

3/20/08 DATE IN	SUSPENSE	Brooks ENGINEER	3/25/08 LOGGED IN	NSL TYPE	PKUR0808538148 APP NO.
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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



Chevron USA Inc

Brunson ARGO#30

5814

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.

Casey R. Mobley
 Print or Type Name

Signature

Project Manager / Geologist
 Title

03/10/2008
 Date

Casey.Mobley@chevron.com
 e-mail Address

RECEIVED
 2008 MAR 20 PM 2 04



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

RECEIVED

2008 MAR 20 PM 2 04

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:

Brunson Argo #30
1980' FNL & 120' FEL, SE/4 NE/4 of
Section 9, T22S, R37E, Unit Letter H
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 5 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 NW/4 of Section 9 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the So. Penrose Skelly Unit #163 well pursuant to statewide Rule 104.B(1). The So. Penrose Skelly Unit #163 well was drilled in 1939 and was completed as a Penrose Skelly, Grayburg producer.

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 four wells that have produced the Grayburg formation in the NW/4 of Section 10. The proposed well will be located in the approximate western center point of those wells. Based on drainage calculations, Chevron believes that drilling the infill well will recover reserves that would not be recovered by existing Grayburg producers.

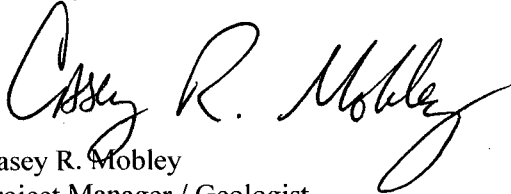
A land plat highlighting the proposed well's location is attached as Exhibit 2. The NE/4 of Section 9 is covered by two fee leases and has common royalty and working interest ownership in depths between 3600 feet and 3900 feet. For that reason and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

March 10, 2008

Page 2

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 style with a large, stylized 'C' and 'M'.

Casey R. Mobley
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM
Casey R. 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:

Brunson Argo #30

1980' FNL & 1200' FEL, SE/4 NE/4 of
Section 9, T22S, R37E, Unit Letter H
Lea County, New Mexico

Offset Operators, Working Interest Owners, NE/4 Section 9:

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

EXHIBIT 1

ENGINEERING AND GEOLOGICAL JUSTIFICATION

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

Brunson Argo #30

1980' FNL & 1200' FEL, SE/4 NE/4 of
Section 9, T22S, R37E, Unit Letter H
Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed Brunson Argo #30 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). The Brunson Argo #1 well is listed as a Grayburg producer on the basis of NMOCD well file documents that show initial production from this well was from the Grayburg formation; efforts to locate reliable cumulative production numbers, however, have not been successful.

Operator	API #	Well Name	Location	Formation	Cum Prod		Current Prod		Status
					BO	MCF	BOPD	MCFPD	
Mobil	30025101370000	Brunson Argo #1	9B 22S 37E	Grayburg	N/A	N/A	-	-	Inactive Oil
Gulf	30025101380000	So. Penrose Skelly Unit #144	9A 22S 37E	Grayburg	90862	195871	-	-	Inactive Oil
Gulf	30025101390000	So. Penrose Skelly Unit #163	9H 22S 37E	Grayburg	52235	170533	-	-	Inactive Oil
BEC	30025101400000	Brunson Argo A #8	9G 22S 37E	Grayburg	38181	52547	0	21	Oil

3. The proposed Brunson Argo #30 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.

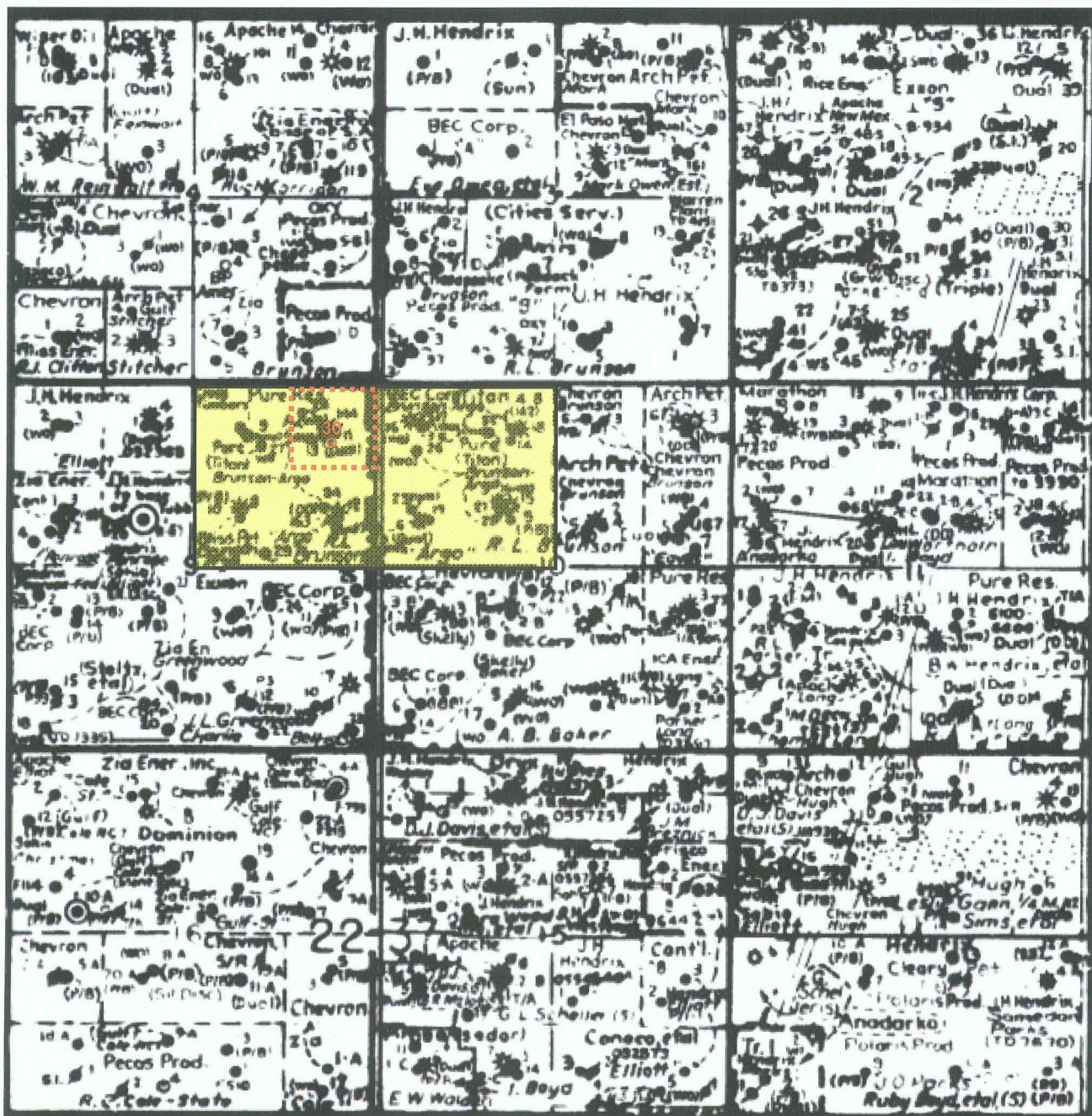
Operator	Well Name	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Gulf	So. Penrose Skelly Unit #144	30025101380000	9A 22S 37E	Grayburg	9	91	196
Gulf	So. Penrose Skelly Unit #163	30025101390000	9H 22S 37E	Grayburg	5	52	171
BEC	Brunson Argo A #8	30025101400000	9G 22S 37E	Grayburg	4	39	65

As seen above, the average drainage area of the offsetting locations is only 6 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 calculated average HCPV, an average drainage area of 6 acres, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	Brunson Argo #30	9-H	11.1	6	61	145

4. The NE/4 of Section 9 is covered by two fee leases and has common royalty and working interest ownership in depths between 3600 feet and 3900 feet. 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 Brunson Argo #30 will share a 40-acre proration unit and will be simultaneously dedicated with the So. Penrose Skelly Unit #163 as a Penrose Skelly, Grayburg producer in Section 9, Unit Letter H 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.

Brunson Argo #30 (proposed)
 1980 FNL & 1200 FEL, Unit H
 Section 9, T22S-R37E
 Lea County, New Mexico



 Brunson Argo Lease

 40 Acre Proration Unit

Scale: 1"=2000' Approx.

DISTRICT I

1625 N. FRENCH DR., BOBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Braxoa Rd., Aztec, NM 87410

DISTRICT IV

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

State of New Mexico

Energy, Minerals and Natural Resources Department

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 BRUNSON ARGO	Well Number 30
OGRID No.	Operator Name CHEVRON USA INC.	Elevation 3419'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	9	22-S	37-E		1980	NORTH	1200	EAST	LEA

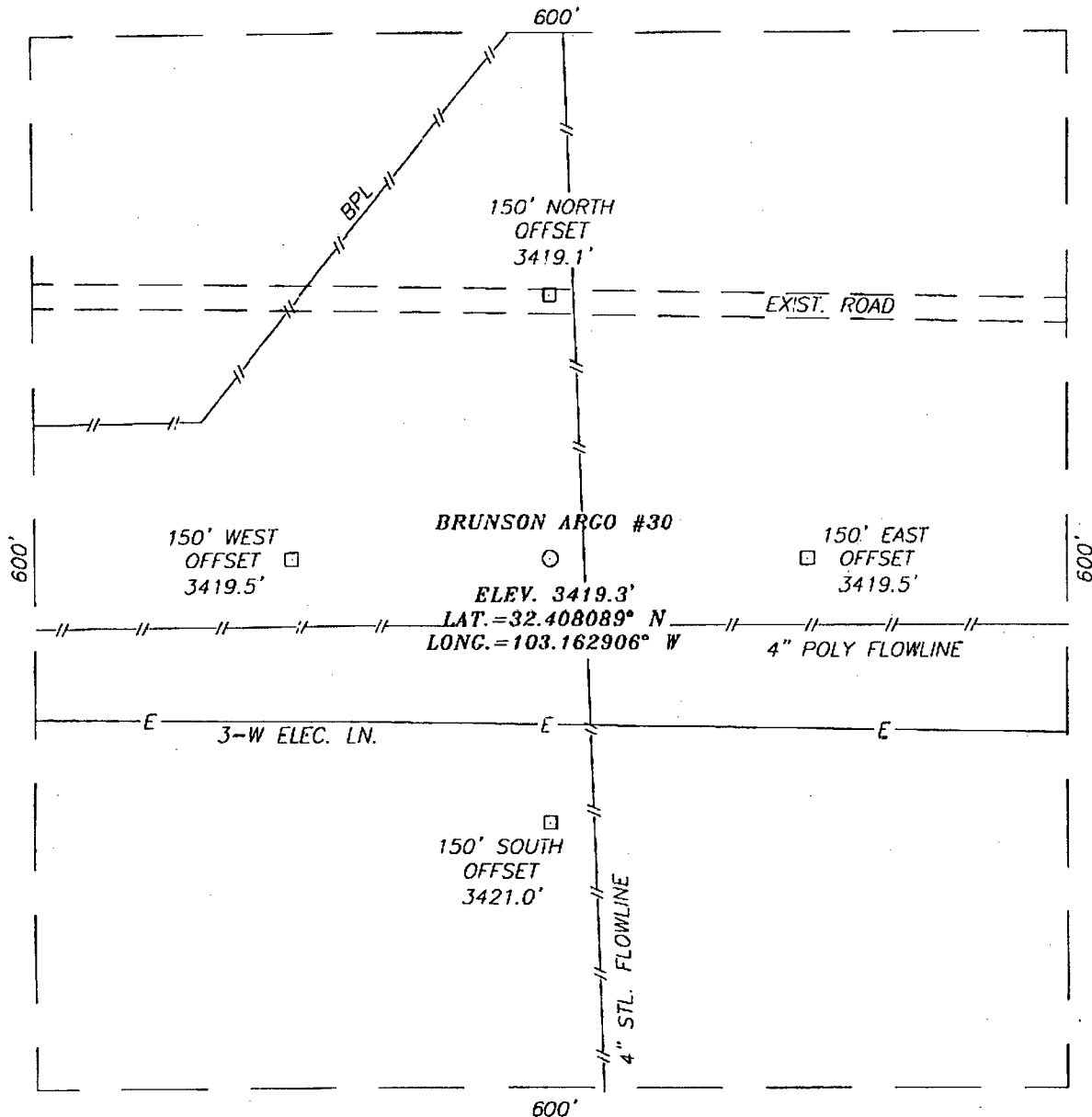
Bottom Hole Location If Different From Surface

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

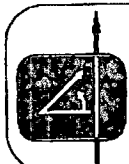
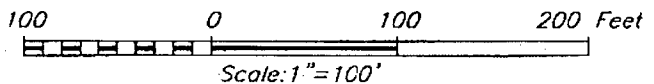
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=514154.8 N X=861220.9 E</p> <p>LAT.=32.408089° N LONG.=103.162906° W</p>	<p>1980'</p> <p>1200'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization 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 6/2007</p> <p>Date Surveyed _____</p> <p>Signature & Seal of Professional Surveyor _____</p> <p>3239</p> <p>Ronald J. Eidson 12/14/07</p> <p>07-11-1803</p>
		<p>Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>

SECTION 9, TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #176 AND
 CO. RD. #207 GO SOUTH APPROX. 1.8 MILES.
 TURN RIGHT AND GO WEST APPROX. 0.1 MILE.
 TURN LEFT AND GO SOUTH APPROX. 0.1 MILE.
 TURN RIGHT AND GO WEST APPROX. 0.1 MILE.
 THIS LOCATION IS APPROX. 100 FEET SOUTH.



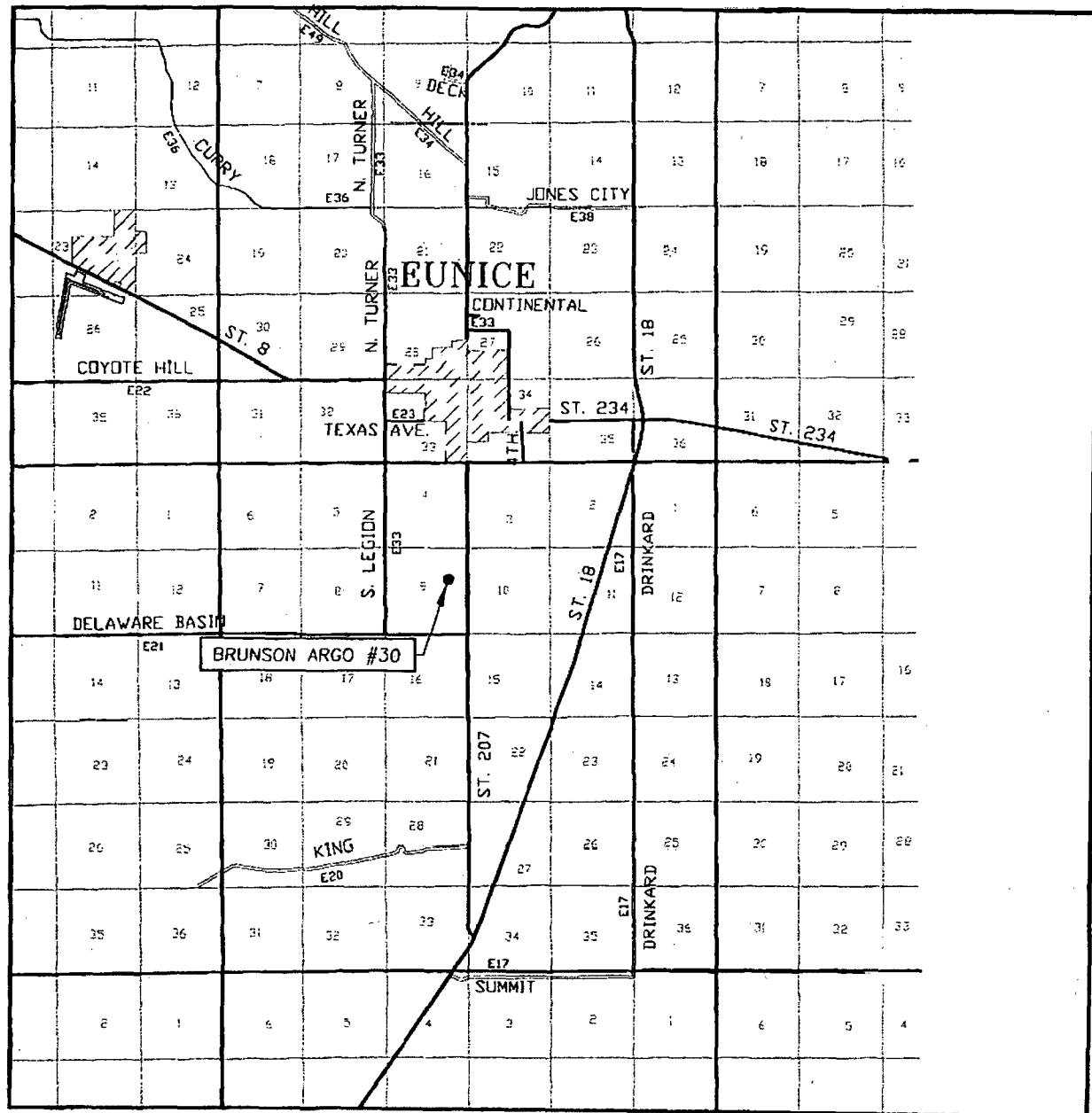
PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

CHEVRON USA INC.

BRUNSON ARGO #30
 LOCATED 1980 FEET FROM THE NORTH LINE
 AND 1200 FEET FROM THE EAST LINE OF SECTION 9,
 TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

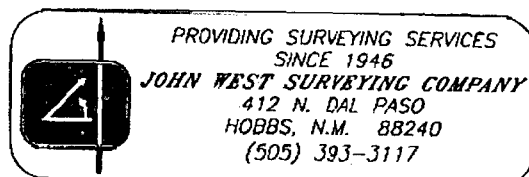
Survey Date: 12/6/07	Sheet 1 of 1 Sheets
W.O. Number: 07.11.1803	Dr By: LA
Date: 12/13/07	07111803
	Scale: 1"=100'

VICINITY MAP

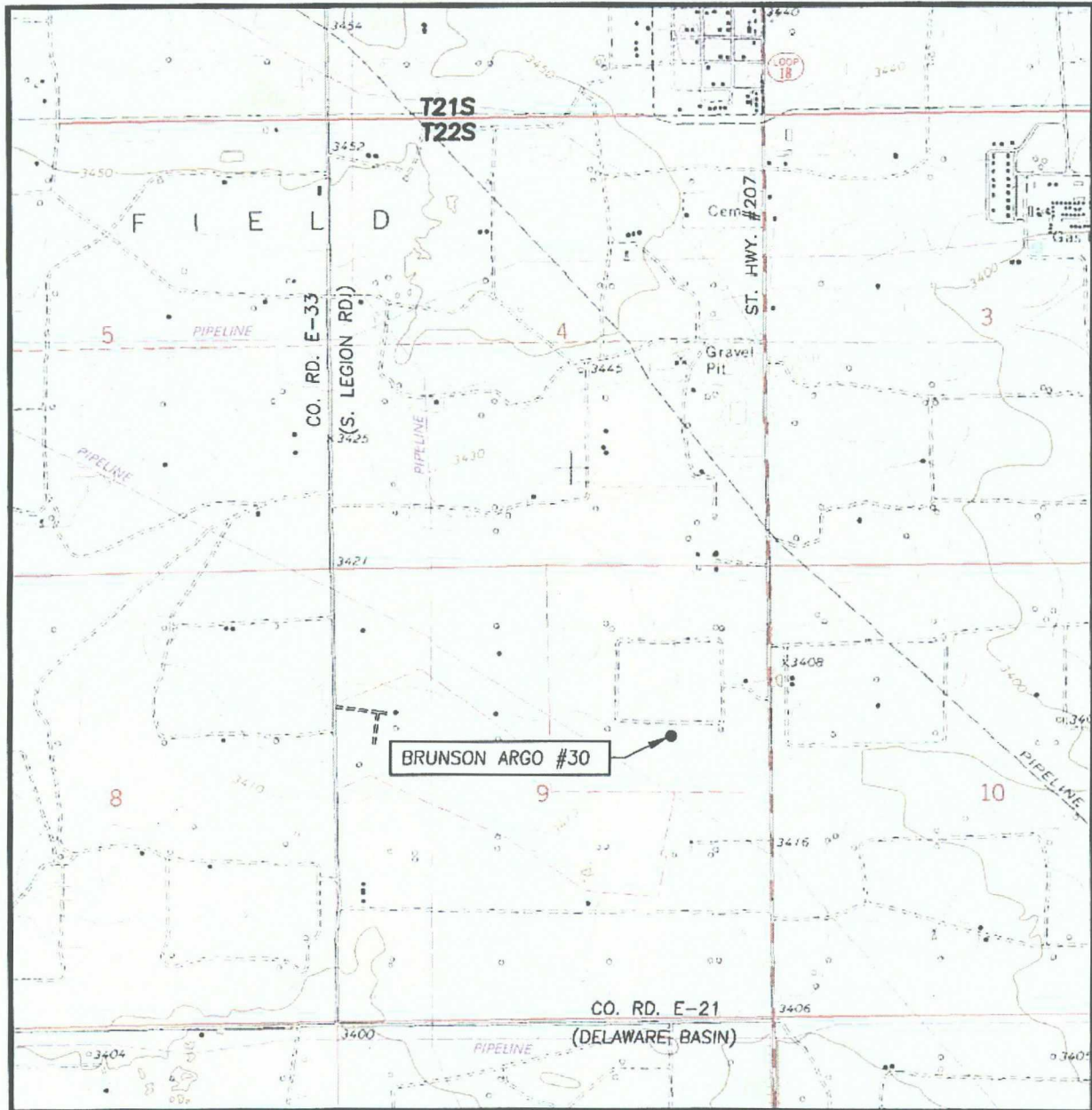


SCALE: 1" = 2 MILES

SEC. 9 TWP. 22-S. RGE. 37-E
 SURVEY N.M.P.M.
 COUNTY LEA STATE NEW MEXICO
 DESCRIPTION 1980' FNL & 1200' FEL
 ELEVATION 3419'
 OPERATOR CHEVRON USA INC.
 LEASE BRUNSON ARGO



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 9 TWP. 22-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1980' FNL & 1200' FEL

ELEVATION 3419'

OPERATOR CHEVRON USA INC.

LEASE BRUNSON ARGO

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
(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 Appropriate District Office

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

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

Exhibit 3.1

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

☐ 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 Brunson Argo	⁶ Well Number 30
⁷ OGRID No.	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3419'

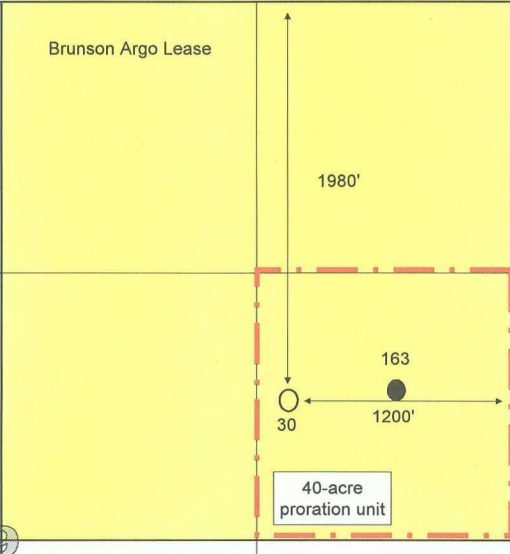
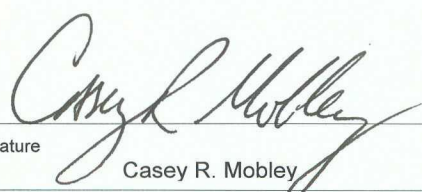
¹⁰ Surface Location

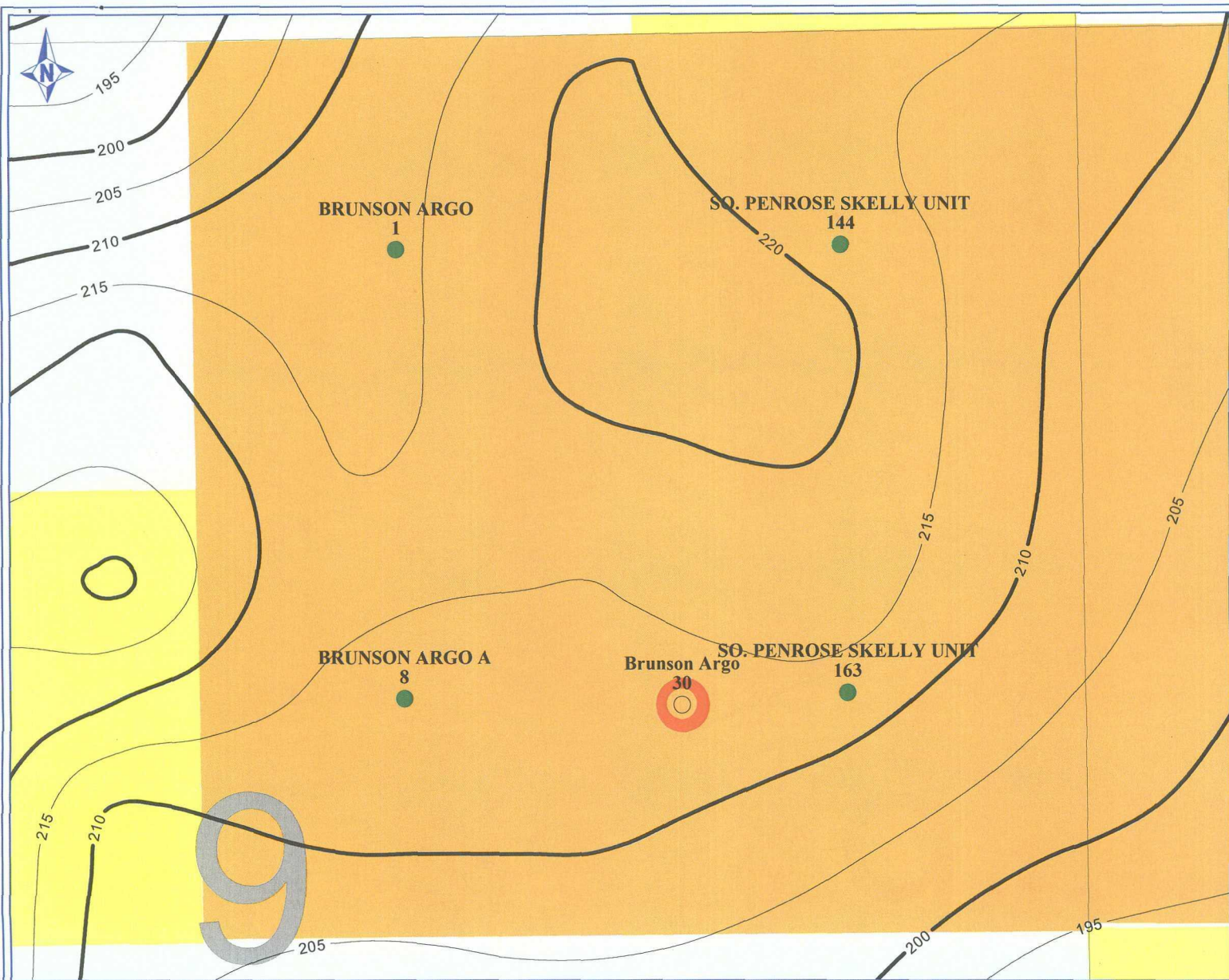
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	9	22S	37E		1980	North	1200	East	Lea

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><p>16</p></div>	<div><p>17</p><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 Printed Name _____ Geologist Title _____ March 10, 2008</p></div>
<div><p>18</p><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></div>	



PETRA 3/10/2008 1:58:52 PM



Chevron U.S.A. Inc.

EXHIBIT 4

PENROSE-SKELLY FIELD BRUNSON ARGO #30

Sec 10, T22S-R37E, Lea Co., New Mexico

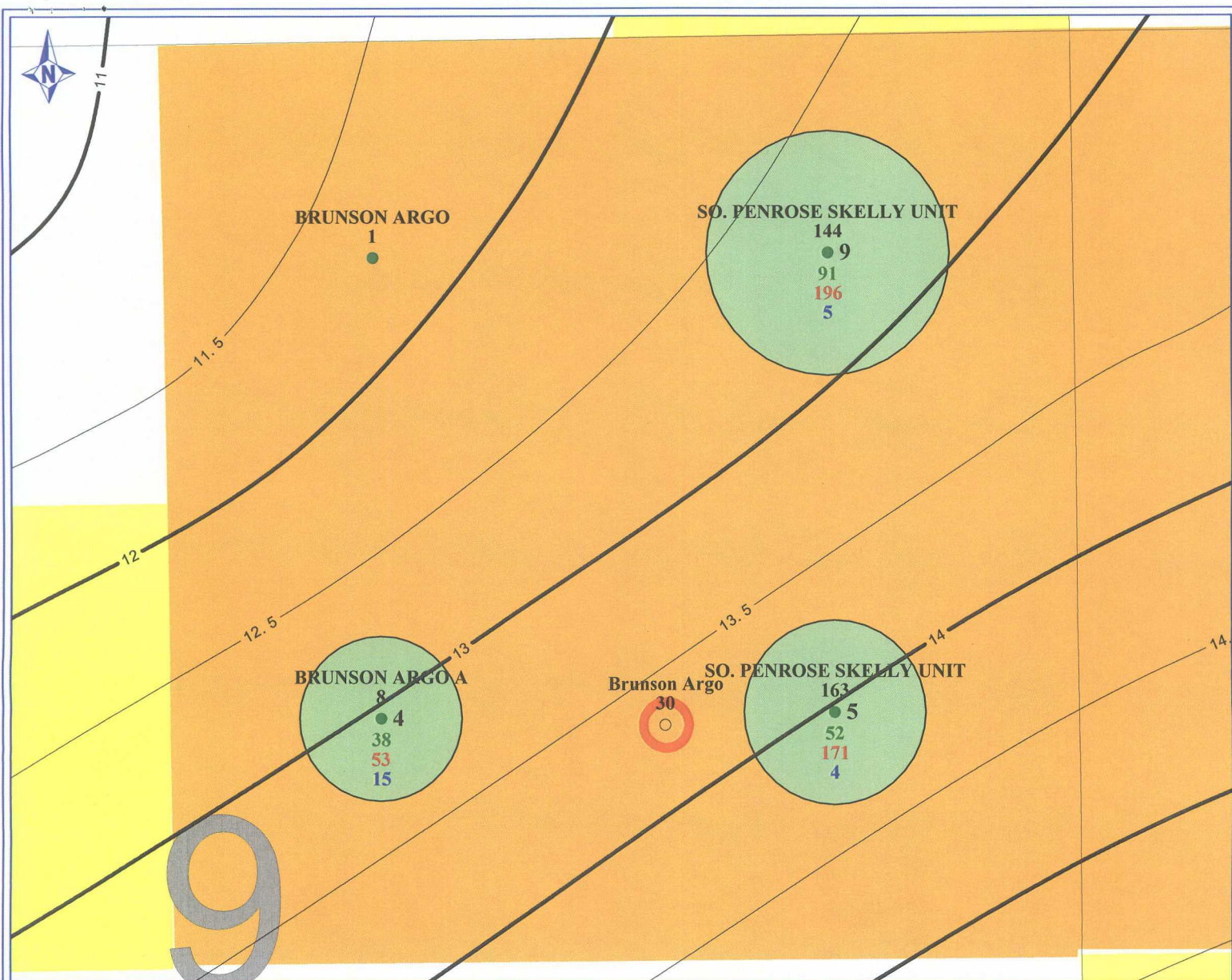
Grayburg Net Pay CI=5' [GR<40, Por>6%]

POSTED WELL DATA

Well Name
Well Number



March 10, 2008



PETRA 3/17/2008 10:07:02 AM



Chevron U.S.A. Inc.

EXHIBIT 5

PENROSE-SKELLY FIELD BRUNSON ARGO #30

Sec 9, T22S-R37E, Lea Co., New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

POSTED WELL DATA

Well Name
Well Number

● GRBG Drained Area

Grayburg Cum Oil Prod (MBO)
Grayburg Cum Gas Prod (MMCF)
Grayburg Cum Water Prod (MBO)



March 17, 2008

Well File Search - Select API Number to View

Please select the API Number you wish to view from the list below by clicking the radio button next to the API Number. Then click the "Continue" button to see the thumbnails for the API you selected.

The search results are broken out by groups of 25 on each page. Switching pages can be done by clicking the "Next 25" or "Previous 25" links.

3 Records Found

Displaying Screen 1 of 1

API Number	ULSTR	Footages
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Well Name & Number: PRE-ONGARD WELL No. 163		
Operator: dyad pe		
<input type="radio"/> 3002510144	H -9-22S-37E	1908 FNL & 589 FEL
Well Name & Number: BRUNSON ARGO No. 012		
Operator: CHEVRON MIDCONTINENT, L.P.		
<input type="radio"/> 3002533827	H -9-22S-37E	1750 FNL & 650 FEL
Well Name & Number: BRUNSON ARGO No. 024		
Operator: CHEVRON MIDCONTINENT, L.P.		

3 Records Found

Displaying Screen 1 of 1

[Continue](#)[Go Back](#)

Brooks, David K., EMNRD

From: Brooks, David K., EMNRD
Sent: Wednesday, April 23, 2008 2:27 PM
To: 'Mobley, Casey R.'
Subject: Brunson Argo #30

Dear Mr. Mobley

In this application you indicate that no notice to offsets is required because the entire quarter section has identical ownership in depths between 3600 feet and 3900 feet. However, I did not find any depth information regarding the proposed well in the application other than that the proposed total depth is 4300.

Please advise the planned depths of perforations.

Separately, I note that the application states the proposed location as 1980 FNL and 120 FEL of 9-22S-37E. However, the attached plats show the location at 1980 FNL and 1200 FEL. All of the information in the application (except the one statement of the location) is consistent with the location being 1200 FEL. Accordingly, I assume that the 120 FEL is a typo.

I have now received your response regarding the Brunson Argo #28, and am inclined to assume that the same depth information applies to Section 9. Please confirm.

Thanks

David K. Brooks
505-476-3450
Legal Examiner

4/23/2008

Brooks, David K., EMNRD

From: Mobley, Casey R. [Casey.Mobley@chevron.com]
Sent: Thursday, April 24, 2008 5:29 AM
To: Brooks, David K., EMNRD
Cc: Baca, James (JMEB)
Subject: RE: Brunson Argo #30

David,

I can confirm that the depth information for the Brunson Argo #30 is the same as that for the Brunson Argo #28. As for the footage call error, I can confirm that 1200 FEL is the correct distance. Please accept our apologies for these oversights.

Please advise if you have any further questions for us. Thanks again,

Casey

Casey R. Mobley

Geologist

New Mexico Asset Development
MidContinent SBU
Chevron North American Exploration and Production
11111 S. Wilcrest Dr., S1037
Houston, TX 77099
(281) 561-4830

From: Brooks, David K., EMNRD [mailto:david.brooks@state.nm.us]
Sent: Wednesday, April 23, 2008 4:27 PM
To: Mobley, Casey R.
Subject: Brunson Argo #30

Dear Mr. Mobley

In this application you indicate that no notice to offsets is required because the entire quarter section has identical ownership in depths between 3600 feet and 3900 feet. However, I did not find any depth information regarding the proposed well in the application other than that the proposed total depth is 4300.

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I have now received your response regarding the Brunson Argo #28, and am inclined to assume that the same depth information applies to Section 9. Please confirm.

4/24/2008

Thanks

David K. Brooks
505-476-3450
Legal Examiner

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This inbound email has been scanned by the MessageLabs Email Security System.

4/24/2008