

DATE IN 1/14/09	SUSPENSE	ENGINEER D. Brooks	LOGGED IN 1/14/09	TYPE NSL	APP NO. PKAA0901448693
-----------------	----------	--------------------	-------------------	----------	------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED
NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 2009 JAN 14 PM 1 2120 South St. Francis Drive, Santa Fe, NM 87505



H.T. Matern NCT-B 29
 Chevron USA Inc.
 4323

ADMINISTRATIVE APPLICATION CHECKLIST

5987

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 19, 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:

H.T. Mattern NCT-B #29
2310' FSL & 1460' FEL, NW/4 SE/4 of
Section 30, T21S, R37E, Unit Letter J
Lea County, New Mexico

The proposed well will be an infill producer in the Penrose Skelly, Grayburg Pool [Pool Code 50350], which is an oil pool spaced on 40 acres. This well is a continuation of our 7 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 NW/4 SE/4 of Section 30 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the H.T. Mattern NCT-B #13 and H.T. Mattern NCT-B #26 pursuant to statewide Rule 104.B(1). The H.T. Mattern NCT-B #13 was drilled and completed as a Penrose Skelly Grayburg producer in 1961; the well was plugged and abandoned in 1998. The H.T. Mattern NCT-B #26 well was drilled and completed as a Penrose Skelly Grayburg producer in 2005 and is currently active.

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 seven wells that have produced the Grayburg formation in the SE/4 of Section 30. The proposed well will be located in the approximate northern center point of those wells, approximately 440' 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 SE/4 and S/2 SW/4 of Section 30 is covered by a single Chevron U. S. A. Inc. fee lease and has common royalty and working interest ownership (Chevron U. S. A. 100% working interest as to all depths). The proposed location encroaches upon Unit Letter H of Section 30. The N/2 of Section 30 is covered by

January 19, 2009

Page 2

two Chevron U. S. A. Inc. fee leases and has common royalty and working interest ownership (Chevron U. S. A. Inc. 100% working interest as to all depths). 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.

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. 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. Thank you for consideration of this matter.

Sincerely,

A handwritten signature in black ink that reads "Casey R. Mobley". The signature is written in a cursive, flowing style.

Casey R. Mobley
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM
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:

H.T. Mattern NCT-B #29

2310' FSL & 1460' FEL, NW/4 SE/4 of
Section 30, T21S, R37E, Unit Letter J
Lea County, New Mexico

Offset Operators, Working Interest Owners, N/2, SE/4, & S/2 SW/4 of Section 30:

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

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 H.T. MATTERN NCT-B		Well Number 29
OGRID No.	Operator Name CHEVRON USA INC.		Elevation 3485'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	21-S	37-E		2310	SOUTH	1460	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 1	
35.95 AC	
LOT 2	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=528880.1 N X=850252.2 E</p> <p>LAT.=32.448885° N LONG.=103.197934° W</p>
36.97 AC	
LOT 3	
36.99 AC	
LOT 4	
37.01 AC	

OPERATOR CERTIFICATION

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.

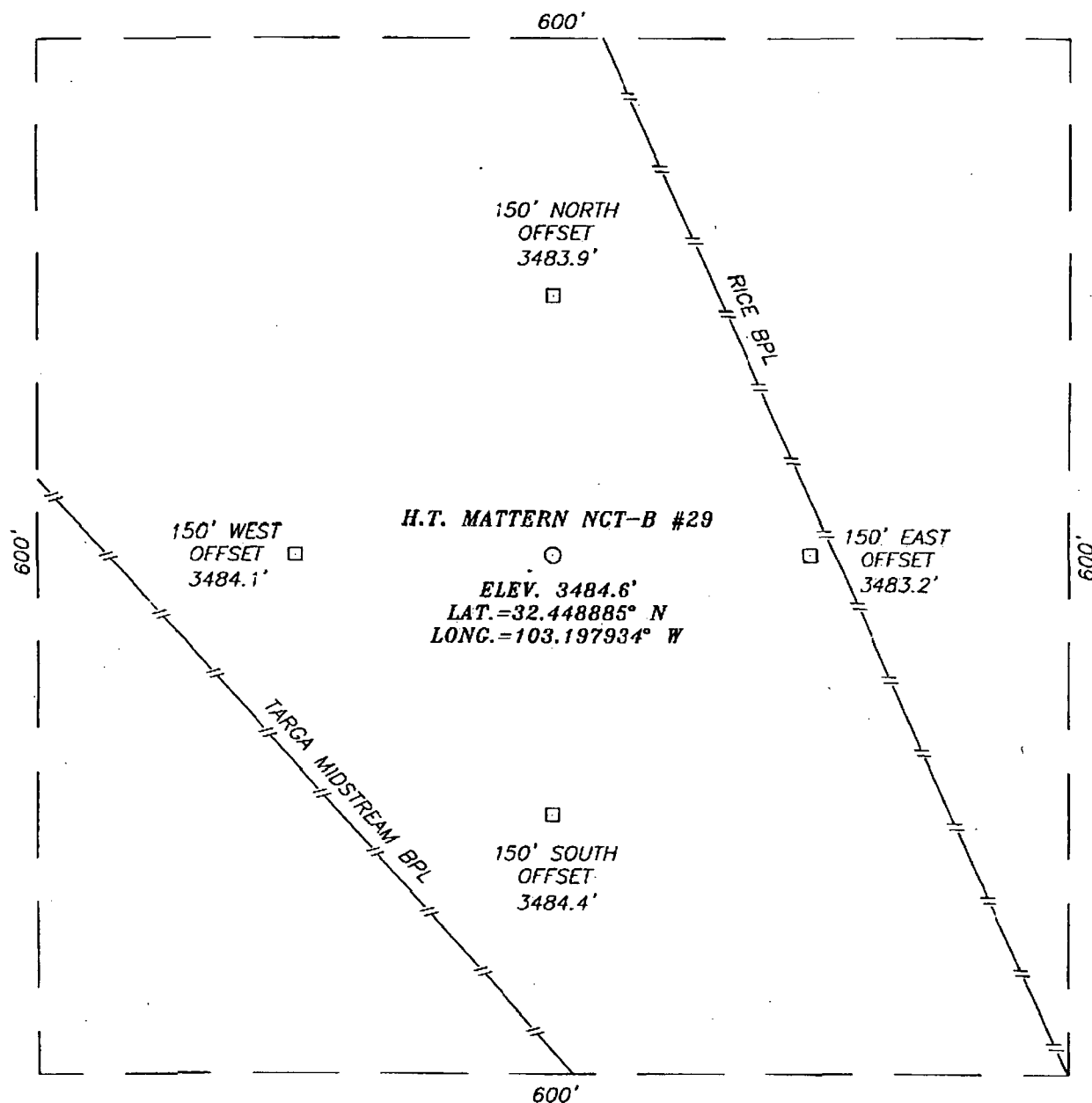
Signature _____	Date _____
Printed Name _____	

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.

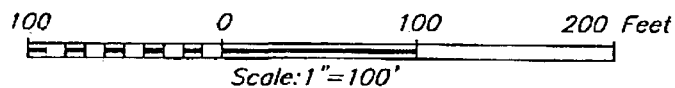
Date Surveyed _____	AR
Signature & Seal of Professional Surveyor	
08/11-2039	

Certificate No. GARY EIDSON	12641
RONALD J. EIDSON	3239



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF TURNER STREET AND ST. HWY. #8, GO WEST ON ST. HWY. #8 APPROX. 1.5 MILES TO A LEASE ROAD. TURN RIGHT AND GO NORTH ON LEASE ROAD APPROX. 0.25 MILES TO AN EXISTING WELL PAD. THIS LOCATION IS APPROX. 400 FEET NORTHEAST OF WELL PAD.



CHEVRON USA INC.

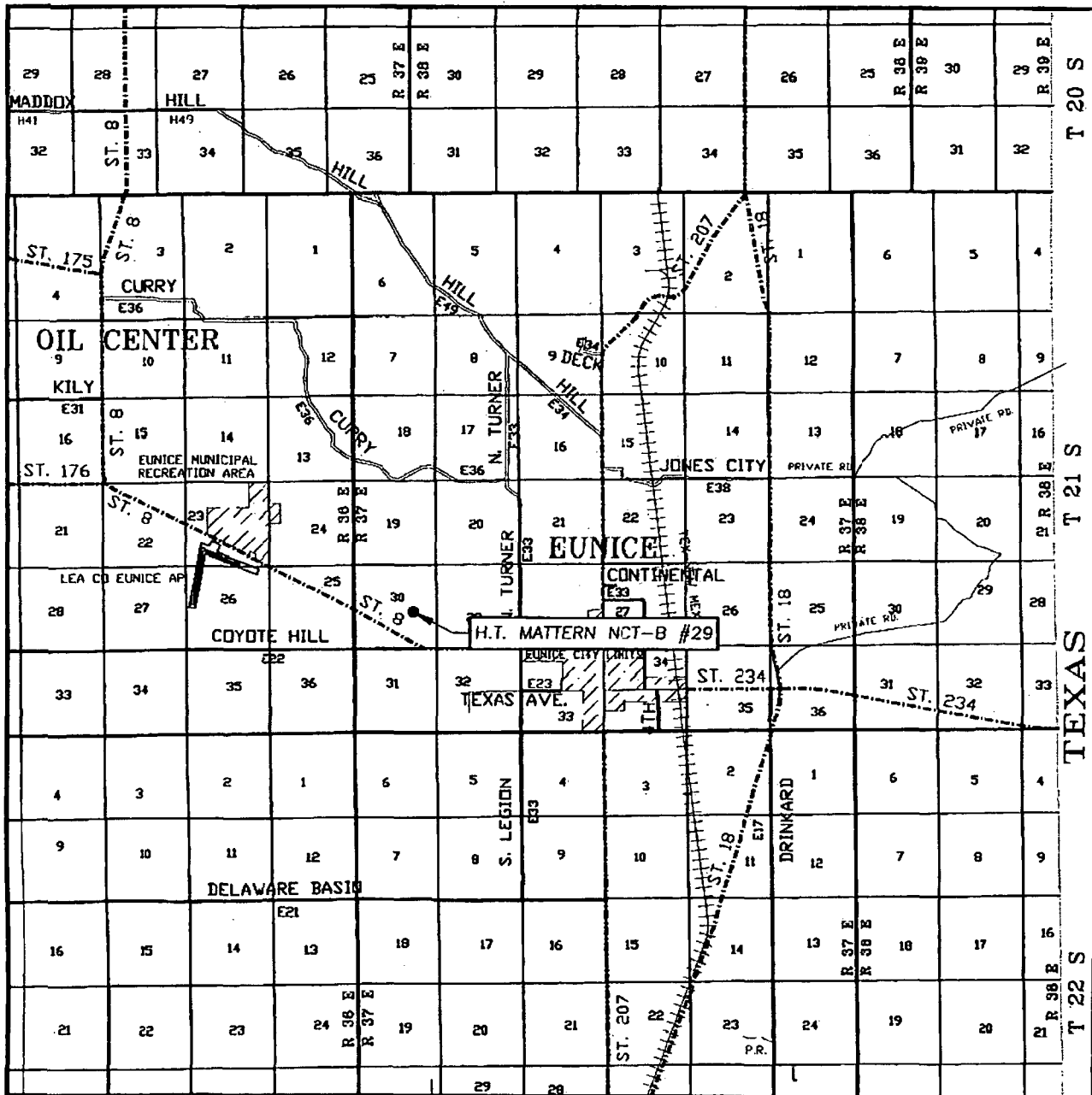
H.T. MATTERN NCT-B #29 WELL
LOCATED 2310 FEET FROM THE SOUTH LINE
AND 1460 FEET FROM THE EAST LINE OF SECTION 30,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 12/18/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.2039	Dr By: AR
Date: 12/22/08	Disk: 08112039
	Rev 1: N/A
	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. 30 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2310' FSL & 1460' FEL

ELEVATION 3485'

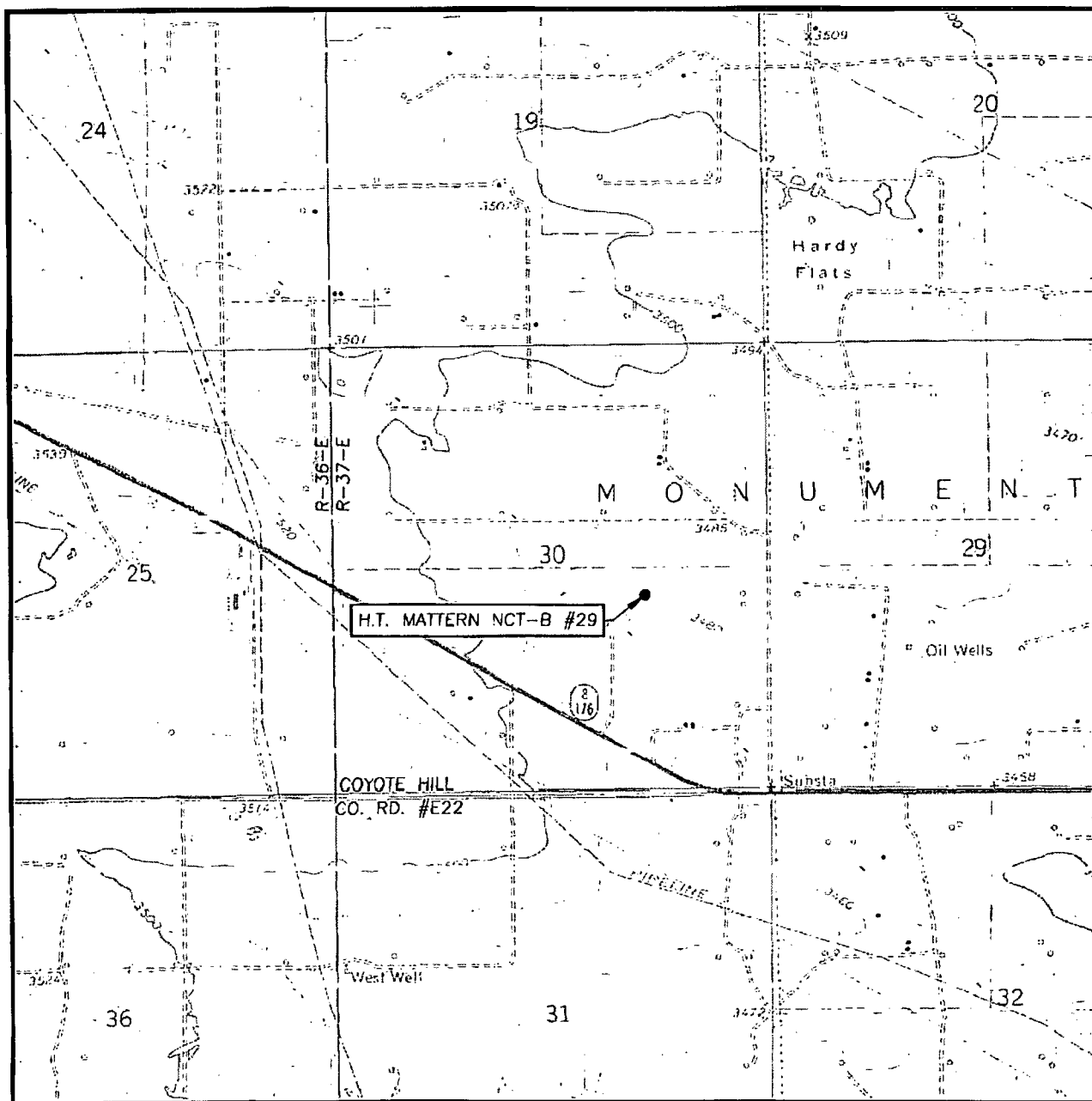
OPERATOR CHEVRON USA INC.

LEASE H.T. MATTERN NCT-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:
EUNICE, N.M. - 10'

SEC. 30 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

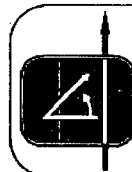
DESCRIPTION 2310' FSL & 1460' FEL

ELEVATION 3485'

OPERATOR CHEVRON USA INC.

LEASE H.T. MATTERN NCT-B

U.S.G.S. TOPOGRAPHIC MAP
EUNICE, 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

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	² Pool Code 50350	³ Pool Name Penrose Skelly; Grayburg
⁴ Property Code	⁵ Property Name H.T. Mattern NCT-B	⁶ Well Number 29
⁷ OGRID No.	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3485'

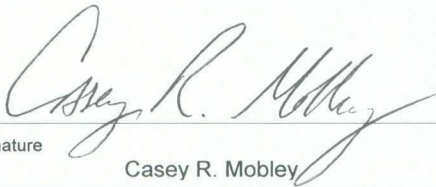
¹⁰ Surface Location

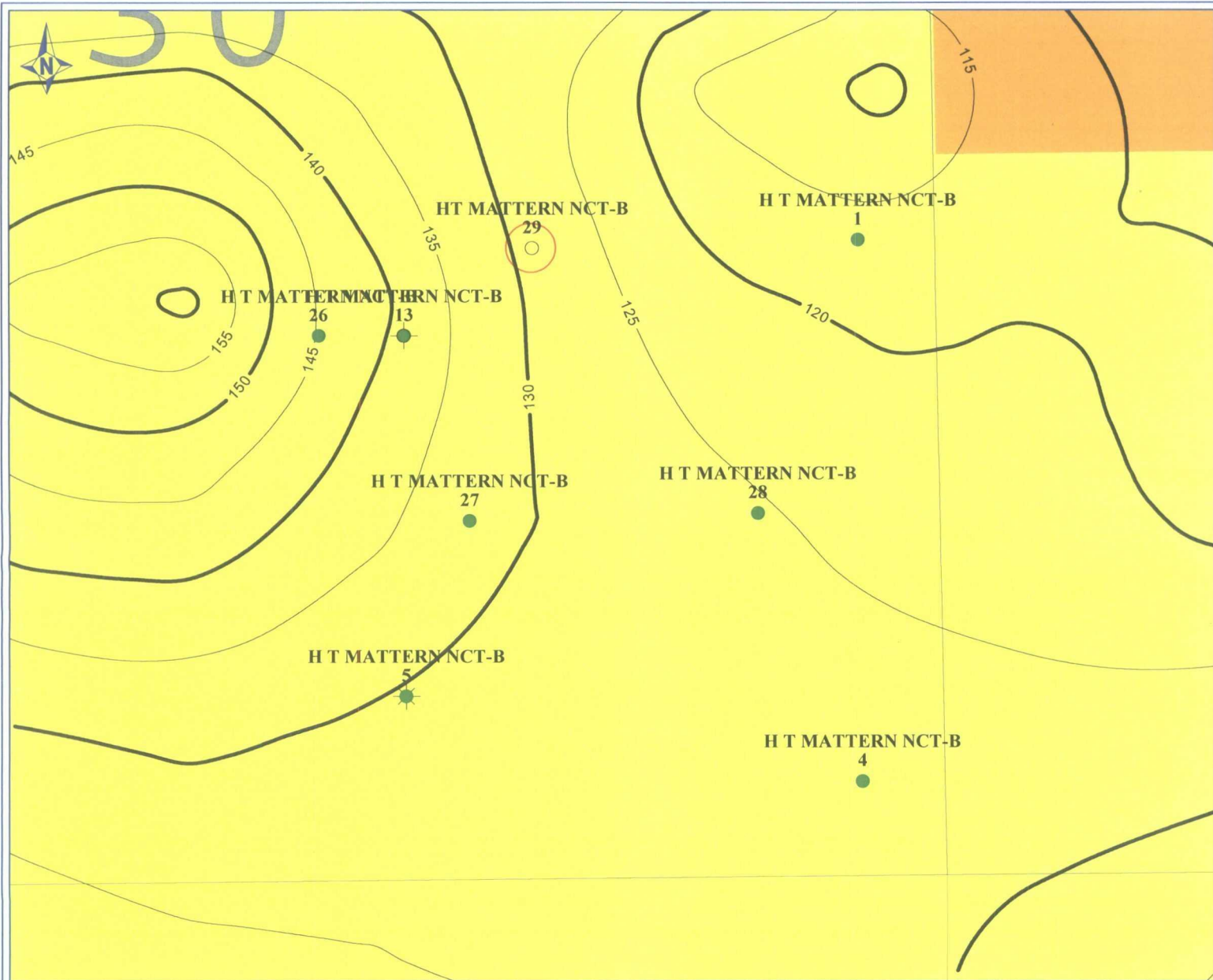
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	21S	37E		2310	South	1460	East	Lea

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

<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> Signature Casey R. Mobley Printed Name Geologist 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 1/7/2009 8:28:13 AM



Chevron U.S.A. Inc.

EXHIBIT 4

H.T. MATTERN NCT-B #29

Sec 30, T21S-R37E, Lea Co., New Mexico

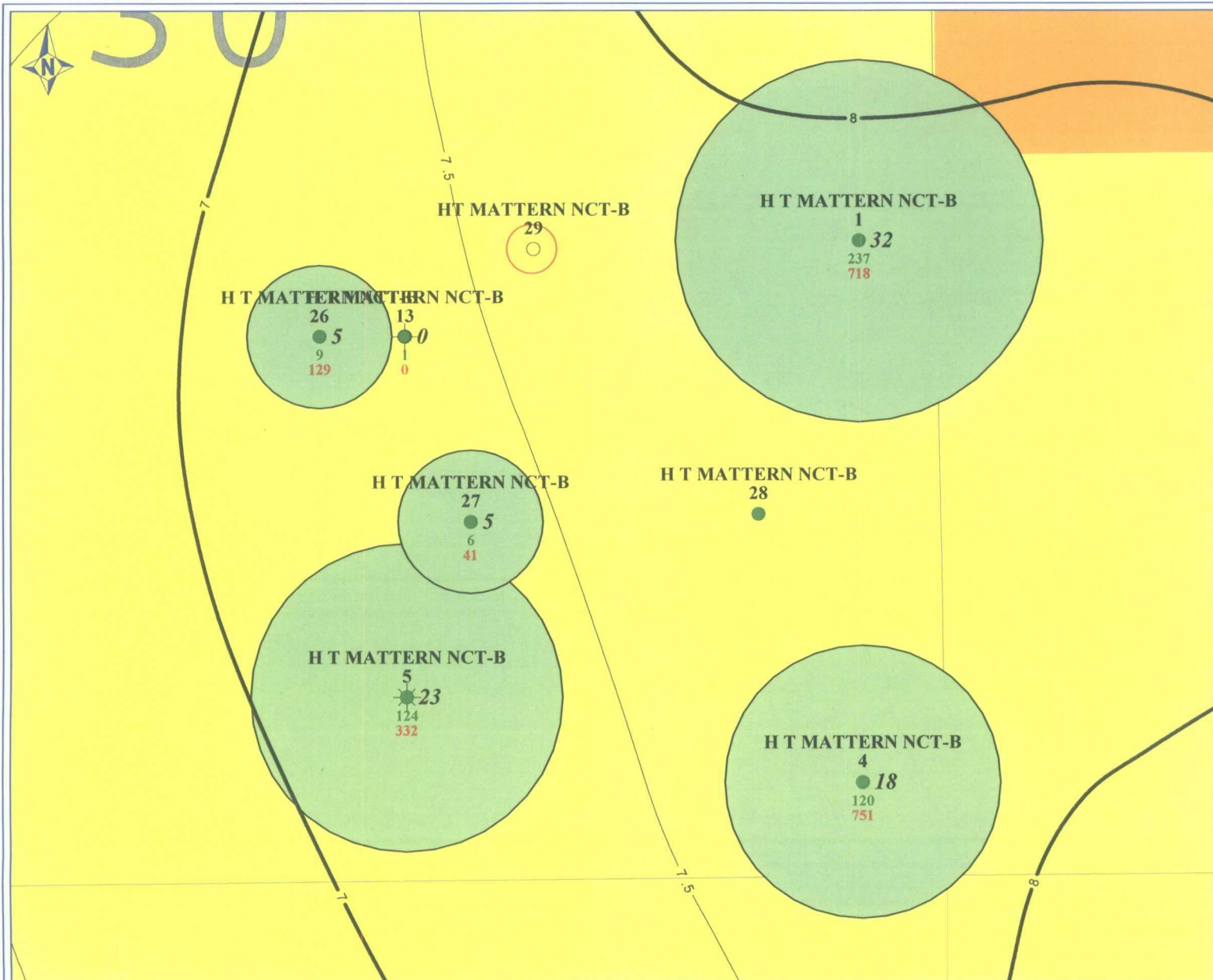
Grayburg Net Pay CI=5' [GR<40, Por>6%]

POSTED WELL DATA

Well Name
Well Number



January 7, 2009



PETRA 1/7/2009 8:24:47 AM



Chevron U.S.A. Inc.

EXHIBIT 5

H.T. MATTERN NCT-B #29

Sec 30, T21S-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 7, 2009

EXHIBIT 1

ENGINEERING AND GEOLOGICAL JUSTIFICATION

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

H.T. Mattern NCT-B #29

2310' FSL & 1460' FEL, NW/4 SE/4 of
Section 30, T21S, R37E, Unit Letter J
Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed H.T. Mattern NCT-B #29 well (Exhibit 3). The proposed total depth is 4300' in 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	API #	Location	Formation	Cum Prod		Current Prod		Status
					MBO	MMCF	BOPD	MCFPD	
Chevron	HT Mattern NCT B #1	30025069000000	30I 21S 37E	Grayburg	237	718	18	230	Oil
Chevron	HT Mattern NCT B #4	30025069010000	30P 21S 37E	Grayburg	120	751	5	140	Oil
Chevron	HT Mattern NCT B #5	30025069020000	30O 21S 37E	Grayburg	124	332	13	53	Oil
Gulf	HT Mattern NCT B #13	30025069060000	30J 21S 37E	Grayburg	1	0	0	0	Inactive
Chevron	HT Mattern NCT B #26	30025373690000	30J 21S 37E	Grayburg	9	129	4	98	Oil
Chevron	HT Mattern NCT B #27	30025383390000	30O 21S 37E	Grayburg	6	41	7	135	Oil

3. The proposed H.T. Mattern NCT-B #29 well 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.

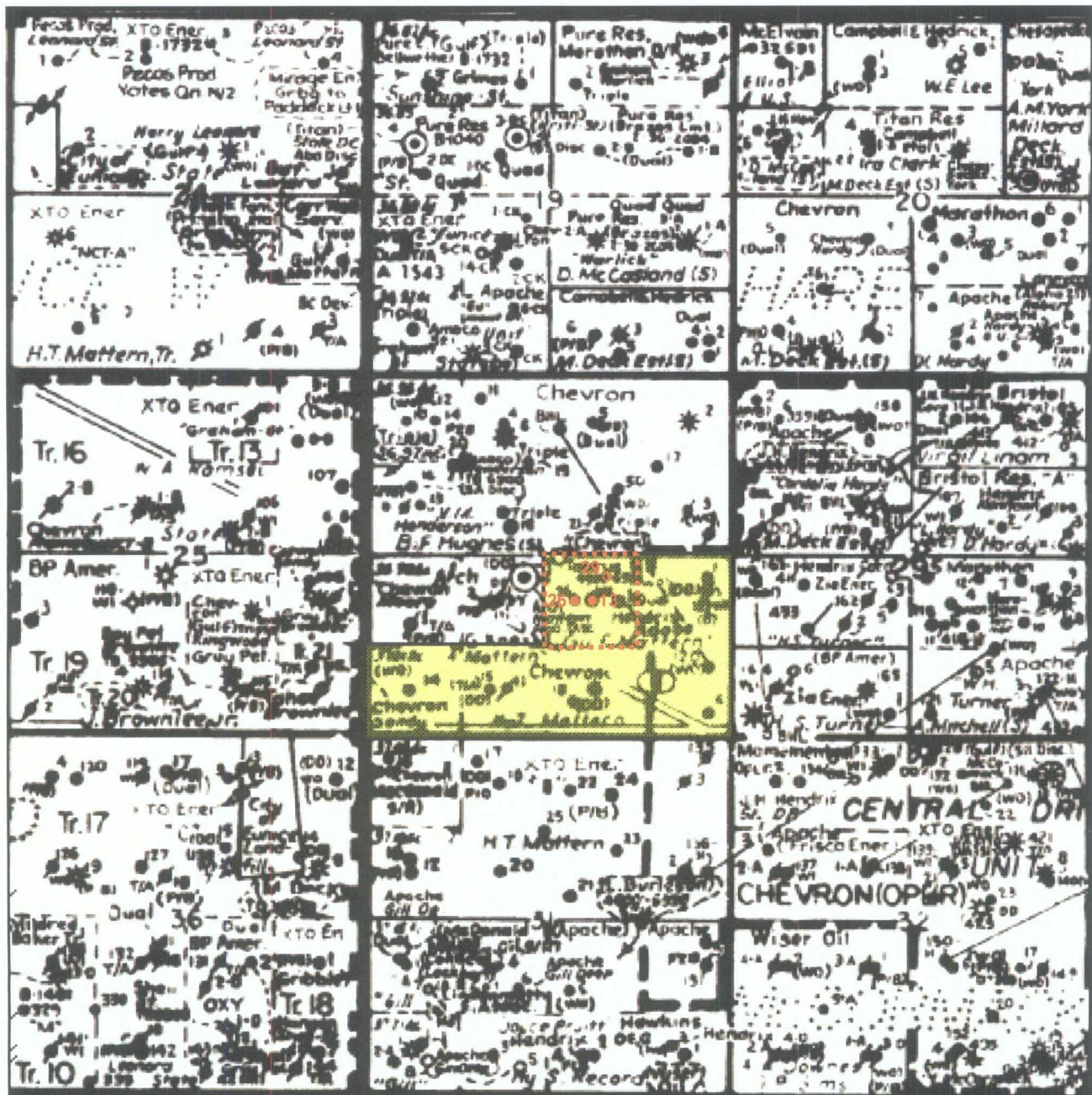
Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	HT Mattern NCT B #1	30025069000000	30I 21S 37E	Grayburg	32	248	848
Chevron	HT Mattern NCT B #4	30025069010000	30P 21S 37E	Grayburg	18	128	983
Chevron	HT Mattern NCT B #5	30025069020000	30O 21S 37E	Grayburg	23	139	401
Gulf	HT Mattern NCT B #13	30025069060000	30J 21S 37E	Grayburg	0	1	0
Chevron	HT Mattern NCT B #26	30025373690000	30J 21S 37E	Grayburg	5	24	404
Chevron	HT Mattern NCT B #27	30025383390000	30O 21S 37E	Grayburg	5	27	298

As seen above, the average drainage area of the offsetting locations is only 14 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 an average calculated HCPV value, a 14 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	H.T. Mattern NCT-B #29	30-J	7.6	14	95	489

4. A land plat highlighting the proposed well's location is attached as Exhibit 2. The SE/4 and S/2 SW/4 of Section 30 is covered by a single Chevron U. S. A. Inc. fee lease and has common royalty and working interest ownership (Chevron U. S. A. 100% working interest as to all depths). The proposed location encroaches upon Unit Letter H of Section 30. The N/2 of Section 30, including Unit Letter H, is covered by two Chevron U. S. A. Inc. fee leases and has common royalty and working interest ownership (Chevron U. S. A. Inc. 100% working interest as to all depths). 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.

5. The proposed H.T. Mattern NCT-B #29 well will share a 40-acre proration unit and will be simultaneously dedicated with the H.T. Mattern NCT-B #13 and the H.T. Mattern NCT-B #26 as a Penrose Skelly, Grayburg producer in Section 30, Unit Letter J pursuant to statewide Rule 104.B(1).
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.

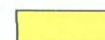


Chevron USA Inc.



H.T. Mattern NCT-B #29 (proposed)
 2310 FSL & 1460 FEL
 H.T. Mattern NCT-B #13
 1980 FSL & 1980 FEL
 H.T. Mattern NCT-B #26
 1980 FSL & 2260 FEL

Section 30, T21S-R37E
 Lea County, New Mexico



H.T. Mattern NCT-B Lease



40 Acre Proration Unit

Scale: 1"=2000' Approx.



Casey R. Mobley
Project Manager / Geologist

RECEIVED

2009 JAN 14 PM 1 25

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

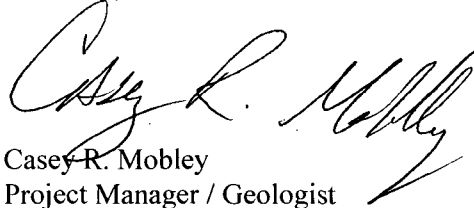
Mr. Mark E. Fesmire
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

To Whom It May Concern,

Please accept this packet of five (5) nonstandard location applications for administrative review and approval by the office of Mr. Mark E. Fesmire. These proposed well locations are candidates for our 2009 Grayburg new drill program.

Please contact me at your earliest convenience with any questions you may have concerning these applications. Thank you for your time and attention to this matter.

Sincerely,



Casey R. Mobley
Project Manager / Geologist