

30-025-44197

Chisholm Energy Holdings, LLC

Lea County, NM (NAD83)

Sec 32-T18S-R33E

Gazelle 32 State 2BS 2Y

Wellbore #1

HOBBS OCD

FEB 14 2018

RECEIVED

Design: Wellbore #1

Standard Survey Report

19 December, 2017

Provide signature page for
directional survey

Survey Report

Company:	Chisholm Energy Holdings, LLC	Local Co-ordinate Reference:	Well Gazelle 32 State 2BS 2Y
Project:	Lea County, NM (NAD83)	TVD Reference:	KB=26 @ 3785.00ft (Latshaw 7)
Site:	Sec 32-T18S-R33E	MD Reference:	KB=26 @ 3785.00ft (Latshaw 7)
Well:	Gazelle 32 State 2BS 2Y	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Project	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 32-T18S-R33E			
Site Position:		Northing:	617,766.0000 usft	Latitude: 32.696651
From:	Map	Easting:	738,075.5000 usft	Longitude: -103.689793
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.35 °

Well	Gazelle 32 State 2BS 2Y, WA			
Well Position	+N/-S	0.00 ft	Northing:	622,860.3000 usft
	+E/-W	0.00 ft	Easting:	739,306.5000 usft
Position Uncertainty	0.00 ft		Wellhead Elevation:	0.00 ft
			Ground Level:	3,759.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/16/2017	6.93	60.73	48,385

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)	Direction (°)	
	0.00	0.00	0.00	172.84	

Survey Program	Date 12/19/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
147.00	14,416.00	IDS MWD Surveys (Wellbore #1)	MWD	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	
147.00	0.00	0.00	147.00	0.00	0.00	0.00	0.00	0.00	0.00	
First IDS MWD Survey										
237.00	0.20	197.80	237.00	-0.15	-0.05	0.14	0.22	0.22	0.00	
327.00	0.10	244.20	327.00	-0.33	-0.17	0.31	0.17	-0.11	51.56	
417.00	0.40	263.70	417.00	-0.40	-0.55	0.33	0.34	0.33	21.67	
507.00	0.60	203.00	507.00	-0.87	-1.05	0.73	0.59	0.22	-67.44	
598.00	1.80	181.10	597.97	-2.74	-1.26	2.56	1.39	1.32	-24.07	
691.00	1.70	181.10	690.93	-5.58	-1.31	5.37	0.11	-0.11	0.00	
780.00	1.70	188.70	779.89	-8.20	-1.54	7.95	0.25	0.00	8.54	
871.00	1.50	179.80	870.86	-10.73	-1.74	10.43	0.35	-0.22	-9.78	

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962.00	1.00	176.50	961.83	-12.71	-1.69	12.40	0.55	-0.55	-3.63
1,053.00	1.00	175.00	1,052.82	-14.29	-1.57	13.99	0.03	0.00	-1.65
1,145.00	0.80	200.00	1,144.81	-15.70	-1.72	15.36	0.47	-0.22	27.17
1,238.00	0.80	189.60	1,237.80	-16.95	-2.05	16.56	0.16	0.00	-11.18
1,330.00	1.00	199.60	1,329.79	-18.34	-2.43	17.89	0.28	0.22	10.87
1,474.00	0.80	191.60	1,473.77	-20.51	-3.05	19.97	0.16	-0.14	-5.56
1,620.00	0.40	131.90	1,619.76	-21.85	-2.87	21.32	0.47	-0.27	-40.89
1,713.00	0.40	125.60	1,712.76	-22.25	-2.37	21.78	0.05	0.00	-6.77
1,807.00	0.20	139.30	1,806.76	-22.57	-2.00	22.14	0.22	-0.21	14.57
1,902.00	0.40	168.30	1,901.76	-23.02	-1.82	22.61	0.26	0.21	30.53
1,997.00	0.10	266.10	1,996.76	-23.35	-1.84	22.94	0.45	-0.32	102.95
2,091.00	0.90	185.50	2,090.75	-24.09	-1.99	23.65	0.95	0.85	-85.74
2,187.00	1.60	174.30	2,186.73	-26.17	-1.93	25.73	0.77	0.73	-11.67
2,281.00	1.30	166.10	2,280.70	-28.51	-1.54	28.10	0.39	-0.32	-8.72
2,376.00	1.10	158.90	2,375.68	-30.41	-0.95	30.05	0.26	-0.21	-7.58
2,470.00	0.90	150.10	2,469.67	-31.89	-0.26	31.61	0.27	-0.21	-9.36
2,564.00	1.00	123.40	2,563.65	-32.98	0.79	32.82	0.48	0.11	-28.40
2,659.00	0.90	120.80	2,658.64	-33.82	2.13	33.82	0.11	-0.11	-2.74
2,753.00	1.10	98.80	2,752.63	-34.34	3.65	34.52	0.46	0.21	-23.40
2,848.00	0.90	183.50	2,847.62	-35.22	4.51	35.51	1.43	-0.21	89.16
2,942.00	1.20	196.80	2,941.60	-36.90	4.18	37.13	0.41	0.32	14.15
3,036.00	0.70	187.40	3,035.59	-38.41	3.82	38.59	0.56	-0.53	-10.00
3,130.00	0.60	192.10	3,129.58	-39.46	3.64	39.61	0.12	-0.11	5.00
3,224.00	1.10	187.00	3,223.57	-40.84	3.43	40.95	0.54	0.53	-5.43
3,318.00	0.60	202.80	3,317.56	-42.19	3.13	42.25	0.58	-0.53	16.81
3,412.00	0.40	179.50	3,411.56	-42.97	2.94	43.00	0.30	-0.21	-24.79
3,506.00	0.30	172.70	3,505.56	-43.54	2.97	43.57	0.12	-0.11	-7.23
3,600.00	0.20	150.70	3,599.55	-43.93	3.09	43.97	0.15	-0.11	-23.40
3,694.00	0.50	161.60	3,693.55	-44.46	3.30	44.53	0.33	0.32	11.60
3,788.00	0.40	172.50	3,787.55	-45.18	3.47	45.26	0.14	-0.11	11.60
3,883.00	0.40	180.20	3,882.55	-45.84	3.51	45.92	0.06	0.00	8.11
3,977.00	0.10	154.60	3,976.55	-46.24	3.54	46.32	0.33	-0.32	-27.23
4,071.00	0.80	16.70	4,070.54	-45.69	3.77	45.80	0.93	0.74	-146.70
4,165.00	0.80	14.50	4,164.53	-44.42	4.12	44.59	0.03	0.00	-2.34
4,260.00	1.00	9.20	4,259.52	-42.96	4.42	43.18	0.23	0.21	-5.58
4,355.00	1.00	358.70	4,354.51	-41.31	4.53	41.56	0.19	0.00	-11.05
4,449.00	1.00	357.70	4,448.49	-39.67	4.48	39.92	0.02	0.00	-1.06
4,544.00	1.10	2.90	4,543.48	-37.94	4.49	38.20	0.15	0.11	5.47
4,639.00	1.10	3.80	4,638.46	-36.11	4.60	36.41	0.02	0.00	0.95
4,732.00	1.20	1.50	4,731.44	-34.25	4.69	34.57	0.12	0.11	-2.47
4,827.00	1.20	3.60	4,826.42	-32.26	4.77	32.61	0.05	0.00	2.21
4,921.00	1.30	2.70	4,920.40	-30.22	4.89	30.59	0.11	0.11	-0.96
5,015.00	1.30	7.40	5,014.37	-28.09	5.07	28.51	0.11	0.00	5.00

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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)	
5,109.00	1.50	2.90	5,108.35	-25.81	5.27	26.26	0.24	0.21	-4.79	
5,203.00	1.60	0.90	5,202.31	-23.27	5.36	23.75	0.12	0.11	-2.13	
5,297.00	1.70	1.70	5,296.27	-20.56	5.42	21.08	0.11	0.11	0.85	
5,392.00	1.70	0.40	5,391.23	-17.74	5.47	18.29	0.04	0.00	-1.37	
5,486.00	1.80	357.90	5,485.19	-14.87	5.42	15.43	0.13	0.11	-2.66	
5,580.00	1.90	357.80	5,579.14	-11.84	5.31	12.41	0.11	0.11	-0.11	
5,656.00	1.80	358.20	5,655.10	-9.39	5.23	9.97	0.13	-0.13	0.53	
5,750.00	1.20	26.50	5,749.07	-7.03	5.62	7.68	1.00	-0.64	30.11	
5,845.00	1.10	45.50	5,844.05	-5.50	6.71	6.30	0.41	-0.11	20.00	
5,939.00	0.90	45.30	5,938.03	-4.35	7.88	5.30	0.21	-0.21	-0.21	
6,033.00	0.40	72.90	6,032.03	-3.74	8.72	4.79	0.61	-0.53	29.36	
6,127.00	0.30	142.40	6,126.03	-3.83	9.18	4.95	0.43	-0.11	73.94	
6,221.00	0.20	147.10	6,220.03	-4.17	9.42	5.31	0.11	-0.11	5.00	
6,316.00	0.10	97.90	6,315.03	-4.32	9.59	5.48	0.16	-0.11	-51.79	
6,409.00	0.00	143.00	6,408.03	-4.33	9.67	5.50	0.11	-0.11	0.00	
6,503.00	0.00	55.30	6,502.03	-4.33	9.67	5.50	0.00	0.00	0.00	
6,597.00	0.00	127.30	6,596.03	-4.33	9.67	5.50	0.00	0.00	0.00	
6,691.00	0.10	147.00	6,690.03	-4.40	9.72	5.57	0.11	0.11	0.00	
6,786.00	0.20	136.80	6,785.02	-4.59	9.88	5.78	0.11	0.11	-10.74	
6,880.00	0.10	32.10	6,879.02	-4.64	10.03	5.85	0.26	-0.11	-111.38	
6,973.00	0.40	24.60	6,972.02	-4.27	10.21	5.51	0.32	0.32	-8.06	
7,067.00	0.50	5.00	7,066.02	-3.57	10.38	4.83	0.19	0.11	-20.85	
7,161.00	0.40	340.90	7,160.02	-2.85	10.31	4.11	0.23	-0.11	-25.64	
7,255.00	0.50	328.50	7,254.02	-2.19	9.99	3.42	0.15	0.11	-13.19	
7,349.00	0.70	326.90	7,348.01	-1.36	9.46	2.53	0.21	0.21	-1.70	
7,443.00	1.40	52.90	7,442.00	-0.18	10.07	1.44	1.62	0.74	91.49	
7,537.00	1.40	48.70	7,535.97	1.27	11.84	0.22	0.11	0.00	-4.47	
7,631.00	1.50	35.60	7,629.94	3.03	13.42	-1.33	0.37	0.11	-13.94	
7,725.00	1.70	24.40	7,723.90	5.30	14.72	-3.42	0.39	0.21	-11.91	
7,819.00	1.90	25.00	7,817.86	7.98	15.95	-5.93	0.21	0.21	0.64	
7,914.00	1.50	51.30	7,912.82	10.18	17.59	-7.91	0.91	-0.42	27.68	
8,008.00	1.80	51.70	8,006.78	11.87	19.70	-9.32	0.32	0.32	0.43	
8,103.00	1.40	53.20	8,101.74	13.49	21.80	-10.66	0.42	-0.42	1.58	
8,197.00	0.20	53.60	8,195.73	14.27	22.86	-11.31	1.28	-1.28	0.43	
8,292.00	0.80	213.30	8,290.73	13.82	22.63	-10.89	1.04	0.63	168.11	
8,386.00	0.90	220.70	8,384.72	12.71	21.78	-9.89	0.16	0.11	7.87	
8,480.00	1.10	223.80	8,478.70	11.50	20.68	-8.83	0.22	0.21	3.30	
8,574.00	1.10	258.00	8,572.69	10.66	19.17	-8.19	0.69	0.00	36.38	
8,668.00	1.40	271.60	8,666.66	10.50	17.14	-8.28	0.45	0.32	14.47	
8,767.00	1.40	274.08	8,765.63	10.62	14.73	-8.70	0.06	0.00	2.51	
8,861.00	1.50	268.58	8,859.60	10.67	12.35	-9.05	0.18	0.11	-5.85	
8,923.00	2.20	114.78	8,921.59	10.15	12.62	-8.50	5.82	1.13	-248.07	
8,955.00	5.90	110.78	8,953.51	9.31	14.72	-7.41	11.59	11.56	-12.50	

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8,986.00	8.90	107.28	8,984.24	8.04	18.50	-5.67	9.78	9.68	-11.29	
9,018.00	11.30	107.78	9,015.75	6.34	23.85	-3.32	7.50	7.50	1.56	
9,049.00	13.40	108.08	9,046.03	4.30	30.15	-0.51	6.78	6.77	0.97	
9,081.00	17.50	106.28	9,076.86	1.80	38.30	2.99	12.90	12.81	-5.63	
9,112.00	21.00	106.47	9,106.13	-1.08	48.10	7.07	11.29	11.29	0.61	
9,144.00	23.70	104.18	9,135.72	-4.28	59.84	11.71	8.86	8.44	-7.16	
9,176.00	25.80	104.98	9,164.78	-7.66	72.80	16.67	6.65	6.56	2.50	
9,207.00	29.10	103.08	9,192.29	-11.11	86.67	21.82	11.01	10.65	-6.13	
9,239.00	32.00	100.08	9,219.84	-14.36	102.60	27.03	10.24	9.06	-9.38	
9,270.00	34.90	97.98	9,245.71	-17.03	119.47	31.78	10.07	9.35	-6.77	
9,301.00	38.20	98.08	9,270.61	-19.61	137.75	36.62	10.65	10.65	0.32	
9,332.00	40.40	97.08	9,294.59	-22.19	157.21	41.61	7.38	7.10	-3.23	
9,364.00	44.00	94.38	9,318.30	-24.32	178.59	46.39	12.59	11.25	-8.44	
9,395.00	46.30	92.68	9,340.16	-25.67	200.53	50.45	8.38	7.42	-5.48	
9,426.00	48.50	94.38	9,361.14	-27.08	223.30	54.69	8.16	7.10	5.48	
9,458.00	50.50	98.68	9,381.93	-29.86	247.46	60.46	11.98	6.25	13.44	
9,489.00	51.60	103.18	9,401.42	-34.43	271.12	67.95	11.83	3.55	14.52	
9,520.00	54.00	107.08	9,420.17	-40.89	294.94	77.32	12.66	7.74	12.58	
9,551.00	56.00	110.88	9,437.95	-49.15	318.94	88.52	11.93	6.45	12.26	
9,583.00	56.50	114.88	9,455.74	-59.50	343.45	101.83	10.51	1.56	12.50	
9,615.00	57.80	120.18	9,473.10	-71.92	367.27	117.13	14.49	4.06	16.56	
9,646.00	58.30	125.98	9,489.52	-86.27	389.29	134.11	15.96	1.61	18.71	
9,678.00	59.30	131.18	9,506.10	-103.34	410.67	153.71	14.25	3.13	16.25	
9,709.00	58.80	134.98	9,522.05	-121.49	430.09	174.14	10.64	-1.61	12.26	
9,740.00	59.70	137.58	9,537.90	-140.75	448.50	195.54	7.77	2.90	8.39	
9,771.00	60.40	140.88	9,553.38	-161.08	466.03	217.90	9.50	2.26	10.65	
9,803.00	62.20	142.38	9,568.75	-183.09	483.45	241.91	6.97	5.63	4.69	
9,834.00	64.70	145.08	9,582.61	-205.45	499.85	266.14	11.21	8.06	8.71	
9,865.00	67.60	147.08	9,595.14	-228.98	515.66	291.45	11.06	9.35	6.45	
9,897.00	70.40	148.28	9,606.61	-254.22	531.63	318.49	9.42	8.75	3.75	
9,921.54	72.61	150.03	9,614.39	-274.20	543.56	339.80	11.27	9.02	7.12	
LP Gazelle 32 State 2BS 2Y										
9,928.00	73.20	150.48	9,616.29	-279.56	546.62	345.50	11.27	9.06	7.01	
9,960.00	76.00	151.38	9,624.79	-306.52	561.61	374.12	9.16	8.75	2.81	
9,992.00	78.30	152.28	9,631.90	-334.02	576.34	403.24	7.69	7.19	2.81	
10,023.00	79.30	156.68	9,637.93	-361.46	589.43	432.10	14.29	3.23	14.19	
10,055.00	80.00	161.08	9,643.68	-390.82	600.77	462.64	13.70	2.19	13.75	
10,086.00	79.90	164.48	9,649.09	-419.97	609.81	492.69	10.80	-0.32	10.97	
10,118.00	79.70	168.38	9,654.76	-450.58	617.19	523.98	12.01	-0.63	12.19	
10,149.00	80.30	172.08	9,660.14	-480.66	622.37	554.47	11.91	1.94	11.94	
10,181.00	81.80	174.98	9,665.12	-512.06	625.93	586.07	10.10	4.69	9.06	
10,223.00	84.30	178.88	9,670.21	-553.68	628.16	627.65	10.97	5.95	9.29	
10,317.00	87.50	180.88	9,676.93	-647.43	628.35	720.68	4.01	3.40	2.13	
10,412.00	88.60	180.08	9,680.16	-742.37	627.56	814.78	1.43	1.16	-0.84	

Survey Report

Company:	Chisholm Energy Holdings, LLC	Local Co-ordinate Reference:	Well Gazelle 32 State 2BS 2Y
Project:	Lea County, NM (NAD83)	TVD Reference:	KB=26 @ 3785.00ft (Latshaw 7)
Site:	Sec 32-T18S-R33E	MD Reference:	KB=26 @ 3785.00ft (Latshaw 7)
Well:	Gazelle 32 State 2BS 2Y	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

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)
10,507.00	89.70	179.58	9,681.57	-837.35	627.84	909.07	1.27	1.16	-0.53
10,601.00	88.50	181.08	9,683.05	-931.34	627.30	1,002.25	2.04	-1.28	1.60
10,696.00	89.40	181.18	9,684.79	-1,026.30	625.43	1,096.24	0.95	0.95	0.11
10,790.00	88.10	180.88	9,686.84	-1,120.26	623.74	1,189.26	1.42	-1.38	-0.32
10,885.00	88.90	181.08	9,689.32	-1,215.21	622.11	1,283.27	0.87	0.84	0.21
10,979.00	88.00	181.48	9,691.87	-1,309.15	620.01	1,376.21	1.05	-0.96	0.43
11,073.00	88.70	181.38	9,694.57	-1,403.09	617.67	1,469.12	0.75	0.74	-0.11
11,167.00	86.20	181.68	9,698.76	-1,496.95	615.16	1,561.94	2.68	-2.66	0.32
11,261.00	86.20	182.79	9,704.99	-1,590.67	611.50	1,654.48	1.18	0.00	1.18
11,356.00	87.50	182.18	9,710.21	-1,685.44	607.39	1,747.99	1.51	1.37	-0.64
11,449.00	86.90	182.68	9,714.75	-1,778.24	603.45	1,839.58	0.84	-0.65	0.54
11,543.00	88.90	182.48	9,718.19	-1,872.08	599.23	1,932.16	2.14	2.13	-0.21
11,638.00	89.70	182.18	9,719.35	-1,966.99	595.36	2,025.85	0.90	0.84	-0.32
11,732.00	88.20	181.88	9,721.08	-2,060.91	592.03	2,118.63	1.63	-1.60	-0.32
11,826.00	86.60	180.68	9,725.34	-2,154.79	589.94	2,211.51	2.13	-1.70	-1.28
11,921.00	86.10	180.38	9,731.39	-2,249.59	589.06	2,305.46	0.61	-0.53	-0.32
12,015.00	87.60	179.48	9,736.55	-2,343.45	589.17	2,398.60	1.86	1.60	-0.96
12,110.00	87.70	179.68	9,740.45	-2,438.36	589.87	2,492.86	0.24	0.11	0.21
12,204.00	87.40	179.28	9,744.47	-2,532.27	590.72	2,586.15	0.53	-0.32	-0.43
12,299.00	87.60	178.88	9,748.61	-2,627.17	592.25	2,680.50	0.47	0.21	-0.42
12,393.00	89.70	179.88	9,750.82	-2,721.13	593.26	2,773.85	2.47	2.23	1.06
12,487.00	89.90	180.38	9,751.15	-2,815.13	593.05	2,867.09	0.57	0.21	0.53
12,582.00	88.40	179.38	9,752.56	-2,910.12	593.25	2,961.36	1.90	-1.58	-1.05
12,676.00	87.00	179.78	9,756.33	-3,004.04	593.94	3,054.63	1.55	-1.49	0.43
12,770.00	86.80	179.48	9,761.42	-3,097.90	594.54	3,147.84	0.38	-0.21	-0.32
12,864.00	86.80	178.58	9,766.67	-3,191.74	596.13	3,241.14	0.96	0.00	-0.96
12,958.00	88.40	178.68	9,770.60	-3,285.62	598.38	3,334.58	1.71	1.70	0.11
13,052.00	88.60	177.82	9,773.06	-3,379.55	601.25	3,428.13	0.94	0.21	-0.91
13,146.00	88.30	176.88	9,775.61	-3,473.41	605.59	3,521.80	1.05	-0.32	-1.00
13,241.00	89.30	177.18	9,777.59	-3,568.26	610.51	3,616.53	1.10	1.05	0.32
13,335.00	90.90	178.08	9,777.43	-3,662.18	614.40	3,710.19	1.95	1.70	0.96
13,430.00	90.90	178.98	9,775.94	-3,757.13	616.84	3,804.71	0.95	0.00	0.95
13,524.00	90.30	179.48	9,774.95	-3,851.12	618.10	3,898.12	0.83	-0.64	0.53
13,618.00	89.10	179.98	9,775.45	-3,945.11	618.54	3,991.44	1.38	-1.28	0.53
13,711.00	89.30	180.98	9,776.74	-4,038.10	617.76	4,083.61	1.10	0.22	1.08
13,805.00	88.40	180.78	9,778.63	-4,132.07	616.32	4,176.66	0.98	-0.96	-0.21
13,899.00	88.70	180.78	9,781.01	-4,226.03	615.04	4,269.73	0.32	0.32	0.00
13,993.00	89.10	181.48	9,782.81	-4,319.99	613.19	4,362.73	0.86	0.43	0.74
14,088.00	88.30	182.08	9,784.97	-4,414.92	610.24	4,456.55	1.05	-0.84	0.63
14,182.00	87.30	182.38	9,788.58	-4,508.78	606.58	4,549.22	1.11	-1.06	0.32
14,276.00	88.20	182.28	9,792.27	-4,602.63	602.76	4,641.87	0.96	0.96	-0.11
14,358.00	89.50	182.38	9,793.91	-4,684.54	599.43	4,722.73	1.59	1.59	0.12

Last IDS MWD Survey

Survey Report

Company: Chisholm Energy Holdings, LLC
Project: Lea County, NM (NAD83)
Site: Sec 32-T18S-R33E
Well: Gazelle 32 State 2BS 2Y
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Gazelle 32 State 2BS 2Y
TVD Reference: KB=26 @ 3785.00ft (Latshaw 7)
MD Reference: KB=26 @ 3785.00ft (Latshaw 7)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1

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)
14,416.00	89.50	182.38	9,794.42	-4,742.49	597.02	4,779.92	0.00	0.00	0.00

Projection to TD - PBHL Gazelle 32 State 2BS 2Y

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
147.00	147.00	0.00	0.00	First IDS MWD Survey
14,358.00	9,793.91	-4,684.54	599.43	Last IDS MWD Survey
14,416.00	9,794.42	-4,742.49	597.02	Projection to TD

Checked By: _____ Approved By: _____ Date: _____