

DATE IN 1/14/09	SUSPENSE	ENGINEER D. Brooks	LOGGED IN 1/14/09	TYPE NSL	APP NO. OKAA0901450333
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ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED  
**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 2009 JAN 14 2009  
 1220 South St. Francis Drive, Santa Fe, NM 87505



R.R. Sims B #2  
 Chevron USA  
 4323

## ADMINISTRATIVE APPLICATION CHECKLIST

5991

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.

Casey R. Mobley  
 Print or Type Name

Signature

*Casey R. Mobley*

Project Manager / Geologist  
 Title

1/19/2009  
 Date

Casey.Mobley@chevron.com  
 e-mail Address



Casey R. Mobley  
Project Manager / Geologist

North America Upstream  
Midcontinent Business Unit  
11111 S. Wilcrest, Rm S1037  
Houston, Texas 77099  
Tel (281) 561-4830  
Fax (281) 561-3576  
casey.mobley@chevron.com

January 12, 2009

Request for Administrative Approval of  
Unorthodox Oil Well Location

Mr. Mark E. Fesmire  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

Chevron respectfully requests administrative approval of an unorthodox oil well location for the following well:

**R.R. Sims B #2**

330' FSL & 1330' FEL, SW/4 SE/4 of  
Section 4, T23S, R37E, Unit Letter O  
Lea County, New Mexico

The proposed well will be an infill producer in the Langlie-Mattix, Seven Rivers/Queen/Grayburg Pool [Pool Code 37240] which is an oil pool spaced on 40 acres. This well is a continuation of our three year infill drilling in the same Pool. Chevron's technical analysis of the reservoir still supports the contention that typical Grayburg wells cannot drain 40 acres.

The SW/4 SE/4 of Section 4 will be simultaneously dedicated in the Langlie-Mattix, Seven Rivers/Queen/Grayburg Pool to the proposed well and to the Penrose Skelly A Unit #35, the Penrose Skelly A Unit #66, and the R.R. Sims B #1 pursuant to statewide Rule 104.B(1). The Penrose Skelly A Unit #35 was drilled in 1937 by the Skelly Oil Company as a Seven Rivers/Queen producer, and is currently active. The Skelly Penrose A Unit #66 was drilled in 1974 by the Skelly Oil Company as a Seven Rivers/Queen producer, and is currently active. The R.R. Sims B #1 was drilled in 1995 by Texaco E&P Company as a North Teague, Paddock/Blinbry/Tubb/Drinkard/Abo producer; this well was recompleted in the Grayburg formation in 2008, and is currently active. The proposed well location is located 730' southeast from the Penrose Skelly A Unit #35, 975' south from the Penrose Skelly A Unit #66, and 730' east-southeast of the R.R. Sims B #1.

This application is based on geological and engineering analysis. The analysis and justification for this request is attached as Exhibit 1, along with other supporting documentation. The R.R. Sims B #1 is the only well that has produced the Grayburg formation in the SW/4 SE/4 of Section 4. The proposed well will be located southeast of existing wells in Unit Letter O and 330' off the lease line. Based on drainage calculations, Chevron believes that drilling the infill well will recover reserves that would not be recovered by existing Grayburg producers.

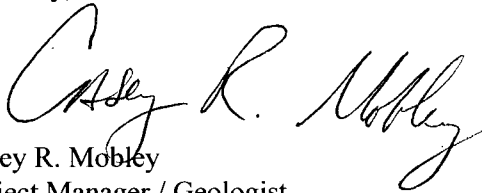
March 10, 2008

Page 2

A land plat highlighting the proposed well's location is attached as Exhibit 2. The S/2 of the S/2 of Section 4 is covered by a single Chevron U.S.A. Inc. fee lease and has common royalty and working interest ownership. Chevron U. S. A. owns a 100% working interest as to all depths below 3663' in the S/2 of the S/2 of Section 4 and the entire Grayburg formation is found below 3,663' at this location. The proposed location encroaches upon Unit Letter A of Section 9. The NE/4 of Section 9 is covered by a single Chevron U. S. A. Inc. fee lease and has common royalty and working interest ownership. Chevron U. S. A. Inc. owns a 100% working interest as to all depths below the base of the Queen formation in the NE/4 of Section 9. For the reasons set forth above and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-4830 or by email at [casey.mobley@chevron.com](mailto:casey.mobley@chevron.com). If I am not available, you can also reach Meilin Du by phone at (281) 561-3564 or by email at [meilin.du@chevron.com](mailto:meilin.du@chevron.com). Thank you for consideration of this matter.

Sincerely,



Casey R. Mobley  
Project Manager / Geologist

Attachments

cc: NMOC District 1 – Hobbs, NM  
Casey Mobley  
Meilin Du  
Ed Van Reet  
Well File

## **NOTIFICATION LIST**

Application of Chevron U.S.A. Inc. for Administrative Approval of an Unorthodox Oil Well Location:

**R.R. Sims B #2**

330' FSL & 1330' FEL, SW/4 SE/4 of  
Section 4, T23S, R37E, Unit Letter O  
Lea County, New Mexico

**Offset Operators, Working Interest Owners, S/2 of S/2 Section 4 & NW/4 Section 9:**

- |    |                     |                  |
|----|---------------------|------------------|
| 1. | Chevron U.S.A. Inc. | Operator/100% WI |
|    | 11111 S. Wilcrest   |                  |
|    | Houston, TX 77099   |                  |

## **EXHIBIT 1**

### **ENGINEERING AND GEOLOGICAL JUSTIFICATION**

Application of Chevron U.S.A. Inc. for Administrative Approval of an Unorthodox Oil Well Location:

#### **R.R. Sims B #2**

330' FSL & 1330' FEL, SW/4 SE/4 of  
Section 4, T23S, R37E, Unit Letter O  
Lea County, New Mexico

#### **PRIMARY OBJECTIVE: GRAYBURG**

#### **SUPPORTING DATA:**

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed R.R. Sims B #2 well (Exhibit 3). The proposed total depth is 4300' in the San Andres formation.
2. The completion will be in the Langlie-Mattix, Seven Rivers – Queen - Grayburg Oil Pool and the proposed location encroaches toward the following wells (Exhibit 4).

Operator	Well	API #	Location	Formation	Cum Prod		Current Prod		Status
					MBO	MMCF	BOPD	MCFPD	
Chevron	RR SIMS B #1	30025329020000	4O 23S 37E	Grayburg ONLY	0	1	0	6	Active
Chevron	RR SIMS A #1	30025304830000	4N 23S 37E	Grayburg ONLY	5	7	27	18	Active
Chevron	RR SIMS A #6	30025329440002	4M 23S 37E	Grayburg ONLY	9	25	11	40	Active

3. The proposed R.R. Sims B #2 unorthodox Langlie-Mattix location is based primarily on drainage considerations:

#### **a. Grayburg Reservoir**

The Grayburg is a series of alternating subtidal and supratidal dolomites with the subtidal rock having porosity and hydrocarbons while the supratidal rock is tight. The Grayburg depositional environments varied rapidly so that many porous and tight intervals are not continuous from well to well on 40-acre spacing. Tight dolomite and/or anhydrite intervals within the Grayburg create vertical and horizontal flow barriers between different zones of porosity. Additionally, average porosity of the Grayburg is less than 10%, and the average permeability is less than 1 millidarcy. For all of these reasons, Grayburg wells are not usually capable of draining a 40-acre proration unit.

The reservoir was also analyzed by mapping the Hydrocarbon Pore Volume (HCPV) (Exhibit 5). HCPV is the product of feet of net pay (h) times average porosity (phi) times oil saturation ( $S_o$ ). The attached map is

the arithmetic product of grids interpreted from those values. The values were obtained as follows:

1. Net pay was read from either modern neutron-density logs or estimated from a map developed from the product of gross pay and net-to-gross ratio (Exhibit 4).
2. Average porosity was calculated from modern well logs using a minimum of 6% crossplot porosity and a maximum of 20%.
3. Oil saturation was calculated from a fractional flow curve using representative water cut values.

The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	RR SIMS B #1	30025329020000	4O 23S 37E	Grayburg	1	4	19
Chevron	RR SIMS A #1	30025304830000	4N 23S 37E	Grayburg	5	21	100
Chevron	RR SIMS A #6	30025329440002	4M 23S 37E	Grayburg	4	20	91

As seen above, the average drainage area of the offsetting locations is only 5 acres, and additional reserves can be recovered by drilling the proposed infill well at an approximate equidistant location from the existing offsetting producers. Reserves for the proposed location were calculated using the HCPV map, a 5 acre drainage area, and a 15% recovery factor. The results are as follows:

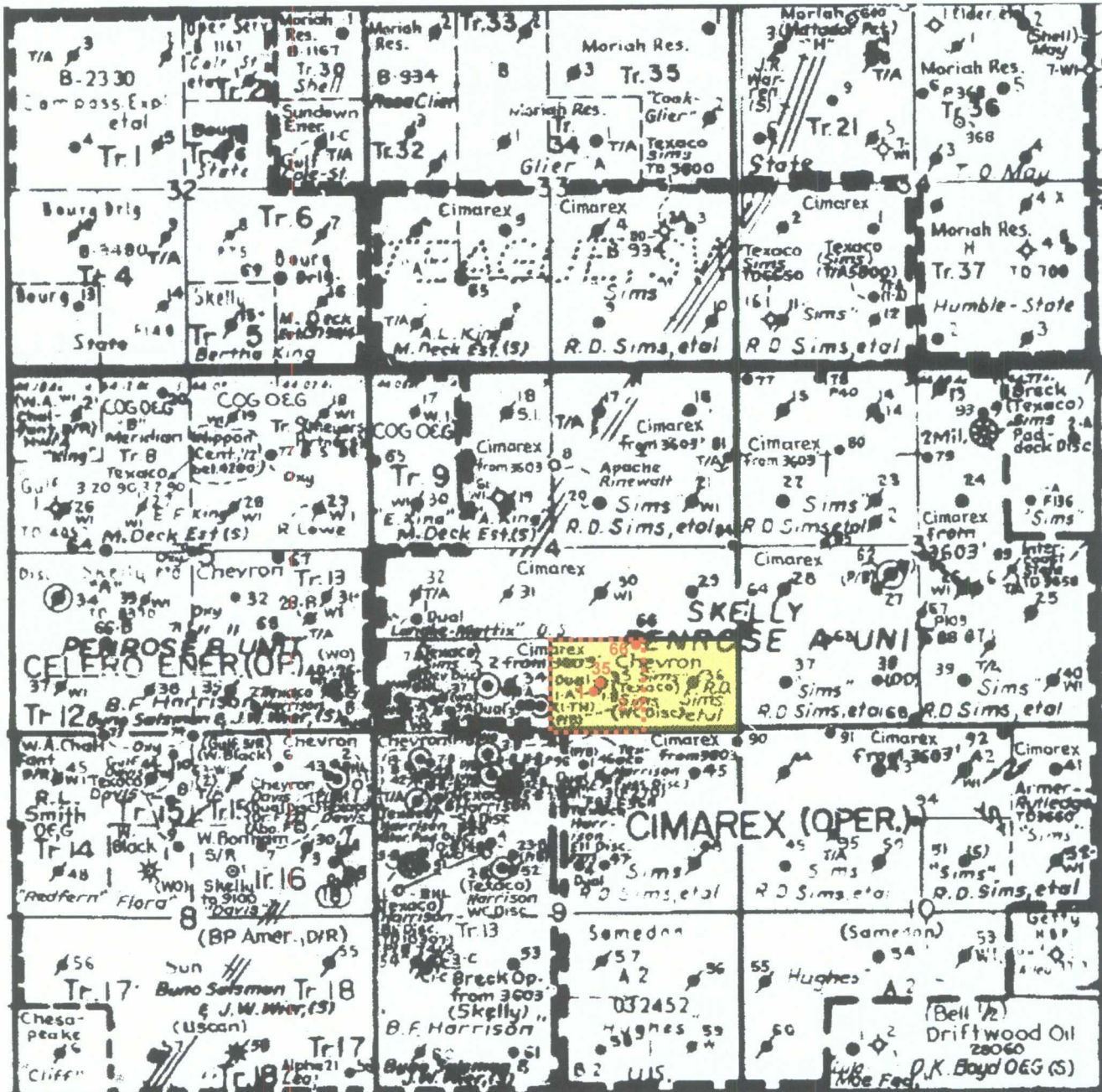
Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	RR Sims B #2	4-O	4.9	5	21	90

4. A land plat highlighting the proposed well's location is attached as Exhibit 2. The S/2 of the S/2 of Section 4 is covered by a single Chevron U.S.A. Inc. fee lease and has common royalty and working interest ownership. Chevron U. S. A. owns a 100% working interest as to all depths below 3663' in the S/2 of the S/2 of Section 4 and the entire Grayburg formation is found below 3,663' at this location. The proposed location encroaches upon Unit Letter A of Section 9. The NE/4 of Section 9 is covered by a single Chevron U. S. A. Inc. fee lease and has common royalty and working interest ownership. Chevron U. S. A. Inc. owns a 100% working interest as to all depths below the base of the Queen formation in the NE/4 of Section 9. For the

reasons set forth above and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

5. The proposed R.R. Sims B #2 will share a 40-acre proration unit and will be simultaneously dedicated with the R.R. Sims B #1, Skelly Penrose A Unit #35, and Skelly Penrose A Unit #66 wells pursuant to statewide Rule 104.B(1) as a Langlie-Mattix, Grayburg producer in Section 4, Unit Letter O.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.

# Exhibit 2



## Chevron USA Inc.

RR Sims B #2 (proposed)

330 FSL & 1330 FEL

RR Sims B #1

535 FSL & 2030 FEL

Skelly Penrose A Unit #35

660 FSL & 1980 FEL

Skelly Penrose A Unit #66

1310 FSL & 1330 FEL

Section 4, T23S-R37E

Lea County, New Mexico

RR Sims A Lease

40 Acre Proration Unit

Scale: 1"=2000' Approx.



DISTRICT I  
1825 N. FRENCH DR., HOBBBS, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 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

API Number	Pool Code	Pool Name
Property Code	Property Name R.R. SIMS B	Well Number 2
OGRID No.	Operator Name CHEVRON USA INC.	Elevation 3307'

Surface Location

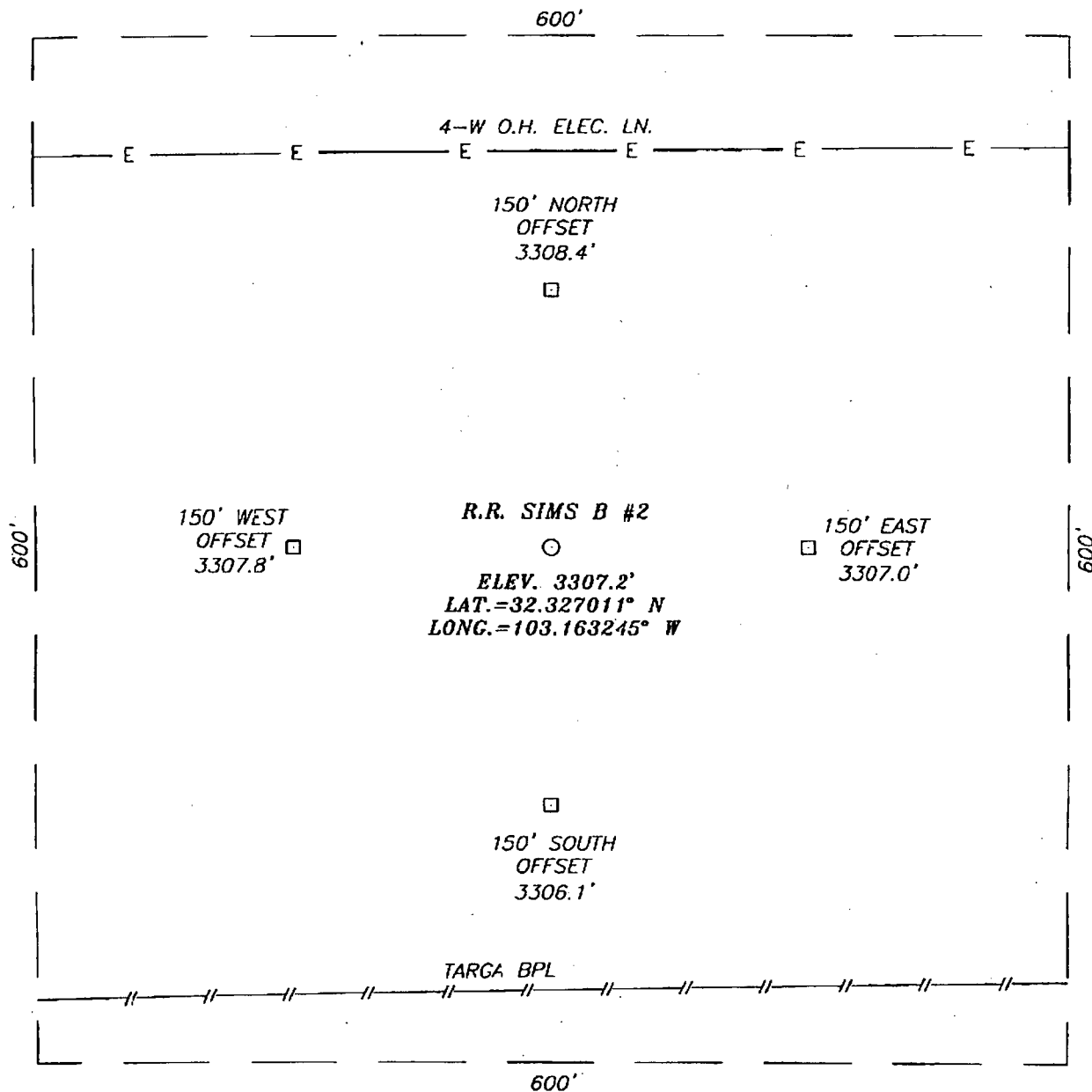
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	4	23-S	37-E		330	SOUTH	1330	EAST	LEA

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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

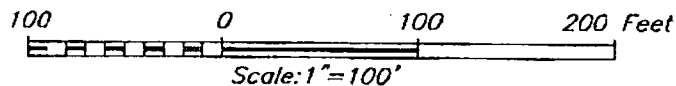
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME Y=484656.7 N X=861438.7 E LAT.=32.327011° N LONG.=103.163245° W</p>				<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information 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 this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p>	
				<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>DECEMBER 17 2008 AR Date Surveyed _____ Signature &amp; Seal of Professional Surveyor <i>Ronald J. Eidson</i> 12/18/08 Certificate No. GARY EIDSON 12841 RONALD J. EIDSON 3239</p>	



## DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #18 AND SUMMIT ROAD, GO SOUTHWEST ON ST. HWY. #18 APPROX. 1.0 MILE TO LEASE ROAD. TURN LEFT AND GO EAST ON LEASE ROAD APPROX. 0.5 MILES. THIS LOCATION IS 325 FEET SOUTH OF LEASE ROAD.



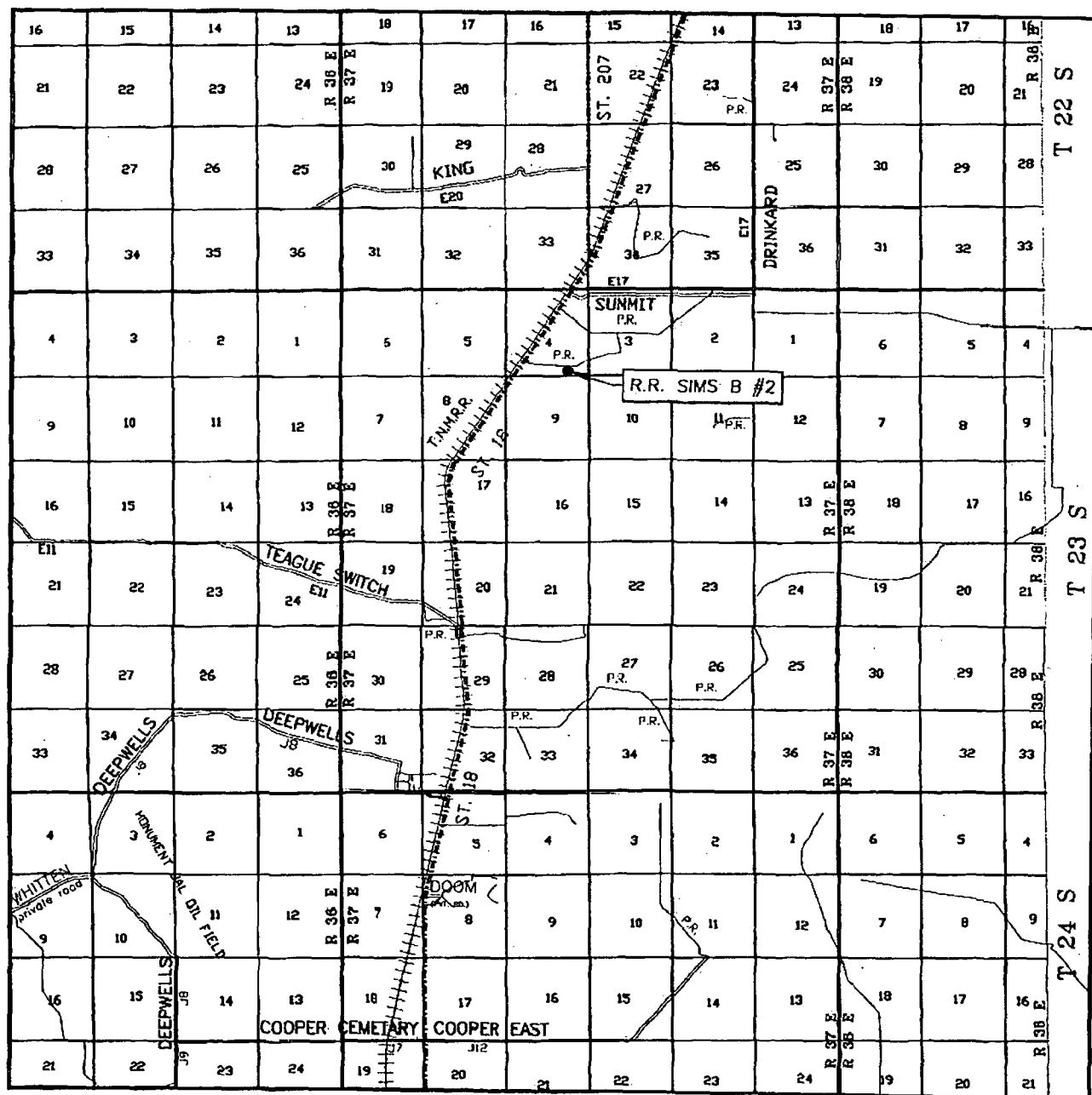
## CHEVRON USA INC.

R.R. SIMS B #2 WELL  
LOCATED 330 FEET FROM THE SOUTH LINE  
AND 1330 FEET FROM THE EAST LINE OF SECTION 4,  
TOWNSHIP 23 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.

Survey Date: 12/17/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.2046	Dr By: AR
Date: 12/19/08	08112046
	Scale: 1"=100'

PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 4 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.


COUNTY LEA STATE NEW MEXICO

DESCRIPTION 330' FSL & 1330' FEL

ELEVATION 3307'

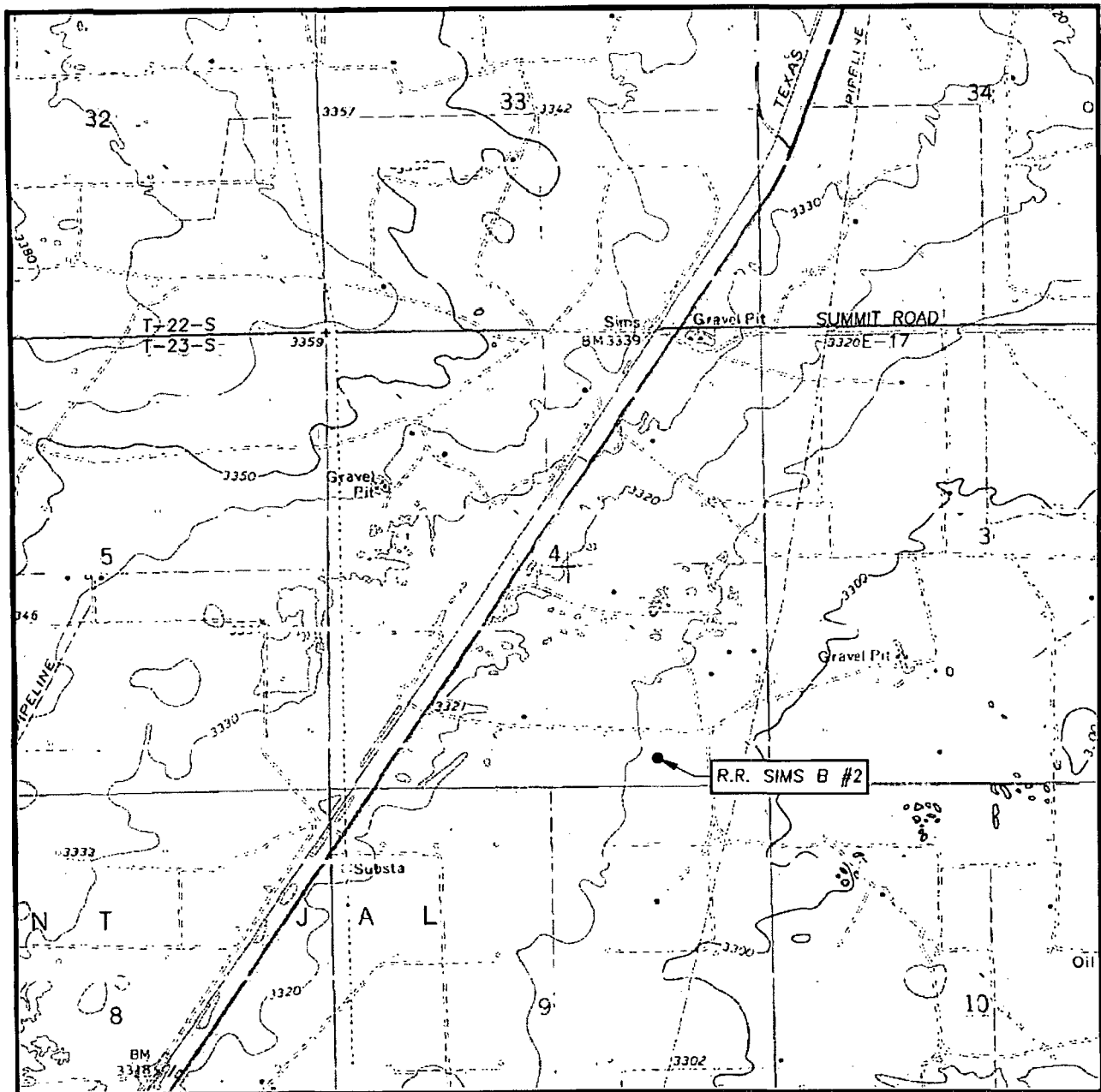
OPERATOR CHEVRON USA INC.

LEASE R.R. SIMS B



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
RATTLESNAKE CANYON, N.M. - 10'

SEC. 4 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

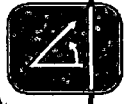
DESCRIPTION 330' FSL & 1330' FEL

ELEVATION 3307'

OPERATOR CHEVRON USA INC.

LEASE R.R. SIMS B

U.S.G.S. TOPOGRAPHIC MAP  
RATTLESNAKE CANYON, N.M.



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised June 10, 2003

District II  
1301 W. Grand Avenue, Artesia, NM 88210

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

District IV  
1220 South St. Francis Dr., Santa Fe, NM  
87505

OIL CONSERVATION DIVISION

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

Submit to

Exhibit 3.1

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 37240	<sup>3</sup> Pool Name Langlie-Mattix Seven Rivers/Queen/Grayburg
<sup>4</sup> Property Code	<sup>5</sup> Property Name R.R. Sims B	<sup>6</sup> Well Number 2
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name Chevron U.S.A., Inc.	<sup>9</sup> Elevation 3307'


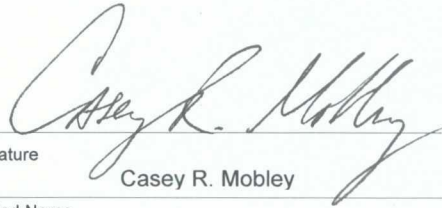
<sup>10</sup> Surface Location

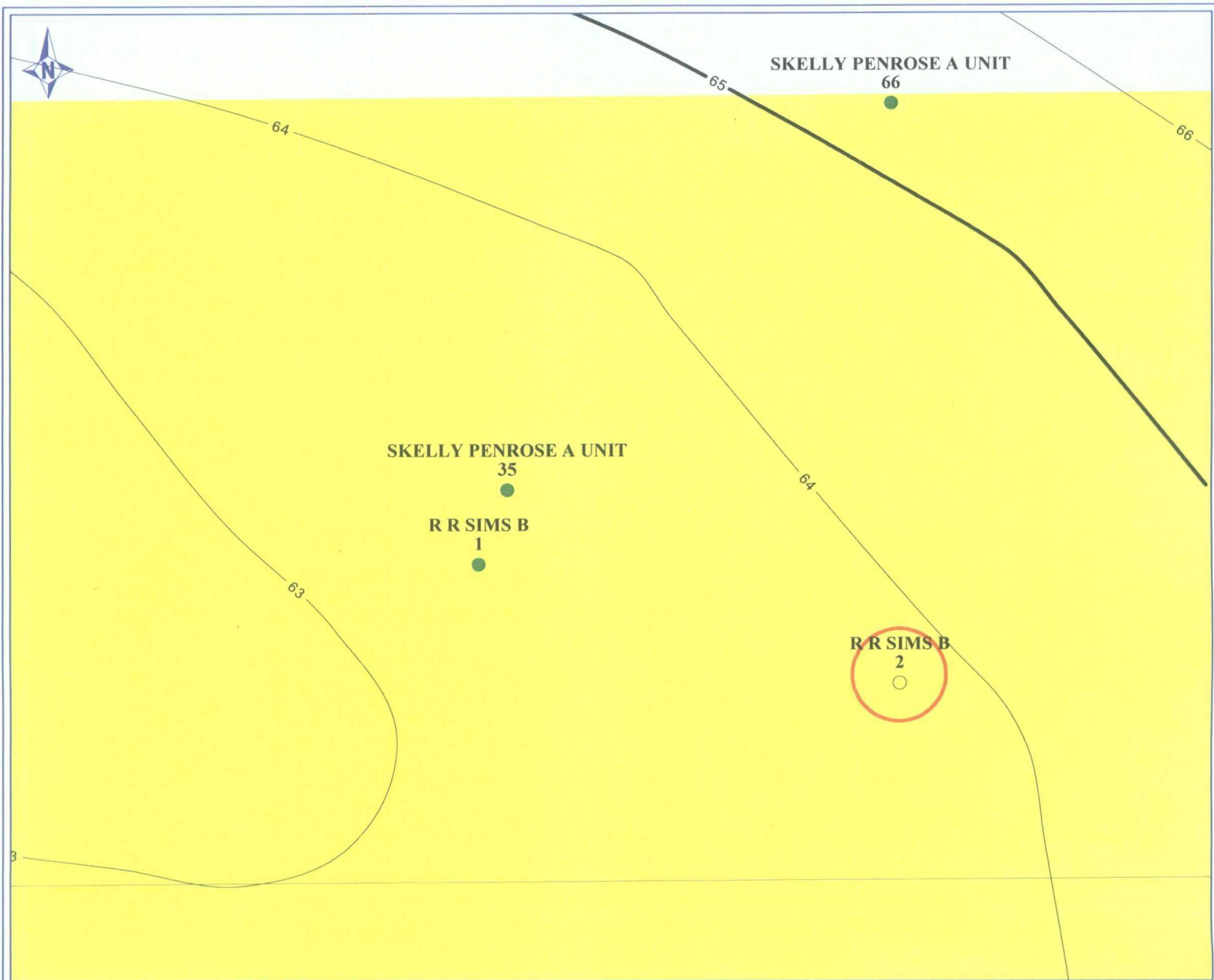
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	4	23S	37E		330	South	1330	East	Lea

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div>16</div> 	<div>17</div> <p>OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p></p> <p>Signature Casey R. Mobley</p> <p>Printed Name Geologist</p> <p>Title January 19, 2009</p>
	<div>18</div> <p>SURVEYOR CERTIFICATION</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>Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>



PETRA 1/9/2009 8:37:50 AM



**Chevron U.S.A. Inc.**

## EXHIBIT 4

R.R. SIMS B #2

Sec 4, T23S-R37E, Lea Co., New Mexico

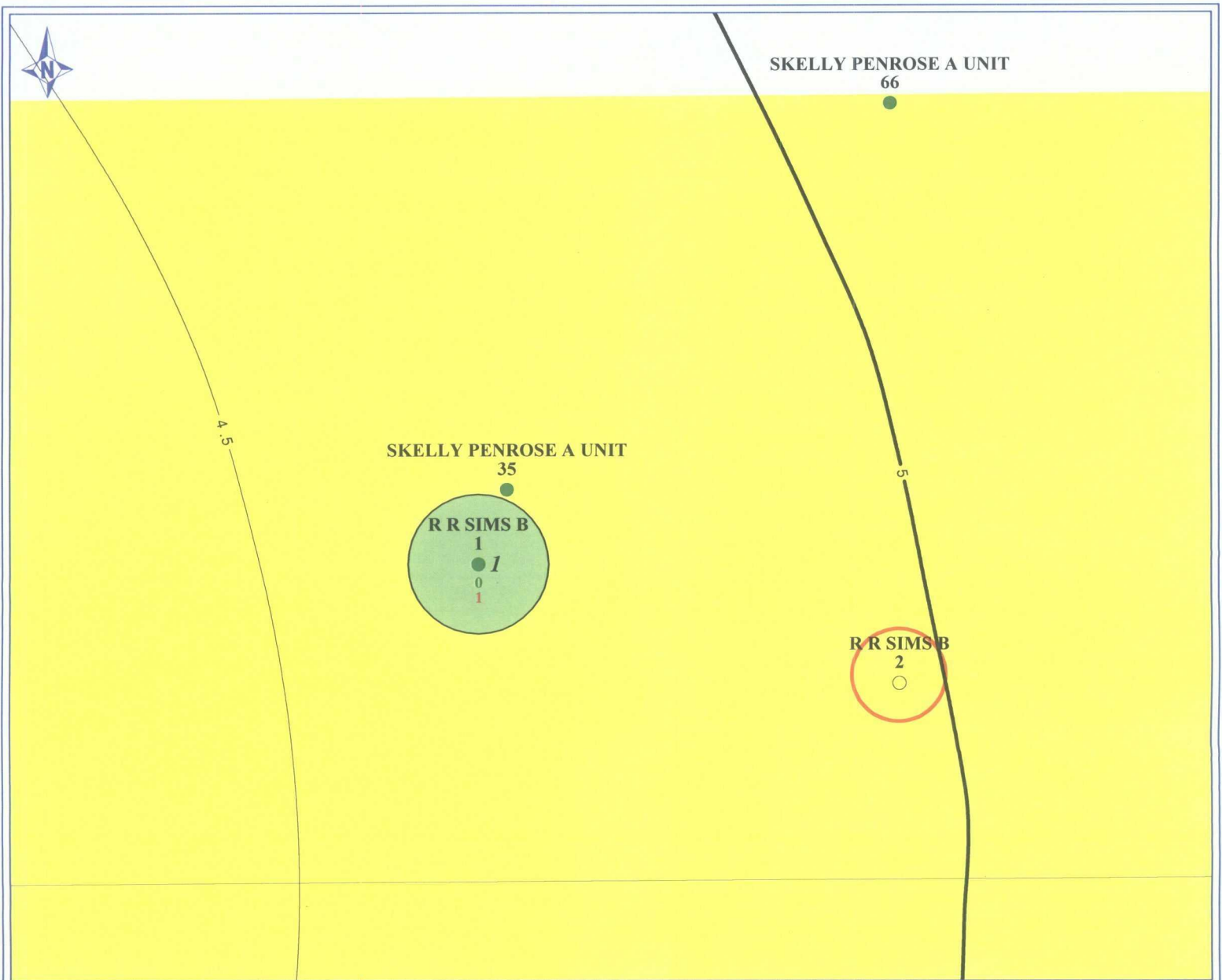
Grayburg Net Pay CI=1' [GR<40, Por>6%]

### POSTED WELL DATA

Well Name  
Well Number



January 9, 2009



PETRA 1/9/2009 8:43:47 AM



**Chevron U.S.A. Inc.**

## EXHIBIT 5

R.R. SIMS B #2

Sec 4, T23S-R37E, Lea Co., New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

### POSTED WELL DATA

Well Name  
Well Number

● GRBG Drained Area (ACRES)

Grayburg Cum Oil Production (MBO)  
Grayburg Cum Gas Production (MMCF)  
Grayburg Cum Water Production (MBW)



January 9, 2009