

HOFER

APR 21 2016

RECEIVED



LEAM

Drilling Systems, Inc.

DEVON ENERGY

Lea County, NM (NAD-83)

Arabian 30-19 Fed Com

1H

ST

Plan: ST Plan #1

Standard Planning Report

04 March, 2015


devon

APR 22 2016



LEAM Drilling Systems LLC Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 1H
Company:	DEVON ENERGY	TVD Reference:	3554.8' GL + 25' RKB @ 3579.80usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3554.8' GL + 25' RKB @ 3579.80usft
Site:	Arabian 30-19 Fed Com	North Reference:	Grid
Well:	1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ST		
Design:	ST Plan #1		

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

Site	Arabian 30-19 Fed Com			
Site Position:		Northing:	401,194.31 usft	Latitude: 32° 6' 5.335 N
From:	Map	Easting:	730,969.30 usft	Longitude: 103° 43' 15.326 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.33 °

Well	1H			
Well Position	+N/-S	0.00 usft	Northing:	401,194.31 usft
	+E/-W	0.00 usft	Easting:	730,969.30 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,579.80 usft	Ground Level: 3,554.80 usft

Wellbore	ST			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)
	BGGM2014	3/4/2015	7.36	59.95
				Field Strength (nT) 48,101

Design	ST Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	9,819.07
Vertical Section:	Depth From (TVD)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.80

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
9,819.07	0.00	0.00	9,819.07	0.00	0.00	0.00	0.00	0.00	0.00	
10,724.19	90.51	359.80	10,392.01	578.08	-2.01	10.00	10.00	-0.02	359.80	
17,658.16	90.51	359.80	10,330.00	7,511.72	-26.07	0.00	0.00	0.00	0.00	PBHL (A3019FC 1H)



LEAM Drilling Systems LLC
Planning Report



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Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Arabian 30-19 Fed Com
Well: 1H
Wellbore: ST
Design: ST Plan #1

Local Co-ordinate Reference: Well 1H
TVD Reference: 3554.8' GL + 25' RKB @ 3579.80usft
MD Reference: 3554.8' GL + 25' RKB @ 3579.80usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
SHL (A3019FC 1H)									
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
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
1,800.00	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
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	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)
5,300.00	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
8,600.00	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
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
9,440.00	0.00	0.00	9,440.00	0.00	0.00	0.00	0.00	0.00	0.00
1st BS SS									
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
9,660.00	0.00	0.00	9,660.00	0.00	0.00	0.00	0.00	0.00	0.00
2nd BS LM									
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
9,819.07	0.00	0.00	9,819.07	0.00	0.00	0.00	0.00	0.00	0.00
KOP 10° DLS									
9,850.00	3.09	359.80	9,849.99	0.83	0.00	0.83	10.00	10.00	0.00



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North Reference: Grid
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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)
9,900.00	8.09	359.80	9,899.73	5.71	-0.02	5.71	10.00	10.00	0.00
9,950.00	13.09	359.80	9,948.86	14.89	-0.05	14.89	10.00	10.00	0.00
10,000.00	18.09	359.80	9,997.01	28.33	-0.10	28.33	10.00	10.00	0.00
10,024.36	20.53	359.80	10,020.00	36.39	-0.13	36.39	10.00	10.00	0.00
2nd BS SS									
10,050.00	23.09	359.80	10,043.80	45.91	-0.16	45.91	10.00	10.00	0.00
10,100.00	28.09	359.80	10,088.88	67.50	-0.23	67.50	10.00	10.00	0.00
10,150.00	33.09	359.80	10,131.90	92.94	-0.32	92.94	10.00	10.00	0.00
10,200.00	38.09	359.80	10,172.55	122.03	-0.42	122.03	10.00	10.00	0.00
10,250.00	43.09	359.80	10,210.51	154.56	-0.54	154.56	10.00	10.00	0.00
10,300.00	48.09	359.80	10,245.48	190.26	-0.66	190.27	10.00	10.00	0.00
10,350.00	53.09	359.80	10,277.21	228.88	-0.79	228.89	10.00	10.00	0.00
10,380.73	56.17	359.80	10,295.00	253.94	-0.88	253.94	10.00	10.00	0.00
2nd BS SS L									
10,400.00	58.09	359.80	10,305.46	270.12	-0.94	270.13	10.00	10.00	0.00
10,450.00	63.09	359.80	10,330.00	313.67	-1.09	313.67	10.00	10.00	0.00
10,500.00	68.09	359.80	10,350.66	359.18	-1.25	359.19	10.00	10.00	0.00
10,550.00	73.09	359.80	10,367.26	406.33	-1.41	406.33	10.00	10.00	0.00
10,600.00	78.09	359.80	10,379.70	454.74	-1.58	454.74	10.00	10.00	0.00
10,650.00	83.09	359.80	10,387.87	504.05	-1.75	504.05	10.00	10.00	0.00
10,700.00	88.09	359.80	10,391.71	553.89	-1.92	553.89	10.00	10.00	0.00
10,724.19	90.51	359.80	10,392.01	578.08	-2.01	578.08	10.00	10.00	0.00
LP									
10,800.00	90.51	359.80	10,391.33	653.88	-2.27	653.88	0.00	0.00	0.00
10,900.00	90.51	359.80	10,390.43	753.88	-2.62	753.88	0.00	0.00	0.00
11,000.00	90.51	359.80	10,389.54	853.87	-2.96	853.88	0.00	0.00	0.00
11,100.00	90.51	359.80	10,388.64	953.87	-3.31	953.87	0.00	0.00	0.00
11,200.00	90.51	359.80	10,387.75	1,053.86	-3.66	1,053.87	0.00	0.00	0.00
11,300.00	90.51	359.80	10,386.86	1,153.86	-4.00	1,153.86	0.00	0.00	0.00
11,400.00	90.51	359.80	10,385.96	1,253.85	-4.35	1,253.86	0.00	0.00	0.00
11,500.00	90.51	359.80	10,385.07	1,353.85	-4.70	1,353.86	0.00	0.00	0.00
11,600.00	90.51	359.80	10,384.17	1,453.84	-5.05	1,453.85	0.00	0.00	0.00
11,700.00	90.51	359.80	10,383.28	1,553.84	-5.39	1,553.85	0.00	0.00	0.00
11,800.00	90.51	359.80	10,382.39	1,653.83	-5.74	1,653.84	0.00	0.00	0.00
11,900.00	90.51	359.80	10,381.49	1,753.83	-6.09	1,753.84	0.00	0.00	0.00
12,000.00	90.51	359.80	10,380.60	1,853.83	-6.43	1,853.84	0.00	0.00	0.00
12,100.00	90.51	359.80	10,379.70	1,953.82	-6.78	1,953.83	0.00	0.00	0.00
12,200.00	90.51	359.80	10,378.81	2,053.82	-7.13	2,053.83	0.00	0.00	0.00
12,300.00	90.51	359.80	10,377.91	2,153.81	-7.47	2,153.82	0.00	0.00	0.00
12,400.00	90.51	359.80	10,377.02	2,253.81	-7.82	2,253.82	0.00	0.00	0.00
12,500.00	90.51	359.80	10,376.13	2,353.80	-8.17	2,353.82	0.00	0.00	0.00
12,600.00	90.51	359.80	10,375.23	2,453.80	-8.52	2,453.81	0.00	0.00	0.00
12,700.00	90.51	359.80	10,374.34	2,553.79	-8.86	2,553.81	0.00	0.00	0.00
12,800.00	90.51	359.80	10,373.44	2,653.79	-9.21	2,653.80	0.00	0.00	0.00
12,900.00	90.51	359.80	10,372.55	2,753.78	-9.56	2,753.80	0.00	0.00	0.00
13,000.00	90.51	359.80	10,371.65	2,853.78	-9.90	2,853.80	0.00	0.00	0.00
13,100.00	90.51	359.80	10,370.76	2,953.78	-10.25	2,953.79	0.00	0.00	0.00
13,200.00	90.51	359.80	10,369.87	3,053.77	-10.60	3,053.79	0.00	0.00	0.00
13,300.00	90.51	359.80	10,368.97	3,153.77	-10.95	3,153.78	0.00	0.00	0.00
13,400.00	90.51	359.80	10,368.08	3,253.76	-11.29	3,253.78	0.00	0.00	0.00
13,500.00	90.51	359.80	10,367.18	3,353.76	-11.64	3,353.78	0.00	0.00	0.00
13,600.00	90.51	359.80	10,366.29	3,453.75	-11.99	3,453.77	0.00	0.00	0.00
13,700.00	90.51	359.80	10,365.39	3,553.75	-12.33	3,553.77	0.00	0.00	0.00



LEAM Drilling Systems LLC
Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Arabian 30-19 Fed Com
Well: 1H
Wellbore: ST
Design: ST Plan #1

Local Co-ordinate Reference: Well 1H
TVD Reference: 3554.8' GL + 25' RKB @ 3579.80usft
MD Reference: 3554.8' GL + 25' RKB @ 3579.80usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
13,800.00	90.51	359.80	10,364.50	3,653.74	-12.68	3,653.76	0.00	0.00	0.00
13,900.00	90.51	359.80	10,363.61	3,753.74	-13.03	3,753.76	0.00	0.00	0.00
14,000.00	90.51	359.80	10,362.71	3,853.73	-13.37	3,853.76	0.00	0.00	0.00
14,100.00	90.51	359.80	10,361.82	3,953.73	-13.72	3,953.75	0.00	0.00	0.00
14,200.00	90.51	359.80	10,360.92	4,053.72	-14.07	4,053.75	0.00	0.00	0.00
14,300.00	90.51	359.80	10,360.03	4,153.72	-14.42	4,153.74	0.00	0.00	0.00
14,400.00	90.51	359.80	10,359.14	4,253.72	-14.76	4,253.74	0.00	0.00	0.00
14,500.00	90.51	359.80	10,358.24	4,353.71	-15.11	4,353.74	0.00	0.00	0.00
14,600.00	90.51	359.80	10,357.35	4,453.71	-15.46	4,453.73	0.00	0.00	0.00
14,700.00	90.51	359.80	10,356.45	4,553.70	-15.80	4,553.73	0.00	0.00	0.00
14,800.00	90.51	359.80	10,355.56	4,653.70	-16.15	4,653.72	0.00	0.00	0.00
14,900.00	90.51	359.80	10,354.66	4,753.69	-16.50	4,753.72	0.00	0.00	0.00
15,000.00	90.51	359.80	10,353.77	4,853.69	-16.85	4,853.72	0.00	0.00	0.00
15,100.00	90.51	359.80	10,352.88	4,953.68	-17.19	4,953.71	0.00	0.00	0.00
15,200.00	90.51	359.80	10,351.98	5,053.68	-17.54	5,053.71	0.00	0.00	0.00
15,300.00	90.51	359.80	10,351.09	5,153.67	-17.89	5,153.70	0.00	0.00	0.00
15,400.00	90.51	359.80	10,350.19	5,253.67	-18.23	5,253.70	0.00	0.00	0.00
15,500.00	90.51	359.80	10,349.30	5,353.66	-18.58	5,353.70	0.00	0.00	0.00
15,600.00	90.51	359.80	10,348.40	5,453.66	-18.93	5,453.69	0.00	0.00	0.00
15,700.00	90.51	359.80	10,347.51	5,553.66	-19.27	5,553.69	0.00	0.00	0.00
15,800.00	90.51	359.80	10,346.62	5,653.65	-19.62	5,653.68	0.00	0.00	0.00
15,900.00	90.51	359.80	10,345.72	5,753.65	-19.97	5,753.68	0.00	0.00	0.00
16,000.00	90.51	359.80	10,344.83	5,853.64	-20.32	5,853.68	0.00	0.00	0.00
16,100.00	90.51	359.80	10,343.93	5,953.64	-20.66	5,953.67	0.00	0.00	0.00
16,200.00	90.51	359.80	10,343.04	6,053.63	-21.01	6,053.67	0.00	0.00	0.00
16,300.00	90.51	359.80	10,342.15	6,153.63	-21.36	6,153.66	0.00	0.00	0.00
16,400.00	90.51	359.80	10,341.25	6,253.62	-21.70	6,253.66	0.00	0.00	0.00
16,500.00	90.51	359.80	10,340.36	6,353.62	-22.05	6,353.66	0.00	0.00	0.00
16,600.00	90.51	359.80	10,339.46	6,453.61	-22.40	6,453.65	0.00	0.00	0.00
16,700.00	90.51	359.80	10,338.57	6,553.61	-22.74	6,553.65	0.00	0.00	0.00
16,800.00	90.51	359.80	10,337.67	6,653.60	-23.09	6,653.64	0.00	0.00	0.00
16,900.00	90.51	359.80	10,336.78	6,753.60	-23.44	6,753.64	0.00	0.00	0.00
17,000.00	90.51	359.80	10,335.89	6,853.60	-23.79	6,853.64	0.00	0.00	0.00
17,100.00	90.51	359.80	10,334.99	6,953.59	-24.13	6,953.63	0.00	0.00	0.00
17,200.00	90.51	359.80	10,334.10	7,053.59	-24.48	7,053.63	0.00	0.00	0.00
17,300.00	90.51	359.80	10,333.20	7,153.58	-24.83	7,153.62	0.00	0.00	0.00
17,400.00	90.51	359.80	10,332.31	7,253.58	-25.17	7,253.62	0.00	0.00	0.00
17,500.00	90.51	359.80	10,331.41	7,353.57	-25.52	7,353.62	0.00	0.00	0.00
17,600.00	90.51	359.80	10,330.52	7,453.57	-25.87	7,453.61	0.00	0.00	0.00
17,658.16	90.51	359.80	10,330.00	7,511.72	-26.07	7,511.77	0.00	0.00	0.00

TD - PBHL (A3019FC 1H)



LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 1H
Company:	DEVON ENERGY	TVD Reference:	3554.8' GL + 25' RKB @ 3579.80usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3554.8' GL + 25' RKB @ 3579.80usft
Site:	Arabian 30-19 Fed Com	North Reference:	Grid
Well:	1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ST		
Design:	ST Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (A3019FC 1H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	401,194.31	730,969.30	32° 6' 5.335 N	103° 43' 15.326 W
PBHL (A3019FC 1H) - plan hits target center - Point	0.00	0.00	10,330.00	7,511.72	-26.07	408,706.03	730,943.23	32° 7' 19.670 N	103° 43' 15.133 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
860.00	860.00	Rustler		0.00	
1,155.00	1,155.00	Salado		0.00	
4,205.00	4,205.00	Base Salt		0.00	
4,425.00	4,425.00	Delaware		0.00	
4,450.00	4,450.00	Bell Canyon		0.00	
5,255.00	5,255.00	Cherry Canyon		0.00	
6,745.00	6,745.00	Brushy Canyon		0.00	
8,190.00	8,190.00	Lwr Brushy		0.00	
8,410.00	8,410.00	Bone Spring		0.00	
9,440.00	9,440.00	1st BS SS		0.00	
9,660.00	9,660.00	2nd BS LM		0.00	
10,024.36	10,020.00	2nd BS SS		0.00	
10,380.73	10,295.00	2nd BS SS L		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,819.07	9,819.07	0.00	0.00	KOP 10° DLS
10,724.19	10,392.01	578.08	-2.01	LP
17,658.16	10,330.00	7,511.72	-26.07	TD