

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.

Print or Type Name

Signature

Title

Date

e-mail Address



RECEIVED

JUN 21 2005

**OIL CONSERVATION
DIVISION**

MidContinent SBU
Chevron North America Exploration
and Production Company
P. O. Box 36366
Houston, TX 77236

June 10, 2005

Request for Administrative Approval of
Unorthodox Oil Well Location and
Simultaneous Dedication

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

Dear Mr. Stogner:

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

Mark #13

1678' FNL & 1425' FEL, SW/4 NE/4 of
Section 3, T22S, R37E, Unit Letter G
Lea County, New Mexico

The proposed well will be as an infill producer in the Penrose Skelly, Grayburg Pool, which is an oil pool spaced on 40 acres. This well is a follow-up to our recent infill drilling in the same Pool which concluded in 2004. Chevron's technical analysis of the reservoir still supports the contention that typical Grayburg wells cannot drain 40 acres.

The SW/4 NE/4 of Section 3 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the Mark #9. The Mark #9 was drilled in 1975 and recompleted as a Penrose Skelly, Grayburg producer in 2004. Chevron also requests approval for simultaneous dedication of these two wells.

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 are five wells that have produced the Grayburg formation in the NE/4 of Section 3. The proposed well will be located in a legal location on the Mark Owen lease. 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 NE/4 of Section 3 is covered by a single fee lease and has common royalty and working interest ownerships. For that reason and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

June 10, 2005

Page 2

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-4918 or by email at gpritchard@chevron.com. If I am not available, you can also reach Mark Wakefield by phone at (281) 561-4866 or by email at wakefms@chevron.com. Thank you for consideration of this matter.

Sincerely,

A handwritten signature in cursive script, reading "George F. Pritchard".

George F. Pritchard
Geologist [Texas License #3848]

Attachments

cc: NMOCD District 1 – Hobbs, NM
Mark Wakefield
Well File

NOTIFICATION LIST

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

Mark #13

1678' FNL & 1425' FEL

Section 3, T22S, R37E, Unit Letter G

Lea County, New Mexico

Offset Operators, Working Interest Owners, NE/4 Section 3:

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

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

[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.

George F. Pritchard
 Print or Type Name

Signature

Geologist
 Title

6/14/05
 Date

gpritchard@chevrontexaco.com
 e-mail Address

EXHIBIT 1

ENGINEERING AND GEOLOGICAL JUSTIFICATION

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

Mark #13

1678' FNL & 1425' FEL

Section 3, T22S, R37E, Unit Letter G

Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed Mark #13 well (Exhibit 3). The proposed total depth is 4300' in the top of the San Andres formation.
2. The completion will be in the Penrose Skelly, Grayburg Oil Pool and the proposed location encroaches toward the following wells (Exhibit 4).

Operator	Well	Location	Formation	Cum Prod		Current Prod		Status
				MBO	MMCF	BOPD	MCFPD	
Chevron	Mark #1	3-B	Grayburg	66	422	20	269	Producing
Chevron	Mark #4	3-H	Grayburg	11	58			Inactive Grayburg, Prod. Tubb
Chevron	Mark #9	3-G	Grayburg	75	918	13	171	Producing
Chevron	Mark #10	3-H	Grayburg	14	156	20	198	Producing
Chevron	Mark #11	3-A	Grayburg	4	11	92	262	Producing, cmpltd 4/05

3. The proposed Mark #13 unorthodox Grayburg 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 gross pay times 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	Location	Formation	Drainage Acres	EUR	
					MBO	MMCF
Chevron	Mark #1	3-B	Grayburg	32	100	629
Chevron	Mark #4	3-H	Grayburg	3	11	58
Chevron	Mark #9	3-G	Grayburg	24	78	1024
Chevron	Mark #10	3-H	Grayburg	13	45	350
Chevron	Mark #11	3-A	Grayburg	21	67	166

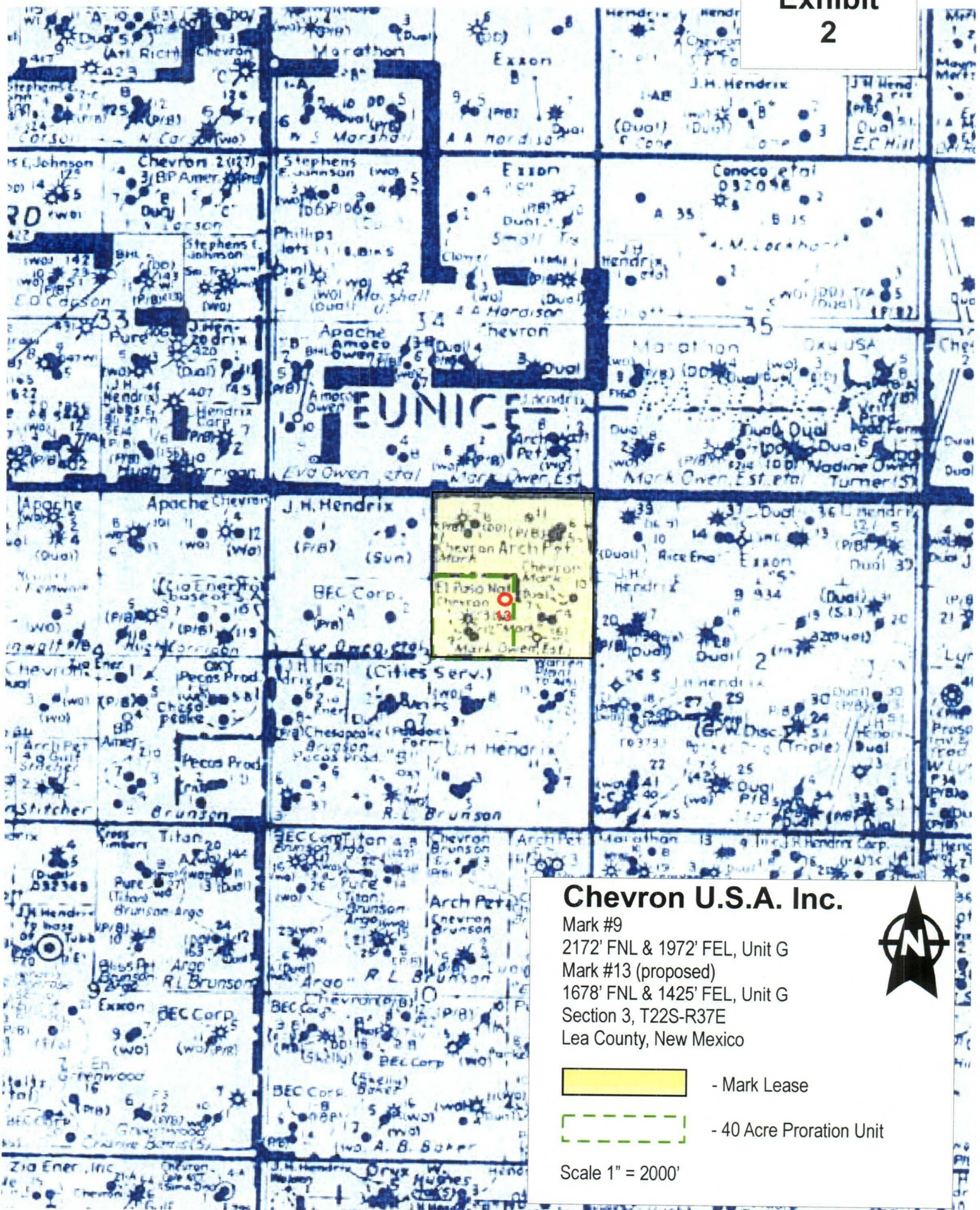
As seen above, the average drainage area of the offsetting locations (Lot A, B, G & H) is 19 acres and additional reserves can be recovered by drilling the proposed infill well. The new location was moved from the approximate center location of the existing offsetting producers due to surface related issues. Reserves for the proposed location were calculated using the HCPV map, a 19 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	Owen #13	3-G	7.2	19	63	466

4. The NE/4 of Section 3 is covered by a single fee lease which has common royalty and working interest ownerships. Chevron is the operator and 100% working interest owner of the Grayburg wells toward which the proposed well will encroach. Therefore, there are no offset interest owners or adversely affected parties to notify of this application.
5. The proposed Mark #13 will share a 40-acre proration unit and will be simultaneously dedicated with the Mark #9 as a Penrose Skelly, Grayburg producer in Section 3, Unit Letter G.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.

Exhibit

2



Chevron U.S.A. Inc.

Mark #9

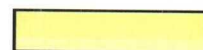
2172' FNL & 1972' FEL, Unit G

Mark #13 (proposed)

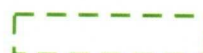
1678' FNL & 1425' FEL, Unit G

Section 3, T22S-R37E

Lea County, New Mexico



- Mark Lease



- 40 Acre Proration Unit

Scale 1" = 2000'

DISTRICT I
1625 N. FRENCH DR., HOBBES, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

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

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
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 MARK		Well Number 13
OGRID No.	Operator Name CHEVRONTEXACO CORPORATION		Elevation 3395'

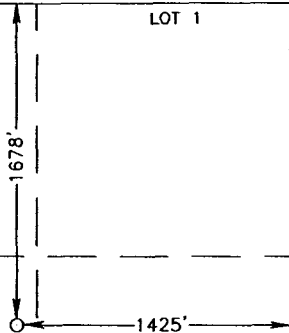
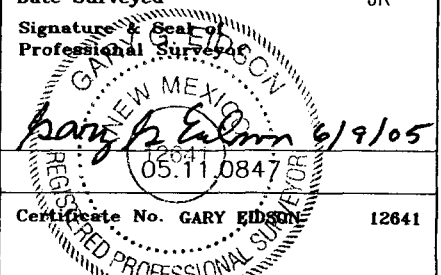
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	3	22-S	37-E		1678	NORTH	1425	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

LOT 4	LOT 3	LOT 2	LOT 1
			
GEODETIC COORDINATES NAD 27 NME Y=519773.0 N X=866222.9 E LAT.=32°25'24.16" N LONG.=103°08'47.40" W			
OPERATOR CERTIFICATION <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i> Signature _____ Printed Name _____ Title _____ Date _____			
SURVEYOR CERTIFICATION <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> JUNE 2, 2005 Date Surveyed _____ JR Signature & Seal of Professional Surveyor  Certificate No. GARY EDSON 12641			

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised June 10, 2003

OIL CONSERVATION DIVISION

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

Submit to Appropriate District Office

Exhibit 3.1

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-24584	² Pool Code 50350	³ Pool Name Penrose Skelly; Grayburg
⁴ Property Code 2678	⁵ Property Name Mark	⁶ Well Number 9
⁷ OGRID No. 4323	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3393' GL


¹⁰ Surface Location

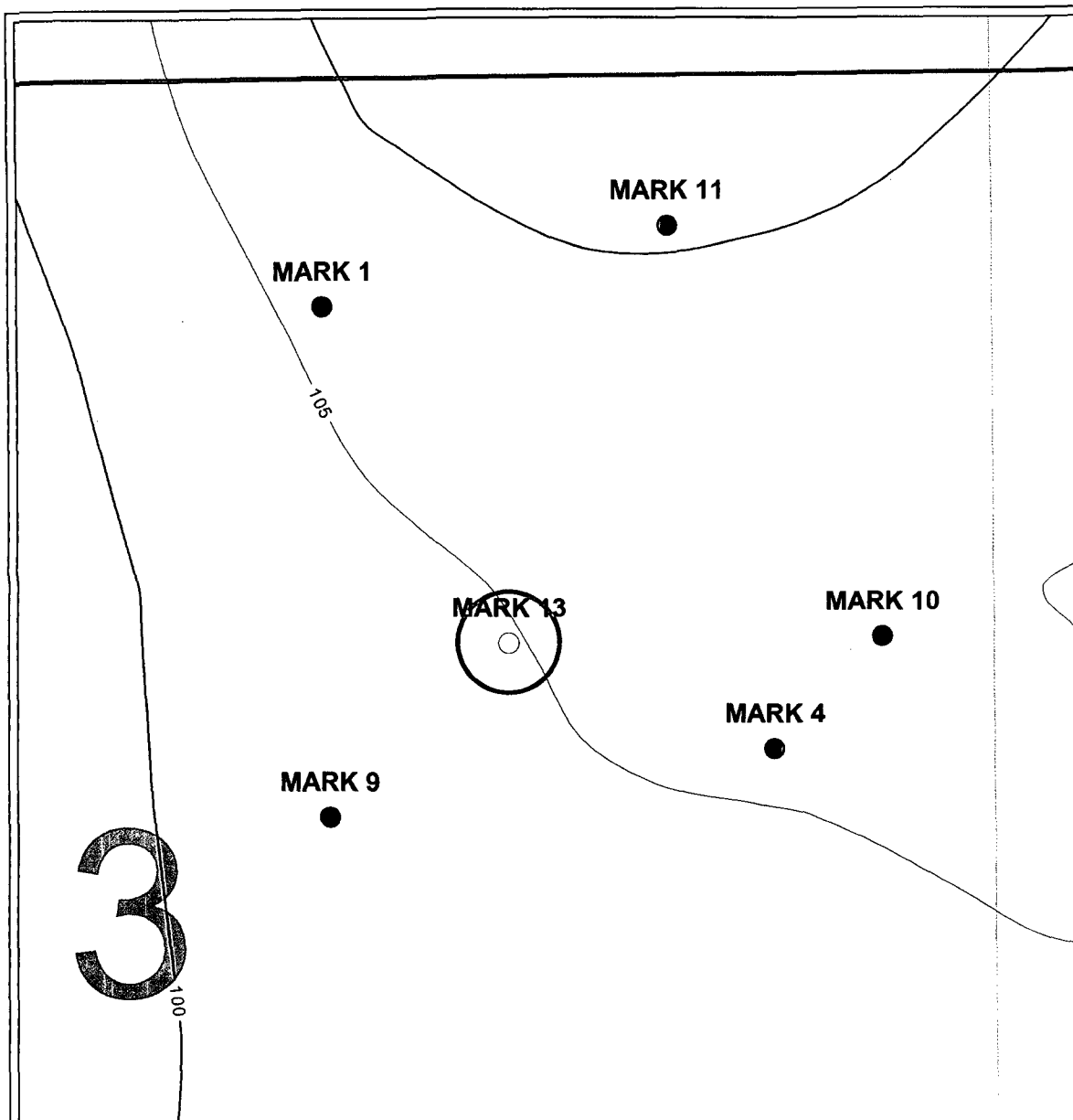
UL or Lot No. G	Section 3	Township 22S	Range 37E	Lot Idn	Feet from the 2172	North/South line North	Feet from the 1972	East/West line East	County Lea
--------------------	--------------	-----------------	--------------	---------	-----------------------	---------------------------	-----------------------	------------------------	---------------

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 40	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

16			Mark Lease	1 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature George F. Pritchard Printed Name Geologist Title June 9, 2005
		2172'		
		40-acre proration unit		
		13		
		9	1972'	
				1 SURVEYOR CERTIFICATION <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> Signature and Seal of Professional Surveyor: Certificate Number



PETRA 6/9/2005 8:56:00 AM

CHEVRON U.S.A.

EXHIBIT 4

PENROSE-SKELLY FIELD MARK #13

Sec. 3, T22S-R37E, Lea Co., New Mexico

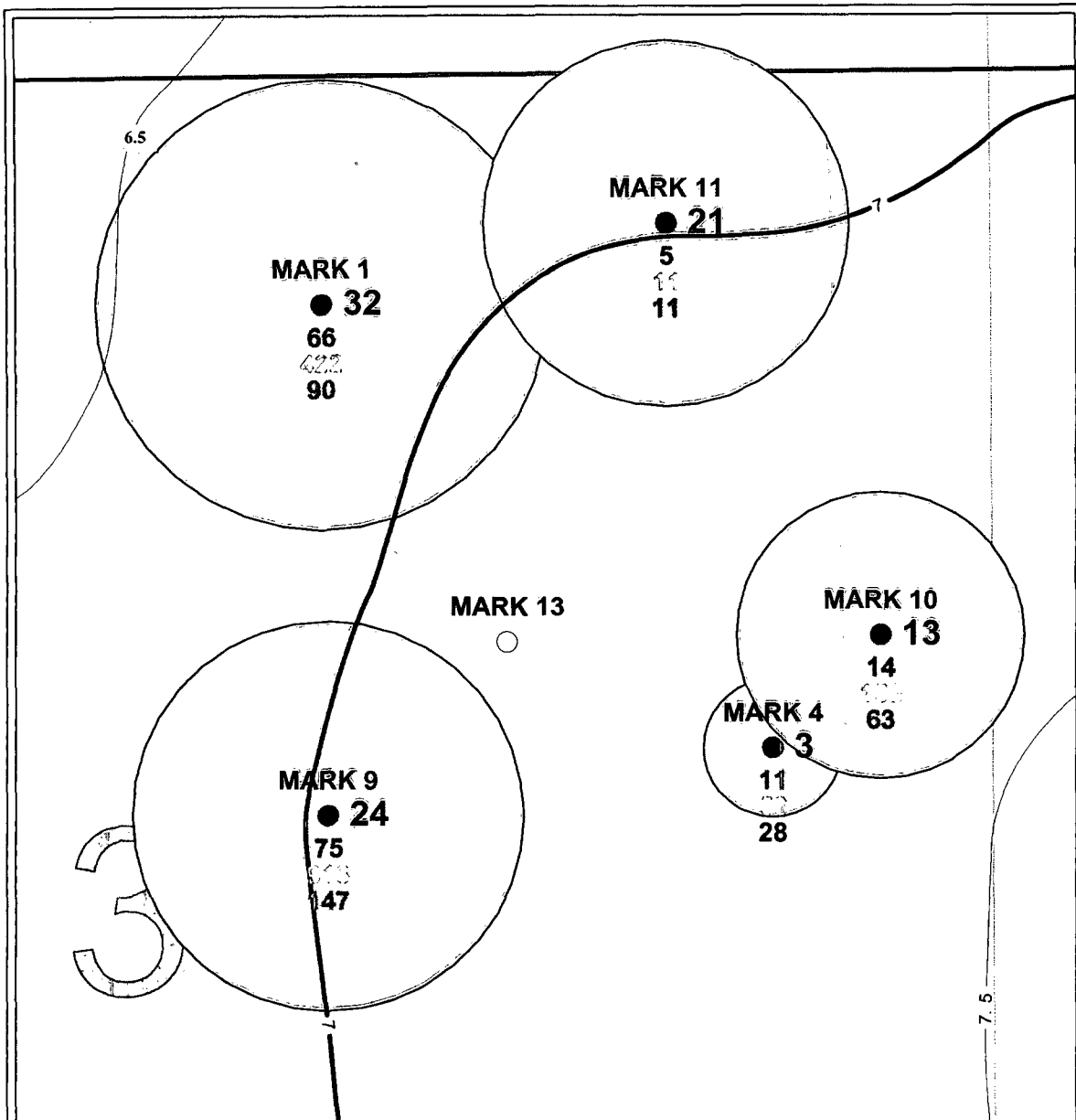
Grayburg Net Pay CI=5.0'[Gr<40, Por>6%]



POSTED WELL DATA

Well Label

June 9, 2005



PETRA 6/9/2005 9:01:14 AM

CHEVRON U.S.A.

EXHIBIT 5

PENROSE-SKELLY FIELD MARK #13

Sec. 3, T22S-R37E, Lea Co., New Mexico

Grayburg HCPV CI=0.5, & EUR - Drainage



POSTED WELL DATA

Well Label

● GFP_GRAYBURG - EUR-GRAYBURG-ACRES[GFP]
 GFP_GRAYBURG - GRAYBURG-CUM_OIL_MBO[PI]
 GFP_GRAYBURG - GRAYBURG-CUM_GAS_MMCF[PI]
 GFP_GRAYBURG - GRAYBURG-CUM_WATER_MBO[PI]

June 9, 2005