

DATE IN 12/13/10	SUSPENSE	ENGINEER DKB	LOGGED IN 12/13/10	TYPE NSL	APP NO. 1034755182
---------------------	----------	-----------------	-----------------------	-------------	-----------------------

PTG-W

6137

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



Devon 15025
 Thistle Unit #184
 6314

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

Fed

lea

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR
- [D] Other: Specify _____

Property Code
 30884

Brushy Canyon

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

<u>Katie A. McDonnell</u> Print or Type Name	<u>Katie A. McDonnell</u> Signature	<u>Landman</u> Title	<u>12-13-2010</u> Date
		<u>Katie.mcdonnell@dvn.com</u> e-mail Address	



Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260
Fax: 405-552-8113

FAX

To: David Brooks, OCD

From: Katie McDonnell
Office: 405-552-8040

Fax: 505-476-3462

Date: December 13, 2010

Phone: 505-476-3440

Pages: 20 (including cover page)

Re: Thistle Unit 18H NSL Application

Urgent For Review Please Comment Please Reply Please Recycle

• Comments:



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010.

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: David Brooks

RE: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, New Mexico

Gentlemen:

Devon Energy Production Company, L.P. ("Devon"), as Operator, intends to drill the referenced horizontal Delaware well to a total vertical depth of 8,974' with a total measured depth of 13,514'. As reflected on the attached C-102, the well has been permitted at a surface location of 150' FNL and 1,470' FWL with a permitted bottom hole location of 330' FSL and 1,980' FWL of Section 28. We will penetrate the top of the Delaware formation at an unorthodox location of 150' FNL and 1,470' FWL (surface hole location), although the highest perforation in the well will not be closer than 330' to the outer boundary of the project area.

The surface hole location will be non-standard in order to maximize the length of the horizontal portion of the wellbore within the target Delaware interval. By spotting the surface hole location 150' from the section line, this allows room to build the curve and land horizontally at a standard location within the target Delaware interval. Perforations in the horizontal wellbore in the target Delaware interval will be at least 330' from the section lines.

Inasmuch as the referenced well will penetrate the top of the Delaware formation at an unorthodox location from that permitted by the Statewide Pool Rules, Devon respectfully requests that the Commission administratively approve this application for an unorthodox location in accordance with Division Rule 104(F)(3). This unorthodox location affects the leasehold owners/operators in Unit letter D of said section 28 and Unit letters M and N of section 21-T23S-R33E. Devon is the operator of that portion of the Thistle Unit comprised of section 28. Pecos Operating Company, LLC is operator of the Brinninstool Unit #2, a Morrow gas well in the W/2 of section 21-T23S-R33E. In accordance with NMOCD Rules, the affected offset operator & leasehold owners in said affected Unit letters have been given notice of this application. Additionally, Devon requests Commission approval to designate a 160 acre project area consisting of four (4) standard oil spacing units comprised of the E/2 W/2 (Unit letters C, F, K, & N) of said Section 28.

Attached for your review you will find a land plat, copies of letters of notification to the affected parties, a structure map covering the Top Delaware formation, a State of New Mexico form C-102, and a Well Profile Planning Report prepared by CUDD Drilling & Measurement Services.

Feel free to contact the undersigned at (405)552-8040 if there are any concerns or questions regarding this application.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

A handwritten signature in cursive script that reads 'Katie A. McDonnell'.

Katie A. McDonnell
Landman

Corp. 2 13450 Mom. Corp. V 731
 (Conquest) Fed.
 U.S.
 17 Baber Well Serv V 731
 State M
 16 Trimmer Rt (Gulf) Yates Pet. et al: 7-1-2009 V-710 \$190.00
 Chesapeake B-1-2010 V-720 483.00
 Chesapeake 11-1-2015 114985 \$975.00
 State 23-33 State State
 V 6912 171.85
 Amoco State 1-832 or 1-831
 Jim Kelle
 De 5
 US MI State(s)

Conoco HBP 068848
 Samson Res 2386
 BRINNINSTOOL UT. (Conoco)
 TOCO, LLC. 068848
 (OPER.)
 BRINNINSTOOL
 Enron (Amer. Quasar) Brinninstool (Morrow Disc) 22.6 Mil.
 Devon
 94187
 Cont'l Lovick-Fed 105944 D/A 10 63
 U.S. MI
 Brinninstool AL Rec (S)
 U.S. MI
 Brinninstool AL Rec (S)
 State 22
 State 23
 U.S

OXY 12-1-2011 107395 110.00
 Conoco Phillips 94186
 THISTLE UNIT
 DEVON EN. (OPER.)
 Santa Fe Shudert 28
 Thistle Ut. WC DISC. #12
 U.S. MI
 Brinninstool AL Rec (S)
 State 29
 State 27
 State 26
 U.S. MI
 Brinninstool XL

K-Klein Dalg State
 Brinninstool XL Rec (S)
 Santa Fe Eqr. Thistle Unit St. Del. Disc. P 277
 Harper Oil Brinninstool TDS-400 D/A 2 22 85
 15
 33
 "Thistle Ut. St."
 State 32
 State 34
 State 35
 U.S. MI
 Brinninstool XL

Quantum Resc 1185.00
 OXY Res. 1395.00
 EOG (Murchison, et al S/R) LG 3175
 EOG Res. (Devon) V-5289
 Jackson St. Com.
 Mesa Pet. Jog. St. T-15-54
 Yates Pet., et al 11-1-2015 V-7223 \$18.00
 State 5
 State 4
 State 2

Enron Concho St. Com.
 Murchison D.C.
 EOG Res. V-4368
 Chesapeake 11-1-2015 114985 \$975.00
 State 5
 State 4
 State 2



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Trainer Partners, Ltd.
P.O. Box 3778
Midland, TX 79702

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Trainer Partners, Ltd. as a working interest owner in that portion of the Thistle Unit, located in Section 28-T23S-R33E, as well as a leasehold owner in the W/2 of section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOC Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

Trainer Partners, Ltd. has no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Randall Trainer
P.O. Box 3778
Midland, TX 79702

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Randall M. Trainer, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOCD Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, Randall M. Trainer, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

C.W. Trainer
8090 E. Kalil Drive
Scottsdale, AZ 85260

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that C.W. Trainer, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOC rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, C.W. Trainer, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Michael Shea Trainer
5322 Solar Ridge
Colorado Springs, CO 80917

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Michael Shea Trainer, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOCD Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, Michael Shea Trainer, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Terri Jan Trainer
79 Marathon Road
Hobbs, NM 88240

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Terri Jan Trainer, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOC Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, Terri Jan Trainer, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

U. V. Jones
P.O. Box 7107
Midland, TX 79708

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that U.V. Jones, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOCD Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, U.V. Jones, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Doug Crenshaw
P.O. Box 1523
Lovington, NM 88260

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Doug Crenshaw, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOCD Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, Doug Crenshaw, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Melody Prichard
5806 Stonecrest
Midland, TX 79707

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Melody Prichard, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOC Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

I, Melody Prichard, have no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Pecos Operating Company, LLC
400 W. Illinois, Ste 1210
Midland, TX 79701

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Pecos Operating Company, LLC, as operator of the Brinninstool Unit #2 located in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOCD Rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. *If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.*

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

Katie A. McDonnell
Landman

Pecos Operating Company, LLC has no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

December 13, 2010

Samson Resources
Samson Plaza
Two West Second Street
Tulsa, OK 74103

Re: Thistle Unit #18H
Section 28-T23S-R33E
Lea County, NM

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s administrative application for approval of an unorthodox well location covering the referenced well. Our records indicate that Samson Resources, as a leasehold owner in the W/2 of Section 21-T23S-R33E, is an affected owner of an offset spacing unit and is entitled to notice of this application in accordance with Division Rule 104(f). In accordance with NMOC rules, objections to this application must be filed with the New Mexico Oil Conservation Division within 20 days from the date the OCD receives the application. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned via facsimile to 405-552-8113.

If there are any questions or if additional information is required, feel free to call me at (405) 552-8040.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

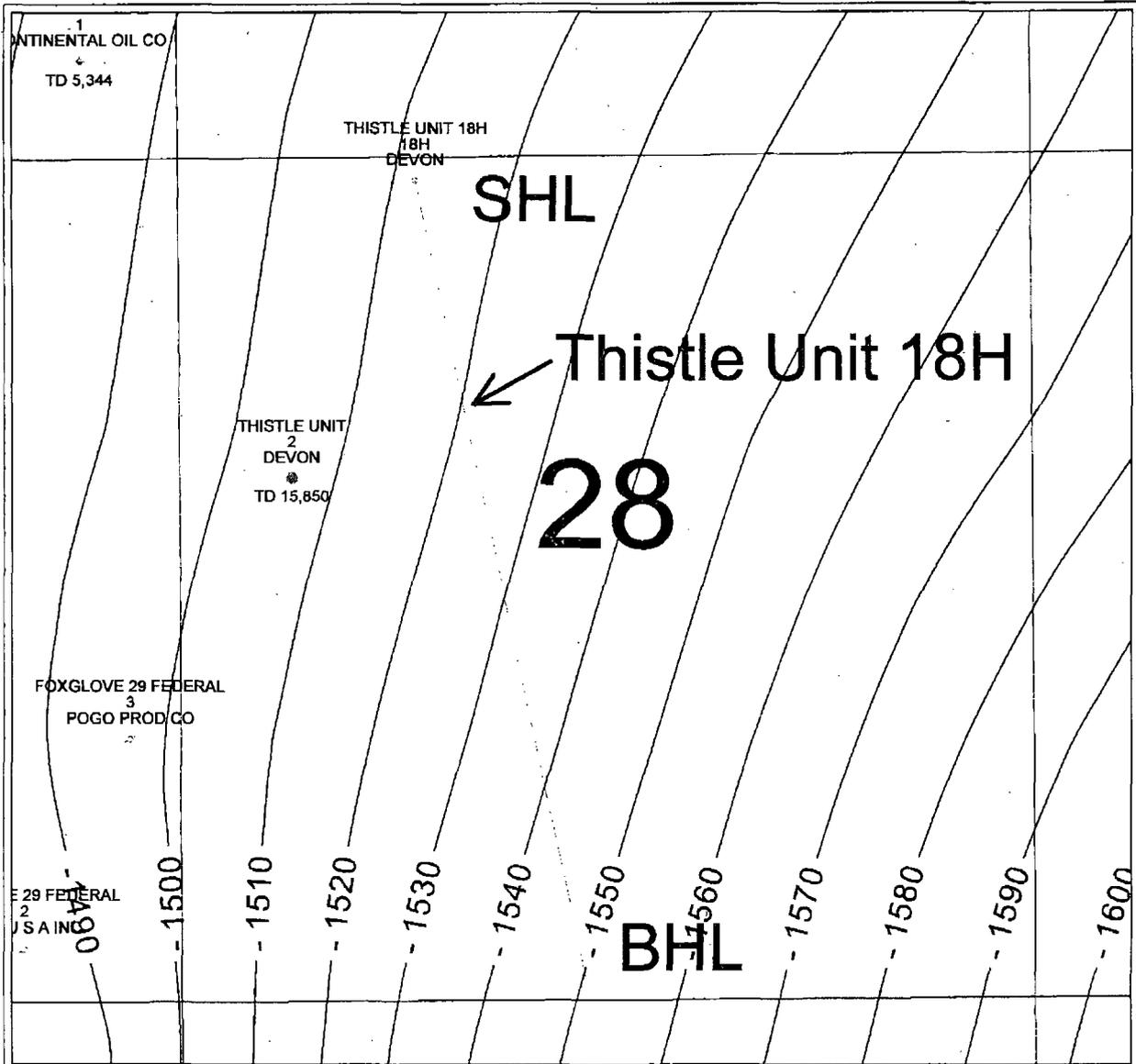
Katie A. McDonnell
Landman

Samson Resources has no objection to this administrative application for unorthodox location.

By: _____

Title: _____

Date: _____



PE17A 12/2/2010 5:31:05 PM

Devon Energy

Thistle Unit 18H

Non-Standard Location

Structure - Top Delaware



December 2, 2010

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code	Pool Name <i>under Basin Brinninston Plac</i>
Property Code	Property Name THISTLE UNIT	Well Number 18H
GRID No.	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Elevation 3682'

Surface Location

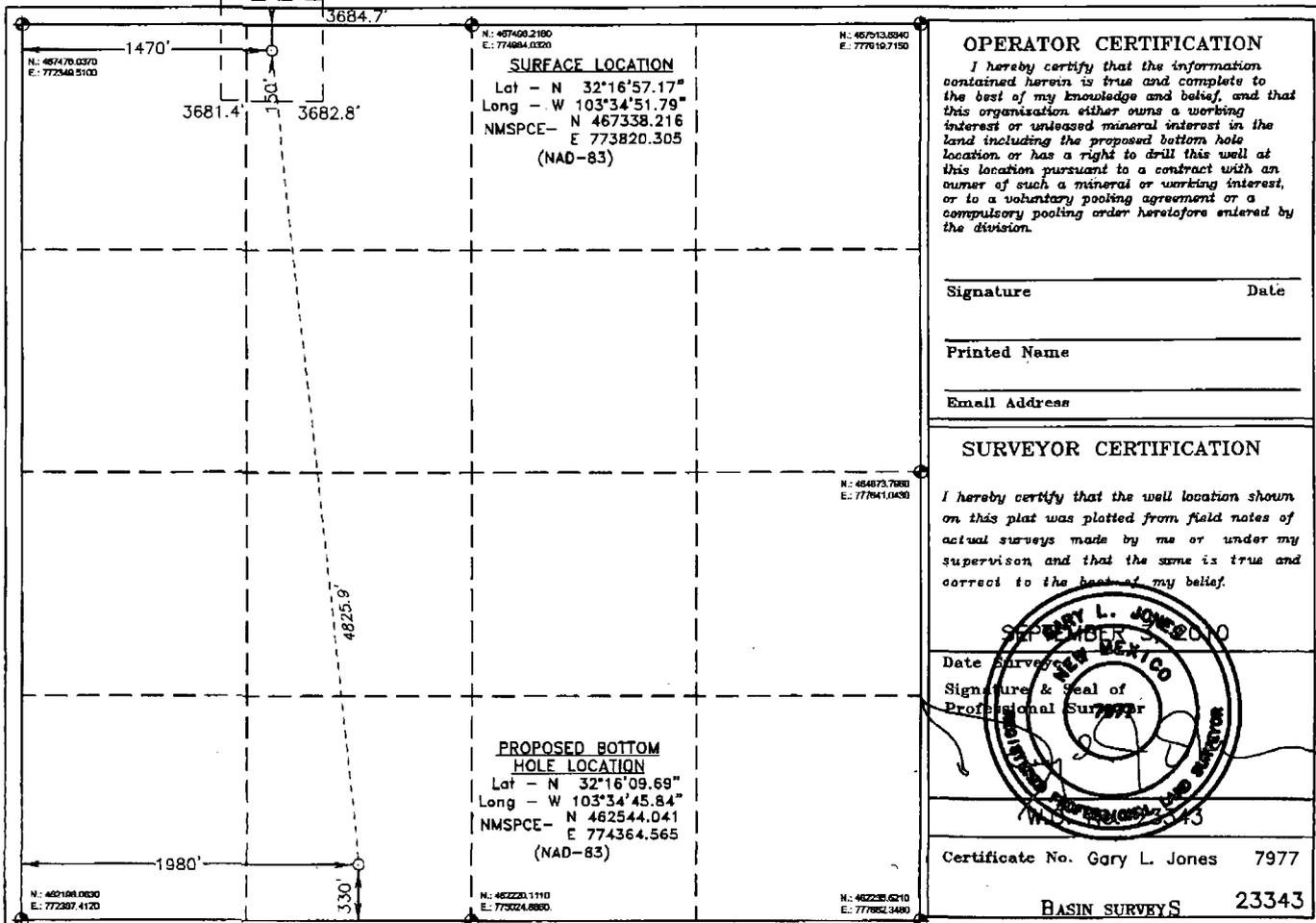
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	23 S	33 E		150	NORTH	1470	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	23 S	33 E		330	SOUTH	1980	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
3685.4' OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





Devon Energy

Lea Co., New Mexico (Nad 83)

Thistle Unit #18H

Thistle Unit #18H

Lateral #1

Plan: Design #2

Standard Survey Report

30 September, 2010





CUDD Drilling & Measurement Services

Survey Report



Company:	Devon Energy	Local Coordinates Reference:	Site Thistle Unit #18H
Project:	Lea Co., New Mexico (Nad: 83)	TVD Reference:	WELL @ 3702.00ft (Original Well Elev)
Site:	Thistle Unit #18H	MD Reference:	WELL @ 3702.00ft (Original Well Elev)
Well:	Thistle Unit #18H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #2	Database:	EDM 2003.21 Single User Db

Project:	Lea Co., New Mexico (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Thistle Unit #18H, Sec 28, T-23S, R-33E				
Site Position:	Northing:	467,338.22 ft	Latitude:	32° 16' 57.166 N	
From:	Map	Easting:	773,820.31 ft	Longitude:	103° 34' 51.791 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.40 "

Well:	Thistle Unit #18H					
Well Position	+N-S	0.00 ft	Northing:	467,338.22 ft	Latitude:	32° 16' 57.166 N
	+E-W	0.00 ft	Easting:	773,820.31 ft	Longitude:	103° 34' 51.791 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	3,702.00 ft	Ground Level:	3,686.00 ft

Wellbore:	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	09/30/10	7.67	60.28	48,753

Design	Design #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.00	0.00	0.00	173.52

Survey Tool Program	Date: 09/30/10			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,200.00	Design #2 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
8,200.00	13,513.89	Design #2 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD

Planned Survey											
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)	Build Rate (/100ft)	Turn Rate (/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,305.00	0.00	0.00	1,305.00	0.00	0.00	0.00	0.00	0.00	0.00		
Rustler											
1,358.00	0.00	0.00	1,358.00	0.00	0.00	0.00	0.00	0.00	0.00		
Top of Salt											
2,158.00	0.00	0.00	2,158.00	0.00	0.00	0.00	0.00	0.00	0.00		
Base of Salt											
5,167.00	0.00	0.00	5,167.00	0.00	0.00	0.00	0.00	0.00	0.00		
Delaware											
6,125.00	0.00	0.00	6,125.00	0.00	0.00	0.00	0.00	0.00	0.00		
Cherry Canyon											



CUDD Drilling & Measurement Services

Survey Report



Company: Devon Energy	Local Co-ordinate Reference:	Site Thistle Unit #18H
Project: Lea Co., New Mexico (Nad 83)	TVD Reference:	WELL @ 3702.00ft (Original Well Elev)
Site: Thistle Unit #18H	MD Reference:	WELL @ 3702.00ft (Original Well Elev)
Well: Thistle Unit #18H	North Reference:	Grid
Wellbore: Lateral #1	Survey Calculation Method:	Minimum Curvature
Design: Design #2	Database:	EDM 2003.21: Single User Db.

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate ("/100ft)	Turn Rate (°/100ft)
7,455.00	0.00	0.00	7,455.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
8,361.68	0.00	0.00	8,361.68	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 10.0°/100'									
9,256.38	89.47	173.52	8,934.62	-564.03	64.03	567.65	10.00	10.00	0.00
EOC - Hold 1:89.47° @ A:173.52									
13,513.89	89.47	173.52	8,974.00	-4,794.18	544.26	4,824.98	0.00	0.00	0.00
PBHL - TD (TU#18H)									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/S (ft)	+E/W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL - TD (TU#18H)	0.00	0.00	8,974.00	-4,794.18	544.26	462,544.04	774,364.57	32° 16' 9.689 N	103° 34' 45.844 W
- plan hits target center									
- Point									

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,305.00	1,305.00	Rustler		0.53	173.00
1,358.00	1,358.00	Top of Salt		0.53	173.00
2,158.00	2,158.00	Base of Salt		0.53	173.00
5,167.00	5,167.00	Delaware		0.53	173.00
6,125.00	6,125.00	Cherry Canyon		0.53	173.00
7,455.00	7,455.00	Brushy Canyon		0.53	173.00

Measured Depth (ft)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Comment
8,361.68	8,361.68	0.00	0.00	KOP - Build 10.0°/100'
9,256.38	8,934.62	-564.03	64.03	EOC - Hold 1:89.47° @ A:173.52

Checked By: _____ Approved By: _____ Date: _____



Project: Lea Co., New Mexico (Nad 83)
 Site: Thistle Unit #18H
 Well: Thistle Unit #18H
 Wellbore: Lateral #1
 Design: Design #2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dlmg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8361.68	0.00	0.00	8361.68	0.00	0.00	0.00	0.00	0.00	
3	9256.36	89.47	173.52	8934.62	-694.04	64.03	10.00	173.52	567.86	
4	13513.69	89.47	173.52	8974.00	-4794.16	544.29	0.00	0.00	4624.96	PB-L - TD (TU#18H)

ANNOTATIONS

TVD	MD	Annotation
8361.68	8361.68	KOP - Build 10.071007
8934.62	9256.36	EOC - Hold 189.47° @ A:173.52

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape Point
PB-L - TD (TU#18H)	8974.00	-4794.16	544.29	462544.04	774364.56	32° 16' 9.689 N	103° 34' 45.644 W	

WELL DETAILS: Thistle Unit #18H

Ground Level: 3636.00							
WELL @ 3702.00R (Original Well Elev)							
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Spot	
0.00	0.00	467338.22	773620.31	32° 18' 57.165 N	103° 34' 51.791 W		

PROJECT DETAILS: Lea Co., New Mexico (Nad 83)

Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: New Mexico Eastern Zone	
System Datum: Mean Sea Level	

Plan: Design #2 (Thistle Unit #18H Lateral #1)

Created By: Mike Starkey	Date: 13/28, September 30 2010
Checked: _____	Date: _____
Reviewed: _____	Date: _____
Approved: _____	Date: _____



Adjusts to Grid North
 True North: -0.40°
 Magnetic North: 7.27°
 Magnetic Field Strength: 46.73325nT
 Dip Angle: 60.28°
 Date: 09/30/2010
 Model: IGRF200510

