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District III
1000 Rio Brazos Road, Aztec, NM 87410
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised July 18, 2013

Oil Conservation Division HOBBS OOD
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

SEP 05 2014

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Amtex Energy, Inc. P.O. Box 3418 Midland, TX 79702		² OGRID Number 000785
⁴ Property Code 313664		³ API Number 30-025-42140
⁵ Property Name Wool Head 20 State		⁶ Well No. 1H

7. Surface Location

POTASH AREA

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	19	21S	33E		340	S	550	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	20	21S	33E		330	S	330	E	Lea

9. Pool Information

Pool Name DC-025 G-06 S243323D; Bone Spring	Pool Code 97929
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Additional Well Information

¹¹ Work Type N	¹² Well Type O	¹³ Cable/Rotary	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 3749.2'
¹⁶ Multiple N	¹⁷ Proposed Depth 15650'	¹⁸ Formation 2 nd Bone Spring Sand	¹⁹ Contractor	²⁰ Spud Date TBD
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5"	13.375"	54.5	600' 1550	580	Surface
Int 1	12.25"	9.625"	40	5180'	2025	Surface
Prod	8.75"	7"	29	10360'	1160	2500'
Prod	8.5"	5.5"	20	15650'	870	

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐ , if applicable. Signature: <i>William J. Savage</i>		OIL CONSERVATION DIVISION	
Printed name: William J. Savage		Approved By: <i>[Signature]</i>	
Title: President		Title: Petroleum Engineer	
E-mail Address: bsavage@amtenergy.com		Approved Date: 09/25/14 Expiration Date: 09/25/16	
Date: 08/28/14	Phone: 432-686-0847	Conditions of Approval Attached	

SEP 25 2014

Amtex Energy, Inc.

Drilling Program

Standard Well Location

SL: 340' FSL & 550' FEL

SEC. 19 – T 21S – R 33E

BHL: 330' FSL & 330' FEL

SEC. 20 – T 21S – R 33E

Lea County, New Mexico

1. WELL NAME: Wool Head 20 State 1H

2. GEOLOGIC NAME OF SURFACE FORMATION: Permian

3. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

GL: 3749.2'

KB:

Formation Tops	Depth
Rustler -----	1150'
Cowden Anhydrite -----	3040'
Base/Salt -----	3100'
Capitan Reef Sequence -----	3400'
Delaware Mountain -----	4916'
Bell Canyon Sand -----	4966'
Cherry Canyon -----	6066'
Brushy Canyon -----	7061'
Bone Spring (Top of Avalon)-----	8670'
Cut Off Sand (UCOS) -----	8880'
Lower Avalon -----	9405'
1 st Bone Spring Sand -----	9840'
2 nd Bone Spring Carbonate -----	10130'
2 nd Bone Spring Sand -----	10480'
3 rd Bone Spring Carbonate -----	11325'
3 rd Bone Spring Sand -----	11660'
Wolfcamp -----	11970'
PTD (Pilot Hole) -----	"No Pilot Hole"
Projected True Vertical Depth ("TVD") -----	10930'

4. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	Above 350'	Fresh Water
2nd Bone Spring Sand	10500' - 10950'	Oil

Fresh water sands will be protected by setting a 13-3/8" csg at 600' and circ the cmt back to surface, 9-5/8" csg will be set at 4900' with cmt circ back to surface.

5. DRILLING PROCEDURE:

1. Plan to drill a 17-1/2" hole to 600' with FW. Run 13-3/8", 54.5#, J-55 csg. and cement to surface.
 2. Drill 12-1/4" hole to 5,180' with brine, and run 9-5/8", 40#/47#, J-55/N-80 (with possible DVT/ECP set 200' above reef @ approximately 3,300') and cement to surface.
 3. Drill 8-3/4" hole with FW to 10,360'.
 4. Run logs and then plug back to 10,360' to kick off and drill lateral to 15,650' MD (10,930' TVD).
 - *5. If hole conditions are stable, hold off to run the 7" casing until after the curve is drilled with the 8 3/4" bit. Additionally, if after drilling the curve with the 8 3/4" bit, the hole continues to remain stable, reduce the hole size down to either 8.5" bit for 5 1/2" casing. Continue drilling the full lateral and then run a tapered string with the 5 1/2" or 4 1/2" casing through the lateral, then a tool joint crossover at the bottom of the curve shall connect to the 7" casing which will be run back to surface.
 - *6. If hole conditions are not stable, skip step #5 and go on to step #7.
 7. Run 7" 29#, P-110 csg. and cement to 2,500' in 2 stages.
 8. Drill out 7" csg. With 8-1/2" bit (if the 7" has not been run) and target a 10°/100 ft. radius curve to land the TVD at 10,930' and drill horizontal to 15,650'+/-MD.
 9. The 5-1/2" casing liner will be fully cemented through the lateral and cemented with top of casing liner at 10,360' +/-, which is also the base of the 7" casing.
- * Steps determined by hole conditions.

6. CASING PROGRAM:

Casing	TrueVertical Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	600'	17-1/2"	13-3/8"	54.5 lb/ft	J-55	Surface
Intermediate	5180'	12-1/4"	9-5/8"	40/47 lb/ft	J-55 & N-80	Surface
2nd Intermediate	10360'	8-3/4"	7"	29 lb/ft	P-110	2500'
Production	TD @ MD is					
Lateral - 5250'	15,650'	8-1/2"	5-1/2"	20 lb/ft	P-110	DVT @ 9,300'

7. CEMENT PROGRAM:

True Vertical Depth	Number of Sacks	Wt. lb/gal	Yld Ft³/ft	Slurry Description
Surface: 600'	240	13.5	1.75	Lead: 240 sks econocem @13.5 ppg, y-1.75, h20- 9.2
	340	14.8	1.33	Tail: 340 sks halcem @ 14.8 ppg, Y-1.33, H20-6.34
Intermediate: 5180'	1300	12.5	1.94	Lead: 1300 sks econocem-HLC cmt @ 12.5 PPG, 1.94
				yield, 10.66 wtr
	725	14.8	1.34	Tail: 725 sks cmt blend@14.8 PPG, 1.34 yield, 6.36 wtr
Production:				
1st Stage	870	15	2.63	Lead: 870 sks solucem-D, 15.0 Y 2.63 WR 11.38 BBLS
				407.5 0.25LBM D-Air, 0.75% hr 601
2nd Stage	1060	12.9	1.9	Lead: 1060 sks econocem-D 12.9 Y 1.9 WR 9.86 BBLS
				358 0.1%
	100	15.8	1.2	Tail: 100 sks Halcem-D 15.8 Y 1.16 WR 5.15 BBLS 20.6
Top of Curve: 10360'				0.2% HR-800
Length of Lateral:				
5290'				
TD @ MD is 15,650'				

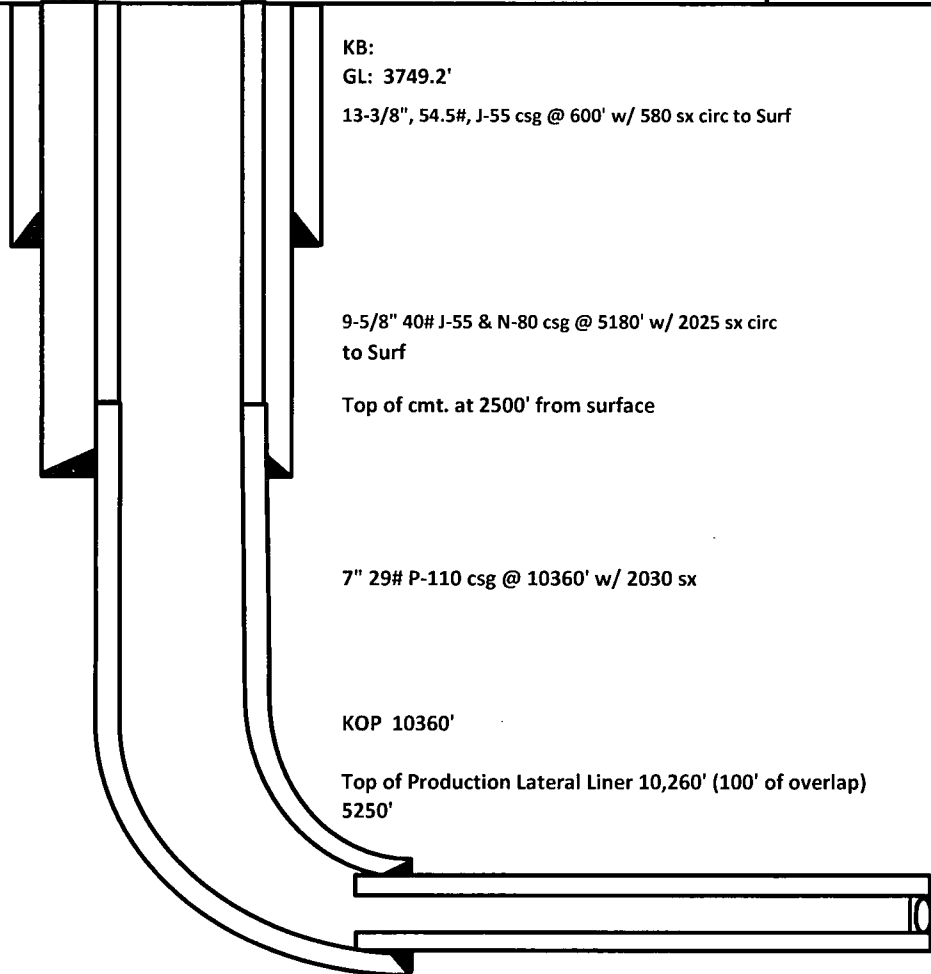
8. MUD PROGRAM:

True Measured Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 600'	Fresh Water	8.5 - 9.2	30 - 34	No Control (N/C)*
600' - 5180'	Brine	9.5 - 10.0	28 - 29	N/C*
4900' - 10,360'	Fresh Water	8.4 - 8.8	28 - 32	9150' < 15*
Lateral 10,250' - 15,650'	Mud up with: Optixan/Starpac II / HDS Surfactant	9.0 - 9.3	46 - 50	< 10*

***NOTE:** Follow specific instructions according to Mud Company's Program.

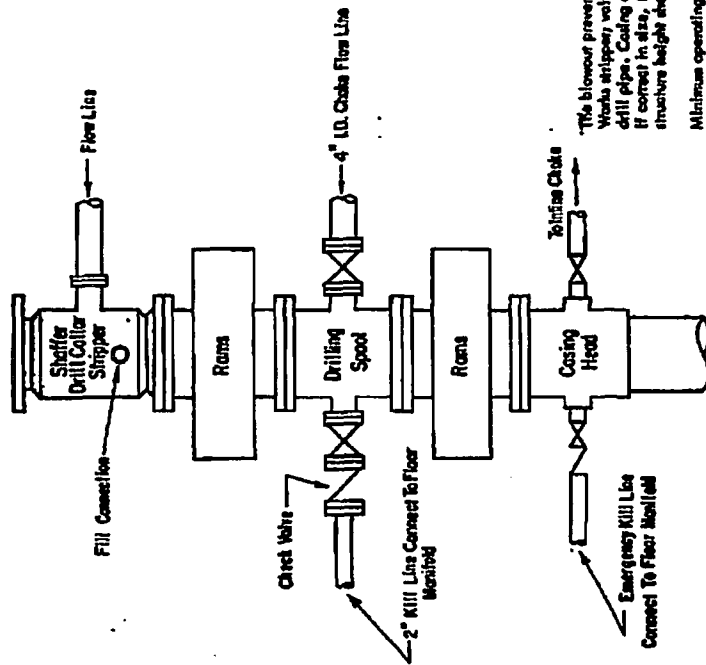
8. Proposed Wellbore Schematic

Operator: Amtex Energy, Inc.	Name of Lease: State of NM # V0-8700-0000	Date: 08/19/2014
API: 30-025-	Well Name: Wool Head 20 State 1H	
Surface Location: Unit P, 340' FSL & 550' FEL, Sec. 19 - T 21S - R 33E, Lea County, New Mexico		
KB:	GL: 3749.2'	By: CD

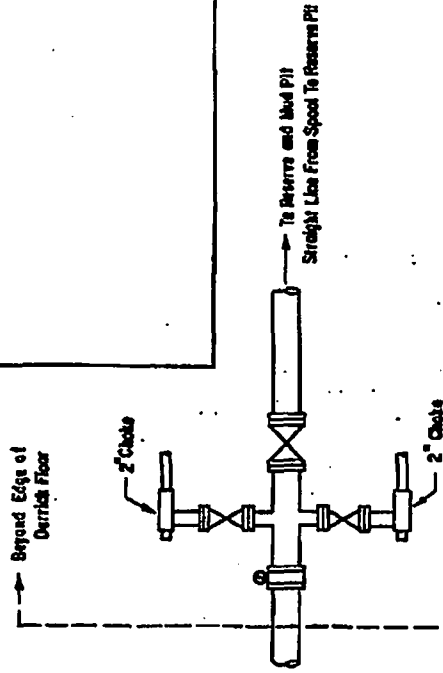


True Vertical Depth: 10930'
TD @ MD is 15,650'

ADDITIONS - DELETIONS - CHANGES SPECIFY



3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP



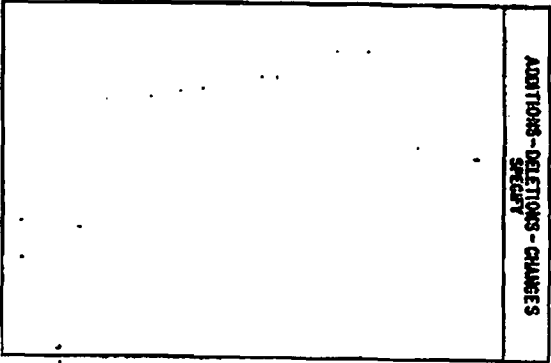
The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated, a Shaffer Tool Works stripper, valves, chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing runs to fit the preventers are to be available as needed. The ram preventer may be two stage or a double type. If correct in size, the forged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and kill line. The sub-structure height shall be sufficient to install a rotating blowout preventer.

Minimum operating equipment for the preventers shall be as follows: (1) Pump (a), driven by a continuous source of power, capable of closing all the pressure-operated devices simultaneously within _____ seconds. The pump (a) is to be connected to a closed type hydraulic operating system. (2) When requested, accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive a fluid charge from the above pump (a). With the charging pump (a) shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within _____ seconds after closure, the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume of least _____ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pump (a) or there shall be an additional pump (a) operated by separate power and equal in performance capabilities.

The casing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided if a Hydril preventer is used. Gulf Legion No. 38 hydraulic oil, or equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line and choke lines shall be constructed as straight as possible and without sharp bends. Easy outside access is to be maintained to the choke manifold. All valves are to be selected for operation in the presence of oil, gas and drilling fluids. The choke flow line valve connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

ADDITIONS-DELETIONS-CHANGES
SHEET



Larged section of the gas preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be per-face flanged.

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Amtex Energy, Inc

Lea County, New Mexico

Sec 19, T21S, R33E, N.M.P.M

Wool Head "20" State #1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

22 August, 2014



Well Planning Report



Database:	EDM Compass	Local Co-ordinate Reference:	Well Wool Head "20" State #1H
Company:	Amtex Energy, Inc	TVD Reference:	Well @ 3749.2usft
Project:	Lea County, New Mexico	MD Reference:	Well @ 3749.2usft
Site:	Sec 19, T21S, R33E, N.M.P.M	North Reference:	Grid
Well:	Wool Head "20" State #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 19, T21S, R33E, N.M.P.M				
Site Position:		Northing:	531,083.37 usft	Latitude:	32° 27' 28.622 N
From:	Map	Easting:	724,825.88 usft	Longitude:	103° 36' 15.979 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	Wool Head "20" State #1H					
Well Position	+N/-S	0.0 usft	Northing:	531,083.37 usft	Latitude:	32° 27' 28.622 N
	+E/-W	0.0 usft	Easting:	724,825.88 usft	Longitude:	103° 36' 15.979 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,749.2 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/22/2014	7.23	60.32	48,432

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	89.78

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,327.0	0.00	0.00	10,327.0	0.0	0.0	0.00	0.00	0.00	0.00	
11,227.0	90.00	89.78	10,900.0	2.2	573.0	10.00	10.00	0.00	89.78	
16,189.8	90.00	89.78	10,900.0	21.1	5,535.7	0.00	0.00	0.00	0.00	PBHL Wool Head 20 :

Well Planning Report



Database:	EDM Compass	Local Co-ordinate Reference:	Well Wool Head "20" State #1H
Company:	Amtex Energy, Inc	TVD Reference:	Well @ 3749.2usft
Project:	Lea County, New Mexico	MD Reference:	Well @ 3749.2usft
Site:	Sec 19, T21S, R33E, N.M.P.M	North Reference:	Grid
Well:	Wool Head "20" State #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
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2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Well Planning Report



Database:	EDM Compass	Local Co-ordinate Reference:	Well Wool Head "20" State #1H
Company:	Amtext Energy, Inc	TVD Reference:	Well @ 3749.2usft
Project:	Lea County, New Mexico	MD Reference:	Well @ 3749.2usft
Site:	Sec 19, T21S, R33E, N.M.P.M	North Reference:	Grid
Well:	Wool Head "20" State #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP / Begin Build 10° / 100'									
10,327.0	0.00	0.00	10,327.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	7.30	89.78	10,399.8	0.0	4.6	4.6	10.00	10.00	0.00

Well Planning Report



Database:	EDM Compass	Local Co-ordinate Reference:	Well Wool Head "20" State #1H
Company:	Amtex Energy, Inc	TVD Reference:	Well @ 3749.2usft
Project:	Lea County, New Mexico	MD Reference:	Well @ 3749.2usft
Site:	Sec 19, T21S, R33E, N.M.P.M	North Reference:	Grid
Well:	Wool Head "20" State #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	17.30	89.78	10,497.4	0.1	25.9	25.9	10.00	10.00	0.00
10,600.0	27.30	89.78	10,589.8	0.2	63.8	63.8	10.00	10.00	0.00
10,700.0	37.30	89.78	10,674.2	0.4	117.2	117.2	10.00	10.00	0.00
10,800.0	47.30	89.78	10,748.1	0.7	184.4	184.4	10.00	10.00	0.00
10,900.0	57.30	89.78	10,809.2	1.0	263.4	263.4	10.00	10.00	0.00
11,000.0	67.30	89.78	10,855.6	1.3	351.8	351.8	10.00	10.00	0.00
11,100.0	77.30	89.78	10,886.0	1.7	447.0	447.0	10.00	10.00	0.00
11,200.0	87.30	89.78	10,899.4	2.1	545.9	545.9	10.00	10.00	0.00
End of Curve @ 11227' MD / 90° Inc									
11,227.0	90.00	89.78	10,900.0	2.2	573.0	573.0	10.00	10.00	0.00
11,300.0	90.00	89.78	10,900.0	2.5	645.9	645.9	0.00	0.00	0.00
11,400.0	90.00	89.78	10,900.0	2.8	745.9	745.9	0.00	0.00	0.00
11,500.0	90.00	89.78	10,900.0	3.2	845.9	845.9	0.00	0.00	0.00
11,600.0	90.00	89.78	10,900.0	3.6	945.9	945.9	0.00	0.00	0.00
11,700.0	90.00	89.78	10,900.0	4.0	1,045.9	1,045.9	0.00	0.00	0.00
11,800.0	90.00	89.78	10,900.0	4.4	1,145.9	1,145.9	0.00	0.00	0.00
11,900.0	90.00	89.78	10,900.0	4.7	1,245.9	1,245.9	0.00	0.00	0.00
12,000.0	90.00	89.78	10,900.0	5.1	1,345.9	1,345.9	0.00	0.00	0.00
12,100.0	90.00	89.78	10,900.0	5.5	1,445.9	1,445.9	0.00	0.00	0.00
12,200.0	90.00	89.78	10,900.0	5.9	1,545.9	1,545.9	0.00	0.00	0.00
12,300.0	90.00	89.78	10,900.0	6.3	1,645.9	1,645.9	0.00	0.00	0.00
12,400.0	90.00	89.78	10,900.0	6.6	1,745.9	1,745.9	0.00	0.00	0.00
12,500.0	90.00	89.78	10,900.0	7.0	1,845.9	1,845.9	0.00	0.00	0.00
12,600.0	90.00	89.78	10,900.0	7.4	1,945.9	1,945.9	0.00	0.00	0.00
12,700.0	90.00	89.78	10,900.0	7.8	2,045.9	2,045.9	0.00	0.00	0.00
12,800.0	90.00	89.78	10,900.0	8.2	2,145.9	2,145.9	0.00	0.00	0.00
12,900.0	90.00	89.78	10,900.0	8.6	2,245.9	2,245.9	0.00	0.00	0.00
13,000.0	90.00	89.78	10,900.0	8.9	2,345.9	2,345.9	0.00	0.00	0.00
13,100.0	90.00	89.78	10,900.0	9.3	2,445.9	2,445.9	0.00	0.00	0.00
13,200.0	90.00	89.78	10,900.0	9.7	2,545.9	2,545.9	0.00	0.00	0.00
13,300.0	90.00	89.78	10,900.0	10.1	2,645.9	2,645.9	0.00	0.00	0.00
13,400.0	90.00	89.78	10,900.0	10.5	2,745.9	2,745.9	0.00	0.00	0.00
13,500.0	90.00	89.78	10,900.0	10.8	2,845.9	2,845.9	0.00	0.00	0.00
13,600.0	90.00	89.78	10,900.0	11.2	2,945.9	2,945.9	0.00	0.00	0.00
13,700.0	90.00	89.78	10,900.0	11.6	3,045.9	3,045.9	0.00	0.00	0.00
13,800.0	90.00	89.78	10,900.0	12.0	3,145.9	3,145.9	0.00	0.00	0.00
13,900.0	90.00	89.78	10,900.0	12.4	3,245.9	3,245.9	0.00	0.00	0.00
14,000.0	90.00	89.78	10,900.0	12.7	3,345.9	3,345.9	0.00	0.00	0.00
14,100.0	90.00	89.78	10,900.0	13.1	3,445.9	3,445.9	0.00	0.00	0.00
14,200.0	90.00	89.78	10,900.0	13.5	3,545.9	3,545.9	0.00	0.00	0.00
14,300.0	90.00	89.78	10,900.0	13.9	3,645.9	3,645.9	0.00	0.00	0.00
14,400.0	90.00	89.78	10,900.0	14.3	3,745.9	3,745.9	0.00	0.00	0.00
14,500.0	90.00	89.78	10,900.0	14.6	3,845.9	3,845.9	0.00	0.00	0.00
14,600.0	90.00	89.78	10,900.0	15.0	3,945.9	3,945.9	0.00	0.00	0.00
14,700.0	90.00	89.78	10,900.0	15.4	4,045.9	4,045.9	0.00	0.00	0.00
14,800.0	90.00	89.78	10,900.0	15.8	4,145.9	4,145.9	0.00	0.00	0.00
14,900.0	90.00	89.78	10,900.0	16.2	4,245.9	4,245.9	0.00	0.00	0.00
15,000.0	90.00	89.78	10,900.0	16.5	4,345.9	4,345.9	0.00	0.00	0.00
15,100.0	90.00	89.78	10,900.0	16.9	4,445.9	4,445.9	0.00	0.00	0.00
15,200.0	90.00	89.78	10,900.0	17.3	4,545.9	4,545.9	0.00	0.00	0.00
15,300.0	90.00	89.78	10,900.0	17.7	4,645.9	4,645.9	0.00	0.00	0.00
15,400.0	90.00	89.78	10,900.0	18.1	4,745.9	4,745.9	0.00	0.00	0.00
15,500.0	90.00	89.78	10,900.0	18.5	4,845.9	4,845.9	0.00	0.00	0.00
15,600.0	90.00	89.78	10,900.0	18.8	4,945.9	4,945.9	0.00	0.00	0.00

Well Planning Report



Database:	EDM Compass	Local Co-ordinate Reference:	Well Wool Head "20" State #1H
Company:	Amtex Energy, Inc	TVD Reference:	Well @ 3749.2usft
Project:	Lea County, New Mexico	MD Reference:	Well @ 3749.2usft
Site:	Sec 19, T21S, R33E, N.M.P.M	North Reference:	Grid
Well:	Wool Head "20" State #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.0	90.00	89.78	10,900.0	19.2	5,045.9	5,045.9	0.00	0.00	0.00
15,800.0	90.00	89.78	10,900.0	19.6	5,145.9	5,145.9	0.00	0.00	0.00
15,900.0	90.00	89.78	10,900.0	20.0	5,245.9	5,245.9	0.00	0.00	0.00
16,000.0	90.00	89.78	10,900.0	20.4	5,345.9	5,345.9	0.00	0.00	0.00
16,100.0	90.00	89.78	10,900.0	20.7	5,445.9	5,445.9	0.00	0.00	0.00
PBHL @ 16190' MD / 10900' TVD									
16,189.8	90.00	89.78	10,900.0	21.1	5,535.7	5,535.7	0.00	0.00	0.00

Design Targets

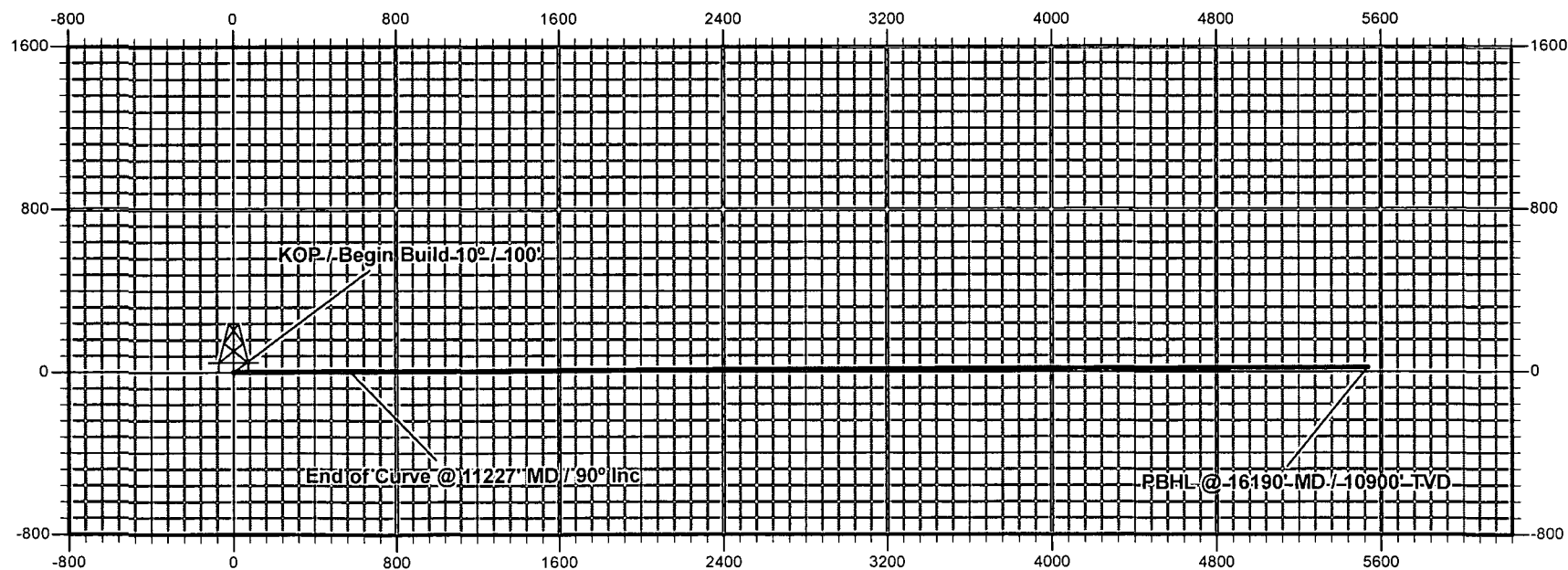
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL Wool Head 20 Sta	0.00	0.00	10,900.0	21.1	5,535.7	531,104.45	730,361.56	32° 27' 28.452 N	103° 35' 11.373 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,327.0	10,327.0	0.0	0.0	KOP / Begin Build 10° / 100'
11,227.0	10,900.0	2.2	573.0	End of Curve @ 11227' MD / 90° Inc
16,189.8	10,900.0	21.1	5,535.7	PBHL @ 16190' MD / 10900' TVD

Amtex Energy, Inc

Lea County, New Mexico
Wool Head "20" State #1H
Design #1



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