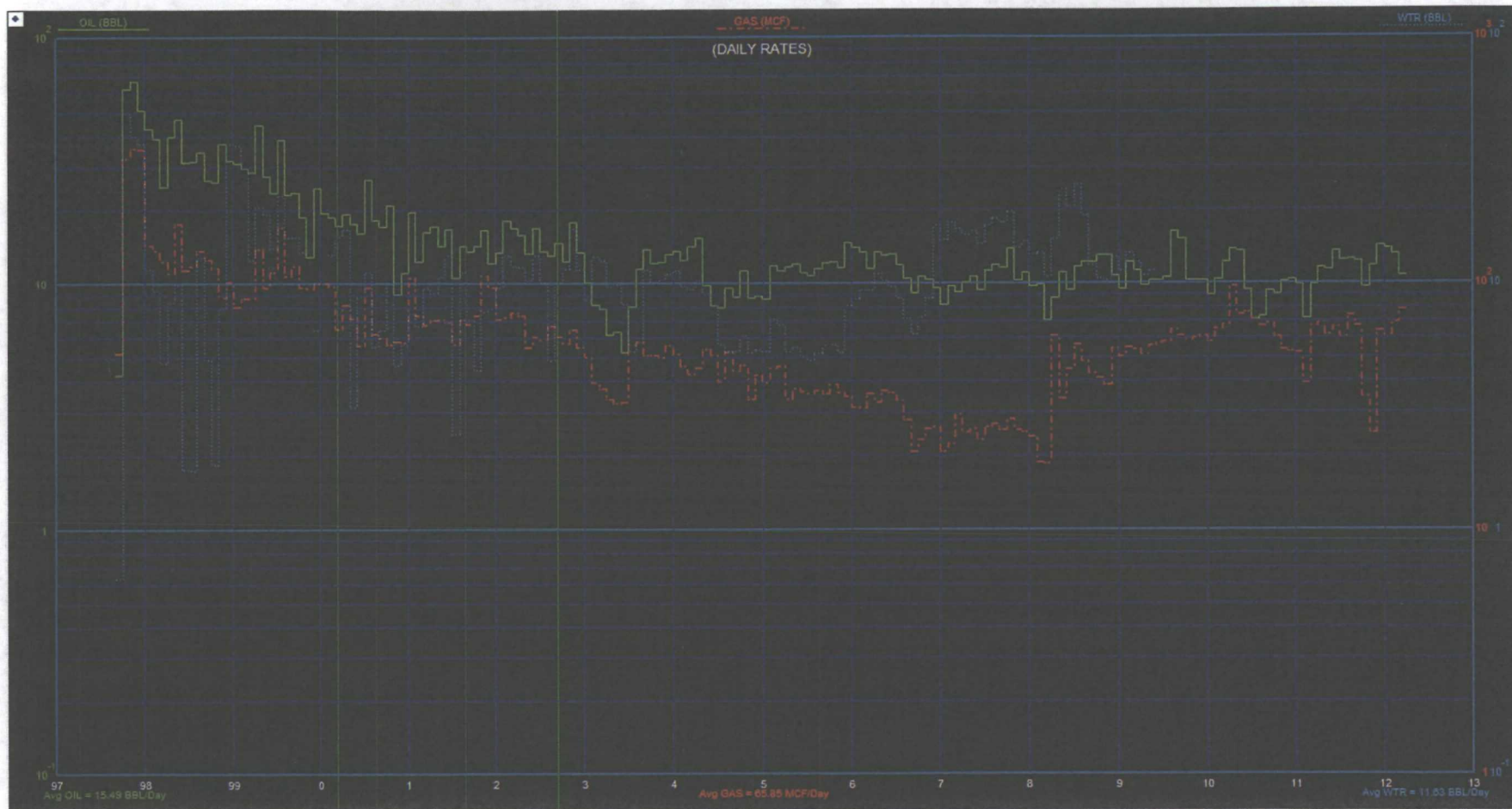


**EXHIBIT 3: WELL TESTS – WARN ST A/C-1 #6**

\*NOTE: Last well test doesn't reflect increased production due to pump change. Battery production increase indicates that #6 is making ~60 bopd.

Completion Name	Date	Oil	Water	Gas
WARN STATE AC 1 #6 (ABO)	06/01/2009	36	17	165
WARN STATE AC 1 #6 (ABO)	07/30/2009	30	17	168
WARN STATE AC 1 #6 (ABO)	08/30/2009	30	17	168
WARN STATE AC 1 #6 (ABO)	09/26/2009	38	9	165
WARN STATE AC 1 #6 (ABO)	10/26/2009	36	9	165
WARN STATE AC 1 #6 (ABO)	11/27/2009	38	12	160
WARN STATE AC 1 #6 (ABO)	12/29/2009	38	12	160
WARN STATE AC 1 #6 (ABO)	01/29/2010	34	10	140
WARN STATE AC 1 #6 (ABO)	02/27/2010	34	10	140
WARN STATE AC 1 #6 (ABO)	03/30/2010	35	16	65
WARN STATE AC 1 #6 (ABO)	04/25/2010	35	14	145
WARN STATE AC 1 #6 (ABO)	05/14/2010	38	12	145
WARN STATE AC 1 #6 (ABO)	06/24/2010	36	16	145
WARN STATE AC 1 #6 (ABO)	07/30/2010	30	14	150
WARN STATE AC 1 #6 (ABO)	09/17/2010	30	14	151
WARN STATE AC 1 #6 (ABO)	10/21/2010	26	10	130
WARN STATE AC 1 #6 (ABO)	11/12/2010	32	10	160
WARN STATE AC 1 #6 (ABO)	12/28/2010	36	11	160
WARN STATE AC 1 #6 (ABO)	01/13/2011	36	10	160
WARN STATE AC 1 #6 (ABO)	02/04/2011	35	9	155
WARN STATE AC 1 #6 (ABO)	03/17/2011	25	9	155
WARN STATE AC 1 #6 (ABO)	04/21/2011	26	11	165
WARN STATE AC 1 #6 (ABO)	05/28/2011	26	11	180
WARN STATE AC 1 #6 (ABO)	06/28/2011	26	11	168
WARN STATE AC 1 #6 (ABO)	07/28/2011	25	14	158
WARN STATE AC 1 #6 (ABO)	08/13/2011	28	20	158
WARN STATE AC 1 #6 (ABO)	09/26/2011	25	40	151
WARN STATE AC 1 #6 (ABO)	10/05/2011	28	2.00	176
WARN STATE AC 1 #6 (ABO)	11/30/2011	27	4.0	185
WARN STATE AC 1 #6 (ABO)	01/25/2012	31	5	142
WARN STATE AC 1 #6 (ABO)	02/21/2012	31	5	144
WARN STATE AC 1 #6 (ABO)	03/14/2012	32	5	144
WARN STATE AC 1 #6 (ABO)	04/25/2012	33	10	151
WARN STATE AC 1 #6 (ABO)	05/17/2012	32	7	150
WARN STATE AC 1 #6 (ABO)	06/29/2012	31	6	160
WARN STATE AC 1 #6 (ABO)	07/26/2012	31	5	160

EXHIBIT 4: PRODUCTION CURVE – WARN ST A/C-1 #7



**EXHIBIT 5: WELL TESTS – WARN ST A/C-1 #7**

<b>Completion Name</b>	<b>Date</b>	<b>Oil</b>	<b>Water</b>	<b>Gas</b>
WARN STATE AC 1 #7 (UPPER PENN)	06/01/2009	10	12	58
WARN STATE AC 1 #7 (UPPER PENN)	07/30/2009	16	14	60
WARN STATE AC 1 #7 (UPPER PENN)	08/30/2009	16	14	62
WARN STATE AC 1 #7 (UPPER PENN)	09/26/2009	10	21	60
WARN STATE AC 1 #7 (UPPER PENN)	10/26/2009	10	21	60
WARN STATE AC 1 #7 (UPPER PENN)	11/27/2009	10	22	60
WARN STATE AC 1 #7 (UPPER PENN)	12/29/2009	10	20	60
WARN STATE AC 1 #7 (UPPER PENN)	01/29/2010	10	20	60
WARN STATE AC 1 #7 (UPPER PENN)	02/27/2010	10	8	60
WARN STATE AC 1 #7 (UPPER PENN)	03/30/2010	13	15	65
WARN STATE AC 1 #7 (UPPER PENN)	04/25/2010	14	18	70
WARN STATE AC 1 #7 (UPPER PENN)	05/14/2010	11	20	70
WARN STATE AC 1 #7 (UPPER PENN)	06/24/2010	8	15	70
WARN STATE AC 1 #7 (UPPER PENN)	07/30/2010	7	14	70
WARN STATE AC 1 #7 (UPPER PENN)	09/17/2010	9	13	72
WARN STATE AC 1 #7 (UPPER PENN)	10/22/2010	9	15	50
WARN STATE AC 1 #7 (UPPER PENN)	11/12/2010	9	18	53
WARN STATE AC 1 #7 (UPPER PENN)	12/28/2010	10	16	55
WARN STATE AC 1 #7 (UPPER PENN)	01/13/2011	11	17	58
WARN STATE AC 1 #7 (UPPER PENN)	02/04/2011	12	15	60
WARN STATE AC 1 #7 (UPPER PENN)	03/17/2011	10	20	65
WARN STATE AC 1 #7 (UPPER PENN)	04/21/2011	13	22	71
WARN STATE AC 1 #7 (UPPER PENN)	05/28/2011	13	22	71
WARN STATE AC 1 #7 (UPPER PENN)	06/28/2011	14	20	71
WARN STATE AC 1 #7 (UPPER PENN)	07/28/2011	13	20	70
WARN STATE AC 1 #7 (UPPER PENN)	08/13/2011	13	35	70
WARN STATE AC 1 #7 (UPPER PENN)	09/26/2011	13	45	70
WARN STATE AC 1 #7 (UPPER PENN)	10/05/2011	12	70	20
WARN STATE AC 1 #7 (UPPER PENN)	11/29/2011	13	27	70
WARN STATE AC 1 #7 (UPPER PENN)	01/25/2012	13	26	70
WARN STATE AC 1 #7 (UPPER PENN)	02/21/2012	16	28	80
WARN STATE AC 1 #7 (UPPER PENN)	03/14/2012	7	20	80
WARN STATE AC 1 #7 (UPPER PENN)	04/25/2012	8	25	80
WARN STATE AC 1 #7 (UPPER PENN)	05/18/2012	9	30	83
WARN STATE AC 1 #7 (UPPER PENN)	06/29/2012	9	25	86
WARN STATE AC 1 #7 (UPPER PENN)	07/26/2012	10	70	80

GL=3957'  
KB=3970'  
Spud:4/6/93

### Wellbore Diagram – Current

**API: 30-025-31927**

R. Taylor

### Surface Location

2010' FNL & 2230' FWL,  
Lot N Sec 6, T18S, R35E, Lea County, NM

**Surface Casing**  
11-3/4" 42# @ 1460' w/ 850 sxs to surface

**Intermediate Casing**  
8-5/8" 32# @ 2832' w/ 950 sxs to surface

TOC @ 4190'

TAC@4110  
SN@7885

9/10: Collapsed casing @ 4309'. Casing swadged w/ 4-3/4" swadge  
6/11: Collapsed casing @ 4309'. Casing swadged w/ 4-3/4" swadge from  
4309-4315'

5/93: PerfSQZ holes @ 6620. Squeezed w/ 1000 sxs class H. ETC @ 1000'

6/98: Frac'd 7632-8044 w/ 20k gal 25# gel, 3700 gal Delta 200/25, 40k gal Delta 200/25 w/ 29.6k gal Delta 200/25 w/ 645 sxs 20/40 Ottawa

5/93: PerfDrinkard @ 7632-44; 7658-66; 7670-78; 7680-82; 7686-92; 7692-96; 7696-7702 w/ 2 jspf(90 holes). Acidized w/ 17,000 gal 20% NE SGA w/ 6000 gal gelled 2% KCL.

5/93: Perf Drinkard @ 7714-18; 7736-40; 7748-54; 7760-70; 7774-82 w/ 2 jspf (64 holes). Acidized w/ 18,000 gal 20% NE SGA w/ 6000 gal gelled 2% KCL.

5/93: PerfDrinkard @ 7807-16; 7826-28; 7830-34; 7840-48; 7861-68; 7874-76; 7882-84; 7888-94; 7898-7908; 7928-34; 7942-44; 7952-56; 7964-68; 7992-8000; 8036-44 w/ 2 jspf(200 holes). Acidized w/ 37,000 gal 20% NE-SGA HCL.

**Production Casing**  
**5-1/2" 15.5# & 17# K-55 @ 8180' w/ 350 sxs**

PBTD = 8090'  
MD = 8180'

**EXHIBIT 7: WELLBORE DIAGRAM – WARN ST A/C-2 #21**

GL=3975'  
KB=3988'  
Spud:6/3/93

**Apache Corporation – Warn State AC 2 #21**

### Wellbore Diagram – Plugged

Date : 8/3/2012

API: 30-025-31969

### Surface Location

R. Taylor



1109' FNL & 1993' FWL,  
Lot C Sec 6, T18S, R35E, Lea County, NM

**Surface Casing**  
11-3/4" 42# @ 1465' w/ 593 sxs to surface

11/09:  
Perf  
425  
SQZ  
w/ 150  
SXS

Hole  
Size  
= 14-3/4"

Hole Size  
= 11"

DV Tool @  
3999'

Hole Size  
= 7-7/8"

11/09: Perf1521 &amp; SOZ w/ 50 sxs TOC @ 1356

**Intermediate Casing**  
**8-5/8" 32# @ 2823' w/ 821 sxs to surface**

11/09:30 sxs cmt spotted from 2740-2989

11/09: 70 sxs cnt spotted from 3549-4172

11/09: CIBP sat @ 4190'

5/06: Casing leak at 4350 and 4430. Flowing CO2 and H2S. Squeezed w/ 2 bbls bentonite gel

8/09: Casing leak at 4344 and 4420-24. SQZ'd w/ 125 sxs cmt unsuccessful. SQZ'd w/ 100 sxs cmt unsuccessful. Constant CO2 flow

11/09: 75 exs smt spotted from 5829-6570

9/09: CIBP sat @ 7573' w/ 35' cmt. PBTD @

7/93: Perf Drinkard 7623-27; 7634-54; 7666-71; 7673-93 w/ 2 jspf (98 holes). Acidized w/ 15,834 gal 20% HCL.

7/93: Perf Drinkard 7712-14; 7718-21; 7724-36; 7749-71 w/ 2 jspf (108 holes). Acidized w/ 19,200 gal 20% HCL.

7/93: Perf Drinkard 7800-07; 7809-13; 7818-20; 7822-25; 7829-34; 7836-38; 7844-47; 7850-58; 7862-64; 7866-68; 7873-79; 7888-93; 7898-7907; 7915-26; 7928-31; 7935-42; 7947-53; 7958-62; 7971-74; 7980-89w/ 2 jsps (193 holes). Acidized w/ 29,500 gal 2-% HCL.

PBTD = 8,069'  
MD = 8,200'

**Production Casing**  
5-1/2" 17#& 15.5# @ 8,158' w/ 1560 sxs

EXHIBIT 8: WELLBORE DIAGRAM – WARN ST A/C-1 #6

GL=3979'  
KB=3992'  
Spud:11/28/94

Apache Corporation – Warn State AC 1 #6

Wellbore Diagram – Current

Date : 8/2/2012

API: 30-025-32311

Surface Location

R. Taylor



1980' FSL & 2030' FWL,  
Lot K Sec 31, T17S, R35E, Lea County, NM

Surface Casing

11-3/4" 42# @ 1492' w/ 800 sxs to surface

Intermediate Casing

9-5/8" 53.5# P-110 @ 3000' w/ 600 sxs to surface

DV Tool @ 5817'

Hole  
Size  
=14-3/4"

Hole Size  
=11"

Hole Size  
=8-1/2"

1/98: Perf MID Abo @ 8495-99; 8514-26; 8534-44; 8662-72 w/ 2 jspf (72 holes). Acidize w/ 11,500 gal 15% HCL0

1/98: Perf LWR Abo @ 9092-97; 9162-65; 6168-70; 9188-92; 9212-21; 9262-66; 9288-96; 9298-9304; 9310-12 w/ 2 jspf (86 holes). Acidize w/ 13,500 gal 15% HCL

4/94: Perf UPR Wolfcamp @ 9436-68; 9529-36; 9570-77; 9618-26; 9637-44; 9688-92; 9695-9702; 9742-58; 9788-90; 9795-98; 9804-14; 10024-036; 10052-058 w/ 2 jspf (266 holes) Acidize w/ 17,600 gal 15% HCL.

1/94: Perf LWR Wolfcamp @ 9906-20; 9956-59; 9970-81; 9986-10,001 (66 holes). Acidize w/ 3000 gal 15% HCL...

1/94: CIBP @ 10,096'

1/94: Perf UPR Penn @ 10,102-06; 10,117-86 (146 holes). Acidized w/ 6000 gal 15% HCL.

PBTD = 10,227'  
MD = 10,335'

Production Casing

5-1/2" 17# K-55, L-80 @ 10,355' w/ 2025 sxs

EXHIBIT 9: WELLBORE DIAGRAM – WARN ST A/C-1 #7

GL=3985'  
KB=4001'  
Spud:7/18/97

Apache Corporation – Warn State AC 1 #7

Wellbore Diagram – Current

Date : 8/2/2012

API: 30-025-33951

Surface Location

R. Taylor



2036' FNL & 2089' FWL,  
Lot F Sec 31, T17S, R35E, Lea County, NM

Surface Casing

11-3/4" 42# @ 1385' w/ 815 sxs to surface

Intermediate Casing

8-5/8" 32 & 34# @ 3143' w/ 980 sxs to surface

DV Tool @ 3999'

Hole  
Size  
=14-3/4"

Hole Size  
=11"

Hole Size  
=7-7/8"

1/98: Perf MID Abo @ 8438-41; 8447-49; 8458-59; 8461-69; 8486-89;  
8495-8503; 8505-07; 8511-13; 8523-27; 8530-36; 8539-48; 8551-53; 8557-  
59 w/ 2 jspf (162 holes). Acidize w/ 4000 gal 15% FerCheck acid

1/98: Perf LWR Abo @ 9124-27; 9129-33; 9144-46; 9162-63; 9167-69;  
6175-76; 9178-80; 9182-85; 9196-98; 9208-13; 9218-26; 6234-39; 6243-44;  
9247-64; 9268-70; 6285-93; 6297-9309 w/ 2 jspf (156 holes). Acidize w/  
6000 gal 15% FerCheck acid

4/94: Perf UPR Wolfcamp @ 9466-75; 9557-60; 9579-93; 9626-43; 9696-99  
w/ 2 jspf (92 holes). Acidize w/ 3500 gal 15% FerCheck acid

9/97: Perf LWR Wolfcamp @ 9754-64; 9796-9816; 9861-66; 9956-59;  
10,009-014; 10,049-055 (98 holes). Acidize w/ 3500 gal 15% FerCheck acid.


9/97: Perf UPR Penn @ 10,092-152; 10,188-10,200; 10,511-515; 10,539-  
559 w/ 2 jspf (192 holes). Acidized w/ 7000 gal 15% FerCheck acid.

Production Casing

5-1/2" 17# K-55, L-80 @ 11,610' w/ 2440 sxs to  
surf

PBTD = 10,227'  
MD = 10,335'

EXHIBIT 10: CEMENT BOND LOG - WARN ST A/C-2 #19

 <b>ATLAS WIRELINE SERVICES</b>		<b>ACOUSTIC CEMENT BOND LOG</b> <b>VDL GAMMA RAY</b>																																																
<b>COMPANY</b> MARATHON OIL COMPANY <b>WELL</b> WARN-STATE A/C 2 NO: 19 <b>FIELD</b> VACUUM ( DRINKARD ) <b>COUNTY</b> LEA <b>STATE</b> NEW MEXICO																																																		
<b>NT</b>	<b>LOCATION:</b> 2010' FNL & 2230' FWL UNIT LETTER F SEC 5 TWP 18-S RGE 35-E		<b>OTHER SERVICES</b> NONE																																															
	<b>GROUND LEVEL</b> ELEVATION 3974' FT. ON KELLY BUSHING 13' FT. ABOVE PERMANENT DATUM ON KELLY BUSHING		<b>ELEVATIONS</b> KB 3987' OF 3986' GL 3974'																																															
	<table border="1"> <tr><td colspan="3">MAY 21, 1993</td></tr> <tr><td>ONE</td><td></td><td></td></tr> <tr><td>N/A</td><td></td><td></td></tr> <tr><td>8180'</td><td></td><td></td></tr> <tr><td>6710'</td><td></td><td></td></tr> <tr><td>INTERVAL</td><td>6706'</td><td></td></tr> <tr><td>INTERVAL</td><td>3000'</td><td></td></tr> <tr><td>HOLE</td><td colspan="2">WATER, OIL, GAS</td></tr> <tr><td>IN CL.</td><td colspan="2">N/A</td></tr> <tr><td>GAL.</td><td colspan="2">N/A</td></tr> <tr><td></td><td colspan="2">FULL</td></tr> <tr><td>HP. DEG. F</td><td colspan="2">N/A</td></tr> <tr><td></td><td colspan="2">4 HOURS</td></tr> <tr><td>LOCATION</td><td>HL-6433</td><td>HOBBS, N.M.</td></tr> <tr><td></td><td colspan="2">J. HEIDLER</td></tr> <tr><td></td><td colspan="2">K. MILLER</td></tr> </table>			MAY 21, 1993			ONE			N/A			8180'			6710'			INTERVAL	6706'		INTERVAL	3000'		HOLE	WATER, OIL, GAS		IN CL.	N/A		GAL.	N/A			FULL		HP. DEG. F	N/A			4 HOURS		LOCATION	HL-6433	HOBBS, N.M.		J. HEIDLER			K. MILLER
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<b>BOREHOLE RECORD</b> <table border="1"> <tr> <th>BIT</th> <th>FROM</th> <th>TO</th> </tr> <tr> <td>12 1/4"</td> <td>0'</td> <td>2832'</td> </tr> <tr> <td>7 7/8"</td> <td>2832'</td> <td>8180'</td> </tr> </table>				BIT	FROM	TO	12 1/4"	0'	2832'	7 7/8"	2832'	8180'																																						
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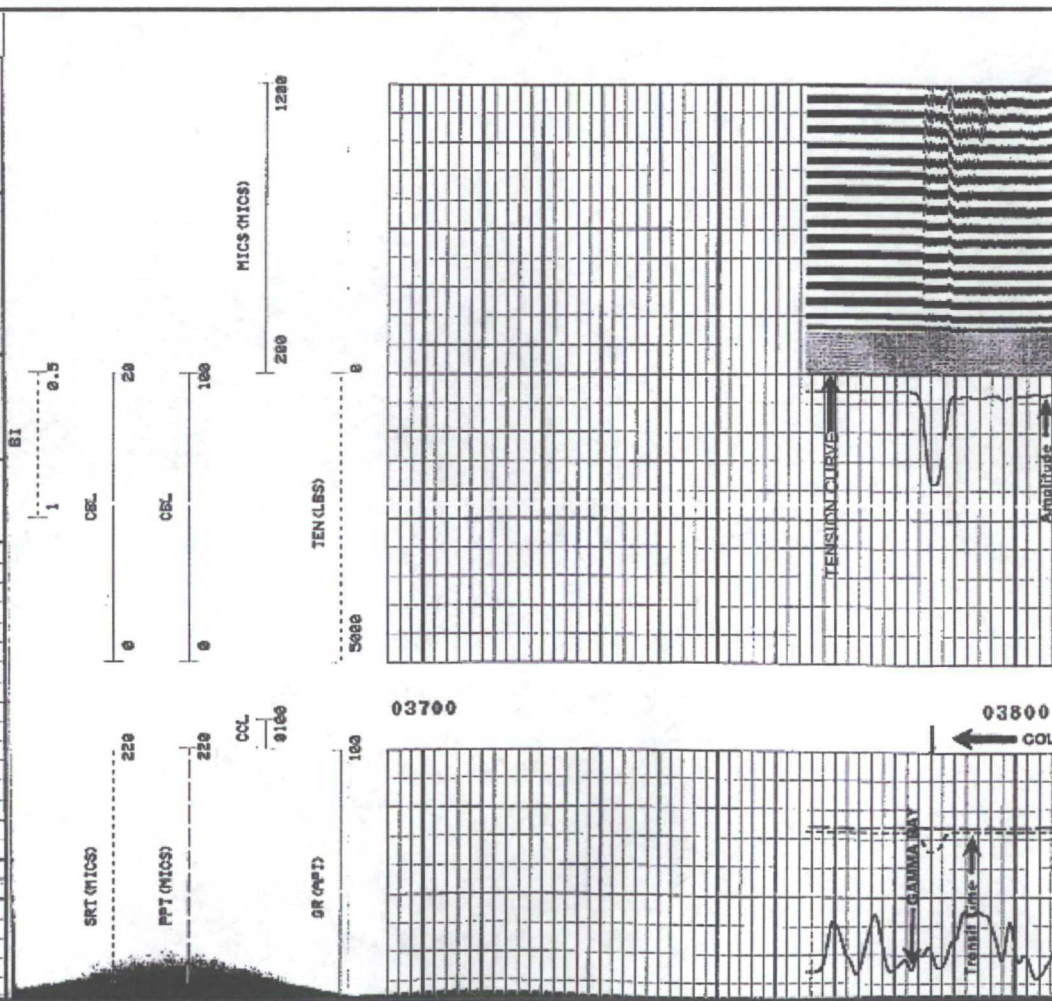
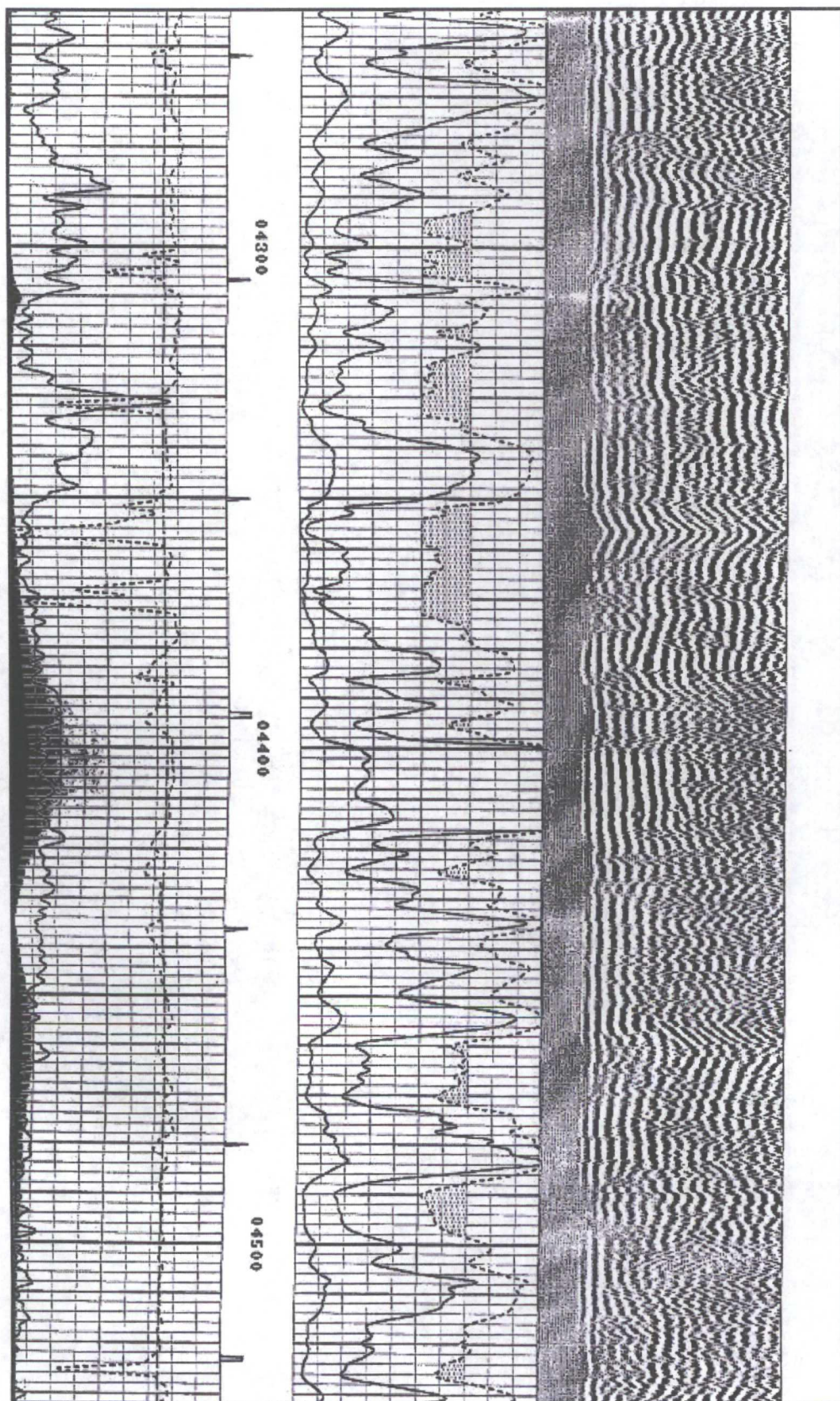


EXHIBIT 10 (CONT.): CEMENT BOND LOG – WARN ST A/C-2 #19



 <p style="margin-top: 10px;"><b>ACOUSTIC CEMENT BOND GAMMA RAY/CCL LOG</b></p>		<b>COMPANY APACHE CORP.</b> WELL WARM STATE A/C 2 #21 FIELD VACUUM DRINKARD CNTY IWA STATE NM	
		<b>COMPANY APACHE CORPORATION</b> WELL WARM STATE A/C 2 #21 FIELD VACUUM DRINKARD COUNTY LEA STATE NM	
		LOCATION: 1109' FNL & 1993' FNL OTHER SERVICES:	
		SEC 5 TIME 18-5 RECESS-E ELEV. 3075' ELEV. 3089' D.F. 3087' C.I. 3075'	
PERM. DATUM GROUND LEVEL LOG MEASURED FROM K.B. 13 FT. ABOVE PERMANENT DATUM DRILLING MEASURED FROM KELLY BUSHING			
DATE: AUG-17-08			
TON NO. 0280'			
DEPTH LOGGER 5700'			
BIT LOG INTERVAL 5700'			
TOP LOG INTERVAL 2200'			
OPEN HOLE SIZE 7.875"			
TYPE FLUID WATER			
IDENS. VISC. W/A			
MAX. DEPT. F W/A			
EST. CEMENT TOP 2500'			
FINE WELL HEAD 1110'			
FINE LOGGER ON BIT. SIZE LOG			
EQUIP. NO. 10003			
LOGGING BY HODGES, JIN			
RECORDED BY HODGES, JIN			
WITNESSED BY HODGES, JIN			
BOREHOLE RECORD TO			
RUN NO. BIT FROM TO SIZE. WGT. FROM TO			
CASTING RECORD SIZE INLET GRADE TYPE JOINT TOP BOTTOM			
SURFACE SILLING 11.75 42 SURE 1471'			
PROF. SILLING 8.625 32 SURE 2833'			
PROD. SILLING 5.5 15.5 SURE T.D.			
LITER 17			

**MAIN PASS**

163055 cbl2

FINISH DEPTH: 0.0 Feet DIRECTION: UP  
 RECORDED DATE: 08/17/2009 TIME: 12:11

TIME:

MODE: RECOMPUTE

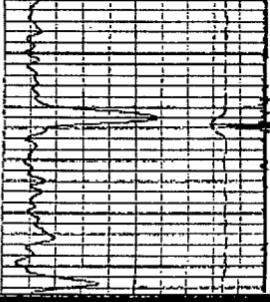
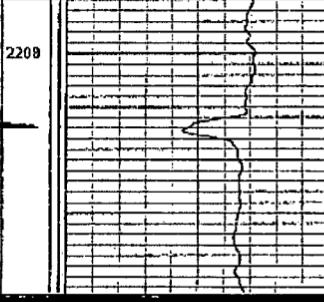
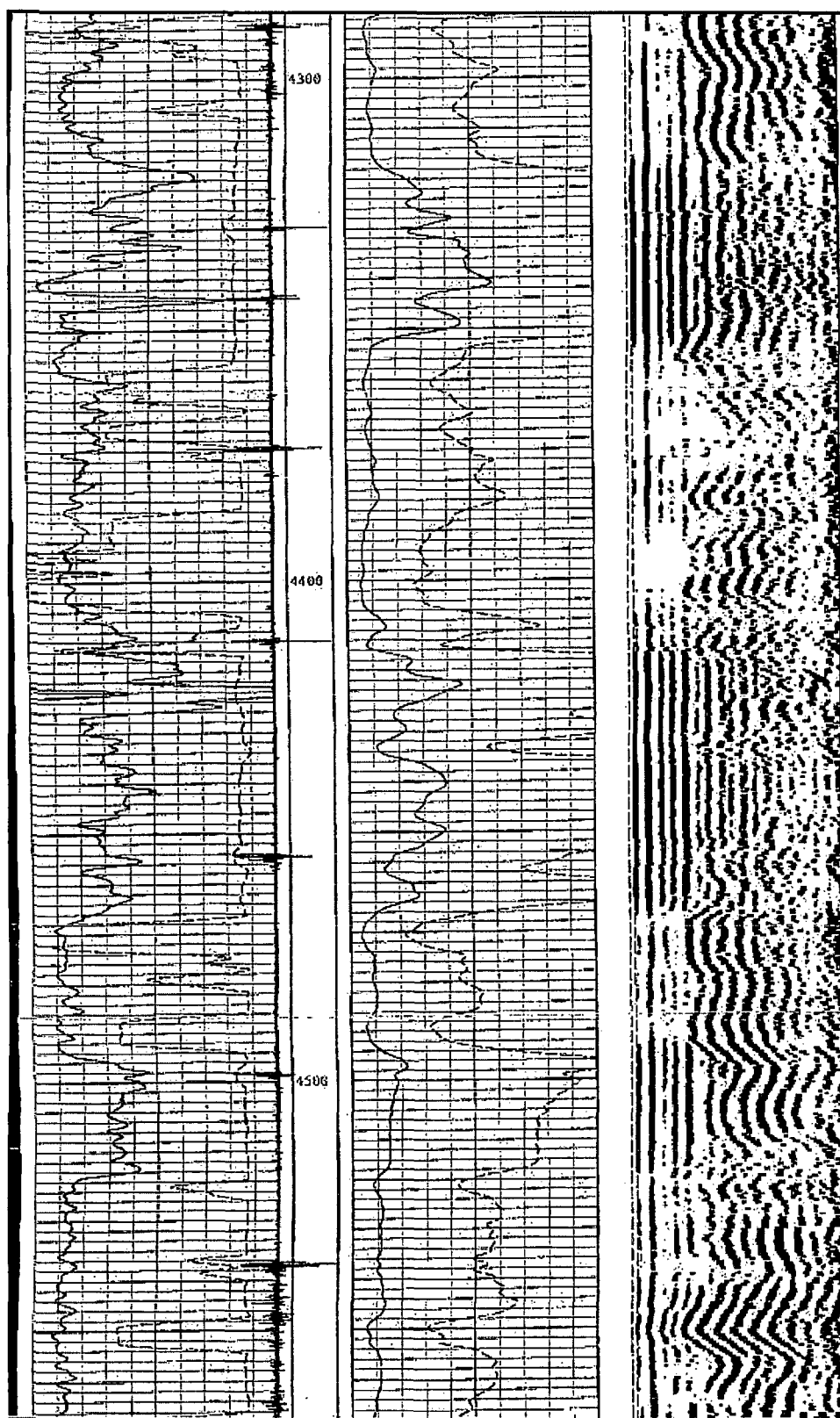
<b>Gamma Ray</b>		<b>AMP X-5</b>		<b>VDL</b>		
0	API	0	Millivolts			20
<b>TRAVEL TIME 3FT</b>		<b>Tension</b>				
325	Microseconds	225	Pounds	3000		
<b>Collar Locator</b>		<b>AMPLITUDE 3FT</b>				
-6640	Millivolts	2640	0	Millivolts	130	
						

EXHIBIT 11 (CONT.): CEMENT BOND LOG - WARN ST A/C-2 #21



## **Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, September 05, 2012 10:42 AM  
**To:** 'Haynie, Carolyn (CHaynie) [Kelly Services]'  
**Subject:** RE: Approval

Hello Carolyn,

Unless you have an objection, I will process all 6 wells as one permit – and consolidate the two applications. Let me know.

I didn't get the mailers from Richard – if you want to mail them I can put them in the permit file when they arrive? If you have them scanned, please email them? The main thing is the mailer with date of mailing. I don't need the return receipts. Or if you have a list of the parties noticed and put the certified mailer number beside the name with the date mailed, that would work also.

Was anything changed as per the C-108's data as a result of the Apache protest and subsequent withdrawal of protest?

It appears that all wells drilled subsequent to the 4/30/97 order date of R-5530-E were cemented over the Transition zone and Residual Oil zone, but I don't see whether there were any DV tools run in the deep wells or the depth of those DV's. Would you consolidate the two lists of "new wells" (from the two applications) into one list and add the DV tool depths and cement coverage over the proposed injection interval to the wells drilled deeper than 5000 feet or so? You could email the result to me and I will print for the file.

Hope this is not too much trouble,

Thanks in advance,

Will Jones

---

**From:** Haynie, Carolyn (CHaynie) [Kelly Services] [<mailto:CHAY@chevron.com>]  
**Sent:** Wednesday, September 05, 2012 6:19 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Ingram, Scott (ScottIngram)  
**Subject:** RE: Approval

Good morning!

The division of the project from 6 wells to 3 wells per package was a deadline time constraint. We had originally planned to make it one package, but this is such a high priority project with so many people involved, that they decided that we needed to submit at least the first half just as soon as possible. If you want to include your approval for all the wells in only one letter, that will be great with us. ☺

I've talked to Scott this morning and he will answer all of your interval and cross section questions this morning.

Also, I sent Richard the certified mail copies to help speed up the process, did he also give those to you? I can resend them if you need them.

Thanks Will, and let me know if you need anything.

**Carolyn Haynie**  
**Chevron U.S.A. Inc.**  
**New Mexico PE TA**  
*For Eunice, Vacuum,*  
*Dollarhide, And Facilities*  
**Room 2242A**  
**Midland, TX**  
**432-687-7261**



---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Tuesday, September 04, 2012 3:33 PM  
**To:** Haynie, Carolyn (CHaynie) [Kelly Services]  
**Cc:** Kautz, Paul, EMNRD; Ingram, Scott (ScottIngram)  
**Subject:** RE: Approval

Carolyn,  
Richard passed these two applications for injection wells in the CVU on to me this morning.  
Haven't totally looked them over yet, but they seem very easy to evaluate.

However, I must check that the 4710 to 5000 feet depths being asked for in these wells is (correlative) within the maximum depth allowed in R-5530-E.  
Please ask your geologist to check this and send me a quick (simple) Gamma Ray cross section or even a stick diagram. He could pick the most representative of these wells to save trouble. I just need something to put in the admin file for these permits.

Also – why did you break these 6 wells up into two permit applications?  
Were these wells drilled for injection into ONLY these lower intervals? Please remind me what interval is normal for this waterflood.

Thanks in advance.

---

**From:** Haynie, Carolyn (CHaynie) [Kelly Services] [<mailto:CHAY@chevron.com>]  
**Sent:** Monday, August 27, 2012 8:56 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Approval

*Good morning Will,*

*I called you this morning, and your message suggested sending an email, so here is the information I am seeking. ☺*

***I am checking on the approval status of our Central Vacuum Unit C108's, for the CVU wells # 285, 284, 274, and the second package for wells, CVU # 273, 258, & 259.***

*Apache objected to the first package, (wells 274 & 285), but withdrew their objections on August 20, 2012. Also, did you receive their follow-up letter?*

*This is Chevron's TZ-ROZ projects and they would like to have an update. (That stands for: **transition zone – residual oil zone.**)*

*Their goal for injection is November, 2012.*

*Thanks,*

**Carolyn Haynie**  
**Chevron U.S.A. Inc.**  
**New Mexico PE TA**  
*For Eunice, Vacuum,*  
*Dollarhide, And Facilities*  
**Room 2242A**  
**Midland, TX**  
**432-687-7261**



## Jones, William V., EMNRD

---

**From:** Ingram, Scott (ScottIngram) <ScottIngram@chevron.com>  
**Sent:** Wednesday, September 05, 2012 12:50 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Kautz, Paul, EMNRD; Haynie, Carolyn (CHaynie) [Kelly Services]  
**Subject:** RE: Approval  
**Attachments:** CVU 2012 C108 supplement.pptx

Hello Mr. Jones,

You asked for a quick (simple) cross section to answer your question regarding consistency with R-5530-E; unfortunately as I got into the answer it wasn't simple but, hopefully, this is reasonably clear and complete. Attached find a short PowerPoint, along with my response here, designed to answer your questions about our proposed injection interval relative to R-5530-E, however please contact me directly at your earliest convenience if there are any remaining questions after your review.

Chevron desires to inject entirely consistent with R-5530-E in these new injectors, which would be within the Grayburg and San Andres "Unitized Formation as identified between the depths of 3,858 feet (plus 144 feet sub-sea) and 4,858 feet (minus 856 feet sub-sea) on the Welex Acoustic Velocity Log, run on November 15, 1963, in Texaco's State of New Mexico "O" (NCT-1) Well No. 23, located in the SW/4SE/4 of Section 36, T-17-S, R-34-E, Lea County, New Mexico, and is to include all subsurface points throughout the Unit area correlative to those identified depths". This well was subsequently renamed the VGWU #101 and is included in the attached cross sections for purposes of correlation and the upper and lower Unitized Formation correlations are shown.

First, since this project is a Pilot of the potential of the Transition Zone & Residual Oil Zones, we initially plan to only inject into the Transition Zone/Residual Oil Zone intervals in each of the subject six injectors so we can determine its specific EOR productive potential. The top of our Transition Zone begins at approximately 730'SS; with KB elevations typically being around 4000' at the Vacuum Field 730'SS typically occurs at roughly 4730' MD, but this does vary by as much as ~30' across the field. To account for reference datum variations and structural variation across the project area the proposed injection interval was identified as 4710' to 5000' on the subject C-108's. However, it should have also been stated that the injection interval conveyed was in True Vertical Depth; since each of these wells are having to be drilled directionally due to surface access issues, the measured depths are significantly different than the true vertical depths. For example in the CVU #284, middle well in each attached cross section which is also a representative proposed injector, the deepest proposed perf occurs at a measured depth of 5141' which is only a TVD of 4949'. Note that the base of the CVU Unitized interval has been correlated across the Unit and we will strictly adhere to this constraint; also we plan to limit our ROZ completions to no deeper than 970' SS which is sometimes above the correlated base of the CVU Unitized interval.

Secondly, after the pilot analysis is completed we would desire the ability to add the "Main Pay " interval to these completions, the main pay is the traditional oil column in the reservoir which occurs immediately above 730'SS and is the normal completion interval for this flood. As each of these wells are being drilled as twins to existing CVU injectors which are currently injecting into the Main Pay we may never add the main pay in these 6 injectors, but we desire the flexibility to do so in case, for example, one of the existing injectors were lost for any reason.

So, ideally it now appears to me we should have submitted the subject C-108's requesting the injection interval to be the stratigraphic equivalent to the Unitized Formation as described above in the New Mexico "O" (NCT-1) Well No. 23, aka the VGWU #101, which would be entirely consistent with R-5530-E yet also remove any ambiguity and allow us future completion flexibility. If possible, we desire the subject C-108's be approved with this defined injection interval.

Please let me know if you wish to discuss or have any further questions. We sincerely appreciate your time and efforts in evaluating our request and apologize for any ambiguity in the original applications.

Sincerely, Scott Ingram

**Scott M. Ingram**

Earth Scientist  
Mid-Continent Business Unit  
Chevron North America E & P  
15 Smith Road, Midland, Tx. 79705  
432-687-7212 office 432-238-3479 mobile  
[scottingram@chevron.com](mailto:scottingram@chevron.com)

God Bless America

CONFIDENTIALITY NOTICE: This message may be confidential and privileged. If you believe this email has been sent to you in error, please reply to the sender that you received the message then please destroy this email.

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**From:** Haynie, Carolyn (CHaynie) [Kelly Services]  
**Sent:** Wednesday, September 05, 2012 7:19 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Ingram, Scott (ScottIngram)  
**Subject:** RE: Approval

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**Sent:** Tuesday, September 04, 2012 3:33 PM  
**To:** Haynie, Carolyn (CHaynie) [Kelly Services]

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Thanks in advance.

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**From:** Haynie, Carolyn (CHaynie) [Kelly Services] [<mailto:CHAY@chevron.com>]  
**Sent:** Monday, August 27, 2012 8:56 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Approval

*Good morning Will,*

*I called you this morning, and your message suggested sending an email, so here is the information I am seeking. ☺*

***I am checking on the approval status of our Central Vacuum Unit C108's, for the CVU wells # 285, 284, 274, and the second package for wells, CVU # 273, 258, & 259.***

*Apache objected to the first package, (wells 274 & 285), but withdrew their objections on August 20, 2012. Also, did you receive their follow-up letter?*

*This is Chevron's TZ-ROZ projects and they would like to have an update. (That stands for: **transition zone – residual oil zone.**)*  
*Their goal for injection is November, 2012.*

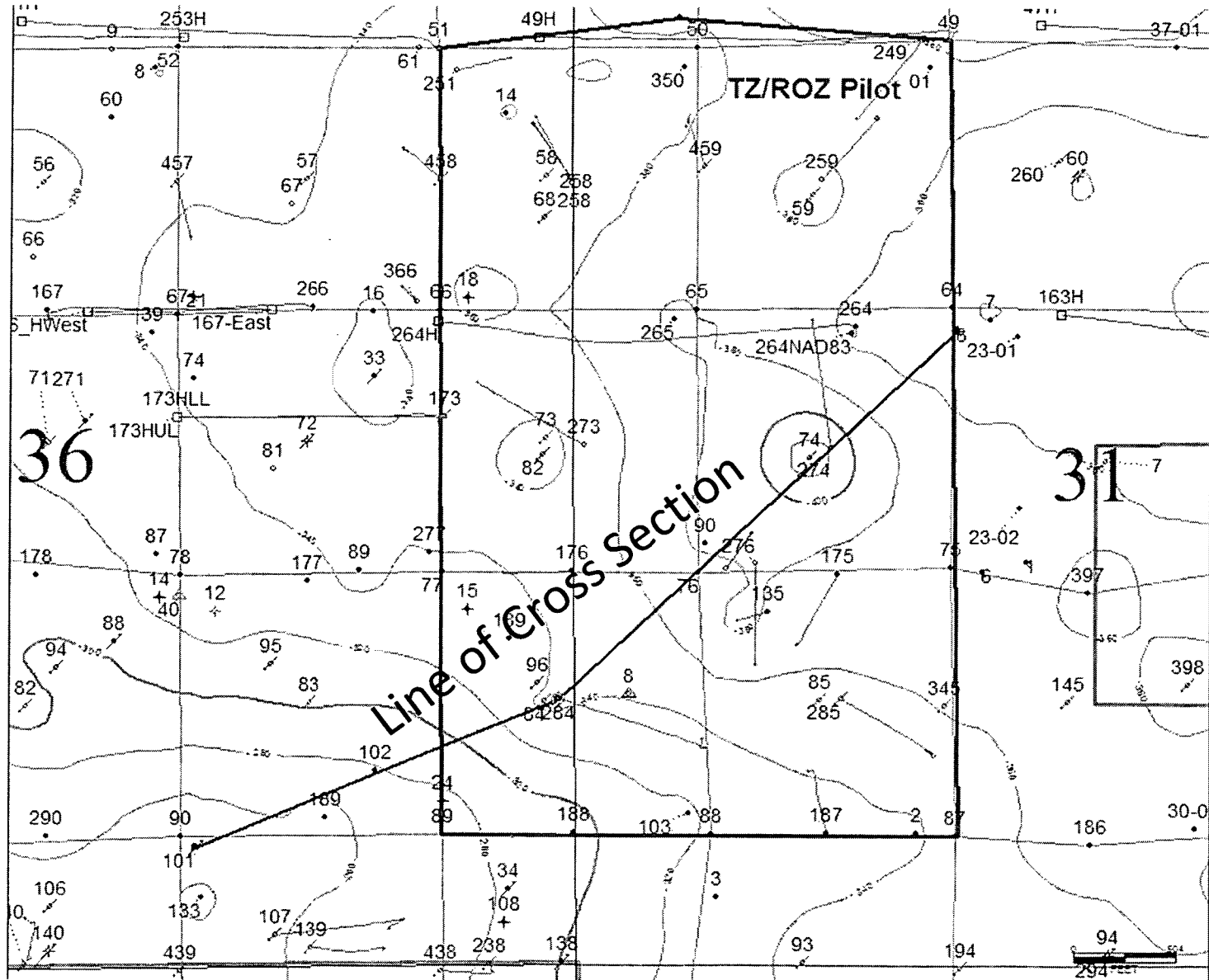
*Thanks,*

**Carolyn Haynie**  
**Chevron U.S.A. Inc.**  
**New Mexico PE TA**  
*For Eunice, Vacuum,*  
*Dollarhide, And Facilities*  
**Room 2242A**  
**Midland, TX**  
**432-687-7261**

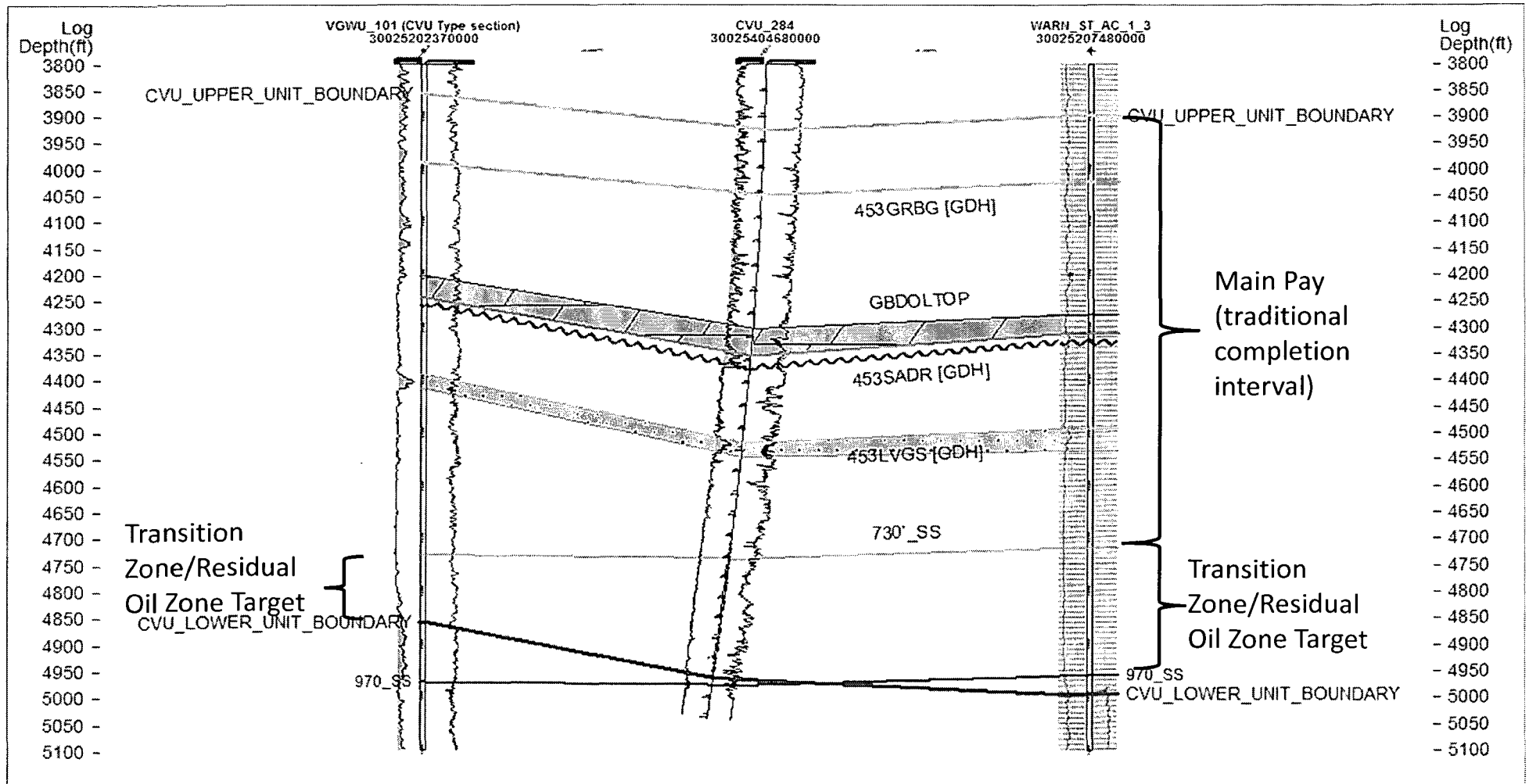


Cross Section Supplement to  
Chevron's C-108 for the  
Central Vacuum Unit  
258wi, 259wi, 273wi, 274wi, 284wi,  
285wi

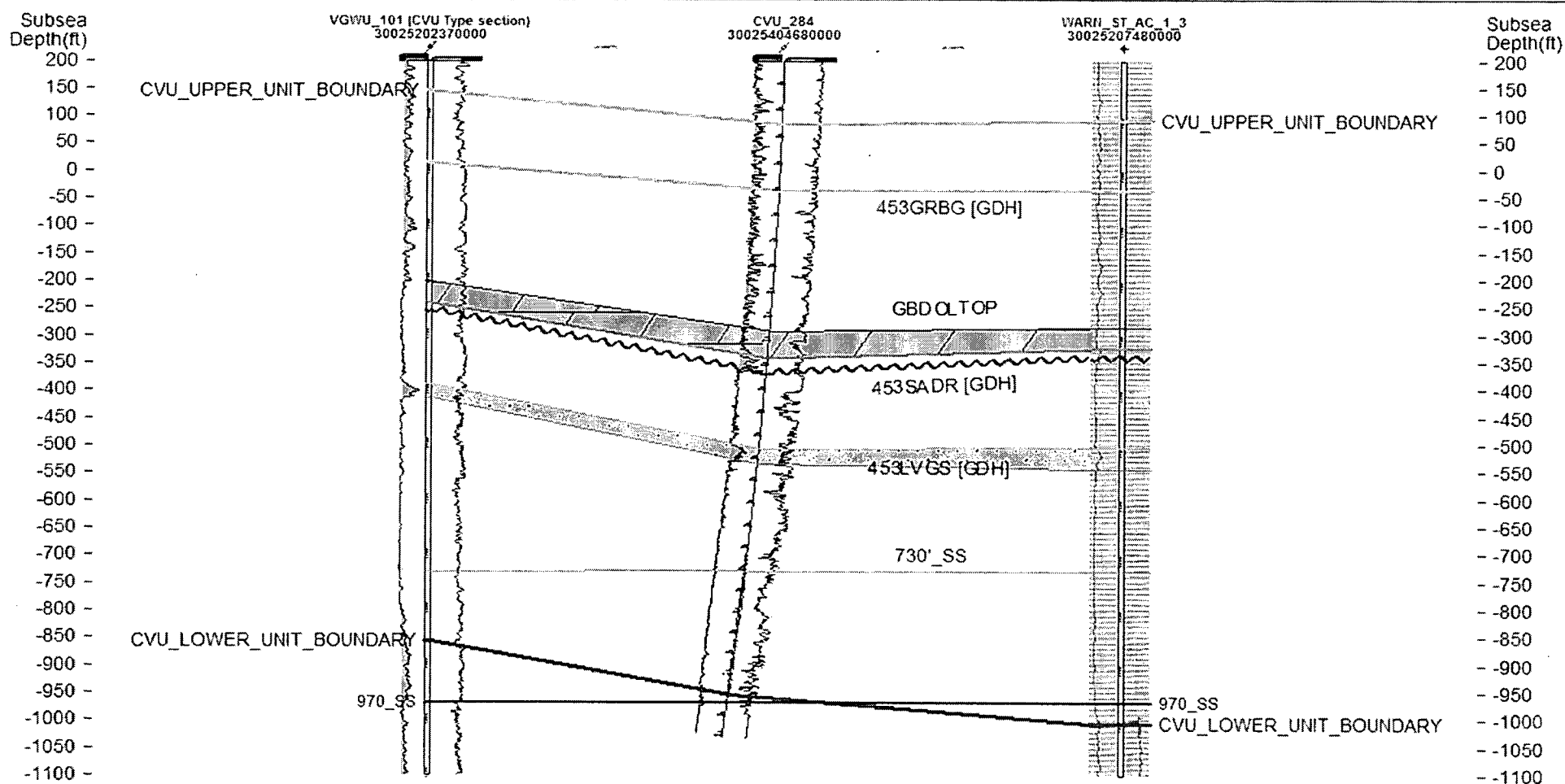
# Cross Section Index



# CVU SW-NE Xsection (MD)

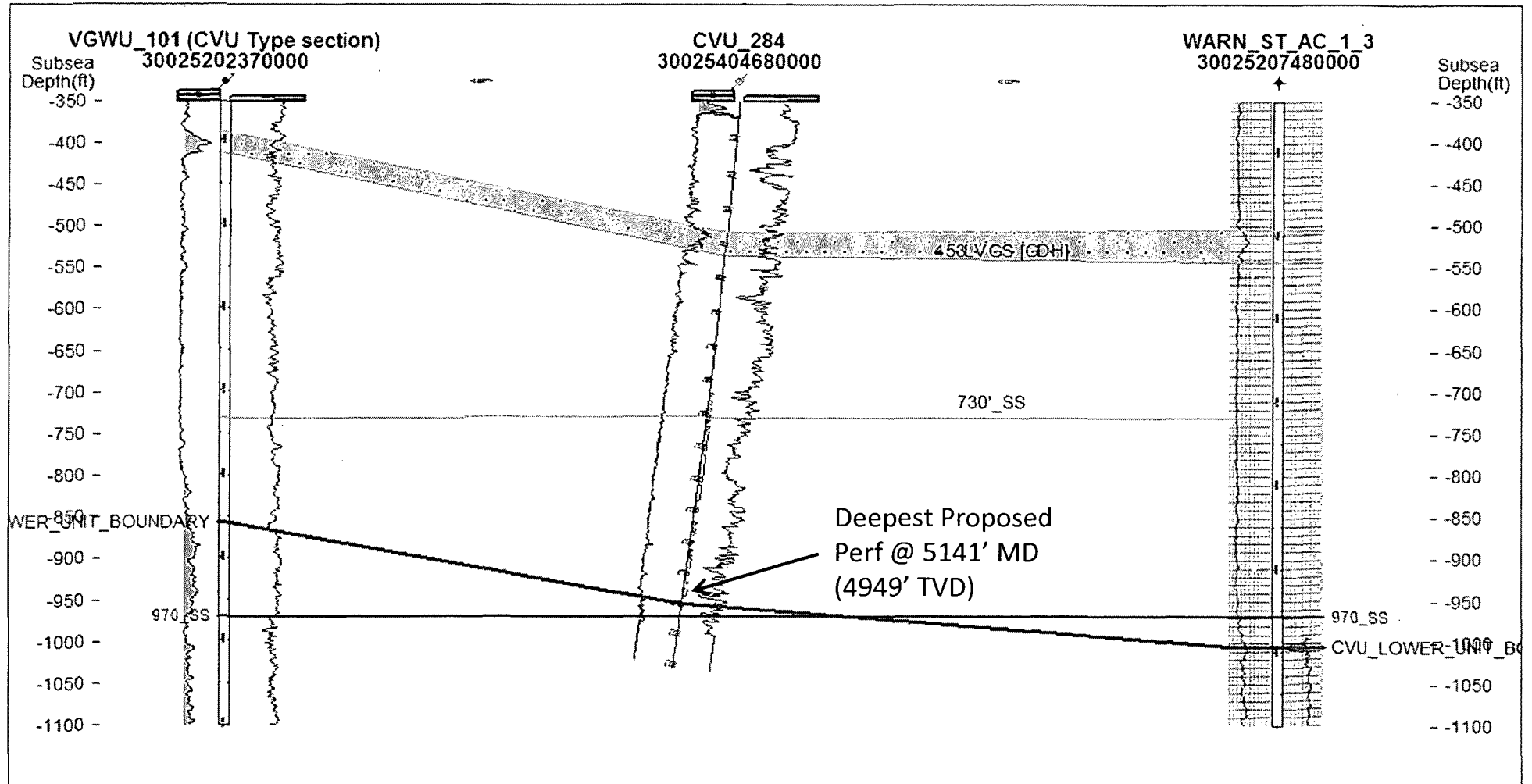


# CVU SW-NE Xsection (TVD-SS)



# CVU SW-NE Xsection (TVD-SS)

## Zoomed



Wells drilled within Affected Area subsequent to Injection Orders: R5530-E, R6856 & 74442-C									PART VI							
Well																
UWI (API Num)	Operator	Well Nam	Number	Status	Location	UL	Sec	T/S	Rge	Co	TOC	TD	TVD	DV	SPUD	
30-025-38785	Chevron	VGSAU	438	Active WG INJ	10' FNL & 420' FEL	A	1	18S	34E	Lea	Surf	5020'	5020	NA	2/21/2009	
30-025-38786	Chevron	VGSAU	439	Active Injector	634' FNL & 1632' FEL	B	1	18S	34E	Lea	Surf	5156'	5156	NA	3/4/2009	
30-025-38640	Chevron	CVU	458	Active WG INJ	1153' FNL & 848' FEL	A	36	17S	34E	Lea	Surf	5035'	5035	NA	11/17/2008	
30-025-38641	Chevron	CVU	459	Active WG INJ	1050' FNL & 566' FWL	D	31	17S	35E	Lea	Surf	5005'	5005	NA	12/20/2008	
30-025-38849	Chevron	CVU	238	Active WG INJ	10' FSL & 420' FEL	P	36	17S	34E	Lea	Surf	5210'	5210	NA	1/27/2009	
30-025-35212	Chevron	CVU	173H	Active WG INJ	2509' FNL & 660' FEL	H	36	17S	34E	Lea	Surf	5913'	4850	NA	12/18/2000	
30-025-35628	Chevron	CVU	264H	Active SP - Oil	2100' FNL & 1390' FWL	F	31	17S	35W	Lea	Calc-Circ'd	6707'	4687	NA	8/17/2001	
30-025-38140	Chevron	NM 'O' STATE NCT-1	40	Active-WD	1885' FSL & 1978' FEL	J	36	17S	34E	Lea	Surf	13,300'	13300	7939'	1/19/2007	
30-025-38639	Chevron	CVU	457 WI	Active WG INJ	1593' FNL & 1912 FEL	G	36	17S	34E	Lea	Surf	5026'	5026	NA	10/30/2008	
30-025-38002	Chevron	CVU	342 WI	Active WG INJ	82' FNL & 1186' FEL	A	36	17S	34E	Lea	Surf	5204'	5204	NA	9/13/2006	
30-025-35213	Chevron	CVU	241 WI	Active WG INJ	74' FNL & 1940' FEL	B	36	17S	34E	Lea	230' by TS	5988'	4850'	NA	1/13/2001	
30-025-33711	Chevron	CVU	167	Active FI - Oil	2000' FNL & 2630' FEL	G	36	17S	34E	Lea	Surf	5497'	4850'	NA	12/26/1996	

Water/CO2/Produced Gas

also see WFX-835 4/14/08  
Per R-5530-E in Case 11650 4/30/97  
also see WFX-231 6/21/05  
Permit Date 9/6/12 UIC Qtr (J/A/S)

also see WFX-822 10/12/06  
WFX-890 10/12/11  
# = 6076

Injection Permit Checklist (11/15/2010)

WFX WFX 901 SWD  
# Wells 0 Well Name(s): CVU # 258, 259, 273, 274, 284, 285

API Num: 30-0 25- Spud Date: New New/Old: N (UIC primacy March 7, 1982)  
258/273 → 36 175 34E  
Footages: Unit Sec 31 Tsp 175 Rge 35E County LEA

General Location: BUCKEYE, NM  
Operator: CHEVRON U.S.A. INC. Contact Carolyn HAYWIE  
OGRID: 4323 RULE 5.9 Compliance (Wells) 4/14/12 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed      Current Status:     

Planned Work to Well:     

Diagrams: Before Conversion      After Conversion      Elogs in Imaging File:     

Well Details:	Sizes	Setting	Stage	Cement	Determination
	Hole.....Pipe	Depths	Tool	Sx or Cf	Method
New ___ Existing ___ Surface	<u>17 1/2 - 13 3/8</u>			<u>1514 SX</u>	<u>CIRC</u>
New ___ Existing ___ Interm	<u>12 1/4 - 9 5/8</u>			<u>970X</u>	<u>CIRC</u>
New ___ Existing ___ LongSt	<u>8 3/4 - 7"</u>	<u>5200' TD</u>		<u>980</u>	<u>CIRC</u>
New ___ Existing ___ Liner					
New ___ Existing ___ OpenHole					

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above			
Injection TOP:	<u>4710'</u>	<u>SA.</u>	
Injection BOTTOM:	<u>5000'</u>	<u>SA.</u>	
Formation(s) Below	<u>5900'</u>	<u>GLORIA</u>	

2 TUBINGS (LINED)  
2 PACKERS 4650/4850'

LIMIT TO  
Base of  
CVU UNIT

Water/Gas  
1500/2200 PSI  
Open Hole \_\_\_ Perfs ✓  
Tubing Size 23/8 Packer Depth       
Transition Zone  
RISER ZONE

Capitan Reef?      (Potash?      Noticed?     ) WIPB?      Noticed?      Salado Top/Bot      Cliff House?     

Fresh Water: Depths:      Formation      Wells?      Analysis?      Affirmative Statement ✓

Disposal Fluid Analysis? Sources:     

Disposal Interval: Analysis?      Production Potential/Testing:     

Notice: Newspaper Date 7/8/12 Surface Owner SLO. Mineral Owner(s)     

RULE 26.7(A) Affected Persons: APACHE/Marathon KTO/ConocoPhillips/Chesapeake

AOR: Maps? yes Well List? yes Producing in Interval? yes Wellbore Diagrams?     

.....Active Wells 21 Repairs? 0 Which Wells?     

.....P&A Wells 0 Repairs?      Which Wells?     

Issues:      Request Sent      Reply: