

MidContinent SBU
Chevron North America
Exploration and Production Company
11111 S. Wilcrest
Houston, TX 77099

March 22, 2006

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

Mr. Mark E. Fesmire
c/o Mr. Michael Stogner
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:

Harry Leonard #8

2310' FNL & 1430' FEL, S/2 NE/4 of
Section 16, T21S, R37E, Unit Letter G
Lea County, New Mexico

The proposed well will be an infill producer in the Penrose Skelly, Grayburg Pool, which is an oil pool spaced on 40 acres. This well is a continuation to our previous two year's infill drilling in the same Pool [Pool Code 50350]. Chevron's technical analysis of the reservoir still supports the contention that typical Grayburg wells cannot drain 40 acres.

The SE/4 NE/4 of Section 16 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the Harry Leonard #1. The Harry Leonard #8 will be completed as a Penrose Skelly, Grayburg producer. Chevron also requests approval for simultaneous dedication.

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 16. The proposed well will be located in 20 acre location of current producers and located 330' off the lease line. Based on drainage calculations, Chevron believes that drilling this infill well will recover reserves that would not be recovered by existing Grayburg producers and will protect our leasee from any possible drainage due to Apache's south offset, the State DA #10 well.

A land plat highlighting the proposed well's location is attached as Exhibit 2. The NE/4 of Section 16 is covered by a single fee lease which has common royalty and 100% Chevron working interest ownership. 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.

B-61732-0001

4-13-2006 (4:21 PM)
Talked w/ George Britland who
called to check on the
status of his 5 acre
interest
Reluctant
(3-27-06)
M. Stogner

2006 MAR 29 AM 11 29

March 22, 2006

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 Mike Gelbs by phone at (281) 561-7939 or by email at mike.gelbs@chevron.com. Thank you for consideration of this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Pritchard", written in a cursive style.

George F. Pritchard
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM
George F. Pritchard
Mike Gelbs
Well File

NOTIFICATION LIST

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

Harry Leonard NCT-E #8
2310' FNL & 1430' FEL
Section 16, T21S, R37E, Unit Letter G
Lea County, New Mexico

Offset Operators, Working Interest Owners, NE/4 Section 16:

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

DATE IN <u>3/29/06</u>	SUSPENSE	ENGINEER <u>MIKE STOGNER</u>	LOGGED IN <u>3/29/06</u>	TYPE <u>NSL</u>	APP NO. <u>PDS0608852526</u>
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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.

George F. Pritchard
 Print or Type Name

Signature

Project Manager / Geologist
 Title

3/22/2006
 Date

gpritchard@chevron.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:

Harry Leonard NCT-E #8

2310' FNL & 1430' FEL

Section 16, T21S, 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 Harry Leonard NCT-E #8 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	API #	Location	Formation	Cum Prod		Current Prod		Status
					MBO	MMCF	BOPD	MCFPD	
Chevron	Harry Leonard #1	3002506620	16-G	Grayburg	27	122	20	180	active 7/2002
Chevron	Harry Leonard #3	3002506622	16-B	Grayburg	41	207	25	205	active 7/2002
Chevron	Harry Leonard #5H	3002506624	16-H	Grayburg	32	166	65	183	active 12/2001, hzntl 2005
Chevron	Harry Leonard #6	3002525198	15-A	Grayburg	46	231	23	170	active 5/2002
Chevron	Harry Leonard #7	3002536741	15-H	Grayburg	21	84	34	188	active 9/2004

3. The proposed Harry Leonard NCT-E #8 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) time 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.

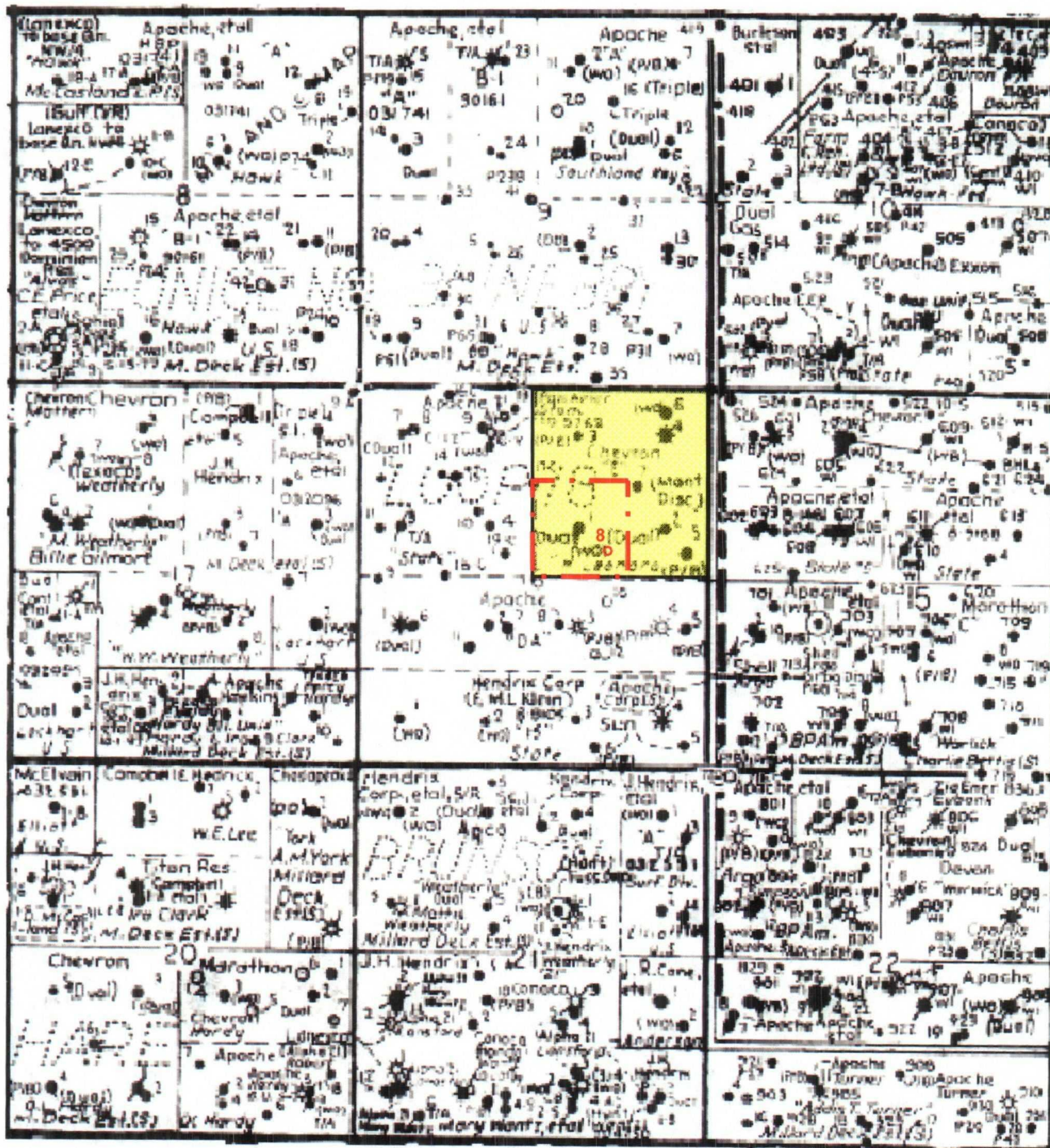
Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	Harry Leonard #1	3002506620	16-G	Grayburg	18	59	266
Chevron	Harry Leonard #3	3002506622	16-B	Grayburg	23	80	574
Chevron	Harry Leonard #5H	3002506624	16-H	Grayburg	20	60	355
Chevron	Harry Leonard #6	3002525198	16-A	Grayburg	49	151	789
Chevron	Harry Leonard #7	3002536741	16-H	Grayburg	46	144	960

As seen above, the average location drainage area of the offsetting wells is approximately 31 acres, and additional reserves can be recovered by drilling the proposed infill well at an approximate equidistant location from the existing offsetting producers and remaining 330' off the lease line. Due to the 330' offset from the lease line, reserves for the proposed location were calculated using the HCPV map, a 15 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	Harry Leonard #8	16-G	3.8	15	46	409

State

4. The NE/4 of Section 16 is covered by a single ~~fee~~ lease which has common royalty and working interest ownership. 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 Harry Leonard NCT-E #8 will share a 40-acre proration unit and will be simultaneously dedicated with the Harry Leonard NCT-E #1 as a Penrose Skelly, Grayburg producer in Section 16, Unit Letter G.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.



Chevron USA Inc.



Harry Leonard #1
 2310 FNL & 1430 FEL, Unit G
 Harry Leonard #8 (proposed)
 2310 FNL & 1430 FEL, Unit G
 Section 16, T21S-R37E
 Lea County, New Mexico

Eunie King 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

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCES 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 HARRY LEONARD		Well Number 8
OGRID No.	Operator Name CHEVRON U.S.A. INC.		Elevation 3482'

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	16	21-S	37-E		2310	NORTH	1430	EAST	LEA

Bottom Hole Location If Different From Surface

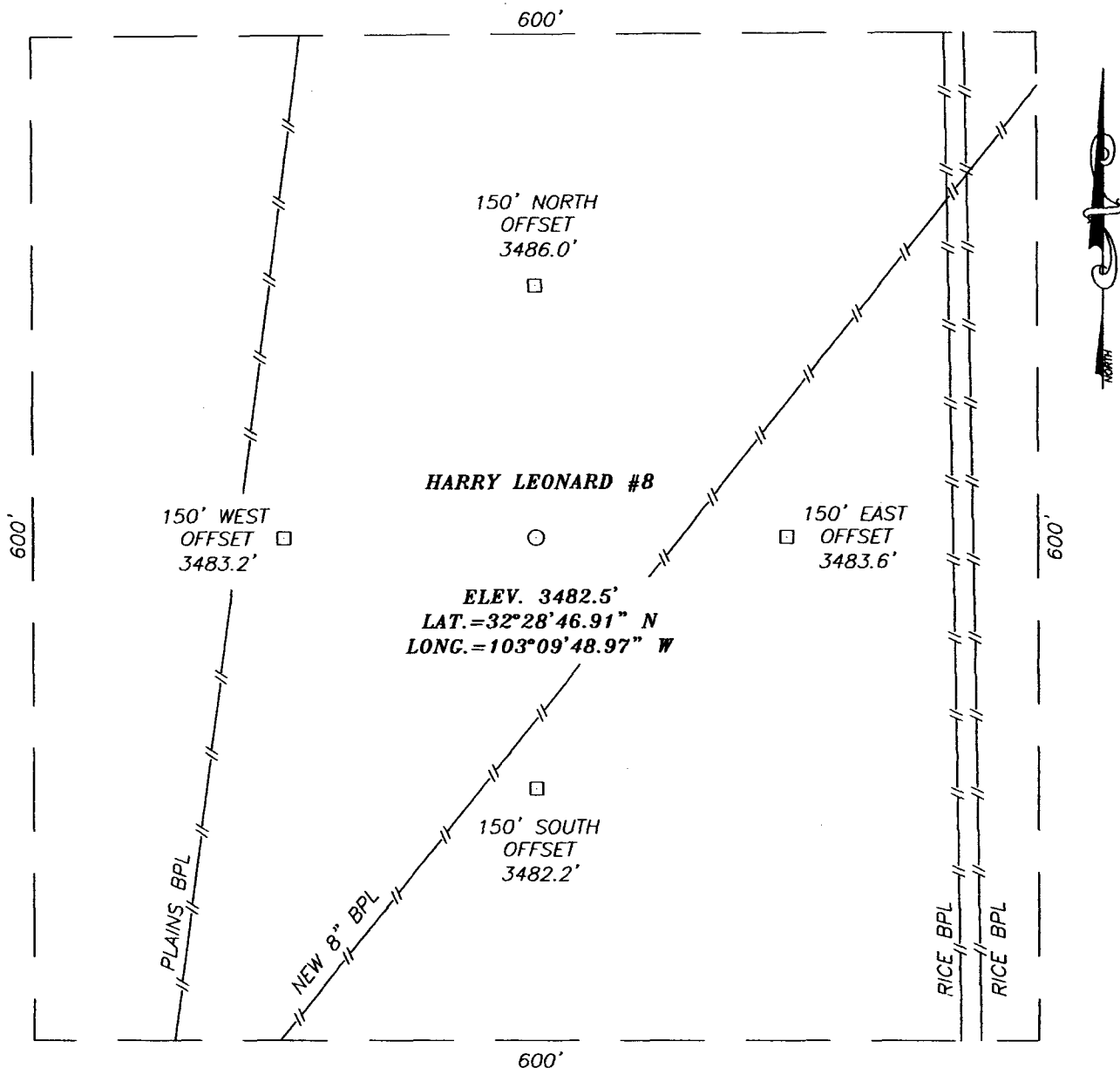
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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

	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.
	FEBRUARY 16, 2006 Date Surveyed _____ DSR Signature & Seal of Professional Surveyor

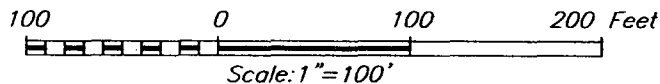
Standard 640-acre Section

SECTION 16, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

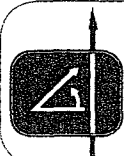
FROM THE INTERSECTION OF ST. HWY 207 AND
 CO. RD. E-34 (HILL RD), GO NORTHWEST ON CO.
 RD. E-34 APPROX. 0.24 MILES. THIS LOCATION IS
 APPROX. 735 FEET SOUTHWEST.



CHEVRON U.S.A. INC.

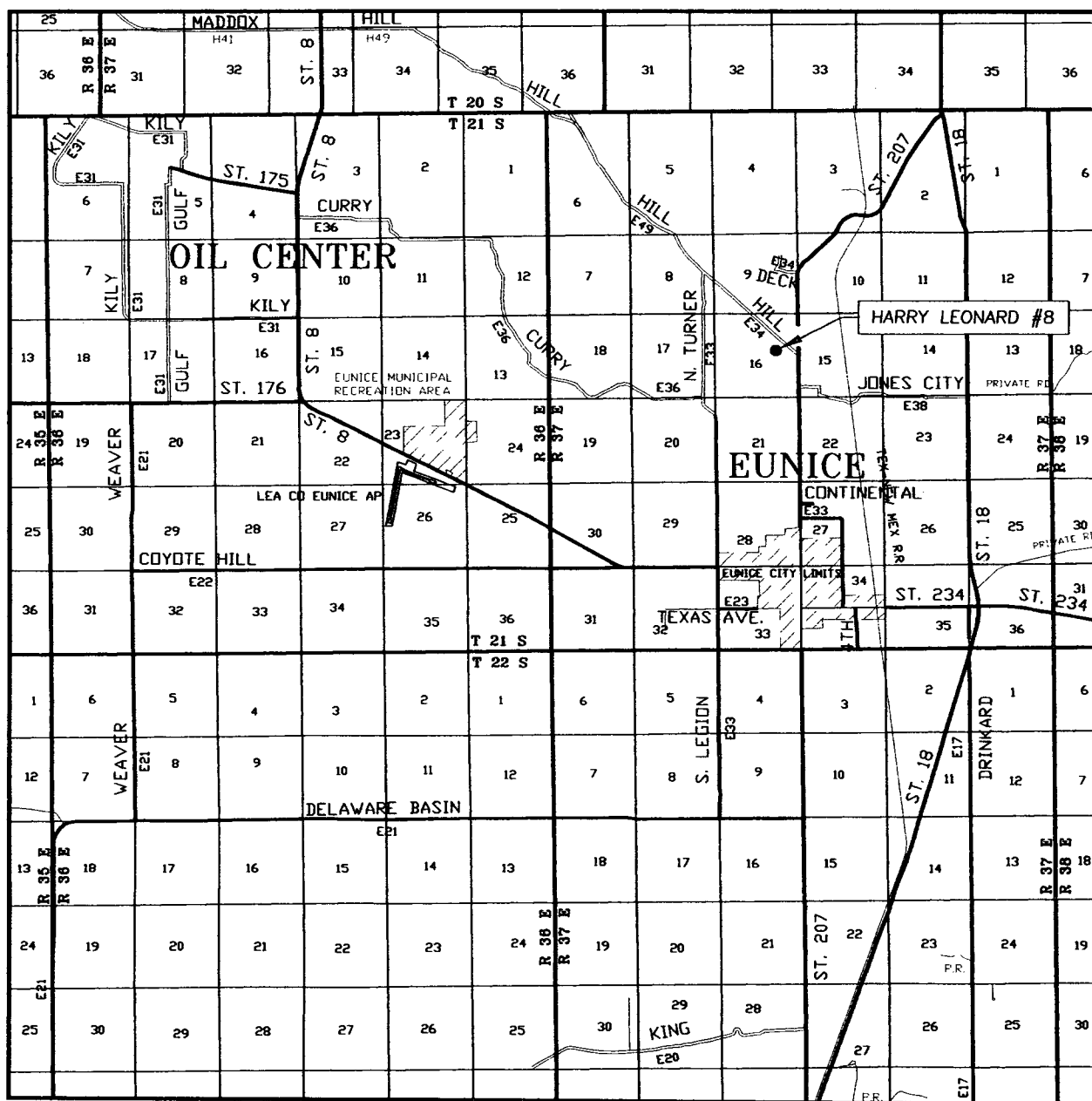
HARRY LEONARD #8 WELL
 LOCATED 2310 FEET FROM THE NORTH LINE
 AND 1430 FEET FROM THE EAST LINE OF SECTION 16,
 TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

Survey Date: 02/16/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.0312	Dr By: D.S.R. Rev 1:N/A
Date: 03/06/06	Disk: CD#1 06110312 Scale: 1"=100'



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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 16 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

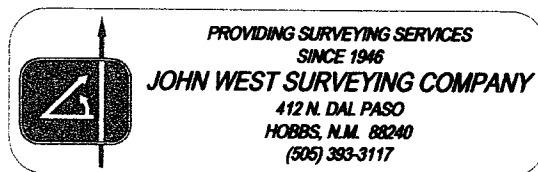
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2310' FNL & 1430' FEL

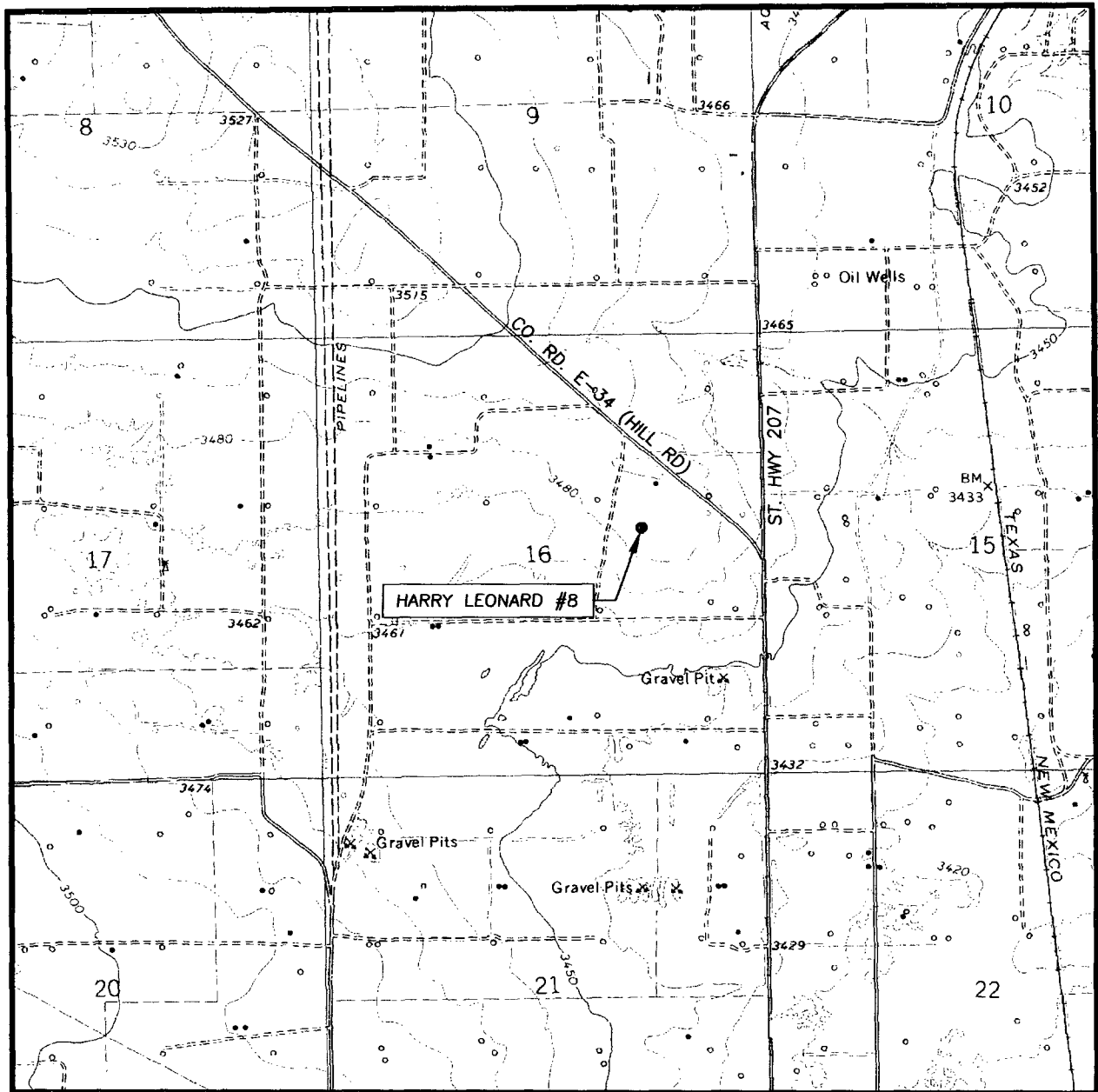
ELEVATION 3482'

OPERATOR CHEVRON U.S.A. INC.

LEASE HARRY LEONARD



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
EUNICE, N.M. - 10'

SEC. 16 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

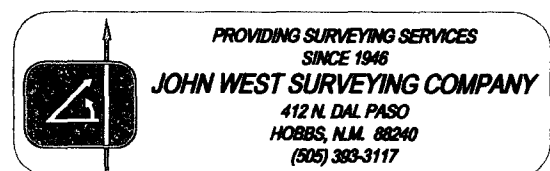
DESCRIPTION 2310' FNL & 1430' FEL

ELEVATION 3482'

OPERATOR CHEVRON U.S.A. INC.

LEASE HARRY LEONARD

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



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 30-025-06620	² Pool Code 50350	³ Pool Name Penrose Skelly; Grayburg
⁴ Property Code	⁵ Property Name Harry Leonard NCT-E	⁶ Well Number 1
⁷ OGRID No. 4323	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3508' KB

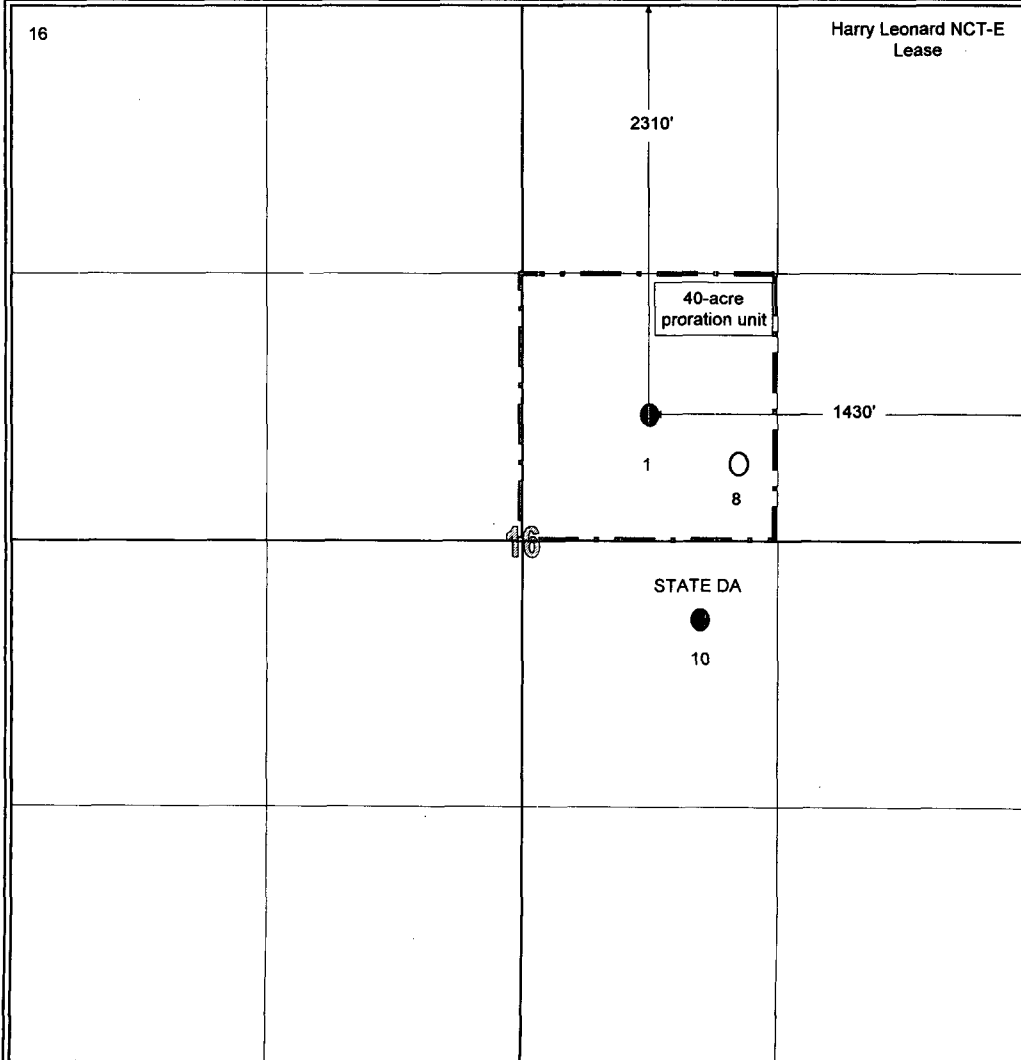
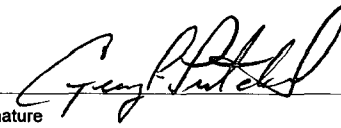
¹⁰ Surface Location

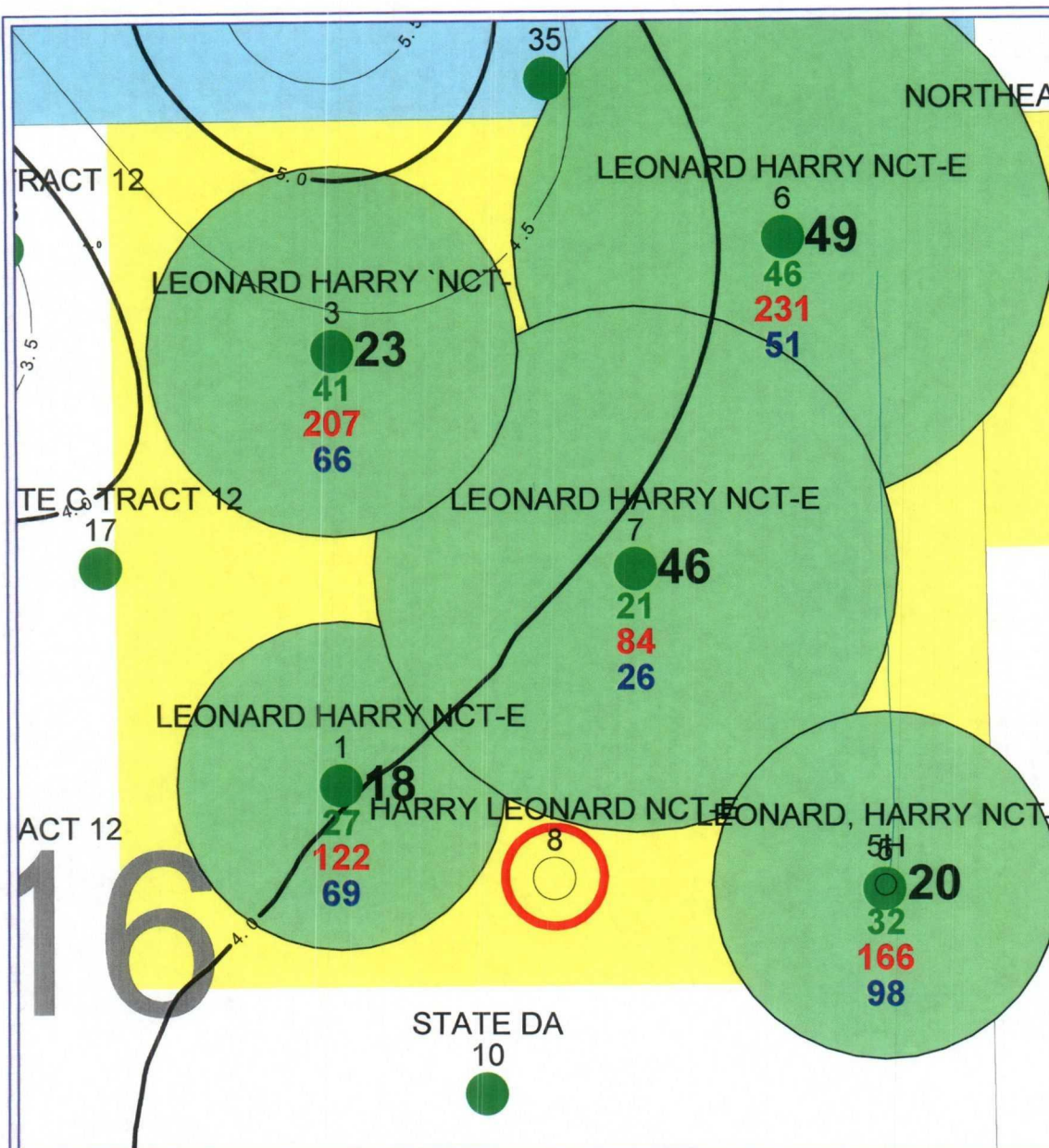
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	16	21S	37E		2310	North	1430	East	Lea

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>  <p>2310'</p> <p>40-acre proration unit</p> <p>1430'</p> <p>1</p> <p>8</p> <p>STATE DA</p> <p>10</p>	<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 _____</p> <p>George F. Pritchard</p> <p>Printed Name _____</p> <p>Geologist</p> <p>Title _____</p> <p>March 20, 2006</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 3/21/2006 9:52:10 AM

CHEVRON U.S.A.

EXHIBIT 5

PENROSE-SKELLY FIELD HARRY LEONARD #8

Sec. 16, T21S-R37E, Lea CO. New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

POSTED WELL DATA

Well Name
Well Number

● 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]



March 21, 2006

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

04/19/06 08:39:41
OGOMES -TQ88
PAGE NO: 1

Sec : 16 Twp : 21S Rng : 37E Section Type : NORMAL

D		C		B		A	
40.00		40.00		40.00		40.00	
CS		CS		CS		CS	
B01557 0002		B01557 0002		B01732 0001		B01732 0001	
APACHE CORP		APACHE CORP		CHEVRON U S A INC		CHEVRON U S A INC	
C 12/29/38		C 12/29/38		02/28/43		02/28/43	
A A A A		A A A A A A		A		A A	
E		F		G		H	
40.00		40.00		40.00		40.00	
CS		CS		CS		CS	
B01557 0002		B01557 0002		B01732 0001		B01732 0001	
APACHE CORP		APACHE CORP		CHEVRON U S A INC		CHEVRON U S A INC	
C 12/29/38		C 12/29/38		02/28/43		02/28/43	
A A A A		A A A A		A		A A A	
L		K		J		I	
40.00		40.00		40.00		40.00	
CS		CS		CS		CS	
B00085 0016		B00085 0016		B00085 0016		B00085 0016	
APACHE CORPORATIO		APACHE CORPORATIO		APACHE CORPORATIO		APACHE CORPORATIO	
C 07/28/38		C 07/28/38		07/28/38		07/28/38	
A A A A		A A A A		A A A A		A A	
M		N		O		P	
40.00		40.00		40.00		40.00	
CS		CS		CS		CS	
B08105 0003		B08105 0003		B08105 0003		B08105 0003	
JOHN H HENDRIX CO		JOHN H HENDRIX CO		JOHN H HENDRIX CO		JOHN H HENDRIX CO	
04/10/49		04/10/49		04/10/49		04/10/49	
A A		A A A A		A A A A A		A A A A	