

1/25/08	Brooks	1/28/08	NSL	DKVR0802848388
DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE
		WFX		APP NO

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



Chevron USA INC.

 Vacuum Grayburg San  
 Andres Unit #s 131, 145, 439, 440, 441

## ADMINISTRATIVE APPLICATION CHECKLIST

5789

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 \_\_\_\_\_

## [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.

 SCOTT M. INGRAM  
 Print or Type Name

 Scott M. Ingram  
 Signature

 PROJECT MANAGER  
 Title

 1/25/08  
 Date

 smin @ chevron. com  
 e-mail Address

 RECEIVED  
 2008 JAN 25 PM 3 51



Daniel Pequeno, CPL/ESA  
Land Representative

MidContinent/Alaska BU  
North American Exploration  
and Production Company  
15 Smith Road, RM-2235  
Midland, Texas 79705  
Tel 432 687 7461  
Fax 432 687 7871  
peqd@chevron.com

January 28, 2008

Mark E. Fesmire, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RECEIVED  
2008 JAN 29 PM 1 44

**RE: APPLICATION OF CHEVRON USA INC. FOR AN UNORTHODOX  
WELL LOCATION(S), FOR A LEASELINE PRODUCTION WELL(S) AND  
SIMULTANEOUS DEDICATION, LEA COUNTY, NEW MEXICO**

Dear Mr. Fesmire,

Chevron U.S.A. Inc. (Chevron) hereby makes an application requesting the authority and administrative approval for unorthodox well locations for lease line production wells and simultaneous dedication, and in support hereof states:

1. Chevron is the operator of the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit;
2. The Vacuum Grayburg San Andres Unit was approved by the Division by Order No. R-4433, issued in Case 4851 dated November 8, 1972 and a pressure maintenance project by water flood was authorized for this Unit by Division Order No. R-4442, issued in Case 4852 dated November 27, 1972; and a tertiary recovery project by the injection of CO<sub>2</sub> was authorized for this Unit by Division Order No. R-4442-B, issued in Case 13961 dated December 11, 2007;
3. The Central Vacuum Unit was approved by Division Order No. R-5496, issued in Case 5907 dated August 9, 1977, and a waterflood project was authorized for this Unit by Division Order No. R-5530, issued in Case 6008 dated September 20, 1977;
4. Although the Vacuum-Grayburg San Andres Pool is governed by the Division's statewide rules for spacing and the location of wells which provide for 40-acre proration units, the effective spacing units for this pool was reduced to 20 acres in the 1970's and early 1980's and there was sporadic infill drilling on 10-acre spacing in the late 1980's and early 1990's;
5. Chevron's evaluation of the reservoir showed substantial additional reserves would be recovered with development on 10-acre spacing. This was confirmed by the successful drilling of 14 ten-acre wells in 1995;
6. Chevron seeks authority to drill the following unorthodox well locations and simultaneous dedication for the following lease line production wells:

Well: Vacuum Grayburg San Andres Unit Well No. 405 ✓  
Location: 1,910' FNL & 40' FEL (Unit Letter H)  
Well Unit: SE/4NE/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer;

The SE/4NE/4 of Section 1 will be simultaneously dedicated to Well No. 405 and the Vacuum Grayburg San Andres Unit Wells 43, 143, 122, 250 and 235.

Well: Vacuum Grayburg San Andres Unit Well No. 412 ✓  
Location: 2,195.8' FSL & 295.9' FEL (SHL) and 2,200 feet FSL & 10 feet FEL (BHL)  
(Unit Letter I)  
Well Unit: NE/4SE/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer.

The NE/4SE/4 of Section 1 will be simultaneously dedicated to Well No. 412 and the Vacuum Grayburg San Andres Unit Wells 128 and 13.

Well: Vacuum Grayburg San Andres Unit Well No. 438 ✓  
Location: 10' FNL & 420' FEL (SHL) and 10' FNL & 670' FEL (BHL)  
(Unit Letter A)  
Well Unit: NE/4NE/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer.

The NE/4NE/4 of Section 1 will be simultaneously dedicated to Well No. 438 and the Vacuum Grayburg San Andres Unit Wells 159 and 258.

Well: Vacuum Grayburg San Andres Unit Well No. 439 ✓  
Location: 634' FNL & 1,632' FEL (SHL) and 10' FNL & 1,980' FEL (BHL)  
(Unit Letter B)  
Well Unit: NW/4NE/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer.

The NW/4NE/4 of Section 1 will be simultaneously dedicated to Well No. 438 and the Vacuum Grayburg San Andres Unit Wells 158 and 57.

Well: Vacuum Grayburg San Andres Unit Well No. 440 ✓  
Location: 100' FNL & 1,980' FWL (Unit Letter C)  
Well Unit: NE/4NW/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer.

The NE/4NW/4 of Section 1 will be simultaneously dedicated to Well No. 440 and the Vacuum Grayburg San Andres Unit Wells 157, 56 and 156.

Well: Vacuum Grayburg San Andres Unit Well No. 441 ✓  
Location: 170' FNL & 710' FWL (SHL) and 10' FNL & 650' FWL (BHL)  
(Unit Letter A)  
Well Unit: NW/4NW/4 of Section 1, Township 18 South, Range 34 East, N.M.P.M.,  
Lea County, New Mexico to produce oil as a lease line producer.

The NW/4NW/4 of Section 1 will be simultaneously dedicated to Well No. 440 and the Vacuum Grayburg San Andres Unit Well 55.

**Please note that Vacuum Grayburg San Andres Unit Well Nos. 438, 439, 440 & 441 listed above are intended to be water injection wells, but which may initially flow hydrocarbons to the surface for a period of time. Therefore, Chevron has provided for the operation of these wells in the Amendments to the lease line agreements listed in items A and B below as well as copies of the C-108 filed recently and attached as item F below. We have secured full approval of Central Vacuum Unit working interest owners by ballot on the amendment for the water injection wells; and full approval of the working interest owners and royalty owners for the amendment for the production wells.**

7. These wells will be operated pursuant to the Vacuum Area Cooperative Lease Line Agreement dated March 1, 1996 as amended on November 19, 2007, but effective December 1, 2007 which has been approved by Chevron U.S.A. Inc. which owns 100% of the working interest in the Vacuum Grayburg San Andres Unit and by the owners of 98% of the working interest in the Central Vacuum Unit. The request for approval of this agreement was submitted to the Commissioner of Public Lands, State of New Mexico on January 24, 2008 which owns 100% of the royalty interest in the Vacuum Grayburg San Andres Unit and 98.8% of the royalty interest in the Central Vacuum Unit. The States' final approval is expected prior to February 20, 2008.
8. Pursuant to this Amendment to Vacuum Area Cooperative Lease Line Agreement (see item 1 below), half of the production from the proposed wells will be allocated to each Unit;
9. Approval of this application will result in an efficient production pattern for each of these waterflood projects and will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

Enclosed for your convenience is the following documentation in support of this application:


- A. Copy of the Amendment to Vacuum Area Cooperative Lease Line Agreement dated November 19, 2007, but effective December 1, 2007;
- B. Copy of the Third Amendment to Vacuum (Grayburg-San Andres Cooperative Water Injection Agreement dated November 19, 2008, but effective December 1, 2007;
- C. Copies of Form C-102 for Well Location and Acreage Dedication plat;
- D. Copies of the Standard Planning Reports for the Directional VGSAU wells – 412, 438, 439 & 441 - **these directional wells are directional due to surface limitations involving existing facilities.**
- E. Copy of Letter dated January 24, 2008 to the Commissioner of Public Lands, State of New Mexico.
- F. Copies of Form C-108 Application for Authorization to Inject with all attachments for the Vacuum Grayburg San Andres Unit Well Nos. 438, 439, 440 & 441 which originals have been submitted by separate package to the New Mexico Oil Conservation Division
- G. Copy of Letter dated January 22, 2008 requesting Hobbs News-Sun to publish a Legal Notice for the Vacuum Grayburg San Andres Unit Well Nos. 438, 439, 440 & 441, among others. Copy of the Hobbs News-Sun will be provided later, if required.



Chevron respectfully requests administrative approval for the unorthodox well locations for its proposed Vacuum Grayburg San Andres Unit Well Nos. 405, 412, 438, 439, 440 and 441 as lease line producing wells for the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit and authorization for the simultaneous dedication as outlined above.

If I can be of any assistance or if you need additional information, please let me know by calling me at (432) 687-7461.

Very truly yours,



Daniel Pequeno  
Land Representative

Enclosures

Cc: Mr. Pete Martinez  
State of New Mexico  
Commissioner of Public Lands  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

**Brooks, David K., EMNRD**

**From:** PEQUENO, DANIEL [PEQD@chevron.com]  
**Sent:** Friday, February 22, 2008 9:59 AM  
**To:** Brooks, David K., EMNRD  
**Cc:** Jones, William V., EMNRD  
**Subject:** RE: Chevron Vacuum Grayburg San Andres Unit ## 131,145,438,439,440 and 441  
**Attachments:** Document.tif; Document (6).tif

1-185-39E

Mr. Brooks,

In accordance with your item #2 below, I am attaching (a) a copy of the Amendment to Vacuum Area Cooperative Lease Line Agreement which cover VGSAU Well Nos. 405 & 412 along with copies of the Ratifications for the royalty owners and all the working interest owners; and (b) a copy of the Third Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement which cover VGSAU Well Nos. 438WI, 439WI, 440WI & 441WI along with the signed copies of the ballots from all the working interest owners. I hope you will find them satisfactory and in compliance with NMOC rules.

As for the injection wells discussed in your item #1, the C-108 has been filed by separate package for all the wells along with the proper notification to the offset operators/working interest owners as well as the advertisement.

Let me know if I can be of further assistance in this regard.

Thank you,  
 Daniel Pequeno  
 Land Representative  
 Phone 432.687.7461  
 Fax 432.687.7871

---

**From:** Brooks, David K., EMNRD [mailto:david.brooks@state.nm.us]  
**Sent:** Thursday, February 21, 2008 5:55 PM  
**To:** PEQUENO, DANIEL  
**Cc:** Jones, William V., EMNRD  
**Subject:** Chevron Vacuum Grayburg San Andres Unit ## 131,145,438,439,440 and 441

Dear Mr. Pequeno:

I have reviewed the non-standard location applications for these wells and have the following observations:

1. Simultaneous dedication approval is not required. It would not be required in any case except for the #405, because in all other cases, there will be no more than four wells in a 40-acre unit. However, I do not believe simultaneous dedication approval is required even for the #405, because the 4-wells per 40 acres limitation does not apply in an active secondary recovery unit. For the new injection wells, of course, injection permitting is required, and that will be handled separately. I will be processing the non-standard location applications.
2. Our notice rule requires notice of this application to all working interest owners in the Central Vacuum Unit, since Chevron is the operator of both units. You indicate that you have secured approval of the Lease Line Agreement by all of these working interest owners. However, you have not furnished their signed consents with your application, and only Chevron signed the agreement. We must either be furnished with ratifications of the Amendment to the Lease Line Agreement signed by all of the working interest owners, or with proof of notice to them of the filing of the NSL application.

2/22/2008

Please contact me by phone or email if you have questions.

Sincerely

David K. Brooks  
505-476-3450

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2/22/2008

**THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN ANDRES)  
COOPERATIVE WATER INJECTION AGREEMENT**

STATE OF NEW MEXICO. §

COUNTY OF LEA §

THIS AMENDMENT shall be effective as of December 1, 2007, by and between the Central Vacuum Unit, represented by CHEVRON U.S.A. INC., Successor-in-interest to TEXACO EXPLORATION AND PRODUCTION INC., as Unit Operator, hereinafter referred as "Unit Operator", and the Vacuum Grayburg- San Andres Unit, represented by CHEVRON USA INC. as Unit Operator, hereinafter referred to as "Chevron".

WITNESSETH:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Chevron is the Operator of the Vacuum Grayburg-San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as more particularly described in the Vacuum Grayburg San Andres Unit Agreement to which reference is made for purposes of Description; and

WHEREAS, Unit Operator and Chevron are parties to that certain Cooperative Water Injection Agreement dated April 14, 1978 (the Agreement), providing for the operation of water injection wells on or near the common boundary of the Central Vacuum Unit and the Vacuum Grayburg San Andres Unit, and providing for the injection of water into the underlying Grayburg-San Andres formation through said injection wells; and

WHEREAS, by Amendment to Cooperative Water Injection Agreement dated April 28, 1989, effective October 20, 1988 (First Amendment), said agreement was amended to replace Paragraph 6 found on Page 2 relative to the charge for injection water provided by Unit Operator; and

WHEREAS; by Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement dated and effective January 1, 2001 (Second Amendment), said agreement was further amended to provide for CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injectants for all the water injection wells identified in the agreement; and

WHEREAS, Unit Operator and Chevron desire to further amend the said Cooperative Water Injection Agreement, as amended, to drill and equip additional injection wells at or near the Unit lines between the Vacuum Grayburg San Andres Unit and Central Vacuum Unit to provide for the injection of CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injectants into the underlying Grayburg-San Andres formation through the additional injection wells so that the leases and lands mentioned above will be benefited by an increase in the production of crude oil.

NOW, THEREFORE, for in consideration of the premises, Unit Operator and Chevron have agreed and do by these presents herein agree that Subparagraph 1, page 1 and Subparagraph 4, page 2 of the Cooperative Water Injection Agreement dated April 14, 1978, as amended by the First Amendment and the Second Amendment, are hereby amended by the addition of the following language as set forth in the corresponding numbered paragraph, and that the referenced wells are added as injection wells to be drilled and equipped for the injection of CO<sub>2</sub>, produced gas, water or any combination

thereof, as acceptable injectants into the underlying Grayburg-San Andres formations as follows:

1. Unit Operator, as soon as practical following the effective date of this Agreement agrees to drill, complete and equip four (4) additional CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injection wells in the Grayburg-San Andres formation at the approximate locations shown on the plat attached hereto as Exhibit "A", and with location descriptions and Working Interest Ownership percentages tabulated on Exhibit "B", also attached and made a part hereof for all purposes. In the event proposed new well or wells not be able to adequately be drilled at the approximate locations as outlined above, it is agreed that the well or wells will be drilled and equipped at a location(s) which are legally as close to the lease line as possible without further action required from the parties to this agreement.
4. Chevron agrees to continue to furnish water suitable for injection purposes through the Vacuum Grayburg-San Andres Unit Injection System at the price and on the basis set forth in said Cooperative Water Injection Agreement, as amended. The water delivered hereunder to the injection well by Chevron shall be measured by standard type water metering equipment installed and operated by Chevron.

In addition, Unit Operator and Chevron have agreed and do by these presents herein agree that the Agreement, as amended by the First Amendment and Second Amendment, is further amended by the insertion of the following paragraph:

12. CO<sub>2</sub>, produced gas, or any combination thereof, are acceptable injectants for all water injection wells identified in the Cooperative Water Injection Agreement and any amendments thereto.

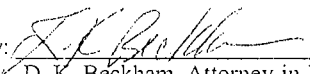
and that the Second Amendment is hereby amended to reflect the addition of the above paragraph 12 to the Agreement, effective as of the date of the Second Amendment.

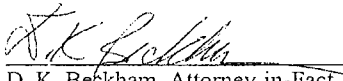
These additional injection wells to be drilled shall be bound by all the other terms and conditions of the original Cooperative Water Injection Agreement, as amended, and the purpose of this Amendment serves only to add said wells and locations. Except as amended hereby, the Cooperative Water Injection Agreement, as amended, remains in full force and effect.

IN WITNESS WHEREOF, this instrument is executed this 14<sup>th</sup> day of November, 2007, but effective as of the date written above.

CHEVRON U.S.A. INC.  
As Operator of the Central  
Vacuum Unit

CHEVRON U.S.A. INC.  
as Operator of the Vacuum  
Grayburg San Andres Unit

By:   
D. K. Beckham, Attorney-in-Fact

  
D. K. Beckham, Attorney-in-Fact

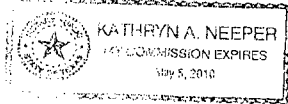
STATE OF TEXAS §

COUNTY OF MIDLAND §

On this the 19th day of November, 2007, before me appeared D.K. Beckham, as Attorney-in-Fact for CHEVRON U.S.A. INC., a Pennsylvania corporation, and acknowledged to me that she executed the instrument for the purposes and consideration therein expressed.

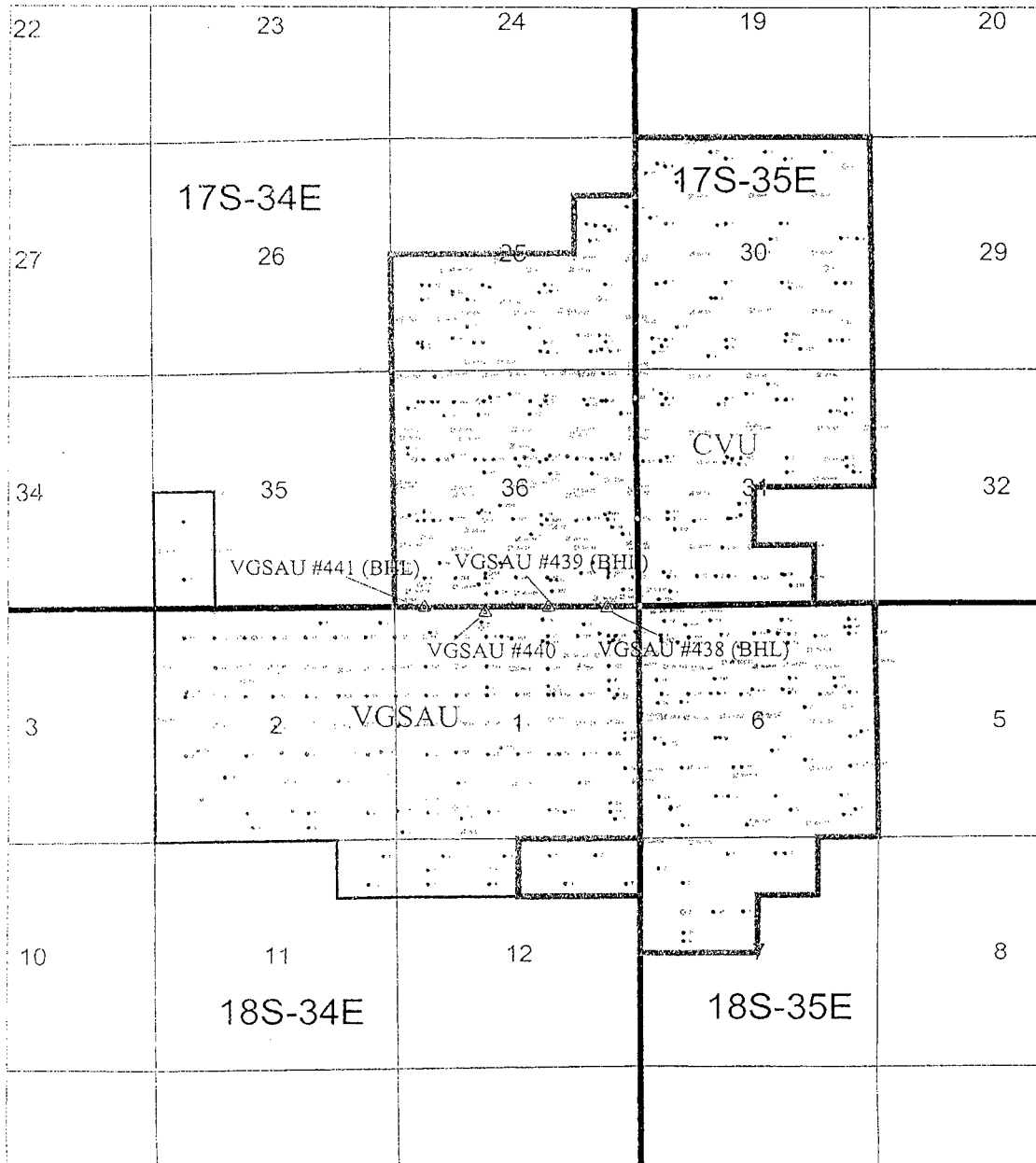
WITNESS my hand and official seal this the 19th day of November, 2007.

My Commission expires:



Kathryn A. Neeper  
Notary Public in and for the State of Texas.

CHEVRON USA INC.  
COOPERATIVE WATER INJECTION AGREEMENT  
EXHIBIT "A"  
LEA COUNTY, NEW MEXICO  
12/01/2007



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1" = 3000'

**EXHIBIT "B"**

Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement  
between Central Vacuum Unit and Vacuum Grayburg-San Andres Unit  
Lea County, New Mexico

**ORIGINAL WELL LOCATIONS AND OWNERSHIP**

<b><u>WELL NO.</u></b>	<b><u>WELL LOCATION</u></b>	<b><u>OWNERSHIP</u></b>
133	10' FNL & 1,550' FEL, Section 12	CVU - 50%, VGSAU - 50%
<b>T-18-S, R-34-E</b>		
141	10' FSL & 1,310' FWL, Section 36	CVU - 50%, VGSAU - 50%
240 (Replaced 140)	257' FSL & 2,519' FWL (SHL) 19' FSL & 2,522' FWL, (BHL) Section 36	CVU - 50%, VGSAU - 50%
139	10' FSL & 1,310' FEL, Section 36	CVU - 50%, VGSAU - 50%
<b>All in T-17-S, R-34-E</b>		
238 (Replaced 138)	10' FSL & 420' FEL, (SHL) 10' FSL & 10' FEL, (BHL) Section 36	CVU - 75%, VGSAU - 25%
<b>T-17-S, R-34-E</b>		
137	10' FWL & 1,100' FNL, Section 6	CVU - 50%, VGSAU - 50%
136	10' FWL & 2,450' FNL, Section 6	CVU - 50%, VGSAU - 50%
135	10' FWL & 1,600' FSL, Section 6	CVU - 50%, VGSAU - 50%
134	10' FWL & 10' FSL, Section 6	CVU - 75%, VGSAU - 25%
<b>All in T-18-S, R-35-E</b>		

**PROPOSED NEW WELL LOCATIONS AND OWNERSHIP**

438	10' FNL & 420' FEL, (SHL) 10' FNL & 670' FEL, (BHL) Section 1	CVU - 50%, VGSAU - 50%
439	634' FNL & 1,632' FEL, (SHL) 10' FNL & 1,980' FEL, (BHL) Section 1	CVU - 50%, VGSAU - 50%
440	100' FNL & 1,980' FWL, Section 1	CVU - 50%, VGSAU - 50%
441	170' FNL & 710' FWL, (SHL) 10' FNL & 650' FWL, (BHL) Section 1	CVU - 50%, VGSAU - 50%
<b>All in T-18-S, R-34-E</b>		

**NOTE:** CVU = Central Vacuum Unit  
VGSAU = Vacuum Grayburg San Andres Unit  
SHL = Surface Hole Location  
BHL = Bottom Hole Location

**END OF EXHIBIT "B"**





Daniel Pequeno, CPL/ESA  
Land Representative

MidContinent/Alaska BU  
North American Exploration  
and Production Company  
15 Smith Road, RM-2235  
Midland, Texas 79705  
Tel 432 687 7461  
Fax 432 687 7871  
peqd@chevron.com

November 19, 2007

**CENTRAL VACUUM UNIT WORKING INTEREST OWNERS LIST (ATTACHED)**

**RE: THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN ANDRES)  
COOPERATIVE WATER INJECTION AGREEMENT  
CENTRAL VACUUM UNIT/VACUUM GRAYBURG SAN ANDRES UNIT  
LEA COUNTY, NEW MEXICO (QLS-046074, 153175 & 044246)**

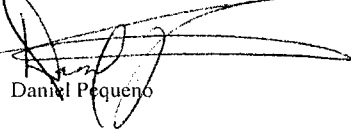
Dear Working Interest Owner:

Chevron U.S.A. Inc. is finalizing plans to drill the Vacuum Grayburg San Andres Unit Well Nos. 438WI, 439WI, 440WI and 441WI as lease line water injection wells between the Central Vacuum Unit and the Vacuum Grayburg San Andres Unit. The proposed water injection wells will be in addition to the nine (9) existing water injection wells already contained in the original agreement (attached). The legal description and locations of these and the nine (9) existing wells are contained in the attached Third Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement effective December 1, 2007 (the Amendment). We, therefore, request that you grant your approval, in accordance with Article 38 of the Unit Agreement for the Central Vacuum Unit, for Chevron's execution of the Amendment as Unit Operator of the Central Vacuum Unit.

It is proposed that the Central Vacuum Unit drill, complete and operate each well. The sharing of all costs is outlined in said Amendment. The wells will be proposed to you during the month of December 2007. Please let us have your approval to the Amendment by signing and returning one original copy of this Ballot Letter to me in the self-addressed envelope provided herein at your earliest convenience.

We realize that the end of the year is upon us as well as the holidays, but hope you will grant us your approval so that we can proceed with the plans for these wells. If you have any technical questions, you may contact Mr. Scott Ingram at (432) 687-7212 or the undersigned for all other questions at (432) 687-7461.

Yours very truly,



Daniel Pequeno

AGREED AND APPROVED:

COMPANY: \_\_\_\_\_

BY: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

AGREED AND APPROVED:

COMPANY: Ann McBee Buell

BY: \_\_\_\_\_

PRINT NAME: ANN MCBEE BUELL

TITLE: Owner

DATE: 11-27-'07

AGREED AND APPROVED:

COMPANY: FRISCO ENERGY LLC

BY: Charles E. Smith

PRINT NAME: CHARLES E SMITH

TITLE: CO-MANAGER

DATE: 11-26-2007

AGREED AND APPROVED:

COMPANY: H.M. BETTIS INC.

BY: H. Bettis

PRINT NAME: H.M. BETTIS

TITLE: PRES

DATE: 12-17-07

AGREED AND APPROVED:

COMPANY: MRGO HOLSEY & C.

BY: [Signature]

PRINT NAME: MRGO. HOLSEY

TITLE: PRESIDENT

DATE: 11-27-07

AGREED AND APPROVED:

COMPANY: \_\_\_\_\_

BY: Madelon L. Bradshaw

PRINT NAME: Madelon L. Bradshaw

TITLE: Owner

DATE: 11/28/07

AGREED AND APPROVED THE THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN  
ANDRES) COOPERATIVE WATER INJECTION AGREEMENT:

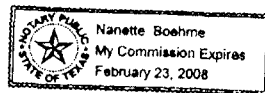
Marathon Oil  
COMPANY: CONOCOPHILLIPS PETROLEUM COMPANY

BY: CJK

PRINT NAME: CRAIG T KENT

TITLE: SUBSURFACE MANAGER

DATE: 12/12/07





AGREED AND APPROVED:

COMPANY: JPMorgan, Trustee for the circled trusts  
BY: TMM *on next page.*

PRINT NAME: TIM G. RQCTZ

TITLE: V.P.

DATE: 10-24-07

LIST OF CENTRAL VACUUM UNIT WORKING INTEREST OWNERS

Ann McBee Buell  
11241 Russwood Circle  
Dallas, Texas 75229

ConocoPhillips Petroleum Company  
Attn. Mr. Tom Scarbrough, Land Department  
1070 Plaza Office Building  
Bartlesville, OK 74004

Mobil Producing Texas & New Mexico  
c/o ExxonMobil  
Attn.: Mr. Paul Alldred  
P. O. Box 4707  
Houston, Texas 77210-4707

Frisco Energy LLC  
Attn.: Ms. Kathy B. McGuire  
2431 East 51<sup>st</sup> Street, Suite 300  
Tulsa, OK 74105

Larry O. Hulsey  
P. O. Box 1143  
Graham, Texas 76450-1143

Martha Leonard Revocable Trust  
c/o National Oil & Gas Operations  
P. O. Box 2050  
Fort Worth, Texas 76113-2050

McBee Operating Company LLC  
4311 Oak Lawn Avenue, Suite 310  
Dallas, Texas 75219

MVP Production Company  
c/o Chevron  
15 Smith Road, RM-2235  
Midland, Texas 79705

Chevron USA Production Company  
15 Smith Road, RM-2235  
Midland, Texas 79705

Marathon Oil Company  
Joint Interest Department  
P. O. Box 22232  
Tulsa, OK 74121-2232

Quantum Resources Management LLC  
Attn. Mr. Kenneth Atnip  
1775 Sherman Street, Suite 1200  
Denver, CO 80203-0000

H. M. Bettis Inc.  
P. O. Box 1240  
Graham, Texas 76450-1240

Madelon L. Bradshaw  
2120 Ridgmar Blvd., Suite 12  
Fort Worth, Texas 76116

Mary Leonard Children's Trust  
c/o National Oil & Gas Operations  
P. O. Box 2050  
Fort Worth, Texas 76113-2050

Miranda Leonard Trust  
c/o National Oil & Gas Operations  
P. O. Box 2050  
Fort Worth, Texas 76113-2050

Norman D. Stovall, Jr.  
P. O. Box 10  
Graham, Texas 76450-0010

AGREED AND APPROVED:

COMPANY: William D. McBe Enterprises, LTD.

BY: Michael B. McBe

PRINT NAME: MICHAEL B. McBEE

TITLE: MANAGER

DATE: 11.26.07

AGREED AND APPROVED:

COMPANY: Exxon Mobil

BY: Paul B. Allred

PRINT NAME: Paul B. Allred

TITLE: Joint Interest Advisor

DATE: 10 Jan 08

AGREED AND APPROVED THE THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN  
ANDRES) COOPERATIVE WATER INJECTION AGREEMENT:

**NORMAN D. STOVALL JR.**

BY: Norman D. Stovall Jr.

PRINT NAME: NORMAN D. STOVALL JR.

TITLE: P

DATE: 1/21/08

AGREED AND APPROVED:

COMPANY: CONSCOPHILLIPS COMPANY

WITNESSED BY: [Signature]

PRINT NAME: J. P. Gregory

TITLE: Attorney-In-Fact

DATE: 1/29/08

AGREED AND APPROVED THE THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN  
ANDRES) COOPERATIVE WATER INJECTION AGREEMENT:

COMPANY, S. B. STREET & COMPANY

BY: Spencer B. Street III

PRINT NAME: SPENCER B. STREET III

TITLE: President

DATE: 1-9-2008

AGREED AND APPROVED THE THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN  
ANDRES) COOPERATIVE WATER INJECTION AGREEMENT:

**TRIPLE T RESOURCES LP**

BY: 

PRINT NAME: David Weir

TITLE: Land Manager

DATE: 1/11/08



CENTRAL VACUUM UNIT WORKING INTEREST OWNERS LIST (ATTACHED)

RE: THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN ANDRES)  
COOPERATIVE WATER INJECTION AGREEMENT  
CENTRAL VACUUM UNIT/VACUUM GRAYBURG SAN ANDRES UNIT  
LEA COUNTY, NEW MEXICO (QLS-046074, 153175 & 044246)

AGREED AND APPROVED:

COMPANY: W.T. BOYLE & CO.

BY: Dwight Boyle

PRINT NAME: Dwight Boyle

TITLE: President

DATE: 11-26-2007

AMENDMENT TO VACUUM AREA COOPERATIVE LEASE LINE  
AGREEMENT

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

THIS AMENDMENT is entered between CHEVRON U.S.A. INC., Successor-in-interest to TEXACO EXPLORATION AND PRODUCTION INC., ("CHEVRON") as Operator and sole working interest owner in the Vacuum Grayburg San Andres Unit, and CHEVRON USA INC. as Operator and on behalf of all the working interest owners in the Central Vacuum Unit ("Unit Operator").

WITNESSETH:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Chevron is the Operator of the Vacuum Grayburg San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Vacuum Grayburg San Andres Unit Agreement to which reference is made for purposes of Description; and

WHEREAS, Unit Operator and Chevron are parties to that certain Vacuum Area Cooperative Lease Line Agreement dated March 1, 1996 in the interest of more properly producing and conserving the oil and gas from the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit; and

WHEREAS, Unit Operator and Chevron desire to amend the said Vacuum Area Cooperative Lease Line Agreement for the purpose of drilling additional producing wells at or near the Unit lines between the Vacuum Grayburg San Andres Unit and Central Vacuum Unit in order to further enhance the ultimate recovery of hydrocarbons from the lands and Units;

NOW, THEREFORE, for and in consideration of the premises, Unit Operator and Chevron have agreed and do by these presents herein agree that Article I found on page 1 of the Vacuum Area Cooperative Lease Line Agreement shall be amended to add the following wells to be drilled and equipped at approximately the referenced location for the production of oil and gas from the Grayburg and San Andres formations:

Vacuum Grayburg San Andres Unit Well No. 405, located 1,910 feet from the North line and 40 feet from the East line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 412, location 2,195.8 feet from the South line and 295.9 feet from the East line (SL) and 2,200 feet from the South line and 10 feet from the East line (BHL) of Section 1, T-18-S, R-34-E

In addition, it is hereby agreed by the parties hereto to amend the Vacuum Area Cooperative Lease Line Agreement to include four (4) water injection wells, as described below (the Wells), to be drilled on or near the common boundary of the Central Vacuum Unit and the Vacuum San Andres Unit to provide for the injection of water into the underlying Grayburg-San Andres formation which shall benefit both Units. The Wells will be equipped for injection, and shall not be utilized as producing wells, except as

specifically provided for herein. Due to reservoir pressure in this portion of the Vacuum field, these wells may initially flow hydrocarbons to the surface for a period of time. Unit Operator, at its sole discretion, may initially and temporarily connect the Wells to the producing facilities and the operation of the Wells and any production therefrom will be governed by the terms and conditions of said Vacuum Area Cooperative Lease Line Agreement. At such time as any hydrocarbons cease to flow, or at Unit Operator's sole discretion, the well or wells will automatically be converted to the intended water injection wells status and shall be governed by the terms and conditions of the Cooperative Water Injection Agreement dated April 14, 1978, as amended without any further action required from the parties to this agreement. The proposed water injection wells to be drilled & equipped and their approximate locations are as follows:

Vacuum Grayburg San Andres Unit Well No. 438WI, located 10 feet from the North line and 420 feet from the East Line (SHL) and 10 feet from the North line and 670 feet from East line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 439WI, located 634 feet from the North line and 1,632 feet from the East line (SHL) and 10 feet from the North line and 1,980 feet from the East Line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 440WI, located 100 feet from the North line and 1,980 feet from the West line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 441WI, located 170 feet from the North line and 710 feet from the West line (SHL) and 10 feet from the North line and 650 feet from the West Line (BHL) of Section 1, T-18-S, R-34-E

Should any of the locations for the well or wells listed above deviate slightly while drilling from the surface location to the bottom hole location, it is agreed that the well or wells will be equipped at a locations drilled and completed without further action required from the parties to this agreement. All of the above wells are located in Lea County, New Mexico as shown on the map attached as Exhibit "A" attached hereto and made a part hereof.

All remaining terms and conditions of the original Vacuum Area Cooperative Lease Line Agreement, excepting those herein amended, shall remain unchanged and shall in full force and effect.

IN WITNESS WHEREOF, this instrument is executed on this 16<sup>th</sup> day of November, but is effective as of the 1<sup>ST</sup> day of December, 2007.

CHEVRON U.S.A. INC.  
As Operator and on behalf of the  
Working Interest Owners of the  
Central Vacuum Unit

CHEVRON U.S.A. INC.  
As Operator and Sole Working  
Interest Owner of the Vacuum  
Grayburg San Andres Unit

By: D. K. Beckham  
D. K. Beckham, Attorney-in-Fact

D. K. Beckham  
D. K. Beckham, Attorney-in-Fact

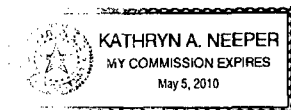
STATE OF TEXAS §


COUNTY OF MIDLAND §

On this the 19th day of November, 2007, before me appeared D.K. Beckham, as Attorney-in-Fact for CHEVRON U.S.A. INC., a Pennsylvania corporation, and acknowledged to me that she executed the instrument for the purposes and consideration therein expressed.

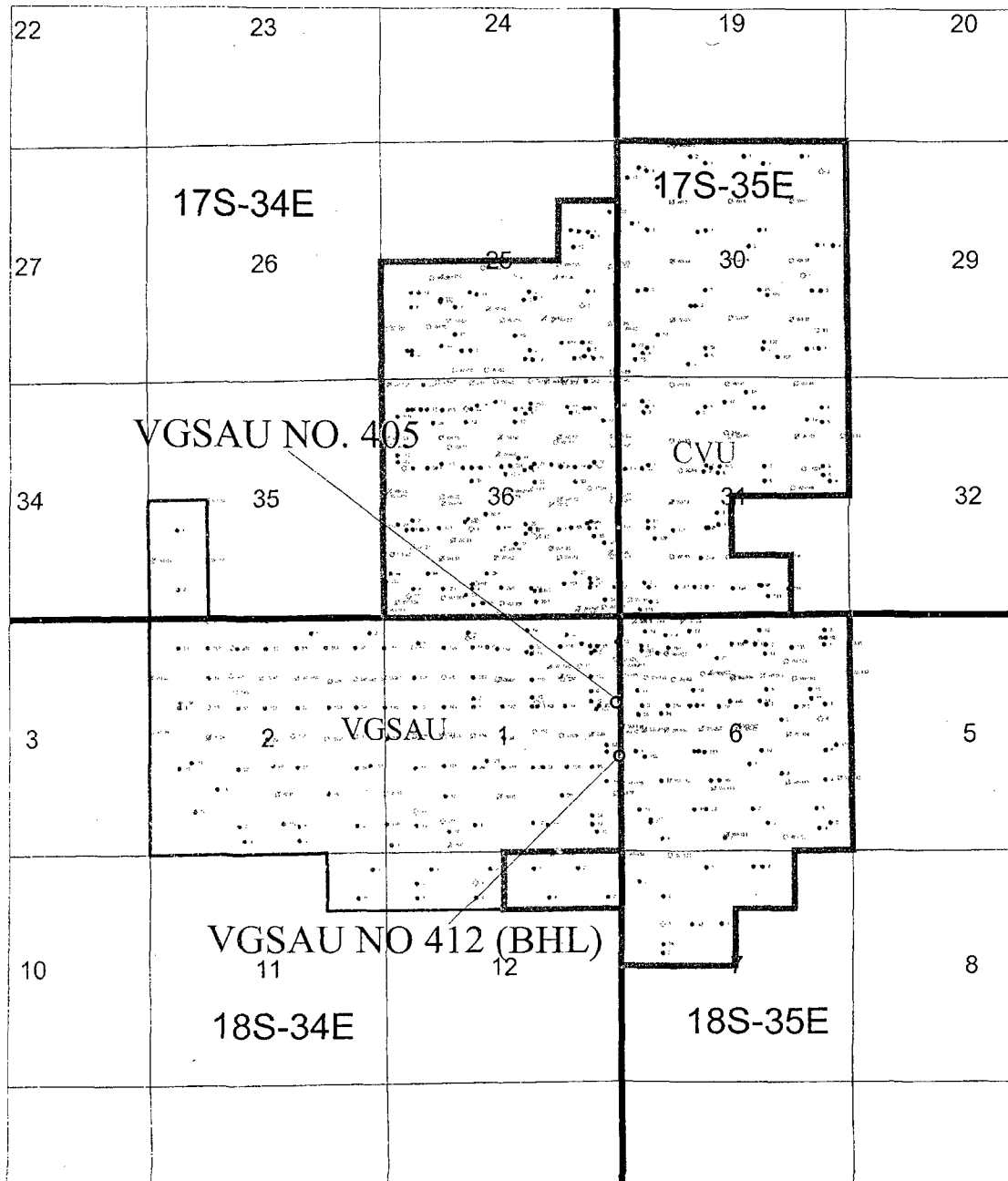
WITNESS my hand and official seal this the 19th day of November, 2007.

My Commission expires:



  
Notary Public in and for the State of Texas.

CHEVRON USA INC.  
VACUUM FIELD AREA  
EXHIBIT "A"  
LEA COUNTY, NEW MEXICO  
12/01/2007



This document may include proprietary, confidential and copyrighted data. For internal use only. Portions of this data may be copyrighted by TOBIN International, Ltd., Copyright 2000 Mapmakers Alaska, Copyright 2002 PennWell MAPSearch.

1" = 3000'

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: Jan 14, 2008

Signature:   
MARTIN KEEL JOYCE

SINGLE ACKNOWLEDGMENT

STATE OF New Mexico           §


COUNTY OF Eddy                   §

The foregoing instrument was acknowledged before me this 14<sup>th</sup> day of January, 2007, by Martin Keel Joyce  
2008

Nancy T. Agnew  
Notary Public in and for

Eddy County, New Mexico

My Commission Expires:  
July 5<sup>th</sup>, 2011

 OFFICIAL SEAL  
Nancy T. Agnew  
NOTARY PUBLIC-STATE OF NEW MEXICO  
My commission expires: 7/5/2011

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 12/17/07

Signature: Mary Shannon Hickok  
MARY SHANNON HICKOK

SINGLE ACKNOWLEDGMENT

STATE OF CALIFORNIA           §

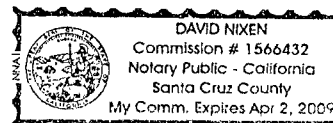
COUNTY OF SANTA CRUZ           §

The forgoing instrument was acknowledged before me this 17TH day of DECEMBER, 2007, by MARY SHANNON HICKOK

[Signature]  
Notary Public in and for

SANTA CRUZ County, CALIFORNIA

My Commission Expires:  
4.2.2009



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 24 Nov. 2007

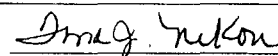
Signature:   
MILTON LEE BURNS

SINGLE ACKNOWLEDGMENT

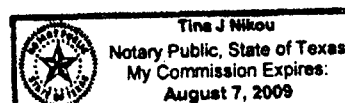
STATE OF TEXAS                   §

COUNTY OF HARRIS                   §

The forgoing instrument was acknowledged before me this 24<sup>th</sup> day of November, 2007, by Milton Burns

  
Notary Public in and for  
HARRIS County, \_\_\_\_\_

My Commission Expires:  
8/7/2009





**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 12-14-07

Signature: Charles Kendall Joyce  
CHARLES KENDALL JOYCE

SINGLE ACKNOWLEDGMENT

STATE OF NEW MEXICO           §

COUNTY OF CHAVES                   §

The forgoing instrument was acknowledged before me this 14th day of December, 2007, by Charles Kendall Joyce

Eden Leunberger  
Notary Public in and for

Chaves County, New Mexico

My Commission Expires:  
July 31, 2009

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 12/07/07

Signature: [Signature]  
JANNE G. MURPHY

SINGLE ACKNOWLEDGMENT

STATE OF New Mexico           §

COUNTY OF Chaves                   §

The foregoing instrument was acknowledged before me this 7<sup>th</sup> day of December, 2007, by Janne G. Murphy



OFFICIAL SEAL  
BRICEYDA OLIVAS  
NOTARY PUBLIC - STATE OF NEW MEXICO  
My commission expires: 7-19-10

[Signature]  
Notary Public in and for  
Chaves County, \_\_\_\_\_

My Commission Expires:  
7-19-10

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

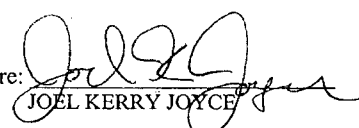
WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11.26-07

Signature: 

JOEL KERRY JOYCE

SINGLE ACKNOWLEDGMENT

STATE OF New Mexico           §

COUNTY OF Sandoval                   §

The forgoing instrument was acknowledged before me this 26 day of November, 2007, by Melissa J. Ogleby

Melissa J. Ogleby  
Notary Public in and for

Sandoval County, New Mexico

My Commission Expires:

February 22, 2008

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

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WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

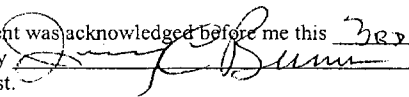
DATE: 12-3-07

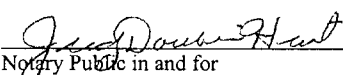
Signature: 

JERRY C. BURNS  
REVOCABLE TRUST

STATE OF Oklahoma           §

COUNTY OF Tulsa                   §

The foregoing instrument was acknowledged before me this 3rd day of December, 2007, by  as Trustee for the Jerry C. Burns Revocable Trust.

  
Notary Public in and for

Tulsa County, OK

My Commission Expires:

7-10-08

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 26 Nov 2007

Signature: *Judith Anderson*  
JUDITH ANDERSON

SINGLE ACKNOWLEDGMENT

STATE OF New Mexico           §

COUNTY OF SANTA FE                   §

The forgoing instrument was acknowledged before me this 26 day of November, 2007, by Pauline S. Freeman



*Pauline S. Freeman*  
Notary Public in and for  
SANTA FE County, New Mexico

My Commission Expires:  
2-6-11

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11-26-07

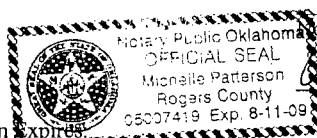
Signature: *Sandra D. Gipson*  
SANDRA D. GIPSON  
REVOCABLE TRUST

STATE OF ~~TEXAS~~ Oklahoma §

COUNTY OF Tulsa §

The foregoing instrument was acknowledged before me this 26th day of Nov, 2007, by JOHN B. GIPSON as Trustee of the Sandra D. Gipson Revocable Trust.

*Michelle Patterson*  
Notary Public in and for  
Oklahoma County, Rogers  
My Commission Expires 8/11/2009



## Page 1 of 1

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 12/10/07

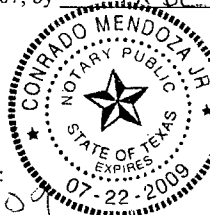
Signature: *Norman Kent Joyce*  
NORMAN KENT JOYCE

SINGLE ACKNOWLEDGMENT

STATE OF TEXAS           §

COUNTY OF DALLAS           §

The forgoing instrument was acknowledged before me this 10 day of Dec, 2007, by TxDL registered



*[Signature]*  
Notary Public in and for DALLAS County, TX

My Commission Expires: 7-22-2009



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11/28/07

Signature:   
STEPHANIE ALDEMIR

SINGLE ACKNOWLEDGMENT

STATE OF \_\_\_\_\_ §

COUNTY OF \_\_\_\_\_ §

The forgoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007, by \_\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_ County, \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

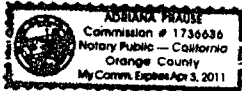
State of California

County of Orange

On 11/28/07 before me, Adriana Prause, Notary Public,  
Date Name and Title of Officer

personally appeared \*\*\*Stephanie Aldemir\*\*\*,  
Name of Signer

~~personally known to me~~(or proved to me on the basis of  
satisfactory evidence) to be the person(s) whose name(s)  
(is/are subscribed to the within instrument and acknowledged  
to me that he/she/they executed the same in his/her/their  
authorized capacity(ies), and that by his/her/their signature(s)  
on the instrument the person(s), or the entity upon behalf of  
which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Adriana Prause

## OPTIONAL

### Description of Attached Document

Title or Type of Document:

Document Date: \_\_\_\_\_ #of Pages

Signer(s) Other Than Named Above:

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11-30-07

Signature:   
DEBORAH CONWAY

SINGLE ACKNOWLEDGMENT

STATE OF \_\_\_\_\_ §

COUNTY OF \_\_\_\_\_ §

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007, by \_\_\_\_\_.

SEE ATTACHED  
NOTARY CERTIFICATE

Notary Public in and for

\_\_\_\_\_ County, \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

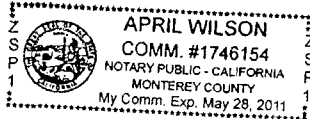
County of Monterey

On 11-30-07 before me, April Wilson, Notary Public

personally appeared Rebecca Conway

☐ personally known to me

☒ or proved to me on the basis of satisfactory evidence)



to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature April Wilson  
Signature of Notary Public

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: ratification of Agreements

Document Date: 11-30-07 Number of Pages: 4pgs+4

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_  
☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Signer's Name: \_\_\_\_\_  
☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

AMENDMENT TO VACUUM AREA COOPERATIVE LEASE LINE  
AGREEMENT

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

THIS AMENDMENT is entered between CHEVRON U.S.A. INC., Successor-in-interest to TEXACO EXPLORATION AND PRODUCTION INC., ("CHEVRON") as Operator and sole working interest owner in the Vacuum Grayburg San Andres Unit, and CHEVRON USA INC. as Operator and on behalf of all the working interest owners in the Central Vacuum Unit ("Unit Operator").

WITNESSETH:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Chevron is the Operator of the Vacuum Grayburg San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Vacuum Grayburg San Andres Unit Agreement to which reference is made for purposes of Description; and

WHEREAS, Unit Operator and Chevron are parties to that certain Vacuum Area Cooperative Lease Line Agreement dated March 1, 1996 in the interest of more properly producing and conserving the oil and gas from the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit; and

WHEREAS, Unit Operator and Chevron desire to amend the said Vacuum Area Cooperative Lease Line Agreement for the purpose of drilling additional producing wells at or near the Unit lines between the Vacuum Grayburg San Andres Unit and Central Vacuum Unit in order to further enhance the ultimate recovery of hydrocarbons from the lands and Units;

NOW, THEREFORE, for and in consideration of the premises, Unit Operator and Chevron have agreed and do by these presents herein agree that Article I found on page 1 of the Vacuum Area Cooperative Lease Line Agreement shall be amended to add the following wells to be drilled and equipped at approximately the referenced location for the production of oil and gas from the Grayburg and San Andres formations:

Vacuum Grayburg San Andres Unit Well No. 405, located 1,910 feet from the North line and 40 feet from the East line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 412, location 2,195.8 feet from the South line and 295.9 feet from the East line (SL) and 2,200 feet from the South line and 10 feet from the East line (BHL) of Section 1, T-18-S, R-34-E

In addition, it is hereby agreed by the parties hereto to amend the Vacuum Area Cooperative Lease Line Agreement to include four (4) water injection wells, as described below (the Wells), to be drilled on or near the common boundary of the Central Vacuum Unit and the Vacuum San Andres Unit to provide for the injection of water into the underlying Grayburg-San Andres formation which shall benefit both Units. The Wells will be equipped for injection, and shall not be utilized as producing wells, except as

specifically provided for herein. Due to reservoir pressure in this portion of the Vacuum field, these wells may initially flow hydrocarbons to the surface for a period of time. Unit Operator, at its sole discretion, may initially and temporarily connect the Wells to the producing facilities and the operation of the Wells and any production therefrom will be governed by the terms and conditions of said Vacuum Area Cooperative Lease Line Agreement. At such time as any hydrocarbons cease to flow, or at Unit Operator's sole discretion, the well or wells will automatically be converted to the intended water injection wells status and shall be governed by the terms and conditions of the Cooperative Water Injection Agreement dated April 14, 1978, as amended without any further action required from the parties to this agreement. The proposed water injection wells to be drilled & equipped and their approximate locations are as follows:

Vacuum Grayburg San Andres Unit Well No. 438WI, located 10 feet from the North line and 420 feet from the East Line (SHL) and 10 feet from the North line and 670 feet from East line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 439WI, located 634 feet from the North line and 1,632 feet from the East line (SHL) and 10 feet from the North line and 1,980 feet from the East Line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 440WI, located 100 feet from the North line and 1,980 feet from the West line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 441WI, located 170 feet from the North line and 710 feet from the West line (SHL) and 10 feet from the North line and 650 feet from the West Line (BHL) of Section 1, T-18-S, R-34-E

Should any of the locations for the well or wells listed above deviate slightly while drilling from the surface location to the bottom hole location, it is agreed that the well or wells will be equipped at a locations drilled and completed without further action required from the parties to this agreement. All of the above wells are located in Lea County, New Mexico as shown on the map attached as Exhibit "A" attached hereto and made a part hereof.

All remaining terms and conditions of the original Vacuum Area Cooperative Lease Line Agreement, excepting those herein amended, shall remain unchanged and shall in full force and effect.

IN WITNESS WHEREOF, this instrument is executed on this 16<sup>th</sup> day of November, but is effective as of the 1<sup>ST</sup> day of December, 2007.

CHEVRON U.S.A. INC.  
As Operator and on behalf of the  
Working Interest Owners of the  
Central Vacuum Unit

CHEVRON U.S.A. INC.  
As Operator and Sole Working  
Interest Owner of the Vacuum  
Grayburg San Andres Unit

By: [Signature]  
D. K. Beckham, Attorney-in-Fact

[Signature]  
D. K. Beckham, Attorney-in-Fact

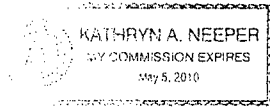
STATE OF TEXAS           §

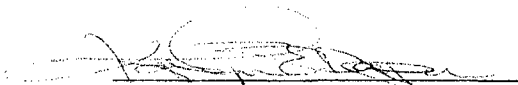
COUNTY OF MIDLAND   §

On this the 9th day of November, 2007, before me appeared D.K. Beckham, as Attorney-in-Fact for CHEVRON U.S.A. INC., a Pennsylvania corporation, and acknowledged to me that she executed the instrument for the purposes and consideration therein expressed.

WITNESS my hand and official seal this the 19th day of November, 2007.

My Commission expires:



  
Notary Public in and for the State of Texas.

## Page 1 of 1



**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

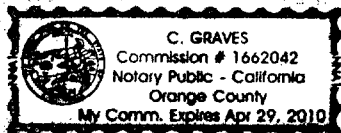
State of California

County of Orange

On 12-3-07 before me, C. GRAVES, Notary Public  
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared Christine Campos  
NAME(S) OF SIGNER(S)

☐ personally known to me - **OR** - ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s); or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

C. Graves  
SIGNATURE OF NOTARY

**OPTIONAL**

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL  
☐ CORPORATE OFFICER

TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED  
☐ GENERAL

- ☐ ATTORNEY-IN-FACT  
☐ TRUSTEE(S)  
☐ GUARDIAN/CONSERVATOR  
☐ OTHER: \_\_\_\_\_

**SIGNER IS REPRESENTING:**  
NAME OF PERSON(S) OR ENTITY(IES)

**DESCRIPTION OF ATTACHED DOCUMENT**

Amendment to Vacuum Oven  
TITLE OR TYPE OF DOCUMENT

ONE  
NUMBER OF PAGES

\_\_\_\_\_  
DATE OF DOCUMENT

\_\_\_\_\_  
SIGNER(S) OTHER THAN NAMED ABOVE

## Page 1 of 1

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11-26-2007

**FRISCO ENERGY LLC**

By: Charles E Smith

Print Name: CHARLES E SMITH

Title: CO-MANAGER

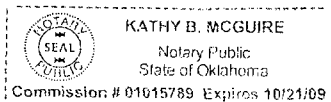
CORPORATE ACKNOWLEDGMENT

STATE OF Oklahoma }  
COUNTY OF Tulsa }

BEFORE ME, the undersigned authority, on this day personally appeared Charles E. Smith, as Co-Manager for Frisco Energy, L.L.C., a limited Liability Company corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 26<sup>th</sup> day of November, 2007.

MY COMMISSION EXPIRES:



Kathy B. McGuire  
Notary Public

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 1-8-08

**H M BETTIS INC**

By: J. M. Bettis

Print Name: J. M. BETTIS

Title: PRESIDENT

CORPORATE ACKNOWLEDGMENT

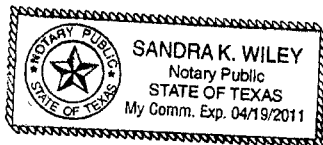
STATE OF Texas }  
COUNTY OF Young }

BEFORE ME, the undersigned authority, on this day personally appeared H.M. Bellis, as President for H.M. Bellis, Inc., a Texas corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 8th day of January, 2007.

MY COMMISSION EXPIRES:

Sandra K. Wiley  
Notary Public



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

NOV 24 2007

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

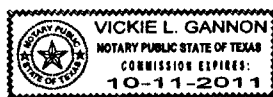
DATE: 11-27-07

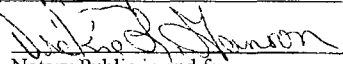
Signature:   
LARRY O HULSEY

STATE OF TEXAS                   §

COUNTY OF Young                   §

The forgoing instrument was acknowledged before me this 27<sup>th</sup> day of November, 2007, by Larry O. Hulsey



  
Notary Public in and for

Young County, Texas

My Commission Expires:  
10-11-2011

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO                   §

COUNTY OF LEA                           §

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WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned, who is the owner of a royalty interest or interests only, does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned, who is the owner of a working interest or interests, does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

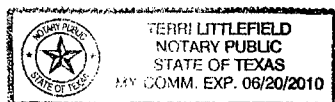
DATE: 11/28/07

Signature: Madelon L. Bradshaw  
MADELON L BRADSHAW

STATE OF TEXAS                           §

COUNTY OF Tarrant                           §

The forgoing instrument was acknowledged before me this 28th day of November, 2007, by Madelon L. Bradshaw



Terri Littlefield  
Notary Public in and for  
Tarrant County, Texas

My Commission Expires:  
\_\_\_\_\_



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 12/12/07

**MARATHON OIL COMPANY**

By: 

CORPORATE ACKNOWLEDGMENT

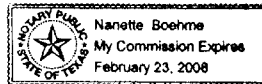
STATE OF Texas }  
COUNTY OF Harris }

BEFORE ME, the undersigned authority, on this day personally appeared Craig Kent, as Subsurface Manager for Marathon Oil Company, a Ohio corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 2th day of December, 2007.

MY COMMISSION EXPIRES:

Nanette Boehme  
Notary Public



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

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WHEREAS, Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 1-15-08

**Martha Leonard Revocable Trust**

By: 

Print Name: TIM G. RAETZ

Title: VICE PRES.

SINGLE ACKNOWLEDGMENT

STATE OF Texas §

COUNTY OF Tarrant §

The foregoing instrument was acknowledged before me this 16 day of January, 2008, by Jim Ratz



Bonnie Faye Berry Hodge  
Notary Public in and for  
Tarrant County, Texas

My Commission Expires:

9/3/08

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS }

COUNTY OF \_\_\_\_\_ }

BEFORE ME, the undersigned authority, on this day personally appeared \_\_\_\_\_, as \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

MY COMMISSION EXPIRES:

\_\_\_\_\_  
Notary Public

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 1-15-08

**Mary Leonard Children's Trust**

By: *Tim G. Raetz*

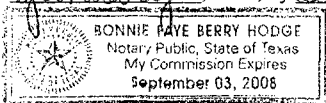
Print Name: TIM G. RAETZ

Title: VICE PRES.

SINGLE ACKNOWLEDGMENT

STATE OF Texas §  
COUNTY OF Tarrant §

The forgoing instrument was acknowledged before me this 16 day of January, 2008, by Jim Rietz



Bonnie Faye Berry Hodge  
Notary Public in and for

Tarrant County, Texas

My Commission Expires:

9/3/08

CORPORATE ACKNOWLEDGMENT

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ }

BEFORE ME, the undersigned authority, on this day personally appeared \_\_\_\_\_, as \_\_\_\_\_ for \_\_\_\_\_, a \_\_\_\_\_ corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

MY COMMISSION EXPIRES:

\_\_\_\_\_  
Notary Public

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and


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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: November 28, 2007

**MCBEE OPERATING COMPANY LLC**

By: 

Print Name: Michael A. McBee, Jr.

Title: VP Operations

CORPORATE ACKNOWLEDGMENT

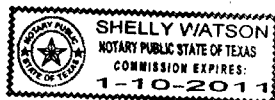
STATE OF Texas }  
COUNTY OF Dallas }

BEFORE ME, the undersigned authority, on this day personally appeared Michael A. McBeel, Jr., as VP Operations for McBeel Operating Company, LLC, a \_\_\_\_\_ corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 28th day of November, 2007.

MY COMMISSION EXPIRES:

Shelly Watson  
Notary Public





**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO       §

COUNTY OF LEA               §

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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

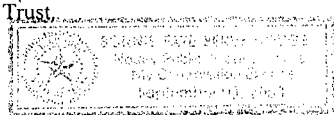
DATE: 11-29-07

Signature: *Miranda Leonard*  
MIRANDA LEONARD TRST

STATE OF TEXAS               §

COUNTY OF Tarrant               §

The forgoing instrument was acknowledged before me this 27th day of November, 2007, by Am B. Bartz as Trustee of the Miranda Leonard Trust.



Bonnie Gay Berry Hodge  
Notary Public in and for

Tarrant County, \_\_\_\_\_

My Commission Expires: 11/11/08

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11 Jan 08

**MOBIL PRODUCING TEXAS & NEW MEXICO**

By: Donald E. Lovelace

Print Name: Donald E. Lovelace

Title: Attorney In Fact

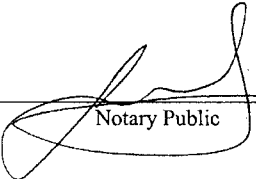
CORPORATE ACKNOWLEDGMENT

STATE OF Texas }  
COUNTY OF Harris }

BEFORE ME, the undersigned authority, on this day personally appeared Don Loveless, as Attorney in Fact for Mobil Petroleum Texas + New Mexico, a Delaware corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 11 day of January, 2008.

MY COMMISSION EXPIRES: 1-11-09

  
\_\_\_\_\_  
Notary Public



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

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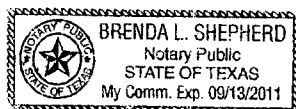
DATE: 11-24-07

Signature: Norman D. Stovall Jr.  
NORMAN D STOVALL JR

STATE OF TEXAS                   §

COUNTY OF Young                   §

The forgoing instrument was acknowledged before me this 24<sup>th</sup> day of November, 2007, by Norman D. Stovall Jr.



My Commission Expires: \_\_\_\_\_

Brenda L. Shepherd  
Notary Public in and for

Young County, Texas

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 1/29/08

CONOCOPHILLIPS COMPANY

By: J. P. Gregory *WJB*  
Print Name: J. P. Gregory *TLS*  
Title: Attorney-In-Fact

CORPORATE ACKNOWLEDGMENT

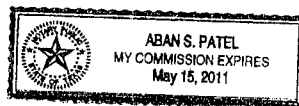
STATE OF TEXAS }  
COUNTY OF HARRIS }

BEFORE ME, the undersigned authority, on this day personally appeared J. P. Gregory, as Attorney-in-Fact for ConocoPhillips Company a Delaware corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 29th day of January, 2008

MY COMMISSION EXPIRES:

Aban S. Patel  
Notary Public



**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: 11/28/07

**TRIPLE T RESOURCES LP**

By: 

Print Name: David Weir

Title: Land Manager

**RATIFICATION OF AGREEMENTS ENTITLED "VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT" AND "AMENDMENT TO  
VACUUM AREA COOPERATIVE LEASE LINE AGREEMENT"  
LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO           §

COUNTY OF LEA                   §

KNOW ALL MEN BY THESE PRESENTS, THAT:

WHEREAS, each of the undersigned owners of a Working Interest, Royalty Interest or interests hereby acknowledges receipt of a true and correct copy of that certain agreement dated March 1, 1996, entitled "Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Lease Line Agreement"), and a true and correct copy of that certain agreement effective December 1, 2007, entitled "Amendment to Vacuum Area Cooperative Lease Line Agreement, Lea County, New Mexico" ("Amendment"), which said agreements are hereafter referred to as the Lease Line Agreement and Amendment; and

WHEREAS, Exhibits "A" to the Exhibits "A" to the Lease Line Agreement and Amendment, identify the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit (and wells) producing oil and gas from the Grayburg and San Andres formations; and

WHEREAS, each of the undersigned represents that it is a Working Interest Owner or Royalty Owner, or both, in the Lease Line Agreement and Amendment identified by said Exhibits; and

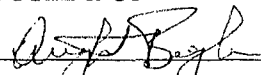
WHEREAS, each undersigned Royalty Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment; and each undersigned Working Interest Owner, being familiar with the contents thereof, desires to ratify and confirm said Lease Line Agreement and Amendment.

NOW THEREFORE, each of the undersigned who is the owner of a royalty interest or interests only does hereby ratify and confirm said Lease Line Agreement and Amendment, and each of the undersigned who is the owner of a working interest or interests does hereby ratify and confirm said Lease Line Agreement and Amendment, each owner with respect to all of its interests in the two (2) Exhibits to said Lease Line Agreement and Amendment, thereby becoming a party hereto.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth below and opposite it signature.

DATE: Nov 26, 2007

**W T BOYLE & CO**

By:   
Print Name: Dwight Boyle  
Title: President



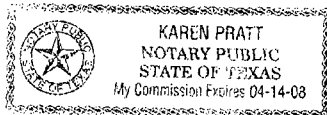
CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS }  
COUNTY OF YOUNG }

BEFORE ME, the undersigned authority, on this day personally appeared DWIGHT BOYLE, as PRESIDENT for W.T. BOYLE & CO., a TEXAS corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE on this 26<sup>th</sup> day of NOVEMBER, 2007.

MY COMMISSION EXPIRES:



Karen Pratt  
Notary Public

**THIRD AMENDMENT TO VACUUM (GRAYBURG-SAN ANDRES)  
COOPERATIVE WATER INJECTION AGREEMENT**

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

THIS AMENDMENT shall be effective as of December 1, 2007, by and between the Central Vacuum Unit, represented by CHEVRON U.S.A. INC., Successor-in-interest to TEXACO EXPLORATION AND PRODUCTION INC., as Unit Operator, hereinafter referred as "Unit Operator", and the Vacuum Grayburg- San Andres Unit, represented by CHEVRON USA INC. as Unit Operator, hereinafter referred to as "Chevron".

WITNESSETH:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Chevron is the Operator of the Vacuum Grayburg-San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as more particularly described in the Vacuum Grayburg San Andres Unit Agreement to which reference is made for purposes of Description; and

WHEREAS, Unit Operator and Chevron are parties to that certain Cooperative Water Injection Agreement dated April 14, 1978 (the Agreement), providing for the operation of water injection wells on or near the common boundary of the Central Vacuum Unit and the Vacuum Grayburg San Andres Unit, and providing for the injection of water into the underlying Grayburg-San Andres formation through said injection wells; and

WHEREAS, by Amendment to Cooperative Water Injection Agreement dated April 28, 1989, effective October 20, 1988 (First Amendment), said agreement was amended to replace Paragraph 6 found on Page 2 relative to the charge for injection water provided by Unit Operator; and

WHEREAS, by Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement dated and effective January 1, 2001 (Second Amendment), said agreement was further amended to provide for CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injectants for all the water injection wells identified in the agreement; and

WHEREAS, Unit Operator and Chevron desire to further amend the said Cooperative Water Injection Agreement, as amended, to drill and equip additional injection wells at or near the Unit lines between the Vacuum Grayburg San Andres Unit and Central Vacuum Unit to provide for the injection of CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injectants into the underlying Grayburg-San Andres formation through the additional injection wells so that the leases and lands mentioned above will be benefited by an increase in the production of crude oil.

NOW, THEREFORE, for in consideration of the premises, Unit Operator and Chevron have agreed and do by these presents herein agree that Subparagraph 1, page 1 and Subparagraph 4, page 2 of the Cooperative Water Injection Agreement dated April 14, 1978, as amended by the First Amendment and the Second Amendment, are hereby amended by the addition of the following language as set forth in the corresponding numbered paragraph, and that the referenced wells are added as injection wells to be drilled and equipped for the injection of CO<sub>2</sub>, produced gas, water or any combination

thereof, as acceptable injectants into the underlying Grayburg-San Andres formations as follows:

1. Unit Operator, as soon as practical following the effective date of this Agreement agrees to drill, complete and equip four (4) additional CO<sub>2</sub>, produced gas, water or any combination thereof, as acceptable injection wells in the Grayburg-San Andres formation at the approximate locations shown on the plat attached hereto as Exhibit "A", and with location descriptions and Working Interest Ownership percentages tabulated on Exhibit "B", also attached and made a part hereof for all purposes. In the event proposed new well or wells not be able to adequately be drilled at the approximate locations as outlined above, it is agreed that the well or wells will be drilled and equipped at a location(s) which are legally as close to the lease line as possible without further action required from the parties to this agreement.
4. Chevron agrees to continue to furnish water suitable for injection purposes through the Vacuum Grayburg-San Andres Unit Injection System at the price and on the basis set forth in said Cooperative Water Injection Agreement, as amended. The water delivered hereunder to the injection well by Chevron shall be measured by standard type water metering equipment installed and operated by Chevron.

In addition, Unit Operator and Chevron have agreed and do by these presents herein agree that the Agreement, as amended by the First Amendment and Second Amendment, is further amended by the insertion of the following paragraph:

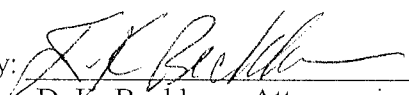
12. CO<sub>2</sub>, produced gas, or any combination thereof, are acceptable injectants for all water injection wells identified in the Cooperative Water Injection Agreement and any amendments thereto.

and that the Second Amendment is hereby amended to reflect the addition of the above paragraph 12 to the Agreement, effective as of the date of the Second Amendment.

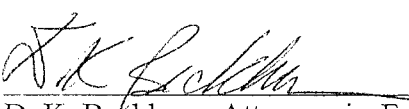
These additional injection wells to be drilled shall be bound by all the other terms and conditions of the original Cooperative Water Injection Agreement, as amended, and the purpose of this Amendment serves only to add said wells and locations. Except as amended hereby, the Cooperative Water Injection Agreement, as amended, remains in full force and effect.

IN WITNESS WHEREOF, this instrument is executed this 19<sup>th</sup> day of November, 2007, but effective as of the date written above.

CHEVRON U.S.A. INC.  
As Operator of the Central  
Vacuum Unit

By:   
D. K. Beckham, Attorney-in-Fact

CHEVRON U.S.A. INC.  
as Operator of the Vacuum  
Grayburg San Andres Unit

  
D. K. Beckham, Attorney-in-Fact

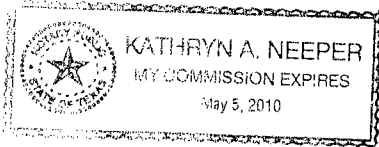
STATE OF TEXAS §


COUNTY OF MIDLAND §

On this the 19<sup>th</sup> day of November, 2007, before me appeared D.K. Beckham, as Attorney-in-Fact for CHEVRON U.S.A. INC., a Pennsylvania corporation, and acknowledged to me that she executed the instrument for the purposes and consideration therein expressed.

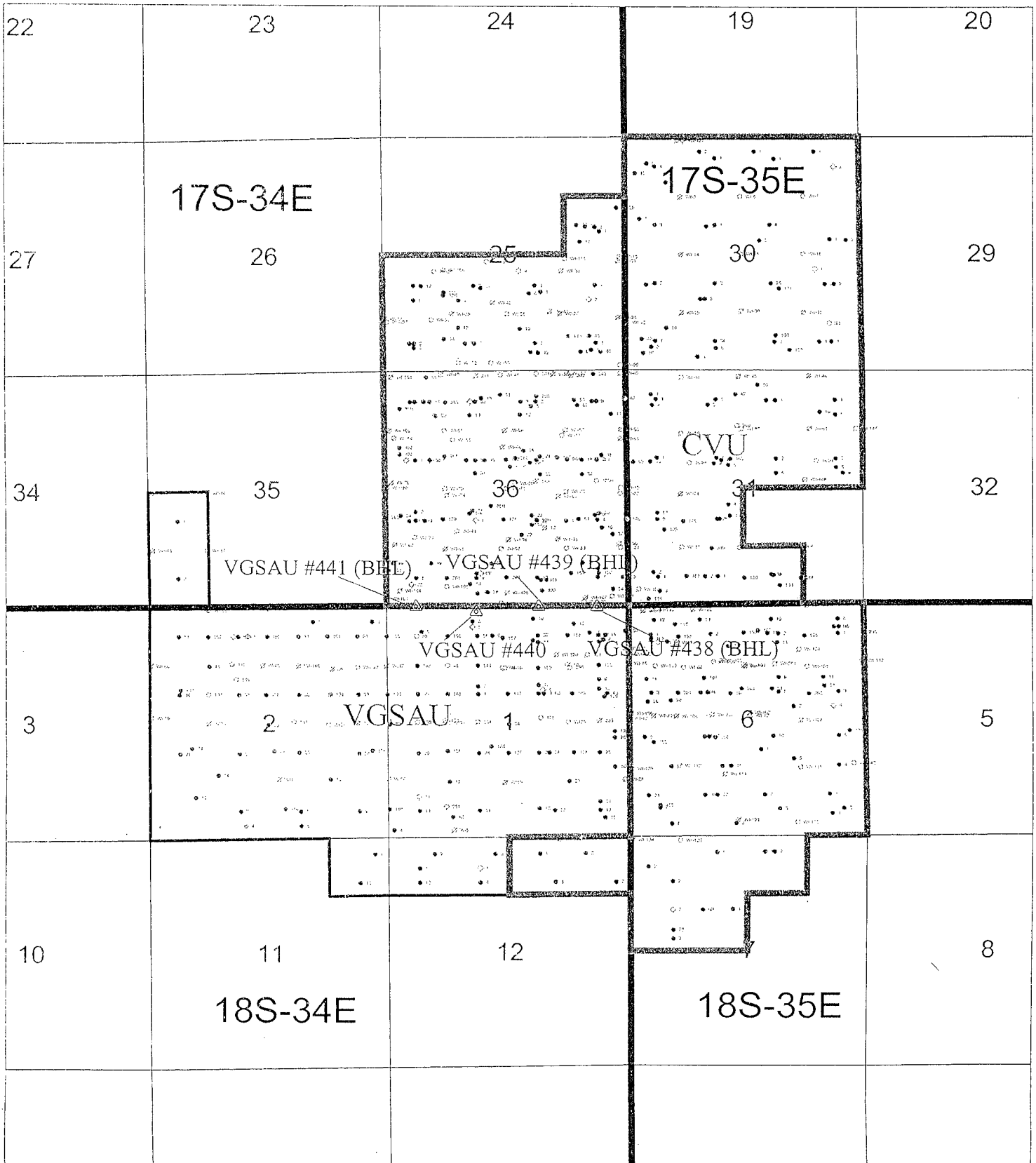
WITNESS my hand and official seal this the 19<sup>th</sup> day of November, 2007.

My Commission expires:



  
Notary Public in and for the State of Texas.

CHEVRON USA INC.  
COOPERATIVE WATER INJECTION AGREEMENT  
EXHIBIT "A"  
LEA COUNTY, NEW MEXICO  
12/01/2007



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1" = 3000'

**EXHIBIT "B"**

Amendment to Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement  
between Central Vacuum Unit and Vacuum Grayburg-San Andres Unit  
Lea County, New Mexico

**ORIGINAL WELL LOCATIONS AND OWNERSHIP**

<b><u>WELL NO.</u></b>	<b><u>WELL LOCATION</u></b>	<b><u>OWNERSHIP</u></b>
133	10' FNL & 1,550' FEL, Section 12	CVU – 50%, VGSAU – 50%
<b>T-18-S, R-34-E</b>		
141	10' FSL & 1,310' FWL, Section 36	CVU – 50%, VGSAU – 50%
240 (Replaced 140)	257' FSL & 2,519' FWL (SHL) 19' FSL & 2,522' FWL, (BHL) Section 36	CVU – 50%, VGSAU – 50%
139	10' FSL & 1,310' FEL, Section 36	CVU – 50%, VGSAU – 50%
<b>All in T-17-S, R-34-E</b>		
238 (Replaced 138)	10' FSL & 420' FEL, (SHL) 10' FSL & 10' FEL, (BHL) Section 36	CVU – 75%, VGSAU – 25%
<b>T-17-S, R-34-E</b>		
137	10' FWL & 1,100' FNL, Section 6	CVU – 50%, VGSAU – 50%
136	10' FWL & 2,450' FNL, Section 6	CVU – 50%, VGSAU – 50%
135	10' FWL & 1,600' FSL, Section 6	CVU – 50%, VGSAU – 50%
134	10' FWL & 10' FSL, Section 6	CVU – 75%, VGSAU – 25%

**All in T-18-S, R-35-E**

**PROPOSED NEW WELL LOCATIONS AND OWNERSHIP**

438	10' FNL & 420' FEL, (SHL) 10' FNL & 670' FEL, (BHL) Section 1	CVU – 50%, VGSAU – 50%
439	634' FNL & 1,632' FEL, (SHL) 10' FNL & 1,980' FEL, (BHL) Section 1	CVU – 50%, VGSAU – 50%
440	100' FNL & 1,980' FWL, Section 1	CVU – 50%, VGSAU – 50%
441	170' FNL & 710' FWL, (SHL) 10' FNL & 650' FWL, (BHL) Section 1	CVU – 50%, VGSAU – 50%

**All in T-18-S, R-34-E**

**NOTE:** CVU = Central Vacuum Unit  
VGSAU = Vacuum Grayburg San Andres Unit  
SHL = Surface Hole Location  
BHL = Bottom Hole Location

**END OF EXHIBIT "B"**

**AMENDMENT TO VACUUM AREA COOPERATIVE LEASE LINE  
AGREEMENT**

STATE OF NEW MEXICO           §

COUNTY OF LEA               §

THIS AMENDMENT is entered between CHEVRON U.S.A. INC., Successor-in-interest to TEXACO EXPLORATION AND PRODUCTION INC., ("CHEVRON") as Operator and sole working interest owner in the Vacuum Grayburg San Andres Unit, and CHEVRON USA INC. as Operator and on behalf of all the working interest owners in the Central Vacuum Unit ("Unit Operator").

WITNESSETH:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Chevron is the Operator of the Vacuum Grayburg San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as shown on Exhibit "A" and more particularly described in the Vacuum Grayburg San Andres Unit Agreement to which reference is made for purposes of Description; and

WHEREAS, Unit Operator and Chevron are parties to that certain Vacuum Area Cooperative Lease Line Agreement dated March 1, 1996 in the interest of more properly producing and conserving the oil and gas from the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit; and

WHEREAS, Unit Operator and Chevron desire to amend the said Vacuum Area Cooperative Lease Line Agreement for the purpose of drilling additional producing wells at or near the Unit lines between the Vacuum Grayburg San Andres Unit and Central Vacuum Unit in order to further enhance the ultimate recovery of hydrocarbons from the lands and Units;

NOW, THEREFORE, for and in consideration of the premises, Unit Operator and Chevron have agreed and do by these presents herein agree that Article I found on page 1 of the Vacuum Area Cooperative Lease Line Agreement shall be amended to add the following wells to be drilled and equipped at approximately the referenced location for the production of oil and gas from the Grayburg and San Andres formations:

Vacuum Grayburg San Andres Unit Well No. 405, located 1,910 feet from the North line and 40 feet from the East line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 412, location 2,195.8 feet from the South line and 295.9 feet from the East line (SL) and 2,200 feet from the South line and 10 feet from the East line (BHL) of Section 1, T-18-S, R-34-E

In addition, it is hereby agreed by the parties hereto to amend the Vacuum Area Cooperative Lease Line Agreement to include four (4) water injection wells, as described below (the Wells), to be drilled on or near the common boundary of the Central Vacuum Unit and the Vacuum San Andres Unit to provide for the injection of water into the underlying Grayburg-San Andres formation which shall benefit both Units. The Wells will be equipped for injection, and shall not be utilized as producing wells, except as

specifically provided for herein. Due to reservoir pressure in this portion of the Vacuum field, these wells may initially flow hydrocarbons to the surface for a period of time. Unit Operator, at its sole discretion, may initially and temporarily connect the Wells to the producing facilities and the operation of the Wells and any production therefrom will be governed by the terms and conditions of said Vacuum Area Cooperative Lease Line Agreement. At such time as any hydrocarbons cease to flow, or at Unit Operator's sole discretion, the well or wells will automatically be converted to the intended water injection wells status and shall be governed by the terms and conditions of the Cooperative Water Injection Agreement dated April 14, 1978, as amended without any further action required from the parties to this agreement. The proposed water injection wells to be drilled & equipped and their approximate locations are as follows:

Vacuum Grayburg San Andres Unit Well No. 438WI, located 10 feet from the North line and 420 feet from the East Line (SHL) and 10 feet from the North line and 670 feet from East line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 439WI, located 634 feet from the North line and 1,632 feet from the East line (SHL) and 10 feet from the North line and 1,980 feet from the East Line (BHL) of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 440WI, located 100 feet from the North line and 1,980 feet from the West line of Section 1, T-18-S, R-34-E

Vacuum Grayburg San Andres Unit Well No. 441WI, located 170 feet from the North line and 710 feet from the West line (SHL) and 10 feet from the North line and 650 feet from the West Line (BHL) of Section 1, T-18-S, R-34-E

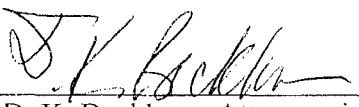
Should any of the locations for the well or wells listed above deviate slightly while drilling from the surface location to the bottom hole location, it is agreed that the well or wells will be equipped at a locations drilled and completed without further action required from the parties to this agreement. All of the above wells are located in Lea County, New Mexico as shown on the map attached as Exhibit "A" attached hereto and made a part hereof.

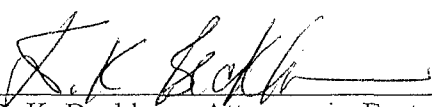
All remaining terms and conditions of the original Vacuum Area Cooperative Lease Line Agreement, excepting those herein amended, shall remain unchanged and shall in full force and effect.

IN WITNESS WHEREOF, this instrument is executed on this 16<sup>th</sup> day of November, but is effective as of the 1<sup>ST</sup> day of December, 2007.

CHEVRON U.S.A. INC.  
As Operator and on behalf of the  
Working Interest Owners of the  
Central Vacuum Unit

CHEVRON U.S.A. INC.  
As Operator and Sole Working  
Interest Owner of the Vacuum  
Grayburg San Andres Unit

By:   
D. K. Beckham, Attorney-in-Fact

  
D. K. Beckham, Attorney-in-Fact



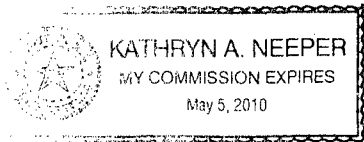
STATE OF TEXAS §

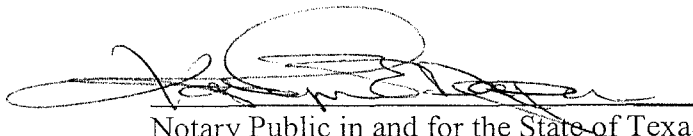
COUNTY OF MIDLAND §

On this the 19<sup>th</sup> day of November, 2007, before me appeared D.K. Beckham, as Attorney-in-Fact for CHEVRON U.S.A. INC., a Pennsylvania corporation, and acknowledged to me that she executed the instrument for the purposes and consideration therein expressed.

WITNESS my hand and official seal this the 19<sup>th</sup> day of November, 2007.

My Commission expires:



  
Notary Public in and for the State of Texas.

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
---------	----------	----------	-----------	------	---------

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



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

#### [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 (See Amendments to Lease Line Agreements for Production wells & water injection wells)

#### [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.

Daniel Pequeno  
 Print or Type Name

Signature

Land Representative  
 Title

January 28, 2008  
 Date

peqd@chevron.com  
 e-mail Address

RECEIVED  
 2008 JUN 29 PM 2:41

District I

1625 N. French Dr., Hobbs, NM 88240  
Phone:(505) 393-6161 Fax:(505) 393-0720

District II

1301 W. Grand Ave., Artesia, NM 88210  
Phone:(505) 748-1283 Fax:(505) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**

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

Form C-102  
Permit 60427

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 405
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 3977

**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	1	18S	34E		1910	N	40	E	LEA

**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 10.00		13. Joint or Infill		14. Consolidation Code		15. Order No.			

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

	<b>OPERATOR CERTIFICATION</b>	
	<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>	
	E-Signed By: Title: Date:	
	<b>SURVEYOR CERTIFICATION</b>	
<i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>		
Surveyed By: <u>JOHN DIPER</u> Date of Survey: <u>7/9/2007</u> Certificate Number: <u>7254</u>		

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
1301 W. Grand Ave., Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
1220 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Form C-1021  
Revised October 12, 2005

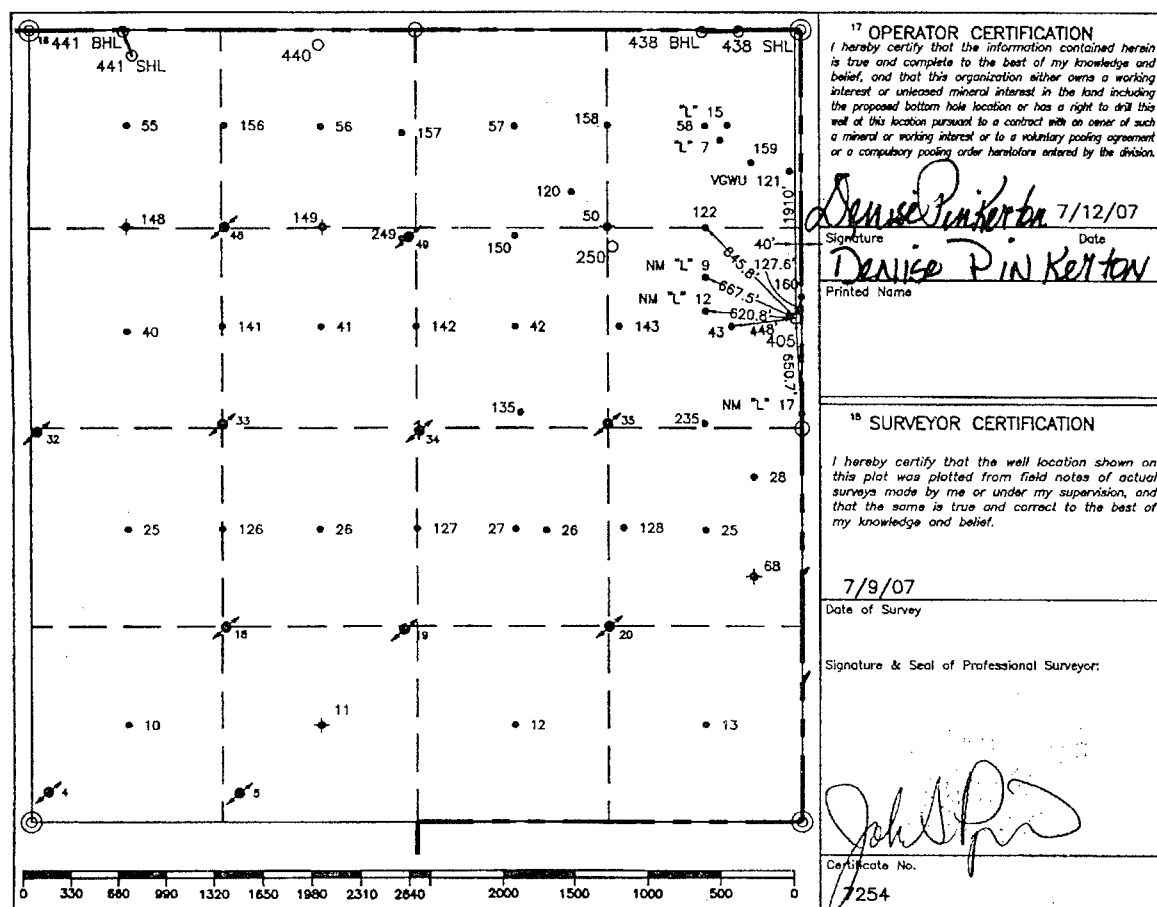
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Fee Lease-3 copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

1 API Number		2 Pool Code <b>62180</b>		3 Pool Name Vacuum Grayburg San Andres					
4 Property Code		5 Property Name Vacuum Grayburg San Andres Unit			6 Well Number 405				
7 GRID No. <b>4323</b>		8 Operator Name CHEVRON USA, INC.			9 Elevation 3977'				
10 Surface Location									
UL or lot no. H	Section 1	Township 18-S	Range 34-E	Lot Idn	Feet from the 1910'	North/South line North	Feet from the 40'	East/West line East	County Lea
11 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
12 Dedicated Acres 10		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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



○ = Staked Location • = Producing Well ⊕ = Injection Well ◇ = Water Supply Well ⊕ = Plugged & Abandon Well  
⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates			
Northing 648138.25		Easting 795763.52	
Latitude 32°46'44.507"		Longitude 103°30'19.832"	
Zone	North American Datum	Combined Grid Factor	Coordinate File
East	1983	0.99979647	Buckeye.Crd
Drawing File		Field Book	
VGSAU-Sec1.Dwg		Lea #23, Pg. 76	

District I

1625 N. French Dr., Hobbs, NM 88240  
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Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**

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

Form C-102  
Permit 61023

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 412
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 3983

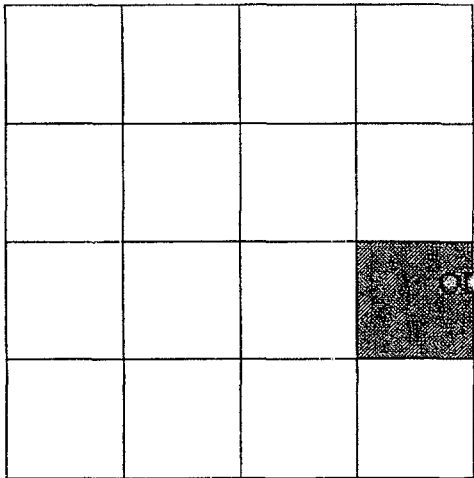
**10. Surface Location**

UL - Lot I	Section 1	Township 18S	Range 34E	Lot Idn	Feet From 2196	N/S Line S	Feet From 296	E/W Line E	County LEA
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**11. Bottom Hole Location If Different From Surface**

UL - Lot I	Section 1	Township 18S	Range 34E	Lot Idn I	Feet From 2200	N/S Line S	Feet From 10	E/W Line E	County LEA
12. Dedicated Acres 10.00		13. Joint or Infill		14. Consolidation Code		15. Order No.			

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

	<p align="center"><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Title: Date:</p>
	<p align="center"><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: JOHN PIPER Date of Survey: 7/18/2007 Certificate Number: 7254</p>

DISTRICT I  
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State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-1021  
Revised October 12, 2005

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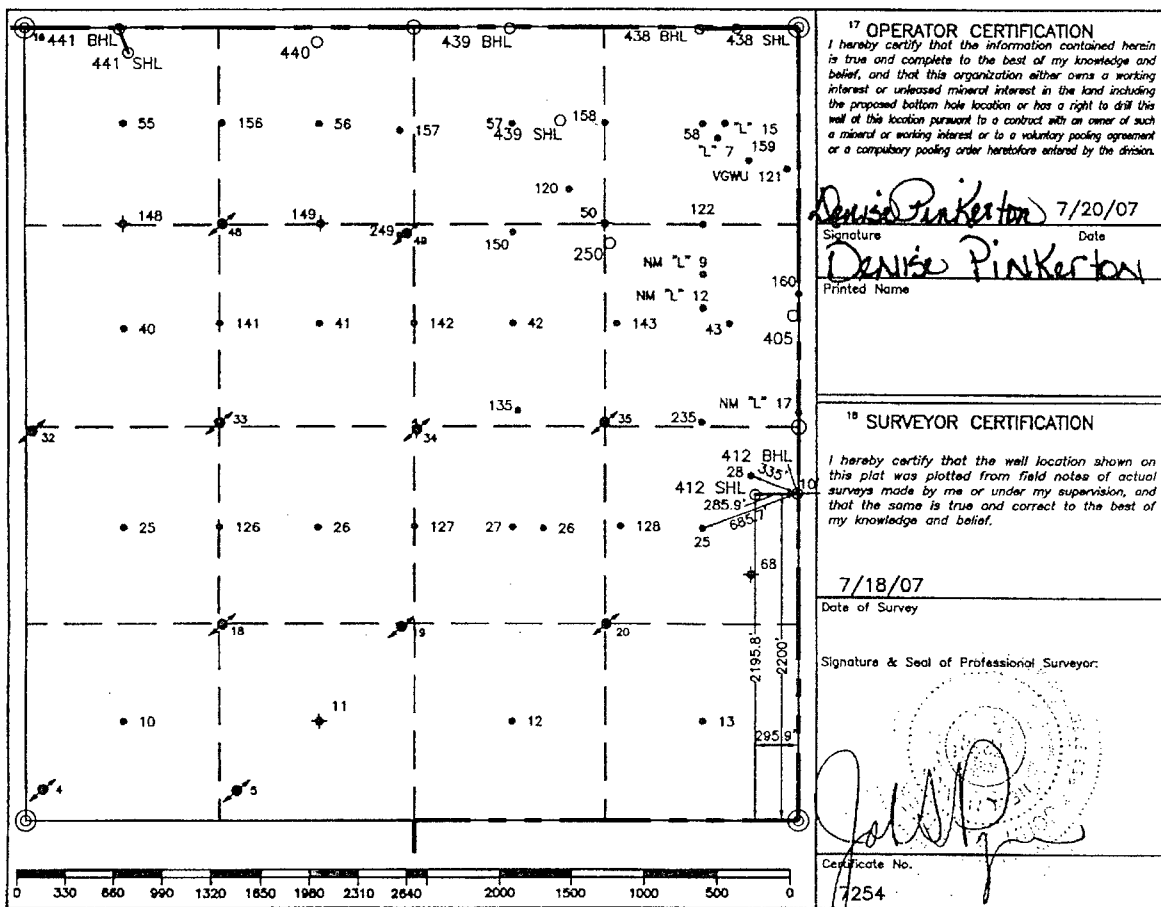
OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 62180		3 Pool Name Vacuum Grayburg San Andres				
4 Property Code		5 Property Name Vacuum Grayburg San Andres Unit			6 Well Number 412			
7 OGRID No. 4323		8 Operator Name CHEVRON USA, INC.			9 Elevation 3983'			
10 Surface Location								
UL or lot no. 1	Section 1	Township 18-S	Range 34-E	Lot Idn 2195.8'	North/South line South	Feet from the 295.9'	East/West line East	County Lea
11 Bottom Hole Location if Different From Surface								
UL or lot no. 1	Section 1	Township 18-S	Range 34-E	Lot Idn 2200'	North/South line South	Feet from the 10'	East/West line East	County Lea
12 Dedicated Acres 10		13 Joint or Infill		14 Consolidation Code		15 Order No.		

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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.



17 OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill the well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Denise Pinkerton 7/20/07  
Signature Date  
Denise Pinkerton  
Printed Name

18 SURVEYOR CERTIFICATION

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

7/18/07  
Date of Survey

Signature & Seal of Professional Surveyor:

7254  
Certificate No.

○ = Staked Location • = Producing Well ✕ = Injection Well ◊ = Water Supply Well ♦ = Plugged & Abandon Well  
⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates		795520.92 SHL	
Northing 646943.09 SHL 646951.72 BHL		Easting 795806.72 BHL	
Latitude 32°46'32.700" SHL 32°46'32.763" BHL		Longitude 103°30'22.782" SHL 103°30'19.434" BHL	
Zone East	North American Datum 1983	Combined Grid Factor 0.99979581	Coordinate File Buckeye.Crd
Drawing File VGSAU-Sec1.Dwg		Field Book Lea #24, Pg. 12	

District I

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**

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

Form C-102  
Permit 61098

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 438
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 3986

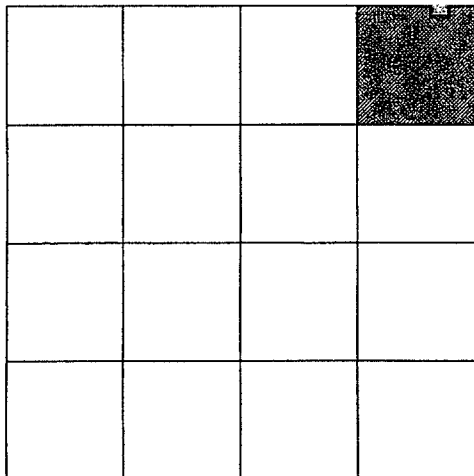
**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	1	18S	34E		10	N	420	E	LEA

**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 10.00		13. Joint or Infill		14. Consolidation Code		15. Order No.			

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**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By:

Title:

Date:

**SURVEYOR CERTIFICATION**

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

~~Surveyed By: JOHN PIPER~~

Date of Survey: 7/9/2007

Certificate Number: 7254

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
1301 W. Grand Ave., Artesia, NM 88210  
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1000 Rio Brazos Rd., Aztec, NM 87410  
DISTRICT IV  
1220 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005

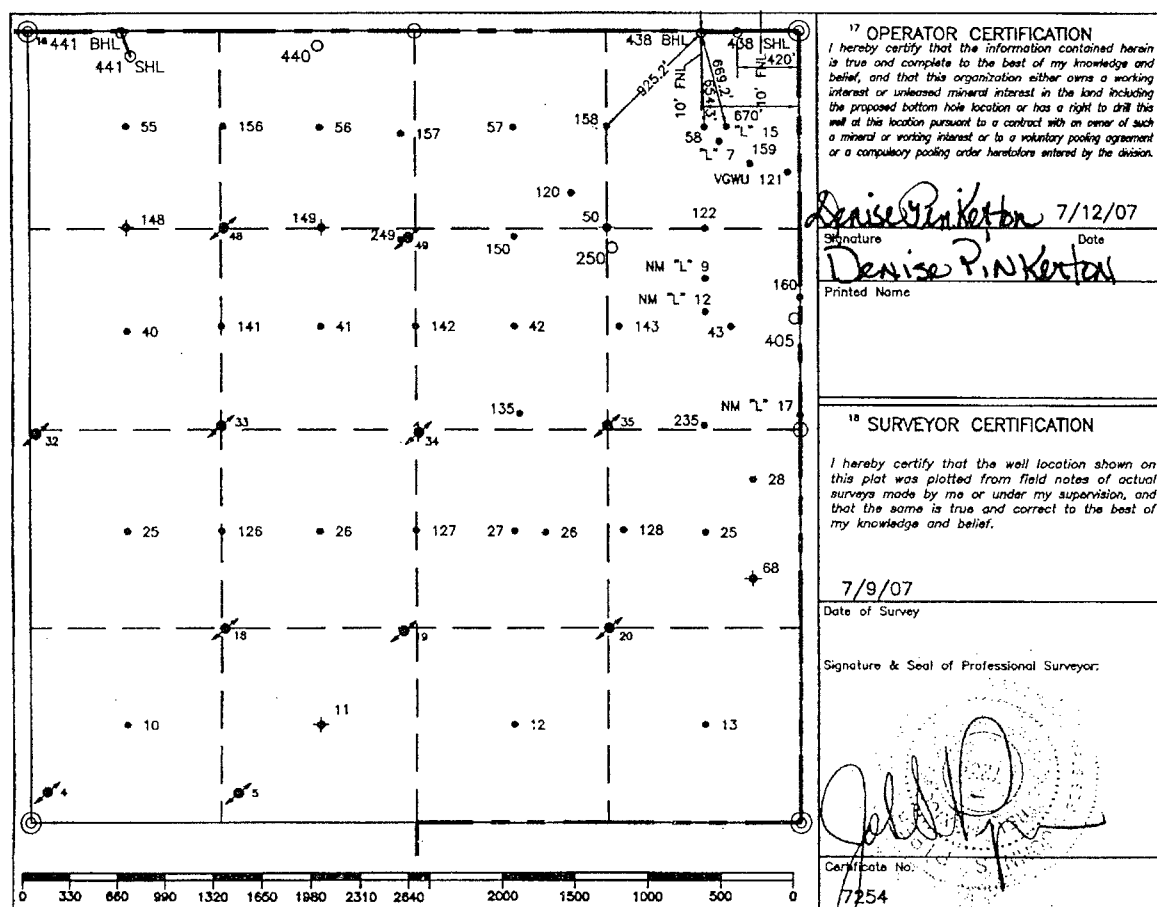
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Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code <b>62180</b>		3 Pool Name Vacuum Grayburg San Andres				
4 Property Code		5 Property Name Vacuum Grayburg San Andres Unit			6 Well Number 438			
7 OGRID No. <b>4373</b>		8 Operator Name CHEVRON USA, INC.			9 Elevation 3986'			
10 Surface Location								
UL or lot no. A	Section 1	Township 18-S	Range 34-E	Lot Idn 10'	North/South line North	Feet from the 420'	East/West line East	County Lea
11 Bottom Hole Location If Different From Surface								
UL or lot no. A	Section 1	Township 18-S	Range 34-E	Lot Idn 10'	North/South line North	Feet from the 670'	East/West line East	County Lea
12 Dedicated Acres 10		13 Joint or Infill		14 Consolidation Code		15 Order No.		

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ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates		795560.93 SHL	
Northing 650029.86 BHL		Easting 795110.94 BHL	
Latitude 32°47'03.286" SHL 32°47'03.273" BHL		Longitude 103°30'24.374" SHL 103°30'27.302" BHL	
Zone North American Datum		Combined Grid Factor	Coordinate File
East 1983		0.99979581	Buckeye.Crd
Drawing File VGSAU-Sec1.Dwg		Field Book Lea #23, Pg. 77	



District I

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District IV

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Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**

**Oil Conservation Division**

**1220 S. St Francis Dr.**

**Santa Fe, NM 87505**

Form C-102  
Permit 61099

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 439
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 3989

**10. Surface Location**

UL - Lot B	Section 1	Township 18S	Range 34E	Lot Idn	Feet From 634	N/S Line N	Feet From 1632	E/W Line E	County LEA
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 10.00	13. Joint or Infill	14. Consolidation Code	15. Order No.						

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	<p align="center"><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: <b>JOHN PIPER</b></p>
	<p>Date of Survey: 7/18/2007</p> <p>Certificate Number: 7254</p>

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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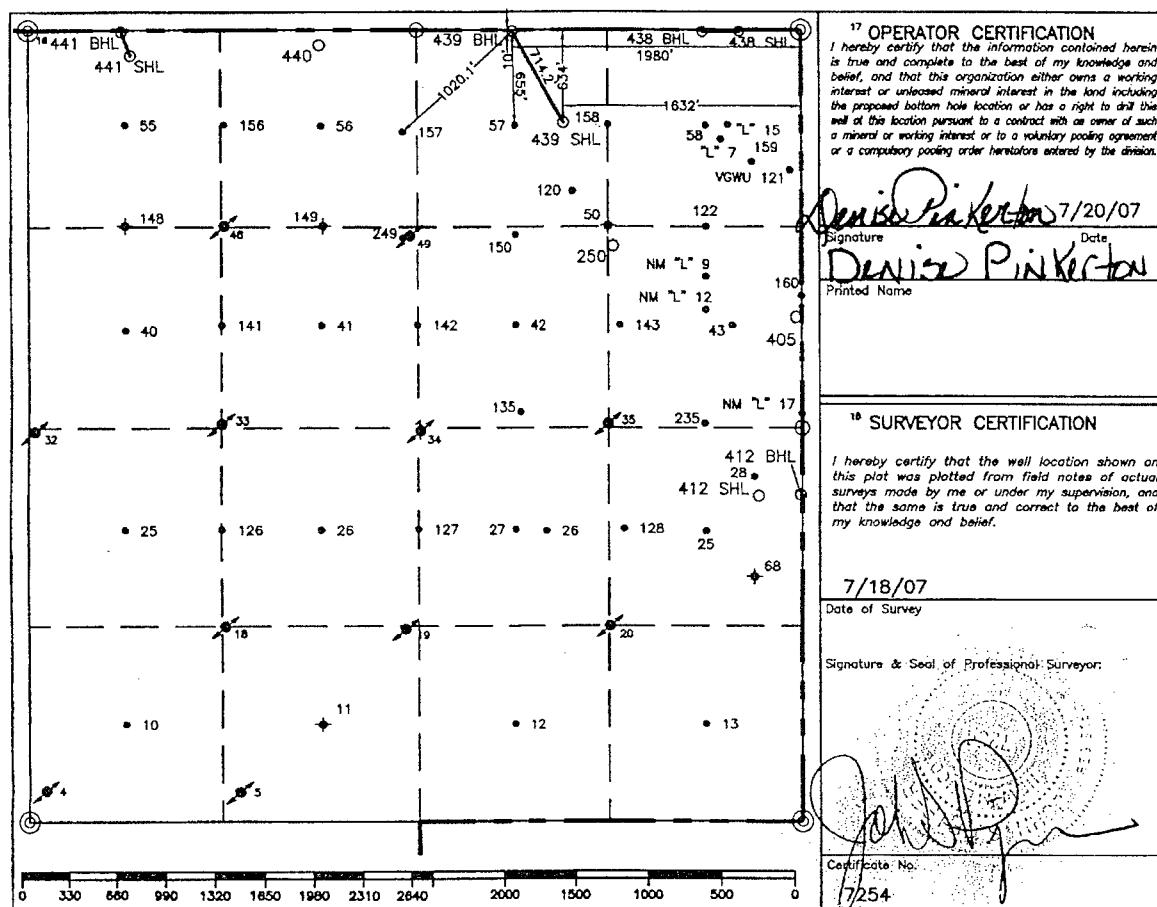
OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 6218D		3 Pool Name Vacuum Grayburg San Andres					
4 Property Code		5 Property Name Vacuum Grayburg San Andres Unit			6 Well Number 439				
7 OGRID No. 4323		8 Operator Name CHEVRON USA, INC.			9 Elevation 3989'				
10 Surface Location									
UL or lot no. B	Section 1	Township 18-S	Range 34-E	Lot Idn	Feet from the 634'	North/South line North	Feet from the 1632'	East/West line East	County Lea
11 Bottom Hole Location If Different From Surface									
UL or lot no. B	Section 1	Township 18-S	Range 34-E	Lot Idn	Feet from the 10'	North/South line North	Feet from the 1980'	East/West line East	County Lea
12 Dedicated Acres 10		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates		704156.52 SHL	
Northing 650012.77 BHL		Easting 793801.03 BHL	
Latitude 32°46'57.049" SHL 32°47'03.205" BHL		Longitude 103°30'38.539" SHL 103°30'42.646" BHL	
Zone North American Datum		Combined Grid Factor	Coordinate File
East 1983		0.99979581	Buckeye.Crd
Drawing File VGS AU-Sec1.Dwg		Field Book Lea #24, Pg. 11	

District I

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**

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

Form C-102  
Permit 61100

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 440
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 3996

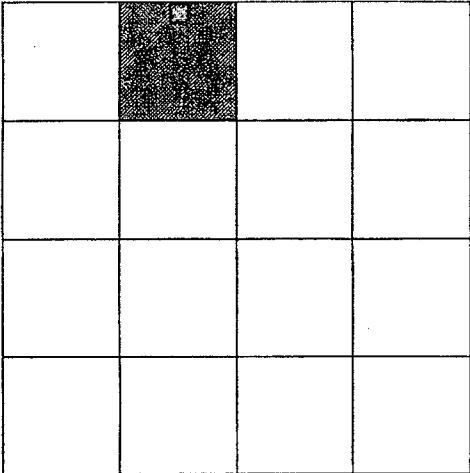
**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	1	18S	34E		100	N	1980	W	LEA

**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 10.00		13. Joint or Infill		14. Consolidation Code			15. Order No.		

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	<p align="center"><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: <u>JOHN PIERER</u> Date of Survey: 7/9/2007 Certificate Number: 7254</p>

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State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Form C-1021  
Revised October 12, 2005

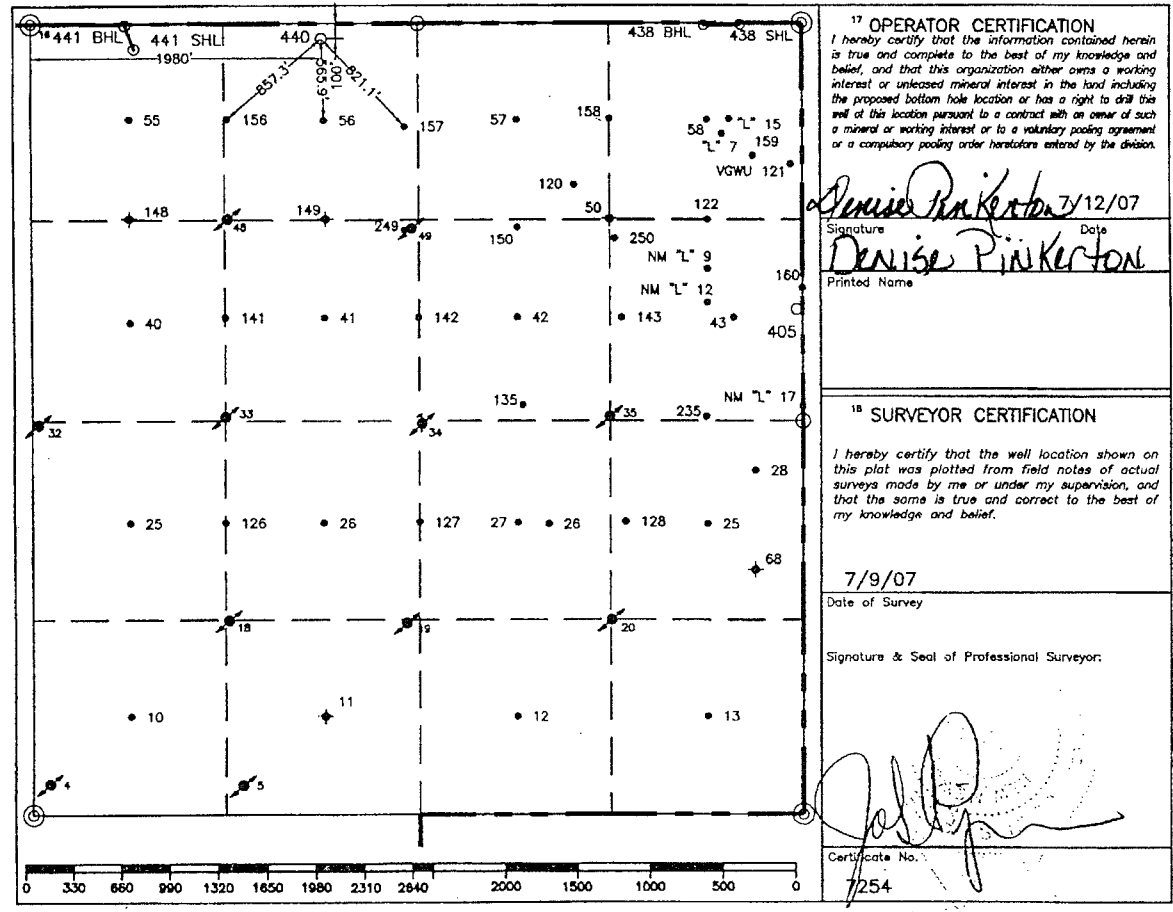
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 62180		3 Pool Name Vacuum Grayburg San Andres					
Property Code		5 Property Name Vacuum Grayburg San Andres Unit			6 Well Number 440				
7 GRID No. 4323		8 Operator Name CHEVRON USA, INC.			9 Elevation 3996'				
10 Surface Location									
UL or lot no. C	Section 1	Township 18-S	Range 34-E	Lot Idn	Feet from the 100'	North/South line North	Feet from the 1980'	East/West line West	County Lea
11 Bottom Hole Location If Different From Surface									
12 Dedicated Acres 10		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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◎ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates		
Northing 649905.52	Easting 792481.78	
Latitude 32°47'02.245"	Longitude 103°30'58.108"	
Zone North American Datum	Combined Grid Factor	Coordinate File
East 1983	0.99979368	Buckeye.Crd
Drawing File	Field Book	
VGSAU-Sec1.Dwg	Lea #23, Pg. 79	

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**Energy, Minerals and Natural Resources**

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

Form C-102  
Permit 61101

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number	2. Pool Code 62180	3. Pool Name VACUUM;GRAYBURG-SAN ANDRES
4. Property Code 30022	5. Property Name VACUUM GRAYBURG SAN ANDRES UNIT	6. Well No. 441
7. OGRID No. 4323	8. Operator Name CHEVRON U S A INC	9. Elevation 4002

**10. Surface Location**

UL - Lot A	Section 1	Township 18S	Range 34E	Lot Idn	Feet From 170	N/S Line N	Feet From 710	E/W Line W	County LEA
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 10.00		13. Joint or Infill		14. Consolidation Code		15. Order No.			

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

	<b>OPERATOR CERTIFICATION</b>
	<p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Title: Date:</p>
	<b>SURVEYOR CERTIFICATION</b>
	<p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: JOHN PIPER</p>
	<p>Date of Survey: 7/9/2007 Certificate Number: 7254</p>

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Form C-102  
Revised October 12, 2005

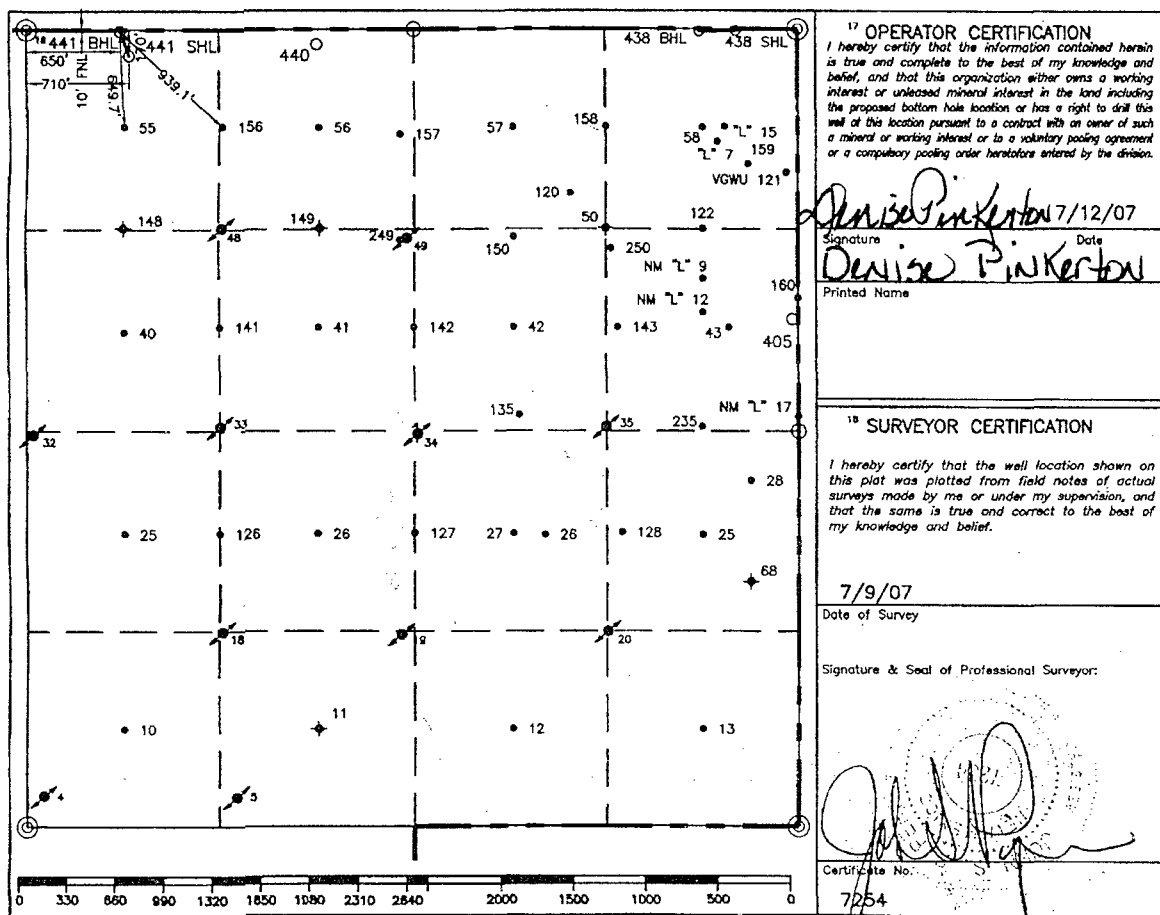
Submit to Appropriate District Office  
State Lease-4 copies  
Fee Lease-3 copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

1 API Number		2 Pool Code <b>62180</b>		3 Pool Name <b>Vacuum Grayburg San Andres</b>					
4 Property Code		5 Property Name <b>Vacuum Grayburg San Andres Unit</b>			6 Well Number <b>441</b>				
7 OGRID No. <b>4323</b>		8 Operator Name <b>CHEVRON USA, INC.</b>			9 Elevation <b>4002'</b>				
10 Surface Location									
UL or lot no. <b>A</b>	Section <b>1</b>	Township <b>18-S</b>	Range <b>34-E</b>	Lot Idn	Feet from the <b>170'</b>	North/South line <b>North</b>	Feet from the <b>710'</b>	East/West line <b>West</b>	County <b>Lea</b>
11 Bottom Hole Location If Different From Surface									
UL or lot no. <b>A</b>	Section <b>1</b>	Township <b>18-S</b>	Range <b>34-E</b>	Lot Idn	Feet from the <b>10'</b>	North/South line <b>North</b>	Feet from the <b>650'</b>	East/West line <b>West</b>	County <b>Lea</b>
12 Dedicated Acres <b>10</b>		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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



○ = Staked Location ● = Producing Well ⊕ = Injection Well ◇ = Water Supply Well ⊕ = Plugged & Abandon Well  
⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates <b>649818.90 SHL</b>		<b>791212.83 SHL</b>	
Northing <b>649978.08 BHL</b>		Easting <b>791150.79 BHL</b>	
Latitude <b>32°47'01.484" SHL</b> <b>32°47'03.064" BHL</b>		Longitude <b>103°31'12.979" SHL</b> <b>103°31'13.692" BHL</b>	
Zone <b>North American Datum</b>		Combined Grid Factor <b>0.99979267</b>	Coordinate File <b>Buckeye.Crd</b>
East <b>1983</b>			
Drawing File <b>VGSAU-Sec1.Dwg</b>		Field Book <b>Lea #23, Pg. 78</b>	



## **Chevron**

Lea County, NM (NAD 83 NME)

VGSAU #412

VGSAU #412

OH

Plan: Plan #1

## **Standard Planning Report**

23 July, 2007





# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #412
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #412	North Reference:	Grid
Well:	VGSAU #412	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	VGSAU #412		
Site Position:		Northing:	646,943.09 ft
From:	Map	Easting:	795,520.92 ft
Position Uncertainty:	0.00 ft	Slot Radius:	ft
		Latitude:	32° 46' 32.700 N
		Longitude:	103° 30' 22.782 W
		Grid Convergence:	0.45 °

Well	VGSAU #412		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 46' 32.700 N
		Longitude:	103° 30' 22.782 W
		Ground Level:	0.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/23/2007	8.06	60.82	49,397

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	88.27

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,180.00	0.00	0.00	3,180.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,699.46	10.39	88.27	3,696.62	1.42	46.95	2.00	2.00	16.99	88.27	
5,024.57	10.39	88.27	5,000.00	8.63	285.80	0.00	0.00	0.00	0.00	PBHL-VGSAU #412





# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #412
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #412	North Reference:	Grid
Well:	VGSAU #412	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EHL-VGSAU #412									
3,180.00	0.00	0.00	3,180.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP 3180' Start 2°/100'									
3,200.00	0.40	88.27	3,200.00	0.00	0.07	0.07	2.00	2.00	0.00
3,300.00	2.40	88.27	3,299.96	0.08	2.51	2.51	2.00	2.00	0.00
3,400.00	4.40	88.27	3,399.78	0.25	8.44	8.44	2.00	2.00	0.00
3,500.00	6.40	88.27	3,499.33	0.54	17.85	17.85	2.00	2.00	0.00
3,600.00	8.40	88.27	3,598.50	0.93	30.72	30.73	2.00	2.00	0.00
3,699.46	10.39	88.27	3,696.62	1.42	46.95	46.97	2.00	2.00	0.00
EOC hold 10.39°									
3,700.00	10.39	88.27	3,697.15	1.42	47.04	47.06	0.00	0.00	0.00
3,800.00	10.39	88.27	3,795.51	1.96	65.07	65.10	0.00	0.00	0.00
3,900.00	10.39	88.27	3,893.87	2.51	83.09	83.13	0.00	0.00	0.00
4,000.00	10.39	88.27	3,992.23	3.05	101.12	101.16	0.00	0.00	0.00
4,100.00	10.39	88.27	4,090.59	3.60	119.14	119.20	0.00	0.00	0.00
4,200.00	10.39	88.27	4,188.95	4.14	137.17	137.23	0.00	0.00	0.00
4,300.00	10.39	88.27	4,287.31	4.69	155.19	155.27	0.00	0.00	0.00
4,400.00	10.39	88.27	4,385.67	5.23	173.22	173.30	0.00	0.00	0.00
4,500.00	10.39	88.27	4,484.03	5.77	191.25	191.33	0.00	0.00	0.00
4,600.00	10.39	88.27	4,582.39	6.32	209.27	209.37	0.00	0.00	0.00
4,700.00	10.39	88.27	4,680.75	6.86	227.30	227.40	0.00	0.00	0.00
4,800.00	10.39	88.27	4,779.11	7.41	245.32	245.43	0.00	0.00	0.00
4,900.00	10.39	88.27	4,877.48	7.95	263.35	263.47	0.00	0.00	0.00
5,000.00	10.39	88.27	4,975.84	8.50	281.37	281.50	0.00	0.00	0.00
5,024.57	10.39	88.27	5,000.00	8.63	285.80	285.93	0.00	0.00	0.00
PBHL-VGSAU #412									

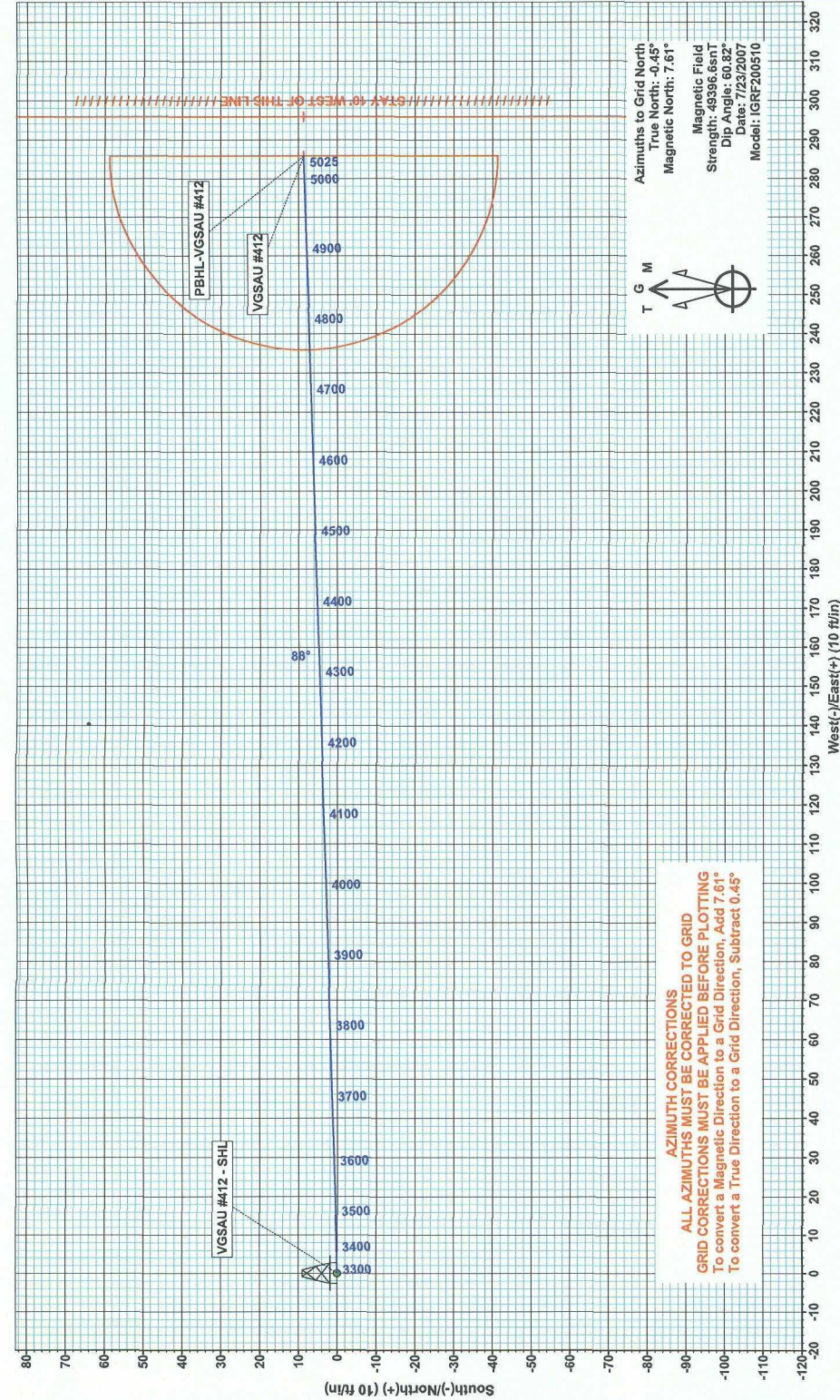
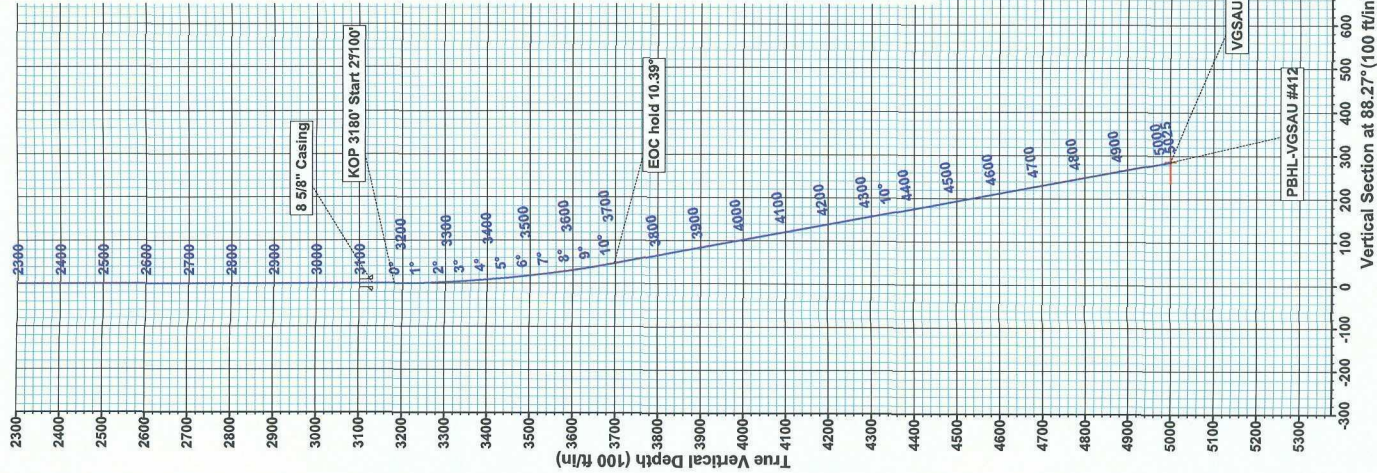
Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
EHL-VGSAU #412	0.00	0.00	0.00	8.63	295.80	646,951.72	795,816.72	32° 46' 32.763 N	103° 30' 19.317 W
- plan misses by 295.93ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W200.00 H0.00 D0.00)									
PBHL-VGSAU #412	0.00	0.00	5,000.00	8.63	285.80	646,951.72	795,806.72	32° 46' 32.763 N	103° 30' 19.434 W
- plan hits target									
- Circle (radius 50.00)									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,180.00	3,180.00	0.00	0.00	KOP 3180' Start 2°/100'	
3,699.46	3,696.62	1.42	46.95	EOC hold 10.39°	





Scientific Drilling for Chevron  
Site: Lea County, NM (NAD 83 NME)  
Well: VGSAU #412  
Wellbore: OH  
Design: Plan #1



Azimuths to Grid North  
True North: -0.45°  
Magnetic North: 7.61°  
Magnetic Field  
Strength: 49396.6nT  
Dip Angle: 60.82°  
Date: 7/23/2007  
Model: IGRF200510

**ALL AZIMUTH CORRECTIONS  
GRID CORRECTIONS MUST BE APPLIED BEFORE PLOTTING**  
To convert a Magnetic Direction to a Grid Direction, Add 7.61°  
To convert a True Direction to a Grid Direction, Subtract 0.45°

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	3180.00	0.00	0.00	3180.00	0.00	0.00	0.00	0.00	0.00	
3	3699.46	10.39	88.27	3699.46	1.42	46.95	2.00	88.27	46.97	PBHL-VGSAU #412
4	5024.57	10.39	88.27	5000.00	8.63	285.80	0.00	0.00	285.93	

#### WELL DETAILS: VGSAU #412

+N/-S	+E/-W	North	East	Ground Level	Latitude	Longitude	Slot
0.00	0.00	646943.09	795520.92	0.00	32° 46' 32.700 N	103° 30' 22.782 W	

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	North	East	Latitude	Longitude	Shape
EH-VGSAU #412	0.00	8.63	285.80	646951.72	795516.72	32° 46' 32.763 N	103° 30' 19.377 W	Rectangle (Sides: L200.00 W0.00)
PBHL-VGSAU #412	5000.00	8.63	285.80	646951.72	795506.72	32° 46' 32.763 N	103° 30' 19.434 W	Circle (Radius: 50.00)

Plan: Plan #1 (VGSAU #412/OH)

Created By: Julio Pina Date: 23-Jul-07  
Checked: Date: \_\_\_\_\_  
Reviewed: Date: \_\_\_\_\_  
Approved: Date: \_\_\_\_\_

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level



**Chevron**



## **Chevron**

Lea County, NM (NAD 83 NME)

VGSAU #438

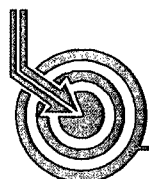
VGSAU #438

OH

Plan: Plan #1

## **Standard Survey Report**

23 July, 2007



**Scientific Drilling**  
Directional Drilling Operations



# Scientific Drilling Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well VGSAU #438
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #438	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	VGSAU #438	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	VGSAU #438				
Site Position:		Northing:	650,033.17 ft	Latitude:	32° 47' 3.286 N
From:	Map	Easting:	795,360.93 ft	Longitude:	103° 30' 24.374 W
Position Uncertainty:	0.00 ft	Slot Radius:	ft	Grid Convergence:	0.45 °

Well		VGSAU #438				
Well Position	+N/-S	0.00 ft	Northing:	650,033.17 ft	Latitude:	32° 47' 3.286 N
	+E/-W	0.00 ft	Easting:	795,360.93 ft	Longitude:	103° 30' 24.374 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/23/2007	8.06	60.83	49,402

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.24

Survey Tool Program	Date 7/23/2007			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	3,180.00	Plan #1 (OH)	Keeper	Keeper Standard Rate Gyro
3,180.00	5,018.55	Plan #1 (OH)	MWD	MWD - Standard ISCWSA

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NHL-VGSAU #438									
3,130.00	0.00	0.00	3,130.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8" Casing									
3,180.00	0.00	0.00	3,180.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP 3180' start 2°/100'									
3,200.00	0.40	269.24	3,200.00	0.00	-0.07	0.07	2.00	2.00	0.00
3,300.00	2.40	269.24	3,299.96	-0.03	-2.51	2.51	2.00	2.00	0.00
3,400.00	4.40	269.24	3,399.78	-0.11	-8.44	8.44	2.00	2.00	0.00
3,500.00	6.40	269.24	3,499.33	-0.24	-17.85	17.85	2.00	2.00	0.00
3,600.00	8.40	269.24	3,598.50	-0.41	-30.73	30.73	2.00	2.00	0.00
3,624.84	8.90	269.24	3,623.05	-0.46	-34.46	34.47	2.00	2.00	0.00



# Scientific Drilling Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well VGSAU #438
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #438	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	VGSAU #438	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
EOC hold 8.90°									
3,700.00	8.90	269.24	3,697.31	-0.61	-46.09	46.09	0.00	0.00	0.00
3,800.00	8.90	269.24	3,796.11	-0.81	-61.55	61.56	0.00	0.00	0.00
3,900.00	8.90	269.24	3,894.90	-1.02	-77.02	77.02	0.00	0.00	0.00
4,000.00	8.90	269.24	3,993.70	-1.22	-92.48	92.49	0.00	0.00	0.00
4,100.00	8.90	269.24	4,092.50	-1.43	-107.94	107.95	0.00	0.00	0.00
4,200.00	8.90	269.24	4,191.29	-1.63	-123.41	123.42	0.00	0.00	0.00
4,300.00	8.90	269.24	4,290.09	-1.84	-138.87	138.88	0.00	0.00	0.00
4,400.00	8.90	269.24	4,388.89	-2.04	-154.34	154.35	0.00	0.00	0.00
4,500.00	8.90	269.24	4,487.69	-2.25	-169.80	169.82	0.00	0.00	0.00
4,600.00	8.90	269.24	4,586.48	-2.45	-185.26	185.28	0.00	0.00	0.00
4,700.00	8.90	269.24	4,685.28	-2.66	-200.73	200.75	0.00	0.00	0.00
4,800.00	8.90	269.24	4,784.08	-2.86	-216.19	216.21	0.00	0.00	0.00
4,900.00	8.90	269.24	4,882.87	-3.07	-231.66	231.68	0.00	0.00	0.00
5,000.00	8.90	269.24	4,981.67	-3.27	-247.12	247.14	0.00	0.00	0.00
5,018.55	8.90	269.24	5,000.00	-3.31	-249.99	250.01	0.00	0.00	0.00
PBHL-VGSAU #438									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-VGSAU #438	0.00	0.07	5,000.00	-3.31	-249.99	650,029.86	795,110.94	32° 47' 3.273 N	103° 30' 27.302 W
- plan hits target									
- Circle (radius 50.00)									
NHL-VGSAU #438	0.00	0.08	0.00	6.69	-249.99	650,039.86	795,110.94	32° 47' 3.372 N	103° 30' 27.301 W
- plan misses by 250.08ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W0.00 H350.00 D0.00)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
3,130.00	3,130.00	8 5/8" Casing	8.62500	12.25000

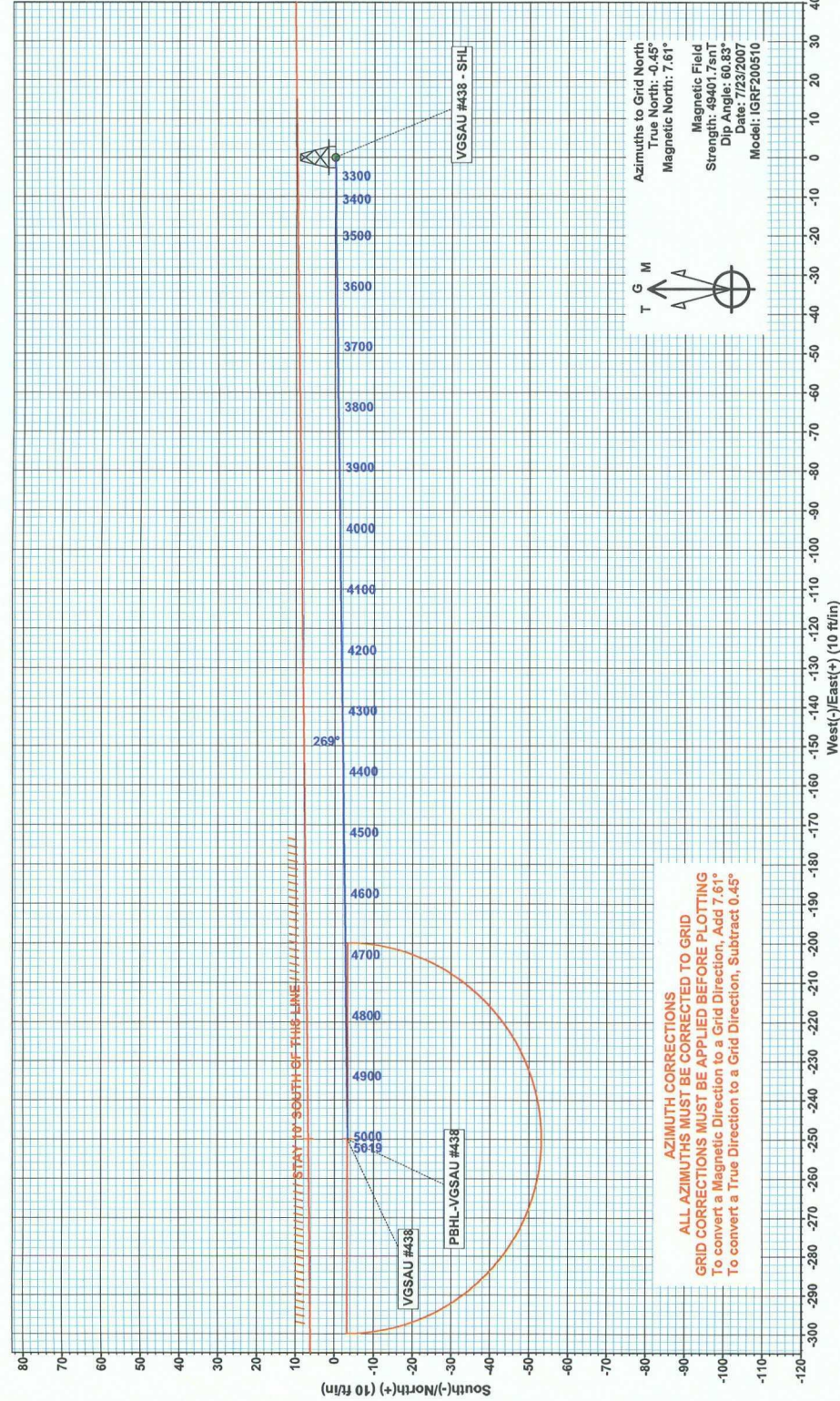
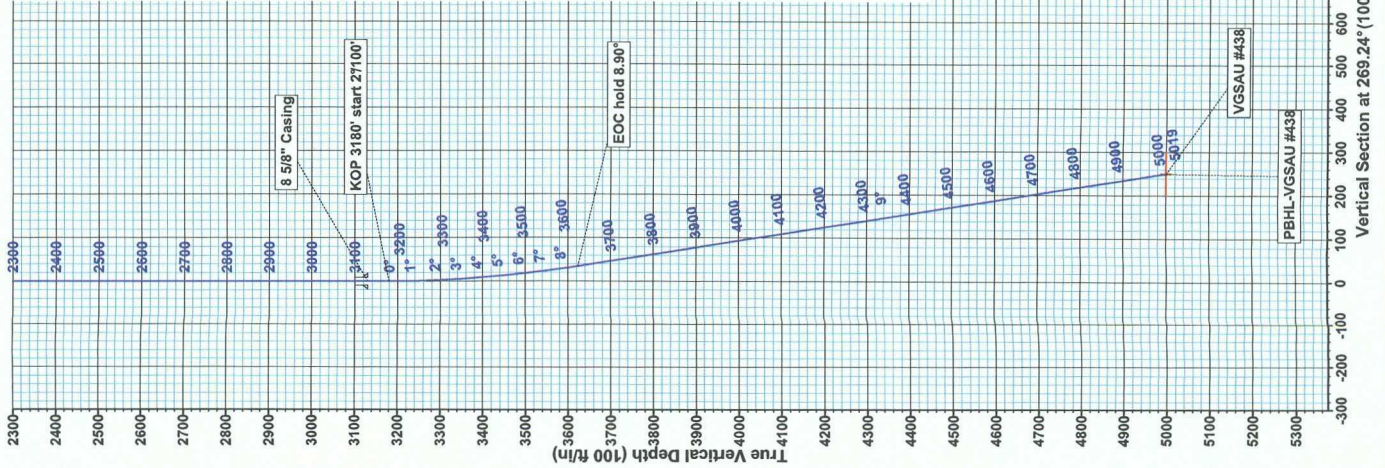
Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,180.00	3,180.00	0.00	0.00	KOP 3180' start 2°/100'
3,624.84	3,623.05	-0.46	-34.46	EOC hold 8.90°

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_





Scientific Drilling for Chevron  
Site: Lea County, NM (NAD 83 NME)  
Well: VGSAU #438  
Wellbore: OH  
Design: Plan #1



Azinuths to Grid North  
True North: -0.45°  
Magnetic North: 7.61°  
Magnetic Field  
Strength: 49401.7nT  
Dip Angle: 60.83°  
Date: 7/23/2007  
Model: IGRF200510

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3180.00	0.00	0.00	3180.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3624.84	8.90	269.24	3623.05	-0.46	-34.46	2.00	269.24	34.47	PBHL-VGSAU #438
4	5018.55	8.90	269.24	5000.00	-3.31	-249.99	0.00	0.00	250.01	PBHL-VGSAU #438

#### WELL DETAILS: VGSAU #438

Name	TVD	+N/-S	+E/-W	Ground Level	Latitude	Longitude	Slot
NHL-VGSAU #438	0.00	0.00	0.00	650033.17	32° 47' 3.286 N	103° 30' 2 4.374 W	
PBHL-VGSAU #438	5000.00	-3.31	-249.99	650029.86	32° 47' 3.275 N	103° 30' 27.302 W	

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Ground Level	Latitude	Longitude	Shape
NHL-VGSAU #438	0.00	0.00	0.00	650033.17	32° 47' 3.286 N	103° 30' 2 4.374 W	Circle (Radius: 50.00)
PBHL-VGSAU #438	5000.00	-3.31	-249.99	650029.86	32° 47' 3.275 N	103° 30' 27.302 W	Circle (Radius: 50.00)

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

Plan: Plan #1 (VGSAU #438/OH)

Created By: Julio Pina  
Date: 23-Jul-07  
Checked: \_\_\_\_\_  
Date: \_\_\_\_\_  
Reviewed: \_\_\_\_\_  
Date: \_\_\_\_\_  
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_





## **Chevron**

Lea County, NM (NAD 83 NME)

VGSAU #439

VGSAU #439

OH

Plan: Plan #1

## **Standard Planning Report**

23 July, 2007





# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #439
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #439	North Reference:	Grid
Well:	VGSAU #439	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	VGSAU #439		
Site Position:		Northing:	649,393.38 ft
From:	Map	Easting:	794,156.52 ft
Position Uncertainty:	0.00 ft	Slot Radius:	ft
		Latitude:	32° 46' 57.049 N
		Longitude:	103° 30' 38.539 W
		Grid Convergence:	0.45 °

Well	VGSAU #439		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 46' 57.049 N
		Longitude:	103° 30' 38.539 W
		Ground Level:	0.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	7/23/2007	8.00
			Dip Angle
			(°)
			60.85
			Field Strength
			(nT)
			49,414

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			330.15

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,150.00	0.00	0.00	3,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,629.26	23.96	330.15	3,615.41	85.66	-49.16	5.00	5.00	-6.23	330.15	
5,144.45	23.96	330.15	5,000.00	619.39	-355.49	0.00	0.00	0.00	0.00	PBHL-VGSAU #439





# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #439
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #439	North Reference:	Grid
Well:	VGSAU #439	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NHL-VGSAU #439									
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8" Casing									
3,150.00	0.00	0.00	3,150.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP 3150' Start 5°/100'									
3,200.00	2.50	330.15	3,199.98	0.95	-0.54	1.09	5.00	5.00	0.00
3,300.00	7.50	330.15	3,299.57	8.50	-4.88	9.80	5.00	5.00	0.00
3,400.00	12.50	330.15	3,398.02	23.56	-13.52	27.16	5.00	5.00	0.00
3,500.00	17.50	330.15	3,494.58	46.00	-26.40	53.04	5.00	5.00	0.00
3,600.00	22.50	330.15	3,588.52	75.65	-43.42	87.23	5.00	5.00	0.00
3,629.26	23.96	330.15	3,615.41	85.66	-49.16	98.77	5.00	5.00	0.00
EOC hold 23.96°									
3,700.00	23.96	330.15	3,680.05	110.58	-63.47	127.50	0.00	0.00	0.00
3,800.00	23.96	330.15	3,771.43	145.81	-83.68	168.11	0.00	0.00	0.00
3,900.00	23.96	330.15	3,862.81	181.03	-103.90	208.73	0.00	0.00	0.00
4,000.00	23.96	330.15	3,954.20	216.26	-124.12	249.34	0.00	0.00	0.00
4,100.00	23.96	330.15	4,045.58	251.48	-144.33	289.96	0.00	0.00	0.00
4,200.00	23.96	330.15	4,136.96	286.71	-164.55	330.57	0.00	0.00	0.00
4,300.00	23.96	330.15	4,228.34	321.93	-184.77	371.19	0.00	0.00	0.00
4,400.00	23.96	330.15	4,319.72	357.16	-204.99	411.80	0.00	0.00	0.00
4,500.00	23.96	330.15	4,411.10	392.38	-225.20	452.42	0.00	0.00	0.00
4,600.00	23.96	330.15	4,502.48	427.61	-245.42	493.03	0.00	0.00	0.00
4,700.00	23.96	330.15	4,593.86	462.83	-265.64	533.64	0.00	0.00	0.00
4,800.00	23.96	330.15	4,685.24	498.06	-285.85	574.26	0.00	0.00	0.00
4,900.00	23.96	330.15	4,776.62	533.28	-306.07	614.87	0.00	0.00	0.00
5,000.00	23.96	330.15	4,868.00	568.51	-326.29	655.49	0.00	0.00	0.00
5,100.00	23.96	330.15	4,959.38	603.73	-346.50	696.10	0.00	0.00	0.00
5,144.45	23.96	330.15	5,000.00	619.39	-355.49	714.15	0.00	0.00	0.00
PBHL-VGSAU #439									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-VGSAU #439	0.00	0.07	5,000.00	619.39	-355.49	650,012.77	793,801.03	32° 47' 3.205 N	103° 30' 42.646 W
- plan hits target									
- Circle (radius 50.00)									
NHL-VGSAU #439	0.00	0.07	0.00	629.39	-355.49	650,022.77	793,801.03	32° 47' 3.304 N	103° 30' 42.646 W
- plan misses by 722.85ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W0.00 H500.00 D0.00)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
3,100.00	3,100.00	8 5/8" Casing	8.62500	12.25000



Scientific Drilling  
Planning Report



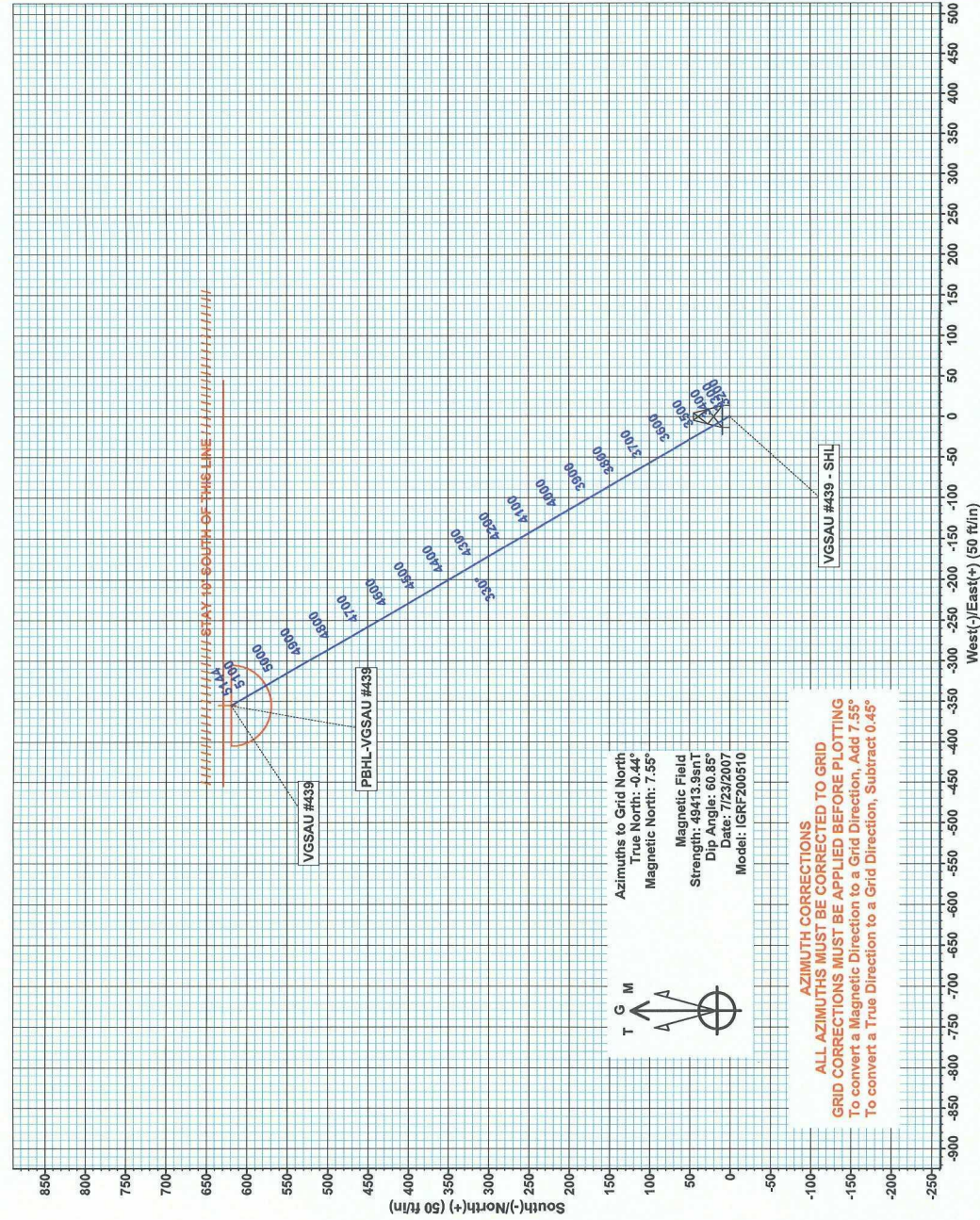
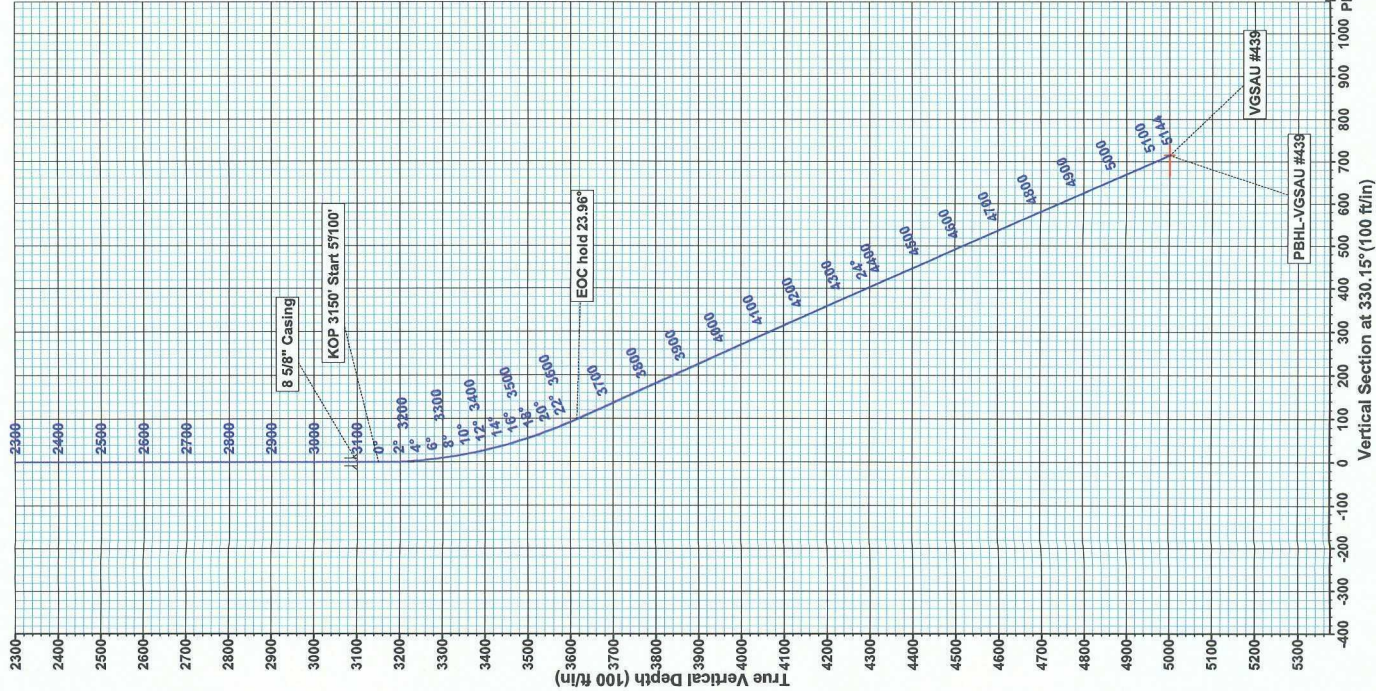
Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #439
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #439	North Reference:	Grid
Well:	VGSAU #439	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,150.00	3,150.00	0.00	0.00	KOP 3150' Start 5"/100'
3,629.26	3,615.41	85.66	-49.16	EOC hold 23.96°





Scientific Drilling for Chevron  
Site: Lea County, NM (NAD 83 NME)  
Well: VGSAU #439  
Wellbore: OH  
Design: Plan #1



Azimuths to Grid North  
True North: -0.44°  
Magnetic North: 7.55°  
Magnetic Field  
Strength: 49413.9 nT  
Dip Angle: 60.85°  
Date: 7/23/2007  
Model: IGRF200510

**ALL AZIMUTH CORRECTIONS  
GRID CORRECTIONS MUST BE APPLIED BEFORE PLOTTING**  
To convert a Magnetic Direction to a Grid Direction, Add 7.55°  
To convert a True Direction to a Grid Direction, Subtract 0.45°

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3150.00	0.00	0.00	3150.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3629.26	23.96	330.15	3615.41	85.66	-49.16	5.00	330.15	98.77	PBHL-VGSAU #439
4	5144.45	23.96	330.15	5000.00	619.39	-355.49	0.00	0.00	714.15	

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	Northing	Ground Level	Latitude	Longitude	Slot
VGSAU #439	0.00	0.00	0.00	649393.38	7941.66.52	32° 46' 57.049 N	103° 30' 38.539 W	
PBHL-VGSAU #439	0.00	629.39	-355.49	650022.77	793801.0332° 47' 3.304 N	103° 30' 42.646 W		
PBHL-VGSAU #439	5000.00	619.39	-355.49	650012.77	793801.0332° 47' 3.305 N	103° 30' 42.646 W		

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
Mean Sea Level

System Datum:

Plan: Plan #1 (VGSAU #439/OH)

Created By: Julio Pina Date: 23-Jul-07

Checked: Date:

Reviewed: Date:

Approved: Date:





## **Chevron**

Lea County, NM (NAD 83 NME)

VGSAU #441

VGSAU #441

OH

Plan: Plan #1

## **Standard Planning Report**

23 July, 2007





# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #441
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #441	North Reference:	Grid
Well:	VGSAU #441	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	VGSAU #441		
Site Position:		Northing:	649,818.90 ft
From:	Map	Easting:	791,212.83 ft
Position Uncertainty:	0.00 ft	Slot Radius:	ft
		Latitude:	32° 47' 1.484 N
		Longitude:	103° 31' 12.979 W
		Grid Convergence:	0.44 °

Well	VGSAU #441		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 47' 1.484 N
		Longitude:	103° 31' 12.979 W
		Ground Level:	0.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	7/19/2007	8.00
			Dip Angle
			(°)
			60.85
			Field Strength
			(nT)
			49,415

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			338.71

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,150.00	0.00	0.00	3,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,435.77	5.72	338.71	3,435.29	13.27	-5.17	2.00	2.00	-7.45	338.71	
5,008.29	5.72	338.71	5,000.00	159.18	-62.04	0.00	0.00	0.00	0.00	PBHL-VGSAU #441



# Scientific Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #441
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #441	North Reference:	Grid
Well:	VGSAU #441	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NHL-VGSAU #441									
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8" Casing									
3,150.00	0.00	0.00	3,150.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP 3150' start 2°/100'									
3,200.00	1.00	338.71	3,200.00	0.41	-0.16	0.44	2.00	2.00	0.00
3,300.00	3.00	338.71	3,299.93	3.66	-1.43	3.93	2.00	2.00	0.00
3,400.00	5.00	338.71	3,399.68	10.16	-3.96	10.90	2.00	2.00	0.00
3,435.77	5.72	338.71	3,435.29	13.27	-5.17	14.24	2.00	2.00	0.00
EOC hold 5.72°									
3,500.00	5.72	338.71	3,499.21	19.23	-7.49	20.64	0.00	0.00	0.00
3,600.00	5.72	338.71	3,598.71	28.51	-11.11	30.60	0.00	0.00	0.00
3,700.00	5.72	338.71	3,698.21	37.79	-14.73	40.55	0.00	0.00	0.00
3,800.00	5.72	338.71	3,797.72	47.07	-18.34	50.51	0.00	0.00	0.00
3,900.00	5.72	338.71	3,897.22	56.34	-21.96	60.47	0.00	0.00	0.00
4,000.00	5.72	338.71	3,996.72	65.62	-25.58	70.43	0.00	0.00	0.00
4,100.00	5.72	338.71	4,096.22	74.90	-29.19	80.39	0.00	0.00	0.00
4,200.00	5.72	338.71	4,195.73	84.18	-32.81	90.35	0.00	0.00	0.00
4,300.00	5.72	338.71	4,295.23	93.46	-36.43	100.31	0.00	0.00	0.00
4,400.00	5.72	338.71	4,394.73	102.74	-40.04	110.27	0.00	0.00	0.00
4,500.00	5.72	338.71	4,494.24	112.02	-43.66	120.22	0.00	0.00	0.00
4,600.00	5.72	338.71	4,593.74	121.30	-47.27	130.18	0.00	0.00	0.00
4,700.00	5.72	338.71	4,693.24	130.57	-50.89	140.14	0.00	0.00	0.00
4,800.00	5.72	338.71	4,792.74	139.85	-54.51	150.10	0.00	0.00	0.00
4,900.00	5.72	338.71	4,892.25	149.13	-58.12	160.06	0.00	0.00	0.00
5,000.00	5.72	338.71	4,991.75	158.41	-61.74	170.02	0.00	0.00	0.00
5,008.29	5.72	338.71	5,000.00	159.18	-62.04	170.84	0.00	0.00	0.00
PBHL-VGSAU #441									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NHL-VGSAU #441	0.00	0.07	0.00	169.18	-62.04	649,988.08	791,150.79	32° 47' 3.163 N	103° 31' 13.691 W
- hit/miss target									
- Shape									
- plan misses by 180.20ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides WV0.00 H300.00 D0.00)									
PBHL-VGSAU #441	0.00	0.07	5,000.00	159.18	-62.04	649,978.08	791,150.79	32° 47' 3.064 N	103° 31' 13.692 W
- plan hits target									
- Circle (radius 50.00)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
3,100.00	3,100.00	8 5/8" Casing	8.62500	12.25000



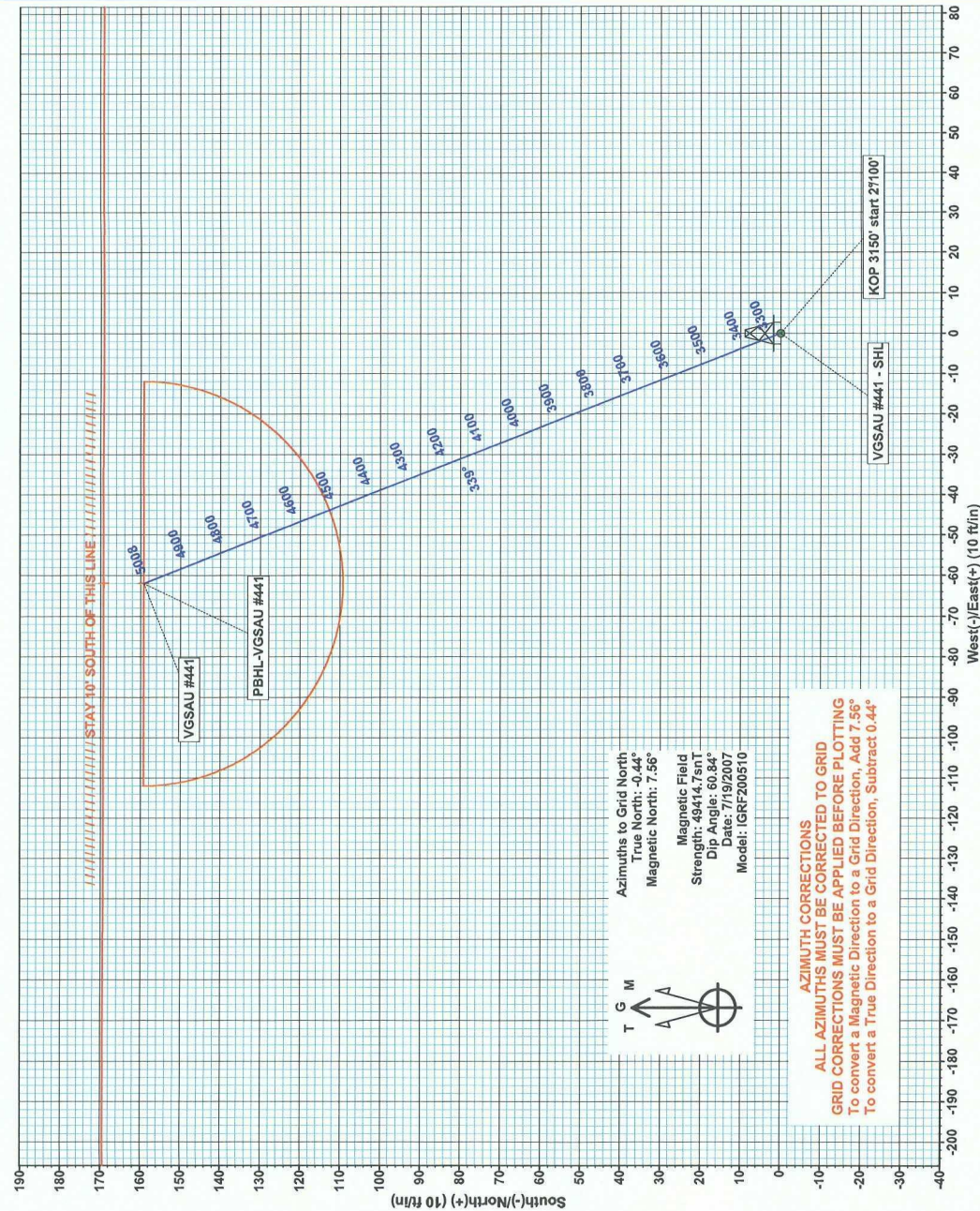
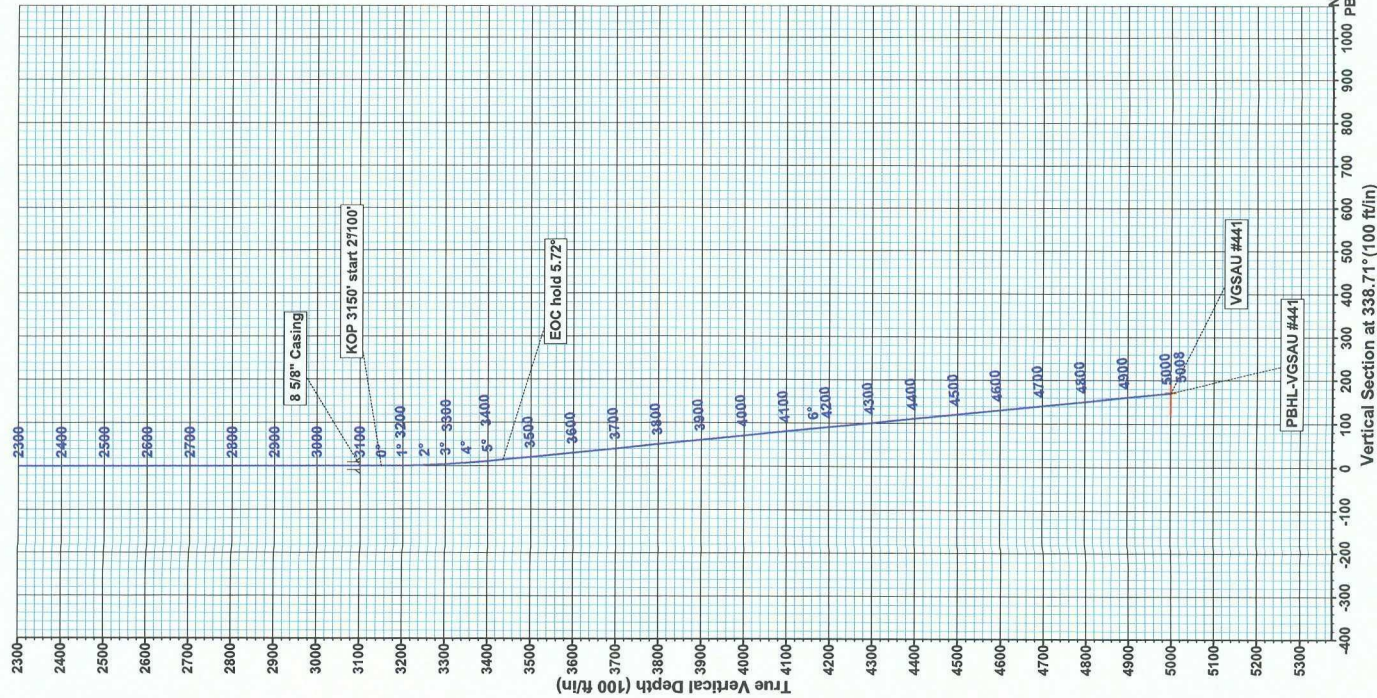
Scientific Drilling  
Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well VGSAU #441
Company:	Chevron	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	VGSAU #441	North Reference:	Grid
Well:	VGSAU #441	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,150.00	3,150.00	0.00	0.00	KOP 3150' start 2"/100'
3,435.77	3,435.29	13.27	-5.17	EOC hold 5.72°





SECTION DETAILS										PROJECT DETAILS: Lea County, NM (NAD 83 NME)				
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	DLeg	TFace	VSec	Target	Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: New Mexico Eastern Zone System Datum: Mean Sea Level			
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Plan: Plan #1 (VGSau #441/OH)			
2	3150.00	0.00	0.00	3150.00	0.00	0.00	0.00	0.00	0.00		Created By: Julio Pina Date: 19-Jul-07			
3	3433.77	5.72	338.71	3433.29	13.27	-5.17	2.00	338.71	14.24		Checked: _____ Date: _____			
4	5008.29	5.72	338.71	5000.00	159.18	-62.04	0.00	0.00	170.84	PBHL-VGSau #441	Reviewed: _____ Date: _____			
										Approved: _____ Date: _____				
WELL DETAILS: VGSau #441														
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)														
Ground Level: 0.00														
+N/S		Northing		Easting		Latitude		Longitude		Slot				
0.00		649518.90		791212.83		32° 47' 1.484 N		103° 31' 1.2379 W						
Name														
TVD		+N/S		+E/W		Northing		Easting		Latitude		Longitude		
0.00		169.18		-62.04		649588.08		791150.7932		47° 3.163 N		103° 31' 13.691 W		
-VGSau #441		5000.00		159.18		-62.04		649578.08		791150.7932		47° 3.064 N		
-VGSau #441		5000.00		159.18		-62.04		649578.08		791150.7932		47° 3.064 N		
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-VGSau #441		5000.00		159.18		-62.04		649578.08		791150.7932		47° 3.064 N		
-VGSau #441		5000.00		159.18		-62.04		649578.08		791150.793				



**Brooks, David K., EMNRD**

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**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, February 20, 2008 3:36 PM  
**To:** PEQUENO, DANIEL  
**Cc:** Brooks, David K., EMNRD  
**Subject:** RE: OLS-044246 - VGSAU Vertical Expansion & Lease Line Agreement - Lea County, NM

Daniel:  
I copied this to David Brooks.

Injection applications are separate from NSL applications as you know and should be sent in under separate cover.  
David Brooks handles NSLs and I am doing injection applications.

I do have a couple of packages on the VGSAU to evaluate and will try to get to them next week. I don't think they will be a problem.

Take Care,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

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**From:** PEQUENO, DANIEL [mailto:PEQD@chevron.com]  
**Sent:** Wednesday, February 20, 2008 2:57 PM  
**To:** PMartinez@slo.state.nm.us  
**Cc:** Jones, William V., EMNRD  
**Subject:** OLS-044246 - VGSAU Vertical Expansion & Lease Line Agreement - Lea County, NM

Mr. Martinez,

This is to acknowledge your telephone message of February 20, 2008, left on my answering machine advising of the following information:

1. State Land Office has granted preliminary approval to the Vertical Expansion for the Vacuum Grayburg San Andres Unit in Lea County, New Mexico as requested by our letter of January 31, 2008 along with all proper attachments.
2. State Land Office has also granted approval of the Amendment to Vacuum Area Cooperative Lease Line Agreement and approval of Chevron's plan to drill our Vacuum Grayburg San Andres Unit Well Nos. 405 & 412 as lease line producers between the Central Vacuum Unit and the Vacuum Grayburg San Andres Unit as requested by our letter of January 24, 2008.

**You further advised that final approval will be granted when the NMOCD approves the Order for the Vertical Expansion.**

**Mr. Jones,** I don't know if your are handling the administrative approval for the NSL order for the lease line wells submitted as a package to Mr. Mark E. Fesmire by letter of January 28, 2008. Mr. Fesmire was also copied on

2/21/2008

the Application for the Vertical Expansion of the Vacuum Grayburg San Andres Unit. If you are not handling this matter, please forward this E-mail to the proper authority in the NMOCD who is reviewing this matter.

Thank you both for your help regarding the above matters. If I can be of further assistance, please let me know by calling me at the listed below.

Thanks,

**Daniel Pequeno, CPL/ESA**  
**Land Representative**

**MidContinent/Alaska SBU**

15 Smith Rd., RM-2235

Midland, Texas 79707

Tel 432 687 7461

Fax 432 687 7871

peqd@chevron.com

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This inbound email has been scanned by the MessageLabs Email Security System.

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**Brooks, David K., EMNRD**

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**From:** Brooks, David K., EMNRD  
**Sent:** Thursday, February 21, 2008 4:55 PM  
**To:** 'PEQD@chevron.com'  
**Cc:** Jones, William V., EMNRD  
**Subject:** Chevron Vacuum Grayburg San Andres Unit ## 131,145,438,439,440 and 441

Dear Mr. Pequeno:

I have reviewed the non-standard location applications for these wells and have the following observations:

1. Simultaneous dedication approval is not required. It would not be required in any case except for the #405, because in all other cases, there will be no more than four wells in a 40-acre unit. However, I do not believe simultaneous dedication approval is required even for the #405, because the 4-wells per 40 acres limitation does not apply in an active secondary recovery unit. For the new injection wells, of course, injection permitting is required, and that will be handled separately. I will be processing the non-standard location applications.
2. Our notice rule requires notice of this application to all working interest owners in the Central Vacuum Unit, since Chevron is the operator of both units. You indicate that you have secured approval of the Lease Line Agreement by all of these working interest owners. However, you have not furnished their signed consents with your application, and only Chevron signed the agreement. We must either be furnished with ratifications of the Amendment to the Lease Line Agreement signed by all of the working interest owners, or with proof of notice to them of the filing of the NSL application.

Please contact me by phone or email if you have questions.

Sincerely

David K. Brooks  
505-476-3450



Daniel Pequeno, CPL/ESA  
Land Representative

MidContinent/Alaska BU  
North American Exploration  
and Production Company  
15 Smith Road, RM-2235  
Midland, Texas 79705  
Tel 432 687 7461  
Fax 432 687 7871  
peqd@chevron.com

January 24, 2008

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

**RE: REQUEST FOR APPROVAL OF AMENDMENT TO VACUUM AREA  
COOPERATIVE LEASE LINE AGREEMENT – VACUUM GRAYBURG  
SAN ANDRES UNIT & CENTRAL VACUUM UNIT - LEA COUNTY,  
NEW MEXICO (QLS-046074, 153177 & 044246)**

Dear Mr. Martinez,

Chevron U.S.A. Inc. ("Chevron") is the Operator of the Vacuum Grayburg San Andres Unit and the Central Vacuum Unit in Lea County, New Mexico. Chevron hereby respectfully requests the State of New Mexico's approval of our plan to drill our Vacuum Grayburg San Andres Unit Well Nos. 405 and 412 as lease line producers between the Central Vacuum Unit and the Vacuum Grayburg San Andres Unit. For your convenience, I am enclosing the following documentation:

1. Original copy of the Amendment to Vacuum Area Cooperative Lease Line Agreement dated November 19, 2007, but Effective December 1, 2007;
2. Copies of the executed Ratifications for all the Royalty Owners in the Central Vacuum Unit; and
3. Copy of the **previously submitted** Vacuum Area Cooperative Lease Line Agreement dated March 1, 1996 for the originally approved and drilled VGSAU Well No. 159 located 572' FNL & 78' FEL of Section 1-18S-34E as lease line producer.

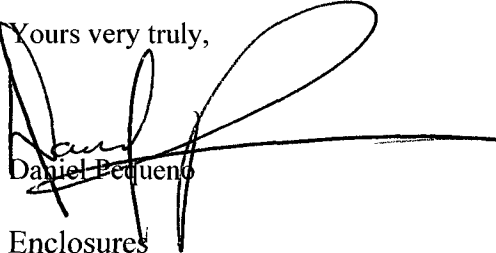
The legal description and locations of the both wells are contained in the Amendment noted in item 1 above. **You will also note that the Amendment includes four (4) additional wells which are intended to be water injection wells, but which may initially flow hydrocarbons to the surface for a period of time. Therefore, Chevron has provided for the operation of these additional wells in said Amendment.** Each Unit will be sharing equally in the production from these wells.

We estimate that the Vacuum Grayburg San Andres Unit Well Nos. 405 & 412 will produce 206,000 and 107,000 barrels of oil respectfully. The State of New Mexico is the sole owner of the royalty in the Vacuum Grayburg San Andres Unit and a royalty owner, among others, in the Central Vacuum Unit. As a royalty owner under both Units, the State of New Mexico would receive its proportionate part of any royalties from the production allocated to each Unit.

In accordance with Division Rule 104, Chevron will be requesting administrative approval of the unorthodox locations for all the wells from the New Mexico Oil Conservation Division simultaneously with this request. Therefore, we respectfully request the State of New Mexico's approval for the drilling of the above-mentioned lease line well producers at your earliest convenience.

If you have any questions regarding this matter, you may call me at (432) 687-7461.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Daniel Pequeno', with a long horizontal stroke extending to the right.

Daniel Pequeno

Enclosures

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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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



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

#### [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.

SCOTT M. INGRAM

Print or Type Name

Scott M. Ingram

Signature

PROJECT MANAGER

Title

1/25/08

Date

smin@chevron.com

e-mail Address

Nancy Cayce  
Technical Assistant  
Permian Basin

Mid-Continent Business Unit  
Chevron Corporation  
15 Smith Rd.  
Midland, Texas 79705  
Tel 432-687-7455  
Fax 432-687-7871  
[cayn@chevron.com](mailto:cayn@chevron.com)

January 22, 2008

NEW DRILL – INJECTION WELLS  
LEA COUNTY, NEW MEXICO

Vacuum Grayburg San Andres Unit Offset Operators:

For your information as an offset operator, Chevron U.S.A., Inc. hereby gives notice of their intent to file an application with the New Mexico Oil Conservation Division to drill the following wells in Lea County, New Mexico:

Well #	Sec-Twn-Rnge	Unit Letter	Surface Location	Bottom Hole Location
131	2-18S-34E	G	2604.9' FNL & 2085' FEL	2630' FSL & 1980' FEL
145	2-18S-34E	C	1286.5' FNL & 1831.1' FWL	1310' FNL & 1980' FWL
438	1-18S-34E	A	10' FNL & 420' FEL	10' FNL & 670' FEL
439	1-18S-34E	B	634' FNL & 1632' FEL	10' FNL & 1980' FEL
440	1-18S-34E	C	100' FNL & 1980' FWL	same
441	1-18S-34E	A	170' FNL & 710' FWL	10' FNL & 650' FWL

Attached is an OCD Form C-108 with information relative to the water injection in the referenced wells. A copy of the legal notice to be posted in the Hobbs News-Sun is included. The enclosed map highlights the location of the subject wells in relation to your offset operations.

Sincerely,

Nancy Cayce  
Technical Assistant

Attachments

Nancy Cayce  
Technical Assistant  
Permian Basin

Mid-Continent Business Unit  
Chevron Corporation  
15 Smith Rd.  
Midland, Texas 79705  
Tel 432-687-7455  
Fax 432-687-7871  
[cayn@chevron.com](mailto:cayn@chevron.com)

January 22, 2008

**APPLICATION FOR AUTHORIZATION TO INJECT  
OCD FORM C-108  
VACUUM - GRAYBURG SAN ANDRES POOL  
LEA COUNTY, NEW MEXICO**

State of New Mexico  
Energy and Minerals Dept.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Attention: Mark E. Fesmire, P.E., Director

Chevron U.S.A., Inc. requests your approval of the subject application to inject water, produced gas and CO2 into the Vacuum Grayburg San Andres Unit wells listed below:

Well #	Sec-Twn-Rnge	Unit Letter	Surface Location	Bottom Hole Location
131	2-18S-34E	G	2604.9' FNL & 2085' FEL	2630' FSL & 1980' FEL
145	2-18S-34E	C	1286.5' FNL & 1831.1' FWL	1310' FNL & 1980' FWL
438	1-18S-34E	A	10' FNL & 420' FEL	10' FNL & 670 FEL
439	1-18S-34E	B	634' FNL & 1632' FEL	10' FNL & 1980' FEL
440	1-18S-34E	C	100' FNL & 1980' FWL	same
441	1-18S-34E	A	170' FNL & 710' FWL	10' FNL & 650' FWL

Chevron plans to inject water, CO2, and produced gas into these newly drilled injection wells to enhance production of the VGSAU tertiary recovery project.

Attached is an OCD Form C-108 with information relative to the injection in the referenced wells. A copy of the letter sent to this project's surface land owner, the New Mexico Department of Public Lands, along with certified documentation is included in the attachments.

Your prompt consideration and approval of this application will be greatly appreciated. If additional information is required, please contact me at (432) 687-7455 or Scott Ingram, Sr. Staff Geologist at (432) 687-7212.

Sincerely,

Nancy Cayce

Attachments



**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: Chevron U.S.A., Inc.  
ADDRESS: 15 Smith Rd., Midland, TX 79705  
CONTACT PARTY: Nancy Cayce PHONE: 432-687-7455
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ Yes ☐ No  
If yes, give the Division order number authorizing the project: Order #R4442-B
- 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).  
**Will be submitted as soon as received.**
- \*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 submitted**
- 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: Nancy Cayce TITLE: Engineering Tech. Assistant

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

E-MAIL ADDRESS: cayn@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: SEE ATTACHMENT

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**

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

Newspaper Legal Notice confirmation will be forwarded as soon as received.

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

## ATTACHMENT TO FORM C-108

**RE: Vacuum Grayburg San Andres Unit #131, 145, 438, 439, 440, 441**

- PART I      Chevron Corporation plans to drill the above referenced wells as injection wells in the Grayburg San Andres formation.
- PART II      Chevron Corporation  
15 Smith Rd  
Midland, TX 79705
- PART III     Well Data Sheets attached
- PART IV     This is an expansion of an existing project. Order #R-4442-B
- PART V      Map attached designating ½ mile and 2 mile radius of review area.
- PART VI     Well tabulation and P&A Schematics are attached.
- PART VII    1) Anticipated injection rates could be as high as 3,000 barrels of water per day per well, or 10 million cubic feet of CO2 per day for each well.
- 2) This will be a closed system.
- 3) Water, produced gas & CO2 will be injected into the Grayburg San Andres pool of the Vacuum field. Water injection in each well will be at an expected maximum rate of 3,000 barrels of water per day and an expected maximum surface pressure of 1850 psi. CO2 and produced gas injection per well will be at an expected maximum rate of 10 MMCF per day and an expected maximum surface pressure of 1850 psi.
- 4,5) This data has been previously submitted under NMOCD Order No. R-4442 dated November 27, 1972 and amendment R-4442-A dated August 8, 2001.
- PART VIII    This data has been previously submitted under NMOCD Order No. R-4442 dated November 27, 1972 and amendment R-4442-A dated August 8, 2001.
- PART IX     The stimulation program will be ~8,000 gallons 15% HCL acid plus rock salt as a diverter.
- PART X      Logs will be submitted as soon as possible after the well is drilled.

PART XI      This data has been previously submitted under NMOCD Order No. R-4442 dated November 27, 1972 and amendment R-4442-A dated August 8, 2001.

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

PART XIII    Copies of the OCD Form C-108, the Well Data Sheet and map have been sent to the offset operators and surface owner as per the listing below.

Marathon Oil Company  
5555 San Felipe Road  
Houston, Texas 77056-2723

Chesapeake Energy Corporation  
P.O. Box 18496  
Oklahoma City, OK 73154-0496  
(405) 848-8000

Conoco Phillips  
4001 Penbrook  
Odessa, TX 79762

McGowan Working Partners  
PO Box 55809  
Jackson, MS 39296-5809

Mobil Producing TX & NM  
PO Box 1760  
Denver City, TX 79323  
806-592-7800

Surface Owner: State of New Mexico

A copy of the Legal Notice as published in the Hobbs News-Sun is attached to this filing. Certified copy will be forwarded as soon as it is received in this office.

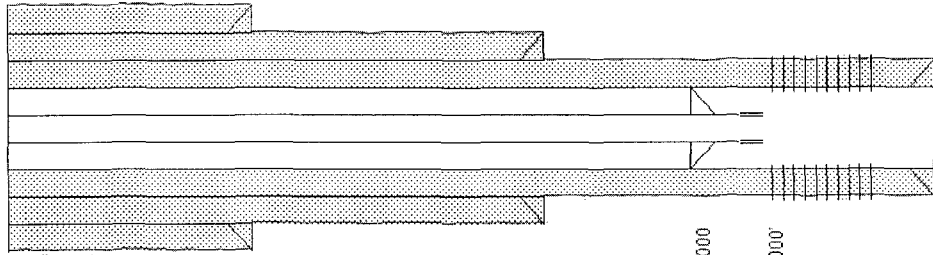
## INJECTION WELL DATA SHEET

OPERATOR: Chevron U.S.A., Inc.WELL NAME & NUMBER: Vacuum Grayburg San Andres Unit 438WELL LOCATION: 10' FNL 420' FEL A 1 18S 34E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

Surface Casing  
Size: 11 3/4"  
Depth: 350'  
Sxs Cmt: 385  
Hole Size: 14 3/4"

Intermediate Casing  
Size: 8 5/8"  
Depth: 2600'  
Sxs Cmt: 960  
Hole Size: 11"

Production Casing  
Size: 5 1/2"  
Depth: 5200'  
Sxs Cmt: 935  
Hole Size: 7 7/8"



Packer @ 4000

Perfs @ 4200'-5000'

WELL CONSTRUCTION DATASurface CasingHole Size: 14.75" Casing Size: 11.75"Cemented with: 385 sx. *or* ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate CasingHole Size: 11" Casing Size: 8.625"Cemented with: 960 sx. *or* ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationProduction CasingHole Size: 7.875" Casing Size: 5.5"Cemented with: 935 sx. *or* ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 5200'Injection Interval3902 feet to 5000 feet

**INJECTION WELL DATA SHEET**

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

Type of Packer: 10K Arrow Set 1X packer with on-off tool; nickel-plated

Packer Setting Depth: ~4000'

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): Vacuum

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:

Yates – 2800', Grayburg – 3990', San Andres – 4255', Glorieta – 5820', Blinbry – 6300', Drinkard – 7500', Abo – 7900', Wolfcamp – 9350', Canyon – 10,540', Strawn – 10,750', Atoka – 10,880', Morrow – 11,160', Mississippian – 11,300', Woodford – 12,000'

There are no known producing zones below the Devonian within the area of review

## INJECTION WELL DATA SHEET

OPERATOR: \_\_\_\_\_ Chevron U.S.A., Inc. \_\_\_\_\_

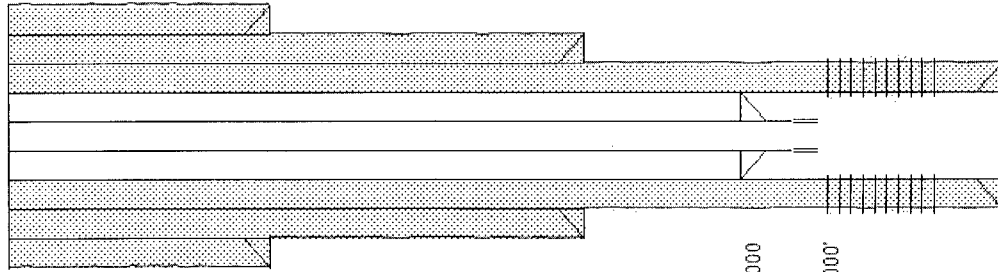
WELL NAME &amp; NUMBER: \_\_\_\_\_ Vacuum Grayburg San Andres Unit 439

WELL LOCATION: \_\_\_\_\_ 634' FNL 1632' FEL \_\_\_\_\_ B \_\_\_\_\_ UNIT LETTER \_\_\_\_\_ SECTION \_\_\_\_\_ 1 \_\_\_\_\_ TOWNSHIP \_\_\_\_\_ 18S \_\_\_\_\_ RANGE \_\_\_\_\_ 34E \_\_\_\_\_  
FOOTAGE LOCATIONWELLBORE SCHEMATIC

Surface Casing  
Size: 11 3/4"  
Depth: 350'  
Sxs Cmt: 385  
Hole Size: 14 3/4"

Intermediate Casing  
Size: 8 5/8"  
Depth: 2800'  
Sxs Cmt: 960  
Hole Size: 11"

Production Casing  
Size: 5 1/2"  
Depth: 5200'  
Sxs Cmt: 935  
Hole Size: 7 7/8"



Packer @ 4000

Perfs @ 4200'-5000'

WELL CONSTRUCTION DATASurface Casing

Hole Size: \_\_\_\_\_ 14.75" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 11.75" \_\_\_\_\_  
Cemented with: \_\_\_\_\_ 385 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_  
Top of Cement: \_\_\_\_\_ Surface \_\_\_\_\_ Method Determined: \_\_\_\_\_ Circulation \_\_\_\_\_  
Intermediate Casing

Hole Size: \_\_\_\_\_ 11" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 8.625" \_\_\_\_\_  
Cemented with: \_\_\_\_\_ 960 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_  
Top of Cement: \_\_\_\_\_ Surface \_\_\_\_\_ Method Determined: \_\_\_\_\_ Circulation \_\_\_\_\_  
Production Casing

Hole Size: \_\_\_\_\_ 7.875" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 5.5" \_\_\_\_\_  
Cemented with: \_\_\_\_\_ 935 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_  
Top of Cement: \_\_\_\_\_ Surface \_\_\_\_\_ Method Determined: \_\_\_\_\_ Circulation \_\_\_\_\_

Total Depth: \_\_\_\_\_ 5200' \_\_\_\_\_

Injection Interval

\_\_\_\_\_ 3902 \_\_\_\_\_ feet to \_\_\_\_\_ 5000 \_\_\_\_\_ feet

INJECTION WELL DATA SHEET

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

Type of Packer: 10K Arrow Set 1X packer with on-off tool; nickel-plated

Packer Setting Depth: ~4000'

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): Vacuum

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:

Yates – 2800', Grayburg – 3990', San Andres – 4255', Glorieta – 5820', Blinbry – 6300', Drinkard – 7500', Abo – 7900', Wolfcamp – 9350', Canyon – 10,540', Strawn – 10,750', Atoka – 10,880', Morrow – 11,160', Mississippian – 11,300', Woodford – 12,000'

There are no known producing zones below the Devonian within the area of review



## INJECTION WELL DATA SHEET

OPERATOR: \_\_\_\_\_ Chevron U.S.A., Inc.

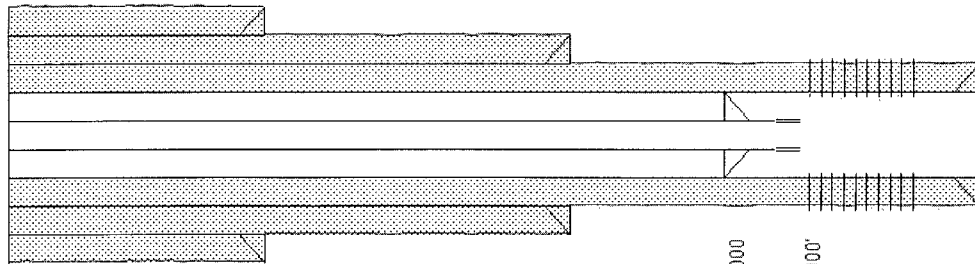
WELL NAME &amp; NUMBER: \_\_\_\_\_ Vacuum Grayburg San Andres Unit 440

WELL LOCATION: \_\_\_\_\_ 100'' FNL 1980' FEL \_\_\_\_\_ C \_\_\_\_\_ UNIT LETTER \_\_\_\_\_ SECTION \_\_\_\_\_ 1 \_\_\_\_\_ TOWNSHIP \_\_\_\_\_ 18S \_\_\_\_\_ RANGE \_\_\_\_\_ 34E \_\_\_\_\_  
FOOTAGE LOCATIONWELLBORE SCHEMATIC

Surface Casing  
Size: 11 3/4"  
Depth: 350'  
Sxs Cnt: 385  
Hole Size: 14 3/4"

Intermediate Casing  
Size: 8 5/8"  
Depth: 2800'  
Sxs Cnt: 960  
Hole Size: 11"

Production Casing  
Size: 5 1/2"  
Depth: 5200'  
Sxs Cnt: 935  
Hole Size: 7 7/8"



Packer @ 4000'

Perfs @ 4200'-5000'

WELL CONSTRUCTION DATASurface Casing

Hole Size: \_\_\_\_\_ 14.75" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 11.75" \_\_\_\_\_

Cemented with: \_\_\_\_\_ 385 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_

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

Intermediate Casing

Hole Size: \_\_\_\_\_ 11" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 8.625" \_\_\_\_\_

Cemented with: \_\_\_\_\_ 960 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_

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

Production Casing

Hole Size: \_\_\_\_\_ 7.875" \_\_\_\_\_ Casing Size: \_\_\_\_\_ 5.5" \_\_\_\_\_

Cemented with: \_\_\_\_\_ 935 \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup> \_\_\_\_\_

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

Total Depth: \_\_\_\_\_ 5200' \_\_\_\_\_

Injection Interval

\_\_\_\_\_ 3902 \_\_\_\_\_ feet to \_\_\_\_\_ 5000 \_\_\_\_\_ feet

INJECTION WELL DATA SHEET

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

Type of Packer: 10K Arrow Set 1X packer with on-off tool; nickel-plated

Packer Setting Depth: ~4000'

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): Vacuum

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:

Yates – 2800', Grayburg – 3990', San Andres – 4255', Glorieta – 5820', Blinbry – 6300', Drinkard – 7500', Abo – 7900', Wolfcamp – 9350', Canyon – 10,540', Strawn – 10,750', Atoka – 10,880', Morrow – 11,160', Mississippian – 11,300', Woodford – 12,000'

There are no known producing zones below the Devonian within the area of review

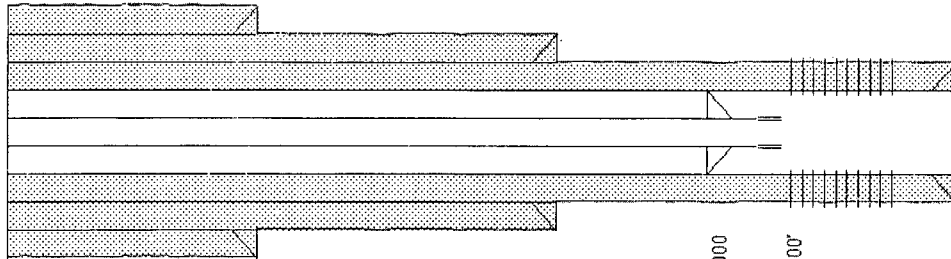
## INJECTION WELL DATA SHEET

OPERATOR: Chevron U.S.A., Inc.WELL NAME & NUMBER: Vacuum Grayburg San Andres Unit 441WELL LOCATION: 170' FNL 710' FWL A 1 18S 34E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

Surface Casing  
Size: 11 3/4"  
Depth: 350'  
Sxs Cmt: 385  
Hole Size: 14 3/4"

Intermediate Casing  
Size: 8 5/8"  
Depth: 2800'  
Sxs Cmt: 960  
Hole Size: 11"

Production Casing  
Size: 5 1/2"  
Depth: 5200'  
Sxs Cmt: 935  
Hole Size: 7 7/8"



Packer @ 4000

Perfs @ 4200'-5000'

WELL CONSTRUCTION DATASurface CasingHole Size: 14.75" Casing Size: 11.75"Cemented with: 385 sx. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationIntermediate CasingHole Size: 11" Casing Size: 8.625"Cemented with: 960 sx. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationProduction CasingHole Size: 7.875" Casing Size: 5.5"Cemented with: 935 sx. or ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculationTotal Depth: 5200'Injection Interval3902 feet to 5000 feet

INJECTION WELL DATA SHEET

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

Type of Packer: 10K Arrow Set 1X packer with on-off tool; nickel-plated

Packer Setting Depth: ~4000'

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

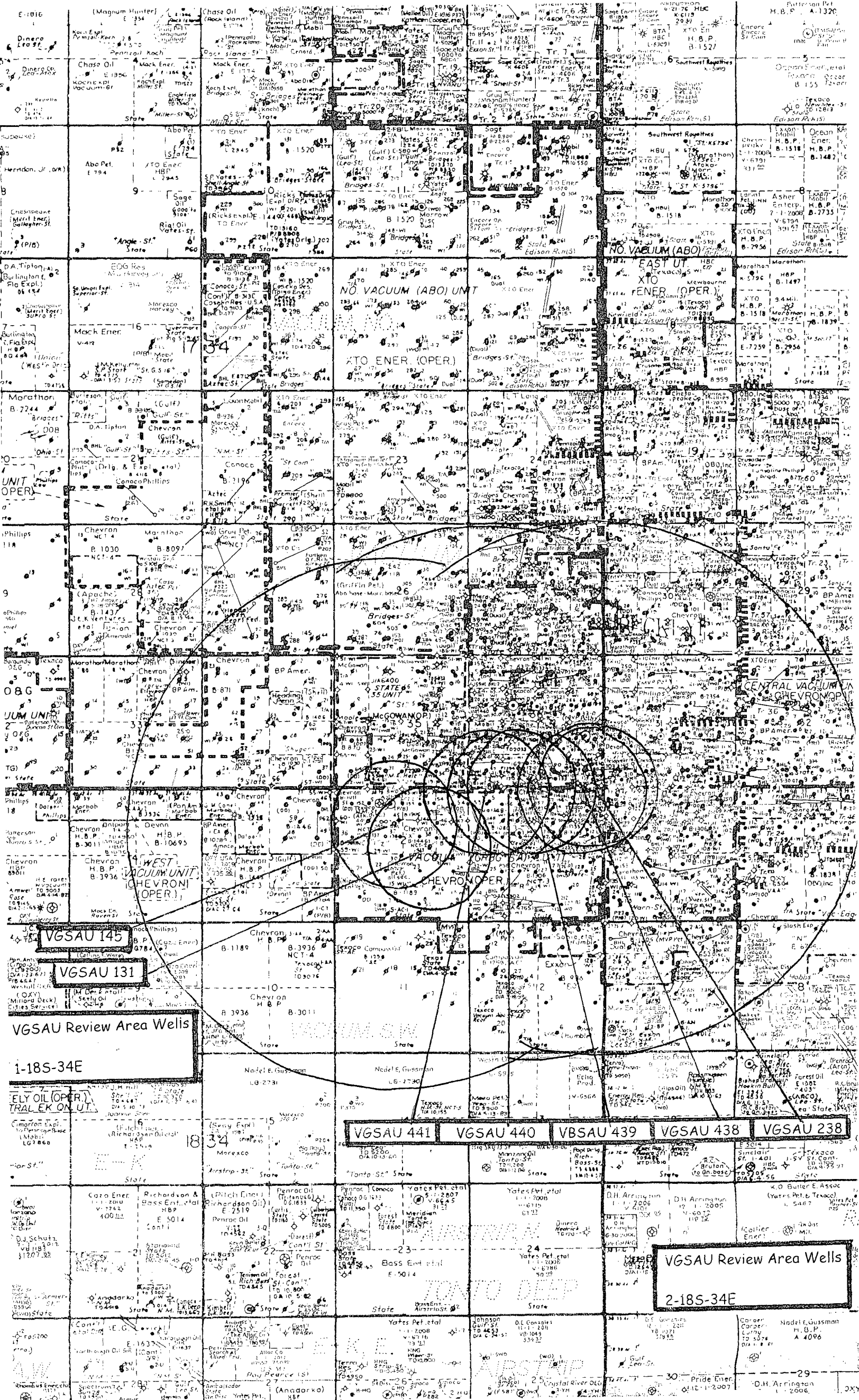
3. Name of Field or Pool (if applicable): Vacuum

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:

Yates – 2800', Grayburg – 3990', San Andres – 4255', Glorieta – 5820', Blinbry – 6300', Drinkard – 7500', Abo – 7900', Wolfcamp – 9350', Canyon – 10,540', Strawn – 10,750', Atoka – 10,880', Morrow – 11,160', Mississippian – 11,300', Woodford – 12,000'

There are no known producing zones below the Devonian within the area of review



Nancy Cayce  
Technical Assistant  
Permian Basin

Mid-Continent Business Unit  
Chevron Corporation  
15 Smith Rd.  
Midland, Texas 79705  
Tel 432-687-7455  
Fax 432-687-7871  
[cayn@chevron.com](mailto:cayn@chevron.com)

January 22, 2008

REQUEST TO PUBLISH LEGAL NOTICE

Vacuum Grayburg San Andres Unit #131, 145, 438, 439, 440, 441  
Hobbs News-Sun  
201 N. Thorp  
Hobbs, NM 88240

Attention: Classified Department

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

Please mail the invoice for this legal notice to the letterhead address above, attention: Nancy Cayce, Room 2237. Please attach a copy of the notice as it was published in your newspaper and an affidavit certifying publication of the attached notice and the date of publication.

Your prompt assistance in this matter will be greatly appreciated. Questions may be directed to me at (432) 687-7455.

Sincerely,

Nancy Cayce  
Technical Assistant

Attachment

## Legal Notice

Chevron U.S.A., Inc. has applied to the Oil Conservation Division of the State of New Mexico for approval to drill and complete the Vacuum Grayburg San Andres Unit #131, 145, 438, 439, 440, and 441 as injection wells. Injection into these wells is designed to enhance production from the Vacuum Grayburg San Andres Unit. These wells are in the following locations in Lea County, New Mexico:

Well #	Sec-Twn-Rnge	Unit	Surface Location	Bottom Hole Location
		Letter		
131	2-18S-34E	G	2604.9' FNL & 2085' FEL	2630' FSL & 1980' FEL
145	2-18S-34E	C	1286.5' FNL & 1831.1' FWL	1310' FNL & 1980' FWL
438	1-18S-34E	A	10' FNL & 420' FEL	10' FNL & 670' FEL
439	1-18S-34E	B	634' FNL & 1632' FEL	10' FNL & 1980' FEL
440	1-18S-34E	C	100' FNL & 1980' FWL	same
441	1-18S-34E	A	170' FNL & 710' FWL	10' FNL & 650' FWL

Water, produced gas & CO<sub>2</sub> will be injected into the Grayburg San Andres pool of the Vacuum field. Water injection in each well will be at an expected maximum rate of 3,000 barrels of water per day and an expected maximum surface pressure of 1850 psi. CO<sub>2</sub> and produced gas injection per well will be at an expected maximum rate of 10 MMCF per day and an expected maximum surface pressure of 1850 psi. Persons wanting to contact Chevron U.S.A. should direct their inquiries to Nancy Cayce, Chevron U.S.A., 15 Smith Road, Midland, TX 79705; telephone (432) 687-7455.

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