TYPE NSL

APP NO. pTD SO6 33362222

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



Chevron Brunson - Eaves Lease Line #3

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

	41		AT THE DIVISION LEVEL IN SANTA FE	
Аррис	[DHC-Dow	ndard Location] [NSP-Non-Standar nhole Commingling] [CTB-Lease ol Commingling] [OLS - Off-Leas [WFX-Waterflood Expansion] [PI	Commingling] [PLC-Pool/Lease e Storage] [OLM-Off-Lease Me MX-Pressure Maintenance Expan [IPI-Injection Pressure Increase]	e Commingling] asurement] sion]
	įEON-Qua	med Emanced on Recovery Certif	Tri N-r Ositive rioduc	non vesbousel
[1]	TYPE OF AP [A]	PLICATION - Check Those Which Location - Spacing Unit - Simultan NSL NSP SD		
	Check [B]	One Only for [B] or [C] Commingling - Storage - Measure DHC CTB PLC		М
	[C]	Injection - Disposal - Pressure Inc	rease - Enhanced Oil Recovery D	R
	[D]	Other: Specify		
[2]	NOTIFICAT [A]	ION REQUIRED TO: - Check The Working, Royalty or Override		Apply
	[B]	Offset Operators, Leaseholde	rs or Surface Owner	
	[C]	Application is One Which Re	equires Published Legal Notice	
	[D]	Notification and/or Concurred U.S. Bureau of Land Management - Commisse	nt Approval by BLM or SLO sioner of Public Lands, State Land Office	
	[E]	For all of the above, Proof of	Notification or Publication is Atta	ched, and/or,
	[F]	Waivers are Attached		
[3]		CURATE AND COMPLETE INF ATION INDICATED ABOVE.	ORMATION REQUIRED TO	PROCESS THE TYPE
	al is accurate a	TION: I hereby certify that the infond complete to the best of my know quired information and notifications	ledge. I also understand that no ac	
	Note:	Statement must be completed by an indi-	vidual with managerial and/or superviso	ry capacity.
Print o	r Type Name	Signature	Title	Date
			e-mail Address	

Sarah C. Rittenhouse Project Manager / Geologist



North America Upstream Midcontinent Business Unit 11111 S. Wilcrest, Rm S1031 Houston, Texas 77099 Tel (281) 561-3773 Fax (281) 561-3576 sarah.rittenhouse@chevron.com

November 6, 2006

2006 NOV 28 AM 10 12

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

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-Eaves Lease Line #3 (Formerly Rollon Brunson #9) 2310' FNL & 1390' FEL, SW/4 NE/4 of Section 10, T22S, R37E, Unit Letter G 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 4 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 SW/4 NE/4 of Section 10 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the Brunson #2 and the Brunson-Eaves Lease Line #1. The Brunson #2 was drilled in 1977 as a Penrose Skelly, Grayburg producer. The Brunson-Eaves Lease Line #1 is to be drilled in 2007 as a Penrose Skelly, Grayburg producer. Chevron also requests approval of the 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 10. The proposed well will be located in the approximate southern center point of those wells 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 W/2 NE/4 of Section 10 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.

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-3773 or by email at <u>sarah.rittenhouse@chevron.com</u>. If I am not available, you can also reach Michael Gelbs by phone at (281) 561-7939 or by email at <u>mike.gelbs@chevron.com</u>. Thank you for consideration of this matter.

Sincerely,

Sarah C. Rittenhouse

Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM

Michael Gelbs Sarah Rittenhouse George Pritchard

Well File

NOTIFICATION LIST

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

Brunson-Eaves Lease Line #3 (Formerly Rollon Brunson #9) 2310' FNL & 1390' FEL Section 10, T22S, R37E, Unit Letter G Lea County, New Mexico

Offset Operators, Working Interest Owners, NE/4 Section 10:

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

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.	

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



		ADMINISTRATIVE APPLI	ICATION CHECKLIST	
7	THIS CHECKLIST IS M	ANDATORY FOR ALL ADMINISTRATIVE APPLICATI WHICH REQUIRE PROCESSING AT TH		D REGULATIONS
A ppii	[DHC-Dowi [PC-Po	ndard Location] [NSP-Non-Standard Pr nhole Commingling] [CTB-Lease Com ol Commingling] [OLS - Off-Lease St	nmingling] [PLC-Pool/Lease Commi orage] [OLM-Off-Lease Measureme ressure Maintenance Expansion] njection Pressure Increase]	ngling] nt]
1]	TYPE OF AP	PLICATION - Check Those Which Ap	ply for [A]	
,	[A]	Location - Spacing Unit - Simultaneou NSL NSP SD		
	Check	One Only for [B] or [C]		
	[B]	Commingling - Storage - Measurement DHC CTB PLC		
i	[C]	Injection - Disposal - Pressure Increase WFX PMX SWD		
	[D]	Other: Specify		
[2]	NOTIFICAT [A]	ION REQUIRED TO: - Check Those W Working, Royalty or Overriding F		
	[B]	Offset Operators, Leaseholders or	Surface Owner	
	[C]	Application is One Which Require	es Published Legal Notice	
	[D]	Notification and/or Concurrent Ap U.S. Bureau of Land Management - Commissioner of	oproval by BLM or SLO of Public Lands, State Land Office	
	[E]	For all of the above, Proof of Noti	fication or Publication is Attached, and	l/or,
	[F]	☐ Waivers are Attached		
[3]		CURATE AND COMPLETE INFORMATION INDICATED ABOVE.	MATION REQUIRED TO PROCES	S THE TYPE
[4] approapplic	val is <mark>accurate</mark> a	FION: I hereby certify that the informat and complete to the best of my knowledge quired information and notifications are s	e. I also understand that no action will	administrative be taken on this
	Note:	Statement must be completed by an individual	with managerial and/or supervisory capacity	
	Sarah Rittenhouse	Sual litter	Project Manager / Geologist	_11/6/2006
Print	or Type Name	Signature	Title	Date
			Sarah.Rittenhouse@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:

Brunson-Eaves Lease Line #3 (Formerly Rollon Brunson #9)

2310' FNL & 1390' FEL Section 10, 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 **Brunson-Eaves Lease** Line #3 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).

3.

Operator	Well	API#	Location	Formation	Cur	n Prod	Current Prod		Status
Орегани	WEII	Al I #	Location	romation	MBO	MMCF	BOPD	MCFPD	Status
	Rollon Brunson								Inactive
Chevron	#1	30025100280000	10-B	Grayburg	69	62	0	0	
	Rollon Brunson	30025101620000							
Chevron	#6		10-B	Grayburg	7	12	9	389	Active
Chevron	Eaves #6	30025101690000	10-A	Grayburg	131	484	-	_	Inactive
	So Penrose SU								
Chevron	167	30025101640000	10-H	Grayburg	76	703	-	-	Inactive
Chevron	Brunson #2	30025101710000	10-G	Grayburg	2	79	-	-	Inactive

- 4. The proposed **Brunson-Eaves Lease Line #3** 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.

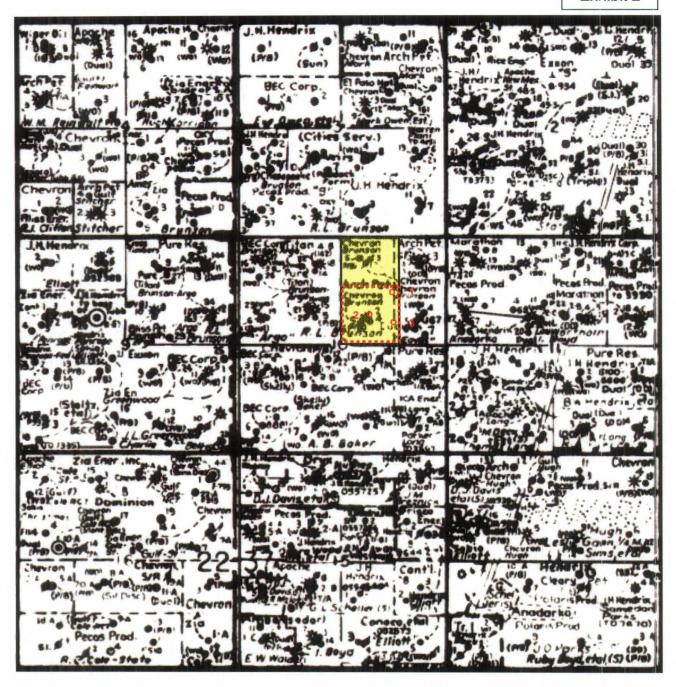
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

Operator	Well	API#	Location	Formation	Drainage	EUR	
Operator	VY CII	AFI#	Location	Pormation	Acres	MBO	MMCF
	Rollon Brunson	30025101620000					
Chevron	#6		10-B	Grayburg	3	28	203
Chevron	Eaves #6	30025101690000	10-A	Grayburg	17	131	484
	So Penrose SU						
Chevron	167	30025101640000	10-H	Grayburg	11	76	703
Chevron	Brunson #2	30025101710000	10-G	Grayburg	0	2	79
	So Penrose SU						
Chevron	141	30025101590000	10-B	Grayburg	9	69	62

As seen above, the average drainage area of the offsetting locations is only 3 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 7 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage	EUR	
Operator	W CII	Location	TICI V	Acres	MBO	MMCF
	Brunson-Eaves					
Chevron	Lease Line #3	10-G	13.6	7	47	207

- 4. The NE/4 of Section 10 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 **Brunson-Eaves Lease Line #3** will share a 40-acre proration unit and will be simultaneously dedicated with the Brunson #2 and the Brunson-Eaves Lease Line #1 as a Penrose Skelly, Grayburg producer in Section 10, 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.



Brunson #2 1980 FNL & 1980 FEL, Unit G Brunson-Eaves #1 1460 FSL & 1330 FEL, Unit G Brunson-Eaves #3 (Proposed) 2310 FNL & 1390 FEL, Unit G Section 10, T22S-R37E Lea County, New Mexico



Rollon Brunson Lease



40 Acre Proration Unit

Scale: 1"=2000' Approx.

State of New Mexico

'DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 86240

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office State Lease - 4 Copies Pee Lease - 3 Copies

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

DISTRICT III 1000 Rio Brazos Rd., Axtec, NM 87410

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

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	-	 perty Name BRUNSON		Well Number
OGRID No.		rator Name I U.S.A. INC.		Elevation 3394'
L	Surfo	ce Incetion		

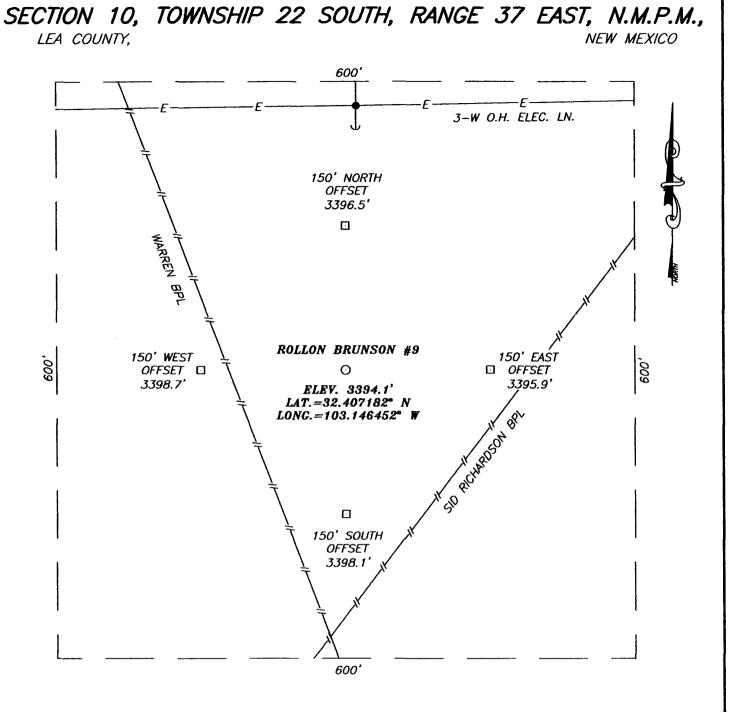
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	10	22-S	37-E		2310	NORTH	1390	EAST	LEA

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 o	r Infill Co	nsolidation	Code Ore	der No.			I	-

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

<u> </u>	
	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my inoviedge 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
GEODETIC CC NAD 27 Y=51380 X=8663	NME 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.
LAT.=32.40 LONG.=103.	

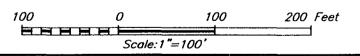


DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #207 AND TEXAS ST. (EUNICE) GO SOUTH ON ST. HWY. #207 APPROX. 1.6 MILES. TURN LEFT AND GO EAST THROUGH CATTLEGUARD APPROX. 0.7 MILES. TURN RIGHT AND GO SOUTH APPROX. 0.2 MILES, VEER LEFT AND GO EAST APPROX. 200 FEET, VEER RIGHT AND GO SOUTH APPROX. 0.1 MILES, VEER LEFT AND GO SOUTHEAST TO THE EXISTING CHEVRON ROLLON BRUNSON # 4 WELL. THIS LOCATION IS APPROX. 450 FEET IN PASTURE.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117



CHEVRON U.S.A. INC

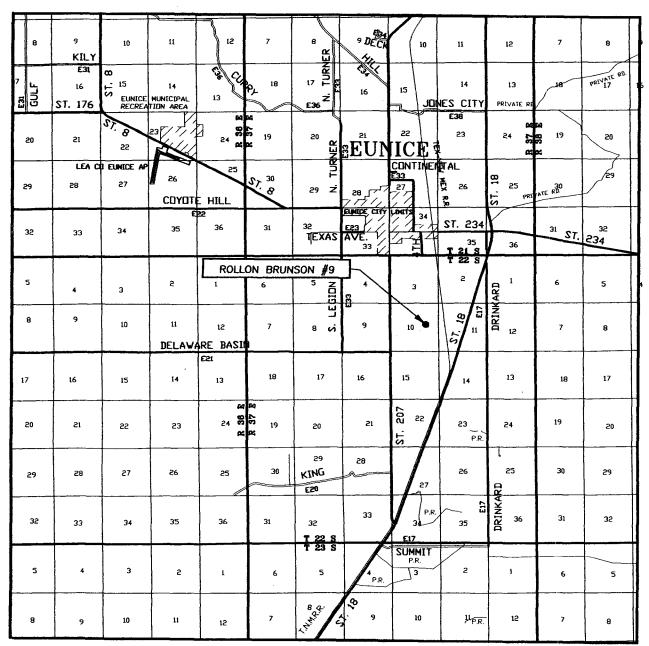
ROLLON BRUNSON #9 WELL LOCATED 2310 FEET FROM THE NORTH LINE AND 1390 FEET FROM THE EAST LINE OF SECTION 10, TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

 Survey Date:
 11/1/06
 Sheet
 1
 of
 1
 Sheets

 W.O. Number:
 06.11.1711
 Dr By: JR
 Rev 1:N/A

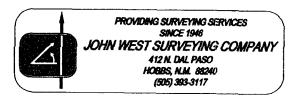
 Date:
 11/13/06
 Disk:
 CD#1
 06111711
 Scale:1"=100'

VICINITY MAP



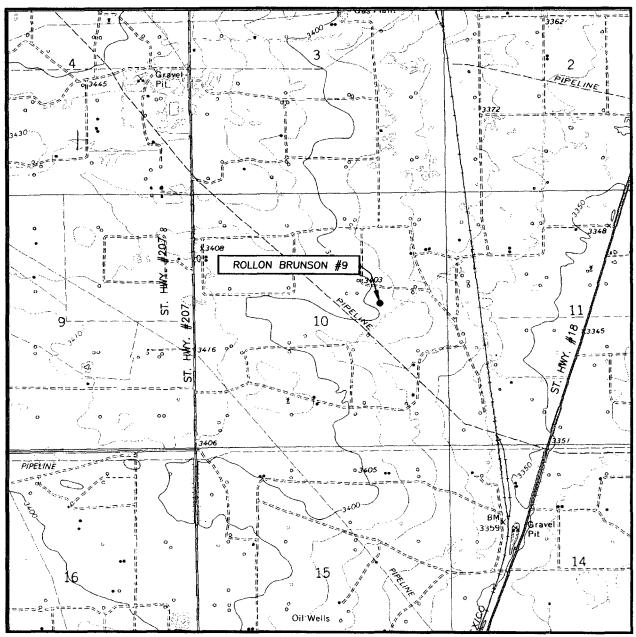
SCALE: 1" = 2 MILES

SEC. <u>10</u> 1	WP. <u>22-S</u> RGE. <u>37-E</u>
SURVEY	N.M.P.M.
COUNTYL	<u>EA</u> STATE <u>NEW MEXICO</u>
DESCRIPTION	2310' FNL & 1390' FEL
ELEVATION_	3394'
OPERATOR_	CHEVRON U.S.A. INC.
LEASE	ROLLON BRUNSON





LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 10 TWP. 22-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

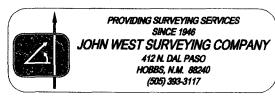
DESCRIPTION 2310' FNL & 1390' FEL

ELEVATION 3394'

OPERATOR CHEVRON U.S.A. INC.

LEASE ROLLON BRUNSON

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



<u>District I</u> 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

<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Exhibit 3.1

Submit to -

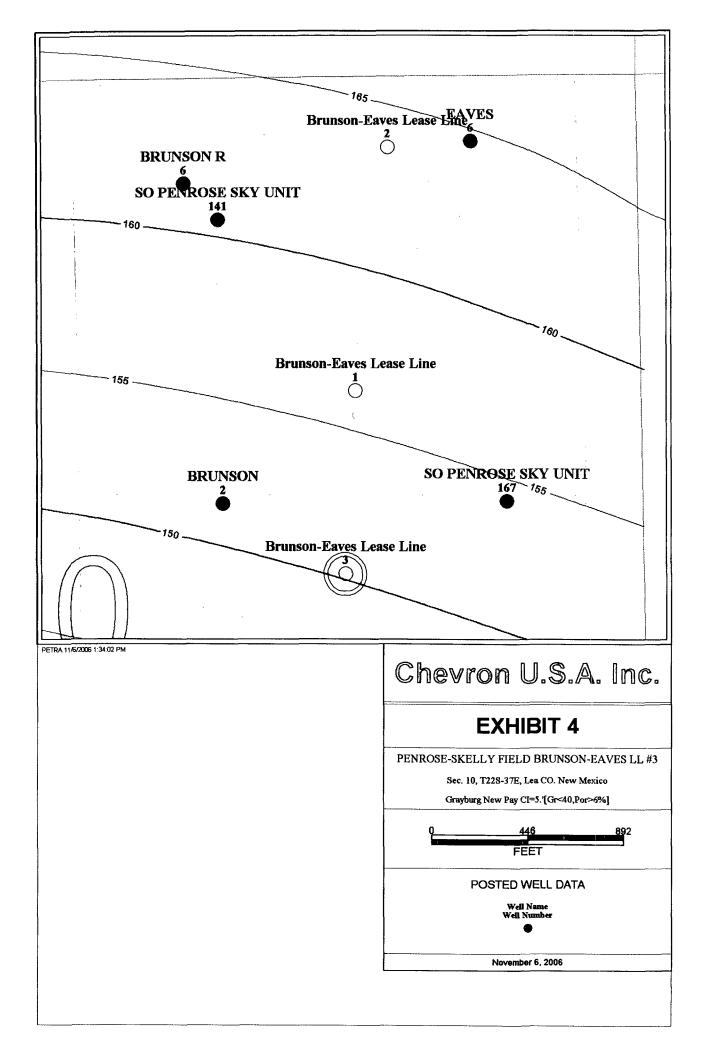
□ AMENDED REPORT

<u>District IV</u> 1220 South St. Francis Dr., Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

1	API Number			² Pool Code 50350		³ Pool Name Penrose Skelly; Grayburg					
⁴ Property	Code			Brunso	⁵ Property Nar on-Eaves LL #3 (Form	ne erly Brunson #9)			⁶ Well Number 3		
									⁹ Elevation 3392		
					10 Surface Lo	cation					
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West I	ine County		
G	10	228	37E		2310	North	1390	East	Lea		
			¹¹ Bott	om Hole	Location If D	ifferent From S	urface				
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West I	line County		
¹² Dedicated Acre 40	es ¹³ Join	t or Infill 14 C	onsolidation	Code 15 Orde	er No.			<u> </u>			
NO	ALLOW	ABLE WIL				ION UNTIL ALL IN EEN APPROVED B		BEEN CONSC	DLIDATED OR A		

16		Brunson Lease	Eaves Lease	OPERATOR CERTIFICATION
		2310'		I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
		40-acre proration unit	0	Signature Sarah C. Rittenhouse
	4	3 Č	1390'	Printed Name Geologist Title November 2, 2006
				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.
				Signature and Seal of Professional Surveyor:
				Certificate Number





Chevron U.S.A. Inc.

EXHIBIT 5

PENROSE-SKELLY FIELD BRUNSON-EAVES LL #3

Sec. 10, T22S-37E, Lea CO. New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

POSTED WELL DATA

Well Name Well Number

SRLF_PENROSE_SKELLY - DRAINAGE_ZONE[SF

SRLF PENROSE SKELLY - GRAYBURG CUM OIL[SRLF] (MBO)
SRLF PENROSE SKELLY - GRAYBURG CUM GAS[SRLF] (MMCF)
SRLF PENROSE SKELLY - GRAYBURG CUM WATER[SRLF] (MBO)



November 6, 2006