

DATE IN 10/02/13	SUSPENSE	ENGINEER PG	LOGGED IN 10/04/13	TYPE WFX -917	PPR NO. PPRG1328032475
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



RECEIVED 900

10/25/13 1:55

### 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 \_\_\_\_\_

Central Vacuum Unit

30-025-41343

CVU #170

30-025-41344

CVU #181

Chevron

#### [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 Haynie  
Print or Type Name

*Carolyn Haynie*  
Signature

NM Petro Eng Tech Assistant  
Title

9.25.13  
Date

chay@chevron.com  
e-mail Address

## 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:           CAROLYN HAYNIE           PHONE:           432-687-7261
- 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-E
- 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; **2,000 BWPD and 4,000 MCFPD**  
2. Whether the system is open or closed; **CLOSED**  
3. Proposed average and maximum injection pressure; **1500 PSI, when injecting Water and, 2200 PSI when injection CO2.**  
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 & 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. **Grayburg San Andres formation, Proposed Injection Zone, 4020' – 5100'.**
- IX. Describe the proposed stimulation program, if any. **The Injection wells will be acid stimulated w/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.
- 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, (Hobbs News Sun).**
- 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: CAROLYN HAYNIE TITLE: Petro Eng. Tech Assistant

SIGNATURE: Carolyn Laine DATE: 4-30-13

E-MAIL ADDRESS: chay@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:

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

### 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.

#### ATTACHED

- 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. ATTACHED

### 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. ATTACHED

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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.

## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 170

WELL LOCATION: 2490' FSL & 500' FWL UNIT L: UNIT L; SEC. 36, T17S, R34E  
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE  
 CVU 170

Created: 9/3/2013 By: Chay  
 Updated: By:  
 Updated: By:  
 Updated: By:  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg-San Andres)  
 Surf. Loc.: 2490' FSL & 500' FWL  
 Bot. Loc.: 2490' FSL & 500' FWL  
 County: Lea St.: NM  
 Status: New Water Injector

Well #: 170 St. Lse:  
 API: 30-025-41343  
 Unit Ltr.: L Section: 36  
 TSHP/Rng: T17S & R34E  
 Bottom Hole Location  
 Unit Ltr.: L Section: 36  
 TSHP/Rng: T17S & R34E  
 CHEVNO: NW2154  
 Directions: Buckeye, NM

**WELL CONSTRUCTION DATA**Surface CasingHole Size: 14-3/4" Casing Size: 11-3/4"Cemented with: 1300 sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate CasingHole Size: 11" Casing Size: 8-5/8"Cemented with: 750 sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined:           Production CasingHole Size: 7-7/8" Casing Size: 5-1/2"Cemented with: 1150 sx. **or**                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 5300' ProposedInjection Interval4100' feet to 5100'

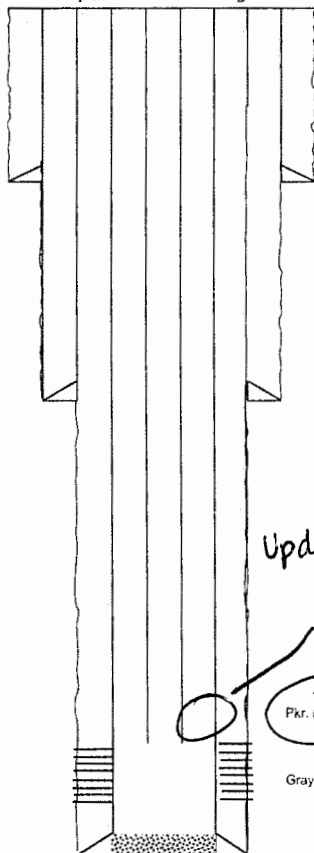
(New Well)

Proposed  
**Surface Casing**  
 Size: 11-3/4"  
 Wt. Grd.: 42#  
 Depth: 1500'  
 Sxs Cmt: 1300 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 14-3/4"

Proposed  
**Intermediate Casing**  
 Size: 8 5/8"  
 Wt. Grd.: 32#  
 Depth: 3200'  
 Sxs Cmt: 750 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 11"

Proposed  
**Production Casing**  
 Size: 5-1/2"  
 Wt. Grd.: 17#  
 Depth: 5300'  
 Sxs Cmt: 1150 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7-7/8"

Proposed Wellbore Diagram



KB  
 DF  
 GL 4001'  
 Ini Spud:  
 Ini Comp:

PSTD.  
 TD 5300'

### INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 5-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: +/- 10' Above Top perf

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: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

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 (5850-6200')

**CVU 170**

Created:	9/3/2013	By:	Chay
Updated:	10/22/13	By:	Chay
Updated:		By:	
Updated:		By:	
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	2490' FSL & 500' FWL		
Bot. Loc.:	2490' FSL & 500' FWL		
County:	Lea	St.:	NM
Status:	New Water Injector		

Well #:	170	St. Lse:	
API	30-025-41343		
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		

Bottom Hole Location			
Unit Ltr.:	L	Section:	36
TSHP/Rng:	T17S & R34E		
CHEVNO:	<b>NW2154</b>		
Directions:	Buckeye, NM		

**Proposed**

**Surface Casing**

Size:	11-3/4"
Wt., Grd.:	42#
Depth:	1500'
Sxs Cmt:	1300 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	14-3/4"

**Proposed**

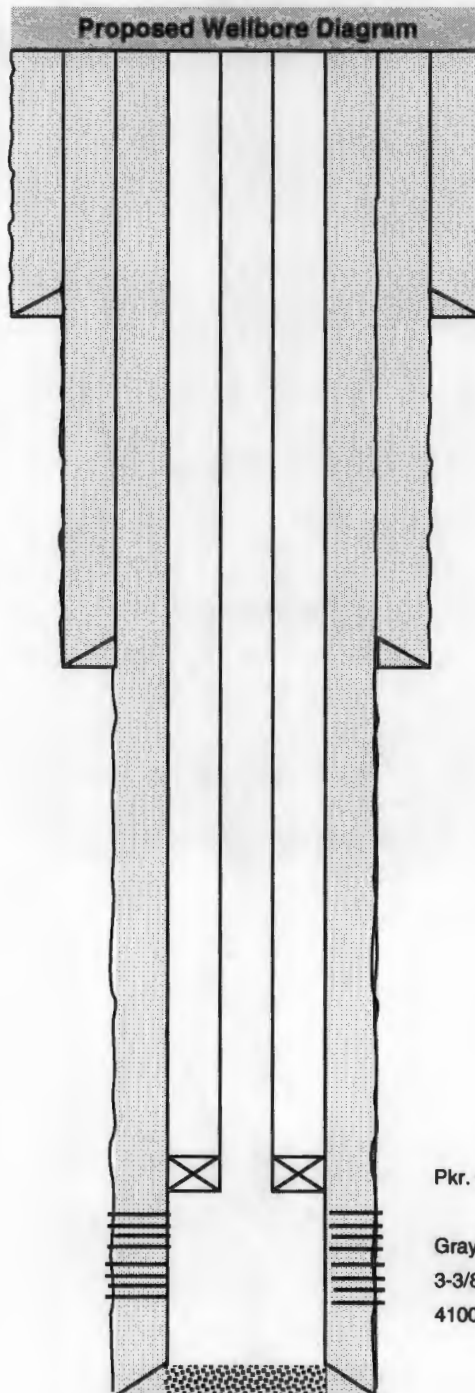
**Intermediate Casing**

Size:	8 5/8"
Wt., Grd.:	32#
Depth:	3200'
Sxs Cmt:	750 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	11"

**Proposed**

**Production Casing**

Size:	5-1/2"
Wt., Grd.:	17#
Depth:	5300'
Sxs Cmt:	1150 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	7-7/8"



KB:	
DF:	
GL:	4001'
Ini. Spud:	11/6/2013-est
Ini. Comp.:	12/6/2013-est

Pkr. @ 4090' (10' above top perf)

Grayburg San Andres Perfs:  
3-3/8" guns w/2 JSPF, 120 deg PH  
4100' to 5100'

PBTD:  
TD: 5300'

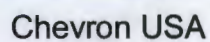
CVU 170

API No. 30-025-41343

Completion Procedure

1. RU PU
2. NU tubing head (if not completed by drilling rig)
3. RU wireline & log as follows:
  - a. SGR(spectral GR) - RAL (Radial Cement Bond Log) - CNL (Compensated Neutron) from PBTD to 2,800. Run the RAL log with 0 psi on the repeat pass & 1000 psi on the main pass.
  - b. From 2,800 – Surface, continue with the GR-CNL.
  - c. Run repeat section from TD to 4000'.
4. Perforate the 5-1/2" casing in the main pay interval as per the technical team recommendation using 3-3/8" guns w/ 2 JSPF @ 120 degree phasing (perfs will be within the interval of 4,020 – 5,100').
5. Acidize perfs with 20,000 gallons 15% NEFE HCl.
6. TIH with 4-3/4" MT bit & 6 x 3-1/2" DC's on 2-7/8" 6.5# L80 workstring and CO to float collar.
7. Circ hole clean.
8. TOH LD WS, DC's & bit.
9. RIH with 2-3/8" Fiberlined injection tubing with on-off tool and 1.43" ID 'F' profile nipple and 5-1/2" Arrow Set IX. Set packer +/- 10' above top perf.
10. Load annulus with packer fluid
11. Perform MIT.
12. RD PU
13. Put well on injection.



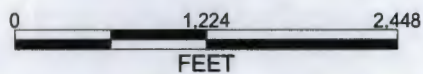


### Vacuum Field

Central Vacuum Unit 170

### C-108 Half Mile Radius

Section 36, T17S R34E

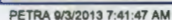


## REMARKS

All Wells Shown  
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013







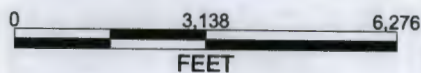
Chevron USA

Vacuum Field

Central Vacuum Unit 170

C-108 Two Mile Radius

Section 36, T17S R34E

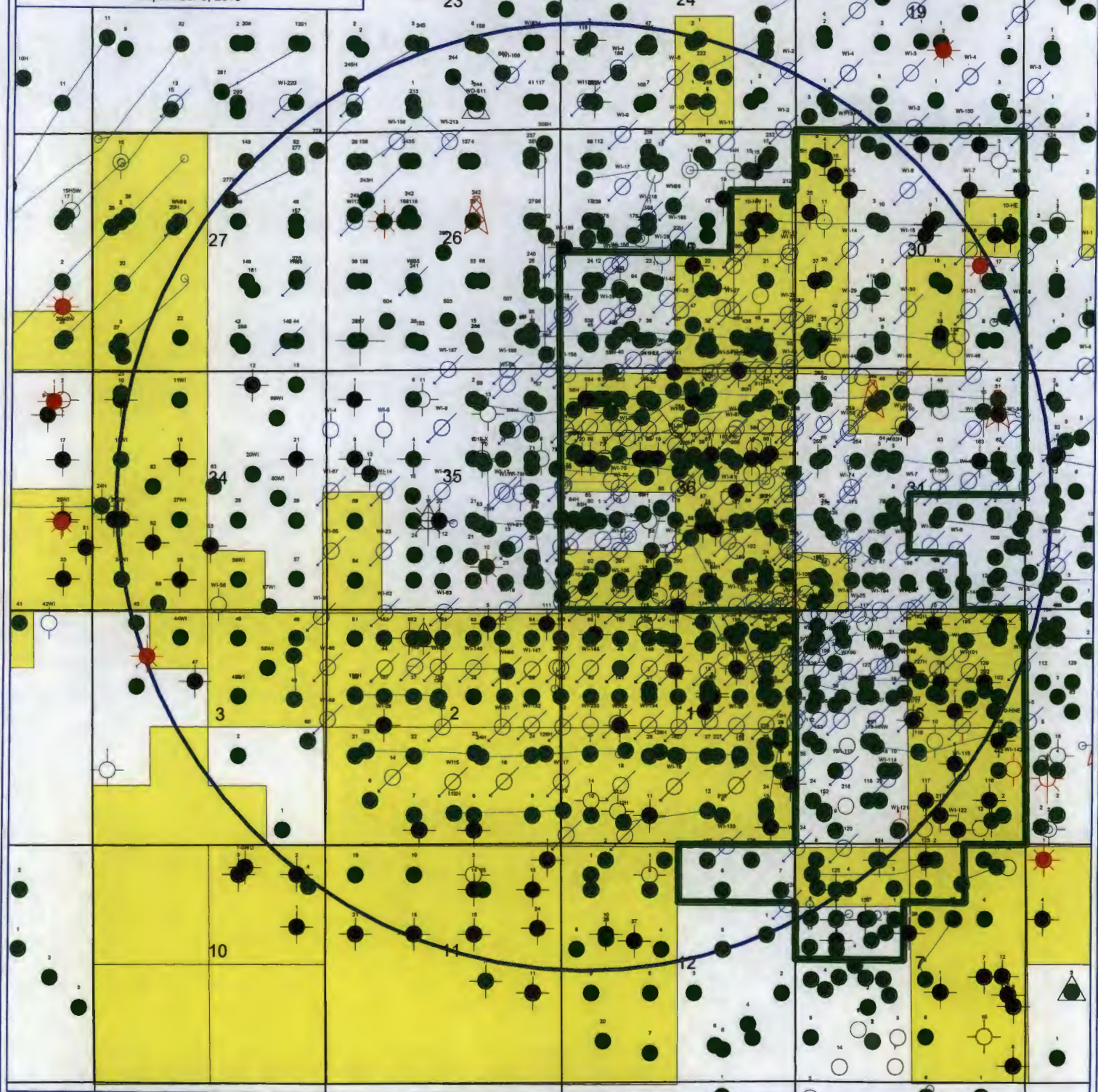


REMARKS

All Wells Shown  
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013



**NOTIFICATION LIST**

**Prepared 9/3/2013 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. 170, API #30-025-41343**  
2,490' FSL & 500' FWL of Section 36, T-17-S, R-34E, Unit Letter L  
Lea County, New Mexico

**Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 35, T17S-R34E:**

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

McGowan Working Interest Partners, Inc.  
P. O. Box 55809  
Jackson, MS 39296-5809

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

**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 1, T17S-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 (signed)  
Daniel Pequeno, Senior Landman

Date: September 3, 2013



## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 181

WELL LOCATION: 1420' FSL & 730' FWL UNIT L: UNIT L; SEC. 36, T17S, R34E  
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

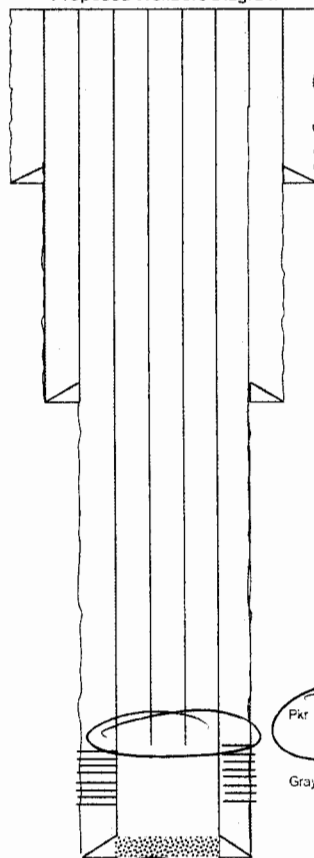
CVU 181

Created: 9/3/2013 By: Chay  
 Updated: By:  
 Updated: By:  
 Updated: By:  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg-San Andres)  
 Surf. Loc.: 1420' FSL & 730' FWL  
 Bot. Loc.: 1420' FSL & 730' FWL  
 County: Lea St.: NM  
 Status: New Water Injector

Well #: 181 St. Lse:  
 API: 30-025-41344  
 Unit Ltr.: L Section: 36  
 TSHR/Rng.: T17S & R34E  
 Bottom Hole Location  
 Unit Ltr.: L Section: 36  
 TSHR/Rng.: T17S & R34E  
 CHEVNO: NW2155  
 Directions: Buckeye, NM

**WELL CONSTRUCTION DATA**Surface CasingHole Size: 14-3/4" Casing Size: 11-3/4"Cemented with: 1300 sx. **or**  ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate CasingHole Size: 11" Casing Size: 8-5/8"Cemented with: 750 sx. **or**  ft<sup>3</sup>Top of Cement: Surface Method Determined: Production CasingHole Size: 7-7/8" Casing Size: 5-1/2"Cemented with: 1150 sx. **or**  ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 5300' ProposedInjection Interval4100' feet to 5100'

(New Well)

**Proposed Wellbore Diagram**

KB  
 DF  
 GL: 3992'  
 Ini. Spud  
 Ini. Comp

*Need add to diagram*

Pkt @

Grayburg San Andres Perfs.

P.B.T.D.  
T.D. 5300'

**Proposed Surface Casing**  
 Size: 11-3/4"  
 Wt. Grd: 42#  
 Depth: 1500'  
 Sxs Cmt: 1300 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 14-3/4"

**Proposed Intermediate Casing**  
 Size: 8 5/8"  
 Wt. Grd: 32#  
 Depth: 3200'  
 Sxs Cmt: 750 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 11"

**Proposed Production Casing**  
 Size: 5-1/2"  
 Wt. Grd: 17#  
 Depth: 5300'  
 Sxs Cmt: 1150 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7-7/8"

**INJECTION WELL DATA SHEET**

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 5-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: +/- 10' Above Top perf

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: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

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 (5850-6200')

\_\_\_\_\_

**CVU 181**

Created: 9/3/2013 By: Chay  
 Updated: 10/22/13 By: Chay  
 Updated: By:  
 Updated: By:  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg-San Andres)  
 Surf. Loc.: 1420' FSL & 730' FWL  
 Bot. Loc.: 1420' FSL & 730' FWL  
 County: Lea St.: NM  
 Status: New Water Injector

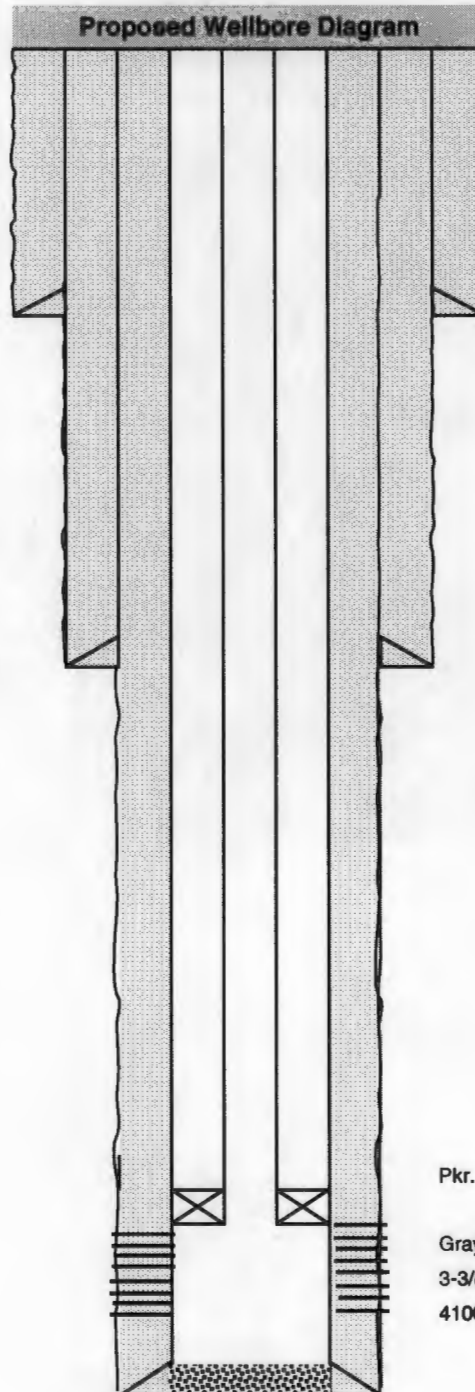
Well #: 181 St. Lse:  
 API 30-025-41344  
 Unit Ltr.: L Section: 36  
 TSHP/Rng: T17S & R34E

Bottom Hole Location  
 Unit Ltr.: L Section: 36  
 TSHP/Rng: T17S & R34E  
 CHEVNO: NW2155  
 Directions: Buckeye, NM

**Proposed**  
**Surface Casing**  
 Size: 11-3/4"  
 Wt., Grd.: 42#  
 Depth: 1500'  
 Sxs Cmt: 1300 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 14-3/4"

**Proposed**  
**Intermediate Casing**  
 Size: 8 5/8"  
 Wt., Grd.: 32#  
 Depth: 3200'  
 Sxs Cmt: 750 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 11"

**Proposed**  
**Production Casing**  
 Size: 5-1/2"  
 Wt., Grd.: 17#  
 Depth: 5300'  
 Sxs Cmt: 1150 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7-7/8"



KB:  
 DF:  
 GL: 3992'  
 Ini. Spud: 11-20-13-est  
 Ini. Comp.: 12-20-13-est

Pkr. @ 4090' (10' above top perf)

Grayburg San Andres Perfs:  
 3-3/8" guns w/2 JSPF, 120 deg PH  
 4100' to 5100'

PBTD:  
 TD: 5300'

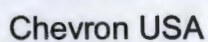


CVU 181

API No. 30-025-41344

Completion Procedure

1. RU PU
2. NU tubing head (if not completed by drilling rig)
3. RU wireline & log as follows:
  - a. SGR(spectral GR) - RAL (Radial Cement Bond Log) - CNL (Compensated Neutron) from PBTD to 2,800. Run the RAL log with 0 psi on the repeat pass & 1000 psi on the main pass.
  - b. From 2,800 – Surface, continue with the GR-CNL.
  - c. Run repeat section from TD to 4000’.
4. Perforate the 5-1/2” casing in the main pay interval as per the technical team recommendation using 3-3/8” guns w/ 2 JSPF @ 120 degree phasing (perfs will be within the interval of 4,020 – 5,100’).
5. Acidize perfs with 20,000 gallons 15% NEFE HCl.
6. TIH with 4-3/4” MT bit & 6 x 3-1/2” DC’s on 2-7/8” 6.5# L80 workstring and CO to float collar.
7. Circ hole clean.
8. TOH LD WS, DC’s & bit.
9. RIH with 2-3/8” Fiberlined injection tubing with on-off tool and 1.43” ID ‘F’ profile nipple and 5-1/2” Arrow Set IX. Set packer +/- 10’ above top perf.
10. Load annulus with packer fluid
11. Perform MIT.
12. RD PU
13. Put well on injection.

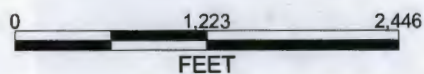


## Vacuum Field

Central Vacuum Unit 181

C-108 Half Mile Radius

Section 36, T17S R34E

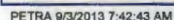


## REMARKS

All Wells Shown  
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013







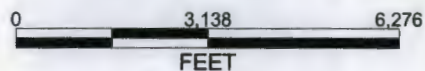
Chevron USA

Vacuum Field

Central Vacuum Unit 181

C-108 Two Mile Radius

Section 36, T17S R34E

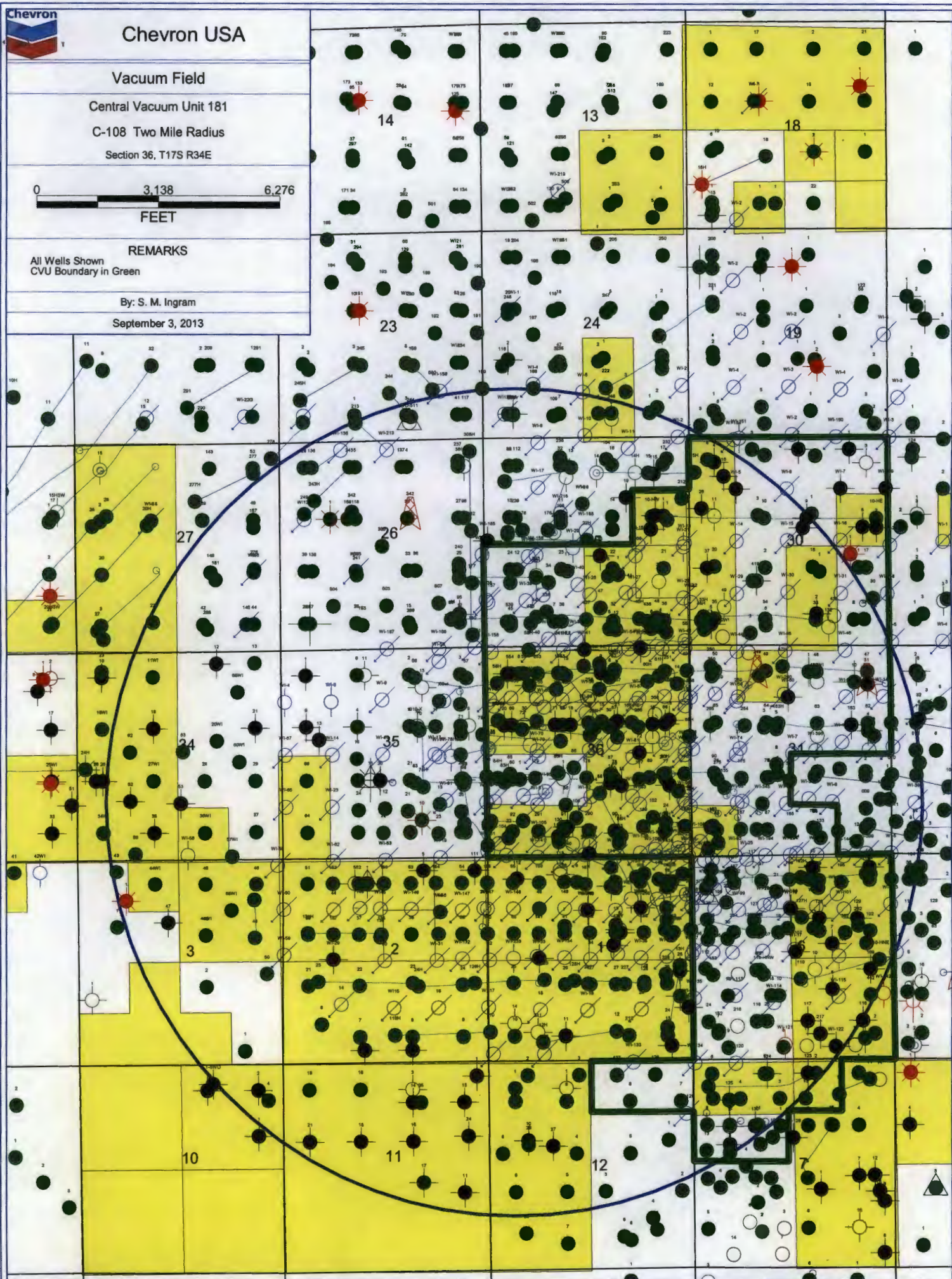


REMARKS

All Wells Shown  
CVU Boundary in Green

By: S. M. Ingram

September 3, 2013



**NOTIFICATION LIST**

**Prepared 9/3/2013 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. 181, API #30-025-41344**

1,420' FSL & 730' FWL of Section 36, T-17-S, R-34E, Unit Letter L  
Lea County, New Mexico

**Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 35, T17S-R34E:**

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

McGowan Working Interest Partners, Inc.  
P. O. Box 55809  
Jackson, MS 39296-5809

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

**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 1, T17S-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 (signed)  
Daniel Pequeno, Senior Landman

Date: September 3, 2013

News Wells Added within 1/2 Mile radius for Order R-5530-E												
Section 1 & Sec 36, T17S & T18S, R34E, Lea County, NM												
Well	Wells	API	Status	Lease	Pool	Unit Letter	Sec	Location	Twnshp	Rng	Co	TD
<b>Central Vacuum Unit # 170</b>												
	CVU 455	30-025-38637	Active Injector	Central Vacuum Unit	VGSA	D	36	1310' FNL & 660' FWL	T17S	R34E	Lea	5320'
	CVU 456	30-025-38638	Active Injector	Central Vacuum Unit	VGSA	F	36	1360' FNL & 1980' FWL	T17S	R34E	Lea	5010'
	VGSAU 441	30-025-38788	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	D	1	170' FNL & 710' FWL	T18S	R34E	Lea	5007'
<b>Central Vacuum Unit # 181</b>												
	CVU 455	30-025-38637	Active Injector	Central Vacuum Unit	VGSA	D	36	1310' FNL & 660' FWL	T17S	R34E	Lea	5320'
	VGSAU 440	30-025-38787	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	C	1	100' FNL & 1980' FWL	T18S	R34E	Lea	5020'
	VGSAU 441	30-025-38788	Active Injector	Vacuum Grayburg San Andres Unit	VGSA	D	1	170' FNL & 710' FWL	T18S	R34E	Lea	5007'
	NM 'O' State (NCT-1) # 40	30-025-38140	Active Injector	New Mexico 'O' State NCT-1	Devonian	J	36	1885' FSL & 1978' FEL	T17S	R34E	Lea	13000'

SWD-1051



# CVU #455 Wellbore Diagram

Created: 06/18/08 By: NCayce  
 Updated: 08/19/08 By: NCayce  
 Updated: 11/06/08 By: Jcooper  
 Lease: Central Vacuum Unit  
 Field: Vacuum Grayburg San Andres  
 Surf. Loc.: 1310' FNL 660' FWL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: Injector

Well #: 455 St. Lse:  
 API 30-025-38637  
 Unit Ltr.: D Section: 36  
 TSHP/Rng: 17S 34E  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 Directions: Buckeye, NM  
 Chevno: LC0286

## Surface Casing

Size: 13 3/8"  
 Wt., Grd.: 42# H-40  
 Depth: 451'  
 Sxs Cmt: 560  
 Circulate: 200 sx  
 TOC: Surface  
 Hole Size: 17 1/2"

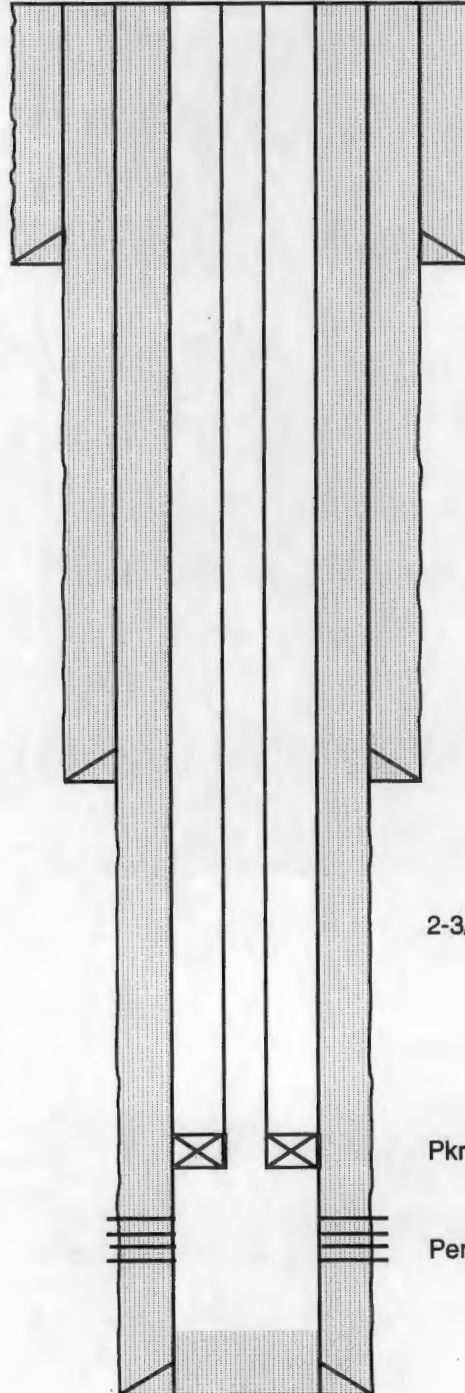
KB: 4033'  
 DF: 4032'  
 GL: 4008'  
 Ini. Spud: 05/13/08  
 Ini. Comp.: 06/16/08

## Intermediate Casing

Size: 9 5/8"  
 Wt., Grd.: 36# J-55  
 Depth: 3190'  
 Sxs Cmt: 1760  
 Circulate: 465 sx  
 TOC: Surface  
 Hole Size: 12 1/4"

## Production Casing

Size: 7"  
 Wt., Grd.: 23# J-55  
 Depth: 5312'  
 Sxs Cmt: 1240  
 Circulate: 110 sx  
 TOC: Surface  
 Hole Size: 8 1/2"



2-3/8" Fiberlined Inj. Tubing

Pkr w/ on-off tool (1.5" PN) @ 4345'

Perfs: 4393' - 4782'

PBTD: 5,045  
 TVD: 5,320

# CVU #456 Wellbore Diagram

Created: 07/01/08 By: NC  
 Updated: 08/11/08 By: NC  
 Updated: 11/06/08 By: Jcooper  
 Updated: 12/04/08 By: NC  
 Lease: Central Vacuum Unit  
 Field: Central Vacuum Unit  
 Surf. Loc.: 1360' FNL 1980' FWL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: Injector

Well #: 456 St. Lse:  
 API 30-025-38638  
 Unit Ltr.: F Section: 36  
 TSHP/Rng: 17S 34E  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 Directions: Buckeye, NM  
 CHEVNO: LC0285

## Surface Casing

Size: 8 5/8"  
 Wt., Grd.: 24# J-55  
 Depth: 1625'  
 Sxs Cmt: 1240  
 Circulate: 350 sx  
 TOC: Surface  
 Hole Size: 12 1/4"

## Production Casing

Size: 5 1/2"  
 Wt., Grd.: 17# J-55  
 Depth: 5010'  
 Sxs Cmt: 1,100  
 Circulate: 49 sx  
 TOC: Surface  
 Hole Size: 7 7/8"

KB: 4,026  
 DF: 4,025  
 GL: 4,003  
 Ini. Spud: 06/19/08  
 Ini. Comp.: 08/05/08

## History

**8/08 Completion:** Perfs 4363-66,4388-96,4400-4405,4408-12,4437-40,4440-46,4454-56,4458-60,4468-74.' Acidize 4363-4478 w/4500 gals 15% HCL divert w/140 ball sealers. Balled out three times.  
 Perfs: 4526-28, 4531-33, 4538-40, 4563-66, 4586-94, 4596-4606,4604-06,4612-16, 4628-34. Acidize 4526-4634' w/3500 gals 15% HCL w/130 ball sealers to divert. Balled out three times.  
 Perfs: 4656-4660,4666-74,4684-91, 4695-4708,4712-20,4722-32,4740-48, 4755-64,4767-74,4778-82.' Acidize 4656-4785 w/8000 gals 15% HCL w/325 ball sealers for diverting. No ball action.  
 C/O to 4720.'  
 10/1/2008 Started CO2 injection

Tubing: 137 jts 2-7/8" J-55

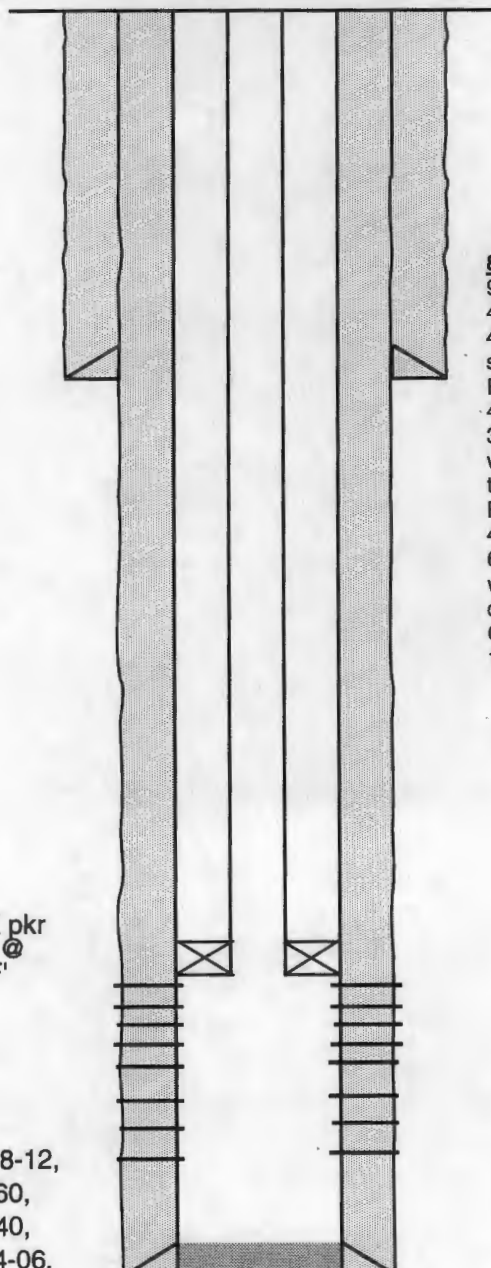
Arrowset 1-X pkr  
 w/on-off tool @  
 4300' (1.5" 'F'  
 Profile)

Perf interval - 4363-4782'

## Detailed Perfs:

4363-66, 4388-96, 4400-4405, 4408-12, 4437-40, 4440-46, 4454-56, 4458-60, 4468-74, 4526-28, 4531-33, 4538-40, 4563-66, 4586-94,4596-4606, 4604-06, 4612-16, 4628-34, 4656-4660, 4666-74, 4684-91, 4695-4708, 4712-20, 4722-32, 4740-48,

PBTD: 4900'  
 TD: 5010'



# VGSAU 441 Wellbore Diagram

Created: 04/24/09 By: B. Scott  
 Updated: 06/03/09 By: N Cayce  
 Lease: Vacuum Grayburg San Andres Unit  
 Field: Vacuum Grayburg San Andres  
 Surf. Loc.: 170' FNL 710' FWL  
 Bot. Loc.: 10' FNL 650' FWL  
 County: Lea St.: NM  
 Status: CO2 Injector

Well #: 441 St. Lse: -  
 API: 30-025-38788  
 Unit Ltr.: A Section: 1  
 TSHP/Rng: 18S & 34E  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 Directions: Buckeye, NM  
 CHEVNO: LD9384  
 OGRID: 4323

## Surface Casing

Size: 11 3/4"  
 Wt., Grd.: 42#, H-40  
 Depth: 1500'  
 Sxs Cmt: 1,050  
 Circulate: Yes, 2 Sx  
 TOC: Surface  
 Hole Size: 14 3/4"

WTF ECP on 5-1/2" @ 1307' (top)  
 Ryte-Wrap csg 1325-1858' (12 jts)

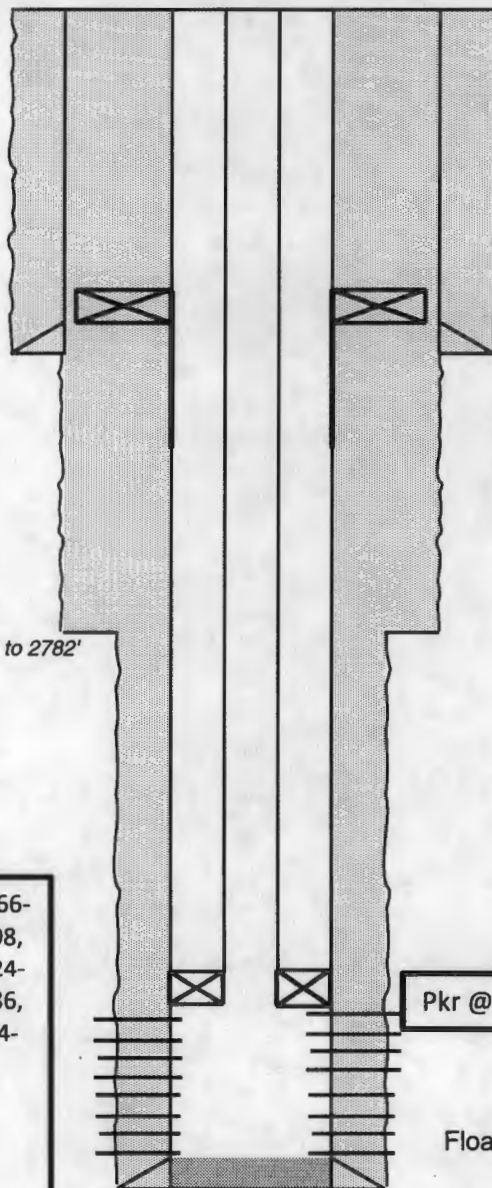
Well has Shallow Kick Off Slant  
 Well Deviation: 4947' MD = 4940' TVD

## Production Casing

Size: 5 1/2"  
 Wt., Grd.: 17#, J-55  
 Depth: 5007'  
 Sxs Cmt: 2,100  
 Circulate: 435 sx \*Hole size 11" to 2782'  
 TOC: Surface  
 Hole Size: \*7 7/8" \*

Tubing detail:  
 2-3/8" EUE 4.7# J-55 Fiberline  
 131 jts. @ 4219'

**Perf detail:** 4289-4293, 4310-4318, 4366-4368, 4372-4374, 4378-4388, 4390-4398, 4402-4410, 4414-4416, 4420-4422, 4424-4426, 4428-4433, 4450-4455, 4476-4486, 4525-4528, 4530-4534, 4539-4542, 4544-4550, 4553-4556, 4558-4572, 4592-4594, 4648-4653, 4655-4657, 4659-4662, 4665-4674, 4676-4687, 4690-4698, 4701-4708, 4723-4727, 4730-4732, 4742-4745, 4748-4750, 4766-4770, 4774-4776, 4779-4782, 4789-4804, 4810-4818, 4826-4831, 4833-4836, 4838-4852'



KB: 4024'  
 DF:  
 GL: 4002'  
 Ini. Spud: 04/04/09  
 Ini. Comp.: 04/21/09

\*\*\* ECP did not close while setting

## History:

5/5/09-5/11/09 Perf 4289-4852' in 11 runs. Acid 24,950 gals 15% HCL. Balled out. Set 5-1/2" pkr w/on-off tool on 2-3/8" Fiberline tbg @ 4240'.

Pkr @ 4240'

Float Collar @ 4919'

PBTD: 4918'  
 TD: 5007'

# **VGSAU 440 Wellbore Diagram**

Created: 04/15/09 By: CAYN  
 Updated: 05/12/09 By: Cayce  
 Lease: Vacuum Grayburg San Andres Unit  
 Field: Vacuum Grayburg San Andres  
 Surf. Loc.: 100' FNL 1980' FWL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: CO2 Injector

Well #: 440 St. Lse:  
 API: 30-025-38787  
 Unit Ltr.: C Section: 1  
 TSHR/Rng: 18S 34E  
 Unit Ltr.: Section:  
 TSHR/Rng:  
 Directions: Buckeye, NM  
 CHEVNO: LD9383  
 OGRID: 4323

## **Surface Casing**

Size: 11 3/4"  
 Wt., Grd.: 42# H-40 STC  
 Depth: 1500'  
 Sxs Cmt: 950  
 Circulate: yes, 349 sx  
 TOC: Surface  
 Hole Size: 14 3/4"

ECP on 8 5/8" @ 1376'  
 Ryte-Wrap csg 1392-2368'

## **Intermediate Casing**

Size: 8 5/8"  
 Wt., Grd.: 24# J-55 STC  
 Depth: 2962'  
 Sxs Cmt: 1,140  
 Circulate: yes, 168 sx  
 TOC: surface  
 Hole Size: 11"

ECP on 5 1/2" @ 2688'  
 Ryte-Wrap csg 1308-1796'

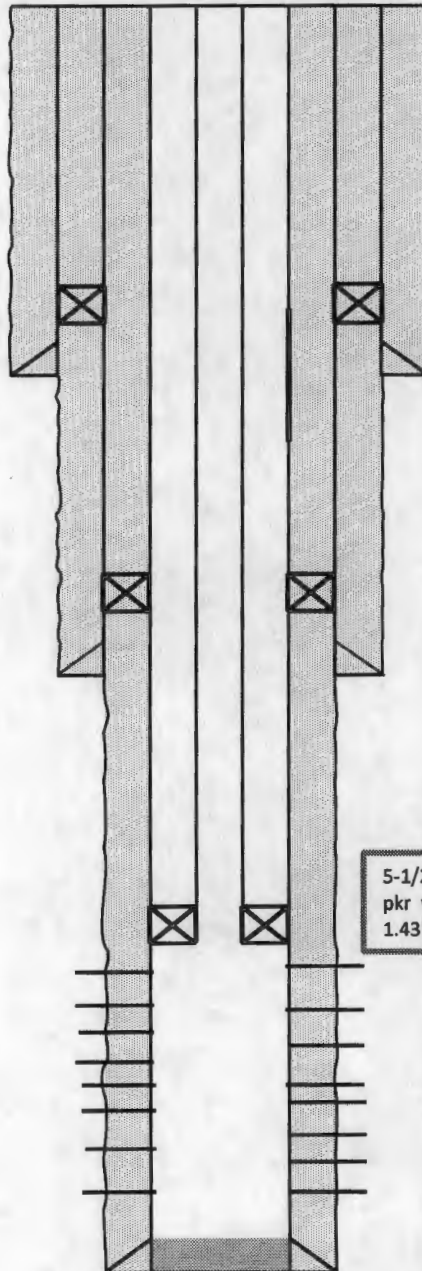
## **Tubing detail:**

132 jts 2-3/8" x 4167' Fiberline tbg

## **Production Casing**

Size: 5 1/2"  
 Wt., Grd.: 17#, J-55 LTC  
 Depth: 5018'  
 Sxs Cmt: 1,050  
 Circulate: yes, 334 sx  
 TOC: Surface  
 Hole Size: 7 7/8"

Perfs: 4294'-4860'



KB: 4018'  
 DF:  
 GL: 3996'  
 Ini. Spud: 03/19/09  
 Ini. Comp.: 04/01/09

## **History:**

**4/09** Spot w/500 gals 10% acetic acid.  
 Perf 4294-4860'. Acidize w/25,000 gals  
 15% HCL in one stage. Did not ballout.  
 Set pkr @ 4219'.  
**11/12** Repair MIT Failure. CO to 4,940'.

5-1/2" x 2-3/8" AS1X  
 pkr w/ on-off tool &  
 1.43" PN @ 4213'

## **Perfs detail:**

4294-4299, 4306-4322, 4332-4348, 4354-  
 4356, 4362-4366, 4410-4422, 4481-4488,  
 4492-4496, 4498-4502, 4510-4514, 4516-  
 4526, 4528-4536, 4596-4604, 4606-4618,  
 4622-4625, 4639-4641, 4643-4646, 4650-  
 4658, 4662-4673, 4676-4678, 4680-4692,  
 4696-4700, 4704-4709, 4716-4724, 4750-  
 4754, 4756-4762, 4768-4778, 4783-4795,  
 4798-4808, 4816-4828, 4838-4840, 4844-  
 4846, 4848-4850, 4852-4856, 4858-4860

PBTD: 4,940'

TD: 5020'

# WELLBORE DIAGRAM

New Mexico O State Com #40

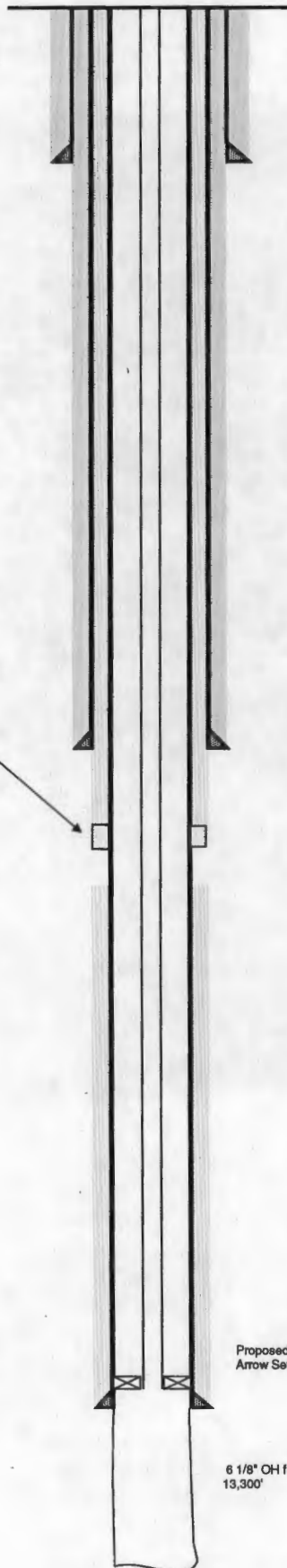
## PROPOSED LOCATION

State	New Mexico
County	Lea
Surface Location	2300' FSL & 1880' FEL Sec 36, T 17S, R34E

## CASING DETAIL

<b>Surface Cag.</b>	
Size:	13-3/8"
Wt.:	48# H40
Set @:	1495'
Sxs cmt:	1505 sxs
TOC:	Surface circ 1060 sxs
Hole Size:	17 1/2"
<b>Intermediate Cag.</b>	
Size:	9-5/8"
Wt.:	40# K55 RYT wrapped/bare
Set @:	5840'
Sxs Cmt:	2615 sxs
TOC:	Surface, circ 980 sxs
Hole Size:	12 1/4"
<b>Production Cag.</b>	
Size:	7"
Wt.:	28# HCLB0
Set @:	12,250'
Sxs Cmt:	2080 sxs
TOC:	
Hole Size:	8 3/4"
DV Tool	7939'

1ST STAGE 1030 sxs, did not circ to surface  
2nd STAGE 1050 sxs, circ 135 sxs to surface



Proposed 4 1/2" IPC injection tbg w/ 10K  
Arrow Set 1X injection packer set ~12,150'

6 1/8" OH from 12,200'-  
13,300'



# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, DANIEL RUSSELL  
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

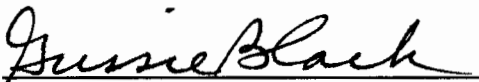
of 1 issue(s).

Beginning with the issue dated  
August 29, 2013  
and ending with the issue dated  
August 29, 2013



PUBLISHER

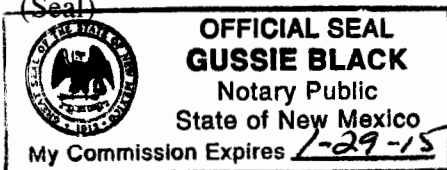
Sworn and subscribed to before me  
this 29th day of  
August, 2013



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

### LEGAL NOTICE August 29, 2013

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 add the new  
Central Vacuum Unit # 170  
and Central Vacuum Unit  
#181 as Water Alternating  
CO2 Gas Injection well.  
Injection into this well is  
designed to enhance  
production from the Vacuum  
Grayburg San Andres Unit.  
**The CVU # 170, is located  
2490' FSL & 500' FWL,  
Unit Letter L, Sec. 36,  
T17S, R34E; CVU # 181, is  
located 1420' FSL & 730'  
FWL, Unit Letter L, Sec 36,  
T17S, R34E; both in Lea  
County, New Mexico.**

The injection interval is in  
the Grayburg San Andres  
formation from 4100'-5100',  
thru perforations. The  
maximum injection rate will  
be 4,000 BWPd, with a  
maximum allowable amount  
of 1500 PSI. CO2 and  
produced gas injection will  
be an expected maximum  
rate of 8,000 MCF per day  
and an expected maximum  
surface pressure of 2200

PSI. Interested parties  
should file objections or  
requests for hearing with the  
Oil Conservation Division,  
1220 South St. Francis  
Drive, Santa Fe, New  
Mexico, 87505 within 15  
days. Inquiries regarding  
this application should be  
directed to Chevron North  
America, Attn: Ryan  
Warmke, 15 Smith Rd.,  
Midland TX 79705.  
#28400

01102480

00121428

CHEVRON USA INC.  
15 SMITH ROAD  
MIDLAND, TX 79705



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7871  
chay@chevron.com

September 24, 2013

Water, Gas & CO2 Injection  
Central Vacuum Unit # 171 & 180  
Lea County, New Mexico

Offset Operators:

For your information, as an offset operator, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to add two new wells as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 170, API # 30-025-41343; 2490' FSL & 500' FWL, L-36-T17S-R34E, Lea Co.  
CVU # 181, API # 30-025-41344; 1420' FSL & 730' FWL, L-36-T17S-R34E, Lea Co.

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objections to this application must be sent to the **New Mexico Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505**, within 15 days of receipt of this notification. If additional information is required, please contact me at (432-687-7261), or the project engineer, Ryan Warmke, at (432-687-7452).

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  
Chevron Midcontinent  
NM PE Technical Assistant

Enclosure

**OFFSET OPERATORS:**

**McGowan Working Interest Partners, Inc.  
P.O. Box 55809  
Jackson, MS 39296-5809**

**ConocoPhillips Petroleum Company  
P.O. BOX 2197  
Houston, TX 77252-2197**

**Mobil Producing TX & NM Inc.  
c/o XTO Energy, Inc.  
Attn: Permian Land  
810 Houston Street  
Ft Worth, TX 76102**

**Surface Owner**

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



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7871  
chay@chevron.com

September 30, 2013

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 # 170 & # 181  
Lea, County, New Mexico

Surface Owner:

For your information, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division to add two new wells as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 170, API # 30-025-41343; 2490' FSL & 500' FWL, L-36-T17S-R34E, Lea Co.  
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Sincerely,

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Carolyn Haynie  
NM PE Technical Assistant

Enclosure



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7871  
chay@chevron.com

September 30, 2013

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 for WAG  
Order R-5530-E  
Vacuum Grayburg San Andres  
Lea, County, New Mexico

Chevron U.S.A. Inc., respectfully requests administrative approval to add two new wells, CVU # 170, API # 30-025-41343 and CVU # 181, API # 30-025-41344, as Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

The Injection interval in the Grayburg San Andres formation from 4020' to 5100', through perforations, with maximum injection rate of 4,000 BWPd per well, with a maximum allowable surface pressure of 1,500 PSI and CO<sub>2</sub> and produced gas injection will be at a maximum rate of 8,000 MCF per day, per well, with a maximum surface pressure of 2,200 PSI.

Hearing Order, R-5530-E, Paragraphs 5 & 6, permitted CO<sub>2</sub> injection, and also permitted re-injection of recycled produced gas. Attached is an OCD form C-108 and the information relative to this request.

If additional information is required, please contact me at (432-687-7261), or the project engineer, Ryan Warmke, at (432-687-7452).

Sincerely,

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

Carolyn Haynie  
Chevron Midcontinent  
NM PE Technical Assistant



**C-108 Review Checklist:**Received 10/02/13 Add. Request: 10/21/13 Reply Date: 10/22/13 Suspended: info (Ver 10)PERMIT TYPE: WFX / PMX / SWD Number: 917 Permit Date: 11/08/13 Legacy Permits/Orders: R-5530  
[Area permit - two wells] [Central Vacuum Press. Maint & EOR] as amendedWell No. 170 Well Name(s): Central Vacuum UnitAPI: 30-0 25-41343 Spud Date: TBD New or Old: New (UIC Class II Primacy 03/07/1982)Footages 2490 FSL / 500 FWL Lot - Unit L Sec 36 Tsp 175 Rge 34E County LeaGeneral Location: Vacuum Field Pool: Vacuum; Grayburg San Andres No.: 62180Operator: Chevron USA Inc. OGRID: 4323 Contact: Carolyn HaynieCOMPLIANCE RULE 5.9: Inactive Wells: 7 Total Wells: 2158 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? YesWell File Reviewed ☒ Current Status: New - additional iWAG wellWell Diagrams: NEW: Proposed ☒ RE-ENTER: Before Conv. ☐ After Conv. ☐ Are Elogs in Imaging?: No new wellPlanned Rehab Work to Well: NA

Well Construction Details:		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement SZ or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Conductor					
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Surface		<u>4 3/4 / 11 3/4</u>	<u>0 to 1500</u>	<u>1300</u>	<u>Cir. to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Interm/Prod		<u>11 / 8 5/8</u>	<u>0 to 3200</u>	<u>750</u>	<u>Cir. to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Prod/Interm		<u>7 7/8 / 5 1/2</u>	<u>0 to 5300</u>	<u>1150</u>	<u>Cir. to surface</u>
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner/Prod					
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> OH / PERF		<u>5 1/2</u>	<u>Approved Unitized form 4100-5100</u>	<u>Inj Length ~1000'</u>	

Injection Stratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops?	Completion/Operation Details:	
Adjacent Unit: Litho. Struc. Por.			<u>7-Rivers</u>		Drilled TD <u>-</u>	PBTD <u>-</u>
Confining Unit: Litho. Struc. Por.			<u>Queen</u>		NEW TD <u>5300</u>	NEW PBTD <u>-</u>
Proposed Inj Interval TOP:	<u>4100</u>		<u>Grayburg</u>	<u>4020</u>	NEW Open Hole <input type="checkbox"/> or NEW Perfs <input checked="" type="checkbox"/>	
Proposed Inj Interval BOTTOM:	<u>5100</u>		<u>San Andres</u>		Tubing Size <u>2 3/8</u> in. Inter Coated? <u>Yes</u>	
Confining Unit: Litho. Struc. Por.			<u>Glorieta</u>	<u>5100</u>	Proposed Packer Depth <u>4090</u> ft	
Adjacent Unit: Litho. Struc. Por.			<u>Paddock</u>		Min. Packer Depth <u>4000</u> (100-ft limit)	
					Proposed Max. Surface Press. <u>-</u> psi	
					Admin. Inj. Press. <u>R-5530 F</u> (0.2 psi per ft)	

**AOR: Hydrologic and Geologic Information**POTASH: R-111-P NA Noticed? NA BLM Sec Ord NA WPP NA Noticed? NA SALADO: T: - B: - CLIFF HOUSE NAFRESH WATER: Formation Ogallala Max Depth ±300 Wells? 2 FW Analysis HYDROLOGIC AFFIRM By Qualified Person ☒Disposal Fluid: Formation Source(s) EOR project produced water Analysis? NA On Lease ☒ Operator Only ☐ or Commercial ☐Disposal Interval: Injection Rate (Avg/Max BWPD): 2000 BWPD / 4000 MCFPD sec order Protectable Waters: No CAPITAN REEF: thru ☐ adj ☐ NA ☒H/C Potential: Producing Interval? Yes Formerly Producing? NA Method: Log / Mudlog / DST / Depleted / Other NAAOR Wells: 1/2-M Radius Map? Yes Well List? NA Total No. Wells Penetrating Interval: 3 Horizontals? 0Penetrating Wells: No. Active Wells 3 Num Repairs? 0 on which well(s)? 3 new injectors Diagrams? YesPenetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? 3 Order AOR included Diagrams? NANOTICE: Newspaper Date 08/29/13 Mineral Owner SLO Surface Owner SLO N. Date 09/24/13RULE 26.7(A): Identified Tracts? Yes Affected Persons: Carruthillips / McGowan Working / XTO N. Date 09/24/13Permit Conditions: Issues: -NoneAdd Permit Cond: R-5530-F / 1500 psi water & 2200 psi Gas -no additional permit

**C-108 Review Checklist:**Received 10/24/13 Add. Request: 10/24/13 Reply Date: 10/24/13 Suspended: \_\_\_\_\_ [Ver 10]PERMIT TYPE: WFX / PMX / SWD Number: 917 Permit Date: 11/08/13 Legacy Permits/Orders: R-5530  
[Area permit - two wells] [Central Vacuum Pressure Maint + EOR] as amendedWell No. 181 Well Name(s): Central Vacuum UnitAPI: 30-0 25-41344 Spud Date: TBD New or Old: New (UIC Class II Primacy 03/07/1982)Footages 1420 FSL / 730 FWL Lot - Unit L Sec 36 Tsp 17S Rge 34E County LeaGeneral Location: Vacuum Field Pool: Vacuum, Grayburg - San Andres Pool No.: 62180Operator: Chevron USA Inc. OGRID: 4323 Contact: Carolyn HaynieCOMPLIANCE RULE 5.9: Inactive Wells: 7 Total Wells: 2158 Fincl Assur: Yes Compl. Order? NO IS 5.9 OK? YesWell File Reviewed ☒ Current Status: New - additional WAG wellWell Diagrams: NEW: Proposed ☒ RE-ENTER: Before Conv. ☐ After Conv. ☐ Are Elogs in Imaging?: No - new wellPlanned Rehab Work to Well: NA

Well Construction Details:		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Conductor						
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Surface		<u>14 3/4 / 11 3/4</u>	<u>0 to 1500</u>		<u>1300</u>	<u>Surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Interm/Prod		<u>11 / 8 5/8</u>	<u>0 to 3200</u>	<u>No</u>	<u>750</u>	<u>Surface</u>
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> Prod/Interm		<u>7 7/8 / 5 1/2</u>	<u>0 to 5300</u>	<u>No</u>	<u>1150</u>	<u>Surface</u>
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner/Prod						
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/> OH (PERF)		<u>5 1/2</u>	<u>Approximate 4100-5100 *</u>	<u>Inj Length ± 1000</u>		

Injection Stratigraphic Units:				Completion/Operation Details:	
Depths (ft)	Injection or Confining Units	Tops?	Drilled TD	PBTD	
Adjacent Unit: Litho. Struc. Por.					
Confining Unit: Litho. Struc. Por.					
Proposed Inj Interval TOP:	<u>4100</u>	<u>Grayburg</u>	<u>4020</u>		
Proposed Inj Interval BOTTOM:	<u>5100</u>	<u>San Andres</u>	<u>4000</u>		
Confining Unit: Litho. Struc. Por.					
Adjacent Unit: Litho. Struc. Por.					

AOR: Hydrologic and Geologic Information					
POTASH: R-111- <u>NA</u> Noticed? <u>NA</u>	BLM Sec Ord <u>NA</u>	WIPP <u>NA</u> Noticed? <u>NA</u>	SALADO: T: <u>-</u> B: <u>-</u>	CLIFF HOUSE <u>NA</u>	
FRESH WATER: Formation <u>Agallala</u>	Max Depth <u>+300</u>	Wells? <u>2</u>	FW Analysis? <u>Order</u>	HYDROLOGIC AFFIRM By <u>Qualified Person</u>	<input checked="" type="checkbox"/>
Disposal Fluid: Formation Source(s) <u>EOR project produced water</u>	Analysis? <u>NA</u>	On Lease <input checked="" type="checkbox"/>	Operator Only <input type="checkbox"/>	Commercial <input type="checkbox"/>	
Disposal Interval: Injection Rate (Avg/Max BWPD): <u>2200 BWPD / 4000 BWPD</u>	Protectable Waters: <u>No</u>	CAPITAN REEF: thru <input type="checkbox"/> adj <input type="checkbox"/> <u>NA</u>			
H/C Potential: Producing Interval? <u>NA</u>	Formerly Producing? <u>NA</u>	Method: <u>E Log / Mudlog / DST / Depleted / Other</u>	<u>NA</u>		
AOR Wells: 1/2-M Radius Map? <u>Yes</u>	Well List? <u>Yes</u>	Total No. Wells Penetrating Interval: <u>4 new wells</u>	Horizontals? <u>No</u>		
Penetrating Wells: No. Active Wells <u>4</u>	Num Repairs? <u>0</u>	on which well(s)? <u>4 new wells</u>	Prior order <u>Yes</u>	Diagrams? <u>Yes</u>	
Penetrating Wells: No. P&A Wells <u>0</u>	Num Repairs? <u>0</u>	on which well(s)? <u>Review of</u>		Diagrams? <u>-</u>	

NOTICE: Newspaper Date <u>09/29/13</u>	Mineral Owner <u>SLO</u>	Surface Owner <u>SLO</u>	N. Date <u>09/24/13</u>
RULE 26.7(A): Identified Tracts? <u>Yes</u>	Affected Persons: <u>ConocoPhillips / McGowan Working / XTO</u>		N. Date <u>09/24/13</u>

Permit Conditions: Issues: - NoneAdd Permit Cond: \* R-5530-F / 1500 psi water & 2200 psi for CO2 - no additional cond.



ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



RECEIVED OOD

### 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 \_\_\_\_\_

*Conversion to WAG  
 Injection authorized  
 R-5530/only  
 minor mod*

*R-5530-E - check well*

#### [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

*Only notice to district*

2013 SEP 26 PM 8 57

#### [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 Haynie  
 Print or Type Name

*Carolyn Haynie*  
 Signature

NM Petro Engineering Technical Assistant  
 Title

9-23-13  
 Date

chay@chevron.com  
 e-mail Address



**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

September 23, 2013

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

RE: Application for Authorization to Inject  
OCD Form C-108for WAG  
Order R-4442-G  
Central Vacuum Unit  
Lea, County, New Mexico

Engineering Department:

Chevron U.S.A. Inc., respectfully requests administrative approval to place the CVU # 25, API # 30-025-25813, CVUI # 26, API # 30-025-25814, CVU # 27, API # 30-025-25815, CVU # 28, API # 30-025-25816, from Water Injection to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Units.

The injection interval in the Grayburg San Andres will be through perforations within the "Unitized Formation" for the CVU which includes the correlative stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg San Andres pool between the depths of 3,858' (+ 144' sub-sea) and 4858' (-856' sub-sea) on the Welx Acoustic Velocity Log, run on 11-13-63, in the Texaco Inc, State of NM "O" (NCT-1) well # 23, located: O-36-T17S-R34E, NMPM, Lea CO, NM. (now Vacuum Glorieta West Unit Well # 101).

The maximum injection rate will be 2,000 BWPD/well, with a maximum allowable surface pressure of 1,500 psi. CO<sub>2</sub> and produced gas injection will be at a maximum rate of 4,000 MCF per day/well, with a maximum surface pressure of 2,200 psi. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

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

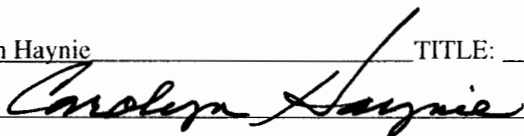
Sincerely,

Carolyn Haynie

NM PE Technical Assistant

2013 SEP 26 AM 8 57

## APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ Disposal \_\_\_\_\_ Storage \_\_\_\_\_  
Application qualifies for administrative approval? X Yes \_\_\_\_\_ No \_\_\_\_\_
- II. OPERATOR: CHEVRON U.S.A. INC. (OGRID - 4323)  
ADDRESS: 15 SMITH ROAD; MIDLAND, TX 79705  
CONTACT PARTY: CAROLYN HAYNIE PHONE: 432-687-7261
- 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: Order # R-5530-E
- 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;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). ATTACHED
- \*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. ATTACHED
- IX. Describe the proposed stimulation program, if any. ATTACHED
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). PREVIOUSLY SUMITTED
- 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 SUMITTED
- 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. ATTACHED
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. ATTACHED
- 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: Carolyn Haynie TITLE: NM PETRO ENGINEERING TECH ASSISTANT  
SIGNATURE:  DATE: 9-23-13  
E-MAIL ADDRESS: chay@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:



### 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.

ATTACHED

- 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. ATTACHED

### 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. ATTACHED

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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.

## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 25WELL LOCATION: 1330' FSL & 1504' FWL  
FOOTAGE LOCATIONUNIT K:  
UNIT LETTERSEC. 25.  
SECTIONT17S.  
TOWNSHIPR34E  
RANGE

## CVU 25

Created	#####	By	NC
Updated	05/05/08	By	JSS
Updated	05/03/09	By	Cayce
Updated	07/08/13	By	Chay
Lease	Central Vacuum Unit		
Field	Vacuum (Grayburg-San Andres)		
Surf. Loc	1330' FSL & 1504' FWL		
Bot. Loc			
County	Lea	St.	NM
Status	Active Water Injector		

Well #	25	St. Log	E-270b
API		30-025-14413	
Unit Ltr	K	Section	25
TSHP/Kmg		S-17 E-34	
Unit Ltr		Section	
TSHP/Kmg			
CHEVNO	EC00046		
Direction		Buckeye, NM	

## WELL CONSTRUCTION DATA

## Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"Cemented with: 425 sx. or  ft<sup>3</sup>Top of Cement: Surface Method Determined: Circulation

## Intermediate Casing

Hole Size:  Casing Size: Cemented with:  sx. or  ft<sup>3</sup>Top of Cement:  Method Determined: 

## Production Casing

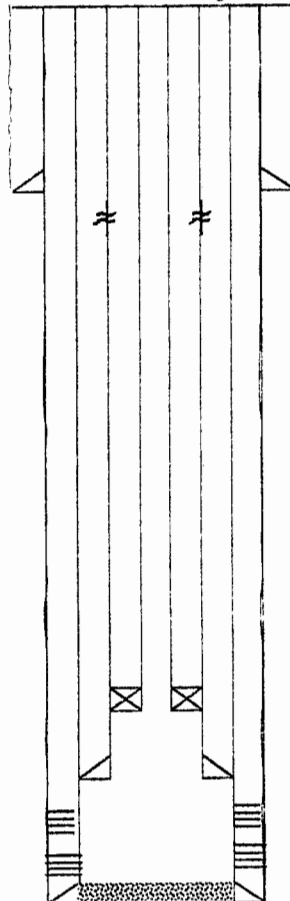
Hole Size: 7-7/8" Casing Size: 4-1/2"Cemented with: 2100 sx. or  ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 4800'

## Injection Interval

4379' feet to 4709'

(Perfs)

## Current Wellbore Diagram



Surface Casing	
Size	8 5/8"
Wt. Grd.	248 K-55
Depth	400'
Sxs Cmt	425 sxs
Circulate	Yes
TOC	Surface
Hole Size	12 1/4"

Csg Lk Spz 478-508

KB	4014'
DF	NA
GL	4004'
In. Spud	3/24/1978
In. Comp	4/25/1978

## Perf. and Stimulation History:

## CVU #25

4/17/78 Perf 4 1/2" esp w/2 JSPF @ 4374  
 83, 4407 18, 23, 28, 60, 89, 4565, 59, 70  
 4632 40, 49, 56, 62, 72, 86, 91, 4709, 04, 820  
 shots  
 4/26/78 Ran 2 3/8" RBP & Pkr @ 4722 &  
 4800' Ac dss perf. 4379-4709 w/7500 gals  
 1500 NFA More detail in History Lab.  
 4/30/78 Ran 141 lbs. (4331) 2 3/8" dualite lbr  
 w/baker 4 1/2" pkr set @ 4337' N I WIW  
 effective 4/24/78 VSA perf. 4379-4709  
 waiting on installation of injection system  
 12/11/78 WI began  
 5/27/83 Curtailed injection pressure to 800 psi  
 pressure limit was 907 psi  
 5/22/85 Permit to increase pressure to 2500  
 psi  
 7/13/85 @ 11,04 MIT Frk broken pkr indicated  
 leaks @ 4765-508' Spz b times. Run new 2 3/8"  
 dualite lbr and 4 1/2" nickel plated pkr. No  
 pkr at 4337'  
 4/27 Tapped @ 4344 Tbr press 1525  
 11-17-11 Failed MIT  
 1/10/13 R/W w/4-1/2" Ultra FJ Csg Liner  
 Bottom of Liner @ 4314' And perf. whout  
 gals of 15' NE

2 3/8" IBC Tbr, TOT @ 4277'  
 Parker W. OJO Test (1.43" x 1" N) @ 4200'

3 1/2" Liner, EOL @ 4314'

Grayb. and San Andrs. Perfs.  
 4379'-4709' w/2 JSPF.

**INJECTION WELL DATA SHEET**

Tubing Size: 2-1/16" Lining Material: Plastic  
Type of Packer: 3-1/2" Nickel plated Internally plastic coated Inj pkr  
Packer Setting Depth: @ +/- 4300'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

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

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

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

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 (5850-6200')

**CVU 25**

Created: ##### By: NC  
 Updated: 05/05/08 By: JSS  
 Updated: 05/03/09 By: Cayce  
 Updated: 07/08/13 By: Chay  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg-San Andres)  
 Surf. Loc.: 1330' FSL & 1504' FWL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: Active Water Injector

Well #: 25 St. Lse: E-2706  
 API 30-025-25813  
 Unit Ltr.: K Section: 25  
 TSHP/Rng: S-17 E-34  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 CHEVNO: EQ0046  
 Directions: Buckeye, NM

**Current Wellbore Diagram****Surface Casing**

Size: 8 5/8"  
 Wt., Grd.: 24#, K-55  
 Depth: 400'  
 Sxs Cmt: 425 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 12 1/4"

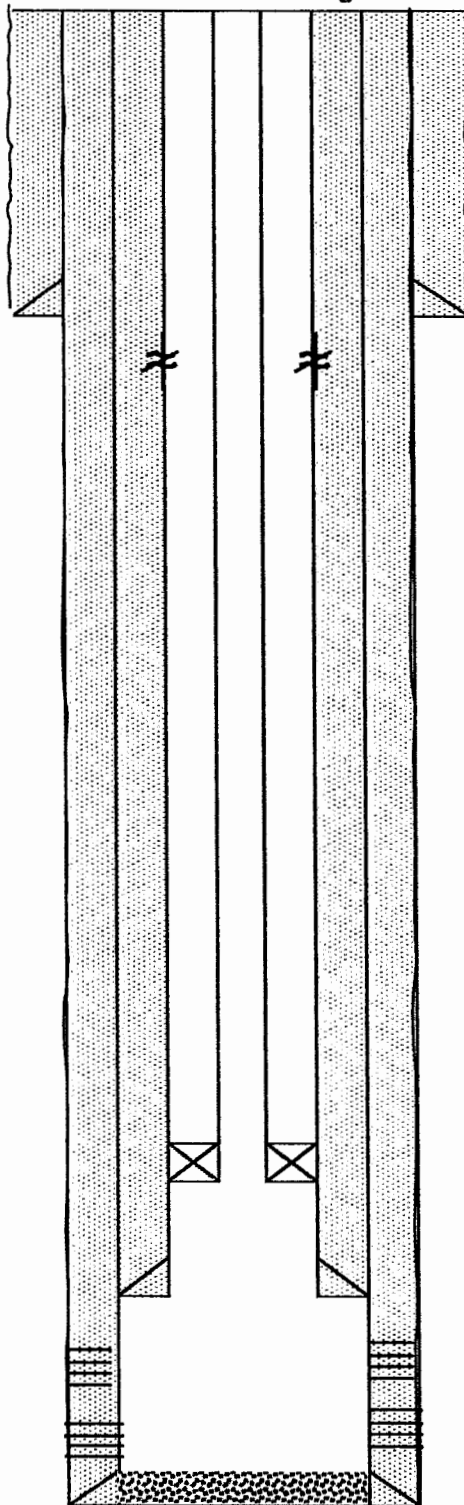
Csg Lk Sqz: 476-508'

**Production Liner**

3-1/2" Ultra  
 Size: F J Csg  
 9.2#, L-80  
 Wt., Grd.: SLF  
 Depth: 4313'  
 Sxs Cmt: 135 sxs  
 Circulate: Yes, 12 bbls  
 TOC: Surface  
 Hole Size: 4-1/2"

**Production Casing**

Size: 4 1/2"  
 Wt., Grd.: 10.5#, K-55  
 Depth: 4800'  
 Sxs Cmt: 2100 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7 7/8"



KB: 4014'

DF: NA

GL: 4004'

Ini. Spud: 3/24/1978

Ini. Comp.: 4/25/1978

**Perf. and Stimulation History:****CVU #25**

4/17/78 Perf. 4 1/2" csg. w/2 JSPF @ 4379, 83, 4407, 18, 23, 28, 60, 69, 4555, 59, 70, 4632, 40, 49, 56, 62, 72, 86, 91, 4700, 09. 660 shots.

4/25/78 Ran 2 3/8" RBP & Pkr. @ 4722 & 4602'. Acidize perms: 4379-4709' w/7300 gals 15% NEA. More detail in History tab.

4/26/78 Ran 141 jts. (4331') 2 3/8" duoline tbg w/baker 4 1/2" pkr. set @ 4337'. S.I. WIW effective 4/25/78. VSA perms: 4379-4709' waiting on installation of injection system.

12/11/78 WI began.

5/27/93 Curtailed injection pressure to 900 psi. pressure limit was 907 psi.

5/22/95 Permit to increase pressure to 2500 psig.

7/13/04-8/11/04 MIT. Fish broken pkr. isolated leaks f/476'-508'. Sqz 5 times. Run new 2 3/8" duoline tbg. and 4 1/2" nickel plated packer. Set pkr. at 4321'.

4/09 Tagged @4344. Tbg press 1575.

11-17-11: Failed MIT.

1/10/13: RIH w/3-1/2" Ultra FJ Csg Liner. Bottom of Liner @ 4314'. Acdz perms, w/6000 gals of 15% NE.

2-1/16" IPC Tbg, EOT @ 4277'

Packer w/ O/O Tool (1.43" F" N) @ 4290'

3-1/2" Liner, EOL @ 4314'

Grayburg San Andres Perfs:

4379'-4709' w/2 JSPF.

PBTD: 4760'  
TD: 4800'

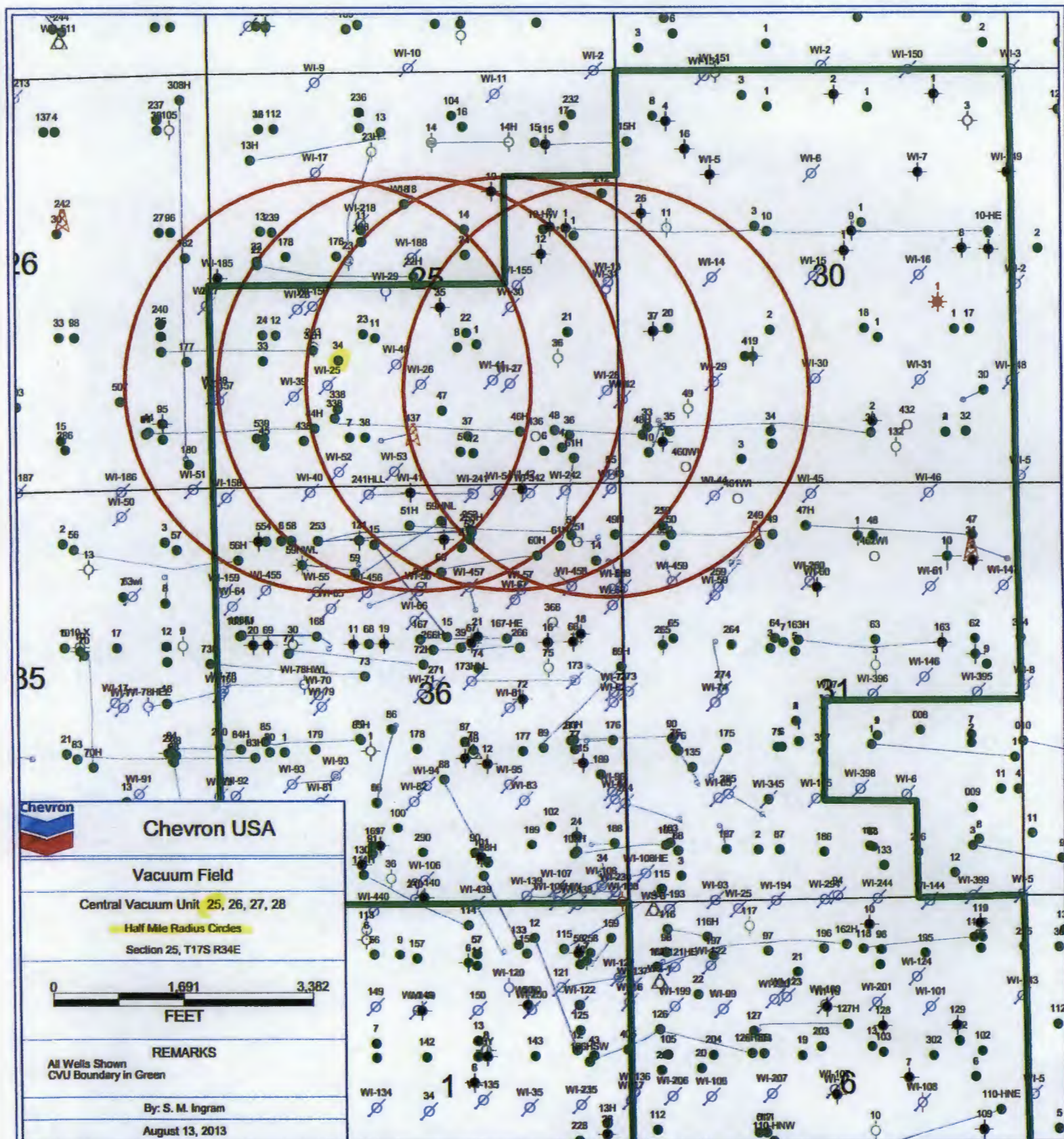
CVU 25

API No. 30-025-25813

Workover Procedure

1. Rig up pulling unit. TOH w/ packer and injection tubing.
2. TIH w/ treating packer on 2-3/8" workstring and set at 4300'
3. Acidize perfs 4379'-4709' w/ 6,000 gallons 15% NEFE HCl.
4. TOH w/ workstring and packer.
5. Set 4-1/2" composite bridge plug at 4315' on wireline.
6. TIH w/ 3-1/2" flush joint liner and set at 4314'.
7. Cement liner with 135 sx Class "C" cement.
8. TIH w/ 2-3/4" bit and drill collars on 2-1/16" workstring.
9. Drill out cement, float equipment and composite bridge plug. Clean out to 4739'. TOH.
10. TIH w/ 3-1/2" injection packer and on-off tool on 2-1/16" L-80 IJ IPC tubing. Set packer at 4294'.
11. Load annulus with packer fluid.
12. Perform MIT.
13. Rig down pulling unit.
14. Return well to injection.







## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 26WELL LOCATION: 1330' FSL & 2577' FEL J 25. T17S. R34E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

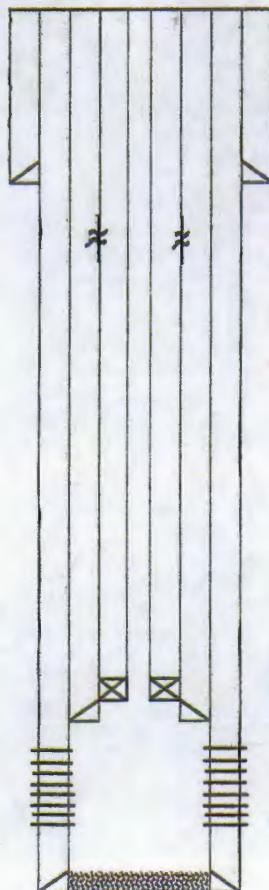
Wellbore Diagram

CVU 26

Created: 7/3/2008 By: JSS  
 Updated: 5/4/2009 By: Cayce  
 Updated: 7/9/2013 By: Chay  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg-San Andres)  
 Surf. Loc: 1330' FSL, 2577' FEL  
 Bot. Loc:  
 County: Lea SL NM  
 Status: Injector

Well #: 26 SL Log: B-1056  
 API: 30-028-25514  
 Unit Ltr: J Section: 25  
 TSHP/Rng: S-17 E-34  
 Unit Ltr: Section  
 TSHP/Rng:  
 CHEVNO EQ0047  
 Directions: Buckeye, NM

Surface Casing  
 Size: 8 5/8"  
 Wt. Grd.: 245, K-85  
 Depth: 402'  
 Size Cmt: 425 sxs  
 Circulate: Yes: 45 sx  
 TOC: Surface  
 Hole Size: 12-1/4"



KB: 4009'  
 DP: NA  
 GL: 3997'  
 Ini. Spud: 3/3/1978  
 Ini. Comp.: 3/17/1978

RBP @ 400'

Spud 1053-1242'  
 w/78 sx. Cmt.

Well History on History tab

Production Liner  
 Size: 3-1/2" Liner  
 Wt. Grd.: 9.25, L-80  
 Depth: 4302'  
 Size Cmt: 135 sxs  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 4-1/2"

3-1/16" L-80 IPC Tbg. EOT @ 4284'  
 Packer w/ O/O Tool (1.43" P" N) @ 4290'  
 3-1/2" Liner, EOL @ 4302'

San Andres Perfs: 4364-4718

Production Casing  
 Size: 4 1/2"  
 Wt. Grd.: 10.55, K-55  
 Depth: 4800'  
 Size Cmt: 2100 sxs  
 Circulate: Yes: 250 sx  
 TOC: Surface  
 Hole Size: 7-7/8"

PSTD 4782'

WELL CONSTRUCTION DATASurface CasingHole Size: 12-1/4" Casing Size: 8-5/8"Cemented with: 425 sx. or                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate CasingHole Size:                      Casing Size:                     Cemented with:                      sx. or                      ft<sup>3</sup>Top of Cement:                      Method Determined:                     Production CasingHole Size: 7-7/8" Casing Size: 4-1/2"Cemented with: 2100 sx. or                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 4800'Injection Interval4384' feet to 4718'

(Perfs)

### INJECTION WELL DATA SHEET

Tubing Size: 2-1/16" Lining Material: Plastic

Type of Packer: 3-1/2" Nickel plated Internally plastic coated Inj pkr

Packer Setting Depth: @ +/- 4300'

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

#### Additional Data

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

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

2. Name of the Injection Formation: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

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 (5850-6200')

2013 SEP 26 AM 8 57

# Wellbore Diagram

CVU 26

Created:	7/3/2008	By:	JSS
Updated:	5/4/2009	By:	Cayce
Updated:	7/9/2013	By:	Chay
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg-San Andres)		
Surf. Loc.:	1330' FSL, 2577' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	26	St. Lse:	B-1056
API	30-025-25814		
Unit Ltr.:	J	Section:	25
TSHP/Rng:	S-17 E-34		
Unit Ltr.:	Section:		
TSHP/Rng:			
CHEVNO:	EQ0047		
Directions:	Buckeye, NM		

## Surface Casing

Size:	8 5/8"
Wt., Grd.:	24#, K-55
Depth:	402'
Sxs Cmt:	425 sxs
Circulate:	Yes; 45 sx
TOC:	Surface
Hole Size:	12-1/4"

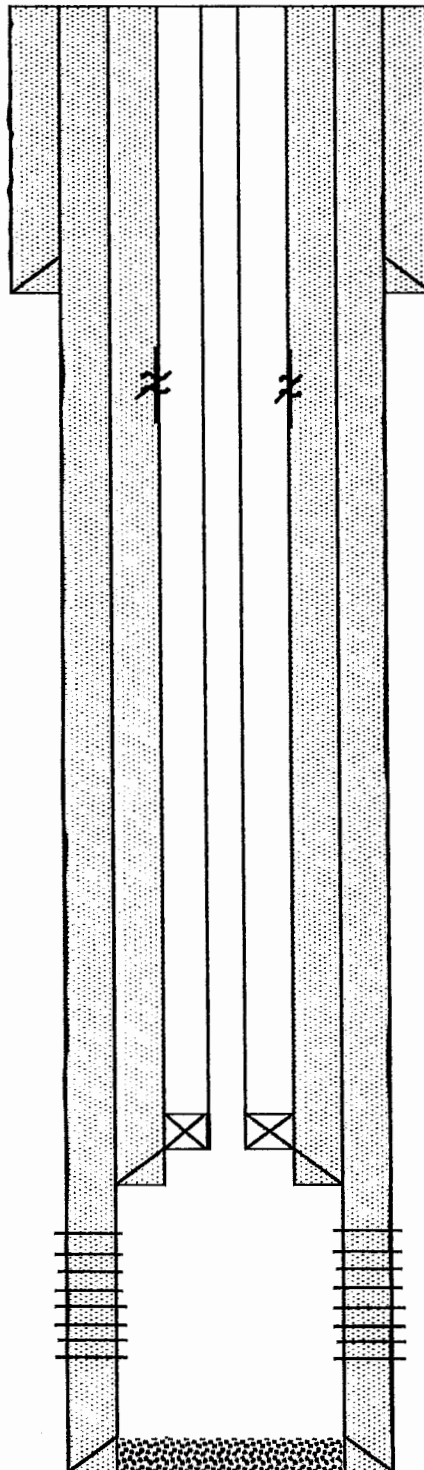
KB: 4009'

DF: NA

GL: 3997'

Ini. Spud: 3/3/1978

Ini. Comp.: 3/17/1978



RBP @ 400'

Sqz'd 1053-1242'  
w/75 sxs. Cmt

Well History on history tab

## Production Liner

Size:	3-1/2" Liner
Wt., Grd.:	9.2#, L-80
Depth:	4302'
Sxs Cmt:	135 sxs
Circulate:	Yes
TOC:	Surface
Hole Size:	4-1/2"

2-1/16" L-80 IPC Tbg. EOT @ 4284'

Packer w/ O/O Tool (1.43" F" N) @ 4290'

3-1/2" Liner, EOL @ 4302'

## Production Casing

Size:	4 1/2"
Wt., Grd.:	10.5#, K-55
Depth:	4800'
Sxs Cmt:	2100 sxs
Circulate:	Yes; 250 sx
TOC:	Surface
Hole Size:	7-7/8"

San Andres Perfs: 4384-4718

PBTD: 4782'

TD: 4800'

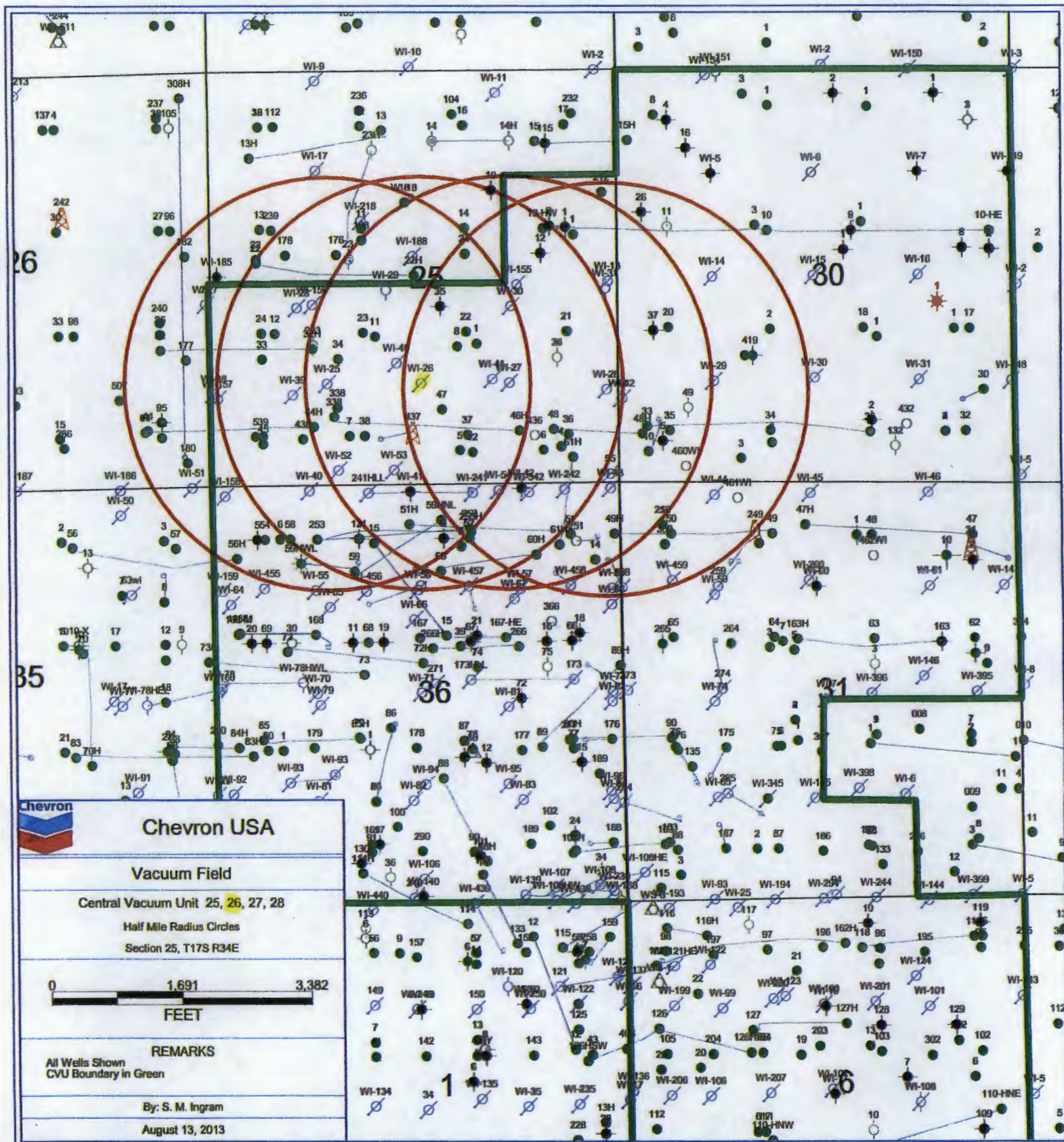
CVU 26

API No. 30-025-25814

Workover Procedure

1. Rig up pulling unit. TOH w/ packer and injection tubing.
2. TIH w/ treating packer on 2-3/8" workstring and set at 4300'
3. Acidize perms 4384'-4718' w/ 6,000 gallons 15% NEFE HCl.
4. TOH w/ workstring and packer.
5. Set 4-1/2" composite bridge plug at 4305' on wireline.
6. TIH w/ 3-1/2" flush joint liner and set at 4304'.
7. Cement liner with 135 sx Class "C" cement.
8. TIH w/ 2-3/4" bit and drill collars on 2-1/16" workstring.
9. Drill out cement, float equipment and composite bridge plug. Clean out to 4770'. TOH.
10. TIH w/ 3-1/2" injection packer and on-off tool on 2-1/16" L-80 U IPC tubing. Set packer at 4291'.
11. Load annulus with packer fluid.
12. Perform MIT.
13. Rig down pulling unit.
14. Return well to injection.







## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 27WELL LOCATION: 1330' FSL & 1425' FEL J 25. T17S. R34E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

Wellbore Diagram

CVU 27

WELL CONSTRUCTION DATASurface Casing

Created:	7/3/2008	By:	JSS
Updated:	8/19/2008	By:	N Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc:	1330' FSL & 1425' FEL		
Bot. Loc:			
County:	Lea	St:	NM
Status:	Injector		

Well #:	27	St. Lse:	B-1056
API:	30-025-25815		
Unit Ltr:	J	Section:	25
TSHR/Rng:	S-17 E-34		
Unit Ltr:			
TSHR/Rng:			
CHEVNO:	EQ0048		
Directions:	Buckeye, NM		

Hole Size: 12-1/4" Casing Size: 8-5/8"Cemented with: 425 SX. or \_\_\_\_\_ ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_

Cemented with: \_\_\_\_\_ SX. or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production CasingHole Size: 7-7/8" Casing Size: 4-1/2"Cemented with: 2200 SX. or \_\_\_\_\_ ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 4800'Injection Interval4386' feet to 4719'

(Perforations)

Surface Casing	
Size:	8-5/8" K-55
Wt. Grd.:	24#
Depth:	420'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4"

Spot'd csg. leak  
428-488'

Production Casing	
Size:	4-1/2" K55
Wt. Grd.:	10.5#
Depth:	4800'
Sxs Cmt:	2200
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8"

Perforations:  
85, 92, 98, 4411,  
1, 20, 30, 47, 4888, 4811, 20, 48, 55, 70, 78,  
98, 4705, 4719'

Line and Packer Details:  
1 1/2" 150 ps. Fiber-lined lbg @ 4341' 1031/06  
2, 4' 2 3/8" nickel plated sub.  
nd @ 4341' cmt. In 4 1/2" csg 1031/06

PBTD: 4780'

KB:	4002'
DP:	NA
GL:	3990'
Int. Spud:	2/12/1978
Int. Comp:	3/17/1978

History:

3/17/78: Initial comp perfs: 4888-4719'. Acids w/3000 gals 18% NEA & perfs: 4386-4447'. Acids w/2400 gals 18% NEA  
Injection test after =172 BWIPD @ Vac 24 hr. inj  
6/12/83: Acids/bleach 4386-4719' w/500/500 gals acid/bleach  
test before: 1085 BWIPD @ 4308'. test after: 1427 BWIPD @  
8709 24 hr. injection.  
3/98: Flush out inj. pkr. C/O to 4750'. Acids perfs: 4386-4719'  
w/3000 gals 20% NEFE. TTH w/low AD-1 inj pkr on 2-3/8"  
Duo-line inj. lbg. Set pkr @ 4346'. Max. press =22509, Ann=4.6  
bpm.  
Test before: 778 BWIPD @ 12708 24 hr. inj. test after: 1479  
BWIPD @ 10929 24 hr. inj.  
1/87: Increase surf. inj. pressure to 1500 psig  
4/01: Clean out. Tag fish @ 4340'. Tag fish @ 4370'. C/O scale  
4370-4580'. Spot'd csg. leak 428-488' w/400 sx. CL C w/2%  
CACL.ert.  
Acids: 4 1/2" csg. perfs. GBBA 4386-4719' w/10000 gals 15%  
HCL NEFE & 4000# RS. Max. =21708, Min. =8658, Avg=12508,  
Ann=4 bpm, ISIP=12409, Total load 332 bbls.  
TTH w/2 3/8" 140 jts duo-lined injection lbg @ 4306'. Set pkr  
w/on-off tool @ 4324'.  
5/01: Test @ comp: status WNW 1384 BWIPD @ 14479. Test  
prior: 1185 BWIPD @ 14469.  
MIT repair & C/O  
4/08: MIT rpr & C/O. Hole in lbg 70 jts out. Test csg 4317-  
surface. Would not hold. Isolated hole in 4-1/2" csg. @ 428-488'  
Spot 2 sx sand on RBP @ 4317'. Pmp 380 sx CL C neat cmt to  
eqt off holes. Tag fish @4335'. Wash & ream 4336-4750' PBTD  
TTH w/60 jts 2-3/8" lbg. Set RBP @ 4317'. Spot 2 sx sand on  
RBP  
10/08: GIH w/5 1/2" arrowroot nickel plated pkr w/pmp out plug  
w/1.50 "P" nipple & on-off tool on 130 jts. Remove RBP. 2 3/8"  
fiber-lined lbg. set at 4341'. This cemented in place. Land  
@4341'. Cmt. in 4-1/2" csg.  
11/08: Acids perfs: 4386-4719' w/2000 gals acid. Flush w/16  
bbls fresh wtr. well on vac.  
Test 2 3/8" fiber-lined lbg in 4 1/2" csg @ 2500# for 36  
minutes ok. RTI  
4/09: Tied to tag. Bad lbg. valve  
5/09: replace lbg valve Tag @ 4721'

Arrowroot nickel-plated pkr  
w/pump-out plug & on/off  
tool @ 4841' 1.50" P  
Profile

Perfs: 4386-4719'

Other Type of Tubing/Casing Seal (if applicable): 4-1/2" x 2-3/8" Annulus is Filled w/cement

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

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

No

Glorieta (5850-6200')

CVU 27

API No. 30-025-25815

Workover Procedure

1. Rig up slickline truck. TIH w/ 1.50" blanking plug and set in profile nipple at 4341'.
2. Pressure test tubing to 2,500 psi for 30 minutes. Record test on chart recorder.
3. Bleed off pressure and retrieve blanking plug. Rig down slickline truck.
4. Inspect wellhead to insure that flow wetted components are CO2 compatible. Replace components as necessary.
5. Return well to injection.

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## CVU 27

Created:	7/3/2008	By:	JSS
Updated:	8/19/2009	By:	N Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc.:	1330' FSL & 1425' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	27	St. Lse:	B-1056
API	30-025-25815		
Unit Ltr.:	J	Section:	25
TSHR/Rng:	S-17 E-34		
Unit Ltr.:			
TSHR/Rng:			
CHEVNO:	EQ0048		
Directions:	Buckeye, NM		

## Surface Casing

Size:	8-5/8", K-55
Wt., Grd.:	24#
Depth:	420'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4

Sqz'd csg. leak  
428-456'

KB: 4002'

DF: NA

GL: 3990'

Ini. Spud: 2/12/1978

Ini. Comp.: 3/17/1978

## Production Casing

Size:	4-1/2", K55
Wt., Grd.:	10.5#
Depth:	4800'
Sxs Cmt:	2200
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8

## Perforations:

4386, 92, 98, 4411,  
15, 20, 30, 47, 4588, 4611, 20, 48, 55, 70, 78,  
87, 96, 4705, 4719'

## Tubing and Packer Detail:

2 3/8" 139 jts. Fiber-lined tbg. @ 4341' 10/31/06  
Pkr. 4' 2 3/8" nickel plated sub,  
land @ 4341' cmt. In 4 1/2" csg. 10/31/06

## History:

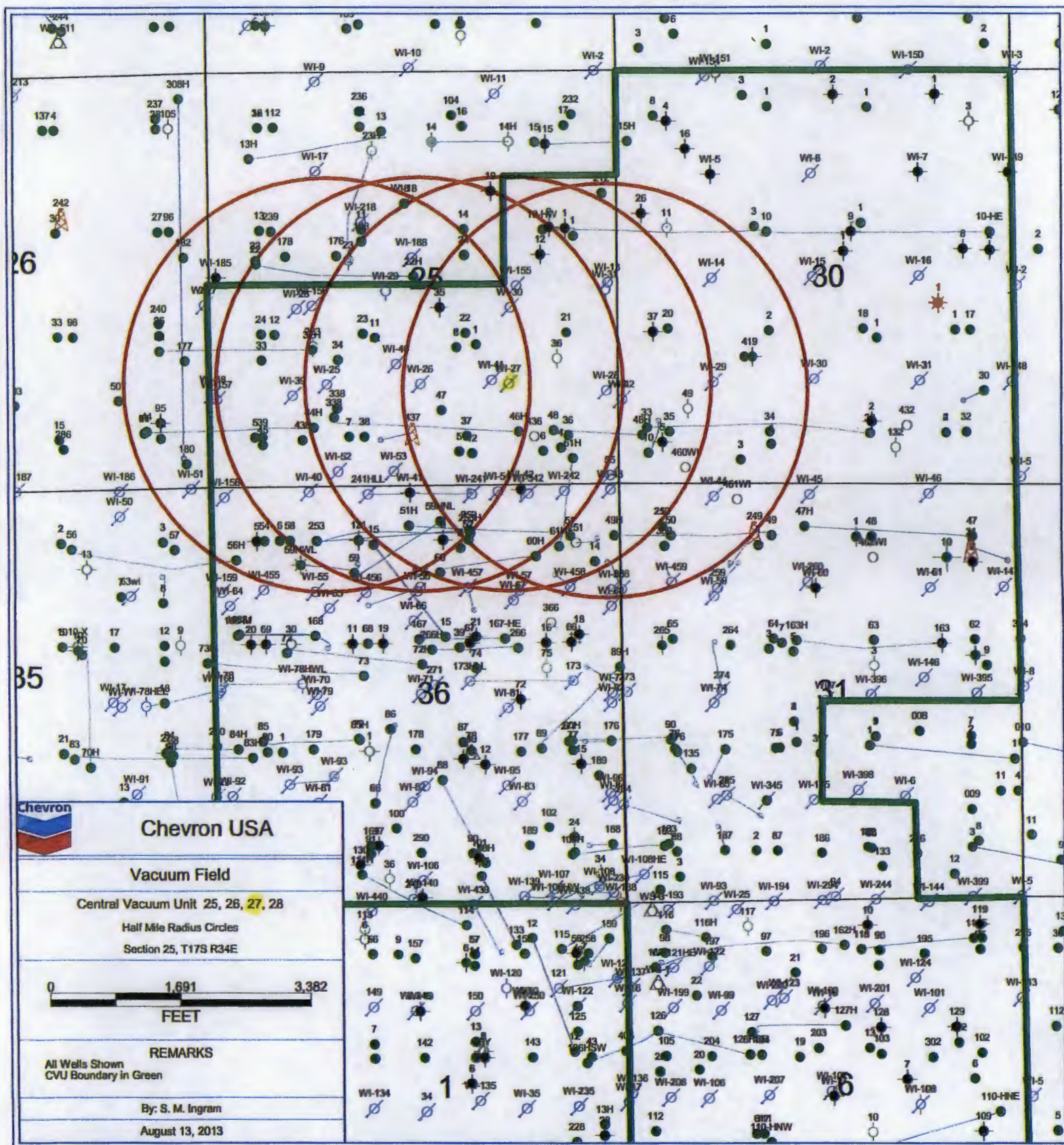
3/17/78 New well Initial completion perf. 4588-4719'. Acidize w/3900 gals 15% NEA. And perf. 4386-4447'. Acidize w/2400 gals 15% NEA. Injection test after=172 BWIPD @ Vac. 24 hr. inj.  
8/12/83 Acidize/bleach 4386-4719' w/500/500 gals acid/bleach. test before: 1085 BWIPD @ 830#. test after: 1427 BWIPD @ 670# 24 hr. injection.  
3/96 Fished out inj. pkr. C/O to 4750'. Acidize perfs. 4386-4719' w/3000 gals 20% NEFE. TIH w/new AD-1 inj pkr on 2-3/8" Duoline inj. tbg. Set pkr @ 4346'. Max. press.=2250#, Air=4.5 bpm.  
Test before: 778 BWIPD @ 1270# 24 hr. inj. test after: 1479 BWIPD @ 1092# 24 hr. inj.  
1/97 Increase surf. inj. pressure to 1500 psig.  
4/01 Clean out. Tag fish @ 4340'. Tag fill @ 4370'. C/O scale 4370-4580'. Sqz'd csg. leak 428-456' w/400 sx. CL C w/2% CACL.cmt.  
Acidize 4 1/2" csg. perfs. GBSA 4386-4719' w/10000 gals 15% HCL NEFE & 4000# RS. Max.=2170#, Min.=865#, Avg=1250#, Air=4 bpm, ISIP=1240#, Total load 332 bbls.  
TIH w/2 3/8" 140 jts. duo-lined injection tbg @ 4306'. Set pkr. w/on-off tool @ 4324'.  
5/01 Test @ completion: status WIW 1384 BWIPD @ 1447#. Test prior: 1185 BWIPD @ 1446#. MIT repair & C/O.  
4/06 MIT repair & C/O. Hole in tbg 70 jts out. Test csg 4317-surface. Would not hold. Isolated hole in 4-1/2" csg. from 428-458'. Spot 2 sx sand on RBP @ 4317'. Pmp 380 sx CL C neat cmt to sqz off holes. Tag fill @ 4336'. Wash & ream 4336-4750' PBTD. TIH w/80 jts 2-3/8" tbg. Set RBP @ 4317'. Spot 2 sx sand on RBP.  
10/06 GIH w/5 1/2" arrowset nickel plated packer w/pump out plug w/1.50 "F" nipple and on-off tool on 139 jts. Remove RBP. 2 3/8" fiber-lined tbg. set at 4341'. Tubing cemented in place. Land @ 4341'. Cmt. in 4-1/2" csg.  
11/06 Acidize perfs. 4386-4719' w/2000 gals acid, Flush w/16 bbls fresh wtr. well on vac.  
Test 2 3/8" fiber-lined tbg. in 4 1/2" csg. @ 2500# for 35 minutes ok. Turn well over to production.  
4/09 Tried to tag. Bad tbg. valve.  
5/09 - replace tbg valve Tag @ 4721'

Arrowset nickel-plated pkr  
w/pump-out plug & on/off  
tool @ 4341' 1.50"F"  
Profile

Perfs: 4386-4719'

PBTD: 4750'  
TD: 4800'







## INJECTION WELL DATA SHEET

OPERATOR: CHEVRON U.S.A. INC.WELL NAME & NUMBER: CENTRAL VACUUM UNIT # 28WELL LOCATION: 1230' FSL & 159' FEL  
FOOTAGE LOCATIONP  
UNIT LETTER25.  
SECTIONT17S.  
TOWNSHIPR34E  
RANGE

Wellbore Diagram

CVU 28

WELL CONSTRUCTION DATASurface Casing

Created: 7/3/2006 By: JSS  
 Updated: 5/4/2009 By: Cayce  
 Updated: 7/9/2013 By: CHAY  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg San Andres)  
 Surf. Loc.: 1230' FSL, 159' FEL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: Injector

Well #: 28 St. Loc: B-1056  
 API: 30-025-25816  
 Unit Ltr.: P Section: 25  
 T&HP/Reg.: S-17 E-34  
 Unit Ltr.: Section:  
 T&HP/Reg.:  
 CHEVNO: EQ0049  
 Direction: Buckeye, NM

Surface Casing  
 Size: 8 5/8"  
 Wt., Grd.: 24#, K-55  
 Depth: 408'  
 Sxs Cmt: 425  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 12 1/4"

KB: 3895'  
 DF: NA  
 GL: 3885'  
 Ini. Spud: 3/5/1978  
 Ini. Comp.: 4/14/1978

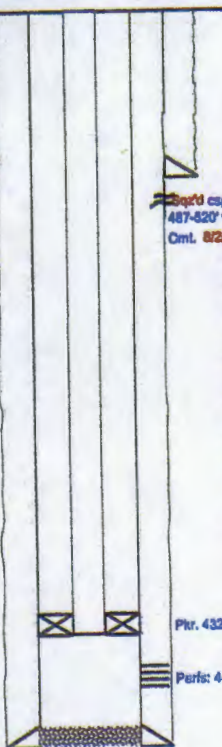
Perforations:

4 1/2" csg. w/2 JSPF from 4407, 13, 21, 38, 90, 88, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'

Tubing and Packer Details:

TIH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rice duo-lined Inj. Tbg. Circ. Hole w/pkr fluid. set Inj. Pkr. @ 4321'

Production Casing  
 Size: 4 1/2"  
 Wt., Grd.: 10.5#, K-55  
 Depth: 4800'  
 Sxs Cmt: 2100  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7 7/8"



PBTD: 4765'  
 TD: 4800'

Pkr. 4321'

Perfs: 4407-4724'

Hole Size: 12-1/4" Casing Size: 8-5/8"  
 Cemented with: 425 SX. or                      ft<sup>3</sup>  
 Top of Cement: Surface Method Determined: Circulation

Intermediate Casing

Hole Size:                      Casing Size:                       
 Cemented with:                      SX. or                      ft<sup>3</sup>  
 Top of Cement:                      Method Determined:                     

Production Casing

Hole Size: 7-7/8" Casing Size: 4-1/2"  
 Cemented with: 2100 SX. or                      ft<sup>3</sup>  
 Top of Cement: Surface Method Determined: Circulation  
 Total Depth: 4800'

Injection Interval

4407' feet to 4724'

(Perforations)

**INJECTION WELL DATA SHEET**

Tubing Size: 2-3/8" Lining Material: Fiberglass

Type of Packer: 4-1/2" Nickel plated internally plastic coated Inj pkr

Packer Setting Depth: @ +/- 4300'

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: Grayburg - San Andres

3. Name of Field or Pool (if applicable): Central Vacuum Unit

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 (5820' - 6200')

\_\_\_\_\_  
\_\_\_\_\_

# Wellbore Diagram

## CVU 28

Created:	7/3/2008	By:	JSS
Updated:	5/4/2009	By:	Cayce
Updated:	7/9/2013	By:	CHAY
Lease:	Central Vacuum Unit		
Field:	Vacuum (Grayburg San Andres)		
Surf. Loc.:	1230' FSL, 159' FEL		
Bot. Loc.:			
County:	Lea	St.:	NM
Status:	Injector		

Well #:	28	St. Lse:	B-1056
API	30-025-25816		
Unit Ltr.:	P	Section:	25
TSHR/Rng:	S-17 E-34		
Unit Ltr.:	Section:		
TSHR/Rng:			
CHEVNO:	EQ0049		
Directions:	Buckeye, NM		

### Surface Casing

Size:	8 5/8"
Wt., Grd.:	24#, K-55
Depth:	409'
Sxs Cmt:	425
Circulate:	Yes
TOC:	Surface
Hole Size:	12 1/4

### Perforations:

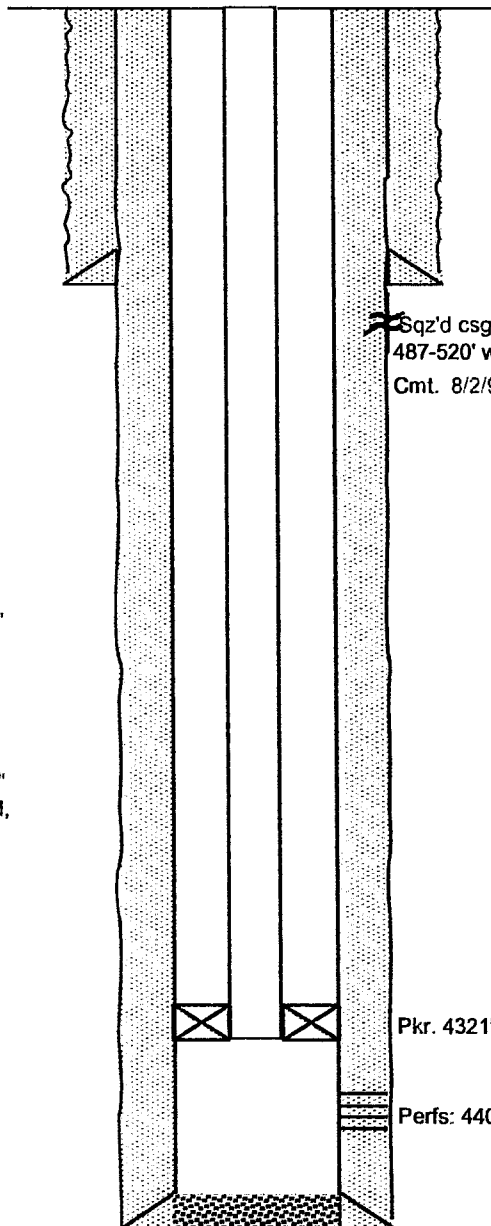
4 1/2" csg. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.

### Tubing and Packer Detail:

TIH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rice duo-lined inj. Tbg. Circ. Hole w/pkr fluid, set inj. Pkr. @ 4321'.

### Production Casing

Size:	4 1/2"
Wt., Grd.:	10.5#, K-55
Depth:	4800'
Sxs Cmt:	2100
Circulate:	Yes
TOC:	Surface
Hole Size:	7 7/8



KB:	3995'
DF:	NA
GL:	3985'
Ini. Spud:	3/5/1978
Ini. Comp.:	4/14/1978

Sqz'd csg. Leak  
487-520' w/200 sx.  
Cmt. 8/2/96.

### Perf. and Stimulation History: CVU 028

4/14/78 New well Initial completion perf. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'. Acidize 4407-4724' w/4900 gals 15% acid. Test: 1290 BWPDP @ vac. 24 hr. injection. 9/25/86 Acidize 4407-4724' w/5500 gals acid. before: 660 BWPDP @ 880#. after: 800 BWPDP @ 800# 24 hr. inj. 8/2/96 Sqz'd csg leak 487-520' w/200 sx. cmt. 8/15/96 TIH w/4 1/2" injection pkr. on 137 jts. 2 3/8" rice duo-lined injection tbg. circ. hole w/pkr fluid, set inj. pkr. @ 4321'. 8/23/96 OPT: Injecting 1317 BWPDP @ 1130#. 4/09 Tagged @ 4345'. Tbg press 1525.

Pkr. 4321'.

Perfs: 4407-4724'.

PBTD: 4765'  
TD: 4800'

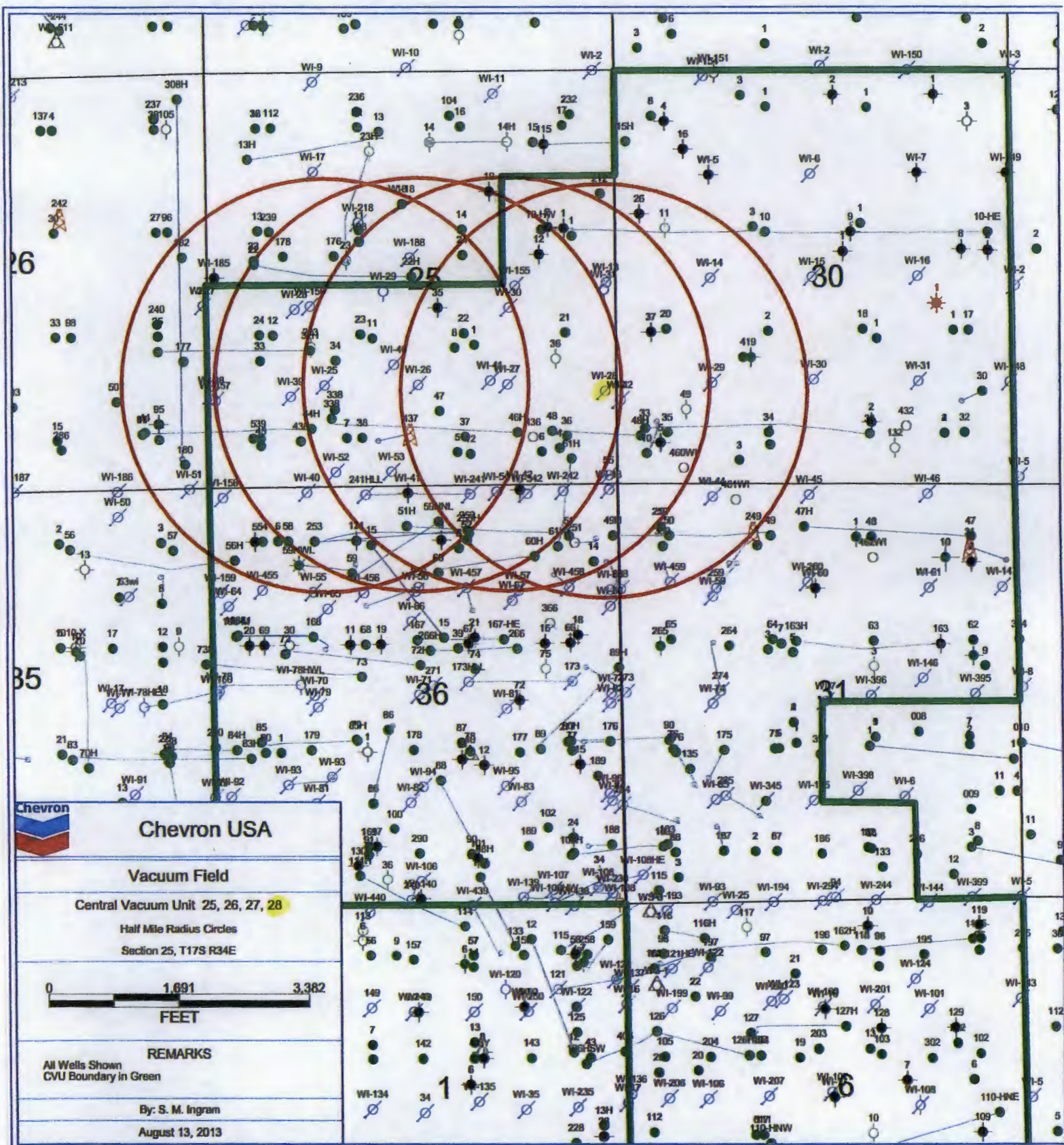
CVU 28

API No. 30-025-25816

Workover Procedure

1. Perform MIT. If the MIT fails due to a casing leak we will run a 3-1/2" flush joint liner.
2. Rig up pulling unit. TOH w/ packer and injection tubing.
3. TIH w/ 3/7/8" bit and drill collars on 2-3/8" workstring and clean out to 4765' (PBTD). Circulate hole clean and TOH.
4. Run and cement in 3-1/2" flush joint liner to 4375', if necessary.
5. TIH w/ treating packer on workstring and set at 4250'.
6. Acidize perfs 4407'-4724' w/ 6,000 gallons 15% NEFE HCl. TOH.
7. TIH w/ injection packer and on-off tool on IPC injection tubing.
8. Set packer at 4320'.
9. Load annulus with packer fluid.
10. Perform MIT.
11. Rig down pulling unit.
12. Return well to injection.







## LEGAL NOTICE

September 4, 2013

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 convert the Central Vacuum Unit # 25, 26, 27 and 28 from Water Injection wells to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance production from the Central Vacuum Unit.

**The CVU # 25, is located 1330' FSL & 1504' FWL, UL K, Sec. 25, T17S, R34E; CVU # 26, 1330' FSL & 2577' FEL, UL J, Sec 25, T17S, R34E; CVU # 27, 1330' FSL & 1425' FEL, UL J, Sec 25, T17S, R34E, CVU # 28, 1230' FSL & 159' FEL, UL P, Sec 25, T17S, R34E, Lea County, NM.** The injection interval will be through perforations within the "Unitized Formation" for the CVU which includes the correlative stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg San Andres pool between the depths of 3,858' (+ 144' sub-sea) and 4858' (-856' sub-sea) on the Welx Acoustic Velocity Log, run on 11-13-63, in the Texaco Inc, State of NM "O" (NCT-1) well # 23, located: O-36-T17S-R34E, NMPM, Lea CO, NM. (now Vacuum Glorieta West Unit Well # 101). The maximum injection rate will be 2,000 BWPD/well, with a maximum allowable surface pressure of 1,500 psi. CO<sub>2</sub> and produced gas injection will be at a maximum rate of 4,000 MCF per day/well, with a maximum surface pressure of 2,200 psi. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

Inquiries regarding this application should be directed to Chevron North America, Attn: Paul T. Brown, 15 Smith Rd., Midland TX 79705.

2013 SEP 26 AM 8 57

## **NOTIFICATION LIST**

**Prepared 7/10/2013 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. 25, API #30-025-25813**  
1,330' FSL & 1,504' FWL, Section 25, T-17-S, R-34E, Unit Letter K  
Lea County, New Mexico

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

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

XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

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

**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

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

Marathon Oil Company  
5555 San Felipe  
Mail Stop #3308  
Houston, Texas 77056

Apache Corporation  
303 Veterans Airpark Lane, Suite 30000  
Midland, Texas 79705

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

**Offset Operators, Leaseholders, Working Interest Owners, for E/2 of Section 26,  
T17S-R34E:**

XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

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 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

**Surface Owner for All of Section 25, T-17-S-R34E:**

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

Signed By: Daniel Pequeno (signed)  
Daniel Pequeno, Landman

Date: July 10, 2013

## **NOTIFICATION LIST**

**Prepared 7/10/2013 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. 26, API #30-025-25814**

1,330' FSL & 2,577' FEL, Section 25, T-17-S, R-34E, Unit Letter J  
Lea County, New Mexico

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

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

XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

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

**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

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

Marathon Oil Company  
5555 San Felipe  
Mail Stop #3308  
Houston, Texas 77056

Apache Corporation  
303 Veterans Airpark Lane, Suite 30000  
Midland, Texas 79705

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

**Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
3000 Midland, Texas 79705

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

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

Boge, Inc.  
6304 County Road 7430  
Lubbock, Texas 79424

**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

**Surface Owner for All of Section 25, T-17-S-R34E:**

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

Signed By: Daniel Pequeno (signed)  
Daniel Pequeno, Landman

Date: July 10, 2013



## **NOTIFICATION LIST**

**Prepared 7/10/2013 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. 27, API #30-025-25815**

1,330' FSL & 1,425' FEL, Section 25, T-17-S, R-34E, Unit Letter J  
Lea County, New Mexico

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

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

XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

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

**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

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

Marathon Oil Company  
5555 San Felipe  
Mail Stop #3308  
Houston, Texas 77056

Apache Corporation  
303 Veterans Airpark Lane, Suite 30000  
Midland, Texas 79705

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

**Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
3000 Midland, Texas 79705

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

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

Boge, Inc.  
6304 County Road 7430  
Lubbock, Texas 79424

**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

Apache Corporation.  
303 Veterans Airpark Land,  
Suite 3000  
Midland, Texas 79705

**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

**Surface Owner for All of Section 25, T-17-S-R34E:**

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

Signed By: Daniel Pequeno (signed)  
Daniel Pequeno, Landman

Date: July 10, 2013

## **NOTIFICATION LIST**

**Prepared 7/10/2013 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. 28, API #30-025-25816**

1,230' FSL & 159' FEL, Section 25, T-17-S, R-34E, Unit Letter P  
Lea County, New Mexico

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

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

XTO Energy Inc.  
Attn.: Permian Land  
810 Houston Street  
Fort Worth, Texas 76102

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

**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

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

Marathon Oil Company  
5555 San Felipe  
Mail Stop #3308  
Houston, Texas 77056

Apache Corporation  
303 Veterans Airpark Lane, Suite 30000  
Midland, Texas 79705

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

**Offset Operators, Leaseholders, Working Interest Owners, for W/2 of Section 30, T17S-R34E:**

Chevron U.S.A. Inc.  
15 Smith Road  
3000 Midland, Texas 79705

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

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

Boge, Inc.  
6304 County Road 7430  
Lubbock, Texas 79424

**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

Apache Corporation.  
303 Veterans Airpark Land,  
Suite 3000  
Midland, Texas 79705

**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

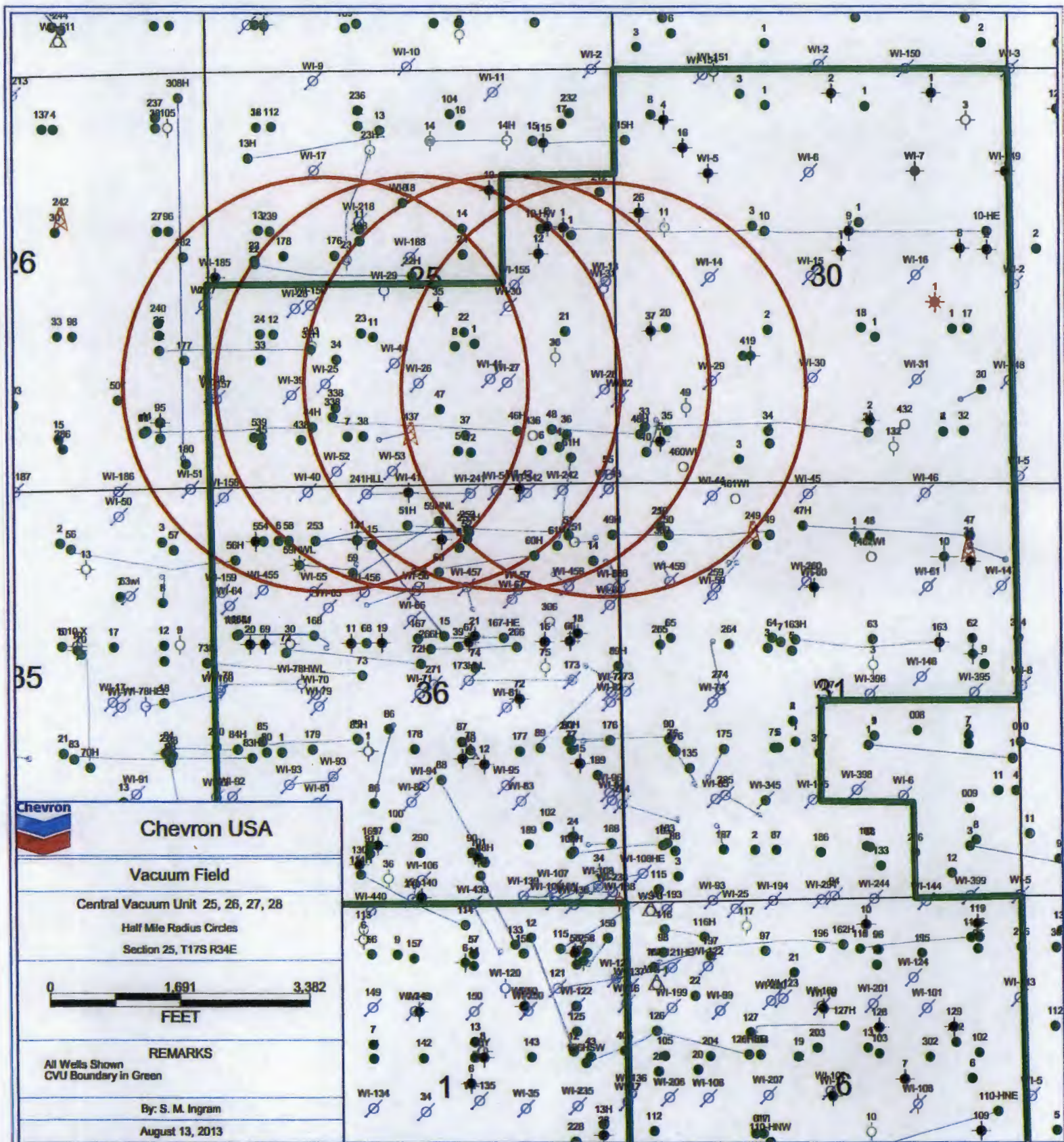
**Surface Owner for All of Section 25, T-17-S-R34E:**

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

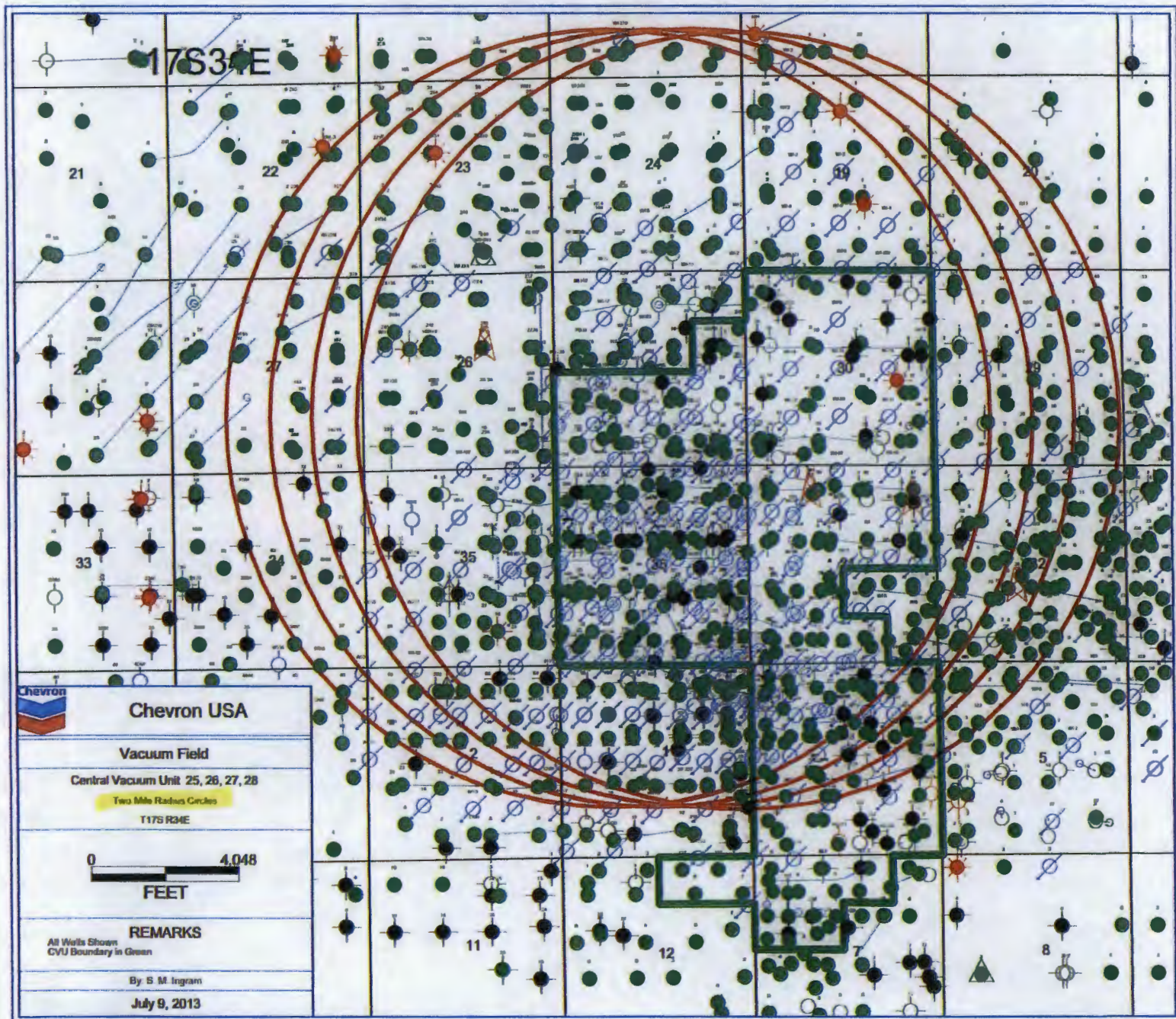
Signed By: Daniel Pequeno (signed)  
Daniel Pequeno, Landman

Date: July 10, 2013











**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7871  
chay@chevron.com

September 18, 2013

Water, Gas & CO2 Injection  
Central Vacuum Unit # 256  
Lea County, New Mexico

Offset Operators:

For your information, as an offset operator, Chevron U.S.A. Inc., operator of the Central Vacuum Unit has filed an application with the New Mexico Oil Conservation Division and to place the following wells from Water Injection to Water Alternating Gas Injection wells. Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 25, API # 30-025-25813; 1330' FSL & 1504' FWL, K-25-T17S-R34E, Lea Co.  
CVU # 26, API # 30-025-25814; 1330' FSL & 2577' FEL, J-25-T17S-R34E, Lea Co.  
CVU # 27, API # 30-025-25815; 1330' FSL & 1425' FEL, J-25-T17S-R34E, Lea Co.  
CVU # 28, API # 30-025-25816, 1230' FSL & 159' FEL, P-25-T17S-R34E, Lea Co

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

Any objections to this application must be sent to the **New Mexico Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico, 87505**, 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 (432-687-7531).

Sincerely,

Carolyn Haynie  
Chevron Midcontinent  
NM PE Technical Assistant

Enclosure

2013 SEP 26 AM 8 57

**OFFSET OPERATORS:**

**Boge, Inc.  
6304 County Road 7430  
Lubbock, TX 79424**

**ConocoPhillips Petroleum Company  
P.O. BOX 2197  
Houston, TX 77252-2197**

**Mobil Producing TX & NM Inc.  
c/o XTO Energy, Inc.  
Attn: Permian Land  
810 Houston Street  
Ft Worth, TX 76102**

**Apache Corporation  
303 Veterans Airpark Lane,  
Suite 3000  
Midland, TX 79705**

**Marathon Oil Company  
5555 San Felipe  
Mail Stop #3308  
Houston, TX 77056**

**Surface Owner**

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



**Carolyn Haynie**  
Petroleum Engineering  
Technical Assistant

**MidContinent Business Unit**  
Chevron North America  
Exploration and Production  
Company  
15 Smith Road  
Midland, TX 79705  
Tel 432-687-7261  
Fax 432-687-7871  
chay@chevron.com

September 23, 2013

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 (NMOCD) to place the following wells on Water Alternating Gas Injection, (WAG). Injection into these wells is designed to enhance the production from the Central Vacuum Unit.

Wells: CVU # 25, API # 30-025-25813; 1330' FSL & 1504' FWL, K-25-T17S-R34E, Lea Co.  
CVU # 26, API # 30-025-25814; 1330' FSL & 2577' FEL, J-25-T17S-R34E, Lea Co.  
CVU # 27, API # 30-025-25815; 1330' FSL & 1425' FEL, J-25-T17S-R34E, Lea Co.  
CVU # 28, API # 30-025-25816, 1230' FSL & 159' FEL, P-25-T17S-R34E, Lea Co

Attached is the information relative to the application, with copies of the legal notice posted in the Hobbs News-Sun and a map highlighting the location of the referenced wells in relation to your offset operations.

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 (432-687-7531).

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