



Survey Report

Service Company: Wellbenders Directional Services

Location: Lea County, NM

Well: Chug Bug State Com #1H

Rig: Latshaw 22

API or UWI: 30-025-45148

Job Number: NMDG 2018-1181

State: New Mexico

Operating Company: DGP Energy

County: Lea

Magnetic Declination: 6.56

Country: United States

Proposed Azimuth: 359.60

Comment

North Reference: GRID

Latitude: 32.933783333333

Longitude: -103.6672

Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00

Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
142.00	0.22	153.86	142.00	-0.24	0.12	153.86	0.27	-0.25	0.15
229.00	0.53	175.49	229.00	-0.80	0.23	164.19	0.83	-0.80	0.39
291.00	0.57	175.57	290.99	-1.39	0.27	168.93	1.42	-1.39	0.06
350.00	0.18	129.17	349.99	-1.74	0.37	168.12	1.78	-1.74	0.79
407.00	0.40	96.21	406.99	-1.82	0.63	160.79	1.93	-1.82	0.47
495.00	0.22	123.63	494.99	-1.95	1.08	150.97	2.22	-1.95	0.26
525.00	0.18	134.09	524.99	-2.01	1.16	149.98	2.32	-2.02	0.18
590.00	0.22	97.79	589.99	-2.10	1.36	147.08	2.50	-2.11	0.20
682.00	0.09	85.13	681.99	-2.12	1.61	142.81	2.66	-2.13	0.15
774.00	0.13	92.52	773.99	-2.11	1.78	139.88	2.76	-2.13	0.05
866.00	0.09	123.98	865.99	-2.16	1.95	137.98	2.91	-2.17	0.08
959.00	0.18	125.92	958.99	-2.29	2.12	137.09	3.12	-2.30	0.10
1051.00	0.18	112.38	1050.99	-2.43	2.38	135.60	3.39	-2.44	0.05
1145.00	0.18	112.38	1144.99	-2.54	2.65	133.78	3.67	-2.56	0.00
1239.00	0.22	131.98	1238.99	-2.71	2.92	132.92	3.99	-2.74	0.08
1334.00	0.22	137.43	1333.99	-2.97	3.18	133.07	4.35	-2.99	0.02

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1377.00	0.22	150.70	1376.99	-3.10	3.27	133.47	4.51	-3.13	0.12
1520.00	0.04	345.47	1519.99	-3.29	3.40	134.13	4.73	-3.32	0.18
1614.00	0.35	207.83	1613.99	-3.52	3.25	137.23	4.79	-3.54	0.40
1708.00	0.35	207.83	1707.98	-4.02	2.99	143.43	5.01	-4.05	0.00
1806.00	0.35	212.05	1805.98	-4.54	2.69	149.40	5.28	-4.56	0.03
1901.00	0.44	182.43	1900.98	-5.15	2.52	153.96	5.74	-5.17	0.23
1994.00	0.35	212.58	1993.98	-5.75	2.35	157.77	6.21	-5.77	0.24
2089.00	0.44	202.56	2088.98	-6.33	2.05	162.03	6.66	-6.35	0.12
2183.00	0.44	194.21	2182.97	-7.01	1.83	165.41	7.25	-7.03	0.07
2278.00	0.44	176.10	2277.97	-7.73	1.76	167.17	7.93	-7.74	0.15
2373.00	0.40	190.08	2372.97	-8.42	1.73	168.40	8.60	-8.43	0.12
2468.00	0.22	106.14	2467.97	-8.80	1.85	168.15	8.99	-8.81	0.46
2562.00	0.18	195.17	2561.97	-8.99	1.98	167.58	9.21	-9.01	0.30
2656.00	0.26	133.56	2655.97	-9.28	2.10	167.27	9.52	-9.30	0.25
2749.00	0.35	122.31	2748.97	-9.58	2.49	165.43	9.90	-9.60	0.12
2842.00	0.35	112.20	2841.96	-9.84	2.99	163.08	10.28	-9.86	0.07
2937.00	0.13	31.87	2936.96	-9.86	3.32	161.40	10.40	-9.88	0.37
3032.00	0.22	140.07	3031.96	-9.90	3.49	160.58	10.50	-9.93	0.30
3128.00	0.09	239.03	3127.96	-10.08	3.55	160.63	10.69	-10.11	0.26
3223.00	0.26	117.21	3222.96	-10.22	3.67	160.23	10.86	-10.25	0.33
3318.00	0.26	60.09	3317.96	-10.21	4.05	158.36	10.99	-10.24	0.26
3413.00	0.18	340.02	3412.96	-9.96	4.19	157.21	10.81	-9.99	0.30
3508.00	0.22	111.24	3507.96	-9.89	4.31	156.47	10.79	-9.92	0.38
3602.00	0.18	249.23	3601.96	-10.01	4.34	156.57	10.91	-10.04	0.40
3696.00	0.26	304.07	3695.96	-9.94	4.02	157.97	10.72	-9.97	0.23
3791.00	0.18	62.90	3790.96	-9.75	3.98	157.82	10.53	-9.78	0.40
3886.00	0.13	142.88	3885.96	-9.77	4.17	156.87	10.62	-9.80	0.21
3980.00	0.09	143.85	3979.96	-9.91	4.28	156.64	10.80	-9.94	0.04
4074.00	0.09	126.27	4073.96	-10.02	4.38	156.36	10.94	-10.05	0.03
4169.00	0.04	183.92	4168.96	-10.10	4.44	156.25	11.03	-10.13	0.08
4264.00	0.26	194.12	4263.96	-10.34	4.39	157.00	11.23	-10.37	0.23
4358.00	0.57	255.20	4357.96	-10.66	3.88	159.99	11.35	-10.69	0.53
4456.00	0.26	264.78	4455.95	-10.81	3.19	163.55	11.27	-10.83	0.32
4550.00	0.22	236.13	4549.95	-10.93	2.83	165.49	11.29	-10.95	0.13
4645.00	0.40	253.80	4644.95	-11.12	2.36	168.03	11.37	-11.14	0.21
4739.00	0.26	246.24	4738.95	-11.30	1.85	170.71	11.45	-11.31	0.16
4834.00	0.44	229.27	4833.95	-11.63	1.37	173.25	11.71	-11.63	0.22

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
4929.00	0.48	244.74	4928.94	-12.03	0.74	176.49	12.06	-12.04	0.14
5024.00	0.48	237.01	5023.94	-12.42	0.05	179.79	12.42	-12.42	0.07
5119.00	0.40	247.82	5118.94	-12.76	-0.60	182.67	12.78	-12.76	0.12
5215.00	0.48	248.08	5214.94	-13.04	-1.28	185.60	13.10	-13.03	0.08
5309.00	0.53	234.20	5308.93	-13.44	-2.00	188.45	13.59	-13.42	0.14
5404.00	0.40	253.53	5403.93	-13.79	-2.67	190.96	14.05	-13.77	0.21
5499.00	0.22	256.26	5498.93	-13.93	-3.17	192.81	14.28	-13.91	0.19
5593.00	0.26	292.20	5592.93	-13.89	-3.54	194.30	14.33	-13.86	0.16
5689.00	0.26	316.37	5688.93	-13.65	-3.89	195.91	14.19	-13.62	0.11
5783.00	0.35	297.74	5782.92	-13.36	-4.29	197.81	14.03	-13.33	0.14
5877.00	0.40	336.94	5876.92	-12.93	-4.68	199.88	13.75	-12.89	0.27
5970.00	0.79	355.22	5969.92	-11.99	-4.86	202.05	12.93	-11.95	0.46
6064.00	0.75	357.07	6063.91	-10.73	-4.94	204.73	11.81	-10.69	0.05
6158.00	0.62	15.00	6157.90	-9.62	-4.84	206.71	10.77	-9.59	0.27
6252.00	0.62	14.12	6251.90	-8.64	-4.59	207.96	9.78	-8.61	0.01
6347.00	0.75	15.26	6346.89	-7.55	-4.30	209.67	8.68	-7.52	0.14
6441.00	0.66	25.46	6440.88	-6.46	-3.90	211.13	7.55	-6.44	0.16
6536.00	0.70	14.91	6535.88	-5.41	-3.52	213.05	6.45	-5.38	0.14
6630.00	0.75	27.04	6629.87	-4.31	-3.09	215.68	5.30	-4.28	0.17
6710.00	0.79	19.39	6709.86	-3.32	-2.67	218.82	4.26	-3.30	0.14
6804.00	0.88	25.63	6803.85	-2.06	-2.14	226.18	2.97	-2.04	0.14
6899.00	0.92	27.65	6898.84	-0.72	-1.47	243.85	1.64	-0.71	0.05
6994.00	0.79	27.30	6993.83	0.53	-0.82	303.09	0.98	0.54	0.14
7087.00	0.66	29.76	7086.82	1.57	-0.26	350.61	1.59	1.57	0.14
7182.00	0.70	27.83	7181.82	2.56	0.28	6.32	2.57	2.55	0.05
7277.00	0.70	25.19	7276.81	3.60	0.80	12.56	3.68	3.59	0.03
7371.00	0.70	20.97	7370.80	4.65	1.25	15.06	4.82	4.64	0.06
7465.00	0.75	18.69	7464.79	5.77	1.66	15.99	6.01	5.76	0.06
7559.00	0.79	14.91	7558.79	6.98	2.02	16.13	7.27	6.97	0.07
7654.00	0.84	13.42	7653.78	8.29	2.35	15.82	8.62	8.28	0.06
7745.00	0.88	10.08	7744.77	9.63	2.63	15.25	9.98	9.61	0.07
7839.00	0.92	16.05	7838.75	11.07	2.96	14.98	11.46	11.05	0.11
7933.00	0.84	29.68	7932.74	12.39	3.51	15.82	12.88	12.37	0.24
8027.00	0.84	48.84	8026.73	13.44	4.37	18.01	14.14	13.41	0.30
8122.00	0.79	46.55	8121.72	14.35	5.37	20.52	15.32	14.31	0.06
8216.00	0.70	56.57	8215.72	15.11	6.32	22.70	16.38	15.07	0.17
8310.00	0.57	70.72	8309.71	15.58	7.24	24.92	17.18	15.53	0.22

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8405.00	0.62	83.11	8404.70	15.80	8.20	27.42	17.80	15.74	0.14
8499.00	0.66	83.99	8498.70	15.92	9.24	30.13	18.41	15.85	0.04
8592.00	0.62	81.18	8591.69	16.05	10.27	32.61	19.06	15.98	0.05
8686.00	0.66	74.68	8685.69	16.27	11.30	34.76	19.81	16.19	0.09
8779.00	0.57	76.17	8778.68	16.53	12.26	36.57	20.58	16.44	0.10
8873.00	0.57	68.44	8872.68	16.81	13.15	38.04	21.34	16.72	0.08
8968.00	0.84	80.48	8967.67	17.10	14.28	39.86	22.27	17.00	0.32
9061.00	1.10	87.95	9060.66	17.24	15.84	42.57	23.41	17.13	0.31
9156.00	1.05	99.46	9155.64	17.13	17.61	45.79	24.57	17.01	0.23
9251.00	0.97	96.38	9250.62	16.90	19.27	48.75	25.63	16.77	0.10
9345.00	0.84	97.09	9344.61	16.73	20.74	51.12	26.65	16.58	0.14
9440.00	0.84	95.33	9439.60	16.58	22.13	53.16	27.65	16.42	0.03
9535.00	0.75	90.76	9534.59	16.50	23.44	54.85	28.67	16.34	0.12
9629.00	0.70	88.56	9628.59	16.51	24.63	56.17	29.65	16.34	0.06
9724.00	0.62	87.33	9723.58	16.55	25.73	57.25	30.59	16.37	0.09
9819.00	0.53	71.25	9818.58	16.71	26.65	57.91	31.46	16.53	0.19
9914.00	0.48	39.52	9913.57	17.16	27.32	57.87	32.27	16.97	0.30
10010.00	0.57	8.05	10009.57	17.94	27.65	57.01	32.96	17.75	0.31
10081.00	0.79	346.78	10080.56	18.77	27.58	55.77	33.36	18.58	0.47
10121.00	0.79	328.59	10120.56	19.27	27.38	54.85	33.48	19.08	0.62
10216.00	0.97	304.86	10215.55	20.29	26.38	52.43	33.28	20.11	0.42
10310.00	1.01	298.62	10309.53	21.14	25.00	49.77	32.74	20.97	0.12
10404.00	1.14	191.39	10403.52	20.62	24.08	49.42	31.71	20.46	1.84
10499.00	1.19	280.52	10498.51	19.88	22.93	49.07	30.34	19.72	1.72
10593.00	1.27	280.16	10592.49	20.24	20.94	45.98	29.12	20.09	0.09
10688.00	1.41	282.10	10687.46	20.67	18.76	42.23	27.92	20.54	0.15
10783.00	1.58	278.41	10782.43	21.11	16.32	37.72	26.68	20.99	0.21
10877.00	2.07	250.63	10876.39	20.73	13.44	32.95	24.71	20.64	1.06
10972.00	2.73	247.20	10971.30	19.29	9.74	26.79	21.61	19.22	0.71
11067.00	2.99	253.71	11066.18	17.72	5.27	16.57	18.48	17.68	0.44
11257.00	3.03	261.62	11255.92	15.59	-4.45	344.07	16.22	15.63	0.22
11352.00	1.98	206.60	11350.84	13.76	-7.67	330.86	15.75	13.81	2.63
11447.00	1.49	201.77	11445.80	11.15	-8.86	321.51	14.24	11.21	0.54
11542.00	1.05	224.97	11540.78	9.38	-9.94	313.36	13.67	9.45	0.70
11635.00	0.79	241.76	11633.76	8.48	-11.10	307.36	13.97	8.55	0.40
11730.00	1.01	266.36	11728.75	8.11	-12.52	302.96	14.92	8.20	0.46
11823.00	1.19	284.03	11821.74	8.30	-14.27	300.17	16.51	8.40	0.41

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
11916.00	1.32	284.73	11914.71	8.80	-16.24	298.45	18.48	8.92	0.14
12009.00	1.45	282.54	12007.69	9.33	-18.43	296.85	20.66	9.46	0.15
12101.00	1.67	275.42	12099.65	9.71	-20.90	294.92	23.05	9.86	0.32
12195.00	1.54	282.89	12193.62	10.12	-23.49	293.31	25.58	10.29	0.26
12289.00	1.41	279.37	12287.58	10.59	-25.87	292.27	27.95	10.77	0.17
12383.00	1.27	287.90	12381.56	11.10	-28.00	291.63	30.12	11.30	0.26
12452.00	1.23	296.07	12450.54	11.66	-29.39	291.64	31.62	11.87	0.26

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
12500.00	1.23	296.07	12498.53	12.11	-30.32	291.78	32.65	12.32	0.00



Survey Report

Service Company: Wellbenders Directional Services

Location: Lea County, NM

Well: Chug Bug State Com #1H

Rig: Latshaw 22

API or UWI: 30-025-45148

Job Number: NMDG 2018-1181

State: New Mexico

Operating Company: DGP Energy

County: Lea

Magnetic Declination: 6.56

Country: United States

Proposed Azimuth: 359.60

Comment

North Reference: GRID

Latitude: 32.933783333333

Longitude: -103.6672

Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00

Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
142.00	0.22	153.86	142.00	-0.24	0.12	153.86	0.27	-0.25	0.15
229.00	0.53	175.49	229.00	-0.80	0.23	164.19	0.83	-0.80	0.39
291.00	0.57	175.57	290.99	-1.39	0.27	168.93	1.42	-1.39	0.06
350.00	0.18	129.17	349.99	-1.74	0.37	168.12	1.78	-1.74	0.79
407.00	0.40	96.21	406.99	-1.82	0.63	160.79	1.93	-1.82	0.47
495.00	0.22	123.63	494.99	-1.95	1.08	150.97	2.22	-1.95	0.26
525.00	0.18	134.09	524.99	-2.01	1.16	149.98	2.32	-2.02	0.18
590.00	0.22	97.79	589.99	-2.10	1.36	147.08	2.50	-2.11	0.20
682.00	0.09	85.13	681.99	-2.12	1.61	142.81	2.66	-2.13	0.15
774.00	0.13	92.52	773.99	-2.11	1.78	139.88	2.76	-2.13	0.05
866.00	0.09	123.98	865.99	-2.16	1.95	137.98	2.91	-2.17	0.08
959.00	0.18	125.92	958.99	-2.29	2.12	137.09	3.12	-2.30	0.10
1051.00	0.18	112.38	1050.99	-2.43	2.38	135.60	3.39	-2.44	0.05
1145.00	0.18	112.38	1144.99	-2.54	2.65	133.78	3.67	-2.56	0.00
1239.00	0.22	131.98	1238.99	-2.71	2.92	132.92	3.99	-2.74	0.08
1334.00	0.22	137.43	1333.99	-2.97	3.18	133.07	4.35	-2.99	0.02

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1377.00	0.22	150.70	1376.99	-3.10	3.27	133.47	4.51	-3.13	0.12
1520.00	0.04	345.47	1519.99	-3.29	3.40	134.13	4.73	-3.32	0.18
1614.00	0.35	207.83	1613.99	-3.52	3.25	137.23	4.79	-3.54	0.40
1708.00	0.35	207.83	1707.98	-4.02	2.99	143.43	5.01	-4.05	0.00
1806.00	0.35	212.05	1805.98	-4.54	2.69	149.40	5.28	-4.56	0.03
1901.00	0.44	182.43	1900.98	-5.15	2.52	153.96	5.74	-5.17	0.23
1994.00	0.35	212.58	1993.98	-5.75	2.35	157.77	6.21	-5.77	0.24
2089.00	0.44	202.56	2088.98	-6.33	2.05	162.03	6.66	-6.35	0.12
2183.00	0.44	194.21	2182.97	-7.01	1.83	165.41	7.25	-7.03	0.07
2278.00	0.44	176.10	2277.97	-7.73	1.76	167.17	7.93	-7.74	0.15
2373.00	0.40	190.08	2372.97	-8.42	1.73	168.40	8.60	-8.43	0.12
2468.00	0.22	106.14	2467.97	-8.80	1.85	168.15	8.99	-8.81	0.46
2562.00	0.18	195.17	2561.97	-8.99	1.98	167.58	9.21	-9.01	0.30
2656.00	0.26	133.56	2655.97	-9.28	2.10	167.27	9.52	-9.30	0.25
2749.00	0.35	122.31	2748.97	-9.58	2.49	165.43	9.90	-9.60	0.12
2842.00	0.35	112.20	2841.96	-9.84	2.99	163.08	10.28	-9.86	0.07
2937.00	0.13	31.87	2936.96	-9.86	3.32	161.40	10.40	-9.88	0.37
3032.00	0.22	140.07	3031.96	-9.90	3.49	160.58	10.50	-9.93	0.30
3128.00	0.09	239.03	3127.96	-10.08	3.55	160.63	10.69	-10.11	0.26
3223.00	0.26	117.21	3222.96	-10.22	3.67	160.23	10.86	-10.25	0.33
3318.00	0.26	60.09	3317.96	-10.21	4.05	158.36	10.99	-10.24	0.26
3413.00	0.18	340.02	3412.96	-9.96	4.19	157.21	10.81	-9.99	0.30
3508.00	0.22	111.24	3507.96	-9.89	4.31	156.47	10.79	-9.92	0.38
3602.00	0.18	249.23	3601.96	-10.01	4.34	156.57	10.91	-10.04	0.40
3696.00	0.26	304.07	3695.96	-9.94	4.02	157.97	10.72	-9.97	0.23
3791.00	0.18	62.90	3790.96	-9.75	3.98	157.82	10.53	-9.78	0.40
3886.00	0.13	142.88	3885.96	-9.77	4.17	156.87	10.62	-9.80	0.21
3980.00	0.09	143.85	3979.96	-9.91	4.28	156.64	10.80	-9.94	0.04
4074.00	0.09	126.27	4073.96	-10.02	4.38	156.36	10.94	-10.05	0.03
4169.00	0.04	183.92	4168.96	-10.10	4.44	156.25	11.03	-10.13	0.08
4264.00	0.26	194.12	4263.96	-10.34	4.39	157.00	11.23	-10.37	0.23
4358.00	0.57	255.20	4357.96	-10.66	3.88	159.99	11.35	-10.69	0.53
4456.00	0.26	264.78	4455.95	-10.81	3.19	163.55	11.27	-10.83	0.32
4550.00	0.22	236.13	4549.95	-10.93	2.83	165.49	11.29	-10.95	0.13
4645.00	0.40	253.80	4644.95	-11.12	2.36	168.03	11.37	-11.14	0.21
4739.00	0.26	246.24	4738.95	-11.30	1.85	170.71	11.45	-11.31	0.16
4834.00	0.44	229.27	4833.95	-11.63	1.37	173.25	11.71	-11.63	0.22

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
4929.00	0.48	244.74	4928.94	-12.03	0.74	176.49	12.06	-12.04	0.14
5024.00	0.48	237.01	5023.94	-12.42	0.05	179.79	12.42	-12.42	0.07
5119.00	0.40	247.82	5118.94	-12.76	-0.60	182.67	12.78	-12.76	0.12
5215.00	0.48	248.08	5214.94	-13.04	-1.28	185.60	13.10	-13.03	0.08
5309.00	0.53	234.20	5308.93	-13.44	-2.00	188.45	13.59	-13.42	0.14
5404.00	0.40	253.53	5403.93	-13.79	-2.67	190.96	14.05	-13.77	0.21
5499.00	0.22	256.26	5498.93	-13.93	-3.17	192.81	14.28	-13.91	0.19
5593.00	0.26	292.20	5592.93	-13.89	-3.54	194.30	14.33	-13.86	0.16
5689.00	0.26	316.37	5688.93	-13.65	-3.89	195.91	14.19	-13.62	0.11
5783.00	0.35	297.74	5782.92	-13.36	-4.29	197.81	14.03	-13.33	0.14
5877.00	0.40	336.94	5876.92	-12.93	-4.68	199.88	13.75	-12.89	0.27
5970.00	0.79	355.22	5969.92	-11.99	-4.86	202.05	12.93	-11.95	0.46
6064.00	0.75	357.07	6063.91	-10.73	-4.94	204.73	11.81	-10.69	0.05
6158.00	0.62	15.00	6157.90	-9.62	-4.84	206.71	10.77	-9.59	0.27
6252.00	0.62	14.12	6251.90	-8.64	-4.59	207.96	9.78	-8.61	0.01
6347.00	0.75	15.26	6346.89	-7.55	-4.30	209.67	8.68	-7.52	0.14
6441.00	0.66	25.46	6440.88	-6.46	-3.90	211.13	7.55	-6.44	0.16
6536.00	0.70	14.91	6535.88	-5.41	-3.52	213.05	6.45	-5.38	0.14
6630.00	0.75	27.04	6629.87	-4.31	-3.09	215.68	5.30	-4.28	0.17
6710.00	0.79	19.39	6709.86	-3.32	-2.67	218.82	4.26	-3.30	0.14
6804.00	0.88	25.63	6803.85	-2.06	-2.14	226.18	2.97	-2.04	0.14
6899.00	0.92	27.65	6898.84	-0.72	-1.47	243.85	1.64	-0.71	0.05
6994.00	0.79	27.30	6993.83	0.53	-0.82	303.09	0.98	0.54	0.14
7087.00	0.66	29.76	7086.82	1.57	-0.26	350.61	1.59	1.57	0.14
7182.00	0.70	27.83	7181.82	2.56	0.28	6.32	2.57	2.55	0.05
7277.00	0.70	25.19	7276.81	3.60	0.80	12.56	3.68	3.59	0.03
7371.00	0.70	20.97	7370.80	4.65	1.25	15.06	4.82	4.64	0.06
7465.00	0.75	18.69	7464.79	5.77	1.66	15.99	6.01	5.76	0.06
7559.00	0.79	14.91	7558.79	6.98	2.02	16.13	7.27	6.97	0.07
7654.00	0.84	13.42	7653.78	8.29	2.35	15.82	8.62	8.28	0.06
7745.00	0.88	10.08	7744.77	9.63	2.63	15.25	9.98	9.61	0.07
7839.00	0.92	16.05	7838.75	11.07	2.96	14.98	11.46	11.05	0.11
7933.00	0.84	29.68	7932.74	12.39	3.51	15.82	12.88	12.37	0.24
8027.00	0.84	48.84	8026.73	13.44	4.37	18.01	14.14	13.41	0.30
8122.00	0.79	46.55	8121.72	14.35	5.37	20.52	15.32	14.31	0.06
8216.00	0.70	56.57	8215.72	15.11	6.32	22.70	16.38	15.07	0.17
8310.00	0.57	70.72	8309.71	15.58	7.24	24.92	17.18	15.53	0.22

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8405.00	0.62	83.11	8404.70	15.80	8.20	27.42	17.80	15.74	0.14
8499.00	0.66	83.99	8498.70	15.92	9.24	30.13	18.41	15.85	0.04
8592.00	0.62	81.18	8591.69	16.05	10.27	32.61	19.06	15.98	0.05
8686.00	0.66	74.68	8685.69	16.27	11.30	34.76	19.81	16.19	0.09
8779.00	0.57	76.17	8778.68	16.53	12.26	36.57	20.58	16.44	0.10
8873.00	0.57	68.44	8872.68	16.81	13.15	38.04	21.34	16.72	0.08
8968.00	0.84	80.48	8967.67	17.10	14.28	39.86	22.27	17.00	0.32
9061.00	1.10	87.95	9060.66	17.24	15.84	42.57	23.41	17.13	0.31
9156.00	1.05	99.46	9155.64	17.13	17.61	45.79	24.57	17.01	0.23
9251.00	0.97	96.38	9250.62	16.90	19.27	48.75	25.63	16.77	0.10
9345.00	0.84	97.09	9344.61	16.73	20.74	51.12	26.65	16.58	0.14
9440.00	0.84	95.33	9439.60	16.58	22.13	53.16	27.65	16.42	0.03
9535.00	0.75	90.76	9534.59	16.50	23.44	54.85	28.67	16.34	0.12
9629.00	0.70	88.56	9628.59	16.51	24.63	56.17	29.65	16.34	0.06
9724.00	0.62	87.33	9723.58	16.55	25.73	57.25	30.59	16.37	0.09
9819.00	0.53	71.25	9818.58	16.71	26.65	57.91	31.46	16.53	0.19
9914.00	0.48	39.52	9913.57	17.16	27.32	57.87	32.27	16.97	0.30
10010.00	0.57	8.05	10009.57	17.94	27.65	57.01	32.96	17.75	0.31
10081.00	0.79	346.78	10080.56	18.77	27.58	55.77	33.36	18.58	0.47
10121.00	0.79	328.59	10120.56	19.27	27.38	54.85	33.48	19.08	0.62
10216.00	0.97	304.86	10215.55	20.29	26.38	52.43	33.28	20.11	0.42
10322.00	3.12	338.70	10321.48	23.49	24.59	46.31	34.01	23.32	2.24
10354.00	9.01	350.30	10353.29	26.78	23.85	41.69	35.86	26.61	18.71
10386.00	11.56	352.15	10384.77	32.43	22.99	35.34	39.75	32.26	8.03
10417.00	11.91	352.23	10415.12	38.67	22.14	29.79	44.56	38.52	1.13
10448.00	11.91	352.50	10445.45	45.01	21.29	25.31	49.79	44.86	0.18
10480.00	11.78	352.50	10476.77	51.52	20.43	21.63	55.43	51.38	0.41
10512.00	11.87	352.41	10508.09	58.03	19.57	18.64	61.24	57.89	0.29
10543.00	11.69	351.27	10538.44	64.29	18.67	16.19	66.95	64.16	0.95
10575.00	11.60	351.18	10569.78	70.67	17.68	14.05	72.85	70.55	0.29
10606.00	11.47	351.00	10600.15	76.80	16.72	12.29	78.60	76.68	0.44
10638.00	11.43	351.71	10631.52	83.08	15.77	10.75	84.56	82.97	0.46
10670.00	14.68	353.82	10662.69	90.25	14.88	9.36	91.47	90.14	10.26
10701.00	18.68	354.43	10692.38	99.10	13.97	8.02	100.08	99.00	12.92
10733.00	22.51	356.80	10722.33	110.32	13.13	6.79	111.10	110.22	12.25
10765.00	25.41	0.23	10751.57	123.30	12.82	5.93	123.97	123.21	10.05
10796.00	26.29	1.29	10779.47	136.82	13.00	5.43	137.43	136.72	3.21

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
10828.00	26.55	1.64	10808.12	151.05	13.36	5.06	151.64	150.95	0.95
10859.00	28.48	359.35	10835.62	165.37	13.48	4.66	165.92	165.27	7.10
10891.00	30.73	357.95	10863.44	181.17	13.10	4.13	181.64	181.08	7.36
10923.00	33.54	357.33	10890.53	198.18	12.39	3.58	198.56	198.09	8.84
10954.00	36.09	357.68	10915.98	215.86	11.62	3.08	216.17	215.77	8.25
10986.00	38.29	358.12	10941.47	235.19	10.92	2.66	235.44	235.10	6.93
11017.00	40.18	358.47	10965.48	254.78	10.33	2.32	254.99	254.71	6.14
11049.00	40.44	358.74	10989.88	275.48	9.83	2.04	275.65	275.40	0.98
11081.00	40.13	358.56	11014.29	296.16	9.34	1.81	296.31	296.09	1.03
11112.00	41.85	358.65	11037.69	316.49	8.85	1.60	316.61	316.42	5.55
11144.00	46.37	359.09	11060.66	338.75	8.41	1.42	338.86	338.69	14.16
11176.00	50.59	359.09	11081.87	362.70	8.03	1.27	362.79	362.64	13.19
11208.00	54.68	359.18	11101.29	388.13	7.65	1.13	388.21	388.07	12.78
11239.00	57.41	358.83	11118.60	413.84	7.20	1.00	413.90	413.78	8.86
11271.00	61.05	358.03	11134.97	441.32	6.44	0.84	441.36	441.26	11.58
11301.00	65.54	357.77	11148.45	468.09	5.46	0.67	468.12	468.04	14.99
11333.00	70.11	357.68	11160.52	497.69	4.29	0.49	497.71	497.65	14.28
11364.00	72.53	357.95	11170.45	527.04	3.17	0.34	527.05	527.00	7.85
11396.00	76.18	358.74	11179.08	557.83	2.28	0.23	557.84	557.80	11.65
11428.00	80.40	359.35	11185.57	589.16	1.76	0.17	589.16	589.13	13.32
11460.00	84.79	359.97	11189.69	620.88	1.57	0.14	620.88	620.85	13.85
11491.00	88.35	0.14	11191.55	651.82	1.60	0.14	651.82	651.79	11.50
11522.00	90.51	0.06	11191.86	682.82	1.65	0.14	682.82	682.79	6.97
11552.00	91.38	359.97	11191.36	712.81	1.66	0.13	712.81	712.78	2.92
11645.00	91.16	0.50	11189.30	805.79	2.04	0.15	805.79	805.75	0.62
11738.00	91.21	1.46	11187.38	898.75	3.63	0.23	898.76	898.71	1.03
11830.00	91.96	1.02	11184.83	990.70	5.62	0.33	990.71	990.63	0.95
11924.00	93.27	1.46	11180.55	1084.57	7.66	0.40	1084.60	1084.49	1.47
12018.00	90.77	0.93	11177.23	1178.49	9.61	0.47	1178.53	1178.39	2.72
12112.00	91.74	1.29	11175.17	1272.45	11.43	0.51	1272.50	1272.33	1.10
12208.00	91.74	0.67	11172.26	1368.39	13.08	0.55	1368.45	1368.26	0.65
12301.00	92.40	0.50	11168.90	1461.32	14.02	0.55	1461.39	1461.19	0.73
12396.00	90.42	358.91	11166.56	1556.28	13.54	0.50	1556.34	1556.15	2.67
12490.00	91.16	358.56	11165.27	1650.25	11.46	0.40	1650.29	1650.13	0.87
12585.00	92.62	358.56	11162.13	1745.17	9.07	0.30	1745.19	1745.06	1.54
12679.00	90.51	359.44	11159.57	1839.11	7.44	0.23	1839.13	1839.01	2.43
12774.00	91.65	359.88	11157.77	1934.09	6.87	0.20	1934.10	1934.00	1.29

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
12868.00	90.99	359.97	11155.61	2028.06	6.75	0.19	2028.08	2027.97	0.71
12963.00	91.60	0.14	11153.46	2123.04	6.84	0.18	2123.05	2122.94	0.67
13058.00	90.73	359.62	11151.53	2218.02	6.64	0.17	2218.03	2217.92	1.07
13153.00	91.08	359.35	11150.03	2313.00	5.79	0.14	2313.01	2312.91	0.47
13248.00	92.48	359.44	11147.08	2407.95	4.78	0.11	2407.95	2407.86	1.48
13343.00	90.99	359.53	11144.20	2502.90	3.93	0.09	2502.90	2502.81	1.57
13439.00	92.26	359.88	11141.48	2598.86	3.44	0.08	2598.86	2598.77	1.37
13534.00	91.87	359.88	11138.06	2693.80	3.24	0.07	2693.80	2693.71	0.41
13629.00	92.75	359.79	11134.23	2788.72	2.96	0.06	2788.72	2788.63	0.93
13724.00	90.37	359.53	11131.64	2883.67	2.40	0.05	2883.67	2883.59	2.52
13818.00	91.43	359.79	11130.17	2977.66	1.84	0.04	2977.66	2977.57	1.16
13913.00	92.84	0.32	11126.63	3072.59	1.93	0.04	3072.59	3072.50	1.59
14006.00	90.55	0.58	11123.88	3165.54	2.66	0.05	3165.54	3165.44	2.48
14101.00	91.43	1.20	11122.23	3260.51	4.14	0.07	3260.52	3260.40	1.13
14196.00	91.47	0.14	11119.83	3355.47	5.25	0.09	3355.48	3355.36	1.12
14290.00	93.05	0.14	11116.12	3449.40	5.48	0.09	3449.40	3449.28	1.68
14384.00	91.30	359.09	11112.56	3543.32	4.85	0.08	3543.33	3543.20	2.17
14477.00	91.69	358.47	11110.13	3636.27	2.87	0.05	3636.27	3636.16	0.79
14571.00	90.68	359.09	11108.19	3730.23	0.87	0.01	3730.23	3730.13	1.26
14664.00	91.87	359.27	11106.12	3823.19	-0.46	359.99	3823.19	3823.10	1.29
14759.00	93.19	358.91	11101.92	3918.09	-1.97	359.97	3918.09	3918.00	1.44
14854.00	92.97	359.27	11096.82	4012.94	-3.48	359.95	4012.94	4012.86	0.44
14950.00	91.78	358.65	11092.84	4108.84	-5.22	359.93	4108.84	4108.77	1.40
15044.00	92.62	358.39	11089.23	4202.73	-7.64	359.90	4202.74	4202.69	0.94
15139.00	92.09	358.91	11085.33	4297.63	-9.88	359.87	4297.64	4297.59	0.78
15234.00	93.41	359.00	11080.77	4392.50	-11.61	359.85	4392.52	4392.47	1.39
15329.00	90.77	358.74	11077.31	4487.41	-13.48	359.83	4487.43	4487.39	2.79
15425.00	91.82	358.56	11075.14	4583.36	-15.74	359.80	4583.38	4583.36	1.11
15520.00	91.03	359.00	11072.77	4678.31	-17.77	359.78	4678.34	4678.32	0.95
15615.00	92.40	358.70	11069.93	4773.24	-19.67	359.76	4773.28	4773.26	1.48
15710.00	91.65	0.06	11066.57	4868.17	-20.70	359.76	4868.22	4868.20	1.63
15805.00	91.30	0.41	11064.13	4963.14	-20.31	359.77	4963.18	4963.16	0.52
15899.00	88.88	0.06	11063.98	5057.13	-19.92	359.77	5057.17	5057.15	2.60
15993.00	90.37	0.50	11064.60	5151.13	-19.46	359.78	5151.16	5151.14	1.65
16088.00	92.18	0.23	11062.48	5246.10	-18.86	359.79	5246.13	5246.10	1.93
16182.00	91.47	359.27	11059.49	5340.05	-19.27	359.79	5340.08	5340.05	1.27
16277.00	91.96	358.65	11056.65	5434.99	-20.99	359.78	5435.03	5435.00	0.83

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
16370.00	90.24	358.12	11054.86	5527.93	-23.61	359.76	5527.98	5527.96	1.94
16465.00	92.53	358.65	11052.56	5622.86	-26.29	359.73	5622.92	5622.90	2.47
16559.00	92.04	359.09	11048.82	5716.76	-28.14	359.72	5716.83	5716.82	0.70
16654.00	91.91	359.53	11045.54	5811.70	-29.29	359.71	5811.77	5811.76	0.48
16749.00	91.82	0.06	11042.45	5906.65	-29.63	359.71	5906.72	5906.71	0.57
16844.00	92.09	0.58	11039.21	6001.59	-29.09	359.72	6001.66	6001.65	0.62
16939.00	93.01	0.41	11034.98	6096.49	-28.28	359.73	6096.56	6096.54	0.98
17034.00	92.48	359.70	11030.43	6191.38	-28.18	359.74	6191.45	6191.43	0.93

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
17082.00	92.48	359.70	11028.36	6239.34	-28.44	359.74	6239.40	6239.38	0.00



DGP Energy

Lea Co., NM (Nad83 / East)

Chug Bug State Com

#1H

ST02

Design: ST02

End Of Well Report

27 November, 2018



Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Project	Lea Co., NM (Nad83 / East)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Chug Bug State Com		
Site Position:		Northing:	706,698.49 usft
From:	Lat/Long	Easting:	743,075.98 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32.940995
		Longitude:	-103.675740
		Grid Convergence:	0.36 °

Well	#1H		
Well Position	+N/-S	0.00 usft	Northing: 706,698.49 usft
	+E/-W	0.00 usft	Easting: 743,075.98 usft
Position Uncertainty	0.00 usft		Wellhead Elevation: usft
			Latitude: 32.940995
			Longitude: -103.675740
			Ground Level: 4,239.00 usft

Wellbore	ST02		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	11/15/2018	6.90
			Dip Angle
			(°)
			60.68
			Field Strength
			(nT)
			48,198.86442506

Design	ST02		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	14,664.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.60

Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey Program		Date 11/27/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
142.00	10,216.00	Survey #1 (OH)	MWD+IGRF	OWSG MWD + IGRF or WMM
10,322.00	14,664.00	Survey #1 (ST01)	MWD+IGRF	OWSG MWD + IGRF or WMM
14,759.00	17,391.00	Survey #1 (ST02)	MWD+IGRF	OWSG MWD + IGRF or WMM

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142.00	0.22	153.86	142.00	-0.24	0.12	-0.25	142.00	153.86	0.15	
229.00	0.53	175.49	229.00	-0.80	0.23	-0.80	87.00	169.19	0.39	
291.00	0.57	175.57	290.99	-1.39	0.27	-1.39	62.00	175.53	0.06	
350.00	0.18	129.17	349.99	-1.74	0.37	-1.74	59.00	164.93	0.79	
407.00	0.40	96.21	406.99	-1.82	0.63	-1.82	57.00	106.29	0.47	
495.00	0.22	123.63	494.99	-1.95	1.08	-1.95	88.00	105.87	0.26	
525.00	0.18	134.09	524.99	-2.01	1.16	-2.02	30.00	128.34	0.18	
590.00	0.22	97.79	589.99	-2.10	1.36	-2.11	65.00	114.06	0.20	
682.00	0.09	85.13	681.99	-2.12	1.61	-2.13	92.00	94.12	0.15	
774.00	0.13	92.52	773.99	-2.11	1.78	-2.13	92.00	89.50	0.05	
866.00	0.09	123.98	865.99	-2.16	1.95	-2.17	92.00	105.32	0.08	
959.00	0.18	125.92	958.99	-2.29	2.12	-2.30	93.00	125.27	0.10	
1,051.00	0.18	112.38	1,050.99	-2.43	2.38	-2.44	92.00	119.15	0.05	
1,145.00	0.18	112.38	1,144.99	-2.54	2.65	-2.56	94.00	112.38	0.00	
1,239.00	0.22	131.98	1,238.99	-2.71	2.92	-2.74	94.00	123.17	0.08	
1,334.00	0.22	137.43	1,333.99	-2.97	3.18	-2.99	95.00	134.71	0.02	
1,377.00	0.22	150.70	1,376.99	-3.10	3.27	-3.13	43.00	144.06	0.12	
1,520.00	0.04	345.47	1,519.99	-3.29	3.40	-3.32	143.00	147.48	0.18	
1,614.00	0.35	207.83	1,613.99	-3.52	3.25	-3.54	94.00	212.64	0.40	



Wellbenders End Of Well Report



Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
1,708.00	0.35	207.83	1,707.98	-4.02	2.99	-4.05	94.00	207.83	0.00	
1,806.00	0.35	212.05	1,805.98	-4.54	2.69	-4.56	98.00	209.94	0.03	
1,901.00	0.44	182.43	1,900.98	-5.15	2.52	-5.17	95.00	195.51	0.23	
1,994.00	0.35	212.58	1,993.98	-5.75	2.35	-5.77	93.00	195.75	0.24	
2,089.00	0.44	202.56	2,088.98	-6.33	2.05	-6.35	95.00	207.00	0.12	
2,183.00	0.44	194.21	2,182.97	-7.01	1.83	-7.03	94.00	198.38	0.07	
2,278.00	0.44	176.10	2,277.97	-7.73	1.76	-7.74	95.00	185.15	0.15	
2,373.00	0.40	190.08	2,372.97	-8.42	1.73	-8.43	95.00	182.76	0.12	
2,468.00	0.22	106.14	2,467.97	-8.80	1.85	-8.81	95.00	162.74	0.46	
2,562.00	0.18	195.17	2,561.97	-8.99	1.98	-9.01	94.00	145.04	0.30	
2,656.00	0.26	133.56	2,655.97	-9.28	2.10	-9.30	94.00	158.18	0.25	
2,749.00	0.35	122.31	2,748.97	-9.58	2.49	-9.60	93.00	127.10	0.12	
2,842.00	0.35	112.20	2,841.96	-9.84	2.99	-9.86	93.00	117.25	0.07	
2,937.00	0.13	31.87	2,936.96	-9.86	3.32	-9.88	95.00	93.18	0.37	
3,032.00	0.22	140.07	3,031.96	-9.90	3.49	-9.93	95.00	105.53	0.30	
3,128.00	0.09	239.03	3,127.96	-10.08	3.55	-10.11	96.00	163.41	0.26	
3,223.00	0.26	117.21	3,222.96	-10.22	3.67	-10.25	95.00	137.00	0.33	
3,318.00	0.26	60.09	3,317.96	-10.21	4.05	-10.24	95.00	88.65	0.26	
3,413.00	0.18	340.02	3,412.96	-9.96	4.19	-9.99	95.00	28.74	0.30	
3,508.00	0.22	111.24	3,507.96	-9.89	4.31	-9.92	95.00	58.07	0.38	
3,602.00	0.18	249.23	3,601.96	-10.01	4.34	-10.04	94.00	165.64	0.40	
3,696.00	0.26	304.07	3,695.96	-9.94	4.02	-9.97	94.00	282.04	0.23	
3,791.00	0.18	62.90	3,790.96	-9.75	3.98	-9.78	95.00	346.39	0.40	
3,886.00	0.13	142.88	3,885.96	-9.77	4.17	-9.80	95.00	95.19	0.21	
3,980.00	0.09	143.85	3,979.96	-9.92	4.28	-9.94	94.00	143.28	0.04	
4,074.00	0.09	126.27	4,073.96	-10.02	4.39	-10.05	94.00	135.06	0.03	
4,169.00	0.04	183.92	4,168.96	-10.10	4.44	-10.13	95.00	143.14	0.08	

Company: DGP Energy
Project: Lea Co., NM (Nad83 / East)
Site: Chug Bug State Com
Well: #1H
Wellbore: ST02
Design: ST02

Local Co-ordinate Reference: Well #1H
TVD Reference: RKB=28' @ 4267.00usft
MD Reference: RKB=28' @ 4267.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WBDS_SQL_2

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
4,264.00	0.26	194.12	4,263.96	-10.34	4.39	-10.37	95.00	192.76	0.23
4,358.00	0.57	255.20	4,357.96	-10.66	3.88	-10.69	94.00	237.09	0.53
4,456.00	0.26	264.78	4,455.95	-10.81	3.19	-10.83	98.00	258.20	0.32
4,550.00	0.22	236.13	4,549.95	-10.93	2.83	-10.95	94.00	251.67	0.13
4,645.00	0.40	253.80	4,644.95	-11.12	2.36	-11.14	95.00	247.55	0.21
4,739.00	0.26	246.24	4,738.95	-11.30	1.85	-11.31	94.00	250.82	0.16
4,834.00	0.44	229.27	4,833.95	-11.63	1.38	-11.63	95.00	235.56	0.22
4,929.00	0.48	244.74	4,928.94	-12.03	0.74	-12.04	95.00	237.34	0.14
5,024.00	0.48	237.01	5,023.94	-12.42	0.05	-12.42	95.00	240.87	0.07
5,119.00	0.40	247.82	5,118.94	-12.76	-0.60	-12.76	95.00	241.92	0.12
5,215.00	0.48	248.08	5,214.94	-13.04	-1.28	-13.03	96.00	247.96	0.08
5,309.00	0.53	234.20	5,308.93	-13.44	-2.00	-13.43	94.00	240.79	0.14
5,404.00	0.40	253.53	5,403.93	-13.79	-2.67	-13.77	95.00	242.50	0.21
5,499.00	0.22	256.26	5,498.93	-13.93	-3.17	-13.91	95.00	254.50	0.19
5,593.00	0.26	292.20	5,592.93	-13.89	-3.54	-13.87	94.00	275.78	0.16
5,689.00	0.26	316.37	5,688.93	-13.65	-3.89	-13.62	96.00	304.29	0.11
5,783.00	0.35	297.74	5,782.92	-13.36	-4.29	-13.33	94.00	305.67	0.14
5,877.00	0.40	336.94	5,876.92	-12.93	-4.68	-12.89	94.00	318.70	0.27
5,970.00	0.79	355.22	5,969.92	-11.99	-4.86	-11.95	93.00	349.10	0.46
6,064.00	0.75	357.07	6,063.91	-10.73	-4.94	-10.69	94.00	356.12	0.05
6,158.00	0.62	15.00	6,157.90	-9.62	-4.84	-9.59	94.00	5.18	0.27
6,252.00	0.62	14.12	6,251.90	-8.64	-4.59	-8.61	94.00	14.56	0.01
6,347.00	0.75	15.26	6,346.89	-7.54	-4.30	-7.51	95.00	14.74	0.14
6,441.00	0.66	25.46	6,440.88	-6.46	-3.90	-6.43	94.00	20.03	0.16
6,536.00	0.70	14.91	6,535.88	-5.40	-3.52	-5.38	95.00	20.03	0.14
6,630.00	0.75	27.04	6,629.87	-4.30	-3.09	-4.28	94.00	21.18	0.17
6,710.00	0.79	19.39	6,709.86	-3.31	-2.67	-3.30	80.00	23.12	0.14

Company: DGP Energy
Project: Lea Co., NM (Nad83 / East)
Site: Chug Bug State Com
Well: #1H
Wellbore: ST02
Design: ST02

Local Co-ordinate Reference: Well #1H
TVD Reference: RKB=28' @ 4267.00usft
MD Reference: RKB=28' @ 4267.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
6,804.00	0.88	25.63	6,803.85	-2.05	-2.14	-2.04	94.00	22.68	0.14	
6,899.00	0.92	27.65	6,898.84	-0.72	-1.47	-0.71	95.00	26.66	0.05	
6,994.00	0.79	27.30	6,993.83	0.54	-0.82	0.54	95.00	27.49	0.14	
7,087.00	0.66	29.76	7,086.82	1.57	-0.26	1.58	93.00	28.42	0.14	
7,182.00	0.70	27.83	7,181.82	2.56	0.29	2.56	95.00	28.77	0.05	
7,277.00	0.70	25.19	7,276.81	3.60	0.80	3.59	95.00	26.51	0.03	
7,371.00	0.70	20.97	7,370.80	4.66	1.25	4.65	94.00	23.08	0.05	
7,465.00	0.75	18.69	7,464.79	5.77	1.66	5.76	94.00	19.79	0.06	
7,559.00	0.79	14.91	7,558.79	6.98	2.02	6.97	94.00	16.75	0.07	
7,654.00	0.84	13.42	7,653.78	8.29	2.35	8.28	95.00	14.14	0.06	
7,745.00	0.88	10.08	7,744.77	9.63	2.63	9.61	91.00	11.71	0.07	
7,839.00	0.92	16.05	7,838.75	11.07	2.96	11.05	94.00	13.13	0.11	
7,933.00	0.84	29.68	7,932.74	12.39	3.51	12.37	94.00	22.55	0.24	
8,027.00	0.84	48.84	8,026.73	13.44	4.37	13.41	94.00	39.26	0.30	
8,122.00	0.79	46.55	8,121.72	14.35	5.37	14.31	95.00	47.73	0.06	
8,216.00	0.70	56.57	8,215.72	15.11	6.32	15.07	94.00	51.26	0.17	
8,310.00	0.57	70.72	8,309.71	15.58	7.24	15.53	94.00	62.92	0.22	
8,405.00	0.62	83.11	8,404.70	15.80	8.20	15.74	95.00	77.18	0.14	
8,499.00	0.66	83.99	8,498.70	15.92	9.24	15.85	94.00	83.56	0.04	
8,592.00	0.62	81.18	8,591.69	16.05	10.27	15.98	93.00	82.63	0.05	
8,686.00	0.66	74.68	8,685.69	16.27	11.30	16.19	94.00	77.83	0.09	
8,779.00	0.57	76.17	8,778.68	16.53	12.26	16.44	93.00	75.37	0.10	
8,873.00	0.57	68.44	8,872.68	16.81	13.15	16.72	94.00	72.31	0.08	
8,968.00	0.84	80.48	8,967.67	17.10	14.28	17.00	95.00	75.62	0.32	
9,061.00	1.10	87.95	9,060.66	17.24	15.84	17.13	93.00	84.72	0.31	
9,156.00	1.05	99.46	9,155.64	17.13	17.61	17.01	95.00	93.57	0.23	
9,251.00	0.97	96.38	9,250.62	16.90	19.27	16.77	95.00	97.98	0.10	



Wellbenders End Of Well Report



Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
9,345.00	0.84	97.09	9,344.61	16.73	20.74	16.58	94.00	96.71	0.14	
9,440.00	0.84	95.33	9,439.60	16.58	22.13	16.42	95.00	96.21	0.03	
9,535.00	0.75	90.76	9,534.59	16.50	23.44	16.34	95.00	93.17	0.12	
9,629.00	0.70	88.56	9,628.59	16.51	24.63	16.34	94.00	89.70	0.06	
9,724.00	0.62	87.33	9,723.58	16.55	25.73	16.37	95.00	87.98	0.09	
9,819.00	0.53	71.25	9,818.58	16.71	26.65	16.53	95.00	79.92	0.19	
9,914.00	0.48	39.52	9,913.57	17.16	27.32	16.97	95.00	56.19	0.30	
10,010.00	0.57	8.05	10,009.57	17.94	27.65	17.75	96.00	22.40	0.31	
10,081.00	0.79	346.78	10,080.56	18.77	27.58	18.58	71.00	355.68	0.47	
10,121.00	0.79	328.59	10,120.56	19.27	27.38	19.08	40.00	337.68	0.62	
10,216.00	0.97	304.86	10,215.55	20.29	26.38	20.11	95.00	315.49	0.42	
10,322.00	3.12	338.70	10,321.48	23.49	24.59	23.32	106.00	330.86	2.24	
10,354.00	9.01	350.30	10,353.29	26.78	23.85	26.61	32.00	347.32	18.71	
10,386.00	11.56	352.15	10,384.77	32.43	22.99	32.26	32.00	351.34	8.03	
10,417.00	11.91	352.23	10,415.12	38.67	22.14	38.52	31.00	352.19	1.13	
10,448.00	11.91	352.50	10,445.45	45.01	21.29	44.86	31.00	352.37	0.18	
10,480.00	11.78	352.50	10,476.77	51.52	20.43	51.38	32.00	352.50	0.41	
10,512.00	11.87	352.41	10,508.09	58.03	19.57	57.89	32.00	352.45	0.29	
10,543.00	11.69	351.27	10,538.44	64.29	18.67	64.16	31.00	351.84	0.95	
10,575.00	11.60	351.18	10,569.78	70.67	17.68	70.55	32.00	351.23	0.29	
10,606.00	11.47	351.00	10,600.15	76.80	16.72	76.68	31.00	351.09	0.44	
10,638.00	11.43	351.71	10,631.52	83.08	15.77	82.97	32.00	351.35	0.46	
10,670.00	14.68	353.82	10,662.69	90.25	14.88	90.14	32.00	352.89	10.26	
10,701.00	18.68	354.43	10,692.38	99.10	13.97	99.00	31.00	354.16	12.92	
10,733.00	22.51	356.80	10,722.33	110.32	13.13	110.22	32.00	355.72	12.25	
10,765.00	25.41	0.23	10,751.57	123.30	12.82	123.21	32.00	358.61	10.05	
10,796.00	26.29	1.29	10,779.47	136.82	13.00	136.72	31.00	0.77	3.21	



Wellbenders End Of Well Report



Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
10,828.00	26.55	1.64	10,808.12	151.05	13.36	150.96	32.00	1.47	0.95	
10,859.00	28.48	359.35	10,835.62	165.37	13.48	165.27	31.00	0.46	7.10	
10,891.00	30.73	357.95	10,863.44	181.17	13.10	181.08	32.00	358.63	7.36	
10,923.00	33.54	357.33	10,890.53	198.18	12.39	198.09	32.00	357.63	8.84	
10,954.00	36.09	357.68	10,915.98	215.86	11.62	215.77	31.00	357.51	8.25	
10,986.00	38.29	358.12	10,941.47	235.19	10.92	235.10	32.00	357.91	6.93	
11,017.00	40.18	358.47	10,965.48	254.78	10.34	254.71	31.00	358.30	6.14	
11,049.00	40.44	358.74	10,989.88	275.48	9.83	275.40	32.00	358.61	0.98	
11,081.00	40.13	358.56	11,014.29	296.16	9.34	296.09	32.00	358.65	1.03	
11,112.00	41.85	358.65	11,037.69	316.49	8.85	316.42	31.00	358.61	5.55	
11,144.00	46.37	359.09	11,060.66	338.75	8.41	338.69	32.00	358.88	14.16	
11,176.00	50.59	359.09	11,081.87	362.70	8.03	362.64	32.00	359.09	13.19	
11,208.00	54.68	359.18	11,101.29	388.13	7.65	388.07	32.00	359.14	12.78	
11,239.00	57.41	358.83	11,118.60	413.84	7.20	413.78	31.00	359.00	8.86	
11,271.00	61.05	358.03	11,134.97	441.32	6.45	441.26	32.00	358.42	11.58	
11,301.00	65.54	357.77	11,148.45	468.09	5.46	468.04	30.00	357.90	14.99	
11,333.00	70.11	357.68	11,160.52	497.69	4.29	497.65	32.00	357.72	14.28	
11,364.00	72.53	357.95	11,170.45	527.04	3.17	527.00	31.00	357.82	7.85	
11,396.00	76.18	358.74	11,179.08	557.83	2.28	557.80	32.00	358.35	11.65	
11,428.00	80.40	359.35	11,185.57	589.16	1.76	589.13	32.00	359.05	13.32	
11,460.00	84.79	359.97	11,189.69	620.88	1.57	620.85	32.00	359.66	13.85	
11,491.00	88.35	0.14	11,191.55	651.82	1.60	651.79	31.00	0.06	11.50	
11,522.00	90.51	0.06	11,191.86	682.82	1.65	682.79	31.00	0.10	6.97	
11,552.00	91.38	359.97	11,191.36	712.81	1.66	712.78	30.00	0.02	2.92	
11,645.00	91.16	0.50	11,189.30	805.79	2.04	805.75	93.00	0.24	0.62	
11,738.00	91.21	1.46	11,187.38	898.75	3.63	898.71	93.00	0.98	1.03	
11,830.00	91.96	1.02	11,184.83	990.70	5.62	990.63	92.00	1.24	0.95	

Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
11,924.00	93.27	1.46	11,180.55	1,084.57	7.66	1,084.49	94.00	1.24	1.47	
12,018.00	90.77	0.93	11,177.23	1,178.49	9.61	1,178.39	94.00	1.19	2.72	
12,112.00	91.74	1.29	11,175.17	1,272.45	11.44	1,272.34	94.00	1.11	1.10	
12,208.00	91.74	0.67	11,172.26	1,368.39	13.08	1,368.26	96.00	0.98	0.65	
12,301.00	92.40	0.50	11,168.90	1,461.32	14.03	1,461.19	93.00	0.59	0.73	
12,396.00	90.42	358.91	11,166.56	1,556.28	13.54	1,556.15	95.00	359.70	2.67	
12,490.00	91.16	358.56	11,165.27	1,650.25	11.46	1,650.13	94.00	358.74	0.87	
12,585.00	92.62	358.56	11,162.13	1,745.17	9.07	1,745.06	95.00	358.56	1.54	
12,679.00	90.51	359.44	11,159.57	1,839.11	7.44	1,839.01	94.00	359.00	2.43	
12,774.00	91.65	359.88	11,157.77	1,934.09	6.87	1,934.00	95.00	359.66	1.29	
12,868.00	90.99	359.97	11,155.61	2,028.06	6.75	2,027.97	94.00	359.93	0.71	
12,963.00	91.60	0.14	11,153.46	2,123.04	6.84	2,122.94	95.00	0.05	0.67	
13,058.00	90.73	359.62	11,151.53	2,218.02	6.64	2,217.92	95.00	359.88	1.07	
13,153.00	91.08	359.35	11,150.03	2,313.00	5.79	2,312.91	95.00	359.49	0.47	
13,248.00	92.48	359.44	11,147.08	2,407.95	4.78	2,407.86	95.00	359.39	1.48	
13,343.00	90.99	359.53	11,144.20	2,502.90	3.93	2,502.81	95.00	359.49	1.57	
13,439.00	92.26	359.88	11,141.48	2,598.86	3.44	2,598.77	96.00	359.70	1.37	
13,534.00	91.87	359.88	11,138.06	2,693.80	3.24	2,693.71	95.00	359.88	0.41	
13,629.00	92.75	359.79	11,134.23	2,788.72	2.96	2,788.63	95.00	359.84	0.93	
13,724.00	90.37	359.53	11,131.64	2,883.67	2.40	2,883.59	95.00	359.66	2.52	
13,818.00	91.43	359.79	11,130.17	2,977.66	1.84	2,977.57	94.00	359.66	1.16	
13,913.00	92.84	0.32	11,126.63	3,072.59	1.93	3,072.50	95.00	0.05	1.59	
14,006.00	90.55	0.58	11,123.88	3,165.54	2.66	3,165.44	93.00	0.45	2.48	
14,101.00	91.43	1.20	11,122.23	3,260.51	4.14	3,260.40	95.00	0.89	1.13	
14,196.00	91.47	0.14	11,119.83	3,355.47	5.25	3,355.36	95.00	0.67	1.12	
14,290.00	93.05	0.14	11,116.12	3,449.40	5.48	3,449.28	94.00	0.14	1.68	
14,384.00	91.30	359.09	11,112.56	3,543.32	4.85	3,543.20	94.00	359.61	2.17	

Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
14,477.00	91.69	358.47	11,110.13	3,636.27	2.87	3,636.16	93.00	358.78	0.79
14,571.00	90.68	359.09	11,108.19	3,730.23	0.87	3,730.13	94.00	358.78	1.26
14,664.00	91.87	359.27	11,106.12	3,823.19	-0.46	3,823.10	93.00	359.18	1.29
14,759.00	93.19	358.91	11,101.92	3,918.09	-1.97	3,918.00	95.00	359.09	1.44
14,785.00	90.55	358.91	11,101.08	3,944.06	-2.46	3,943.99	26.00	358.91	10.15
14,880.00	90.20	2.96	11,100.45	4,039.03	-0.91	4,038.94	95.00	0.94	4.28
14,976.00	92.66	5.86	11,098.06	4,134.70	6.46	4,134.55	96.00	4.41	3.96
15,070.00	92.79	6.03	11,093.59	4,228.09	16.19	4,227.87	94.00	5.94	0.23
15,165.00	91.78	8.05	11,089.80	4,322.29	27.82	4,321.99	95.00	7.04	2.38
15,259.00	93.32	8.76	11,085.62	4,415.19	41.55	4,414.79	94.00	8.40	1.80
15,355.00	92.22	8.76	11,080.98	4,509.95	56.15	4,509.45	96.00	8.76	1.15
15,451.00	93.22	9.72	11,076.42	4,604.60	71.55	4,603.99	96.00	9.24	1.44
15,546.00	91.69	10.34	11,072.35	4,698.06	88.08	4,697.33	95.00	10.03	1.74
15,641.00	92.22	10.52	11,069.11	4,791.43	105.26	4,790.58	95.00	10.43	0.59
15,736.00	91.91	12.18	11,065.69	4,884.51	123.95	4,883.53	95.00	11.35	1.78
15,831.00	92.48	12.01	11,062.05	4,977.33	143.84	4,976.21	95.00	12.10	0.63
15,924.00	91.74	10.69	11,058.63	5,068.45	162.13	5,067.19	93.00	11.35	1.63
16,018.00	89.36	10.52	11,057.72	5,160.83	179.43	5,159.46	94.00	10.60	2.54
16,113.00	90.59	10.08	11,057.77	5,254.30	196.41	5,252.80	95.00	10.30	1.38
16,207.00	92.53	10.43	11,055.21	5,346.76	213.14	5,345.14	94.00	10.25	2.10
16,301.00	92.00	9.81	11,051.49	5,439.22	229.64	5,437.49	94.00	10.12	0.87
16,396.00	91.91	6.74	11,048.25	5,533.17	243.31	5,531.34	95.00	8.27	3.23
16,494.00	91.60	3.31	11,045.25	5,630.73	251.88	5,628.84	98.00	5.02	3.51
16,589.00	89.98	0.76	11,043.94	5,725.65	255.26	5,723.73	95.00	2.03	3.18
16,684.00	89.71	0.41	11,044.20	5,820.65	256.23	5,818.72	95.00	0.59	0.47
16,779.00	88.57	359.88	11,045.62	5,915.63	256.47	5,913.70	95.00	0.15	1.32
16,874.00	89.19	359.27	11,047.48	6,010.61	255.76	6,008.68	95.00	359.57	0.92



Wellbenders
End Of Well Report



Company:	DGP Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea Co., NM (Nad83 / East)	TVD Reference:	RKB=28' @ 4267.00usft
Site:	Chug Bug State Com	MD Reference:	RKB=28' @ 4267.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
16,969.00	90.29	358.65	11,047.91	6,105.59	254.04	6,103.67	95.00	358.96	1.33
17,063.00	91.74	358.83	11,046.24	6,199.55	251.97	6,197.64	94.00	358.74	1.55
17,157.00	90.77	359.00	11,044.19	6,293.51	250.19	6,291.61	94.00	358.92	1.05
17,252.00	88.97	359.53	11,044.40	6,388.50	248.97	6,386.61	95.00	359.26	1.98
17,346.00	90.73	359.44	11,044.65	6,482.49	248.13	6,480.60	94.00	359.48	1.87
17,391.00	90.73	359.44	11,044.07	6,527.49	247.69	6,525.60	45.00	359.44	0.00
Final Station Closure Distance= 6532.19 /Direction= 2.17 - Projection to Bit: 17391.00' MD/ 11044.07' TVD - TD: Latitude = 32.958931 / Longitude = -103.674800 - TD: Y= 713225.97 / X= 743323.67									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
17,391.00	11,044.07	6,527.49	247.69	Final Station Closure Distance= 6532.19 /Direction= 2.17
17,391.00	11,044.07	6,527.49	247.69	Projection to Bit: 17391.00' MD/ 11044.07' TVD
17,391.00	11,044.07	6,527.49	247.69	TD: Latitude = 32.958931 / Longitude = -103.674800
17,391.00	11,044.07	6,527.49	247.69	TD: Y= 713225.97 / X= 743323.67

Checked By: _____	Approved By: _____	Date: _____
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DGP Energy, LLC
2530 West Eldorado Parkway
Suite 200
Mckinney, TX 75070

Chug Bug State Com #001H

API: 30-025-45198
900' FNL & 355' FWL (SHL)
STR: 9-16S-33E
Lea County, New Mexico

13.375 54.5ppf J-55 BTC at 1438' MD
Cement to Surface

20" conductor pre-set to 80'

Spud w/ 17.5" PDC Bit

Drillout w/ 12.25" PDC Bit

9.625" 40ppf L80 BTC @ 10,150' MD
Cement to Surface

Drill Curve and Lateral w/ 8.5" PDC bit

Curve Interval
KOP = 10,216' MD/TVD
LP = 11,396' MD / 11,179' TVD

5.5" 20ppf HCP110 GBCD @ 17,390' TMD
Cemented to 8,200' MD

Pilot Hole
8.5" Pilot Hole to 12,500' TVD