

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*  
*RR Sims A #10*  
*5808*

**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

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 2008 MAR 13 PM 1 54

[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

*Casey R. Mobley*  
 Signature

Project Manager / Geologist  
 Title

3/10/2008  
 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

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2008 MAR 13 PM 1:54

March 10, 2008

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 A #10**  
990' FSL & 1430' FWL, SE/4 SW/4 of  
Section 4, T23S, R37E, Unit Letter N  
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 2 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 SE/4 SW/4 of Section 4 will be simultaneously dedicated in the Langlie-Mattix, Seven Rivers/Queen/Grayburg Pool to the proposed well and to the R.R. Sims A #1 pursuant to statewide Rule 104.B(1). Also located in Lot N, the Penrose Skelly A Unit #34 was drilled pre-1970 by the Skelly Oil Company as a Grayburg producer, was later re-completed as a Langlie-Mattix, Seven Rivers/Queen producer, and is currently inactive. The proposed well location is located 1210' northwest from the R.R. Sims A #1 and 750' northwest from the Penrose Skelly A Unit #34.

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. There is one well that has produced the Grayburg formation in the SE/4 SW/4 of Section 4. The proposed well will be located northwest of the Penrose Skelly A Unit well 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.

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 fee lease and has common royalty and working interest ownership below the base of the Queen formation. Chevron owns no interest in this tract above the base of the Queen formation. Cimarex Energy Co., Inc. operates wells in the Seven Rivers/Queen pool above the

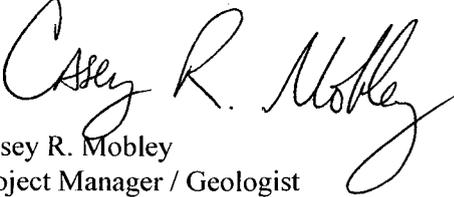
March 10, 2008

Page 2

base of the Queen formation (3663') at this location. Cimarex has been notified and has consented to Chevron drilling and completing this well in the Grayburg formation (see attached consent waiver).

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: NMOCD 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 A #10**

990' FSL & 1430' FWL, SE/4 SW/4 of  
Section 4, T23S, R37E, Unit Letter N  
Lea County, New Mexico

**Offset Operators, Working Interest Owners, SE/4 SW/4 Section 4:**

- |    |   |  |
|----|---|--|
| 1. | Chevron U.S.A. Inc.<br>11111 S. Wilcrest<br>Houston, TX 77099             | Operator/100% WI                           |
| 2. | Cimarex Energy Co., Inc.<br>508 West Wall, Suite 600<br>Midland, TX 79701 | 0% WI in Grayburg<br>(see attached waiver) |

January 16, 2008

Potential Recompletions/New drills in Langlie Mattix  
By Chevron U.S.A. Inc.  
Unit Letter M, N, O, & P Section 4, T-23S, R-37E  
Lea County, NM

Chevron U.S.A. Inc.  
Attn: Tami Parham  
15 Smith Road  
Midland, TX 79705

Dear Ms. Parham:

Cimarex Energy Co., Inc. waives any objection to Chevron drilling and completing new wells or recompleting any of Chevron's existing wells in the LANGLEIE MATTIX; 7 RVRS-Q-GRAYBURG Pool and located in Unit M, N, O, or P, Section 4, T-23S, R-37E, Lea County, New Mexico. Cimarex's lease rights extend only to the base of the Queen formation at 3663' at this location, and it is our understanding that the Chevron recompletion in the subject wells will be into the Grayburg formation at a depth below 3663'.

Sincerely,



Cimarex Energy Co., Inc.

Name: Aaron Hamilton

Title: Region Production Manager

Date: 01-18-08

## 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 A #10**

990' FSL & 1430' FWL, SE/4 SW/4 of  
Section 4, T23S, R37E, Unit Letter N  
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 A #10 well (Exhibit 3). The proposed total depth is 4300' in the top of 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	
Cimarex	Skelly Penrose A UNIT	32	30025106160000	23S 37E Sec 4	7 Rivers/Queen ONLY	24	77			Inactive
Cimarex	Skelly Penrose A UNIT	34	30025106220000	23S 37E Sec 4	7 Rivers/Queen ONLY	85	86			Inactive
Cimarex	Skelly Penrose A UNIT	33	30025106230000	23S 37E Sec 4	7 Rivers/Queen ONLY	140	195			Inactive
Apache	Skelly Penrose A UNIT	31	30025106280000	23S 37E Sec 4	7 Rivers/Queen ONLY	104	72			Inactive
Chevron	RR SIMS A	1	30025304830000	23S 37E Sec 4	Grayburg ONLY	5	7	27	18	Producing
Chevron	RR SIMS A	6	30025329440002	23S 37E Sec 4	Grayburg ONLY	9	25	11	40	Producing

3. The proposed R.R. Sims A #10 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 A	1	30025304830000	23S 37E Sec 4	Grayburg ONLY	5	21	100
Chevron	RR SIMS A	6	30025329440002	23S 37E Sec 4	Grayburg ONLY	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 A #10	4-N	5.25	5	25	118

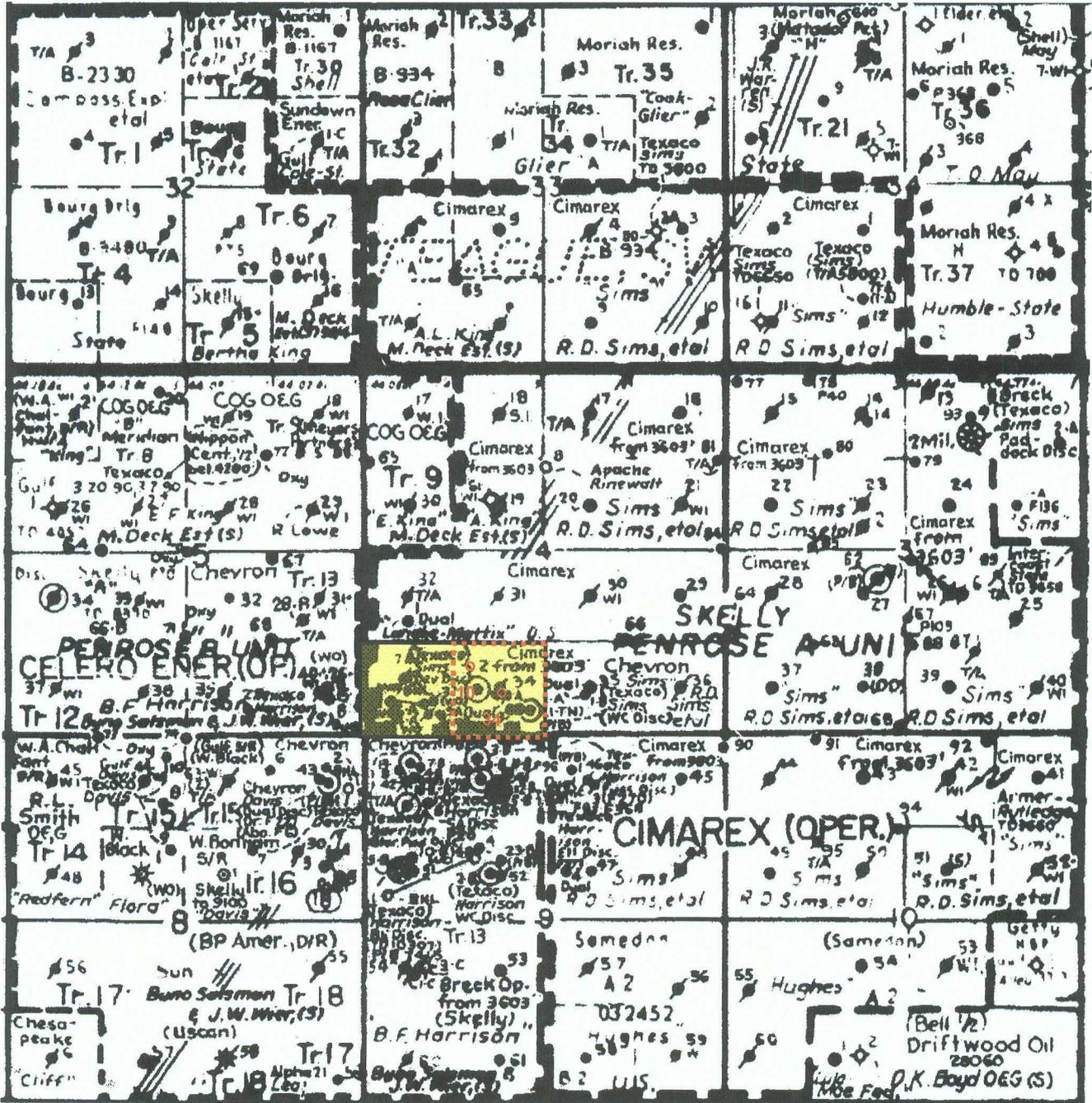
The four Skelly Penrose A Unit wells in this section have only produced from the Seven Rivers/Queen formations, as seen in Exhibit 5 by the orange-shaded circles, while only the R.R. Sims A #1 and #6 wells have produced from the Grayburg formation; the drained area for the Grayburg producers are shown by green-shaded circles in Exhibit 5. This map supports our proposition that the location of the proposed well allows for the recovery of undrained reserves.

4. The S/2 of the S/2 of Section 4 is covered by a single fee lease and has common royalty and working interest ownership below the base of the Queen formation. Chevron owns no interest in this tract above the base of the Queen formation. Cimarex Energy Co., Inc. operates wells in the Seven Rivers/Queen pool above the base of the Queen formation (3663') at this location. Cimarex has been notified and

has consented to Chevron drilling and completing this well in the Grayburg formation (see attached consent waiver).

5. The proposed R.R. Sims A #10 will share a 40-acre proration unit and will be simultaneously dedicated with the R.R. Sims A #1 pursuant to statewide Rule 104.B(1) (permission granted with Cimarex Energy Co. for under 3663') as a Langlie-Mattix, Grayburg producer in Section 4, Unit Letter N.
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 A #10 (proposed)

990 FSL & 1430 FWL

Penrose Skelly Unit #34

660 FSL & 1980 FWL

Section 4, T23S-R37E

Lea County, New Mexico

RR Sims A Lease

40 Acre Proration Unit

Scale: 1"=2000' Approx.

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Form C-102

Revised October 12, 2005

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

1220 SOUTH ST. FRANCIS DR.

State Lease - 4 Copies

Santa Fe, New Mexico 87505

Fee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name RR SIMS A	Well Number 10
OGRID No.	Operator Name CHEVRON USA, INC.	Elevation 3321'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	4	23-S	37-E		990	SOUTH	1430	WEST	LEA

Bottom Hole Location If Different From Surface

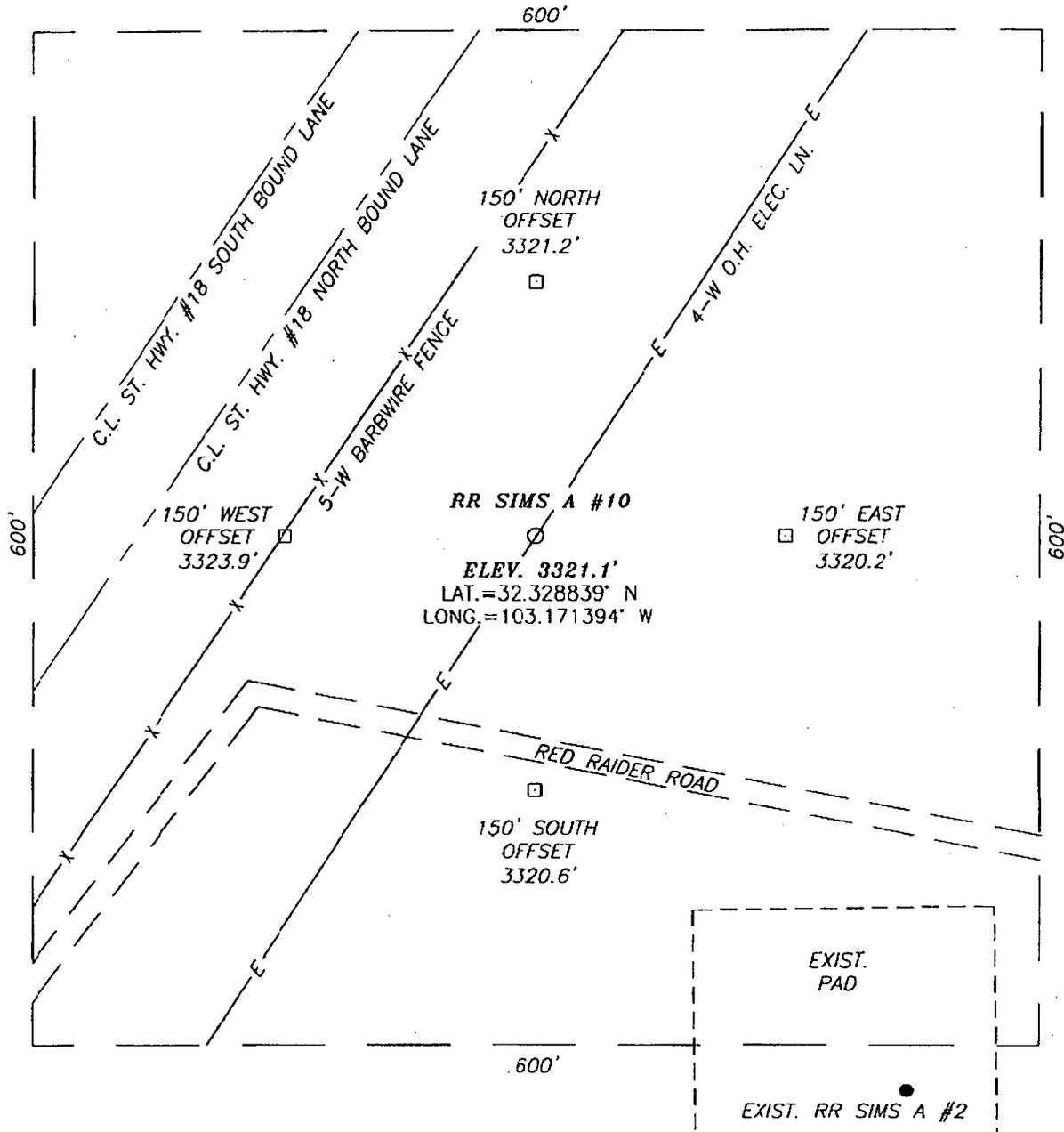
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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

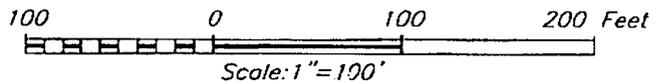
LOT 4	LOT 3	LOT 2	LOT 1	<p><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom 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.</i></p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p>
44.06 AC	44.20 AC	44.32 AC	44.46 AC	
<p>GEODETTIC COORDINATES NAD 27 NME</p> <p>Y=485294.3 N X=858914.2 E</p> <p>LAT.=32.328839° N LONG.=103.171394° W</p>				<p><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>Date Surveyed _____ LA</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p><i>Ronald E. Eidson</i> 3239 NOVEMBER 26 2007 07.11.1561</p> <p>Certificate No. GARY EIDSON 12641 RONALD EIDSON 3239</p>

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #18 AND CO. RD. E-17 (SUMMIT RD.) GO SOUTHWEST ON ST. HWY. #18 APPROX. 1.0 MILE TO RED RAIDER ROAD. THIS LOCATION IS APPROX. 100 FEET NORTH AND 200 EAST OF ROAD.



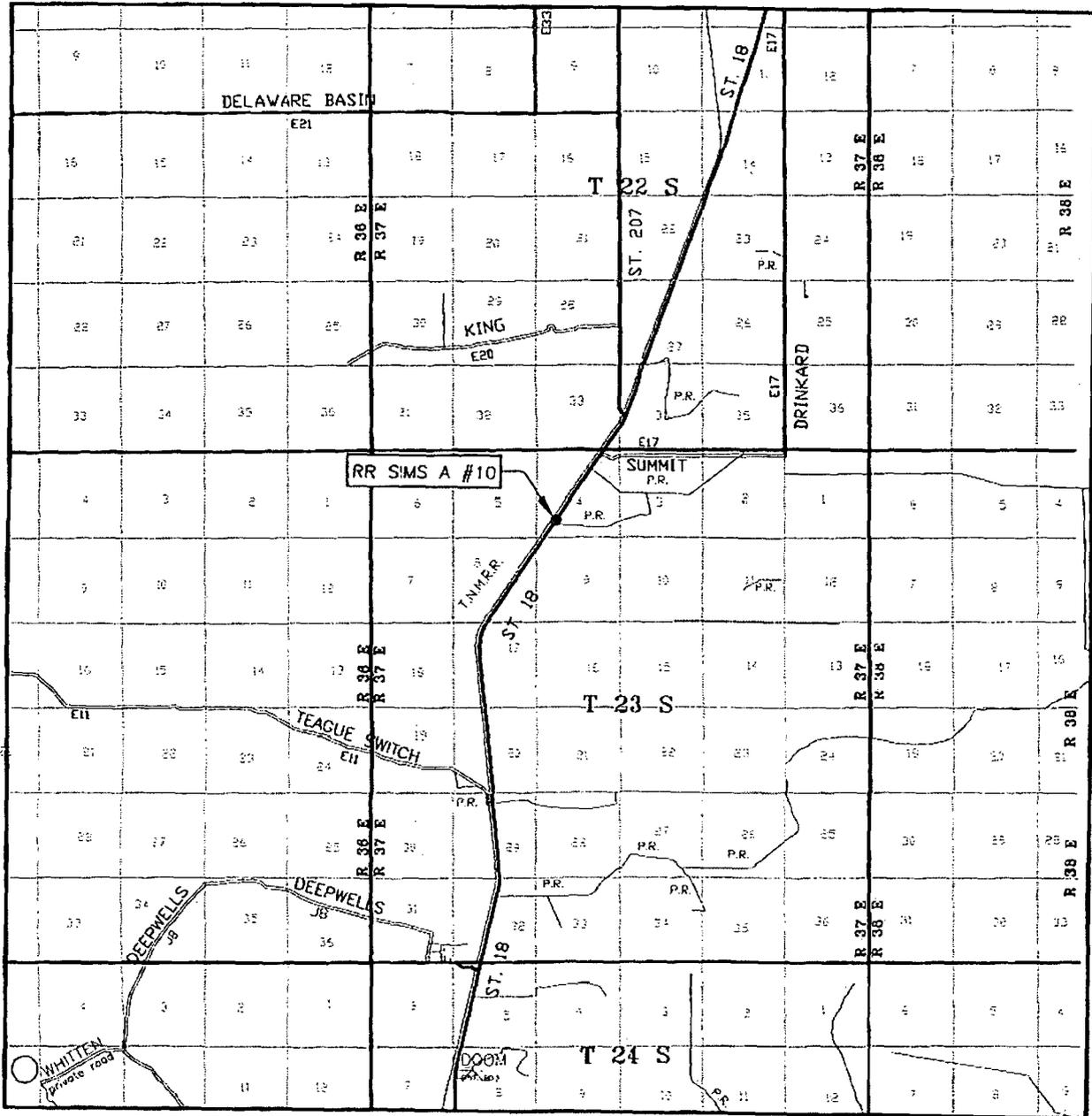
PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117

**CHEVRON USA, INC.**

RR SIMS A #10 WELL  
LOCATED 990 FEET FROM THE SOUTH LINE  
AND 1430 FEET FROM THE WEST LINE OF SECTION 4,  
TOWNSHIP 23 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.

Survey Date: 11/6/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.1561	Dr By: LA	Rev 1:N/A	
Date: 11/21/07	Disk: CD#6	07111561	Scale: 1"=100'

# 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 990' FSL & 1430' FWL  
 ELEVATION 3321'  
 OPERATOR CHEVRON USA, INC.  
 LEASE RR SIMS A



**PROVIDING SURVEYING SERVICES**  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 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

**OIL CONSERVATION DIVISION**

Submit to  
**Exhibit 3.1**

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

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

AMENDED REPORT

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

**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 A				<sup>6</sup> Well Number 10	
<sup>7</sup> OGRID No.		<sup>8</sup> Operator Name Chevron U.S.A., Inc.				<sup>9</sup> Elevation 3320	

<sup>10</sup> Surface Location

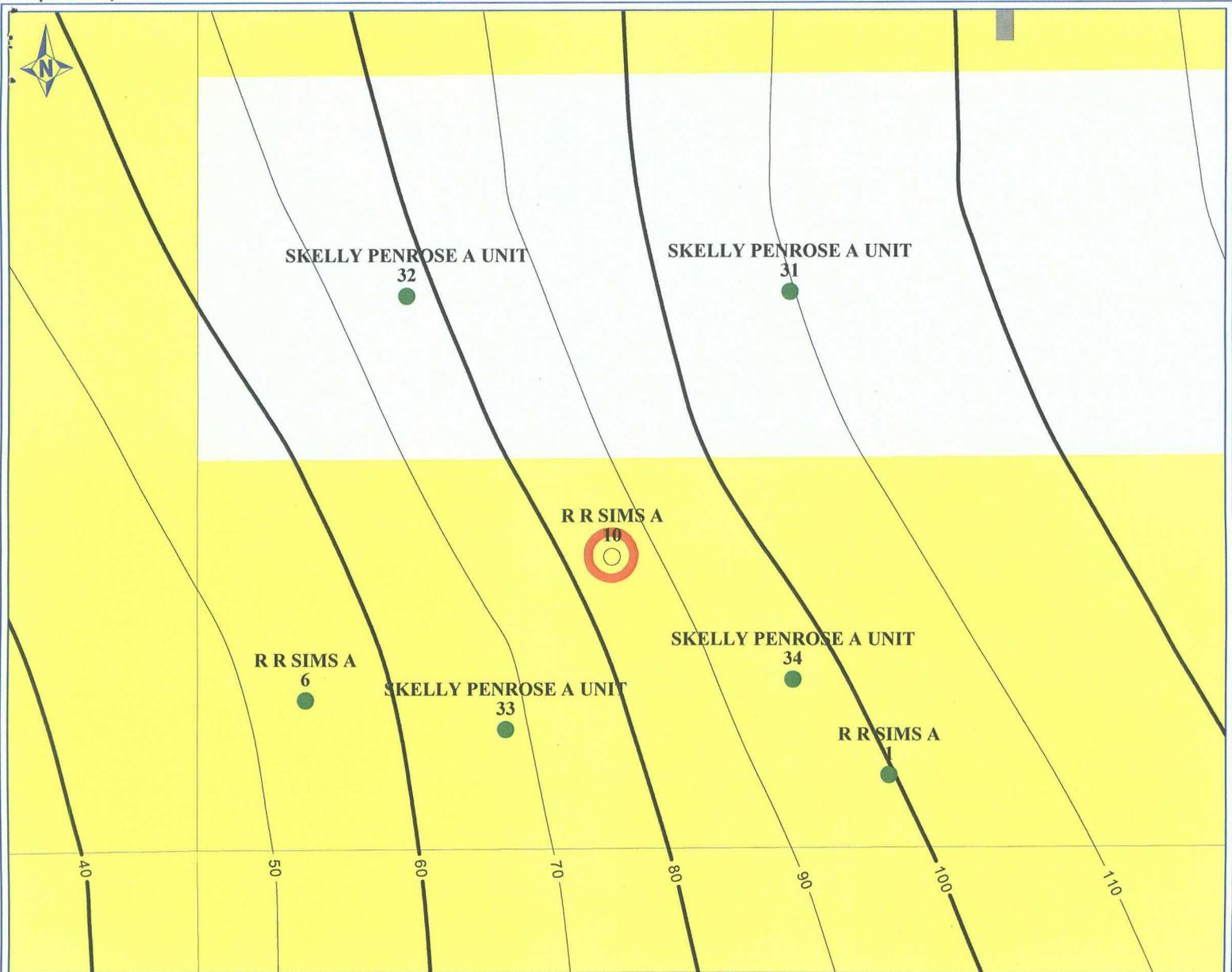
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	4	23S	37E		990	South	1430	West	Lea

<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**

<p><sup>16</sup></p>	<p><sup>17</sup></p> <p><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.</i></p> <p style="text-align: center;"><i>Casey R. Mobley</i></p> <p>Signature _____ Casey R. Mobley</p> <p>Printed Name _____ <b>Geologist</b></p> <p>Title _____ <b>March 10, 2008</b></p>
	<p><sup>18</sup></p> <p><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>Signature and Seal of Professional Surveyor: _____</p> <p style="text-align: right;">Certificate Number _____</p>



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

**EXHIBIT 4**

LANGLIE-MATTIX FIELD R. R. SIMS A #10

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

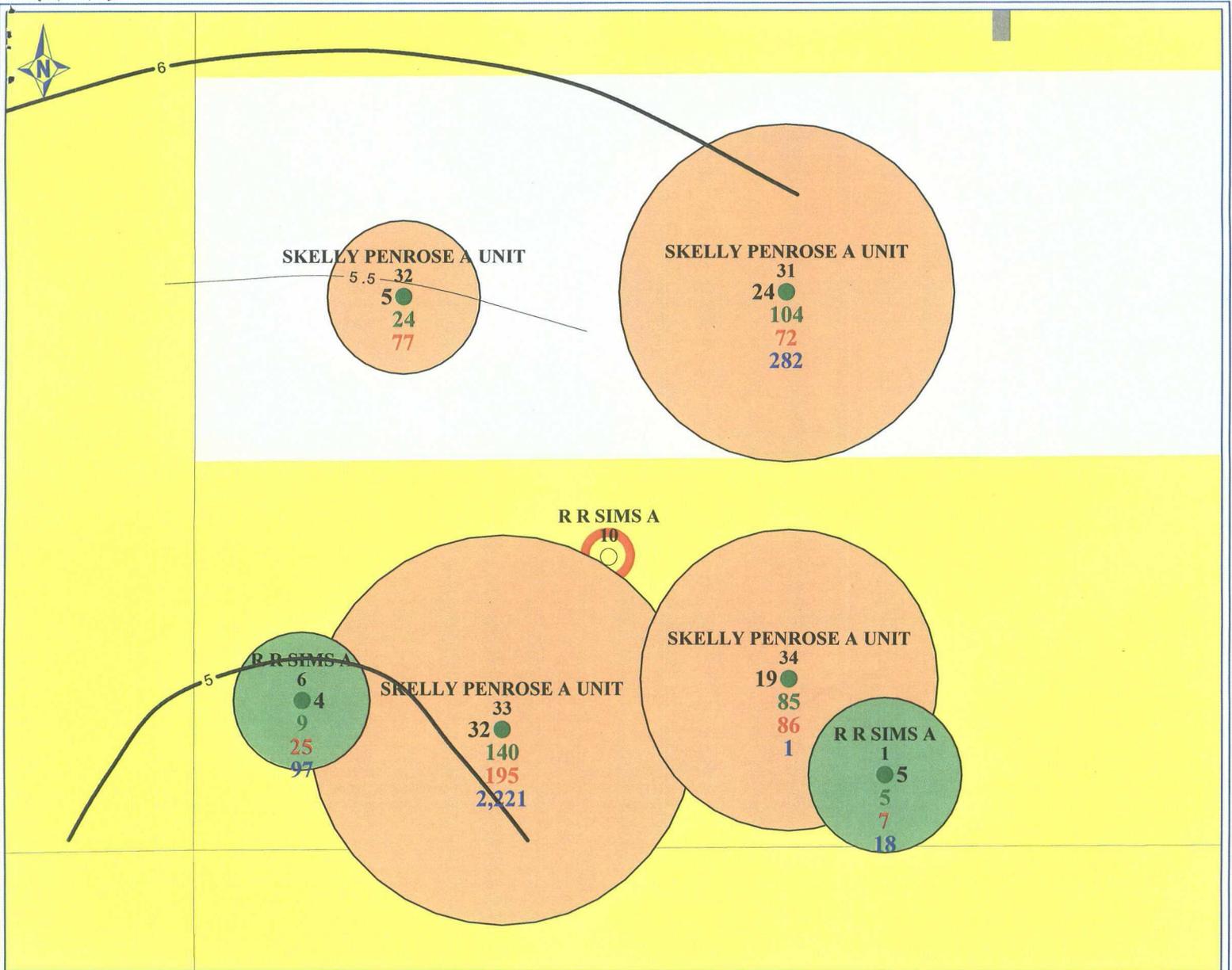
Grayburg Net Pay CI=10' [GR<40, Por>6%]

**POSTED WELL DATA**

Well Name  
Well Number



March 4, 2008



PETRA 3/4/2008 3:55:13 PM



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

**EXHIBIT 5**

LANGLIE-MATTIX FIELD R. R. SIMS A #10

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

Grayburg HCPV CI=0.5 & EUR - Drainage

**POSTED WELL DATA**

Well Name  
Well Number

7RVRS/QUEEN Drained Area ● GRBG Drained Area

7RVRS/QUEEN/GRBG Cum Oil (MBO)  
7RVRS/QUEEN/GRBG Cum Gas (MMCF)  
7RVRS/QUEEN/GRBG Cum Water (MBW)



March 4, 2008