MF116554

LEASE "C" RELEASED 5/14/2016 JL
INUT 13048
INUT 13049
INUT 13050
INUT 13051
INUT 13052
INUT 13053

Lease Type	Control	Basefile	County
RAL	07-109602	107414	REEVES

Survey	T & P Ry Co
Block	54
Block Name	
Township	4-S
Section/Tract	16
Land Part	all
Acres	Net: ~~295.650000~~ 569.50 Gross: 600.000000
Depth Below	Depth Above Depth Other

Name	PANTHER EXPLORATION CO
Lease Date	3/23/2014
Primary Term	3 years
Bonus	$563,613.00
Lease Royalty	0.12500000
Paid Up	No

Leasing:
Maps:
GIS:
Scanlab:



CAUTION

Documents in this file have been placed in Table of Contents order and scanned.
Please help keep documents in content order and let the ScanLab know when new documents are added to this file.

Thank you for your assistance.

Archives and Records Staff

M F 1 1 1 6 5 5 4
F1093408

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Scanned SM 11/07/2023
55. Division Order 2/23/2024
scanned WM 3.4.2024

RAL REVIEW SHEET

Working File #: RAL145704 **MF:**

Lessor: Long, Ricki Lewis ; Petco ; Pursuit **Lease Date:** 10/21/2013 **UI:** Yes

Lessee: Energen Resources Corp. + Panthera Explo **Gross Acres:** 600.00

Net Acres: 75.00

LEASE DESCRIPTION

County	Control #	Base File No	Part	Sec	Block	Twp	Survey	Abst No
Reeves	07-109602	107414	all	16	54	4-S	T & P Ry Co	2864

TERMS OFFERED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$2,800.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

TERMS RECOMMENDED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$2,800.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

COMPARISONS

Lease No	Lessee	Lease Date	Primary Term	Bonus/Acre	Rental/Acre				Royalty	Distance
MF115997	SWEPI	09/13/2013	3 yr	$2,000.00	$0.00	0.00			0.250000	0.000000 SE

Comments: Paid Up Rentals. Part of this UI tract is still under lease (MF112944).

Approved: DR 2.11.14

RELINQUISHMENT ACT LEASE APPLICATION

Texas General Land Office — Jerry Patterson, Commissioner

TO: Jerry Patterson, Commissioner
Larry Laine, Chief Clerk
Bill Warnick, General Counsel
Louis Renaud, Deputy Commissioner

FROM: Robert Hatter, Director of Mineral Leasing

Applicant:	Energen Resources Corp.	County:	Reeves
Prim. Term:	3 Years	Bonus/Acre:	$2,800.00
Royalty:	0.25000000		

Rental/Acre 2nd Yr: $0.00 3rd Yr: $0.00 4th Yr: $0.00 5th Yr: $0.00

Consideration

Recommended: RJH Date: 2/24/14

Not Recommended:

Comments: Paid Up Rentals. Part of this UI tract is still under lease (MF112944).

Lease Form

Recommended: RJH Date: 2/24/14

Not Recommended:

Comments:

Louis Renaud, Deputy Commissioner Date: 2.26.14

Recommended: LLR

Not Recommended:

Bill Warnick, General Counsel Date: 3/6/14

Recommended: WKW

Not Recommended:

Larry Laine, Chief Clerk Date: 3/6/14

Approved:

Not Approved:

Jerry Patterson, Commissioner Date: 3/6/14

Approved: Jerry E. Patterson

Not Approved:

RAL REVIEW SHEET

Working File #: RAL145991 **MF:**

Lessor: Petco , Ltd. **Lease Date:** 03/23/2014 **UI:** Yes

Lessee: Panther Energy Co, Llc **Gross Acres:** 600.00

Net Acres: 150.00

LEASE DESCRIPTION

County	Control #	Base File No	Part	Sec	Block	Twp	Survey	Abst No
Reeves	07-109602	107414	all	16	54	4-S	T & P Ry Co	2864

TERMS OFFERED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$3,000.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

TERMS RECOMMENDED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$3,000.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

COMPARISONS

Lease No	Lessee	Lease Date	Primary Term	Bonus/Acre	Rental/Acre				Royalty	Distance
Pending	Energen Resources Corp.	10/21/2013	3 yr	$2,800.00	$0.00	0.00			0.250000	0.000000 UI/same tract

Comments: paid up

Approved: JR 4.8.14

RAL REVIEW SHEET

Working File #: RAL145704 **MF:**

Lessor: Long, Ricki Lewis **Lease Date:** 10/21/2013 **UI:** Yes

Lessee: Energen Resources Corp. **Gross Acres:** ~~600.00~~

Net Acres: 75.00

Same Tract Already Processed

LEASE DESCRIPTION

County	Control #	Base File No	Part	Sec	Block	Twp	Survey	Abst No
Reeves	07-109602	107414	all	16	54	4-S	T & P Ry Co	2864

TERMS OFFERED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$2,800.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

TERMS RECOMMENDED

		2nd Yr	3rd Yr	4th Yr	5th Yr
Primary Term:	3 Years				
Bonus / Acre:	$2,800.00				
Rental / Acre:		0.00	0.00		
Royalty	0.250000				

COMPARISONS

Lease No	Lessee	Lease Date	Primary Term	Bonus/Acre	Rental/Acre				Royalty	Distance
MF115997	SWEPI	09/13/2013	3 yr	$2,000.00	$0.00	0.00			0.250000	0.000000 SE

Comments: Paid Up Rentals. Part of this UI tract is still under lease (MF112944).

Approved: Robert 2/10/14

File No. MF116554

RAL Review Sheet

1.

Date Filed: 2-10-14

Jerry E. Patterson, Commissioner

By AD

ENERGEN
RESOURCES

January 13, 2014

Texas General Land Office
Attn: Drew Reid
1700 Congress Avenue
Austin, TX 78701-1495

Re: State Leases Filed in Reeves County, TX

Dear Mr. Reid:

Enclosed please find check #4635 from Energen Resources Corporation in the amount of $500.00, representing processing and filing fees, and Bonus checks for Oil & Gas Leases, as follows:

Riki Lewis Long, Agent	$105,000.00	#486590	All of Section 16, Block 54, T-4, Save and except the NE/4 NE/4, T&P Ry Co Survey
Riki Lewis Long, Agent	14,000.00	#486591	S/2 NW/4 of Section 32, Block 54, T-4, T&P Ry Co Survey
Jack F. Cochran, Agent	21,220.00	#486963	SE/2 of Section 36, Block 2, H&GN Ry Co Survey
Nell C. Hastings, Agent	21,220.00	#487934	SE/2 of Section 36, Block 2, H&GN Ry Co Survey

Please indicate your receipt of the enclosed checks as the full amount due from Energen for the above by signing, dating and returning one copy of this letter in the postage paid envelope provided. If you have any questions, please call me at 432-688-3149.

Sincerely,

Linda Wallace

Linda Wallace
Land Analyst I

Enclosure

121

ENERGEN RESOURCES CORPORATION
3300 NORTH A STREET
BLDG. 4, STE. 100
MIDLAND, TX 79705

14706239 4635

[redacted]

DATE 1-8-14

PAY TO THE ORDER OF State of Texas, Geneeal Land Offc. $ 500.00

Five hundred + no/100 DOLLARS

Security Features Details on Back.

Bank of America

ACH R/T 111000025

FOR Filing + Proc. fees (4)

Danny E. Hagins

⑈004635⑈ [redacted]

121

CASH ONLY IF ALL *CheckLock*™ SECURITY FEATURES LISTED ON BACK INDICATE NO TAMPERING OR COPYING

R. D. Davis & Associates, LLC
5733 N.W. 132 nd Street
Oklahoma City, OK 73142
(405) 720-2882

NBC OKLAHOMA [redacted] 14717578 12378

8/21/14

PAY TO THE ORDER OF State of Texas GLO $ 125 00

Twenty Five dollars 00/100 DOLLARS

A TAMPER RESISTANT TONER AREA A

Filing Fee:
Fayrene Richardson TTW FBO
Nancy Saustad, BOA, N.A. Trustee – Lease
7-21-14, Sec 16, Blk 54 T4S, A-~~286~~ 2864,
T+P RL Survey

MEMO

VOID IF NOT CASHED WITHIN 30 DAYS

"012378" [redacted]

© 2011 INTUIT INC. & 8726 1-800-436-8510

PANTHER ENERGY COMPANY II, LLC
P O BOX 3105
TULSA, OK 74101

Bank of America 14712188
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10242	04/04/14	$**********100.00

PAY THIS AMOUNT:
*** One Hundred Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
PO BOX 12873
AUSTIN TX

Billy J Mullins

⑈00102421⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC P O BOX 3105, TULSA, OK 74101 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
04042014	04/04/14	Filing Fee Sand Lake Purchase	100.00

[redacted]

14712188

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VENDOR TEX0009 CHECK 10242 DATE 04/04/14 100.00

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PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10357	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10357⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014G	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

VENDOR TEX0009 CHECK 10357 DATE 05/09/14 125.00

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PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10355	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10355⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014E	05/07/14	SAND LAKE FILING FEE, REEVES	125.00

VENDOR TEX0009 CHECK 10355 DATE 05/09/14 125.00

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PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10384	05/16/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10384⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014N	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

VENDOR TEX0009 CHECK 10384 DATE 05/16/14 125.00

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Tulsa,

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

CHECK NO	CHECK DATE	CHECK AMOUNT
10419	05/27/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00104 19⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5222014A	05/22/14	SAND LAKE PROSPECT FILING FEES	125.00

14713052

121

VENDOR TEX0009 CHECK 10419 DATE 05/27/14 X 125.00

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PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10353	05/09/14	$**********125.00

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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10353⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014C	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

VENDOR TEX0009 CHECK 10353 DATE 05/09/14 125.00

14712186

PANTHER ENERGY COMPANY II, LLC
15 E 5th St. Ste. 2100
TULSA, OK 74103

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Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10317	04/25/14	$**********125.00

PAY THIS AMOUNT:
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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00103 1 7⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC 15 E 5th St. Ste. 2100, TULSA, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4252014A	04/25/14	FILING FEE SAND LAKE PROSPECT,	125.00

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PANTHER ENERGY COMPANY II, LLC
15 E 5th St. Ste. 2100
TULSA, OK 74103

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Tulsa,

14712187

CHECK NO	CHECK DATE	CHECK AMOUNT
10279	04/17/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Dilly & Mulliz

⑈00 10279⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC 15 E 5th St. Ste. 2100, TULSA, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4172014A	04/17/14	SAND LAKE PROSPECT FILING FEES	125.00

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PANTHER ENERGY COMPANY II, LLC
P O BOX 3105
TULSA, OK 74101

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Tulsa,

14712185

CHECK NO	CHECK DATE	CHECK AMOUNT
10246	04/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

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TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10 246⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC P O BOX 3105, TULSA, OK 74101 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4082014A	04/08/14	SAND LAKE PROSPECT FILING FEE	125.00

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Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10359	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10359⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014I	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

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Tulsa,

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

CHECK NO	CHECK DATE	CHECK AMOUNT
10351	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00103514⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014A	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

14712183

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MAY 14 2014
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VENDOR TEX0009 CHECK 10351 DATE 05/09/14 125.00

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Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10444	06/06/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10444⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
6052014	06/03/14	SAND LAKE FILING FEE	125.00

MF 116554N

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PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10494	06/20/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

VOID VOID VOID VOID VOID VOID

Billy J Mullins

⑈00 10494⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
6112014	06/11/14	SAND LAKE PROSPECT FILING FEE	125.00

VENDOR TEX0009 CHECK 10494 DATE 06/20/14 125.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America 14715188
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10383	05/16/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10383⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014M	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

RECEIVED
JUL 08 2014

14715188

VENDOR TEX0009 CHECK 10383 DATE 05/16/14 125.00

PANTHER
ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America 14714284
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10353	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10353⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014C	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

14714284

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10353 DATE 05/09/14 125.00

14714282

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10384	05/16/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10384⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014N	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

14714282

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10384 DATE 05/16/14 125.00

14714280

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10355	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10355⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014E	05/07/14	SAND LAKE FILING FEE, REEVES	125.00

14714280

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10355 DATE 05/09/14 125.00

14714278

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10357	05/09/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00103 5?⑈ [redacted] ⑈

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014G	05/07/14	SAND LAKE PROSPECT FILING FEE	125.00

14714278

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10357 DATE 05/09/14 125.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

VOID VOID VOID

PANTHER
ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10557	07/15/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

VOID VOID VOID

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10557⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
7112014A	07/11/14	SAND LAKE PROSPECT FILING FEE	125.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

VOID VOID VOID VOID VOID VOID VOID VOID

CHECK NO	CHECK DATE	CHECK AMOUNT
10597	07/25/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10597⑈ [redacted]⑈

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
7232014A	07/23/14	SAND LAKE PROSPECT FILING FEE	125.00

VENDOR TEX0009 CHECK 10597 DATE 07/25/14 125.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

[redacted]

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America Main
Tulsa

15704527

CHECK NO	CHECK DATE	CHECK AMOUNT
10829	10/07/14	$**********125.00

PAY THIS AMOUNT:
***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00108 29⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
10022014	10/02/14	SAND LAKE FILING FEE, WYNNE	125.00

15704527

121

VENDOR TEX0009 CHECK 10829 DATE 10/07/14 X 125.00

MF 15

2.

File No. MF116554

Letter w/ processing and filing fees

Date Filed: 5-14-14

Jerry E. Patterson, Commissioner

By

Rocket Industries LLC

1834 Sylvan Drive
Abilene, TX 79605
rocket_industries_llc@yahoo.com

(325) 669-4430 - Tel
(325) 455-1759 - Fax

General Land Office
Attention: Drew Reid
Stephen F Austin Building
1700 North Congress Avenue
Austin, Texas 78701

RE: Certified Copies of Assignments and Lease for filing

Dear Drew,

Enclosed, please find Assignments and a Lease for filing with the General Land office. The following are enclosed:

Lease:
The State of Texas, acting by and through its agent, Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, N.A., Trustee to Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC, executed 8/13/14, filed 8/18/14, Inst. No. 14-07473, Section 16, Block 54, T4S, A-2864, T&P RR Survey, Reeves County, Texas, Less & Except the N/E N/E, with attached check from RD Davis & Associates, LLC, Check No. 12378 in the amount of $25.00 for filing fees.

Assignments:
MCM Energy Partners, LLC to Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC Volume 1087, Page 312, Effective April 16, 2014, filed 7/2/14, pertaining to Lease The State of Texas, acting by and through its agent, The Allar Company to MCM Energy Partners, Volume 1072, Page 183, Effective April 9, 2014, All of Section 40, Block 1, Abstract 5790, H&GN RR Co. Survey, Less and Execept Lots 17, 18, 19, 28, 29, 30, 31, 32, 33, 42, 43, and 44 of the A.S. Ritchey Plat, containing 596.0 acres, more or less, with attached check from RD Davis & Associates, LLC, Check No. 12379 in the amount of $50.00 for filing fees.

Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC to CP2 Operating, LLC, Volume 1089, Page 106, Effective June 12, 2014, filed 8/18/14, pertaining Section 40, Blk 1, H&GN RR Co. Survey, Section 32, Blk 55, T4S, T&P in Reeves County, Texas and other lands, with attached check from RD Davis & Associates, LLC, Check No. 12380 in the amount of $25.00 for filing fees

Devon Energy Production Company, L.P. to Double Eagle Development, LLC, Volume 1070.Page 787, Effective April 6, 2015, filed 8/18/14, File No. 14-03636, pertaining to Section 32, Blk 55, T4S, T&P in Reeves County and other lands, with attached check from RD Davis & Associates, LLC, Check No. 12381 in the amount of $50.00 for filing fees

Susan Murray

Susan Murray

Drew Reid - Re: Nancy Adele Saustad Trust u/w/o Fayrene Richardson Smith - State of Texas Lease

From: Drew Reid
To: crystal_perrine@rddinc.net
Subject: Re: Nancy Adele Saustad Trust u/w/o Fayrene Richardson Smith - State of Texas Lease

Yes, I have the certified copy of the lease but no money!!
Please send $10,937.50 for the States share of the bonus
and the fee's. Please put Mineral File Number (MF-116554)
in your cover letter and send to Deb Cantu.
Thanks, Drew

>>> <crystal_perrine@rddinc.net> 9/3/2014 4:53 PM >>>
Mr. Reid,

I think a lease might have been sent directly to you without the necessary payment to State of Texas and the filing fees. Can you confirm if you received the following certified copy:

Nancy Adele Saustad Trust u/w/o Fayrene Richardson Smith - State of Texas Lease, Section 16, Blk 54, Township 4S, T&P RR Survey, A-2684

I have a check made out to the State of Texas for $10943.75 that should accompany it, along with $125 filing fees.

Thank you,

Crystal Perrine
R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055
832-377-2990, ext. 101

Drew

Drew Reid - Petco Limited Filed GLO OGL

From: BUCK PURSELLEY <hensleeh@yahoo.com>
To: Drew Reid <Drew.Reid@GLO.TEXAS.GOV>
Date: 4/8/2014 4:10 PM
Subject: Petco Limited Filed GLO OGL
Attachments: Petco Limited Panther Filed Lease.pdf

Drew,

Attached is a copy of the filed OGL for PetcoLimited. We have paid Petco Limited. I will more than likely be in Austin Thursday and can deliver the check for the States portion. Anything else you will need from me?

Thanks,

Buck

Drew Reid - Reeves County GLO Lease

From: BUCK PURSELLEY <hensleeh@yahoo.com>
To: Drew.Reid@GLO.TEXAS.GOV; hensleeh@yahoo.com
Date: 4/1/2014 8:08 AM
Subject: Reeves County GLO Lease
CC: jdoumany@wilco-inc.com
Attachments: Pursuit Energy Corporation Signed OGL.pdf

Drew,

Attached is the signed lease for Pursuit Energy Corporation for Section 16, Block 54, Township 4S, T & P Railway Company Survey, A-2864, Reeves County, Texas. Please let me know If you need anything else on my end.

Best Regards,

Buck Purselley
c) 817.683.0386

Haw . . .

Drew Reid - Re: Reeves County OGL

From: BUCK PURSELLEY <hensleeh@yahoo.com>
To: Drew.Reid@GLO.TEXAS.GOV; hensleeh@yahoo.com
Date: 3/27/2014 1:53 PM
Subject: Re: Reeves County OGL
Attachments: Petco Executed Lease.pdf

Drew,

See attached.

Thanks,

Buck

On Thursday, March 27, 2014 1:42 PM, Drew Reid <Drew.Reid@GLO.TEXAS.GOV> wrote:
E-mail me a copy of the lease.
Drew

>>> <hensleeh@yahoo.com> 3/27/2014 11:01 AM >>>
NAME: Buck Purselley
EMAIL: hensleeh@yahoo.com
PHONE: 817-683-0386
SUBJECT: Reeves County OGL
SENT_FROM_FORM: www.glo.texas.gov/cf/contact-us-form/index.html
MESSAGE: Hi Drew, I received an executed copy of the GLO OGL from Petco Limited for there interest in Section 16, Block 54, Township 4S in Reeves County. Do I need to send you a hard copy or can I e-mail you a copy? Anything else you need on my end? Thanks, Buck c) 817.683.0386
TO: drew.reid

The Auto Response sent to the customer is:
Thank you for your e-mail. It has been forwarded to the proper agency staff member.

14712177

PANTHER ENERGY COMPANY II, LLC
P O BOX 3105
TULSA, OK 74101

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10243	04/04/14	$********225,150.00

PAY THIS AMOUNT:
***225,150 Dollars and No Cents

A

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
PO BOX 12873
AUSTIN TX

Billy J Mullins

⑈00 10 24 3⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC P O BOX 3105, TULSA, OK 74101 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
40414	04/04/14	Bonus Split Sand Lake Prospect	225,150.00

14712177

RECEIVED
MAY 14 2014
RECEIVER'S OFFICE

VENDOR TEX0009 CHECK 10243 DATE 04/04/14 225,150.00

PANTHER ENERGY COMPANY II, LLC

PANTHER ENERGY COMPANY II, LLC
P O BOX 3105
TULSA, OK 74101

Bank of America
Tulsa,

14712178

CHECK NO	CHECK DATE	CHECK AMOUNT
10245	04/09/14	$********131,325.00

PAY THIS AMOUNT:
***131,325 Dollars and No Cents

B

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

⑈00 10 24 5⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC P O BOX 3105, TULSA, OK 74101 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4082014	04/08/14	SAND LAKE PROSPECT, REEVES CO	131,325.00

14712178

RECEIVED
MAY 14 2014
RECEIVER'S OFFICE

VENDOR TEX0009 CHECK 10245 DATE 04/09/14 131,325.00

ENERGEN RESOURCES CORPORATION
605 Richard Arrington Blvd North
Birmingham, Alabama 35203-2707
Telephone (205) 326-2710

14706240

VENDOR NAME	VENDOR NO	CHECK DATE	CHECK NUMBER	AMOUNT
COMMISSIONER OF THE TEXAS	70273	Nov-05-2013	486590	$105,000.00

VOUCHER	VENDOR INV #	INV DATE	TOTAL AMOUNT	PRIOR PMTS & DISCOUNTS	NET AMOUNT
10-AP-20747	101713B2	10/15/13	105,000.00	0.00	105,000.00
LEASE BONUS					
OVERNIGHT TO STEPHEN CHANDLER					
TOTAL INVOICES PAID					105,000.00

Energen Resources Corporation now offers payment via **DIRECT DEPOSIT.**
If you would like to receive your payments in a more secure, efficient and timely manner,
please contact the Vendor Relations group by email at AP.ERCACH@energen.com for an enrollment form.

DETACH BEFORE DEPOSITING

THIS CHECK HAS A COLORED BACKGROUND AND CONTAINS MULTIPLE SECURITY FEATURES - SEE BACK FOR DETAILS

ENERGEN RESOURCES CORPORATION
605 Richard Arrington Blvd North
Birmingham, Alabama 35203-2707
Telephone (205) 326-2710

Wells Fargo
Birmingham, Alabama
[redacted]

14706240 No. 486590

CHECK NO.	DATE	PAY EXACTLY
486590	Nov-05-2013	$105,000.00

PAY EXACTLY $105,000dols00cts

TO THE ORDER OF
COMMISSIONER OF THE TEXAS
GENERAL LAND OFFICE
1700 N. CONGRESS AVENUE
STEPHEN F. AUSTIN STATE OFFICE BLDG
AUSTIN, TX 78701-1495

HEAT SENSITIVE

PRESIDENT

TREASURER

⑈486590⑈

14712179

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10356	05/09/14	$*********60,975.00

PAY THIS AMOUNT:
***60,975 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

D

Billy J Mullins

⑈00 10356⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014F	05/07/14	SAND LAKE BONUS SPLIT 1/2 WITH	60,975.00

14712179

RECEIVED
MAY 14 2014
RECEIVER'S OFFICE

VENDOR TEX0009 CHECK 10356 DATE 05/09/14 60,975.00

14712181

PANTHER ENERGY COMPANY II, LLC
15 E 5th St. Ste. 2100
TULSA, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10316	04/25/14	$*********20,008.33

PAY THIS AMOUNT:
***20,008 Dollars and 33 Cents

F

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10316⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC 15 E 5th St. Ste. 2100, TULSA, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4252014	04/25/14	SAND LAKE BONUS SPLIT 1/2 WITH	20,008.33

14712181

RECEIVED
MAY 14 2014
RECEIVER'S OFFICE

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

14712182

PANTHER ENERGY COMPANY II, LLC
15 E 5th St. Ste. 2100
TULSA, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10278	04/17/14	$**********780.52

PAY THIS AMOUNT:
***780 Dollars and 52 Cents

G1

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10 2 78⑈ [redacted]

PANTHER ENERGY COMPANY II, LLC 15 E 5th St. Ste. 2100, TULSA, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
4172014	04/17/14	SANDLAKE PROSPECT 1/2 BONUS	780.52

14712182

RECEIVED
MAY 14 2014
RECEIVER'S OFFICE

VENDOR TEX0009 CHECK 10278 DATE 04/17/14 780.52

14714281

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10382	05/16/14	$*********60,975.00

PAY THIS AMOUNT:
***60,975 Dollars and No Cents

H

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10382 2⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014L	05/07/14	SAND LAKE BONUS, REEVES COUNTY	60,975.00

14714281

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10382 DATE 05/16/14 60,975.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

14713053

Bank of America
Tulsa,

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

CHECK NO	CHECK DATE	CHECK AMOUNT
10418	05/27/14	$*********20,325.00

PAY THIS AMOUNT:
***20,325 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

I
Billy J Mullin

⑈00104 18⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5222014	05/22/14	SAND LAKE PROSPECT BONUS	20,325.00

Phillip/Panther
918 351 7152

14713053

121

VENDOR TEX0009 CHECK 10418 DATE 05/27/14 X 20,325.00

14714283

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10360	05/09/14	$*********20,325.00

PAY THIS AMOUNT:
***20,325 Dollars and No Cents

J

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10360⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014J	05/07/14	SAND LAKE BONUS SPLIT 1/2 WITH	20,325.00

14714283

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10360 DATE 05/09/14 20,325.00

14714277

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10354	05/09/14	$**********2,032.60

PAY THIS AMOUNT:
***2,032 Dollars and 60 Cents

K

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10354⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014D	05/07/14	SAND LAKE PROSPECT BONUS SPLIT	2,032.60

14714277

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10354 DATE 05/09/14 2,032.60

14714279

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10352	05/09/14	$**********300.10

PAY THIS AMOUNT:
*** Three Hundred Dollars and Ten Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00103521⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014B	05/07/14	SAND LAKE BONUS SPLIT 1/2 WITH	300.10

14714279

RECEIVED
JUN 23 2014

VENDOR TEX0009 CHECK 10352 DATE 05/09/14 300.10

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

14715195

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10381	05/16/14	$********121,950.00

PAY THIS AMOUNT:
***121,950 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10381⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
5072014K	05/07/14	SAND LAKE BONUS, REEVES COUNTY	121,950.00

MF116554M

RECEIVED
JUL 08 2014

14715195

VENDOR TEX0009 CHECK 10381 DATE 05/16/14 121,950.00

14715197

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10445	06/06/14	$*********21,887.50

PAY THIS AMOUNT:
***21,887 Dollars and 50 Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00104 45⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
6052014A	06/03/14	SAND LAKE BONUS SPLIT 1/2 W	21,887.50

N

RECEIVED
JUL 08 2014

VENDOR TEX0009 CHECK 10445 DATE 06/06/14 21,887.50

14715832

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10495	06/20/14	$*********43,775.00

PAY THIS AMOUNT:
***43,775 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 10495⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
6112014A	06/11/14	SAND LAKE PROSPECT BONUS	43,775.00

Lease O

RECEIVED
JUL 18 2014

14715832

Por: Sid Richardson Foundation Lease
Sec 16 BLK T-4
T-2

121

VENDOR TEX0009 CHECK 10495 DATE 06/20/14 X 43,775.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10596	07/25/14	$*********10,943.75

PAY THIS AMOUNT:
***10,943 Dollars and 75 Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

[redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
7232014	07/23/14	SAND LAKE PROSPECT BONUS SPLIT	10,943.75

P

VENDOR TEX0009 CHECK 10596 DATE 07/25/14 10,943.75

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

VOID VOID VOID

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
10558	07/15/14	$*********60,975.00

PAY THIS AMOUNT:
***60,975 Dollars and No Cents

VOID VOID VOID

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

[redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
7112014B	07/11/14	SAND LAKE PROSPECT BONUS SPLIT	60,975.00

Q

TEX0000 CHECK 10558 DATE 07/15/14 60,975.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

PANTHER ENERGY COMPANY II, LLC

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America-Main
Tulsa
15704528

CHECK NO	CHECK DATE	CHECK AMOUNT
10830	10/07/14	$**********6,254.17

PAY THIS AMOUNT:
***6,254 Dollars and 17 Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00108 30⑈ [redacted]

Panther Energy Company II, LLC 15 E 5th St., Tulsa, OK 74103 918/583-1396

INVOICE	DATE	DESCRIPTION	NET
10022014A	10/02/14	SAND LAKE BONUS SPLIT W/ WYNNE	6,254.17

R

15704528

121

VENDOR TEX0009 CHECK 10830 DATE 10/07/14 X 6,254.17

MF 116554

File No. MF116554

Bonus

3.

Date Filed: 5-14-14

Jerry E. Patterson, Commissioner

By

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-03090
FILED FOR RECORD
REEVES COUNTY, TEXAS
Apr 08, 2014 at 02:07:00 PM

116554A

The State of Texas

Austin, Texas

14-03869
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 01, 2014 at 03:55:00 PM

VOL 1072 PG 0556

VOL 1066 PG 0569

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 23rd day of March, 2014, between the State of Texas, acting by and through its agent, Petco Limited of P. O. Box 911, Breckenridge, Texas 76424-0911 (Give Permanent Address) said agent herein referred to as the owner of the soil (whether one or more), and Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 (Give Permanent Address) hereinafter called Lessee.

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

All of Section 16, Block 54, Township 4S, T & P Railroad Company Survey, A-2864, Less and except the NE/4 NE/4

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Two-Hundred Twenty-Five Thousand and 00/100
Dollars ($225,000.00)

To the owner of the soil: Two-Hundred Twenty-Five Thousand and 00/100
Dollars ($225,000.00)

Total bonus consideration: Four-Hundred Fifty Thousand and 00/100
Dollars ($450,000.00)

The total bonus consideration paid represents a bonus of Three-Thousand and 00/100 Dollars ($3000.00) per acre, on 150 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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"This Lease is being re-recorded forthe purpose of reflecting the Lessee's execution hereof, which was inadvertently omitted"

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____ _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~Dollars ($_____)~~

~~To the State of Texas: _____~~

~~Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

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7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

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10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

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12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

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14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

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(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

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26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

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33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Executive Vice President

Date: 4/28/2014

LESSOR

STATE OF TEXAS
By: PETCO LIMITED
Individually and as agent for the State of Texas

By: Breck Operating Corp.
General Partner

By: _____
President

DATE: March 24, 2014

APPROVED AS TO FORM
AS TO CONTENT LH
AS TO INTEREST
ADMINISTRATION

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 25th day of April, 2014.

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

Kristina Hoffman
Notary Public in and for State of OK

STATE OF TEXAS §

COUNTY OF STEPHENS §

This instrument was acknowledged before me on this the 24th day of March, 2014, by John H. Connally, President of Breck Operating Corp., a Texas corporation acting in its capacity as General Partner of **PETCO LIMITED**, a Texas limited partnership, on behalf of said partnership.

BARBARA BEENE
Notary Public
STATE OF TEXAS
My Comm. Exp. 01-21-2016

Barbara Beene
Notary Public, State of Texas

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated March 23, 2014, between Petco Limited , and Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 150.0 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

SIGNED FOR IDENTIFICATION

LESSOR

STATE OF TEXAS
By: PETCO LIMITED
Individually and as agent for the State of Texas

By: Breck Operating Corp.
General Partner

By: _____
President

DATE: March 24, 2014

STATE OF TEXAS §

COUNTY OF STEPHENS §

This instrument was acknowledged before me on this the 24th day of March, 2014, by John H. Connally, President of Breck Operating Corp., a Texas corporation acting in its capacity as General Partner of **PETCO LIMITED**, a Texas limited partnership, on behalf of said partnership.

Barbara Beene
Notary Public, State of Texas

BARBARA BEENE
Notary Public
STATE OF TEXAS
My Comm. Exp. 01-21-2016

Inst No. 14-03869
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 01 at 03:55 PM
REEVES COUNTY, TEXAS
By: AC Aurora Calanchi DEPUTY

Inst No. 14-03090
DIANNE O. FLOREZ
COUNTY CLERK
2014 Apr 08 at 02:07 PM
REEVES COUNTY, TEXAS
By: AC Aurora Calanchi DEPUTY

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File No. MF116554

Lease A

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

4A

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL. 1066 PAGE 569 THRU 577

I hereby certified on May 7, 2014

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Sara L Vazquez DEPUTY

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-03486
FILED FOR RECORD
REEVES COUNTY, TEXAS
Apr 21, 2014 at 08:27:00 AM
116554B

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 9th day of April, 2014, between the State of Texas, acting by and through its agent, Nancy Dean Investment Corporation by and through Mary Bird Bowman as Treasurer of 3106 Mistywood Circle, Austin, Texas 78746
(Give Permanent Address)
said agent herein referred to as the owner of the soil (whether one or more), and Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

600 acres of land, more or less, being Abstract No. 2864, out of Section 16, Block 54, Township 4S, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: One-Hundred Thirty-one Thousand Two-Hundred Fifty and 00/100 Dollars ($131,250.00)

To the owner of the soil: One-Hundred Thirty-One Thousand Two-Hundred Fifty and 00/100 Dollars ($131,250.00)

Total bonus consideration: Two-Hundred Sixty-Two Thousand Five Hundred and 00/100 Dollars ($262,500.00)

The total bonus consideration paid represents a bonus of Three-Thousand Five-Hundred and 00/100 Dollars ($3500.00) per acre, on 75 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below, in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

OIL & GAS 0099

OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: James R. Stone, Exec. VP

Date: 4-14-14

STATE OF TEXAS

BY: Nancy Dean Investment Corporation

Individually and as agent for the State of Texas

BY: Mary Bird Bowman

Title: Mary Bird Bowman, Treasurer

Date: 4-9-14

STATE OF Texas (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Travis

BEFORE ME, the undersigned authority, on this day personally appeared MARY BIRD BOWMAN known to me to be the person whose name is subscribed to the foregoing instruments as TREASURER of NANCY DEAN INVESTMENT CORPORATION and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 9 day of April, 2014.

_____

Notary Public in and for Wells Fargo Bank

JESSICA NICOLE SALINAS NOTARY PUBLIC STATE OF TEXAS OCTOBER 30, 2017

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 15th day of April, 2014.

_____

Notary Public in and for _____

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 9, 2014, between Nancy Dean Investment Corporation by and through Mary Bird Bowman as Treasurer , and Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 75.0 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

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Inst No. 14-03486
DIANNE O. FLOREZ
COUNTY CLERK
2014 Apr 21 at 08:27 AM
REEVES COUNTY, TEXAS
By: AC Aurora Cabanchi DEPUTY

File No. MF116554
Lease B

43

Date Filed: 1-16-14
Jerry E. Patterson, Commissioner
By

13-08256
FILED FOR RECORD
REEVES COUNTY, TEXAS
Nov 08, 2013 at 11:37:00 AM
116554 C

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 21st day of October, 2013, between the State of Texas, acting by and through its agent, Riki Lewis Long

of 3418 46th Street, Lubbock, Texas 79413
(Give Permanent Address)

said agent herein referred to as the owner of the soil (whether one or more), and Energen Resources Corporation

of 3300 North A Street, Building 4, Suite 100, Midland, Texas 79705 hereinafter called Lessee.
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

All of Section 16, Block 54, T-4, Save and Except the NE/4NE/4, T&P Ry Co Survey

containing 600.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: One hundred five thousand and 00/100----------
Dollars ($105,000.00)

To the owner of the soil: One hundred five thousand and 00/100----------
Dollars ($105,000.00)

Total bonus consideration: Two hundred ten thousand and 00/100----------
Dollars ($210,000.00)

The total bonus consideration paid represents a bonus of Two thousand eight hundred and 00/100----------
Dollars ($2800.00) per acre, on 75.00 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of Three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

41.31.1

True and Correct copy of Original filed in Reeves County Clerks Office

This is a paid up lease, see Paragraph 40.

~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate,~~ unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:

To the owner of the soil: _____

Dollars ($_____).

To the State of Texas: _____

Dollars ($_____)

Total Delay Rental: _____

Dollars ($_____)

In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be 1/4th part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be 1/4th part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be 1/4th part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be 1/4th part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

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STATE OF TEXAS REEVES COUNTY

True and Correct copy of Original filed in Reeves County Clerks Office

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

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14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

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(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

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25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease

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pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

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38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

40. Rentals for years two and three of this lease have been prepaid and are included in the bonus consideration described in Paragraph One (1) above. One-half (1/2) of this amount has been paid to the Lessor and one-half (1/2) has been paid to the State of Texas.

LESSEE

ENERGEN RESOURCES CORPORATION

BY: Stephen L. Chandler

Title: District Land Manager

Date: October 30, 2013

STATE OF TEXAS

BY: Riki Lewis Long

Individually and as agent for the State of Texas

Date: October 21, 2013

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41.31.1

STATE OF TEXAS REEVES COUNTY
True and Correct copy of Original filed in Reeves County Clerks Office

STATE OF TEXAS

(CORPORATION ACKNOWLEDGMENT)

COUNTY OF MIDLAND

BEFORE ME, the undersigned authority, on this day personally appeared Stephen L. Chandler known to me to be the person whose name is subscribed to the foregoing instruments as District Land Manager of Energen Resources Corporation and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 30th day of October, 2013.

JANET G. REINHARDT
MY COMMISSION EXPIRES
September 22, 2017

Janet G. Reinhardt
Notary Public in and for Texas

STATE OF TEXAS

(INDIVIDUAL ACKNOWLEDGMENT)

COUNTY OF LUBBOCK

BEFORE ME, the undersigned authority, on this day personally appeared Riki Lewis Long known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the 21st day of October, 2013.

KIMBERLY R. PENA
Notary Public, State of Texas
My Commission Expires
September 12, 2014

Kimberly Pena
Notary Public in and for Texas

Inst No. 13-08256
DIANNE O. FLOREZ
COUNTY CLERK
2013 Nov 08 at 11:37 AM
REEVES COUNTY, TEXAS
By: VG DEPUTY

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6

File No. MEMO 554

Lease C

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

4C

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL 1035 PAGE 376 THRU 384 OFFICIAL PUBLIC RECORD

I hereby certified on 01/03/14

DIANE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Mary Abila DEPUTY

MARY ABILA

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-03871
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 01, 2014 at 03:55:00 PM

116554D

The State of Texas

Austin, Texas

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OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 24th day of April, 2014, between the State of Texas, acting by and through its agent, Charlotte T. Slack, a widow

of 1820 Jefferson St., Pecos, Texas 79772
(Give Permanent Address)

said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

To the owner of the soil: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

Total bonus consideration: One-Hundred Twenty-One Thousand Eight-Hundred Seventy-Five and 00/100
Dollars ($121,875.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two-Hundred Fifty and 00/100
Dollars ($3250.00) per acre, on 37.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____ _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~Dollars ($_____)~~

~~To the State of Texas: _____~~

~~Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil.

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

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17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

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18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

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19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

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34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

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36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

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LESSEE

BY: _____ f/o

Title: Executive Vice President

Date: 4/29/14

LESSOR: STATE OF TEXAS

BY: Charlotte T. Slack

Individually and as agent for the State of Texas

Charlotte T. Slack

Date: 04-24-2014

FREDA THOMAS
Notary Public, State of Texas
My Commission Expires
January 31, 2015

STATE OF TEXAS (INDIVIDUAL ACKNOWLEDGMENT)

COUNTY OF Reeves

BEFORE ME, the undersigned authority, on this day personally appeared Charlotte T. Slack known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that She executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 24 day of April, 2014.

_____

Notary Public in and for the State of Texas

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 29th day of April, 2014.

Kristina Hoffman

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 24, 2014, between Charlotte T. Slack, a widow , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 37.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

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Inst No. 14-03871
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 01 at 03:55 PM
REEVES COUNTY, TEXAS
By: AC Aurora Calanche DEPUTY

STATE OF TEXAS REEVES COUNTY
True and Correct copy of Original filed in Reeves County Clerks Office

7

File No. MF116554

Lease D

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

4D

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL. 1072, PAGE 583, THRU 591.

I hereby certified on May 7 2014

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Sarah Vasquez DEPUTY

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-03870
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 01, 2014 at 03:55:00 PM

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The State of Texas

Austin, Texas

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OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 24th day of April, 2014, between the State of Texas, acting by and through its agent, Anne S. Mackey, a married woman dealing in her sole and separate property of 2325 Bainbridge Dr., Odessa, Texas 79762
(Give Permanent Address)
said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

To the owner of the soil: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

Total bonus consideration: Forty-Thousand Six-Hundred Twenty-Five and 00/100
Dollars ($40,625.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two-Hundred Fifty and 00/100 Dollars ($3250.00) per acre, on 12.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

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17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

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18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

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19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

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34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

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36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

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LESSEE

BY: _____

Title: Executive Vice President for

Date: 4/29/14

LESSOR: STATE OF TEXAS

BY: Anne S. Mackey

Individually and as agent for the State of Texas

Anne S Mackey

Date: 4-24-14

STATE OF TEXAS (INDIVIDUAL ACKNOWLEDGMENT)

COUNTY OF Ector

BEFORE ME, the undersigned authority, on this day personally appeared Anne S. Mackey known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 24 day of April, 2014.

_____

Notary Public in and for TEXAS

FREDA THOMAS
Notary Public, State of Texas
My Commission Expires
January 31, 2015

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 29th day of April, 2014.

Kristina Hoffman

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 24, 2014, between Anne S. Mackey , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 12.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

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Inst No. 14-03870
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 01 at 03:55 PM
REEVES COUNTY, TEXAS
By: AC Aurora Calanche DEPUTY

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9

File No. MF116554

Lease F

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

41

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL. 1072 PAGE 574 THRU 582.

I hereby certified on May 7, 2014

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Sarah Vasquez DEPUTY

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-03784
FILED FOR RECORD
REEVES COUNTY, TEXAS
Apr 30, 2014 at 08:54:00 AM

116554-G

The State of Texas

Austin, Texas

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OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 26th day of March, 2014, between the State of Texas, acting by and through its agent, Pursuit Energy Corporation

of P. O. Box 671098, Dallas, Texas 75367
(Give Permanent Address)

said agent herein referred to as the owner of the soil (whether one or more), and Panther Exploration, LLC

of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

600 acres of land, more or less, being Abstract No. 2864, out of Section 16, Block 54, Township 4S, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Seven-hundred eighty and 00/100
Dollars ($780.00)

To the owner of the soil: Seven-hundred eighty and 00/100
Dollars ($780.00)

Total bonus consideration: One Thousand five-hundred sixty and 00/100
Dollars ($1,560.00)

The total bonus consideration paid represents a bonus of Three-Thousand and 00/100
Dollars ($3,000.00) per acre, on .52 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the Bank, at or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below, in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil:~~
~~Dollars ($)~~
~~To the State of Texas:~~
~~Dollars ($)~~
~~Total Delay Rental~~
~~Dollars ($)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should~~

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~~cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of

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all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor

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agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury, and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery,

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fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising

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from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises, and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND/OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata; ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

STATE OF TEXAS
BY: PURSUIT ENERGY CORPORATION
Jeff Doumany, President
Individually and as agent for the State of Texas
Date: March 26, 2014

LESSEE
BY: James R. Stone
TITLE: President, Panther Exploration, LLC Exec. Vice President
Date: April 23, 2014

STATE OF TEXAS (CORPORATION ACKNOWLEDGMENT)

COUNTY OF DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared JEFF DOUMANY known to me to be the person whose name is subscribed to the foregoing instruments as President of Pursuit Energy Corporation and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 26 day of March 2014.

BRIGITTE STEINIG
Notary Public, State of Texas
My Commission Expires
April 12, 2014

Brigitte Steinig
Notary Public in and for Texas

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James Stone known to me to be the person whose name is subscribed to the foregoing instruments as Exec. Vice President of Panther Exploration, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 23rd day of April 2014.

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

Kristina Hoffman
Notary Public in and for Oklahoma

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EXHIBIT "A"

Attached hereto and made a part of that certain Oil and Gas Lease dated March 26, 2014, from the State of Texas, by and through its Agent, Pursuit Energy Corporation, and Panther Exploration, LLC

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 52 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

SIGNED FOR IDENTIFICATION

Pursuit Energy Corporation

By: _____
Jeff Doumany, President of Pursuit Energy Corporation
Individually and as Agent for the State of Texas

STATE OF TEXAS

(CORPORATION ACKNOWLEDGMENT)

COUNTY OF DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared JEFF DOUMANY known to me to be the person whose name is subscribed to the foregoing instruments as President of Pursuit Energy Corporation and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 3 day of April, 2014.

Notary Public in and for Texas

BRIGITTE STEINIG
Notary Public, State of Texas
My Commission Expires
April 12, 2014

VOL 1071 PG 0793

Inst No. 14-03784
DIANNE O. FLOREZ
COUNTY CLERK
2014 Apr 30 at 08:54 AM
REEVES COUNTY, TEXAS
By: AC Aurora Calanchi, DEPUTY

STATE OF TEXAS REEVES COUNTY

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10

File No. MF116554

Lease G

46

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL. 1011 PAGE 181 THRU 193

I hereby certified on May 1, 2014

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Sarah Vasquez DEPUTY

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-04266
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 13, 2014 at 08:56:00 AM

116554 H

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 5th day of May, 2014, between the State of Texas, acting by and through its agent, Cynthia Lynne Mace, Trustee of the Oma Barton Wakefield Trust u/w/o William Barton Wakefield of 118 CR 668, Eastland, Texas 76448 (Give Permanent Address), said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee. (Give Permanent Address).

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

To the owner of the soil: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

Total bonus consideration: One-Hundred Twenty One Thousand Eight-Hundred Seventy-Five and 00/100
Dollars ($121,875.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two Hundred Fifty and 00/100
Dollars ($3,250.00) per acre, on 37.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the~~

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1416-B Campbell Road, Suite 201
Houston, Texas 77055

~~_____ Bank, at _____,~~
~~or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~
~~_____ Dollars ($_____)~~
~~To the State of Texas: _____~~
~~_____ Dollars ($_____)~~
~~Total Delay Rental: _____~~
~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the

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Houston, Texas 77055

Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed

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production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

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(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page **1** hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

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25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General

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Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly

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known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

ADDENDUM PROVISIONS - #40 THRU 57

40. If, at the expiration of the primary term, this lease is being maintained in force under any provision of the lease, or within 180 days prior to the expiration of the primary term Lessee has completed a well as a dry hole or commenced a well on the leased premises or lands pooled therewith, or Lessee is then engaged in operations on the leased premises or lands pooled therewith, Lessee agrees to begin a continuous drilling program within 180 days after completion of such well or the cessation of such operations; and thereafter to carry on the continuous drilling program on the leased premises or lands pooled therewith until all proration units have been drilled, allowing not more than 180 days to elapse between the completion of one well and the commencement of the succeeding well. Should Lessee fail to begin the continuous drilling program or subsequently default in the performance thereof, then in either event, this lease shall terminate as to all lands covered hereby, save and except for the proration unit surrounding each well then producing, capable of producing or upon which operations are being conducted, limited, respectively, to those depths from the surface down to the stratigraphic equivalent of the depth 100 feet below the base of the deepest penetrated formation. As used in this paragraph: i) the term "commission" means the Railroad Commission of the State of Texas or any successor agency, ii) the term "proration unit" means any acreage designated as a drilling unit or production unit in accordance with the rules of the commission (or any other governmental authority having jurisdiction) or any unit formed by pooling as provided in this lease or otherwise, iii) the terms "commenced" and "commencement" mean the date when a well is spudded, and iv) the terms "completed" and "completion" mean the date the initial potential test report is filed with the commission, if a productive well, or the date the plugging report is filed with the commission, if a dry hole, in either event no later than 60 days after the drilling rig has been released. Notwithstanding the partial termination of this lease, Lessee shall continue to have the rights of ingress and egress across all of the leased premises to and from lands that remain subject to this lease, or lands pooled therewith, for the purposes described in paragraph 1 hereof, together with easements and rights of way for roads, pipelines, flowlines and other facilities on or across all of the leased premises for the exploration, development, production, gathering or transportation of oil, gas and other products from the lands still subject to this lease or lands pooled therewith. The sole liability or penalty for the failure of Lessee to drill any well or wells required or permitted by this lease shall be the termination or partial termination of Lessee's rights under the lease as provided above. With respect to Lessor's ownership of the surface estate and Lessee's operations thereon, it is agreed by and between Lessor and Lessee as follows:

41. Lessee shall only use so much of the surface as may be reasonably necessary. Furthermore, prior to any use of the surface, Lessee shall consult with Lessor concerning each proposed drillsite location and the proposed route of access thereto.

42. For its operations hereunder, Lessee shall have free use of water from said lands, except water from Lessor's water wells, tanks, creeks, rivers, streams and springs; provided, however, no surface water or underground fresh water shall be used for water flood, secondary recovery or pressure maintenance purposes. In the event Lessee drills any water well on the leased premises in connection with its operations hereunder, it shall notify Lessor prior to the pulling of casing therein, and Lessor shall then have thirty (30) days to elect to assume operation of said water well. If Lessor elects to assume such operation, Lessee shall leave all casing in said water well and same shall become the property of Lessor. Furthermore, Lessor will assume all responsibility for such water well or wells including the plugging of same at no cost to Lessee, and will hold Lessee harmless from any claims, damages or any other causes of action against Lessee from the date of transfer. In the event Lessor does not elect to assume such operation, Lessee shall remove all casing and plug the water well in question.

43. If Lessee disposes of saltwater produced from any well or wells drilled on the leased premises by re-injection, such saltwater shall be injected into a sand below the fresh-water level. Further, Lessee shall never permit saltwater to flow on or over the leased premises or pollute any waters thereon. At all times, Lessee shall use all reasonable means to prevent the pollution of subsurface water and the flow of saltwater upon the surface.

44. When required by Lessor, Lessee shall bury all pipelines below ordinary plow depth. Without Lessor's consent, Lessee shall not drill any well within 400 feet of any residence or barn now on the leased premises.

45. Lessee agrees that it will maintain all entrances, cattle guards and roadways used in its operations in a good state of repair and will promptly cause to be repaired and restored any damage thereto occasioned by or resulting from Lessee's operations. Lessee agrees that it shall not construct any new roads without the advance consent of Lessor as to the location and direction of such roads, and shall limit construction of new road to the minimum necessary to Lessee's operations. All roads permitted to be constructed by Lessee on the leased premises shall be constructed as all-weather roads comprised of crushed caliche or other similar material acceptable to Lessor, and shall be crowned and include such diversion terraces as may be reasonably necessary to effect drainage of the road and prevent soil erosion. During the term of this lease, Lessee shall maintain all roads constructed by it in a safe condition and as good quality oil field roads passable by ordinary vehicles. As to those existing roads that may be designated for Lessee's use, Lessee shall be obligated to maintain such roads in a similar and passable condition during the term of this lease, but shall not be required to improve any such road over its condition at the time of Lessee's initial use. Lessee agrees to pay to Lessor compensation for damages resulting from construction of new roads in an amount of $20.00 per rod. Such amount shall be payable in advance of construction for the estimated length of the road, with the balance due for any additional length, if any, payable not later than sixty (60) days after completion of the road.

46. Lessee must obtain permission from Lessor prior to cutting any fence. If Lessee desires to cut a boundary fence, Lessee must also obtain permission from the adjoining landowner. Should it be necessary to cut any fence and Lessee obtains permission from Lessor (and as to a boundary fence, from the adjoining landowner), then Lessee shall be permitted to cut such fence, provided that prior to cutting there shall be installed six (6) 10-foot posts with not less than 8-inch tops, each buried five (5) feet into the ground with three (3) posts on each side of the proposed cut. The posts are to be properly braced with horizontal braces and wired so that when the fence is cut there will be no slackening of the wires. After a fence is cut, a metal gate shall immediately be placed in the fence which, if requested by Lessor, shall be locked with a key to be furnished to Lessor.

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47. Prior to laying any pipelines or erecting any storage tanks, pipelines, compressors or other usual lease facilities, Lessee shall advise Lessor of its intentions. Lessor and Lessee shall then mutually select the site or sites for locating such facilities, taking into consideration Lessor's surface operations and Lessee's need to conduct its operations in a reasonable manner. Lessee is prohibited from constructing an oil or gas refinery or a gas plant without first obtaining written permission from Lessor. Separators, dehydrators and compressors shall not be considered as gas plants under this provision.

48. In regard to the construction of a drillsite location, Lessee agrees to separately remove the top soil and stack same to one side of the location. Each pit that is dug and that may possibly contain oil-based muds or petroleum waste materials shall be lined with a non-permeable liner prior to use. Each drillsite location, including pits, tanks, separators, treaters and any and all other pertinent well and lease equipment on the surface thereof, shall be kept enclosed with a fence capable of turning livestock.

49. As to all acreage utilized by Lessee for a drillsite location, Lessee shall pay Lessor the one-time sum $20,000.00 per drillsite location up to Five (5) acres, plus an additional payment of $4,000.00 per acre for each additional acre utilized in the construction of such drillsite location. In computing the acreage for drillsite locations and production locations, there shall be included with the actual well itself the area utilized for tank batteries, pits, separators, dehydrators, treaters, compressors and other equipment.

50. Lessee agrees to pay to Lessor an amount of $20.00 per rod as compensation for damages from construction of utility lines as well as pipelines, flow lines up to 8 inches in diameter, payable not later than sixty (60) days after completion of construction of such utility lines or pipelines.

51. Lessee shall pay for all damages caused to existing water wells, irrigation wells and other improvements on the leased premises and for all damages caused to growing crops and livestock, whether such crops or livestock belong to Lessor or to Lessor's tenant.

52. Lessee shall have the right within 180 days after the expiration of this lease to remove all property and fixtures placed by Lessee on said lands, including the right to draw and remove all casing (subject to the specific provision hereinabove contained regarding the pulling of casing from water wells).

53. Lessee shall, promptly after termination of use and in accordance with applicable governmental regulations, fill all pits and excavations, level all mounds, neutralize all acids and leave the ground in as near the same condition as before the commencement of Lessee's operations. Upon abandonment of any well hereunder, Lessee shall properly plug and abandon such well in accordance with the rules and regulations of governmental authorities having jurisdiction.

54. Within one hundred eighty (180) days after completion of any well drilled on said lands, Lessee shall remove all caliche from the drillsite except a minimum amount around the wellbore for maintaining and operating such well. Lessee shall then uniformly return the top soil (previously removed and stacked) to the drillsite location, clean up the drillsite and remove any and all oil or gas waste materials, oil spills, junk materials, pieces of iron, pipes, steel and other debris and foreign materials. Further, Lessee shall level all mounds, fill all pits and other excavations, remove all deleterious materials and substances that might cause injury to person or livestock, and generally restore such location to its original condition, except for the minimum amount of surface needed to service the well. Lessee is prohibited from land farming any reserve pit materials, including drilling mud residue and debris, without Lessor's consent. At least twice each year, Lessee shall remove all grasses or other noxious growth around the wellsite.

55. Lessee shall use every effort to prevent fires on said lands and shall use every effort to prevent papers, boxes, sacks, containers and waste materials of any kind from coming on said lands and littering the premises. Under no circumstances shall Lessee be allowed to bury any trash, debris or foreign materials of any nature on said lands. Further, Lessee shall adequately clean all machinery and tools brought on said lands so that no noxious weeds or flora are introduced to the premises by Lessee's operations.

56. Neither Lessee nor Lessee's agents, employees, contractors, subcontractors or invitees shall have any right to fish or hunt upon the leased premises, and no firearms of any kind shall be brought by them on the leased premises. Lessee shall use diligence to prevent anyone entering the leased premises from disturbing livestock or hunting, shooting or killing wild game. For each separate violation of this provision by any person connected to Lessee's operations, Lessee shall pay Lessor liquidated damages in the amount of Five Hundred Dollars ($500.00), such sum being acknowledged to be reasonable under the circumstances. It is not intended that this provision require Lessee to be responsible for all parties claiming to have entered the premises in connection with Lessee's operations; however, Lessee shall nevertheless be responsible for liquidated damages applicable to each violation by a party gaining access to the premises through Lessee or Lessee's agents, employees, contractors, subcontractors or invitees.

57. Notwithstanding anything herein to the contrary, all surface use and damage payments made under the terms of this lease shall be equally divided between the owner of the soil and the Commissioner of the General Land Office of the State of Texas, except those payments made pursuant to paragraph (51) hereinabove. Additionally, all payments made hereunder shall be proportionately reduced.

IN WITNESS WHEREOF, this instrument is executed on the date first above written.

LESSEE: Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

BY: _____ BB

Title: Exec Vice President

Date: 5/9/14

True and Correct copy of Original filed in Reeves County Clerks Office

R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055

LESSOR: Cynthia Lynne Mace, Trustee of the Oma Barton Wakefield Trust u/w/o William Barton Wakefield

BY: Cynthia Mace

Name: Cynthia Lynne Mace

Title: Trustee

Date: 5-5-2014

STATE OF Texas

COUNTY OF Parker

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared Cynthia Lynne Mace known to me to be the person whose name is subscribed to the foregoing instruments as Trustee of the Oma Barton Wakefield Trust u/w/o William Barton Wakefield and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 5th day of May, 2014.

Notary Public in and for

HENSLEE PURSELLEY
Notary Public, State of Texas
My Commission Expires
April 08, 2016

STATE OF Oklahoma

COUNTY OF Tulsa

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 9th day of May, 2014.

Kristina Hoffman

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

True and Correct copy of Original filed in Reeves County Clerks Office

R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055

EXHIBIT "A"

Attached hereto and made a part of that certain Oil and Gas Lease dated May 5, 2014, from the State of Texas, by and through its Agent, Cynthia Lynne Mace, Trustee of the Oma Barton Wakefield Trust u/w/o William Barton Wakefield, and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC.

58. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.00 Gross Surface Acres and 37.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

59. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

60. If, at the end of the primary term, Lessee is engaged in the actual drilling of an oil and gas well, or has reached total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities on an oil or gas well within the previous ninety (90) days, this lease shall continue so long as drilling is continued with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one well and the date the next well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities (" Continuous Development Program"). At the end of the Continuous Development Program, or the primary term if there is no Continuous Development Program, this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest penetrated formation in each production unit retained under part (a) of this paragraph. In the event, at any time following the Continuous Development Program, the minimum size unit necessary for a well is reduced, in order to retain the acreage in excess of the new minimum amount, Lessee may begin another drilling program (" Subsequent Drilling Program") by beginning new drilling operations within one hundred eighty (180) days with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one new well and the date the next new well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities. At the end of each subsequent Drilling Program this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest producing formation in each production unit retained under part (a) of this paragraph.

Inst No. 14-04266
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 13 at 08:56 AM
REEVES COUNTY, TEXAS
By: VG DEPUTY

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R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055

11

File No. MF116554
Lease #1

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

44

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease dated May 5, 2010, filed for record in my office this 14th day of May 2014, at 8:46 A.M., under Clerk's File No. 140521, to be recorded in the Official Public Records Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 13th day of May, 20 14.

By Minna Garcia Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-04932
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 30, 2014 at 08:48:00 AM

116554 I

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 24th day of April, 2014, between the State of Texas, acting by and through its agent, Richard C. Slack, II, a married man dealing in his sole and separate property of 6 Stegner Lane, Austin, Texas 79762
(Give Permanent Address)
said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

To the owner of the soil: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

Total bonus consideration: Forty-Thousand Six-Hundred Twenty-Five and 00/100
Dollars ($40,625.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two-Hundred Fifty and 00/100
Dollars ($3250.00) per acre, on 12.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~
~~_____ Dollars ($_____)~~
~~To the State of Texas: _____~~
~~_____ Dollars ($_____)~~
~~Total Delay Rental: _____~~
~~_____ Dollars ($_____)~~

STATE OF TEXAS REEVES COUNTY
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~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Executive Vice President

Date: 5-28-2014

STATE OF TEXAS

BY: Richard C. Slack, II

Individually and as agent for the State of Texas

X BY: _____

Title: _____

Date: 16 May 2014

STATE OF Texas (INDIVIDUAL ACKNOWLEDGMENT)

COUNTY OF Travis

X BEFORE ME, the undersigned authority, on this day personally appeared Richard C. Slack, II known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the pur

Given under my hand and seal of office this the 16th day of May 2014

_____

Notary Public in and for Travis County

TERRI GILES
Notary Public, State of Texas
My Commission Expires
February 21, 2018

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 28th day of May, 2014.

_____

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 24, 2014, between Richard C. Slack, II , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 12.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

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copy of
Original filed in
Reeves County
Clerks Office

Inst No. 14-04932
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 30 at 08:48 AM
REEVES COUNTY, TEXAS
By: AC Aurora Calanch DEPUTY

12

File No. MF1146554

Lease T

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

41

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil and Gas Lease dated April 24, 2014 filed for record in my office this 30th day of May 2014 at 8:48A M, under Clerk's File No. 14-04932, to be recorded in the Official Public Record Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 30th day of May, 2014.

By Aurora Calanchi Deputy.

Aurora Calanchi

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-04559
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 19, 2014 at 02:52:00 PM

116554 J

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 24th day of April, 2014, between the State of Texas, acting by and through its agent, Cynthia S. Shaw, a married woman dealing in her sole and separate property of 4105 Honeycomb Rock Cr., Austin, Texas 78731
(Give Permanent Address)
said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

To the owner of the soil: Twenty-Thousand Three-Hundred Twelve and 50/100
Dollars ($20,312.50)

Total bonus consideration: Forty-Thousand Six-Hundred Twenty-Five and 00/100
Dollars ($40,625.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two-Hundred Fifty and 00/100 Dollars ($3250.00) per acre, on 12.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____; or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:

To the owner of the soil: _____

_____ Dollars ($_____)

To the State of Texas: _____

_____ Dollars ($_____)

Total Delay Rental: _____

_____ Dollars ($_____)

In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. **ROYALTY IN KIND.** Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. **NO DEDUCTIONS.** Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. **PLANT FUEL AND RECYCLED GAS.** No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. **ROYALTY PAYMENTS AND REPORTS.** All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. **(A) RESERVES, CONTRACTS AND OTHER RECORDS.** Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. **DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM.** If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. **WELL LOCATION LIMIT.** No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. **POLLUTION.** In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. **REMOVAL OF EQUIPMENT.** Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. **(A) ASSIGNMENTS.** Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. **RELEASES.** Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. **FILING OF ASSIGNMENTS AND RELEASES.** If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. **DISCLOSURE CLAUSE.** All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. **FIDUCIARY DUTY.** The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. **FORFEITURE.** If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Executive Vice President

Date: 5-15-14

STATE OF TEXAS

BY: Cynthia S. Shaw

Individually and as agent for the State of Texas

BY: _____

Title: _____

Date: 4-28-14

STATE OF Texas (INDIVIDUAL ACKNOWLEDGMENT)

COUNTY OF Travis

BEFORE ME, the undersigned authority, on this day personally appeared Cynthia S. Shaw known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that She executed the same for the purpo

Given under my hand and seal of office this the 28 day of April, 2014.

_____

Notary Public in and for State of Texas

CHRISTOPHER WILLIAMS
Notary Public
STATE OF TEXAS
My Comm. Exp. 11-03-2014

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 15th day of May, 2014.

_____

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 24, 2014, between Cynthia S. Shaw , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 12.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".



Inst No. 14-04559
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 19 at 02:52 PM
REEVES COUNTY, TEXAS
By: AC Rivera Calanche DEPUTY

13

File No. MF116554
Lease J

45

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil and gas Lease dated April 24, 2014; filed for record in my office this 19th day of May 2014 at 2:52 p M, under Clerk's File No. 14-04559, to be recorded in the Official Public Records Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 19th day of May, 2014.

By Aurora Calanchi, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-04262
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 13, 2014 at 08:56:00 AM
116554 K

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 11th day of April, 2014, between the State of Texas, acting by and through its agent, Andrews Royalty LP

of P. O. Box 7808, Dallas, Texas 75209
(Give Permanent Address)

said agent herein referred to as the owner of the soil (whether one or more), and Panther Exploration Company, LLC

of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

600 acres of land, more or less, being Abstract No. 2864, out of Section 16, Block 54, Township 4S, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Two-Thousand Thirty-One and 25/100
Dollars ($2,031.25)

To the owner of the soil: Two-Thousand Thirty-One and 25/100
Dollars ($2,031.25)

Total bonus consideration: Four-Thousand Sixty-Two and 50/100
Dollars ($4,062.50)

The total bonus consideration paid represents a bonus of Three-Thousand and 00/100
Dollars ($3,000.00) per acre, on 1.35416664 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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Houston, Texas 77055

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~Dollars ($_____)~~

~~To the State of Texas: _____~~

~~Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Exec. Vice President

Date: 5/9/14

STATE OF TEXAS

BY: Andrews Royalty LP

Individually and as agent for the State of Texas

BY: Loyd W. Powell Jr.

Title: Loyd W. Powell, Jr., President of Fullerton Minerals LLC, General Partner of Andrews Royalty LP

Date: 4/21/2014

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 9th day of May, 2014.

Kristina Hoffman

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

STATE OF TEXAS (CORPORATION ACKNOWLEDGMENT)

COUNTY OF DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared Loyd W. Powell, Jr known to me to be the person whose name is subscribed to the foregoing instruments as Agent for the State of Texas and President of Fullerton Minerals LLC, General Partner of Andrews Royalty LP and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 21st day of April, 2014.

Kathryn J Conaway

Notary Public in and for Texas

KATHRYN J. CONAWAY
Notary Public, State of Texas
My Commission Expires
April 17, 2017

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Houston, Texas 77055

Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated April 11, 2014, between Andrews Royalty LP , and Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 1.35416664 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

Inst No. 14-04262
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 13 at 05:56 AM
REEVES COUNTY, TEXAS
By: VG DEPUTY

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copy of
Original filed in
Reeves County
Clerks Office

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1416-B Campbell Road, Suite 201
Houston, Texas 77055

14

File No. MF116554

Lease K

42

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease - 131 dated April 1, 2014, filed for record in my office this 13th day of May 2014 at 8:04 M, under Clerk's File No. 116554, to be recorded in the Official Public Records Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 13th day of May, 20 14.

By Vanessa Soria, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-04263
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 13, 2014 at 08:56:00 AM

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 26th day of March, 2014, between the State of Texas, acting by and through its agent, Stephen J. Flanagan, Trustee of the Loyd W. Powell, Jr. Children's Trust of P. O. Box 9257, Dallas, Texas 75209 (Give Permanent Address) said agent herein referred to as the owner of the soil (whether one or more), and Panther Exploration, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee. (Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

600 acres of land, more or less, being Abstract No. 2864, out of Section 16, Block 54, Township 4S, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Three-hundred and 00/100
Dollars ($300.00)

To the owner of the soil: Three-hundred and 00/100
Dollars ($300.00)

Total bonus consideration: Six-hundred and 00/100
Dollars ($600.00)

The total bonus consideration paid represents a bonus of Three-Thousand and 00/100 Dollars ($3,000.00) per acre, on 2 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the Bank, at, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil:~~
~~Dollars ($)~~
~~To the State of Texas:~~
~~Dollars ($)~~
~~Total Delay Rental:~~
~~Dollars ($)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should~~

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Clerks Office

~~cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of

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all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor

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agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery,

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fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising

STATE OF TEXAS REEVES COUNTY
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R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201

from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

STATE OF TEXAS
BY: Stephen J Flanagan
Individually and as agent for the State of Texas
Date: 4/1/14

LESSEE
BY:
TITLE: Exec Vice President
Date: 5/9/14

STATE OF TEXAS
COUNTY OF DALLAS

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared Stephen J. Flanagan known to me to be the person whose name is subscribed to the foregoing instruments as Agent for the State of Texas And of As Trustee For the Loyd W. Powell Jr Children's Trust and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 1st day of April, 2014.

KATHRYN J. CONAWAY
Notary Public, State of Texas
My Commission Expires
April 17, 2017

Kathryn J Conaway
Notary Public in and for

STATE OF Oklahoma
COUNTY OF Tulsa

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Exploration Company, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 9th day of May, 2014.

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

Kristina Hoffman
Notary Public in and for Oklahoma

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R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055

EXHIBIT "A"

Attached hereto and made a part of that certain Oil and Gas Lease dated March 26, 2014, from the State of Texas, by and through its Agent, Stephen J. Flanagan, Trustee of the Loyd W. Powell, Jr. Children's Trust, and Panther Exploration, LLC

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and .2 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

SIGNED FOR IDENTIFICATION

Loyd W. Powell, Jr. Children's Trust

By: Stephen J. Flanagan
Stephen J. Flanagan, Trustee of the Loyd W. Powell Children's Trust
Individually and as Agent for the State of Texas

STATE OF TEXAS

COUNTY OF DALLAS

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared Stephen J. FLANAGAN known to me to be the person whose name is subscribed to the foregoing instruments as Trustee for the Loyd W. Powell, Jr. Children's Trust & Agent for the State of TEXAS and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, ~~and as the act and deed of said corporation~~.

Given under my hand and seal of office this the 1st day of April, 2014.

Kathryn J Conaway

Notary Public in and for _____

KATHRYN J. CONAWAY
Notary Public, State of Texas
My Commission Expires
April 17, 2017

Inst No. 14-04263
DIANNE O. FLOREZ
COUNTY CLERK
2014 May 13 at 08:56 AM
REEVES COUNTY, TEXAS
By: VG DEPUTY

R.D. Davis & Associates, LLC
1416-B Campbell Road, Suite 201
Houston, Texas 77055

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File No. MF116554

Lease [redacted] L

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By [redacted]

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of [redacted] dated [redacted] day of [redacted], 20[redacted] et filed for record in my office this [redacted] day of [redacted], 20[redacted], at [redacted] o'clock [redacted] M, under Clerk's File No. [redacted], to be recorded in the Records of Reeves County, Texas.

WITNESS MY HAND AND SEAL OF OFFICE TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this [redacted] day of [redacted], 20[redacted].

By [redacted], Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-05343
FILED FOR RECORD
REEVES COUNTY, TEXAS
Jun 12, 2014 at 02:23:00 PM

116554 M1

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 1st day of May, 2014, between the State of Texas, acting by and through its agent, Wells Fargo Bank, N. A., Successor Trustee of the Patti Jo Wood Trust u/w/o Josie Fay Peck of P. O. Box 1959, Midland, Texas 79702 (Give Permanent Address), said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee. (Give Permanent Address).

1. **GRANTING CLAUSE.** For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: One-Hundred Twenty One Thousand Eight-Hundred Seventy-Five and 00/100 Dollars ($121,875.00)

To the owner of the soil: One-Hundred Twenty One Thousand Eight-Hundred Seventy-Five and 00/100 Dollars ($121,875.00)

Total bonus consideration: Two-Hundred Forty Three Thousand Seven Hundred Fifty and 00/100 Dollars ($243,750.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two Hundred Fifty and 00/100 Dollars ($3,250.00) per acre, on 75 net acres.

2. **TERM.** Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

3. **DELAY RENTALS.** ~~If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the Bank, at~~

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~~or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the

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payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking

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operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall

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further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without

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limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the

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assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these

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statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

ADDENDUM PROVISIONS - #40 THRU 57

40. If, at the expiration of the primary term, this lease is being maintained in force under any provision of the lease, or within 180 days prior to the expiration of the primary term Lessee has completed a well as a dry hole or commenced a well on the leased premises or lands pooled therewith, or Lessee is then engaged in operations on the leased premises or lands pooled therewith, Lessee agrees to begin a continuous drilling program within 180 days after completion of such well or the cessation of such operations; and thereafter to carry on the continuous drilling program on the leased premises or lands pooled therewith until all proration units have been drilled, allowing not more than 180 days to elapse between the completion of one well and the commencement of the succeeding well. Should Lessee fail to begin the continuous drilling program or subsequently default in the performance thereof, then in either event, this lease shall terminate as to all lands covered hereby, save and except for the proration unit surrounding each well then producing, capable of producing or upon which operations are being conducted, limited, respectively, to those depths from the surface down to the stratigraphic equivalent of the depth 100 feet below the base of the deepest penetrated formation. As used in this paragraph: i) the term "commission" means the Railroad Commission of the State of Texas or any successor agency, ii) the term "proration unit" means any acreage designated as a drilling unit or production unit in accordance with the rules of the commission (or any other governmental authority having jurisdiction) or any unit formed by pooling as provided in this lease or otherwise, iii) the terms "commenced" and "commencement" mean the date when a well is spudded, and iv) the terms "completed" and "completion" mean the date the initial potential test report is filed with the commission, if a productive well, or the date the plugging report is filed with the commission, if a dry hole, in either event no later than 60 days after the drilling rig has been released. Notwithstanding the partial termination of this lease, Lessee shall continue to have the rights of ingress and egress across all of the leased premises to and from lands that remain subject to this lease, or lands pooled therewith, for the purposes described in paragraph 1 hereof, together with easements and rights of way for roads, pipelines, flowlines and other facilities on or across all of the leased premises for the exploration, development, production, gathering or transportation of oil, gas and other products from the lands still subject to this lease or lands pooled therewith. The sole liability or penalty for the failure of Lessee to drill any well or wells required or permitted by this lease shall be the termination or partial termination of Lessee's rights under the lease as provided above. With respect to Lessor's ownership of the surface estate and Lessee's operations thereon, it is agreed by and between Lessor and Lessee as follows:

41. Lessee shall only use so much of the surface as may be reasonably necessary. Furthermore, prior to any use of the surface, Lessee shall consult with Lessor concerning each proposed drillsite location and the proposed route of access thereto.

42. For its operations hereunder, Lessee shall have free use of water from said lands, except water from Lessor's water wells, tanks, creeks, rivers, streams and springs; provided, however, no surface water or underground fresh water shall be used for water flood, secondary recovery or pressure maintenance purposes. In the event Lessee drills any water well on the leased premises in connection with its operations hereunder, it shall notify Lessor prior to the pulling of casing therein, and Lessor shall then have thirty (30) days to elect to assume operation of said water well. If Lessor elects to assume such operation, Lessee shall leave all casing in said water well and same shall become the property of Lessor. Furthermore, Lessor will assume all responsibility for such water well or wells including the plugging of same at no cost to Lessee, and will hold Lessee harmless from any claims, damages or any other causes of action against Lessee from the date of transfer. In the event Lessor does not elect to assume such operation, Lessee shall remove all casing and plug the water well in question.

43. If Lessee disposes of saltwater produced from any well or wells drilled on the leased premises by re-injection, such saltwater shall be injected into a sand below the fresh-water level. Further, Lessee shall never permit saltwater to flow on or over the leased premises or pollute any waters thereon. At all times, Lessee shall use all reasonable means to prevent the pollution of subsurface water and the flow of saltwater upon the surface.

44. When required by Lessor, Lessee shall bury all pipelines below ordinary plow depth. Without Lessor's consent, Lessee shall not drill any well within 400 feet of any residence or barn now on the leased premises.

45. Lessee agrees that it will maintain all entrances, cattle guards and roadways used in its operations in a good state of repair and will promptly cause to be repaired and restored any damage thereto occasioned by or resulting from Lessee's operations. Lessee agrees that it shall not construct any new roads without the advance consent of Lessor as to the location and direction of such roads, and shall limit construction of new road to the minimum necessary to Lessee's operations. All roads permitted to be constructed by Lessee on the leased premises shall be constructed as all-weather roads comprised of crushed caliche or other similar material acceptable to Lessor, and shall be crowned and include such diversion terraces as may be reasonably necessary to effect drainage of the road and prevent soil erosion. During the term of this lease, Lessee shall maintain all roads constructed by it in a safe condition and as good quality oil field roads passable by ordinary vehicles. As to those existing roads that may be designated for Lessee's use, Lessee shall be obligated to maintain such roads in a similar and passable condition during the term of this lease, but shall not be required to improve any such road over its condition at the time of Lessee's initial use. Lessee agrees to pay to Lessor compensation for damages resulting from construction of new roads in an amount of $20.00 per rod. Such amount shall be payable in advance of construction for the estimated length of the road, with the balance due for any additional length, if any, payable not later than sixty (60) days after completion of the road.

46. Lessee must obtain permission from Lessor prior to cutting any fence. If Lessee desires to cut a boundary fence, Lessee must also obtain permission from the adjoining landowner. Should it be necessary to cut any fence and Lessee obtains permission from Lessor (and as to a boundary fence, from the adjoining landowner), then Lessee shall be permitted to cut such fence, provided that prior to cutting there shall be installed six (6) 10-foot posts with not less than 8-inch tops, each buried five (5) feet into the ground with three (3) posts on each side of the proposed cut. The posts are to be properly braced with horizontal braces and wired so that when the fence is cut there will be no slackening of the wires. After a fence is cut, a metal gate shall immediately be placed in the fence which, if requested by Lessor, shall be locked with a key to be furnished to Lessor.

STATE OF TEXAS REEVES COUNTY
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47. Prior to laying any pipelines or erecting any storage tanks, pipelines, compressors or other usual lease facilities, Lessee shall advise Lessor of its intentions. Lessor and Lessee shall then mutually select the site or sites for locating such facilities, taking into consideration Lessor's surface operations and Lessee's need to conduct its operations in a reasonable manner. Lessee is prohibited from constructing an oil or gas refinery or a gas plant without first obtaining written permission from Lessor. Separators, dehydrators and compressors shall not be considered as gas plants under this provision.

48. In regard to the construction of a drillsite location, Lessee agrees to separately remove the top soil and stack same to one side of the location. Each pit that is dug and that may possibly contain oil-based muds or petroleum waste materials shall be lined with a non-permeable liner prior to use. Each drillsite location, including pits, tanks, separators, treaters and any and all other pertinent well and lease equipment on the surface thereof, shall be kept enclosed with a fence capable of turning livestock.

49. As to all acreage utilized by Lessee for a drillsite location, Lessee shall pay Lessor the one-time sum of $20,000.00 per drillsite location up to Five (5) acres, plus an additional payment of $4,000.00 per acre for each additional acre utilized in the construction of such drillsite location. In computing the acreage for drillsite locations and production locations, there shall be included with the actual well itself the area utilized for tank batteries, pits, separators, dehydrators, treaters, compressors and other equipment.

50. Lessee agrees to pay to Lessor an amount of $20.00 per rod as compensation for damages from construction of utility lines as well as pipelines, flow lines up to 8 inches in diameter, payable not later than sixty (60) days after completion of construction of such utility lines or pipelines.

51. Lessee shall pay for all damages caused to existing water wells, irrigation wells and other improvements on the leased premises and for all damages caused to growing crops and livestock, whether such crops or livestock belong to Lessor or to Lessor's tenant.

52. Lessee shall have the right within 180 days after the expiration of this lease to remove all property and fixtures placed by Lessee on said lands, including the right to draw and remove all casing (subject to the specific provision hereinabove contained regarding the pulling of casing from water wells).

53. Lessee shall, promptly after termination of use and in accordance with applicable governmental regulations, fill all pits and excavations, level all mounds, neutralize all acids and leave the ground in as near the same condition as before the commencement of Lessee's operations. Upon abandonment of any well hereunder, Lessee shall properly plug and abandon such well in accordance with the rules and regulations of governmental authorities having jurisdiction.

54. Within one hundred eighty (180) days after completion of any well drilled on said lands, Lessee shall remove all caliche from the drillsite except a minimum amount around the wellbore for maintaining and operating such well. Lessee shall then uniformly return the top soil (previously removed and stacked) to the drillsite location, clean up the drillsite and remove any and all oil or gas waste materials, oil spills, junk materials, pieces of iron, pipes, steel and other debris and foreign materials. Further, Lessee shall level all mounds, fill all pits and other excavations, remove all deleterious materials and substances that might cause injury to person or livestock, and generally restore such location to its original condition, except for the minimum amount of surface needed to service the well. Lessee is prohibited from land farming any reserve pit materials, including drilling mud residue and debris, without Lessor's consent. At least twice each year, Lessee shall remove all grasses or other noxious growth around the wellsite.

55. Lessee shall use every effort to prevent fires on said lands and shall use every effort to prevent papers, boxes, sacks, containers and waste materials of any kind from coming on said lands and littering the premises. Under no circumstances shall Lessee be allowed to bury any trash, debris or foreign materials of any nature on said lands. Further, Lessee shall adequately clean all machinery and tools brought on said lands so that no noxious weeds or flora are introduced to the premises by Lessee's operations.

56. Neither Lessee nor Lessee's agents, employees, contractors, subcontractors or invitees shall have any right to fish or hunt upon the leased premises, and no firearms of any kind shall be brought by them on the leased premises. Lessee shall use diligence to prevent anyone entering the leased premises from disturbing livestock or hunting, shooting or killing wild game. For each separate violation of this provision by any person connected to Lessee's operations, Lessee shall pay Lessor liquidated damages in the amount of Five Hundred Dollars ($500.00), such sum being acknowledged to be reasonable under the circumstances. It is not intended that this provision require Lessee to be responsible for all parties claiming to have entered the premises in connection with Lessee's operations; however, Lessee shall nevertheless be responsible for liquidated damages applicable to each violation by a party gaining access to the premises through Lessee or Lessee's agents, employees, contractors, subcontractors or invitees.

57. Notwithstanding anything herein to the contrary, all surface use and damage payments made under the terms of this lease shall be equally divided between the owner of the soil and the Commissioner of the General Land Office of the State of Texas, except those payments made pursuant to paragraph (51) hereinabove. Additionally, all payments made hereunder shall be proportionately reduced.

IN WITNESS WHEREOF, this instrument is executed on the date first above written.

LESSEE: Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

BY: _____

Title: Executive Vice President

Date: 12/10/14

LESSOR: Wells Fargo Bank, N.A., Successor Trustee of the Patti Jo Wood Trust U/W/O Josie Fay Peck

BY: Robert R. Sykes

Name: Robert R. Sykes

Title: Vice President

Date: 5/1/2014

STATE OF TEXAS REEVES COUNTY
True and Correct copy of Original filed in Reeves County Clerks Office

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 10th day of June, 2014.

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

STATE OF Texas (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Midland

BEFORE ME, the undersigned authority, on this day personally appeared Robert R. Sykes known to me to be the person whose name is subscribed to the foregoing instruments as Vice President of Wells Fargo Bank, NA and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 29th day of May, 2014.

Jacqueline G Aguirre

Notary Public in and for Texas

JACQUELINE G AGUIRRE
NOTARY PUBLIC
State of Texas
Comm. Exp. 04/26/2015

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EXHIBIT "A"

Attached hereto and made a part of that certain Oil and Gas Lease dated May 1, 2014, from the State of Texas, by and through its Agent, Wells Fargo Bank, N. A. Trustee of the Patti Jo Wood Trust U/W/O Josie Fay Peck, by and through Robert Sykes, Vice President, and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC.

58. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.00 Gross Surface Acres and 75.0 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

59. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

60. If, at the end of the primary term, Lessee is engaged in the actual drilling of an oil and gas well, or has reached total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities on an oil or gas well within the previous ninety (90) days, this lease shall continue so long as drilling is continued with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one well and the date the next well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities (" Continuous Development Program"). At the end of the Continuous Development Program, or the primary term if there is no Continuous Development Program, this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest penetrated formation in each production unit retained under part (a) of this paragraph. In the event, at any time following the Continuous Development Program, the minimum size unit necessary for a well is reduced, in order to retain the acreage in excess of the new minimum amount, Lessee may begin another drilling program (" Subsequent Drilling Program") by beginning new drilling operations within one hundred eighty (180) days with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one new well and the date the next new well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities. At the end of each subsequent Drilling Program this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest producing formation in each production unit retained under part (a) of this paragraph.

Inst No. 14-05343
DIANNE O. FLOREZ
COUNTY CLERK
2014 Jun 12 at 02:23 PM
REEVES COUNTY, TEXAS
By: VG DEPUTY

True and Correct
copy of
Original filed in
Reeves County
Clerks Office

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and foresaid County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease dated June 1, 2014, filed for record in my office this 12th day of June 2014 at 2:23p M, under Clerk's File No. 141342, to be recorded in the Official Public Records Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 12th day of June, 2014.

By _____, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

W-9 Identification Number
And Certification

NAME: PATTI JO WOOD TRUST U/W/O JOSIE FAY PECK
WELLS FARGO BANK, N.A., SUCCESSOR TRUSTEE
ACCOUNT NO [redacted]

ADDR: P.O. BOX 1959
CITY, STATE, & ZIP: MIDLAND, TEXAS 79702

Part I
TAXPAYER IDENTIFICATION NUMBER (TIN)

Social Security Number: _____

Employer identification Numbe [redacted]

Part II For Payees Exempt from backup withholding (See Exempt Payees and Payments)

EXEMPT STATUS

Certification—Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and

2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding.

Signature: Robert R. Sykes Date: 5/1/14

Robert R. Sykes, Vice President

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16

4M

File No. MF 116 554

Lease E M

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-05917
FILED FOR RECORD
REEVES COUNTY, TEXAS
Jul 02, 2014 at 01:52:00 PM

116554N

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 22nd day of May, 2014, between the State of Texas, acting by and through its agent, Nancy Ann Chandler

of 4576 Claire Chennault #207, Addison, Texas 75001
(Give Permanent Address)

said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company

of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.
(Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Twenty-One Thousand Eight-Hundred Seventy-Five and 00/100
Dollars ($21,875.00)

To the owner of the soil: Twenty-One Thousand Eight-Hundred Seventy-Five and 00/100
Dollars ($21,875.00)

Total bonus consideration: Fourty-Three Thousand Seven-Hundred Fifty and 00/100
Dollars ($43,750.00)

The total bonus consideration paid represents a bonus of Three-Thousand Five-Hundred and 00/100
Dollars ($3500.00) per acre, on 12.5 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

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should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

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OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Executive Vice President

Date: 7/1/2014

LESSOR

STATE OF TEXAS
By: Nancy Ann Chandler
Individually and as agent for the State of Texas

By: _____
Nancy Ann Chandler

DATE: 5-29-2014

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 1st day of July, 2014.

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

_____
Notary Public in and for Oklahoma

STATE OF TEXAS §

COUNTY OF DALLAS §

This instrument was acknowledged before me on this the 29 day of May, 2014, by Nancy Ann Chandler.

JUDY A BREWER
My Commission Expires
May 2, 2016

_____
Notary Public, State of Texas

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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated May 22, 2014, between Nancy Ann Chandler, and Panther Energy Company II, LLC, d/b/a Panther Exploration Company.

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 12.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

SIGNED FOR IDENTIFICATION

LESSOR

STATE OF TEXAS
By: Nancy Ann Chandler
Individually and as agent for the State of Texas

By: Nancy Ann Chandler
Nancy Ann Chandler

DATE: 5-29-2014

STATE OF TEXAS §

COUNTY OF DALLAS §

This instrument was acknowledged before me on this the 29 day of May, 2014, by Nancy Ann Chandler.

NOTARY PUBLIC STATE OF TEXAS
JUDY A BREWER
My Commission Expires
May 2, 2016

Judy Brewer
Notary Public, State of Texas

Inst No. 14-05917
DIANNE O. FLOREZ
COUNTY CLERK
2014 Jul 02 at 01:42 PM
REEVES COUNTY, TEXAS
By: VG DEPUTY

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17

File No. MF116554

Lease N

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of

dated

filed for record in my office this day of at

o'clock P.M., under Clerk's File No. , as to be recorded in the

Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas

this day of , 20 .

By Deputy

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-06387
FILED FOR RECORD
REEVES COUNTY, TEXAS
Jul 17, 2014 at 01:41:00 PM

116554 O

The State of Texas

Austin, Texas

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OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 4th day of June, 2014, between the State of Texas, acting by and through its agent, Sid W. Richardson Foundation of 309 Main Street Fort Worth, Texas 76102 (Give Permanent Address) said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 (Give Permanent Address) hereinafter called Lessee.

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Forty-Three Thousand, Seven-Hundred and Fifty 00/100
Dollars ($43,750.00)

To the owner of the soil: Forty-Three Thousand, Seven-Hundred and Fifty 00/100
Dollars ($43,750.00)

Total bonus consideration: Eighty-Seven Thousand, Five-Hundred 00/100
Dollars ($87,500.00)

The total bonus consideration paid represents a bonus of Three Thousand, Five Hundred 00/100 Dollars ($3,500.00) per acre, on 25 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:

To the owner of the soil: _____

_____ Dollars ($_____)

To the State of Texas: _____

_____ Dollars ($_____)

Total Delay Rental: _____

_____ Dollars ($_____)

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In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the

royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and

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actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes.

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Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

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23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an

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authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS

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PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____ RS

Title: Executive Vice President

Date: 7/15/14

STATE OF TEXAS

BY:

Individually and as agent for the State of Texas

BY: _____

Title: President

Date: 6/5/2014

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 15th day of July, 2014.

Kristina Hoffman

Notary Public in and for Oklahoma

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

STATE OF Texas (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tarrant

CAROLYN JOHNS
Notary Public, State of Texas
My Commission Expires
March 15, 2015

BEFORE ME, the undersigned authority, on this day personally appeared Preston M. Geren III known to me to be the person whose name is subscribed to the foregoing instruments as President of the Sid W. Richardson Foundation and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 5th day of June, 2014.

Notary Public in and for Carolyn Johns

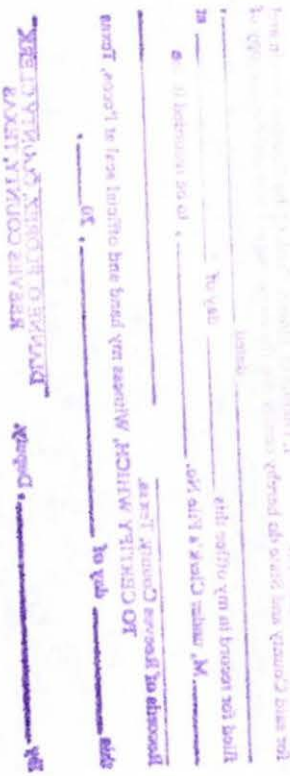
STATE OF TEXAS REEVES COUNTY
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Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated June 4, 2014, between Sid W. Richardson Foundation, and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 25 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".





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Inst No. 14-05387
DIANNE O. FLOREZ
COUNTY CLERK
2014 Jul 17 at 01:41 PM
REEVES COUNTY, TEXAS
BY: DF _____, CLERK

18

File No. MF116554

Lease 0

Date Filed: 1-16-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil and gas lease dated June, 4, 2014, filed for record in my office this 18th day of July 2014 at 1:41 PM, under Clerk's File No. 14-06387, to be recorded in the OPR Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 18th day of July, 2014.

Dianne O. Florez
DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

By Diane Rodriguez Deputy.

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-07473
FILED FOR RECORD
REEVES COUNTY, TEXAS
Aug 18, 2014 at 01:13:00 PM

116554 P

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 21st day of July, 2014 between the State of Texas, acting by and through its Agent, Fayrene Richardson Smith TUW FBO Nancy Saustad , Bank of America, N. A., Trustee, whose address is P. O. Box 830308, Dallas, Texas 75283-0308, said Agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC, whose address is 15lh East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas:

Dollars ($10,937.50)

To the owner of the soil: Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, N. A., Trustee

Dollars ($10,937.50)

Total bonus consideration:

Dollars ($21,875.00)

The total bonus consideration paid represents a bonus of Thirty-Five Hundred Dollars ($3,500.00) per net acre, on 6.25 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quanties" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ Bank, at _____~~

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~~or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

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6. **ROYALTY IN KIND.** Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. **NO DEDUCTIONS.** Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. **PLANT FUEL AND RECYCLED GAS.** No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. **ROYALTY PAYMENTS AND REPORTS.** All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. **(A) RESERVES, CONTRACTS AND OTHER RECORDS.** Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. **DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM.** If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause,

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Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

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(B) **HORIZONTAL.** In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) **IDENTIFICATION AND FILING.** The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) **REDUCTION OF PAYMENTS.** If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

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25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or

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an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. **LIEN.** In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. **POOLING.** Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. **INDEMNITY.** Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. **ENVIRONMENTAL HAZARDS.** Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

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37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

~~STATE OF TEXAS~~

BY: _____ PR

Title: EVP

Date: 8/13/14

JUNE POST
Notary Public
State of Oklahoma
Commission # 13009260
My Comm. on Expires Oct 8, 2017

INDIVIDUALLY AND AS AGENT FOR THE STATE OF TEXAS

FAYRENE RICHARDSON SMITH TUW FBO NANCY SAUSTAD, BANK OF AMERICA, N. A., TRUSTEE

BY: Rhonda K. Thompson

Name: Rhonda K. Thompson

Title: Vice-President

Date: July 21, 2014

STATE OF TEXAS

COUNTY OF DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared Rhonda K. Thompson, Vice President of Bank of America, N. A. known to me to be the person whose name is subscribed to the foregoing instruments as Trustee of the Fayrene Richardson Smith TUW FBO Nancy Saustad and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 21st day of July, 2014.

Annis Hawkins

Notary Public in and for the State of Texas

ANNIS HAWKINS
Notary Public
STATE OF TEXAS
My Comm. Exp. 04-15-17

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STATE OF ~~TEXAS~~ Oklahoma

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared Jim Stone known to me to be the person whose name is subscribed to the foregoing instruments as EVP of Land & Business Development of Panther Exploration and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 13 day of August, 2014.

June Post June Post

Notary Public in and for Oklahoma

JUNE POST
Notary Public
State of Oklahoma
Commission # 13009260
My Commission Expires Oct 8, 2017

STATE OF TEXAS

COUNTY OF _____

BEFORE ME, the undersigned authority, on this day personally appeared _____ known to me to be the person whose name is subscribed to the foregoing instruments as _____ of _____ and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the _____ day of _____, 20____.

_____

Notary Public in and for _____

STATE OF TEXAS REEVES COUNTY

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EXHIBIT "A"

This Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated July 21, 2014, between Fayrene Richardson Smith TUW FBO Nancy Saustad , Bank of America, N. A., Trustee , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 6.25 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

Inst No. 14-07473
DIANNE O. FLOREZ
COUNTY CLERK
2014 Aug 18 at 01:13 PM
REEVES COUNTY, TEXAS
By: ER DEPUTY

True and Correct
copy of
Original filed in
Reeves County
Clerks Office

19

4P.

File No. MF116554
Lease P

Date Filed: 8-25-14
Jerry E. Patterson, Commissioner
By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Flores, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease dated 14th day of August, filed for record in my office this 18th day of August, at 1:30 P.M., under Clerk's File No. 116554, to be recorded in the Official Public Records of Reeves County, Texas.

WITNESS MY HAND AND SEAL OF OFFICE, THIS 18th TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 18th day of August, 2014.

By Elizabeth Reyes, Deputy.

"DIANNE O. FLORES, COUNTY CLERK"
REEVES COUNTY, TEXAS

8-52-1H

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-07268
FILED FOR RECORD
REEVES COUNTY, TEXAS
Aug 12, 2014 at 01:22:00 PM

116554Q

The State of Texas

Austin, Texas

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 15th day of May, 2014, between the State of Texas, acting by and through its agent, Patti P. Wood of P. O. Box 865049, Plano, Texas 75068 (Give Permanent Address), said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee. (Give Permanent Address).

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land,

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

To the owner of the soil: Sixty-Thousand Nine-Hundred Thirty-Seven and 50/100
Dollars ($60,937.50)

Total bonus consideration: One-Hundred Twenty One Thousand Eight-Hundred Seventy-Five and 00/100
Dollars ($121,875.00)

The total bonus consideration paid represents a bonus of Three-Thousand Two Hundred Fifty and 00/100
Dollars ($3,250.00) per acre, on 37.5net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ Bank, at _____~~

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~~or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~Dollars ($_____)~~

~~To the State of Texas: _____~~

~~Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the

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payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking

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operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall

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further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without

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limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the

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assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these

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statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

ADDENDUM PROVISIONS - #40 THRU 57

40. If, at the expiration of the primary term, this lease is being maintained in force under any provision of the lease, or within 180 days prior to the expiration of the primary term Lessee has completed a well as a dry hole or commenced a well on the leased premises or lands pooled therewith, or Lessee is then engaged in operations on the leased premises or lands pooled therewith, Lessee agrees to begin a continuous drilling program within 180 days after completion of such well or the cessation of such operations; and thereafter to carry on the continuous drilling program on the leased premises or lands pooled therewith until all proration units have been drilled, allowing not more than 180 days to elapse between the completion of one well and the commencement of the succeeding well. Should Lessee fail to begin the continuous drilling program or subsequently default in the performance thereof, then in either event, this lease shall terminate as to all lands covered hereby, save and except for the proration unit surrounding each well then producing, capable of producing or upon which operations are being conducted, limited, respectively, to those depths from the surface down to the stratigraphic equivalent of the depth 100 feet below the base of the deepest penetrated formation. As used in this paragraph: i) the term "commission" means the Railroad Commission of the State of Texas or any successor agency, ii) the term "proration unit" means any acreage designated as a drilling unit or production unit in accordance with the rules of the commission (or any other governmental authority having jurisdiction) or any unit formed by pooling as provided in this lease or otherwise, iii) the terms "commenced" and "commencement" mean the date when a well is spudded, and iv) the terms "completed" and "completion" mean the date the initial potential test report is filed with the commission, if a productive well, or the date the plugging report is filed with the commission, if a dry hole, in either event no later than 60 days after the drilling rig has been released. Notwithstanding the partial termination of this lease, Lessee shall continue to have the rights of ingress and egress across all of the leased premises to and from lands that remain subject to this lease, or lands pooled therewith, for the purposes described in paragraph 1 hereof, together with easements and rights of way for roads, pipelines, flowlines and other facilities on or across all of the leased premises for the exploration, development, production, gathering or transportation of oil, gas and other products from the lands still subject to this lease or lands pooled therewith. The sole liability or penalty for the failure of Lessee to drill any well or wells required or permitted by this lease shall be the termination or partial termination of Lessee's rights under the lease as provided above. With respect to Lessor's ownership of the surface estate and Lessee's operations thereon, it is agreed by and between Lessor and Lessee as follows:

41. Lessee shall only use so much of the surface as may be reasonably necessary. Furthermore, prior to any use of the surface, Lessee shall consult with Lessor concerning each proposed drillsite location and the proposed route of access thereto.

42. For its operations hereunder, Lessee shall have free use of water from said lands, except water from Lessor's water wells, tanks, creeks, rivers, streams and springs; provided, however, no surface water or underground fresh water shall be used for water flood, secondary recovery or pressure maintenance purposes. In the event Lessee drills any water well on the leased premises in connection with its operations hereunder, it shall notify Lessor prior to the pulling of casing therein, and Lessor shall then have thirty (30) days to elect to assume operation of said water well. If Lessor elects to assume such operation, Lessee shall leave all casing in said water well and same shall become the property of Lessor. Furthermore, Lessor will assume all responsibility for such water well or wells including the plugging of same at no cost to Lessee, and will hold Lessee harmless from any claims, damages or any other causes of action against Lessee from the date of transfer. In the event Lessor does not elect to assume such operation, Lessee shall remove all casing and plug the water well in question.

43. If Lessee disposes of saltwater produced from any well or wells drilled on the leased premises by re-injection, such saltwater shall be injected into a sand below the fresh-water level. Further, Lessee shall never permit saltwater to flow on or over the leased premises or pollute any waters thereon. At all times, Lessee shall use all reasonable means to prevent the pollution of subsurface water and the flow of saltwater upon the surface.

44. When required by Lessor, Lessee shall bury all pipelines below ordinary plow depth. Without Lessor's consent, Lessee shall not drill any well within 400 feet of any residence or barn now on the leased premises.

45. Lessee agrees that it will maintain all entrances, cattle guards and roadways used in its operations in a good state of repair and will promptly cause to be repaired and restored any damage thereto occasioned by or resulting from Lessee's operations. Lessee agrees that it shall not construct any new roads without the advance consent of Lessor as to the location and direction of such roads, and shall limit construction of new road to the minimum necessary to Lessee's operations. All roads permitted to be constructed by Lessee on the leased premises shall be constructed as all-weather roads comprised of crushed caliche or other similar material acceptable to Lessor, and shall be crowned and include such diversion terraces as may be reasonably necessary to effect drainage of the road and prevent soil erosion. During the term of this lease, Lessee shall maintain all roads constructed by it in a safe condition and as good quality oil field roads passable by ordinary vehicles. As to those existing roads that may be designated for Lessee's use, Lessee shall be obligated to maintain such roads in a similar and passable condition during the term of this lease, but shall not be required to improve any such road over its condition at the time of Lessee's initial use. Lessee agrees to pay to Lessor compensation for damages resulting from construction of new roads in an amount of $20.00 per rod. Such amount shall be payable in advance of construction for the estimated length of the road, with the balance due for any additional length, if any, payable not later than sixty (60) days after completion of the road.

46. Lessee must obtain permission from Lessor prior to cutting any fence. If Lessee desires to cut a boundary fence, Lessee must also obtain permission from the adjoining landowner. Should it be necessary to cut any fence and Lessee obtains permission from Lessor (and as to a boundary fence, from the adjoining landowner), then Lessee shall be permitted to cut such fence, provided that prior to cutting there shall be installed six (6) 10-foot posts with not less than 8-inch tops, each buried five (5) feet into the ground with three (3) posts on each side of the proposed cut. The posts are to be properly braced with horizontal braces and wired so that when the fence is cut there will be no slackening of the wires. After a fence is cut, a metal gate shall immediately be placed in the fence which, if requested by Lessor, shall be locked with a key to be furnished to Lessor.

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47. Prior to laying any pipelines or erecting any storage tanks, pipelines, compressors or other usual lease facilities, Lessee shall advise Lessor of its intentions, Lessor and Lessee shall then mutually select the site or sites for locating such facilities, taking into consideration Lessor's surface operations and Lessee's need to conduct its operations in a reasonable manner. Lessee is prohibited from constructing an oil or gas refinery or a gas plant without first obtaining written permission from Lessor. Separators, dehydrators and compressors shall not be considered as gas plants under this provision.

48. In regard to the construction of a drillsite location, Lessee agrees to separately remove the top soil and stack same to one side of the location. Each pit that is dug and that may possibly contain oil-based muds or petroleum waste materials shall be lined with a non-permeable liner prior to use. Each drillsite location, including pits, tanks, separators, treaters and any and all other pertinent well and lease equipment on the surface thereof, shall be kept enclosed with a fence capable of turning livestock.

49. As to all acreage utilized by Lessee for a drillsite location, Lessee shall pay Lessor the one-time sum $20,000.00 per drillsite location up to Five (5) acres, plus an additional payment of $4,000.00 per acre for each additional acre utilized in the construction of such drillsite location. In computing the acreage for drillsite locations and production locations, there shall be included with the actual well itself the area utilized for tank batteries, pits, separators, dehydrators, treaters, compressors and other equipment.

50. Lessee agrees to pay to Lessor an amount of $20.00 per rod as compensation for damages from construction of utility lines as well as pipelines, flow lines up to 8 inches in diameter, payable not later than sixty (60) days after completion of construction of such utility lines or pipelines.

51. Lessee shall pay for all damages caused to existing water wells, irrigation wells and other improvements on the leased premises and for all damages caused to growing crops and livestock, whether such crops or livestock belong to Lessor or to Lessor's tenant.

52. Lessee shall have the right within 180 days after the expiration of this lease to remove all property and fixtures placed by Lessee on said lands, including the right to draw and remove all casing (subject to the specific provision hereinabove contained regarding the pulling of casing from water wells).

53. Lessee shall, promptly after termination of use and in accordance with applicable governmental regulations, fill all pits and excavations, level all mounds, neutralize all acids and leave the ground in as near the same condition as before the commencement of Lessee's operations. Upon abandonment of any well hereunder, Lessee shall properly plug and abandon such well in accordance with the rules and regulations of governmental authorities having jurisdiction.

54. Within one hundred eighty (180) days after completion of any well drilled on said lands, Lessee shall remove all caliche from the drillsite except a minimum amount around the wellbore for maintaining and operating such well. Lessee shall then uniformly return the top soil (previously removed and stacked) to the drillsite location, clean up the drillsite and remove any and all oil or gas waste materials, oil spills, junk materials, pieces of iron, pipes, steel and other debris and foreign materials. Further, Lessee shall level all mounds, fill all pits and other excavations, remove all deleterious materials and substances that might cause injury to person or livestock, and generally restore such location to its original condition, except for the minimum amount of surface needed to service the well. Lessee is prohibited from land farming any reserve pit materials, including drilling mud residue and debris, without Lessor's consent. At least twice each year, Lessee shall remove all grasses or other noxious growth around the wellsite.

55. Lessee shall use every effort to prevent fires on said lands and shall use every effort to prevent papers, boxes, sacks, containers and waste materials of any kind from coming on said lands and littering the premises. Under no circumstances shall Lessee be allowed to bury any trash, debris or foreign materials of any nature on said lands. Further, Lessee shall adequately clean all machinery and tools brought on said lands so that no noxious weeds or flora are introduced to the premises by Lessee's operations.

56. Neither Lessee nor Lessee's agents, employees, contractors, subcontractors or invitees shall have any right to fish or hunt upon the leased premises, and no firearms of any kind shall be brought by them on the leased premises. Lessee shall use diligence to prevent anyone entering the leased premises from disturbing livestock or hunting, shooting or killing wild game. For each separate violation of this provision by any person connected to Lessee's operations, Lessee shall pay Lessor liquidated damages in the amount of Five Hundred Dollars ($500.00), such sum being acknowledged to be reasonable under the circumstances. It is not intended that this provision require Lessee to be responsible for all parties claiming to have entered the premises in connection with Lessee's operations; however, Lessee shall nevertheless be responsible for liquidated damages applicable to each violation by a party gaining access to the premises through Lessee or Lessee's agents, employees, contractors, subcontractors or invitees.

57. Notwithstanding anything herein to the contrary, all surface use and damage payments made under the terms of this lease shall be equally divided between the owner of the soil and the Commissioner of the General Land Office of the State of Texas, except those payments made pursuant to paragraph (51) hereinabove. Additionally, all payments made hereunder shall be proportionately reduced.

IN WITNESS WHEREOF, this instrument is executed on the date first above written.

LESSEE: Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

BY: _____

Title: Executive Vice President

Date: 8-4-2014

STATE OF TEXAS REEVES COUNTY

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LESSOR: Patti P. Wood

BY: Patti P. Wood

Name: Patti P. Wood

Title: Owner

Date: 6-30-2014

STATE OF Oklahoma

COUNTY OF Tulsa

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared James R. Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 4th day of August, 2014.

KRISTINA HOFFMAN
Notary Public
State of Oklahoma
Commission # 14000218
My Commission Expires Jan 9, 2018

Kristina Hoffman

Notary Public in and for Oklahoma

STATE OF Texas

COUNTY OF Midland

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared Patti P. Wood known to me to be the person whose name is subscribed to the foregoing instruments _____ and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated.

Given under my hand and seal of office this the 8th day of July, 2014.

JOYCE EDWARDS-COCKERHAM
Notary Public, State of Texas
My Commission Expires
April 25, 2015

Joyce Edwards-Cockerham

Notary Public in and for State of Texas

STATE OF TEXAS REEVES COUNTY

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EXHIBIT "A"

Attached hereto and made a part of that certain Oil and Gas Lease dated May 15, 2014, from the State of Texas, by and through its Agent, Patti Jo Wood a/k/a Patti Jo Peck Wakefield Wood, and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC.

58. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.00 Gross Surface Acres and 37.5 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

59. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

60. If, at the end of the primary term, Lessee is engaged in the actual drilling of an oil and gas well, or has reached total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities on an oil or gas well within the previous ninety (90) days, this lease shall continue so long as drilling is continued with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one well and the date the next well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities (" Continuous Development Program"). At the end of the Continuous Development Program, or the primary term if there is no Continuous Development Program, this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest penetrated formation in each production unit retained under part (a) of this paragraph. In the event, at any time following the Continuous Development Program, the minimum size unit necessary for a well is reduced, in order to retain the acreage in excess of the new minimum amount, Lessee may begin another drilling program (" Subsequent Drilling Program") by beginning new drilling operations within one hundred eighty (180) days with no cessation or interruption of more than one hundred eighty (180) consecutive days between the date when total depth is reached in one new well and the date the next new well is spudded by a rig capable of reaching total permitted depth to a formation reasonably believed to contain hydrocarbons in paying quantities. At the end of each subsequent Drilling Program this lease will terminate as to all lands covered by this lease, except the land: a) included in the minimum size unit allowed by the Railroad Commission of Texas (or subsequent successor authority) in order to obtain the maximum allowable for each well (vertical or horizontal) capable of producing in paying quantities, b) those depths from the surface down to the base of the deepest producing formation in each production unit retained under part (a) of this paragraph.

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Inst No. 14-07268
DIANNE O. FLOREZ
COUNTY CLERK
2014 Aug 12 at 01:22 PM
REEVES COUNTY, TEXAS
By: ER Elizabeth Rayes, DEPUTY

40.

File No. MF116554
Lease Q

Date Filed: 8-25-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease dated 12th day of August, 2014, filed for record in my office this 14th day of August, 2014, at 1:30 P.M. under Clerk's File No. 14-01164, to be recorded in the Official Public Records Records of Reeves County, Texas.

WITNESS MY HAND AND SEAL OF OFFICE, I HEREBY CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 14th day of August, 2014.

By Elizabeth Reyes, Deputy.

"DIANNE O. FLOREZ, COUNTY CLERK"
REEVES COUNTY, TEXAS

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

14-09967
FILED FOR RECORD
REEVES COUNTY, TEXAS
Oct 23, 2014 at 10:16:00 AM

The State of Texas

Austin, Texas

OIL AND GAS LEASE MF-116554R

THIS AGREEMENT is made and entered into this 15th day of September, 2014, between the State of Texas, acting by and through its agent, Howell Smith Wynne of 9401 LBJ Freeway Ste. 401, Dallas, TX 75243 (Give Permanent Address) said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 (Give Permanent Address)

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

600 acres of land, more or less, being Abstract No. 2864, out of Section 16, Block 54, Township 4S, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land.

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE, FOR ADDITIONAL LEASE PROVISIONS

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Sixty-TwoHundred Fifty and 00/100
Dollars ($6,250.00)

To the owner of the soil: Sixty-Two Hundred Fifty and 00/100
Dollars ($6,250.00)

Total bonus consideration: Three-Hundred Seventy-Five Thousand and 00/100
Dollars ($12,500.00)

The total bonus consideration paid represents a bonus of Three-Thousand and 00/100 Dollars ($3,000.00) per acre, on 4.166667 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

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~~3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the _____ _____ Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~

~~_____ Dollars ($_____)~~

~~To the State of Texas: _____~~

~~_____ Dollars ($_____)~~

~~Total Delay Rental: _____~~

~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the

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amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or

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reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for

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existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

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24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee

True and Correct copy of Original filed in Reeves County Clerks Office

should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS**

STATE OF TEXAS REEVES COUNTY
True and Correct copy of Original filed in Reeves County Clerks Office

OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

LESSEE

BY: _____

Title: Executive Vice President

Date: 10-2-14

STATE OF TEXAS

BY: Howell Smith Wynne

Individually and as agent for the State of Texas

BY: _____

Title: _____

Date: 9/15/14

STATE OF California (CORPORATION ACKNOWLEDGMENT)

COUNTY OF San Diego

BEFORE ME, the undersigned authority, on this day personally appeared Howell Smith Wynne known to me to be the person whose name is subscribed to the foregoing instruments as Howell Smith Wynne of _____ and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 15th day of September, 20 14.

_____

Notary Public in and for San Diego, California

C. SHOLLENBERGER
COMM. # 2012058
NOTARY PUBLIC-CALIFORNIA
SAN DIEGO COUNTY
MY COMM. EXP. MAR. 15, 2017

STATE OF Oklahoma (CORPORATION ACKNOWLEDGMENT)

COUNTY OF Tulsa

BEFORE ME, the undersigned authority, on this day personally appeared Jim Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Co II, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 2 day of October, 20 14.

_____

Notary Public in and for Tulsa, Oklahoma

JUNE POST
Notary Public
State of Oklahoma
Commission # 13009260
My Commission Expires Oct 8, 2017

True and Correct copy of Original filed in Reeves County Clerks Office

Exhibit "A", attached hereto and made a part of that certain Oil and Gas Lease dated September 15, 2014, between Howell Smith Wynne , and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

EXHIBIT "A"

40. This is a paid-up lease and subject to all other provisions herein contained. It is hereby acknowledged and agreed that the delay rentals are to be one dollar ($1.00) per acre per year (based on 600.0 Gross Surface Acres and 4.166667 Net Surface Acres). The owner of the surface and the State of Texas each are to receive one-half (1/2) of the delay rentals, which is included in the sum paid shown as the bonus consideration in Paragraph 1 of this lease.

41. This Exhibit "A" shall control and govern over anything in the above Oil, Gas and Mineral Lease form which may conflict with this Exhibit "A".

SIGNED FOR IDENTIFICATION

Howell Smith Wynne

By: _____

Individually and as Agent for the State of Texas

Inst No. 14-09967
DIANNE O. FLOREZ
COUNTY CLERK
2014 Oct 23 at 10:16 AM
REEVES COUNTY, TEXAS
By: VG DEPUTY

True and Correct copy of Original filed in Reeves County Clerks Office

42.

File No. NMF116554
Lease 12

Date Filed: 12-1-14

Jerry E. Patterson, Commissioner

By

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Oil & Gas Lease dated September 5, 2014 filed for record in my office this 14th day of November 2014 at 10:16 AM, under Clerk's File No. 140967 to be recorded in the Official Public Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 14th day of November, 2014.

By Vanessa Garcia, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

TEXAS GENERAL LAND OFFICE

JERRY PATTERSON, COMMISSIONER

July 8, 2014

James Stone
Panther Exploration Company
15 E. 5th St., Suite 2100
Tulsa, Oklahoma 74103

Re: **State Lease MF 116554**

Eleven RAL leases covering 600 ac., Sec. 16, Blk. 54, T-4, T&P Ry. Co. Survey, Reeves Co, TX

Dear Mr. Stone:

The certified copies of the Relinquishment Act leases covering the referenced tract have been approved and filed in our records under Mineral File numbers as set out on Page 2. **Please refer to these numbers when making payments to the State and in all future correspondence concerning the leases. Failure to include the mineral file numbers may delay processing of any payments towards the leases.**

There are several contractual and statutory responsibilities for the Lessee which are material provisions of the lease as outlined in the agreement such as Section 10(B) which requires submission of written notice for all drilling, production and related activities. When forms are filed with the Texas Railroad Commission, they are required to be submitted to the General Land Office as well. Examples are W-1, Application to Drill; W-2, Oil Well Completion Report and Log; G-1, Gas Well Completion Report and Log; W-3, Plugging Report; G-5, Gas Well Classification Report; G-10, Gas Well Status Report; W-10, Oil Well Status Report; W-12, Inclination Report; electric logs; directional surveys.

Chapter 52 of the Texas Natural Resources Codes specifies that the surface owner's right to receive a portion of the revenues generated by the lease shall be in lieu of all damages to the soil. Therefore, any payments made for surface use or damages other than the authorized damages set out in the lease form must be shared equally with the state.

Your remittances are set out on Page 2 and have been applied to the State's portion of the cash bonus. In addition, we are in receipt of your processing and filing fees.

Sincerely yours,

Deborah A. Cantu

Deborah A. Cantu
Mineral Leasing, Energy Resources
(512) 305-8598
deborah.cantu@glo.texas.gov

Lease #	Lease Date	Lessor	Bonus Amount	Doc. Number
MF116554A	03/23/2014	Petco , Ltd.	225,000.00	14-03090
MF116554B	04/09/2014	Nancy Dean Investment Corp.	131,250.00	14-03486
MF116554D	04/24/2014	Slack, Charlotte Tonroy	60,937.50	14-03871
MF116554E	04/23/2014	Nobles, Mahlon Paul s/p/a John Paul Adkins	19,995.00	14-03783
MF116554F	04/24/2014	Mackey, Anne	20,312.50	14-03870
MF116554G	03/26/2014	Pursuit Energy Corp	780	14-03784
MF116554H	05/05/2014	Oma Barton Wakefield Trust	60,937.50	14-04266
MF116554I	04/24/2014	Slack, II Richard Clay	20,312.50	14-04932
MF116554J	04/24/2014	Shaw, Cynthia Elliott Slack	20,312.50	14-04559
MF116554K	04/11/2014	Andrews Royalty, Inc.	2,031.25	14-04262
MF116554L	03/26/2014	Powell, Jr. Loyd Children's Trust	300	14-04263

TEXAS GENERAL LAND OFFICE

JERRY PATTERSON, COMMISSIONER

July 8, 2014

Linda Wallace
Energen Resources
3300 North A St.
Bldg. 4, Ste. 100
Midland, Texas 79705

Re: **State Lease MF 116554C**

RAL Lease dated October 21, 2013 recorded in V. 1035, P. 376, covering 600 ac., Sec. 16, Blk. 54, T-4, T&P Ry Co. Survey, Reeves Co., TX, Riki Lewis Long, agent for State of TX, Lessor

Dear Ms. Wallace:

The certified copy of the Relinquishment Act lease covering the above referenced tract has been approved and filed in our records under Mineral File numbers **MF-116554C. Please refer to this lease number when making payments to the State and in all future correspondence concerning the lease. Failure to include the mineral file number may delay processing of any payments towards the lease.**

There are several contractual and statutory responsibilities for the Lessee which are material provisions of the lease as outlined in the agreement such as Section 10(B) which requires submission of written notice for all drilling, production and related activities. When forms are filed with the Texas Railroad Commission, they are required to be submitted to the General Land Office as well. Examples are W-1, Application to Drill; W-2, Oil Well Completion Report and Log; G-1, Gas Well Completion Report and Log; W-3, Plugging Report; G-5, Gas Well Classification Report; G-10, Gas Well Status Report; W-10, Oil Well Status Report; W-12, Inclination Report; electric logs; directional surveys.

Chapter 52 of the Texas Natural Resources Codes specifies that the surface owner's right to receive a portion of the revenues generated by the lease shall be in lieu of all damages to the soil. Therefore, any payments made for surface use or damages other than the authorized damages set out in the lease form must be shared equally with the state.

The remittance of **$105,000.00** has been applied to the State's portion of the cash bonus. In addition, we are in receipt of the filing and processing fees.

Sincerely yours,

Deborah A. Cantu
Mineral Leasing, Energy Resources
(512) 305-8598
deborah.cantu@glo.texas.gov

22

File No. MF116554

5 Final Letter

Date Filed: 7-8-14

Jerry E. Patterson, Commissioner

By

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

VOID VOID VOID VOID VOID VOID VOID VOID

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America-Main
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
11348	01/15/15	$*********43,750.00

PAY ***43,750 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00011348⑈ [redacted]

Panther Energy Company II, LLC **15 E 5th St., Tulsa, OK 74103 918/583-1396**

INVOICE	DATE	DESCRIPTION	NET
1132015A	01/13/15	SAND LAKE PROSPECT LEASE BONUS	43,750.00

EPB O&G
Reeves

VENDOR TEX0009 CHECK 11348 DATE 01/15/15 43,750.00

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

VOID VOID VOID VOID VOID VOID VOID VOID

Panther Energy Company II, LLC
15 E 5th St.
Tulsa, OK 74103

Bank of America-Main
Tulsa,

CHECK NO	CHECK DATE	CHECK AMOUNT
11349	01/15/15	$**********125.00

PAY ***125 Dollars and No Cents

PAY TO THE ORDER OF
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
AUSTIN TX 78701

Billy J Mullins

⑈00 11349⑈ [redacted]

Panther Energy Company II, LLC **15 E 5th St., Tulsa, OK 74103 918/583-1396**

INVOICE	DATE	DESCRIPTION	NET
1132015B	01/13/15	SAND LAKE PROSPECT FILING FEES	125.00

VENDOR TEX0009 CHECK 11349 DATE 01/15/15 125.00

File No. 116554 23

_____ County

Bonds, fees - 5

Date Filed: 03/24/15

George P. Bush, Commissioner

By _____

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

15-01271
FILED FOR RECORD
REEVES COUNTY, TEXAS
Feb 10, 2015 at 03:00:00 PM

The State of Texas

Austin, Texas

OIL AND GAS LEASE

MF- 1165545

THIS AGREEMENT is made and entered into this 12th day of December, 2014, between the State of Texas, acting by and through its agent, EPB O&G TX, L.P. (1/4th), ARBGT (SRB) O&G TX, L.P. (1/4th), ARBGT (LMB) O&G TX, L.P. (1/4th), and ARBGT (RMB) O&G TX, L.P. (1/4th), of 201 Main St., Fort Worth, Texas,76107 said agent herein referred to as the owner of the soil (whether one or more), and Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC of 15th East 5th Street Suite 2100, Tulsa, Oklahoma 74103 hereinafter called Lessee.

1. GRANTING CLAUSE. For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power stations, telephone lines and other structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Reeves County, State of Texas, to-wit:

Section 16, Block 54, Township 4S, A-2864, T&P RR Survey, LESS & EXCEPT the NE/4 NE/4, as described in that certain Partition Deed dated June 7, 1948 between and among Sid Richardson, Annie Richardson Bass et al., recorded in Volume 120, Page 429 of the Deed Records in Reeves County, Texas, including such land, if any, which may underlie roads, rights of way, or any easements on or adjoining said tract of land

containing 600 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Forty Three Thousand Seven Hundred Fifty and no/100 Dollars ($43,750.00)

To the owner of the soil: Forty Three Thousand Seven Hundred Fifty and no/100 Dollars ($43,750.00)

Total bonus consideration: Eighty Seven Thousand Five Hundred and no/100 Dollars ($87,500.00)

The total bonus consideration paid represents a bonus of Three Thousand Five Hundred and no/100 Dollars ($3,500.00) per acre, on 25 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of three (3) years from this date (herein called "primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

~~**3. DELAY RENTALS.** If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the~~

TRUE & CORRECT COPY OF ORIGINAL FILED IN REEVES COUNTY CLERKS OFFICE

~~_____ Bank, at _____~~
~~or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:~~

~~To the owner of the soil: _____~~
~~_____ Dollars ($_____)~~
~~To the State of Texas: _____~~
~~_____ Dollars ($_____)~~
~~Total Delay Rental: _____~~
~~_____ Dollars ($_____)~~

~~In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.~~

4. PRODUCTION ROYALTIES. Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived, in writing, by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be one-fourth (1/4) part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be one-fourth (1/4) part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent *(50%)* or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be "casinghead," "dry," or any other gas, by fractionating, burning or any other processing shall be one-fourth (1/4) part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time the owner of the soil or the

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Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of 10% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year; such interest will begin to accrue when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above-described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease if during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term, and if Lessee has not resumed

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production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional wells are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.154, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency, or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and rights-of-way for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

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(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16 (A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if, at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for waterflood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

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25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General

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Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court proceedings in the manner provided in the Title 1, Chap. 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.154. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDEMNIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under, the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (1) A VIOLATION OF THE FOREGOING PROHIBITION OR (2) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly

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known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

EPB O&G TX, L.P., a Texas limited partnership

By: EPB O&G TX GENPAR, L.L.C., a Texas limited liability company, general partner

By:_____
W. Frank McCreight, Vice President

ARBGT (SRB) O&G TX L.P., a Texas limited partnership

By: ARBGT (SRB) O&G TX GENPAR, L.L.C., a Texas limited liability company, general partner

By:_____
W. Frank McCreight, Vice President

ARBGT (LMB) O&G TX L.P., a Texas limited partnership

By: ARBGT (RMB) O&G TX GENPAR, L.L.C., a Texas limited liability company, general partner

By:_____
W. Frank McCreight, Vice President

ARBGT (RMB) O&G TX L.P., a Texas limited partnership

By: ARBGT (LMB) O&G TX GENPAR , L.L.C., a Texas limited liability company, general partner

By:_____
W. Frank McCreight, Vice President

PANTHER ENERGY COMPANY II, LLC
LESSEE d/b/a PANTHER EXPLORATION, LLC

BY: _____

Title: JAMES R STONE
EXECUTIVE VICE PRESIDENT

Date: JANUARY 28, 2015

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MEGGAN C. STRICKLAND
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 02-09-2017

STATE OF TEXAS §
§
COUNTY OF TARRANT §

This instrument was acknowledged before me on this 15th day of December, 2014, by W. Frank McCreight, Vice President of EPB O&G TX GENPAR, L.L.C., in its capacity as the general partner of EPB O&G TX, L.P., on behalf of said limited partnership.

Meggan C. Strickland
Notary Public in and for the State of Texas

MEGGAN C. STRICKLAND
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 02-09-2017

STATE OF TEXAS §
§
COUNTY OF TARRANT §

This instrument was acknowledged before me on this 15th day of December, 2014, by W. Frank McCreight, Vice President of ARBGT (SRB) O&G TX GENPAR, L.L.C., in its capacity as the general partner of ARBGT (SRB) O&G TX, L.P., on behalf of said limited partnership.

Meggan C. Strickland
Notary Public in and for the State of Texas

MEGGAN C. STRICKLAND
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 02-09-2017

STATE OF TEXAS §
§
COUNTY OF TARRANT §

This instrument was acknowledged before me on this 15th day of December, 2014, by W. Frank McCreight, Vice President of ARBGT (LMB) O&G TX GENPAR, L.L.C., in its capacity as the general partner of ARBGT (LMB) O&G TX, L.P., on behalf of said limited partnership.

Meggan C. Strickland
Notary Public in and for the State of Texas

MEGGAN C. STRICKLAND
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 02-09-2017

STATE OF TEXAS §
§
COUNTY OF TARRANT §

This instrument was acknowledged before me on this 15th day of December, 2014, by W. Frank McCreight, Vice President of ARBGT (RMB) O&G TX GENPAR, L.L.C., in its capacity as the general partner of ARBGT (RMB) O&G TX, L.P., on behalf of said limited partnership.

Meggan C. Strickland
Notary Public in and for the State of Texas

STATE OF Oklahoma
COUNTY OF Tulsa

(CORPORATION ACKNOWLEDGMENT)

BEFORE ME, the undersigned authority, on this day personally appeared James R Stone known to me to be the person whose name is subscribed to the foregoing instruments as Executive Vice President of Panther Energy Company II, LLC dba Panther Exploration, LLC and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

Given under my hand and seal of office this the 28 day of January, 2015.

Diane Wehrenberg
Notary Public in and for Tulsa County
State of Oklahoma

DIANE WEHRENBERG
Notary Public in and for the
State of Oklahoma
Commission #14007648
My Commission expires 8/25/2018

Inst No. 15-01271
DIANNE O. FLOREZ
COUNTY CLERK
2015 Feb 10 at 03:00 PM
REEVES COUNTY, TEXAS
By: Elizabeth Ruiz, DEPUTY

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24

File No. 116554

_____ County

Lease S

Date Filed: 03/24/15

George P. Bush, Commissioner

By _____

THE STATE OF TEXAS
COUNTY OF REEVES I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of

OGL dated 12-12-14,

filed for record in my office this 11th day of March at 3:00 P.M. under Clerk's File No. 15-01211, to be recorded in the Official Public Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 11th day of March, 2015.

By Elizabeth Reyes, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

October 1, 2015

Susan Murray, Landman
Rocket Industries LLC
1804 Sylvan Dr.
Abilene, TX 79605

RE: GLO Assignment ID #9419 MF116554 N-S, MF116803 A-B, Reeves County
MF117111 A-Y & MF 117408 A-C Culberson County

Dear Ms. Murray:

The General Land Office received the following instrument and has filed it in the appropriate files.

> Assignment and Bill of Sale effective February 20, 2015 from, Panther Energy Company II, LLC, d/b/a Panther Exploration, LLC assignor, to , CP2 Operating, LLC, as assignee. Filed for record in Culberson County at Doc # 00000071832 & Reeves County at Doc # 15-03918.

Filing fees of $1,150.00 were received in connection with the above assignment. Please feel free to contact me if you have any questions.

Best Regards,

Carl Bonn, CPL
Mineral Leasing
Energy Resources
(512) 463-5407
carl.bonn@glo.texas.gov

Susan Murray

(325) 669-4430

179

ROCKET INDUSTRIES LLC
PHONE: 325-669-4430
1834 SYLVAN DR
ABILENE, TX 79605

15711792 1132
88-112/1113
4

5/11/15
Date

Pay to the Order of GLO $ 1150.00

One Thousand One Hundred fifty & NO/100 Dollars

Security Features Details on Back.

FIRST FINANCIAL BANK

For assignments Pontu-CP2 Bermuda Sovereign-Pontu

Susan Murray

MP

[redacted] 1132 [redacted]

Harland Clarke

INTOUCH® CUSTOM CREATIONS®

15-03919
FILED FOR RECORD
REEVES COUNTY, TEXAS
May 06, 2015 at 01:39:00 PM

RECEIVED
MAY 11 2015
TEXAS GENERAL LAND OFFICE
ENERGY RESOURCES

ASSIGNMENT OF OIL AND GAS LEASES

ID# 9419
eff 2-20-15

STATE OF TEXAS)
COUNTIES OF REEVES)
AND CULBERSON)

MF 116554N5 / MF 117111 A→Y
MF 116803 AB / MF 117408 · ABC

This Assignment of Oil and Gas Leases (this "Assignment"), dated effective as of February 20, 2015 at 7:00 a.m. Central Daylight Time (the "Effective Time"), is made by Panther Energy Company II, LLC, a Delaware limited liability company, d/b/a Panther Exploration Company, LLC, with a notice address of 6100 S Yale, Suite 600, Tulsa, Oklahoma 74136 ("Assignor") to CP2 Operating, LLC, with a notice address of 77 Sugar Creek Center Blvd, Suite 550, P O Box 3105, Sugar Land, Texas 77478 ("Assignee").

For and in consideration of Ten Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby **GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER AND DELIVER** unto Assignee, subject to the terms and reservations below, an undivided 49% interest (the "Percent Assigned") in and to the oil and gas leases described in Exhibit "A" attached hereto and made a part hereof, as extended or amended, and the lands (the "Lands") covered thereby, together with all rights incident thereto and appurtenances thereon (individually, where appropriate, "Lease," collectively "the Leases").

TO HAVE AND TO HOLD all and singular the Percent Assigned in the Leases together with such percentage of all rights, titles, interests, estates, remedies, powers and privileges thereunto appertaining unto Assignee and Assignee's successors and assigns forever; subject to the following matters:

(1) All easements, rights-of-way, servitudes, permits, surface leases and other rights in respect of surface operations;

(2) The terms and conditions of each Lease;

(3) All rights reserved to or vested in any municipality or governmental, tribal, statutory or public authority to control or regulate any of the Leases in any manner, and all applicable laws, rules and orders of governmental and tribal authority; and

(4) All overriding royalty interests, production payments, net profit obligations, carried working interests and other payments out of or with respect to production which are of record as of the date this Assignment is filed of record, and with which any Lease is encumbered; and the Assignee, from the Effective Time forward, hereby assumes and agrees to pay, perform or carry,

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as the case may be, the Percent Assigned of each of said overriding royalties, production payments, net profit obligations, carried working interests and other payments out of or with respect to production, to the extent that it is or remains a burden on the Leases.

(5) All prior assignments of the Leases and all letter agreements, farmout agreements, purchase and sales agreements, operating agreements, unit agreements, orders of the Texas Railroad Commission and any and all similar agreements or governmental orders which are an encumbrance on the Leases as of the Effective Time, regardless as to recordation or the actual knowledge of the Assignee ("Existing Encumbrances"); however, from and after the Effective Time, Assignee shall be bound by but have the right to enjoy the obligations and rights, respectively, associated with the ownership of the Percent Assigned in and to the Leases.

With respect to the undivided interest in and to the Leases being assigned herein, this instrument is executed and recorded without any representations or warranties (of title, or otherwise), either statutory, express or implied, except that Assignor hereby covenants and warrants unto Assignee, Assignee's heirs, successors and/or assigns, by, through or under Assignor only, but not otherwise, that Assignor is the lawful owner of such interest with the full power and authority to sell and convey same and that such interest is now free and clear of any and all liens and encumbrances.

This Assignment is made subject to that certain Participation Agreement dated June 12, 2014 between Assignor and Assignee (the "Agreement"), which shall not merge into this Assignment and shall survive the execution and delivery hereof as provided therein. In the event of a conflict between this Assignment and the Agreement, the terms of the Agreement shall control.

In addition to this Assignment, Assignor shall execute, acknowledge, and deliver to Assignee, in a timely manner and without further consideration, any documents or instruments that Assignee may reasonably require, including, without limitation, further assignments or conveyances required by any state of federal authority, consents to further evidence the assignment and conveyance of the Leases by Assignor to Assignee. This Assignment may be executed in any number of counterparts, each of which shall be considered an original.

This Assignment shall bind and inure to the benefit of Assignor and Assignee and their respective successors and assigns.

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IN WITNESS WHEREOF, the undersigned has executed this instrument on the date of the acknowledgment annexed hereto, but effective for all purposes as of the Effective Time.

ASSIGNOR:

Panther Energy Company II, LLC
A Delaware limited liability company d/b/a
Panther Exploration Company, LLC

By: _____
James R. Stone, Executive Vice President

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
)
COUNTY OF TULSA)

This instrument was acknowledged before me on this 28 day of April 2015, by James R. Stone, Executive Vice President of Panther Energy Company II, LLC, a Delaware limited liability company, d/b/a Panther Exploration Company, LLC, on behalf of such limited liability company.

DIANE WEHRENBERG
Notary Public in and for the
State of Oklahoma
Commission #14007648
My Commission expires 8/25/2018

_____
Notary Public, State of Oklahoma

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ASSIGNEE:

CP2 Operating, LLC

By: Mark Clemans

Mark Clemans, President

ACKNOWLEDGMENT

STATE OF TEXAS)
)
COUNTY OF FORT BEND)

This instrument was acknowledged before me on this 20 day of April 2015, by Mark Clemans, President of CP2 Operating, LLC, a Delaware limited liability company on behalf of such limited liability company.

Nida Khan

Notary Public, State of Texas

NIDA KHAN
Notary Public, State of Texas
My Commission Expires
September 30, 2017

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EXHIBIT "A"

Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County
State of Texas, acting by and through its agent, Lucille Sepulveda Trustee of the Lucille Sepulveda Trust	Panther Energy Company II, LLC	7/7/2014	114	37	70962	Texas	Culberson
State of Texas, acting by and through its agent, Roberta Martha Chew a/k/a Roberta M Chew, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	45	70963	Texas	Culberson
State of Texas, acting by and through its agent, Francis Mitchell a/k/a Frances Mitchell, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	53	70964	Texas	Culberson
State of Texas, acting by and through its agent, Helen Mays a/k/a Helen Cano, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	62	70965	Texas	Culberson
State of Texas, acting by and through its agent, Benita Varas, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	71	70966	Texas	Culberson
State of Texas, acting by and through its agent, Margaret Colbeth, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	1	70958	Texas	Culberson
State of Texas, acting by and through its agent, Daniel C Pollock a/k/a Daniel Pollock Sr, individually and as heir of Robert Lee Pollock a/k/a/ Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	620	71227	Texas	Culberson
State of Texas, acting by and through its agent, M Ramona Johnson a/k/a M Ramona Buda	Panther Energy Company II, LLC	7/7/2014	114	79	70967	Texas	Culberson
State of Texas, acting by and through its agent, Alice E Lopez	Panther Energy Company II, LLC	7/7/2014	114	88	70968	Texas	Culberson
State of Texas, acting by and through its agent, Cynthia L Davis	Panther Energy Company II, LLC	7/7/2014	114	20	70960	Texas	Culberson
State of Texas, acting by and through its agent, B Yvonne Edwards	Panther Energy Company II, LLC	7/7/2014	114	29	70961	Texas	Culberson
State of Texas, acting by and through its agent, Robert A Ortiz	Panther Energy Company II, LLC	7/7/2014	114	96	70969	Texas	Culberson
State of Texas, acting by and through its agent, Joe Ray Ortiz	Panther Energy Company II, LLC	7/7/2014	114	104	70970	Texas	Culberson
State of Texas, acting by and through its agent, Margarita Fernandez	Panther Energy Company II, LLC	7/7/2014	114	11	70959	Texas	Culberson
State of Texas, acting by and through its agent, Amalia M Cox	Panther Energy Company II, LLC	7/7/2014	114	113	70971	Texas	Culberson
State of Texas, acting by and through its agent, Michael Rene Gallardo	Panther Energy Company II, LLC	7/7/2014	114	121	70972	Texas	Culberson
State of Texas, acting by and through its agent, Victor Gallardo	Panther Energy Company II, LLC	7/7/2014	114	130	70973	Texas	Culberson
State of Texas, acting by and through its agent, Jorge Antonio Gallardo aka George Antonio Gallardo	Panther Energy Company II, LLC	7/7/2014	114	139	70974	Texas	Culberson
State of Texas, acting by and through its agent, Irene Guerrero	Panther Energy Company II, LLC	7/7/2014	114	147	70975	Texas	Culberson
State of Texas, acting by and through its agent, Virginia Skolnik	Panther Energy Company II, LLC	7/7/2014	114	155	70976	Texas	Culberson
State of Texas, acting by and through its agent, Antonio E Bustamante Jr a/k/a Tony Bustamante	Panther Energy Company II, LLC	7/7/2014	114	164	70977	Texas	Culberson
State of Texas, acting by and through its agent, Eric Bustamante	Panther Energy Company II, LLC	7/7/2014	114	172	70978	Texas	Culberson

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Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County	
State of Texas, acting by and through its agent, Gloria Orona	Panther Energy Company II, LLC	7/7/2014	114	180	70979	Texas	Culberson	MF. 117111R
State of Texas, acting by and through its agent, Paul Bustamante	Panther Energy Company II, LLC	7/7/2014	114	189	70980	Texas	Culberson	117111T
State of Texas, acting by and through its agent, Olga Bustamante, individually and as heir of Jorge Bustamante, deceased	Panther Energy Company II, LLC	7/7/2014	114	562	71171	Texas	Culberson	117111X
State of Texas, acting by and through its agent, Cynthia R Benoit	Panther Exploration Company, LLC	12/1/2014	115	233	71429	Texas	Culberson	117408-C
State of Texas, acting by and through its agent, Catherine B Blum	Panther Exploration Company, LLC	12/1/2014	115	242	71430	Texas	Culberson	117408-B
State of Texas, acting by and through its agent, William C Benoit Trustee, William C Benoit Trust	Panther Exploration Company, LLC	12/1/2014	115	474	71520	Texas	Culberson	117408-A
RCS Inc.	Panther Exploration Company, LLC	11/4/2014	1135	0136	15-00015	Texas	Reeves	
Richard Thorpe	Panther Exploration Company, LLC	12/11/2014	1136	0206	15-00176	Texas	Reeves	
Charles Albert Adkisson	Panther Exploration Company, LLC	12/11/2014	1136	0210	15-00177	Texas	Reeves	
Margaret Adkisson Messinger	Panther Exploration Company, LLC	12/11/2014	1136	0202	15-00175	Texas	Reeves	
Ann Adkisson Lackey	Panther Exploration Company, LLC	12/11/2014	1139	0181	15-00593	Texas	Reeves	
Vera Irene Robb	Double Eagle Development, LLC	1/1/2015	1105	0564	14-08593	Texas	Reeves	
Dale Willard Robb	Double Eagle Development, LLC	1/1/2015	1105	0570	14-08594	Texas	Reeves	
Donald O Robb	Double Eagle Development, LLC	1/1/2015	1105	0606	14-08600	Texas	Reeves	
William Clayton Robb	Double Eagle Development, LLC	1/1/2015	1105	0612	14-08601	Texas	Reeves	
Dean Robb	Double Eagle Development, LLC	1/1/2015	1105	0588	14-08597	Texas	Reeves	
Jimmy Lyle Robb	Double Eagle Development, LLC	1/1/2015	1105	0600	14-08599	Texas	Reeves	
Richard B & Shareene A Robb, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0576	14-08595	Texas	Reeves	
Candace R & Willis Dale Shadowens, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0594	14-08598	Texas	Reeves	
Rebecca D & Robert Jeffrey Streuter, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0582	14-08596	Texas	Reeves	
State of Texas, acting by and through its agent, Nancy Ann Chandler	Panther Exploration Company, LLC	5/22/2014	1087	0303	14-05917	Texas	Reeves	116554N
State of Texas, acting by and through its agent, Sid Richardson Foundation	Panther Exploration Company, LLC	6/4/2014	1090	0412	14-06387	Texas	Reeves	116554O
State of Texas, acting by and through its agent, Patti P Wood	Panther Exploration Company, LLC	5/15/2014	1096	0340	14-07268	Texas	Reeves	116554Q
State of Texas, acting by and through its agent, Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, NA, Trustee	Panther Exploration Company, LLC	7/21/2014	1097	0597	14-07473	Texas	Reeves	116554P
State of Texas, acting by and through its agent, Howell Smith Wynne	Panther Exploration Company, LLC	9/15/2014	1116	0113	14-09967	Texas	Reeves	116554R
State of Texas, acting by and through its agent, EPB O&G TX LP, ARBGT (SRB) O&G TX, ARBGT (LMB) O&G LP & ARBGT (RMB) O&G TX	Panther Exploration Company, LLC	12/12/2014			15-01271	Texas	Reeves	116554S
State of Texas, acting by and through its agent, Gwendolyn B Geltemeyer	Panther Exploration Company, LLC	6/24/2014	1091	0193	14-06501	Texas	Reeves	116803A
State of Texas, acting by and through its agent, Jess St Clair, Guardian of Estate of Sharon St Clair	Panther Exploration Company, LLC	6/24/2014	1102	0054	14-08058	Texas	Reeves	116803B
Emily Robinson Fancher	Panther Exploration Company, LLC	9/19/2014	1116	0109	14-09966	Texas	Reeves	
Frances Robinson Pinkston	Panther Exploration Company, LLC	9/19/2014	1116	0105	14-09965	Texas	Reeves	
David M Stallard & Rebecca R Stallard Revocable Trust	Panther Exploration Company, LLC	9/26/2014	1116	0122	14-09968	Texas	Reeves	

THE STATE OF TEXAS
REEVES COUNTY
ORIGINAL FILED IN
REEVES COUNTY
CLERKS OFFICE
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TRUE & CORRECT

Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County
Kathleen Ann Roark	Panther Exploration Company, LLC	9/24/2014	1121	0271	14-10525	Texas	Reeves
Kevin Read Roark	Panther Exploration Company, LLC	9/24/2014	1121	0275	14-10526	Texas	Reeves
Matthew M Whiteacre	Panther Exploration Company, LLC	11/4/2014	1123	0760	14-10792	Texas	Reeves
Patrick Lee Hensley	Panther Exploration Company, LLC	12/2/2014	1135	0126	15-00013	Texas	Reeves
Lisa Anne Hudson	Panther Exploration Company, LLC	11/20/2014	1135	0130	15-00014	Texas	Reeves

Inst No. 15-03919
DIANNE O. FLOREZ
COUNTY CLERK
2015 May 06 at 01:39 PM
REEVES COUNTY, TEXAS
By: ER DEPUTY

TRUE & CORRECT
COPY OF
ORIGINAL FILED IN
REEVES COUNTY
CLERKS OFFICE

THE STATE OF TEXAS
COUNTY OF REEVES

I, Dianne O. Florez, Clerk of the County Court in and for said County and State do hereby certify that the foregoing is a true and correct copy of Assignment of OGL dated 4-28-15, filed for record in my office this 6th day of May at 1:39A o'clock P.M, under Clerk's File No. 150319, to be recorded in the Official Public Records of Reeves County, Texas.

TO CERTIFY WHICH, Witness my hand and official seal at Pecos, Texas this 6th day of May, 20 15.

By Elizabeth Rays, Deputy.

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

Doc# 00000071832

RECEIVED
MAY 11 2015
TEXAS GENERAL LAND OFFICE
ENERGY RESOURCES

ASSIGNMENT OF OIL AND GAS LEASES

ED# Same 9419
as Reeves Doc

STATE OF TEXAS)
COUNTIES OF REEVES AND CULBERSON

MF 116554 N-S | MF 117111 A-Y
MF 116803 A-B | MF 117408 A-B

eff 2-20-15

This Assignment of Oil and Gas Leases (this "Assignment"), dated effective as of February 20, 2015 at 7:00 a.m. Central Daylight Time (the "Effective Time"), is made by Panther Energy Company II, LLC, a Delaware limited liability company, d/b/a Panther Exploration Company, LLC, with a notice address of 6100 S Yale, Suite 600, Tulsa, Oklahoma 74136 ("Assignor") to CP2 Operating, LLC, with a notice address of 77 Sugar Creek Center Blvd, Suite 550, P O Box 3105, Sugar Land, Texas 77478 ("Assignee").

For and in consideration of Ten Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby **GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER AND DELIVER** unto Assignee, subject to the terms and reservations below, an undivided 49% interest (the "Percent Assigned") in and to the oil and gas leases described in Exhibit "A" attached hereto and made a part hereof, as extended or amended, and the lands (the "Lands") covered thereby, together with all rights incident thereto and appurtenances thereon (individually, where appropriate, "Lease," collectively "the Leases").

TO HAVE AND TO HOLD all and singular the Percent Assigned in the Leases together with such percentage of all rights, titles, interests, estates, remedies, powers and privileges thereunto appertaining unto Assignee and Assignee's successors and assigns forever; subject to the following matters:

(1) All easements, rights-of-way, servitudes, permits, surface leases and other rights in respect of surface operations;

(2) The terms and conditions of each Lease;

(3) All rights reserved to or vested in any municipality or governmental, tribal, statutory or public authority to control or regulate any of the Leases in any manner, and all applicable laws, rules and orders of governmental and tribal authority; and

(4) All overriding royalty interests, production payments, net profit obligations, carried working interests and other payments out of or with respect to production which are of record as of the date this Assignment is filed of record, and with which any Lease is encumbered; and the Assignee, from the Effective Time forward, hereby assumes and agrees to pay, perform or carry,

CULBERSON COUNTY TEXAS
True and Correct copy of Original filed in Culberson County Clerks Office
5-6-15

as the case may be, the Percent Assigned of each of said overriding royalties, production payments, net profit obligations, carried working interests and other payments out of or with respect to production, to the extent that it is or remains a burden on the Leases.

(5) All prior assignments of the Leases and all letter agreements, farmout agreements, purchase and sales agreements, operating agreements, unit agreements, orders of the Texas Railroad Commission and any and all similar agreements or governmental orders which are an encumbrance on the Leases as of the Effective Time, regardless as to recordation or the actual knowledge of the Assignee ("Existing Encumbrances"); however, from and after the Effective Time, Assignee shall be bound by but have the right to enjoy the obligations and rights, respectively, associated with the ownership of the Percent Assigned in and to the Leases.

With respect to the undivided interest in and to the Leases being assigned herein, this instrument is executed and recorded without any representations or warranties (of title, or otherwise), either statutory, express or implied, except that Assignor hereby covenants and warrants unto Assignee, Assignee's heirs, successors and/or assigns, by, through or under Assignor only, but not otherwise, that Assignor is the lawful owner of such interest with the full power and authority to sell and convey same and that such interest is now free and clear of any and all liens and encumbrances.

This Assignment is made subject to that certain Participation Agreement dated June 12, 2014 between Assignor and Assignee (the "Agreement"), which shall not merge into this Assignment and shall survive the execution and delivery hereof as provided therein. In the event of a conflict between this Assignment and the Agreement, the terms of the Agreement shall control.

In addition to this Assignment, Assignor shall execute, acknowledge, and deliver to Assignee, in a timely manner and without further consideration, any documents or instruments that Assignee may reasonably require, including, without limitation, further assignments or conveyances required by any state of federal authority, consents to further evidence the assignment and conveyance of the Leases by Assignor to Assignee. This Assignment may be executed in any number of counterparts, each of which shall be considered an original.

This Assignment shall bind and inure to the benefit of Assignor and Assignee and their respective successors and assigns.

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DCU 5-6-15

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date of the acknowledgment annexed hereto, but effective for all purposes as of the Effective Time.

ASSIGNOR:

Panther Energy Company II, LLC
A Delaware limited liability company d/b/a
Panther Exploration Company, LLC

By: _____
James R. Stone, Executive Vice President

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
)
COUNTY OF TULSA)

This instrument was acknowledged before me on this 28 day of April 2015, by James R. Stone, Executive Vice President of Panther Energy Company II, LLC, a Delaware limited liability company, d/b/a Panther Exploration Company, LLC, on behalf of such limited liability company.

_____
Notary Public, State of Oklahoma

NOTARY SEAL PUBLIC
DIANE WEHRENBERG
Notary Public in and for the
State of Oklahoma
Commission #14007648
My Commission expires 8/25/2018

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5-6-15

ASSIGNEE:

CP2 Operating, LLC

By: Mark Clemans

Mark Clemans, President

ACKNOWLEDGMENT

STATE OF TEXAS)
)
COUNTY OF FORT BEND)

This instrument was acknowledged before me on this 20 day of April 2015, by Mark Clemans, President of CP2 Operating, LLC, a Delaware limited liability company on behalf of such limited liability company.

Nida Khan

Notary Public, State of Texas

NIDA KHAN
Notary Public, State of Texas
My Commission Expires
September 30, 2017

True and Correct copy of Original filed in Culberson County Clerks Office
5-4-15

EXHIBIT "A"

Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County
State of Texas, acting by and through its agent, Lucille Sepulveda Trustee of the Lucille Sepulveda Trust	Panther Energy Company II, LLC	7/7/2014	114	37	70962	Texas	Culberson
State of Texas, acting by and through its agent, Roberta Martha Chew a/k/a Roberta M Chew, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	45	70963	Texas	Culberson
State of Texas, acting by and through its agent, Francis Mitchell a/k/a Frances Mitchell, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	53	70964	Texas	Culberson
State of Texas, acting by and through its agent, Helen Mays a/k/a Helen Cano, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	62	70965	Texas	Culberson
State of Texas, acting by and through its agent, Benita Varas, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	71	70966	Texas	Culberson
State of Texas, acting by and through its agent, Margaret Colbeth, individually and as heir of Robert Lee Pollock a/k/a Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	1	70958	Texas	Culberson
State of Texas, acting by and through its agent, Daniel C Pollock a/k/a Daniel Pollock Sr, individually and as heir of Robert Lee Pollock a/k/a/ Robert Pollock a/k/a Robert Pullock, deceased	Panther Energy Company II, LLC	7/7/2014	114	620	71227	Texas	Culberson
State of Texas, acting by and through its agent, M Ramona Johnson a/k/a M Ramona Buda	Panther Energy Company II, LLC	7/7/2014	114	79	70967	Texas	Culberson
State of Texas, acting by and through its agent, Alice E Lopez	Panther Energy Company II, LLC	7/7/2014	114	88	70968	Texas	Culberson
State of Texas, acting by and through its agent, Cynthia L Davis	Panther Energy Company II, LLC	7/7/2014	114	20	70960	Texas	Culberson
State of Texas, acting by and through its agent, B Yvonne Edwards	Panther Energy Company II, LLC	7/7/2014	114	29	70961	Texas	Culberson
State of Texas, acting by and through its agent, Robert A Ortiz	Panther Energy Company II, LLC	7/7/2014	114	96	70969	Texas	Culberson
State of Texas, acting by and through its agent, Joe Ray Ortiz	Panther Energy Company II, LLC	7/7/2014	114	104	70970	Texas	Culberson
State of Texas, acting by and through its agent, Margarita Fernandez	Panther Energy Company II, LLC	7/7/2014	114	11	70959	Texas	Culberson
State of Texas, acting by and through its agent, Amalia M Cox	Panther Energy Company II, LLC	7/7/2014	114	113	70971	Texas	Culberson
State of Texas, acting by and through its agent, Michael Rene Gallardo	Panther Energy Company II, LLC	7/7/2014	114	121	70972	Texas	Culberson
State of Texas, acting by and through its agent, Victor Gallardo	Panther Energy Company II, LLC	7/7/2014	114	130	70973	Texas	Culberson
State of Texas, acting by and through its agent, Jorge Antonio Gallardo aka George Antonio Gallardo	Panther Energy Company II, LLC	7/7/2014	114	139	70974	Texas	Culberson
State of Texas, acting by and through its agent, Irene Guerrero	Panther Energy Company II, LLC	7/7/2014	114	147	70975	Texas	Culberson
State of Texas, acting by and through its agent, Virginia Skolnik	Panther Energy Company II, LLC	7/7/2014	114	155	70976	Texas	Culberson
State of Texas, acting by and through its agent, Antonio E Bustamante Jr a/k/a Tony Bustamante	Panther Energy Company II, LLC	7/7/2014	114	164	70977	Texas	Culberson
State of Texas, acting by and through its agent, Eric Bustamante	Panther Energy Company II, LLC	7/7/2014	114	172	70978	Texas	Culberson

CULBERSON COUNTY TEXAS
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5-6-15

Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County
State of Texas, acting by and through its agent, Gloria Orona	Panther Energy Company II, LLC	7/7/2014	114	180	70979	Texas	Culberson
State of Texas, acting by and through its agent, Paul Bustamante	Panther Energy Company II, LLC	7/7/2014	114	189	70980	Texas	Culberson
State of Texas, acting by and through its agent, Olga Bustamante, individually and as heir of Jorge Bustamante, deceased	Panther Energy Company II, LLC	7/7/2014	114	562	71171	Texas	Culberson
State of Texas, acting by and through its agent, Cynthia R Benoit	Panther Exploration Company, LLC	12/1/2014	115	233	71429	Texas	Culberson
State of Texas, acting by and through its agent, Catherine B Blum	Panther Exploration Company, LLC	12/1/2014	115	242	71430	Texas	Culberson
State of Texas, acting by and through its agent, William C Benoit Trustee, William C Benoit Trust	Panther Exploration Company, LLC	12/1/2014	115	474	71520	Texas	Culberson
RCS Inc.	Panther Exploration Company, LLC	11/4/2014	1135	0136	15-00015	Texas	Reeves
Richard Thorpe	Panther Exploration Company, LLC	12/11/2014	1136	0206	15-00176	Texas	Reeves
Charles Albert Adkisson	Panther Exploration Company, LLC	12/11/2014	1136	0210	15-00177	Texas	Reeves
Margaret Adkisson Messinger	Panther Exploration Company, LLC	12/11/2014	1136	0202	15-00175	Texas	Reeves
Ann Adkisson Lackey	Panther Exploration Company, LLC	12/11/2014	1139	0181	15-00593	Texas	Reeves
Vera Irene Robb	Double Eagle Development, LLC	1/1/2015	1105	0564	14-08593	Texas	Reeves
Dale Willard Robb	Double Eagle Development, LLC	1/1/2015	1105	0570	14-08594	Texas	Reeves
Donald O Robb	Double Eagle Development, LLC	1/1/2015	1105	0606	14-08600	Texas	Reeves
William Clayton Robb	Double Eagle Development, LLC	1/1/2015	1105	0612	14-08601	Texas	Reeves
Dean Robb	Double Eagle Development, LLC	1/1/2015	1105	0588	14-08597	Texas	Reeves
Jimmy Lyle Robb	Double Eagle Development, LLC	1/1/2015	1105	0600	14-08599	Texas	Reeves
Richard B & Shareene A Robb, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0576	14-08595	Texas	Reeves
Candace R & Willis Dale Shadowens, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0594	14-08598	Texas	Reeves
Rebecca D & Robert Jeffrey Streuter, H&W as JTs	Double Eagle Development, LLC	1/1/2015	1105	0582	14-08596	Texas	Reeves
State of Texas, acting by and through its agent, Nancy Ann Chandler	Panther Exploration Company, LLC	5/22/2014	1087	0303	14-05917	Texas	Reeves
State of Texas, acting by and through its agent, Sid Richardson Foundation	Panther Exploration Company, LLC	6/4/2014	1090	0412	14-06387	Texas	Reeves
State of Texas, acting by and through its agent, Patti P Wood	Panther Exploration Company, LLC	5/15/2014	1096	0340	14-07268	Texas	Reeves
State of Texas, acting by and through its agent, Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, NA, Trustee	Panther Exploration Company, LLC	7/21/2014	1097	0597	14-07473	Texas	Reeves
State of Texas, acting by and through its agent, Howell Smith Wynne	Panther Exploration Company, LLC	9/15/2014	1116	0113	14-09967	Texas	Reeves
State of Texas, acting by and through its agent, EPB O&G TX LP, ARBGT (SRB) O&G TX, ARBGT (LMB) O&G LP & ARBGT (RMB) O&G TX	Panther Exploration Company, LLC	12/12/2014			15-01271	Texas	Reeves
State of Texas, acting by and through its agent, Gwendolyn B Geltemeyer	Panther Exploration Company, LLC	6/24/2014	1091	0193	14-06501	Texas	Reeves
State of Texas, acting by and through its agent, Jess St Clair, Guardian of Estate of Sharon St Clair	Panther Exploration Company, LLC	6/24/2014	1102	0054	14-08058	Texas	Reeves
Emily Robinson Fancher	Panther Exploration Company, LLC	9/19/2014	1116	0109	14-09966	Texas	Reeves
Frances Robinson Pinkston	Panther Exploration Company, LLC	9/19/2014	1116	0105	14-09965	Texas	Reeves
David M Stallard & Rebecca R Stallard Revocable Trust	Panther Exploration Company, LLC	9/26/2014	1116	0122	14-09968	Texas	Reeves

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5-26-15

Lease Name	Lessee	Lease Date	Book	Page	Entry	State	County
Kathleen Ann Roark	Panther Exploration Company, LLC	9/24/2014	1121	0271	14-10525	Texas	Reeves
Kevin Read Roark	Panther Exploration Company, LLC	9/24/2014	1121	0275	14-10526	Texas	Reeves
Matthew M Whiteacre	Panther Exploration Company, LLC	11/4/2014	1123	0760	14-10792	Texas	Reeves
Patrick Lee Hensley	Panther Exploration Company, LLC	12/2/2014	1135	0126	15-00013	Texas	Reeves
Lisa Anne Hudson	Panther Exploration Company, LLC	11/20/2014	1135	0130	15-00014	Texas	Reeves

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5-6-15

25

File No. MF 116554

Asn FDH 9419 Lantern to CP2 Opr.

Date Filed: 5-11-15

George P. Bush, Commissioner

By

THE STATE OF TEXAS

COUNTY OF CULBERSON I, Linda McDonald, Clerk of the County Court in and for said County and State, do hereby certify that the foregoing is a true and correct copy of Assg of Oil & Gas Lease dated April 28 2015 filed for record in my office this 11th day of May 2015 at 3:07 P.M. under Clerk's File No. 71832 to be recorded in the Oil & Gas Records of Culberson County, Texas.

TO CERTIFY WHICH, Witness my hand and seal at Van Horn this 11th day of May 2015

By Dina C Lucio Deputy

LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS

16-08301
FILED FOR RECORD
REEVES COUNTY, TEXAS
Jul 07, 2016 at 09:44:00 AM

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECUITY NUMBER OR YOUR DRIVER'S LICECNSE NUMBER.

VOL 1287 PG 0784

RELEASE OF OIL AND GAS LEASE
(FULL RELEASE)

MF. 116554C

STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF REEVES §

That Energen Resources Corporation, for and in consideration of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION ($10.00) the receipt of which is hereby acknowledged, does hereby release, relinquish and surrender to The State of Texas, acting by and through its agent, Riki Lewis Long, or its heirs or assigns, all right, title and interest, being a 100% interest, in and to a certain oil and gas mining lease made and entered into by and between The State of Texas, acting by and through its agent, Riki Lewis Long, as Lessor, and Energen Resources Corporation, as Lessee, dated the 21st day of October, 2013, covering the following described lands situated in Reeves County, State of Texas, to wit:

All of Section 16, Block 54, Township 4, Save and Except the NE/4 NE/4, T&P Ry Co Survey

Containing 600.00 acres, more or less, said lease being recorded in the office of the County Clerk in and for said County at Volume 1035 Page 376.

IN WITNESS WHEREOF, Lessee has executed this Release of Oil and Gas Lease on the date of the acknowledgment set forth below, to be effective, however, for all purposes, as of 7:00 A.M., local time, where the Lease is located, on May14, 2016 (the "Effective Time").

Lessee/Owner: Energen Resources Corporation

By: _____
David W. Bolton, Vice President - Land

ACKNOWLEDGEMENT

THE STATE OF ALABAMA §
§
COUNTY OF JEFFERSON §

The foregoing instrument was executed before me this 23rd day of June, 2016, by Dave Bolton, Vice President - Land, on behalf of Energen Resources Corporation.

JEREMIAH TODD PENLEY
My Commission Expires
December 20, 2018

Notary Public Jeremiah T. Penley
My Commission Expires: 12/20/2018

Inst No. 16-08301
DIANNE O. FLOREZ
COUNTY CLERK
2016 Jul 07 at 09:44 AM
REEVES COUNTY, TEXAS
By: BA Brittany Avila DEPUTY

TRUE & CORRECT COPY OF ORIGINAL FILED IN REEVES COUNTY CLERKS OFFICE

91.00

File No. 146554

_____ County

Release

Date Filed: 09/01/16

George P. Bush, Commissioner

By _____

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF REEVES

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the public records of my office, found in VOL. 127, PAGE 784, THRU 784.

I hereby certified on 23 August 2016

DIANNE O. FLOREZ, COUNTY CLERK
REEVES COUNTY, TEXAS

BY Elisa Garcia DEPUTY

TOWNS & HAGEMANN, INC.
Texas Regulatory Consultants

March 7, 2017

Texas General Land Office
Mr. Matthew Scott
1700 N. Congress Ave
Austin, Texas 78711

RE: Panther Exploration LLC Request to Commingle Oil & Gas Production from the Titan State 16 Lease, MF116554,MF116791,MF118163, Mac State 20 Lease, MF116334 and Fiver State Lease, MF114285, MF109880, MF118232, MF115997. Reeves County, Texas.

Dear Mr. Scott:

Please find the following information:

1. GLO attachment 2
2. Commingling Narrative
3. Lease drawing showing Oil, Water, Gas
4. Facility drawing
5. Approved copy of RRC form P-17
6. Copy of area map
7. Copy of individual well plats

Please let me know if you need any additional information.

Thanks for your assistance in this matter.

Very Truly Yours,

Steve Towns, Consultant
Panther Exploration LLC

ATTACHMENT NO. 2

Commingle Permit Applicant:
RRC District: 8
RRC Form P-17 Permit No.: applied
RRC P-17 Application Date: 2/1/2017

REPORTS OIL PRODUCTION ON FORM PR AND EACH STATE LEASE IS EQUIPPED WITH AN OIL AND GAS SEPARATOR WITH OIL AND GAS SEPARATELY METERED BEFORE COMMINGLING WITH OTHER LEASES.

					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2
P-17 RRC Request Status	Lease Commingle Facility Name	RRC Field Name	RRC Lease Name	RRC Well No.	RRC Lease/ID No.	Wellbore 10 Digit API No.	RRC Lease Form P4 Operator	RRC Lease Type (Oil/Gas)	RRC Well Status	State Mineral Lease No.	GLO or Private Unit Name (If Unitized)	GLO Unit No.	State Mineral Lease or Unit Net Royalty Interest
Applied for	Titan State 16	Phantom (Wolfcamp)	Titan State Unit 16	1H	DP817299	4238935323	Panther Exploration, LLC	Oil	Pumping	MF-116554	Titan State Unit	8343	25.0000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Titan State Unit 16	1H	DP817299	4238935323	Panther Exploration, LLC	Oil	Pumping	MF- 116791	Titan State Unit	8343	25.0000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Titan State Unit 16	1H	DP817299	4238935323	Panther Exploration, LLC	Oil	Pumping	MF-118163	Titan State Unit	8343	25.0000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Mac State 20	1H	DP817694	4238935349	Panther Exploration, LLC	Oil	Pumping	MF-116344			25.0000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Fiver State 18	1H	DP820244	4238935512	Panther Exploration, LLC	Oil	Pumping	MF-114285	Fiver State Unit	8293	12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Fiver State 18	1H	DP820244	4238935512	Panther Exploration, LLC	Oil	Pumping	MF-109880	Fiver State Unit	8293	12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Fiver State 18	1H	DP820244	4238935512	Panther Exploration, LLC	Oil	Pumping	MF-118232	Fiver State Unit	8293	12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Fiver State 18	1H	DP820244	4238935512	Panther Exploration, LLC	Oil	Pumping	MF-115997	Fiver State Unit	8293	12.5000%
					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2

NOTES:
1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE.
IF, DUE TO DEPTH LIMITATIONS, SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE PRODUCING FIELD INTERVAL.
IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE MINERAL LEASES THEN ENTER EACH STATE MINERAL LEASE ASSOCIATED WITH THE PRODUCING FIELD INTERVAL IN ORDER FROM THE HEAL (FIRST TAKE POINT) TO THE TOE (LAST TAKE POINT) OF THE WELL AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NRI IN THE APPROPRIATE COLUMNS.

2. ENTER THE STATE MINERAL LEASE INTEREST UNLESS THE WELL IS ASSOCIATED WITH A GLO POOLED UNIT THEN ENTER THE POOLED UNIT NET ROYALTY INTEREST.

3. IF RRC LEASE ID PENDING ASSIGNMENT THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NO. FOR THE COMPLETED INTERVAL.

PANTHER EXPLORATION, LLC

LEASE NAME & WELL NO.:

TITAN STATE 16 1H

TOPOGRAPHY & VEGETATION:

MATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:

±16.4 MILES NORTHWEST OF PECOS, TEXAS

DESCRIPTION:

SHL: SECTION 17, BLOCK 54, T-4, T. & P. RR. CO. SURVEY, A-779
PP/FTP/LTP/BHL: SECTION 16, BLOCK 54, T-4, T. & P. RR. CO. SURVEY
REEVES COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"
All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:
This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

STATE OF TEXAS REGISTERED WILLIAM J. KEATING 5041 PROFESSIONAL LAND SURVEYOR

William J. Keating

Texas Reg. No. 5041

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
2903 NORTH BIG SPRING - MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1663 OR (800) 767-1663 • FAX (432) 682-1745
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500

LO_TITAN_STATE_16_1H

Surface Hole Location:
390' FNL & 530' FEL (SEC. 17)
SHL Ground Elevation: 2822'
X = 955227 Y = 715910
LAT.: N 31.5917812 LONG.: W 103.6892703
NAD 83 TX-C ZONE:
X = 1251690 Y = 10558486
LAT.: N 31.5919115 LONG.: W 103.6897311

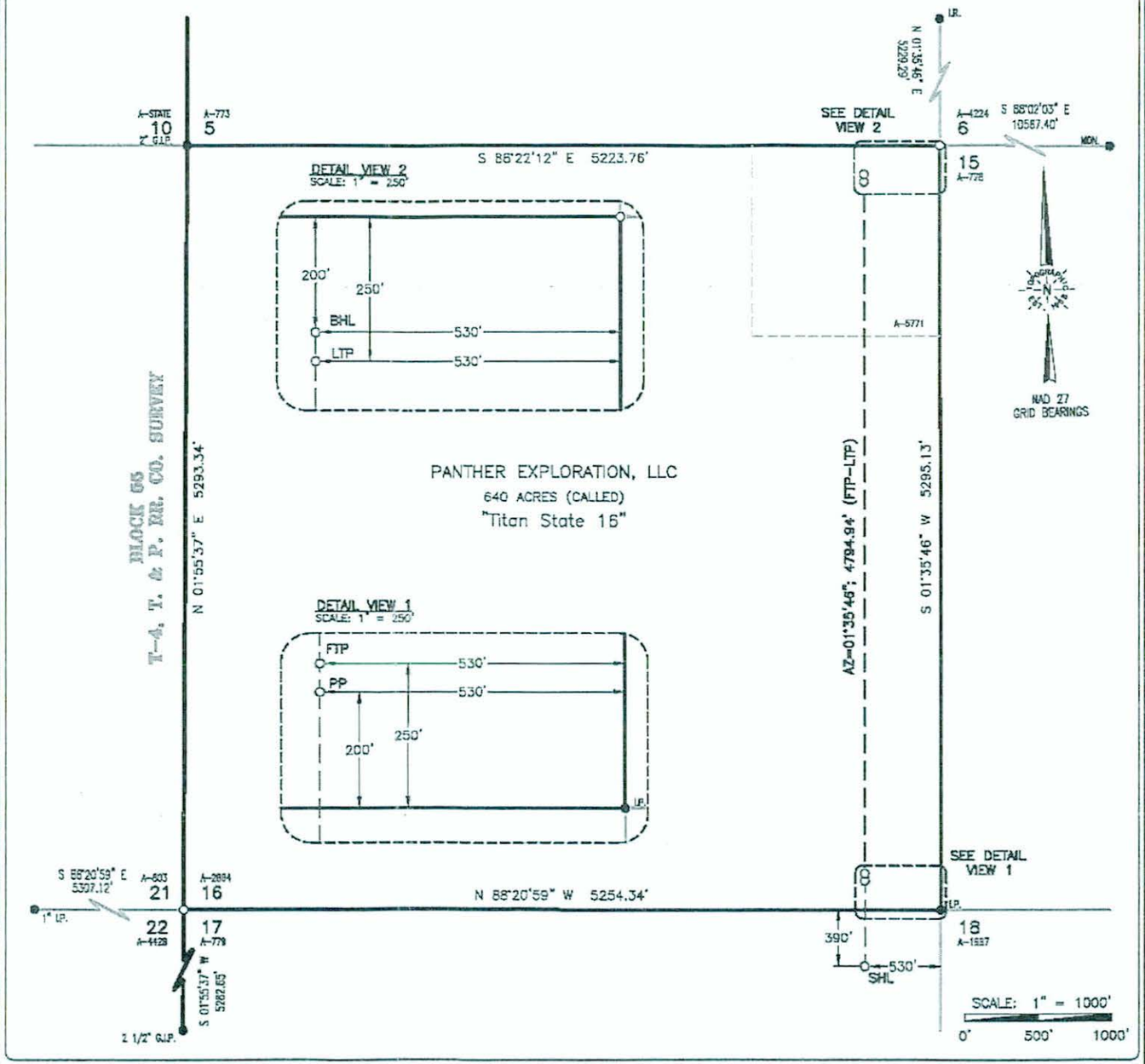
Penetration Point:
200' FSL & 530' FEL (SEC. 16)
X = 955243 Y = 716500
LAT.: N 31.5934031 LONG.: W 103.6892736

First Take Point:
250' FSL & 530' FEL (SEC. 16)
X = 955245 Y = 716550
LAT.: N 31.5935406 LONG.: W 103.6892739

Last Take Point:
250' FNL & 530' FEL (SEC. 16)
X = 955378 Y = 721343
LAT.: N 31.6067228 LONG.: W 103.6893095

Bottom Hole Location:
200' FNL & 530' FEL (SEC. 16)
X = 955380 Y = 721393
LAT.: N 31.6068603 LONG.: W 103.6893099

LEGEND
- Section Line
- Block Line
- Abstract Line
- Tract Line
- Lease Road
- County Road
- Unit/Lease Boundary
- Found Monument
- Set 1/2" Rebar w/cap
- Calculated Corner



Surveyed:	06-21-2016	COGO: 629-65432	Drawn By: MP: 06-28-2016
Scale:	1"=1000'		Revision: ( ) Date Revised: / /

PANTHER EXPLORATION, LLC

LEASE NAME & WELL NO.:

FIVER STATE 18-1H

TOPOGRAPHY & VEGETATION:

NATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:

±16.4 MILES NORTHWEST OF PECOS, TEXAS

DESCRIPTION:

SECTION 18, BLOCK 54, T-4, T. & P. RR. CO. SURVEY
REEVES COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"
All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:

This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

STATE OF TEXAS
REGISTERED
WILLIAM J. KEATING
5041
PROFESSIONAL
LAND SURVEYOR

William J. Keating

Texas Reg. No. 5041

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
2903 NORTH BIG SPRING - MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1663 OR (800) 767-1663 - FAX (432) 682-1745
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500

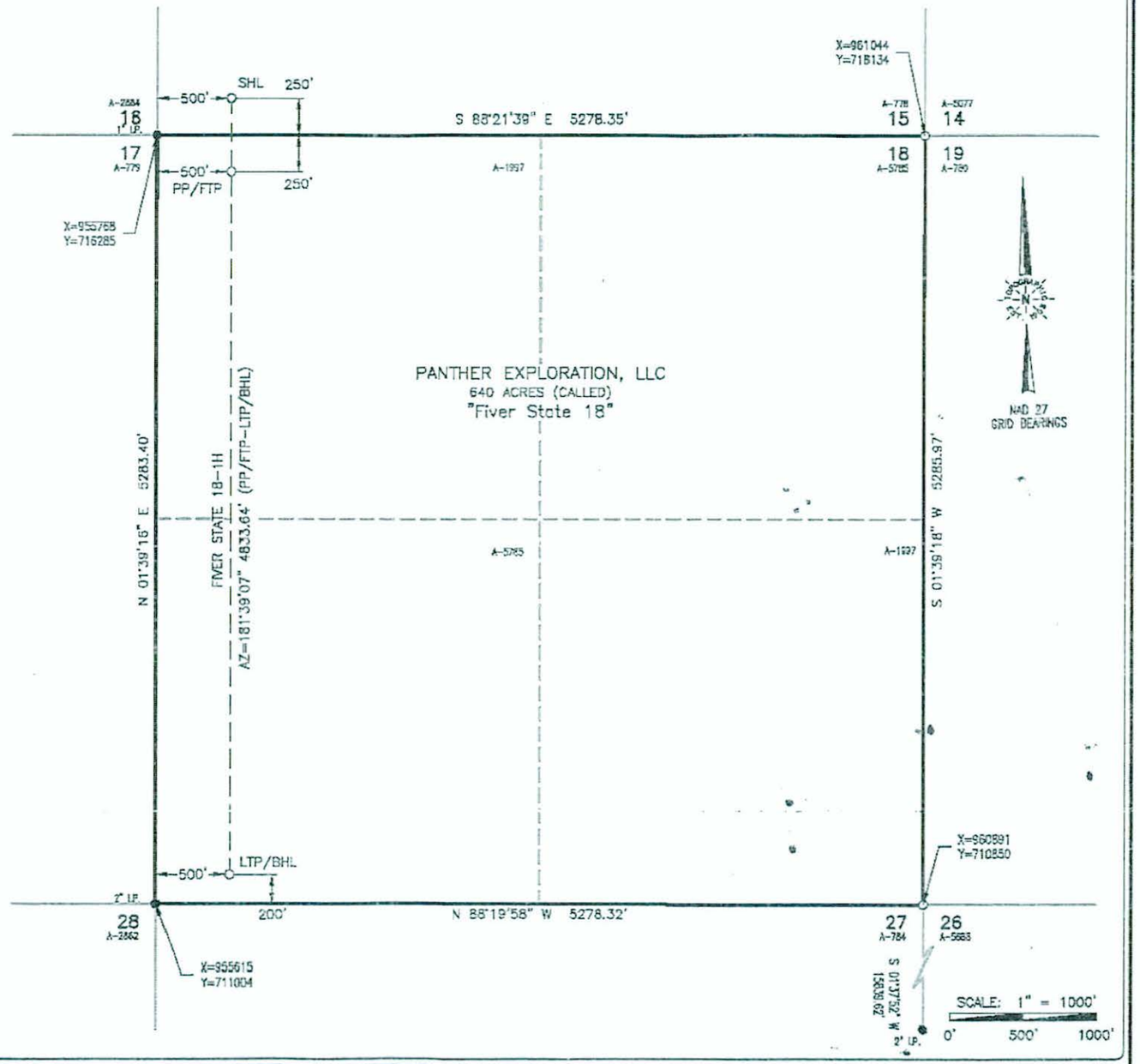
LO_FIVER_STATE_18_1H_REV1

Surface Hole Location:
250' FSL & 500' FWL (SEC 15)
SHL Ground Elevation: 2825'
X = 956274 Y = 716520
LAT.: N 31.5935447 LONG.: W 103.6859659
NAD 83 TX-C ZONE
X = 1252738 Y = 10559096
LAT.: N 31.5936750 LONG.: W 103.6864265

Penetration Point/ First Take Point:
250' FNL & 500' FWL (SEC 18)
X = 956260 Y = 716021
LAT.: N 31.5921701 LONG.: W 103.6859638
NAD 83 TX-C ZONE
X = 1252723 Y = 10558595
LAT.: N 31.5923005 LONG.: W 103.6864244

Last Take Point/ Bottom Hole Location:
200' FSL & 500' FWL (SEC 18)
X = 956121 Y = 711189
LAT.: N 31.5788814 LONG.: W 103.6859435
NAD 83 TX-C ZONE
X = 1252584 Y = 10553765
LAT.: N 31.5790120 LONG.: W 103.6864039

LEGEND
- Section Line
- Block Line
- Abstract Line
- Tract Line
- Lease Road
- County Road
- Unit/Lease Boundary
- Found Monument
- Set 1/2" Rebar w/cap
- Calculated Corner



Surveyed:	10-26-2016	Drawn By:	MP: 10-31-2016
Scale:	1"=1000'	Revision: MP	Date Revised: 11-10-16
COGO:	629-65432		

PANTHER EXPLORATION, LLC

LEASE NAME & WELL NO.:

MAC STATE 20-1H

TOPOGRAPHY & VEGETATION:

NATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:

±18.50 MILES NORTHWEST OF PECOS, TEXAS

DESCRIPTION:

SHL: SECTION 23, BLOCK 55 T-4, T & P RR. CO. SURVEY, A-804
PP/FTP/LTP/BHL: SECTION 20, BLOCK 55 T-4, T & P RR. CO. SURVEY, A-4643
REEVES COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"
All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:
This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

STATE OF TEXAS REGISTERED WILLIAM J. KEATING 5041 PROFESSIONAL LAND SURVEYOR

William J. Keating

Texas Reg. No. 5041

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TELEPHONE: (432) 682-1663 OR (800) 767-1663 • FAX (432) 682-1745
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500

FILE NAME: LO_MAC_STATE_20_1H

Surface Hole Location:
250' FNL & 500' FWL (SEC 23)
SHL Ground Elevation: 2906'
X = 940425 Y = 716473
LAT.: N 31.5920924 LONG.: W 103.7368421
NAD 83 TX-C ZONE:
X = 1236888 Y = 10559049
LAT.: N 31.5922225 LONG.: W 103.7373047

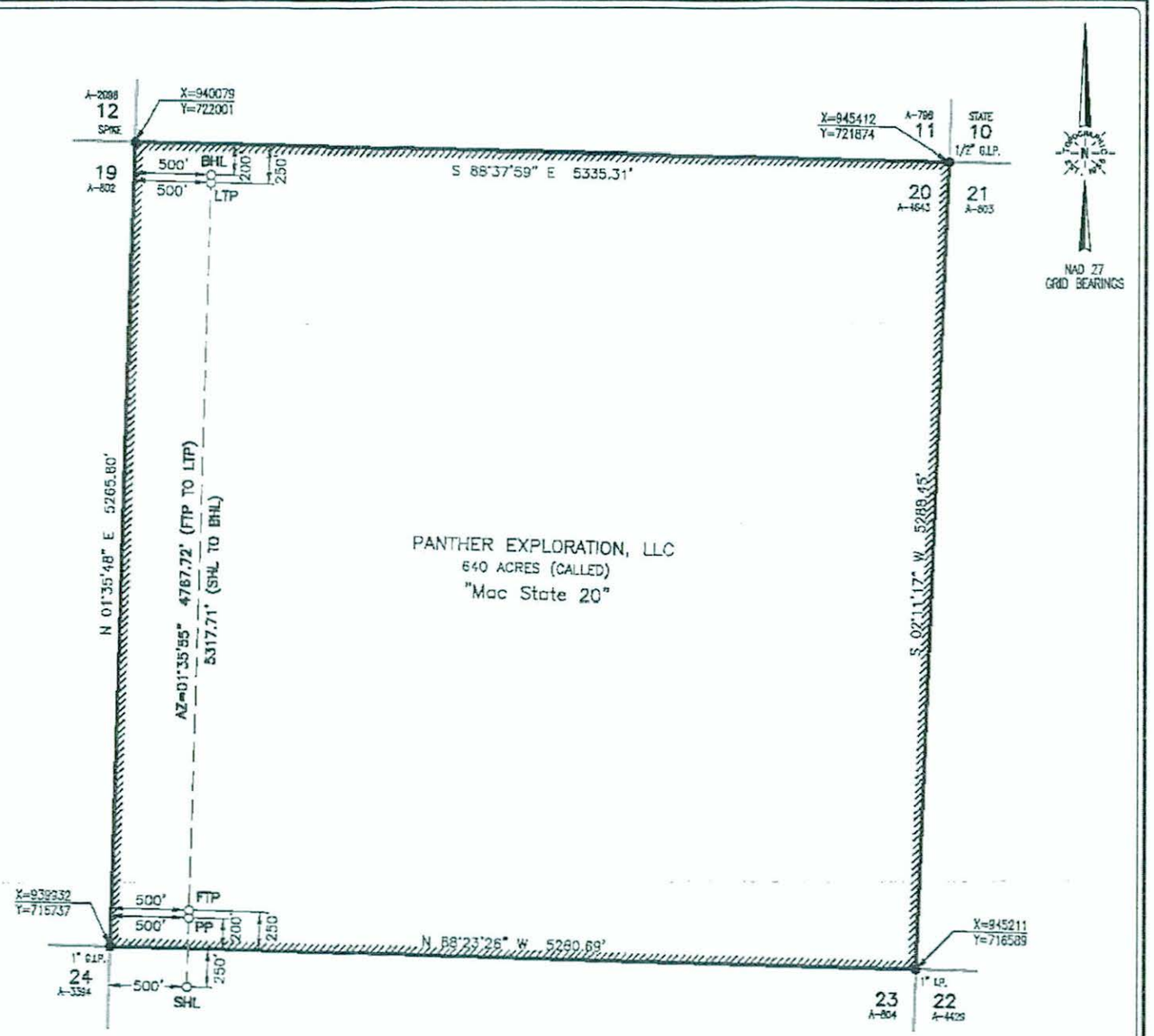
Penetration Point:
200' FSL & 500' FWL (SEC 20)
X = 940437 Y = 716923
LAT.: N 31.5933295 LONG.: W 103.7368460

First Take Point:
250' FSL & 500' FWL (SEC 20)
X = 940439 Y = 716973
LAT.: N 31.5934669 LONG.: W 103.7368464

Last Take Point:
250' FNL & 500' FWL (SEC 20)
X = 940572 Y = 721739
LAT.: N 31.6065743 LONG.: W 103.7368877

Bottom Hole Location:
200' FNL & 500' FWL (SEC 20)
X = 940573 Y = 721789
LAT.: N 31.6067117 LONG.: W 103.7368881

LEGEND
- Section Line
- Block Line
- Abstract Line
- Tract Line
- Lease Road
- County Road
- Unit/Lease Boundary
- Found Monument
- Set 1/2" Rebar w/cap
- Calculated Corner



Surveyed: 07/28/16	COGO: 629-65432	Drawn By: ED; 08/01/2016	
Scale: 1"=1000'		Revision: ( )	Date Revised: / /

Commingling Narrative For

The Titan State 16 1H Well, Mac State 20 1H Well & Fiver State 18 1H Well

Flow Plan

The Titan State 16 1H well (API #42-389-35323, RRC Permit #817299) is a pumping oil well in RRC District 8 of Reeves County, TX. The Titan State 1H is drilled on State Mineral Lease No MF-116554, MF116791 & MF 118163 and is completed in the Phantom (Wolfcamp) field. The Titan State 1H is the first well in the area and is supported by a facility designed for expansion.

The Mac State 20 1H (API #42-389-35349, RRC Permit # 817694) is a flowing oil well in RRC District 8 of Reeves County, TX. The Mac State 20 1H is drilled on State Mineral Lease No MF116334. It is completed in the Phantom (Wolfcamp) field. The Mac State 20 1H is located approximately 1 mile West of the Titan facility.

The Fiver State 18 1H well (API# 4238935512, RRC Permit#820244) is a flowing oil well in RRC Dist 8 in Reeves County, Tx. The Fiver State is drilled on State Mineral leases No MF114285, Mf109880, MF118232,& MF 115997. It is completed in the Phantom (Wolfcamp) field. The Fiver is located approximately 1 mile East of the Titan facility.

It is desired to commingle the Titan State 16 1H, the Mac State 20 1H and the Fiver State 18 1H at the Titan 16 well 1H State central production facility. Each well will have a separate low pressure separator it will deliver production to where oil, gas and water are individually metered for each well. Once those streams are produced to the facility piping they will be commingled as shown on the attached drawings and as explained below. Allocations will be performed on a monthly basis.

The production stream from each well will be produced to a dedicated separator, each with a dedicated oil, gas and water meter. The allocation procedure is designed to maintain the integrity of production and ensure each lease has its own production attributed to sales, fuel usage and loss in accordance with industry practices, lease terms and The State of Texas laws, rules and regulations.

Gas Commingling Allocation Description

The basis of gas allocation is to determine a theoretical volume for each well and to determine a Field Factor for each natural gas component. That theoretical volume, after adjustment to remove water vapor volume, is applied to the allocation process by component to attribute sales gas component volumes (on a molecular basis) back to the theoretical volume. In this way it forces all contributions to equal the component mole volumes remaining for a controlled value based on mass.

For the gas flow commingling, please find attached drawing Gas Flow Schematic.

The three wells shall produce through their separator directly through an AGA approved gas meter where they are commingled into a common production header. The production header has two places of output, a shared flare scrubber and the compressor discharge in a high pressure header.

The high pressure header has three outputs. The HP header can sell to sales through a meter , recirculate gas through the makeup meter and provides a source of metered fuel gas.

The high pressure header has two inputs, the compressor and by way of a Buyback Meter and input from the pipeline Regency gas meter .

Gas allocations will be made on a molecular basis from sales back to the flowline using mole volumes and fractions. Component calculation will include non-saleable gases that are carbon dioxide, nitrogen and hydrogen sulfide. The saleable gases calculated will be methane, ethane, propane, iso butane, normal butane, iso pentane, normal pentane, hexane and C7's+. A representative gas analysis will be taken at least quarterly from each well low pressure separator and from sales specifically to determine these components for allocation.

The meters identify the mass into and out of a controlled volume. Calculations of water content will then be made and a volume ration established for each meter for use in continuity equations. A Field Factor (FF) will be solved for each gas constituent named above.

For example, the Field Factor calculation for Methane will have in its numerator, the sales metered volume times the mole % of methane. In the denominator will be additive input volumes times the mole% of methane entering the system and negative volumes time mole % for the volumes leaving the system. This will determine the Field Factor for methane, in this instance. This process will be repeated for each gas component.

Next, the Field Factor will be utilized to determine the volume percentage of each component to adjust meter volumes for fuel use and flare. A well that is a higher producing well should share in higher fuel consumption for compression.

In the compression cycle liquids drop out and they will primarily revaporize at expansion to tank conditions. Therefore, the loss will be attributed back to the well on an adjusted volume basis.

This process will be repeated for each gas component.

The volume of each wellstream to sales, as adjusted on a molecular basis, will determine a BTU from the molecular which will be used to allocate the percentage of payment from gas sales.

For natural gas liquids, Settlement volumes from the gas plant will be allocated on the molecular % of each component each well contributed through the sales meter and previously determined in the commingling routines. The percentage of well settlement volume will be allocated that same percentage of proceeds received. In the case that gallons of liquids received do not go to C7's plus, all liquids at that last payment determination (for example, Pentanes plus) will be summed to

determine payment percentage. For example, when Pentanes plus are the limit of liquids determination, the Pentane, Hexane and C7's + fractions will be summed for each wellstream as determined through sales and calculated commingling routines to identify the individual allocated well shares.

Oil Commingling Allocation Description

For the oil flow commingling, please find attached drawings, Oil Flow Schematic and Water Flow Schematic.

First, for simplicity, the water flow will be considered. Water will be dumped from either separator into a common water line to a gun barrel tank. The facility heater treater, fuel gas scrubbers and flare scrubber dumps to this water line.

All wells separator will dump water through a meter to the gun barrel. The gun barrel will then skim oil from the dumps for delivery to a skim tank and the water will go to the three water tanks for disposal primarily to the approved SWD well. Oil skimmed from the gun barrel and all inputs to the gun barrel will be allocated on the percentage of total water that each of the three wells contributes. That water allocation will directly determine the allocation of skim tank volume to be described for the Oil Flow to follow.

The Oil flow consists of metered volume from the three wells separators. The measurement of the oil stream from both separator is on proved meter basis compensating for oil gravity (temperature and pressure compensation), temperature of oil for volume determination and pressure of oil for volume determination. The determination of metered oil volumes allocated to each well use these meters and the sales tanks for allocation.

The high pressure separator dumps gas liquids formed during the compression process to the Titan State separator. This necessitates that oil and gas samples taken from the Titan and attributed to the Titan must be isolated from the hp separator and all fluids/gases exchanged form the separator before taking samples for use in allocating Astro production. The Titan production will be decremented before the allocation process on the basis of calculated liquid volume dumped from the HP separator into the Astro separator that remains as liquid. The liquid from the HP separator that flashes back as gas will be calculated and subtracted from the Titan gas volumes on a monthly basis. The liquids and the gas collected at the Titan from the HP sep dump will be allocated back to the three wells on the basis of the molecular volume difference from the LP Sep meters and the Sales Meter.

The HP dump notwithstanding, the remainder of the oil allocation is straightforward. Oil production for the month is determined on opening and closing volumes in the oil tanks and oil sales tickets. That monthly production will be allocated back to the wells on the basis of the

adjusted Titan oil metered wellhead volume (wellhead = metered volume minus liquids from HP sep) and the Mac State and Fiver State oil metered volumes.

The skim oil captured in the skim oil tank, will be allocated on the basis of the month's opening and closing volumes and oil ticket receipts. This allocation, however, will be based on the aforementioned water allocations. Total oil for the month is the sum of allocated tank and skim volumes.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

Form P-17
Rev. 04/2015

☐ New
☒ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 2 / 2017
District 08
County REEVES

SECTION 1. OPERATOR INFORMATION

Operator Name: Panther Exploration, LLC | Operator P-5 No.: 638506

Operator Address: 6100 S Yale Ave., Suite 600, Tulsa OK 74136

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: SUNOCO PTNRS. MKTG. & TERMINALS LP | Gatherer P-5 No.: 829626

Gatherer Address: 3807 WEST CHESTER PIKE, NEWTOWN SQ., PA 19073-2304

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ☒ OIL ☒ CASINGHEAD GAS ☐ GAS WELL GAS ☐ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ☒ This exception is for common storage.
f) ☒ This exception is for common separation.
g) ☒ This exception is for casinghead gas metering by: ☒ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ☒ The production is measured separately from all leases or individual wells before commingling. (*Notice not required; Skip to Section 5*)
b) ☐ The royalty interests and working interests are the same with respect to identity and percentage. (*Notice not required*)
c) ☒ The royalty interests and working interests are not the same with respect to identity and percentage. (*Notice required*)
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☒ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. (*Notice required unless 4e. or 4f. apply; see instructions for additional requirements*)
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. (*Notice not required*)
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. (*Notice not required*)
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. (*Notice required*)

SECTION 5. ☐ **Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1.** *(See instructions)*

SECTION 6. ☒ **For oil production, the production from all oil wells on each oil lease is to be commingled.** *(See instructions)*

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	817299 (DP)	☒ Existing ☐ Add ☐ Delete	TITAN STATE 16, PHANTOM (WOLFCAMP)	1H
08	817694 (DP)	☒ Existing ☐ Add ☐ Delete	MAC STATE 20, PHANTOM (WOLFCAMP)	1H
08	820244 (DP)	☐ Existing ☒ Add ☐ Delete	FIVER STATE 18, PAHNTOM (WOLFCAMP)	1H
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ☒ No additional pages ☐ Additional pages ____ (# of additional pages)

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

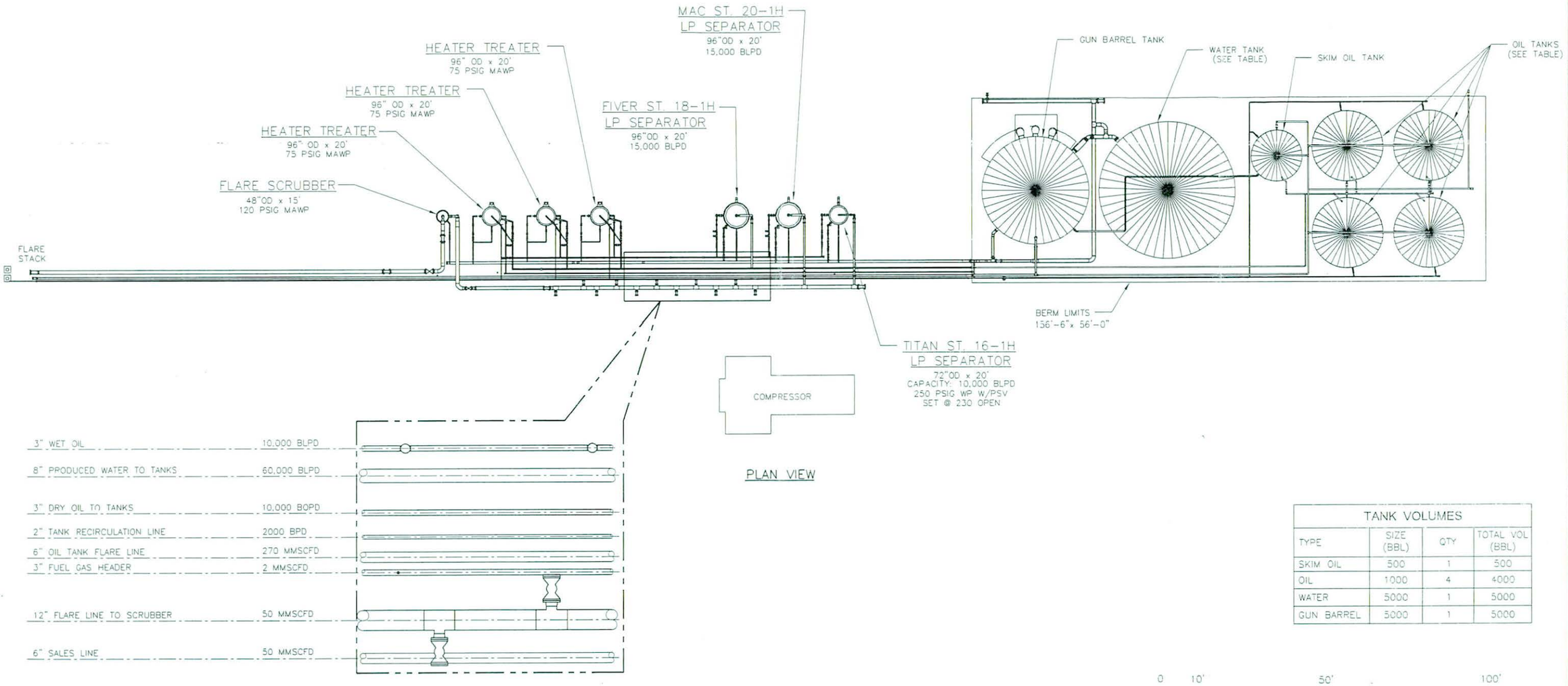
Signature_____ Title REGULATORY ANALYST Date 02/01/2017

Operator E-mail Address: ROSALINEK@PANTHERENERGY.US Operator Phone No. 918-551-7166
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. _____ Approval date: _____ Approved by: _____

TITAN BATTERY



PLAN VIEW

TANK VOLUMES			
TYPE	SIZE (BBL)	QTY	TOTAL VOL (BBL)
SKIM OIL	500	1	500
OIL	1000	4	4000
WATER	5000	1	5000
GUN BARREL	5000	1	5000



SCALE

NOTES

ISSUED FOR REVIEW
DATE: 12/14/16

REVISIONS

NO.	DATE	BY	DESCRIPTION	CK'D	APP.
A	12/14/16	TAB	ISSUED FOR REVIEW		

PROPRIETARY

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PANTHER ENERGY COMPANY II, LLC

CLIENT | ENGINEERING APPROVAL

PETRONYX consulting engineers LLC
New Orleans, LA Houston, TX

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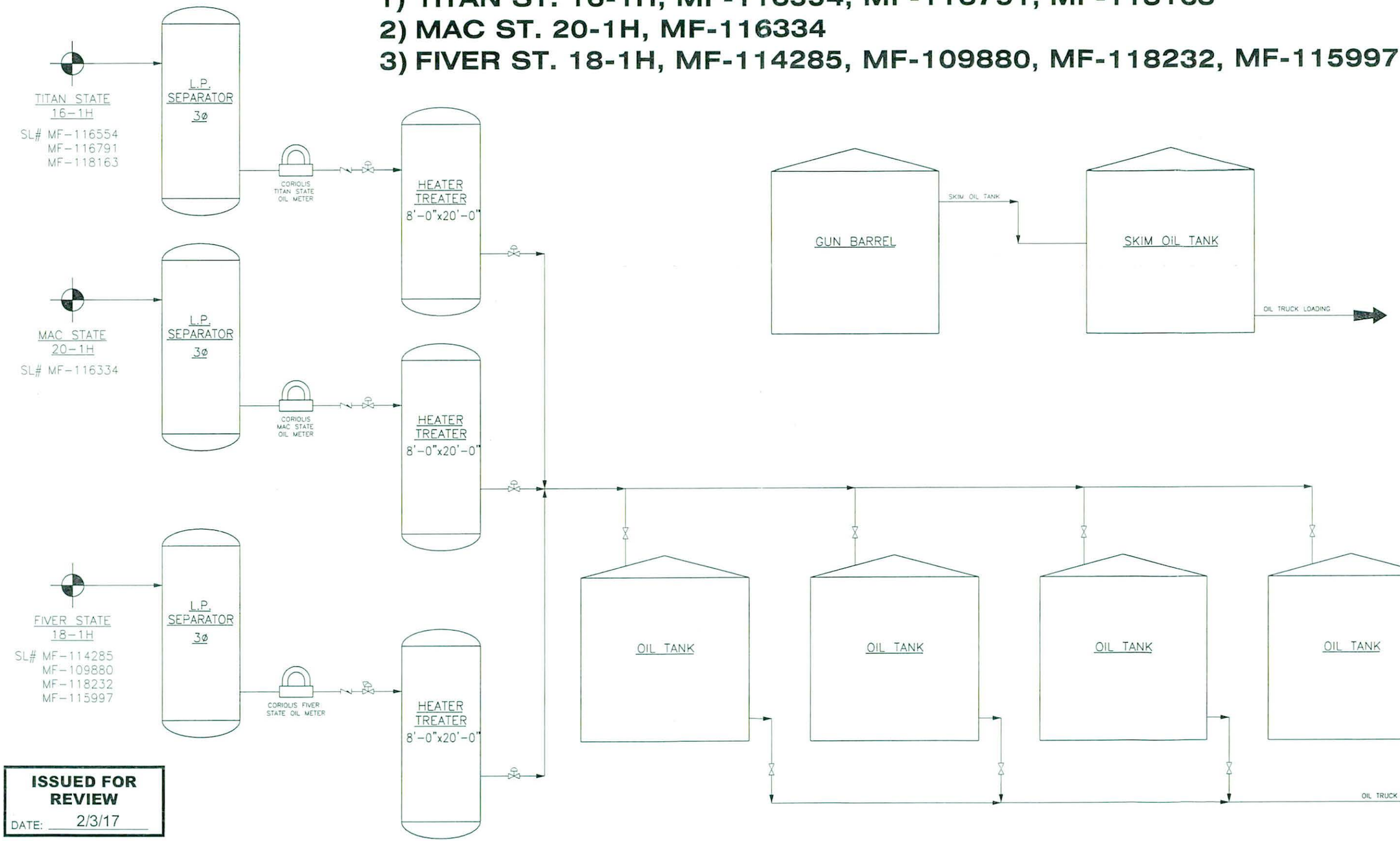
SITE PLAN

TITAN CENTRAL FACILITY

PROJECT NO.	CAD FILE NO.	DRAWN BY	CHECKED BY	DATE	CLIENT'S DWG. NO.
16A1437	16A1437-501	TAB		12/14/16	
		DESIGNED BY	APPROVED BY	SCALE	SHT. NO. / REV.
				SHOWN	501A / A

TX STATE GLO COMMINGLING DRAWING - OIL

1) TITAN ST. 16-1H, MF-116554, MF-116791, MF-118163
2) MAC ST. 20-1H, MF-116334
3) FIVER ST. 18-1H, MF-114285, MF-109880, MF-118232, MF-115997



ISSUED FOR REVIEW
DATE: 2/3/17

NOTES

REVISIONS

NO.	DATE	BY	DESCRIPTION	CK'D.	APP.
A	2/3/17	TAB	ISSUED FOR REVIEW	RMZ	

PROPRIETARY

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PANTHER ENERGY COMPANY II, LLC
CLIENT

ENGINEERING APPROVAL

PETRONYX consulting engineers LLC
New Orleans, LA Houston, TX

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PROJECT NO.	CAD FILE NO.
16A1437	161437-402

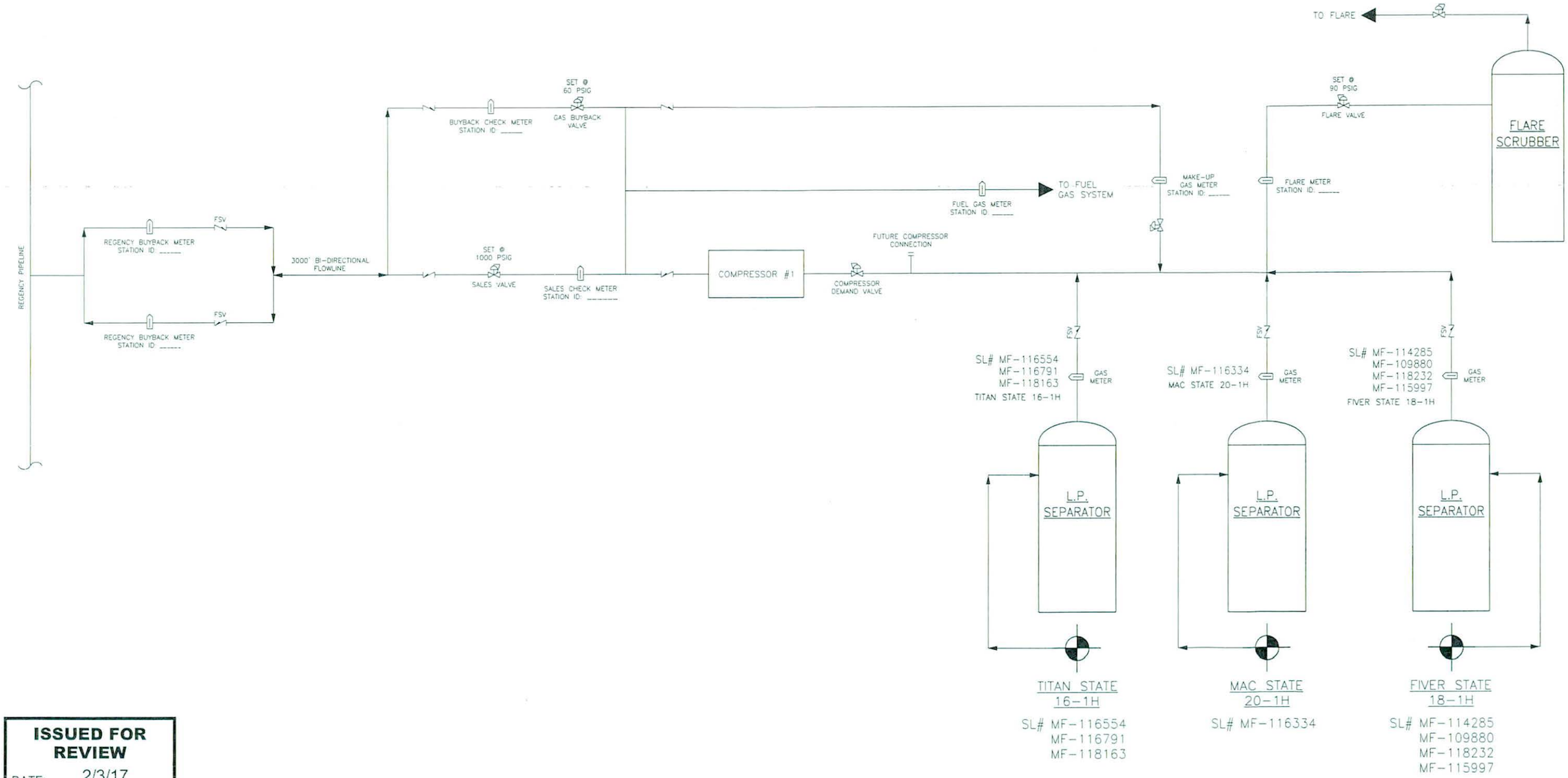
OIL FLOW SCHEMATIC

TITAN BATTERY

DRAWN BY	CHECKED BY	DATE	CLIENT'S DWG. NO.
DESIGNED BY	APPROVED BY	SCALE NONE	SHT NO 402 / REV A

TX STATE GLO COMMINGLING DRAWING - GAS

1) TITAN ST. 16-1H, MF-116554, MF-116791, MF-118163
2) MAC ST. 20-1H, MF-116334
3) FIVER ST. 18-1H, MF-114285, MF-109880, MF-118232, MF-115997



ISSUED FOR REVIEW
DATE: 2/3/17

NOTES

REVISIONS

NO.	DATE	BY	DESCRIPTION	CK'D.	APP.
A	2/3/17	TAB	ISSUED FOR REVIEW	RMZ	

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PANTHER ENERGY COMPANY II, LLC
CLIENT

ENGINEERING APPROVAL

PETRONYX consulting engineers LLC
New Orleans, LA Houston, TX

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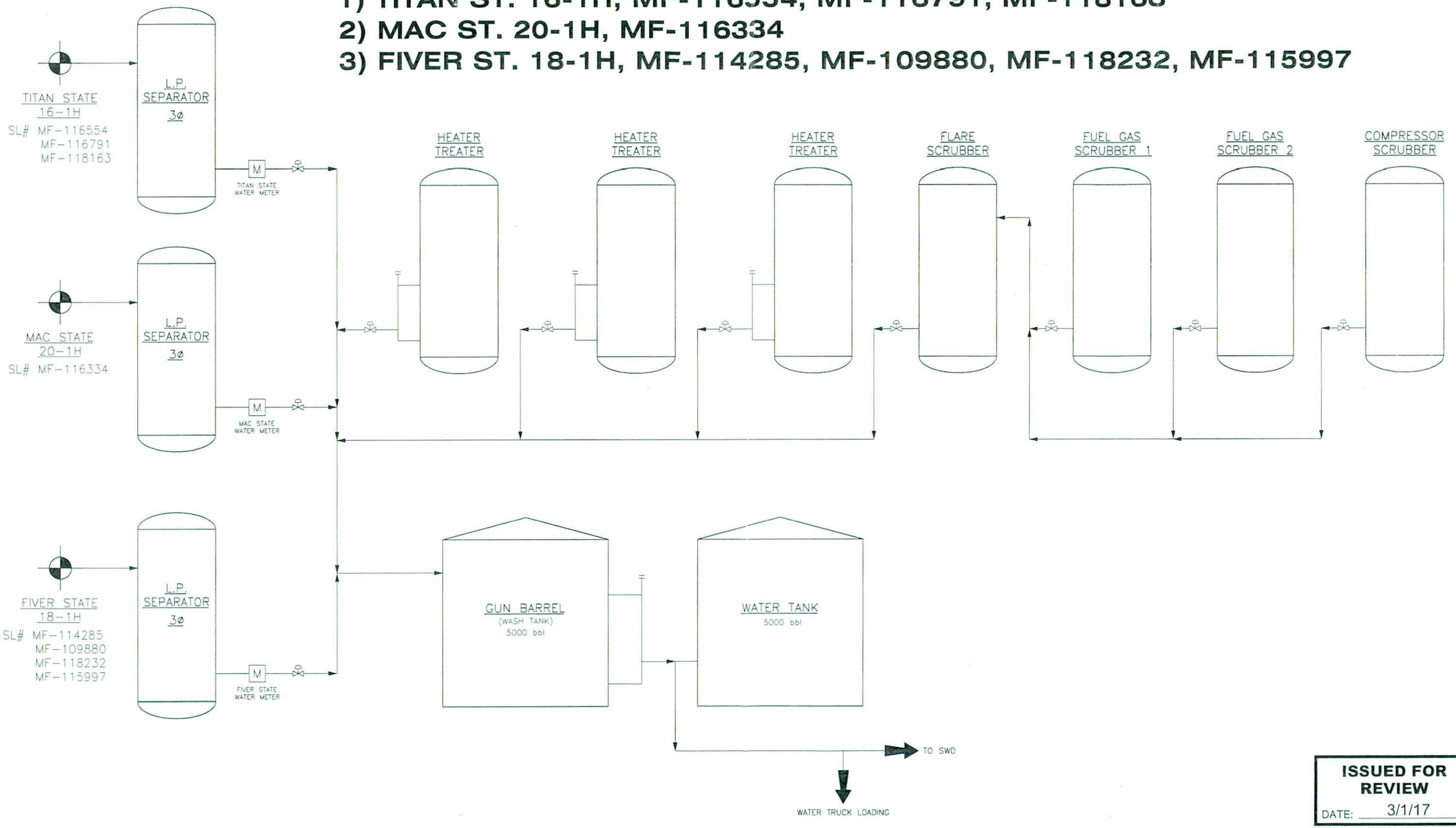
GAS FLOW SCHEMATIC

TITAN BATTERY

PROJECT NO.	CAD FILE NO.	DRAWN BY	CHECKED BY	DATE	CLIENT'S DWG. NO.
16A1437	16A1437-401	DESIGNED BY	APPROVED BY	SCALE NONE	SHT. NO. 401 REV. A

TX STATE GLO COMMINGLING DRAWING - WATER

1) TITAN ST. 16-1H, MF-116554, MF-116791, MF-118163
2) MAC ST. 20-1H, MF-116334
3) FIVER ST. 18-1H, MF-114285, MF-109880, MF-118232, MF-115997



ISSUED FOR REVIEW
DATE: 3/1/17

NOTES

REVISIONS

NO.	DATE	BY	DESCRIPTION	CK'D	APP.
B	3/1/17	SKF	RE-ROUTE SCRUBBER DUMPS TO FLARE SCRUBBER	RMZ	
A	2/3/17	TAB	ISSUED FOR REVIEW	RMZ	

PROPRIETARY

THIS DRAWING AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF PETRONYX, LLC. IT IS LOANED TO THE RECIPIENT UNDER EXPRESS CONDITION THAT IT IS NOT TO BE DUPLICATED IN WHOLE OR IN PART, OR USED TO FURNISH ANY INFORMATION, MAKING OF ANY DRAWINGS OR TO BE USED FOR FABRICATION WITHOUT WRITTEN CONSENT OF PETRONYX, LLC. THIS DRAWING IS ASSIGNED TO THE ENTITY WHO IS IDENTIFIED ON THIS DRAWING AS THE CLIENT.

PANTHER ENERGY COMPANY II, LLC
CLIENT

ENGINEERING APPROVAL

PETRONYX consulting engineers LLC
New Orleans, LA Houston, TX

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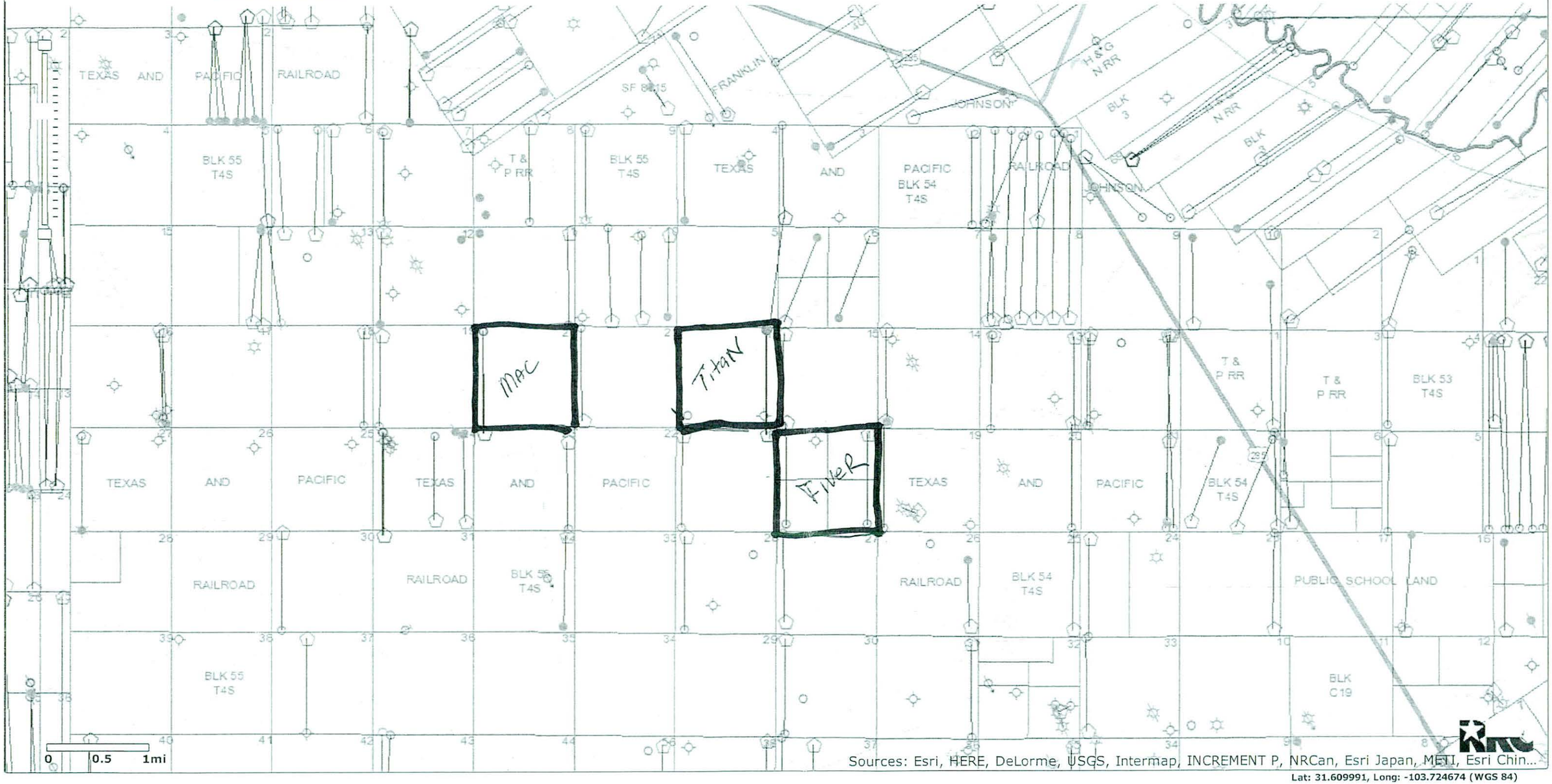
PROJECT NO.	CAD FILE NO.	DRAWN BY	CHECKED BY	DATE	CLIENT'S DWG. NO.
16A1437	16A1437-403	DESIGNED BY	APPROVED BY	SCALE NONE	SHT. NO. 403 REV B

WATER FLOW SCHEMATIC

TITAN BATTERY

Visibility Legend Go To: SELECT COUNTY Print Identify Wells

38935323



Lat: 31.609991, Long: -103.724674 (WGS 84)

(27)

File No. MF116554

REEVES County

REQUEST TO COMMINGLE

Date Filed: 3/29/2017

George P. Bush, Commissioner

By M T SCOTT

TOWNS & HAGEMANN, INC.
Texas Regulatory Consultants

March 23, 2017

Texas General Land Office
Mr. Matthew Scott
1700 N. Congress Ave
Austin, Texas 78711

RE: Panther Exploration LLC Request to Commingle Oil & Gas Production from the Titan State 16 Lease, MF116554,MF116791,MF118163, Mac State 20 Lease, MF116334 and Fiver State Lease, MF114285, MF109880, MF118232, MF115997. Reeves County, Texas.

Dear Mr. Scott:

Please find the following information:

1. Revised GLO attachment 2

Please let me know if you need any additional information.

Thanks for your assistance in this matter.

Very Truly Yours,

Steve Towns, Consultant
Panther Exploration LLC

1301 Nueces Street, Suite 102 • Austin, Texas 78701 • (512) 480-9600 • FAX (512) 480-9732 • www.TexasRRC.com

ATTACHMENT NO. 2

Commingle Permit Applicant:
RRC District: 8
RRC Form P-17 Permit No.: applied
RRC P-17 Application Date: 2/1/2017

REPORTS OIL PRODUCTION ON FORM PR AND EACH STATE LEASE IS EQUIPPED WITH AN OIL AND GAS SEPARATOR WITH OIL AND GAS SEPARATELY METERED BEFORE COMMINGLING WITH OTHER LEASES.

					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2
P-17 RRC Request Status	Lease Commingle Facility Name	RRC Field Name	RRC Lease Name	RRC Well No.	RRC Lease/ID No.	Wellbore 10 Digit API No.	RRC Lease Form P4 Operator	RRC Lease Type (Oil/Gas)	RRC Well Status	State Mineral Lease No.	GLO or Private Unit Name (If Unitized)	GLO Unit No.	State Mineral Lease or Unit Net Royalty Interest
Applied for	Titan State 16	Phantom (Wolfcamp)	Titan State Unit 16	1H	DP817299	4238935323	Panther Exploration, LLC	Oil	Pumping	MF116791 MF118163 MF-116554	Titan State Unit 16	8343	12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Titan State Unit 16	2H	DP817350	4238935328	Panther Exploration, LLC	Oil	Pumping	MF116791 MF118163 MF-116554	Titan State Unit 16	8343	12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Mac State 20	1H	DP817694	4238935349	Panther Exploration, LLC	Oil	Pumping	MF-116344			12.5000%
Applied for	Titan State 16	Phantom (Wolfcamp)	Fiver State 18	1H	DP820244	4238935512	Panther Exploration, LLC	Oil	Pumping	MF109880 MF118232 MF115997 MF-114285	Fiver State Unit	8293	12.5000%
					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2

NOTES:
1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE.
IF, DUE TO DEPTH LIMITATIONS, SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE PRODUCING FIELD INTERVAL.
IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE MINERAL LEASES THEN ENTER EACH STATE MINERAL LEASE ASSOCIATED WITH THE PRODUCING FIELD INTERVAL IN ORDER FROM THE HEAL (FIRST TAKE POINT) TO THE TOE (LAST TAKE POINT) OF THE WELL AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NRI IN THE APPROPRIATE COLUMNS.

2. ENTER THE STATE MINERAL LEASE INTEREST UNLESS THE WELL IS ASSOCIATED WITH A GLO POOLED UNIT THEN ENTER THE POOLED UNIT NET ROYALTY INTEREST.

3. IF RRC LEASE ID PENDING ASSIGNMENT THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NO. FOR THE COMPLETED INTERVAL.

28

File No. ME116554

REEVES County

REVISED GLO LEASE 457

Date Filed: 3/29/2017

George P. Bush, Commissioner

By MTSCOTT

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

March 23, 2017 Certified Mail: 7016 2070 0000 7391 7956

Mr. Steve Towns
Consultant for Panther Exploration, LLC
Towns & Hagemann, Inc.
1301 Nueces Street
Suite 102
Austin, Texas 78701

RE: Your Application Requesting Permission to Surface Commingle Oil and Gas Production from the Titan State Unit 16 Lease, Relinquishment Act Lease (RAL) MF116554, MF116791, and MF118163, GLO Unit 8343; the Mac State 20 Lease, RAL MF116344; and the Fiver State 18, RAL MF109880, MF114285, MF115997, and MF118232, GLO Unit 8293, RRC Commingling Permit 08-Pending, Reeves County, Texas.

Dear Mr. Towns:

Please reference your letter, with attachments, dated March 7, 2017, requesting permission to surface commingle the subject State leases at the Titan State Unit 16 Tank Battery.

Panther Exploration, LLC staff propose to separate then meter the gas, oil, and water production from each individual state lease/unit utilizing dedicated three-phase production separators equipped with meters prior to commingling the production into common separation and storage at the Titan State Unit 16 Battery. The purpose of the commingling permit is to allow commingling of the oil and gas production from multiple RRC leases and State leases/units into common separation and storage at the Titan State Unit 16 Battery. The state's net royalty interest is the same for all leases/units in the scope of the commingling permit; however, in this case multiple surface owners and leases exist.

In this specific case, per the conditions of commingling below, the production royalty shall be due based on the proportionate share of the gross or total energy content (MMBTUs) of gas and stock tank barrels of oil produced monthly as determined by the metered volumes obtained monthly by Panther Exploration staff.

According to the narrative provided with the application, Panther Exploration staff propose to allocate the gas production of each state lease by application of the molecular balance method using the separated and metered gas volumes.

Please note that since Panther Exploration, LLC staff did not provide any specific details regarding their allocation methodology per the GLO commingling application requirements, then

the GLO may not accept any form of allocation unless and until we have been provided detailed allocation methodology information (e.g., gas volume and energy content determined by molecular balance and metered oil volumes corrected to stock tank conditions per API MPMS methods with stock tank oil inventory and sales allocations). If an allocation methodology has been applied, then GLO staff might disagree with your allocation methodology in the context of an audit.

Please be advised that the subject application is approved **subject to the following conditions**.

1. All lease oil production royalties shall be due based on the proportionate share of the total oil production (in stock tank barrels) that are allocated to each RRC Lease ID/lease determined by the oil meter readings of the Coriolis type meters at the dedicated three-phase metering production separators serving each lease/unit. The oil meter volumes shall be corrected from the indicated volumes to stock tank barrels per API MPMS methods. In this specific case the Lessee may pay monthly oil royalties per Texas Administrative Code (TAC) Title 31, Part 1, Chapter 9, Subchapter D, Rule §9.51.
2. All lease gas production royalties shall be due based on the proportionate share of the total gas production determined by the molecular balance method based on the sum of: (1) the gas production volumes and energy content as measured at the orifice meter located downstream of each well's dedicated metering separator, (2) the applicable separator flash gas as determined by the performance of laboratory flash separation tests or per industry standard correlations, based on the proportionate share of the total monthly oil production allocated to each lease well; and 3) any other non-sales dispositions such as fuel, vent, and flare volumes. Please be advised that GLO staff expects state lessees to periodically capture oil/condensate samples at each production separator. The captured oil/condensate sample should then be subjected to a flash separation test per API MPMS Chapter 20 to obtain the oil/condensate shrinkage factor, solution GOR, and solution gas composition at production separator conditions for each individual well. This data will be used during GLO audits to adjust metered oil/condensate volumes at the appropriate separator to stock tank conditions. Absent that oil/condensate shrinkage data, GLO staff will use industry standard correlations to make the oil or condensate metered volume adjustment. The gas BTU content and component analysis obtained at each well separator and facility gas meter shall be determined by gas sample chromatographic analysis or other industry-accepted practices.
3. Retain, for lease audit purposes, all meter and test records, volume statements/reports, oil and gas analysis reports, and shrinkage/flash gas calculation records for all state lease wells in the scope of the commingle permit for a period of at least seven (7) years after creation of each report or record.
4. All measurement shall be in accordance with the American Gas Association (AGA) standards and all applicable chapters of the American Petroleum Institute (API) Manual of Petroleum Measurement Standard (MPMS).
5. All measuring equipment (oil and gas) shall be calibrated and adjusted as necessary by Lessee or as frequently as deemed necessary due to cleaning, repair, replacement, or any

other condition that affects the accuracy, repeatability, and linearity of a meter, but not less frequently than once per calendar quarter, at intervals not to exceed 100 days.

6. Any changes to the flow process, metering scheme, or the addition of any wells that are not currently processed at the commingling facility shall require the Lessee to obtain permission from the GLO prior to making said changes.

If you have questions, please contact me at (512) 475-2230, or by FAX at (512) 475-1543. My e-mail address is matthew.scott@glo.state.tx.us

Sincerely,

Matthew T. Scott, P.E.
Petroleum Engineer
Energy Resources/Mineral Leasing

cc: Robert Hatter, Deputy Director of Energy Resources
Dale Sump, Director of Minerals Audit

(29)

File No. MF116554

REEVES County

AGREE TO COMMINGLE

Date Filed: 3/29/2017

George P. Bush, Commissioner

By MTSCOTT

REVISED

DIVISION ORDER

TO: **Panther Energy Company II, LLC**
6100 S. Yale
Suite 600
Tulsa, OK 74136

Date: March 22, 2017
Effective Date: February 1, 2017

The undersigned certifies the ownership of their decimal of interest in production or proceeds as described hereinbelow payable by Panther Energy Company II, LLC (Panther II).

Panther II shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following receipt of such notice.

OWNER NAME/ADDRESS

OWNER: TEX0026

TEXAS GENERAL LAND OFFICE
P O BOX 12873
AUSTIN TX 78711-2873

Panther II is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Panther II any amount attributable to an interest to which the undersigned is not entitled.

Panther II may accrue proceeds until the total amount equals $25.00 or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to the terms and conditions of this Division Order, the undersigned and Panther II may have certain statutory rights under the laws of the state in which the property is located.

Special Clauses: None

PROPERTY	PROPERTY NAME	COUNTY/PARISH	ST	LEGAL DESCRIPTION	REVENUE INTEREST	INT TYPE	PROD
4203-000004	TITAN STATE 16-1H	REEVES	TX	SEC 16, BLK 54, T4S, T&P SURVEY	0.12500000	OTH	ALL
OPERATOR: PANTHER ENERGY COMPANY II LLC							

STATE OF TEXAS RELINQUISHMENT ACT LEASES (MF-116554 A,B,D,F-S) 525 ACRES
STATE OF TEXAS RELINQUISHMENT ACT LEASES (MF-116791 A-C) 40 ACRES
STATE OF TEXAS RELINQUISHMENT ACT LEASE **(MF-118163) 75 ACRES**

IMPORTANT: TO AVOID DELAY IN PAYMENT, YOUR SOCIAL SECURITY NUMBER OR TAX IDENTIFICATION NUMBER MUST BE SHOWN BELOW. FAILURE TO FURNISH YOUR SOCIAL SECURITY OR TAX IDENTIFICATION NUMBER WILL RESULT IN 28% WITHHOLDING TAX IN ACCORDANCE WITH FEDERAL LAW AND ANY TAX WITHHELD WILL NOT BE REFUNDABLE BY PAYOR. BE SURE YOUR SIGNATURE IS WITNESSED AND YOUR CORRECT ADDRESS IS SHOWN.

WITNESSES/ATTEST:	OWNERS SIGN HERE	TAX I.D./SOCIAL SEC. NO.
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Daytime phone: _____ Fax: _____ Email: _____

INTEREST/FUNDS RELEASED FOR PAYMENT BY_____ DATE:_____ VERIFIED BY:_____ DATE:_____

30.

File No. MF 1160554

County

Division Order

Date Filed: 4-4-17

By V.H. George P. Bush, Commissioner

Daryl Morgan

From: Diane Wehrenberg <dianew@pantherenergy.us>
Sent: Tuesday, April 04, 2017 10:37 AM
To: Daryl Morgan
Subject: Titan State 16 Unit Pooling Agreement (GLO 8343)
Attachments: Transmittal Letter (corrected) to GLO 4.4.17.pdf; GLO Unit Agreement Memo (MF Numbers).pdf

Good morning Daryl – I overnighted the referenced pooling agreement to you yesterday for delivery today – and just realized that I made an error on one of the MF lease numbers. Please see the attached letter with the correct MF lease number noted. Thanks!

Diane Wehrenberg
Panther Energy Company II, LLC
6100 S Yale, Suite 600
Tulsa OK 74136
dianew@pantherenergy.us
918/551-7146 direct line

Panther Energy Company II, LLC
6100 S. Yale, Ste 600
Tulsa, OK 74136
Main (918) 583-1396
Fax (918) 583-5396

April 3, 2017

BY FED-EX

J Daryl Morgan, CPL
Energy Resources Division
Texas General Land Office
1700 N Congress Ave
Austin TX 78701

Re: Pooling Agreement
Titan State 16 Unit
GLO Unit No. 8343
Reeves Co TX

Dear Mr. Morgan:

Pursuant to your letter dated February 21, 2017, enclosed are two original executed copies of the referenced Pooling Agreement with Exhibits for the Titan State 16 Unit Pooling Agreement. The MF Lease numbers for Sec 16, Blk 54, T4S, T&P Survey, Reeves Co TX are as follows: MF-116554 A,B,D,F-S (525 acres), MF-116791 A-C (40 acres) and MF-~~112944~~ 118163 (75 acres).

After the GLO has signed the agreements, please return one fully executed copy to me. Upon receipt, I will send it for recording.

If you have any questions or need additional information, please contact me. Thank you!

Diane Wehrenberg

Diane Wehrenberg
dianew@pantherenergy.us
918/551-7146 direct line

Enclosures

(31)

File No. M-116554 County

E-Mail with Panther

Date Filed: 4/4/17

By George P. Bush, Commissioner

ORIGIN ID:TULA (918) 551-7146
DIANE WEHRENBERG
PANTHER ENERGY COMPANY II, LLC
6100 S YALE AVE
SUITE 600
TULSA, OK 74136
UNITED STATES US

SHIP DATE: 03APR17
ACTWGT: 0.33 LB
CAD: 105043515/INET3850

BILL SENDER

TO J DARYL MORGAN
TEXAS GENERAL LAND OFFICE
1700 N CONGRESS AVE
ENERGY RESOURCES DIVISION
AUSTIN TX 78701
(512) 305-9106
INV:
PO:
REF: TITAN & FIVER POOLING AGMTS
DEPT:

546J2/CFD6/53C1

J1711170214O1uv

FedEx Express

TRK# 0201 7788 0955 9571

TUE - 04 APR 3:00P
STANDARD OVERNIGHT

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78701
TX-US AUS

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Panther Energy Company II, LLC
6100 S. Yale, Ste 600
Tulsa, OK 74136
Main (918) 583-1396
Fax (918) 583-5396

April 3, 2017 BY FED-EX

J Daryl Morgan, CPL
Energy Resources Division
Texas General Land Office
1700 N Congress Ave
Austin TX 78701

Re: Pooling Agreement
Titan State 16 Unit
GLO Unit No. 8343
Reeves Co TX

Dear Mr. Morgan:

Pursuant to your letter dated February 21, 2017, enclosed are two original executed copies of the referenced Pooling Agreement with Exhibits for the Titan State 16 Unit Pooling Agreement. The MF Lease numbers for Sec 16, Blk 54, T4S, T&P Survey, Reeves Co TX are as follows: MF-116554 A,B,D,F-S (525 acres), MF-116791 A-C (40 acres) and MF-112944 (75 acres).

After the GLO has signed the agreements, please return one fully executed copy to me. Upon receipt, I will send it for recording.

If you have any questions or need additional information, please contact me. Thank you!

Diane Wehrenberg

Diane Wehrenberg
dianew@pantherenergy.us
918/551-7146 direct line

Enclosures

(3C)

File No. M-116554

County

Ltr. From Pantler

Date Filed: 4/4/17

George P. Bush, Commissioner

By

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

April 10, 2017

Ms. Diane Wehrenberg
Panther Energy Company II, LLC
6100 S. Yale, Suite 600
Tulsa, Oklahoma 74136

Re: Pooling Agreement
Titan State 16 Unit
GLO Unit No. 8343
Reeves County, Texas

Dear Ms. Wehrenberg:

Enclosed is a duplicate original of the above referenced Pooling Agreement that has been executed by George P. Bush, Commissioner of the Texas General Land Office ("GLO"). We have retained the other original of the Pooling Agreement for our files. Please refer to the referenced GLO Unit No. when filing Royalty Reports with the GLO.

Thank you for your assistance with this matter, if you have any questions or need anything further, please feel free to call.

Sincerely,

J. Daryl Morgan, CPL
Energy Resources Division
(512) 305-9106

Enclosure

33

File No. M-116554

_____ County

Ltr. to Panther

Date Filed: 4/10/17

George P. Bush, Commissioner

By _____

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

UPA179421

Unit Number	*8343*				
Operator Name	*Panther Energy Company II, LLC dba Panther Exploration, LLC*			*Effective Date*	*02/21/2017*
Customer ID	*C000087606*			*Unitized For*	*Oil And Gas*
Unit Name	*Titan State 16 Unit*			*Unit Term*	
County 1	*Reeves*	*RRC District 1*	*08*	*Old Unit Number*	*Inactive Status Date*
County 2		*RRC District 2*			
County 3		*RRC District 3*			
County 4		*RRC District 4*			
Unit type	*Permanent*				
State Net Revenue Interest	*Oil*	*0.12500000*			
State Part in Unit		*1.00000000*			
Unit Depth	*Specified Depths*	*Well*			
From Depth	*Surface*	*Formation*	*Base of Wolfcamp*		
To Depth		*Participation Basis*	*Surface Acreage*		
		If Excluions Apply: See Remarks			

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554	1	525.000000	640.000000	0.82031250	O/G	0.12500000	0.10253906	
MF116791	2	40.000000	640.000000	0.06250000	O/G	0.12500000	0.00781250	
MF118163	3	75.000000	640.000000	0.11718750	O/G	0.12500000	0.01464844	

API Number

4238935323, 4238935328

Remarks:

Prepared By:	JM	*Prepared Date:*	02/21/2017
GLO Base Updated By:	JM	*GLO Base Date:*	02/21/2017
RAM Approval By:	DH	*RAM Approval Date:*	03/03/17
GIS By:	DH	*GIS Date:*	05/19/2017
Well Inventory By:	JM	*WI Date:*	02.21.2017

Pooling Committee Report

To:	School Land Board	UPA179421
Date of Board Meeting:	02/21/2017	Unit Number: 8343
Effective Date:	02/21/2017	
Unit Expiration Date:		
Applicant:	Panther Energy Company II, LLC	
Attorney Rep:		
Operator:	PANTHER ENERGY COMPANY II, LLC D/B/A PANTHER EXPLORATION LLC, TULSA	
Unit Name:	Titan State 16 Unit	
Field Name:	PHANTOM (WOLFCAMP)	

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	525.000000	0.10253906
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	40.000000	0.00781250
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	75.000000	0.01464844

Private Acres:	0.000000
State Acres:	640.000000
Total Unit Acres:	640.000000

Participation Basis:	Surface Acreage
Surface Acreage	
State Acreage:	100.00%
State Net Revenue Interest:	12.50%

Unit Type:	Unitized for:
Permanent	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
Yes	704 acres for a 4,800 foot lateral (FTP to LTP).

Working File Number: UPA179421

REMARKS:

- Panther Energy Company II, LLC is requesting permanent oil and gas pooling from the Surface to the base of the Wolfcamp formation in order to test the Wolfcamp formation.
- The applicant plans to spud the first unit well on February 14, 2017 with a proposed total depth of 11,550 feet TVD. A 4,800 foot lateral is expected to be drilled.
- With Board approval of the unit the State's unit royalty participation will be 12.5%.
- The State will participate on a unitized basis from the date of first production.
- The applicant agrees to drill a total of 4 unit wells. The first unit well will be spud by or before March 23, 2017 and the second, third, and fourth wells will be spud by or before March 23, 2019 or the unit will decrease in size to 160 acres per unit well drilled.

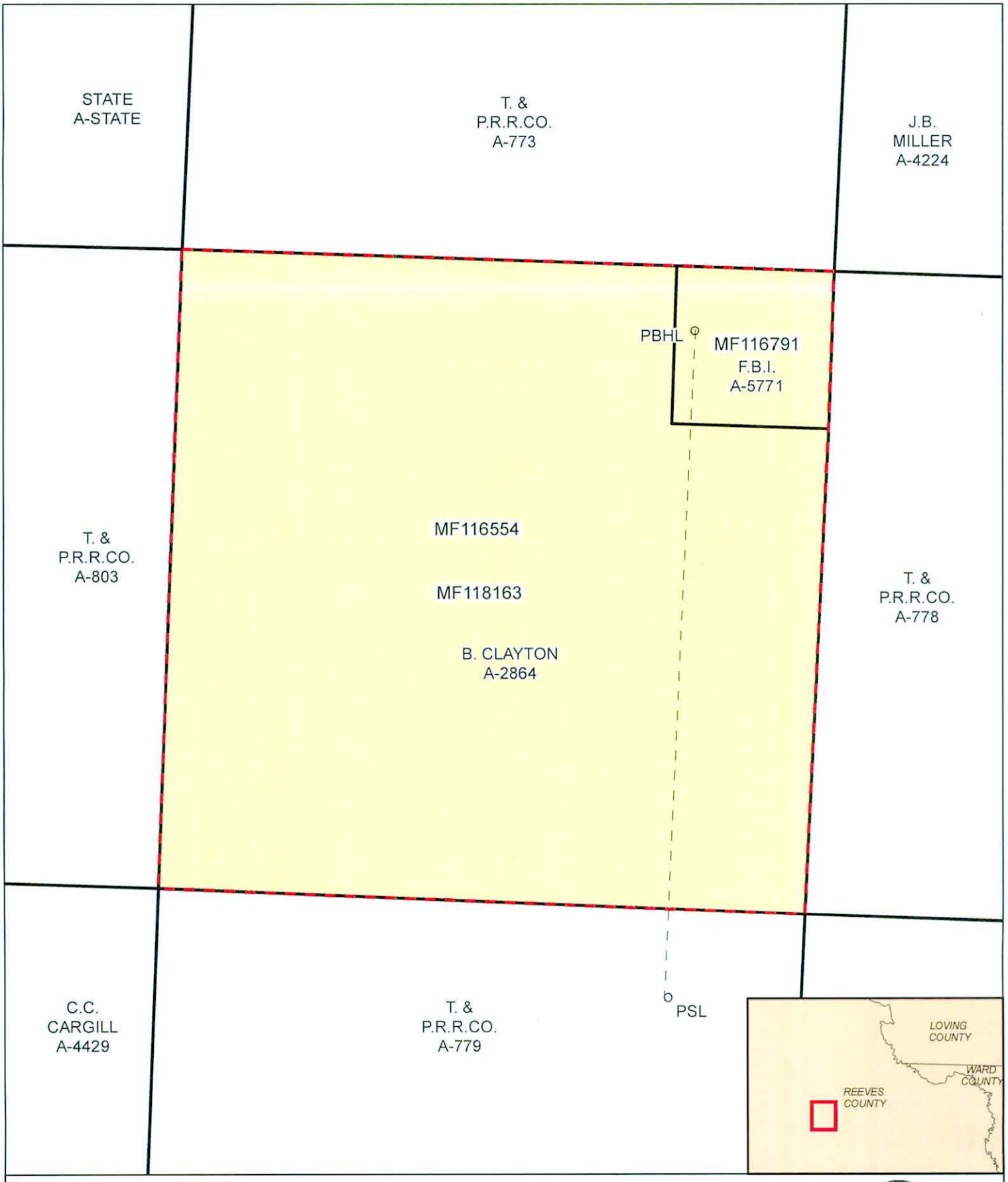
POOLING COMMITTEE RECOMMENDATION:

The Pooling Committee recommends Board approval of a permanent oil and gas unit under the above-stated provisions.

Mary Smith - Office of the Attorney General — Date: 2/7/17

Robert Hatter - General Land Office — Date: 2/07/17

Diane Morris - Office of the Governor — Date: 2-7-2017



Unit #8343
Panther Energy Company II, LLC
Titan State 16 Unit
Phantom (Wolfcamp) Field
Reeves County, Texas

1,000 500 0 1,000 Feet

The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. This map IS NOT suitable for navigational purposes and does not purport to depict or establish boundaries between private and public land.

Map Generated by:
Mark Conway
Enterprise Technology Solutions/GIS
February 2017

POOLING AGREEMENT
PANTHER ENERGY COMPANY II, LLC
TITAN STATE 16 UNIT
GLO UNIT NO. 8343
REEVES COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and Panther Energy Company II, LLC, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas interests, which are included within the pooled unit, are listed on the attached Exhibit "A", to which interests and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C". The unit description is subject to the provisions of Addendum "A".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to those depths underlying the surface boundaries of the pooled unit from the surface to the base of the Wolfcamp formation, subject to the provision in the State Lease or Leases for Horizontal Severance ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement. In the event the unitized area covered by this Agreement is maintained in force by drilling or reworking operations conducted on a directional or horizontal well drilled under the unitized area from a surface location on adjacent or adjoining lands not included within the boundaries of the unitized area, such operations shall be considered to have been commenced on the unitized area when drilling is commenced on the adjacent or adjoining land for the purpose of directionally drilling under the unitized area and production of oil or gas from the unitized area through any directional or horizontal well surfaced on adjacent or adjoining land or drilling or reworking of any such well shall be considered production or drilling or reworking operations, as the case may be, on the unitized area for all purposes under this Agreement. Nothing in this Agreement is intended or shall be construed as granting to Lessee any leasehold interest, easements, or other rights in or with respect to any such adjacent or adjoining land in addition to any such leasehold interests, easements, or other rights which the lessee, operator or other interest owner in the unitized area may have lawfully acquired from the state or others.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included

within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than the number of acres included in the pooled unit, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

EFFECTIVE DATE: 7.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of February 21, 2017.

SPECIAL TERMS AND CONDITIONS: 8.

Notwithstanding anything contained herein to the contrary, this Agreement is subject to the terms and conditions of the attached Addendum "A".

TERM: 9.

This Agreement shall remain in effect so long as the pooled mineral is being produced from said unit, or so long as all leases included in the pooled unit are maintained in force by payment of delay rentals or shut-in oil or gas well royalties, by drilling or rework, or by other means, in accordance with the terms of said leases. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease covered by this Agreement.

STATE LAND: 10.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 11.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Reeves County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 12.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

COUNTERPARTS: 13.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement upon the respective dates indicated below.

Date Executed 4/6/17

STATE OF TEXAS

By: _____
George P. Bush, Commissioner
General Land Office

Legal
Content
Geology
Executive

Date Executed 3-7-17

PANTHER ENERGY COMPANY II, LLC

By: _____
James R. Stone

Its: Executive Vice President

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 21st day of February, 2017, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 10th day of April, 2017.

Stephanie Crenshaw
Secretary of the School Land Board

STATE OF OKLAHOMA

COUNTY OF Tulsa

This instrument was acknowledged before me on March 7, 2017, by James R. Stone as Executive Vice President of Panther Energy Company II, LLC, a Delaware limited liability company on behalf of said company.

NOTARY PUBLIC SEAL
DIANE WEHRENBERG
Notary Public in and for the
State of Oklahoma
Commission #14007648
My Commission expires 8/25/2018

Diane Wehrenberg
Notary Public in and for the
State of Oklahoma

CP2 OPERATING, LLC
a Delaware Limited Liability Company

3-7-2017
Date Executed

By: Mark A Clemans
Mark Clemans, President

STATE OF TEXAS

COUNTY OF HARRIS

This agreement was acknowledged before me on this the 7 day of March, 2017, by Mark Clemans, as President of CP2 OPERATING, LLC, a Delaware Limited Liability Company, on behalf of said company.

Nida Khan
Notary Public in and for the State of Texas

Notary ID #

NIDA KHAN
Notary Public, State of Texas
My Commission Expires
September 30, 2017

Energen Resources Corporation

March 20, 2017

Date Executed

By: _____

David W. Bolton, Vice President -Land

STATE OF ALABAMA

COUNTY OF JEFFERSON

This agreement was acknowledged before me on this the 20th day of March, 2017, by David W. Bolton, as Vice President – Land of Energen Resources Corporation, on behalf of said Corporation .

STATE OF ALABAMA NOTARY PUBLIC
JOHN E. PITTS
My Commission Expires
September 25, 2018

_____

Notary Public in and for the State of Alabama

_____

Notary ID #

Addendum "A"

To that certain Pooling Agreement for the Titan State 16 Unit

The parties hereby agree that should a conflict exist between this Addendum and the body of the agreement that this Addendum shall prevail.

The pooled unit shall consist of all of the lands herein described in the attached Exhibit "B" and depicted in the attached plat as Exhibit "C". Lessee agrees to drill a minimum of four (4) horizontal wells within the unit, provided however that, should Lessee fail to meet the "Drilling Obligation Timeframe", as specifically defined below, then such unit shall remain in full force and effect as to any and all wells drilled upon the unit acreage, but shall shrink down to allow for a maximum size of 160 acres per well drilled in the unit, as close as is reasonably practicable to the shape of a rectangle surrounding the well or wells. In the event that Lessee choses to drill wells ahead of the Drilling Obligation Timeframe detailed below, then Lessee shall not be penalized for doing so and shall still conserve the benefit of the Drilling Obligation Timeframe described below.

Drilling Obligation Timeframe:

Lessee shall have commenced actual Drilling Operations in the following manner:

First well	–	spud on or before March 23, 2017;
Second, Third and Fourth wells	–	spud on or before March 23, 2019.

Once actual drilling operations have been commenced on a particular well, Lessee shall continue drilling and completion operations thereafter on such well with due diligence, as a reasonable prudent operator would under the same or similar circumstances.

In the event Lessee commences actual drilling operations on all four (4) wells committed to be drilled hereunder as provided above and such wells are thereafter completed as wells being capable of producing oil or gas in paying quantities, the parties hereby agree that the pooled unit shall remain in the original, unaltered size and shape as described in Exhibit "B" and depicted in Exhibit "C", in accordance with paragraph nine (9) of this Agreement.

End of Addendum "A"

Exhibit "A"

Lease Name	Lessee	Lease Date	Filing Date	Volume	Page	Description
State of Texas, acting by and through its agent, Petco Limited	Panther Exploration Company, LLC	3/23/2014	4/8/2014	1066	569	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Nancy Dean Investment Corporation	Panther Exploration Company, LLC	4/9/2014	4/21/2014	1070	33	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Pursuit Energy Corporation	Panther Exploration, LLC	3/26/2014	4/30/2014	1071	787	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Anne S. Mackey	Panther Energy Company II, LLC	4/24/2014	5/1/2014	1072	574	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Charlotte T. Slack	Panther Energy Company II, LLC	4/24/2014	5/1/2014	1072	583	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Stephen J Flanagan, Trustee of Loyd W Powell, Jr Children's Trust	Panther Exploration, LLC	3/26/2014	5/13/2014	1075	164	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Cynthia Shaw	Panther Energy Company II, LLC	4/24/2014	5/19/2014	1077	191	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Andrews Royalty, LP	Panther Exploration Company, LLC	4/11/2014	5/13/2014	1075	155	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas

Exhibit "A"

State of Texas, acting by and through its agent, Wells Fargo Bank, NA, Trustee of Patti Jo Wood Trust UWO Josie Fay Peck	Panther Energy Company II, LLC	5/1/2014	6/12/2014	1082	564	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Cynthia Lynne Mace, Trustee of Oma Barton Wakefield Trust UWO William Barton Wakefield	Panther Energy Company II, LLC	5/5/2014	5/13/2014	1075	189	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Richard C Slack II	Panther Energy Company II, LLC	4/24/2014	5/30/2014	1079	708	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Nancy Ann Chandler	Panther Energy Company II, LLC	5/22/2014	6/2/2014	1087	303	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Sid Richardson Foundation	Panther Energy Company II, LLC	6/4/2014	6/4/2014	1090	412	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Patti P Wood	Panther Energy Company II, LLC	5/15/2014	8/12/2014	1096	340	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, NA, Trustee	Panther Energy Company II, LLC	7/21/2014	8/18/2014	1097	597	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Howell Smith Wynne	Panther Energy Company II, LLC	9/15/2014	10/23/2014	1116	113	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas

Exhibit "A"

State of Texas, acting by and through its agent, EPB O&G TX LP, ARBGT (SRB) O&G TX, ARBGT (LMB) O&G LP & ARBGT (RMB) O&G TX	Panther Energy Company II, LLC	12/12/2014	2/10/2015	1144	256	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Mahlon Paul Nobles s/p/a John Paul Adkins	Panther Energy Company II, LLC	4/23/2014	4/30/2014	1071	778	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Alton Frederick Adkins Jr	Panther Energy Company II, LLC	4/24/2014	5/13/2014	1075	180	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, William Frederick Adkins	Panther Energy Company II, LLC	4/24/2014	5/13/2014	1075	171	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas
State of Texas, acting by and through its agent, Riki Lewis Long	Energen Resources Corpotaion	5/15/2016	7/12/2016	1292	252	Section 16, Block 54, Township 4 South, T.& P.Ry. Co. Survey, A-2864, Reeves County, Texas

Exhibit "B"

The Titan State 16 Unit covers all of the below described lands:

All of Section 16, Block 54, Township 4 South, T.&P. Ry. Co. Survey, A-2864, Reeves County, Texas, containing 640 gross acres, more or less

Exhibit "C"
Titan State 16 Unit

Section 16 of T&PRR BLK54T4S



(34)

File No. M-116554
Pooling Agrmt. Packet # 8343
~~County~~
Titan State 16, Unit
Date Filed: 4/10/17
George P. Bush, Commissioner
By

TITAN STATE 16-1H
MF-112944, MF-116554 A,B,D,
F-S, & MF-116791 A-C

RAILROAD COMMISSION OF TEXAS

Form W-2

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 05/19/2017
Tracking No.: 170373

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: PANTHER EXPLORATION, LLC Operator No.: 638506
Operator Address: 6100 S YALE SUITE 600 TULSA, OK 74136-0000

WELL INFORMATION

API No.: 42-389-35323 County: REEVES
Well No.: 1H RRC District No.: 08
Lease Name: TITAN STATE 16 Field Name: PHANTOM (WOLFCAMP)
RRC Lease No.: 48473 Field No.: 71052900
Location: Section: 17, Block: 54 T4S, Survey: T&P RR CO, Abstract: 779

Latitude: Longitude:
This well is located 16.4 miles in a NORTHEAST direction from PECOS, TX, which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing Completion or Recompletion Date: 02/26/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	09/06/2016	817299
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 11/14/2016 Date of first production after rig released: 02/26/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 11/14/2016 Date plug back, deepening, recompletion, or drilling operation ended: 12/08/2016
Number of producing wells on this lease in this field (reservoir) including this well: 1 Distance to nearest well in lease & reservoir (ft.): 0.0
Total number of acres in lease: 640.00 Elevation (ft.): 2822 GL
Total depth TVD (ft.): 10971 Total depth MD (ft.): 16170
Plug back depth TVD (ft.): Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? Yes Rotation time within surface casing (hours): 122.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 390.0 Feet from the North Line and 530.0 Feet from the East Line of the TITAN STATE 16 Lease. Off Lease : No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

PACKET: N/A

W2: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination — Depth (ft.): 1850.0 — Date: 07/28/2016

SWR 13 Exception — Depth (ft.): 3965.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 03/25/2017 — Production method: Flowing

Number of hours tested: 24 — Choke size: 29

Was swab used during this test? No — Oil produced prior to test: 20943.00

PRODUCTION DURING TEST PERIOD:

Oil (BBLS): 1019.00 — Gas (MCF): 3451

Gas - Oil Ratio: 3386 — Flowing Tubing Pressure: 0.00

Water (BBLS): 3025

CALCULATED 24-HOUR RATE

Oil (BBLS): 1019.0 — Gas (MCF): 3451

Oil Gravity - API - 60.: 48.6 — Casing Pressure: 2786.00

Water (BBLS): 3025

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	9 5/8	12 1/4	4085			C	1495	3200.0	SURFACE	Circulated to Surface
2	Intermediate	7	8 3/4	11085			H	785	1968.0	998	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	6 1/8	4 1/2	10370	16170	H	615	774.9	8509	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
			/

N/A

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11322	15970.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? No

If yes, actuation pressure (PSIG):

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 10000

Actual maximum pressure (PSIG) during hydraulic fracturing: 8994

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	3,029,077 LB 40/70; 7,039,033 LB MESH; 40,000 GAL ACID	11322	15970

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
FORD-DELAWARE	No			No	PINCH-OUT
CASTILLE	No			No	PINCH-OUT
BELL CANYON	Yes	4100.0	4100.0	Yes	ESTIMATED
DELAWARE	No			No	PINCH-OUT
DELAWARE CONSOLIDATED GAS	No			No	PINCH-OUT
CHERRY CANYON	Yes	5060.0	5060.0	Yes	ESTIMATED
BONE SPRINGS	Yes	7520.0	7520.0	Yes	ESTIMATED
PERMIAN	No			No	PINCH-OUT
WOLFCAMP	Yes	10489.0	10502.0	Yes	ESTIMATED
PENNSYLVANIAN	No			No	NOT DEEP ENOUGH
MISSISSIPPIAN	No			No	NOT DEEP ENOUGH
DEVONIAN	No			No	NOT DEEP ENOUGH
FUSSELMAN	No			No	NOT DEEP ENOUGH
ELLENBURGER	No			No	NOT DEEP ENOUGH

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

KOP @ 10448

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2017-04-20 16:16:33.984] EDL=4648 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well

CASING RECORD :

TUBING RECORD:

WELL FLOWING

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

SEE FRACFOCUS FOR MORE DETAILS

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION	
Printed Name: Rosaline Kinard	Title:
Telephone No.: (918) 551-5168	Date Certified: 05/19/2017

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 170373

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: PANTHER EXPLORATION, LLC	District No. 08	Completion Date: 02/26/2017
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 817299	
Lease Name TITAN STATE 16	Lease/ID No. 48473	Well No. 1H
County REEVES	API No. 42- 389-35323	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.

☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).

☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).

☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Rosaline Kinard Signature		Title
PANTHER EXPLORATION, LLC Name (print)	(918) 551-5168 Phone	04/12/2017 Date

-FOR RAILROAD COMMISSION USE ONLY-

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 170373

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
PHANTOM (WOLFCAMP)	TITAN STATE 16			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
PANTHER EXPLORATION, LLC	638506	48473	REEVES	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
6100 S YALE SUITE 600 TULSA, OK 74136	1H			
	10. Classification			11. Effective Date
	[X] Oil [ ] Gas [ ] Other *(see instruction A)*			02/26/2017

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: [ ] operator [ ] oil or condensate gatherer [ ] gas gatherer [ ] gas purchaser [ ] gas purchaser system code
[ ] field name from _____
[ ] lease name from _____

– – OR –

b. New RRC Number for: [X] oil lease [ ] gas well [ ] other well (specify) _____ **Due to:** [X] new completion or recompletion [ ] reclass oil to gas [ ] reclass gas to oil [ ] consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	ENERGY TRANSFER COMPANY(252017)	0001	100.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
SUNOCO PTNRS. MKTG.&TERMINALS LP(829626)	100.0

RRC USE ONLY: Reviewer's initials: RRC Staff Approval date: 05/19/2017

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator

Signature

Name (print)

[ ] Authorized Employee of previous operator [ ] Authorized agent of previous operator *(see instruction G)*

Title

Date

Phone with area code

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

PANTHER EXPLORATION, LLC
Name (print)

Rosaline Kinard
Signature

[X] Authorized Employee of current operator [ ] Authorized agent of current operator *(see instruction G)*

Title

Rosalinek@PantherEnergy.US
E-mail Address (optional)

04/12/2017
Date

(918) 551-5168
Phone with area code

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	28 July 2016	**GAU Number:**	157353

Attention:	PANTHER EXPLORATION, LLC 6100 S YALE SUITE 600 TULSA, OK 74136	**API Number:**	
		County:	REEVES
		Lease Name:	Titan State 16
		Lease Number:	
Operator No.:	638506	**Well Number:**	1H
		Total Vertical Depth:	11550
		Latitude:	31.591781
		Longitude:	-103.689269
		Datum:	NAD27

Purpose: New Drill

Location: Survey-T&P RR CO; Abstract-779; Block-54; Township-4; Section-17

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 1000 feet and the Rustler, which is estimated to occur from 1200 to 1850 feet must be protected.

This recommendation applies to this well only and should not be construed as establishing an area-wide depth for the protection of usable-quality ground water.

Please send Gamma Ray/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 07/27/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

419 .9

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION			
Operator Name:	PANTHER ENERGY	Operator P-5 No.:	638506
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION					
District No.:	8	County:	REEVES		
Well No.:	1H	API No.:	42-389-35323	Drilling Permit No.:	817299
Lease Name:	TITAN STATE 16	Lease No.:			
Field Name:	Phantom (Wolfcamp)	Field No.:	71052900		

I. CASING CEMENTING DATA

Type of Casing: ☐ Conductor ☑ Surface ☐ Intermediate ☐ Liner ☐ Production

Drilled hole size (in.): 12 1/4	Depth of drilled hole (ft.): 4085	Est. % wash-out or hole enlargement:	1%
Size of casing in O.D. (in.): 9 5/8	Casing weight (lbs/ft) and grade:	No. of centralizers used:	8
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☑ YES ☐ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of liner (ft.):	
		Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out: 34	Calculated top of cement (ft.): SURFACE	Cementing date:	11/17/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1010	CLASS C	REMARKS 1:	2555	8154
2	485	CLASS C	REMARKS 2:	645	2060
3					
Total	1495			3200	10214

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
REMARKS 1: 2% SMS + 1/4 #/SX CELLO FLAKE +5%SALT
REMARKS 2: NEAT
CEMENT TO SURFACE 48 BBLS (106.5 SACKS)

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

MAURICIO LOZANO — Name and title of cementer's representative

O-Tex Pumping — Cementing Company

Signature

2609 E I-20 — Address

Midland TX 79706 — City, State, Zip Code

432-686-8559 — Tel: Area Code Number

11/17/2016 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Rosaline Kinard — Typed or printed name of operator's representative

Regulatory Analyst — Title

Signature

6100 S Yale Ave., Suite 600, Tulsa OK 74136 — Address

City, State, Zip Code

918-551-7168 — Tel: Area Code Number

04/06/2017 — Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 787112967).

C. Surface casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. Multiple parallel strings: An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. Slurry data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION			
Operator Name:	panther energy	Operator P-5 No.:	638506
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION			
District No.: 8		County:	reeves
Well No.:	1h	API No.: 42-389-35323	Drilling Permit No.: 817299
Lease Name:	Titan State 16	Lease No.:	
Field Name: Phantom (Wolfcamp)		Field No.: 71052900	

I. CASING CEMENTING DATA

Type of Casing: ☐ Conductor ☐ Surface ☑ Intermediate ☐ Liner ☐ Production

Drilled hole size (in.): 8 3/4	Depth of drilled hole (ft.): 11085	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 7	Casing weight (lbs/ft) and grade:	No. of centralizers used: 0
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☑ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 998	Cementing date: 11/28/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	585	50:50:h	remarks1	1726	11481
2	200	50:50:H	remarks2	242	1609
3					
Total	785			1968	13090

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

419.9

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
remarks1 10% GEL + 6/10% SMS + 3/10% O-TX20 + 1/4#/SX CELLO FLAKE + 3#/SX KOLSEA + 5% SALT
remarks2 2% GEL + 3/10% C-12 + 1/10% O-TX20

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Justin smith — Name and title of cementer's representative

O-Tex Pumping — Cementing Company

Signature

2609 E I-20 — Address

Midland TX 79706 — City, State, Zip Code

432-686-8559 — Tel: Area Code Number

11/28/2016 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Fred Peek — Typed or printed name of operator's representative

Title

Signature

Address

City, State, Zip Code

Tel: Area Code Number

Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 787112967).

C. Surface casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. Multiple parallel strings: An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. Slurry data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form W-15
Rev. 08/2014

CEMENTING REPORT

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION			
Operator Name:	Panther Energy	Operator P-5 No.:	638506
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION			
District No.:	8	County:	Reeves
Well No.:	1H	API No.: 42-389-35323	Drilling Permit No.: 817299
Lease Name:	Titan State 16	Lease No.:	
Field Name: Phantom (Wolfcamp)		Field No.: 71052900	

I. CASING CEMENTING DATA

Type of Casing: ☐ Conductor ☐ Surface ☐ Intermediate ☑ Liner ☑ Production			
Drilled hole size (in.): 6 1/4	Depth of drilled hole (ft.): 16170	Est. % wash-out or hole enlargement:	1%
Size of casing in O.D. (in.): 4 1/2	Casing weight (lbs/ft) and grade:	No. of centralizers used:	0
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☑ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of liner (ft.): 10370	
		Setting depth liner (ft.): 16170	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 8509	Cementing date: 12/6/2016	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	615	50:50 H	Remarks	774.9	7625
2					
3					
Total	615			774.9	7625

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings			
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings			
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐		Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
Tail Slurry Adds: 2% Gel + 0.2% SMS + 0.5% O-TX47A + 0.3% O-TX20.

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Abraham Mata- Service Supervisor — Name and title of cementer's representative

O-TEX Pumping, LLX — Cementing Company

Signature

2609 E I-20 — Address

Midland, TX 79706 — City, State, Zip Code

432-686-8559 — Tel: Area Code Number

12/6/2016 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Rosaline Kinard — Typed or printed name of operator's representative

Regulatory Analyst — Title

Signature

6100 S Yale Ave., Suite 600, Tulsa OK 74136 — Address

City, State, Zip Code

918-551-7168 — Tel: Area Code Number

04/06/2017 — Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 787112967).

C. Surface casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. Multiple parallel strings: An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. Slurry data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: APPROVED
Date 09/08/2016
Application ID: 10055
Version No.: 1
Payment Trace No.:
455RM000XTYB7L9

STATEWIDE RULE 13 EXCEPTION APPLICATION

PREPARER INFORMATION

Preparer Name: Lori Greenwood
Phone Number: 918-5517114
E-mail LoriG@PantherEnergy.US
Fax Number:

FILING INFORMATION

GW-1 Application ID: 157353
GAU Areal Extent:
Radius:
API Number: 38935323
Drilling Permit Number: 817299
DP Effective Date: 09/06/2016
Is this a Tubing Exception Only NO
Is this a First Time Tubing NO
Is this an area-wide NO
Associated SWR13E application:

OPERATOR INFORMATION

Operator Name: PANTHER EXPLORATION, LLC
Operator No.: 638506
Address Line 1: 6100 S YALE SUITE 600
Address Line 2:
City: TULSA
State: OK
Postal Code: 74136

WELL IDENTIFICATION INFORMATION

Field Name: PHANTOM (WOLFCAMP)
County: REEVES
District: 08
Well Number: 1H
Lease Name: TITAN STATE 16

GPS COORDINATES INFORMATION

NAD: NAD 27
Format: State Plane
State Plane Zone: Central
Latitude Degrees:
Longitude Degrees:
Latitude Minutes:
Longitude Minutes:
Latitude Seconds:
Longitude Seconds:
Decimal Degrees Latitude:
Decimal Degrees Longitude:
State Plane X-Coordinate: 955227
State Plane Y-Coordinate: 715910

SURVEY INFORMATION

Survey Name: T&P RR CO
Abstract No.: 779
Block: 54 T4S
Township: 4
Section: 17
Tract:
Lot:
League:
Labor:
Porcion:
Share:

REFERENCE LINES INFORMATION

Reference Line: Survey
First Distance: 390
First Direction: North
Second Distance: 530
Second Direction: East

ADDITIONAL INFORMATION

Nearest Town: Pecos
Distance to Nearest Town: 16.4
Direction to Nearest Town: NW
Total Vertical Depth: 11550
Measured Depth: 17200

APPLICATION INFORMATION

Application ID:	10055	Operator Name:	PANTHER EXPLORATION, LLC
Well Number:	1H	Lease Name:	TITAN STATE 16

REQUEST INFORMATION

Reason for this Request:

☐ Economic ☑ Technical ☐ Other

Additional Information for Other Reason for this Request:

Is this a proposed injection or disposal well?	NO	Is this a Minimum Separation well?	NO
Are there any water wells within 1/4 mile of this proposed well location?			NO
Are there any INJECTION or DISPOSAL wells within 1/4 mile of the proposed well location?			NO
Have there been any blowouts within one mile of this wellsite ?			NO

WATER WELLS

INJECTION OR DISPOSAL WELLS

BLOWOUTS

APPLICATION INFORMATION

Application ID:	10055	**Operator Name:**	PANTHER EXPLORATION, LLC
Well Number:	1H	**Lease Name:**	TITAN STATE 16

REQUEST INFORMATION

Has the well drilled and completed? NO

Completion Tracking Number:

Remarks for the Application:

GAU INFORMATION

GAU Areal Extent: **Radius Distance:**

Base of Usable Quality Water (feet. determined by GAU):

Separation Points:

GAU Recommendation Statements:

Water-bearing strata from the land surface to a depth of 1000 feet and the Rustler, which is estimated to occur from 1200 to 1850 feet must be protected.

This recommendation applies to this well only and should not be construed as establishing an area-wide depth for the protection of usable-quality ground water.

Please send Gamma Ray/Porosity log of this well when it is available.

APPLICATION INFORMATION

Application ID:	10055	Operator Name:	PANTHER EXPLORATION, LLC
Well Number:	1H	Lease Name:	TITAN STATE 16

EXCEPTION INFORMATION

Exception Request:

☐ Short Surface Casing ☑ Excess Surface Casing ☐ Single-string ☐ Tubing

Alternate Program Request:

☐ Drilling Fluid ☐ Non-API Cement ☐ Other

Additional Information for Other Alternate Program Request:

APPLICATION INFORMATION

Application ID:	10055	**Operator Name:**	PANTHER EXPLORATION, LLC
Well Number:	1H	**Lease Name:**	TITAN STATE 16

PROPOSED CASING AND CEMENTING PROGRAM

Conductor Casing

Hole Size(in.)	Casing O.D.(in.)	Grade	Weight (lb./ft.)	Shoe Setting Depth(ft.)	Multi-Stage Tool Depth(ft.)	No. of Centralizers	Centralizers Placement

Cementing - Conventional

Slurry Type	Cement Type	Free Water Content(mL water per 250 mL cement)	No. of Sacks	Yield (cu.ft./sk.)	24Hr Comp Strength (psi)	72Hr Comp Strength (psi)	Cement Height(ft.)	Percent excess Cement	Top of Cement(ft.)
Tail/Critical Cement									
Lead/Filler Cement									

Slurry Type	Cement Additives
Tail/Critical Cement	
Lead/Filler Cement	

APPLICATION INFORMATION

Application ID:	10055	**Operator Name:**	PANTHER EXPLORATION, LLC
Well Number:	1H	**Lease Name:**	TITAN STATE 16

PROPOSED CASING AND CEMENTING PROGRAM

Surface Casing

Hole Size(in.)	Casing O.D.(in.)	Grade	Weight (lb./ft.)	Shoe Setting Depth(ft.)	Multi-Stage Tool Depth(ft.)	No. of Centralizers	Centralizers Placement
12.25	9.625	K55	40	3965	2200	20	2 ON 1ST JNT, THEN 1 EVERY 4TH TO SURF

Tapered Hole Size(in.)	Tapered Casing O.D.(in.)	Tapered Grade	Tapered Weight (lb./ft.)	Tapered Setting Crossover Depth(ft.)

Cementing - Conventional

Slurry Type	Cement Type	Free Water Content(mL water per 250 mL cement)	No. of Sacks	Yield (cu.ft./sk.)	24Hr Comp Strength (psi)	72Hr Comp Strength (psi)	Cement Height(ft.)	Percent excess Cement	Top of Cement(ft.)
Tail/Critical Cement	CLASS C	1.0	720	1.33	1926	2312	905	50	3060
Lead/Filler Cement	CLASS C	0.0	1130	1.92	1498	1670	860	50	2200

Slurry Type	Cement Additives
Tail/Critical Cement	CLASS C
Lead/Filler Cement	CLASS C, 6% GEL, 5% SALT

Cementing - Multi-Stage Tool

Slurry Type	Cement Type	Free Water Content(mL water per 250 mL cement)	No. of Sacks	Yield (cu.ft./sk.)	24Hr Comp Strength (psi)	72Hr Comp Strength (psi)	Cement Height(ft.)	Percent excess Cement	Top of Cement(ft.)
Tail/Critical Cement	CLASS C	1.0	350	1.33	1926	2312	714	50	1486
Lead/Filler Cement	CLASS C	0.0	680	1.92	1498	1670	1486	50	0

Slurry Type	Cement Additives
Tail/Critical Cement	CLASS C
Lead/Filler Cement	CLASS C, 6% GEL, 5% SALT

DAVID PORTER, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

OPERATOR Name: PANTHER EXPLORATION, LLC
Address1: 6100 S YALE SUITE 600
Address2:
City: TULSA
State: OK

RE: Lease: TITAN STATE 16
Well No: 1H
Sec: 17 **Block:** 54 T4S
County: REEVES
Survey Name: T&P RR CO

SWR13EX Application Number: 10055 **Drilling Permit No:** 817299

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** TITAN STATE 16 ;
WELL NUMBER: 1H has been approved by the Railroad Commission of Texas District Office.

a. A copy of this approved letter must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing Program on the original application without additional approval from the Railroad Commission of Texas District Office.

b. Any substantive modifications to the cement program require prior approval from the Railroad Commission of Texas District Office, and may require re-submission of the SWR 13 (Statewide Rule 13) Alternate Surface Casing Application. Contact the Railroad Commission of Texas District Office for more information.

c. The tail slurry must be sufficient to fill the Zone of Critical Cement as described in Statewide Rule 13(b)(1)(H)(i). In addition, all cement slurries must be mixed on location as described in Application for Alternate Surface Casing Program.

d. The casing and cement program shall adhere to the following specifications:

Set 3965 feet of surface casing with a multistage tool set at a depth of not less than 2200 feet. Circulate cement from the multistage tool to the ground surface. If cement does not circulate to surface during the first stage, the multistage tool MUST be opened and neat cement be circulated from the tool to the surface.

Please notify the Midland District Office immediately if any gas, H2S or otherwise, is encountered before surface casing is set.

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(b)(1)(H)(iii) OR AS REQUIRED BY THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE.

You must comply with all other provisions of SWR 13 (Statewide Rule 13) and a representative of the cementing company who performs the cementing job for the protection of usable quality water strata must sign the Form W-15 attesting to the information regarding cementing operations performed; including circulation of cement. (Note: If surface casing is set below the approved depth, this can result in denial of future Statewide Rule 13(b)(1)(H)(i) requests.) A condition of the approved drilling permit requires notification to the Railroad Commission of Texas District Office eight (8) hours prior to the time casing is to be set/cemented in the well. If your exception request was submitted after the subject well has been drilled and completed, the operator may be referred for enforcement action.

This authorization shall expire within five (5) years from the date the Groundwater Protection Determination was issued, or at the expiration of the drilling permit (if the well is not spudded prior to expiration) for the referenced well, whichever occurs first. Furthermore, this authorization supersedes any prior authorizations issued for the referenced well.

This exception is based on information provided when the application was submitted on 09/08/2016 .
If any information has changed, you must contact the appropriate Railroad Commission of Texas District Office, and submit a new application if applicable. If you have questions, please contact the appropriate Oil and Gas District office.

RRC APPROVAL BY: Erik Hanson DATE: 09/13/2016

D. CRAIG PEARSON

DISTRICT DIRECTOR

APPLICATION FOR APPROVAL OF SURFACE CASING > 3500 FEET
Statewide Rule 13(b)(1)(A)
RAILROAD COMMISSION OF TEXAS

Operator's Name and Address: Panther Exploration, LLC
15 E 5th Street, Suite 2100
Tulsa, OK 74103

P5 Number: 638506

Area for review: Well only

Lease Name: TITAN STATE 16 1H

Field Name: PHANTOM (WOLFCAMP) County: Reeves

Survey: T&P RR CO. Abstract: 779

Drilling Permits: 817299

Note: Attach a map if the request is for more than one pad.

How will the operator maintain well control during drilling operations:
We will have the proper mud weight and employ a rotating head for pressure control.

How will the operator ensure cement is circulated to surface and that there is adequate bonding of cement:

We will run a DV tool in the casing string and pump 150% (or more) excess cement to ensure cement reached surface.

How will the operator prevent the migration of formation fluids thru the annular space:
The pumping of 150% excess cement and the pump rates ensure that >99% of annular space is filled with cement.

Signature: Steve Biddick Name: Steve Biddick Date: 09/07/2016 Phone: (918) 551-7104

RRC Use Only

RRC District Office Action:

☒ Approved ☐ Approved as Modified ☐ Denied By: Erik Hanson Date: 9-13-16

Remarks/Modifications:

13-9-9

PANTHER EXPLORATION, LLC

LEASE NAME & WELL NO.:

TITAN STATE 16 1H "AS-DRILLED"

TOPOGRAPHY & VEGETATION:

MATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:

±16.4 MILES NORTHWEST OF PECOS, TEXAS

DESCRIPTION:

SHL: SECTION 17, BLOCK 54, T-4, T. & P. RR. CO. SURVEY
PP/FTP/LTP/BHL: SECTION 16, BLOCK 54, T-4, T. & P. RR. CO. SURVEY
REEVES COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"
All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:

This well location shown on this permit plat was surveyed under my direct supervision. All As-Drilled information provided by client. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

STATE OF TEXAS REGISTERED WILLIAM J. KEATING 5041 PROFESSIONAL LAND SURVEYOR

William J. Keating

Texas Reg. No. 5041

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
2903 NORTH BIG SPRING - MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 - FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500

AD_TITAN_STATE_16_1H_REV1

Surface Hole Location:
390' FNL & 530' FEL (SEC. 17)
SHL Ground Elevation: 2822'
X = 955227 Y = 715910
LAT.: N 31.5917812 LONG.: W 103.6892703
NAD 83 TX-C ZONE:
X = 1251690 Y = 10558486
LAT.: N 31.5919115 LONG.: W 103.6897311

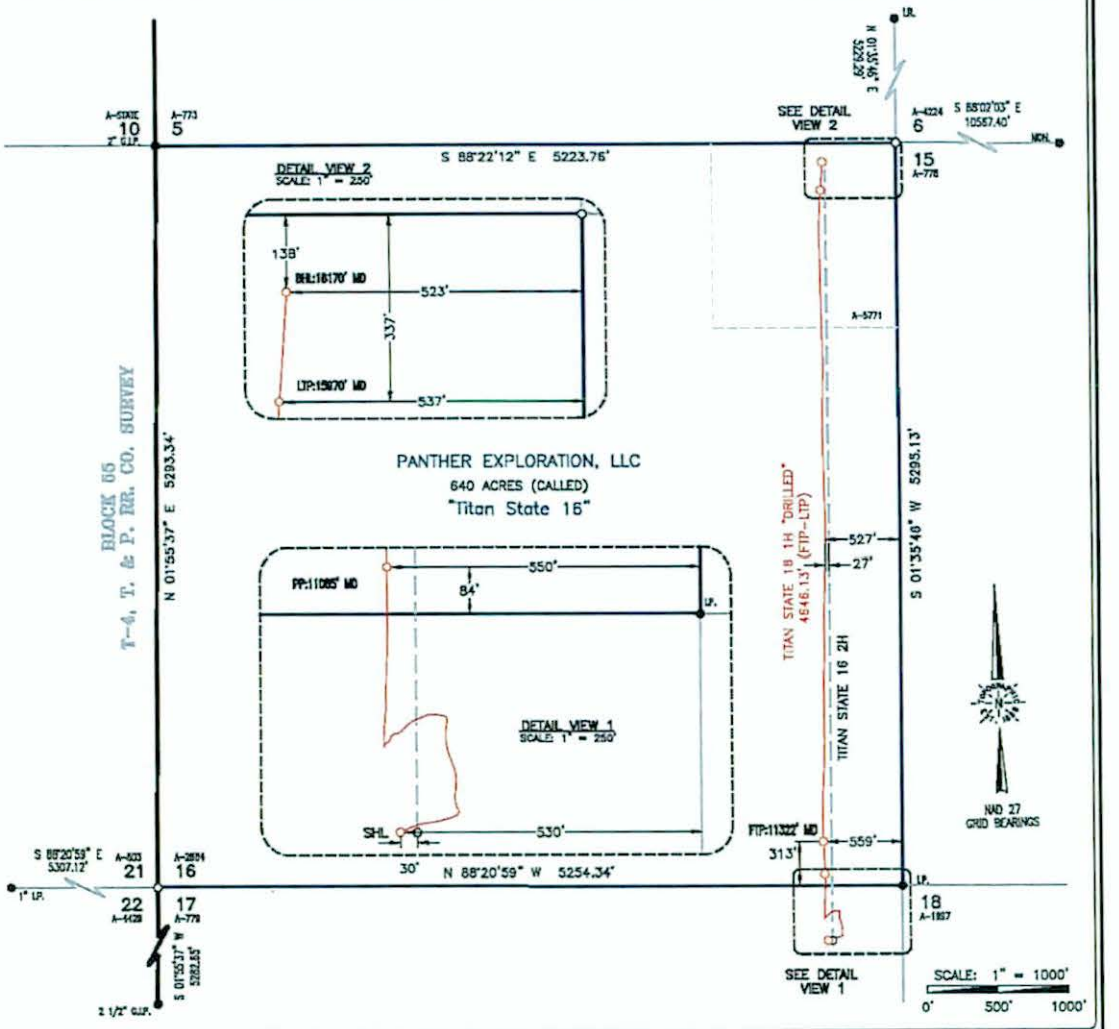
Penetration Point:
84' FSL & 550' FEL (SEC. 16)
X = 955220 Y = 716384
LAT.: N 31.5930839 LONG.: W 103.6893383

First Take Point:
313' FSL & 559' FEL (SEC. 16)
X = 955217 Y = 716614
LAT.: N 31.5937148 LONG.: W 103.6893684

Last Take Point:
337' FNL & 537' FEL (SEC. 16)
X = 955369 Y = 721256
LAT.: N 31.6064842 LONG.: W 103.6893306

Bottom Hole Location:
138' FNL & 523' FEL (SEC. 16)
X = 955389 Y = 721454
LAT.: N 31.6070295 LONG.: W 103.6892867

LEGEND
- Section Line
- Block Line
- Abstract Line
- Tract Line
- Lease Road
- County Road
- Unit/Lease Boundary
- Found Monument
- Set 1/2" Rebar w/cap
- Calculated Corner



Surveyed:	06-21-2016	COGO: 629-65432	Drawn By: MP: 03-20-2017
Scale:	1"=1000'		Revision: 1(MR) Date Revised: 04/11/17

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form P-16
Page 1
Rev. 01/2016

Acreage Designation

SECTION I. OPERATOR INFORMATION

Operator Name: Panther Exploration	**Operator P-5 No.:** 638506
Operator Address: 6100 S Yale Ave., Suite 600, Tulsa OK 74136	

SECTION II. WELL INFORMATION

District No.: 8	**County:** Reeves	**Purpose of Filing:**
Well No.: 1H	**API No.:** 42-389-35323	☐ Drilling Permit Application (Form W-1)
Total Lease Acres: 640	**Drilling Permit No.:** 817299	☒ Completion Report (Form G-1/W-2)
Lease Name: Titan State 16	**Lease No.:**	
Field Name: Phantom (Wolfcamp)	**Field No.:** 71052900	

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (If different from filing operator)
817299	1H	H	Titan State 16	389-35323	640	N	

Total Well Count >	1	640	< A. Total Assigned Horiz. Acreage	640	< C. Total Assigned Acreage
			< Total Remaining Horiz. Acreage		< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

Attach Additional Pages As Needed. ☒ No additional pages ☐ Additional Pages: ____ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Signature

Rosaline Kinard, Regulatory Analyst
Name and title (type or print)

rosalinek@pantherenergy.us
Email (include email address *only* if you affirmatively consent to its public release)

6100 S Yale Ave., Suite 600, Tulsa OK 74136
Address

City, State, Zip Code

918-551-7168
Tel: Area Code Number

04/12/2017
Date: mo. day yr.

Panther Drilling Systems

Titan State 16-1H
Scale 5":100' - MD
12/5/2016 6:45 PM

Oper. Company: Panther Energy
Well: Titan State 16-1H
Field: Wolf Camp
Rig: Latshaw 15
Well ID: 42-369-35323
Job Number: 375H-2016

State: Texas
County: Reeves County
Country: USA
Location: North of Pecos TX
Start Date: 11/29/2016 17:00:00
End Date: 12/05/2016 17:00:00

Latitude: 31.591775
Longitude: -103.689275

Elev KB: 2852
Elev DF: 2852
Elev GL: 2822

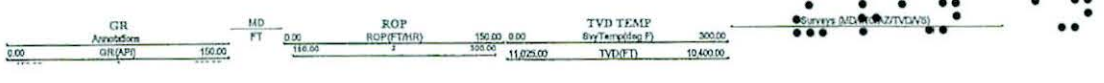
Operator 1: James Butler
Operator 2: Kelly Arnett

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	0	0	0	0	295
Bit Size	12.25	12.25	8.75	8.75	8.75
Cal Factor	N/A	N/A	N/A	N/A	1.280
Gamma Offset	0.00	0.00	0.00	0.00	35.00
Resistivity Offset	0.00	0.00	0.00	0.00	0.00
Start Depth	99.00	1636.00	4085.00	7891.00	10448.00
StartDate	11/14/2016	11/15/2016	11/18/2016	11/22/2016	11/25/2016
StartTime	7:45 AM	8:15 AM	5:30 PM	10:15 AM	4:45 AM
EndDepth	1636.00	4085.00	7891.00	10448.00	11085.00
EndDate	11/15/2016	11/17/2016	11/22/2016	11/26/2016	11/26/2016
EndTime	7:45 AM	10:00 AM	9:15 PM	3:00 AM	4:00 AM
Mud Type	Water Base	Water Base	Water Base	Water Base	Water Base
Mud Weight	9.45	9.80	9.40	9.90	9.9
Funnel Viscosity	32	30	30	35	39
Plastic Viscosity	4	4	3	6	6
Yield Point	5	5	10	9	10
Gel Strength	2	3	4	5	5
Solids Content	7.5	9.5	8.5	10	10
Sand Content	0.5	0.5	0.8	0.75	0.75
Mud Alkalinity	1.2	1.0	1.2	0.9	0.7
Filtrate Alkalinity	0.2	1.0	1.0	0.9	0.7
Chlorides	66000	94000	85000	60000	60000

Tool Run Data	Run #6	Run #7	Run #8	Run #9	Run #10
Tool S/N	295				
Bit Size	6.125				
Cal Factor	1.280				
Gamma Offset	36.00				
Resistivity Offset	0.00				
Start Depth	11085.00				
StartDate	11/29/2016				
StartTime	5:00 PM				
EndDepth	16170.00				
EndDate	12/5/2016				
EndTime	5:00 PM				
Mud Type	Oil Base				
Mud Weight	13.1				
Funnel Viscosity	73				
Plastic Viscosity	28				
Yield Point	9				
Gel Strength	7				
Solids Content	23				
Sand Content	0				
Mud Alkalinity	4.2				
Filtrate Alkalinity	3.6				
Chlorides	37000				

Hole Data			Casing Data		
Size	From	To	Size	From	To
12.25	0.00	4085.00	9.625	0.00	4084.00
8.75	4085.00	11085.00	7.00	0.00	11085.00
6.125	11085.00	16170.00			

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.



TITAN STATE 16-1H
MF-112944, MF-116554 A,B,D,
F-S, & MF-116791 A-C

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
817299	(AMENDED) 09/06/2016	08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-389-35323	08/24/2016	REEVES
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
New Drill	Horizontal	640.0

OPERATOR 638506
PANTHER EXPLORATION, LLC
6100 S YALE SUITE 600
TULSA, OK 74136-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
TITAN STATE 16	1H

LOCATION	TOTAL DEPTH
16.4 miles NW direction from Pecos	11550

Section, Block and/or Survey
SECTION 17 BLOCK 54 T4S ABSTRACT 779
SURVEY T&P RR CO

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
390.0 ft NORTH 530.0 ft EAST	250.0
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
390.0 ft NORTH 530.0 ft EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL# / NEAREST WELL	DIST
PHANTOM (WOLFCAMP)	640.0	11550	1H	08
TITAN STATE 16	250.0		0.0	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

Terminus Point: TH1 Section: 16 Block: 54 T4S Abstract: 2864 Survey: T&P RR CO/CLAYTON, B BH County: REEVES
Lease Lines: 200.0 ft NORTN 530.0 ft EAST
Survey Lines: 200.0 ft NORTH 530.0 ft EAST
Penetration Lines: 200.0 ft SOUTH 530.0 ft EAST

This is a hydrogen sulfide field. This well shall be drilled in accordance with SWR 36.

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

Date Validation Wed, 7 Sep 2016 10:59:56

Railroad Commission of Texas
Oil and Gas Division
SWR #13 Formation Data
REEVES (389) COUNTY

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
FORD-DELAWARE	2500	2500		1	01/01/2014
CASTILLE	2800	2800		2	01/01/2014
BELL CANYON	4800	5000		3	01/01/2014
DELAWARE	2500	5700		4	01/01/2014
DELAWARE CONSOLIDATED	6500	6500		5	01/01/2014
CHERRY CANYON	3800	7800		6	01/01/2014
BONE SPRINGS	7500	9800		7	01/01/2014
PERMIAN	11300	11300		8	01/01/2014
WOLFCAMP	10000	12300		9	01/01/2014
PENNSYLVANIAN	11000	14900		10	01/01/2014
MISSISSIPPIAN	10000	16000		11	01/01/2014
DEVONIAN	13600	17800		12	01/01/2014
FUSSELMAN	14000	17800		13	01/01/2014
ELLENBURGER	15000	20800		14	01/01/2014

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

API No. 42-389-35323

Drilling Permit # 817299

SWR Exception Case/Docket No.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

FORM W-1

Permit Status: Approved

1. RRC Operator No.	2. Operator's Name (as shown on form P-5, Organization Report)	3. Operator Address (include street, city, state, zip)
638506	PANTHER EXPLORATION, LLC	6100 S YALE SUITE 600 TULSA, OK 74136-0000

4. Lease Name	5. Well No.
TITAN STATE 16	1H

GENERAL INFORMATION

6. Purpose of filing (mark ALL appropriate boxes): [X] New Drill [X] Amended [ ] Recompletion [ ] Reclass [ ] Field Transfer [ ] Re-Enter [ ] Amended as Drilled (BHL)(Also File Form W-1D)

7. Wellbore Profile (mark ALL appropriate boxes): [ ] Vertical [X] Horizontal (Also File Form W-1H) [ ] Directional (Also File Form W-1D) [ ] Sidetrack

8. Total Depth: 11550

9. Do you have the right to develop the minerals under any right-of-way? [X] Yes [ ] No

10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? [X] Yes [ ] No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No.: 08

12. County: REEVES

13. Surface Location: [X] Land [ ] Bay/Estuary [ ] Inland Waterway [ ] Offshore

14. This well is to be located 16.4 miles in a NW direction from Pecos which is the nearest town in the county of the well site.

15. Section: 17

16. Block: 54 T4S

17. Survey: T&P RR CO

18. Abstract No.: 779

19. Distance to nearest lease line: 250.0 ft.

20. Number of contiguous acres in lease, pooled unit, or unitized tract: 640.0

21. Lease Perpendiculars: 390.0 ft. from the NORTH line and 530.0 ft. from the EAST line.

22. Survey Perpendiculars: 390.0 ft. from the NORTH line and 530.0 ft. from the EAST line.

23. Is this a pooled unit? [ ] Yes [X] No

24. Unitization Docket No:

25. Are you applying for Substandard Acreage Field? [ ] Yes (attach Form W-1A) [X] No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	71052900	PHANTOM (WOLFCAMP)	Oil or Gas Well	11550	0.0	1

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS

Remarks

Certificate:

I certify that information stated in this application is true and complete, to the best of my knowledge

RRC User — Name of filer

08/24/2016 — Date Submitted

Phone

Email Address(OPTIONAL)

RRC Use Only Date Validation Time Stamp: Wed, 7 Sep 2016 10:56:14

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX
78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

READ INSTRUCTIONS ON BACK

P-4
5/02—WWW-1

TITAN STATE 16-1H
MF-112944, MF-116554 A,B,D, F-S, & MF-116791 A-C

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration s			
PHANTOM (WOLFCAMP)	TITAN STATE 16			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no.	6. County	7. RRC district
RKI EXPLORATION & PRODUCTION LLC	714221	DP-817299	REEVES	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
3500 ONE WILLIAMS CENTER MD 35 TULSA, OK 74172	1H			
	10. Classification		11. Effective Date	
	[X] Oil [ ] Gas [ ] Other *(see instruction A)*		03/10/17	

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. **Change of:** [X] operator [ ] oil or condensate gatherer [ ] gas gatherer [ ] gas purchaser [ ] gas purchaser system code
[ ] field name from: _____
[ ] lease name from: _____

OR

b. **New RRC Number for:** [ ] oil lease [ ] gas well [ ] other well (specify)_____ **Due to:** [ ] new completion or recompletion [ ] reclass oil to gas [ ] reclass gas to oil [ ] consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	ENERGY TRANSFER COMPANY (252017)	0001	100	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
SUNOCO PTNRS MKTG & TERMINALS LP (829626)	100

RRC USE ONLY
Reviewer's initials: _____
Approval date: _____

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

PANTHER EXPLORATION, LLC
Name of Previous Operator

Signature

JAMES R. STONE
Name (print)

[X] **Authorized Employee of previous operator** [ ] **Authorized agent of previous operator** *(see instruction G)*

EXECUTIVE VICE PRESIDENT
Title

3-10-17
Date

(918) 551-7106
Phone with area code

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

MATTHEW HINSON
Name (print)

Signature

VP ASSET TEAM, PERMIAN ASSETS
Title

[X] **Authorized Employee of current operator** [ ] **Authorized agent of current operator** *(see instruction G)*

E-mail Address (optional)

3-10-17
Date

(539) 573-0170
Phone with area code

TITAN STATE 16-1H
MF-112944, MF-116554 A,B,D,
F-S, & MF-116791 A-C

Railroad Commission of Texas

Oil And Gas Division — Form P-8

Request for Clearance of Storage Tanks

Prior to Potential Test

Reference No. 36751

1. Operator's Name and Address (Exactly as shown on Form P-5 Organization Report)
PANTHER EXPLORATION, LLC
6100 S YALE SUITE 600
TULSA, OK 74136-0000
2. RRC Operator Number: 638506

3. RRC District No.: 08
4. County of Well Site: REEVES
5. API No.: 42-389-35323

6. Field Name (Wildcat or exactly as shown on RRC records): PHANTOM (WOLFCAMP)
7. Drilling Permit No.: 817299
8. Rule 37 Case No.:

9. Lease Name: TITAN STATE 16
10. Oil lease No.:
11. Well No.: 1H

12. Drilling completed on 12/08/2016
13. Completion report--Form W-2 or G-1--will be filed on 03/15/2017

14. Oil or condensate gatherer's name and address
SUNOCO PTNRS. MKTG.&TERMINALS LP
3807 WEST CHESTER PIKE
NEWTOWN SQ, PA 19073-2304
(215) 977-6164

15. Authorization to transport oil or condensate (mark one)
[X] Form P-4 attached
[X] Form P-4 Filed on 02/17/2017

16. This request is for 120000 barrels of [X] crude oil OR [ ] condensate

17. Amount of oil/condensate in tanks
0 barrels on 02/17/2017

18. Storage capacity in bbls. Tank battery 5000 Test tanks 3000 Total 8000

19. Previous request for clearance. Amount 0 barrels granted on

20. Reason for current request for clearance (explain briefly)
Testing new completion

Lori Greenwood — Name of operator's representative
REGULATORY AND PRODUCTION ANALYST — Title of person

(918)551-7114 — Telephone
02/17/2017 — Date

RRC District Office Action

Status: Approved **Barrels recommended** 120000 RRC Staff 02/17/2017 Date

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.state.tx.us

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

READ INSTRUCTIONS ON BACK

P-4
5/02—WWW-1

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
Phantom (Wolfcamp)	Titan State 16			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no.	6. County	7. RRC district
Panther Exploration, LLC	638506		Reeves	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
15 E. 5th Street Ste. 2100 Tulsa, OK 74103	all			
	10. Classification ☑ Oil ☐ Gas ☐ Other *(see instruction A)*		11. Effective Date 02/17/2017	

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: ☐ operator ☐ oil or condensate gatherer ☐ gas gatherer ☐ gas purchaser ☐ gas purchaser system code
☐ field name from: _____
☐ lease name from: _____

OR

b. New RRC Number for: ☒ oil lease ☐ gas well ☐ other well (specify)_____ **Due to:** ☒ new completion or recompletion ☐ reclass oil to gas ☐ reclass gas to oil ☐ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
x	x	Energy Transfer Company (Oper # 252017)	0001	100	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
Sunoco Ptnrs. Mktg & Terminals LP (operator #829626)	100

RRC USE ONLY
Reviewer's initials: _____
Approval date: _____

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator _____ Signature _____

Name (print) _____ ☐ **Authorized Employee of previous operator** ☐ **Authorized agent of previous operator** *(see instruction G)*

Title _____ Date _____ Phone with area code _____

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

Lori Greenwood
Name (print) _____ Signature _____

Regulatory/Production Analyst
Title _____ ☒ **Authorized Employee of current operator** ☐ **Authorized agent of current operator** *(see instruction G)*

lorig@pantherenergy.us
E-mail Address (optional) _____ 02/17/2017
Date _____ 918-551-7114
Phone with area code _____

INSTRUCTIONS

P-4: *Certificate of Compliance and Transportation Authority*

Reference. Statewide Rule 58, *Oil, Gas or Geothermal Resource Operator's Report; Statewide* Rule 14, *Plugging;* Statewide Rule 78, *Fees, Performance Bonds and Alternate Forms of Financial Security Required To Be Filed;* and Statewide Rule 1, *Organization Reports, Retention of Records, Notice Requirements.*

A. Who Files: operator of the **oil** lease or **gas** well (producing or non-producing), or **other** well (injection/disposal, water source, hydrocarbon storage, observation, brine mining, geothermal, etc.).

B. Purpose of filing: 1) establish the operator of an oil lease, gas well, or other well, 2) certify responsibility for regulatory compliance, including plugging the well(s) in accordance with Statewide Rule 14, *Plugging*, and 3) identify gatherers, purchasers, and purchasers' RRC-assigned system codes authorized for each producing well or lease.

C. When to File: for a 1) new oil lease, gas well, or other well, 2) recompletion, 3) reclassification from oil to gas or gas to oil, 4) consolidation, unitization or subdivision, or 5) change of gatherer, gas purchaser, gas purchaser system, operator, field name or lease name.

D. Where and What to File: original P-4 only with the Commission's Oil and Gas Division in Austin. Additional documents may be required with some P-4 filings.

E. Requirements for Operator Change: signature of previous operator in Item 15 and of new/receiving operator in Item 16. NOTE: regulatory responsibility for wells does not transfer until the P-4 has been approved by the RRC. All entities listed on the P-4 will receive written notification upon approval.

The Commission shall not approve a transfer of operatorship submitted for any well or lease unless the operator acquiring the well or lease has on file with the Commission one of the following approved forms of financial security in an amount sufficient to cover its current operations and the wells being transferred: 1) an individual performance bond, letter of credit or cash deposit; or 2) a blanket performance bond, letter of credit or cash deposit.

H_2S (Hydrogen Sulfide) Certification. The new operator must immediately comply with Statewide 36 if applicable. The Form H-9, *Certificate of Compliance, Statewide Rule 36,* is not transferable.

Oil Lease Change-of-Operator. The new oil lease operator may take responsibility for either:

1) All Wells on Lease. Leave ***Item 9*** blank or write "all". If you leave this item blank or write "all", you are specifically identifying all wells listed for the lease on the RRC Oil Proration Schedule as of the time the P-4 is approved by the Commission as wells for which you are assuming plugging responsibility. Upon approval of the P-4, the new operator will be responsible for regulatory compliance of each of the wells.

OR

Some Wells on Lease. Indicate the well numbers being transferred to the new operator in ***Item 9*** or attach a separate list of well numbers and write "see attached" in ***Item 9***. **Note:** When only some of the wells on an existing lease are being transferred, a Form P-6 *Request for Permission to Subdivide or Consolidate Oil Lease(s)* must be filed with the P-4 along with plats showing the lease and wells before and after the subdivision.

Wells listed for a lease on the Oil Proration Schedule can be viewed through an inquiry at any RRC district office, in the Austin office, or on the web at *www.rrc.state.tx.us*. Printouts of an inquiry may be obtained through the Commission's Oil and Gas Division Proration Unit at (512) 463-6838. NOTE: information listed on a printout is not protected and could change at any time; therefore, it cannot be used as part of a P-4 change-of-operator, subdivision, or consolidation filing.

F. Revocation. This certification of compliance may be revoked by the Commission at any time for failure to comply with the oil and gas laws of the State of Texas and the rules, regulations, and orders of the Railroad Commission of Texas. Revocation of the certificate will not relieve the designated operator of its responsibility to maintain the leases and wells in compliance with Statewide Rules.

G. Detailed Instructions. NOTE: When filing a P-4 for changes, the form must be completed in its entirety, not just the areas being changed. Failure to include information in items 13 and 14 may result in deletion of gatherer and purchaser information and in loss of allowable.

Items 1 and 2. *Field and Lease Name.* If the P-4 is being filed to change the field name or lease name, show the proposed new name in Item 1 or 2.

Item 5. A separate P-4 is required for each RRC Oil Lease/ Gas ID Number in a multiple completion.

Item 11. *Effective Date.* The effective date is the date the change or acquisition actually takes place.

Item 13. *Gas Well Gas or Casinghead Gas.* List all active gatherers and purchasers. An RRC-assigned system code must be given for each purchaser. If there is a change of system codes under the same purchaser, attach a letter of explanation from the purchaser to the P-4. If selling gas on the spot market, you may list your company as purchaser if the spot market contract is for 60 days or less. An operator that lists itself as purchaser must request, by separate letter, a purchaser's system code number in accordance with Statewide Rule 34. For split connections, percentages of take must be given to no more than two decimal points. Combined percentages for gas gatherers must equal 100 percent. Combined percentages for gas purchasers must equal 100 percent. If gas is going full-well stream to a processing plant, place an "X" in the last column on the line identifying a gatherer. Full-well stream is the combined production of gas and condensate before the condensate has been separated from the gas.

Items 15 and 16. *Certifications.* A P-4 must be signed by a duly authorized individual in accordance with Statewide Rule 1.



35.

File No. MF1165554

Reeves County

Completion Report for API 389-35323 Unit# 8343

Date Filed: _____

George P. Bush, Commissioner

By _____

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- ☐ Certified Mail Restricted Delivery $ _____
- ☐ Adult Signature Required $ _____
- ☐ Adult Signature Restricted Delivery $ _____

MF 116554
MF 116991
MF 118163

Postmark Here

Postage
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Total Postage and Fees
$

ATTN: Lou Ann Gruber

Sent To WPX Energy Permian, LLC

Street and Apt. No., or PO Box No. 3500 One Williams Ctr

City, State, ZIP+4® Tulsa, OK 74172-0135

PS Form 3800, April 2015 PSN 7530-02-000-9047 **See Reverse for Instructions**

7016 2070 0000 7390 5670

Certified Mail service provides the following benefits:

- A receipt (this portion of the Certified Mail label).
- A unique identifier for your mailpiece.
- Electronic verification of delivery or attempted delivery.
- A record of delivery (including the recipient's signature) that is retained by the Postal Service™ for a specified period.

Important Reminders:

- You may purchase Certified Mail service with First-Class Mail®, First-Class Package Service®, or Priority Mail® service.
- Certified Mail service is *not* available for international mail.
- Insurance coverage is *not* available for purchase with Certified Mail service. However, the purchase of Certified Mail service does not change the insurance coverage automatically included with certain Priority Mail items.
- For an additional fee, and with a proper endorsement on the mailpiece, you may request the following services:
  - Return receipt service, which provides a record of delivery (including the recipient's signature). You can request a hardcopy return receipt or an electronic version. For a hardcopy return receipt, complete PS Form 3811, *Domestic Return Receipt;* attach PS Form 3811 to your mailpiece; for an electronic return receipt, see a retail associate for assistance. To receive a duplicate return receipt for no additional fee, present this USPS®-postmarked Certified Mail receipt to the retail associate.
  - Restricted delivery service, which provides delivery to the addressee specified by name, or to the addressee's authorized agent.
  - Adult signature service, which requires the signee to be at least 21 years of age (not available at retail).
  - Adult signature restricted delivery service, which requires the signee to be at least 21 years of age and provides delivery to the addressee specified by name, or to the addressee's authorized agent (not available at retail).
- To ensure that your Certified Mail receipt is accepted as legal proof of mailing, it should bear a USPS postmark. If you would like a postmark on this Certified Mail receipt, please present your Certified Mail item at a Post Office™ for postmarking. If you don't need a postmark on this Certified Mail receipt, detach the barcoded portion of this label, affix it to the mailpiece, apply appropriate postage, and deposit the mailpiece.

IMPORTANT: Save this receipt for your records.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

WPX Energy Permian, LLC
ATTN: Lou Ann Gruber
3500 One Williams Ctr
Tulsa, OK 74172-0135

9590 9402 1749 6074 7584 24

7016 2070 0000 7390 5670

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X B.C. Nolen ☒ Agent ☐ Addressee

B. Received by (Printed Name) Ashley Nolan

C. Date of Delivery 8-13-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Delivery Restricted Delivery
- ☐ ail
- ☐ ail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

USPS TRACKING #

9590 9402 1749 6074 7584 24

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

Texas General Land Office
George P. Bush, Commissioner
P.O. Box 12873
Austin, Texas 78711-2873

ATTN: Aurora Jordan 7th Energy
ME116554

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

WPX Energy Permian, LLC
Attn: Lou Ann Gruber
3500 One Williams Ctr
Tulsa, OK 74172-0135

Billing Date: 8/9/2018
Billing Due Date: 9/8/2018
Customer Number: C000048105

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
18I00641	MF116554	$0.00	$12,379.04	$1,237.91	$537.38	$14,154.33
18I00643	MF116791	$0.00	$946.73	$114.69	$41.10	$1,102.52
18I00644	MF118163	$7,594.75	$0.00	$776.87	$343.70	$8,715.32
18I00645	MF118163	$0.00	$1,768.34	$192.98	$76.76	$2,038.08
Total Due		$7,594.75	$15,094.11	$2,322.45	$998.94	**$26,010.25**

Penalty and interest have been calculated thru 8/31/2018. Payment remitted after 8/31/2018 will result in additional penalty and interest charges.

Contact Info: Sabrina Garcia (512) 475-1510 or Sabrina.Garcia@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For other royalty reporting questions, visit http://www.glo.texas.gov, call (512) 463-6850 or email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing
WPX Energy Permian, LLC
Billing Date: 8/9/2018
Billing Due Date: 9/8/2018
Customer Number: C000048105

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
18I00641	MF116554	$0.00	$12,379.04	$1,237.91	$537.38	$14,154.33
18I00643	MF116791	$0.00	$946.73	$114.69	$41.10	$1,102.52
18I00644	MF118163	$7,594.75	$0.00	$776.87	$343.70	$8,715.32
18I00645	MF118163	$0.00	$1,768.34	$192.98	$76.76	$2,038.08
Total Due		$7,594.75	$15,094.11	$2,322.45	$998.94	**$26,010.25**
Amt. Paid						

Customer ID: C000048105
Invoice Number: 18100641
GLO Lease: MF116554
GLO Review: WPX Energy Permian, LLC - RKI EXPLORATION & PRODUCTION LLC
Review Period: September 2016 through August 2017

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/3/2018
P&I Calculation Date: 8/31/2018
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	**RRC Number**	**Gas/Oil Volume**	**Tract Participa**	**Price**	**BTU**	**Gross Value**	**Royalty Due**	**Royalty Paid**	**Additional Ro**	**Number of Da**	**Interest Rate For**	**Penalty Rate Fron**	**Interest Rate Fron**	**Revenue Due**
May-17	08-48473	114	1.00000000	$ 44.258886	1.000000	$5,045.51	$630.69	$0.00	$630.69	422	4.75%	$63.07	$29.79	$723.55
Jun-17	08-48473	2,266	1.00000000	$ 41.476971	1.000000	$93,986.82	$11,748.35	$0.00	$11,748.35	391	4.75%	$1,174.84	$507.59	$13,430.78
TOTALS		**2,380**				**$99,032.33**	**$12,379.04**	**$0.00**	**$12,379.04**			**$1,237.91**	**$537.38**	**$14,154.33**

ATTN: Lou Ann Gruber

CERTIFIED MAIL: 7016 2070 0000 7390 5670

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3)	VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-48473
COLUMN (5)	PRICE - AVERAGE TAKEN FROM ROYALTY PRODUCTION REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14)	PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT: http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1: PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, NOTIFY THE AUDITOR AS TO THE REMITTANCE DATE SO THE INVOICE CAN BE PROPERLY CREDITED.

(36)

File No. MF 116554

County

Recon Billings

Date Filed: 8/9/18

George P. Bush, Commissioner

By

Customer ID: C000048105
Invoice Number: 18I00643
GLO Lease: MF116791
GLO Review: WPX Energy Permian, LLC - RKI EXPLORATION & PRODUCTION LLC
Review Period: September 2016 through August 2017

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/3/2018
P&I Calculation Date: 8/31/2018
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
May-17	08-48473	9	1.00000000	$ 44.258960	1.000000	$398.33	$49.79	$0.00	$49.79	422	4.75%	$25.00	$2.35	$77.14
Jun-17	08-48473	173	1.00000000	$ 41.477040	1.000000	$7,175.53	$896.94	$0.00	$896.94	391	4.75%	$89.69	$38.75	$1,025.38
TOTALS		182				$7,573.86	$946.73	$0.00	$946.73			$114.69	$41.10	$1,102.52

ATTN: Lou Ann Gruber

CERTIFIED MAIL: 7016 2070 0000 7390 5670

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3) VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-48473

COLUMN (5) PRICE - AVERAGE TAKEN FROM ROYALTY PRODUCTION REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.

COLUMNS (12), (13), (14) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Customer ID: C000048105
Invoice Number: 18I00644
GLO Lease: MF118163
GLO Review: WPX Energy Permian, LLC - RKI EXPLORATION & PRODUCTION LLC
Review Period: September 2016 through August 2017

Category Gas
Auditor/AE: Sgarcia
Billing Date: 8/3/2018
P&I Calculation Date: 8/31/2018
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
Feb-17	08-48473	254	1.00000000	$1.904372	1.257700	$608.36	$76.05	$0.00	$76.05	503	4.75%	$25.00	$4.39	$105.44
Mar-17	08-48473	4,607	1.00000000	$2.501089	1.060344	$12,217.83	$1,527.23	$0.00	$1,527.23	473	4.75%	$152.72	$82.28	$1,762.23
Apr-17	08-48473	4,779	1.00000000	$2.685694	1.054896	$13,539.52	$1,692.44	$0.00	$1,692.44	442	4.75%	$169.24	$84.36	$1,946.04
May-17	08-48473	3,437	1.00000000	$2.727418	1.057134	$9,909.72	$1,238.71	$0.00	$1,238.71	412	4.75%	$123.87	$56.90	$1,419.48
Jun-17	08-48473	2,460	1.00000000	$2.592981	1.054484	$6,726.27	$840.78	$0.00	$840.78	381	4.75%	$84.08	$35.23	$960.09
Jul-17	08-48473	3,867	1.00000000	$2.579998	1.058195	$10,557.46	$1,319.68	$0.00	$1,319.68	350	4.75%	$131.97	$49.98	$1,501.63
Aug-17	08-48473	2,632	1.00000000	$2.586004	1.057671	$7,198.90	$899.86	$0.00	$899.86	320	4.75%	$89.99	$30.56	$1,020.41
TOTALS		22,036				$60,758.05	$7,594.75	$0.00	$7,594.75			$776.87	$343.70	$8,715.32

ATTN: Lou Ann Gruber

CERTIFIED MAIL: 7016 2070 0000 7390 5670

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3) VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-48473
COLUMN (5), (6) PRICE & BTU - AVERAGE TAKEN FROM ROYALTY PRODUCTION REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Customer ID: C000048105
Invoice Number: 18I00645
GLO Lease: MF118163
GLO Review: WPX Energy Permian, LLC - RKI EXPLORATION & PRODUCTION LLC
Review Period: September 2016 through August 2017

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/3/2018
P&I Calculation Date: 8/31/2018
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
May-17	08-48473	16	1.00000000	$ 44.258890	1.000000	$708.14	$88.52	$0.00	$88.52	422	4.75%	$25.00	$4.18	$117.70
Jun-17	08-48473	324	1.00000000	$ 41.476970	1.000000	$13,438.54	$1,679.82	$0.00	$1,679.82	391	4.75%	$167.98	$72.58	$1,920.38
TOTALS		**340**				**$14,146.68**	**$1,768.34**	**$0.00**	**$1,768.34**			**$192.98**	**$76.76**	**$2,038.08**

ATTN: Lou Ann Gruber

CERTIFIED MAIL: 7016 2070 0000 7390 5670

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3) VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-48473

COLUMN (5) PRICE - AVERAGE TAKEN FROM ROYALTY PRODUCTION REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.

COLUMNS (12), (13), (14) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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(36)

File No. MF 116554

Recon Billing
County

Date Filed: 8/9/18

George P. Bush, Commissioner

By

RAILROAD COMMISSION OF TEXAS

Form G-1

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 06/27/2019
Tracking No.: 209046

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC **Operator No.:** 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

WELL INFORMATION

API No.: 42-389-37496 **County:** REEVES
Well No.: 411H **RRC District No.:** 08
Lease Name: TITAN STATE 16 **Field Name:** PHANTOM (WOLFCAMP)
RRC Gas ID No.: 286681 **Field No.:** 71052900
Location: Section: 16, Block: 54 T4S, Survey: T&P RR CO / INGLE, F B, Abstract: 5771

Latitude: **Longitude:**
This well is located 16.9 **miles in a** NW **direction from** PECOS, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: New Well
Well Type: Shut-In Producer **Completion or Recompletion Date:** 02/17/2019

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	08/17/2018	843719
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 10/09/2018 **Date of first production after rig released:** 02/17/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 10/09/2018 **Date plug back, deepening, recompletion, or drilling operation ended:** 12/14/2018
Number of producing wells on this lease in this field (reservoir) including this well: 2 **Distance to nearest well in lease & reservoir (ft.):** 183.0
Total number of acres in lease: 640.00 **Elevation (ft.):** 2871 RKB
Total depth TVD (ft.): 10762 **Total depth MD (ft.):** 15638
Plug back depth TVD (ft.): 10762 **Plug back depth MD (ft.):** 15554
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 24.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 370.0 **Feet from the** North **Line and** 235.0 **Feet from the** East **Line of the** TITAN STATE 16 **Lease.** **Off Lease:** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination	**Depth (ft.):** 1750.0	**Date:** 08/24/2018
SWR 13 Exception	**Depth (ft.):**	

GAS MEASUREMENT DATA

Date of test: **Gas measurement method(s):**

Gas production during test (MCF):

Was the well preflowed for 48 hours? No

Run No.	Line size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. Or Choke (in.)	Static Pm or Choke (in.)	Diff (hw)	Flow Temp (°F)	Temp. (Ftf)	Gravity (Fg)	Compress (Fpv)	Volume (MCF/day)
N/A										

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): **Gravity (liquid hydrocarbons) (Deg. API):**

Gas-Liquid Hydro Ratio (CF/Bbl): **Gravity (mixture): Gmix=**

Avg. shut in temp. (°F): **Bottom hole temp. and depth:** °F@ FT

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Pressure (PSIA)	Wellhead Flow Temp (°F)
N/A				

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1845			C	1233	2617.0	SURFACE	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	4118			C	1017	1841.0	SURFACE	Circulated to Surface
3	Intermediate	7	8 3/4	11115			C	826	2134.3	33	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	4 1/2	6 1/8	9994	15638	H	549	691.2	9994	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	10839	10829 / 4 1/2" 10K AS-1X

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11120	15505

4-SB-13

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes

If yes, actuation pressure (PSIG): 9998.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 11000

Actual maximum pressure (PSIG) during hydraulic fracturing: 10960

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	7,935,434 TL FLUID; 10,892,329 TL PROPPANT	11120.0	15505.0

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
FORD-DELAWARE	Yes	4180.0	4180.0	Yes	ESTIMATED
CASTILLE	Yes	2301.0	2301.0	Yes	ESTIMATED
BELL CANYON	Yes	4098.0	4105.0	Yes	
DELAWARE	Yes	4098.0	4105.0	Yes	
DELAWARE CONSOLIDATED GAS	No			No	NOT ENCOUNTERED
CHERRY CANYON	Yes	5085.0	5098.0	Yes	
BONE SPRINGS	Yes	7628.0	7655.0	Yes	
PERMIAN	Yes	981.0	981.0	Yes	ESTIMATED
WOLFCAMP	Yes	10554.0	10635.0	Yes	
PENNSYLVANIAN	No			No	DID NOT DRILL INTO THIS FORMATION
MISSISSIPPIAN	No			No	DID NOT DRILL INTO THIS FORMATION
DEVONIAN	No			No	DID NOT DRILL INTO THIS FORMATION
FUSSELMAN	No			No	DID NOT DRILL INTO THIS FORMATION
ELLENBURGER	No			No	DID NOT DRILL INTO THIS FORMATION

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

KOP @ 10,176'MD. FILING WELL RECORD ONLY WITHIN 30 DAYS OF COMPLETION. AS-DRILLED PLAT, COMPLETION P-16 AND G5 WILL BE FILED WITH THE INITIAL POTENTIAL.

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2019-05-16 08:58:39.775] EDL=4350 feet, max acres=640, PHANTOM (WOLFCAMP) oil or gas well;

take points: 11120-15505 feet

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name: Lorri Kline	**Title:**
Telephone No.: (539) 573-3518	**Date Certified:** 02/21/2019

5.30.19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	**Operator P-5 No.:** 942623
Cementer Name: Bj Services LLC	**Cementer P-5 No.:** 072507

WELL INFORMATION		
District No.: 08	**County:** REEVES	
Well No.: 411H	**API No.:** 42-389-37496	**Drilling Permit No.:** 843719
Lease Name: TITAN STATE 16	**Lease No.:**	
Field Name: PHANTOM (WOLFCAMP)	**Field No.:** 71052900	

I. CASING CEMENTING DATA

Type of casing:	☑ Surface	☐ Intermediate	☐ Liner ☐ Production
Drilled hole size (in.): 17 1/2	**Depth of drilled hole (ft.):** 2,085		**Est. % wash-out or hole enlargement:** 20
Size of casing in O.D. (in.): 13 3/8	**Casing weight (lbs/ft) and grade:** 54.5# J-55		**No. of centralizers used:** 14
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☑ YES ☐ NO	**Setting depth shoe (ft.):** 1,845		**Top of liner (ft.):** / **Setting depth liner (ft.):**
Hrs. waiting on cement before drill-out: > 72	**Calculated top of cement (ft.):** SURFACE		**10/11/2018**

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	928	C	SEE REMARKS A	2213	3185
2	305	C	SEE REMARKS B	404	582
Total	1233			2617	3767

II. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings		
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**
Tapered string drilled hole size (in.)	**Tapered string drilled hole size (in.)**	
Tapered string size of casing in O.D. (in.)	**Tapered string casing weight(lbs/ft) and grade**	**Tapered string no. of centralizers used**
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth shoe (ft):**
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:**

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings		
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**
Tapered string drilled hole size (in.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth tool (ft):**
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:**

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

843.4

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	SQUEEZE	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
REMARKS A: CLASS C +.50% A-7+2% A-2
REMARKS B: CLASS C

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Tyler Houtchens Service Supervisor	Bj Services LLC	Tyler Hatchens	
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM2920 RD	Tomball, Tx 77375	281-408-2361	10/11/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	PERMIT TECHNICIAN II	LORRI KLINE	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74172	539-573-3518	10/16/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl+14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

1.30.19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	**Operator P-5 No.:** 942623
Cementer Name: Bj Services LLC	**Cementer P-5 No.:** 072507

WELL INFORMATION		
District No.: 08	**County:** REEVES	
Well No.: 411H	**API No.:** 42-389-37496	**Drilling Permit No.:** 843719
Lease Name: TITAN STATE 16	**Lease No.:**	
Field Name: PHANTOM (WOLFCAMP)	**Field No.:** 71052900	

I. CASING CEMENTING DATA

Type of casing: ☐ Surface ☑ Intermediate ☐ Liner ☐ Production			
Drilled hole size (in.): 12 1/4	**Depth of drilled hole (ft.):** 4,130	**Est. % wash-out or hole enlargement:** 15	
Size of casing in O.D. (in.): 9 5/8	**Casing weight (lbs/ft) and grade:** 40# J-55	**No. of centralizers used:** 26	
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☑ YES ☐ NO	**Setting depth shoe (ft.):** 4,118	**Top of liner (ft.):**	**Setting depth liner (ft.):**
Hrs. waiting on cement before drill-out: > 72	**Calculated top of cement (ft.):** SURFACE	**Cementing date:** 10/16/18	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	750	C	See Remarks	1487	3270
2	267	C	See Remarks	354	817
3					
Total	1017			1841	4087

II. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings			
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**	
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**	
Tapered string drilled hole size (in.)		**Tapered string drilled hole size (in.)**	
Tapered string size of casing in O.D. (in.)	**Tapered string casing weight(lbs/ft) and grade**	**Tapered string no. of centralizers used**	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth shoe (ft):**	
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:**	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings			
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**	
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**	
Tapered string drilled hole size (in.) Upper: Lower:		**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth tool (ft):**	
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:**	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

01-92-2

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
Lead- 35:65:6 Class C + 3% Salt
Tail- Class C + 0.15% R-3
30 BBLS / 85 SX TO SURFACE

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Scott Womelsdorf	Bj Services LLC		
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM2920 RD	Tomball, Tx 77375	281-408-2361	10/16/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	PERMIT TECHNICIAN II	*Lorri Kline*	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35 TULSA, OK 74172		539-537-3518	10/18/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl+14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

10.30.18

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Cementer:Fill in Shaded Areas
Operator:Fill in Other Items

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	Operator P-5 No.: 942623
Cementer Name: BJ Services,LLC	Cementer P-5 No.: 072507

WELL INFORMATION	
District No.: 08	County: REEVES
Well No.: 411H	API No.: 42-389-37496 DRILLING PERMIT NO.: 843719
Lease Name: TITAN STATE 16	Lease No.:
Field Name: PHANTOM (WOLFCAMP)	Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☑ Intermediate ☐ Liner ☐ Production

Drilled hole size (in.): 8 3/4	Depth of drilled hole (ft.): 11,135	Est. % wash-out or hole enlargement: 15
Size of casing in O.D. (in.): 7	Casing weight (lbs/ft) and grade: 29# P110EYHC	No. of centralizers used: 49
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☐ YES ☑ NO	Setting depth shoe (ft.): 11,115	Top of liner (ft.): / Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 4	Calculated top of cement (ft.): 33	Cementing date: 10/24/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	623	C	See reamarks 1	1878.35	9975.01
2	203	C	See Remarks 2	255.98	1140
3					
Total	826			2134.33	11115

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string drilled hole size (in.)	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth shoe (ft):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
4					
Total	0			0	0

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar)outside casing? ☐ YES ☐ NO		Setting depth tool (ft):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
4					
Total	0			0	0

01-32-2

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
REMARKS1:	50:50:10 (POZ:Class 'H':GEL) +0.10% A-2 +2.50 lb/sk CLC-KOL +0.25 lb/sk Cello-Flake +0.40% R-21
REMARKS2:	50:50:2 (POZ:Class 'H':GEL) +0.40% FL52 + 0.30% CD-32 +0.15% A-2 +0.10% R-21
REMARKS:3	
Remarks 4	

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Jason Piercey Service Supervisor I	BJ Services,LLC	Jason Piercey	
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM 2920 RD	Tomball TX 77375	281-408-2361	10/24/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	PERMIT TECHNICIAN II	LORRI KLINE	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74172	539-573-3518	10/25/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. Surface Casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl+14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. Multiple parallel strings: An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. Slurry Data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

5.30.18

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Cementer: Fill In Shaded Areas
Operator:Fill In Other Items

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	**Operator P-5 No.:** 942623
Cementer Name: BJ Services,LLC	**Cementer P-5 No.: 072507**

WELL INFORMATION	
District No.: 08	**County:** REEVES
Well No.: 411H	**API No.:** 42-389-37496 DRLG PERMIT NO.: 843719
Lease Name: TITAN STATE 16	**Lease No.:**
Field Name: PHANTOM (WOLFCAMP)	**Field No.:** 71052900

I. CASING CEMENTING DATA

Type of casing: ☐Conductor ☐Surface ☐Intermediate ☑Liner ☐Production

Drilled hole size (in.): 6 1/8	**Depth of drilled hole (ft.):** 15,638	**Est. % wash-out or hole enlargement:** 10
Size of casing in O.D. (in.): 4 1/2	**Casing weight (lbs/ft) and grade:** 13.5# HCP-110	**No. of centralizers used:** 63
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☐YES ☑NO	**Setting depth shoe (ft.):** 15,638	**Top of liner (ft.):** 9,994 / **Setting depth liner (ft.):** 15,638
Hrs. waiting on cement before drill-out: 5	**Calculated top of cement (ft.):** 9,994	**Cementing date:** 12/13/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	549	H	See Remarks 1	691.191	6859
2					
3					
Total	549			691.191	6859.33

II. CASING CEMENTING DATA

Type of casing: ☐Surface ☐Intermediate ☐Production ☐Tapered production ☐Multi-stage cement shoe ☐Multiple parallel strings

Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**
Tapered string drilled hole size (in.)		**Tapered string drilled hole size (in.)**
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐YES ☐NO		**Setting depth shoe (ft):**
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:** 12/13/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total	0			0	0

III. CASING CEMENTING DATA

Type of casing: ☐Intermediate ☐Surface ☐Production ☐Tapered production ☐Multi-stage cement/DV tool ☐Multiple parallel strings

Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**
Tapered string drilled hole size (in.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar)outside casing? ☐YES ☐NO		**Setting depth tool (ft):**
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:** 12/13/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1			See Remarks 1		
2			See Remarks 2		
3			See Remarks 3		
Total	0			0	0

01.02.2

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
REMARKS1:	50:50 Poz: Class H + 2% Bentonite + 0.4% FL52 + 0.3% CD32 + 0.1% R21
REMARKS2:	0
REMARKS:3	Rig Circulated 27 BBLS or 120 Sacks off of Liner Top

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

James Sheets Service Supervisor II	BJ Services,LLC		
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM 2920 RD	Tomball TX 77375	281-408-2361	12/14/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	REGULATORY TECH II	Lorri Kline	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74172	539-573-3518	12/14/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl+14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

5.5.19

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 212688

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: WPX ENERGY PERMIAN, LLC	District No. 08	Completion Date: 02/17/2019
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 843719	
Lease Name TITAN STATE 16	Lease/ID No. 286681	Well No. 411H
County REEVES	API No. 42- 389-37496	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

- ☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- ☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- ☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- ☐ 4. Log attached to (select one):
  - ☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____
    Check here if attached log is being submitted after being held confidential. ☐
  - ☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.
  - ☐ (c) Form W-4, Application for Multiple Completion:
    Lease or ID No(s). _____
    Well No(s). _____

Lorri Kline Signature	Title
WPX ENERGY PERMIAN, LLC Name (print)	(539) 573-3518 Phone 04/22/2019 Date

-FOR RAILROAD COMMISSION USE ONLY-

WPXENERGY

Scale: 5" / 100'
Measured Depth Log

Well Name	Titan State 16-411H		
Location	370 FNL 235 FEL SEC 16		
State	TEXAS	**County**	REEVES
Country	USA	**Rig Number**	PATTERSON 565
API Number	42389374960000	**Field**	PHANTOM WOLFCAMP
Geographic Region	DELAWARE BASIN	**Drilling Completed**	TBD
Spud Date	10/10/2018		
Surface Coordinates	LAT.: 31.606463 LONG.: -103.688789		
Bottom Hole Coordinates	LAT.: 31.593241 LONG.: -103.690432		
Ground Elevation	2,843	**K.B. Elevation**	2,871'
Logged Interval	3,500' **To** 15638	**Total Depth**	12138
Formation	WOLFCAMP A2		
Type of Drilling Fluid	BRINE/OBM		

Operator

Company WPX Energy

Address ONE WILLIAMS CENTER
TULSA, OK 74103

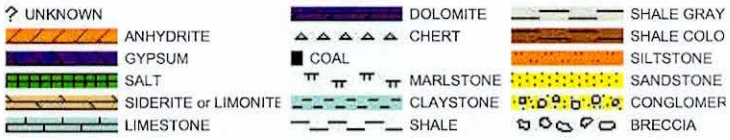
Geologist

Name DANIEL BETTINGER, RYAN BADUM, CAN 'JOHN' SE

Company FIELD GEO SERVICES, INC.

Address 533 BOGART LANE, UNIT A
GRAND JUNCTION, CO 81505
(970) 424-5162 OFFICE
(970) 424-5164 FAX

Rock Types



Scientific Drilling International, Inc.
325 Faudree Road
Odessa, Texas 79765
Tel: 432.689.5600 Fax: 432.563.6255
www.scientificdrilling.com

State of Texas
County of Midland

I, J. Reimert, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 10/08/2018 through 12/12/2018 conduct or supervise the taking of a MWD survey from a depth of 220 feet to a depth of 15638 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of WPX Energy for the Titan State 16-411H Well, API# 42-389-37496 in Reeves County, Texas; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.

Field Technician

61.32.2

WPX Energy

Reeves County, Texas (NAD83)
Titan State 16 Pad
Titan State 16-411H
Wellbore #1

Design: Actual

WPX Final Survey Report

12 December, 2018

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Project Reeves County, Texas (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Texas Central Zone		

Site Titan State 16 Pad

Site Position:		**Northing:**	10,563,768.14 usft	**Latitude:**	31.606463
From:	Map	**Easting:**	1,252,142.85 usft	**Longitude:**	-103.688789
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-1.73 °

Well Titan State 16-411H

Well Position	**+N/-S**	0.00 usft	**Northing:**	10,563,768.14 usft	**Latitude:**	31.606463
	+E/-W	0.00 usft	**Easting:**	1,252,142.85 usft	**Longitude:**	-103.688789
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	2,843.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/26/2018	6.98	59.25	47,333

Design Actual

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	181.68

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey Program **Date** 12/12/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
156.00	1,796.00	SDI MWD - Surface (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
1,879.00	10,085.00	SDI MWD - Intermediate (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
10,176.00	11,078.00	SDI MWD - Curve (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
11,175.00	15,638.00	SDI MWD - Lateral (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,563,768.14	1,252,142.85
156.00	0.70	95.00	156.00	-0.08	0.95	0.06	0.95	95.00	10,563,768.06	1,252,143.80
246.00	1.04	97.11	245.99	-0.23	2.31	0.16	2.32	95.74	10,563,767.91	1,252,145.16
367.00	1.11	121.36	366.96	-0.98	4.40	0.85	4.51	102.54	10,563,767.16	1,252,147.25
487.00	0.57	77.25	486.95	-1.45	5.97	1.28	6.15	103.66	10,563,766.69	1,252,148.82
607.00	0.81	72.12	606.94	-1.06	7.36	0.84	7.44	98.18	10,563,767.08	1,252,150.21
698.00	0.62	96.36	697.94	-0.92	8.46	0.67	8.51	96.18	10,563,767.22	1,252,151.31
790.00	0.34	214.01	789.94	-1.20	8.81	0.94	8.89	97.74	10,563,766.94	1,252,151.66
880.00	1.04	161.77	879.93	-2.19	8.91	1.93	9.18	103.83	10,563,765.95	1,252,151.76
971.00	1.12	168.10	970.91	-3.85	9.35	3.57	10.11	112.37	10,563,764.29	1,252,152.20
1,062.00	1.42	153.72	1,061.89	-5.73	10.04	5.43	11.56	119.73	10,563,762.41	1,252,152.89
1,153.00	1.58	140.85	1,152.86	-7.71	11.33	7.38	13.70	124.26	10,563,760.43	1,252,154.18
1,243.00	0.52	73.08	1,242.85	-8.56	12.50	8.19	15.15	124.39	10,563,759.58	1,252,155.35
1,333.00	0.90	40.52	1,332.84	-7.90	13.35	7.51	15.51	120.62	10,563,760.24	1,252,156.20
1,424.00	0.55	19.56	1,423.83	-6.95	13.96	6.53	15.59	116.45	10,563,761.19	1,252,156.81
1,514.00	0.51	30.41	1,513.83	-6.19	14.31	5.77	15.59	113.41	10,563,761.95	1,252,157.16
1,603.00	0.11	232.13	1,602.83	-5.91	14.44	5.48	15.60	112.24	10,563,762.23	1,252,157.29
1,692.00	0.36	280.06	1,691.83	-5.91	14.10	5.49	15.29	112.74	10,563,762.23	1,252,156.95
1,796.00	0.64	222.39	1,795.82	-6.28	13.39	5.89	14.79	115.13	10,563,761.86	1,252,156.24
1,879.00	1.05	231.70	1,878.81	-7.09	12.48	6.73	14.35	119.62	10,563,761.05	1,252,155.33

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
1,973.00	1.42	237.67	1,972.79	-8.25	10.82	7.93	13.60	127.34	10,563,759.89	1,252,153.67
2,067.00	1.23	250.93	2,066.77	-9.20	8.88	8.94	12.79	136.03	10,563,758.94	1,252,151.73
2,161.00	1.06	260.19	2,160.75	-9.68	7.07	9.47	11.99	143.86	10,563,758.46	1,252,149.92
2,256.00	0.87	260.13	2,255.73	-9.95	5.49	9.79	11.37	151.11	10,563,758.19	1,252,148.34
2,351.00	1.69	319.22	2,350.71	-9.02	3.87	8.90	9.81	156.79	10,563,759.12	1,252,146.72
2,445.00	2.71	331.70	2,444.64	-6.01	1.91	5.95	6.31	162.39	10,563,762.13	1,252,144.76
2,539.00	2.34	329.65	2,538.55	-2.40	-0.12	2.40	2.40	182.75	10,563,765.74	1,252,142.73
2,634.00	1.74	337.92	2,633.49	0.61	-1.64	-0.56	1.75	290.48	10,563,768.75	1,252,141.21
2,728.00	3.42	306.15	2,727.40	3.59	-4.44	-3.46	5.71	308.96	10,563,771.73	1,252,138.41
2,822.00	5.89	304.82	2,821.08	8.00	-10.66	-7.68	13.33	306.87	10,563,776.14	1,252,132.19
2,916.00	6.12	305.27	2,914.56	13.64	-18.71	-13.09	23.16	306.10	10,563,781.78	1,252,124.14
3,011.00	4.90	304.03	3,009.12	18.84	-26.21	-18.06	32.28	305.71	10,563,786.98	1,252,116.64
3,104.00	4.71	305.34	3,101.80	23.27	-32.62	-22.30	40.07	305.51	10,563,791.41	1,252,110.23
3,199.00	4.04	309.74	3,196.52	27.67	-38.37	-26.53	47.31	305.79	10,563,795.81	1,252,104.48
3,293.00	5.05	309.88	3,290.22	32.44	-44.09	-31.13	54.74	306.34	10,563,800.58	1,252,098.76
3,387.00	5.81	309.38	3,383.80	38.11	-50.95	-36.60	63.62	306.80	10,563,806.25	1,252,091.90
3,481.00	5.01	307.32	3,477.38	43.61	-57.89	-41.90	72.48	307.00	10,563,811.75	1,252,084.96
3,576.00	5.27	309.34	3,572.00	48.89	-64.56	-46.98	80.99	307.14	10,563,817.03	1,252,078.29
3,671.00	6.13	308.81	3,666.53	54.84	-71.89	-52.71	90.42	307.34	10,563,822.98	1,252,070.96
3,765.00	6.60	303.64	3,759.95	60.98	-80.30	-58.60	100.82	307.21	10,563,829.12	1,252,062.55
3,859.00	6.90	305.30	3,853.30	67.23	-89.40	-64.58	111.86	306.94	10,563,835.37	1,252,053.45
3,953.00	5.81	304.74	3,946.72	73.21	-97.92	-70.31	122.26	306.78	10,563,841.35	1,252,044.93
4,069.00	6.77	305.33	4,062.02	80.51	-108.32	-77.30	134.96	306.62	10,563,848.65	1,252,034.53
4,242.00	6.60	302.82	4,233.84	91.79	-125.00	-88.09	155.08	306.29	10,563,859.93	1,252,017.85
4,336.00	6.44	307.12	4,327.23	97.90	-133.74	-93.94	165.74	306.21	10,563,866.04	1,252,009.11
4,430.00	6.34	309.84	4,420.65	104.41	-141.93	-100.20	176.20	306.34	10,563,872.55	1,252,000.92
4,525.00	6.42	310.95	4,515.06	111.25	-149.97	-106.81	186.73	306.57	10,563,879.39	1,251,992.88

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
4,619.00	6.34	310.83	4,608.48	118.09	-157.86	-113.41	197.14	306.80	10,563,886.23	1,251,984.99
4,713.00	6.48	310.05	4,701.89	124.89	-165.85	-119.98	207.62	306.98	10,563,893.03	1,251,977.00
4,807.00	6.02	305.32	4,795.33	131.16	-173.93	-126.00	217.84	307.02	10,563,899.30	1,251,968.92
4,901.00	6.17	304.81	4,888.80	136.89	-182.10	-131.49	227.82	306.93	10,563,905.03	1,251,960.75
4,995.00	6.11	304.06	4,982.26	142.58	-190.39	-136.93	237.86	306.83	10,563,910.72	1,251,952.46
5,089.00	5.91	299.10	5,075.75	147.73	-198.77	-141.84	247.66	306.62	10,563,915.87	1,251,944.08
5,183.00	5.43	296.56	5,169.29	152.07	-206.97	-145.94	256.84	306.31	10,563,920.21	1,251,935.88
5,278.00	5.37	298.91	5,263.87	156.23	-214.89	-149.87	265.68	306.02	10,563,924.37	1,251,927.96
5,372.00	5.41	299.88	5,357.45	160.57	-222.58	-153.97	274.45	305.81	10,563,928.71	1,251,920.27
5,466.00	5.50	296.98	5,451.03	164.82	-230.44	-157.99	283.31	305.57	10,563,932.96	1,251,912.41
5,560.00	5.59	299.42	5,544.59	169.11	-238.44	-162.05	292.32	305.35	10,563,937.25	1,251,904.41
5,654.00	5.30	294.60	5,638.16	173.17	-246.37	-165.87	301.14	305.10	10,563,941.31	1,251,896.48
5,748.00	5.80	302.34	5,731.72	177.51	-254.33	-169.98	310.16	304.91	10,563,945.65	1,251,888.52
5,842.00	5.82	304.35	5,825.24	182.74	-262.28	-174.98	319.67	304.87	10,563,950.88	1,251,880.57
5,936.00	6.61	302.69	5,918.69	188.36	-270.77	-180.34	329.84	304.82	10,563,956.50	1,251,872.08
6,031.00	6.50	299.37	6,013.07	193.95	-280.06	-185.65	340.66	304.70	10,563,962.09	1,251,862.79
6,125.00	5.96	298.17	6,106.51	198.86	-289.00	-190.30	350.81	304.53	10,563,967.00	1,251,853.85
6,219.00	6.89	301.21	6,199.92	204.09	-298.12	-195.26	361.29	304.39	10,563,972.23	1,251,844.73
6,313.00	6.61	295.71	6,293.27	209.35	-307.82	-200.24	372.27	304.22	10,563,977.49	1,251,835.03
6,407.00	5.11	293.38	6,386.77	213.36	-316.54	-203.99	381.73	303.98	10,563,981.50	1,251,826.31
6,502.00	5.18	299.98	6,481.39	217.18	-324.13	-207.59	390.17	303.82	10,563,985.32	1,251,818.72
6,596.00	6.98	299.08	6,574.86	222.08	-332.80	-212.23	400.10	303.72	10,563,990.22	1,251,810.05
6,690.00	6.77	300.65	6,668.18	227.68	-342.56	-217.54	411.32	303.61	10,563,995.82	1,251,800.29
6,784.00	5.51	298.89	6,761.64	232.69	-351.28	-222.29	421.35	303.52	10,564,000.83	1,251,791.57
6,878.00	6.49	300.83	6,855.13	237.59	-359.79	-226.94	431.16	303.44	10,564,005.73	1,251,783.06
6,973.00	6.54	299.36	6,949.51	242.99	-369.12	-232.07	441.92	303.36	10,564,011.13	1,251,773.73
7,067.00	5.58	293.72	7,042.99	247.46	-377.97	-236.27	451.77	303.21	10,564,015.60	1,251,764.88

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
7,161.00	6.72	304.72	7,136.45	252.43	-386.67	-240.98	461.77	303.14	10,564,020.57	1,251,756.18
7,255.00	6.79	304.20	7,229.80	258.68	-395.79	-246.97	472.83	303.17	10,564,026.82	1,251,747.06
7,349.00	5.23	302.36	7,323.28	264.10	-404.00	-252.14	482.67	303.17	10,564,032.24	1,251,738.85
7,444.00	5.56	300.18	7,417.86	268.73	-411.64	-256.55	491.59	303.14	10,564,036.87	1,251,731.21
7,537.00	5.86	302.24	7,510.39	273.53	-419.55	-261.11	500.84	303.10	10,564,041.67	1,251,723.30
7,632.00	5.99	305.32	7,604.89	278.98	-427.70	-266.32	510.64	303.12	10,564,047.12	1,251,715.15
7,726.00	5.77	296.84	7,698.39	283.95	-435.91	-271.05	520.24	303.08	10,564,052.09	1,251,706.94
7,820.00	6.42	299.30	7,791.86	288.66	-444.71	-275.50	530.18	302.99	10,564,056.80	1,251,698.14
7,916.00	5.91	297.63	7,887.31	293.58	-453.77	-280.15	540.46	302.90	10,564,061.72	1,251,689.08
8,011.00	5.55	308.51	7,981.84	298.70	-461.70	-285.04	549.90	302.90	10,564,066.84	1,251,681.15
8,105.00	4.51	318.95	8,075.47	304.32	-467.69	-290.48	557.98	303.05	10,564,072.46	1,251,675.16
8,200.00	4.66	312.65	8,170.17	309.75	-472.98	-295.75	565.38	303.22	10,564,077.89	1,251,669.87
8,294.00	4.26	312.31	8,263.89	314.69	-478.37	-300.53	572.60	303.34	10,564,082.83	1,251,664.48
8,388.00	2.74	310.25	8,357.71	318.49	-482.66	-304.21	578.28	303.42	10,564,086.63	1,251,660.19
8,482.00	3.58	311.66	8,451.56	321.90	-486.57	-307.49	583.41	303.49	10,564,090.04	1,251,656.28
8,577.00	3.29	315.43	8,546.39	325.81	-490.70	-311.28	589.01	303.58	10,564,093.95	1,251,652.15
8,671.00	2.70	312.31	8,640.26	329.22	-494.23	-314.59	593.84	303.67	10,564,097.36	1,251,648.62
8,765.00	2.51	296.71	8,734.17	331.64	-497.71	-316.90	598.08	303.68	10,564,099.78	1,251,645.14
8,859.00	1.88	305.98	8,828.10	333.47	-500.79	-318.64	601.66	303.66	10,564,101.61	1,251,642.06
8,954.00	1.67	295.29	8,923.05	334.97	-503.31	-320.07	604.59	303.65	10,564,103.11	1,251,639.54
9,048.00	1.16	265.91	9,017.03	335.49	-505.49	-320.53	606.69	303.57	10,564,103.63	1,251,637.36
9,143.00	1.28	266.65	9,112.00	335.36	-507.51	-320.34	608.31	303.46	10,564,103.50	1,251,635.34
9,237.00	1.11	253.02	9,205.98	335.03	-509.43	-319.95	609.73	303.33	10,564,103.17	1,251,633.42
9,331.00	1.02	231.57	9,299.97	334.25	-510.96	-319.12	610.57	303.19	10,564,102.39	1,251,631.89
9,425.00	1.28	239.10	9,393.95	333.19	-512.51	-318.02	611.30	303.03	10,564,101.33	1,251,630.34
9,519.00	1.19	224.41	9,487.93	331.95	-514.10	-316.74	611.95	302.85	10,564,100.09	1,251,628.75
9,614.00	0.86	280.91	9,582.91	331.38	-515.49	-316.13	612.81	302.74	10,564,099.52	1,251,627.36

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
9,708.00	1.05	304.92	9,676.90	332.01	-516.89	-316.71	614.33	302.71	10,564,100.15	1,251,625.96
9,802.00	0.80	264.82	9,770.89	332.44	-518.25	-317.11	615.71	302.68	10,564,100.58	1,251,624.60
9,896.00	2.03	248.93	9,864.86	331.78	-520.45	-316.38	617.21	302.52	10,564,099.92	1,251,622.40
9,990.00	2.04	227.39	9,958.80	330.05	-523.24	-314.57	618.64	302.24	10,564,098.19	1,251,619.61
10,085.00	1.84	218.58	10,053.75	327.72	-525.43	-312.17	619.26	301.95	10,564,095.86	1,251,617.42
10,176.00	4.55	201.16	10,144.60	323.21	-527.65	-307.60	618.77	301.49	10,564,091.35	1,251,615.20
10,215.64	9.62	195.85	10,183.93	318.55	-529.12	-302.90	617.61	301.05	10,564,086.69	1,251,613.73
Titan16-411H POP										
10,270.00	16.60	193.84	10,236.84	306.63	-532.22	-290.90	614.23	299.95	10,564,074.77	1,251,610.63
10,364.00	24.32	197.63	10,324.84	275.10	-541.31	-259.11	607.20	296.94	10,564,043.24	1,251,601.54
10,458.00	29.61	187.10	10,408.64	233.55	-550.06	-217.33	597.59	293.01	10,564,001.69	1,251,592.79
10,551.00	34.66	170.81	10,487.52	184.52	-548.67	-168.36	578.87	288.59	10,563,952.66	1,251,594.18
10,624.69	38.70	171.86	10,546.60	141.02	-542.06	-125.06	560.10	284.58	10,563,909.16	1,251,600.79
FTP Actual 10624.69' MD - Titan16-411H FTP										
10,646.00	39.87	172.13	10,563.10	127.65	-540.18	-111.76	555.06	283.30	10,563,895.79	1,251,602.67
10,740.00	49.26	176.03	10,630.01	62.12	-533.57	-46.45	537.18	276.64	10,563,830.26	1,251,609.28
10,834.00	58.43	174.61	10,685.41	-13.43	-527.33	28.89	527.50	268.54	10,563,754.71	1,251,615.52
10,928.00	67.79	173.03	10,727.88	-96.68	-518.27	111.83	527.21	259.43	10,563,671.46	1,251,624.58
11,023.00	78.94	173.40	10,755.03	-186.92	-507.54	201.72	540.87	249.78	10,563,581.22	1,251,635.31
11,078.00	83.49	174.44	10,763.43	-240.96	-501.79	255.57	556.64	244.35	10,563,527.18	1,251,641.06
11,175.00	89.66	176.87	10,769.22	-337.45	-494.46	351.81	598.64	235.69	10,563,430.69	1,251,648.39
11,270.00	90.50	180.19	10,769.09	-432.41	-492.03	446.65	655.03	228.69	10,563,335.73	1,251,650.82
11,365.00	89.80	183.08	10,768.84	-527.36	-494.74	541.64	723.10	223.17	10,563,240.78	1,251,648.11
11,460.00	90.20	188.99	10,768.84	-621.79	-504.72	636.32	800.85	219.07	10,563,146.35	1,251,638.13
11,554.00	88.66	186.26	10,769.77	-714.94	-517.19	729.80	882.40	215.88	10,563,053.20	1,251,625.66
11,649.00	88.52	186.26	10,772.11	-809.35	-527.55	824.47	966.10	213.10	10,562,958.79	1,251,615.30
11,744.00	86.98	182.61	10,775.84	-903.97	-534.89	919.26	1,050.37	210.61	10,562,864.17	1,251,607.96

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
11,839.00	88.66	180.30	10,779.46	-998.86	-537.30	1,014.18	1,134.20	208.28	10,562,769.28	1,251,605.55
11,934.00	92.58	179.49	10,778.43	-1,093.84	-537.12	1,109.11	1,218.60	206.15	10,562,674.30	1,251,605.73
12,029.00	93.39	180.39	10,773.48	-1,188.71	-537.02	1,203.94	1,304.38	204.31	10,562,579.43	1,251,605.83
12,124.00	90.74	181.82	10,770.06	-1,283.62	-538.85	1,298.86	1,392.13	202.77	10,562,484.52	1,251,604.00
12,218.00	90.97	186.79	10,768.66	-1,377.31	-545.91	1,392.72	1,481.55	201.62	10,562,390.83	1,251,596.94
12,313.00	91.07	187.74	10,766.96	-1,471.53	-557.92	1,487.26	1,573.75	200.76	10,562,296.61	1,251,584.93
12,408.00	90.64	187.52	10,765.55	-1,565.68	-570.53	1,581.73	1,666.39	200.02	10,562,202.46	1,251,572.32
12,503.00	91.17	188.88	10,764.05	-1,659.69	-584.08	1,676.10	1,759.47	199.39	10,562,108.45	1,251,558.77
12,596.00	89.03	182.05	10,763.88	-1,752.21	-592.93	1,768.84	1,849.81	198.70	10,562,015.93	1,251,549.92
12,690.00	86.91	176.78	10,767.22	-1,846.11	-591.97	1,862.67	1,938.70	197.78	10,561,922.03	1,251,550.88
12,785.00	89.90	175.92	10,769.86	-1,940.87	-585.93	1,957.21	2,027.38	196.80	10,561,827.27	1,251,556.92
12,880.00	90.00	175.77	10,769.94	-2,035.62	-579.05	2,051.72	2,116.37	195.88	10,561,732.52	1,251,563.80
12,974.00	91.71	177.87	10,768.54	-2,129.45	-573.83	2,145.36	2,205.42	195.08	10,561,638.69	1,251,569.02
13,068.00	91.51	177.89	10,765.90	-2,223.35	-570.36	2,239.12	2,295.34	194.39	10,561,544.79	1,251,572.49
13,163.00	91.61	179.65	10,763.31	-2,318.29	-568.32	2,333.96	2,386.94	193.77	10,561,449.85	1,251,574.53
13,257.00	92.18	179.78	10,760.20	-2,412.24	-567.85	2,427.85	2,478.17	193.25	10,561,355.90	1,251,575.00
13,351.00	91.95	181.37	10,756.82	-2,506.17	-568.79	2,521.77	2,569.91	192.79	10,561,261.97	1,251,574.06
13,444.00	89.33	179.11	10,755.78	-2,599.15	-569.18	2,614.72	2,660.74	192.35	10,561,168.99	1,251,573.67
13,538.00	91.18	182.36	10,755.36	-2,693.12	-570.39	2,708.69	2,752.86	191.96	10,561,075.02	1,251,572.46
13,634.00	89.87	180.86	10,754.48	-2,789.08	-573.08	2,804.68	2,847.35	191.61	10,560,979.06	1,251,569.77
13,729.00	90.44	182.47	10,754.22	-2,884.03	-575.84	2,899.68	2,940.96	191.29	10,560,884.11	1,251,567.01
13,824.00	89.90	182.50	10,753.94	-2,978.94	-579.96	2,994.67	3,034.87	191.02	10,560,789.20	1,251,562.89
13,918.00	90.44	184.33	10,753.66	-3,072.77	-585.56	3,088.62	3,128.07	190.79	10,560,695.37	1,251,557.29
14,013.00	89.93	181.29	10,753.35	-3,167.65	-590.22	3,183.59	3,222.16	190.55	10,560,600.49	1,251,552.63
14,107.00	90.30	182.11	10,753.17	-3,261.60	-593.01	3,277.59	3,315.07	190.30	10,560,506.54	1,251,549.84
14,202.00	90.34	183.10	10,752.64	-3,356.50	-597.33	3,372.57	3,409.24	190.09	10,560,411.64	1,251,545.52
14,296.00	91.14	187.84	10,751.42	-3,450.04	-606.28	3,466.33	3,502.91	189.97	10,560,318.10	1,251,536.57

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
14,391.00	88.69	183.56	10,751.56	-3,544.54	-615.71	3,561.07	3,597.62	189.85	10,560,223.60	1,251,527.14
14,486.00	89.83	185.28	10,752.79	-3,639.24	-623.04	3,655.95	3,692.19	189.71	10,560,128.90	1,251,519.81
14,581.00	87.65	182.40	10,754.88	-3,733.99	-629.40	3,750.84	3,786.67	189.57	10,560,034.15	1,251,513.45
14,676.00	87.95	178.40	10,758.53	-3,828.90	-630.06	3,845.73	3,880.39	189.34	10,559,939.24	1,251,512.79
14,770.00	90.57	176.69	10,759.74	-3,922.79	-626.03	3,939.46	3,972.43	189.07	10,559,845.35	1,251,516.82
14,865.00	91.75	179.04	10,757.82	-4,017.70	-622.49	4,034.22	4,065.64	188.81	10,559,750.44	1,251,520.36
14,959.00	91.61	179.30	10,755.06	-4,111.65	-621.13	4,128.09	4,158.30	188.59	10,559,656.49	1,251,521.72
15,053.00	91.88	179.23	10,752.20	-4,205.60	-619.93	4,221.97	4,251.04	188.39	10,559,562.54	1,251,522.92
15,147.00	90.84	180.75	10,749.97	-4,299.57	-619.91	4,315.89	4,344.03	188.20	10,559,468.57	1,251,522.94
15,240.00	89.10	180.44	10,750.02	-4,392.56	-620.88	4,408.87	4,436.22	188.05	10,559,375.58	1,251,521.97
15,335.00	88.46	180.10	10,752.04	-4,487.54	-621.32	4,503.82	4,530.35	187.88	10,559,280.60	1,251,521.53
15,429.00	88.26	180.51	10,754.73	-4,581.50	-621.82	4,597.76	4,623.50	187.73	10,559,186.64	1,251,521.03
15,523.00	87.38	179.72	10,758.30	-4,675.43	-622.01	4,691.65	4,716.62	187.58	10,559,092.71	1,251,520.84
15,539.64	87.61	179.80	10,759.03	-4,692.05	-621.94	4,708.26	4,733.09	187.55	10,559,076.09	1,251,520.91
Titan16-411H LTP										
15,539.68	87.61	179.80	10,759.03	-4,692.09	-621.94	4,708.31	4,733.13	187.55	10,559,076.05	1,251,520.91
LTP Actual 15539.68' MD										
15,575.00	88.09	179.98	10,760.36	-4,727.39	-621.88	4,743.59	4,768.11	187.49	10,559,040.75	1,251,520.97
SDI MWD										
15,638.00	88.09	179.98	10,762.46	-4,790.35	-621.86	4,806.52	4,830.54	187.40	10,558,977.79	1,251,520.99
Bit Projection - Titan16-411H BHL										

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-411H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-411H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,624.69	10,546.60	141.02	-542.06	FTP Actual 10624.69' MD
15,539.68	10,759.03	-4,692.09	-621.94	LTP Actual 15539.68' MD
15,575.00	10,760.36	-4,727.39	-621.88	SDI MWD
15,638.00	10,762.46	-4,790.35	-621.86	Bit Projection

Checked By: _____ Approved By: _____ Date: _____

RAILROAD COMMISSION OF TEXAS

Form G-1

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 07/11/2019
Tracking No.: 212688

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC **Operator No.:** 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

WELL INFORMATION

API No.: 42-389-37496 **County:** REEVES
Well No.: 411H **RRC District No.:** 08
Lease Name: TITAN STATE 16 **Field Name:** PHANTOM (WOLFCAMP)
RRC Gas ID No.: 286681 **Field No.:** 71052900
Location: Section: 16, Block: 54 T4S, Survey: T&P RR CO / INGLE, F B, Abstract: 5771

Latitude: **Longitude:**
This well is located 16.9 **miles in a** NW **direction from** PECOS, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing **Completion or Recompletion Date:** 02/17/2019

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	08/17/2018	843719
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 10/09/2018 **Date of first production after rig released:** 02/17/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 10/09/2018 **Date plug back, deepening, recompletion, or drilling operation ended:** 12/14/2018
Number of producing wells on this lease in this field (reservoir) including this well: 2 **Distance to nearest well in lease & reservoir (ft.):** 183.0
Total number of acres in lease: 640.00 **Elevation (ft.):** 2871 RKB
Total depth TVD (ft.): 10762 **Total depth MD (ft.):** 15638
Plug back depth TVD (ft.): 10762 **Plug back depth MD (ft.):** 15554
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 24.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 370.0 **Feet from the** North **Line and** 235.0 **Feet from the** East **Line of the** TITAN STATE 16 **Lease.** **Off Lease:** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination **Depth (ft.):** 1750.0 **Date:** 08/24/2018

SWR 13 Exception **Depth (ft.):**

GAS MEASUREMENT DATA

Date of test: 03/28/2019 **Gas measurement method(s):**

Gas production during test (MCF): 8676 Orifice Meter

Was the well preflowed for 48 hours? Yes

Run No.	Line size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. Or Choke (in.)	Static Pm or Choke (in.)	Diff (hw)	Flow Temp (°F)	Temp. (Ftf)	Gravity (Fg)	Compress (Fpv)	Volume (MCF/day)
1	4.020	2.375	34642.90	104.0	104.0	110.0	0.9551	0.8900	1.011	2892.0

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): 0.756 **Gravity (liquid hydrocarbons) (Deg. API):** 47.9

Gas-Liquid Hydro Ratio (CF/Bbl): 3983 **Gravity (mixture): Gmix=** 0.667

Avg. shut in temp. (°F): 124.0 **Bottom hole temp. and depth:** 174.0 **°F@** 10000.0 **FT**

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Pressure (PSIA)	Wellhead Flow Temp (°F)
SHUT-IN	1440	64/64	0	180.0
1	4320	64/64	650	120.0

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1845			C	1233	2617.0	SURFACE	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	4118			C	1017	1841.0	SURFACE	Circulated to Surface
3	Intermediate	7	8 3/4	11115			C	826	2134.3	33	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	4 1/2	6 1/8	9994	15638	H	549	691.2	9994	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	10839	10829 / 4 1/2" 10K AS-1X

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11120	15505

4-30-19

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes

If yes, actuation pressure (PSIG): 9998.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 11000

Actual maximum pressure (PSIG) during hydraulic fracturing: 10960

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	7,935,434 TL FLUID; 10,892,329 TL PROPPANT	11120.0	15505.0

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
FORD-DELAWARE	Yes	4180.0	4180.0	Yes	
CASTILLE	Yes	2301.0	2301.0	Yes	
BELL CANYON	Yes	4098.0	4105.0	Yes	
DELAWARE	Yes	4098.0	4105.0	Yes	
DELAWARE CONSOLIDATED GAS	No			No	NOT GEOLOGICALLY PRESENT
CHERRY CANYON	Yes	5085.0	5098.0	Yes	
BONE SPRINGS	Yes	7628.0	7655.0	Yes	
PERMIAN	Yes	981.0	981.0	Yes	
WOLFCAMP	Yes	10554.0	10635.0	Yes	
PENNSYLVANIAN	No			No	DID NOT DRILL INTO THIS FORMATION
MISSISSIPPIAN	No			No	DID NOT DRILL INTO THIS FORMATION
DEVONIAN	No			No	DID NOT DRILL INTO THIS FORMATION
FUSSELMAN	No			No	DID NOT DRILL INTO THIS FORMATION
ELLENBURGER	No			No	DID NOT DRILL INTO THIS FORMATION

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

KOP @ 10,176' MD. FILING INITIAL POTENTIAL WITHIN 180 DAYS OF COMPLETION.

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2019-07-11 11:58:04.421] EDL=4350 feet, max acres=640, PHANTOM (WOLFCAMP) oil or gas well;

take points: 11120-15505 feet

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name: Lorri Kline	**Title:**
Telephone No.: (539) 573-3518	**Date Certified:** 04/22/2019

5.30.19

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

GAS WELL CLASSIFICATION REPORT

Form G-5

Tracking No.: 212688

This facsimile G-5 was generated electronically from data submitted to the RRC.

1. OPERATOR NAME (Exactly as shown on Form P5 Organization Report)	3. RRC DISTRICT NO.	4. OIL LEASE NO OR GAS WELL ID NO.
WPX ENERGY PERMIAN, LLC	08	286681
2. MAILING ADDRESS	**5. WELL NO.**	**6. API NO.**
3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172	411H	42- 389-37496
	7. COUNTY OF WELL SITE REEVES	
8. FIELD NAME (as per RRC Records) PHANTOM (WOLFCAMP)	9. LEASE NAME TITAN STATE 16	
10. LOCATION (Section, Block and Survey) 16 , 54 T4S , T&P RR CO / INGLE, F B , A-5771	11. PIPELINE CONNECTION OR USE OF GAS	

PRODUCTION TEST AT RATE ELECTED BY OPERATOR
(data on 24-hour basis)

A. Date of Test	03/28/2019	
B. Gas Volume	2892.0	(Mcf)
C. Oil or Condensate Volume	726.0	(Bbl)
D. Water Volume	2575.0	(Bbl)
E. Gas/Liquid Hydrocarbon Ratio	3983	(Cf/Bbl)
F. Flowing Tubing Pressure	650	(psia)
G. Choke Size	64/64	(in.)
H. Casing Pressure	1.0	(psia)
I. Shut-in Wellhead Pressure--Tubing	0	(psia)
J. Separator Operating Pressure	111.0	(psia)
K. Color of Stock Tank Liquid	Pale Yellow	
L. Gravity of Separator Liquid	48.1	°API
M. Gravity of Stock Tank Liquid	47.9	°API
N. Specific Gravity of the Gas (Air = 1)	0.756	

A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.

Date Liquid Sample Obtained: 03/28/2019

Where Obtained: [X] Separator [ ] Stock Tank

% Over Temp. (deg. F)		% Over Temp. (deg. F)	
Initial Boiling Temp.	84.0	60	480.0
10	126.0	70	548.0
20	210.0	80	605.0
30	248.0	90	661.0
40	318.0	95	698.0
50	392.0	End Point	705.0

Total Recovery	97.0	percent
Residue	2.0	percent
Loss	1.0	percent

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete to the best of my knowledge.

WPX ENERGY PERMIAN, LLC
NAME (Type or Print)

Lorri Kline
SIGNATURE

TITLE

04/22/2019
DATE

CONTACT PERSON

(539) 573-3518
PHONE NUMBER

RRC USE ONLY

Tracking No.: 212688

OPERATOR NAME AND ADDRESS including city, state and zip

WPX ENERGY PERMIAN, LLC

3500 ONE WILLIAMS CENTER MD-35
TULSA, OK 74172

GAS WELL STATUS REPORT

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
P.O. Box 12967
Austin, Texas 78711-2967

This facsimile G-10 was generated electronically from data submitted to the RRC.

Reason for Filing: ☐ Survey ☐ Retest ☒ Initial Test ☐ Correction

Operator P-5 Organization No.: 942623

RRC Dist. No.: 08

G-10

Test Period:

Due Date:

Effective Date:

FIELD NAME / * LEASE NAME	RRC IDENT NO. / WELL NO.	DATE TESTED MO/DAY/YR / MARK X FOR SHUT-IN WELL	GAS PRODUCED MCF/DAY ** / GAS SPEC. GRAVITY	CONDENSATE PRODUCED / CONDENSATE GRAVITY (API)	WATER PROD BBL/DAY / X BOTTOMHOLE PRESSURE PSIA	***SIWH PRESSURE PSIA / ***FLOWING PRESSURE PSIA
PHANTOM (WOLFCAMP)	286681	03/28/2019	2892 MCF	726.0 BBL	2575.0 BBL	0
TITAN STATE 16	411H		0.756	47.9	0	650
[redacted]			MCF	BBL	BBL	
[redacted]			MCF	BBL	BBL	
[redacted]			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec. 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated herein are true, correct, and complete to the best of my knowledge.

ENERGY PRECISION TESTING

Signature: SHELLY RIGGALL **Title:** **Phone:** (806) 665-0750 **Date:** 04/22/2019

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENT

** GAS PRODUCTION RATE, IN MCF, IS TO BE REPORTED FULL-WELL STREAM, INCLUDING CONDENSATE *** PRESSURE FOR THE TEXAS HUGOTON FIELD IS REPORTED IN PSIG

X AN 'X' PREPRINTED ON A SURVEY IN THE BOTTOMHOLE PRESSURE BOX INDICATES A BOTTOMHOLE PRESSURE MUST BE REPORTED FOR THE WELL

RAILROAD COMMISSION OF TEXAS

Form P-16

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Rev. 02/2019

Acreage Designation

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION I. OPERATOR INFORMATION

Operator Name:	WPX Energy Permian, LLC	Operator P-5 No.:	942623
Operator Address:	3500 One Williams Center, MD 35 Tulsa, OK 74172		

SECTION II. WELL INFORMATION

District No.:	08	API No.:	42-389-37496	Purpose of Filing:
Well No.:	411H	Drilling Permit No.:	843719	
Lease Name:	Titan State 16	RRC ID or Lease No.:		☐ Drilling Permit Application (Form W-1)
Total Lease Acres:	640.00	Field Name:	Phantom (Wolfcamp)	
Proration Acres:	160.00	Field No.:	71052900	☑ Completion Report (Form G-1/W-2)
Wellbore Profile	Horizontal Well	Is this a UFT field?	Yes	
SL Record (Parent) Well Drilling Permit No.:		County:	Reeves	

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
285901	1H	Horiz.	Titan State 16	389-35323	160.00	N	
843719	411H	Horiz.	Titan State 16	389-37496	160.00	N	
843724	421H	Horiz.	Titan State 16	389-37497	160.00	N	
843726	422H	Horiz.	Titan State 16	389-37498	160.00	N	

A. Total Assigned Horiz. Acreage = 640.00
Total Remaining Horiz. Acreage = 0.00
B. Total Assigned Vert./Dir. Acreage = 0.00
Total Remaining Vert./Dir. Acreage = 640.00

C. Total Assigned Acreage = 640.00
Total Remaining Acreage = 640.00

SECTION IV. REMARKS - REQUIRED FOR PSA AND CO-DEVELOPMENT *(refer to instructions)*

Attach Additional Pages As Needed. ☑ No additional pages ☐ Additional Pages: ___ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

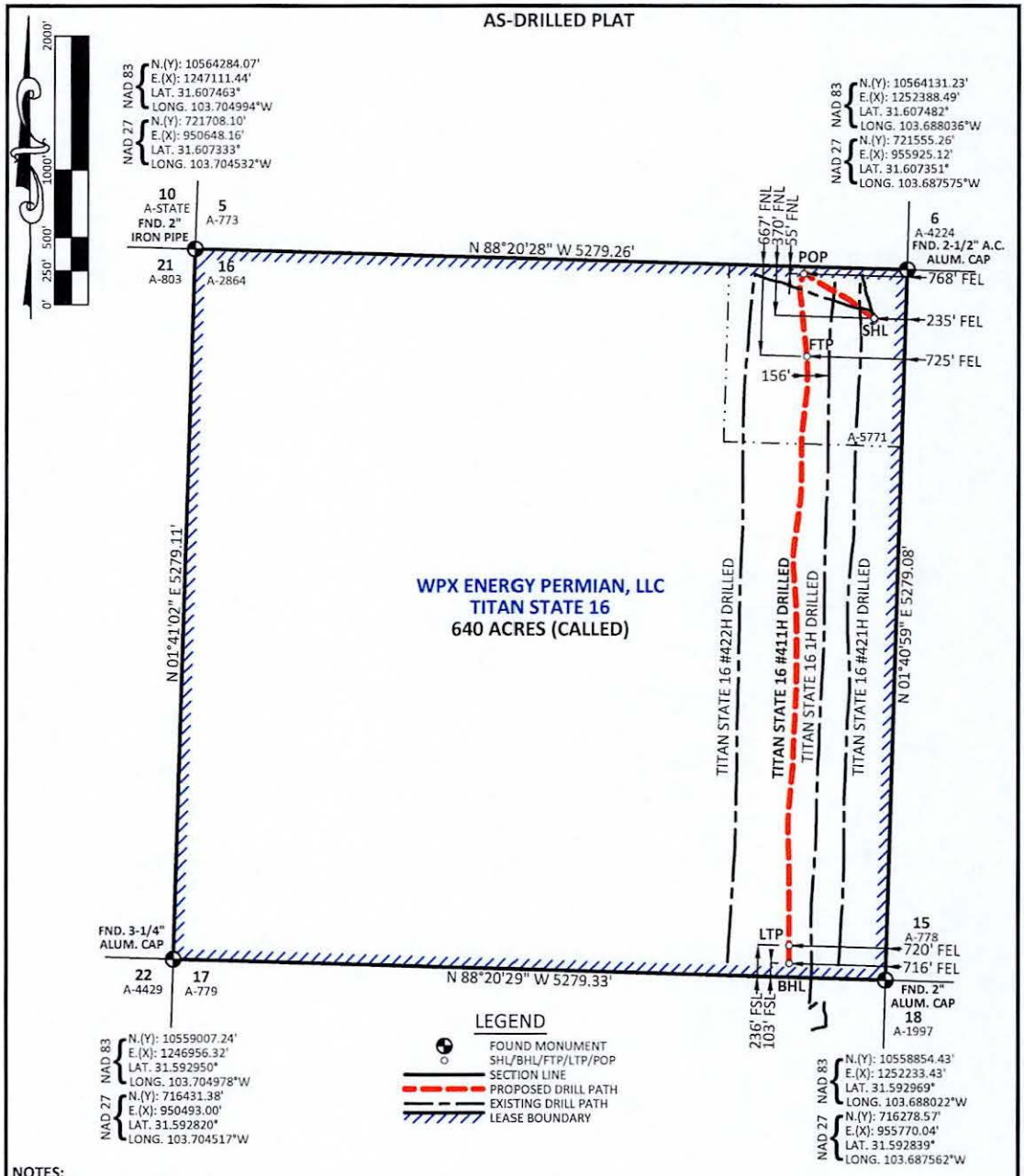
Larry E. Rader
Signature

Larry E. Rader, Regulatory Specialist
Name and title (type or print)

larry.rader@wpxenergy.com
Email
(include email address *only* if you affirmatively consent to its public release)

3500 One Williams Center, MD 3!	Tulsa	OK	74172	539-573-3543	03/12/19
Address	City,	State,	Zip Code	Tel: Area Code Number	Date: mo. day yr.

AS-DRILLED PLAT



NOTES:
UN-GRADED GROUND ELEVATION AT SHL: 2843.15'
THIS LOCATION IS APPROXIMATELY 16.9 MILES N.41°W. OF PECOS, TEXAS.
BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°44'26.50" AND A COMBINED SCALE FACTOR OF 0.99980519 BASED ON CONTROL POINT S S10 55 T-4 AT N. 10564429.832' - E. 1244642.724'.
UNITS REPRESENTED ON THIS PLAT ARE IN US SURVEY FEET.

	SURFACE HOLE		POINT OF PENETRATION		FIRST TAKE POINT		LAST TAKE POINT		BOTTOM HOLE	
	FOOTAGE: 370' FNL & 235' FEL		FOOTAGE: 55' FNL & 768' FEL		FOOTAGE: 667' FNL & 725' FEL		FOOTAGE: 236' FSL & 720' FEL		FOOTAGE: 103' FSL & 716' FEL	
GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.606464°N	LAT.	31.607327°N	LAT.	31.605645°N	LAT.	31.593614°N	LAT.	31.593249°N
	LONG.	103.688789°W	LONG.	103.690501°W	LONG.	103.690363°W	LONG.	103.690335°W	LONG.	103.690321°W
GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.606333°N	LAT.	31.607197°N	LAT.	31.605515°N	LAT.	31.593484°N	LAT.	31.593118°N
	LONG.	103.688328°W	LONG.	103.690040°W	LONG.	103.689902°W	LONG.	103.689874°W	LONG.	103.689861°W
STATE PLANE TEXAS CENT. NAD 83	NORTH	10563768.14	NORTH	10564098.25	NORTH	10563485.40	NORTH	10559110.70	NORTH	10558977.79
	EAST	1252142.85	EAST	1251619.70	EAST	1251644.23	EAST	1251520.88	EAST	1251520.99
STATE PLANE TEXAS CENT. NAD 27	NORTH	721192.18	NORTH	721522.28	NORTH	720909.44	NORTH	716534.83	NORTH	716401.93
	EAST	955679.48	EAST	955156.34	EAST	955180.87	EAST	955057.49	EAST	955057.60

STATE OF TEXAS
REGISTERED
ALBERT R. DEHOYOS
6725
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY. IF ANY ALTERATIONS ARE MADE, (HAND DRAWN, HANDWRITTEN OR DIGITAL ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

2/22/2019

ALBERT R. DEHOYOS TEXAS RPLS No. 6725		DATE
DRAWN BY: CEB	CHECKED BY: ARD	SURVEY DATE: 01/09/2019
SCALE: 1"=2000'	JOB NUMBER: 17021	SHEET 1 OF 1

WHS
ENGINEERING • SURVEYING • PLANNING
1515 9TH STREET, STE A, ROCK SPRINGS, WY 82901
307.362.6065 | 866.938.3088 | www.whsmithpc.com
TEXAS FIRM REGISTRATION No. 10193907

WPXENERGY

LEASE NAME AND WELL NUMBER:
TITAN STATE 16 #411H
DESCRIPTION:
SHL: 370' FNL - 235' FEL, SECTION 16, BLOCK 54, T4, T.&P. RR COMPANY SURVEY, REEVES COUNTY, TEXAS

API No. 42-389-37496
Drilling Permit # 843719
SWR Exception Case/Docket No.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

FORM W-1 07/2004

Permit Status: Approved

1. RRC Operator No. 942623

2. Operator's Name (as shown on form P-5, Organization Report): WPX ENERGY PERMIAN, LLC

3. Operator Address (include street, city, state, zip): 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

4. Lease Name: TITAN STATE 16

5. Well No.: 411H

GENERAL INFORMATION

6. Purpose of filing (mark ALL appropriate boxes): [X] New Drill [ ] Recompletion [ ] Reclass [ ] Field Transfer [ ] Re-Enter [ ] Amended [ ] Amended as Drilled (BHL) (Also File Form W-1D)

7. Wellbore Profile (mark ALL appropriate boxes): [ ] Vertical [X] Horizontal (Also File Form W-1H) [ ] Directional (Also File Form W-1D) [ ] Sidetrack

8. Total Depth: 16000

9. Do you have the right to develop the minerals under any right-of-way ? [X] Yes [ ] No

10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? [X] Yes [ ] No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No.: 08

12. County: REEVES

13. Surface Location [X] Land [ ] Bay/Estuary [ ] Inland Waterway [ ] Offshore

14. This well is to be located 16.9 miles in a NW direction from Pecos which is the nearest town in the county of the well site.

15. Section	16. Block	17. Survey	18. Abstract No.	19. Distance to nearest lease line:	20. Number of contiguous acres in lease, pooled unit, or unitized tract:
16	54 T4S	T&P RR CO / INGLE, F B	A-5771	200 ft.	640

21. Lease Perpendiculars: 370 ft from the NORTH line and 235 ft from the EAST line.

22. Survey Perpendiculars: 370 ft from the NORTH line and 235 ft from the EAST line.

23. Is this a pooled unit? [ ] Yes [X] No

24. Unitization Docket No:

25. Are you applying for Substandard Acreage Field? [ ] Yes (attach Form W-1A) [X] No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	71052900	PHANTOM (WOLFCAMP)	Oil or Gas Well	16000	183.00	2

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)

Remarks

Certificate:

I certify that information stated in this application is true and complete, to the best of my knowledge.

Larry Rader, Regulatory Specialist — Name of filer
Aug 17, 2018 — Date submitted

(539)573-3543 — Phone
larry.rader@wpxenergy.com — E-mail Address (OPTIONAL)

RRC Use Only Data Validation Time Stamp: Aug 20, 2018 7:33 AM(Current Version)

Permit Status:	Approved
The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.	

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

Form W-1H 07/2004
Supplemental Horizontal Well Information

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

Permit #	843719
Approved Date:	Aug 17, 2018

1. RRC Operator No.	2. Operator's Name (exactly as shown on form P-5, Organization Report)	3. Lease Name	4. Well No.
942623	WPX ENERGY PERMIAN, LLC	TITAN STATE 16	411H

Lateral Drainhole Location Information

5. Field as shown on Form W-1: PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)

6. Section	7. Block	8. Survey	9. Abstract	10. County of BHL
16	54 T4S	T&P RR CO / CLAYTON, B	2864	REEVES

11. Terminus Lease Line Perpendiculars
100 ft. from the South line. and 750 ft. from the East line

12. Terminus Survey Line Perpendiculars
100 ft. from the South line. and 750 ft. from the East line

13. Penetration Point Lease Line Perpendiculars
50 ft. from the North line. and 750 ft. from the East line

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
843719	Aug 17, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-389-37496	Aug 17, 2018	REEVES
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	640

OPERATOR 942623

WPX ENERGY PERMIAN, LLC

3500 ONE WILLIAMS CENTER MD-35
TULSA, OK 74172-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
TITAN STATE 16	411H
LOCATION	TOTAL DEPTH
16.9 miles NW direction from PECOS	16000

Section, Block and/or Survey
SECTION 16 BLOCK 54 T4S ABSTRACT 5771
SURVEY T&P RR CO / INGLE, F B

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
370 ft. NORTH 235 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
370 ft. NORTH 235 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

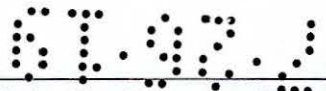
* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
PHANTOM (WOLFCAMP)	640.00	16,000	411H	08
TITAN STATE 16	200		183	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: No allowable will be assigned until acreage assigned to lease id 08-48473 has been reassigned to accommodate the completion of this well.
This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office.
Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 50.0 F NORTH L
750.0 F EAST L
Terminus Location
BH County: REEVES
Section: 16 Block: 54 T4S Abstract: 2864
Survey: T&P RR CO / CLAYTON, B
Lease Lines: 100.0 F SOUTH L
750.0 F EAST L
Survey Lines: 100.0 F SOUTH L
750.0 F EAST L



RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
843719	Aug 17, 2018	* 08
API NUMBER	**FORM W-1 RECEIVED**	**COUNTY**
42-389-37496	Aug 17, 2018	REEVES
TYPE OF OPERATION	**WELLBORE PROFILE(S)**	**ACRES**
NEW DRILL	Horizontal	640

OPERATOR	NOTICE
942623 WPX ENERGY PERMIAN, LLC 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000	This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. **District Office Telephone No:** (432) 684-5581

LEASE NAME	WELL NUMBER
TITAN STATE 16	411H
LOCATION	**TOTAL DEPTH**
16.9 miles NW direction from PECOS	16000

Section, Block and/or Survey
SECTION 16 BLOCK 54 T4S ABSTRACT 5771
SURVEY T&P RR CO / INGLE, F B

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
370 ft. NORTH 235 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	**DISTANCE TO NEAREST WELL ON LEASE**
370 ft. NORTH 235 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:
* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH	WELL # NEAREST WE	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

The designated interval, for one or more of the fields approved on this permit, appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

SWR #13 Formation Data

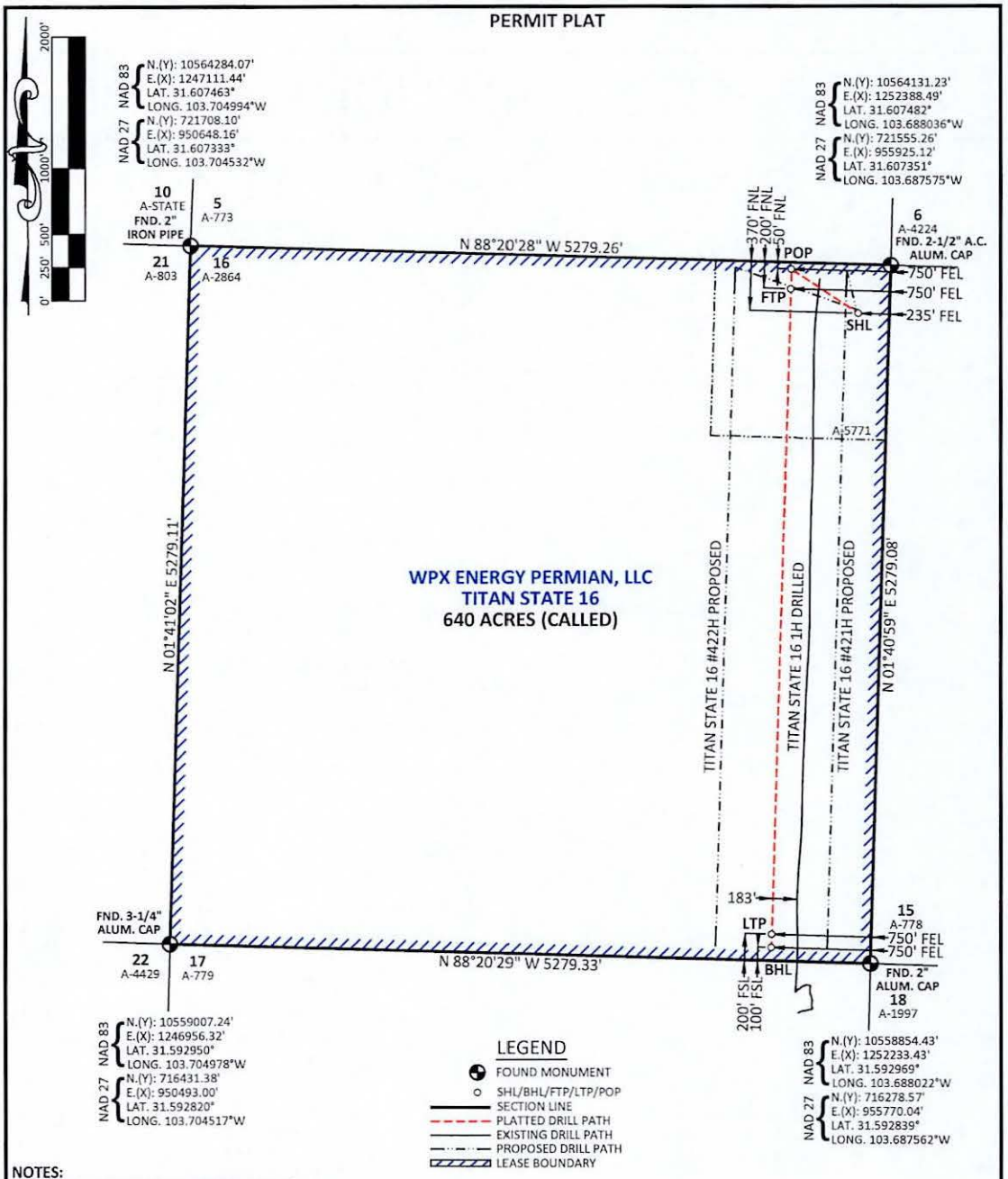
REEVES (389) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
FORD-DELAWARE	2,500	2,500		1	12/17/2013
CASTILLE	2,800	2,800		2	12/17/2013
BELL CANYON	4,800	5,000		3	12/17/2013
DELAWARE	2,500	5,700		4	12/17/2013
DELAWARE CONSOLIDATED GAS	6,500	6,500		5	12/17/2013
CHERRY CANYON	3,800	7,800		6	12/17/2013
BONE SPRINGS	7,500	9,800		7	12/17/2013
PERMIAN	11,300	11,300		8	12/17/2013
WOLFCAMP	10,000	12,300		9	12/17/2013
PENNSYLVANIAN	11,000	14,900		10	12/17/2013
MISSISSIPPIAN	10,000	16,000		11	12/17/2013
DEVONIAN	13,600	17,800		12	12/17/2013
FUSSELMAN	14,000	17,800		13	12/17/2013
ELLENBURGER	15,000	20,800		14	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.
http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

61.92.2

PERMIT PLAT



NOTES:

UN-GRADED GROUND ELEVATION AT SHL: 2842.86'
THIS LOCATION IS APPROXIMATELY 16.9 MILES N.41°W. OF PECOS, TEXAS.
BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°44'26.50" AND A COMBINED SCALE FACTOR OF 0.99980519 BASED ON CONTROL POINT S S10 55 T-4 AT N. 10564429.832' - E. 1244642.724'.
UNITS REPRESENTED ON THIS PLAT ARE IN US SURVEY FEET.

	SURFACE HOLE		POINT OF PENETRATION		FIRST TAKE POINT		LAST TAKE POINT		BOTTOM HOLE	
	FOOTAGE: 370' FNL & 235' FEL		FOOTAGE: 50' FNL & 750' FEL		FOOTAGE: 200' FNL & 750' FEL		FOOTAGE: 200' FSL & 750' FEL		FOOTAGE: 100' FSL & 750' FEL	
GEOGRAPHIC NAD 27 / NAD 83	LAT.	31.606464°N	LAT.	31.607342°N	LAT.	31.606929°N	LAT.	31.593516°N	LAT.	31.593241°N
	LONG.	103.688789°W	LONG.	103.690445°W	LONG.	103.690444°W	LONG.	103.690432°W	LONG.	103.690431°W
GEOGRAPHIC NAD 27 / NAD 83	LAT.	31.606333°N	LAT.	31.607211°N	LAT.	31.606799°N	LAT.	31.593386°N	LAT.	31.593111°N
	LONG.	103.688328°W	LONG.	103.689984°W	LONG.	103.689983°W	LONG.	103.689971°W	LONG.	103.689971°W
STATE PLANE TEXAS CENTRAL NAD 27 / NAD 83	NORTH	10563768.14	NORTH	10564102.97	NORTH	10563953.03	NORTH	10559076.05	NORTH	10558976.10
	EAST	1252142.85	EAST	1251637.34	EAST	1251632.93	EAST	1251489.62	EAST	1251486.69
STATE PLANE TEXAS CENTRAL NAD 27 / NAD 83	NORTH	721192.18	NORTH	721527.00	NORTH	721377.06	NORTH	716500.19	NORTH	716400.23
	EAST	955679.48	EAST	955173.98	EAST	955169.57	EAST	955026.24	EAST	955023.30

STATE OF TEXAS
REGISTERED
ALBERT R. DEHOYOS
6725
PROFESSIONAL
LAND SURVEYOR

TEXAS FIRM REGISTRATION No. 10194350

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY. IF ANY ALTERATIONS ARE MADE, (HAND DRAWN, HANDWRITTEN OR DIGITAL ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

ALBERT R. DEHOYOS TEXAS RPLS No. 6725 — DATE

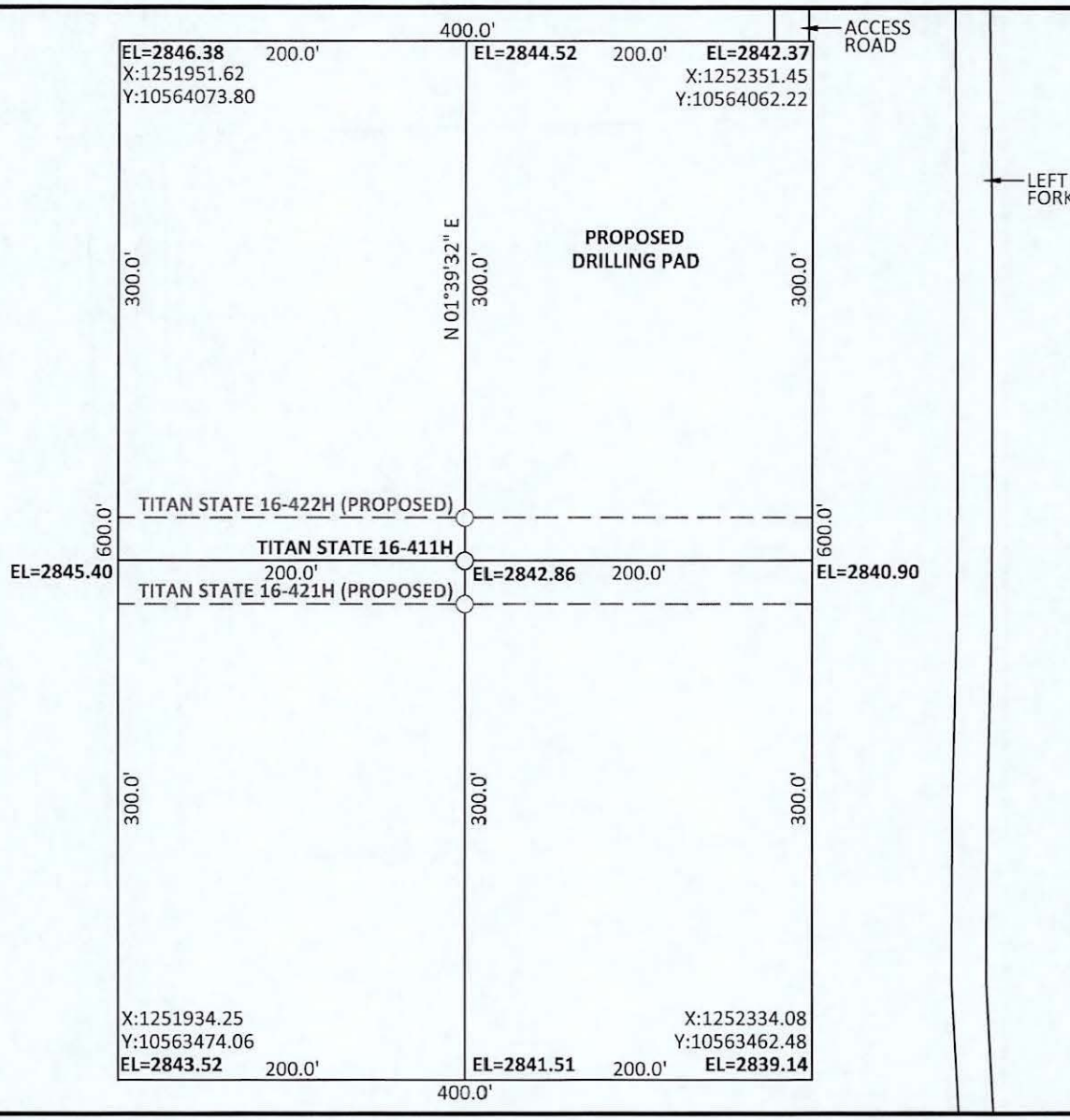
DRAWN BY: CED	CHECKED BY: ARD	SURVEY DATE: 08/06/2018
SCALE: 1"=1000'	JOB NUMBER: 17021	SHEET 1 OF 1

WHS
ENGINEERING · SURVEYING · PLANNING
550 EAST 2ND NORTH, GREEN RIVER, WY 82935 PHONE: 307-875-3638
www.whsmithpc.com
TEXAS FIRM REGISTRATION No. 10193907

WPXENERGY

LEASE NAME AND WELL NUMBER:
TITAN STATE 16 #411H
DESCRIPTION:
SECTION 16, BLOCK 54, T4, T.&P. RR COMPANY SURVEY, REEVES COUNTY, TEXAS

SITE LOCATION



SECTION 16, BLOCK 54 T4, T&P RR COMPANY SURVEY

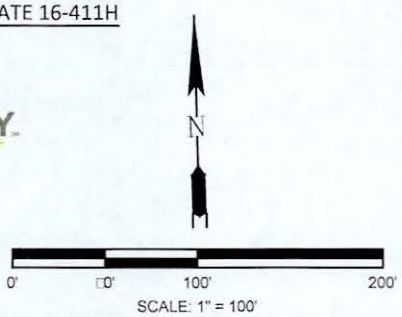
COUNTY: REEVES STATE: TX

DESCRIPTION: _____

OPERATOR: WPX Energy Permian, LLC

WELL NAME: TITAN STATE 16-411H

WPXENERGY

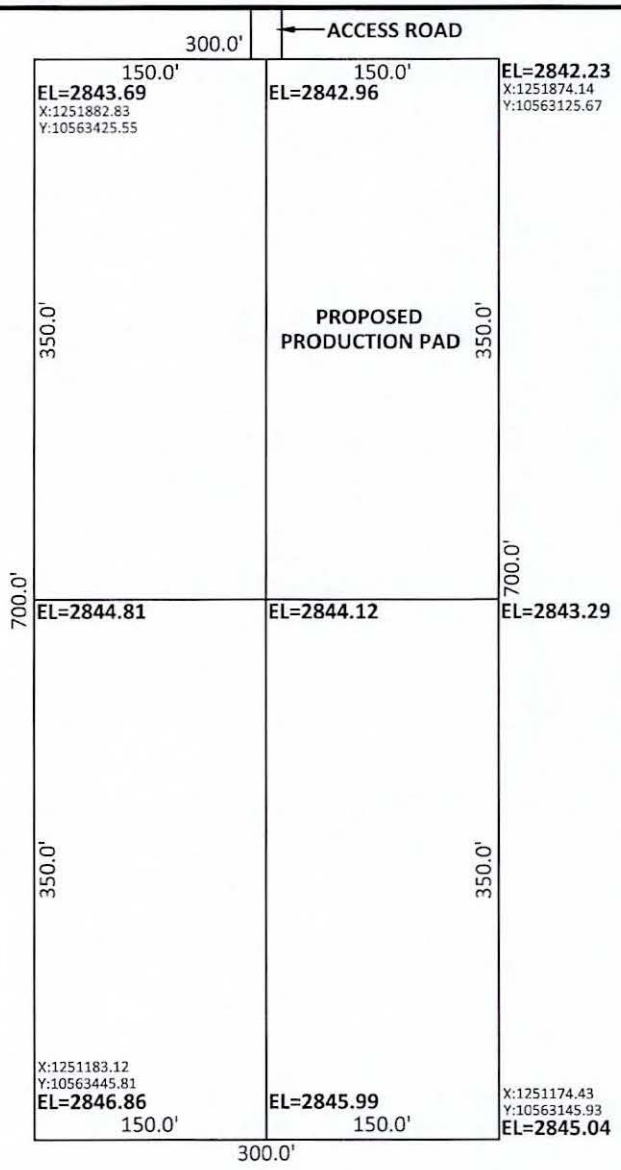


DRIVING DIRECTIONS:
BEGINNING IN THE TOWN OF PECOS, TEXAS, AT THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, PROCEED NORTHWESTERLY ALONG US HIGHWAY 285 FOR 13.0 MILES TO THE INTERSECTION OF COUNTY ROAD 427 TO THE WEST. MAKE A LEFT HAND TURN AND PROCEED WESTERLY ALONG COUNTY ROAD 427 FOR 2.3 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 2.6 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 0.3 MILE TO THE INTERSECTION WITH AN ACCESS ROAD TO THE SOUTH. MAKE A LEFT HAND TURN AND PROCEED SOUTHERLY FOR 0.1 MILE TO A FORK IN THE ROAD. TAKE THE RIGHT FORK ONTO THE DRILLING PAD ACCESS ROAD, AND PROCEED SOUTHERLY FOR 0.1 MILE TO THE DRILLING PAD LOCATION FOR THE TITAN STATE 16 WELLS.

18.4 MILES TOTAL TRAVEL DISTANCE FROM THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, TO THE TITAN STATE 16 DRILLING PAD.

JOB NUMBER 17021_WPX

SITE LOCATION



SECTION 16, BLOCK 54 T4, T&P RR COMPANY SURVEY

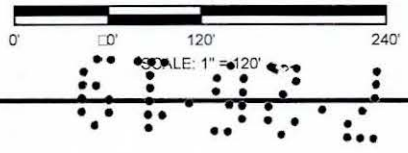
COUNTY: REEVES STATE: TX

DESCRIPTION: _____

OPERATOR: WPX Energy Permian, LLC

WELL NAME: TITAN STATE 16-411H

WPXENERGY

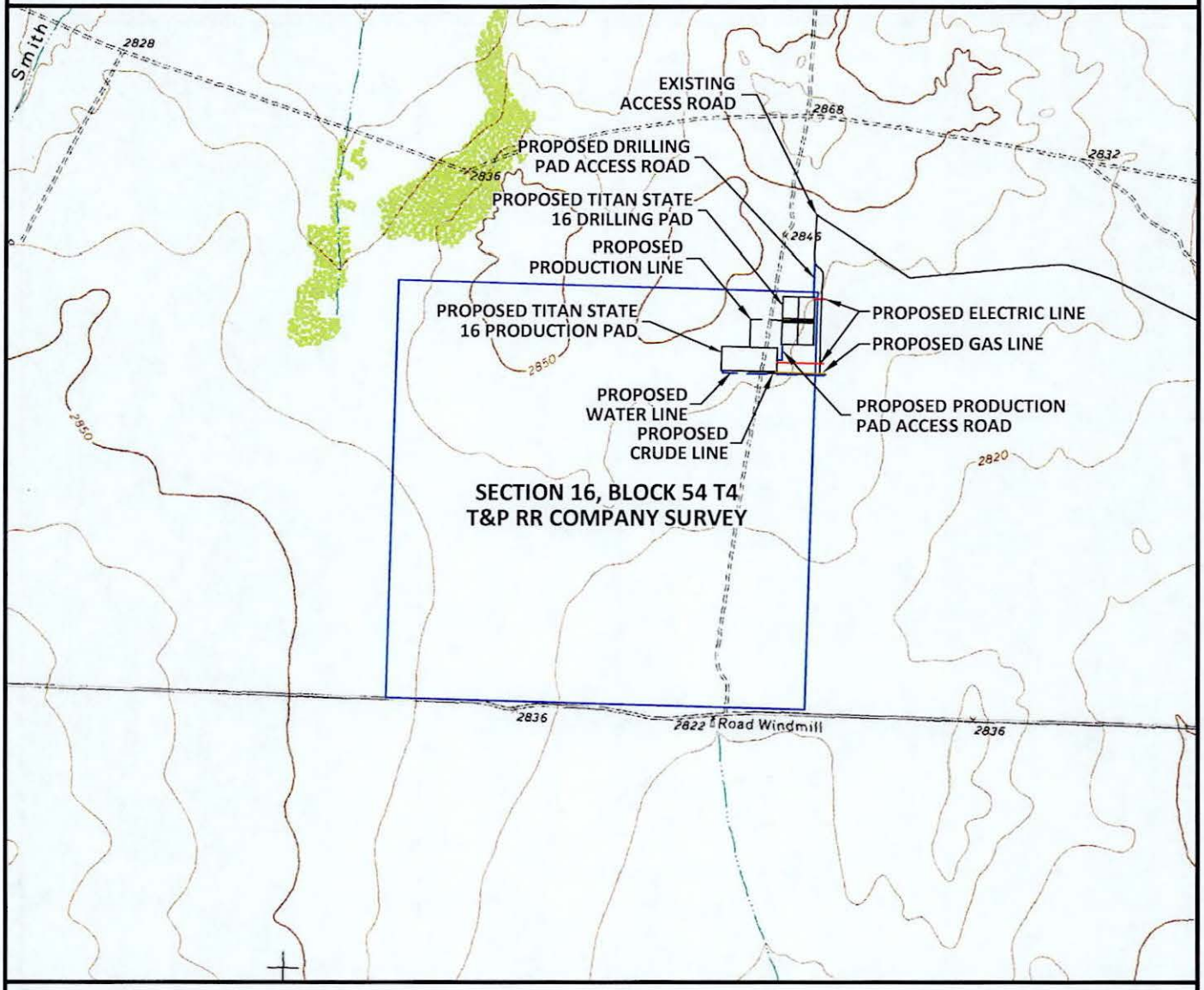


DRIVING DIRECTIONS:
BEGINNING IN THE TOWN OF PECOS, TEXAS, AT THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, PROCEED NORTHWESTERLY ALONG US HIGHWAY 285 FOR 13.0 MILES TO THE INTERSECTION OF COUNTY ROAD 427 TO THE WEST. MAKE A LEFT HAND TURN AND PROCEED WESTERLY ALONG COUNTY ROAD 427 FOR 2.3 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 2.6 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 0.3 MILE TO THE INTERSECTION WITH AN ACCESS ROAD TO THE SOUTH. MAKE A LEFT HAND TURN AND PROCEED SOUTHERLY FOR 0.1 MILE TO A FORK IN THE ROAD. TAKE THE RIGHT FORK ONTO THE PAD ACCESS ROAD, AND PROCEED SOUTHERLY FOR 0.1 MILE TO THE DRILLING PAD LOCATION AND A FURTHER 0.2 MILE TO THE PRODUCTION PAD FOR THE TITAN STATE 16 WELLS.

18.6 MILES TOTAL TRAVEL DISTANCE FROM THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, TO THE TITAN STATE 16 PRODUCTION PAD.

JOB NUMBER 17021 WPX

LOCATION VERIFICATION MAP



SECTION 16, BLOCK 54 T4, T&P RR COMPANY SURVEY

COUNTY: REEVES STATE: TX

DESCRIPTION: _____

OPERATOR: WPX Energy Permian, LLC

WELL NAME: TITAN STATE 16-411H

WPXENERGY

N

0' 1000' 2000' 4000'

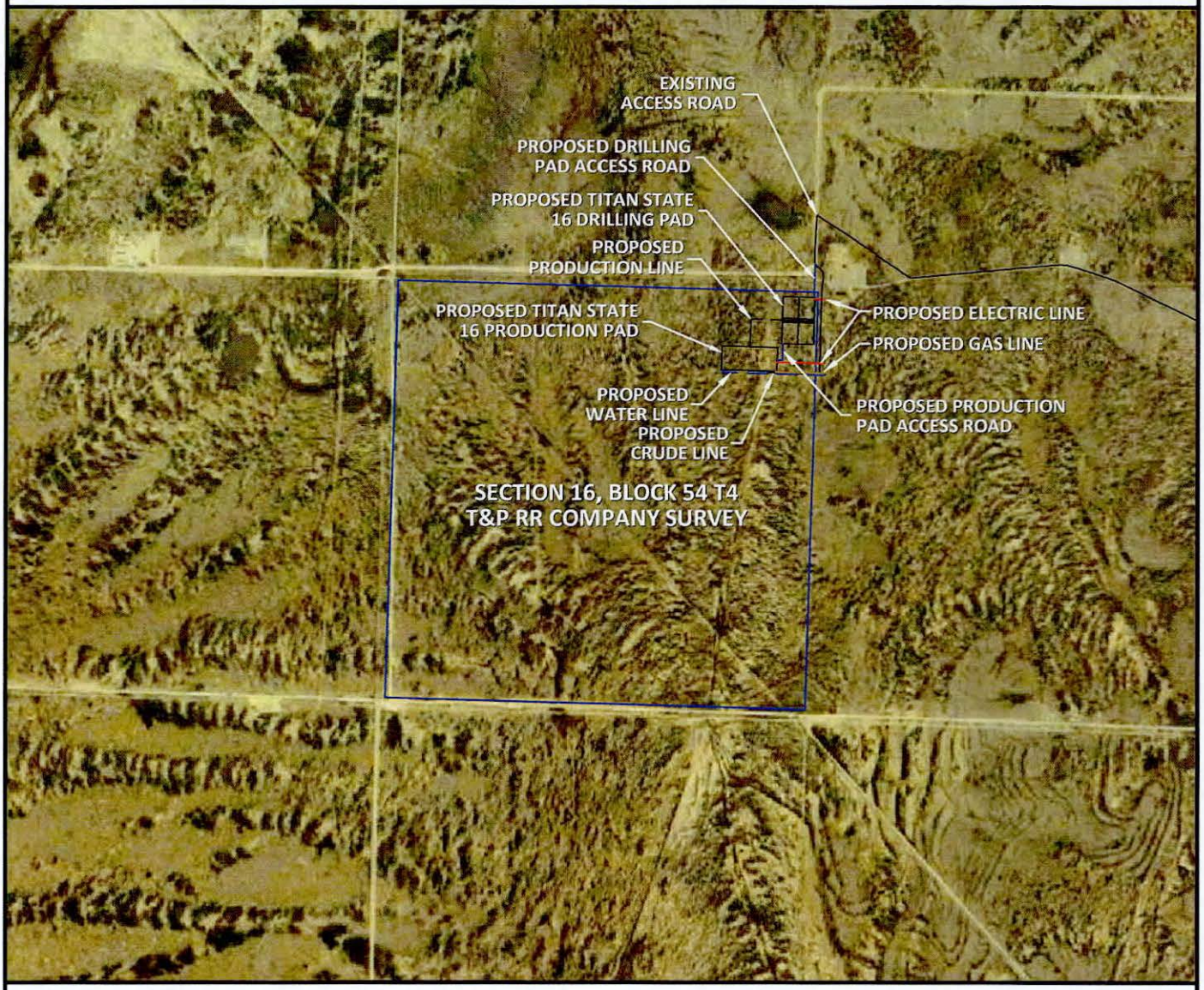
SCALE: 1" = 2000'

DRIVING DIRECTIONS:
BEGINNING IN THE TOWN OF PECOS, TEXAS, AT THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, PROCEED NORTHWESTERLY ALONG US HIGHWAY 285 FOR 13.0 MILES TO THE INTERSECTION OF COUNTY ROAD 427 TO THE WEST. MAKE A LEFT HAND TURN AND PROCEED WESTERLY ALONG COUNTY ROAD 427 FOR 2.3 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 2.6 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 0.3 MILE TO THE INTERSECTION WITH AN ACCESS ROAD TO THE SOUTH. MAKE A LEFT HAND TURN AND PROCEED SOUTHERLY FOR 0.1 MILE TO A FORK IN THE ROAD. TAKE THE RIGHT FORK ONTO THE DRILLING PAD ACCESS ROAD, AND PROCEED SOUTHERLY FOR 0.1 MILE TO THE DRILLING PAD LOCATION FOR THE TITAN STATE 16 WELLS.

18.4 MILES TOTAL TRAVEL DISTANCE FROM THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, TO THE TITAN STATE 16 DRILLING PAD.

JOB NUMBER 17021 WPX

AERIAL MAP



SECTION 16, BLOCK 54 T4, T&P RR COMPANY SURVEY

COUNTY: REEVES STATE: TX

DESCRIPTION: _____

OPERATOR: WPX Energy Permian, LLC

WELL NAME: TITAN STATE 16-411H

WPXENERGY

N

0' 1000' 2000' 4000'

SCALE: 1" = 2000'

DRIVING DIRECTIONS:
BEGINNING IN THE TOWN OF PECOS, TEXAS, AT THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, PROCEED NORTHWESTERLY ALONG US HIGHWAY 285 FOR 13.0 MILES TO THE INTERSECTION OF COUNTY ROAD 427 TO THE WEST. MAKE A LEFT HAND TURN AND PROCEED WESTERLY ALONG COUNTY ROAD 427 FOR 2.3 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 2.6 MILES TO THE INTERSECTION OF AN ACCESS ROAD TO THE NORTHWEST. MAKE A RIGHT HAND TURN AND PROCEED NORTHWESTERLY FOR 0.3 MILE TO THE INTERSECTION WITH AN ACCESS ROAD TO THE SOUTH. MAKE A LEFT HAND TURN AND PROCEED SOUTHERLY FOR 0.1 MILE TO A FORK IN THE ROAD. TAKE THE RIGHT FORK ONTO THE DRILLING PAD ACCESS ROAD, AND PROCEED SOUTHERLY FOR 0.1 MILE TO THE DRILLING PAD LOCATION FOR THE TITAN STATE 16 WELLS.

18.4 MILES TOTAL TRAVEL DISTANCE FROM THE INTERSECTION OF US HIGHWAY 285 AND I-20 BUSINESS LOOP, ALSO BEING E. 3RD. STREET, TO THE TITAN STATE 16 DRILLING PAD.

JOB NUMBER 17021 WPX

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	24 August 2018	**GAU Number:**	204627

Attention:	WPX ENERGY PERMIAN, LLC 3500 ONE WILLIAMS CENTER TULSA, OK 74172	**API Number:**	38937497
		County:	REEVES
		Lease Name:	TITAN STATE 16
		Lease Number:	
Operator No.:	942623	**Well Number:**	421H
		Total Vertical Depth:	16000
		Latitude:	31.606261
		Longitude:	-103.688328
		Datum:	NAD27

Purpose: New Production Well

Location: Survey-T&P RR CO; Abstract-5771; Block-54; Township-4S; Section-16

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 1000 feet and the Rustler, which is estimated to occur from 1250 to 1750 feet must be protected.

This recommendation is applicable to all wells within a radius of 1000 feet of this location.

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 08/20/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

61.92.2

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form P-16
Page 1
Rev. 01/2016

Acreage Designation

SECTION I. OPERATOR INFORMATION

Operator Name: WPX Energy Permian, LLC	**Operator P-5 No.:** 942623
Operator Address: 3500 One Williams Center MD 35, Tulsa, OK 74172	

SECTION II. WELL INFORMATION

District No.: 8	**County:** Reeves	**Purpose of Filing:**
Well No.: 411H	**API No.:**	■ Drilling Permit Application (Form W-1)
Total Lease Acres: 640	**Drilling Permit No.:**	☐ Completion Report (Form G-1/W-2)
Lease Name: Titan State 16	**Lease No.:**	
Field Name: Phantom (Wolfcamp)	**Field No.:** 71052900	

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
48473	1H	H	Titan State 16	42-389-35323	640	N	
	411H	H	Titan State 16		240	N	

Total Well Count >	2	880	< A. Total Assigned Horiz. Acreage	880	< C. Total Assigned Acreage
		-240	< Total Remaining Horiz. Acreage	-240	< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

Upon successful completion of any wells being permitted in this section, acreage will be redesignated so there will be no double assignment of acreage.

Attach Additional Pages As Needed. ■ No additional pages ☐ Additional Pages: ____ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Signature	Name and title (type or print)	Email (include email address *only* if you affirmatively consent to its public release)
Larry E. Rader	Larry E. Rader, Regulatory Specialist	larry.rader@wpxenergy.com

Address	City	State	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
3500 One Williams Center, MD 35	Tulsa	OK	74172	539	573-3543	08-17-2018

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

Form P-17
Rev. 04/2015

☑ New
☐ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 02 / 2019
District 08
County REEVES

gas0691

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35, TULSA, OK 74172

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: SUNOCO PTNRS. MKTG.&TERMINALS LP | Gatherer P-5 No.: 829626
Gatherer Address: ATTN MEGAN NEWTON 1300 MAIN STREET, HOUSTON, TX 77002
Gatherer E-mail Address:
will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ■ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ■ This exception is for common storage.
f) ☐ This exception is for common separation.
g) ☐ This exception is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

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JAN 24 2019
OIL & GAS PRODUCTION DEPT.
AUSTIN, TX

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ■ The production is measured separately from all leases or individual wells before commingling. ( )
b) ■ The royalty interests and working interests are the same with respect to identity and percentage. ( )
c) ☐ The royalty interests and working interests are not the same with respect to identity and percentage. ( )
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. ( )
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. ( )
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. ( )
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. ( )

SECTION 5. ☐ **name other than the applicant listed in SECTION 1.**

SECTION 6. ☐ **For oil production, the production from all oil wells on each oil lease is to be commingled.**

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 843719	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	411H
08	DP 843724	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	421H
08	DP 843726	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	422H
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ■ No additional pages ☐ Additional pages ____ **(# of additional pages)**

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Caitlin O'Hair Title Regulatory Tech II Date 01/14/2019

Operator E-mail Address: caitlin.ohair@wpxenergy.com Operator Phone No. 539-573-3527
address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. 8683 **Approval date:** 1/30/19 **Approved by:** David Williams

61-92-2

WAYNE CHRISTIAN, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER

DANNY SORRELLS
ASSISTANT EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

7/5/2019

WPX ENERGY PERMIAN LLC
CAITLIN O'HAIR
3500 ONE WILLIAMS CENTER MD-35
TULSA OK 74172

RE: REQUEST TO FLARE

COMMINGLE PERMIT NO:	08-8683
LEASE NAME:	TITAN STATE 16-411H, 421H, 422H
FIELD NAME:	PHANTOM (WOLFCAMP)
COUNTY:	REEVES

AS REQUESTED IN YOUR AMENDED APPLICATION DATED, THIS WILL PERMIT YOU TO FLARE, A MAXIMUM OF (SEE BELOW) MCFD OF GAS WELL GAS:

PERMIT NUMBER: 38624

EFFECTIVE DATE: 02/27/2019 – EXPIRATION DATE: 05/27/2019 MCFD: 1500 TIME PERIOD: 90 DAYS

EFFECTIVE DATE: 05/28/2019 – EXPIRATION DATE: ~~026/2019~~ 08/26/2019 MCFD: 1500 TIME PERIOD: 90 DAYS

TOTAL TIME PERIOD OF PERMIT: **180 DAYS**

THE WELL MUST EITHER BE SHUT IN AWAITING PIPELINE CONNECTION OR YOU MAY REQUEST A HEARING TO CONTINUE BEYOND THE 180 DAY TEMPORARY PERMIT AUTHORIZED BY STATEWIDE RULE 32. THE HEARING REQUEST MUST BE RECEIVED PRIOR TO THE EXPIRATION OF THE PERMIT.

THIS PERMIT IS GRANTED PROVIDED ALL PRODUCTION IS REPORTED ON THE APPROPRIATE COMMISSION FORMS.

REMARKS
DUE TO HIGH LINE PRESSURE CAUSED BY LARGE GAS VOLUMES IN AREA

IF YOU HAVE ANY QUESTIONS CONTACT TERRY EDWARDS AT (512)463-6785 OR EMAIL terry.edwards@rrc.texas.gov

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Midland

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM H-9
12/12/77

CERTIFICATE OF COMPLIANCE STATEWIDE RULE 36

FILE WITH DISTRICT OFFICE IN TRIPLICATE

GT

1. Operator	2. Operator Number (See Instruction 13)	3. RRC Dist.
WPX Energy Permian, LLC	942623	8

4. Street or P. O. Box No.	5. City	6. State	7. Zip Code
3500 Williams Center MD-35	Tulsa	OK	74172

8. Name of Lease, Facility or Operation	9. Field or Area Name	10. County
Titan State 16	Phantom (Wolfcamp) #71052900	Reeves

11. General Operation Type — Circle One:
A - Oil Field Production; B - Gas Field Production; C - Pipeline or Gathering Sys.; D - Gasoline Plant; **E - Drilling or Workover**; F - Sweetening Unit; G - Combination (explain); H - Other (explain)

Other Explanation: Covering 3 drilling permits

13. Hydrogen Sulfide Concentration: 25000 PPM

14. Maximum Escape Volume: 20 MCF/Day

15. 100 PPM Radius of Exposure (ROE): 65 Ft.

16. 500 PPM Radius of Exposure (ROE): 30 Ft.

17. Operation is: Existing ☐ New ☑

18. Modification Resulting in Certificate Change: Yes ☐ No ☑

19. Workover or Drilling Well with 100 PPM ROE Greater than 3000' feet on Rule 36 Certified Well/Lease: Yes ☐ No ☑

20. Previous Certificate Number if Available (For Amended Certificates):

21. The 100 PPM ROE includes any part of a public area except a public road: Yes ☐ No ☑

22. The 500 PPM ROE includes any part of a public road: Yes ☐ No ☑

23. Injection of fluid containing Hydrogen Sulfide (See Instruction 14): Yes ☐ No ☑

24. Date (or Depth) of Compliance with all applicable provisions of Rule 36: ___/___/19___ (Mo / Day / Year)
Depth of Compliance for Drilling Operation: 3,500' Ft. from Surface dk

12. RRC ID# of Operation(s) to be Covered by This Certificate	Type ID Code (See Instruction 12)	Indicate if Filing for Storage Facility Only YES	NO
843719	5		✓
843724	5		✓
843726	5		✓

25. Contingency Plan Location of Plan (See Instruction 15): N/A
Has been prepared: Yes ☐ No ☑

26. Location of data used to prepare this certificate (See Instruction 15):
WPX Energy Inc, 3500 Williams Center MD-35, Tulsa, OK 74172

CERTIFICATE

I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision, and that I am qualified to make this certification by virtue of my training and experience, and by my analysis of the operation being certified, or by the analysis of qualified person working under my supervision, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge.

GT

Representative of Company	Title	Phone No.	Date
Ray Elliott	Regulatory Specialist	(539) 573-3543	08/23/18

RAILROAD COMMISSION USE ONLY

This operation and the equipment used therein is approved on the basis of the above certification and is subject to further Commission audit for compliance with the required provisions of Statewide Rule 36. This approval may be cancelled if investigation determines that the operation does not comply with the provisions of Statewide Rule 36.

APPROVED BY: Tom Fontes DATE: 10-4-18

CERTIFICATION NUMBER: 101812

REMARKS:

This H-9 is for the above drilling permits. An amended H-9 will be filed once these wells are on production and we can conduct sampling.

01.02.J

COPY

Clear Form

Railroad Commission of Texas

Oil And Gas Division — Form P-8

Request for Clearance of Storage Tanks

Prior to Potential Test

Reference No. 47486

1. Operator's Name and Address (Exactly as shown on Form P-5 Organization Report)
WPX ENERGY PERMIAN, LLC
3500 ONE WILLIAMS CENTER MD-35
TULSA, OK 74172-0000
2. RRC Operator Number: 942623

3. RRC District No.: 08

4. County of Well Site: REEVES

5. API No.: 42-389-37496

6. Field Name (Wildcat or exactly as shown on RRC records)
PHANTOM
(WOLFCAMP)

7. Drilling Permit No.: 843719

8. Rule 37 Case No.:

9. Lease Name
TITAN STATE 16

10. Oil lease No.:

11. Well No.: 411H

12. Drilling completed on 12/14/2018

13. Completion report--Form W-2 or G-1--will be filed on 05/13/2019

14. Oil or condensate gatherer's name and address
ORYX DELAWARE OIL TRANSPORT LLC
4000 N BIG SPRING ST STE 400
MIDLAND, TX 79705
(432) 684-4272

15. Authorization to transport oil or condensate (mark one)
[X] Form P-4 attached
[X] Form P-4 Filed on 02/11/2019

16. This request is for
75000 barrels of [X] crude oil OR [ ] condensate

17. Amount of oil/condensate in tanks
0 barrels on 02/11/2019

18. Storage capacity in bbls. Tank battery 3000 Test tanks 0 Total 3000

19. Previous request for clearance. Amount _____ barrels granted on _____

20. Reason for current request for clearance (explain briefly)
New well completion.

Lorri Kline — Name of operator's representative

REGULATORY TECH II — Title of person

(539) 573-3518 — Telephone

02/11/2019 — Date

RRC District Office Action

Status: Approved **Barrels recommended** 75000 RRC Staff 02/12/2019 Date

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 209046

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
PHANTOM (WOLFCAMP)	TITAN STATE 16			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
WPX ENERGY PERMIAN, LLC	942623	286681	REEVES	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172	411H			
	10. Classification ☐ Oil ☒ Gas ☐ Other *(see instruction A)*			11. Effective Date 02/17/2019

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: ☐ operator ☐ oil or condensate gatherer ☐ gas gatherer ☐ gas purchaser ☐ gas purchaser system code
☐ field name from _____
☐ lease name from _____

OR

b. New RRC Number for: ☐ oil lease ☒ gas well ☐ other well (specify) _____ **Due to:** ☐ new completion or recompletion ☐ reclass oil to gas ☐ reclass gas to oil ☐ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X		ENERGY TRANSFER COMPANY(252017)		100.0	
	X	ETC TEXAS P/L, LTD(255104)	0001	90.0	
	X	ENTERPRISE PRODUCTS OPERATINGLLC(253368)	0001	10.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
ORYX DELAWARE OIL TRANSPORT LLC(627137)	100.0

RRC USE ONLY: Reviewer's initials: RRC Staff Approval date: 06/27/2019

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator _____ Signature _____

Name (print) _____ ☐ **Authorized Employee of previous operator** ☐ **Authorized agent of previous operator** *(see instruction G)*

Title _____ Date _____ Phone with area code _____

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

WPX ENERGY PERMIAN, LLC — Name (print)
Lorri Kline — Signature
☒ **Authorized Employee of current operator** ☐ **Authorized agent of current operator** *(see instruction G)*
Title
lorri.kline@wpxenergy.com — E-mail Address (optional)
02/21/2019 — Date
(539) 573-3518 — Phone with area code

File No. MF116554 (37)

Reeves County

Completion Report API 42-389-37496

Date Filed: 9/12/19

George P. Bush, Commissioner

By JM

RAILROAD COMMISSION OF TEXAS

Form G-1

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 07/15/2019
Tracking No.: 212744

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC **Operator No.:** 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

WELL INFORMATION

API No.: 42-389-37498 **County:** REEVES
Well No.: 422H **RRC District No.:** 08
Lease Name: TITAN STATE 16 **Field Name:** PHANTOM (WOLFCAMP)
RRC Gas ID No.: 286683 **Field No.:** 71052900
Location: Section: 16, Block: 54 T4S, Survey: T&P RR CO / INGLE, F B, Abstract: 5771

Latitude: **Longitude:**
This well is located 16.9 **miles in a** NW **direction from** PECOS, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing **Completion or Recompletion Date:** 02/18/2019

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	08/20/2018	843726
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 11/18/2018 **Date of first production after rig released:** 02/18/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 11/18/2018 **Date plug back, deepening, recompletion, or drilling operation ended:** 12/08/2018
Number of producing wells on this lease in this field (reservoir) including this well: 4 **Distance to nearest well in lease & reservoir (ft.):** 420.0
Total number of acres in lease: 640.00 **Elevation (ft.):** 2871 RKB
Total depth TVD (ft.): 10845 **Total depth MD (ft.):** 15797
Plug back depth TVD (ft.): 10845 **Plug back depth MD (ft.):** 15714
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 26.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 345.0 **Feet from the** North **Line and** 235.0 **Feet from the** East **Line of the** TITAN STATE 16 **Lease.** **Off Lease:** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination **Depth (ft.):** 1750.0 **Date:** 08/24/2018

SWR 13 Exception **Depth (ft.):**

GAS MEASUREMENT DATA

Date of test: 03/28/2019 **Gas measurement method(s):**

Gas production during test (MCF): 4938 Orifice Meter

Was the well preflowed for 48 hours? Yes

Run No.	Line size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. Or Choke (in.)	Static Pm or Choke (in.)	Diff (hw)	Flow Temp (°F)	Temp. (Ftf)	Gravity (Fg)	Compress (Fpv)	Volume (MCF/day)
1	4.025	2.375	19981.01	101.0	101.0	98.3	0.9651	0.8811	1.012	1646.0

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): 0.773 **Gravity (liquid hydrocarbons) (Deg. API):** 47.9

Gas-Liquid Hydro Ratio (CF/Bbl): 3373 **Gravity (mixture): Gmix=** 0.665

Avg. shut in temp. (°F): 124.0 **Bottom hole temp. and depth:** 174.0 **°F@** 10000.0 **FT**

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Pressure (PSIA)	Wellhead Flow Temp (°F)
SHUT-IN	1440	64/64	0	180.0
1	4320	64/64	450	120.0

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1840			C	1233	2617.6	SURFACE	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	4130			C	982	1855.0	SURFACE	Circulated to Surface
3	Intermediate	7	8 3/4	11248			C	697	1790.3	1418	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	4 1/2	6 1/8	10198	15797	H	548	690.4	10198	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	11024	11010 / 4 1/2" 10K AS-1X

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11269	15663

5-30-19

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes

If yes, actuation pressure (PSIG): 9890.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 11000

Actual maximum pressure (PSIG) during hydraulic fracturing: 11045

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	7,940,353 TL FLUID; 10,757,529 TL PROPPANT	1269.0	15663.0

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
FORD-DELAWARE	Yes	4200.0	4200.0	Yes	
CASTILLE	Yes	2540.0	2540.0	Yes	
BELL CANYON	Yes	4095.0	4108.0	Yes	
DELAWARE	Yes	4095.0	4108.0	Yes	
DELAWARE CONSOLIDATED GAS	No			No	NOT GEOLOGICALLY PRESENT
CHERRY CANYON	Yes	5092.0	5115.0	Yes	
BONE SPRINGS	Yes	7641.0	7685.0	Yes	
PERMIAN	Yes	340.0	340.0	Yes	
WOLFCAMP	Yes	10554.0	10627.0	Yes	
PENNSYLVANIAN	No			No	DID NOT DRILL INTO THIS FORMATION
MISSISSIPPIAN	No			No	DID NOT DRILL INTO THIS FORMATION
DEVONIAN	No			No	DID NOT DRILL INTO THIS FORMATION
FUSSELMAN	No			No	DID NOT DRILL INTO THIS FORMATION
ELLENBURGER	No			No	DID NOT DRILL INTO THIS FORMATION

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

KOP @ 10,338' MD. FILING INITIAL POTENTIAL WITHIN 180 DAYS OF COMPLETION.

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2019-07-15 09:09:30.859] Well granted permanent gas well classification as per special field rules for 71052900 PHANTOM (WOLFCAMP); GOR > 3,000 SCF/BBL; Completion date:02/18/2019; Test date: 03/28/2019.

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name: Lorri Kline	**Title:**
Telephone No.: (539) 573-3518	**Date Certified:** 04/23/2019

4.26.19

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

READ INSTRUCTIONS ON BACK

GAS WELL CLASSIFICATION REPORT

Form G-5

Rev. 01/01/86

www-1

1. OPERATOR NAME (Exactly as shown on Form P5 Organization Report)	3. RRC DISTRICT NO.	4. OIL LEASE NO OR GAS WELL ID NO.
WPX Energy		
2. MAILING ADDRESS 5315 Buena Vista Dr Carlsbad, NM 88220	5. WELL NO. 16-422H	6. API NO. 42-
	7. COUNTY OF WELL SITE Reeves	
8. FIELD NAME (as per RRC Records)	9. LEASE NAME Titan State	
10. LOCATION (Section, Block and Survey)	11. PIPELINE CONNECTION OR USE OF GAS	

PRODUCTION TEST AT RATE ELECTED BY OPERATOR
(data on 24-hour basis)

A. Date of Test: 03/28/2019

B. Gas Volume: 1646 (Mcf)

C. Oil or Condensate Volume: 488 (Bbl)

D. Water Volume: 1537 (Bbl)

E. Gas/Liquid Hydrocarbon Ratio: 3372.95 (Cf/Bbl)

F. Flowing Tubing Pressure: 450 (psia)

G. Choke Size: 64/64 (in.)

H. Casing Pressure: unknown (psia)

I. Shut-in Wellhead Pressure--
Tubing: unknown (psia)

J. Separator Operating Pressure: 99.7 (psia)

K. Color of Stock Tank Liquid: light yellow

L. Gravity of Separator Liquid: 47.2 °API

M. Gravity of Stock Tank Liquid: 47.9 °API

N. Specific Gravity of the Gas
(Air = 1): 0.7729

A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.

Date Liquid Sample Obtained: 03/28/2019

Where Obtained: ■ Separator ☐ Stock Tank

% Over Temp. (deg. F)		% Over Temp. (deg. F)	
Initial Boiling Temp.	90	60	512
10	172	70	594
20	228	80	664
30	282	90	694
40	346	95	729
50	432	End Point	738

Total Recovery: 97 percent

Residue: 1 percent

Loss: 2 percent

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete to the best of my knowledge.

04/22/2019
DATE

Shelly Riggall
NAME (Type or Print)

SIGNATURE

Energy Precision Testing
TITLE

Neil Ray
CONTACT PERSON

(806) 665-0750
PHONE NUMBER

RRC USE ONLY

OPERATOR NAME AND ADDRESS including city, state and zip	**GAS WELL STATUS REPORT**	Reason for filing	Operator P-5 Organization No.	RRC Dist No.	**G-10**
WPX Energy 5315 Buena Vista Dr Carlsbad, NM 88220	RAILROAD COMMISSION OF TEXAS Oil and Gas Division P.O. Box 12967 Austin, Texas 78711-2967 Page _____ of _____	☐ Survey ☐ Retest ☐ Initial Test ☐ Correction			REV. 09/2016
			Test Period : Due Date: Effective Date:		

Field Name *Lease Name	RRC IDENT. NO. WELL NO.	DATE TESTED MO/DAY/YEAR MARK X FOR SHUT-IN WELL	GAS PRODUCED MCF/DAY ** GRAVITY GAS SPEC.	CONDENSATE PRODUCED CONDENSATE GRAVITY(API)	WATER PROD BBL/DAY X BOTTOMHOLE PRESSURE PSIA	***SIWH PRESSURE PSIA ***FLOWING PRESSURE PSIA	If Calculated, Check Box N/A
Titan State		03/28/19	1646 MCF	488 . BBL	1537 . BBL	unknown	☐
	16-422H		0.7729	47.9		450	
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐
			MCF	. BBL	. BBL		☐

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec. 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated herein are true, correct, and complete to the best of my knowledge.

Signature: _____ **Title:** Energy Precision Testing **Phone:** 806-665-0750 **Date:** 04/22/2019

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENT
** GAS PRODUCTION RATE, IN MCF, IS TO BE REPORTED FULL-WELL STREAM, INCLUDING CONDENSATE
*** PRESSURE FOR THE TEXAS HUGOTON FIELD IS REPORTED IN PSIG
AN "X" PREPRINTED ON A SURVEY IN THE BOTTOMHOLE PRESSURE BOX INDICATES A BOTTOMHOLE PRESSURE MUST BE REPORTED FOR THE WELL

RAILROAD COMMISSION OF TEXAS

Form P-16

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Rev. 02/2019

Acreage Designation

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION I. OPERATOR INFORMATION

Operator Name:	WPX Energy Permian, LLC	Operator P-5 No.:	942623
Operator Address:	3500 One Williams Center, MD 35 Tulsa, OK 74172		

SECTION II. WELL INFORMATION

District No.:	08	API No.:	42-389-37498	Purpose of Filing:
Well No.:	422H	Drilling Permit No.:	843726	
Lease Name:	Titan State 16	RRC ID or Lease No.:	286683	☐ Drilling Permit Application (Form W-1)
Total Lease Acres:	640.00	Field Name:	Phantom (Wolfcamp)	
Proration Acres:	213.34	Field No.:	71052900	☑ Completion Report (Form G-1/W-2)
Wellbore Profile	Horizontal Well	Is this a UFT field?	Yes	
SL Record (Parent) Well Drilling Permit No.:		County:	Reeves	

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
285901	1H	Horiz.	Titan State 16	389-35323	0.00	N	
286681	411H	Horiz.	Titan State 16	389-37496	213.33	N	
286682	421H	Horiz.	Titan State 16	389-37497	213.33	N	
286683	422H	Horiz.	Titan State 16	389-37498	213.34	N	

A. Total Assigned Horiz. Acreage	=	640.00	C. Total Assigned Acreage	=	640.00
Total Remaining Horiz. Acreage	=	0.00	Total Remaining Acreage	=	640.00
B. Total Assigned Vert./Dir. Acreage	=	0.00			
Total Remaining Vert./Dir. Acreage	=	640.00			

SECTION IV. REMARKS - REQUIRED FOR PSA AND CO-DEVELOPMENT *(refer to instructions)*

Attach Additional Pages As Needed. ☑ No additional pages ☐ Additional Pages: ___ (No. of additional pages)

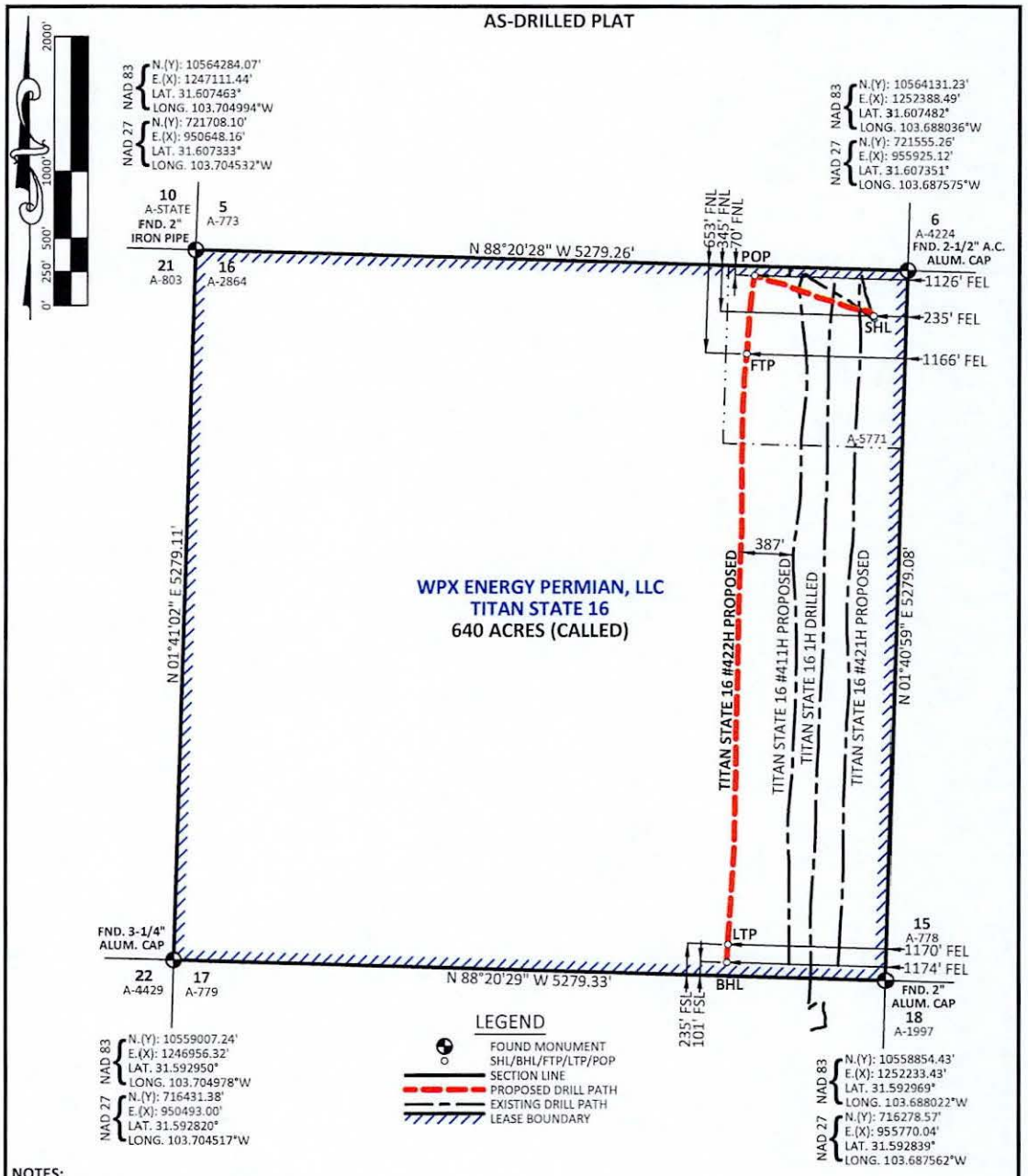
CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Dana Thompson — Dana Thompson, Regulatory Technician — dana.thompson@wpxenergy.com

Signature — Name and title (type or print) — Email (include email address *only* if you affirmatively consent to its public release)

3500 One Williams Center, MD 3	Tulsa	OK	74172	539-573-3543	03/12/19
Address	City,	State:	Zip Code	Tel: Area Code Number	Date: mo. day yr.

AS-DRILLED PLAT



NOTES:

UN-GRADED GROUND ELEVATION AT SHL: 2842.89'
THIS LOCATION IS APPROXIMATELY 16.9 MILES N.41°W. OF PECOS, TEXAS.
BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°44'26.50" AND A COMBINED SCALE FACTOR OF 0.99980519 BASED ON CONTROL POINT S S10 55 T-4 AT N. 10564429.832' - E. 1244642.724'.
UNITS REPRESENTED ON THIS PLAT ARE IN US SURVEY FEET.

SURFACE HOLE			POINT OF PENETRATION			FIRST TAKE POINT			LAST TAKE POINT			BOTTOM HOLE		
FOOTAGE: 345' FNL & 235' FEL			FOOTAGE: 70' FNL & 1126' FEL			FOOTAGE: 653' FNL & 1166' FEL			FOOTAGE: 235' FSL & 1170' FEL			FOOTAGE: 101' FSL & 1174' FEL		
GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.606532°N	GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.607284°N	GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.605684°N	GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.593612°N	GEOGRAPHIC DEC. DEGS. NAD 27	LAT.	31.593244°N
	LONG.	103.688789°W		LONG.	103.691652°W		LONG.	103.691779°W		LONG.	103.691780°W		LONG.	103.691793°W
GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.606402°N	GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.607154°N	GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.605554°N	GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.593482°N	GEOGRAPHIC DEC. DEGS. NAD 83	LAT.	31.593113°N
	LONG.	103.688328°W		LONG.	103.691191°W		LONG.	103.691318°W		LONG.	103.691319°W		LONG.	103.691332°W
STATE PLANE TEXAS CENTRAL NAD 27	NORTH	10563793.13	STATE PLANE TEXAS CENTRAL NAD 27	NORTH	10564093.49	STATE PLANE TEXAS CENTRAL NAD 27	NORTH	10563512.74	STATE PLANE TEXAS CENTRAL NAD 27	NORTH	10559123.55	STATE PLANE TEXAS CENTRAL NAD 27	NORTH	10558989.81
	EAST	1252143.57		EAST	1251261.00		EAST	1251203.93		EAST	1251071.18		EAST	1251063.11
STATE PLANE TEXAS CENTRAL NAD 83	NORTH	721217.17	STATE PLANE TEXAS CENTRAL NAD 83	NORTH	721517.52	STATE PLANE TEXAS CENTRAL NAD 83	NORTH	720936.78	STATE PLANE TEXAS CENTRAL NAD 83	NORTH	716547.69	STATE PLANE TEXAS CENTRAL NAD 83	NORTH	716413.95
	EAST	955680.21		EAST	954797.65		EAST	954740.57		EAST	954607.80		EAST	954599.73

STATE OF TEXAS
REGISTERED
ALBERT R. DEHOYOS
6725
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY. IF ANY ALTERATIONS ARE MADE, (HAND DRAWN, HANDWRITTEN OR DIGITAL ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

2/22/2019

ALBERT R. DEHOYOS TEXAS R.P.L.S. No. 6725		DATE
DRAWN BY: CED	CHECKED BY: ARD	SURVEY DATE: 01/09/2019
SCALE: 1" = 1000'	JOB NUMBER: 17021	SHEET 1 OF 1

WHS
ENGINEERING • SURVEYING • PLANNING
1515 9TH STREET, STE A, ROCK SPRINGS, WY 82901
307.362.6065 | 866.938.3088 | www.whsmithpc.com
TEXAS FIRM REGISTRATION No. 10193907

WPXENERGY

LEASE NAME AND WELL NUMBER:
TITAN STATE 16 #422H
DESCRIPTION:
SHL: 345' FNL - 235' FEL
SECTION 16, BLOCK 54, T4,
T.&P. RR COMPANY SURVEY,
REEVES COUNTY, TEXAS

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	24 August 2018	**GAU Number:**	204627

Attention:	WPX ENERGY PERMIAN, LLC 3500 ONE WILLIAMS CENTER TULSA, OK 74172	**API Number:**	38937497
		County:	REEVES
		Lease Name:	TITAN STATE 16
		Lease Number:	
Operator No.:	942623	**Well Number:**	421H
		Total Vertical Depth:	16000
		Latitude:	31.606261
		Longitude:	-103.688328
		Datum:	NAD27

Purpose: New Production Well

Location: Survey-T&P RR CO; Abstract-5771; Block-54; Township-4S; Section-16

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 1000 feet and the Rustler, which is estimated to occur from 1250 to 1750 feet must be protected.

This recommendation is applicable to all wells within a radius of 1000 feet of this location.

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 08/20/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

7·26·19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form P-16
Page 1
Rev. 01/2016

Acreage Designation

SECTION I. OPERATOR INFORMATION

Operator Name: WPX Energy Permian, LLC	**Operator P-5 No.:** 942623
Operator Address: 3500 One Williams Center MD 35, Tulsa, OK 74172	

SECTION II. WELL INFORMATION

District No.: 8	**County:** Reeves	**Purpose of Filing:**
Well No.: 422H	**API No.:**	■ Drilling Permit Application (Form W-1)
Total Lease Acres: 640	**Drilling Permit No.:**	☐ Completion Report (Form G-1/W-2)
Lease Name: Titan State 16	**Lease No.:**	
Field Name: Phantom (Wolfcamp)	**Field No.:** 71052900	

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
48473	1H	H	Titan State 16	42-389-35323	640	N	
Drilling Permit #843719	411H	H	Titan State 16		240	N	
Drilling Permit #843724	421H	H	Titan State 16		200	N	
	422H	H	Titan State 16		200	N	

Total Well Count >	4	1280	< A. Total Assigned Horiz. Acreage	1280	< C. Total Assigned Acreage
		-640	< Total Remaining Horiz. Acreage	-640	< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

Upon successful completion of any wells being permitted in this section, acreage will be redesignated so there will be no double assignment of acreage.

Attach Additional Pages As Needed. ■ No additional pages ☐ Additional Pages: _____ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Signature	Name and title (type or print)	Email (include email address *only* if you affirmatively consent to its public release)
Larry E. Rader	Larry E. Rader, Regulatory Specialist	larry.rader@wpxenergy.com

Address	City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
3500 One Williams Center, MD 35	Tulsa	OK	74172	539	573-3543	08-17-2018

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
14,295.00	89.36	179.74	10,879.36	-3,304.18	-1,012.95	3,332.46	3,455.96	197.04	10,560,488.95	1,251,130.62
14,390.00	90.60	181.40	10,879.39	-3,399.17	-1,013.89	3,427.44	3,547.16	196.61	10,560,393.96	1,251,129.68
14,485.00	91.37	181.81	10,877.76	-3,494.12	-1,016.55	3,522.42	3,638.99	196.22	10,560,299.01	1,251,127.02
14,580.00	90.00	181.29	10,876.62	-3,589.08	-1,019.12	3,617.41	3,730.96	195.85	10,560,204.05	1,251,124.45
14,675.00	89.87	181.23	10,876.73	-3,684.05	-1,021.21	3,712.41	3,822.97	195.49	10,560,109.08	1,251,122.36
14,769.00	92.75	181.63	10,874.58	-3,777.99	-1,023.56	3,806.37	3,914.19	195.16	10,560,015.14	1,251,120.01
14,864.00	88.49	179.52	10,873.55	-3,872.95	-1,024.51	3,901.32	4,006.17	194.82	10,559,920.18	1,251,119.06
14,958.00	91.54	182.50	10,873.53	-3,966.92	-1,026.17	3,995.30	4,097.49	194.50	10,559,826.21	1,251,117.40
15,053.00	94.16	184.27	10,868.80	-4,061.62	-1,031.77	4,090.12	4,190.62	194.25	10,559,731.51	1,251,111.80
15,146.00	95.07	184.00	10,861.32	-4,154.08	-1,038.45	4,182.74	4,281.91	194.04	10,559,639.05	1,251,105.12
15,240.00	93.16	183.86	10,854.58	-4,247.61	-1,044.88	4,276.42	4,374.24	193.82	10,559,545.52	1,251,098.69
15,334.00	90.74	183.93	10,851.38	-4,341.33	-1,051.26	4,370.29	4,466.80	193.61	10,559,451.80	1,251,092.31
15,428.00	92.45	183.69	10,848.76	-4,435.08	-1,057.50	4,464.18	4,559.42	193.41	10,559,358.05	1,251,086.07
15,522.00	90.17	183.48	10,846.61	-4,528.87	-1,063.38	4,558.10	4,652.03	193.21	10,559,264.26	1,251,080.19
15,617.00	89.97	183.86	10,846.50	-4,623.67	-1,069.46	4,653.04	4,745.75	193.02	10,559,169.46	1,251,074.11
15,698.16	90.51	183.51	10,846.16	-4,704.67	-1,074.67	4,734.15	4,825.85	192.87	10,559,088.46	1,251,068.90
LTP Actual 15698.16' MD - Titan16-422H LTP										
15,712.00	90.60	183.45	10,846.02	-4,718.48	-1,075.51	4,747.98	4,839.50	192.84	10,559,074.65	1,251,068.06
15,736.00	91.07	183.32	10,845.67	-4,742.43	-1,076.93	4,771.97	4,863.17	192.79	10,559,050.70	1,251,066.64
SDI MWD										
15,797.00	91.07	183.32	10,844.54	-4,803.32	-1,080.46	4,832.93	4,923.34	192.68	10,558,989.81	1,251,063.11
Bit Projection - Titan16-422H BHL										

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,780.35	10,678.50	144.20	-904.09	FTP Actual 10780.35' MD
15,698.16	10,846.16	-4,704.67	-1,074.67	LTP Actual 15698.16' MD
15,736.00	10,845.67	-4,742.43	-1,076.93	SDI MWD
15,797.00	10,844.54	-4,803.32	-1,080.46	Bit Projection

Checked By: _____ Approved By: _____ Date: _____

WPX ENERGY PERMIAN LLC
PO BOX 21358
TULSA OK 74121-1358

COMPANY NUMBER: 3035

CHECK NUMBER: 3035030200

PAY DATE	SUPPLIER NO.	SUPPLIER NAME	CHECK TOTAL
Jan 14, 2019	402868	RAILROAD COMMISSION OF TEXAS	$750.00

Invoice Date	Invoice No.	Invoice / Credit Memo Invoice Description	Gross	Discount	Net
01/11/2019	11-JAN-2019		$750.00	$0.00	$750.00
		Totals	$750.00	$0.00	$750.00

Supplier Support 1-866-581-4981

VERIFY THE AUTHENTICITY OF THIS MULTI-TONE SECURITY DOCUMENT. CHECK BACKGROUND AREA CHANGES COLOR GRADUALLY FROM TOP TO BOTTOM.

WPX ENERGY PERMIAN LLC
PO BOX 21358
TULSA OK 74121-1358
Company Number: 3035

JPMORGAN CHASE 70-2322/719

Check Number: 3035030200
Check Date: Jan 14, 2019

Seven Hundred Fifty Dollars Only**********

Pay To The Order Of
RAILROAD COMMISSION OF TEXAS
1701 N CONGRESS AVE
AUSTIN, TX 78711

PAY (USD)	$750.00

Authorized Signature

WPX checks (12/11)

⑈3035030200⑈ ⑆071923228⑆ 00940390⑧⑈

WPXENERGY

WPX ENERGY PERMIAN, LLC
3500 One Williams Center MD-35
Tulsa, OK 74172

January 14, 2019

Railroad Commission of Texas
P-17 Department
Attn: Darlene Williams
1701 N. Congress
Austin, TX 78701

Dear Mrs. Darlene Williams

WPX ENERGY PERMIAN, LLC (942623) is submitting two new common storage permits for the below wells.

Permit 1: Well Name and Numbers	Lease ID or Drilling Permit #	Action	Effective Date
HATTIE 3 #1H	284595	ADD	02/2019
HATTIE 3 #2H	DP 839797	ADD	
HATTIE 3 #3H	DP 839801	ADD	
HATTIE 3 #4H	DP 839804	ADD	
HATTIE 3 #451H	DP 843038	ADD	

Permit 2: Well Name and Numbers	Lease ID or Drilling Permit #	Action	Effective Date
TITAN STATE 16 #411H	DP 843719	ADD	02/2019
TITAN STATE 16 #421H	DP 843724	ADD	
TITAN STATE 16 #422H	DP 843726	ADD	

Sincerely,

Caitlin O'Hair

Caitlin O'Hair
Regulatory Tech II
(office) 539-573-3527
(email) caitlin.ohair@wpxenergy.com

1.30.19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form P-17
Rev. 04/2015

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

☑ New
☐ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 02 / 2019
District 08
County REEVES

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35, TULSA, OK 74172

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: SUNOCO PTNRS. MKTG.&TERMINALS LP | Gatherer P-5 No.: 829626
Gatherer Address: ATTN MEGAN NEWTON 1300 MAIN STREET, HOUSTON, TX 77002
Gatherer E-mail Address:
will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ■ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ■ This exception is for common storage.
f) ☐ This exception is for common separation.
g) ☐ This exception is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ■ The production is measured separately from all leases or individual wells before commingling. ( )
b) ■ The royalty interests and working interests are the same with respect to identity and percentage. ( )
c) ☐ The royalty interests and working interests are not the same with respect to identity and percentage. ( )
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. ( )
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. ( )
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. ( )
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. ( )

SECTION 5. ☐ name other than the applicant listed in SECTION 1.

SECTION 6. ☐ For oil production, the production from all oil wells on each oil lease is to be commingled.

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	284595	☐ Existing ■ Add ☐ Delete	HATTIE 3 / PHANTOM (WOLFCAMP)	1H
08	DP 839797	☐ Existing ■ Add ☐ Delete	HATTIE 3 / PHANTOM (WOLFCAMP)	2H
08	DP 839801	☐ Existing ■ Add ☐ Delete	HATTIE 3 / PHANTOM (WOLFCAMP)	3H
08	DP 839804	☐ Existing ■ Add ☐ Delete	HATTIE 3 / PHANTOM (WOLFCAMP)	4H

ATTACH ADDITIONAL PAGES AS NEEDED. ☐ No additional pages ■ Additional pages 1 (# of additional pages)

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Caitlin O'Hair Title Regulatory Tech II Date 01/14/2019

Operator E-mail Address: caitlin.ohair@wpxenergy.com Operator Phone No. 539-573-3527
address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. Approval date: Approved by:

41.92.J

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM P-17 ATTACHMENT

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27

COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 843038	☐ Existing ■ Add ☐ Delete	HATTIE 3 / PHANTOM (WOLFCAMP)	451H
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete	

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

Form P-17
Rev. 04/2015

☑ New
☐ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 02 / 2019
District 08
County REEVES

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35, TULSA, OK 74172

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: SUNOCO PTNRS. MKTG.&TERMINALS LP | Gatherer P-5 No.: 829626
Gatherer Address: ATTN MEGAN NEWTON 1300 MAIN STREET, HOUSTON, TX 77002
Gatherer E-mail Address:
will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ■ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ■ This exception is for common storage.
f) ☐ This exception is for common separation.
g) ☐ This exception is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ■ The production is measured separately from all leases or individual wells before commingling. ( )
b) ■ The royalty interests and working interests are the same with respect to identity and percentage. ( )
c) ☐ The royalty interests and working interests are not the same with respect to identity and percentage. ( )
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. ( )
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. ( )
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. ( )
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. ( )

SECTION 5. ☐ name other than the applicant listed in SECTION 1.

SECTION 6. ☐ For oil production, the production from all oil wells on each oil lease is to be commingled.

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 843719	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	411H
08	DP 843724	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	421H
08	DP 843726	☐ Existing ■ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	422H
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ■ No additional pages ☐ Additional pages ____ (# of additional pages)

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Caitlin O'Hair Title Regulatory Tech II Date 01/14/2019

Operator E-mail Address: caitlin.ohair@wpxenergy.com Operator Phone No. 539-573-3527
address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. _____ Approval date: _____ Approved by: _____

81.92.2

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM P-17 ATTACHMENT

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27

COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		

WAYNE CHRISTIAN, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER

DANNY SORRELLS
ASSISTANT EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

7/5/2019

WPX ENERGY PERMIAN LLC
CAITLIN O'HAIR
3500 ONE WILLIAMS CENTER MD-35
TULSA OK 74172

RE: REQUEST TO FLARE

COMMINGLE PERMIT NO:	08-8683
LEASE NAME:	TITAN STATE 16-411H, 421H, 422H
FIELD NAME:	PHANTOM (WOLFCAMP)
COUNTY:	REEVES

AS REQUESTED IN YOUR AMENDED APPLICATION DATED, THIS WILL PERMIT YOU TO FLARE, A MAXIMUM OF (SEE BELOW) MCFD OF GAS WELL GAS:

PERMIT NUMBER: 38624

EFFECTIVE DATE: 02/27/2019 – EXPIRATION DATE: 05/27/2019 MCFD: 1500 TIME PERIOD: 90 DAYS

EFFECTIVE DATE: 05/28/2019 – EXPIRATION DATE: ~~026/2019~~ 08/26/2019 MCFD: 1500 TIME PERIOD: 90 DAYS

TOTAL TIME PERIOD OF PERMIT: **180 DAYS**

THE WELL MUST EITHER BE SHUT IN AWAITING PIPELINE CONNECTION OR YOU MAY REQUEST A HEARING TO CONTINUE BEYOND THE 180 DAY TEMPORARY PERMIT AUTHORIZED BY STATEWIDE RULE 32. THE HEARING REQUEST MUST BE RECEIVED PRIOR TO THE EXPIRATION OF THE PERMIT.

THIS PERMIT IS GRANTED PROVIDED ALL PRODUCTION IS REPORTED ON THE APPROPRIATE COMMISSION FORMS.

REMARKS
DUE TO HIGH LINE PRESSURE CAUSED BY LARGE GAS VOLUMES IN AREA

IF YOU HAVE ANY QUESTIONS CONTACT TERRY EDWARDS AT (512)463-6785 OR EMAIL terry.edwards@rrc.texas.gov

RECEIVED
RRC OF TEXAS
SEP 04 2018
O&G
Midland

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM H-9
12/12/77

CERTIFICATE OF COMPLIANCE STATEWIDE RULE 36

FILE WITH DISTRICT OFFICE IN TRIPLICATE

GT

1. Operator	2. Operator Number (See Instruction 13)	3. RRC Dist.
WPX Energy Permian, LLC	942623	8

4. Street or P. O. Box No.	5. City	6. State	7. Zip Code
3500 Williams Center MD-35	Tulsa	OK	74172

8. Name of Lease, Facility or Operation	9. Field or Area Name	10. County
Titan State 16	Phantom (Wolfcamp) #71052900	Reeves

11. General Operation Type — Circle One:

A-Oil Field Production; B-Gas Field Production; C-Pipeline or Gathering Sys.; D-Gasoline Plant; [E-Drilling or Workover]; F-Sweetening Unit; G-Combination (explain); H-Other (explain)

Other Explanation: Covering 3 drilling permits

13. Hydrogen Sulfide Concentration: 25000 PPM

14. Maximum Escape Volume: 20 MCF/Day

15. 100 PPM Radius of Exposure (ROE): 65 Ft.

16. 500 PPM Radius of Exposure (ROE): 30 Ft.

17. Operation is: Existing ☐ New ☑

18. Modification Resulting in Certificate Change: Yes ☐ No ☑

19. Workover or Drilling Well with 100 PPM ROE Greater than 3000' feet on Rule 36 Certified Well/Lease: Yes ☐ No ☑

20. Previous Certificate Number if Available (For Amended Certificates):

21. The 100 PPM ROE includes any part of a public area except a public road: Yes ☐ No ☑

22. The 500 PPM ROE includes any part of a public road: Yes ☐ No ☑

23. Injection of fluid containing Hydrogen Sulfide (See Instruction 14): Yes ☐ No ☑

24. Date (or Depth) of Compliance with all applicable provisions of Rule 36: ___/___/19___ (Mo / Day / Year)

Depth of Compliance for Drilling Operation: 3,500' Ft. from Surface ok

12. RRC ID# of Operation(s) to be Covered by This Certificate	Type ID Code (See Instruction 12)	Indicate if Filing for Storage Facility Only YES	NO
843719	5		✓
843724	5		✓
843726	5		✓

25. Contingency Plan Location of Plan (See Instruction 15)

Has been prepared: Yes ☐ No ☑

N/A

26. Location of data used to prepare this certificate (See Instruction 15)

WPX Energy Inc, 3500 Williams Center MD-35, Tulsa, OK 74172

CERTIFICATE

I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision, and that I am qualified to make this certification by virtue of my training and experience, and by my analysis of the operation being certified, or by the analysis of qualified person working under my supervision, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge.

GT

Representative of Company	Title	Phone No.	Date
Ray Klock	Regulatory Specialist	(539) 573-3543	08/23/18

RAILROAD COMMISSION USE ONLY

This operation and the equipment used therein is approved on the basis of the above certification and is subject to further Commission audit for compliance with the required provisions of Statewide Rule 36. This approval may be cancelled if investigation determines that the operation does not comply with the provisions of Statewide Rule 36.

APPROVED BY: Jim Fonts DATE: 10-4-18

CERTIFICATION NUMBER: 101812

REMARKS:

This H-9 is for the above drilling permits. An amended H-9 will be filed once these wells are on production and we can conduct sampling.

61.92.4

Clear Form

COPY

Railroad Commission of Texas

Oil And Gas Division — Form P-8

Request for Clearance of Storage Tanks

Prior to Potential Test

Reference No. 47488

1. Operator's Name and Address (Exactly as shown on Form P-5 Organization Report)
WPX ENERGY PERMIAN, LLC
3500 ONE WILLIAMS CENTER MD-35
TULSA, OK 74172-0000
2. RRC Operator Number: 942623

3. RRC District No.: 08

4. County of Well Site: REEVES

5. API No.: 42-389-37498

6. Field Name (Wildcat or exactly as shown on RRC records)
PHANTOM
(WOLFCAMP)

7. Drilling Permit No.: 843726

8. Rule 37 Case No.:

9. Lease Name: TITAN STATE 16

10. Oil lease No.:

11. Well No.: 422H

12. Drilling completed on 12/08/2018

13. Completion report--Form W-2 or G-1--will be filed on 05/07/2019

14. Oil or condensate gatherer's name and address
ORYX DELAWARE OIL TRANSPORT LLC
4000 N BIG SPRING ST STE 400
MIDLAND, TX 79705
(432) 684-4272

15. Authorization to transport oil or condensate (mark one)
[X] Form P-4 attached
[X] Form P-4 Filed on 02/11/2019

16. This request is for
75000 barrels of [X] crude oil OR [ ] condensate

17. Amount of oil/condensate in tanks
0 barrels on 02/11/2019

18. Storage capacity in bbls. Tank battery 3000 Test tanks 0 Total 3000

19. Previous request for clearance. Amount _____ barrels granted on _____

20. Reason for current request for clearance (explain briefly)
New well completion.

Lorri Kline — Name of operator's representative

REGULATORY TECH II — Title of person

(539) 573-3518 — Telephone

02/11/2019 — Date

RRC District Office Action

Status: Approved **Barrels recommended** 75000 RRC Staff 02/12/2019 Date

61.92.2

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 209102

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
PHANTOM (WOLFCAMP)	TITAN STATE 16			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
WPX ENERGY PERMIAN, LLC	942623	286683	REEVES	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172	422H			
	10. Classification ☐ Oil ☒ Gas ☐ Other *(see instruction A)*			11. Effective Date 02/18/2019

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: ☐ operator ☐ oil or condensate gatherer ☐ gas gatherer ☐ gas purchaser ☐ gas purchaser system code
☐ field name from _____
☐ lease name from _____

OR

b. New RRC Number for: ☐ oil lease ☒ gas well ☐ other well (specify) _____ **Due to:** ☐ new completion or recompletion ☐ reclass oil to gas ☐ reclass gas to oil ☐ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X		ENERGY TRANSFER COMPANY(252017)		100.0	
	X	ETC TEXAS P/L, LTD(255104)	0001	90.0	
	X	ENTERPRISE PRODUCTS OPERATINGLLC(253368)	0001	10.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
ORYX DELAWARE OIL TRANSPORT LLC(627137)	100.0

RRC USE ONLY: Reviewer's initials: RRC Staff Approval date: 06/27/2019

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator _____ Signature _____

Name (print) _____ ☐ **Authorized Employee of previous operator** ☐ **Authorized agent of previous operator** *(see instruction G)*

Title _____ Date _____ Phone with area code _____

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

WPX ENERGY PERMIAN, LLC — Name (print)

Lorri Kline — Signature

Title _____

☒ **Authorized Employee of current operator** ☐ **Authorized agent of current operator** *(see instruction G)*

lorri.kline@wpxenergy.com — E-mail Address (optional)

02/22/2019 — Date

(539) 573-3518 — Phone with area code

61-92-2

RAILROAD COMMISSION OF TEXAS

Form G-1

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 06/27/2019
Tracking No.: 209102

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC **Operator No.:** 942623
Operator Address: 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

WELL INFORMATION

API No.: 42-389-37498 **County:** REEVES
Well No.: 422H **RRC District No.:** 08
Lease Name: TITAN STATE 16 **Field Name:** PHANTOM (WOLFCAMP)
RRC Gas ID No.: 286683 **Field No.:** 71052900
Location: Section: 16, Block: 54 T4S, Survey: T&P RR CO / INGLE, F B, Abstract: 5771

Latitude: **Longitude:**
This well is located 16.9 **miles in a** NW **direction from** PECOS, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: New Well
Well Type: Shut-In Producer **Completion or Recompletion Date:** 02/18/2019

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	08/20/2018	843726
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 11/18/2018 **Date of first production after rig released:** 02/18/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 11/18/2018 **Date plug back, deepening, recompletion, or drilling operation ended:** 12/08/2018
Number of producing wells on this lease in this field (reservoir) including this well: 4 **Distance to nearest well in lease & reservoir (ft.):** 420.0
Total number of acres in lease: 640.00 **Elevation (ft.):** 2871 RKB
Total depth TVD (ft.): 10845 **Total depth MD (ft.):** 15797
Plug back depth TVD (ft.): 10845 **Plug back depth MD (ft.):** 15714
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 26.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 345.0 **Feet from the** North **Line and** 235.0 **Feet from the** East **Line of the** TITAN STATE 16 **Lease.** **Off Lease:** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination	**Depth (ft.):** 1750.0	**Date:** 08/24/2018
SWR 13 Exception	**Depth (ft.):**	

GAS MEASUREMENT DATA

Date of test: **Gas measurement method(s):**

Gas production during test (MCF):

Was the well preflowed for 48 hours? No

Run No.	Line size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. Or Choke (in.)	Static Pm or Choke (in.)	Diff (hw)	Flow Temp (°F)	Temp. (Ftf)	Gravity (Fg)	Compress (Fpv)	Volume (MCF/day)
N/A										

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): **Gravity (liquid hydrocarbons) (Deg. API):**

Gas-Liquid Hydro Ratio (CF/Bbl): **Gravity (mixture): Gmix=**

Avg. shut in temp. (°F): **Bottom hole temp. and depth:** °F@ FT

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Pressure (PSIA)	Wellhead Flow Temp (°F)
N/A				

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1840			C	1233	2617.6	SURFACE	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	4130			C	982	1855.0	SURFACE	Circulated to Surface
3	Intermediate	7	8 3/4	11248			C	697	1790.3	1418	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	4 1/2	6 1/8	10198	15797	H	548	690.4	10198	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	11024	11010 / 4 1/2" 10K AS-1X

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11269	15663

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes

If yes, actuation pressure (PSIG): 9890.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 11000

Actual maximum pressure (PSIG) during hydraulic fracturing: 11045

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	7,940,353 TL FLUID; 10,757,529 TL PROPPANT	11269.0	15663.0

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
FORD-DELAWARE	Yes	4200.0	4200.0	Yes	ESTIMATED
CASTILLE	Yes	2540.0	2540.0	Yes	ESTIMATED
BELL CANYON	Yes	4095.0	4108.0	Yes	
DELAWARE	Yes	4095.0	4108.0	Yes	
DELAWARE CONSOLIDATED GAS	No			No	NOT GEOLOGICALLY PRESENT
CHERRY CANYON	Yes	5092.0	5115.0	Yes	
BONE SPRINGS	Yes	7641.0	7685.0	No	
PERMIAN	Yes	340.0	340.0	Yes	ESTIMATED
WOLFCAMP	Yes	10554.0	10627.0	Yes	
PENNSYLVANIAN	No			No	DID NOT DRILL INTO THIS FORMATION
MISSISSIPPIAN	No			No	DID NOT DRILL INTO THIS FORMATION
DEVONIAN	No			No	DID NOT DRILL INTO THIS FORMATION
FUSSELMAN	No			No	DID NOT DRILL INTO THIS FORMATION
ELLENBURGER	No			No	DID NOT DRILL INTO THIS FORMATION

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

KOP @ 10,338'MD. FILING WELL RECORD ONLY WITHIN 30 DAYS OF COMPLETION. AS-DRILLED PLAT, COMPLETION P-16 AND G5 WILL BE FILED WITH THE INITIAL POTENTIAL.

61.92.2

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2019-06-14 13:57:26.849] EDL=4350 feet, max acres=640, PHANTOM (WOLFCAMP) oil or gas well;

take points: 11269-15663 feet

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name: Lorri Kline	**Title:**
Telephone No.: (539) 573-3518	**Date Certified:** 04/03/2019

4.30.19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	**Operator P-5 No.:** 942623
Cementer Name: Bj Services LLC	**Cementer P-5 No.:** 072507

WELL INFORMATION		
District No.: 08	**County:** REEVES	
Well No.: 422H	**API No.:** 42-389-37498	**Drilling Permit No.:** 842726
Lease Name: TITAN STATE 16	**Lease No.:**	
Field Name: PHANTOM (WOLFCAMP)	**Field No.:** 71052900	

I. CASING CEMENTING DATA

Type of casing:	☑ Surface	☐ Intermediate	☐ Liner ☐ Production
Drilled hole size (in.): 17 1/2	**Depth of drilled hole (ft.):** 1,860		**Est. % wash-out or hole enlargement:** 20
Size of casing in O.D. (in.): 13 3/8	**Casing weight (lbs/ft) and grade:** 54.5# J-55		**No. of centralizers used:** 14
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☑ YES ☐ NO	**Setting depth shoe (ft.):** 1,840		**Top of liner (ft.):** / **Setting depth liner (ft.):**
Hrs. waiting on cement before drill-out: 26	**Calculated top of cement (ft.):** SURFACE		**CEMENTING DATE:** 11/20/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	928	C	SEE REMARKS A	2213.2	3185.1
2	305	C	SEE REMARKS B	404.4	582
3					
Total	1233			2617.6	3767.1

II. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production	☐ Tapered production	☐ Multi-stage cement shoe	☐ Multiple parallel strings
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**	
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**	
Tapered string drilled hole size (in.)	**Tapered string drilled hole size (in.)**		
Tapered string size of casing in O.D. (in.)	**Tapered string casing weight(lbs/ft) and grade**	**Tapered string no. of centralizers used**	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth shoe (ft):**	
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing Date:**	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1		C	SEE REMARKS		
2			SEE REMARKS		
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production	☐ Tapered production	☐ Multi-stage cement/DV tool	☐ Multiple parallel strings
Drilled hole size (in.):	**Depth of drilled hole (ft.):**	**Est. % wash-out or hole enlargement:**	
Size of casing in O.D. (in.):	**Casing weight (lbs/ft) and grade:**	**No. of centralizers used:**	
Tapered string drilled hole size (in.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:		
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		**Setting depth tool (ft):**	
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):**	**Cementing date:**	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1			SEE REMARKS		
2			SEE REMARKS		
3					
Total					

01-92-J

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	SQUEEZE	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

LEAD: CLASS C + 0.50% A-7 + 2.00% A-2
TAIL: CLASS C

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

JOSHUA TREVINO FIELD LEADER 1	Bj Services LLC		
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM2920 RD	Tomball, Tx 77375	281-408-2361	11/20/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	REGULATORY TECH	Lorri Kline Digitally signed by Lorri Kline DN: cn=Lorri Kline, o, ou, email=LORRI.KLINE@WPXENERGY.COM, c=US Date: 2018.12.11 10:18:05 -06'00'	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74135	539-573-3518	11/21/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

5.30.19

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	Operator P-5 No.: 942623
Cementer Name: Bj Services LLC	Cementer P-5 No.: 072507

WELL INFORMATION		
District No.: 08	County: REEVES	
Well No.: 422H	API No.: 42-389-37498	Drilling Permit No.: 843726
Lease Name: TITAN STATE 16	Lease No.:	
Field Name: PHANTOM (WOLFCAMP)	Field No.: 71052900	

I. CASING CEMENTING DATA

Type of casing: ☐ Surface ☑ Intermediate ☐ Liner ☐ Production			
Drilled hole size (in.): 12 1/4	Depth of drilled hole (ft.): 4,155	Est. % wash-out or hole enlargement: 10	
Size of casing in O.D. (in.): 9 5/8	Casing weight (lbs/ft) and grade: 40# J-55	No. of centralizers used: 27	
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☑ YES ☐ NO	Setting depth shoe (ft.): 4,130	Top of liner (ft.):	
		Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out: > 72	Calculated top of cement (ft.): SURFACE	11/23/2018	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	826	C	SEE REMARKS A	1649	5304
2	156	C	SEE REMARKS B	206	2795
Total	982			1855	8099

II. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings			
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.)	Tapered string drilled hole size (in.)		
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth shoe (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings			
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:		
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth tool (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

51-32.2

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	SQUEEZE	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
REMARKS A: 35:65:6 CLASS C+3%(2.754 LB/SK)
REMARKS B: CLASS C+.15% R-3

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Tyler Houtchens Service Supervisor	Bj Services LLC	Tyler Houtchens	
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM2920 RD	Tomball, Tx 77375	281-408-2361	11/23/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	REGULATORY TECH	Lorri Kline Digitally signed by Lorri Kline DN: cn=Lorri Kline, o, ou, email=LORRI.KLINE@WPXENERGY.COM, c=US Date: 2018.12.11 10:18:24 -06'00'	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74172	539-573-3518	11/26/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

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C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

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D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

1.30.19

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Cementer:Fill in Shaded Areas
Operator:Fill in Other Items

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	Operator P-5 No.: 942623
Cementer Name: BJ Services,LLC	Cementer P-5 No.: 072507

WELL INFORMATION	
District No.: 08	County: REEVES
Well No.: 422H	API No.: 42-389-37498 DRLG PERMIT NO.: 843726
Lease Name: TITAN STATE 16	Lease No.:
Field Name: PHANTOM (WOLFCAMP)	Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor	☐ Surface	☑ Intermediate	☐ Liner	☐ Production
Drilled hole size (in.): 8 3/4	Depth of drilled hole (ft.): 11,264		Est. % wash-out or hole enlargement: 15	
Size of casing in O.D. (in.): 7	Casing weight (lbs/ft) and grade: 29# VA-XP-P110		No. of centralizers used: 50	
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☐ YES ☑ NO		Setting depth shoe (ft.): 11,248	Top of liner (ft.):	
			Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out: > 72	Calculated top of cement (ft.): 1,418		Cementing date: 12/1/2018	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	520	C	See reamarks 1	1567.124	9890
2	177	C	See Remarks 2	223.197	1358
3					
Total	697			1790.321	11248

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings				
Drilled hole size (in.):	Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string drilled hole size (in.)		
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO			Setting depth shoe (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):		Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
4					
Total	0			0	0

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings				
Drilled hole size (in.):	Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:		
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:		Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar)outside casing? ☐ YES ☐ NO			Setting depth tool (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):		Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
4					
Total	0			0	0

61.92.2

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
REMARKS1:	50:50:10(POZ:Class C:GEL) + .10% A-2(Sodium Metasilicate) + 2.5LB/SK Kol Seal + 0.25LB/SK Cello-Flake + .25% R-21(Retarder)
REMARKS2:	50:50:2 Class H + .40% FL52(Fluid Loss) + .30%CD-32(Dispersant)+.15% A-2 (Sodium Metasilicate) + .15% R-21(Retarder)
REMARKS:3	
Remarks 4	

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Jeramy Batey Service Supervisor II	BJ Services,LLC			
Name and title of cementer's representative	Cementing Company	Signature		
11211 FM 2920 RD	Tomball TX 77375	281-408-2361	12/1/2018	
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.	

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	REGULATORY TECH II	Lorri Kline Digitally signed by Lorri Kline DN: cn=Lorri Kline, o, ou, email=LORRI.KLINE@WPXENERGY.COM, c=US Date: 2018.12.11 10:18:48 -06'00'	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74132	539-573-3518	12-02-2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

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A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. Surface Casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. Multiple parallel strings: An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. Slurry Data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Cementer: Fill In Shaded Areas
Operator:Fill In Other Items

OPERATOR INFORMATION	
Operator Name: WPX ENERGY PERMIAN, LLC	Operator P-5 No.: 942623
Cementer Name: BJ Services,LLC	Cementer P-5 No.: 072507

WELL INFORMATION	
District No.: 08	County: REEVES
Well No.: 422H	API No.: 42-389-37498 DRLG PERMIT NO.: 843726
Lease Name: TITAN STATE 16	Lease No.:
Field Name: PHANTOM (WOLFCAMP)	Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: ☐Conductor ☐Surface ☐Intermediate ☑Liner ☐Production		
Drilled hole size (in.): 6 1/8	Depth of drilled hole (ft.): 15,797	Est. % wash-out or hole enlargement: 10
Size of casing in O.D. (in.): 4 1/2	Casing weight (lbs/ft) and grade: 13.5# HCP-110	No. of centralizers used: 60
Was cement circulated to ground surface (or bottom of collar) outside casing? If no for surface casing, explain in Remarks. ☑YES ☐NO	Setting depth shoe (ft.): 15,797	Top of liner (ft.): 10,198 Setting depth liner (ft.): 15,797
Hrs. waiting on cement before drill-out: 7.5	Calculated top of cement (ft.): 10,198	Cementing date: 12/7/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	548	H	See Remarks 1	690.3704	7321
2			See Remarks 1		
3					
Total	548			690.3704	7321

II. CASING CEMENTING DATA

Type of casing: ☐Surface ☐Intermediate ☐Production ☐Tapered production ☐Multi-stage cement shoe ☐Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.)	Tapered string drilled hole size (in.)	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of collar) outside casing? ☐YES ☐NO		Setting depth shoe (ft):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 12/7/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total	0			0	0

III. CASING CEMENTING DATA

Type of casing: ☐Intermediate ☐Surface ☐Production ☐Tapered production ☐Multi-stage cement/DV tool ☐Multiple parallel strings		
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of collar) outside casing? ☐YES ☐NO		Setting depth tool (ft):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 12/7/2018

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1			See Remarks 1		
2			See Remarks 2		
3			See Remarks 3		
Total	0			0	0

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS	
REMARKS1:	50:50:2 + 0.40% FL52 + 0.40% CD32 + 0.15% R-21
REMARKS2:	
REMARKS3	

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Terence Sawyer Service Supervisor II	BJ Services,LLC		
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM 2920 RD	Tomball TX 77375	281-408-2361	12/7/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

LORRI KLINE	REGULATORY TECH II	Lorri Kline Digitally signed by Lorri Kline Dn: cn=Lorri Kline, o, ou, email=LORRI.KLINE@WILLIAMS.COM, c=US Date: 2018.12.11 10:19:07 -06'00'	
Typed or printed name of operator's representative	Title	Signature	
3500 ONE WILLIAMS CENTER, MD: 35	TULSA, OK 74135	539-573-3518	12/11/2018
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representatives. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and form W-15 may be filed online using the Commisssioner's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2697).

C. Surface Casing: An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dire=&p_rloc=&p_tloc&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

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G. Slurry Data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

5.58.19

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 212744

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: WPX ENERGY PERMIAN, LLC	District No. 08	Completion Date: 02/18/2019
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 843726	
Lease Name TITAN STATE 16	Lease/ID No. 286683	Well No. 422H
County REEVES	API No. 42- 389-37498	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.

☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).

☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).

☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Lorri Kline Signature	Title
WPX ENERGY PERMIAN, LLC Name (print)	(539) 573-3518 Phone 04/23/2019 Date

-FOR RAILROAD COMMISSION USE ONLY-



WPXENERGY

Scale: 5" / 100'
Measured Depth Log

Well Name	TITAN STATE 16-422H		
Location	345' FNL, 235' FEL, SEC 16, BLK 54		
State	TEXAS	**County**	REEVES
Country	USA	**Rig Number**	PATTERSON 565
API Number	42389374980000	**Field**	PHANTOM WOLFCAMP
Geographic Region	DELAWARE BASIN	**Drilling Completed**	12/5/2018
Spud Date	11/16/2018		

Ground Elevation	2,843	**K.B. Elevation**	2,871'
Logged Interval	3,500' **To** 15,797'	**Total Depth**	15,797'
Formation	WOLFCAMP A LOWER		
Type of Drilling Fluid	BRINE/OBM		

Operator

Company WPX Energy

Address ONE WILLIAMS CENTER
TULSA, OK 74103

Geologist

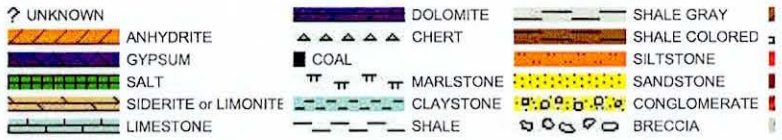
Name DANIEL BETTINGER, LOGAN BEHR, JOHN SEN

Company FIELD GEO SERVICES, INC.

Address 533 BOGART LANE, UNIT A
GRAND JUNCTION, CO 81505
(970) 424-5162 OFFICE
(970) 424-5164 FAX

Field Geo SERVICES

Rock Types



Scientific Drilling International, Inc.
325 Faudree Road
Odessa, Texas 79765
Tel: 432.689.5600 Fax: 432.563.6255
www.scientificdrilling.com

State of Texas
County of Midland

I, J. Reimert, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 11/18/2018 through 12/06/2018 conduct or supervise the taking of a MWD survey from a depth of 200 feet to a depth of 15736 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of WPX Energy for the Titan State 16-422H Well, API# 42-389-37498 in Reeves County, Texas; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.

Field Technician

61.92.4

WPX Energy

Reeves County, Texas (NAD83)
Titan State 16 Pad
Titan State 16-422H
Wellbore #1

Design: Actual

WPX Final Survey Report

06 December, 2018

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Project Reeves County, Texas (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Texas Central Zone		

Site Titan State 16 Pad

Site Position:		**Northing:**	10,563,768.14 usft	**Latitude:**	31.606463
From:	Map	**Easting:**	1,252,142.85 usft	**Longitude:**	-103.688789
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-1.73 °

Well Titan State 16-422H

Well Position	**+N/-S**	0.00 usft	**Northing:**	10,563,793.13 usft	**Latitude:**	31.606532
	+E/-W	0.00 usft	**Easting:**	1,252,143.57 usft	**Longitude:**	-103.688789
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	2,843.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/15/2018	6.97	59.23	47,318

Design Actual

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	181.68

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey Program **Date** 12/6/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	1,781.00	SDI MWD - Surface (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
1,877.00	10,270.00	SDI MWD - Intermediate (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
10,363.00	11,210.00	SDI MWD - Curve (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
11,270.00	15,797.00	SDI MWD - Lateral (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,563,793.13	1,252,143.57
200.00	0.52	335.36	200.00	0.82	-0.38	-0.81	0.91	335.36	10,563,793.95	1,252,143.19
307.00	0.53	356.55	306.99	1.76	-0.61	-1.74	1.86	340.87	10,563,794.89	1,252,142.96
362.00	0.63	351.77	361.99	2.31	-0.67	-2.29	2.41	343.87	10,563,795.44	1,252,142.90
513.00	0.77	340.72	512.98	4.09	-1.12	-4.06	4.24	344.66	10,563,797.22	1,252,142.45
606.00	0.82	314.75	605.97	5.15	-1.80	-5.10	5.46	340.72	10,563,798.28	1,252,141.77
698.00	0.61	283.82	697.96	5.73	-2.75	-5.65	6.35	334.41	10,563,798.86	1,252,140.82
789.00	0.85	238.42	788.96	5.49	-3.79	-5.38	6.67	325.40	10,563,798.62	1,252,139.78
879.00	1.30	205.38	878.94	4.22	-4.80	-4.08	6.39	311.35	10,563,797.35	1,252,138.77
970.00	1.76	200.21	969.91	1.98	-5.72	-1.81	6.05	289.07	10,563,795.11	1,252,137.85
1,061.00	0.92	212.24	1,060.88	0.05	-6.59	0.15	6.59	270.42	10,563,793.18	1,252,136.98
1,151.00	0.36	355.38	1,150.88	-0.28	-7.00	0.49	7.01	267.70	10,563,792.85	1,252,136.57
1,241.00	0.85	346.85	1,240.87	0.65	-7.18	-0.44	7.21	275.18	10,563,793.78	1,252,136.39
1,332.00	1.37	327.09	1,331.86	2.22	-7.92	-1.99	8.23	285.66	10,563,795.35	1,252,135.65
1,422.00	1.51	318.17	1,421.83	4.01	-9.30	-3.73	10.12	293.32	10,563,797.14	1,252,134.27
1,511.00	0.63	348.91	1,510.81	5.36	-10.17	-5.06	11.50	297.79	10,563,798.49	1,252,133.40
1,601.00	0.07	89.36	1,600.81	5.85	-10.21	-5.55	11.77	299.80	10,563,798.98	1,252,133.36
1,691.00	0.55	103.93	1,690.81	5.75	-9.74	-5.46	11.31	300.53	10,563,798.88	1,252,133.83
1,781.00	0.62	133.48	1,780.81	5.31	-8.97	-5.04	10.42	300.61	10,563,798.44	1,252,134.60
1,877.00	0.97	101.87	1,876.80	4.78	-7.79	-4.55	9.14	301.53	10,563,797.91	1,252,135.78

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
1,971.00	0.56	83.44	1,970.79	4.67	-6.56	-4.48	8.05	305.45	10,563,797.80	1,252,137.01
2,065.00	0.18	71.87	2,064.79	4.77	-5.96	-4.59	7.64	308.65	10,563,797.90	1,252,137.61
2,159.00	0.60	49.04	2,158.78	5.14	-5.45	-4.98	7.49	313.30	10,563,798.27	1,252,138.12
2,254.00	0.52	29.49	2,253.78	5.84	-4.86	-5.69	7.60	320.21	10,563,798.97	1,252,138.71
2,349.00	0.29	91.57	2,348.78	6.21	-4.41	-6.08	7.61	324.60	10,563,799.34	1,252,139.16
2,443.00	1.39	307.44	2,442.77	6.89	-5.08	-6.74	8.56	323.62	10,563,800.02	1,252,138.49
2,537.00	4.28	315.31	2,536.64	10.08	-8.45	-9.83	13.15	320.03	10,563,803.21	1,252,135.12
2,632.00	7.05	315.05	2,631.17	16.73	-15.06	-16.28	22.51	318.00	10,563,809.86	1,252,128.51
2,726.00	6.50	315.38	2,724.51	24.60	-22.88	-23.92	33.59	317.08	10,563,817.73	1,252,120.69
2,820.00	7.01	308.15	2,817.86	31.93	-31.13	-31.00	44.59	315.73	10,563,825.06	1,252,112.44
2,914.00	7.89	288.92	2,911.08	37.57	-41.74	-36.33	56.16	311.99	10,563,830.70	1,252,101.83
3,009.00	8.36	275.00	3,005.14	40.28	-54.79	-38.66	68.00	306.32	10,563,833.41	1,252,088.78
3,102.00	7.51	276.46	3,097.25	41.55	-67.56	-39.56	79.32	301.59	10,563,834.68	1,252,076.01
3,197.00	7.10	280.09	3,191.48	43.28	-79.51	-40.93	90.53	298.56	10,563,836.41	1,252,064.06
3,291.00	7.84	281.58	3,284.68	45.59	-91.51	-42.88	102.24	296.48	10,563,838.72	1,252,052.06
3,385.00	8.04	280.61	3,377.78	48.08	-104.26	-45.01	114.81	294.76	10,563,841.21	1,252,039.31
3,479.00	7.44	278.83	3,470.92	50.23	-116.73	-46.78	127.08	293.28	10,563,843.36	1,252,026.84
3,574.00	6.23	277.19	3,565.24	51.82	-127.92	-48.05	138.02	292.05	10,563,844.95	1,252,015.65
3,669.00	7.51	280.42	3,659.56	53.59	-139.14	-49.48	149.11	291.06	10,563,846.72	1,252,004.43
3,763.00	7.79	282.93	3,752.72	56.12	-151.39	-51.66	161.46	290.34	10,563,849.25	1,251,992.18
3,858.00	6.91	285.80	3,846.94	59.12	-163.17	-54.31	173.55	289.92	10,563,852.25	1,251,980.40
3,951.00	6.82	283.82	3,939.28	61.96	-173.91	-56.84	184.62	289.61	10,563,855.09	1,251,969.66
4,045.00	8.80	288.93	4,032.40	65.63	-186.14	-60.14	197.37	289.42	10,563,858.76	1,251,957.43
4,093.00	9.11	291.77	4,079.82	68.23	-193.14	-62.54	204.84	289.46	10,563,861.36	1,251,950.43
4,238.00	8.56	290.11	4,223.09	76.20	-213.93	-69.89	227.10	289.60	10,563,869.33	1,251,929.64
4,333.00	8.49	291.55	4,317.05	81.20	-227.09	-74.51	241.17	289.68	10,563,874.33	1,251,916.48
4,427.00	8.31	291.46	4,410.04	86.24	-239.87	-79.17	254.90	289.77	10,563,879.37	1,251,903.70

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
4,521.00	8.06	290.13	4,503.08	90.99	-252.38	-83.55	268.28	289.83	10,563,884.12	1,251,891.19
4,615.00	7.95	288.81	4,596.16	95.35	-264.72	-87.55	281.37	289.81	10,563,888.48	1,251,878.85
4,710.00	7.85	289.63	4,690.26	99.65	-277.05	-91.49	294.43	289.78	10,563,892.78	1,251,866.52
4,804.00	7.38	287.40	4,783.43	103.61	-288.86	-95.10	306.88	289.73	10,563,896.74	1,251,854.71
4,898.00	7.48	287.73	4,876.64	107.28	-300.44	-98.43	319.02	289.65	10,563,900.41	1,251,843.13
4,992.00	7.35	286.76	4,969.86	110.88	-312.03	-101.68	331.14	289.56	10,563,904.01	1,251,831.54
5,086.00	6.85	286.47	5,063.14	114.20	-323.16	-104.68	342.75	289.46	10,563,907.33	1,251,820.41
5,180.00	6.43	285.98	5,156.51	117.24	-333.60	-107.41	353.60	289.36	10,563,910.37	1,251,809.97
5,274.00	6.22	286.19	5,249.93	120.11	-343.55	-109.99	363.94	289.27	10,563,913.24	1,251,800.02
5,369.00	6.26	286.21	5,344.37	122.99	-353.46	-112.57	374.25	289.19	10,563,916.12	1,251,790.11
5,463.00	6.03	287.58	5,437.83	125.91	-363.09	-115.21	384.30	289.13	10,563,919.04	1,251,780.48
5,557.00	6.24	284.30	5,531.29	128.67	-372.75	-117.68	394.33	289.04	10,563,921.80	1,251,770.82
5,651.00	5.98	282.65	5,624.76	131.00	-382.48	-119.73	404.29	288.91	10,563,924.13	1,251,761.09
5,745.00	5.86	282.48	5,718.26	133.11	-391.94	-121.56	413.93	288.76	10,563,926.24	1,251,751.63
5,839.00	6.60	289.46	5,811.70	135.95	-401.72	-124.11	424.10	288.70	10,563,929.08	1,251,741.85
5,933.00	6.25	290.46	5,905.11	139.53	-411.61	-127.41	434.61	288.73	10,563,932.66	1,251,731.96
6,027.00	6.54	293.45	5,998.53	143.45	-421.31	-131.04	445.06	288.80	10,563,936.58	1,251,722.26
6,121.00	6.54	290.55	6,091.92	147.46	-431.24	-134.76	455.75	288.88	10,563,940.59	1,251,712.33
6,216.00	6.95	293.61	6,186.26	151.66	-441.57	-138.65	466.89	288.96	10,563,944.79	1,251,702.00
6,310.00	7.28	294.80	6,279.53	156.44	-452.19	-143.11	478.48	289.08	10,563,949.57	1,251,691.38
6,404.00	8.26	295.49	6,372.67	161.84	-463.69	-148.18	491.12	289.24	10,563,954.97	1,251,679.88
6,498.00	9.44	287.97	6,465.55	167.13	-477.12	-153.07	505.54	289.30	10,563,960.26	1,251,666.45
6,592.00	8.12	287.14	6,558.45	171.46	-490.79	-157.00	519.88	289.26	10,563,964.59	1,251,652.78
6,687.00	7.17	283.10	6,652.60	174.78	-502.98	-159.96	532.48	289.16	10,563,967.91	1,251,640.59
6,781.00	8.19	286.88	6,745.76	178.06	-515.10	-162.88	545.01	289.07	10,563,971.19	1,251,628.47
6,875.00	9.14	289.70	6,838.69	182.52	-528.54	-166.94	559.16	289.05	10,563,975.65	1,251,615.03
6,970.00	8.14	289.00	6,932.61	187.25	-542.00	-171.28	573.43	289.06	10,563,980.38	1,251,601.57

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
7,064.00	7.50	287.74	7,025.73	191.29	-554.14	-174.96	586.22	289.04	10,563,984.42	1,251,589.43
7,158.00	8.67	290.69	7,118.80	195.66	-566.61	-178.96	599.44	289.05	10,563,988.79	1,251,576.96
7,252.00	9.34	290.12	7,211.64	200.79	-580.40	-183.69	614.15	289.08	10,563,993.92	1,251,563.17
7,346.00	7.74	288.34	7,304.59	205.40	-593.57	-187.91	628.10	289.09	10,563,998.53	1,251,550.00
7,440.00	7.12	293.89	7,397.80	209.75	-604.90	-191.93	640.24	289.12	10,564,002.88	1,251,538.67
7,535.00	7.72	297.50	7,492.01	215.08	-615.95	-196.93	652.42	289.25	10,564,008.21	1,251,527.62
7,629.00	7.75	290.57	7,585.16	220.23	-627.48	-201.74	665.01	289.34	10,564,013.36	1,251,516.09
7,723.00	6.07	292.67	7,678.47	224.37	-638.00	-205.57	676.30	289.38	10,564,017.50	1,251,505.57
7,817.00	6.68	289.45	7,771.89	228.11	-647.74	-209.02	686.73	289.40	10,564,021.24	1,251,495.83
7,911.00	6.76	292.95	7,865.24	232.08	-657.99	-212.69	697.72	289.43	10,564,025.21	1,251,485.58
8,005.00	6.35	290.42	7,958.63	236.05	-667.96	-216.37	708.44	289.46	10,564,029.18	1,251,475.61
8,101.00	7.41	290.37	8,053.94	240.06	-678.74	-220.06	719.94	289.48	10,564,033.19	1,251,464.83
8,196.00	6.78	277.68	8,148.21	242.94	-690.04	-222.61	731.56	289.40	10,564,036.07	1,251,453.53
8,290.00	5.46	275.33	8,241.68	244.10	-699.99	-223.47	741.33	289.22	10,564,037.23	1,251,443.58
8,385.00	7.47	282.66	8,336.07	245.87	-710.52	-224.94	751.86	289.09	10,564,039.00	1,251,433.05
8,479.00	9.35	284.28	8,429.05	249.10	-723.88	-227.77	765.54	288.99	10,564,042.23	1,251,419.69
8,573.00	7.27	284.12	8,522.06	252.43	-737.05	-230.71	779.08	288.91	10,564,045.56	1,251,406.52
8,667.00	8.16	283.84	8,615.21	255.48	-749.30	-233.40	791.65	288.83	10,564,048.61	1,251,394.27
8,762.00	9.90	287.06	8,709.03	259.49	-763.65	-236.99	806.53	288.77	10,564,052.62	1,251,379.92
8,856.00	8.97	285.48	8,801.76	263.81	-778.44	-240.88	821.93	288.72	10,564,056.94	1,251,365.13
8,951.00	7.74	285.78	8,895.75	267.53	-791.73	-244.20	835.71	288.67	10,564,060.66	1,251,351.84
9,045.00	8.27	291.49	8,988.83	271.73	-804.11	-248.04	848.78	288.67	10,564,064.86	1,251,339.46
9,139.00	7.29	294.37	9,081.97	276.67	-815.84	-252.63	861.47	288.73	10,564,069.80	1,251,327.73
9,233.00	7.02	288.50	9,175.24	280.95	-826.72	-256.59	873.15	288.77	10,564,074.08	1,251,316.85
9,328.00	5.72	292.94	9,269.65	284.64	-836.58	-259.99	883.68	288.79	10,564,077.77	1,251,306.99
9,423.00	5.00	293.50	9,364.23	288.13	-844.74	-263.24	892.53	288.83	10,564,081.26	1,251,298.83
9,517.00	5.99	283.27	9,457.80	290.89	-853.27	-265.75	901.49	288.83	10,564,084.02	1,251,290.30

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
9,610.00	5.56	282.97	9,550.33	293.02	-862.38	-267.61	910.80	288.77	10,564,086.15	1,251,281.19
9,704.00	4.46	284.44	9,643.97	294.95	-870.36	-269.31	918.98	288.72	10,564,088.08	1,251,273.21
9,799.00	3.41	286.68	9,738.74	296.68	-876.64	-270.86	925.49	288.70	10,564,089.81	1,251,266.93
9,893.00	2.13	303.06	9,832.63	298.44	-880.79	-272.49	929.97	288.72	10,564,091.57	1,251,262.78
9,987.00	1.24	341.85	9,926.59	300.36	-882.57	-274.35	932.28	288.79	10,564,093.49	1,251,261.00
10,082.00	0.92	2.28	10,021.58	302.10	-882.86	-276.08	933.11	288.89	10,564,095.23	1,251,260.71
10,176.00	0.60	20.56	10,115.57	303.31	-882.65	-277.30	933.32	288.96	10,564,096.44	1,251,260.92
10,270.00	0.60	46.32	10,209.56	304.11	-882.13	-278.12	933.08	289.02	10,564,097.24	1,251,261.44
10,363.00	2.41	179.61	10,302.54	302.49	-881.76	-276.51	932.20	288.93	10,564,095.62	1,251,261.81
10,371.76	3.35	183.29	10,311.28	302.05	-881.77	-276.07	932.07	288.91	10,564,095.18	1,251,261.80
Titan16-422H POP										
10,457.00	12.63	190.17	10,395.61	290.37	-883.57	-264.34	930.06	288.19	10,564,083.50	1,251,260.00
10,550.00	19.92	191.56	10,484.82	264.81	-888.54	-238.64	927.16	286.60	10,564,057.94	1,251,255.03
10,645.00	30.47	189.17	10,570.67	225.06	-895.64	-198.70	923.49	284.11	10,564,018.19	1,251,247.93
10,739.00	39.69	184.62	10,647.52	171.49	-901.88	-144.97	918.03	280.77	10,563,964.62	1,251,241.69
10,780.35	43.26	184.64	10,678.50	144.20	-904.09	-117.63	915.51	279.06	10,563,937.33	1,251,239.48
FTP Actual 10780.35' MD - Titan16-422H FTP										
10,832.00	47.71	184.66	10,714.70	107.50	-907.07	-80.86	913.42	276.76	10,563,900.63	1,251,236.50
10,927.00	54.32	187.66	10,774.44	34.14	-915.08	-7.30	915.71	272.14	10,563,827.27	1,251,228.49
11,022.00	61.51	184.15	10,824.88	-45.86	-923.25	72.90	924.39	267.16	10,563,747.27	1,251,220.32
11,116.00	69.83	181.79	10,863.58	-131.31	-927.63	158.45	936.88	261.94	10,563,661.82	1,251,215.94
11,210.00	81.36	185.22	10,886.93	-222.01	-933.26	249.28	959.30	256.62	10,563,571.12	1,251,210.31
11,270.00	88.32	187.26	10,892.33	-281.38	-939.75	308.81	980.97	253.33	10,563,511.75	1,251,203.82
11,364.00	87.69	184.04	10,895.60	-374.85	-949.00	402.51	1,020.35	248.45	10,563,418.28	1,251,194.57
11,459.00	87.95	183.73	10,899.21	-469.56	-955.43	497.37	1,064.59	243.83	10,563,323.57	1,251,188.14
11,554.00	91.61	182.94	10,899.58	-564.38	-960.96	592.31	1,114.44	239.57	10,563,228.75	1,251,182.61
11,648.00	92.32	182.21	10,896.36	-658.23	-965.18	686.25	1,168.26	235.71	10,563,134.90	1,251,178.39

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Titan State 16-422H
Project:	Reeves County, Texas (NAD83)	**TVD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Site:	Titan State 16 Pad	**MD Reference:**	GL 2843 + KB 28 = @ 2871.00usft (Patt. 565)
Well:	Titan State 16-422H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
11,743.00	88.72	180.74	10,895.49	-753.18	-967.62	781.22	1,226.20	232.10	10,563,039.95	1,251,175.95
11,838.00	88.52	180.58	10,897.78	-848.15	-968.72	876.18	1,287.54	228.80	10,562,944.98	1,251,174.85
11,933.00	89.80	180.71	10,899.17	-943.13	-969.79	971.15	1,352.77	225.80	10,562,850.00	1,251,173.78
12,028.00	89.90	180.41	10,899.42	-1,038.12	-970.72	1,066.13	1,421.26	223.08	10,562,755.01	1,251,172.85
12,123.00	90.87	180.49	10,898.78	-1,133.12	-971.46	1,161.11	1,492.54	220.61	10,562,660.01	1,251,172.11
12,217.00	91.37	180.58	10,896.95	-1,227.09	-972.34	1,255.07	1,565.63	218.39	10,562,566.04	1,251,171.23
12,312.00	89.70	178.88	10,896.06	-1,322.08	-971.89	1,350.01	1,640.88	216.32	10,562,471.05	1,251,171.68
12,407.00	90.47	180.49	10,895.92	-1,417.08	-971.37	1,444.95	1,718.04	214.43	10,562,376.05	1,251,172.20
12,502.00	91.14	180.48	10,894.58	-1,512.06	-972.17	1,539.91	1,797.62	212.74	10,562,281.07	1,251,171.40
12,596.00	90.54	180.82	10,893.21	-1,606.05	-973.24	1,633.89	1,877.92	211.22	10,562,187.08	1,251,170.33
12,689.00	91.24	183.28	10,891.76	-1,698.97	-976.57	1,726.87	1,959.64	209.89	10,562,094.16	1,251,167.00
12,784.00	90.74	182.85	10,890.12	-1,793.82	-981.64	1,821.83	2,044.85	208.69	10,561,999.31	1,251,161.93
12,879.00	90.20	181.91	10,889.34	-1,888.73	-985.59	1,916.81	2,130.42	207.56	10,561,904.40	1,251,157.98
12,973.00	90.70	181.76	10,888.60	-1,982.68	-988.60	2,010.81	2,215.48	206.50	10,561,810.45	1,251,154.97
13,068.00	91.08	181.46	10,887.13	-2,077.63	-991.27	2,105.80	2,301.99	205.51	10,561,715.50	1,251,152.30
13,162.00	91.78	181.39	10,884.78	-2,171.57	-993.60	2,199.77	2,388.09	204.59	10,561,621.56	1,251,149.97
13,256.00	89.80	180.73	10,883.48	-2,265.54	-995.34	2,293.75	2,474.55	203.72	10,561,527.59	1,251,148.23
13,350.00	89.80	180.36	10,883.81	-2,359.54	-996.24	2,387.73	2,561.23	202.89	10,561,433.59	1,251,147.33
13,444.00	89.03	181.41	10,884.77	-2,453.52	-997.69	2,481.71	2,648.61	202.13	10,561,339.61	1,251,145.88
13,538.00	89.30	180.78	10,886.14	-2,547.49	-999.48	2,575.70	2,736.54	201.42	10,561,245.64	1,251,144.09
13,633.00	88.39	180.30	10,888.06	-2,642.47	-1,000.38	2,670.66	2,825.49	200.74	10,561,150.66	1,251,143.19
13,728.00	90.64	181.66	10,888.86	-2,737.44	-1,002.00	2,765.64	2,915.06	200.10	10,561,055.69	1,251,141.57
13,823.00	91.11	181.96	10,887.41	-2,832.38	-1,005.01	2,860.63	3,005.40	199.54	10,560,960.75	1,251,138.56
13,918.00	91.44	182.00	10,885.30	-2,927.30	-1,008.29	2,955.60	3,096.08	199.01	10,560,865.83	1,251,135.28
14,012.00	91.14	181.45	10,883.18	-3,021.23	-1,011.12	3,049.58	3,185.94	198.50	10,560,771.90	1,251,132.45
14,106.00	90.80	180.43	10,881.59	-3,115.21	-1,012.66	3,143.56	3,275.67	198.01	10,560,677.92	1,251,130.91
14,201.00	91.27	180.09	10,879.87	-3,210.19	-1,013.09	3,238.51	3,366.25	197.51	10,560,582.94	1,251,130.48

API No. 42-389-37498
Drilling Permit # 843726
SWR Exception Case/Docket No.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

FORM W-1 07/2004

Permit Status: Approved

1. RRC Operator No.	2. Operator's Name (as shown on form P-5, Organization Report)	3. Operator Address (include street, city, state, zip):
942623	WPX ENERGY PERMIAN, LLC	3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000

4. Lease Name	5. Well No.
TITAN STATE 16	422H

GENERAL INFORMATION

6. Purpose of filing (mark ALL appropriate boxes): [X] New Drill [ ] Recompletion [ ] Reclass [ ] Field Transfer [ ] Re-Enter [ ] Amended [ ] Amended as Drilled (BHL) (Also File Form W-1D)

7. Wellbore Profile (mark ALL appropriate boxes): [ ] Vertical [X] Horizontal (Also File Form W-1H) [ ] Directional (Also File Form W-1D) [ ] Sidetrack

8. Total Depth: 16000

9. Do you have the right to develop the minerals under any right-of-way ? [X] Yes [ ] No

10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? [X] Yes [ ] No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No.: 08

12. County: REEVES

13. Surface Location: [X] Land [ ] Bay/Estuary [ ] Inland Waterway [ ] Offshore

14. This well is to be located 16.9 miles in a NW direction from Pecos which is the nearest town in the county of the well site.

15. Section	16. Block	17. Survey	18. Abstract No.	19. Distance to nearest lease line:	20. Number of contiguous acres in lease, pooled unit, or unitized tract:
16	54 T4S	T&P RR CO / INGLE, F B	A-5771	200 ft.	640

21. Lease Perpendiculars: 345 ft from the NORTH line and 235 ft from the EAST line.

22. Survey Perpendiculars: 345 ft from the NORTH line and 235 ft from the EAST line.

23. Is this a pooled unit? [ ] Yes [X] No

24. Unitization Docket No:

25. Are you applying for Substandard Acreage Field? [ ] Yes (attach Form W-1A) [X] No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	71052900	PHANTOM (WOLFCAMP)	Oil or Gas Well	16000	420.00	4

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)

Remarks

[RRC STAFF Aug 17, 2018 1:19 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Aug 20, 2018 12:26 PM]: Problems identified with this permit are resolved. Revised plat uploaded.; [RRC STAFF Aug 20, 2018 1:54 PM]: Distance to nearest well corrected per plat.

Certificate:

I certify that information stated in this application is true and complete, to the best of my knowledge.

Larry Rader, Regulatory Specialist — Name of filer
Aug 17, 2018 — Date submitted

(539)573-3543 — Phone
larry.rader@wpxenergy.com — E-mail Address (OPTIONAL)

RRC Use Only Data Validation Time Stamp: Aug 23, 2018 1:54 PM(Current Version)

Permit Status:	Approved
The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.	

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

Form W-1H 07/2004
Supplemental Horizontal Well Information

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

Permit #	843726
Approved Date:	Aug 20, 2018

1. RRC Operator No.	2. Operator's Name (exactly as shown on form P-5, Organization Report)	3. Lease Name	4. Well No.
942623	WPX ENERGY PERMIAN, LLC	TITAN STATE 16	422H

Lateral Drainhole Location Information

5. Field as shown on Form W-1: PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)

6. Section	7. Block	8. Survey	9. Abstract	10. County of BHL
16	54 T4S	T&P RR CO / CLAYTON, B	2864	REEVES

11. Terminus Lease Line Perpendiculars
100 ft. from the South line and 1170 ft. from the East line

12. Terminus Survey Line Perpendiculars
100 ft. from the South line and 1170 ft. from the East line

13. Penetration Point Lease Line Perpendiculars
50 ft. from the North line and 1170 ft. from the East line

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
843726	Aug 20, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-389-37498	Aug 17, 2018	REEVES
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	640

OPERATOR 942623

WPX ENERGY PERMIAN, LLC

3500 ONE WILLIAMS CENTER MD-35
TULSA, OK 74172-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
TITAN STATE 16	422H
LOCATION	TOTAL DEPTH
16.9 miles NW direction from PECOS	16000

Section, Block and/or Survey

SECTION 16 BLOCK 54 T4S ABSTRACT 5771

SURVEY T&P RR CO / INGLE, F B

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
345 ft. NORTH 235 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
345 ft. NORTH 235 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
PHANTOM (WOLFCAMP)	640.00	16,000	422H	08
TITAN STATE 16	200		420	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: If this well is drilled and completed then acreage from existing wells will need to be reassigned in order to bring the lease/unit into compliance.
This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office.
Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 50.0 F NORTH L
1170.0 F EAST L
Terminus Location
BH County: REEVES
Section: 16 Block: 54 T4S Abstract: 2864
Survey: T&P RR CO / CLAYTON, B
Lease Lines: 100.0 F SOUTH L
1170.0 F EAST L
Survey Lines: 100.0 F SOUTH L
1170.0 F EAST L

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
843726	Aug 20, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-389-37498	Aug 17, 2018	REEVES
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	640

OPERATOR	NOTICE
942623 WPX ENERGY PERMIAN, LLC 3500 ONE WILLIAMS CENTER MD-35 TULSA, OK 74172-0000	This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. **District Office Telephone No:** (432) 684-5581

LEASE NAME	WELL NUMBER
TITAN STATE 16	422H
LOCATION	TOTAL DEPTH
16.9 miles NW direction from PECOS	16000

Section, Block and/or Survey

SECTION 16 BLOCK 54 T4S ABSTRACT 5771

SURVEY T&P RR CO / INGLE, F B

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
345 ft. NORTH 235 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
345 ft. NORTH 235 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH	WELL # NEAREST WE	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.

7.26.19

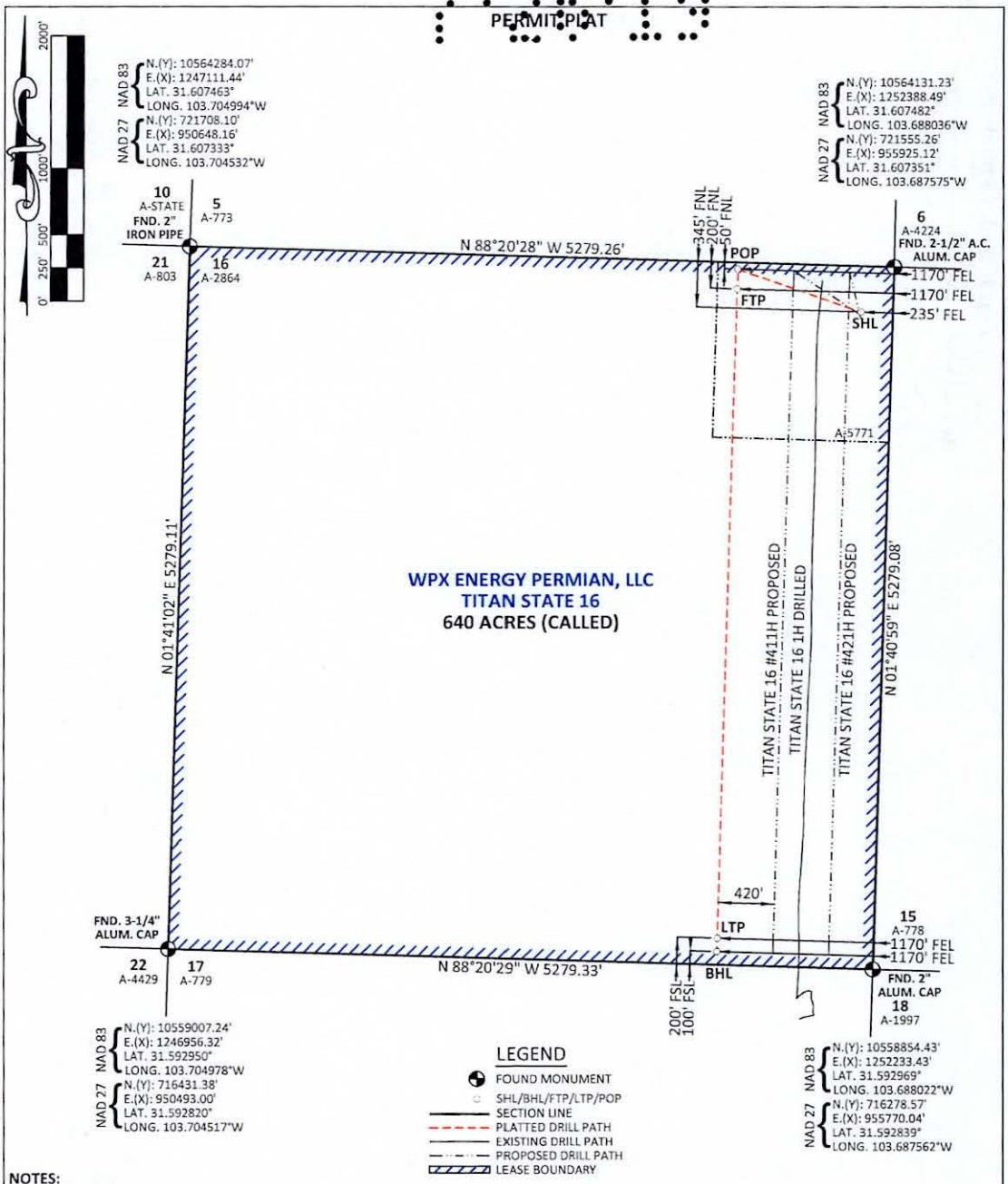
RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
SWR #13 Formation Data

REEVES (389) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
FORD-DELAWARE	2,500	2,500		1	12/17/2013
CASTILLE	2,800	2,800		2	12/17/2013
BELL CANYON	4,800	5,000		3	12/17/2013
DELAWARE	2,500	5,700		4	12/17/2013
DELAWARE CONSOLIDATED GAS	6,500	6,500		5	12/17/2013
CHERRY CANYON	3,800	7,800		6	12/17/2013
BONE SPRINGS	7,500	9,800		7	12/17/2013
PERMIAN	11,300	11,300		8	12/17/2013
WOLFCAMP	10,000	12,300		9	12/17/2013
PENNSYLVANIAN	11,000	14,900		10	12/17/2013
MISSISSIPPIAN	10,000	16,000		11	12/17/2013
DEVONIAN	13,600	17,800		12	12/17/2013
FUSSELMAN	14,000	17,800		13	12/17/2013
ELLENBURGER	15,000	20,800		14	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.
http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

PERMIT PLAT



NOTES:
UN-GRADED GROUND ELEVATION AT SHL: 2842.93'
THIS LOCATION IS APPROXIMATELY 16.9 MILES N.41°W. OF PECOS, TEXAS.
BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°44'26.50" AND A COMBINED SCALE FACTOR OF 0.99980519 BASED ON CONTROL POINT S S10 55 T-4 AT N. 10564429.832' - E. 1244642.724'.
UNITS REPRESENTED ON THIS PLAT ARE IN US SURVEY FEET.

	SURFACE HOLE		POINT OF PENETRATION		FIRST TAKE POINT		LAST TAKE POINT		BOTTOM HOLE	
	FOOTAGE: 345' FNL & 235' FEL		FOOTAGE: 50' FNL & 1170' FEL		FOOTAGE: 200' FNL & 1170' FEL		FOOTAGE: 200' FSL & 1170' FEL		FOOTAGE: 100' FSL & 1170' FEL	
GEOGRAPHIC NAD 83	LAT.	31.606532°N	LAT.	31.607340°N	LAT.	31.606928°N	LAT.	31.593515°N	LAT.	31.593240°N
GEOGRAPHIC NAD 27	LONG.	103.688789°W	LONG.	103.691794°W	LONG.	103.691793°W	LONG.	103.691781°W	LONG.	103.691780°W
GEOGRAPHIC NAD 83	LAT.	31.606402°N	LAT.	31.607210°N	LAT.	31.606798°N	LAT.	31.593384°N	LAT.	31.593110°N
GEOGRAPHIC NAD 27	LONG.	103.688328°W	LONG.	103.691333°W	LONG.	103.691332°W	LONG.	103.691320°W	LONG.	103.691319°W
STATE PLANE TEXAS CENT. NAD 83	NORTH	10563793.13	NORTH	10564115.12	NORTH	10563965.19	NORTH	10559088.21	NORTH	10558988.25
STATE PLANE TEXAS CENT. NAD 83	EAST	1252143.57	EAST	1251217.51	EAST	1251213.11	EAST	1251069.80	EAST	1251066.86
STATE PLANE TEXAS CENT. NAD 27	NORTH	721217.17	NORTH	721539.16	NORTH	721389.22	NORTH	716512.35	NORTH	716412.39
STATE PLANE TEXAS CENT. NAD 27	EAST	955680.21	EAST	954754.16	EAST	954749.75	EAST	954606.42	EAST	954603.48

STATE OF TEXAS
REGISTERED
ALBERT R. DEHOYOS
6725
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY. IF ANY ALTERATIONS ARE MADE, (HAND DRAWN, HANDWRITTEN OR DIGITAL ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

8/20/2018

ALBERT R. DEHOYOS TEXAS RPLS No. 6725		DATE
DRAWN BY: CED	CHECKED BY: ARD	SURVEY DATE: 08/06/2018
SCALE: 1"=1000'	JOB NUMBER: 17021	SHEET 1 OF 1

WHS
ENGINEERING · SURVEYING · PLANNING
550 EAST 2ND NORTH, GREEN RIVER, WY 82935 PHONE: 307-875-3638
www.whsmithpc.com
TEXAS FIRM REGISTRATION No. 10193907

WPXENERGY

LEASE NAME AND WELL NUMBER:
TITAN STATE 16 #422H
DESCRIPTION:
SECTION 16, BLOCK 54, T4, T.&P. RR COMPANY SURVEY, REEVES COUNTY, TEXAS

File No. MF1165554 38

Reeves County

Completion Report API 42-389-37498

Date Filed: 9/17/19

George P. Bush, Commissioner

By

WPXENERGY

WPX ENERGY PERMIAN, LLC
PO BOX 21358
TULSA, OK 74121-1358

19701575

COMPANY NUMBER: 3035

CHECK NUMBER: 3035018591

PAY DATE	SUPPLIER NO.	SUPPLIER NAME	CHECK TOTAL
Oct 2, 2018	401460	TEXAS GENERAL LAND OFFICE	$7,521.00

Invoice Date	Invoice / Credit Memo Invoice Description	Gross	Discount	Net
* Sep 27, 2018	Inv Num: 27-SEP-2018 Inv Desc: CRUDE GAS & SWD EASEMENTS FOR THE TITAN STATE 16 WELLS IN SEC 16 BLK 54 T4 REEVE	* $7,521.00	* $0.00	* $7,521.00
		Page Totals	$0.00	$7,521.00

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Supplier Support 1-866-581-4981

October 4, 2018

Franci Willard
franci.willard@wpxenergy.com
3500 One Williams Center, MD35
P. O. Box 3102
Tulsa, OK 74101-3102
Phone: (539) 573-0060

Via FedEx: 7734 0206 4238

Texas General Land Office
Attn: Brice Finley, Leasing Operations
1700 North Congress Avenue
Austin, TX 78701-1495

Re: Titan State 16
WPX Energy Permian, LLC
Section 16, Block 54 T4, T&P Survey, Reeves Co., Texas

Enclosed please find Check No. 3035018591 in the amount of $7,521.00 as consideration paid for the State of Texas' share of the following:

Description	GLO
Titan State 16 - 5" Crude Line – 25.07 rods	$2,507.00
Titan State 16 - 8" Gas Line – 4.16 rods	$2,507.00
Titan State 16 -8" SWD Line – 45.98 rods	$4,598.00
	$7,521.00

If you should have any questions, please contact Andrew Wenzel at (539) 573-3564 or andrew.wenzel@wpxenergy.com.

Best Regards,

Franci Willard

Franci Willard
Sr. Land Data Tech
Surface Land - Permian

Enclosures

Description	Distance (rods)	Area (sq. ft.)	Cost (per ac or rod)	Total Cost	Wolfcamp Royalties	GLO	Notes
Titan State 16 Crude line	413.68FT/25.07 Rods	0.00	$200.00	$5,014.00	$2,507.00	$2,507.00	We have agreed to $200.00 a rod for a perpetual easement
Titan State 16 Gas line	68.61FT/4.16 Rods		$200.00	$832.00	$416.00	$416.00	We have agreed to $200.00 a rod for a perpetual easement
Titan State 16 SWD line	758.60FT/45.98 Rods		$200.00	$9,196.00	$4,598.00	$4,598.00	We have agreed to $200.00 a rod for a perpetual easement
			TOTAL	**$15,042.00**	**$7,521.00**	**$7,521.00**	

File No. MF116554

County

Surface Use Pmt

Date Filed: 3-29-2021

George P. Bush, Commissioner

By VB

10.2.19

WPX ENERGY PERMIAN LLC
PO BOX 21358
TULSA OK 74121-1358

19708592

Company Number: 3035
CHECK NUMBER: 3035031612

PAY DATE	SUPPLIER NO.	SUPPLIER NAME	CHECK TOTAL
Mar 25, 2019	401460	TEXAS GENERAL LAND OFFICE	$500.00

Invoice Date	Invoice No.	Invoice / Credit Memo Invoice Description	Gross	Discount	Net
03/22/2019	22-MAR-2019	4.26 ROD 6 GAS PIPELINE IN THE NE4 SEC 16 BLK 54 T4 T&P RR CO SVY REEVES CO TX FOR THE TITAN STA...	$500.00	$0.00	$500.00
		Totals	$500.00	$0.00	$500.00

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Supplier Support 1-866-581-4981

WPXENERGY

March 27, 2019

Franci Willard
franci.willard@wpxenergy.com
3500 One Williams Center, MD35
P. O. Box 3102
Tulsa, OK 74101-3102
Phone: (539) 573-0060

Via FedEx: 7748 1687 6340

Texas General Land Office
Attn: Jason Smalley, Leasing Operations
1700 North Congress Avenue
Austin, TX 78701-1495

Re: Consideration payment
6" Gas Pipeline – 4.26 rods
NE4 Section 16, Block 54 T4, T&P RR Co. Survey
Reeves County, Texas
Titan State 16-411H, 421H & 422H wells

Enclosed find check no. 3035031612 in the amount of $500.00 representing the State of Texas' share of consideration paid to landowner Wolfcamp Royalty Partners, LLC for the above referenced Easements in Section 6.

If you should have any questions, please contact Andrew Wenzel at (539) 573-3564 or andrew.wenzel@wpxenergy.com.

Best Regards,

Franci Willard

Franci Willard
Sr. Land Data Tech
Surface Land - Permian

Enclosures

File No. MF116554

County

Surface Damage Pmt

Date Filed: 3-29-2021

George P. Bush, Commissioner

By VG

3-29-21

3-29-21

WPXENERGY

WPX ENERGY PERMIAN LLC
PO BOX 21358
TULSA OK 74121-1358

19713166

Company Number: 3035
CHECK NUMBER: 3035033655

PAY DATE	SUPPLIER NO.	SUPPLIER NAME	CHECK TOTAL
Jul 18, 2019	401460	TEXAS GENERAL LAND OFFICE	$300.00

Invoice Date	Invoice No.	Invoice / Credit Memo Invoice Description	Gross	Discount	Net
07/17/2019	17-JUL-2019	3.46 ROD ROAD EASEMENT IN SEC 18, BLK 54 T4, T&P RR CO SVY, REEVES CO TX FOR THE FIVER STATE 18-2...	$300.00	$0.00	$300.00
				Totals	$300.00	$0.00	$300.00

MF116554

156

Supplier Support 1-866-581-4981

July 18, 2019

Franci Willard
franci.willard@wpxenergy.com
3500 One Williams Center, MD35
P. O. Box 3102
Tulsa, OK 74101-3102
Phone: (539) 573-0060

Via FedEx: 7757 9042 1828

Texas General Land Office
Attn: Jason Smalley, Leasing Operations
1700 North Congress Avenue
Austin, TX 78701-1495

Re: Consideration payment
Road Easement – 3.46 rods
NW4 Section 18, Block 54 T4, T&P RR Co. Survey
Reeves County, Texas
Titan State 16-411H, 421H & 422H wells

Enclosed find check no. 3035033655 in the amount of $300.00 representing the State of Texas' share of consideration paid to landowner Nancy Dean Investment Corporation for the above referenced lease road in Section 18.

If you should have any questions, please contact Andrew Wenzel at (539) 573-3564 or andrew.wenzel@wpxenergy.com.

Best Regards,

Franci Willard

Franci Willard
Sr. Land Data Tech
Surface Land - Permian

Enclosures

File No. MF116554

County

Surface Damage Pmt

Date Filed: 3-29-2021

George P. Bush, Commissioner

By VB

DocuSign Envelope ID: 68E26C1E-58C9-48DF-AFF9-13906370173E

MEMORANDUM

TEXAS GENERAL LAND OFFICE • GEORGE P. BUSH • COMMISSIONER

DATE: **September 21, 2021** **PSA# 00413**

TO: **School Land Board**

FROM: **Pooling Committee**

SUBJECT: **Request from WPX Energy Permian, LLC to have the State enter into a Production Sharing Agreement for drilling of the Titan State 5-16 allocation wells.**

- **WPX Energy Permian, LLC** is the operator of the Titan State 16 Unit, GLO Unit number 8343, which includes State Leases MF116554, MF116791, and MF118163, in which the State has a royalty interest, and they are requesting that the royalty owners sign a Production Sharing Agreement, which the School Land Board has the authority to approve pursuant to Texas Natural Resources Code §52.154.
- The Production Sharing Agreement will allow the operator to drill one or more allocation wells which traverse State Unit 8343.
- The State's participation in the sharing wells will be based on productive lateral length from first take point to last take point.

POOLING COMMITTEE RECOMMENDATION:

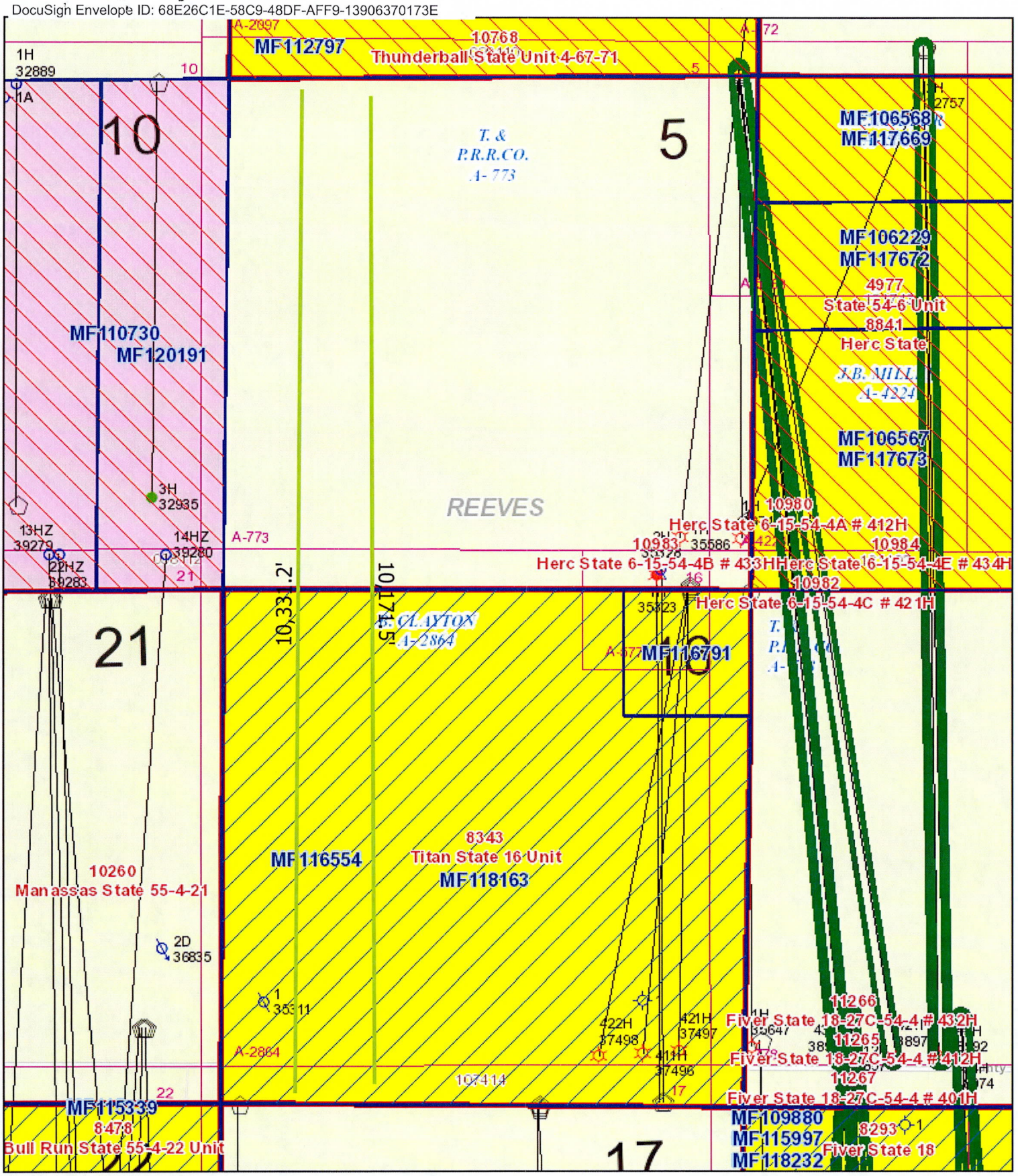
The Pooling Committee recommends Board approval of the Production Sharing Agreement.

DocuSigned by:
6C1630CFDF2E4D3...
General Land Office — 9/10/2021 Date

DocuSigned by:
Catarina Gonzales
EE8EA19C5EF64CC...
Office of the Governor — 9/14/2021 Date

Office of the Governor — Date

DocuSign Envelope ID: 68E26C1E-58C9-48DF-AFF9-13906370173E



GLO Land/Lease Mapping Viewer

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Print Date: 9/9/2021

PRODUCTION SHARING AGREEMENT

STATE OF TEXAS §
§ KNOW ALL PERSONS BY THESE PRESENTS:
COUNTY OF REEVES §

The undersigned parties (collectively "Interest Owners" or individually an "Interest Owner") enter into this Production Sharing Agreement ("Agreement") concerning their interest in the oil, gas and mineral leases, minerals, royalties and/or executive rights (collectively "Mineral Interests" or individually a "Mineral Interest") in and under the following lands (the "Subject Lands"):

- Section 16, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to the base of the Wolfcamp formation. The Subject Lands are currently pooled as to these depths into GLO Unit No. 8343, the Titan State 16 Unit.

The Interest Owners wish to encourage further development of the Subject Lands via the drilling of horizontal oil and/or gas wells in order to:

(a) prevent physical and economic waste and the drilling of unnecessary wells, and to increase the ultimate recovery of hydrocarbons from the Subject Lands; and

(b) protect the correlative rights of all Interest Owners so that each may receive his or her fair share of the oil and gas produced from the Subject Lands.

The Interest Owners recognize that it is advantageous for some such horizontal wells to be drilled and completed partially on the Subject Lands and partially on adjoining lands and agree that a basis for allocating production from such horizontal wells should be established.

NOW THEREFORE, each of the Interest Owners, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, do hereby agree to the following:

1. For purposes of this Agreement, the following definitions apply:

   a. "Field Interval" is the correlative geologic interval which has been defined or recognized by the Railroad Commission of Texas as the interval for the field in which a Horizontal Well has been completed.

   b. "Horizontal Well" is an oil or gas well with one or more drainholes with a horizontal displacement of at least 100 feet within the Field Interval

   c. "Horizontal Drainhole" is the portion of the Horizontal Well drilled

within the Field Interval.

d. "Take Point" is any point along a Horizontal Drainhole where hydrocarbons can enter the wellbore from the Field Interval and be produced.

e. "Productive Drainhole Length" is the horizontal length of a Horizontal Drainhole that begins at the first Take Point and runs along the actually surveyed wellbore path to the last Take Point. If a Sharing Well has more than one Horizontal Drainhole, the Productive Drainhole Length shall be the sum of such horizontal lengths of all such Horizontal Drainholes.

f. "Sharing Well" is a Horizontal Well with a Productive Drainhole Length located partially on the Subject Lands and partially on Section 5, Block 54 T-4, Reeves County, Texas.

2. An Interest Owner shall share in production of oil and gas from a Sharing Well on the basis of his or her ownership interest in the Subject Lands multiplied by an "Allocation Factor," such Allocation Factor being defined as a fraction, the numerator of which is equal to the length of that portion of the Productive Drainhole Length lying within the Subject Lands, and the denominator being the total Productive Drainhole Length.

3. Operations on or production from each Sharing Well shall be treated as actual operations on or production from the Subject Lands, provided, however, that production shall be allocated to the Subject Lands in accordance with Paragraph 2, immediately above. Moreover, the portion of Horizontal Drainhole of any Sharing Well located within the Subject Lands may be used to satisfy any additional drilling commitments that exist for GLO Unit No. 8343, provided such Sharing wells are drilled within the time restrictions set forth in GLO Unit No. 8343.

4. WPX Energy Permian, LLC ("Lessee") shall have the right to make reasonable use of the surface of the Subject Lands for the purpose of exploring, drilling, operating, producing, transporting and marketing oil and gas from any Sharing Well.

5. Production from a Sharing Well shall not create any offset obligation, whether express or implied, and as to each Sharing Well drilled, this Agreement shall be deemed to constitute complete protection of each Interest Owner's correlative rights. Each Interest Owner further agrees that this Agreement affects only production from Sharing Wells and in no way affects ownership under any vertical wells drilled or to be drilled on the Subject Lands. In the event any Sharing Well is plugged back or recompleted in such manner that the well no longer falls within the above definition of a Horizontal Well, such well shall no longer be considered a Sharing Well for purposes of this Agreement.

6. The provisions of the various leases, agreements, assignments, conveyances, pooling agreements and other instruments and agreements covering or affecting each Interest Owners' Mineral Interest within the Subject Lands are hereby amended to the extent necessary to make such

instruments and agreements conform to this Agreement, but not otherwise. In the case of conflict between the provisions of this Agreement and the provisions of such other agreements or instruments, the provisions of this Agreement shall control.

7. This Agreement is binding upon each Interest Owner on the date of such Interest Owner's execution but shall not become effective as to the Subject Lands until filed in the Official Public Records of Reeves County, Texas. Lessee may terminate this Agreement by filing a notice of termination to that effect in the Official Public Records of Reeves County, Texas at any time that there is no Sharing Well on the Subject Lands producing or capable of producing in paying quantities.

8. This instrument may be executed in multiple counterparts, each of which shall be given the same effect as the execution of an original instrument. Failure of any Interest Owner to execute a counterpart shall not render this instrument ineffective as to any other Interest Owner who does execute a counterpart thereof, but shall be binding upon each executing Interest Owner and its, his or her heirs, legal representatives, successors and assigns. The executed counterparts may be combined into one or more instruments for recordation, by combining the signature pages and acknowledgments, and the executing parties agree that such instruments shall be treated and given effect for all purposes as a single instrument.

EXECUTED by each party on the date shown for each such party's acknowledgement.

LESSEE:

WPX ENERGY PERMIAN, LLC

_____

By: David M. Korell
Title: Attorney-in-fact

STATE OF **OKLAHOMA** §
§
COUNTY OF **OKLAHOMA** §

This instrument was acknowledged before me on _____, 2021, by David M. Korell, Attorney-in-fact for WPX Energy Permian, LLC, a Delaware limited liability company on behalf of such limited liability company.

_____
Notary Public, State of Oklahoma

My Commission Expires:

_____

DocuSign Envelope ID: 2A70607D-EC37-4934-B4FD-890017438C03

INTEREST OWNER

Date Executed 12/2/2021 **STATE OF TEXAS**

Content ME
Legal
Leasing DBO

By: _____
MARK A. HAVENS, CHIEF CLERK/DEPUTY COMMISSIONER
TEXAS GENERAL LAND OFFICE

ACKNOWLEDGMENT

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was acknowledged before me on December 2, 2021, by Mark A. Havens as Chief Clerk and Deputy Commissioner and of the General Land Office of the State of Texas on behalf of the State of Texas.

Vicki Gonzales
Notary Public, State of Texas
Notary without Bond
Comm. Expires 07/25/2025
Notary ID 129506364

Vicki Gonzales
Notary Public, State of Texas

STATE LEASE(S) IN UNIT								
Land Type	**State Lease Number (MF)**	**Lease Date**	**Lease Term**	**State Royalty**	**Total Lease Acreage**	**Lease Acreage in Unit**	**Lessor of Record**	**Lessee of Record**
RAL	116554A	03/23/2014	3 YRS	1/4	600	150.00	State of Texas acting by and through its agent Petco Limited	Panther Exploration Company, LLC
RAL	116554B	04/09/2014	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Nancy Dean Investment Corporation	Panther Exploration Company LLC
RAL	116554D	04/24/2014	3 YRS	1/4	600	37.50	State of Texas acting by and through its agent Charlotte T. Slack	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791C	04/23/2014	3 YRS	1/4	40	13.33	State of Texas acting by and through its agent Mahlon Paul Nobles s/p/a John Paul Adkins	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554F	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Anne S. Mackey	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554G	03/26/2014	3 YRS	1/4	600	.52	State of Texas acting by and through its agent Pursuit Energy Corporation	Panther Exploration, LLC
RAL	116554H	05/05/2014	3 YRS	1/4	600	37.50	State of Texas acting by and through its agent Cynthia Lynne Mace, Trustee of Oma Barton Wakefield Trust, u/w/o William Barton Wakefield	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554I	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Richard C. Slack II	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554J	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Cynthia S. Shaw	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554K	04/11/2014	3 YRS	1/4	600	1.35416664	State of Texas acting by and through its agent Andrews Royalty LP	Panther Exploration Company, LLC
RAL	116554L	03/26/2014	3 YRS	1/4	600	0.2	State of Texas acting by and through its agent Stephen J. Flanagan, Trustee of the Loyd W. Powell, Jr. Children's Trust	Panther Exploration, LLC
RAL	116554M	05/01/2014	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Wells Fargo Bank, N.A., Trustee of Patti Jo Wood Trust u/w/o Josie Fay Peck	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554N	05/22/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Nancy Ann Chandler	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554O	06/04/2014	3 YRS	1/4	600	25	State of Texas acting by and through its agent Sid W. Richardson Foundation	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554P	07/21/2014	3 YRS	1/4	600	6.25	State of Texas acting by and through its agent Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, N.A., Trustee	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554Q	05/15/2014	3 YRS	1/4	600	37.5	State of Texas acting by and through its agent Patti P. Wood	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

STATE LEASE(S) IN UNIT								
RAL	116554R	09/15/2014	3 YRS	1/4	600	4.166667	State of Texas acting by and through its agent Howell Smith Wynne	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554S	12/12/2014	3 YRS	1/4	600	25	State of Texas acting by and through its agent EPB O&G TX, L.P., ARBGT (SRB) O&G TX, L.P., ARBGT (LMB) O&G TX, L.P., and ARBGT (RMB) O&G TX, L.P.	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791A	04/24/2014	3 YRS	1/4	40	20.00	State of Texas acting by and through its agent William Frederick Adkins	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791B	04/24/2014	3 YRS	1/4	40	6.66	State of Texas acting by and through its agent Alton Frederick Adkins, Jr.	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	118163	05/15/2016	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Riki Lewis Long	Energen Resources Corporation

42.

File No. MF116554

Reeves County

PSA00413

Date Filed: 05/02/2022

George P. Bush, Commissioner

By JM

PRODUCTION SHARING AGREEMENT

STATE OF TEXAS §
§ KNOW ALL PERSONS BY THESE PRESENTS:
COUNTY OF REEVES §

The undersigned parties (collectively "Interest Owners" or individually an "Interest Owner") enter into this Production Sharing Agreement ("Agreement") concerning their interest in the oil, gas and mineral leases, minerals, royalties and/or executive rights (collectively "Mineral Interests" or individually a "Mineral Interest") in and under the following lands (the "Subject Lands"):

- E/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to the base of the Wolfcamp formation.

- W/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to 11,534'.

The Interest Owners wish to encourage further development of the Subject Lands via the drilling of horizontal oil and/or gas wells in order to:

(a) prevent physical and economic waste and the drilling of unnecessary wells, and to increase the ultimate recovery of hydrocarbons from the Subject Lands; and

(b) protect the correlative rights of all Interest Owners so that each may receive his or her fair share of the oil and gas produced from the Subject Lands.

The Interest Owners recognize that it is advantageous for some such horizontal wells to be drilled and completed partially on the Subject Lands and partially on adjoining lands and agree that a basis for allocating production from such horizontal wells should be established.

NOW THEREFORE, each of the Interest Owners, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, do hereby agree to the following:

1. For purposes of this Agreement, the following definitions apply:

   a. "Field Interval" is the correlative geologic interval which has been defined or recognized by the Railroad Commission of Texas as the interval for the field in which a Horizontal Well has been completed.

   b. "Horizontal Well" is an oil or gas well with one or more drainholes with a horizontal displacement of at least 100 feet within the Field Interval

c. "Horizontal Drainhole" is the portion of the Horizontal Well drilled within the Field Interval.

d. "Take Point" is any point along a Horizontal Drainhole where hydrocarbons can enter the wellbore from the Field Interval and be produced.

e. "Productive Drainhole Length" is the horizontal length of a Horizontal Drainhole that begins at the first Take Point and runs along the actually surveyed wellbore path to the last Take Point. If a Sharing Well has more than one Horizontal Drainhole, the Productive Drainhole Length shall be the sum of such horizontal lengths of all such Horizontal Drainholes.

f. "Sharing Well" is a Horizontal Well with a Productive Drainhole Length located partially on the Subject Lands and partially on Section 17, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas.

2. An Interest Owner shall share in production of oil and gas from a Sharing Well on the basis of his or her ownership interest in the Subject Lands multiplied by an "Allocation Factor," such Allocation Factor being defined as a fraction, the numerator of which is equal to the length of that portion of the Productive Drainhole Length lying within the Subject Lands, and the denominator being the total Productive Drainhole Length.

3. Operations on or production from each Sharing Well shall be treated as actual operations on or production from the Subject Lands, provided, however, that production shall be allocated to the Subject Lands in accordance with Paragraph 2, immediately above.

4. WPX Energy Permian, LLC ("Lessee") shall have the right to make reasonable use of the surface of the Subject Lands for the purpose of exploring, drilling, operating, producing, transporting and marketing oil and gas from any Sharing Well.

5. Production from a Sharing Well shall not create any offset obligation, whether express or implied, and as to each Sharing Well drilled, this Agreement shall be deemed to constitute complete protection of each Interest Owner's correlative rights. Each Interest Owner further agrees that this Agreement affects only production from Sharing Wells and in no way affects ownership under any vertical wells drilled or to be drilled on the Subject Lands. In the event any Sharing Well is plugged back or recompleted in such manner that the well no longer falls within the above definition of a Horizontal Well, such well shall no longer be considered a Sharing Well for purposes of this Agreement.

6. The provisions of the various leases, agreements, assignments, conveyances, pooling agreements and other instruments and agreements covering or affecting each Interest Owners' Mineral Interest within the Subject Lands are hereby amended to the extent necessary to make such instruments and agreements conform to this Agreement, but not otherwise. In the case of conflict

Devon - General

between the provisions of this Agreement and the provisions of such other agreements or instruments, the provisions of this Agreement shall control.

7. This Agreement is binding upon each Interest Owner on the date of such Interest Owner's execution but shall not become effective as to the Subject Lands until filed in the Official Public Records of Reeves County, Texas. Lessee may terminate this Agreement by filing a notice of termination to that effect in the Official Public Records of Reeves County, Texas at any time that there is no Sharing Well on the Subject Lands producing or capable of producing in paying quantities.

8. This instrument may be executed in multiple counterparts, each of which shall be given the same effect as the execution of an original instrument. Failure of any Interest Owner to execute a counterpart shall not render this instrument ineffective as to any other Interest Owner who does execute a counterpart thereof, but shall be binding upon each executing Interest Owner and its, his or her heirs, legal representatives, successors and assigns. The executed counterparts may be combined into one or more instruments for recordation, by combining the signature pages and acknowledgments, and the executing parties agree that such instruments shall be treated and given effect for all purposes as a single instrument.

EXECUTED by each party on the date shown for each such party's acknowledgement.

LESSEE:

WPX ENERGY PERMIAN, LLC

By: David M. Korell
Title: Attorney-in-fact

STATE OF **OKLAHOMA** §
§
COUNTY OF **TULSA** §

This instrument was acknowledged before me on June 10, 2021, by David M. Korell, Attorney-in-fact for WPX Energy Permian, LLC, a Delaware limited liability company on behalf of such limited liability company.

Hannah Clare Otey
Notary Public, State of Oklahoma

HANNAH CLARE OTEY NOTARY #17009197 EXP. 10/3/21 PUBLIC STATE OF OKLAHOMA

My Commission Expires:
10/03/2021

DocuSign Envelope ID: 05F9965E-C0C1-48CF-AEB2-84CF1BC7849B

Date Executed 4/30/21

STATE OF TEXAS

Content
Min. Leasing DBO
Legal

By: _____
MARK A. HAVENS, DEPUTY COMMISSIONER/CHIEF CLERK
GENERAL LAND OFFICE

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 6th day of April, 2021, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 30th day of April, 2021.

_____
Secretary of the School Land Board

PRODUCTION SHARING AGREEMENT

STATE OF TEXAS §
§ KNOW ALL PERSONS BY THESE PRESENTS:
COUNTY OF REEVES §

The undersigned parties (collectively "Interest Owners" or individually an "Interest Owner") enter into this Production Sharing Agreement ("Agreement") concerning their interest in the oil, gas and mineral leases, minerals, royalties and/or executive rights (collectively "Mineral Interests" or individually a "Mineral Interest") in and under the following lands (the "Subject Lands"):

- Section 16, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to the base of the Wolfcamp formation. The Subject Lands are currently pooled as to these depths into GLO Unit No. 8343, the Titan State 16 Unit.

The Interest Owners wish to encourage further development of the Subject Lands via the drilling of horizontal oil and/or gas wells in order to:

(a) prevent physical and economic waste and the drilling of unnecessary wells, and to increase the ultimate recovery of hydrocarbons from the Subject Lands; and

(b) protect the correlative rights of all Interest Owners so that each may receive his or her fair share of the oil and gas produced from the Subject Lands.

The Interest Owners recognize that it is advantageous for some such horizontal wells to be drilled and completed partially on the Subject Lands and partially on adjoining lands and agree that a basis for allocating production from such horizontal wells should be established.

NOW THEREFORE, each of the Interest Owners, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, do hereby agree to the following:

1. For purposes of this Agreement, the following definitions apply:

   a. "Field Interval" is the correlative geologic interval which has been defined or recognized by the Railroad Commission of Texas as the interval for the field in which a Horizontal Well has been completed.

   b. "Horizontal Well" is an oil or gas well with one or more drainholes with a horizontal displacement of at least 100 feet within the Field Interval

   c. "Horizontal Drainhole" is the portion of the Horizontal Well drilled

within the Field Interval.

d. "Take Point" is any point along a Horizontal Drainhole where hydrocarbons can enter the wellbore from the Field Interval and be produced.

e. "Productive Drainhole Length" is the horizontal length of a Horizontal Drainhole that begins at the first Take Point and runs along the actually surveyed wellbore path to the last Take Point. If a Sharing Well has more than one Horizontal Drainhole, the Productive Drainhole Length shall be the sum of such horizontal lengths of all such Horizontal Drainholes.

f. "Sharing Well" is a Horizontal Well with a Productive Drainhole Length located partially on the Subject Lands and partially on Section 5, Block 54 T-4, Reeves County, Texas.

2. An Interest Owner shall share in production of oil and gas from a Sharing Well on the basis of his or her ownership interest in the Subject Lands multiplied by an "Allocation Factor," such Allocation Factor being defined as a fraction, the numerator of which is equal to the length of that portion of the Productive Drainhole Length lying within the Subject Lands, and the denominator being the total Productive Drainhole Length.

3. Operations on or production from each Sharing Well shall be treated as actual operations on or production from the Subject Lands, provided, however, that production shall be allocated to the Subject Lands in accordance with Paragraph 2, immediately above. Moreover, the portion of Horizontal Drainhole of any Sharing Well located within the Subject Lands may be used to satisfy any additional drilling commitments that exist for GLO Unit No. 8343, provided such Sharing wells are drilled within the time restrictions set forth in GLO Unit No. 8343.

4. WPX Energy Permian, LLC ("Lessee") shall have the right to make reasonable use of the surface of the Subject Lands for the purpose of exploring, drilling, operating, producing, transporting and marketing oil and gas from any Sharing Well.

5. Production from a Sharing Well shall not create any offset obligation, whether express or implied, and as to each Sharing Well drilled, this Agreement shall be deemed to constitute complete protection of each Interest Owner's correlative rights. Each Interest Owner further agrees that this Agreement affects only production from Sharing Wells and in no way affects ownership under any vertical wells drilled or to be drilled on the Subject Lands. In the event any Sharing Well is plugged back or recompleted in such manner that the well no longer falls within the above definition of a Horizontal Well, such well shall no longer be considered a Sharing Well for purposes of this Agreement.

6. The provisions of the various leases, agreements, assignments, conveyances, pooling agreements and other instruments and agreements covering or affecting each Interest Owners' Mineral Interest within the Subject Lands are hereby amended to the extent necessary to make such

instruments and agreements conform to this Agreement, but not otherwise. In the case of conflict between the provisions of this Agreement and the provisions of such other agreements or instruments, the provisions of this Agreement shall control.

7. This Agreement is binding upon each Interest Owner on the date of such Interest Owner's execution but shall not become effective as to the Subject Lands until filed in the Official Public Records of Reeves County, Texas. Lessee may terminate this Agreement by filing a notice of termination to that effect in the Official Public Records of Reeves County, Texas at any time that there is no Sharing Well on the Subject Lands producing or capable of producing in paying quantities.

8. This instrument may be executed in multiple counterparts, each of which shall be given the same effect as the execution of an original instrument. Failure of any Interest Owner to execute a counterpart shall not render this instrument ineffective as to any other Interest Owner who does execute a counterpart thereof, but shall be binding upon each executing Interest Owner and its, his or her heirs, legal representatives, successors and assigns. The executed counterparts may be combined into one or more instruments for recordation, by combining the signature pages and acknowledgments, and the executing parties agree that such instruments shall be treated and given effect for all purposes as a single instrument.

EXECUTED by each party on the date shown for each such party's acknowledgement.

LESSEE:

WPX ENERGY PERMIAN, LLC

By: David M. Korell
Title: Attorney-in-fact

STATE OF **OKLAHOMA** §
§
COUNTY OF **OKLAHOMA** §

This instrument was acknowledged before me on December 16, 2021, by David M. Korell, Attorney-in-fact for WPX Energy Permian, LLC, a Delaware limited liability company on behalf of such limited liability company.

Hannah Clare Otey
Notary Public, State of Oklahoma

HANNAH CLARE OTEY NOTARY #17009197 EXP. 10/03/2025 PUBLIC STATE OF OKLAHOMA

My Commission Expires:
10/03/2025

DocuSign Envelope ID: 2A70607D-EC37-4934-B4FD-890017438C03

INTEREST OWNER

Date Executed 12/2/2021 **STATE OF TEXAS**

Content 01 AE
Legal 04 LL
Leasing 2BO

By: _____
MARK A. HAVENS, CHIEF CLERK/DEPUTY COMMISSIONER
TEXAS GENERAL LAND OFFICE

ACKNOWLEDGMENT

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This instrument was acknowledged before me on December 2, 2021, by Mark A. Havens as Chief Clerk and Deputy Commissioner and of the General Land Office of the State of Texas on behalf of the State of Texas.

Vicki Gonzales
Notary Public, State of Texas
Notary without Bond
Comm. Expires 07/25/2025
Notary ID 129506364

_____
Notary Public, State of Texas

STATE LEASE(S) IN UNIT								
Land Type	State Lease Number (MF)	Lease Date	Lease Term	State Royalty	Total Lease Acreage	Lease Acreage in Unit	Lessor of Record	Lessee of Record
RAL	116554A	03/23/2014	3 YRS	1/4	600	150.00	State of Texas acting by and through its agent Petco Limited	Panther Exploration Company, LLC
RAL	116554B	04/09/2014	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Nancy Dean Investment Corporation	Panther Exploration Company LLC
RAL	116554D	04/24/2014	3 YRS	1/4	600	37.50	State of Texas acting by and through its agent Charlotte T. Slack	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791C	04/23/2014	3 YRS	1/4	40	13.33	State of Texas acting by and through its agent Mahlon Paul Nobles s/p/a John Paul Adkins	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554F	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Anne S. Mackey	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554G	03/26/2014	3 YRS	1/4	600	.52	State of Texas acting by and through its agent Pursuit Energy Corporation	Panther Exploration, LLC
RAL	116554H	05/05/2014	3 YRS	1/4	600	37.50	State of Texas acting by and through its agent Cynthia Lynne Mace, Trustee of Oma Barton Wakefield Trust, u/w/o William Barton Wakefield	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554I	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Richard C. Slack II	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554J	04/24/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Cynthia S. Shaw	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554K	04/11/2014	3 YRS	1/4	600	1.35416664	State of Texas acting by and through its agent Andrews Royalty LP	Panther Exploration Company, LLC
RAL	116554L	03/26/2014	3 YRS	1/4	600	0.2	State of Texas acting by and through its agent Stephen J. Flanagan, Trustee of the Loyd W. Powell, Jr. Children's Trust	Panther Exploration, LLC
RAL	116554M	05/01/2014	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Wells Fargo Bank, N.A., Trustee of Patti Jo Wood Trust u/w/o Josie Fay Peck	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554N	05/22/2014	3 YRS	1/4	600	12.5	State of Texas acting by and through its agent Nancy Ann Chandler	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554O	06/04/2014	3 YRS	1/4	600	25	State of Texas acting by and through its agent Sid W. Richardson Foundation	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554P	07/21/2014	3 YRS	1/4	600	6.25	State of Texas acting by and through its agent Fayrene Richardson Smith TUW FBO Nancy Saustad, Bank of America, N.A., Trustee	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554Q	05/15/2014	3 YRS	1/4	600	37.5	State of Texas acting by and through its agent Patti P. Wood	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC

STATE LEASE(S) IN UNIT								
RAL	116554R	09/15/2014	3 YRS	1/4	600	4.166667	State of Texas acting by and through its agent Howell Smith Wynne	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116554S	12/12/2014	3 YRS	1/4	600	25	State of Texas acting by and through its agent EPB O&G TX, L.P., ARBGT (SRB) O&G TX, L.P., ARBGT (LMB) O&G TX, L.P., and ARBGT (RMB) O&G TX, L.P.	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791A	04/24/2014	3 YRS	1/4	40	20.00	State of Texas acting by and through its agent William Frederick Adkins	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	116791B	04/24/2014	3 YRS	1/4	40	6.66	State of Texas acting by and through its agent Alton Frederick Adkins, Jr.	Panther Energy Company II, LLC, d/b/a Panther Exploration Company, LLC
RAL	118163	05/15/2016	3 YRS	1/4	600	75.00	State of Texas acting by and through its agent Riki Lewis Long	Energen Resources Corporation

Reeves County
Dianne O. Florez
Reeves County Clerk

Instrument Number: 2021008052

eRecording - Real Property

AGREEMENT

Recorded On: December 23, 2021 08:18 AM

Number of Pages: 7

" Examined and Charged as Follows: "

Total Recording: $46.00

********** **THIS PAGE IS PART OF THE INSTRUMENT** **********
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File Information:

Document Number:	2021008052
Receipt Number:	20211223000001
Recorded Date/Time:	December 23, 2021 08:18 AM
User:	Rebecca G
Station:	CLERK07

Record and Return To:

Simplifile

STATE OF TEXAS
COUNTY OF REEVES

I hereby certify that this Instrument was FILED **In the File Number sequence on the date/time printed hereon, and was duly** RECORDED **in the Official Records of County, Texas.**

Dianne O. Florez
Reeves County Clerk
Reeves County, TX

Dianne O. Florez

VG-317-2021-2021003846

Reeves County
Dianne O. Florez
Reeves County Clerk

Instrument Number: 2021003846

Real Property Recordings

AGREEMENT

Recorded On: June 22, 2021 01:48 PM

Number of Pages: 5

" Examined and Charged as Follows: "

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Document Number:	2021003846
Receipt Number:	20210622000029
Recorded Date/Time:	June 22, 2021 01:48 PM
User:	Rebecca G
Station:	CLERK07

Record and Return To:

DEVON ENERGY
333 WEST SHERIDAN AVE FLOOR 38
OKLAHOMA CITY OK 73102

STATE OF TEXAS
Reeves County
I hereby certify that this Instrument was filed in the File Number sequence on the date/time printed hereon, and was duly recorded in the Official Records of Reeves County, Texas

Dianne O. Florez
Reeves County Clerk
Reeves County, TX

Dianne O. Florez

Joy McCauley

From: Lee, Jill <Jill.Lee@dvn.com>
Sent: Thursday, June 23, 2022 11:01 AM
To: Joy McCauley
Cc: Cloer, Ryan
Subject: [EXTERNAL] Recorded Production Sharing Agreements
Attachments: Production Sharing Agmt - Section 28, Blk 54-4, Reeves County TX - RECORDED.pdf; _Titan State - GLO PSA - RECORDED.pdf

Ms. McCauley-

Good morning! Please see the attached recorded Production Sharing Agreements. I recently took over this area from Hannah Otey, and she told me that I needed to send you these recorded PSAs.

Please let me know if you need any additional information.

Thanks!

Jill N. Lee, CPLTA
Sr. Staff Land Analyst
Devon Energy Production Co., L.P.
333 West Sheridan Ave.
Oklahoma City, OK 73102-5010
Office: (405) 228-7534

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43.

File No. MF116554

Reeves County

PSA00413 (Recorded Copy)

Date Filed: 11/30/2022

George P. Bush, Commissioner

By: JM

Matthew Scott

From: Matthew Scott
Sent: Tuesday, March 7, 2023 3:13 PM
To: Brown, Amy
Cc: Robert Hatter; Brian Raygon
Subject: RE: Petersburg State 17-28 West Pad - GLO Application
Attachments: 08-10208 PETERSBURG ST CTB TITAN ST APPLICATION APPROVAL 3-7-23.pdf; Petersburg State 17-28 West Pad - Full Revised GLO Application 03.01.2023.pdf

Ms. Amy Brown,

Thank you for submitting the application to (1) commingle production from the Petersburg State 17-28-54-4 wells in the scope of PSA 377 and PSA 381 that includes MF114284 and MF120280 with the future Titan State 16-5-54-4 wells in the scope of PSA 413 at the Petersburg State 17-28 West Pad facility and (2) the request to use gas lift as an artificial lift method in the PSA 377, 381, and 413 wells.

Please find attached the approval of the application, dated 3/7/2023, for the surface commingling of the production from the Petersburg State 17-28-54-4 PSA 377/381 wells and the Titan State 16-5-54-4 PSA 413 wells listed in the application and as part of RRC P17 08-10208.

The future Titan State 16-5-54-4 PSA 413 wells include the state mineral royalty interests associated with GLO Unit 8343 (Titan State 16 Unit).

Gas Lift

In addition, as Lessee and operator of the Petersburg State 17-28-54-4 PSA 377/381 wells and the Titan State 16-5-54-4 PSA 413 wells, it was requested that the GLO approve of the use of gas lift as a form of artificial lift to produce the PSA wells.

The GLO approves of the use of gas lift to produce the PSA wells from the portion of state mineral lease MF114284 and MF120280 that are included in the scope of PSA 377 and 381.

The GLO approves of the use of gas lift to produce the unit well(s) and PSA wells from the portion of state mineral leases MF116554, MF116791, MF118163 that are included in the scope of GLO Unit 8343, and the portions of the state mineral leases in the scope of PSA 413.

Thank you,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Wednesday, March 1, 2023 1:34 PM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Matthew,

Here is the updated application with the revised P-17A that was submitted to the RRC earlier this week. Please let me know if you need anything additional.

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Wednesday, March 1, 2023 9:14 AM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: RE: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

I never learned how to type and use two fingers and two thumbs and I get numbers crossed apparently.

I looked at MF085739 and note that it is PSA 316.

Thanks,

Matthew

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Wednesday, March 1, 2023 8:46 AM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: RE: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

That's okay Matthew. You have PSA 361 listed below but also PSA 316. Could you confirm which is correct before I resubmit?

Thanks!
Amy

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Wednesday, March 1, 2023 8:20 AM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

Sorry for my confusion.

I was looking at the Ren State email and replied on the Petersburg State email. My bad. But at least you know what changes are needed on the Ren State application.

Thanks,

Matthew

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Monday, February 27, 2023 3:11 PM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Thanks Matthew! I can make these changes when I wrap up today, but as I understand it, the Ren State 13-14A 433H is not on the pad we are applying for (see process flow). Is there a specific reason you'd like it to be added to the app?

Amy

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Monday, February 27, 2023 3:02 PM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

Yes, please resubmit the applications with the revised P-17s by permit since I prefer to keep all of the permit documents together as submitted to me when I send an approval.

I wish the RRC form was clear, but it causes people a lot of confusion on how to fill it out when you have separation and measurement.

Note that the Ren State application has "issues" as will be described below, so the timing is good to make the revisions now.

The Ren State PSA has changed from: PSA 263 to: PSA 361 as WPX did not meet their original drilling obligation. So please revise the PSA number on the meter list and application where necessary.

In addition, there are four i-Nuts now for four wells. As you are the PSA queen apparently, just insert a column before the NRI column on the meter list to add the i-Nut number for the respective well and add the 433H to the PFD, P-17, and meter list.

The NRIs for the three wells checks out, you just need to add the Ren State 433H.

PSA 316

Ren State 1-14C # 434H i-Nut 11852

Ren State 1-14D # 431H i-Nut 11850
Ren State 1-14A # 433H i-Nut 11271 NRI = 0.15932806
Ren State 1-14B # 432H i-Nut 11851

Thanks,

Matthew

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Monday, February 27, 2023 1:02 PM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Good afternoon, Matthew. So sorry I missed your call - I was out to lunch. I have re-submitted both P-17As to Darlene at the RRC requesting updates to the allocation method on each from "G10 / W10" to "Other: Alloc Meter." My correspondence with her is attached and it also contains the amended permit applications. Would you like for me to re-send the full GLO gas lift / commingle apps for each project back to you with these amendments inserted? I will be in meetings from 1-4 this afternoon, so if you need to speak with me, email may be best or I am available by phone tomorrow.

Thanks so much!

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Monday, February 27, 2023 11:28 AM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

Besides the PSA problem there is a situation with respect to the Form P-17 applications for the Petersburg State and the Ren State as follows.

I do not agree with the allocation methodology (G-10 (gas)) specified on the Petersburg State and the Ren State Form P-17As.

The problem is the RRC Form P-17A is confusing to many in the way it handles allocation by separation and measurement on the form. It is poorly done.

Since the wells are each equipped with oil and gas meters then, per SWR 26(e)(4), the Operator would specify "Other Allocation Meter" or "Other Alloc. Meter" to indicate that the allocation methodology is by continuous measurement in lieu of by periodic well test, such as a G-10 test.

Please advise how you want to address this on the Petersburg State and the Ren State applications since it may require amendment.

Thank you,

Matthew

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Tuesday, February 21, 2023 9:35 AM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Good morning Matthew. While our Land group is in the process of reviewing this email and our agreements, I have revised the commingle / gas lift application to reflect the agreement / ID numbers you've referenced below as well as the estimated NRI of 0.64. Hopefully this looks a little better to you, but please let me know if you need any additional changes.

Thanks so much!

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Friday, February 17, 2023 2:48 PM
To: Brown, Amy <Amy.Brown@dvn.com>; Prout, Tim <Tim.Prout@dvn.com>
Cc: Robert Hatter <Robert.Hatter@GLO.TEXAS.GOV>; Dustin Oslick <Dustin.Oslick@GLO.TEXAS.GOV>; Jesse Arellano <Jesse.Arellano@glo.texas.gov>; Joy McCauley <Joy.McCauley@GLO.TEXAS.GOV>; Deborah Cantu <Deborah.Cantu@GLO.TEXAS.GOV>
Subject: [EXTERNAL] RE: RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

To answer your question I had do some research myself on the PSAs applicable to the proposed commingling of the Titan State 16-5 and Petersburg State 17-28 wells. Unfortunately I found, as you did, that the PSAs are not shown on the GLO GIS WEB application and not referenced in the GIS Data link in the Related Leases window. So, you would have to know where to look and in which mineral file. If you are in GIS WEB and you click on a land tract area that may have a unit or one or more MF numbers, then the PSA is usually filed in the lowest level MF number listed under the Active Oil & Gas Leases in the GIS Data Related Leases window.

For the Titan State 16-5 10,000 foot laterals look in MF116554 page 475 for PSA 413, which includes GLO Unit 8343 in the PSA. For the proposed Petersburg State 17-28 leases look in MF114284 for PSA 377, page 208, and PSA 381, page 201. However, there is conflict between PSA 377 and PSA 381 since the lease reference on both PSA and 377 and 381 is identical and both will need amendment via your Landman staff, as discussed below.

With respect to the commingling permit application, input MF116554 PSA 413 for the Titan State 16-5 and MF114284 PSA 377/381 for the Petersburg State 17-28 wells. Input "est. 0.64" for the NRI interest or based on the estimated length of drilled lateral per you Landman/Drilling staff. The final NRI will not be known until the lateral is drilled and an INUT is designated for each wellbore.

PSA 377 and PSA 381

Both PSAs reference the same scope of leases, as follows:

- E/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to the base of the Wolfcamp formation.
- W/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to 11,534'.

MF114284 holds the E/2 of Section 28 from the surface-10,880 ft, and the W/2 of Section 28 from the surface-11,534. MF120280 holds only the E/2 of Section 28 below 10,880 ft.

Perhaps PSA 377 should reference:

- E/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to 10,880'.
- W/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to 11,534'., and

Perhaps PSA 381 should reference:

- E/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths below 10,880'.
- W/2 of Section 28, Block 54, Township 4, T&P RR Co. Survey, Reeves County, Texas insofar as such lands cover depths from the surface to 11,534'.

Or perhaps three PSAs, one for only the W/2 of Section 28 from the surface to 11,534' and two for the E/2 of Section 28 above and below 10,880'. Whatever is decided in appears that the two PSAs need amendment by WPX Energy and GLO staff.

But then there is another lease problem concerning the PSAs and MF114284 and MF120820. As a test I checked on INUT 11613 in MF114284, page 126, that was filed in MF 1142844 based on TVDs less than 10880 (surface – 10,880 feet). I checked the RRC as drilled survey for the Petersburg State 17-28C-54-4 # 431H (API 389-39350) and noted that the TVD for the well bore varies from 10,426' to 10,934' TVD per the as-drilled directional survey, thus the well bore is snaking in and out of MF114284 (PSA377) and MF120280 (PSA381) lease severance depth of 10,880' in the E/2 of Section 28. A land/mineral lease problem in itself.

While there are some lease and PSA issues to address at least the commingling application can be revised and resubmitted for review. I copied this email to certain GLO staff so that they can be made aware of the apparent PSA and lease issues for their information. Your Landman Tim Prout probably knows most of them.

Thanks,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Thursday, February 16, 2023 10:51 AM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] RE: RE: Petersburg State 17-28 West Pad - GLO Application

Good morning Matthew. I was circling back on this application. Last we talked, it appeared we were lacking agreements for these new wells, but per our landman below, we do have the PSAs in place. I do not see those numbers on the GLO GIS site yet, and wanted to get this app back in the works if possible because the Petersburg state wells are online and we'd like to move to gas lift as soon as we can. Our landman is out of town for the rest of the week and I wanted to know if maybe I should reach out to Joy McCauley in your office to access the required GLO PSA numbers to revise my app?

I appreciate any help you can provide and thanks so much!

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

From: Prout, Tim <Tim.Prout@dvn.com>
Sent: Tuesday, February 7, 2023 11:07 AM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: RE: RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

I talked to Mr. Scott today. We have a PSA in place for these wells, everything should be good for you to continue working on these applications. Let me know if you need anything else from me.

Thanks,

Tim Prout
Sr. Staff Landman
Delaware Basin Business Unit

Devon Energy Production Company, L.P.
333 W. Sheridan Ave.
Oklahoma City, OK 73102

405 552 6113 Direct
405 234 2612 Fax

devon

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Thursday, February 2, 2023 10:44 AM
To: Prout, Tim <Tim.Prout@dvn.com>
Subject: FW: RE: Petersburg State 17-28 West Pad - GLO Application

Tim,

I had a conversation with Matthew Scott, GLO engineer who reviews and approves our surface commingle and gas lift applications. He was showing me how to navigate the GLO GIS site and view the mineral lease and pooling agreements. He has flagged the Petersburg State / Titan State gas lift application because he says we lack appropriate agreements. I was able to see where there are INUT (psa's) on the 3 existing Petersburg State wells, but he is questioning why we do not have a pooling agreement in place for sections 17 and 28. We also added three of the new Titan State wells to the application, because they will allow us to do so as long as we can list anticipated installation dates for the meters. He is telling me the pooling agreement in place for section 16 would have to be amended to include section 5.

I took the notes, but explained to him and I am not a landman and have no knowledge of the types of agreements that are in place and why. I told him I would reach out to my land group and communicate what we are lacking to obtain approval for this specific gas lift application.

Are we already aware of the agreement modifications that need to be made or is there another application or agreement in process with them maybe he is unaware of? It looked to me like our wells have the INUT individual agreements that cover us with them. I am way outside of my wheelhouse though, so please let me know if you'd like to discuss further and how you'd like for me to proceed.

Thank you,

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

From: Matthew Scott <Matthew.Scott@glo.texas.gov>
Sent: Wednesday, February 1, 2023 4:00 PM
To: Brown, Amy <Amy.Brown@dvn.com>
Subject: [EXTERNAL] RE: Petersburg State 17-28 West Pad - GLO Application

Amy,

I reviewed the subject application and there are two units involved here, the Titan State 16 Unit, (GLO Unit 8343 with an NRI = 0.125), and apparently a new pooled unit for the Petersburg State 17 – 28 wells that has yet to report any data in

our well inventory and mapping systems. The NRI of the Petersburg State 17 – 28 Unit wells will be on the order of 0.625 as MF114824 is pooled with a private lease to the north so that Devon/WPX Energy can drill 10,000 foot laterals. I am attempting to determine what the unit number and NRI is with our staff and you should consult with your Landman staff also, then revise the Flowmeter List accordingly since only unit numbers would be included on that list in lieu of state mineral lease numbers.

Thanks,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Wednesday, January 25, 2023 10:49 AM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Cc: Radford, Griffin <Griffin.Radford@dvn.com>
Subject: [EXTERNAL] Petersburg State 17-28 West Pad - GLO Application

Good morning, Matthew. I have attached another GLO gas lift / commingle application with supporting documentation for our Petersburg State 17-28 West Pad in Reeves County. Drilling is about to commence on the Titan State wells and I made note of the drilling permit numbers for quick reference as well as anticipated meter install dates since they will not be online until this summer. The Petersburg State wells are online this month.

I have cc'd our facilities engineer incase you have technical questions about this application and please let us know if anything additional is needed.

Have a good day.

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

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Texas General Land Office
Application to Surface Commingle State Leases

Enter the unique meter identification number or serial number for all flow meters as shown on your attached process flow diagram(s). **Each lease must have Oil (O), Gas (G), and Water (W) allocation, flash, fuel, vent, flare, instrument, lift gas, and Oil and Gas sales meters.** Some meters (e.g. fuel) may pertain to multiple leases. Conversely, one lease may have multiple instances of some meters (e.g. flash at each stage of separation). If applicable, list the unique identification number for each measured pressure vessel and heater treater. Attach Flow Meter List Continuation Pages as needed.

Certifications

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.
- [x] All non-sales (e.g. fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 18 months of the date of this application (enter installation date in Meter Tag field for each missing meter).
- [x] All sales dispositions of hydrocarbon are metered as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.
- [ ] Where applicable, the Lessee has obtained written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method and that all gas supply and distribution points are metered per 31 Texas Administrative Code § 9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.
- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. (The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling.) Gas royalty payment will be due on that basis irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian, LLC

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 02/21/2023

Responsible Official Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

Approved by: Matthew T. Scott **Signature:** Matthew T. Scott **Date:** 3/7/2023

Petersburg State 17-28 wells in scope of PSA 377 and 416 (MF114284 & MF120280) and Gas Lift in PSA Area 377 & 416.
Titan State wells in scope of PSA 413 that includes GLO Unit 8343 and Gas Lift in PSA 413/Unit 8343 wells.

Texas General Land Office
Application to Surface Commingle State Leases

Enter the unique meter identification number or serial number for all flow meters as shown on your attached process flow diagram(s). **Each lease must have Oil (O), Gas (G), and Water (W) allocation, flash, fuel, vent, flare, instrument, lift gas, and Oil and Gas sales meters.** Some meters (e.g. fuel) may pertain to multiple leases. Conversely, one lease may have multiple instances of some meters (e.g. flash at each stage of separation). If applicable, list the unique identification number for each measured pressure vessel and heater treater. Attach Flow Meter List Continuation Pages as needed.

Certifications

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.
- [x] All non-sales (e.g. fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 18 months of the date of this application (enter installation date in Meter Tag field for each missing meter).
- [x] All sales dispositions of hydrocarbon are metered as required by 31 Texas Administrative Code §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.
- [ ] Where applicable, the Lessee has obtained written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method and that all gas supply and distribution points are metered per 31 Texas Administrative Code § 9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.
- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. (The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling.) Gas royalty payment will be due on that basis irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian, LLC

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 02/21/2023

Responsible Official Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

Approved by: _____ **Signature:** _____ **Date:** _____

Application Revision : 12/7/2022

Texas General Land Office
Flowmeter List Continuation Page 1

State Lease or Unit	GLO NRI	Future Install Date	Well	Meter Tag	O/G/W	Purpose	Vessel Tag	Notes
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28D-54-4 412H	FIT-102A	O	Allocation	V-102	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28D-54-4 412H	FIT-102C	G	Allocation	V-102	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28D-54-4 412H	FIT-102B	W	Allocation	V-102	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28D-54-4 412H	U-002	G	GL Injection	N/A	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28E-54-4 402H	FIT-103A	O	Allocation	V-103	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28E-54-4 402H	FIT-103C	G	Allocation	V-103	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28E-54-4 402H	FIT-103B	W	Allocation	V-103	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28E-54-4 402H	U-003	G	GL Injection	N/A	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28F-54-4 432H	FIT-101A	O	Allocation	V-101	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28F-54-4 432H	FIT-101C	G	Allocation	V-101	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28F-54-4 432H	FIT-101B	W	Allocation	V-101	
MF114284 / PSA 377, 381	est. 0.64		PETERSBURG STATE 17-28F-54-4 432H	U-001	G	GL Injection	N/A	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5D-54-4 433H	FIT-104A	O	Allocation	V-104	RRC DP# 887140
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5D-54-4 433H	FIT-104C	G	Allocation	V-104	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5D-54-4 433H	FIT-104B	W	Allocation	V-104	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5D-54-4 433H	U-004	G	GL Injection	N/A	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5E-54-4 403H	FIT-105A	O	Allocation	V-105	RRC DP# 887141
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5E-54-4 403H	FIT-105C	G	Allocation	V-105	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5E-54-4 403H	FIT-105B	W	Allocation	V-105	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5E-54-4 403H	U-005	G	GL Injection	N/A	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5F-54-4 413H	FIT-106A	O	Allocation	V-106	RRC DP# 887143
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5F-54-4 413H	FIT-106C	G	Allocation	V-106	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5F-54-4 413H	FIT-106B	W	Allocation	V-106	
MF116554 / PSA 413	est. 0.64	7/1/2023	TITAN STATE 16-5F-54-4 413H	U-006	G	GL Injection	N/A	
MF114284 / PSA 377, 381	est. 0.64		All	U-601	G	Sales 1	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-603	G	Buyback	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-521	O	Sales 1	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-501	W	Pad Meter	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-604	G	VRU Meter	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-605	G	Compressor Suction	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-606	G	Compressor Discharge	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-607	G	Fuel Gas Meter	N/A	

Texas General Land Office
Flowmeter List Continuation Page 2

MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-211	G	HP Flare Meter	N/A	
MF116554 / PSA 413	est. 0.64							
MF114284 / PSA 377, 381	est. 0.64		All	U-212	G	LP Flare Meter	N/A	
MF116554 / PSA 413	est. 0.64							

Process Narrative – Petersburg State 17-28 West Pad Central Tank Battery

All Wells

Gross production from each well flows from its respective wellsite through a 3–phase flowline to the Petersburg State 17-28 West Pad Central Tank Battery. At the Central Tank Battery, it flows through a dedicated 3-phase separator which meters oil, gas, and water. The water is comingled and stored in tanks. The gas is measured individually and flows to a 3rd party gatherer. The oil is measured individually before being comingled and stored in tanks. Any hydrocarbon liquid collected from gas scrubbers will be sold from the tanks as oil.

Oil

Gross production of oil is measured at the outlet of the dedicated separator using a Coriolis meter. The oil is then comingled and flows to the common tanks where it is sold through a LACT unit to a 3rd party gatherer. The oil is measured by a Coriolis meter. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter.

Gas

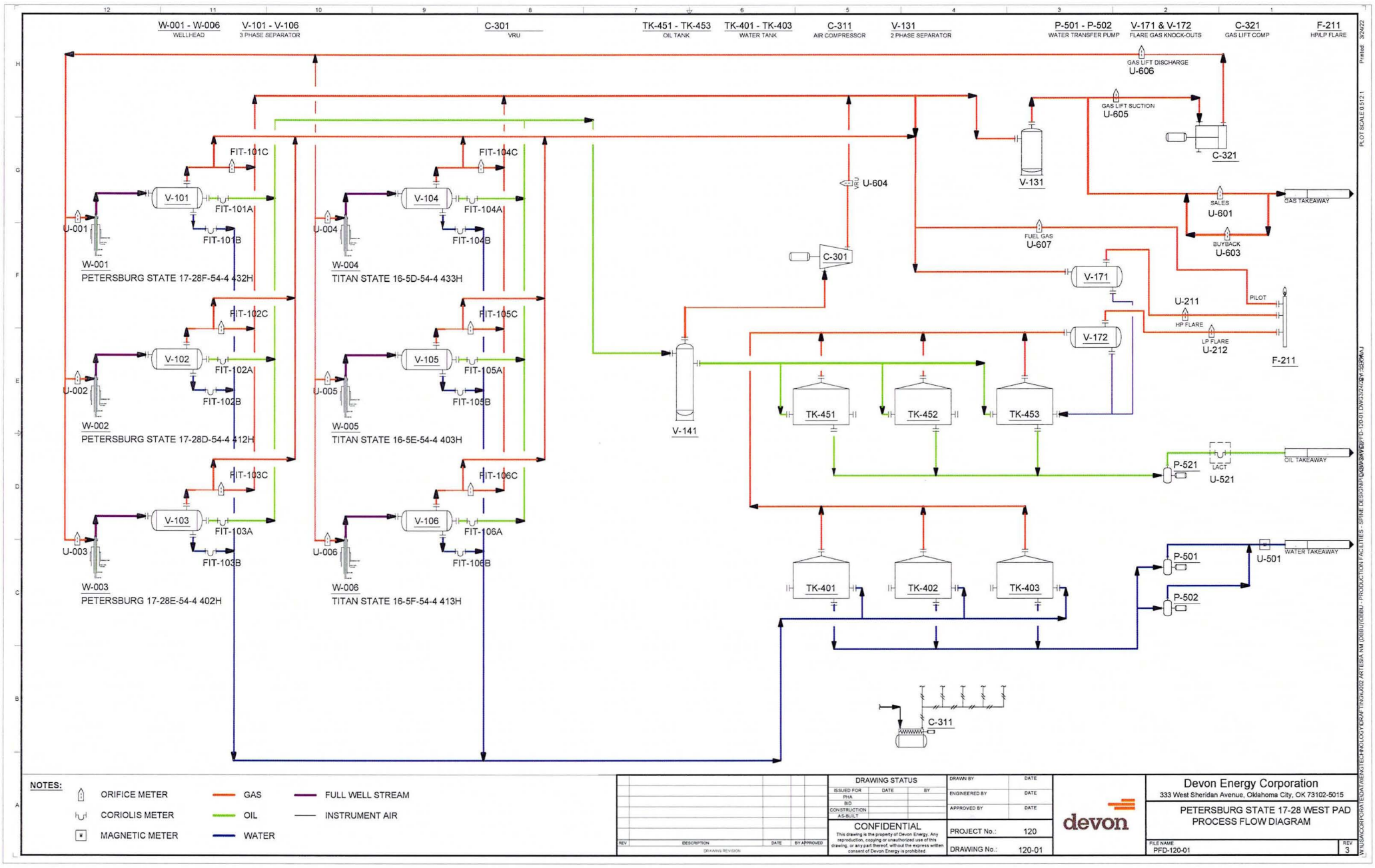
Gross production of the gas is measured at the outlet of the dedicated separator using an orifice meter. It will then flow through a common gas line to a lease custody transfer meter where it will be measured using an orifice meter and gathered by a 3rd party. If the gathering system pressure gets too high the gas will flow through an orifice flare meter and flow to a high pressure flare. Fuel gas will be bought back from the gathering system and used for all wells. Flare royalties will be paid off a monthly statement using a MMBTU value for each well.

Gas Lift

Lift gas will be compressed utilizing an on-pad compressor and measured using an orifice meter. It will then flow through an individual well injection orifice meter and sent down the well bore.

Water

Gross production of water is measured at the outlet of the dedicated separator using a Coriolis meter. The water is comingled and sent to common storage tanks. The water from the treater is sent to common storage tanks. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter. From the tanks, the water is sent to a pump and measured using a turbine meter. The pump moves the water to a Salt Water Disposal system.


W-001 - W-006
WELLHEAD
V-101 - V-106
3 PHASE SEPARATOR
C-301
VRU
TK-451 - TK-453
OIL TANK
TK-401 - TK-403
WATER TANK
C-311
AIR COMPRESSOR
V-131
2 PHASE SEPARATOR
P-501 - P-502
WATER TRANSFER PUMP
V-171 & V-172
FLARE GAS KNOCK-OUTS
C-321
GAS LIFT COMP
F-211
HP/LP FLARE
GAS LIFT DISCHARGE
U-606
GAS LIFT SUCTION
U-605
C-321
V-131
U-604
SALES
U-601
GAS TAKEAWAY
BUYBACK
U-603
FUEL GAS
U-607
C-301
V-171
PILOT
U-211
HP FLARE
LP FLARE
U-212
F-211
V-172
FIT-101C
V-101
FIT-101A
FIT-101B
U-001
W-001
PETERSBURG STATE 17-28F-54-4 432H
FIT-104C
V-104
FIT-104A
FIT-104B
U-004
W-004
TITAN STATE 16-5D-54-4 433H
FIT-102C
V-102
FIT-102A
FIT-102B
U-002
W-002
PETERSBURG STATE 17-28D-54-4 412H
FIT-105C
V-105
FIT-105A
FIT-105B
U-005
W-005
TITAN STATE 16-5E-54-4 403H
FIT-103C
V-103
FIT-103A
FIT-103B
U-003
W-003
PETERSBURG 17-28E-54-4 402H
FIT-106C
V-106
FIT-106A
FIT-106B
U-006
W-006
TITAN STATE 16-5F-54-4 413H
V-141
TK-451
TK-452
TK-453
P-521
LACT
U-521
OIL TAKEAWAY
TK-401
TK-402
TK-403
P-501
P-502
U-501
WATER TAKEAWAY
C-311
NOTES:
ORIFICE METER
CORIOLIS METER
MAGNETIC METER
GAS
OIL
WATER
FULL WELL STREAM
INSTRUMENT AIR
DRAWING REVISION
REV
DESCRIPTION
DATE
BY APPROVED
DRAWING STATUS
ISSUED FOR
DATE
BY
PHA
BID
CONSTRUCTION
AS-BUILT
CONFIDENTIAL
This drawing is the property of Devon Energy. Any reproduction, copying or unauthorized use of this drawing, or any part thereof, without the express written consent of Devon Energy is prohibited.
DRAWN BY
DATE
ENGINEERED BY
DATE
APPROVED BY
DATE
PROJECT No.: 120
DRAWING No.: 120-01
devon
Devon Energy Corporation
333 West Sheridan Avenue, Oklahoma City, OK 73102-5015
PETERSBURG STATE 17-28 WEST PAD
PROCESS FLOW DIAGRAM
FILE NAME
PFD-120-01
REV
3
Printed: 3/24/22
PLOT SCALE: 0.512:1

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

Form P-17A
Rev. 03/2019

☐ New
■ Amended Existing Permit
No. 10208
Effective Month/Year of Requested Exception: 01 / 2023
District 08
County REEVES

APPLICATION FOR COMMINGLE PERMIT PURSUANT TO STATEWIDE RULES 26 AND OR 27

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623

Operator Address: 333 WEST SHERIDAN AVENUE OKC, OK 73102

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: ORYX DELAWARE CRUDE | Gatherer P-5 No.: 627137

Gatherer Address:

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL CASINGHEAD GAS GAS WELL GAS ■ CONDENSATE

a) Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ■ This request is for off lease: ■ Storage Separation Metering
e) ■ This application is for common storage.
f) This application is for common separation.
g) This application is for casinghead gas metering by: Deduct Metering Allocation by well test Other_____
h) This application is for gas well gas metering by: Deduct Metering Allocation by well test Other_____

SECTION 4. COMMINGLING PURSUANT TO §3.26(b) or §3.27(e) – (CHECK ALL THAT APPLY)

a) ■ The production stream from each tract and each Commission-designated reservoir is measured separately before combining it with a stream from another tract or Commission-designated reservoir.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) ■ Other ALLOC METER

b) The tracts and Commission-designated reservoirs have identical royalty interest and working interest ownership in identical percentages.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) Other_____

SECTION 5. Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules regarding surface commingling have been adopted. (*Notice may be required; see instructions*)

SECTION 6. Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1. *(See instructions)*

SECTION 7. For oil production, the production from all oil wells on each oil lease is to be commingled. *(See instructions)*

SECTION 8. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 879058	■ Existing Add Delete	PETERSBURG STATE 17-28D-54-4 / PHANTOM (WOLFCAMP)	412H
08	DP 879059	■ Existing Add Delete	PETERSBURG STATE 17-28E-54-4 / PHANTOM (WOLFCAMP)	402H
08	DP 879061	■ Existing Add Delete	PETERSBURG STATE 17-28F-54-4 / PHANTOM (WOLFCAMP)	432H
08	DP 887140	■ Existing Add Delete	TITAN STATE 16-5D-54-4 / PHANTOM (WOLFCAMP)	433H

ATTACH ADDITIONAL PAGES AS NEEDED. No additional pages ■ Additional pages 1 (# of additional pages)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Amy A. Brown Title Regulatory Complaince Professional Date 02/27/2023

Operator E-mail Address: amy.brown@dvn.com Operator Phone No. (405) 552-6137
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. **Approval date:** **Approved by:**

RAILROAD COMMISION OF TEXAS
OIL AND GAS DIVISION

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27
COMMINGLE PERMIT APPLICATION

FORM P-17 ATTACHMENT

SECTION 8. (CONT'D) IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 887141	■ Existing Add Delete	TITAN STATE 16-5E-54-4 / PHANTOM (WOLFCAMP)	403H
08	DP 887143	■ Existing Add Delete	TITAN STATE 16-5F-54-4 / PHANTOM (WOLFCAMP)	413H
		Existing Add Delete		
		Existing Add Delete		
		Existing Add Delete	

(44)

File No. MF 116554

County

Comm's Gas Lift Approval 3/7/23

Date Filed: 7/12/23

Commissioner Dawn Buckingham, M.D.

By: AJ

Matthew Scott

From: Matthew Scott
Sent: Friday, June 23, 2023 2:10 PM
To: Brown, Amy
Cc: Robert Hatter; Brian Raygon
Subject: 08-10208 6-23-23 APPLICATION APPROVAL PETERSBURG ST WEST PAD AND TITAN ST
Attachments: 08-10208 6-23-23 APPLICATION APPROVAL PETERSBURG ST WEST PAD TITAN ST.pdf; Petersburg State 17-28 Pad - REV GLO Application 06.2023 6-22-23.pdf

Ms. Amy Brown,

Thank you for submitting the application to (1) commingle production from the Petersburg State 17-28-54-4 West Pad wells in the scope of PSA 377 that includes MF114284 and MF120280 with the Titan State 16-5-54-4 wells in the scope of PSA 413 at the Petersburg State 17-28 West Pad facility and (2) the amendment of the gas lift system to utilize an off-lease gas lift supply in lieu of an on-lease compressor.

Please find attached the approval of the application, dated 6/23/2023, for the surface commingling of the production from the Petersburg State 17-28-54-4 PSA 377 wells and the Titan State 16-5-54-4 PSA 413 wells listed in the application and as part of RRC P17 08-10208.

Gas Lift

In addition, as Lessee and operator of the Petersburg State 17-28-54-4 PSA 377 wells and the Titan State 16-5-54-4 PSA 413 wells, it was requested that the GLO approve of the amendment of the gas lift supply to utilize an off-lease supply in lieu of on-lease compression.

The GLO approves of the use of gas lift to produce the PSA wells from the portion of state mineral lease MF114284 and MF120280 that are included in the scope of PSA 377.

The GLO approves of the use of gas lift to produce the unit well(s) and PSA wells from the portion of state mineral leases MF116554, MF116791, MF118163 that are included in the scope of GLO Unit 8343, and the portions of the state mineral leases in the scope of PSA 413.

Thank you,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Tuesday, June 13, 2023 1:31 PM

To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] GLO Surface Commingle / Gas Lift Amendment - Petersburg State 17-28 West Pad

Good afternoon, Matthew. I have attached an updated application to amend our previously approved surface commingle / gas lift authorization from 03/08/2023. This amendment details changes to the gas lift process by removing an on site compressor and switching to the high pressure gathering system. The attached packet contains the following:

- Revised narrative outlining change to gas lift section
- Revised PFD
- Updated GLO lease list utilizing notes from the March 2023 approval.
- Copy of amended P17A that has been submitted to the RRC updating DPs to lease IDs for our Petersburg State wells.

Please let me know if you need any corrections or adjustments to this packet and thanks so much for your time.

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

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Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications Form P-17/P-17A District: 08 **Permit Number:** 9765 **Effective Month/Year:** 07/2023

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.
- [x] All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.
- [x] All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.
- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.
- [ ] Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.
- [x] Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows: Petersburg State 17-28, Titan State 16-5
- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian, LLC 333 West Sheridan Ave OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 6/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: _____ Signature: _____ Date: _____

GLO Notes:

GLO LEASE LIST

REVISION: 4/15/2023

RRC Form P-17 Permit Operator Name	RRC Form P-17/17A Number	Application Date on P-17	RRC District
WPX ENERGY PERMIAN, LLC	9765	7/1/2023	8

GLO LEASE LIST			SEE NOTE 3				SEE NOTE 1				SEE NOTE 2
RRC Designated Field Name & (Reservoir)	RRC Lease Name	RRC Well Number	RRC Lease Number or Identifier	Wellbore 10 Digit API No.	RRC Form P-17 Action Status	RRC Lease Type (Oil/Gas)	State Mineral Lease No.	Production Sharing Agreement (PSA) Number	GLO Unit Name Per Unit Agreement	GLO Unit Number or PSA I-Nut Number	State Mineral Lease or Unit Decimal NRI
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28A-54-4	401H	291530	42-389-39348	Submitted	GAS	MF114284	377	PETERSBURG STATE	11611	0.06405703
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28B-54-4	411H	291603	42-389-39349	Submitted	GAS	MF114284	377	PETERSBURG STATE	11612	0.06487151
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28C-54-4	431H	291531	42-389-39350	Submitted	GAS	MF120280	377	PETERSBURG STATE	11613	0.06174123
PHANTOM (WOLFCAMP)	TITAN STATE 16-5A-54-4	432H	DP 887145	42-389-40403	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
PHANTOM (WOLFCAMP)	TITAN STATE 16-5B-54-4	402H	DP 887146	42-389-40404	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
PHANTOM (WOLFCAMP)	TITAN STATE 16-5C-54-4	412H	DP 887148	42-389-40405	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
		SEE NOTE 4	SEE NOTE 3				SEE NOTE 1	SEE NOTE 1		SEE NOTE 1	SEE NOTE 2

ALL RRC FIELD NAMES, RRC LEASE NAMES, RRC LEASE & DP NUMBERS, API NUMBERS, MINERAL LEASE NUMBERS, PSA NUMBERS, UNIT NAMES, UNIT NUMBERS, AND NRIS IN THE TABLE ABOVE WERE CREATED FOR EXAMPLE PURPOSES ONLY.

NOTES:

1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE TRACT.

IF DUE TO HORIZONTAL SEVERANCE OR DEPTH LIMITATIONS SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE RRC DESIGNATED PRODUCING FIELD AND RESERVOIR INTERVAL.

IF A VERTICAL WELL, HORIZONTAL WELL, OR DIRECTIONAL WELL IS INCLUDED IN THE SCOPE OF A POOLED UNIT THAT INCLUDES MULTIPLE STATE AND PRIVATE LEASES, THEN LEAVE THE MINERAL LEASE NUMBER BLANK AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NET ROYALTY INTEREST (NRI) IN THE APPROPRIATE COLUMNS.

IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE AND PRIVATE MINERAL LEASES AND THE WELLBORE IS NOT INCLUDED IN A GLO POOLED UNIT, THEN ENTER EITHER:
(A) THE PSA NUMBER AND LOWEST LEVEL BASE MINERAL FILE NUMBER FOR THAT PSA BASED ON SHARED AREA AND ITS APPLICABLE NRI BASED ON ACREAGE PARTICIPATION IN THE APPROPRIATE COLUMNS, OR
(B) THE PSA NUMBER, LOWEST LEVEL BASE MINERAL FILE NUMBER, AND THE ASSOCIATED I-NUT NUMBER (ELSE "PENDING" IF THE I-NUT NUMBER HAS NOT YET BEEN ASSIGNED) FOR EACH ALLOCATION WELL WELLBORE BASED ON LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA IN THE PRODUCTIVE INTERVAL AND THE APPLICABLE STATE NRI FOR THAT WELLBORE IN THE APPROPRIATE COLUMNS.
THE LOWEST LEVEL BASE MINERAL FILE NUMBER IS THE LOWEST NUMERICAL MINERAL FILE NUMBER OF ALL OF THE STATE MINERAL LEASES NUMBERS THAT MAY BE INCLUDED IN THE SCOPE OF A PSA THAT WAS EXECUTED BY ALL PARTIES.

2. ENTER THE STATE'S (GLO) NET MINERAL LEASE INTEREST (8 DECIMAL PLACES PER DIVISION ORDER) FOR THAT STATE LEASE ELSE ENTER THE POOLED UNIT, PSA, OR I-NUT NET ROYALTY INTEREST ASSOCIATED WITH: (A) A GLO POOLED UNIT, (B) A PSA BASED ON SHARED AREA, OR (C) A PSA FOR ONE OR MORE ALLOCATION WELLS WITH AN NRI DETERMINED FOR EACH INDIVIDUAL WELL AND REPORTED BY I-NUT NUMBER COMPLETION.
IF AN ALLOCATION WELL THAT IS ALLOCATED BASED ON LENGTH OF LATERAL HAS NOT BEEN DRILLED, IS PENDING COMPLETION, OR WAS RECENTLY COMPLETED, AND THE NRI HAS NOT YET BEEN DEFINED THEN ENTER "EST" FOLLOWED BY AN ESTIMATE OF THE NRI BASED ON THE PROPOSED OR PLANNED LENGTH OF LATERAL OR BASED ON OTHER SIMILAR EXISING COMPLETIONS.

AN I-NUT NUMBER IS A UNIQUE NUMBER THAT IS ASSIGNED TO EACH API WELLBORE THAT IS DRILLED AS AN ALLOCATION WELL WITH ALLOCATION BASED ON THE LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA WITHIN THE PRODUCTIVE RESERVOIR THAT IS AUTHORIZED PER A SPECIFIC UPLANDS LEASE PRODUCTION SHARING AGREEMENT (PSA) . A HIGHWAY ROW (HROW) AND OTHER STATE AGENCY LANDS TYPE LEASE WILL NOT BE ASSOCIATED WITH A PSA.
IF AN APPLICATION TO COMMINGLE STATE LEASES IS SUBMITTED AND AN I-NUT NUMBER HAS NOT YET BEEN ASSIGNED BY GLO STAFF, THEN ENTER "PENDING" AS THE REFERENCE PSA I-NUT NUMBER.
I-NUT IS AN ACRONYM FOR "INTERNAL NON-UNIT TRANSACTION" THAT IS ASSIGNED BY GLO STAFF TO AN ALLOCATION WELL PER A SPECIFIC PRODUCTION SHARING AGREEMENT (PSA) THAT IS ASSOCIATED WITH ONE OR MORE STATE LEASES.
GLO STAFF VERIFIES/DETERMINES THE NRI BASED ON AS-DRILLED LENGTH OF LATERAL INFORMATION PROVIDED BY THE LESSEE AND THE PARTICIPATION FACTOR OF EACH CONTRIBUTING STATE LEASE DEFINED BY THE APPLICABLE PSA.

PRODUCTION SHARING AGREEMENT (PSA) NUMBERS ARE TYPICALLY ASSOCIATED WITH PERMANENT SCHOOL FUND (PSF) LANDS, (I.E., RIVERS, CREEKS, BAYS, GULF OF MEXICO, RELINQUISHMENT ACT LANDS, SCHOOL FEE, FREE ROYALTY, SURFACE SOLD MINERALS RESERVED, ETC.). HOWEVER, OTHER STATE AGENCY LANDS (I.E., HROW, TDCJ, TXDOT, ETC.) WILL NOT HAVE PSA NUMBERS ASSIGNED. PSA DOCUMENTS ARE AVAILABLE VIA THE SCANNED BASE MINERAL FILE DOCUMENTS ACCESSED VIA THE GLO PUBLIC GIS MAP VIEWER, IF NOT AVAILABLE FROM YOUR PRODUCTION REVENUE ACCOUNTING, DIVISION ORDER ANALYSTS, OR LANDMAN STAFF OR FILE RECORDS FOR A MINERAL LEASE TRACT.

3. IF A RRC LEASE NUMBER IS PENDING ASSIGNMENT OR THE WELL HAS NOT BEEN COMPLETED THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NUMBER ASSIGNED BY THE RRC.

4. ALL WELLS ASSOCIATED WITH EACH RRC LEASE NUMBER INCLUDED IN THE SCOPE OF A COMMINGLING PERMIT SHALL BE INCLUDED ON THE GLO LEASE LIST SUBMITTED WITH THE APPLICATION TO COMMINGLE STATE LEASES.

THE NOTES SECTION ABOVE IS FOR INFORMATION AND GUIDANCE ONLY AND THUS MAY BE DELETED FROM THE GLO LEASE LIST THAT IS SUBMITTED TO THE GLO AS PART OF AN APPLICATION REQUEST TO COMMINGLE STATE LEASES.

Process Narrative – Petersburg State 17-28 Pad Central Tank Battery

All Wells

Gross production from each well flows from its respective wellsite through a 3–phase flowline to the Petersburg State 17-28 Pad Central Tank Battery. At the Central Tank Battery, it flows through a dedicated 3-phase separator which meters oil, gas, and water. The water is comingled and stored in tanks. The gas is measured individually and flows to a 3rd party gatherer. The oil is measured individually before being comingled and stored in tanks. Any hydrocarbon liquid collected from gas scrubbers will be sold from the tanks as oil.

Oil

Gross production of oil is measured at the outlet of the dedicated separator using a Coriolis meter. The oil is then comingled and flows to the common tanks where it is sold through a LACT unit to a 3rd party gatherer. The oil is measured by a Coriolis meter. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter.

Gas

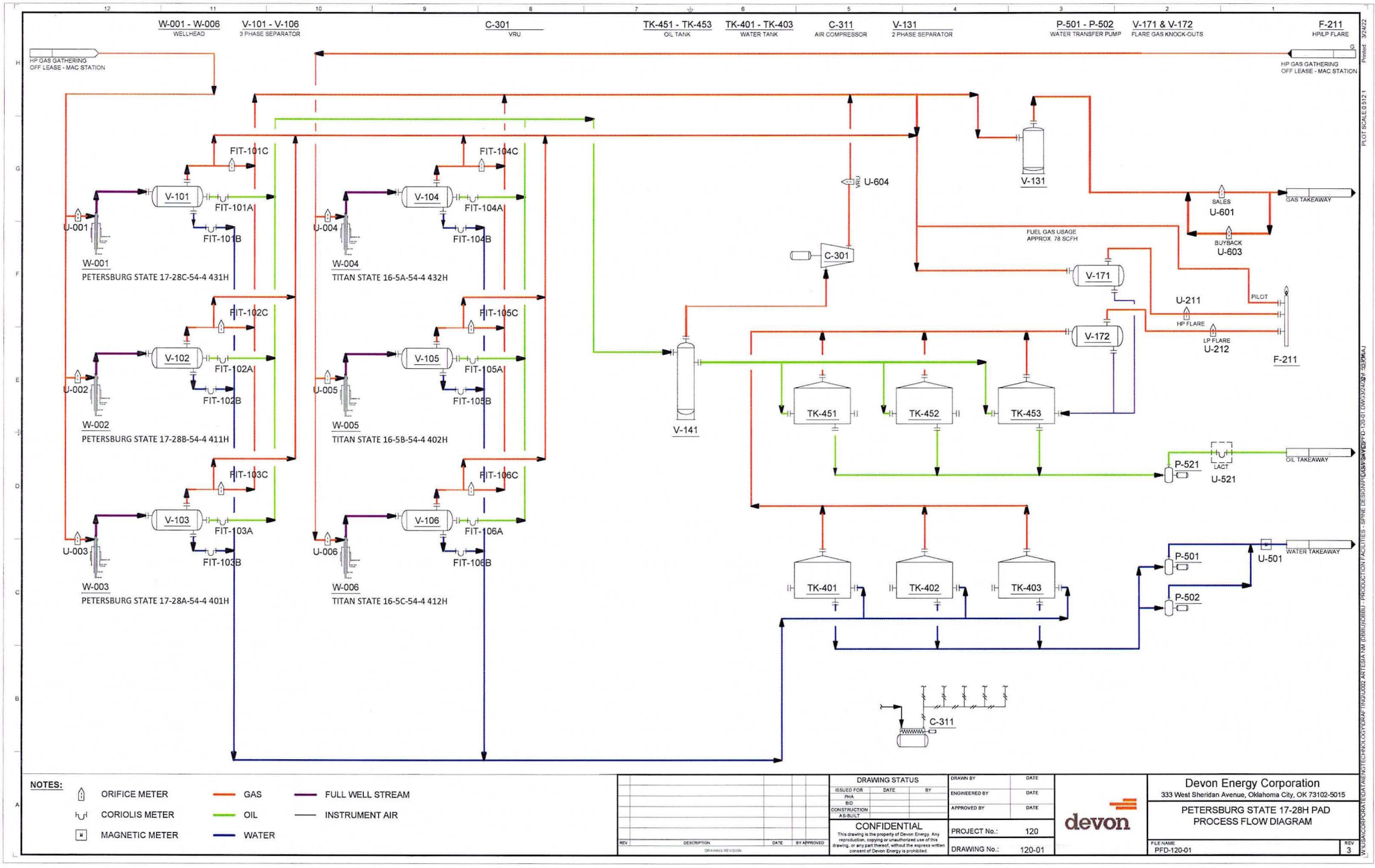
Gross production of the gas is measured at the outlet of the dedicated separator using an orifice meter. It will then flow through a common gas line to a lease custody transfer meter where it will be measured using an orifice meter and gathered by a 3rd party. If the gathering system pressure gets too high the gas will flow through an orifice flare meter and flow to a high pressure flare. Fuel gas will be bought back from the gathering system and used for all wells. Flare royalties will be paid off a monthly statement using a MMBTU value for each well.

Gas Lift

Lift gas will be metered from the high pressure gathering through an individual well injection orifice meter and sent down the well bore.

Water

Gross production of water is measured at the outlet of the dedicated separator using a Coriolis meter. The water is comingled and sent to common storage tanks. The water from the treater is sent to common storage tanks. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter. From the tanks, the water is sent to a pump and measured using a turbine meter. The pump moves the water to a Salt Water Disposal system.


W-001 - W-006
WELLHEAD
V-101 - V-106
3 PHASE SEPARATOR
C-301
VRU
TK-451 - TK-453
OIL TANK
TK-401 - TK-403
WATER TANK
C-311
AIR COMPRESSOR
V-131
2 PHASE SEPARATOR
P-501 - P-502
WATER TRANSFER PUMP
V-171 & V-172
FLARE GAS KNOCK-OUTS
F-211
HP/LP FLARE
HP GAS GATHERING
OFF LEASE - MAC STATION
HP GAS GATHERING
OFF LEASE - MAC STATION
FIT-101C
V-101
FIT-101A
FIT-101B
U-001
W-001
PETERSBURG STATE 17-28C-54-4 431H
FIT-104C
V-104
FIT-104A
FIT-104B
U-004
W-004
TITAN STATE 16-5A-54-4 432H
U-604
V-131
SALES
U-601
GAS TAKEAWAY
BUYBACK
U-603
FUEL GAS USAGE
APPROX. 78 SCFH
C-301
V-171
PILOT
U-211
HP FLARE
LP FLARE
U-212
F-211
V-172
FIT-102C
V-102
FIT-102A
FIT-102B
U-002
W-002
PETERSBURG STATE 17-28B-54-4 411H
FIT-105C
V-105
FIT-105A
FIT-105B
U-005
W-005
TITAN STATE 16-5B-54-4 402H
V-141
TK-451
TK-452
TK-453
P-521
LACT
U-521
OIL TAKEAWAY
FIT-103C
V-103
FIT-103A
FIT-103B
U-003
W-003
PETERSBURG STATE 17-28A-54-4 401H
FIT-106C
V-106
FIT-106A
FIT-106B
U-006
W-006
TITAN STATE 16-5C-54-4 412H
TK-401
TK-402
TK-403
P-501
P-502
U-501
WATER TAKEAWAY
C-311
NOTES:
ORIFICE METER
CORIOLIS METER
MAGNETIC METER
GAS
OIL
WATER
FULL WELL STREAM
INSTRUMENT AIR
DRAWING STATUS
ISSUED FOR
PHA
BID
CONSTRUCTION
AS-BUILT
DATE
BY
DRAWN BY
ENGINEERED BY
APPROVED BY
DATE
CONFIDENTIAL
This drawing is the property of Devon Energy. Any reproduction, copying or unauthorized use of this drawing, or any part thereof, without the express written consent of Devon Energy is prohibited.
PROJECT No.: 120
DRAWING No.: 120-01
REV
DESCRIPTION
DATE
BY APPROVED
DRAWING REVISION
devon
Devon Energy Corporation
333 West Sheridan Avenue, Oklahoma City, OK 73102-5015
PETERSBURG STATE 17-28H PAD
PROCESS FLOW DIAGRAM
FILE NAME
PFD-120-01
REV
3
Printed: 3/24/22
PLOT SCALE: 0.512:1

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

Form P-17A
Rev. 03/2019

☐ New
■ Amended Existing Permit
No. 9765
Effective Month/Year of Requested Exception: 07 / 2023
District 08
County REEVES

APPLICATION FOR COMMINGLE PERMIT PURSUANT TO STATEWIDE RULES 26 AND OR 27

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623

Operator Address: 333 WEST SHERIDAN AVENUE OKC, OK 73102

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: ORYX DELAWARE OIL TRANSPORT LLC | Gatherer P-5 No.: 627137

Gatherer Address:

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL CASINGHEAD GAS GAS WELL GAS ■ CONDENSATE

a) Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ■ This request is for off lease: ■ Storage Separation Metering
e) ■ This application is for common storage.
f) This application is for common separation.
g) This application is for casinghead gas metering by: Deduct Metering Allocation by well test Other_____
h) This application is for gas well gas metering by: Deduct Metering Allocation by well test Other_____

SECTION 4. COMMINGLING PURSUANT TO §3.26(b) or §3.27(e) – (CHECK ALL THAT APPLY)

a) ■ The production stream from each tract and each Commission-designated reservoir is measured separately before combining it with a stream from another tract or Commission-designated reservoir.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) ■ Other ALLOCATION

b) The tracts and Commission-designated reservoirs have identical royalty interest and working interest ownership in identical percentages.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) Other_____

SECTION 5. Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules regarding surface commingling have been adopted. (*Notice may be required; see instructions*)

SECTION 6. Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1. *(See instructions)*

SECTION 7. For oil production, the production from all oil wells on each oil lease is to be commingled. *(See instructions)*

SECTION 8. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	291530	■ Existing Add Delete	PETERSBURG STATE 17-28A-54-4 / PHANTOM (WOLFCAMP)	401H
08	291603	■ Existing Add Delete	PETERSBURG STATE 17-28B-54-4 / PHANTOM (WOLFCAMP)	411H
08	291531	■ Existing Add Delete	PETERSBURG STATE 17-28C-54-4 / PHANTOM (WOLFCAMP)	431H
08	DP 887145	Existing ■ Add Delete	TITAN STATE 16-5A-54-4 / PHANTOM (WOLFCAMP)	432H

ATTACH ADDITIONAL PAGES AS NEEDED. No additional pages ■ Additional pages 1 (# of additional pages)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Amy A. Brown Title Regulatory Complaince Professional Date 06/05/2023

Operator E-mail Address: amy.brown@dvn.com Operator Phone No. (405) 552-6137
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. **Approval date:** **Approved by:**

RAILROAD COMMISION OF TEXAS
OIL AND GAS DIVISION

FORM P-17 ATTACHMENT

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27
COMMINGLE PERMIT APPLICATION

SECTION 8. (CONT'D) IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 887146	Existing ■ Add Delete	TITAN STATE 16-5B-54-4 / PHANTOM (WOLFCAMP)	402H
08	DP 887148	Existing ■ Add Delete	TITAN STATE 16-5C-54-4 / PHANTOM (WOLFCAMP)	412H
		Existing Add Delete		
		Existing Add Delete		
		Existing Add Delete	

Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications Form P-17/P-17A District: 08 **Permit Number:** 10208 **Effective Month/Year:** 01/2023

☑ All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.

☑ If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.

☑ All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.

☑ All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.

☑ No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.

☑ Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.

☑ Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows:
PETERSBURG STATE 17-28, TITAN STATE 16-5

☑ I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian LLC, 333 W Sheridan Ave OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 6/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: Matthew T. Scott Signature: Matthew T. Scott Date: 6/23/2023

GLO Notes: Petersburg State 17-28-54-4West Pad wells in the scope of PSA 377 (MF114284 & MF120280) and Gas Lift in PSA 377 Area. Titan State 16-5-54-4 wells in scope of PSA 413 and Gas Lift in PSA 413 wells.

45

File No. MF116554

County

Comm 3 Gas Lift Approval 6/23/23

Date Filed: 7/12/23

Commissioner Dawn Buckingham, M.D.

By: AT

Matthew Scott

From: Matthew Scott
Sent: Friday, June 23, 2023 3:57 PM
To: Brown, Amy
Cc: Robert Hatter; Brian Raygon
Subject: 08-9765 6-23-23 APPLICATION APPROVAL PETERSBURG ST AND TITAN ST
Attachments: 08-9765 6-23-23 APPLICATION APPROVAL PETERSBURG ST TITAN ST.pdf; Petersburg State 17-28 Pad - REV GLO Application 06.2023 6-22-23.pdf

Ms. Amy Brown,

Thank you for submitting the application to (1) commingle production from the Petersburg State 17-28-54-4 wells in the scope of PSA 377 that includes MF114284 and MF120280 with the Titan State 16-5-54-4 wells in the scope of PSA 413 at the Petersburg State 17-28 PAD facility and (2) the request to utilize gas lift as an artificial lift method in the PSA 413 wells from an off-lease lift gas source.

Please find attached the approval of the application, dated 6/23/2023, for the surface commingling of the production from the Petersburg State 17-28-54-4 PSA 377 wells and the Titan State 16-5-54-4 PSA 413 wells listed in the application and as part of RRC P17A 08-9765.

Gas Lift

In addition, as Lessee and operator of the Petersburg State 17-28-54-4 PSA 377 wells and the Titan State 16-5-54-4 PSA 413 wells, it was requested that the GLO approve of the use of gas lift as a form of artificial lift to produce the PSA wells.

The GLO approves of the use of gas lift to produce the PSA wells from the portion of state mineral lease MF114284 and MF120280 that are included in the scope of PSA 377.

The GLO approves of the use of gas lift to produce the unit well(s) and PSA wells from the portion of state mineral leases MF116554, MF116791, MF118163 that are included in the scope of GLO Unit 8343, and the portions of the state mineral leases in the scope of PSA 413.

Thank you,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Tuesday, June 13, 2023 3:17 PM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] New GLO Surface Commingle / Gas Lift Application - Petersburg State 17-28 Pad

Good afternoon, Matthew. I have attached a new surface commingle / gas lift application for our remaining Petersburg State and Titan State wells on a different pad. The Titan State wells on this application will not come online until July. Packet includes:

- GLO Application Page
- Process Narrative
- GLO lease list with estimates for the Titan State wells
- PFD
- Copy of amended P17A that has been submitted to the RRC adding the Titan State wells.

Please let me know if you need any corrections or adjustments to this packet and thanks so much for your time.

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

CAUTION: This email originated from OUTSIDE of the Texas General Land Office. Links or attachments may be dangerous. Please be careful clicking on any links or opening any attachments.

Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications Form P-17/P-17A District: 08 **Permit Number:** 9765 **Effective Month/Year:** 07/2023

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.
- [x] All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.
- [x] All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.
- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.
- [ ] Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.
- [x] Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows:
  Petersburg State 17-28, Titan State 16-5
- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian, LLC 333 West Sheridan Ave OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 6/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: Matthew T. Scott Signature: Matthew T. Scott Date: 6/23/2023

GLO Notes: Petersburg State 17-28-54-4 wells in the scope of PSA 377 (MF114284 & MF120280) and Gas Lift in PSA 377 Area. Titan State 16-5-54-4 wells in scope of PSA 413 and Gas Lift in PSA 413 wells.

Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications Form P-17/P-17A District: 08 **Permit Number:** 9765 **Effective Month/Year:** 07/2023

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.
- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.
- [x] All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.
- [x] All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.
- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.
- [ ] Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.
- [x] Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows: Petersburg State 17-28, Titan State 16-5
- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX Energy Permian, LLC 333 West Sheridan Ave OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Professional Signature: Amy A. Brown

Date: 6/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: _____ Signature: _____ Date: _____

GLO Notes:

GLO LEASE LIST

REVISION: 4/15/2023

RRC Form P-17 Permit Operator Name	RRC Form P-17/17A Number	Application Date on P-17	RRC District
WPX ENERGY PERMIAN, LLC	9765	7/1/2023	8

GLO LEASE LIST			SEE NOTE 3				SEE NOTE 1				SEE NOTE 2
RRC Designated Field Name & (Reservoir)	RRC Lease Name	RRC Well Number	RRC Lease Number or Identifier	Wellbore 10 Digit API No.	RRC Form P-17 Action Status	RRC Lease Type (Oil/Gas)	State Mineral Lease No.	Production Sharing Agreement (PSA) Number	GLO Unit Name Per Unit Agreement	GLO Unit Number or PSA i-Nut Number	State Mineral Lease or Unit Decimal NRI
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28A-54-4	401H	291530	42-389-39348	Submitted	GAS	MF114284	377	PETERSBURG STATE	11611	0.06405703
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28B-54-4	411H	291603	42-389-39349	Submitted	GAS	MF114284	377	PETERSBURG STATE	11612	0.06487151
PHANTOM (WOLFCAMP)	PETERSBURG STATE 17-28C-54-4	431H	291531	42-389-39350	Submitted	GAS	MF120280	377	PETERSBURG STATE	11613	0.06174123
PHANTOM (WOLFCAMP)	TITAN STATE 16-5A-54-4	432H	DP 887145	42-389-40403	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
PHANTOM (WOLFCAMP)	TITAN STATE 16-5B-54-4	402H	DP 887146	42-389-40404	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
PHANTOM (WOLFCAMP)	TITAN STATE 16-5C-54-4	412H	DP 887148	42-389-40405	Submitted	GAS	MF116554	413	TITAN STATE 5-16		est. 0.064
		SEE NOTE 4	SEE NOTE 3				SEE NOTE 1	SEE NOTE 1		SEE NOTE 1	SEE NOTE 2

ALL RRC FIELD NAMES, RRC LEASE NAMES, RRC LEASE & DP NUMBERS, API NUMBERS, MINERAL LEASE NUMBERS, PSA NUMBERS, UNIT NAMES, UNIT NUMBERS, AND NRIS IN THE TABLE ABOVE WERE CREATED FOR EXAMPLE PURPOSES ONLY.

NOTES:

1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE TRACT.

IF DUE TO HORIZONTAL SEVERANCE OR DEPTH LIMITATIONS SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE RRC DESIGNATED PRODUCING FIELD AND RESERVOIR INTERVAL.

IF A VERTICAL WELL, HORIZONTAL WELL, OR DIRECTIONAL WELL IS INCLUDED IN THE SCOPE OF A POOLED UNIT THAT INCLUDES MULTIPLE STATE AND PRIVATE LEASES, THEN LEAVE THE MINERAL LEASE NUMBER BLANK AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NET ROYALTY INTEREST (NRI) IN THE APPROPRIATE COLUMNS.

IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE AND PRIVATE MINERAL LEASES AND THE WELLBORE IS NOT INCLUDED IN A GLO POOLED UNIT, THEN ENTER EITHER:
(A) THE PSA NUMBER AND LOWEST LEVEL BASE MINERAL FILE NUMBER FOR THAT PSA BASED ON SHARED AREA AND ITS APPLICABLE NRI BASED ON ACREAGE PARTICIPATION IN THE APPROPRIATE COLUMNS, OR
(B) THE PSA NUMBER, LOWEST LEVEL BASE MINERAL FILE NUMBER, AND THE ASSOCIATED i-NUT NUMBER (ELSE "PENDING" IF THE i-NUT NUMBER HAS NOT YET BEEN ASSIGNED) FOR EACH ALLOCATION WELL WELLBORE BASED ON LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA IN THE PRODUCTIVE INTERVAL AND THE APPLICABLE STATE NRI FOR THAT WELLBORE IN THE APPROPRIATE COLUMNS.
THE LOWEST LEVEL BASE MINERAL FILE NUMBER IS THE LOWEST NUMERICAL MINERAL FILE NUMBER OF ALL OF THE STATE MINERAL LEASES NUMBERS THAT MAY BE INCLUDED IN THE SCOPE OF A PSA THAT WAS EXECUTED BY ALL PARTIES.

2. ENTER THE STATE'S (GLO) NET MINERAL LEASE INTEREST (8 DECIMAL PLACES PER DIVISION ORDER) FOR THAT STATE LEASE ELSE ENTER THE POOLED UNIT, PSA, OR i-NUT NET ROYALTY INTEREST ASSOCIATED WITH: (A) A GLO POOLED UNIT, (B) A PSA BASED ON SHARED AREA, OR (C) A PSA FOR ONE OR MORE ALLOCATION WELLS WITH AN NRI DETERMINED FOR EACH INDIVIDUAL WELL AND REPORTED BY i-NUT NUMBER COMPLETION.
IF AN ALLOCATION WELL THAT IS ALLOCATED BASED ON LENGTH OF LATERAL HAS NOT BEEN DRILLED, IS PENDING COMPLETION, OR WAS RECENTLY COMPLETED, AND THE NRI HAS NOT YET BEEN DEFINED THEN ENTER "EST" FOLLOWED BY AN ESTIMATE OF THE NRI BASED ON THE PROPOSED OR PLANNED LENGTH OF LATERAL OR BASED ON OTHER SIMILAR EXISING COMPLETIONS.

AN i-NUT NUMBER IS A UNIQUE NUMBER THAT IS ASSIGNED TO EACH API WELLBORE THAT IS DRILLED AS AN ALLOCATION WELL WITH ALLOCATION BASED ON THE LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA WITHIN THE PRODUCTIVE RESERVOIR THAT IS AUTHORIZED PER A SPECIFIC UPLANDS LEASE PRODUCTION SHARING AGREEMENT (PSA) . A HIGHWAY ROW (HROW) AND OTHER STATE AGENCY LANDS TYPE LEASE WILL NOT BE ASSOCIATED WITH A PSA.
IF AN APPLICATION TO COMMINGLE STATE LEASES IS SUBMITTED AND AN i-NUT NUMBER HAS NOT YET BEEN ASSIGNED BY GLO STAFF, THEN ENTER "PENDING" AS THE REFERENCE PSA i-NUT NUMBER.
i-NUT IS AN ACRONYM FOR "INTERNAL NON-UNIT TRANSACTION" THAT IS ASSIGNED BY GLO STAFF TO AN ALLOCATION WELL PER A SPECIFIC PRODUCTION SHARING AGREEMENT (PSA) THAT IS ASSOCIATED WITH ONE OR MORE STATE LEASES.
GLO STAFF VERIFIES/DETERMINES THE NRI BASED ON AS-DRILLED LENGTH OF LATERAL INFORMATION PROVIDED BY THE LESSEE AND THE PARTICIPATION FACTOR OF EACH CONTRIBUTING STATE LEASE DEFINED BY THE APPLICABLE PSA.

PRODUCTION SHARING AGREEMENT (PSA) NUMBERS ARE TYPICALLY ASSOCIATED WITH PERMANENT SCHOOL FUND (PSF) LANDS, (I.E., RIVERS, CREEKS, BAYS, GULF OF MEXICO, RELINQUISHMENT ACT LANDS, SCHOOL FEE, FREE ROYALTY, SURFACE SOLD MINERALS RESERVED, ETC.). HOWEVER, OTHER STATE AGENCY LANDS (I.E., HROW, TDCJ, TXDOT, ETC.) WILL NOT HAVE PSA NUMBERS ASSIGNED. PSA DOCUMENTS ARE AVAILABLE VIA THE SCANNED BASE MINERAL FILE DOCUMENTS ACCESSED VIA THE GLO PUBLIC GIS MAP VIEWER, IF NOT AVAILABLE FROM YOUR PRODUCTION REVENUE ACCOUNTING, DIVISION ORDER ANALYSTS, OR LANDMAN STAFF OR FILE RECORDS FOR A MINERAL LEASE TRACT.

3. IF A RRC LEASE NUMBER IS PENDING ASSIGNMENT OR THE WELL HAS NOT BEEN COMPLETED THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NUMBER ASSIGNED BY THE RRC.

4. ALL WELLS ASSOCIATED WITH EACH RRC LEASE NUMBER INCLUDED IN THE SCOPE OF A COMMINGLING PERMIT SHALL BE INCLUDED ON THE GLO LEASE LIST SUBMITTED WITH THE APPLICATION TO COMMINGLE STATE LEASES.

THE NOTES SECTION ABOVE IS FOR INFORMATION AND GUIDANCE ONLY AND THUS MAY BE DELETED FROM THE GLO LEASE LIST THAT IS SUBMITTED TO THE GLO AS PART OF AN APPLICATION REQUEST TO COMMINGLE STATE LEASES.

Process Narrative – Petersburg State 17-28 Pad Central Tank Battery

All Wells

Gross production from each well flows from its respective wellsite through a 3–phase flowline to the Petersburg State 17-28 Pad Central Tank Battery. At the Central Tank Battery, it flows through a dedicated 3-phase separator which meters oil, gas, and water. The water is comingled and stored in tanks. The gas is measured individually and flows to a 3rd party gatherer. The oil is measured individually before being comingled and stored in tanks. Any hydrocarbon liquid collected from gas scrubbers will be sold from the tanks as oil.

Oil

Gross production of oil is measured at the outlet of the dedicated separator using a Coriolis meter. The oil is then comingled and flows to the common tanks where it is sold through a LACT unit to a 3rd party gatherer. The oil is measured by a Coriolis meter. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter.

Gas

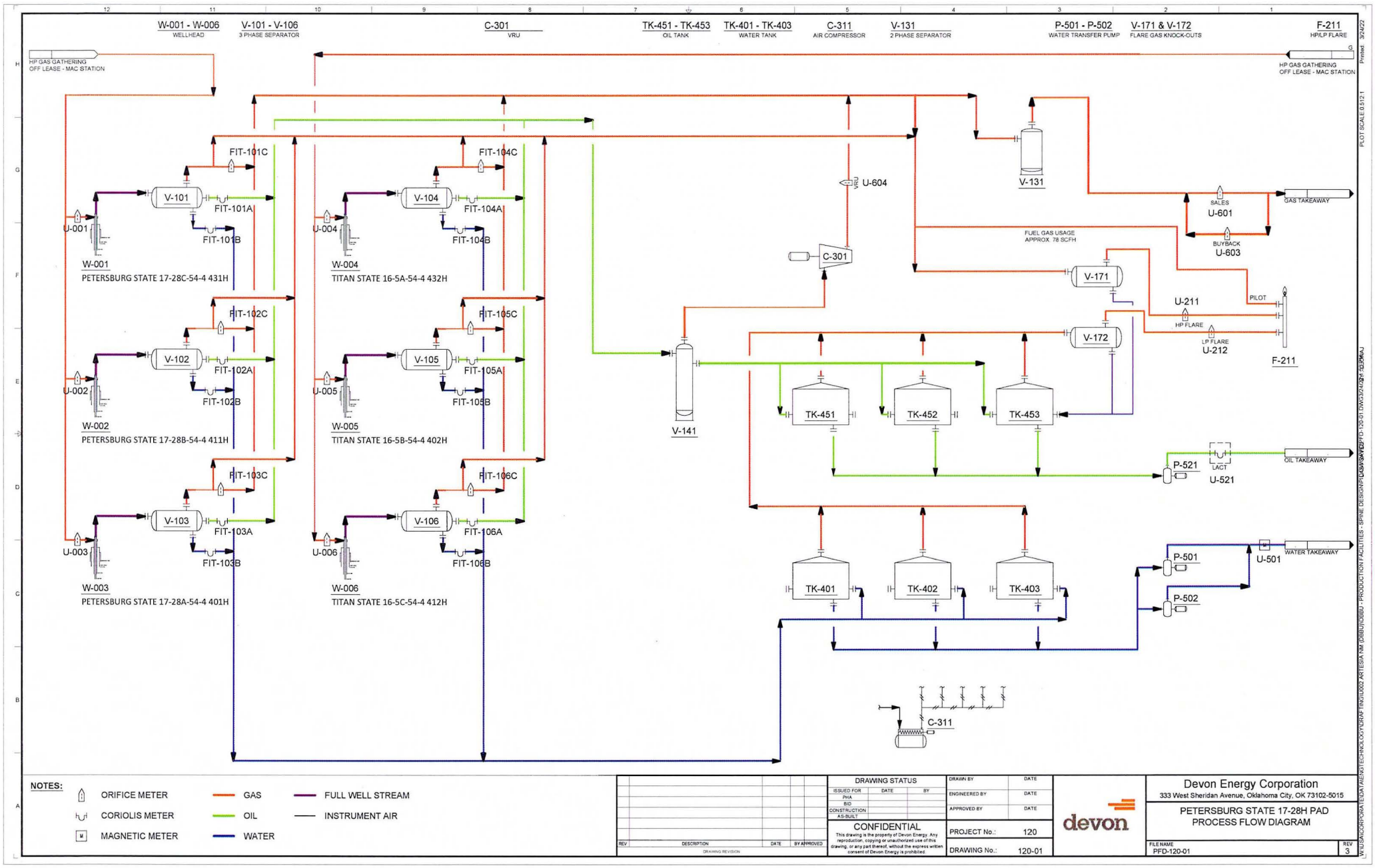
Gross production of the gas is measured at the outlet of the dedicated separator using an orifice meter. It will then flow through a common gas line to a lease custody transfer meter where it will be measured using an orifice meter and gathered by a 3rd party. If the gathering system pressure gets too high the gas will flow through an orifice flare meter and flow to a high pressure flare. Fuel gas will be bought back from the gathering system and used for all wells. Flare royalties will be paid off a monthly statement using a MMBTU value for each well.

Gas Lift

Lift gas will be metered from the high pressure gathering through an individual well injection orifice meter and sent down the well bore.

Water

Gross production of water is measured at the outlet of the dedicated separator using a Coriolis meter. The water is comingled and sent to common storage tanks. The water from the treater is sent to common storage tanks. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter. From the tanks, the water is sent to a pump and measured using a turbine meter. The pump moves the water to a Salt Water Disposal system.



NOTES:

- ORIFICE METER
- CORIOLIS METER
- MAGNETIC METER
- GAS
- OIL
- WATER
- FULL WELL STREAM
- INSTRUMENT AIR

REV	DESCRIPTION	DATE	BY APPROVED
	DRAWING REVISION		

DRAWING STATUS

ISSUED FOR	DATE	BY
PHA		
BID		
CONSTRUCTION		
AS-BUILT		

CONFIDENTIAL
This drawing is the property of Devon Energy. Any reproduction, copying or unauthorized use of this drawing, or any part thereof, without the express written consent of Devon Energy is prohibited.

		DATE
DRAWN BY		
ENGINEERED BY		DATE
APPROVED BY		DATE
PROJECT No.:	120	
DRAWING No.:	120-01	

devon

Devon Energy Corporation
333 West Sheridan Avenue, Oklahoma City, OK 73102-5015

PETERSBURG STATE 17-28H PAD
PROCESS FLOW DIAGRAM

FILE NAME	REV
PFD-120-01	3

Printed: 3/24/22
PLOT SCALE: 0.512:1
W:\USA\CORP\OKA\ENGINEERING\DRAWINGS\PFD-120-01.DWG 3/24/22 12:17:52 PM

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

Form P-17A
Rev. 03/2019

☐ New
■ Amended Existing Permit
No. 9765
Effective Month/Year of Requested Exception: 07 / 2023
District 08
County REEVES

APPLICATION FOR COMMINGLE PERMIT PURSUANT TO STATEWIDE RULES 26 AND OR 27

SECTION 1. OPERATOR INFORMATION

Operator Name: WPX ENERGY PERMIAN, LLC | Operator P-5 No.: 942623

Operator Address: 333 WEST SHERIDAN AVENUE OKC, OK 73102

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: ORYX DELAWARE OIL TRANSPORT LLC | Gatherer P-5 No.: 627137

Gatherer Address:

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ■ OIL CASINGHEAD GAS GAS WELL GAS ■ CONDENSATE

a) Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ■ This request is for off lease: ■ Storage Separation Metering
e) ■ This application is for common storage.
f) This application is for common separation.
g) This application is for casinghead gas metering by: Deduct Metering Allocation by well test Other_____
h) This application is for gas well gas metering by: Deduct Metering Allocation by well test Other_____

SECTION 4. COMMINGLING PURSUANT TO §3.26(b) or §3.27(e) – (CHECK ALL THAT APPLY)

a) ■ The production stream from each tract and each Commission-designated reservoir is measured separately before combining it with a stream from another tract or Commission-designated reservoir.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) ■ Other ALLOCATION

b) The tracts and Commission-designated reservoirs have identical royalty interest and working interest ownership in identical percentages.
Production will be allocated by: W-10 (oil) W-2 retest (oil) PD Meter (oil & condensate) G-10 (gas) Other_____

SECTION 5. Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules regarding surface commingling have been adopted. (*Notice may be required; see instructions*)

SECTION 6. Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1. *(See instructions)*

SECTION 7. For oil production, the production from all oil wells on each oil lease is to be commingled. *(See instructions)*

SECTION 8. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	291530	■ Existing Add Delete	PETERSBURG STATE 17-28A-54-4 / PHANTOM (WOLFCAMP)	401H
08	291603	■ Existing Add Delete	PETERSBURG STATE 17-28B-54-4 / PHANTOM (WOLFCAMP)	411H
08	291531	■ Existing Add Delete	PETERSBURG STATE 17-28C-54-4 / PHANTOM (WOLFCAMP)	431H
08	DP 887145	Existing ■ Add Delete	TITAN STATE 16-5A-54-4 / PHANTOM (WOLFCAMP)	432H

ATTACH ADDITIONAL PAGES AS NEEDED. No additional pages ■ Additional pages 1 (# of additional pages)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Amy A. Brown Title Regulatory Complaince Professional Date 06/05/2023

Operator E-mail Address: amy.brown@dvn.com Operator Phone No. (405) 552-6137
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. **Approval date:** **Approved by:**

RAILROAD COMMISION OF TEXAS
OIL AND GAS DIVISION

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27
COMMINGLE PERMIT APPLICATION

FORM P-17 ATTACHMENT

SECTION 8. (CONT'D) IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 887146	Existing ■ Add Delete	TITAN STATE 16-5B-54-4 / PHANTOM (WOLFCAMP)	402H
08	DP 887148	Existing ■ Add Delete	TITAN STATE 16-5C-54-4 / PHANTOM (WOLFCAMP)	412H
		Existing Add Delete		
		Existing Add Delete		
		Existing Add Delete	

(46)

File No. MF 116554

County

Comm's Gas Lift Approval 6/23/23

Date Filed: 7/12/23

Commissioner Dawn Buckingham, M.D.

By: AJ

iNut 13049
MF116554 MF 116791
MF 118163

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

DIVISION ORDER

Property No.:	388907-51525-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5E-54-4 403H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06228873
Owner Name:	STATE OF TEXAS	Interest Type:	RI
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

INut 13050

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

DIVISION ORDER

Property No.:	388907-51579-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5C-54-4 412H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06206259
Owner Name:	STATE OF TEXAS	Interest Type:	RI
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

INut 13051

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

DIVISION ORDER

Property No.:	388907-51519-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5F-54-4 413H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06237321
Owner Name:	STATE OF TEXAS	Interest Type:	RI
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

INut 13052

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

DIVISION ORDER

Property No.:	388907-51576-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5A-54-4 432H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06271617
Owner Name:	STATE OF TEXAS	Interest Type:	RI
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

DIVISION ORDER

INUt 13053

Property No.:	388907-51442-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5D-54-4 433H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06296504
Owner Name:	STATE OF TEXAS	Interest Type:	RI
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

TEXAS GENERAL LAND OFFICE
COMMISSIONER DAWN BUCKINGHAM, M.D.

October 12, 2023

Amy Renee Stiner
Division Order Analyst
Devon Energy Production Co, LP
333 W. Sheridan Avenue
Oklahoma City, OK 73102

Re: State Lease Nos. MF116554, MF116791 and MF118163 Titan State 16-5E-54-4 403H iNut 13049, Titan State 16-5C-54-4 412H iNut 13050, Titan State 16-5F-54-4 413H iNut 13051, Titan State 16-5A-54-4 432H iNut 13052 & Titan State 16-5D-54-4 433H iNut 13053

Dear Mrs. Stiner:

The Texas General Land Office (GLO) has received your Division Orders for the referenced iNut(s). These Division Orders have been filed in the appropriate mineral file(s).

The payment of royalties attributable to state-owned mineral and royalty interests is set by contract and applicable statutes and rules. The execution of division orders may, in some cases, affect the manner in which such payments are made or calculated. Therefore, Title 31, §9.32, of the Texas Administrative Code specifies that GLO staff cannot execute a division order or bind the state to any terms contained within it.

Subject to applicable state law and the state's right to take its production in-kind, the GLO acquiesces to the sale of oil and gas in accordance with the terms and conditions set out in the oil and gas leases. If you have questions concerning this matter, please feel free to e-mail me at the address below my signature.

We look forward to being placed on pay status as soon as you are able to set up the wells in our RRAC system.

Thank you,

Vivian Zamora

Vivian Zamora
Landman, Energy Resources
512-475-0428
512-475-1404 (fax)
vivian.zamora@glo.texas.gov

File No. MF116554

County

Division Order

Date Filed: 10-13-2023

Commissioner Dawn Buckingham, M.D.

By: VB

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13048

GENERAL INFORMATION

Name of Well: Titan State 16-5B-54-4 # 402H API # 42-389-40404

Name of Operator: WPX Energy Permian, LLC RRC # 08-887146

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10410	5226	0.10253906	0.12500000	0.41181105	0.05147638
RAL	8343/MF116791	10410	5226	0.00781250	0.12500000	0.03137608	0.00392201
RAL	8343/MF118163	10410	5226	0.01464844	0.12500000	0.05883016	0.00735377
Totals:						0.50201729	**0.06275216**
Effective Date:	02/01/2023						State Net Royalty Revenue in Well

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RC

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13048*		
Operator Name	*WPX Energy Permian, LLC*	***Effective Date***	*02/01/2023*
Customer ID	*C000048105*	***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5B-54-4 # 402H*	***Unit Term***	
County 1	*Reeves*	***RRC District 1*** *08*	***Old Unit Number*** ***Inactive Status Date***
County 2		***RRC District 2***	
County 3		***RRC District 3***	
County 4		***RRC District 4***	
Unit type	*iNut*		
State Net Revenue Interest	***Oil*** *0.06275216*		
State Part in Unit	*0.50201729*		
Unit Depth	*Specified Depths*	***Well***	
From Depth		***Formation***	
To Depth		***Participation Basis***	*Surface Acreage*
		If Excluions Apply: See Remarks	

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.41181105	O/G	0.12500000	0.05147638	
MF116791		0.000000	0.000000	0.03137608	O/G	0.12500000	0.00392201	
MF118163		0.000000	0.000000	0.05883016	O/G	0.12500000	0.00735377	

API Number
4238940404

Remarks: PSA 00413.

Prepared By:	Jm	*Prepared Date:*	10/06/2023
GLO Base Updated By:	Jm	*GLO Base Date:*	10/06/2023
RAM Approval By:	YD	*RAM Approval Date:*	10/06/2023
GIS By:	RC	*GIS Date:*	10/30/23
Well Inventory By:	Jm	*WI Date:*	10/06/2023

Pooling Committee Report

To: School Land Board

INUT230001

Date of Board Meeting:

Unit Number: 13048

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5B-54-4 # 402H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05147638
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00392201
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00735377

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

Participation Basis:	Surface Acreage
Surface Acreage	
State Acreage:	50.20%
State Net Revenue Interest:	6.28%

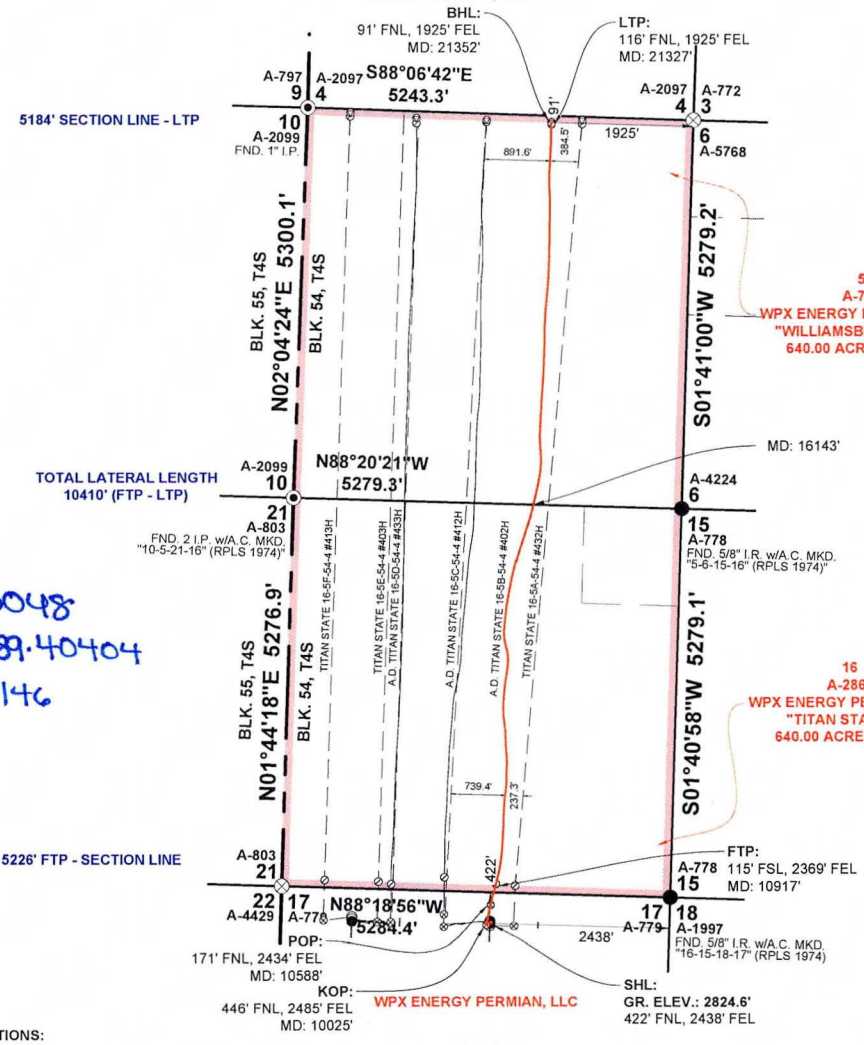
Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5B-54-4 #402H - 7/20/2023 AS-DRILL PLAT

SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,

REEVES COUNTY, TEXAS



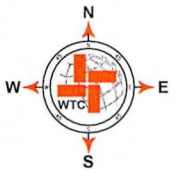
iNut#130485
AP#42.389.40404
08-887146

DRIVING DIRECTIONS:

Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.2 miles to a point in said road. The flagged location is ±336 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 422' FNL, 2438' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558504.3', E.(X): = 1249784.0' - LAT.: = 31.5918035° N, LON.: = 103.6958517° W
	NAD 27, TX-C, N.(Y): = 715928.5', E.(X): = 953320.6' - LAT.: = 31.5916732° N, LON.: = 103.6953907° W
POINT OF PENETRATION	**FOOTAGE: 171' FNL, 2434' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558481.1', E.(X): = 1249736.6' - LAT.: = 31.5917358° N, LON.: = 103.6960016° W
	NAD 27, TX-C, N.(Y): = 715905.3', E.(X): = 953273.3' - LAT.: = 31.5916055° N, LON.: = 103.6955406° W
KOP	**FOOTAGE: 446' FNL, 2485' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558754.9', E.(X): = 1249795.7' - LAT.: = 31.5924931° N, LON.: = 103.6958384° W
	NAD 27, TX-C, N.(Y): = 716179.1', E.(X): = 953332.4' - LAT.: = 31.5923628° N, LON.: = 103.6953774° W
FIRST TAKE	**FOOTAGE: 115' FSL, 2369' FEL**
	NAD 83, TXSP-C, N.(Y): = 10559039.4', E.(X): = 1249869.1' - LAT.: = 31.5932809° N, LON.: = 103.6956304° W
	NAD 27, TX-C, N.(Y): = 716463.5', E.(X): = 953405.7' - LAT.: = 31.5931506° N, LON.: = 103.6951694° W
LAST TAKE	**FOOTAGE: 116' FNL, 1925' FEL**
	NAD 83, TXSP-C, N.(Y): = 10569355.3', E.(X): = 1250616.4' - LAT.: = 31.6216894° N, LON.: = 103.6942322° W
	NAD 27, TX-C, N.(Y): = 726779.2', E.(X): = 954153.1' - LAT.: = 31.6215594° N, LON.: = 103.6937709° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 91' FNL, 1925' FEL**
	NAD 83, TXSP-C, N.(Y): = 10569380.2', E.(X): = 1250616.5' - LAT.: = 31.6217579° N, LON.: = 103.6942342° W
	NAD 27, TX-C, N.(Y): = 726804.1', E.(X): = 954153.2' - LAT.: = 31.6216279° N, LON.: = 103.6937730° W

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.6 MILES N.44°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT ZUES AT N.=10566388.402' - E.=1252273.526



LEGEND

- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

2000 0 2000 4000 FEET

SCALE: 1" = 2000'

STATE OF TEXAS REGISTERED JAMES C. TOMPKINS 6768 PROFESSIONAL LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE, (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/20/2023

JAMES C. TOMPKINS RPLS #6768 — DATE

SURVEY DATE: N/A
JOB NO.: WTC56061

DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5B-54-4 #402H
SHL 422' FNL, 2438' FEL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC ENGINEERS | SURVEYORS

W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

X:\Projects\Oil & Gas Surveys\Devon Energy\As Drilled Plats\05081-Devon Energy - As-drilled & Titan State 1 1 Big Horn east, Loving Co, TX\Drawings\5081-Devon, Pre-Completion, Titan State 16-5C-54-4 dwg 7/20/2023 3:36 PM JYORK

48.

File No. MF116554

Reeves County

iNut|3048 - AP142.389.40404

Date Filed: 10|16|2023

Commissioner Dawn Buckingham, M.D.

By: JM

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13049

GENERAL INFORMATION

Name of Well: Titan State 16-5E-54-4 # 403H API # 42-389-40401

Name of Operator: WPX Energy Permian, LLC RRC # 08-887141

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10353	5159	0.10253906	0.12500000	0.40876964	0.05109621
RAL	8343/MF116791	10353	5159	0.00781250	0.12500000	0.03114435	0.00389304
RAL	8343/MF118163	10353	5159	0.01464844	0.12500000	0.05839567	0.00729946
Totals:						0.49830967	**0.06228871**
Effective Date:	02/01/2023						State Net Royalty Revenue in Well

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RL

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13049*				
Operator Name	*WPX Energy Permian, LLC*			***Effective Date***	*02/01/2023*
Customer ID	*C000048105*			***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5E-54-4 # 403H*			***Unit Term***	
County 1	*Reeves*	***RRC District 1***	*08*	***Old Unit Number***	***Inactive Status Date***
County 2		***RRC District 2***			
County 3		***RRC District 3***			
County 4		***RRC District 4***			
Unit type	*iNut*				
State Net Revenue Interest	***Oil***	*0.06228871*			
State Part in Unit		*0.49830967*			
Unit Depth	*Specified Depths*	***Well***			
From Depth		***Formation***			
To Depth		***Participation Basis***	*Length of Lateral*		
		If Excluions Apply: See Remarks			

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.40876964	O/G	0.12500000	0.05109621	
MF116791		0.000000	0.000000	0.03114435	O/G	0.12500000	0.00389304	
MF118163		0.000000	0.000000	0.05839567	O/G	0.12500000	0.00729946	

API Number
4238940401

Remarks: PSA 00413

Prepared By:	JM	*Prepared Date:*	10/03/2023
GLO Base Updated By:	JM	*GLO Base Date:*	10/03/2023
RAM Approval By:	VD	*RAM Approval Date:*	10/03/2023
GIS By:	RC	*GIS Date:*	10/30/23
Well Inventory By:	JM	*WI Date:*	10/03/2023

Pooling Committee Report

To: School Land Board **INUT230001**

Date of Board Meeting: **Unit Number: 13049**

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5E-54-4 # 403H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05109621
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00389304
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00729946

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

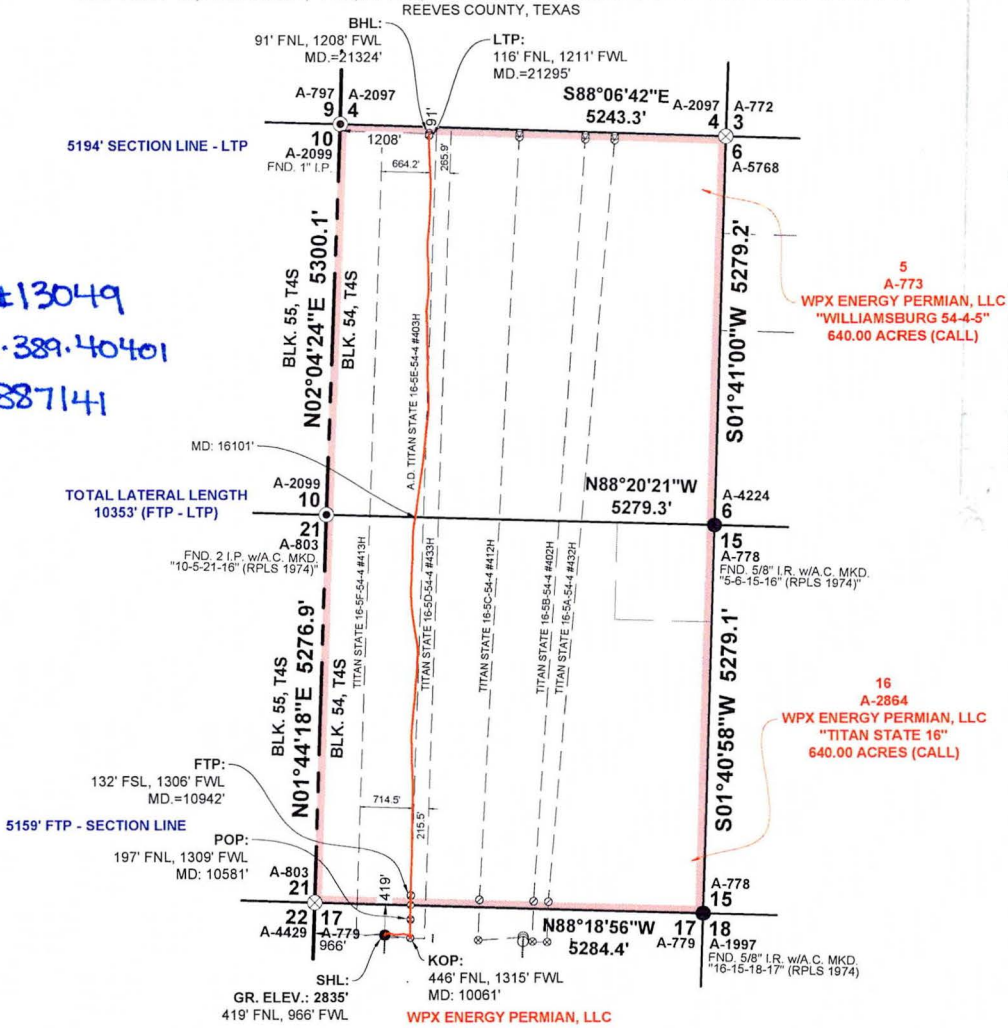
Participation Basis:	Length of Lateral
Surface Acreage	
State Acreage:	49.83%
State Net Revenue Interest:	6.23%

Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5E-54-4 #403H - 7/18/2023 AS-DRILLED PLAT

SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,
REEVES COUNTY, TEXAS



iNut #13049
API 42-389-40401
08-887141

DRIVING DIRECTIONS:

Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.5 miles to a point in said road. The flagged location is ±336 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 419' FNL, 966' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558562.1', E.(X): = 1247904.8' - LAT.: = 31.5918060° N, LON.: = 103.7018900° W
	NAD 27, TX-C, N.(Y): = 715986.3', E.(X): = 951441.5' - LAT.: = 31.5916758° N, LON.: = 103.7014288° W
POINT OF PENETRATION	**FOOTAGE: 197' FNL, 1309' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558524.8', E.(X): = 1248252.9' - LAT.: = 31.5917327° N, LON.: = 103.7007690° W
	NAD 27, TX-C, N.(Y): = 715949.0', E.(X): = 951789.5' - LAT.: = 31.5916023° N, LON.: = 103.7003078° W
KOP	**FOOTAGE: 446' FNL, 1315' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558774.6', E.(X): = 1248254.0' - LAT.: = 31.5924190° N, LON.: = 103.7007896° W
	NAD 27, TX-C, N.(Y): = 716198.7', E.(X): = 951790.7' - LAT.: = 31.5922887° N, LON.: = 103.7003284° W
FIRST TAKE	**FOOTAGE: 132' FSL, 1306' FWL**
	NAD 83, TXSP-C, N.(Y): = 10559103.5', E.(X): = 1248260.9' - LAT.: = 31.5933233° N, LON.: = 103.7007995° W
	NAD 27, TX-C, N.(Y): = 716527.6', E.(X): = 951797.5' - LAT.: = 31.5931930° N, LON.: = 103.7003383° W
LAST TAKE	**FOOTAGE: 116' FNL, 1211' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569424.8', E.(X): = 1248508.8' - LAT.: = 31.6217053° N, LON.: = 103.7010070° W
	NAD 27, TX-C, N.(Y): = 726848.7', E.(X): = 952045.5' - LAT.: = 31.6215753° N, LON.: = 103.7005455° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 91' FNL, 1208' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569449.6', E.(X): = 1248507.6' - LAT.: = 31.6217733° N, LON.: = 103.7010133° W
	NAD 27, TX-C, N.(Y): = 726873.5', E.(X): = 952044.3' - LAT.: = 31.6216433° N, LON.: = 103.7005518° W



LEGEND

- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

2000 0 2000 4000 FEET

SCALE: 1" = 2000'

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.8 MILES N.45°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT **ZUES** AT N.=10566388.402' - E.=1252273.526

STATE OF TEXAS
REGISTERED
JAMES C. TOMPKINS
6768
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE, (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/18/2023

JAMES C. TOMPKINS RPLS #6768 — DATE

SURVEY DATE: N/A
JOB NO.: WTC56061

DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5E-54-4 #403H
SHL 419' FNL, 966' FWL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC
ENGINEERS | SURVEYORS

W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

X:\Projects\Gas Surveys\Devon Energy\4-Drilled Plats\56061 Devon Energy, As-drilled 6 Titan State 4 - 1 Big Horn wst, Loving Co, TX\Drawings\56061 Devon Pre-Completion Titan State 16-5E-54-4 403H.dwg 7/20/2023 3:58 PM JYORK

49.

File No. MF116554

Reeves County

iNut 13049 - API 42-389-40401

Date Filed: 10/16/2023

Commissioner Dawn Buckingham, M.D.

By: JM

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13050

GENERAL INFORMATION

Name of Well: Titan State 16-5C-54-4 # 412H API # 42-389-40405

Name of Operator: WPX Energy Permian, LLC RRC # 08-887148

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10288	5108	0.10253906	0.12500000	0.40728578	0.05091072
RAL	8343/MF116791	10288	5108	0.00781250	0.12500000	0.03103130	0.00387891
RAL	8343/MF118163	10288	5108	0.01464844	0.12500000	0.05818369	0.00727296
Totals:						0.49650078	**0.06206260**
Effective Date:	02/01/2023						**State Net Royalty Revenue in Well**

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RL

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13050*				
Operator Name	*WPX Energy Permian, LLC*			***Effective Date***	*02/01/2023*
Customer ID	*C000048105*			***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5C-54-4 # 412H*			***Unit Term***	
County 1	*Reeves*	***RRC District 1***	*08*	***Old Unit Number***	***Inactive Status Date***
County 2		***RRC District 2***			
County 3		***RRC District 3***			
County 4		***RRC District 4***			
Unit type	*iNut*				
State Net Revenue Interest	***Oil***	*0.06206260*			
State Part in Unit		*0.49650078*			
Unit Depth	*Specified Depths*				
From Depth					
To Depth					

Well

Formation

Participation Basis ***Length of Lateral***

If Excluions Apply: See Remarks

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.40728578	O/G	0.12500000	0.05091072	
MF116791		0.000000	0.000000	0.03103130	O/G	0.12500000	0.00387891	
MF118163		0.000000	0.000000	0.05818369	O/G	0.12500000	0.00727296	

API Number
4238940405

Remarks: PSA00413

Prepared By:	JM	*Prepared Date:*	10/06/2023
GLO Base Updated By:	JM	*GLO Base Date:*	10/06/2023
RAM Approval By:	VD	*RAM Approval Date:*	10/06/2023
GIS By:	RL	*GIS Date:*	10/30/23
Well Inventory By:	JM	*WI Date:*	10/06/2023

Pooling Committee Report

To: School Land Board

INUT230001

Date of Board Meeting:

Unit Number: 13050

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5C-54-4 # 412H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05091072
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00387891
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00727296

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

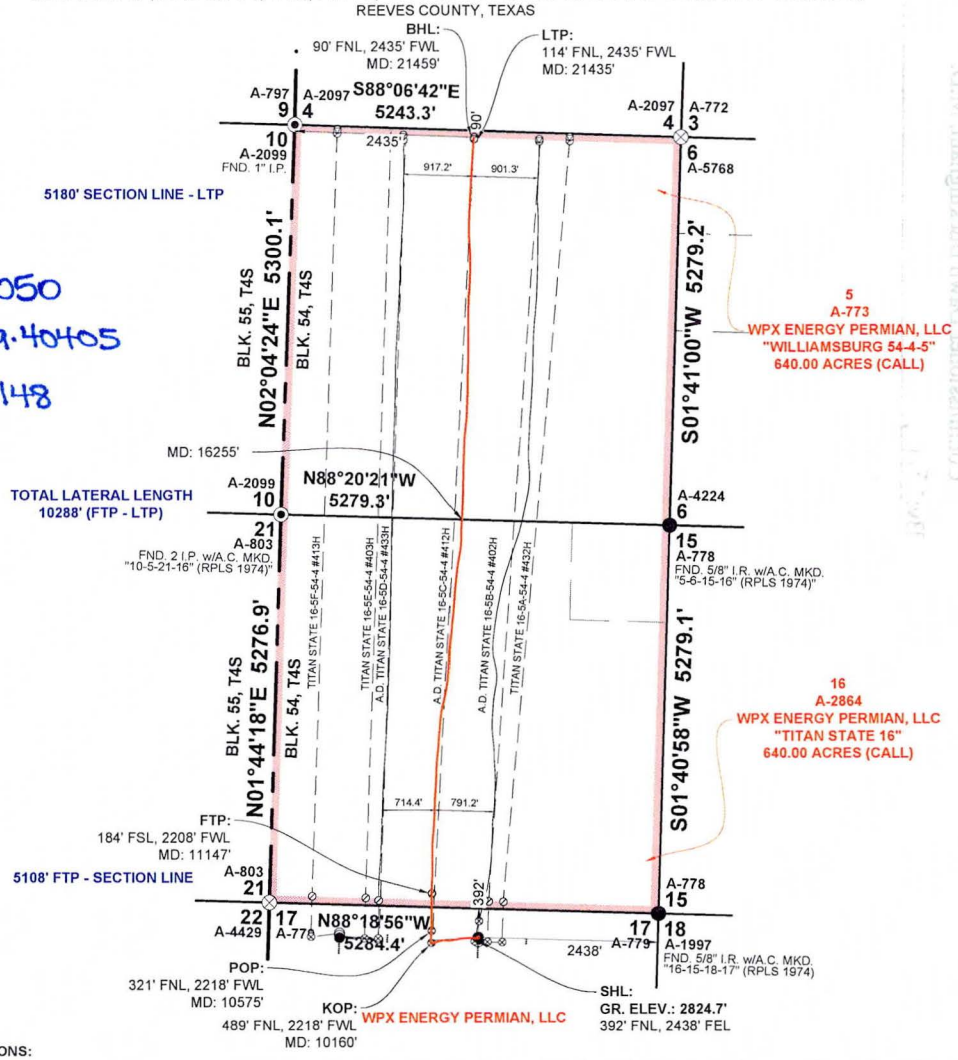
Participation Basis:	Length of Lateral
Surface Acreage	
State Acreage:	49.65%
State Net Revenue Interest:	6.21%

Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5C-54-4 #412H - 7/19/2023 AS-DRILL PLAT

SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,
REEVES COUNTY, TEXAS

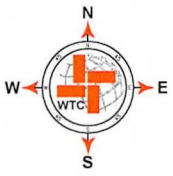


iNut#13050
API 42-389-40405
08-887148

DRIVING DIRECTIONS:
Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.2 miles to a point in said road. The flagged location is ±366 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 392' FNL, 2438' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558534.2', E.(X): = 1249785.3' - LAT.: = 31.5918858° N, LON.: = 103.6958504° W
	NAD 27, TX-C, N.(Y): = 715958.4', E.(X): = 953321.9' - LAT.: = 31.5917554° N, LON.: = 103.6953894° W
POINT OF PENETRATION	**FOOTAGE: 321' FNL, 2218' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558457.9', E.(X): = 1249154.1' - LAT.: = 31.5916237° N, LON.: = 103.6978694° W
	NAD 27, TX-C, N.(Y): = 715882.1', E.(X): = 952690.7' - LAT.: = 31.5914934° N, LON.: = 103.6974084° W
KOP	**FOOTAGE: 489' FNL, 2218' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558623.9', E.(X): = 1249158.9' - LAT.: = 31.5920803° N, LON.: = 103.6978699° W
	NAD 27, TX-C, N.(Y): = 716048.1', E.(X): = 952695.6' - LAT.: = 31.5919500° N, LON.: = 103.6974089° W
FIRST TAKE	**FOOTAGE: 184' FSL, 2208' FWL**
	NAD 83, TXSP-C, N.(Y): = 10559129.1', E.(X): = 1249164.1' - LAT.: = 31.5934688° N, LON.: = 103.6979024° W
	NAD 27, TX-C, N.(Y): = 716553.2', E.(X): = 952700.8' - LAT.: = 31.5933385° N, LON.: = 103.6974413° W
LAST TAKE	**FOOTAGE: 114' FNL, 2435' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569386.2', E.(X): = 1249732.5' - LAT.: = 31.6217008° N, LON.: = 103.6970737° W
	NAD 27, TX-C, N.(Y): = 726810.1', E.(X): = 953269.2' - LAT.: = 31.6215709° N, LON.: = 103.6966123° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 90' FNL, 2435' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569410.1', E.(X): = 1249734.0' - LAT.: = 31.6217668° N, LON.: = 103.6970713° W
	NAD 27, TX-C, N.(Y): = 726834.0', E.(X): = 953270.7' - LAT.: = 31.6216368° N, LON.: = 103.6966099° W

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.6 MILES N.44°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT ZUES AT N.=10566388.402' - E.=1252273.526



LEGEND
- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

2000 0 2000 4000 FEET
SCALE: 1" = 2000'

STATE OF TEXAS REGISTERED JAMES C.TOMPKINS 6768 PROFESSIONAL LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE, (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/19/2023
JAMES C. TOMPKINS RPLS #6768 — DATE

SURVEY DATE: N/A
JOB NO.: WTC56061
DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5C-54-4 #412H
SHL 392' FNL, 2438' FEL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC ENGINEERS | SURVEYORS

W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

X:\Projects\Oil & Gas Surveys\Devon Energy\As-Drilled Plats\2023\Devon Energy - As-drilled Titan State 1 Big Horn wst, Loving Co, TX\Drawings\5008\ Devon Titan State 16-5C-54-4 #412H_Pre-Completion_Titan State 16-5C-54-4 #412H_7/20/2023 3:35 PM_JYORK

File No. MF116554

Reeves County

iNut 13050-API 42.389.40405

Date Filed: 10/16/2023

Commissioner Dawn Buckingham, M.D.

By: JM

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13051

GENERAL INFORMATION

Name of Well: Titan State 16-5F-54-4 # 413H API # 42-389-40402

Name of Operator: WPX Energy Permian, LLC RRC # 08-887143

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10353	5166	0.10253906	0.12500000	0.40932428	0.05116554
RAL	8343/MF116791	10353	5166	0.00781250	0.12500000	0.03118661	0.00389833
RAL	8343/MF118163	10353	5166	0.01464844	0.12500000	0.05847491	0.00730936
Totals:						0.49898580	**0.06237323**
Effective Date:	02/01/2023						**State Net Royalty Revenue in Well**

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RC

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13051*				
Operator Name	*WPX Energy Permian, LLC*			***Effective Date***	*02/01/2023*
Customer ID	*C000048105*			***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5F-54-4 # 413H*			***Unit Term***	
County 1	*Reeves*	***RRC District 1***	*08*	***Old Unit Number***	***Inactive Status Date***
County 2		***RRC District 2***			
County 3		***RRC District 3***			
County 4		***RRC District 4***			
Unit type	*iNut*				
State Net Revenue Interest	***Oil***	*0.06237323*			
State Part in Unit		*0.49898580*			
Unit Depth	*Specified Depths*		***Well***		
From Depth			***Formation***		
To Depth			***Participation Basis***	*Length of Lateral*	
			If Excluions Apply: See Remarks		

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.40932428	O/G	0.12500000	0.05116554	
MF116791		0.000000	0.000000	0.03118661	O/G	0.12500000	0.00389833	
MF118163		0.000000	0.000000	0.05847491	O/G	0.12500000	0.00730936	

API Number
4238940402

Remarks: PSA 00413

Prepared By:	JM	*Prepared Date:*	10/06/2023
GLO Base Updated By:	JM	*GLO Base Date:*	10/06/2023
RAM Approval By:	VD	*RAM Approval Date:*	10/06/2023
GIS By:	RL	*GIS Date:*	10/30/23
Well Inventory By:	JM	*WI Date:*	10/06/2023

Pooling Committee Report

To: School Land Board

INUT230001

Date of Board Meeting:

Unit Number: 13051

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5F-54-4 # 413H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05116554
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00389833
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00730936

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

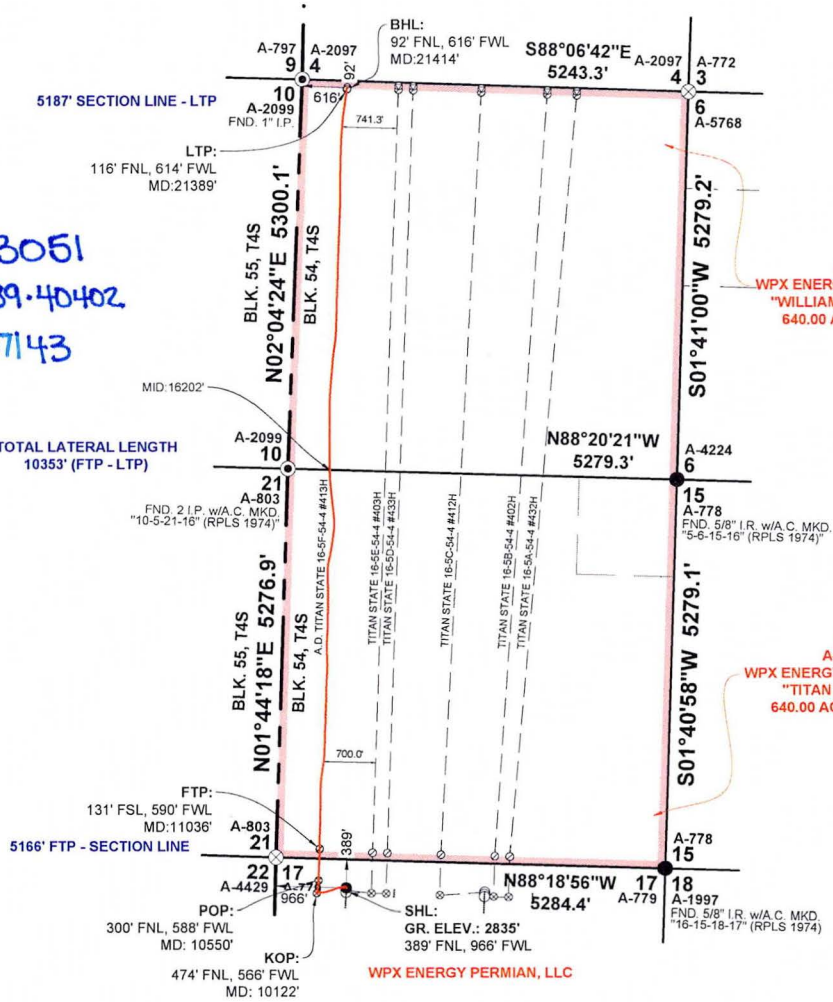
Participation Basis:	Length of Lateral
Surface Acreage	
State Acreage:	49.90%
State Net Revenue Interest:	6.24%

Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5F-54-4 #413H - 7/18/2023 AS-DRILLED PLAT

SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,
REEVES COUNTY, TEXAS

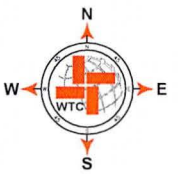


iNut#130051
API 42-389-40402
08-887143

DRIVING DIRECTIONS:
Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.5 miles to a point in said road. The flagged location is ±366 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 389' FNL, 966' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558592.0', E.(X): = 1247906.0' - LAT.: = 31.5918883° N, LON.: = 103.7018890° W
	NAD 27, TX-C, N.(Y): = 716016.2', E.(X): = 951442.7' - LAT.: = 31.5917580° N, LON.: = 103.7014278° W
POINT OF PENETRATION	**FOOTAGE: 300' FNL, 588' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558518.9', E.(X): = 1247504.1' - LAT.: = 31.5916539° N, LON.: = 103.7031722° W
	NAD 27, TX-C, N.(Y): = 715943.0', E.(X): = 951040.8' - LAT.: = 31.5915237° N, LON.: = 103.7027109° W
KOP	**FOOTAGE: 474' FNL, 566' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558692.7', E.(X): = 1247530.4' - LAT.: = 31.5921336° N, LON.: = 103.7031045° W
	NAD 27, TX-C, N.(Y): = 716116.8', E.(X): = 951067.1' - LAT.: = 31.5920034° N, LON.: = 103.7026432° W
FIRST TAKE	**FOOTAGE: 131' FSL, 590' FWL**
	NAD 83, TXSP-C, N.(Y): = 10559121.4', E.(X): = 1247544.9' - LAT.: = 31.5933130° N, LON.: = 103.7030999° W
	NAD 27, TX-C, N.(Y): = 716545.6', E.(X): = 951081.5' - LAT.: = 31.5931827° N, LON.: = 103.7026386° W
LAST TAKE	**FOOTAGE: 116' FNL, 614' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569444.2', E.(X): = 1247912.7' - LAT.: = 31.6217088° N, LON.: = 103.7029232° W
	NAD 27, TX-C, N.(Y): = 726868.1', E.(X): = 951449.4' - LAT.: = 31.6215789° N, LON.: = 103.7024616° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 92' FNL, 616' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569469.0', E.(X): = 1247915.8' - LAT.: = 31.6217772° N, LON.: = 103.7029156° W
	NAD 27, TX-C, N.(Y): = 726892.9', E.(X): = 951452.5' - LAT.: = 31.6216473° N, LON.: = 103.7024540° W

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.8 MILES N.45°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT ZUES AT N.=10566388.402' - E.=1252273.526



LEGEND
- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

2000 0 2000 4000 FEET
SCALE: 1" = 2000'

STATE OF TEXAS REGISTERED JAMES C. TOMPKINS 6768 PROFESSIONAL LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE, (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/18/2023
JAMES C. TOMPKINS RPLS #6768 DATE

SURVEY DATE: N/A
JOB NO.: WTC56061
DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5F-54-4 #413H
SHL 389' FNL, 966' FWL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC
ENGINEERS | SURVEYORS
W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

© Users\jy\Desktop\Drawings\56061\Drwgs\56061-Drwgs-Pre-Completion_Titan State 16-5F-54-413H.dwg 7/20/2023 3:55 PM JYORK

51.

File No. MF116554

Reno County

iNut13051-API42-389-40402

Date Filed: 10/16/2023

Commissioner Dawn Buckingham, M.D.

By: JM

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13052

GENERAL INFORMATION

Name of Well: Titan State 16-5A-54-4 # 432H API # 42-389-40403

Name of Operator: WPX Energy Permian, LLC RRC # 08-887145

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10410	5223	0.10253906	0.12500000	0.41157465	0.05144683
RAL	8343/MF116791	10410	5223	0.00781250	0.12500000	0.03135807	0.00391976
RAL	8343/MF118163	10410	5223	0.01464844	0.12500000	0.05879639	0.00734955
Totals:						0.50172911	**0.06271614**
Effective Date:	02/01/2023						**State Net Royalty Revenue in Well**

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RL

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13052*				
Operator Name	*WPX Energy Permian, LLC*			***Effective Date***	*02/01/2023*
Customer ID	*C000048105*			***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5A-54-4 # 432H*			***Unit Term***	
County 1	*Reeves*	***RRC District 1***	*08*	***Old Unit Number***	***Inactive Status Date***
County 2		***RRC District 2***			
County 3		***RRC District 3***			
County 4		***RRC District 4***			
Unit type	*iNut*				
State Net Revenue Interest	***Oil***	*0.06271614*			
State Part in Unit		*0.50172911*			
Unit Depth	*Specified Depths*	***Well***			
From Depth		***Formation***			
To Depth		***Participation Basis***	*Length of Lateral*		
		If Excluions Apply: See Remarks			

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.41157465	O/G	0.12500000	0.05144683	
MF116791		0.000000	0.000000	0.03135807	O/G	0.12500000	0.00391976	
MF118163		0.000000	0.000000	0.05879639	O/G	0.12500000	0.00734955	

API Number
4238940403

Remarks: PSA 00413

Prepared By:	JM	*Prepared Date:*	10/06/2023
GLO Base Updated By:	JM	*GLO Base Date:*	10/06/2023
RAM Approval By:	MD	*RAM Approval Date:*	10/06/2023
GIS By:	RL	*GIS Date:*	10/30/23
Well Inventory By:	JM	*WI Date:*	10/06/2023

Pooling Committee Report

To: School Land Board

INUT230001

Date of Board Meeting:

Unit Number: 13052

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5A-54-4 # 432H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05144683
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00391976
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00734955

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

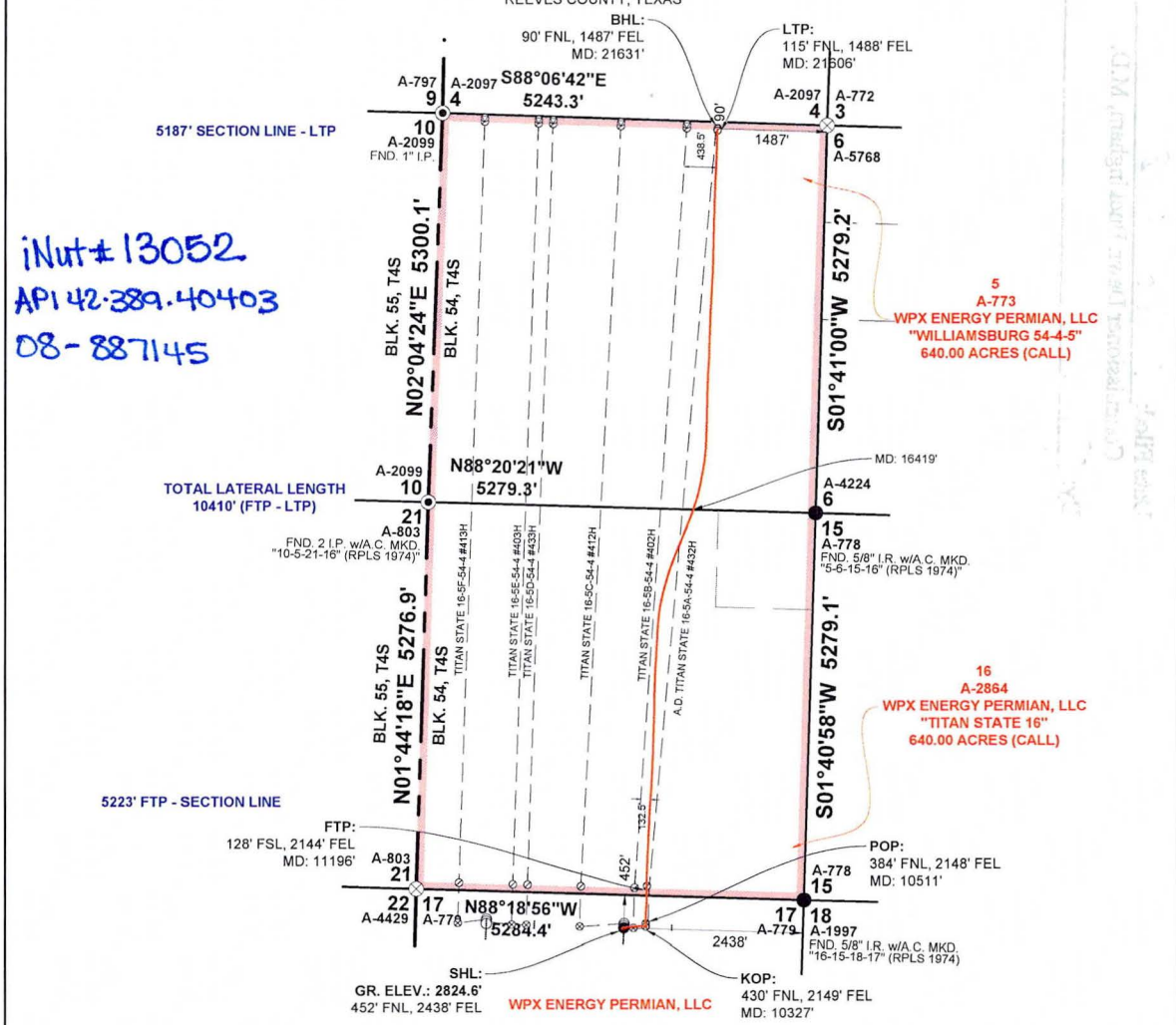
Participation Basis:	Length of Lateral
Surface Acreage	
State Acreage:	50.17%
State Net Revenue Interest:	6.27%

Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5A-54-4 #432H - 7/19/2023 AS-DRILLED PLAT

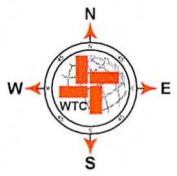
SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,
REEVES COUNTY, TEXAS



iNut# 13052
API 42-389-40403
08-887145

DRIVING DIRECTIONS:
Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.2 miles to a point in said road. The flagged location is ±306 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 452' FNL, 2438' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558474.2', E.(X): = 1249782.9' - LAT.: = 31.5917207° N, LON.: = 103.6958523° W
	NAD 27, TX-C, N.(Y): = 715898.4', E.(X): = 953319.5' - LAT.: = 31.5915904° N, LON.: = 103.6953913° W
POINT OF PENETRATION	**FOOTAGE: 384' FNL, 2148' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558493.7', E.(X): = 1250075.8' - LAT.: = 31.5917986° N, LON.: = 103.6949140° W
	NAD 27, TX-C, N.(Y): = 715917.9', E.(X): = 953612.4' - LAT.: = 31.5916683° N, LON.: = 103.6944531° W
KOP	**FOOTAGE: 430' FNL, 2149' FEL**
	NAD 83, TXSP-C, N.(Y): = 10558533.5', E.(X): = 1250075.2' - LAT.: = 31.5919079° N, LON.: = 103.6949198° W
	NAD 27, TX-C, N.(Y): = 715957.6', E.(X): = 953611.8' - LAT.: = 31.5917776° N, LON.: = 103.6944589° W
FIRST TAKE	**FOOTAGE: 128' FSL, 2144' FEL**
	NAD 83, TXSP-C, N.(Y): = 10559045.4', E.(X): = 1250094.2' - LAT.: = 31.5933162° N, LON.: = 103.6949084° W
	NAD 27, TX-C, N.(Y): = 716469.6', E.(X): = 953630.8' - LAT.: = 31.5931859° N, LON.: = 103.6944475° W
LAST TAKE	**FOOTAGE: 115' FNL, 1488' FEL**
	NAD 83, TXSP-C, N.(Y): = 10569341.8', E.(X): = 1251053.1' - LAT.: = 31.6216885° N, LON.: = 103.6928287° W
	NAD 27, TX-C, N.(Y): = 726765.7', E.(X): = 954589.8' - LAT.: = 31.6215586° N, LON.: = 103.6923675° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 90' FNL, 1487' FEL**
	NAD 83, TXSP-C, N.(Y): = 10569366.7', E.(X): = 1251054.2' - LAT.: = 31.6217572° N, LON.: = 103.6928274° W
	NAD 27, TX-C, N.(Y): = 726790.6', E.(X): = 954590.9' - LAT.: = 31.6216272° N, LON.: = 103.6923662° W



LEGEND
- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.6 MILES N.44°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT ZUES AT N.=10566388.402' - E.=1252273.526

2000 0 2000 4000 FEET
SCALE: 1" = 2000'

STATE OF TEXAS
REGISTERED
JAMES C. TOMPKINS
6768
PROFESSIONAL
LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE, (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/19/2023
JAMES C. TOMPKINS RPLS #6768 DATE

SURVEY DATE: N/A
JOB NO.: WTC56061

DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5A-54-4 #432H
SHL 452' FNL, 2438' FEL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC
ENGINEERS | SURVEYORS

W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

C:\Users\jyork\Desktop\Drawings\5601-Drive Titan State 16-5A-54-4 432H.dwg 7/20/2023 3:48 PM JYORK

52.

File No. MF116554

Reeves County

Nut 13052 - API 42-389-40403

Date Filed: 10/16/2023

Commissioner Dawn Buckingham, M.D.

By: JM

Information for processing an Internal Non Unit Transaction (iNut)

Length of Lateral

iNut No. 13053

GENERAL INFORMATION

Name of Well: Titan State 16-5D-54-4 # 433H API # 42-389-40400

Name of Operator: WPX Energy Permian, LLC RRC # 08-887140

Operator Contact Person: Zac Zobell Phone: 405-552-3554

Counties: Reeves

ALLOCATION OF STATE UNITS AND/OR LEASES BASED ON LENGTH OF LATERAL

Lease Type	Unit/Lease No	Total Lateral Ft.	Unit or Lease Lateral Ft.	Unit or Lease Rylty Decimal	Lease Royalty Decimal	RRAC Participation Factor	State Particpation by Unit/Lease
RAL	8343/MF116554	10349	5213	0.10253906	0.12500000	0.41320794	0.05165099
RAL	8343/MF116791	10349	5213	0.00781250	0.12500000	0.03148251	0.00393531
RAL	8343/MF118163	10349	5213	0.01464844	0.12500000	0.05902972	0.00737871
Totals:						0.50372017	**0.06296502**
Effective Date:	02/01/2023						**State Net Royalty Revenue in Well**

Name of Production Sharing Agreement, if any: PSA00413

Comments:

- Final as drilled plat submitted by Zac Zobell on October 2, 2023.

Attach a plat showing the iNut well with length of laterals marked and the State lands marked.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

Prepared by: JM Alamo updated by: JM WI updated by: JM

RAM approval by: VD GIS updated by: RC

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

INUT230001

Unit Number	*13053*				
Operator Name	*WPX Energy Permian, LLC*			***Effective Date***	*02/01/2023*
Customer ID	*C000048105*			***Unitized For***	*Oil And Gas*
Unit Name	*Titan State 16-5D-54-4 # 433H*			***Unit Term***	
County 1	*Reeves*	***RRC District 1***	*08*	***Old Unit Number***	***Inactive Status Date***
County 2		***RRC District 2***			
County 3		***RRC District 3***			
County 4		***RRC District 4***			
Unit type	*iNut*				
State Net Revenue Interest	***Oil***	*0.06296502*			
State Part in Unit		*0.50372017*			
Unit Depth	*Specified Depths*	***Well***			
From Depth		***Formation***			
To Depth		***Participation Basis***	*Length of Lateral*		
		If Excluions Apply: See Remarks			

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*O/G*	*Lease Royalty*	*NRI of Lease in Unit*	*Royalty Rate Reduction Clause*
MF116554		0.000000	0.000000	0.41320794	O/G	0.12500000	0.05165099	
MF116791		0.000000	0.000000	0.03148251	O/G	0.12500000	0.00393531	
MF118163		0.000000	0.000000	0.05902972	O/G	0.12500000	0.00737871	

API Number
4238940400

Remarks: PSA 00413

Prepared By:	JM	*Prepared Date:*	10/06/2023
GLO Base Updated By:	JM	*GLO Base Date:*	10/06/2023
RAM Approval By:	VD	*RAM Approval Date:*	10/06/2023
GIS By:	RC	*GIS Date:*	10/30/23
Well Inventory By:	JM	*WI Date:*	10/06/2023

Pooling Committee Report

To: School Land Board

INUT230001

Date of Board Meeting:

Unit Number: 13053

Effective Date: 02/01/2023

Unit Expiration Date:

Applicant: WPX Energy Permian, LLC

Attorney Rep:

Operator: WPX Energy Permian, LLC

Unit Name: Titan State 16-5D-54-4 # 433H

Field Name: PHANTOM (WOLFCAMP)

County: Reeves

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF116554	0.12500000	03/23/2017	3 years	525.000000	0.000000	0.05165099
RAL	MF116791	0.12500000	04/24/2017	3 years	40.000000	0.000000	0.00393531
RAL	MF118163	0.12500000	02/18/2019	3 years	75.000000	0.000000	0.00737871

Private Acres:	0.000000
State Acres:	0.000000
Total Unit Acres:	0.000000

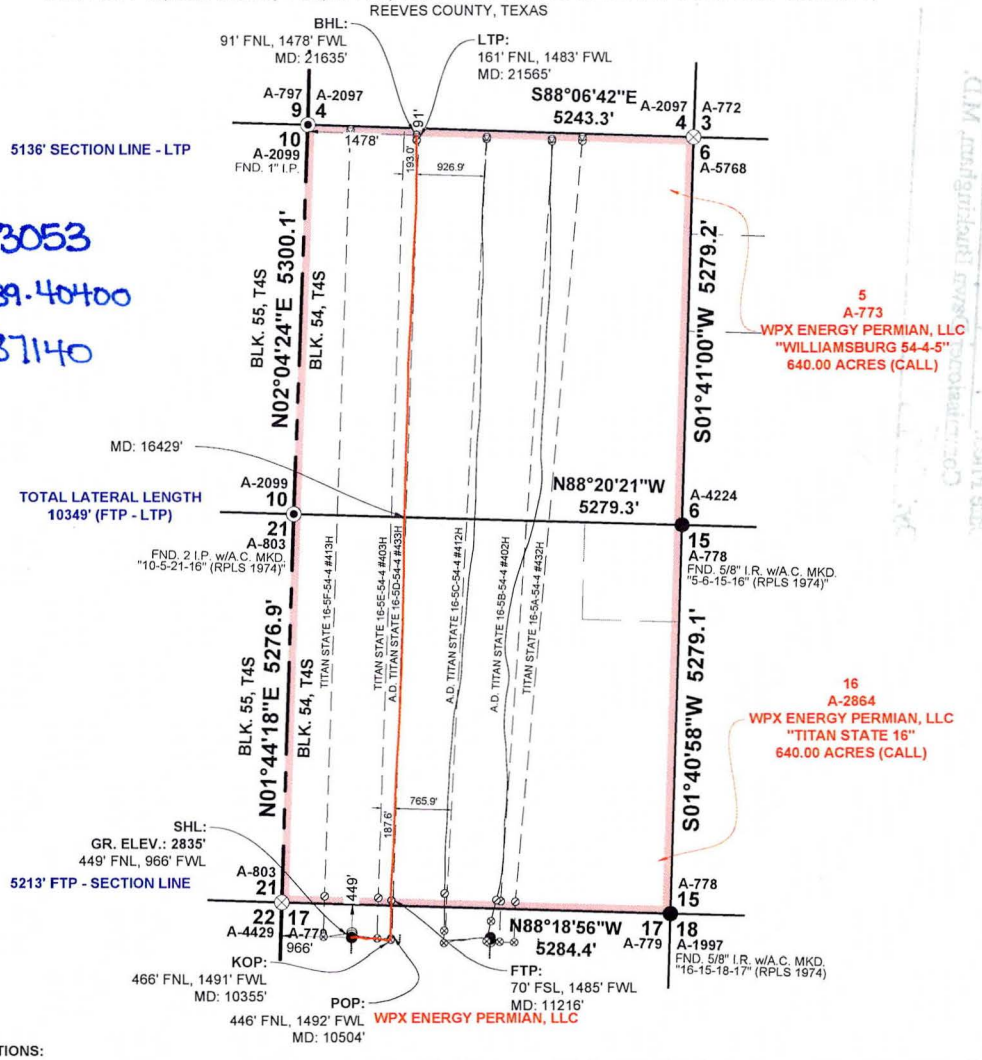
Participation Basis:	Length of Lateral
Surface Acreage	
State Acreage:	50.37%
State Net Revenue Interest:	6.30%

Unit Type:	Unitized for:
iNut	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
No	

TITAN STATE 16-5D-54-4 #433H - 7/19/2023 AS-DRILL PLAT

SECTION 17, BLOCK 54, T4S, A-779, TEXAS & PACIFIC RAILWAY COMPANY SURVEY,
REEVES COUNTY, TEXAS



DRIVING DIRECTIONS:

Beginning at the intersection of E. 3rd Street & U.S. Hwy. 285 in Pecos,Texas; Head North/Northwest on U.S. Hwy 285 ±13.0 miles to a lease road (County Road 427) on the left. Turn left onto lease road (County Road 427) and head West/Northwest ±2.3 miles to a fork in the road. Turn left at fork and head South/Southwest ±0.4 miles to a "tee" in the road. Turn right at the "tee" and head West ±2.5 miles to a point in said road. The flagged location is ±306 feet South from the existing lease road.

SURFACE HOLE LOCATION	**FOOTAGE: 449' FNL, 966' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558532.0', E.(X): = 1247903.5' - LAT.: = 31.5917232° N, LON.: = 103.7018912° W
	NAD 27, TX-C, N.(Y): = 715956.2', E.(X): = 951440.2' - LAT.: = 31.5915929° N, LON.: = 103.7014300° W
POINT OF PENETRATION	**FOOTAGE: 446' FNL, 1492' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558499.6', E.(X): = 1248428.5' - LAT.: = 31.5916780° N, LON.: = 103.7002026° W
	NAD 27, TX-C, N.(Y): = 715923.8', E.(X): = 951965.2' - LAT.: = 31.5915477° N, LON.: = 103.6997414° W
KOP	**FOOTAGE: 466' FNL, 1491' FWL**
	NAD 83, TXSP-C, N.(Y): = 10558519.8', E.(X): = 1248430.3' - LAT.: = 31.5917335° N, LON.: = 103.7001989° W
	NAD 27, TX-C, N.(Y): = 715944.0', E.(X): = 951967.0' - LAT.: = 31.5916032° N, LON.: = 103.6997378° W
FIRST TAKE	**FOOTAGE: 70' FSL, 1485' FWL**
	NAD 83, TXSP-C, N.(Y): = 10559035.7', E.(X): = 1248437.9' - LAT.: = 31.5931519° N, LON.: = 103.7002248° W
	NAD 27, TX-C, N.(Y): = 716459.9', E.(X): = 951974.5' - LAT.: = 31.5930216° N, LON.: = 103.6997636° W
LAST TAKE	**FOOTAGE: 161' FNL, 1483' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569370.8', E.(X): = 1248779.3' - LAT.: = 31.6215793° N, LON.: = 103.7001333° W
	NAD 27, TX-C, N.(Y): = 726794.7', E.(X): = 952316.0' - LAT.: = 31.6214493° N, LON.: = 103.6996718° W
BOTTOM HOLE LOCATION/ TERMINUS	**FOOTAGE: 91' FNL, 1478' FWL**
	NAD 83, TXSP-C, N.(Y): = 10569440.6', E.(X): = 1248777.6' - LAT.: = 31.6217711° N, LON.: = 103.7001454° W
	NAD 27, TX-C, N.(Y): = 726864.6', E.(X): = 952314.3' - LAT.: = 31.6216412° N, LON.: = 103.6996839° W

NOTES:
1. THIS LOCATION IS APPROXIMATELY 16.8 MILES N.45°W. OF PECOS, TEXAS.
2. SEE DOCUMENTS FILED FOR RECORD IN THIS OFFICE, WHICH DESCRIBE THE RECONSTRUCTION OF THIS SECTION.
3. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, TEXAS CENTRAL (4203) WITH A CONVERGENCE ANGLE OF -01°43'41.42" AND A COMBINED SCALE FACTOR OF 0.999805520 BASED ON AN OPUS SOLUTION ON CONTROL POINT ZUES AT N.=10566388.402' - E.=1252273.526



LEGEND
- PROPOSED WELL LOCATION
- POP
- FTP/LTP
- BHL
- EXISTING WELL
- FND. IRON ROD (OR AS NOTED)
- FND. IRON PIPE (OR AS NOTED)
- FND. UTL CON. MON. (OR AS NOTED)
- CALCULATED CORNER
- LEASE BOUNDARY

2000 0 2000 4000 FEET

SCALE: 1" = 2000'

STATE OF TEXAS REGISTERED JAMES C. TOMPKINS 6768 PROFESSIONAL LAND SURVEYOR

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PERMIT PLAT WAS DERIVED FROM FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR TEXAS RAILROAD COMMISSION PERMITTING ONLY, AND DOES NOT CONSTITUTE OR REPRESENT A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE T.B.P.L.S., "PROFESSIONAL LAND SURVEYING PRACTICES ACT." IF THERE ARE ANY ALTERATIONS MADE (HAND DRAWN OR HANDWRITTEN ADDITIONS) THIS SURVEYOR IS NO LONGER RESPONSIBLE FOR THE VALIDITY OF THIS PLAT.

7/19/2023

JAMES C. TOMPKINS RPLS #6768 — DATE

SURVEY DATE: N/A
JOB NO.: WTC56061

DRAFT: JY
SHEET: 1 OF 1

WPX ENERGY PERMIAN, LLC

TITAN STATE 16-5D-54-4 #433H
SHL 449' FNL, 966' FWL
SEC. 17, BLK 54, T4S, A-779,
T.&P. RW. CO. SURVEY,
REEVES COUNTY, TEXAS

WTC ENGINEERS I SURVEYORS

W T C, INC.
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181
TEXAS REGISTERED ENGINEERING FIRM F-2746
TEXAS REGISTERED SURVEYOR FIRM #100792-00

X:\Projects\Oil & Gas Surveys\Devon Energy\As-Drilled Plats\5690\1-Devon Energy, As-drilled 5 Titan State # 1 Big Iron wst, Loving Co, TX\Drawings\5690-Devon, Pre-Completion, Titan State 16-5D-54-4 #433H 7/20/2023 3:35 PM JYORK

53.

File No. MF116554

Reeves County

iNut 13053 - API 42-389-40400

Date Filed: 10/16/2023

Commissioner Dawn Buckingham, M.D.

By: JM

Matthew Scott

From: Matthew Scott
Sent: Wednesday, October 18, 2023 5:13 PM
To: Brown, Amy
Cc: Robert Hatter; Brian Raygon
Subject: 08-8683 10-18-23 Surface Commingling and Gas Lift Approval Titan State 16 Unit 8343
Attachments: 08-8683 10-18-23 Commingling and Gas Lift Approval Titan State 16 Unit 8343.pdf; Titan State 16 Pad - REV1 Submitted GLO Application 10.2023.pdf

Ms. Brown,

Thank you for (a) submitting the application, per attachment "Titan State 16 Pad - REV1 Submitted GLO Application 10.2023.pdf", to commingle production at the Titan State 16 Pad from GLO Unit 8343 (Titan State 16 Unit) and (b) the request to use gas lift as an artificial lift method in the Unit 8343 wells.

Please find attached the approval of the application, dated 10/18/2023, for the surface commingling of the production from the Unit 8343 wells listed in the application and as part of RRC P17 08-8683.

Gas Lift

In addition, as Lessee and operator of the GLO Unit 8343 (Titan State 16 Unit) wells, it was requested that the GLO approve of the use of gas lift as a form of artificial lift to produce those wells.

The GLO approves of the use of gas lift to produce the Unit 8343 wells from the portion of state mineral leases MF116554, MF116791, and MF118163 that are included in the scope of RRC P-17 08-8683.

Thank you,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
(512) 463-5296
Energy Resources Division
Texas General Land Office
Commissioner Dawn Buckingham, M.D.

From: Brown, Amy <Amy.Brown@dvn.com>
Sent: Tuesday, October 17, 2023 12:59 PM
To: Matthew Scott <Matthew.Scott@glo.texas.gov>
Subject: [EXTERNAL] Titan State 16 Pad - REV 1 GLO Surface Commingle / Gas Lift Permit Application

Good afternoon, Matthew. Please see the attached (revised) application for our Titan State 16 pad. The attached includes the following:

- GLO application page

- GLO lease list (UPDATED WITH LEASE AND UNIT NUMBERS)
- Process Narrative
- Process Flow Diagram
- Approved P17A

Thank you!

Amy A. Brown
Regulatory Compliance Professional
Devon Energy Production Co.
(405) 552-6137

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

CAUTION: This email originated from OUTSIDE of the Texas General Land Office. Links or attachments may be dangerous. Please be careful clicking on any links or opening any attachments.

Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications **Form P-17/P-17A** **District:** 08 **Permit Number:** 8683 **Effective Month/Year:** 02/2019

- [x] All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.

- [x] If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.

- [x] All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.

- [x] All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.

- [x] No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.

- [ ] Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.

- [x] Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows: Titan State Unit (Unit #8343)

- [x] I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX ENERGY PERMIAN, LLC 333 W. SHERIDAN AVE OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Signature: Amy A. Brown

Date: 10/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: Matthew T. Scott Signature: Matthew T. Scott Date: 10/18/2023

GLO Notes: Surface commingling and gas lift in GLO Unit 8343, Titan State 16 Unit.

GLO LEASE LIST

REVISION: 4/15/2023

RRC Form P-17 Permit Operator Name	RRC Form P-17/17A Number	Application Date on P-17	RRC District
WPX Energy Permian	8683	Feb-19	8

GLO LEASE LIST			SEE NOTE 3				SEE NOTE 1				SEE NOTE 2
RRC Designated Field Name & (Reservoir)	RRC Lease Name	RRC Well Number	RRC Lease Number or Identifier	Wellbore 10 Digit API No.	RRC Form P-17 Action Status	RRC Lease Type (Oil/Gas)	State Mineral Lease No.	Production Sharing Agreement (PSA) Number	GLO Unit Name Per Unit Agreement	GLO Unit Number or PSA i-Nut Number	State Mineral Lease or Unit Decimal NRI
Phantom (Wolfcamp)	Titan State 16	411H	286681	42-389-37496	Approved	Gas	MF116554		Titan State Unit	8343	0.12500000
Phantom (Wolfcamp)	Titan State 16	421H	286682	42-389-38497	Approved	Gas	MF116554		Titan State Unit	8343	0.12500000
Phantom (Wolfcamp)	Titan State 16	422H	286683	42-389-38498	Approved	Gas	MF116554		Titan State Unit	8343	0.12500000
		SEE NOTE 4	SEE NOTE 3				SEE NOTE 1	SEE NOTE 1		SEE NOTE 1	SEE NOTE 2

ALL RRC FIELD NAMES, RRC LEASE NAMES, RRC LEASE & DP NUMBERS, API NUMBERS, MINERAL LEASE NUMBERS, PSA NUMBERS, UNIT NAMES, UNIT NUMBERS, AND NRIS IN THE TABLE ABOVE WERE CREATED FOR EXAMPLE PURPOSES ONLY.

NOTES:

1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE TRACT.

IF DUE TO HORIZONTAL SEVERANCE OR DEPTH LIMITATIONS SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE RRC DESIGNATED PRODUCING FIELD AND RESERVOIR INTERVAL.

IF A VERTICAL WELL, HORIZONTAL WELL, OR DIRECTIONAL WELL IS INCLUDED IN THE SCOPE OF A POOLED UNIT THAT INCLUDES MULTIPLE STATE AND PRIVATE LEASES, THEN LEAVE THE MINERAL LEASE NUMBER BLANK AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NET ROYALTY INTEREST (NRI) IN THE APPROPRIATE COLUMNS.

IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE AND PRIVATE MINERAL LEASES AND THE WELLBORE IS NOT INCLUDED IN A GLO POOLED UNIT, THEN ENTER EITHER:
(A) THE PSA NUMBER AND LOWEST LEVEL BASE MINERAL FILE NUMBER FOR THAT PSA BASED ON SHARED AREA AND ITS APPLICABLE NRI BASED ON ACREAGE PARTICIPATION IN THE APPROPRIATE COLUMNS, OR
(B) THE PSA NUMBER, LOWEST LEVEL BASE MINERAL FILE NUMBER, AND THE ASSOCIATED i-NUT NUMBER (ELSE "PENDING" IF THE i-NUT NUMBER HAS NOT YET BEEN ASSIGNED) FOR EACH ALLOCATION WELL WELLBORE BASED ON LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA IN THE PRODUCTIVE INTERVAL AND THE APPLICABLE STATE NRI FOR THAT WELLBORE IN THE APPROPRIATE COLUMNS.
THE LOWEST LEVEL BASE MINERAL FILE NUMBER IS THE LOWEST NUMERICAL MINERAL FILE NUMBER OF ALL OF THE STATE MINERAL LEASES NUMBERS THAT MAY BE INCLUDED IN THE SCOPE OF A PSA THAT WAS EXECUTED BY ALL PARTIES.

2. ENTER THE STATE'S (GLO) NET MINERAL LEASE INTEREST (8 DECIMAL PLACES PER DIVISION ORDER) FOR THAT STATE LEASE ELSE ENTER THE POOLED UNIT, PSA, OR i-NUT NET ROYALTY INTEREST ASSOCIATED WITH: (A) A GLO POOLED UNIT, (B) A PSA BASED ON SHARED AREA, OR (C) A PSA FOR ONE OR MORE ALLOCATION WELLS WITH AN NRI DETERMINED FOR EACH INDIVIDUAL WELL AND REPORTED BY i-NUT NUMBER COMPLETION.
IF AN ALLOCATION WELL THAT IS ALLOCATED BASED ON LENGTH OF LATERAL HAS NOT BEEN DRILLED, IS PENDING COMPLETION, OR WAS RECENTLY COMPLETED, AND THE NRI HAS NOT YET BEEN DEFINED THEN ENTER "EST" FOLLOWED BY AN ESTIMATE OF THE NRI BASED ON THE PROPOSED OR PLANNED LENGTH OF LATERAL OR BASED ON OTHER SIMILAR EXISING COMPLETIONS.

AN i-NUT NUMBER IS A UNIQUE NUMBER THAT IS ASSIGNED TO EACH API WELLBORE THAT IS DRILLED AS AN ALLOCATION WELL WITH ALLOCATION BASED ON THE LENGTH OF LATERAL OR HORIZONTAL DRAINHOLE AREA WITHIN THE PRODUCTIVE RESERVOIR THAT IS AUTHORIZED PER A SPECIFIC UPLANDS LEASE PRODUCTION SHARING AGREEMENT (PSA) . A HIGHWAY ROW (HROW) AND OTHER STATE AGENCY LANDS TYPE LEASE WILL NOT BE ASSOCIATED WITH A PSA.
IF AN APPLICATION TO COMMINGLE STATE LEASES IS SUBMITTED AND AN i-NUT NUMBER HAS NOT YET BEEN ASSIGNED BY GLO STAFF, THEN ENTER "PENDING" AS THE REFERENCE PSA i-NUT NUMBER.
i-NUT IS AN ACRONYM FOR "INTERNAL NON-UNIT TRANSACTION" THAT IS ASSIGNED BY GLO STAFF TO AN ALLOCATION WELL PER A SPECIFIC PRODUCTION SHARING AGREEMENT (PSA) THAT IS ASSOCIATED WITH ONE OR MORE STATE LEASES.
GLO STAFF VERIFIES/DETERMINES THE NRI BASED ON AS-DRILLED LENGTH OF LATERAL INFORMATION PROVIDED BY THE LESSEE AND THE PARTICIPATION FACTOR OF EACH CONTRIBUTING STATE LEASE DEFINED BY THE APPLICABLE PSA.

PRODUCTION SHARING AGREEMENT (PSA) NUMBERS ARE TYPICALLY ASSOCIATED WITH PERMANENT SCHOOL FUND (PSF) LANDS, (I.E., RIVERS, CREEKS, BAYS, GULF OF MEXICO, RELINQUISHMENT ACT LANDS, SCHOOL FEE, FREE ROYALTY, SURFACE SOLD MINERALS RESERVED, ETC.). HOWEVER, OTHER STATE AGENCY LANDS (I.E., HROW, TDCJ, TXDOT, ETC.) WILL NOT HAVE PSA NUMBERS ASSIGNED. PSA DOCUMENTS ARE AVAILABLE VIA THE SCANNED BASE MINERAL FILE DOCUMENTS ACCESSED VIA THE GLO PUBLIC GIS MAP VIEWER, IF NOT AVAILABLE FROM YOUR PRODUCTION REVENUE ACCOUNTING, DIVISION ORDER ANALYSTS, OR LANDMAN STAFF OR FILE RECORDS FOR A MINERAL LEASE TRACT.

3. IF A RRC LEASE NUMBER IS PENDING ASSIGNMENT OR THE WELL HAS NOT BEEN COMPLETED THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NUMBER ASSIGNED BY THE RRC.

4. ALL WELLS ASSOCIATED WITH EACH RRC LEASE NUMBER INCLUDED IN THE SCOPE OF A COMMINGLING PERMIT SHALL BE INCLUDED ON THE GLO LEASE LIST SUBMITTED WITH THE APPLICATION TO COMMINGLE STATE LEASES.

THE NOTES SECTION ABOVE IS FOR INFORMATION AND GUIDANCE ONLY AND THUS MAY BE DELETED FROM THE GLO LEASE LIST THAT IS SUBMITTED TO THE GLO AS PART OF AN APPLICATION REQUEST TO COMMINGLE STATE LEASES.

Process Narrative – TITAN STATE 16 PAD Central Tank Battery

All Wells

Gross production from each well flows from its respective wellsite through a 3–phase flowline to the TITAN STATE 16 PAD Central Tank Battery. At the Central Tank Battery, it flows through a dedicated 3-phase separator which meters oil, gas, and water. The water is comingled and stored in tanks. The gas is measured individually and flows to a 3rd party gatherer. The oil is measured individually downstream of the dedicated 3-phase separator before being comingled and stored in tanks. Any hydrocarbon liquid collected from gas scrubbers will be sold from the tanks as oil.

Oil

Gross production of oil is processed at a dedicated 3-phase separator and measured using a Coriolis Meter for the wells. Oil is then processed further at a dedicated Heater Treater. The oil is then comingled and flows to the common tanks where it is sold through a LACT unit to a 3rd party gatherer. The oil is measured by a Coriolis meter. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter.

Gas

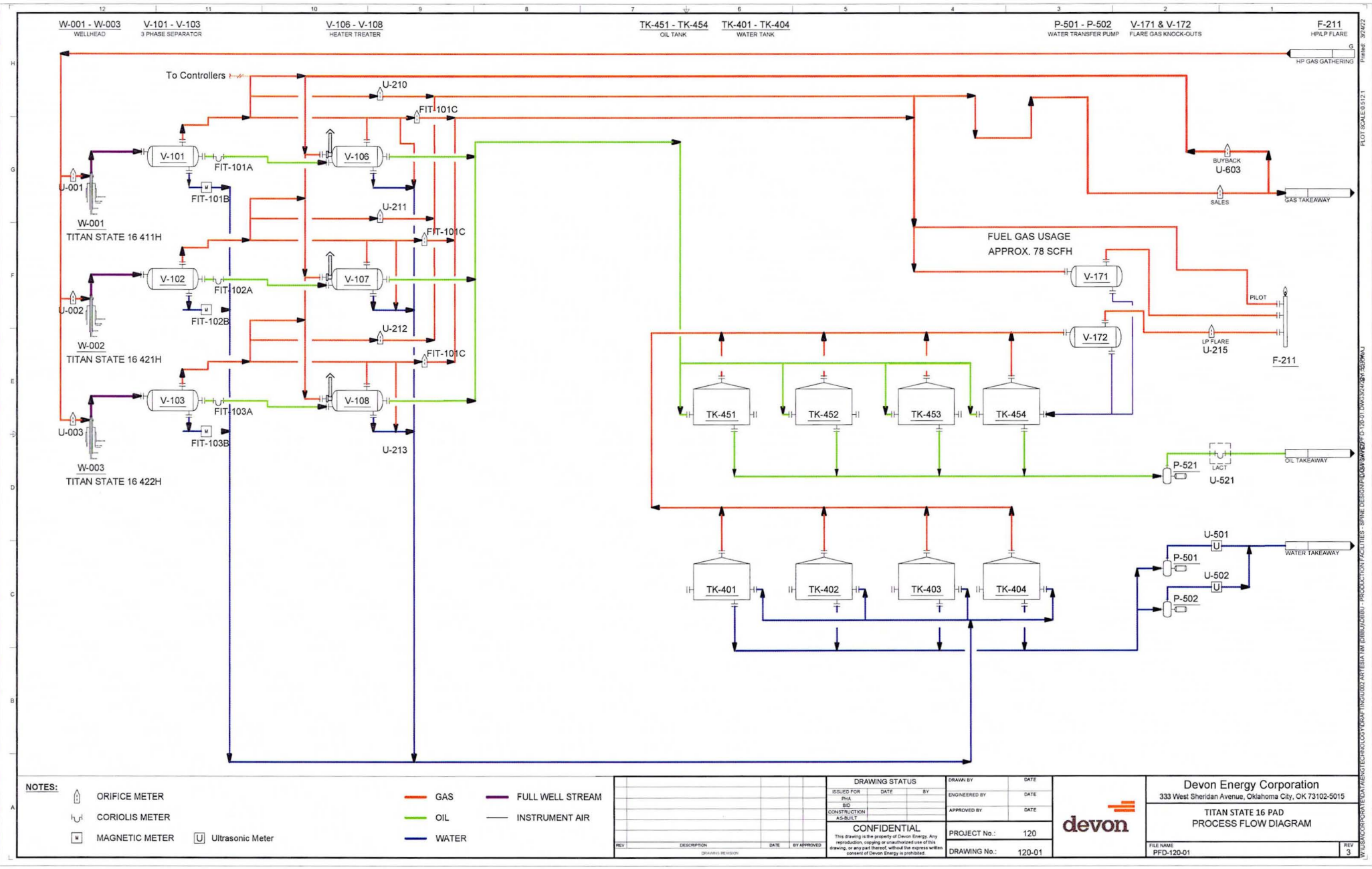
Gross production of the gas is measured at the outlet of the dedicated separator using an orifice meter. It will then flow through a common gas line to a lease custody transfer meter where it will be measured using an orifice meter and gathered by a 3rd party. If the gathering system pressure gets too high each well will send gas will flow through an orifice flare meter and flow to a high pressure flare. Fuel gas will be bought back from the gathering system and used for all wells. Flare royalties will be paid off a monthly statement using a MMBTU value for each well.

Gas Lift

Lift gas will be metered from the high pressure gathering through an individual well injection orifice meter and sent down the well bore.

Water

Gross production of water is measured at the outlet of the dedicated separator using a Mag meter. The water is comingled and sent to common storage tanks. The water from the treater is sent to common storage tanks. Tank vent emissions are routed to a low pressure flare and measured using a thermal mass meter. From the tanks, the water is sent to a pump and measured using a ultrasonic meter. The pump moves the water to a Salt Water Disposal system.


W-001 - W-003
WELLHEAD
V-101 - V-103
3 PHASE SEPARATOR
V-106 - V-108
HEATER TREATER
TK-451 - TK-454
OIL TANK
TK-401 - TK-404
WATER TANK
P-501 - P-502
WATER TRANSFER PUMP
V-171 & V-172
FLARE GAS KNOCK-OUTS
F-211
HP/LP FLARE
HP GAS GATHERING
To Controllers
U-210
FIT-101C
V-101
FIT-101A
V-106
U-001
FIT-101B
W-001
TITAN STATE 16 411H
U-211
FIT-101C
V-102
FIT-102A
V-107
U-002
FIT-102B
W-002
TITAN STATE 16 421H
U-212
FIT-101C
V-103
FIT-103A
V-108
U-003
FIT-103B
U-213
W-003
TITAN STATE 16 422H
BUYBACK
U-603
SALES
GAS TAKEAWAY
FUEL GAS USAGE
APPROX. 78 SCFH
V-171
PILOT
V-172
LP FLARE
U-215
F-211
TK-451
TK-452
TK-453
TK-454
P-521
LACT
U-521
OIL TAKEAWAY
U-501
WATER TAKEAWAY
P-501
U-502
P-502
TK-401
TK-402
TK-403
TK-404
NOTES:
ORIFICE METER
CORIOLIS METER
MAGNETIC METER
Ultrasonic Meter
GAS
OIL
WATER
FULL WELL STREAM
INSTRUMENT AIR
REV
DESCRIPTION
DATE
BY APPROVED
DRAWING REVISION
DRAWING STATUS
ISSUED FOR
DATE
BY
PHA
BID
CONSTRUCTION
AS-BUILT
CONFIDENTIAL
This drawing is the property of Devon Energy. Any reproduction, copying or unauthorized use of this drawing, or any part thereof, without the express written consent of Devon Energy is prohibited.
DRAWN BY
DATE
ENGINEERED BY
DATE
APPROVED BY
DATE
PROJECT No.:
120
DRAWING No.:
120-01
devon
Devon Energy Corporation
333 West Sheridan Avenue, Oklahoma City, OK 73102-5015
TITAN STATE 16 PAD
PROCESS FLOW DIAGRAM
FILE NAME
PFD-120-01
REV
3
Printed: 3/24/22
PLOT SCALE 0.5121

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

Form P-17A
Rev. 03/2019

☐ New
☑ Amended Existing Permit No. 8683
Effective Month/Year of Requested Exception: 02 / 2019
District 08
County REEVES

APPLICATION FOR COMMINGLE PERMIT PURSUANT TO STATEWIDE RULES 26 AND OR 27

RECEIVED
RRC OF TEXAS
OCT 25 2019
OIL & GAS PRODUCTION DEPT.
AUSTIN, TX

SECTION 1. OPERATOR INFORMATION

Operator Name:	WPX ENERGY PERMIAN, LLC	Operator P-5 No.:	942623
Operator Address:	3500 ONE WILLIAMS CENTER MD-35, TULSA, OK 74172		

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name:	SUNOCO PTNRS. MKTG.&TERMINALS LP	Gatherer P-5 No.:	829626
Gatherer Address:	ATTN MEGAN KEEFE 1300 MAIN STREET, HOUSTON, TX 77002		

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ☑ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ☑ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ☑ This application is for common storage.
f) ☐ This application is for common separation.
g) ☐ This application is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This application is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. COMMINGLING PURSUANT TO §3.26(b) or §3.27(e) – (CHECK ALL THAT APPLY)

a) ☑ The production stream from each tract and each Commission-designated reservoir is measured separately before combining it with a stream from another tract or Commission-designated reservoir.
Production will be allocated by: ☑ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☑ G-10 (gas) ☐ Other_____

b) ☑ The tracts and Commission-designated reservoirs have identical royalty interest and working interest ownership in identical percentages.
Production will be allocated by: ☑ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☑ G-10 (gas) ☐ Other_____

SECTION 5. ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules regarding surface commingling have been adopted. *(Notice may be required; see instructions)*

SECTION 6. ☐ **Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1.** *(See instructions)*

SECTION 7. ☐ **For oil production, the production from all oil wells on each oil lease is to be commingled.** *(See instructions)*

SECTION 8. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	286681	☑ Existing ☐ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	411H
08	286682	☑ Existing ☐ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	421H
08	286683	☑ Existing ☐ Add ☐ Delete	TITAN STATE 16 / PHANTOM (WOLFCAMP)	422H
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ☑ No additional pages ☐ Additional pages 0 (# of additional pages)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Caitlin O'Hair Title Regulatory Tech III Date 10/21/2019

Operator E-mail Address: caitlin.ohair@wpxenergy.com Operator Phone No. 539-573-3527
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. 8683 **Approval date:** 11/01/19 **Approved by:** Dana Williams

Texas General Land Office
Application to Surface Commingle State Leases

Application Revision
April 15, 2023

Provide a GLO Lease List that includes all applicable mineral lease, GLO pooled unit, PSA, and i-Nut information for all wells in the scope of an RRC Form P-17/17A or a request to utilize gas lift, and process flow diagram(s) showing the unique meter identification number or serial number for all flow meters used to identify a meter in the field and the unique identification number for each piece of major equipment (i.e., pressure vessel, heater treater, compressor, VRU, tank, flare, etc..). **Each facility that commingles production must have: (1) all the Oil (O), Gas (G), and Water (W) meters and/or GLO pre-approved full well stream/multi-phase flow meters (MPFM) necessary for the measurement and allocation of production, (2) all meters necessary to measure lease use volumes (fuel, vent, flare, and instrument gas), (3) lift gas supply and distribution meters and individual well lift gas supply meters, and (4) all sales/custody transfer meters.**

Certifications Form P-17/P-17A District: 08 **Permit Number:** 8683 **Effective Month/Year:** 02/2019

☑ All State lease oil and gas separators are of ample capacity as required by 31 Texas Administrative Code (TAC) §9.35(a)(2) and the terms of any lease that is the subject of this commingling.

☑ If applicable, the appropriate Form P-17 or P-17A has been filed with the Railroad Commission of Texas with respect to all leases associated with this application, and the GLO has been furnished with a copy.

☑ All non-sales (e.g., fuel, instrument, vent, flash, flare, and lift gas) dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and the terms of any lease that is the subject of this commingling. If any required meters are missing, they will be installed within 12 months of the date of this application.

☑ All sales dispositions of hydrocarbon are metered as required by 31 TAC §9.35(a)(2) and pursuant to the terms of any lease that is the subject of this commingling.

☑ No material changes to the commingled facility or equipment as represented in this application will be made without prior written permission of the GLO.

☐ Where applicable, the Lessee has obtained prior written permission to inject recycled or off-lease gas for secondary or enhanced recovery operations or for gas lift purposes as an artificial lift method, and all gas supply and distribution points are metered per 31 TAC §9.35(a)(2). If gas is not injected into a formation or utilized for gas lift, then leave the check box blank.

☑ Lessee requests permission to recycle gas or utilize gas lift pursuant to the terms of each state lease, with all gas supply and distribution points metered, on the following state leases and/or units as follows:
Titan State Unit (Unit #8343)

☑ I acknowledge and agree that royalty is due on 100% of the hydrocarbons produced from each lease and that the GLO will use molecular (component) balance software to verify the fractionated value of all processed gas. The GLO acknowledges that nothing in this statement is intended to amend or modify any lease that is the subject of this commingling. Gas royalty payment will be due on a molecular balance basis for non-processed gas and processed gas irrespective of the method of allocation I have used to report such production if underpayment is discovered during an audit.

Company Name, Address: WPX ENERGY PERMIAN, LLC 333 W. SHERIDAN AVE OKC, OK 73102

Responsible Official Name, Title: Amy Brown, Regulatory Compliance Signature: Amy A. Brown

Date: 10/5/2023 Phone: (405) 552-6137 Email Address: amy.brown@dvn.com

GLO Approval by: _____ Signature: _____ Date: _____

GLO Notes:

(54)

File No. MF116554

County

Comm Exmptn 3' Gas lift Apprvl

Date Filed: 10/26/23 10/18/23

Commissioner Dawn Buckingham, M.D.

By: AT

WPX Energy Permian, LLC
333 W. Sheridan Avenue
Oklahoma City, OK 73102

405 228 4800 Phone
405 234 2397 Fax

devon

iNut 13048

DIVISION ORDER

MF116554 MF118163
MF116791

Property No.:	388907-51598-1	Date Prepared:	September 28, 2023
Property Name:	TITAN STATE 16-5B-54-4 402H	Prepared By:	AMY RENEE STINER
Operator:	WPX ENERGY PERMIAN, LLC	Phone No.:	405-228-4800
State and County:	TEXAS, REEVES	Effective Date:	Date of First Sales
Property Description:	Section 5 & 16, Block 54, T-4S, T&P RR Co API 42-389-40404		

Production: Oil: X Gas: X Other:

Owner Number:	9132820	Decimal Interest:	0.06275221
Owner Name:	STATE OF TEXAS	Interest Type:	RI 16
	CARE OF GENERAL LAND OFFICE	Pay Status:	PAY
Address:	STEPHEN F AUSTIN BUILDING		
	AUSTIN, TX 78701		

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by WPX Energy Permian, LLC, a wholly-owned indirect subsidiary of Devon Energy Corporation.

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following the receipt of such notice.

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled.

Payor may accrue proceeds until the total amount equals $100, or pay annually, whichever occurs first, or as required by applicable state statutes.

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas.

In addition to terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located.

Special Clause: None

Signature(s): _____ _____

Social Security or Tax I.D. Number: _____ *Changes to address, if needed:*

Phone Number: _____ _____

Email Address: _____ _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number.
Failure to comply will result in a significant tax withholding required by the IRS and will not be refundable by Payor.

KEEP FOR YOUR RECORDS

23-2-01

File No. IMF 116554

County

Division Order

Date Filed: 2/23/2024

Commissioner Dawn Buckingham, M.D.

By: VR