

Advance Energy Partners, LLC

Merchant State Unit 506H
Lea County, New Mexico
H&P 262
Plan 0.1



SITE DETAILS: Merchant State Unit 506H

Site Centre Northing: 525540.60
Easting: 787395.70

Positional Uncertainty: 0.00
Convergence: 0.43
Local North: Grid



Azimuths to Grid North
True North: -0.43°
Magnetic North: 6.30°

Magnetic Field
Strength: 48192.7snT
Dip Angle: 60.27°
Date: 6/27/2018
Model: MVHD

Magnetic North: 6.30° to Grid North

PROJECT DETAILS: Lea County, New Mexico

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

System Datum: Mean Sea Level

Depth Reference:
3656'GL+25'KB @ 3681.00usft (H&P 262)

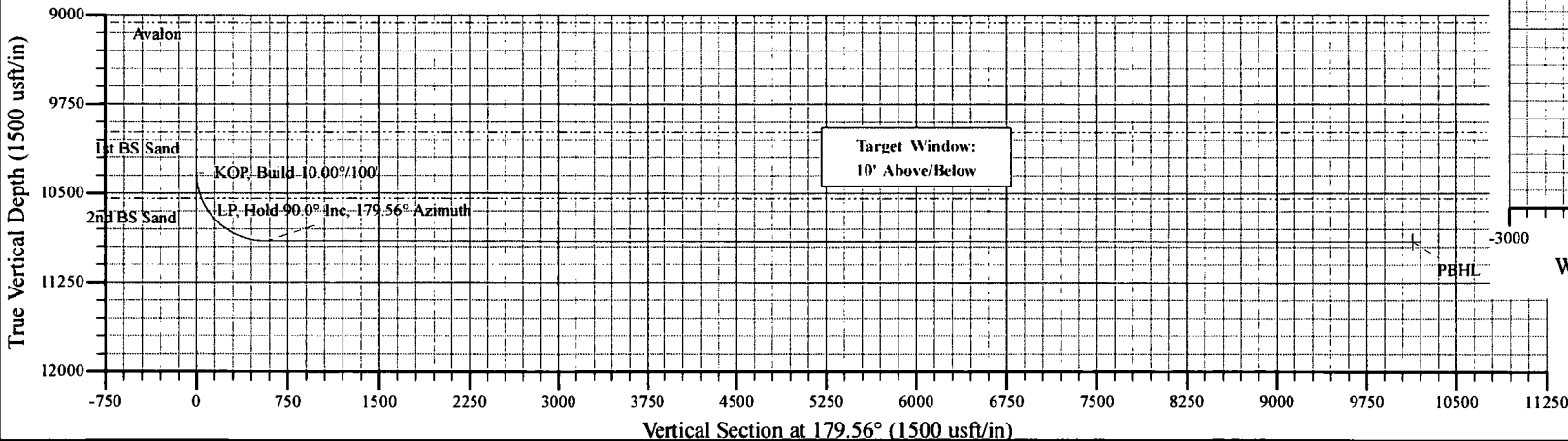
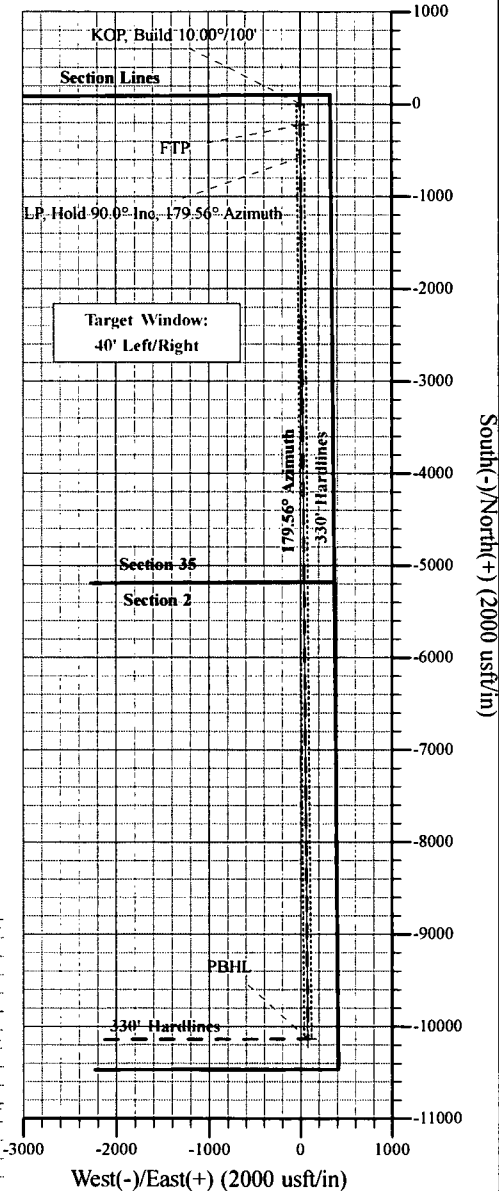
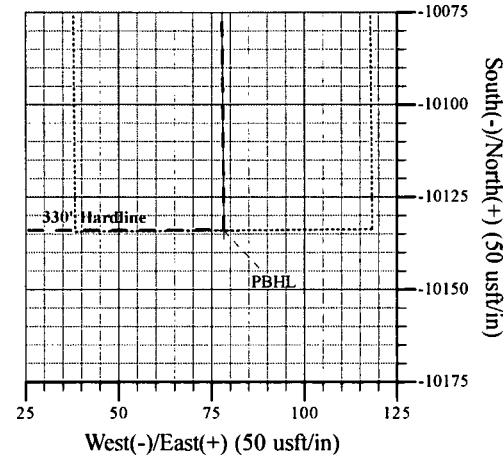
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10331.04	0.00	0.00	10331.04	0.00	0.00	0.00	0.00	0.00	KOP, Build 10.00°/100'
3	11231.04	90.00	179.56	10904.00	-572.94	4.43	10.00	179.56	572.96	LP, Hold 90.0° Inc, 179.56° Azimuth
4	20792.39	90.00	179.56	10904.00	-10134.00	78.30	0.00	0.00	10134.30	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (MSU506H)	0.00	-229.80	1.70	525310.80	787397.40	32° 26' 29.828 N	103° 32' 8.612 W
PBHL (MSU506H)	10904.00	-10134.00	78.30	515406.60	787474.00	32° 24' 51.823 N	103° 32' 8.581 W

*Note - Aim is not responsible for any collision issues against unknown offset wells.



Drawn By: IG

Date Created: 6/27/2018

Date Revised: 6/27/2018

File: Advance Energy - Merchant State Unit #506H Plan 0.1.wpd

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 506H
Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Site:	Merchant State Unit 506H	MD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Well:	#506H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.14 Single User Db

Project	Lea County, New Mexico		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Merchant State Unit 506H		
Site Position:		Northing:	525,540.60 usft
From:	Map	Easting:	787,395.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 32.102 N
		Longitude:	103° 32' 8.611 W
		Grid Convergence:	0.43 °

Well	#506H		
Well Position	+N/-S	0.00 usft	Northing: 525,540.60 usft
	+E/-W	0.00 usft	Easting: 787,395.70 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 26' 32.102 N
		Longitude:	103° 32' 8.611 W
		Ground Level:	3,656.00 usft

Wellbore	Lateral 1r0		
Magnetics	Model Name	Sample Date	Declination (°)
	MVHD	6/27/2018	6.73
			Dip Angle (°)
			60.27
			Field Strength (nT)
			48,192.71981303

Design	Plan 0.1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			179.56

Survey Tool Program	Date 6/27/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
0.00	20,792.39	Plan 0.1 (Lateral 1r0)	B001Mb_MWD+HRGM
			Description
			OWSG MWD + HRGM

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FTP (MSU506H)										
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	

Aim Directional Services, LLC

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Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Site:	Merchant State Unit 506H	MD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Well:	#506H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.14 Single User Db

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)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,706.00	0.00	0.00	1,706.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

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5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,156.00	0.00	0.00	5,156.00	0.00	0.00	0.00	0.00	0.00	0.00
Limestone Base									
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,526.00	0.00	0.00	8,526.00	0.00	0.00	0.00	0.00	0.00	0.00
Lower Brushy									
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

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Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
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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)
9,068.00	0.00	0.00	9,068.00	0.00	0.00	0.00	0.00	0.00	0.00
Avalon									
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,986.00	0.00	0.00	9,986.00	0.00	0.00	0.00	0.00	0.00	0.00
1st BS Sand									
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,331.04	0.00	0.00	10,331.04	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 10.00°/100'									
10,350.00	1.90	179.56	10,350.00	-0.31	0.00	0.31	10.00	10.00	0.00
10,400.00	6.90	179.56	10,399.83	-4.14	0.03	4.14	10.00	10.00	0.00
10,450.00	11.90	179.56	10,449.15	-12.30	0.10	12.30	10.00	10.00	0.00
10,500.00	16.90	179.56	10,497.56	-24.73	0.19	24.73	10.00	10.00	0.00
10,550.00	21.90	179.56	10,544.71	-41.33	0.32	41.33	10.00	10.00	0.00
10,551.39	22.03	179.56	10,546.00	-41.85	0.32	41.85	10.00	10.00	0.00
2nd BS Sand									
10,600.00	26.90	179.56	10,590.23	-61.97	0.48	61.98	10.00	10.00	0.00
10,650.00	31.90	179.56	10,633.78	-86.51	0.67	86.51	10.00	10.00	0.00
10,700.00	36.90	179.56	10,675.02	-114.74	0.89	114.75	10.00	10.00	0.00
10,750.00	41.90	179.56	10,713.65	-146.47	1.13	146.47	10.00	10.00	0.00
10,800.00	46.90	179.56	10,749.37	-181.43	1.40	181.44	10.00	10.00	0.00
10,850.00	51.90	179.56	10,781.90	-219.38	1.70	219.39	10.00	10.00	0.00
10,900.00	56.90	179.56	10,811.00	-260.02	2.01	260.03	10.00	10.00	0.00
10,950.00	61.90	179.56	10,836.44	-303.04	2.34	303.05	10.00	10.00	0.00
11,000.00	66.90	179.56	10,858.04	-348.12	2.69	348.13	10.00	10.00	0.00
11,050.00	71.90	179.56	10,875.63	-394.90	3.05	394.91	10.00	10.00	0.00
11,100.00	76.90	179.56	10,889.08	-443.04	3.42	443.06	10.00	10.00	0.00
11,150.00	81.90	179.56	10,898.28	-492.17	3.80	492.19	10.00	10.00	0.00
11,200.00	86.90	179.56	10,903.16	-541.91	4.19	541.93	10.00	10.00	0.00
11,231.04	90.00	179.56	10,904.00	-572.94	4.43	572.96	10.00	10.00	0.00
LP, Hold 90.0° Inc, 179.56° Azimuth									
11,300.00	90.00	179.56	10,904.00	-641.90	4.96	641.92	0.00	0.00	0.00
11,400.00	90.00	179.56	10,904.00	-741.89	5.73	741.92	0.00	0.00	0.00
11,500.00	90.00	179.56	10,904.00	-841.89	6.50	841.92	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 506H
Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Site:	Merchant State Unit 506H	MD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Well:	#506H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.14 Single User Db

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)
11,600.00	90.00	179.56	10,904.00	-941.89	7.28	941.92	0.00	0.00	0.00
11,700.00	90.00	179.56	10,904.00	-1,041.88	8.05	1,041.92	0.00	0.00	0.00
11,800.00	90.00	179.56	10,904.00	-1,141.88	8.82	1,141.92	0.00	0.00	0.00
11,900.00	90.00	179.56	10,904.00	-1,241.88	9.60	1,241.92	0.00	0.00	0.00
12,000.00	90.00	179.56	10,904.00	-1,341.88	10.37	1,341.92	0.00	0.00	0.00
12,100.00	90.00	179.56	10,904.00	-1,441.87	11.14	1,441.92	0.00	0.00	0.00
12,200.00	90.00	179.56	10,904.00	-1,541.87	11.91	1,541.92	0.00	0.00	0.00
12,300.00	90.00	179.56	10,904.00	-1,641.87	12.69	1,641.92	0.00	0.00	0.00
12,400.00	90.00	179.56	10,904.00	-1,741.86	13.46	1,741.92	0.00	0.00	0.00
12,500.00	90.00	179.56	10,904.00	-1,841.86	14.23	1,841.92	0.00	0.00	0.00
12,600.00	90.00	179.56	10,904.00	-1,941.86	15.00	1,941.92	0.00	0.00	0.00
12,700.00	90.00	179.56	10,904.00	-2,041.85	15.78	2,041.92	0.00	0.00	0.00
12,800.00	90.00	179.56	10,904.00	-2,141.85	16.55	2,141.92	0.00	0.00	0.00
12,900.00	90.00	179.56	10,904.00	-2,241.85	17.32	2,241.92	0.00	0.00	0.00
13,000.00	90.00	179.56	10,904.00	-2,341.85	18.09	2,341.92	0.00	0.00	0.00
13,100.00	90.00	179.56	10,904.00	-2,441.84	18.87	2,441.92	0.00	0.00	0.00
13,200.00	90.00	179.56	10,904.00	-2,541.84	19.64	2,541.92	0.00	0.00	0.00
13,300.00	90.00	179.56	10,904.00	-2,641.84	20.41	2,641.92	0.00	0.00	0.00
13,400.00	90.00	179.56	10,904.00	-2,741.83	21.18	2,741.92	0.00	0.00	0.00
13,500.00	90.00	179.56	10,904.00	-2,841.83	21.96	2,841.92	0.00	0.00	0.00
13,600.00	90.00	179.56	10,904.00	-2,941.83	22.73	2,941.92	0.00	0.00	0.00
13,700.00	90.00	179.56	10,904.00	-3,041.82	23.50	3,041.92	0.00	0.00	0.00
13,800.00	90.00	179.56	10,904.00	-3,141.82	24.28	3,141.92	0.00	0.00	0.00
13,900.00	90.00	179.56	10,904.00	-3,241.82	25.05	3,241.92	0.00	0.00	0.00
14,000.00	90.00	179.56	10,904.00	-3,341.82	25.82	3,341.92	0.00	0.00	0.00
14,100.00	90.00	179.56	10,904.00	-3,441.81	26.59	3,441.92	0.00	0.00	0.00
14,200.00	90.00	179.56	10,904.00	-3,541.81	27.37	3,541.92	0.00	0.00	0.00
14,300.00	90.00	179.56	10,904.00	-3,641.81	28.14	3,641.92	0.00	0.00	0.00
14,400.00	90.00	179.56	10,904.00	-3,741.80	28.91	3,741.92	0.00	0.00	0.00
14,500.00	90.00	179.56	10,904.00	-3,841.80	29.68	3,841.92	0.00	0.00	0.00
14,600.00	90.00	179.56	10,904.00	-3,941.80	30.46	3,941.92	0.00	0.00	0.00
14,700.00	90.00	179.56	10,904.00	-4,041.80	31.23	4,041.92	0.00	0.00	0.00
14,800.00	90.00	179.56	10,904.00	-4,141.79	32.00	4,141.92	0.00	0.00	0.00
14,900.00	90.00	179.56	10,904.00	-4,241.79	32.77	4,241.92	0.00	0.00	0.00
15,000.00	90.00	179.56	10,904.00	-4,341.79	33.55	4,341.92	0.00	0.00	0.00
15,100.00	90.00	179.56	10,904.00	-4,441.78	34.32	4,441.92	0.00	0.00	0.00
15,200.00	90.00	179.56	10,904.00	-4,541.78	35.09	4,541.92	0.00	0.00	0.00
15,300.00	90.00	179.56	10,904.00	-4,641.78	35.86	4,641.92	0.00	0.00	0.00
15,400.00	90.00	179.56	10,904.00	-4,741.77	36.64	4,741.92	0.00	0.00	0.00
15,500.00	90.00	179.56	10,904.00	-4,841.77	37.41	4,841.92	0.00	0.00	0.00
15,600.00	90.00	179.56	10,904.00	-4,941.77	38.18	4,941.92	0.00	0.00	0.00
15,700.00	90.00	179.56	10,904.00	-5,041.77	38.96	5,041.92	0.00	0.00	0.00
15,800.00	90.00	179.56	10,904.00	-5,141.76	39.73	5,141.92	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 506H
Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Site:	Merchant State Unit 506H	MD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Well:	#506H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.14 Single User Db

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)
15,900.00	90.00	179.56	10,904.00	-5,241.76	40.50	5,241.92	0.00	0.00	0.00
16,000.00	90.00	179.56	10,904.00	-5,341.76	41.27	5,341.92	0.00	0.00	0.00
16,100.00	90.00	179.56	10,904.00	-5,441.75	42.05	5,441.92	0.00	0.00	0.00
16,200.00	90.00	179.56	10,904.00	-5,541.75	42.82	5,541.92	0.00	0.00	0.00
16,300.00	90.00	179.56	10,904.00	-5,641.75	43.59	5,641.92	0.00	0.00	0.00
16,400.00	90.00	179.56	10,904.00	-5,741.74	44.36	5,741.92	0.00	0.00	0.00
16,500.00	90.00	179.56	10,904.00	-5,841.74	45.14	5,841.92	0.00	0.00	0.00
16,600.00	90.00	179.56	10,904.00	-5,941.74	45.91	5,941.92	0.00	0.00	0.00
16,700.00	90.00	179.56	10,904.00	-6,041.74	46.68	6,041.92	0.00	0.00	0.00
16,800.00	90.00	179.56	10,904.00	-6,141.73	47.45	6,141.92	0.00	0.00	0.00
16,900.00	90.00	179.56	10,904.00	-6,241.73	48.23	6,241.92	0.00	0.00	0.00
17,000.00	90.00	179.56	10,904.00	-6,341.73	49.00	6,341.92	0.00	0.00	0.00
17,100.00	90.00	179.56	10,904.00	-6,441.72	49.77	6,441.92	0.00	0.00	0.00
17,200.00	90.00	179.56	10,904.00	-6,541.72	50.54	6,541.92	0.00	0.00	0.00
17,300.00	90.00	179.56	10,904.00	-6,641.72	51.32	6,641.92	0.00	0.00	0.00
17,400.00	90.00	179.56	10,904.00	-6,741.71	52.09	6,741.92	0.00	0.00	0.00
17,500.00	90.00	179.56	10,904.00	-6,841.71	52.86	6,841.92	0.00	0.00	0.00
17,600.00	90.00	179.56	10,904.00	-6,941.71	53.63	6,941.92	0.00	0.00	0.00
17,700.00	90.00	179.56	10,904.00	-7,041.71	54.41	7,041.92	0.00	0.00	0.00
17,800.00	90.00	179.56	10,904.00	-7,141.70	55.18	7,141.92	0.00	0.00	0.00
17,900.00	90.00	179.56	10,904.00	-7,241.70	55.95	7,241.92	0.00	0.00	0.00
18,000.00	90.00	179.56	10,904.00	-7,341.70	56.73	7,341.92	0.00	0.00	0.00
18,100.00	90.00	179.56	10,904.00	-7,441.69	57.50	7,441.92	0.00	0.00	0.00
18,200.00	90.00	179.56	10,904.00	-7,541.69	58.27	7,541.92	0.00	0.00	0.00
18,300.00	90.00	179.56	10,904.00	-7,641.69	59.04	7,641.92	0.00	0.00	0.00
18,400.00	90.00	179.56	10,904.00	-7,741.68	59.82	7,741.92	0.00	0.00	0.00
18,500.00	90.00	179.56	10,904.00	-7,841.68	60.59	7,841.92	0.00	0.00	0.00
18,600.00	90.00	179.56	10,904.00	-7,941.68	61.36	7,941.92	0.00	0.00	0.00
18,700.00	90.00	179.56	10,904.00	-8,041.68	62.13	8,041.92	0.00	0.00	0.00
18,800.00	90.00	179.56	10,904.00	-8,141.67	62.91	8,141.92	0.00	0.00	0.00
18,900.00	90.00	179.56	10,904.00	-8,241.67	63.68	8,241.92	0.00	0.00	0.00
19,000.00	90.00	179.56	10,904.00	-8,341.67	64.45	8,341.92	0.00	0.00	0.00
19,100.00	90.00	179.56	10,904.00	-8,441.66	65.22	8,441.92	0.00	0.00	0.00
19,200.00	90.00	179.56	10,904.00	-8,541.66	66.00	8,541.92	0.00	0.00	0.00
19,300.00	90.00	179.56	10,904.00	-8,641.66	66.77	8,641.92	0.00	0.00	0.00
19,400.00	90.00	179.56	10,904.00	-8,741.65	67.54	8,741.92	0.00	0.00	0.00
19,500.00	90.00	179.56	10,904.00	-8,841.65	68.31	8,841.92	0.00	0.00	0.00
19,600.00	90.00	179.56	10,904.00	-8,941.65	69.09	8,941.92	0.00	0.00	0.00
19,700.00	90.00	179.56	10,904.00	-9,041.65	69.86	9,041.92	0.00	0.00	0.00
19,800.00	90.00	179.56	10,904.00	-9,141.64	70.63	9,141.92	0.00	0.00	0.00
19,900.00	90.00	179.56	10,904.00	-9,241.64	71.41	9,241.92	0.00	0.00	0.00
20,000.00	90.00	179.56	10,904.00	-9,341.64	72.18	9,341.92	0.00	0.00	0.00
20,100.00	90.00	179.56	10,904.00	-9,441.63	72.95	9,441.92	0.00	0.00	0.00
20,200.00	90.00	179.56	10,904.00	-9,541.63	73.72	9,541.92	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Merchant State Unit 506H
Project:	Lea County, New Mexico	TVD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Site:	Merchant State Unit 506H	MD Reference:	3656'GL+25'KB @ 3681.00usft (H&P 262)
Well:	#506H	North Reference:	Grid
Wellbore:	Lateral 1r0	Survey Calculation Method:	Minimum Curvature
Design:	Plan 0.1	Database:	EDM 5000.14 Single User Db

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)
20,300.00	90.00	179.56	10,904.00	-9,641.63	74.50	9,641.92	0.00	0.00	0.00
20,400.00	90.00	179.56	10,904.00	-9,741.63	75.27	9,741.92	0.00	0.00	0.00
20,500.00	90.00	179.56	10,904.00	-9,841.62	76.04	9,841.92	0.00	0.00	0.00
20,600.00	90.00	179.56	10,904.00	-9,941.62	76.81	9,941.92	0.00	0.00	0.00
20,700.00	90.00	179.56	10,904.00	-10,041.62	77.59	10,041.92	0.00	0.00	0.00
20,792.39	90.00	179.56	10,904.00	-10,134.00	78.30	10,134.30	0.00	0.00	0.00
PBHL - PBHL (MSU506H)									

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									
FTP (MSU506H)	0.00	0.00	0.00	-229.80	1.70	525,310.80	787,397.40	32° 26' 29.828 N	103° 32' 8.612 W
- plan misses target center by 229.81usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL (MSU506H)	0.00	0.00	10,904.00	-10,134.00	78.30	515,406.60	787,474.00	32° 24' 51.823 N	103° 32' 8.581 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,706.00	1,706.00	Rustler		0.00		
5,156.00	5,156.00	Limestone Base		0.00		
8,526.00	8,526.00	Lower Brushy		0.00		
9,068.00	9,068.00	Avalon		0.00		
9,986.00	9,986.00	1st BS Sand		0.00		
10,551.39	10,546.00	2nd BS Sand		0.00		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,331	10,331	0	0	KOP, Build 10.00°/100'
11,231	10,904	-573	4	LP, Hold 90.0° Inc, 179.56° Azimuth
20,792	10,904	-10,134	78	PBHL