Submit 1 Copy To Appropriate District Office	State of New Mexico	Form C-103
District I - (575) 393-6161	Energy, Minerals and Natural Resources	Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240 District II - (575) 748-1283		WELL API NO. 30-025-43469
811 S. First St., Artesia, NM 88210	OIL CONSERVATION DIVISION	5. Indicate Type of Lease
<u>District III</u> – (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Francis Dr.	STATE T FEE
District IV - (505) 476-3460	Santa Fe, NM 87505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505		
	CES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name
	SALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A	
PROPOSALS.)	CATION FOR PERMIT" (FORM C-101) FOR SUCH	Thistle Unit
1. Type of Well: Oil Well	Gas Well Other	8. Well Number 254H
2. Name of Operator	NEDGY DRODUCTION COMPANY ID	9. OGRID Number 6137
3. Address of Operator	NERGY PRODUCTION COMPANY, LP	10. Pool name or Wildcat
333 W. Sheridan Avenue O	Aklahama City OV 72102	
4. Well Location	Rianoma City, OR 75102	Triple X; Bone Spring
Unit Letter O:	248 feet from the South line and 19	962 feet from the East line
Section 34	Township 23S Range 33E	NMPM Lea, County
Section 34	11. Elevation (Show whether DR, RKB, RT, GR, etc.)	
	3643	
12. Check A	appropriate Box to Indicate Nature of Notice, I	Report or Other Data
NOTICE OF IN	TENTION TO	DECLIENT DEDODT OF
NOTICE OF IN	The same of the sa	SEQUENT REPORT OF:
PERFORM REMEDIAL WORK  TEMPORARILY ABANDON	PLUG AND ABANDON REMEDIAL WORK CHANGE PLANS COMMENCE DRIL	
PULL OR ALTER CASING	MULTIPLE COMPL CASING/CEMENT	
DOWNHOLE COMMINGLE	MOLTIFLE COMPL	100
CLOSED-LOOP SYSTEM		
OTHER:	□ OTHER:	
<ol><li>Describe proposed or compl</li></ol>	eted operations. (Clearly state all pertinent details, and	
	rk). SEE RULE 19.15.7.14 NMAC. For Multiple Con	npletions: Attach wellbore diagram of
proposed completion or reco	ompletion.	
Devon Energy respects	fully requests to convert the Thistle Unit 254H	I from a 3-string casing design to a 2-
string casing design. O	il-based mud will be used from drill out of su	irface casing to TD of the well. Please
see the attached C-102,	Drilling Plan & Directional Survey.	
	,	
		loniod
		Cilicu
		for shone convergate
	•	per shone conversales
Spud Date:	Rig Release Date:	
I hereby certify that the information a	bove is true and complete to the best of my knowledge	and belief.
	0	
SIGNATURE REDUCTION	Maria Baratan Arabat	DATE 1/10/2017
SIGNATURE COLUMN	TITLE Regulatory Analyst	DATE 1/19/2017
Time or print name Dalacce De-1	E-mail address: rebecca.deal@d	lvn.com PHONE: 405-228-88429
Type or print name Rebecca Deal For State Use Only	E-man address: <u>redecca.dean@d</u>	IVII.COIII FRONC. 405-220-00427
I of State Ost Only		
APPROVED BY:	TITLE	DATE
Conditions of Approval (if any):		

District.]
1625 N. French Dr.. Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District.II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District.III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District.III
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

27

Joint or Infill

12 Dedicated Acres

240

23 S

33 E

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe. NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

LEA

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

	-025-43			59900	le	Triple X; Bone Spring				
Property 3088			' Property Name 'Well N THISTLE UNIT 254							
'OGRID 6137			Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.							
					<sup>10</sup> Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
0	34	23 S	23 S   33 E   248   SOUTH   1962   EAST   LEA						LEA	
			" Bo	ttom Hol	e Location I	Different Fro	m Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	

SOUTH

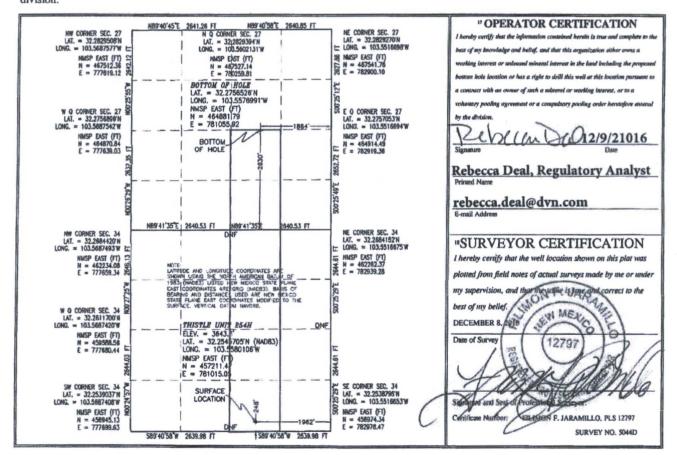
1864

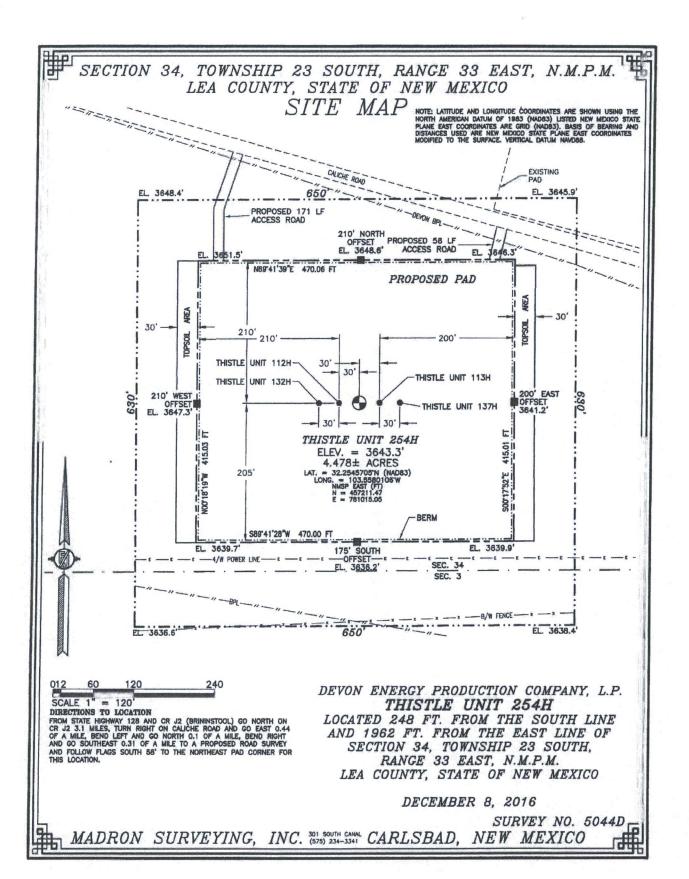
EAST

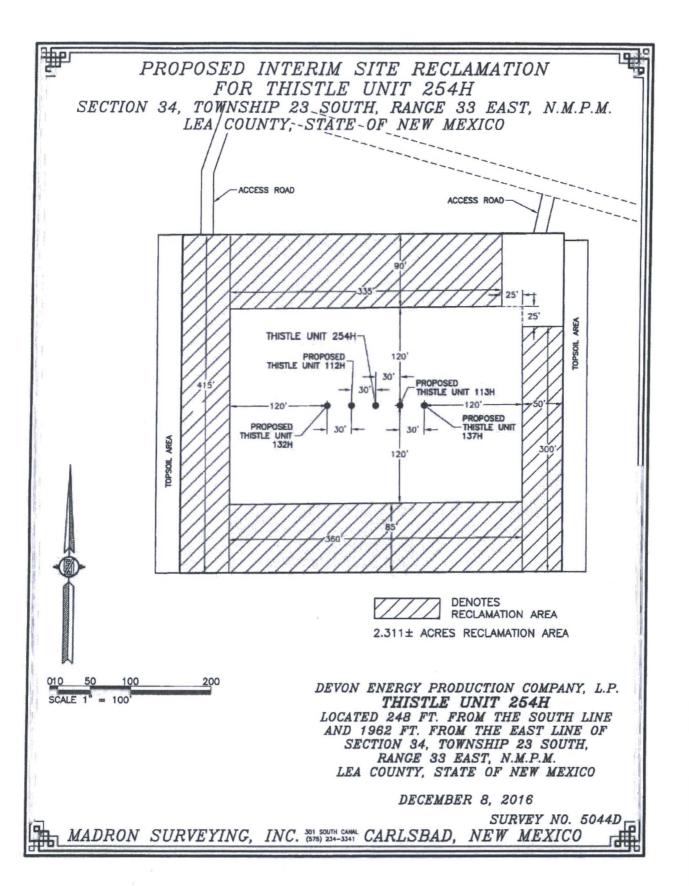
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

2630

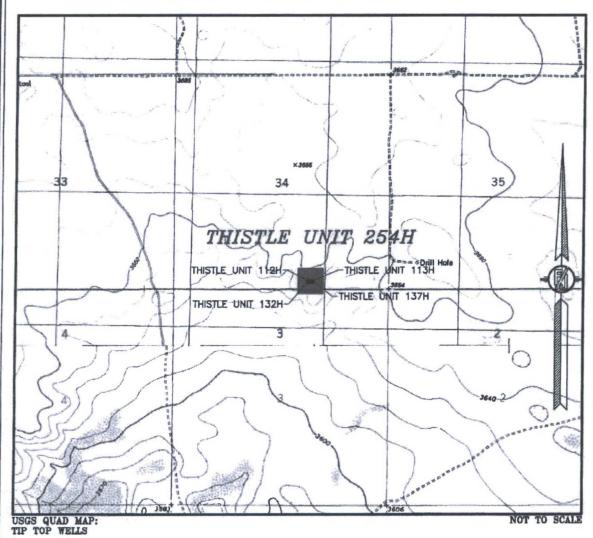
15 Order No.











DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 254H

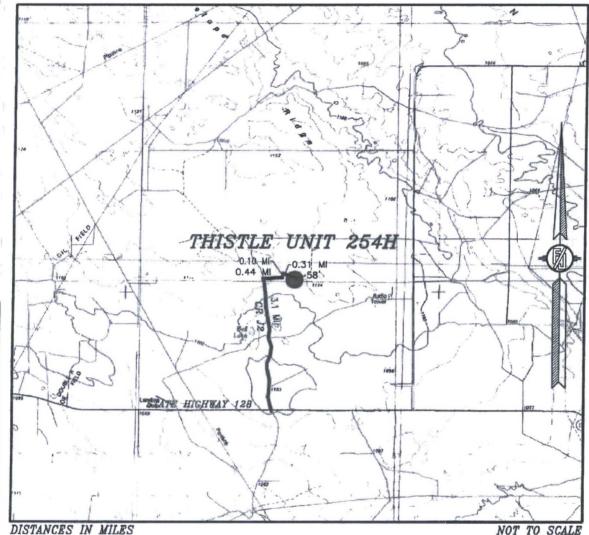
LOCATED 248 FT. FROM THE SOUTH LINE
AND 1962 FT. FROM THE EAST LINE OF
SECTION 34, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2016

SURVEY NO. 5044D

MADRON SURVEYING, INC. 301 SOUTH CARLSBAD, NEW MEXICO

#### SECTION 34, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO VICINITY MAP



DISTANCES IN MILES

#### DEVON ENERGY PRODUCTION COMPANY, L.P. THISTLE UNIT 254H

LOCATED 248 FT. FROM THE SOUTH LINE DIRECTIONS TO LOCATION PRINGE TURN TO LOCATION

FROM STATE HIGHWAY 128 AND CR J2 (BRININSTOOL) GO NORTH ON CR J2 3.1 MILES, TURN RIGHT ON CALICHE ROAD AND GO EAST 0.44

OF A MILE, BEND LEFT AND GO NORTH 0.1 OF A MILE, BEND RIGHT AND GO SOUTHEAST 0.31 OF A MILE TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS SOUTH 58 TO THE NORTHEAST PAD CORNER FOR THIS LOCATION. AND 1962 FT. FROM THE EAST LINE OF SECTION 34, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2016

SURVEY NO. 5044D

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

### SECTION 34, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AERIAL PHOTO



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 254H

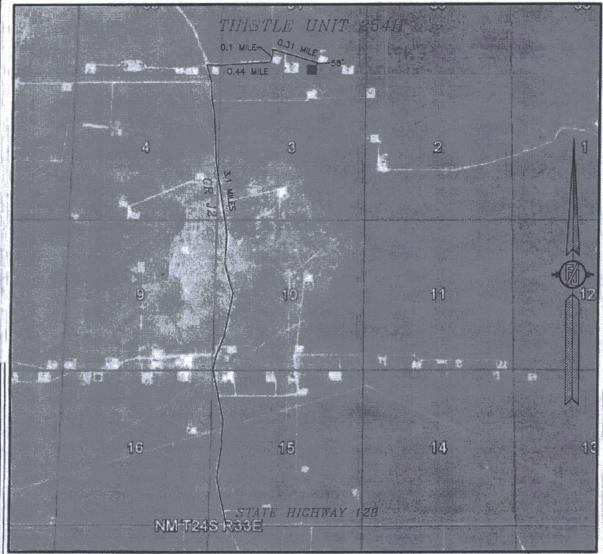
LOCATED 248 FT. FROM THE SOUTH LINE
AND 1962 FT. FROM THE EAST LINE OF
SECTION 34, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2016

SURVEY NO. 5044D

MADRON SURVEYING, INC. 301 SOUTH CARLSBAD, NEW MEXICO

## SECTION 34, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO ACCESS AERIAL ROUTE MAP



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 254H

LOCATED 248 FT. FROM THE SOUTH LINE
AND 1962 FT. FROM THE EAST LINE OF
SECTION 34, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 8, 2016

MADRON SURVEYING, INC. 301 SOUTH CARLSBAD, NEW MEXICO

### 1. Geologic Formations

TVD of target	9,743'	Pilot hole depth	N/A
MD at TD:	17,132'	Deepest expected fresh water:	

### Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1,328		
Top of Salt	1,828		
Base of Salt	4,958		
Delaware	5,228		
Lower Brushy Canyon	8,953		
1st Bone Spring Lime	9,113		
Leonard A	9,248		
Leonard B	9,616		

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

#### 2. Casing Program

Hole Size	Casing Interval		Csg.	Weight	Grade	Conn	SF	SF Burst	SF
	From	To	Size	(lbs)		•	Collapse		Tension
12.25"	0	1,360'	9.625"	40	J-55	BTC	4.14	2.45	4.72
8.75"	0	17,132'	5.5"	17	P-110	BTC	1.56	1.93	2.09
				BLM Min	imum Safet	y Factor	1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

<b>国际建筑的企业的设计,以及1000年,1000年,1000年,1000年,1000年,1000年</b>	YorN
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H <sub>2</sub> 0 gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
9-5/8" Surface	349	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
Surrace	202	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E- Flake
5-1/2"	769	10.9	20.6	3.31	24	Lead: (50:40:10) Class C: Silicalite: Enhancer 923 + 10% BWOC Bentonite + 0.05% BWOC SA-1015 + 0.3% BWOC HR-800 + 0.2% BWOC FE-2 + 0.125 lb/sk Pol-E-Flake + 0.5 lb/sk D-Air 5000
Prod	1790	13.2	6.829	1.4	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
9-5/8" Surface	0'	75%
5-1/2" Production Casing	1,160'	25%

#### 4. Pressure Control Equipment

N A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Ту	pe	*	Tested to:		
			Annular		х	50% of working pressure		
			Blind Ram					
8-3/4"	13-5/8"	3M	3M	3M	Pipe	Ram		
			Double	e Ram	х	3M		
			Other*					

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

- Y Formation integrity test will be performed per Onshore Order #2.
  On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
- A variance is requested for the use of a flexible choke line from the BOP to Choke Y Manifold. See attached for specs and hydrostatic test chart.
  - Y Are anchors required by manufacturer?
- Y A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 9-5/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

5. Mud Program

	Depth	Туре	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1,360'	FW Gel	8.6-8.8	28-34	N/C
1,360'	17,132'	Oil-Based	8.5-9.3	35-55	<40

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain	PVT/Pason/Visual Monitoring
of fluid?	

#### **6.** Logging and Testing Procedures

Logg	ging, Coring and Testing.
X	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated
	logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Ado	litional logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	KOP to TD
	PEX	

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4559 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

Target and formations will be provided to the 22111	
N	H2S is present
Y	H2S Plan attached

#### 8. Other facets of operation

Is this a walking operation? No. Will be pre-setting casing? No.

Attachments

\_x\_ Directional Plan \_\_ Other, describe



KB:3666.80 GL:3643.30

TVD

#### Devon Energy Thistle Unit 254H Lea Co, NM

#### Plan Data for Thistle Unit 254H

Plan Point Information:
DogLeg Severity Unit: \*/100.00ft Position offsets from Slot centre
MD Inc Az TVD +N/-5 +E/-W Northing Easting VSec DLS Comments
(USft) (\*) (\*) (USft) (USft) (USft) (USft) (USft) (USft) (USft) (USft) (0.80)
0.00 0.00 0.00 0.00 0.00 -0.00 457211.47 781015.05 0.00 0.00 0.00 8927.06 0.00 0.00 0.00 -0.00 457211.47 781015.05 0.00 0.00 NOP
9822.287 89.58 1.12 9590.00 568.66 11.11 457780.13 781026.16 568.76 10.00 LP
16926.67 89.58 1.12 9590.00 7670.91 149.85 464882.38 781164.90 7672.37 0.00 BHL 254H

#### Plan Data for Thistle Unit 254H

Field: Lea Co, NM Nad 83 MMEZ it: USFt Vertical Reference Datum (VRD): Mean Sea Level Projected Coordinate System: NAD83 / New Mexico East (ftUS) Map Unit: USFt

Site: Thistle Unit 254H
Unit: USFeet TVD Reference:
Company Name: Devon Energy
n: Northing: 457211.47USft Latitude: 32.254570°
Easting: 781015.69USft Longitude: -103.558011°
North Reference: Grid Grid Convergence: 0.41°
Elevation Above VRD: 3643.30USft Position:

Slot: Thistle Unit 254H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 457211.47USft Latitude: 32.254570°
+E/-W: 0.00USft Easting: 781015.05USft Longitude: -103.558011°
Elevation Above VRD: 3643.30USft

#### Well: Thistle Unit 254H Type: Main-Well File Number:

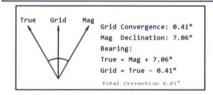
#### Plan Data for Thistle Unit 254H

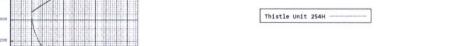
Target Set Information:

Name: Thistle Unit 254H Tgts
Position offsets from Slot centre

Name TVD Elevation +M/-5 + E/-W Northing Easting
(USft) (USft) (USft) (USft) (USft) (USft)

BHL 254H 9552.00 -5885.20 7670.91 149.85 464882.38 781164.90

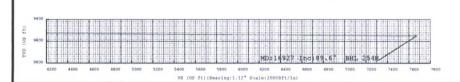




1800

VS (US ft) (Rearing: 1.12\* Scale: 200USft/in)

2200 2400



1400

### Weatherford

