

District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-  
May 27, 2

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Of

☐ AMENDED REPC

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN,  
PLUGBACK, OR ADD A ZONE**

|  |   |   |
|--|---|---|
| <sup>1</sup> Operator Name and Address<br>CHEVRON U S A INC<br>15 SMITH ROAD<br>MIDLAND, TEXAS 79705 |   | <sup>2</sup> OGRID Number<br>4323         |
|  |   | <sup>3</sup> API Number<br>30 - 025-35563 |
| <sup>3</sup> Property Code<br>30022  | <sup>5</sup> Property Name<br>VACUUM GRAYBURG SAN ANDRES UNIT |   |
| <sup>9</sup> Proposed Pool 1<br>VACUUM GRAYBURG SAN ANDRES   |   | <sup>10</sup> Proposed Pool 2             |

**7 Surface Location**

|                   |              |                  |               |         |                       |                           |                       |                        |               |
|-------------------|--------------|------------------|---------------|---------|-----------------------|---------------------------|-----------------------|------------------------|---------------|
| UL or lot no<br>F | Section<br>1 | Township<br>18-S | Range<br>34-E | Lot Idn | Feet from the<br>1390 | North/South line<br>NORTH | Feet from the<br>2530 | East/West line<br>EAST | County<br>LEA |
|-------------------|--------------|------------------|---------------|---------|-----------------------|---------------------------|-----------------------|------------------------|---------------|

**8 Proposed Bottom Hole Location If Different From Surface**

|              |         |          |       |         |               |                  |               |                |        |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|

**Additional Well Information**

|  |                                       |   |                                    |   |
|--|---------------------------------------|---|------------------------------------|---|
| <sup>11</sup> Work Type Code<br>D Deepen   | <sup>12</sup> Well Type Code<br>Inf.  | <sup>13</sup> Cable/Rotary  | <sup>14</sup> Lease Type Code<br>S | <sup>15</sup> Ground Level Elevation<br>3991' |
| <sup>16</sup> Multiple<br>NO   | <sup>17</sup> Proposed Depth<br>5000' | <sup>18</sup> Formation<br>GRAYBURG S/A   | <sup>19</sup> Contractor           | <sup>20</sup> Spud Date                       |
| Depth to Groundwater   |                                       | Distance from nearest fresh water well  |                                    | Distance from nearest surface water           |
| Pit Liner: Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls |                                       | Drilling Method<br>Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                                    |   |
| Closed-Loop System <input type="checkbox"/>  |                                       |   |                                    |   |

**21 Proposed Casing and Cement Program**

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| NO CHANGE |             |                    |               |                 |               |
|           |             |                    |               |                 |               |
|           |             |                    |               |                 |               |
|           |             |                    |               |                 |               |
|           |             |                    |               |                 |               |

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.  
CHEVRON U S A INC INTENDS TO DEEPEN THE SUBJECT WELL FROM 4800 - 5000'

THE INTENDED PROCEDURE & WELLBORE DIAGRAM IS ATTACHED FOR YOUR APPROVAL

Permit Expires 2 years From Approval  
Date Unless Drilling is Underway

Deepen

RECEIVED

MAR 04 2008

HOBBS OCD

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature

*Denise Pinkerton*

Printed name: DENISE PINKERTON

Title: REGULATORY SPECIALIST

E-mail Address: leakejd@chevron.com

Date: 03-03-2008

Phone: 432-687-7375

OIL CONSERVATION DIVISION

Approved by

*Chris Williams*

Title: OC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date: MAR 06 2008

Expiration Date

Conditions of Approval Attached ☐

VGSAU No. 249  
API No. 30-025-35563  
Vacuum (Grayburg-San Andres) Field  
Lea County, NM

Workover Procedure

1. Flow back well to tank battery.
2. RUPU. Kill well with 100 bbls. 10 ppg brine.
3. ND wellhead. NU BOP.
4. Release 5-1/2" Loc-Set packer and TOH.
5. TIH w/ 4-3/4" mill tooth bit, 6 3-1/2" drill collars on 2-7/8" workstring.
6. Cleanout fill (tagged at 4282' with slickline) and drill out float collar and float shoe. Circulate hole clean and TOH.
7. TIH w/ 4-3/4" button bit, 6 3-1/2" drill collars on 2-7/8" workstring. Deepen well to 5000'. Circulate hole clean and TOH.
8. Rig up casing crew and RIH w/ 4" float shoe, 1 jt. 4" flush joint liner, 4" float collar and 4" flush joint liner to surface.
9. Rig up cementers and cement liner with 350 sacks Class "C" cement as per Halliburton recommendation. WOC 24 hours.
10. Rig up wireline truck. Get on depth with Schlumberger GR-LithoDensity-CNL log dated 7/12/01 (GR peaks @ 4489+, 4562 and 4579-). Pull GR-RAL-CCL log from PBTD to top of cement. Run log with 1000 psi pressure from PBTD to 4,000'.
11. Pull GR-CNL-CCL log from PBTD to 3000'.
12. Perforate 4" liner across the Main Pay and TZ interval (perfs to be selected by Technical Team) using 2-3/4" OD guns w/ 2 JSPF @ 120 degree phasing.
13. TIH w/ 4" treating packer on 2-3/8" workstring and set at ~4720'. Swab out load water. Swab test one full day to obtain oil and formation water samples. Consult with Technical Team before proceeding to step 14.
14. Acidize the TZ perfs with 4,000 gallons 15% HCl in 2 equal stages with 1500# rock salt as a diverting agent.
15. Shut-in 2 hours and flow back load.
16. Release packer and pull up to 4,250'.
17. Acidize the entire San Andres interval with 4,000 gallons 15% HCL in two equal stages with 1500# graded rock salt between stages. Precede acid job with 1500# rock salt block in an attempt to block off TZ perfs.
18. Shut in 2 hours and flow back load. Release packer and TOH w/ workstring.
19. RIH w/ 3-1/2" mill tooth bit and casing scraper on 2-3/8" workstring and clean out rock salt. Clean out well to 4900'. TOH.
20. TIH w/ 4" Arrow Set packer and on/off tool on new 2-3/8" fiber lined tubing. Set packer at 4250'. Circulate packer fluid on the backside. ND BOP. NU wellhead.
21. Perform MIT test. Rig down pulling unit.
22. Return well to injection.
23. Run injection profile when injection rates stabilize.

PTB 2/26/08

# VGSAU #249 Wellbore Diagram

Created: 03/29/06 By: C. A. Irle  
 Updated: 10/25/07 By: PTB  
 Lease: Vacuum Grayburg San Andres Unit  
 Field: Vacuum Grayburg San Andres Unit  
 Surf. Loc.: 1,390' FNL & 2,530' FEL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: Active Injection Well

Well #: 249 St. Lse:  
 API 30-025-35563  
 Unit Ltr.: F Section: 1  
 TSHP/Rng: S-18 E-34  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 Directions: Buckeye, NM  
 CHEVNO: HD2328

## Surface Casing

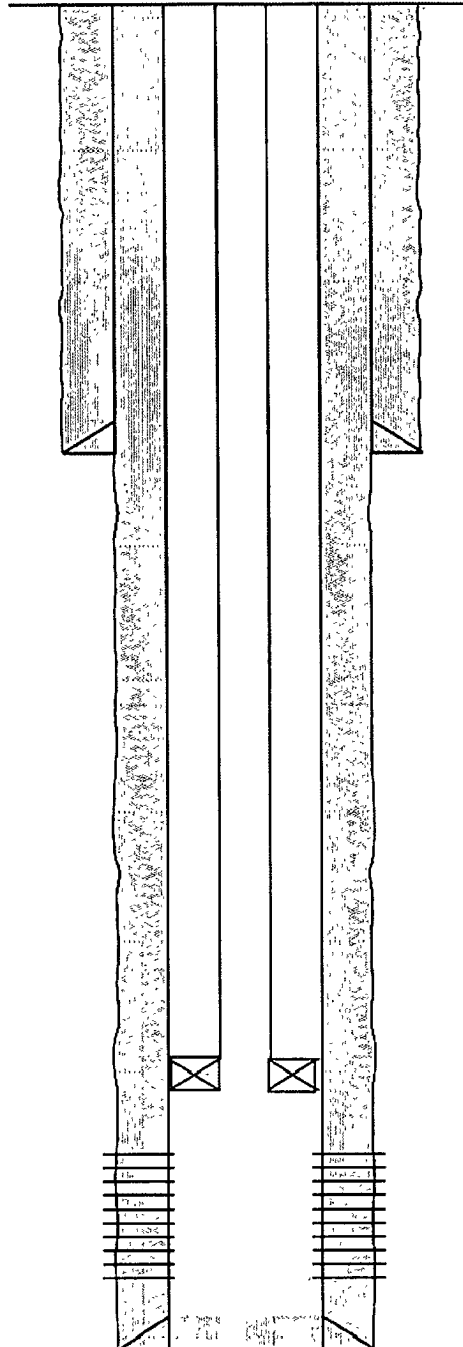
Size: 8 5/8"  
 Wt., Grd.: 24# K-55  
 Depth: 1,482'  
 Sxs Cmt: 700 H  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 12 1/4"

## Production Casing

Size: 5 1/2"  
 Wt., Grd.: 15.5# K-55  
 Depth: 4,800'  
 Sxs Cmt: 950 H  
 Circulate: Yes 124sx  
 TOC: Surface  
 Hole Size: 7 7/8"

## Perforations

4292-4302, 4308-12, 4316-20,  
 4322-24, 4330-40, 4376-82,  
 4394-4404, 4438-50, 4458-66,  
 4472-74, 4492-4511, 4518-20,  
 4524-29, 4532-36, 4539-51,  
 4598-4614, 4620-38, 4641-43,  
 4697-4700, 4702-14



KB: 4,004

DF: 3,991

GL: 3,991

Ini. Spud: 07/02/01

Ini. Comp.: 07/24/01

## History

7/24/01 Ini Comp: Perf 4492-4714, flowing when perf 4620-4644, pkr 4408 TP 4440, acid 6000 gls 15% 3000# RS, RBP 4480, perf 4292-4302, 08-12, 16-20, 22-24, 30-40, 76-82, 4394-4404, 4438-50, 47-50, 58-66, 72-74, pkr 4211, acid 4800 gls 15% 2500 gls gel 2000# RS, pkr 4258.  
 2/2002: max pressure 1550#  
 9/12/02 Chg Pkr: Nickel plated Ducline.  
 4/29/03 Stim: Pkr 4243, acid 8000 gls 15% NEFE HCl 4000# RS, pkr 4271.  
 7/2003: max pressure 1680#  
 10/2007: Slickline TD @ 4,282'

2-7/8" Duoline Tbg (133 jts.)

5-1/2" Loc-Set Pkr @ 4271'

Perfs: 4292 - 4714

PBTD: 4,762'

TD: 4,800'

# Chevron U.S.A. Inc. Wellbore Diagram : VGSAU 249

