

Advance Energy Partners

Lea County, NM (NAD 83 NME)
(Wool Head)Sec20_T-21-S_R-33-E
Wool Head 20 State Com #512H

OWB

Plan: Plan 0.1

Standard Planning Report

06 November, 2019

Database:	EDM 10_13	Local Co-ordinate Reference:	Well Wool Head 20 State Com #512H
Company:	Advance Energy Partners	TVD Reference:	KB @ 3752.5usft (H&P 466)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3752.5usft (H&P 466)
Site:	(Wool Head)Sec20_T-21-S_R-33-E	North Reference:	Grid
Well:	Wool Head 20 State Com #512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan 0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Wool Head)Sec20_T-21-S_R-33-E				
Site Position:	Northing:	531,182.60 usft	Latitude:	32° 27' 29.104 N	
From: Map	Easting:	770,949.20 usft	Longitude:	103° 35' 20.061 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	Wool Head 20 State Com #512H					
Well Position	+N-S	0.4 usft	Northing:	531,183.00 usft	Latitude:	32° 27' 29.103 N
	+E-W	65.9 usft	Easting:	771,015.10 usft	Longitude:	103° 35' 19.292 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,726.0 usft

Wellbore	OWB			
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/06/2019	6.72	60.24	47,826.55314995

Design	Plan 0.1			
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	3.29

Plan Survey Tool Program	Date	11/06/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,550.6 Plan 0.1 (OWB)	MWD	
			OWSG MWD - Standard	

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		
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.00	0.00	0.00	0.00		
6,192.0	7.92	114.82	6,189.5	-22.9	49.6	1.00	1.00	0.00	114.82		
9,668.7	7.92	114.82	9,633.0	-224.1	484.4	0.00	0.00	0.00	0.00		
10,460.7	0.00	0.00	10,422.5	-247.0	534.0	1.00	-1.00	0.00	180.00		
10,560.7	0.00	0.00	10,522.5	-247.0	534.0	0.00	0.00	0.00	0.00		
11,310.7	90.00	359.22	11,000.0	230.4	527.5	12.00	12.00	-0.10	359.22		
18,550.6	90.00	359.22	11,000.0	7,469.7	429.1	0.00	0.00	0.00	0.00	LTP/PBHL (Wool H	

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Wellbore:	OWB		
Design:	Plan 0.1		

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
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
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

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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	
NUDGE- Build 1.00										
5,500.0	1.00	114.82	5,500.0	-0.4	0.8	-0.3	1.00	1.00	0.00	
5,600.0	2.00	114.82	5,600.0	-1.5	3.2	-1.3	1.00	1.00	0.00	
5,700.0	3.00	114.82	5,699.9	-3.3	7.1	-2.9	1.00	1.00	0.00	
5,800.0	4.00	114.82	5,799.7	-5.9	12.7	-5.1	1.00	1.00	0.00	
5,900.0	5.00	114.82	5,899.4	-9.2	19.8	-8.0	1.00	1.00	0.00	
6,000.0	6.00	114.82	5,998.9	-13.2	28.5	-11.5	1.00	1.00	0.00	
6,100.0	7.00	114.82	6,098.3	-17.9	38.8	-15.7	1.00	1.00	0.00	
6,192.0	7.92	114.82	6,189.5	-22.9	49.6	-20.1	1.00	1.00	0.00	
HOLD- 3476.7 at 6192.0 MD										
6,200.0	7.92	114.82	6,197.4	-23.4	50.6	-20.5	0.00	0.00	0.00	
6,300.0	7.92	114.82	6,296.4	-29.2	63.1	-25.5	0.00	0.00	0.00	
6,400.0	7.92	114.82	6,395.5	-35.0	75.6	-30.6	0.00	0.00	0.00	
6,500.0	7.92	114.82	6,494.5	-40.8	88.1	-35.6	0.00	0.00	0.00	
6,600.0	7.92	114.82	6,593.6	-46.5	100.6	-40.7	0.00	0.00	0.00	
6,700.0	7.92	114.82	6,692.6	-52.3	113.1	-45.8	0.00	0.00	0.00	
6,800.0	7.92	114.82	6,791.7	-58.1	125.6	-50.8	0.00	0.00	0.00	
6,900.0	7.92	114.82	6,890.7	-63.9	138.1	-55.9	0.00	0.00	0.00	
7,000.0	7.92	114.82	6,989.8	-69.7	150.7	-60.9	0.00	0.00	0.00	
7,100.0	7.92	114.82	7,088.8	-75.5	163.2	-66.0	0.00	0.00	0.00	
7,200.0	7.92	114.82	7,187.9	-81.3	175.7	-71.0	0.00	0.00	0.00	
7,300.0	7.92	114.82	7,286.9	-87.0	188.2	-76.1	0.00	0.00	0.00	
7,400.0	7.92	114.82	7,386.0	-92.8	200.7	-81.2	0.00	0.00	0.00	
7,500.0	7.92	114.82	7,485.0	-98.6	213.2	-86.2	0.00	0.00	0.00	
7,600.0	7.92	114.82	7,584.0	-104.4	225.7	-91.3	0.00	0.00	0.00	
7,700.0	7.92	114.82	7,683.1	-110.2	238.2	-96.3	0.00	0.00	0.00	
7,800.0	7.92	114.82	7,782.1	-116.0	250.7	-101.4	0.00	0.00	0.00	
7,900.0	7.92	114.82	7,881.2	-121.7	263.2	-106.4	0.00	0.00	0.00	
8,000.0	7.92	114.82	7,980.2	-127.5	275.7	-111.5	0.00	0.00	0.00	
8,100.0	7.92	114.82	8,079.3	-133.3	288.2	-116.6	0.00	0.00	0.00	
8,200.0	7.92	114.82	8,178.3	-139.1	300.7	-121.6	0.00	0.00	0.00	
8,300.0	7.92	114.82	8,277.4	-144.9	313.2	-126.7	0.00	0.00	0.00	
8,400.0	7.92	114.82	8,376.4	-150.7	325.7	-131.7	0.00	0.00	0.00	
8,500.0	7.92	114.82	8,475.5	-156.5	338.2	-136.8	0.00	0.00	0.00	
8,600.0	7.92	114.82	8,574.5	-162.2	350.7	-141.9	0.00	0.00	0.00	
8,700.0	7.92	114.82	8,673.6	-168.0	363.3	-146.9	0.00	0.00	0.00	
8,800.0	7.92	114.82	8,772.6	-173.8	375.8	-152.0	0.00	0.00	0.00	
8,900.0	7.92	114.82	8,871.6	-179.6	388.3	-157.0	0.00	0.00	0.00	
9,000.0	7.92	114.82	8,970.7	-185.4	400.8	-162.1	0.00	0.00	0.00	
9,100.0	7.92	114.82	9,069.7	-191.2	413.3	-167.1	0.00	0.00	0.00	
9,200.0	7.92	114.82	9,168.8	-196.9	425.8	-172.2	0.00	0.00	0.00	
9,300.0	7.92	114.82	9,267.8	-202.7	438.3	-177.3	0.00	0.00	0.00	
9,400.0	7.92	114.82	9,366.9	-208.5	450.8	-182.3	0.00	0.00	0.00	
9,500.0	7.92	114.82	9,465.9	-214.3	463.3	-187.4	0.00	0.00	0.00	
9,600.0	7.92	114.82	9,565.0	-220.1	475.8	-192.4	0.00	0.00	0.00	
9,668.7	7.92	114.82	9,633.0	-224.1	484.4	-195.9	0.00	0.00	0.00	
DROP- -1.00										
9,700.0	7.61	114.82	9,664.0	-225.8	488.2	-197.5	1.00	-1.00	0.00	
9,800.0	6.61	114.82	9,763.3	-231.0	499.5	-202.0	1.00	-1.00	0.00	
9,900.0	5.61	114.82	9,862.7	-235.5	509.1	-205.9	1.00	-1.00	0.00	
10,000.0	4.61	114.82	9,962.3	-239.2	517.2	-209.2	1.00	-1.00	0.00	
10,100.0	3.61	114.82	10,062.0	-242.2	523.7	-211.8	1.00	-1.00	0.00	

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Wellbore:	OWB		
Design:	Plan 0.1		

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)
10,200.0	2.61	114.82	10,161.9	-244.5	528.6	-213.8	1.00	-1.00	0.00
10,300.0	1.61	114.82	10,261.8	-246.1	532.0	-215.1	1.00	-1.00	0.00
10,400.0	0.61	114.82	10,361.8	-246.9	533.7	-215.9	1.00	-1.00	0.00
10,460.7	0.00	0.00	10,422.5	-247.0	534.0	-216.0	1.00	-1.00	0.00
HOLD- 100.0 at 10460.7 MD									
10,500.0	0.00	0.00	10,461.8	-247.0	534.0	-216.0	0.00	0.00	0.00
10,560.7	0.00	0.00	10,522.5	-247.0	534.0	-216.0	0.00	0.00	0.00
KOP- DLS 12.00 TFO 359.22									
10,575.0	1.72	359.22	10,536.8	-246.8	534.0	-215.8	12.00	12.00	0.00
10,600.0	4.72	359.22	10,561.8	-245.4	534.0	-214.4	12.00	12.00	0.00
10,625.0	7.72	359.22	10,586.6	-242.7	533.9	-211.7	12.00	12.00	0.00
10,650.0	10.72	359.22	10,611.3	-238.7	533.9	-207.7	12.00	12.00	0.00
10,675.0	13.72	359.22	10,635.7	-233.4	533.8	-202.4	12.00	12.00	0.00
10,700.0	16.72	359.22	10,659.8	-226.8	533.7	-195.8	12.00	12.00	0.00
10,725.0	19.72	359.22	10,683.6	-219.0	533.6	-188.0	12.00	12.00	0.00
10,750.0	22.72	359.22	10,706.9	-210.0	533.5	-179.0	12.00	12.00	0.00
10,775.0	25.72	359.22	10,729.7	-199.7	533.4	-168.8	12.00	12.00	0.00
10,800.0	28.72	359.22	10,751.9	-188.3	533.2	-157.4	12.00	12.00	0.00
10,825.0	31.72	359.22	10,773.5	-175.7	533.0	-144.8	12.00	12.00	0.00
10,850.0	34.72	359.22	10,794.4	-162.0	532.8	-131.2	12.00	12.00	0.00
10,875.0	37.72	359.22	10,814.6	-147.2	532.6	-116.5	12.00	12.00	0.00
10,900.0	40.72	359.22	10,834.0	-131.4	532.4	-100.7	12.00	12.00	0.00
10,925.0	43.72	359.22	10,852.5	-114.6	532.2	-83.9	12.00	12.00	0.00
10,950.0	46.72	359.22	10,870.1	-96.9	532.0	-66.2	12.00	12.00	0.00
10,975.0	49.72	359.22	10,886.7	-78.3	531.7	-47.6	12.00	12.00	0.00
11,000.0	52.72	359.22	10,902.4	-58.8	531.4	-28.2	12.00	12.00	0.00
11,025.0	55.72	359.22	10,917.0	-38.5	531.2	-8.0	12.00	12.00	0.00
11,050.0	58.72	359.22	10,930.5	-17.5	530.9	13.0	12.00	12.00	0.00
11,075.0	61.72	359.22	10,943.0	4.2	530.6	34.6	12.00	12.00	0.00
11,100.0	64.72	359.22	10,954.2	26.5	530.3	56.9	12.00	12.00	0.00
11,125.0	67.72	359.22	10,964.3	49.4	530.0	79.7	12.00	12.00	0.00
11,150.0	70.72	359.22	10,973.2	72.8	529.7	103.0	12.00	12.00	0.00
11,175.0	73.72	359.22	10,980.8	96.6	529.3	126.7	12.00	12.00	0.00
11,200.0	76.72	359.22	10,987.2	120.7	529.0	150.9	12.00	12.00	0.00
11,225.0	79.72	359.22	10,992.3	145.2	528.7	175.3	12.00	12.00	0.00
11,250.0	82.72	359.22	10,996.1	169.9	528.3	199.9	12.00	12.00	0.00
11,275.0	85.72	359.22	10,998.6	194.8	528.0	224.7	12.00	12.00	0.00
11,300.0	88.72	359.22	10,999.8	219.7	527.7	249.6	12.00	12.00	0.00
11,310.7	90.00	359.22	11,000.0	230.4	527.5	260.3	12.00	12.00	0.00
EOC- 7240.0 hold at 11310.7 MD									
11,400.0	90.00	359.22	11,000.0	319.7	526.3	349.4	0.00	0.00	0.00
11,500.0	90.00	359.22	11,000.0	419.7	524.9	449.1	0.00	0.00	0.00
11,600.0	90.00	359.22	11,000.0	519.7	523.6	548.9	0.00	0.00	0.00
11,700.0	90.00	359.22	11,000.0	619.7	522.2	648.6	0.00	0.00	0.00
11,800.0	90.00	359.22	11,000.0	719.7	520.9	748.4	0.00	0.00	0.00
11,900.0	90.00	359.22	11,000.0	819.7	519.5	848.1	0.00	0.00	0.00
12,000.0	90.00	359.22	11,000.0	919.7	518.1	947.9	0.00	0.00	0.00
12,100.0	90.00	359.22	11,000.0	1,019.6	516.8	1,047.6	0.00	0.00	0.00
12,200.0	90.00	359.22	11,000.0	1,119.6	515.4	1,147.4	0.00	0.00	0.00
12,300.0	90.00	359.22	11,000.0	1,219.6	514.1	1,247.1	0.00	0.00	0.00
12,400.0	90.00	359.22	11,000.0	1,319.6	512.7	1,346.8	0.00	0.00	0.00
12,500.0	90.00	359.22	11,000.0	1,419.6	511.3	1,446.6	0.00	0.00	0.00
12,600.0	90.00	359.22	11,000.0	1,519.6	510.0	1,546.3	0.00	0.00	0.00

Database:	EDM 10_13	Local Co-ordinate Reference:	Well Wool Head 20 State Com #512H
Company:	Advance Energy Partners	TVD Reference:	KB @ 3752.5usft (H&P 466)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3752.5usft (H&P 466)
Site:	(Wool Head)Sec20_T-21-S_R-33-E	North Reference:	Grid
Well:	Wool Head 20 State Com #512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan 0.1		

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)
12,700.0	90.00	359.22	11,000.0	1,619.6	508.6	1,646.1	0.00	0.00	0.00
12,800.0	90.00	359.22	11,000.0	1,719.6	507.3	1,745.8	0.00	0.00	0.00
12,900.0	90.00	359.22	11,000.0	1,819.6	505.9	1,845.6	0.00	0.00	0.00
13,000.0	90.00	359.22	11,000.0	1,919.6	504.5	1,945.3	0.00	0.00	0.00
13,100.0	90.00	359.22	11,000.0	2,019.6	503.2	2,045.1	0.00	0.00	0.00
13,200.0	90.00	359.22	11,000.0	2,119.5	501.8	2,144.8	0.00	0.00	0.00
13,300.0	90.00	359.22	11,000.0	2,219.5	500.5	2,244.6	0.00	0.00	0.00
13,400.0	90.00	359.22	11,000.0	2,319.5	499.1	2,344.3	0.00	0.00	0.00
13,500.0	90.00	359.22	11,000.0	2,419.5	497.8	2,444.1	0.00	0.00	0.00
13,600.0	90.00	359.22	11,000.0	2,519.5	496.4	2,543.8	0.00	0.00	0.00
13,700.0	90.00	359.22	11,000.0	2,619.5	495.0	2,643.6	0.00	0.00	0.00
13,800.0	90.00	359.22	11,000.0	2,719.5	493.7	2,743.3	0.00	0.00	0.00
13,900.0	90.00	359.22	11,000.0	2,819.5	492.3	2,843.1	0.00	0.00	0.00
14,000.0	90.00	359.22	11,000.0	2,919.5	491.0	2,942.8	0.00	0.00	0.00
14,100.0	90.00	359.22	11,000.0	3,019.5	489.6	3,042.6	0.00	0.00	0.00
14,200.0	90.00	359.22	11,000.0	3,119.5	488.2	3,142.3	0.00	0.00	0.00
14,300.0	90.00	359.22	11,000.0	3,219.4	486.9	3,242.1	0.00	0.00	0.00
14,400.0	90.00	359.22	11,000.0	3,319.4	485.5	3,341.8	0.00	0.00	0.00
14,500.0	90.00	359.22	11,000.0	3,419.4	484.2	3,441.6	0.00	0.00	0.00
14,600.0	90.00	359.22	11,000.0	3,519.4	482.8	3,541.3	0.00	0.00	0.00
14,700.0	90.00	359.22	11,000.0	3,619.4	481.4	3,641.1	0.00	0.00	0.00
14,800.0	90.00	359.22	11,000.0	3,719.4	480.1	3,740.8	0.00	0.00	0.00
14,900.0	90.00	359.22	11,000.0	3,819.4	478.7	3,840.6	0.00	0.00	0.00
15,000.0	90.00	359.22	11,000.0	3,919.4	477.4	3,940.3	0.00	0.00	0.00
15,100.0	90.00	359.22	11,000.0	4,019.4	476.0	4,040.1	0.00	0.00	0.00
15,200.0	90.00	359.22	11,000.0	4,119.4	474.6	4,139.8	0.00	0.00	0.00
15,300.0	90.00	359.22	11,000.0	4,219.3	473.3	4,239.5	0.00	0.00	0.00
15,400.0	90.00	359.22	11,000.0	4,319.3	471.9	4,339.3	0.00	0.00	0.00
15,500.0	90.00	359.22	11,000.0	4,419.3	470.6	4,439.0	0.00	0.00	0.00
15,600.0	90.00	359.22	11,000.0	4,519.3	469.2	4,538.8	0.00	0.00	0.00
15,700.0	90.00	359.22	11,000.0	4,619.3	467.8	4,638.5	0.00	0.00	0.00
15,800.0	90.00	359.22	11,000.0	4,719.3	466.5	4,738.3	0.00	0.00	0.00
15,900.0	90.00	359.22	11,000.0	4,819.3	465.1	4,838.0	0.00	0.00	0.00
16,000.0	90.00	359.22	11,000.0	4,919.3	463.8	4,937.8	0.00	0.00	0.00
16,100.0	90.00	359.22	11,000.0	5,019.3	462.4	5,037.5	0.00	0.00	0.00
16,200.0	90.00	359.22	11,000.0	5,119.3	461.1	5,137.3	0.00	0.00	0.00
16,300.0	90.00	359.22	11,000.0	5,219.3	459.7	5,237.0	0.00	0.00	0.00
16,400.0	90.00	359.22	11,000.0	5,319.2	458.3	5,336.8	0.00	0.00	0.00
16,500.0	90.00	359.22	11,000.0	5,419.2	457.0	5,436.5	0.00	0.00	0.00
16,600.0	90.00	359.22	11,000.0	5,519.2	455.6	5,536.3	0.00	0.00	0.00
16,700.0	90.00	359.22	11,000.0	5,619.2	454.3	5,636.0	0.00	0.00	0.00
16,800.0	90.00	359.22	11,000.0	5,719.2	452.9	5,735.8	0.00	0.00	0.00
16,900.0	90.00	359.22	11,000.0	5,819.2	451.5	5,835.5	0.00	0.00	0.00
17,000.0	90.00	359.22	11,000.0	5,919.2	450.2	5,935.3	0.00	0.00	0.00
17,100.0	90.00	359.22	11,000.0	6,019.2	448.8	6,035.0	0.00	0.00	0.00
17,200.0	90.00	359.22	11,000.0	6,119.2	447.5	6,134.8	0.00	0.00	0.00
17,300.0	90.00	359.22	11,000.0	6,219.2	446.1	6,234.5	0.00	0.00	0.00
17,400.0	90.00	359.22	11,000.0	6,319.2	444.7	6,334.3	0.00	0.00	0.00
17,500.0	90.00	359.22	11,000.0	6,419.1	443.4	6,434.0	0.00	0.00	0.00
17,600.0	90.00	359.22	11,000.0	6,519.1	442.0	6,533.8	0.00	0.00	0.00
17,700.0	90.00	359.22	11,000.0	6,619.1	440.7	6,633.5	0.00	0.00	0.00
17,800.0	90.00	359.22	11,000.0	6,719.1	439.3	6,733.3	0.00	0.00	0.00
17,900.0	90.00	359.22	11,000.0	6,819.1	437.9	6,833.0	0.00	0.00	0.00
18,000.0	90.00	359.22	11,000.0	6,919.1	436.6	6,932.8	0.00	0.00	0.00

Database:	EDM 10_13	Local Co-ordinate Reference:	Well Wool Head 20 State Com #512H
Company:	Advance Energy Partners	TVD Reference:	KB @ 3752.5usft (H&P 466)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3752.5usft (H&P 466)
Site:	(Wool Head)Sec20_T-21-S_R-33-E	North Reference:	Grid
Well:	Wool Head 20 State Com #512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan 0.1		

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)	
18,100.0	90.00	359.22	11,000.0	7,019.1	435.2	7,032.5	0.00	0.00	0.00	
18,200.0	90.00	359.22	11,000.0	7,119.1	433.9	7,132.2	0.00	0.00	0.00	
18,300.0	90.00	359.22	11,000.0	7,219.1	432.5	7,232.0	0.00	0.00	0.00	
18,400.0	90.00	359.22	11,000.0	7,319.1	431.1	7,331.7	0.00	0.00	0.00	
18,500.0	90.00	359.22	11,000.0	7,419.1	429.8	7,431.5	0.00	0.00	0.00	
18,550.6	90.00	359.22	11,000.0	7,469.7	429.1	7,482.0	0.00	0.00	0.00	
TD at 18550.7										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LTP/PBHL (Wool Hea - hit/miss target - Shape - Point	0.00	0.00	11,000.0	7,469.7	429.1	538,652.70	771,444.20	32° 28' 42.985 N	103° 35' 13.675 W	
FTP (Wool Head 20 S - plan misses target center by 197.9usft at 10934.9usft MD (10859.6 TVD, -107.7 N, 532.1 E) - Point	0.00	0.00	11,000.0	-247.1	534.4	530,935.90	771,549.50	32° 27' 26.621 N	103° 35' 13.075 W	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
5,400.0	5,400.0	0.0	0.0	NUDGE- Build 1.00	
6,192.0	6,189.5	-22.9	49.6	HOLD- 3476.7 at 6192.0 MD	
9,668.7	9,633.0	-224.1	484.4	DROP- -1.00	
10,460.7	10,422.5	-247.0	534.0	HOLD- 100.0 at 10460.7 MD	
10,560.7	10,522.5	-247.0	534.0	KOP- DLS 12.00 TFO 359.22	
11,310.7	11,000.0	230.4	527.5	EOC- 7240.0 hold at 11310.7 MD	
18,550.6	11,000.0	7,469.7	429.1	TD at 18550.7	