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Form 3160-3
(February 2005)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **USA NMNM 94186**

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. <30884> **Thistle Unit #19H**

2. Name of Operator **Devon Energy Production Co., LP** <6137>

9. API Well No. ~~WH~~ 30-025-40057

3a. Address **20 North Broadway, OKC, OK 73102**

3b. Phone No. *(include area code)* **(405)-236-3511**

10. Field and Pool, or Exploratory ~~Brinninstool~~ **Delaware; ~~Brushy Canyon~~**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **NENW 150' FNL & 2490' FEL Unit B**
At proposed prod. zone **SWSE 150' FSL & 1470' FEL Unit O**

11. Sec., T. R. M. or Blk. and Survey or Area **Sec 28 T23S R33E**

14. Distance in miles and direction from nearest town or post office*
Approximately miles southeast of , NM.

12. County or Parish **Lea** 13. State **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
150'	**960 ac**	**160 acres**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
See attached map	**TVD 9010' MD 13,806'**	**CO-1104**
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3691' GL	**09/01/2011**	**45 days**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Spence Laird	**Spence Laird**	**12/13/2010**
Title **Regulatory Analyst**		
Approved by *(Signature)* /s/ Don Peterson	Name *(Printed/Typed)*	Date FEB - 9 2011
Title **FIELD MANAGER**	Office **CARLSBAD FIELD OFFICE**	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

OCD CONDITION OF APPROVAL of Drilling:
Intent to drill ONLY --- CANNOT produce until the Non-Standard Location has been approved by OCD Santa Fe Office.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

KZ 2/9/11

Carlsbad Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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Form C-102
Revised October 15,2009
Submit one copy to appropriate District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-40051	96193	Brininstool ~~BRUSHY CANYON~~ (DELAWARE)

[4] Property Code	[5] Property Name	[6] Well Number
30884	THISTLE UNIT	19H

[7] OGRID No.	[8] Operator Name	[9] Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3690.7

[10] Surface Location

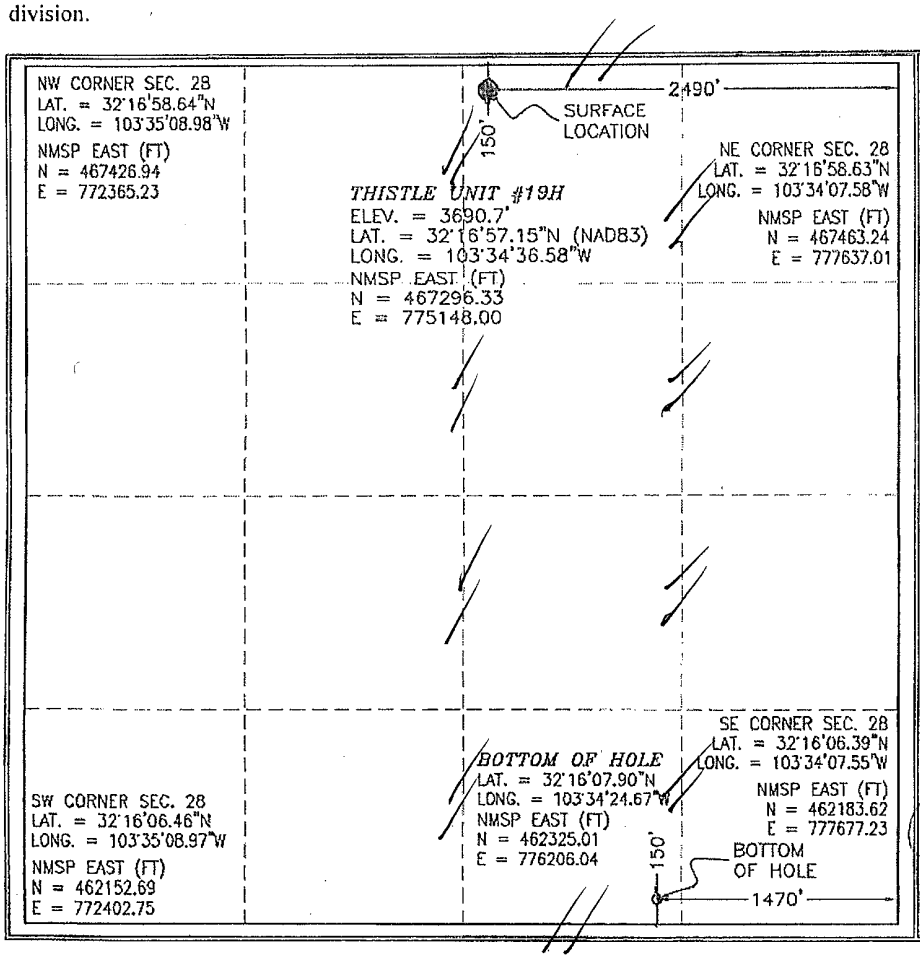
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	28	23 S	33 E		150	NORTH	2490	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	28	23 S	33 E		150	SOUTH	1470	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160 AC			

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.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date 12/2/10

Printed Name
SPENCE LAIRD, DEVON ENERGY

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NOVEMBER 8, 2010
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 313

DRILLING PROGRAM

Devon Energy Production Company, LP

Thistle Unit 19H

Surface Location: 150' FNL & 2490' FEL, Unit B, Sec 28 T23S R33E, Lea, NM

Bottom Location: 150' FSL & 1470' FEL, Unit O, Sec 28 T23S R33E, Lea, NM

1. Geologic Name of Surface Formation

a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a.	Water	200'	Fresh Water
b.	Rustler	1335'	Barren
c.	Top Salt	1435'	Barren
d.	Base Salt	2195'	Barren
e.	Delaware	5244'	Oil/Gas
f.	Cherry Canyon	6151'	Oil/Gas
g.	Brushy Canyon	7628'	Oil/Gas
h.	Top Brushy Canyon Pay Snd	8919'	Oil/Gas
i.	Landing Pt. in Brushy Canyon	8969'	Oil/Gas

TVD: 9010' MD: 13,806'

Producing formation: Brushy Canyon

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at ~~1360'~~ 1435' and circulating cement back to surface. The ~~fresh water sands~~ will be protected by setting 9 5/8" casing at ~~2220'~~ 5150' and circulating cement to surface. The production intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

3. Casing Program: See COA

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17-1/2"	0 – ~~1,360~~ 1435	13-3/8"	0 – ~~1,360~~ 1435	54.5#	STC	K-55
12-1/4"	1,360 – ~~2,220~~ 5150	9-5/8"	0 – ~~2,220~~ 5150	40#	LTC	N-80
8-3/4"	~~2,220~~ – 8,200	5-1/2"	0 – 8,200	17#	LTC	N-80
8-3/4"	8,200 – ~~13,850~~ 13806	5-1/2"	8,200 – 13,830	17#	BTC	N-80

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8" J-55 LTC	1.59	3.86	11.5
9-5/8" 40# N-80 LTC	1.15	3.42	7.15
5-1/2" 17# N-80 LTC	1.63	2.01	2.85
5-1/2" 17# N-80 BTC	1.48	1.82	1.68

4. Cement Program:

13-3/8" Surface

Lead: 775 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 1% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 101.3% Fresh Water

Yield: 1.97 cf/sk

TOC @ surface

Tail: 300 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water

Yield: 1.35 cf/sk

9-5/8" Intermediate

See COA

Lead: 455 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 1% bwoc Sodium Metasilicate + 89.7% Fresh Water
Yield: 1.73 cf/sk

TOC @ surface

Tail: 250 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.2% Fresh Water

Yield: 1.34 cf/sk

5-1/2" Production

1st Stage
Lead: 705 sacks (35:65) Poz (Fly Ash):Class H Cement + 3% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 6% bwoc Bentonite + 0.7% bwoc FL-52A + 102.5% Fresh Water

Yield: 2.01 cf/sk

Tail: 1430 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 57.3% Fresh Water

Yield: 1.28 cf/sk

DV TOOL at 5,500 ft

2nd Stage
Lead: 575 sacks Class C Cement + 1% bwoc R-3 + 0.125 lbs/sack Cello Flake + 3% bwoc Sodium
Metasilicate + 157% Fresh Water

Yield: 2.88 cf/sk

Tail: 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water

Yield: 1.38cf/sk

TOC for All Strings:

Surface:	0
Intermediate:	0
Production:	~~1,720'~~ 4650'

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

5. Pressure Control Equipment:

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Triple Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 2M system prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 5M Triple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 5M system prior to drilling out the intermediate casing shoe.

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.

Will be hard Piped - Per Operator 2-3-10 DHW

See COA 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.

6. Proposed Mud Circulation System See COA

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0 – ~~1,360~~ 1435'	8.4 – 9.0	30 – 34	N/C	FW
1435 ~~1,360~~ – ~~2,220~~ 5150	9.8 – 10.0	28 – 32	N/C	Brine
5150' ~~2,220~~ – ~~13,850~~ 13806	8.6 – 9.0	28 – 32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. **Logging, Coring, and Testing Program:** See COA
   a. Drill stem tests will be based on geological sample shows.
   b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
   c. The open hole electrical logging program will be:
      i. Total Depth to Intermediate Casing — Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
      ii. Total Depth to Surface — Compensated Neutron with Gamma Ray
      iii. No coring program is planned
      iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. **Potential Hazards:**
   a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area; therefore, no H2S is anticipated to be encountered. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3600 psi and Estimated BHT 140°.

10. **Anticipated Starting Date and Duration of Operations:**
    a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

See COA Depending on rig availability, Devon may set the surface casing using an Ashton Oilfield Services rig. The rig plat is attached. This rig will be used only to set the surface casing and will leave the location once the surface casing has been run and cemented. Another rig will drill the remainder of the wellbore. The reasons for using the smaller rig to set surface are: rig availability and economics.

The BLM will be contacted 24 hours prior to commencing drilling operations. The surface casing will be run and cemented back to surface as per the approved APD. The well will be secured with a cap welded onto the surface casing. Another rig will be on location to drill the remainder of the wellbore within 60 days after the Ashton rig has left the location.

devon

Project: Lea County
Site: Thistle Unit
Well: #19H
Wellbore: OH
Plan: Design #1 (#19H/OH)

PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

G
T M

Azimuths to Grid North
True North: -0.41°
Magnetic North: 7.24°

Magnetic Field
Strength: 48737.2snT
Dip Angle: 60.28°
Date: 12/01/2010
Model: IGRF200510

PATHFINDER
A Schlumberger Company

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8396.00	0.00	0.00	8396.00	0.00	0.00	0.00	0.00	0.00	
3	9290.90	89.48	167.98	8969.00	-555.37	118.25	10.00	167.98	567.82	
4	13805.93	89.48	167.98	9009.98	-4971.23	1058.48	0.00	0.00	5082.66	PBHL(TU#19H)

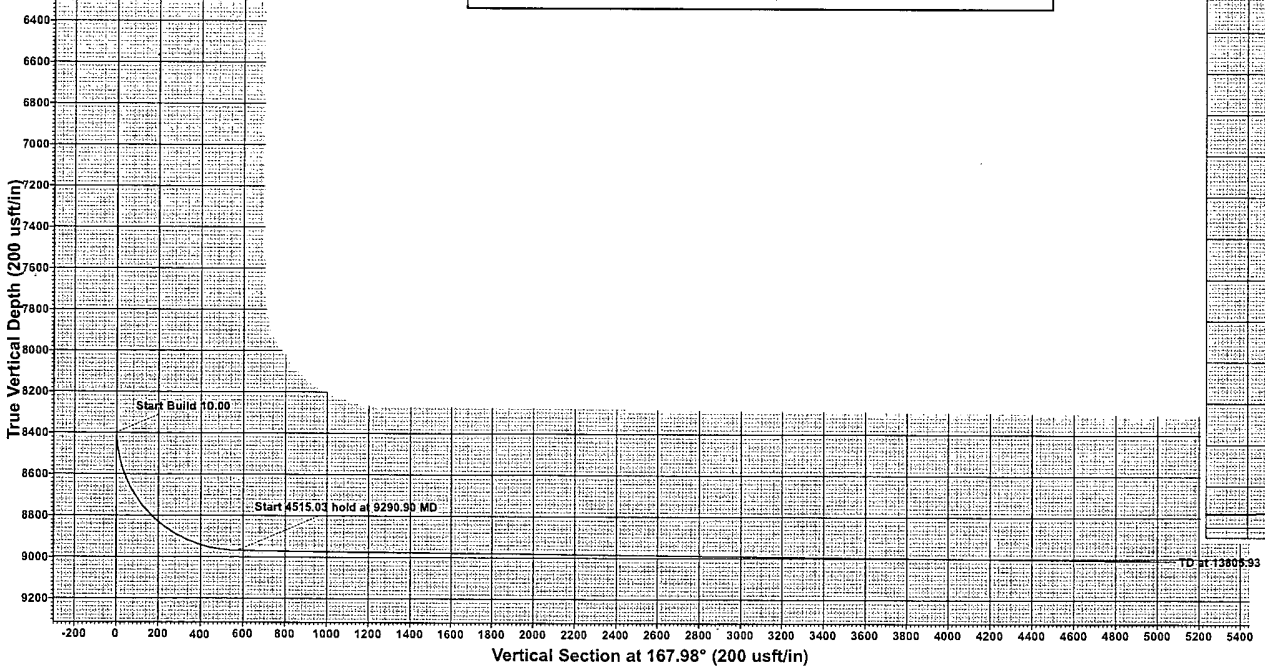
WELL DETAILS: #19H

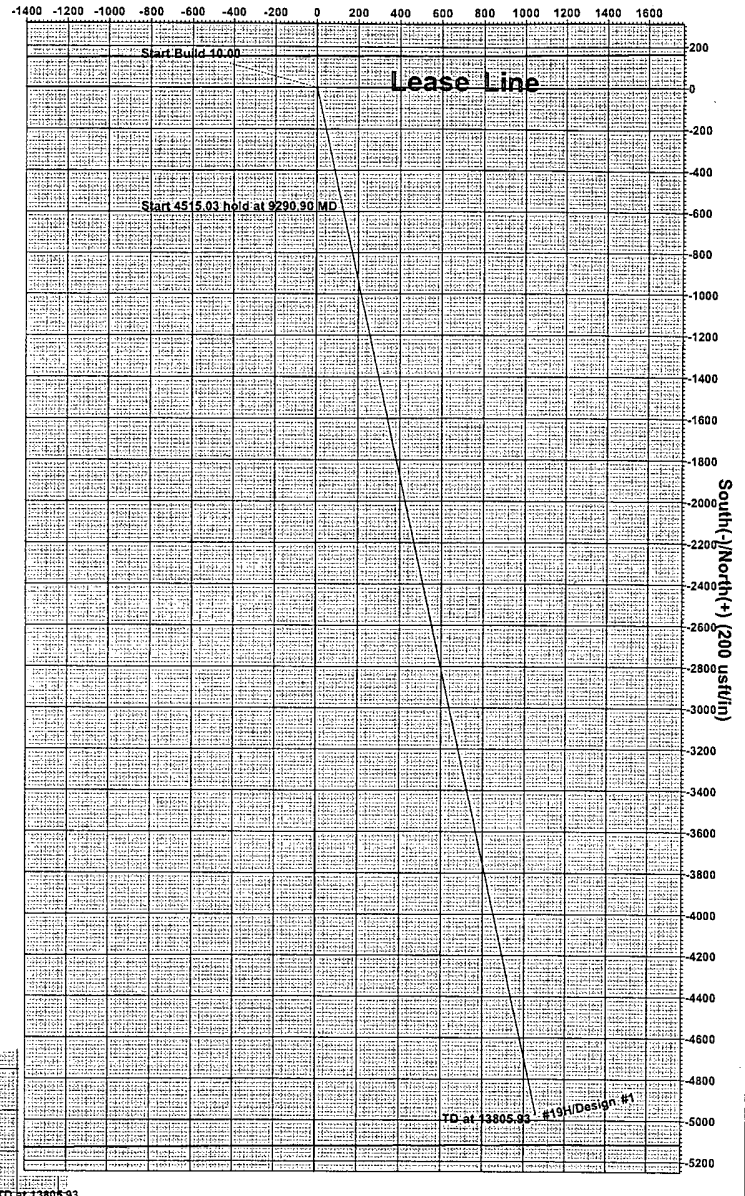
Ground Elevation:: 3690.70
RKB Elevation: WELL @ 3709.70usft (19' KB Correction)
Rig Name: 19' KB Correction

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
-17.73	-2640.18	467296.330	775148.000	32° 16' 56.659 N	103° 34' 36.330 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(TU#19H)	9010.00	-4971.32	1058.04	462342.740	778846.220	Point





Plan: Design #1 (#19H/OH)
Created By: Nate Bingham Date: 15:34, December 01 2010

devon

Devon Energy Production Company, L.P.

Lea County
Thistle Unit
#19H
OH

Plan: Design #1

Pathfinder X & Y Planning Report

01 December, 2010

PATHFINDER
A Schlumberger Company

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Project Lea County

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

Site Position:		**Northing:**	467,314.060 usft	**Latitude:**	32° 16' 56.649 N
From:	Map	**Easting:**	777,788.180 usft	**Longitude:**	103° 34' 5.575 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.41 °

Well #19H

Well Position	**+N/-S**	-17.73 usft	**Northing:**	467,296.330 usft	**Latitude:**	32° 16' 56.659 N
	+E/-W	-2,640.18 usft	**Easting:**	775,148.000 usft	**Longitude:**	103° 34' 36.330 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,690.70 usft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/01/10	7.65	60.28	48,737

Design Design #1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	167.98

Survey Tool Program **Date** 12/01/10

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	13,805.92	Design #1 (OH)		

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	3,709.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
100.00	0.00	0.00	100.00	3,609.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
200.00	0.00	0.00	200.00	3,509.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
300.00	0.00	0.00	300.00	3,409.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
400.00	0.00	0.00	400.00	3,309.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
500.00	0.00	0.00	500.00	3,209.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
600.00	0.00	0.00	600.00	3,109.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
700.00	0.00	0.00	700.00	3,009.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
800.00	0.00	0.00	800.00	2,909.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
900.00	0.00	0.00	900.00	2,809.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,000.00	0.00	0.00	1,000.00	2,709.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,100.00	0.00	0.00	1,100.00	2,609.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,200.00	0.00	0.00	1,200.00	2,509.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,300.00	0.00	0.00	1,300.00	2,409.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,400.00	0.00	0.00	1,400.00	2,309.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,500.00	0.00	0.00	1,500.00	2,209.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,600.00	0.00	0.00	1,600.00	2,109.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,700.00	0.00	0.00	1,700.00	2,009.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,800.00	0.00	0.00	1,800.00	1,909.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
1,900.00	0.00	0.00	1,900.00	1,809.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,000.00	0.00	0.00	2,000.00	1,709.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,100.00	0.00	0.00	2,100.00	1,609.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,200.00	0.00	0.00	2,200.00	1,509.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,300.00	0.00	0.00	2,300.00	1,409.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,400.00	0.00	0.00	2,400.00	1,309.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,500.00	0.00	0.00	2,500.00	1,209.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,600.00	0.00	0.00	2,600.00	1,109.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,700.00	0.00	0.00	2,700.00	1,009.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,800.00	0.00	0.00	2,800.00	909.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
2,900.00	0.00	0.00	2,900.00	809.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,000.00	0.00	0.00	3,000.00	709.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,100.00	0.00	0.00	3,100.00	609.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,200.00	0.00	0.00	3,200.00	509.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,300.00	0.00	0.00	3,300.00	409.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,400.00	0.00	0.00	3,400.00	309.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,500.00	0.00	0.00	3,500.00	209.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,600.00	0.00	0.00	3,600.00	109.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,700.00	0.00	0.00	3,700.00	9.70	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,800.00	0.00	0.00	3,800.00	-90.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
3,900.00	0.00	0.00	3,900.00	-190.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,000.00	0.00	0.00	4,000.00	-290.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,100.00	0.00	0.00	4,100.00	-390.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,200.00	0.00	0.00	4,200.00	-490.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,300.00	0.00	0.00	4,300.00	-590.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,400.00	0.00	0.00	4,400.00	-690.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,500.00	0.00	0.00	4,500.00	-790.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,600.00	0.00	0.00	4,600.00	-890.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,700.00	0.00	0.00	4,700.00	-990.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,800.00	0.00	0.00	4,800.00	-1,090.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
4,900.00	0.00	0.00	4,900.00	-1,190.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,000.00	0.00	0.00	5,000.00	-1,290.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,100.00	0.00	0.00	5,100.00	-1,390.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,200.00	0.00	0.00	5,200.00	-1,490.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,300.00	0.00	0.00	5,300.00	-1,590.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
5,400.00	0.00	0.00	5,400.00	-1,690.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,500.00	0.00	0.00	5,500.00	-1,790.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,600.00	0.00	0.00	5,600.00	-1,890.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,700.00	0.00	0.00	5,700.00	-1,990.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,800.00	0.00	0.00	5,800.00	-2,090.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
5,900.00	0.00	0.00	5,900.00	-2,190.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,000.00	0.00	0.00	6,000.00	-2,290.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,100.00	0.00	0.00	6,100.00	-2,390.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,200.00	0.00	0.00	6,200.00	-2,490.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,300.00	0.00	0.00	6,300.00	-2,590.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,400.00	0.00	0.00	6,400.00	-2,690.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,500.00	0.00	0.00	6,500.00	-2,790.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,600.00	0.00	0.00	6,600.00	-2,890.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,700.00	0.00	0.00	6,700.00	-2,990.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,800.00	0.00	0.00	6,800.00	-3,090.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
6,900.00	0.00	0.00	6,900.00	-3,190.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,000.00	0.00	0.00	7,000.00	-3,290.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,100.00	0.00	0.00	7,100.00	-3,390.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,200.00	0.00	0.00	7,200.00	-3,490.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,300.00	0.00	0.00	7,300.00	-3,590.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,400.00	0.00	0.00	7,400.00	-3,690.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,500.00	0.00	0.00	7,500.00	-3,790.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,600.00	0.00	0.00	7,600.00	-3,890.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,700.00	0.00	0.00	7,700.00	-3,990.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,800.00	0.00	0.00	7,800.00	-4,090.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
7,900.00	0.00	0.00	7,900.00	-4,190.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
8,000.00	0.00	0.00	8,000.00	-4,290.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,100.00	0.00	0.00	8,100.00	-4,390.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
8,200.00	0.00	0.00	8,200.00	-4,490.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
8,300.00	0.00	0.00	8,300.00	-4,590.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
8,396.00	0.00	0.00	8,396.00	-4,686.30	0.00	0.00	0.00	0.00	467,314.06	777,788.18
8,400.00	0.40	167.98	8,400.00	-4,690.30	-0.01	0.00	0.01	10.00	467,314.05	777,788.18
8,450.00	5.40	167.98	8,449.92	-4,740.22	-2.49	0.53	2.54	10.00	467,311.57	777,788.71
8,500.00	10.40	167.98	8,499.43	-4,789.73	-9.21	1.96	9.41	10.00	467,304.85	777,790.14
8,550.00	15.40	167.98	8,548.15	-4,838.45	-20.12	4.28	20.57	10.00	467,293.94	777,792.46
8,600.00	20.40	167.98	8,595.72	-4,886.02	-35.14	7.48	35.93	10.00	467,278.92	777,795.66
8,650.00	25.40	167.98	8,641.76	-4,932.06	-54.16	11.53	55.38	10.00	467,259.90	777,799.71
8,700.00	30.40	167.98	8,685.94	-4,976.24	-77.04	16.40	78.77	10.00	467,237.02	777,804.58
8,750.00	35.40	167.98	8,727.91	-5,018.21	-103.59	22.06	105.91	10.00	467,210.47	777,810.24
8,800.00	40.40	167.98	8,767.35	-5,057.65	-133.62	28.45	136.61	10.00	467,180.44	777,816.63
8,850.00	45.39	167.98	8,803.97	-5,094.27	-166.90	35.54	170.64	10.00	467,147.16	777,823.72
8,900.00	50.39	167.98	8,837.49	-5,127.79	-203.17	43.26	207.72	10.00	467,110.89	777,831.44
8,950.00	55.39	167.98	8,867.64	-5,157.94	-242.16	51.56	247.58	10.00	467,071.90	777,839.74
9,000.00	60.39	167.98	8,894.21	-5,184.51	-283.57	60.38	289.92	10.00	467,030.49	777,848.56
9,050.00	65.39	167.98	8,916.98	-5,207.28	-327.08	69.64	334.42	10.00	466,986.98	777,857.82
9,100.00	70.39	167.98	8,935.79	-5,226.09	-372.38	79.29	380.73	10.00	466,941.68	777,867.47
9,150.00	75.39	167.98	8,950.50	-5,240.80	-419.10	89.24	428.50	10.00	466,894.96	777,877.42
9,200.00	80.39	167.98	8,960.98	-5,251.28	-466.90	99.41	477.37	10.00	466,847.16	777,887.59
9,250.00	85.39	167.98	8,967.17	-5,257.47	-515.42	109.74	526.97	10.00	466,798.64	777,897.92
9,290.90	89.48	167.98	8,969.00	-5,259.30	-555.37	118.25	567.82	10.00	466,758.69	777,906.43
9,300.00	89.48	167.98	8,969.08	-5,259.38	-564.27	120.15	576.92	0.00	466,749.79	777,908.33
9,400.00	89.48	167.98	8,969.99	-5,260.29	-662.07	140.97	676.92	0.00	466,651.99	777,929.15
9,500.00	89.48	167.98	8,970.90	-5,261.20	-759.88	161.79	776.91	0.00	466,554.18	777,949.97
9,600.00	89.48	167.98	8,971.81	-5,262.11	-857.68	182.62	876.91	0.00	466,456.38	777,970.80

Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,700.00	89.48	167.98	8,972.71	-5,263.01	-955.48	203.44	976.90	0.00	466,358.58	777,991.62
9,800.00	89.48	167.98	8,973.62	-5,263.92	-1,053.29	224.27	1,076.90	0.00	466,260.77	778,012.45
9,900.00	89.48	167.98	8,974.53	-5,264.83	-1,151.09	245.09	1,176.90	0.00	466,162.97	778,033.27
10,000.00	89.48	167.98	8,975.44	-5,265.74	-1,248.90	265.92	1,276.89	0.00	466,065.16	778,054.10
10,100.00	89.48	167.98	8,976.34	-5,266.64	-1,346.70	286.74	1,376.89	0.00	465,967.36	778,074.92
10,200.00	89.48	167.98	8,977.25	-5,267.55	-1,444.50	307.57	1,476.88	0.00	465,869.56	778,095.75
10,300.00	89.48	167.98	8,978.16	-5,268.46	-1,542.31	328.39	1,576.88	0.00	465,771.75	778,116.57
10,400.00	89.48	167.98	8,979.07	-5,269.37	-1,640.11	349.21	1,676.87	0.00	465,673.95	778,137.39
10,500.00	89.48	167.98	8,979.97	-5,270.27	-1,737.91	370.04	1,776.87	0.00	465,576.15	778,158.22
10,600.00	89.48	167.98	8,980.88	-5,271.18	-1,835.72	390.86	1,876.87	0.00	465,478.34	778,179.04
10,700.00	89.48	167.98	8,981.79	-5,272.09	-1,933.52	411.69	1,976.86	0.00	465,380.54	778,199.87
10,800.00	89.48	167.98	8,982.70	-5,273.00	-2,031.32	432.51	2,076.86	0.00	465,282.74	778,220.69
10,900.00	89.48	167.98	8,983.60	-5,273.90	-2,129.13	453.34	2,176.85	0.00	465,184.93	778,241.52
11,000.00	89.48	167.98	8,984.51	-5,274.81	-2,226.93	474.16	2,276.85	0.00	465,087.13	778,262.34
11,100.00	89.48	167.98	8,985.42	-5,275.72	-2,324.73	494.99	2,376.85	0.00	464,989.33	778,283.17
11,200.00	89.48	167.98	8,986.33	-5,276.63	-2,422.54	515.81	2,476.84	0.00	464,891.52	778,303.99
11,300.00	89.48	167.98	8,987.23	-5,277.53	-2,520.34	536.63	2,576.84	0.00	464,793.72	778,324.81
11,400.00	89.48	167.98	8,988.14	-5,278.44	-2,618.14	557.46	2,676.83	0.00	464,695.92	778,345.64
11,500.00	89.48	167.98	8,989.05	-5,279.35	-2,715.95	578.28	2,776.83	0.00	464,598.11	778,366.46
11,600.00	89.48	167.98	8,989.96	-5,280.26	-2,813.75	599.11	2,876.83	0.00	464,500.31	778,387.29
11,700.00	89.48	167.98	8,990.86	-5,281.16	-2,911.55	619.93	2,976.82	0.00	464,402.51	778,408.11
11,800.00	89.48	167.98	8,991.77	-5,282.07	-3,009.36	640.76	3,076.82	0.00	464,304.70	778,428.94
11,900.00	89.48	167.98	8,992.68	-5,282.98	-3,107.16	661.58	3,176.81	0.00	464,206.90	778,449.76
12,000.00	89.48	167.98	8,993.59	-5,283.89	-3,204.96	682.41	3,276.81	0.00	464,109.10	778,470.59
12,100.00	89.48	167.98	8,994.49	-5,284.79	-3,302.77	703.23	3,376.80	0.00	464,011.29	778,491.41
12,200.00	89.48	167.98	8,995.40	-5,285.70	-3,400.57	724.05	3,476.80	0.00	463,913.49	778,512.23
12,300.00	89.48	167.98	8,996.31	-5,286.61	-3,498.37	744.88	3,576.80	0.00	463,815.69	778,533.06

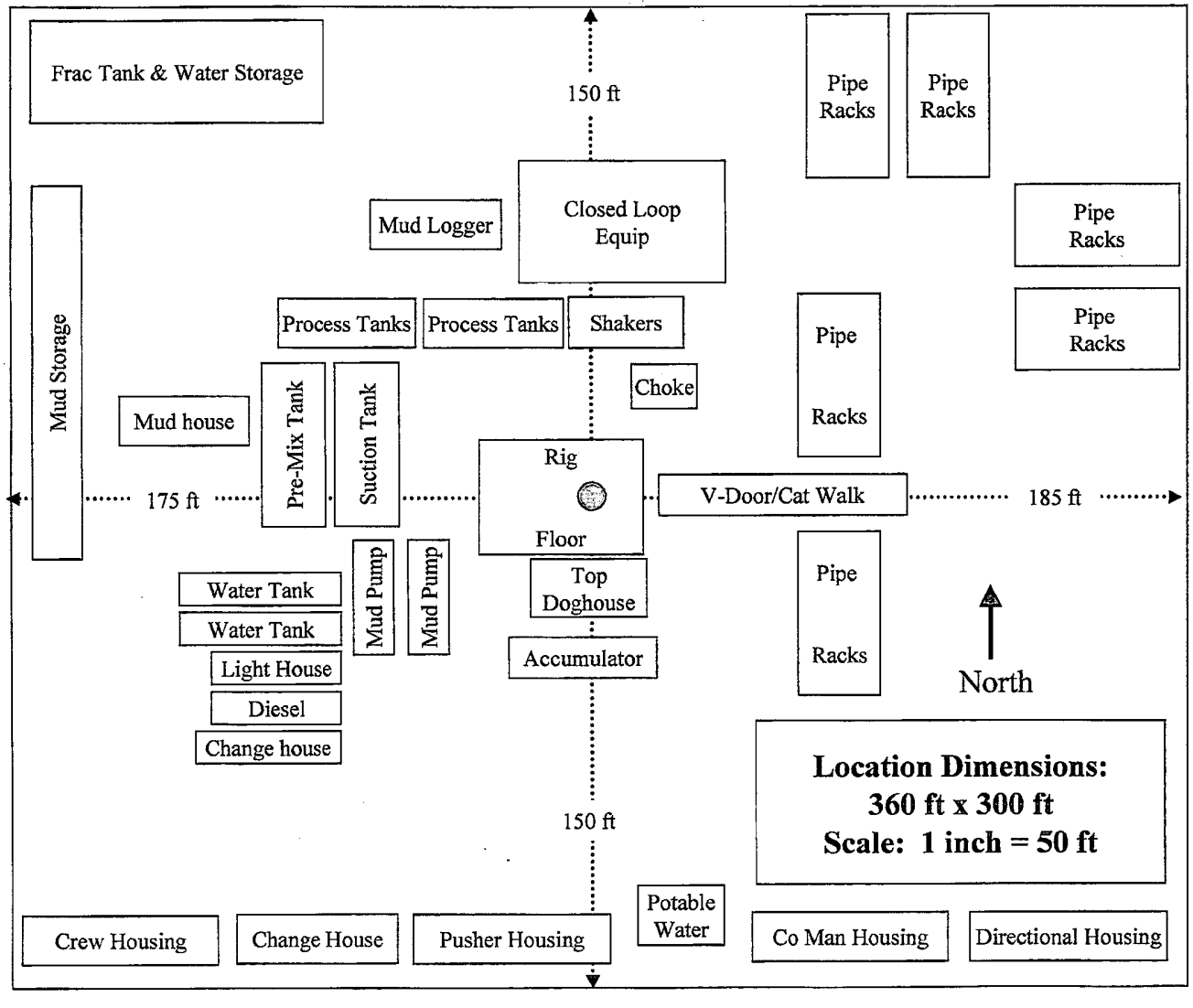
Company:	Devon Energy Production Company, L.P.	**Local Co-ordinate Reference:**	Site Thistle Unit
Project:	Lea County	**TVD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Site:	Thistle Unit	**MD Reference:**	WELL @ 3709.70usft (19' KB Correction)
Well:	#19H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

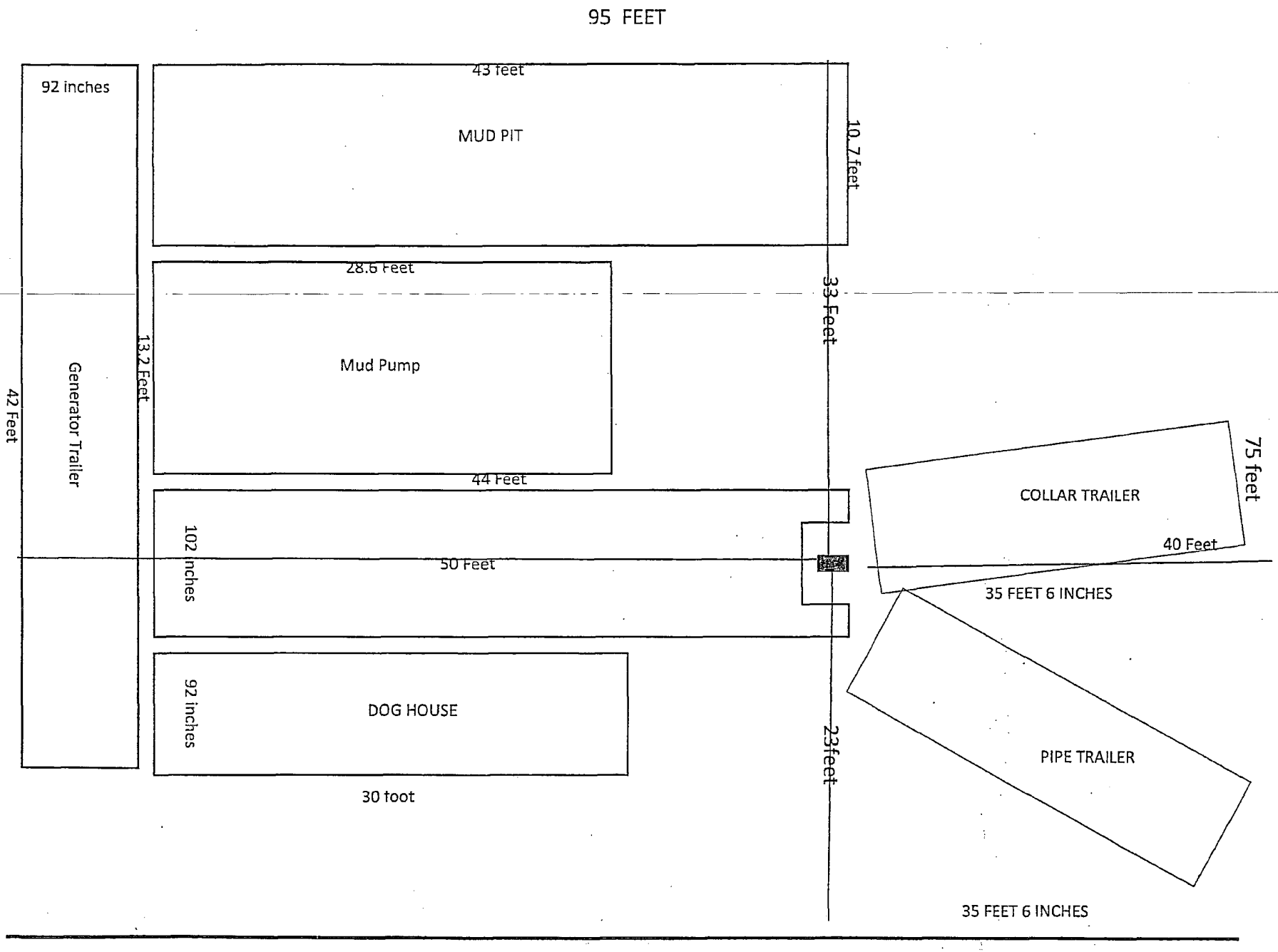
Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
12,400.00	89.48	167.98	8,997.22	-5,287.52	-3,596.18	765.70	3,676.79	0.00	463,717.88	778,553.88
12,500.00	89.48	167.98	8,998.12	-5,288.42	-3,693.98	786.53	3,776.79	0.00	463,620.08	778,574.71
12,600.00	89.48	167.98	8,999.03	-5,289.33	-3,791.79	807.35	3,876.78	0.00	463,522.27	778,595.53
12,700.00	89.48	167.98	8,999.94	-5,290.24	-3,889.59	828.18	3,976.78	0.00	463,424.47	778,616.36
12,800.00	89.48	167.98	9,000.85	-5,291.15	-3,987.39	849.00	4,076.78	0.00	463,326.67	778,637.18
12,900.00	89.48	167.98	9,001.75	-5,292.05	-4,085.20	869.83	4,176.77	0.00	463,228.86	778,658.01
13,000.00	89.48	167.98	9,002.66	-5,292.96	-4,183.00	890.65	4,276.77	0.00	463,131.06	778,678.83
13,100.00	89.48	167.98	9,003.57	-5,293.87	-4,280.80	911.47	4,376.76	0.00	463,033.26	778,699.65
13,200.00	89.48	167.98	9,004.48	-5,294.78	-4,378.61	932.30	4,476.76	0.00	462,935.45	778,720.48
13,300.00	89.48	167.98	9,005.38	-5,295.68	-4,476.41	953.12	4,576.76	0.00	462,837.65	778,741.30
13,400.00	89.48	167.98	9,006.29	-5,296.59	-4,574.21	973.95	4,676.75	0.00	462,739.85	778,762.13
13,500.00	89.48	167.98	9,007.20	-5,297.50	-4,672.02	994.77	4,776.75	0.00	462,642.04	778,782.95
13,600.00	89.48	167.98	9,008.11	-5,298.41	-4,769.82	1,015.60	4,876.74	0.00	462,544.24	778,803.78
13,700.00	89.48	167.98	9,009.02	-5,299.32	-4,867.62	1,036.42	4,976.74	0.00	462,446.44	778,824.60
13,805.93	89.48	167.98	9,009.98	-5,300.28	-4,971.23	1,058.48	5,082.66	0.00	462,342.83	778,846.66
PBHL(TU#19H)										

Checked By: _____ Approved By: _____ Date: _____

Conventional Rig Location Layout





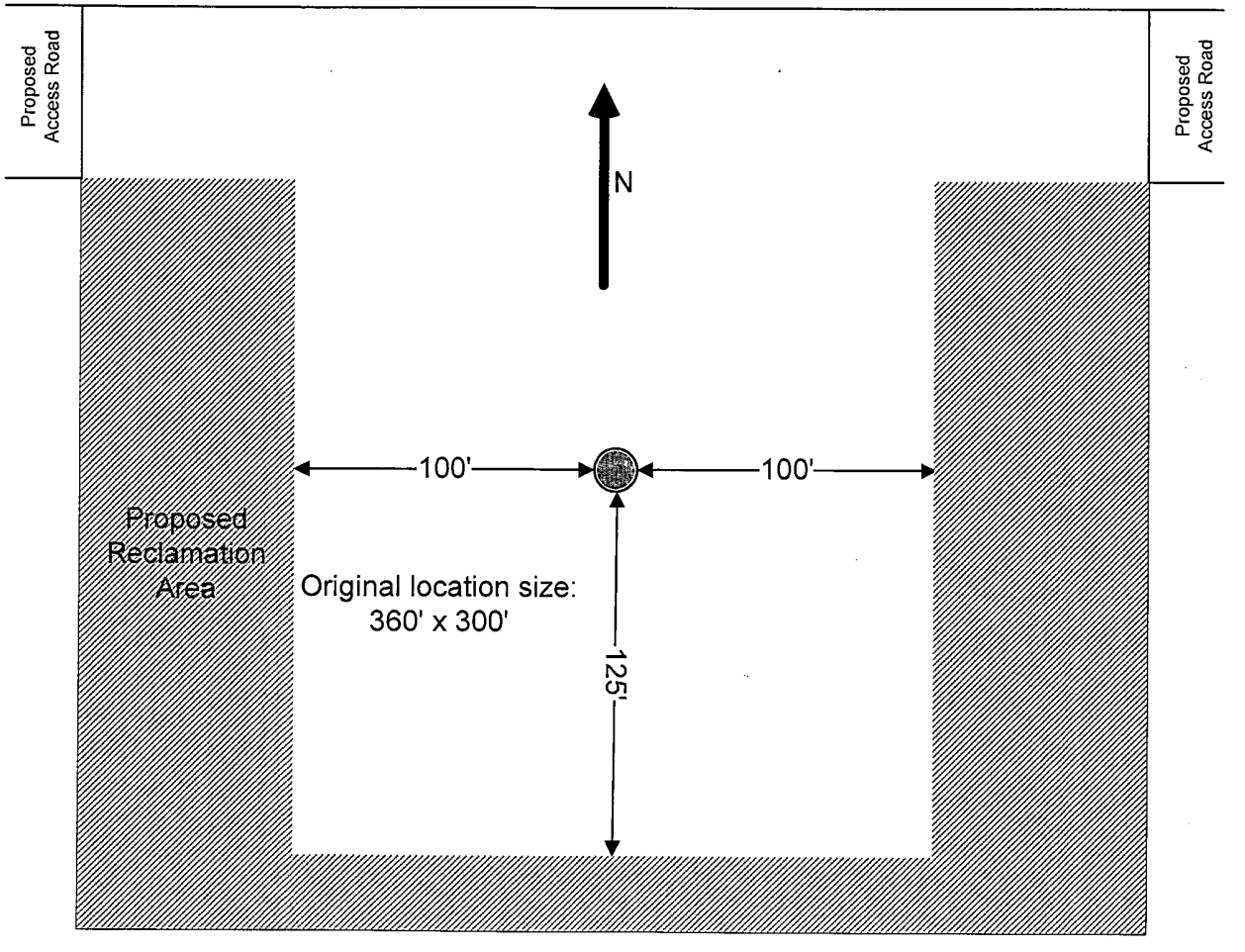
ASHTON OILFIELD SERVICES

devon

Proposed Interim Site Reclamation

Devon Energy Production Co.

Thistle Unit 19H
150' FNL & 2,490' FEL
Sec. 28 - T23S - R33E
Lea County, NM



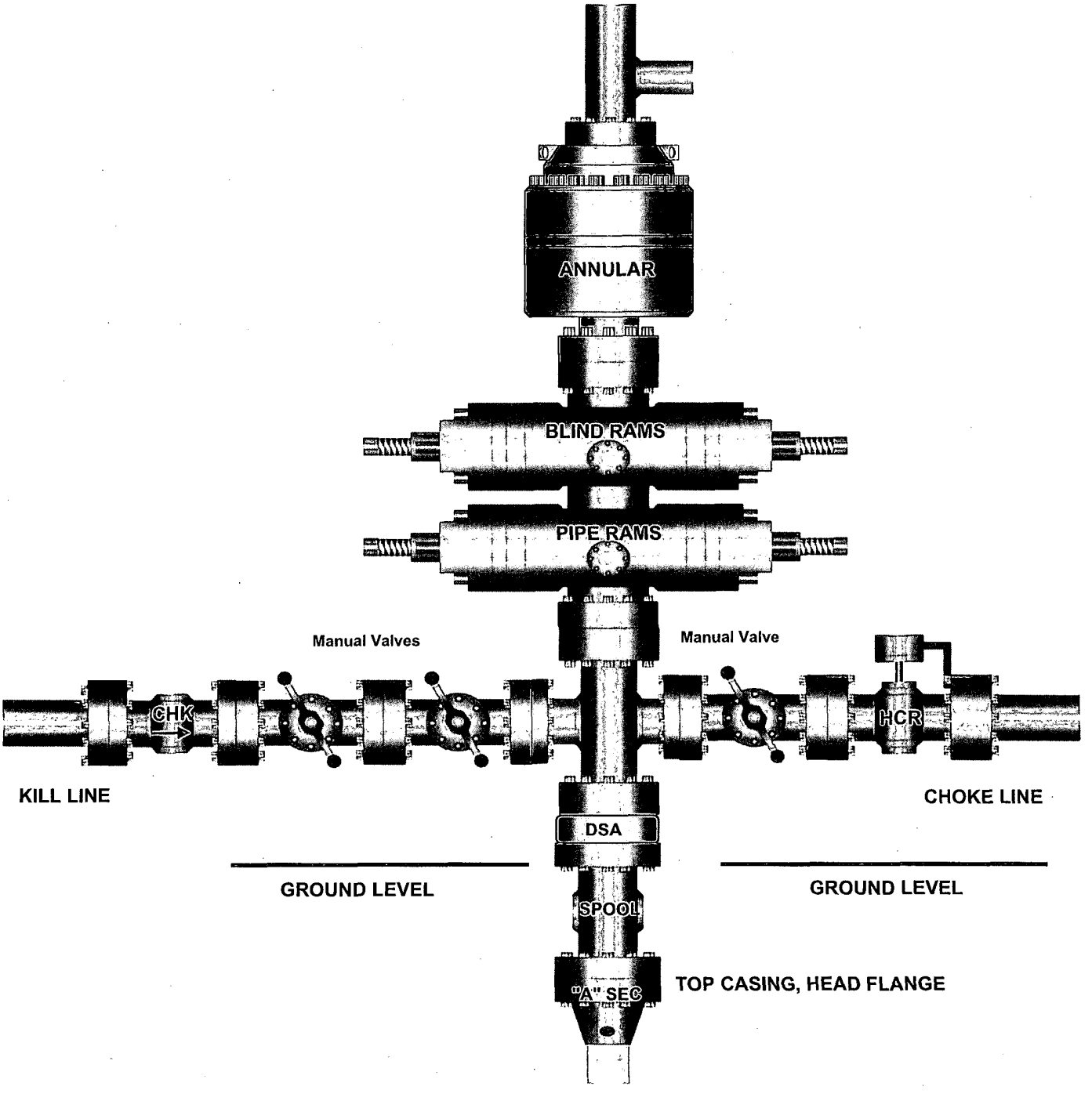
Proposed Reclamation Area

1" : 60'

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Thistle Unit 19H
Surface Location: 150' FNL & 2490' FEL, Unit B, Sec 28 T23S R33E, Lea, NM
Bottom Location: 150' FSL & 1470' FEL, Unit O, Sec 28 T23S R33E, Lea, NM

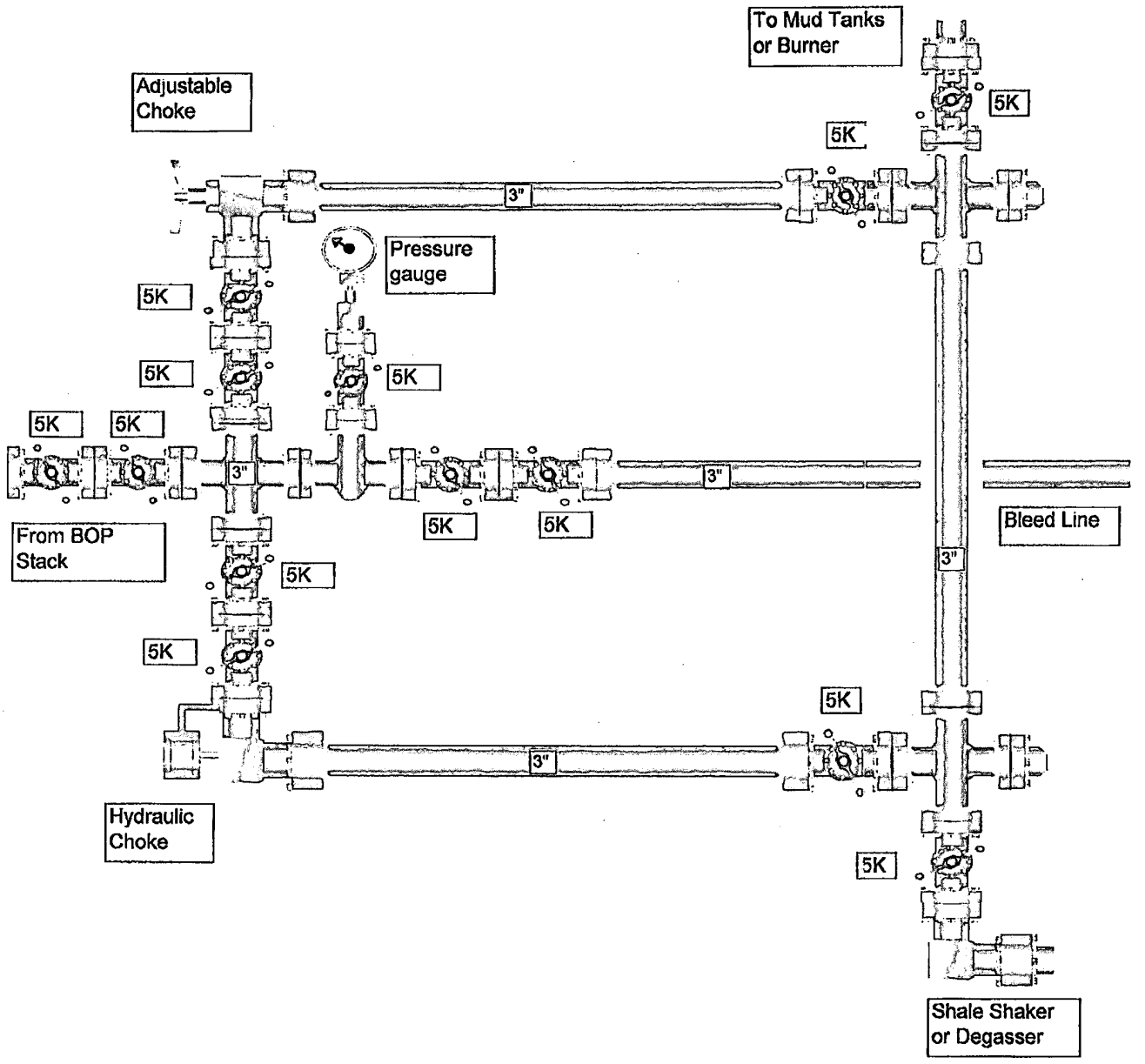
1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

13-5/8" x 5,000 psi BOP Stack



L:\Western\Drilling\Wes Handley\Drawings\BOPS\BOPs.xls

5,000 PSI CHOKE MANIFOLD



13-5/8" 3K Annular