



30-025-43214

Legacy Reserves Operating

Lea County, NM

Hamon Fed Pad

Hamon Fed Com A #6H

Wellbore #1

Survey: IDS MWD Surveys

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Standard Survey Report

03 August, 2017





Integrity Directional Services, LLC

Survey Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Well:	Hamon Fed Com A #6H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Multi User Db

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

Site	Hamon Fed Pad		
Site Position:		Northing:	580,846.2000 usft
From:	Map	Easting:	723,480.4000 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.5954069
		Longitude:	-103.7419035
		Grid Convergence:	0.32 °

Well	Hamon Fed Com A #6H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	32.5970280
		Longitude:	-103.7310532
		Ground Level:	3,610.00 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	7/18/2017	7.08
			Dip Angle (°)
			60.55
			Field Strength (nT)
			48,407

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	0.00	0.00	0.00
			Direction (°)
			178.35

Survey Program	Date 8/3/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name
198.00	15,430.00	IDS MWD Surveys (Wellbore #1)	MWD
			Description
			MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
A #6H Drilling Window									
198.00	0.20	265.60	198.00	-0.03	-0.34	0.02	0.10	0.10	0.00
First MWD Survey									
289.00	0.30	256.70	289.00	-0.09	-0.73	0.07	0.12	0.11	-9.78
380.00	0.40	288.50	380.00	-0.05	-1.27	0.01	0.24	0.11	34.95
471.00	0.40	240.80	471.00	-0.10	-1.85	0.05	0.36	0.00	-52.42
562.00	0.10	195.50	561.99	-0.33	-2.14	0.27	0.37	-0.33	-49.78
652.00	0.30	210.60	651.99	-0.61	-2.29	0.55	0.23	0.22	16.78
743.00	0.40	226.40	742.99	-1.04	-2.64	0.96	0.15	0.11	17.36



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835.00	0.30	231.10	834.99	-1.41	-3.06	1.32	0.11	-0.11	5.11
925.00	0.10	239.40	924.99	-1.60	-3.31	1.50	0.22	-0.22	9.22
1,016.00	0.20	267.20	1,015.99	-1.64	-3.54	1.54	0.13	0.11	30.55
1,107.00	0.20	260.90	1,106.99	-1.68	-3.85	1.57	0.02	0.00	-6.92
1,198.00	0.30	270.00	1,197.99	-1.70	-4.25	1.58	0.12	0.11	10.00
1,289.00	0.30	289.90	1,288.99	-1.62	-4.71	1.49	0.11	0.00	21.87
1,378.00	0.90	278.90	1,377.98	-1.43	-5.62	1.27	0.68	0.67	-12.36
1,468.00	0.90	281.20	1,467.97	-1.19	-7.01	0.99	0.04	0.00	2.56
1,557.00	0.60	282.00	1,556.96	-0.95	-8.15	0.72	0.34	-0.34	0.90
1,682.00	0.60	265.50	1,681.96	-0.87	-9.44	0.60	0.14	0.00	-13.20
1,787.00	1.80	34.70	1,786.94	0.44	-9.05	-0.70	2.12	1.14	123.05
1,871.00	2.30	34.70	1,870.89	2.91	-7.34	-3.12	0.60	0.60	0.00
1,965.00	2.20	31.60	1,964.81	6.00	-5.32	-6.15	0.17	-0.11	-3.30
2,060.00	1.98	34.30	2,059.75	8.91	-3.44	-9.00	0.25	-0.23	2.84
2,154.00	2.10	9.90	2,153.69	11.95	-2.23	-12.01	0.93	0.13	-25.96
2,249.00	3.50	349.20	2,248.58	16.51	-2.48	-16.58	1.80	1.47	-21.79
2,343.00	3.00	350.40	2,342.43	21.75	-3.42	-21.84	0.54	-0.53	1.28
2,437.00	2.70	354.30	2,436.31	26.38	-4.05	-26.49	0.38	-0.32	4.15
2,532.00	2.33	352.96	2,531.22	30.53	-4.51	-30.64	0.39	-0.39	-1.41
2,626.00	1.85	354.10	2,625.16	33.93	-4.90	-34.06	0.51	-0.51	1.21
2,721.00	1.49	4.04	2,720.12	36.69	-4.97	-36.82	0.49	-0.38	10.46
2,815.00	1.23	4.74	2,814.09	38.91	-4.80	-39.04	0.28	-0.28	0.74
2,909.00	1.19	11.51	2,908.07	40.88	-4.53	-40.99	0.16	-0.04	7.20
3,004.00	1.01	14.23	3,003.05	42.65	-4.12	-42.75	0.20	-0.19	2.86
3,098.00	0.75	13.62	3,097.04	44.05	-3.77	-44.15	0.28	-0.28	-0.65
3,193.00	0.79	21.09	3,192.03	45.27	-3.39	-45.35	0.11	0.04	7.86
3,287.00	0.92	11.15	3,286.02	46.62	-3.01	-46.68	0.21	0.14	-10.57
3,382.00	0.75	13.88	3,381.01	47.97	-2.72	-48.03	0.18	-0.18	2.87
3,476.00	0.79	33.22	3,475.00	49.11	-2.21	-49.15	0.28	0.04	20.57
3,570.00	0.84	27.94	3,568.99	50.26	-1.54	-50.28	0.10	0.05	-5.62
3,665.00	0.75	36.82	3,663.98	51.37	-0.84	-51.37	0.16	-0.09	9.35
3,759.00	0.70	14.23	3,757.98	52.42	-0.33	-52.41	0.31	-0.05	-24.03
3,853.00	0.57	16.25	3,851.97	53.42	-0.06	-53.40	0.14	-0.14	2.15
3,948.00	0.40	23.20	3,946.97	54.18	0.21	-54.15	0.19	-0.18	7.32
4,041.00	0.24	14.30	4,039.97	54.67	0.38	-54.64	0.18	-0.17	-9.57
4,136.00	0.21	6.56	4,134.97	55.04	0.45	-55.00	0.04	-0.03	-8.15
4,230.00	0.37	353.16	4,228.96	55.51	0.44	-55.47	0.18	0.17	-14.26
4,325.00	0.45	0.89	4,323.96	56.19	0.41	-56.15	0.10	0.08	8.14
4,420.00	0.45	358.32	4,418.96	56.93	0.40	-56.90	0.02	0.00	-2.71
4,514.00	0.42	338.80	4,512.96	57.62	0.26	-57.59	0.16	-0.03	-20.77
4,608.00	0.51	325.44	4,606.95	58.29	-0.10	-58.27	0.15	0.10	-14.21
4,703.00	0.52	322.80	4,701.95	58.98	-0.60	-58.97	0.03	0.01	-2.78
4,797.00	0.61	312.87	4,795.95	59.66	-1.22	-59.67	0.14	0.10	-10.56



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4,892.00	0.89	325.82	4,890.94	60.61	-2.01	-60.65	0.34	0.29	13.63
4,986.00	1.03	324.02	4,984.92	61.90	-2.91	-61.96	0.15	0.15	-1.91
5,081.00	1.22	330.49	5,079.91	63.47	-3.91	-63.56	0.24	0.20	6.81
5,175.00	1.40	330.50	5,173.88	65.34	-4.97	-65.46	0.19	0.19	0.01
5,336.00	1.79	332.04	5,334.82	69.28	-7.12	-69.45	0.24	0.24	0.96
5,375.00	1.76	333.27	5,373.80	70.35	-7.67	-70.54	0.12	-0.08	3.15
5,469.00	1.80	339.34	5,467.75	73.02	-8.84	-73.24	0.20	0.04	6.46
5,564.00	2.15	36.82	5,562.71	75.84	-8.30	-76.05	2.02	0.37	60.51
5,658.00	2.99	84.02	5,656.62	77.51	-4.81	-77.62	2.34	0.89	50.21
5,752.00	3.74	118.47	5,750.47	76.30	0.33	-76.26	2.25	0.80	36.65
5,847.00	3.74	153.54	5,845.28	72.05	4.43	-71.89	2.37	0.00	36.92
5,941.00	4.31	158.02	5,939.05	66.03	7.12	-65.80	0.69	0.61	4.77
6,036.00	4.75	157.67	6,033.75	59.08	9.95	-58.77	0.46	0.46	-0.37
6,130.00	3.69	169.62	6,127.49	52.51	11.97	-52.14	1.46	-1.13	12.71
6,225.00	5.23	157.76	6,222.21	45.49	14.16	-45.07	1.88	1.62	-12.48
6,319.00	7.25	152.04	6,315.64	36.29	18.57	-35.74	2.25	2.15	-6.09
6,413.00	7.12	150.20	6,408.91	25.99	24.24	-25.28	0.28	-0.14	-1.96
6,508.00	6.59	150.64	6,503.23	16.13	29.84	-15.27	0.56	-0.56	0.46
6,602.00	7.34	146.95	6,596.53	6.40	35.76	-5.37	0.93	0.80	-3.93
6,697.00	7.30	146.07	6,690.76	-3.70	42.44	4.92	0.13	-0.04	-0.93
6,791.00	6.68	146.86	6,784.06	-13.23	48.76	14.63	0.67	-0.66	0.84
6,885.00	7.43	151.96	6,877.35	-23.17	54.61	24.73	1.04	0.80	5.43
6,980.00	7.60	156.70	6,971.53	-34.36	59.98	36.07	0.68	0.18	4.99
7,074.00	6.99	158.72	7,064.77	-45.40	64.51	47.24	0.70	-0.65	2.15
7,169.00	6.24	158.81	7,159.14	-55.60	68.48	57.55	0.79	-0.79	0.09
7,263.00	6.20	158.46	7,252.59	-65.09	72.19	67.14	0.06	-0.04	-0.37
7,358.00	5.45	158.46	7,347.09	-74.06	75.73	76.20	0.79	-0.79	0.00
7,452.00	6.07	154.06	7,440.62	-82.68	79.54	84.93	0.81	0.66	-4.68
7,546.00	7.47	155.73	7,533.96	-92.72	84.23	95.10	1.50	1.49	1.78
7,641.00	7.03	155.56	7,628.20	-103.64	89.17	106.16	0.46	-0.46	-0.18
7,735.00	6.15	159.43	7,721.58	-113.59	93.32	116.23	1.05	-0.94	4.12
7,830.00	4.88	160.57	7,816.14	-122.17	96.45	124.89	1.34	-1.34	1.20
7,924.00	6.46	156.17	7,909.68	-130.77	99.92	133.59	1.74	1.68	-4.68
8,019.00	6.64	155.21	8,004.06	-140.65	104.38	143.59	0.22	0.19	-1.01
8,113.00	6.02	157.05	8,097.48	-150.12	108.58	153.18	0.69	-0.66	1.96
8,208.00	6.95	154.77	8,191.87	-159.91	112.97	163.09	1.02	0.98	-2.40
8,302.00	6.55	154.68	8,285.22	-169.90	117.69	173.21	0.43	-0.43	-0.10
8,396.00	5.58	156.09	8,378.70	-178.92	121.84	182.35	1.04	-1.03	1.50
8,491.00	6.59	149.41	8,473.16	-187.84	126.48	191.40	1.30	1.06	-7.03
8,584.00	5.45	151.87	8,565.65	-196.33	131.28	200.02	1.26	-1.23	2.65
8,679.00	5.99	149.23	8,660.17	-204.57	135.94	208.39	0.63	0.57	-2.78
8,771.00	5.14	158.55	8,751.74	-212.53	139.91	216.46	1.35	-0.92	10.13
8,865.00	6.55	163.73	8,845.25	-221.59	142.95	225.61	1.60	1.50	5.51
8,960.00	5.89	167.34	8,939.69	-231.55	145.54	235.64	0.81	-0.69	3.80



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9,054.00	6.51	158.11	9,033.14	-241.20	148.58	245.37	1.25	0.66	-9.82
9,148.00	6.55	142.55	9,126.54	-250.40	153.83	254.72	1.88	0.04	-16.55
9,243.00	6.02	139.30	9,220.97	-258.48	160.37	262.98	0.67	-0.56	-3.42
9,337.00	5.45	140.88	9,314.50	-265.68	166.40	270.36	0.63	-0.61	1.68
9,432.00	6.20	155.47	9,409.01	-273.85	171.38	278.66	1.74	0.79	15.36
9,527.00	6.20	156.97	9,503.46	-283.24	175.51	288.17	0.17	0.00	1.58
9,621.00	5.54	166.55	9,596.97	-292.32	178.56	297.33	1.25	-0.70	10.19
9,716.00	7.12	160.13	9,691.38	-302.32	181.62	307.42	1.82	1.66	-6.76
9,810.00	5.67	159.95	9,784.80	-312.16	185.20	317.36	1.54	-1.54	-0.19
9,884.00	4.57	160.30	9,858.50	-318.37	187.44	323.63	1.49	-1.49	0.47
9,904.00	4.20	160.10	9,878.44	-319.81	187.96	325.08	1.85	-1.85	-1.00
9,951.00	5.50	156.20	9,925.27	-323.49	189.46	328.80	2.85	2.77	-8.30
9,998.00	10.30	156.20	9,971.81	-329.40	192.06	334.78	10.21	10.21	0.00
10,045.00	15.00	160.50	10,017.66	-338.98	195.79	344.47	10.19	10.00	9.15
10,093.00	19.30	164.80	10,063.52	-352.50	199.95	358.10	9.33	8.96	8.96
10,140.00	24.90	177.80	10,107.07	-369.90	202.36	375.57	15.75	11.91	27.66
10,187.00	26.50	184.70	10,149.43	-390.25	201.89	395.89	7.21	3.40	14.68
10,234.00	34.30	185.00	10,189.94	-413.93	199.87	419.50	16.60	16.60	0.64
10,281.00	39.30	183.30	10,227.56	-442.00	197.86	447.50	10.86	10.64	-3.62
10,328.00	42.70	181.30	10,263.03	-472.80	196.64	478.26	7.75	7.23	-4.26
10,376.00	46.70	179.20	10,297.14	-506.55	196.51	511.99	8.88	8.33	-4.38
10,423.00	51.40	177.10	10,327.94	-542.02	197.68	547.48	10.55	10.00	-4.47
10,465.43	56.64	177.55	10,352.86	-576.30	199.28	581.79	12.37	12.34	1.07
Lease Crossing 10465.43'MD/ 581.79'VS									
10,470.00	57.20	177.60	10,355.35	-580.13	199.44	585.62	12.37	12.34	1.00
10,517.00	63.80	179.50	10,378.49	-621.00	200.45	626.50	14.48	14.04	4.04
10,565.00	70.20	181.10	10,397.23	-665.16	200.21	670.64	13.68	13.33	3.33
10,612.00	74.90	180.10	10,411.32	-709.98	199.74	715.43	10.20	10.00	-2.13
10,659.00	80.80	177.50	10,421.21	-755.89	200.71	761.35	13.67	12.55	-5.53
10,706.00	86.40	175.20	10,426.45	-802.48	203.69	808.01	12.87	11.91	-4.89
10,773.00	91.52	174.02	10,427.67	-869.15	209.98	874.83	7.84	7.64	-1.76
10,810.23	90.84	174.19	10,426.90	-906.18	213.80	911.95	1.89	-1.83	0.47
330' Hardline Crossing 10810.23'MD / 911.95'VS									
10,810.66	90.83	174.20	10,426.89	-906.61	213.85	912.38	1.89	-1.83	0.47
H Fed Com#6H FTP									
10,867.00	89.80	174.46	10,426.58	-962.67	219.42	968.58	1.89	-1.83	0.47
10,962.00	87.69	176.30	10,428.67	-1,057.32	227.07	1,063.42	2.95	-2.22	1.94
11,056.00	87.38	178.76	10,432.71	-1,151.14	231.11	1,157.31	2.64	-0.33	2.62
11,150.00	88.92	180.08	10,435.74	-1,245.08	232.06	1,251.24	2.16	1.64	1.40
11,246.00	88.84	180.17	10,437.62	-1,341.07	231.85	1,347.18	0.13	-0.08	0.09
11,340.00	88.31	180.52	10,439.96	-1,435.03	231.29	1,441.09	0.68	-0.56	0.37
11,434.00	89.63	181.57	10,441.65	-1,529.00	229.57	1,534.97	1.79	1.40	1.12
11,529.00	89.85	182.28	10,442.08	-1,623.94	226.38	1,629.78	0.78	0.23	0.75



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Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Well:	Hamon Fed Com A #6H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,623.00	90.68	182.01	10,441.64	-1,717.88	222.86	1,723.57	0.93	0.88	-0.29
11,717.00	90.73	182.80	10,440.49	-1,811.79	218.92	1,817.33	0.84	0.05	0.84
11,812.00	90.64	182.37	10,439.35	-1,906.68	214.64	1,912.07	0.46	-0.09	-0.45
11,905.00	89.76	182.63	10,439.03	-1,999.59	210.58	2,004.82	0.99	-0.95	0.28
12,000.00	88.70	182.63	10,440.30	-2,094.48	206.22	2,099.55	1.12	-1.12	0.00
12,094.00	89.85	180.52	10,441.49	-2,188.43	203.64	2,193.38	2.56	1.22	-2.24
12,188.00	88.92	180.08	10,442.50	-2,282.42	203.15	2,287.32	1.09	-0.99	-0.47
12,282.00	90.81	179.38	10,442.72	-2,376.42	203.59	2,381.29	2.14	2.01	-0.74
12,377.00	88.70	178.94	10,443.13	-2,471.40	204.98	2,476.27	2.27	-2.22	-0.46
12,471.00	90.95	179.55	10,443.42	-2,565.39	206.22	2,570.26	2.48	2.39	0.65
12,565.00	91.60	178.85	10,441.32	-2,659.35	207.53	2,664.22	1.02	0.69	-0.74
12,659.00	92.00	178.59	10,438.37	-2,753.28	209.63	2,758.17	0.51	0.43	-0.28
12,753.00	92.13	178.41	10,434.99	-2,847.19	212.09	2,852.11	0.24	0.14	-0.19
12,847.00	88.88	179.99	10,434.16	-2,941.16	213.40	2,946.08	3.84	-3.46	1.68
12,941.00	87.87	180.00	10,436.82	-3,035.12	213.41	3,040.00	1.07	-1.07	0.01
13,036.00	87.38	179.47	10,440.76	-3,130.04	213.85	3,134.89	0.76	-0.52	-0.56
13,130.00	88.57	178.94	10,444.08	-3,223.97	215.15	3,228.82	1.39	1.27	-0.56
13,224.00	90.07	179.38	10,445.20	-3,317.95	216.53	3,322.80	1.66	1.60	0.47
13,318.00	89.14	179.55	10,445.84	-3,411.94	217.41	3,416.78	1.01	-0.99	0.18
13,412.00	89.93	180.34	10,446.61	-3,505.94	217.50	3,510.74	1.19	0.84	0.84
13,506.00	91.91	181.94	10,445.10	-3,599.90	215.63	3,604.61	2.71	2.11	1.70
13,601.00	91.87	183.24	10,441.96	-3,694.75	211.34	3,699.30	1.37	-0.04	1.37
13,695.00	92.35	185.18	10,438.50	-3,788.43	204.44	3,792.74	2.12	0.51	2.06
13,789.00	90.81	182.37	10,435.91	-3,882.18	198.26	3,886.27	3.41	-1.64	-2.99
13,883.00	90.73	183.68	10,434.65	-3,976.03	193.30	3,979.95	1.40	-0.09	1.39
13,904.96	90.82	183.70	10,434.35	-3,997.95	191.88	4,001.81	0.43	0.41	0.10
6H T@ 4000'VS									
13,977.00	91.12	183.77	10,433.13	-4,069.82	187.19	4,073.52	0.43	0.41	0.10
14,071.00	89.71	181.66	10,432.45	-4,163.71	182.74	4,167.24	2.70	-1.50	-2.24
14,165.00	89.63	180.87	10,432.99	-4,257.68	180.66	4,261.12	0.84	-0.09	-0.84
14,259.00	90.46	179.47	10,432.92	-4,351.68	180.39	4,355.07	1.73	0.88	-1.49
14,353.00	89.63	180.43	10,432.84	-4,445.68	180.47	4,449.03	1.35	-0.88	1.02
14,447.00	89.23	181.22	10,433.78	-4,539.66	179.11	4,542.93	0.94	-0.43	0.84
14,541.00	89.14	181.66	10,435.12	-4,633.62	176.75	4,636.79	0.48	-0.10	0.47
14,635.00	88.70	179.29	10,436.89	-4,727.59	175.97	4,730.70	2.56	-0.47	-2.52
14,730.00	88.97	178.94	10,438.82	-4,822.56	177.44	4,825.67	0.47	0.28	-0.37
14,824.00	89.41	179.82	10,440.15	-4,916.55	178.46	4,919.65	1.05	0.47	0.94
14,918.00	89.80	178.23	10,440.80	-5,010.53	180.06	5,013.63	1.74	0.41	-1.69
15,012.00	88.70	179.29	10,442.03	-5,104.50	182.09	5,107.62	1.63	-1.17	1.13
15,107.00	89.23	180.17	10,443.74	-5,199.48	182.54	5,202.58	1.08	0.56	0.93
15,201.00	89.45	180.17	10,444.82	-5,293.47	182.26	5,296.52	0.23	0.23	0.00
15,295.00	89.63	180.43	10,445.58	-5,387.47	181.77	5,390.47	0.34	0.19	0.28
15,367.00	89.89	180.17	10,445.88	-5,459.46	181.39	5,462.42	0.51	0.36	-0.36
Final MWD Survey									



Integrity Directional Services, LLC

Survey Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Well:	Hamon Fed Com A #6H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,427.86	89.89	180.17	10,446.00	-5,520.33	181.21	5,523.25	0.00	0.00	0.00
H Fed Com A #6H BHL Rev01									
15,430.00	89.89	180.17	10,446.00	-5,522.46	181.20	5,525.39	0.00	0.00	0.00
Projection to TD - Hamon Fed Com A #6H BHL									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
198.00	198.00	-0.03	-0.34	First MWD Survey
10,465.43	10,352.86	-576.30	199.28	Lease Crossing 10465.43'MD/ 581.79'VS
10,810.23	10,426.90	-906.18	213.80	330' Hardline Crossing 10810.23'MD / 911.95'VS
15,367.00	10,445.88	-5,459.46	181.39	Final MWD Survey
15,430.00	10,446.00	-5,522.46	181.20	Projection to TD

Checked By: _____ Approved By: _____ Date: _____