

30-025-44499



Directional Survey Report

HO

JUN 06 2018

RECEIVED

Company: Centennial Resource Production, LLC

Well: Vitalizer State #502H

County: Lea

State: NM

Field: 2nd Bone Spring Sand

API: 30-025-44499

Rig: H&P 650

Service Co: Gordon Technologies LLC

Job #: GT180139

Survey Calc: Minimum Curvature

Well Surface Location

Latitude: 032°25'44.20" N

Longitude: 103°28'03.93'

Reference: NAD 1983

Y (Northing) 520863.32'

X (Easting) 808403.50'

Field Engr:

Report Date Apr 18 2018

Time: 20:04

Mag Reference: True North

Mag Correction: 6.8

Vert Sect. Azi: 359.97

Perm Datum Mean Sea Level

Depth Ref Rotary Table

RKB Height: 25

GL Elev: 3629

Survey	MD	Inc	Azimuth	TVD	VS	Rectangular Offsets		Course Length	DLS	Temp	Source
						NS	EW				
Tie In	1747	0.3	211.87	1746.96	0	-0.51	-4.54	0	0	0	
1	1802.00	0.16	89.02	1801.96	-0.63	-0.63	-4.54	55.00	0.74	77.71	MWD Run 1
2	1896.00	0.12	102.35	1895.96	-0.65	-0.65	-4.31	94.00	0.05	77.71	MWD Run 1
3	1990.00	0.36	81.07	1989.96	-0.62	-0.62	-3.92	94.00	0.27	84.86	MWD Run 1
4	2084.00	0.38	86.08	2083.96	-0.56	-0.56	-3.32	94.00	0.04	84.86	MWD Run 1
5	2178.00	0.42	89.83	2177.95	-0.53	-0.54	-2.67	94.00	0.05	92.00	MWD Run 1
6	2272.00	0.44	87.28	2271.95	-0.52	-0.52	-1.96	94.00	0.03	92.00	MWD Run 1
7	2366.00	0.27	50.94	2365.95	-0.36	-0.36	-1.43	94.00	0.29	92.00	MWD Run 1
8	2460.00	0.13	67.60	2459.95	-0.18	-0.18	-1.16	94.00	0.16	99.14	MWD Run 1
9	2554.00	0.06	355.73	2553.95	-0.09	-0.09	-1.06	94.00	0.13	99.14	MWD Run 1
10	2648.00	0.20	39.14	2647.95	0.09	0.09	-0.96	94.00	0.17	106.29	MWD Run 1
11	2743.00	0.53	33.01	2742.95	0.58	0.58	-0.62	95.00	0.35	106.29	MWD Run 1
12	2837.00	0.28	41.55	2836.94	1.12	1.12	-0.23	94.00	0.27	106.29	MWD Run 1
13	2931.00	0.28	39.79	2930.94	1.47	1.47	0.07	94.00	0.01	106.29	MWD Run 1
14	3025.00	0.48	53.07	3024.94	1.88	1.88	0.53	94.00	0.23	113.43	MWD Run 1
15	3119.00	0.79	62.14	3118.94	2.42	2.42	1.42	94.00	0.35	113.43	MWD Run 1
16	3213.00	1.19	69.32	3212.92	3.07	3.07	2.91	94.00	0.44	113.43	MWD Run 1
17	3307.00	1.45	71.07	3306.90	3.80	3.80	4.94	94.00	0.28	113.43	MWD Run 1
18	3401.00	0.99	79.79	3400.87	4.32	4.33	6.87	94.00	0.53	113.43	MWD Run 1
19	3495.00	1.02	80.92	3494.86	4.60	4.60	8.49	94.00	0.04	113.43	MWD Run 1
20	3589.00	0.95	78.75	3588.85	4.88	4.89	10.08	94.00	0.08	113.43	MWD Run 1
21	3683.00	1.04	94.76	3682.83	4.96	4.97	11.70	94.00	0.31	113.43	MWD Run 1
22	3777.00	0.71	87.14	3776.82	4.92	4.93	13.13	94.00	0.37	113.43	MWD Run 1
23	3871.00	0.25	183.89	3870.82	4.74	4.75	13.70	94.00	0.83	120.57	MWD Run 1
24	3965.00	0.24	183.55	3964.82	4.34	4.35	13.67	94.00	0.01	120.57	MWD Run 1
25	4059.00	0.17	178.07	4058.82	4.01	4.01	13.66	94.00	0.08	120.57	MWD Run 1
26	4153.00	0.06	193.63	4152.82	3.82	3.83	13.66	94.00	0.12	120.57	MWD Run 1
27	4247.00	0.06	65.59	4246.82	3.79	3.80	13.69	94.00	0.11	120.57	MWD Run 1
28	4341.00	0.20	43.33	4340.82	3.93	3.94	13.85	94.00	0.16	120.57	MWD Run 1
29	4435.00	0.34	59.39	4434.82	4.19	4.20	14.20	94.00	0.17	120.57	MWD Run 1
30	4529.00	0.17	4.89	4528.81	4.47	4.48	14.45	94.00	0.30	120.57	MWD Run 1
31	4623.00	0.38	297.42	4622.81	4.76	4.76	14.19	94.00	0.37	120.57	MWD Run 1
32	4717.00	0.51	292.56	4716.81	5.06	5.07	13.52	94.00	0.14	120.57	MWD Run 1
33	4811.00	0.39	300.83	4810.81	5.39	5.39	12.86	94.00	0.14	127.71	MWD Run 1
34	4906.00	0.49	287.75	4905.81	5.68	5.68	12.20	95.00	0.15	127.71	MWD Run 1
35	5000.00	0.40	296.22	4999.80	5.94	5.95	11.52	94.00	0.12	127.71	MWD Run 1
36	5094.00	0.52	295.28	5093.80	6.27	6.28	10.84	94.00	0.13	127.71	MWD Run 1
37	5188.00	0.48	305.31	5187.80	6.68	6.69	10.13	94.00	0.10	127.71	MWD Run 1
38	5306.00	0.33	313.01	5305.79	7.20	7.20	9.48	118.00	0.13	99.14	MWD Run 2
39	5369.00	0.28	348.65	5368.79	7.47	7.48	9.32	63.00	0.31	99.14	MWD Run 2
40	5463.00	0.22	328.44	5462.79	7.85	7.86	9.18	94.00	0.11	106.29	MWD Run 2
41	5556.00	0.34	314.78	5555.79	8.20	8.20	8.89	93.00	0.15	113.43	MWD Run 2
42	5651.00	0.30	311.42	5650.79	8.56	8.57	8.50	95.00	0.05	113.43	MWD Run 2
43	5745.00	0.21	308.89	5744.79	8.83	8.84	8.19	94.00	0.10	120.57	MWD Run 2
44	5839.00	0.20	316.47	5838.79	9.06	9.07	7.94	94.00	0.03	120.57	MWD Run 2
45	5933.00	0.35	312.55	5932.79	9.37	9.38	7.61	94.00	0.16	120.57	MWD Run 2
46	6027.00	0.31	295.44	6026.78	9.68	9.68	7.17	94.00	0.11	120.57	MWD Run 2
47	6121.00	0.34	295.60	6120.78	9.91	9.91	6.69	94.00	0.03	120.57	MWD Run 2
48	6215.00	0.29	289.81	6214.78	10.11	10.11	6.22	94.00	0.06	120.57	MWD Run 2
49	6309.00	0.42	281.00	6308.78	10.26	10.26	5.65	94.00	0.15	127.71	MWD Run 2
50	6403.00	0.40	276.95	6402.78	10.36	10.36	4.99	94.00	0.04	127.71	MWD Run 2
51	6497.00	0.67	268.63	6496.77	10.39	10.39	4.12	94.00	0.30	127.71	MWD Run 2
52	6591.00	0.74	263.96	6590.77	10.31	10.31	2.96	94.00	0.10	127.71	MWD Run 2
53	6685.00	0.98	263.45	6684.76	10.16	10.16	1.56	94.00	0.26	120.57	MWD Run 2
54	6779.00	1.02	267.73	6778.74	10.03	10.03	-0.07	94.00	0.09	120.57	MWD Run 2
55	6873.00	1.25	270.02	6872.72	10.00	10.00	-1.94	94.00	0.25	127.71	MWD Run 2
56	6967.00	1.43	261.37	6966.70	9.83	9.83	-4.12	94.00	0.29	127.71	MWD Run 2

57	7061.00	0.91	235.54	7060.68	9.23	9.23	-5.90	94.00	0.77	120.57	MWD Run 2
58	7155.00	0.94	221.22	7154.67	8.23	8.22	-7.02	94.00	0.25	120.57	MWD Run 2
59	7250.00	1.02	227.40	7249.65	7.07	7.07	-8.16	95.00	0.14	120.57	MWD Run 2
60	7344.00	1.27	234.94	7343.63	5.91	5.90	-9.62	94.00	0.31	120.57	MWD Run 2
61	7438.00	0.98	241.83	7437.61	4.93	4.92	-11.19	94.00	0.34	127.71	MWD Run 2
62	7532.00	0.91	234.56	7531.60	4.12	4.11	-12.50	94.00	0.15	127.71	MWD Run 2
63	7626.00	0.86	230.09	7625.59	3.23	3.23	-13.65	94.00	0.09	127.71	MWD Run 2
64	7720.00	1.04	235.22	7719.58	2.29	2.29	-14.89	94.00	0.21	127.71	MWD Run 2
65	7814.00	0.69	222.42	7813.57	1.39	1.38	-15.98	94.00	0.42	127.71	MWD Run 2
66	7909.00	0.48	193.79	7908.56	0.58	0.57	-16.46	95.00	0.37	134.86	MWD Run 2
67	8003.00	0.40	189.86	8002.56	-0.12	-0.13	-16.61	94.00	0.09	134.86	MWD Run 2
68	8097.00	0.44	205.31	8096.56	-0.77	-0.78	-16.82	94.00	0.13	134.86	MWD Run 2
69	8191.00	0.17	131.55	8190.56	-1.19	-1.20	-16.87	94.00	0.45	134.86	MWD Run 2
70	8285.00	0.30	92.80	8284.55	-1.30	-1.30	-16.52	94.00	0.21	134.86	MWD Run 2
71	8379.00	0.37	92.57	8378.55	-1.32	-1.33	-15.97	94.00	0.07	134.86	MWD Run 2
72	8473.00	0.35	101.05	8472.55	-1.39	-1.40	-15.38	94.00	0.06	134.86	MWD Run 2
73	8568.00	0.60	128.53	8567.55	-1.76	-1.76	-14.71	95.00	0.35	134.86	MWD Run 2
74	8662.00	0.76	133.17	8661.54	-2.49	-2.50	-13.87	94.00	0.18	134.86	MWD Run 2
75	8755.00	0.85	139.30	8754.53	-3.44	-3.44	-12.97	93.00	0.13	134.86	MWD Run 2
76	8849.00	1.04	130.17	8848.52	-4.52	-4.52	-11.86	94.00	0.26	134.86	MWD Run 2
77	8944.00	1.27	118.51	8943.50	-5.57	-5.58	-10.28	95.00	0.34	134.86	MWD Run 2
78	9038.00	1.44	124.99	9037.47	-6.75	-6.75	-8.40	94.00	0.24	134.86	MWD Run 2
79	9132.00	1.75	125.66	9131.44	-8.27	-8.27	-6.26	94.00	0.33	134.86	MWD Run 2
80	9226.00	1.48	131.72	9225.40	-9.91	-9.91	-4.19	94.00	0.34	134.86	MWD Run 2
81	9320.00	0.67	145.87	9319.38	-11.17	-11.18	-2.98	94.00	0.90	134.86	MWD Run 2
82	9414.00	0.51	214.56	9413.38	-11.97	-11.98	-2.90	94.00	0.72	134.86	MWD Run 2
83	9509.00	1.28	248.98	9508.37	-12.70	-12.70	-4.13	95.00	0.95	142.00	MWD Run 2
84	9602.00	1.74	244.64	9601.33	-13.68	-13.68	-6.38	93.00	0.51	142.00	MWD Run 2
85	9696.00	1.18	248.59	9695.30	-14.64	-14.65	-8.57	94.00	0.60	142.00	MWD Run 2
86	9737.00	0.87	249.85	9736.30	-14.90	-14.91	-9.26	41.00	0.76	142.00	MWD Run 2
87	9809.00	0.75	277.21	9808.29	-15.03	-15.04	-10.24	72.00	0.56	127.71	MWD Run 3
88	9840.00	1.18	322.60	9839.29	-14.75	-14.76	-10.63	31.00	2.72	127.71	MWD Run 3
89	9872.00	2.50	345.82	9871.27	-13.81	-13.82	-11.00	32.00	4.66	127.71	MWD Run 3
90	9903.00	3.81	347.36	9902.22	-12.15	-12.16	-11.39	31.00	4.23	127.71	MWD Run 3
91	9934.00	5.32	352.08	9933.12	-9.72	-9.73	-11.82	31.00	5.02	0.00	MWD Run 4.csv
92	9965.00	7.30	355.47	9963.93	-6.34	-6.34	-12.17	31.00	6.50	0.00	MWD Run 4.csv
93	9997.00	9.80	359.75	9995.58	-1.59	-1.59	-12.34	32.00	8.06	0.00	MWD Run 4.csv
94	10012.00	11.35	2.24	10010.32	1.17	1.16	-12.29	15.00	10.77	0.00	MWD Run 4.csv
95	10028.00	12.95	5.05	10025.96	4.53	4.52	-12.07	16.00	10.66	0.00	MWD Run 4.csv
96	10059.00	15.99	7.75	10055.98	12.22	12.21	-11.19	31.00	10.04	120.57	MWD Run 5
97	10091.00	19.38	8.04	10086.46	21.84	21.84	-9.85	32.00	10.60	120.57	MWD Run 5
98	10122.00	24.31	7.40	10115.22	33.27	33.27	-8.31	31.00	15.92	120.57	MWD Run 5
99	10153.00	29.08	5.50	10142.91	47.10	47.10	-6.77	31.00	15.63	120.57	MWD Run 5
100	10185.00	33.32	2.36	10170.28	63.64	63.63	-5.66	32.00	14.19	120.57	MWD Run 5
101	10216.00	38.52	359.46	10195.38	81.81	81.81	-5.40	31.00	17.65	120.57	MWD Run 5
102	10248.00	43.88	358.23	10219.45	102.87	102.87	-5.84	32.00	16.94	120.57	MWD Run 5
103	10279.00	48.85	357.90	10240.83	125.29	125.29	-6.60	31.00	16.05	120.57	MWD Run 5
104	10310.00	54.84	357.60	10259.97	149.64	149.63	-7.55	31.00	19.34	120.57	MWD Run 5
105	10341.00	60.40	357.81	10276.57	175.79	175.78	-8.60	31.00	17.94	120.57	MWD Run 6
106	10373.00	64.42	358.05	10291.39	204.12	204.12	-9.62	32.00	12.58	120.57	MWD Run 6
107	10404.00	66.88	358.42	10304.17	232.35	232.35	-10.49	31.00	8.01	120.57	MWD Run 6
108	10435.00	68.76	359.18	10315.87	261.05	261.04	-11.09	31.00	6.48	127.71	MWD Run 6
109	10467.00	70.07	359.84	10327.12	291.01	291.00	-11.35	32.00	4.53	127.71	MWD Run 6
110	10498.00	71.08	0.85	10337.43	320.24	320.23	-11.17	31.00	4.48	127.71	MWD Run 6
111	10529.00	73.12	1.37	10346.96	349.73	349.73	-10.60	31.00	6.77	127.71	MWD Run 6
112	10561.00	74.95	1.66	10355.76	380.48	380.48	-9.79	32.00	5.78	127.71	MWD Run 6
113	10592.00	77.40	2.34	10363.17	410.56	410.56	-8.73	31.00	8.19	127.71	MWD Run 6
114	10623.00	79.17	2.07	10369.46	440.89	440.89	-7.57	31.00	5.77	127.71	MWD Run 6
115	10655.00	80.77	1.52	10375.03	472.39	472.39	-6.58	32.00	5.28	127.71	MWD Run 6
116	10686.00	83.46	1.19	10379.29	503.08	503.08	-5.85	31.00	8.74	127.71	MWD Run 6
117	10717.00	85.54	1.33	10382.26	533.93	533.93	-5.18	31.00	6.72	127.71	MWD Run 6
118	10748.00	87.48	1.37	10384.14	564.86	564.86	-4.45	31.00	6.26	127.71	MWD Run 6
119	10780.00	88.43	1.34	10385.29	596.83	596.83	-3.69	32.00	2.97	127.71	MWD Run 6
120	10811.00	88.99	1.12	10385.98	627.82	627.82	-3.03	31.00	1.94	127.71	MWD Run 6
121	10843.00	88.40	0.83	10386.71	659.80	659.80	-2.48	32.00	2.05	127.71	MWD Run 6
122	10874.00	87.25	0.14	10387.89	690.78	690.78	-2.22	31.00	4.33	134.86	MWD Run 6
123	10905.00	87.28	0.08	10389.37	721.74	721.74	-2.16	31.00	0.22	134.86	MWD Run 6
124	10936.00	87.45	0.08	10390.79	752.71	752.71	-2.12	31.00	0.55	134.86	MWD Run 6
125	10968.00	87.76	0.09	10392.13	784.68	784.68	-2.07	32.00	0.97	134.86	MWD Run 6
126	10999.00	88.32	0.28	10393.19	815.67	815.66	-1.97	31.00	1.91	134.86	MWD Run 6
127	11031.00	87.06	0.06	10394.48	847.64	847.64	-1.87	32.00	4.00	134.86	MWD Run 6
128	11062.00	85.63	359.93	10396.46	878.57	878.57	-1.88	31.00	4.63	134.86	MWD Run 6
129	11093.00	85.77	359.54	10398.78	909.49	909.49	-2.02	31.00	1.33	134.86	MWD Run 6
130	11111.00	86.36	359.68	10400.02	927.44	927.44	-2.14	18.00	3.37	134.86	MWD Run 6
131	11125.00	86.75	359.67	10400.86	941.42	941.42	-2.22	14.00	2.79	134.86	MWD Run 6
132	11156.00	87.08	359.89	10402.53	972.37	972.37	-2.34	31.00	1.28	134.86	MWD Run 6
133	11188.00	88.37	359.86	10403.80	1004.35	1004.35	-2.41	32.00	4.03	134.86	MWD Run 6
134	11219.00	89.36	0.31	10404.41	1035.34	1035.34	-2.36	31.00	3.51	134.86	MWD Run 6

135	11313.00	90.34	0.50	10404.66	1129.34	1129.34	-1.70	94.00	1.06	134.86	MWD Run 6
136	11407.00	91.60	0.43	10403.07	1223.32	1223.32	-0.94	94.00	1.34	134.86	MWD Run 6
137	11501.00	90.36	0.19	10401.46	1317.30	1317.30	-0.43	94.00	1.34	134.86	MWD Run 6
138	11595.00	91.23	359.99	10400.15	1411.29	1411.29	-0.28	94.00	0.95	142.00	MWD Run 6
139	11690.00	90.08	359.69	10399.07	1506.28	1506.28	-0.55	95.00	1.25	142.00	MWD Run 6
140	11783.00	90.90	359.76	10398.27	1599.28	1599.28	-0.99	93.00	0.88	142.00	MWD Run 6
141	11877.00	89.94	359.32	10397.58	1693.27	1693.27	-1.75	94.00	1.12	142.00	MWD Run 6
142	11972.00	90.84	359.20	10396.94	1788.26	1788.26	-2.97	95.00	0.96	142.00	MWD Run 6
143	12066.00	89.86	358.86	10396.36	1882.24	1882.24	-4.56	94.00	1.10	142.00	MWD Run 6
144	12160.00	88.52	358.83	10397.69	1976.21	1976.21	-6.46	94.00	1.43	142.00	MWD Run 6
145	12254.00	87.42	358.75	10401.02	2070.13	2070.13	-8.44	94.00	1.17	142.00	MWD Run 6
146	12348.00	88.10	358.32	10404.70	2164.03	2164.03	-10.84	94.00	0.86	149.14	MWD Run 6
147	12442.00	88.74	357.96	10407.29	2257.95	2257.94	-13.89	94.00	0.78	149.14	MWD Run 6
148	12536.00	88.01	358.64	10409.95	2351.87	2351.86	-16.68	94.00	1.06	149.14	MWD Run 6
149	12630.00	87.79	0.11	10413.40	2445.80	2445.79	-17.71	94.00	1.58	149.14	MWD Run 6
150	12724.00	88.88	359.82	10416.13	2539.76	2539.75	-17.76	94.00	1.20	149.14	MWD Run 6
151	12818.00	87.67	0.10	10418.96	2633.71	2633.70	-17.83	94.00	1.32	149.14	MWD Run 6
152	12912.00	88.88	0.53	10421.79	2727.67	2727.66	-17.31	94.00	1.37	149.14	MWD Run 6
153	13006.00	87.70	1.76	10424.59	2821.60	2821.59	-15.44	94.00	1.81	149.14	MWD Run 6
154	13100.00	88.40	2.17	10427.79	2915.49	2915.48	-12.21	94.00	0.86	149.14	MWD Run 6
155	13194.00	86.86	1.80	10431.68	3009.35	3009.34	-8.96	94.00	1.68	149.14	MWD Run 6
156	13288.00	87.37	1.36	10436.41	3103.19	3103.19	-6.37	94.00	0.72	149.14	MWD Run 6
157	13383.00	88.24	1.40	10440.05	3198.09	3198.09	-4.09	95.00	0.92	149.14	MWD Run 6
158	13477.00	88.99	1.17	10442.32	3292.04	3292.04	-1.98	94.00	0.83	156.29	MWD Run 6
159	13571.00	89.75	1.10	10443.35	3386.01	3386.01	-0.12	94.00	0.81	156.29	MWD Run 6
160	13664.00	88.54	0.42	10444.74	3478.99	3478.99	1.12	93.00	1.49	149.14	MWD Run 6
161	13758.00	88.99	359.84	10446.77	3572.97	3572.97	1.33	94.00	0.78	156.29	MWD Run 6
162	13852.00	87.53	359.66	10449.62	3666.92	3666.92	0.92	94.00	1.56	156.29	MWD Run 6
163	13947.00	86.94	359.50	10454.20	3761.81	3761.81	0.22	95.00	0.84	156.29	MWD Run 6
164	14041.00	87.48	359.04	10458.78	3855.69	3855.69	-0.97	94.00	0.75	156.29	MWD Run 6
165	14135.00	87.93	358.79	10462.54	3949.60	3949.60	-2.75	94.00	0.55	156.29	MWD Run 6
166	14229.00	88.40	358.52	10465.55	4043.52	4043.52	-4.96	94.00	0.58	156.29	MWD Run 6
167	14323.00	89.13	358.19	10467.58	4137.46	4137.46	-7.65	94.00	0.85	156.29	MWD Run 6
168	14417.00	87.98	358.64	10469.95	4231.40	4231.39	-10.25	94.00	1.31	156.29	MWD Run 6
169	14511.00	89.13	358.19	10472.32	4325.33	4325.33	-12.85	94.00	1.31	156.29	MWD Run 6
170	14605.00	88.12	358.02	10474.58	4419.25	4419.25	-15.96	94.00	1.09	156.29	MWD Run 6
171	14699.00	88.12	359.12	10477.66	4513.17	4513.16	-18.30	94.00	1.17	156.29	MWD Run 6
172	14793.00	86.50	0.35	10482.07	4607.06	4607.06	-18.74	94.00	2.16	156.29	MWD Run 6
173	14887.00	87.17	0.01	10487.26	4700.92	4700.91	-18.44	94.00	0.80	156.29	MWD Run 6
174	14982.00	88.04	359.71	10491.23	4795.84	4795.83	-18.68	95.00	0.97	163.43	MWD Run 6
175	15076.00	88.99	359.49	10493.67	4889.80	4889.79	-19.33	94.00	1.04	156.29	MWD Run 6
176	15085.00	89.16	359.40	10493.81	4898.80	4898.79	-19.42	9.00	2.14	163.43	MWD Run 6
PTB	15140.00	89.16	359.40	10494.62	4953.79	4953.78	-20.00	55.00	0.00	0.00	MWD Run 6