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Survey Reports

30-025-43627

Dagger State Com 505H (WT-18-078)

2018-04-26 to 2018-05-27

Lea, New Mexico (32.45, -103.60)

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	Local Co-ordinate Reference:	Site Dagger State Com 505H
Project:	Lea County, New Mexico	TVD Reference:	3781'GL+25'KB @ 3806.00usft (H&P 262)
Site:	Dagger State Com 505H	MD Reference:	3781'GL+25'KB @ 3806.00usft (H&P 262)
Well:	#505H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	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	Dagger State Com 505H		
Site Position:	Northing:	529,194.91 usft	Latitude: 32° 27' 9.772 N
From: Map	Easting:	766,028.90 usft	Longitude: 103° 36' 17.643 W
Position Uncertainty:	0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.39 °

Well	#505H - Slot 505H		
Well Position	+N-S 0.00 usft	Northing: 529,194.91 usft	Latitude: 32° 27' 9.772 N
	+E-W 0.00 usft	Easting: 766,028.90 usft	Longitude: 103° 36' 17.643 W
Position Uncertainty	0.00 usft	Wellhead Elevation: usft	Ground Level: 3,781.00 usft

Wellbore	Aim MWD Surveys				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	4/28/2018	6.78	60.30	48,234.64463706

Design	Aim MWD Surveys			
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	179.54

Survey Program	Date: 5/27/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
195.00	19,354.00	Aim MWD Surveys (Aim MWD Surveys)	B001Mb_MWD+HRGM	OWSG MWD + HRGM

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	
195.00	0.44	173.21	195.00	-0.74	0.09	0.74	0.23	0.23	0.00	
First Aim MWD Survey										
343.00	0.48	173.47	342.99	-1.92	0.23	1.93	0.03	0.03	0.18	
524.00	0.62	182.52	523.98	-3.66	0.27	3.66	0.09	0.08	5.00	
675.00	1.19	195.79	674.97	-5.98	-0.19	5.98	0.40	0.38	8.79	
765.00	1.54	200.54	764.94	-8.01	-0.87	8.00	0.41	0.39	5.28	
856.00	1.85	201.16	855.90	-10.53	-1.83	10.51	0.34	0.34	0.68	
948.00	1.58	203.26	947.86	-13.08	-2.87	13.05	0.30	-0.29	2.28	
1,040.00	1.63	204.85	1,039.82	-15.43	-3.92	15.40	0.07	0.05	1.73	
1,133.00	1.23	212.41	1,132.79	-17.47	-5.01	17.43	0.47	-0.43	8.13	

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Well:	#505H	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
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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)
1,225.00	1.63	230.42	1,224.77	-19.14	-6.55	19.09	0.65	0.43	19.58
1,317.00	1.63	222.25	1,316.73	-20.94	-8.44	20.87	0.25	0.00	-8.88
1,409.00	3.08	215.57	1,408.65	-23.92	-10.75	23.83	1.60	1.58	-7.26
1,501.00	3.25	206.17	1,500.51	-28.27	-13.34	28.16	0.59	0.18	-10.22
1,583.00	2.42	195.44	1,582.41	-32.03	-14.83	31.91	1.20	-1.01	-13.09
1,690.00	2.51	188.24	1,689.31	-36.52	-15.76	36.40	0.30	0.08	-6.73
1,784.00	1.49	180.59	1,783.25	-39.78	-16.07	39.65	1.12	-1.09	-8.14
1,879.00	1.54	65.98	1,878.23	-40.50	-14.92	40.38	2.68	0.05	-120.64
1,973.00	2.81	54.20	1,972.16	-38.64	-11.90	38.54	1.43	1.35	-12.53
2,068.00	2.59	54.99	2,067.06	-36.04	-8.25	35.98	0.23	-0.23	0.83
2,162.00	2.73	56.84	2,160.96	-33.60	-4.64	33.56	0.17	0.15	1.97
2,257.00	2.55	59.48	2,255.86	-31.29	-0.92	31.28	0.23	-0.19	2.78
2,351.00	2.42	59.74	2,349.77	-29.23	2.59	29.25	0.14	-0.14	0.28
2,445.00	2.20	59.21	2,443.69	-27.30	5.86	27.35	0.24	-0.23	-0.56
2,540.00	2.11	60.79	2,538.62	-25.52	8.95	25.59	0.11	-0.09	1.66
2,634.00	1.85	63.87	2,632.57	-24.00	11.82	24.10	0.30	-0.28	3.28
2,728.00	1.71	62.46	2,726.52	-22.69	14.43	22.80	0.16	-0.15	-1.50
2,822.00	1.67	59.56	2,820.48	-21.34	16.85	21.48	0.10	-0.04	-3.09
2,917.00	1.67	65.45	2,915.44	-20.07	19.31	20.22	0.18	0.00	6.20
3,011.00	1.49	66.33	3,009.41	-19.01	21.67	19.18	0.19	-0.19	0.94
3,106.00	1.49	67.21	3,104.37	-18.03	23.94	18.23	0.02	0.00	0.93
3,295.00	1.54	53.94	3,293.31	-15.59	28.26	15.81	0.19	0.03	-7.02
3,389.00	1.45	49.37	3,387.28	-14.07	30.18	14.31	0.16	-0.10	-4.86
3,484.00	1.36	50.25	3,482.25	-12.57	31.96	12.82	0.10	-0.09	0.93
3,579.00	1.27	45.15	3,577.22	-11.10	33.58	11.37	0.16	-0.09	-5.37
3,673.00	1.14	41.46	3,671.20	-9.67	34.93	9.95	0.16	-0.14	-3.93
3,768.00	1.10	34.08	3,766.18	-8.20	36.07	8.49	0.16	-0.04	-7.77
3,862.00	1.14	23.00	3,860.17	-6.60	36.94	6.89	0.23	0.04	-11.79
3,957.00	0.79	17.90	3,955.15	-5.10	37.51	5.40	0.38	-0.37	-5.37
4,051.00	0.88	25.81	4,049.14	-3.84	38.03	4.14	0.16	0.10	8.41
4,145.00	0.92	23.26	4,143.13	-2.49	38.64	2.80	0.06	0.04	-2.71
4,334.00	1.23	22.91	4,332.10	0.77	40.03	-0.45	0.16	0.16	-0.19
4,429.00	0.62	25.11	4,427.08	2.17	40.64	-1.85	0.64	-0.64	2.32
4,523.00	0.26	0.68	4,521.08	2.85	40.86	-2.52	0.42	-0.38	-25.99
4,712.00	0.75	9.82	4,710.07	4.50	41.08	-4.17	0.26	0.26	4.84
4,901.00	0.53	17.02	4,899.06	6.55	41.54	-6.22	0.12	-0.12	3.81
5,090.00	0.66	34.16	5,088.05	8.29	42.41	-7.95	0.12	0.07	9.07
5,279.00	0.48	31.00	5,277.04	9.87	43.43	-9.52	0.10	-0.10	-1.67
5,375.00	0.48	352.85	5,373.04	10.61	43.59	-10.26	0.33	0.00	-39.74
5,469.00	2.24	66.60	5,467.01	11.73	45.22	-11.37	2.29	1.87	78.46
5,563.00	2.29	60.62	5,560.94	13.38	48.55	-12.99	0.26	0.05	-6.36
5,658.00	4.00	68.88	5,655.79	15.51	53.29	-15.08	1.86	1.80	8.69
5,752.00	5.49	85.76	5,749.47	17.02	60.83	-16.53	2.16	1.59	17.96

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5,847.00	6.64	104.04	5,843.95	16.02	70.70	-15.46	2.35	1.21	19.24
5,941.00	6.77	102.89	5,937.31	13.47	81.37	-12.82	0.20	0.14	-1.22
6,036.00	6.51	101.31	6,031.67	11.16	92.11	-10.42	0.33	-0.27	-1.66
6,131.00	5.76	99.99	6,126.12	9.28	102.08	-8.46	0.80	-0.79	-1.39
6,225.00	5.36	101.84	6,219.68	7.56	111.03	-6.67	0.47	-0.43	1.97
6,320.00	5.32	102.37	6,314.27	5.71	119.67	-4.75	0.07	-0.04	0.56
6,414.00	4.97	99.73	6,407.89	4.09	127.94	-3.06	0.45	-0.37	-2.81
6,509.00	4.22	97.36	6,502.58	2.94	135.46	-1.86	0.81	-0.79	-2.49
6,603.00	3.96	95.69	6,596.35	2.18	142.12	-1.04	0.30	-0.28	-1.78
6,698.00	3.69	94.54	6,691.13	1.61	148.44	-0.42	0.30	-0.28	-1.21
6,792.00	2.37	92.61	6,785.00	1.28	153.39	-0.05	1.41	-1.40	-2.05
6,886.00	1.36	42.34	6,878.95	2.02	156.09	-0.77	1.95	-1.07	-53.48
6,980.00	1.23	167.93	6,972.94	1.86	157.05	-0.60	2.45	-0.14	133.61
7,075.00	0.97	167.58	7,067.93	0.07	157.43	1.19	0.27	-0.27	-0.37
7,169.00	1.27	174.26	7,161.91	-1.74	157.71	3.00	0.35	0.32	7.11
7,264.00	1.05	162.57	7,256.89	-3.62	158.08	4.89	0.34	-0.23	-12.31
7,358.00	1.05	163.89	7,350.87	-5.27	158.57	6.54	0.03	0.00	1.40
7,452.00	1.32	299.77	7,444.86	-5.56	157.87	6.82	2.34	0.29	144.55
7,546.00	1.45	286.23	7,538.84	-4.69	155.79	5.94	0.37	0.14	-14.40
7,641.00	1.49	289.84	7,633.80	-3.93	153.47	5.16	0.11	0.04	3.80
7,735.00	1.41	292.39	7,727.77	-3.08	151.26	4.29	0.11	-0.09	2.71
7,829.00	1.23	296.60	7,821.75	-2.18	149.28	3.38	0.22	-0.19	4.48
7,924.00	1.27	293.53	7,916.73	-1.31	147.41	2.49	0.08	0.04	-3.23
8,019.00	1.05	281.84	8,011.71	-0.71	145.59	1.88	0.34	-0.23	-12.31
8,113.00	1.05	269.62	8,105.69	-0.54	143.89	1.69	0.24	0.00	-13.00
8,207.00	1.05	263.73	8,199.68	-0.64	142.17	1.78	0.11	0.00	-6.27
8,302.00	1.01	252.57	8,294.66	-0.98	140.50	2.11	0.21	-0.04	-11.75
8,396.00	0.53	197.38	8,388.65	-1.65	139.58	2.77	0.88	-0.51	-58.71
8,490.00	0.75	195.09	8,482.65	-2.65	139.29	3.77	0.24	0.23	-2.44
8,584.00	0.92	189.73	8,576.64	-3.99	139.01	5.11	0.20	0.18	-5.70
8,679.00	1.05	200.45	8,671.62	-5.56	138.57	6.67	0.24	0.14	11.28
8,773.00	1.36	208.36	8,765.60	-7.35	137.74	8.45	0.37	0.33	8.41
8,867.00	1.01	9.64	8,859.60	-7.51	137.35	8.61	2.49	-0.37	171.57
8,962.00	0.35	14.65	8,954.59	-6.41	137.56	7.51	0.70	-0.69	5.27
9,056.00	0.22	306.98	9,048.59	-6.02	137.49	7.12	0.36	-0.14	-71.99
9,151.00	0.57	8.59	9,143.59	-5.44	137.42	6.55	0.53	0.37	64.85
9,245.00	1.41	327.10	9,237.57	-4.01	136.86	5.11	1.12	0.89	-44.14
9,340.00	1.41	2.79	9,332.54	-1.86	136.28	2.95	0.91	0.00	37.57
9,434.00	2.24	62.20	9,426.50	0.15	137.96	0.96	2.07	0.88	63.20
9,529.00	1.01	32.14	9,521.46	1.73	140.05	-0.60	1.53	-1.29	-31.64
9,623.00	1.10	4.98	9,615.45	3.33	140.57	-2.20	0.54	0.10	-28.89
9,718.00	2.20	78.37	9,710.42	4.60	142.44	-3.46	2.27	1.16	77.25
9,812.00	1.49	77.67	9,804.37	5.23	145.40	-4.06	0.76	-0.76	-0.74

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Wellbore: Aim MWD Surveys
Design: Aim MWD Surveys

Local Co-ordinate Reference: Site Dagger State Com 505H
TVD Reference: 3781'GL+25'KB @ 3806.00usft (H&P 262)
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9,907.00	0.62	36.62	9,899.35	5.90	146.91	-4.72	1.16	-0.92	-43.21
10,001.00	0.18	36.36	9,993.35	6.43	147.30	-5.25	0.47	-0.47	-0.28
10,096.00	0.13	219.35	10,088.35	6.47	147.32	-5.28	0.33	-0.05	-186.33
10,190.00	1.10	139.63	10,182.34	5.70	147.84	-4.51	1.15	1.03	-84.81
10,285.00	2.46	166.53	10,277.30	3.02	148.90	-1.82	1.64	1.43	28.32
10,399.00	10.24	180.33	10,390.51	-9.51	149.42	10.71	6.91	6.82	12.11
10,493.00	18.99	174.96	10,481.39	-33.15	150.71	34.36	9.41	9.31	-5.71
10,588.00	22.77	175.67	10,570.13	-66.89	153.46	68.12	3.99	3.98	0.75
10,635.00	28.92	177.16	10,612.41	-87.33	154.71	88.57	13.16	13.09	3.17
10,682.00	34.37	180.06	10,652.41	-111.97	155.26	113.21	12.04	11.60	6.17
10,776.00	39.38	179.27	10,727.58	-168.35	155.61	169.60	5.35	5.33	-0.84
10,823.00	44.09	179.97	10,762.65	-199.63	155.81	200.87	10.07	10.02	1.49
10,871.00	51.30	180.85	10,794.93	-235.10	155.54	236.35	15.08	15.02	1.83
10,918.00	56.84	182.87	10,822.50	-273.12	154.28	274.35	12.29	11.79	4.30
10,965.00	59.34	183.49	10,847.34	-312.95	152.07	314.17	5.44	5.32	1.32
11,012.00	63.08	181.73	10,869.98	-354.09	150.20	355.29	8.61	7.96	-3.74
11,060.00	69.58	181.73	10,889.24	-398.01	148.88	399.19	13.54	13.54	0.00
11,107.00	72.40	183.23	10,904.55	-442.40	146.95	443.57	6.72	6.00	3.19
11,154.00	72.13	182.70	10,918.86	-487.11	144.63	488.25	1.22	-0.57	-1.13
11,201.00	74.81	182.26	10,932.23	-532.12	142.69	533.25	5.77	5.70	-0.94
11,249.00	81.49	181.20	10,942.09	-579.05	141.27	580.16	14.08	13.92	-2.21
11,296.00	85.58	181.29	10,947.38	-625.73	140.26	626.83	8.70	8.70	0.19
11,343.00	84.92	180.77	10,951.27	-672.56	139.42	673.65	1.79	-1.40	-1.11
11,390.00	87.69	179.10	10,954.30	-719.45	139.47	720.55	6.88	5.89	-3.55
11,437.00	89.19	179.18	10,955.58	-766.43	140.18	767.53	3.20	3.19	0.17
11,532.00	88.79	181.20	10,957.25	-861.41	139.86	862.50	2.17	-0.42	2.13
11,559.00	88.79	181.29	10,957.82	-888.40	139.28	889.49	0.33	0.00	0.33
11,652.00	88.31	181.38	10,960.18	-981.34	137.11	982.41	0.53	-0.52	0.10
11,748.00	87.74	181.38	10,963.48	-1,077.26	134.80	1,078.30	0.59	-0.59	0.00
11,842.00	88.44	180.15	10,966.62	-1,171.19	133.54	1,172.23	1.50	0.74	-1.31
11,937.00	88.70	178.57	10,968.99	-1,266.15	134.61	1,267.19	1.69	0.27	-1.66
12,031.00	88.97	174.52	10,970.90	-1,359.94	140.27	1,361.03	4.32	0.29	-4.31
12,126.00	89.67	173.56	10,972.03	-1,454.42	150.13	1,455.58	1.25	0.74	-1.01
12,220.00	90.37	171.62	10,971.99	-1,547.63	162.25	1,548.89	2.19	0.74	-2.06
12,314.00	91.03	171.98	10,970.85	-1,640.66	175.66	1,642.02	0.80	0.70	0.38
12,409.00	91.03	174.26	10,969.14	-1,734.96	187.04	1,736.40	2.40	0.00	2.40
12,503.00	89.80	175.67	10,968.46	-1,828.59	195.29	1,830.10	1.99	-1.31	1.50
12,598.00	89.10	174.96	10,969.37	-1,923.27	203.05	1,924.83	1.05	-0.74	-0.75
12,692.00	89.93	174.79	10,970.17	-2,016.89	211.44	2,018.52	0.90	0.88	-0.18
12,786.00	91.34	175.76	10,969.12	-2,110.56	219.18	2,112.25	1.82	1.50	1.03
12,881.00	91.30	177.69	10,966.93	-2,205.37	224.61	2,207.10	2.03	-0.04	2.03
12,975.00	88.84	179.53	10,966.82	-2,299.33	226.89	2,301.08	3.27	-2.62	1.96
13,069.00	87.52	179.18	10,969.81	-2,393.28	227.95	2,395.03	1.45	-1.40	-0.37
13,163.00	88.66	179.18	10,972.94	-2,487.21	229.29	2,488.98	1.21	1.21	0.00

Aim Directional Services, LLC

Survey Report

Company: Advance Energy Partners, LLC
Project: Lea County, New Mexico
Site: Dagger State Com 505H
Well: #505H
Wellbore: Aim MWD Surveys
Design: Aim MWD Surveys

Local Co-ordinate Reference: Site Dagger State Com 505H
TVD Reference: 3781'GL+25'KB @ 3806.00usft (H&P 262)
MD Reference: 3781'GL+25'KB @ 3806.00usft (H&P 262)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 Single User Db

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)
13,257.00	88.88	178.92	10,974.96	-2,581.18	230.85	2,582.95	0.36	0.23	-0.28
13,352.00	88.26	179.18	10,977.33	-2,676.14	232.42	2,677.92	0.71	-0.65	0.27
13,446.00	89.19	178.74	10,979.42	-2,770.10	234.13	2,771.89	1.09	0.99	-0.47
13,567.00	88.75	178.66	10,981.59	-2,891.05	236.88	2,892.85	0.37	-0.36	-0.07
13,661.00	89.71	178.30	10,982.86	-2,985.00	239.37	2,986.83	1.09	1.02	-0.38
13,755.00	88.66	178.04	10,984.19	-3,078.94	242.37	3,080.79	1.15	-1.12	-0.28
13,850.00	90.11	176.99	10,985.21	-3,173.85	246.49	3,175.72	1.88	1.53	-1.11
13,944.00	92.44	178.04	10,983.12	-3,267.73	250.56	3,269.63	2.72	2.48	1.12
14,039.00	91.60	179.80	10,979.77	-3,362.65	252.35	3,364.56	2.05	-0.88	1.85
14,133.00	91.12	180.15	10,977.54	-3,456.62	252.39	3,458.53	0.63	-0.51	0.37
14,227.00	90.64	180.33	10,976.10	-3,550.61	252.00	3,552.51	0.55	-0.51	0.19
14,321.00	90.37	181.29	10,975.27	-3,644.59	250.67	3,646.49	1.06	-0.29	1.02
14,416.00	89.49	181.20	10,975.39	-3,739.57	248.61	3,741.44	0.93	-0.93	-0.09
14,510.00	90.33	181.03	10,975.53	-3,833.55	246.78	3,835.41	0.91	0.89	-0.18
14,605.00	89.32	180.94	10,975.82	-3,928.53	245.14	3,930.38	1.07	-1.06	-0.09
14,700.00	89.63	180.94	10,976.69	-4,023.52	243.59	4,025.34	0.33	0.33	0.00
14,794.00	89.19	181.03	10,977.66	-4,117.50	241.97	4,119.31	0.48	-0.47	0.10
14,888.00	89.01	181.12	10,979.14	-4,211.47	240.21	4,213.26	0.21	-0.19	0.10
14,983.00	88.44	181.38	10,981.25	-4,306.42	238.14	4,308.20	0.66	-0.60	0.27
15,077.00	87.91	182.00	10,984.25	-4,400.33	235.36	4,402.08	0.87	-0.56	0.66
15,172.00	87.30	181.12	10,988.22	-4,495.21	232.78	4,496.94	1.13	-0.64	-0.93
15,266.00	85.85	178.48	10,993.83	-4,589.04	233.11	4,590.76	3.20	-1.54	-2.81
15,360.00	85.71	177.60	11,000.75	-4,682.72	236.31	4,684.47	0.95	-0.15	-0.94
15,454.00	87.16	175.49	11,006.60	-4,776.36	241.97	4,778.15	2.72	1.54	-2.24
15,549.00	89.58	175.84	11,009.30	-4,871.05	249.14	4,872.89	2.57	2.55	0.37
15,643.00	91.96	176.99	11,008.03	-4,964.85	255.02	4,966.73	2.81	2.53	1.22
15,738.00	91.12	178.83	11,005.48	-5,059.74	258.48	5,061.66	2.13	-0.88	1.94
15,832.00	90.29	179.97	11,004.32	-5,153.73	259.47	5,155.65	1.50	-0.88	1.21
15,927.00	89.32	180.68	11,004.65	-5,248.73	258.93	5,250.63	1.27	-1.02	0.75
16,020.00	89.63	180.59	11,005.50	-5,341.72	257.90	5,343.61	0.35	0.33	-0.10
16,115.00	90.20	179.36	11,005.64	-5,436.71	257.94	5,438.61	1.43	0.60	-1.29
16,209.00	90.02	180.15	11,005.46	-5,530.71	258.34	5,532.61	0.86	-0.19	0.84
16,303.00	89.93	180.94	11,005.50	-5,624.71	257.45	5,626.59	0.85	-0.10	0.84
16,397.00	90.42	180.94	11,005.21	-5,718.69	255.91	5,720.56	0.52	0.52	0.00
16,492.00	91.03	179.27	11,004.01	-5,813.68	255.73	5,815.55	1.87	0.64	-1.76
16,586.00	90.95	179.18	11,002.39	-5,907.66	257.00	5,909.53	0.13	-0.09	-0.10
16,681.00	90.37	179.36	11,001.29	-6,002.64	258.21	6,004.52	0.64	-0.61	0.19
16,775.00	90.33	179.53	11,000.72	-6,096.64	259.12	6,098.52	0.19	-0.04	0.18
16,869.00	88.92	179.36	11,001.33	-6,190.63	260.03	6,192.52	1.51	-1.50	-0.18
16,963.00	88.09	179.10	11,003.79	-6,284.59	261.30	6,286.48	0.93	-0.88	-0.28
17,058.00	87.82	180.41	11,007.18	-6,379.52	261.70	6,381.42	1.41	-0.28	1.38
17,152.00	88.70	180.68	11,010.03	-6,473.48	260.81	6,475.36	0.98	0.94	0.29
17,246.00	89.45	182.00	11,011.55	-6,567.43	258.61	6,569.30	1.61	0.80	1.40

Aim Directional Services, LLC

Survey Report

Company: Advance Energy Partners, LLC
Project: Lea County, New Mexico
Site: Dagger State Com 505H
Well: #505H
Wellbore: Aim MWD Surveys
Design: Aim MWD Surveys

Local Co-ordinate Reference: Site Dagger State Com 505H
TVD Reference: 3781'GL+25'KB @ 3806.00usft (H&P 262)
MD Reference: 3781'GL+25'KB @ 3806.00usft (H&P 262)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 Single User Db

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)	
17,341.00	90.64	180.41	11,011.47	-6,662.41	256.61	6,664.25	2.09	1.25	-1.67	
17,435.00	89.49	180.33	11,011.37	-6,756.41	256.01	6,758.24	1.23	-1.22	-0.09	
17,530.00	89.27	180.85	11,012.40	-6,851.39	255.03	6,853.22	0.59	-0.23	0.55	
17,624.00	88.84	179.97	11,013.95	-6,945.38	254.36	6,947.20	1.04	-0.46	-0.94	
17,719.00	87.69	179.80	11,016.82	-7,040.33	254.55	7,042.15	1.22	-1.21	-0.18	
17,813.00	89.10	179.53	11,019.45	-7,134.29	255.10	7,136.11	1.53	1.50	-0.29	
17,908.00	91.03	179.01	11,019.35	-7,229.28	256.31	7,231.10	2.10	2.03	-0.55	
18,002.00	90.33	179.62	11,018.23	-7,323.26	257.43	7,325.10	0.99	-0.74	0.65	
18,096.00	89.67	180.33	11,018.23	-7,417.26	257.47	7,419.09	1.03	-0.70	0.76	
18,191.00	89.58	178.92	11,018.85	-7,512.26	258.09	7,514.09	1.49	-0.09	-1.48	
18,285.00	88.40	179.27	11,020.51	-7,606.23	259.58	7,608.07	1.31	-1.26	0.37	
18,379.00	88.31	179.18	11,023.21	-7,700.18	260.85	7,702.03	0.14	-0.10	-0.10	
18,474.00	89.49	179.18	11,025.03	-7,795.15	262.21	7,797.01	1.24	1.24	0.00	
18,568.00	90.64	178.92	11,024.93	-7,889.14	263.77	7,891.00	1.25	1.22	-0.28	
18,663.00	90.37	178.83	11,024.09	-7,984.12	265.63	7,985.99	0.30	-0.28	-0.09	
18,757.00	90.59	179.27	11,023.30	-8,078.10	267.19	8,079.98	0.52	0.23	0.47	
18,851.00	90.29	179.45	11,022.58	-8,172.09	268.24	8,173.98	0.37	-0.32	0.19	
18,946.00	89.54	179.80	11,022.72	-8,267.09	268.86	8,268.98	0.87	-0.79	0.37	
19,040.00	88.44	179.53	11,024.38	-8,361.07	269.41	8,362.96	1.20	-1.17	-0.29	
19,134.00	87.78	179.36	11,027.48	-8,455.01	270.32	8,456.91	0.73	-0.70	-0.18	
19,229.00	87.16	178.74	11,031.67	-8,549.91	271.89	8,551.81	0.92	-0.65	-0.65	
19,293.00	87.08	178.74	11,034.89	-8,613.81	273.30	8,615.73	0.13	-0.13	0.00	
Last Aim MWD Survey										
19,354.00	87.08	178.74	11,037.99	-8,674.72	274.64	8,676.64	0.00	0.00	0.00	
Projection to BHL										

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
195.00	195.00	-0.74	0.09	First Aim MWD Survey
19,293.00	11,034.89	-8,613.81	273.30	Last Aim MWD Survey
19,354.00	11,037.99	-8,674.72	274.64	Projection to BHL

HOBBS OCD

SEP 17 2018

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Advance Energy Partners, LLC

Dagger State Com 505H
Lea County, New Mexico
WT-18-078
H&P 262
Plan 2.0 Final PVA



SITE DETAILS: Dagger State Com 505H	
Site Centre Northing:	529194.91
Easting:	766028.90
Positional Uncertainty:	0.00
Convergence:	0.39
Local North:	Grid



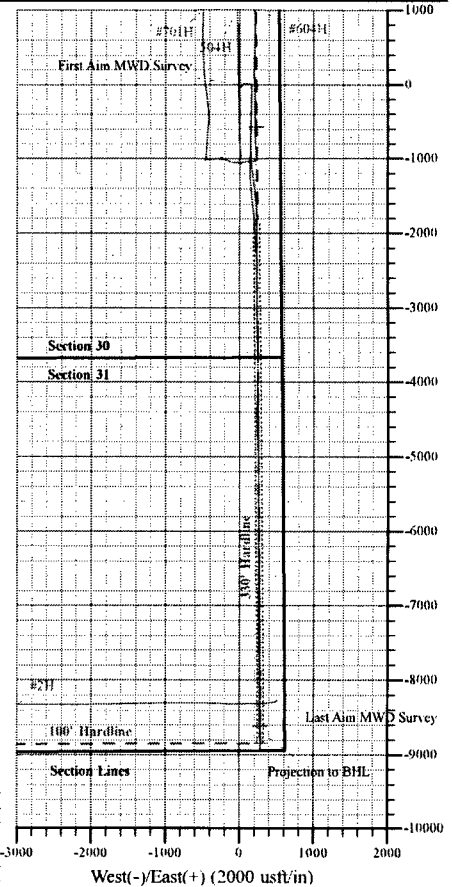
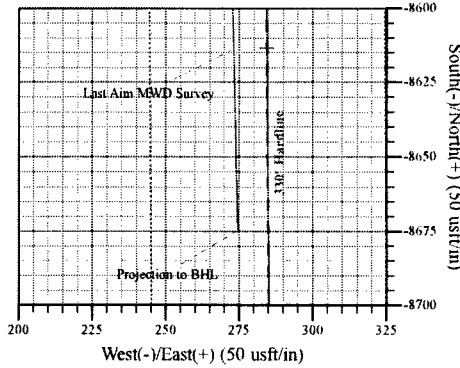
Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.39°

Magnetic Field
Strength: 48235 μ T
Dip Angle: 60.30°
Date: 4/26/2018
Model: MVHD

Magnetic North: 6.39° to Grid North

Note: Aim is not responsible for any collisions or issues against well-to-well effect wells. The offset well information shown in this drawing was obtained from a public site, which could be missing or have inaccurate data.

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:	
3781'GL+25'KB @ 3806.00usf (H&P 262)	



SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation	
1	19293.00	87.08	178.74	11034.89	-8613.81	273.30	0.00	0.00	8615.73	Last Aim MWD Survey	
2	19354.00	87.08	178.74	11037.99	-8674.72	274.64	0.00	0.00	8676.64	Projection to BHL	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Dagger505H)	0.00	-569.11	220.00	528625.80	766248.90	32° 27' 4.125 N	103° 36' 15.121 W
LTP (Dagger505H)	0.00	-8613.41	284.50	520581.50	766313.40	32° 25' 44.523 N	103° 36' 15.009 W
PBHL r4 (Dagger505H)	11020.00	-8843.41	286.40	520351.50	766315.30	32° 25' 42.247 N	103° 36' 15.006 W

