



Survey Report

HOBBS OCD

MAY 08 2018

RECEIVED

Service Company: Altitude Energy Partners

Location: Lea County

Well: Tour Bus 23 State 23 601H

Rig: H & P 650

API or UWI:

Job Number: AEP-1818

State: New Mexico

Operating Company: Centennial Resource Operating LLC

County: Lea County

Magnetic Declination: 7.7

Country: United States

Proposed Azimuth: 180.13°

Comment:

North Reference: TRUE

Latitude: 32° 23' 1.296 N

Longitude: 103° 26' 53.644 W

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	TEMP
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	0.47	125.39	140.00	-0.33	0.47	125.39	0.57	0.33	0.34	56.0°F
234.00	0.34	257.67	234.00	-0.62	0.51	140.35	0.80	0.61	0.79	70.0°F
329.00	0.35	276.83	329.00	-0.64	-0.05	184.77	0.64	0.64	0.12	70.0°F
423.00	0.50	283.91	422.99	-0.51	-0.74	235.39	0.90	0.51	0.17	77.7°F
517.00	0.52	267.06	516.99	-0.43	-1.56	254.54	1.62	0.44	0.16	77.7°F
612.00	0.48	261.29	611.99	-0.51	-2.38	257.84	2.44	0.52	0.07	84.9°F
686.00	0.58	259.37	685.98	-0.63	-3.06	258.36	3.12	0.64	0.14	84.9°F
780.00	0.36	251.74	779.98	-0.81	-3.81	257.98	3.89	0.82	0.24	92.0°F
875.00	0.29	274.59	874.98	-0.88	-4.33	258.45	4.42	0.89	0.15	92.0°F
969.00	0.89	110.19	968.97	-1.12	-3.88	253.94	4.04	1.13	1.25	92.0°F
1063.00	2.10	111.72	1062.94	-2.01	-1.60	218.51	2.56	2.01	1.29	99.1°F
1157.00	2.64	105.67	1156.86	-3.23	2.09	147.12	3.84	3.22	0.63	99.1°F
1251.00	2.07	107.91	1250.78	-4.34	5.79	126.84	7.23	4.32	0.61	99.1°F
1345.00	1.68	108.08	1344.73	-5.29	8.71	121.24	10.19	5.27	0.41	92.0°F
1440.00	1.29	101.86	1439.70	-5.94	11.08	118.18	12.57	5.91	0.44	92.0°F
1534.00	1.35	103.92	1533.67	-6.42	13.19	115.95	14.67	6.39	0.08	70.6°F
1628.00	1.76	106.91	1627.64	-7.11	15.65	114.43	17.19	7.07	0.44	77.7°F
1722.00	2.24	108.99	1721.58	-8.13	18.77	113.41	20.45	8.08	0.52	84.9°F
1760.00	2.44	108.11	1759.55	-8.62	20.24	113.07	22.00	8.57	0.53	84.9°F
1897.00	2.36	120.92	1896.43	-10.97	25.43	113.34	27.70	10.92	0.40	70.6°F
1991.00	2.42	87.31	1990.35	-11.88	29.07	112.22	31.40	11.81	1.47	84.9°F
2086.00	3.09	84.18	2085.24	-11.52	33.62	108.91	35.54	11.45	0.72	84.9°F
2180.00	3.16	85.57	2179.10	-11.06	38.73	105.95	40.28	10.98	0.11	84.9°F
2274.00	3.33	87.60	2272.95	-10.75	44.04	103.72	45.33	10.65	0.22	92.0°F
2368.00	3.06	75.12	2366.81	-9.99	49.19	101.48	50.19	9.88	0.79	92.0°F
2462.00	3.18	73.64	2460.67	-8.61	54.12	99.04	54.80	8.49	0.15	92.0°F

2556.00	2.66	61.46	2554.55	-6.84	58.53	96.66	58.93	6.70	0.86	92.0°F
2651.00	2.54	62.36	2649.45	-4.81	62.34	94.41	62.52	4.67	0.13	92.0°F
2745.00	1.48	55.40	2743.39	-3.15	65.18	92.77	65.26	3.00	1.16	99.1°F
2839.00	0.22	332.37	2837.38	-2.30	66.10	91.99	66.14	2.15	1.56	99.1°F
2933.00	0.30	262.39	2931.38	-2.17	65.77	91.89	65.80	2.03	0.32	99.1°F
3028.00	0.11	349.88	3026.38	-2.12	65.51	91.85	65.54	1.97	0.33	99.1°F
3122.00	0.17	147.89	3120.38	-2.15	65.56	91.88	65.60	2.00	0.29	99.1°F
3216.00	0.24	63.86	3214.38	-2.18	65.82	91.90	65.85	2.03	0.30	99.1°F
3310.00	0.28	99.17	3308.38	-2.13	66.22	91.84	66.25	1.98	0.17	99.1°F
3404.00	0.53	112.96	3402.37	-2.33	66.85	92.00	66.89	2.18	0.28	99.1°F
3498.00	0.57	103.50	3496.37	-2.61	67.70	92.21	67.75	2.46	0.11	99.1°F
3592.00	0.39	96.92	3590.36	-2.76	68.47	92.31	68.53	2.61	0.20	99.1°F
3686.00	0.69	84.84	3684.36	-2.75	69.35	92.27	69.41	2.59	0.34	99.1°F
3781.00	0.60	112.76	3779.35	-2.89	70.38	92.35	70.44	2.73	0.34	99.1°F
3875.00	0.53	121.42	3873.35	-3.31	71.21	92.66	71.28	3.14	0.12	99.1°F
3969.00	0.77	103.14	3967.34	-3.68	72.19	92.92	72.29	3.51	0.33	99.1°F
4063.00	0.54	106.67	4061.34	-3.95	73.23	93.09	73.34	3.78	0.25	99.1°F
4157.00	0.56	36.15	4155.33	-3.70	73.93	92.87	74.02	3.54	0.68	99.1°F
4251.00	0.35	34.22	4249.33	-3.10	74.36	92.38	74.43	2.93	0.22	99.1°F
4345.00	0.73	283.13	4343.33	-2.72	73.94	92.11	73.99	2.55	0.97	99.1°F
4440.00	1.19	292.75	4438.32	-2.20	72.44	91.74	72.47	2.04	0.51	99.1°F
4534.00	1.23	275.26	4532.29	-1.73	70.54	91.41	70.56	1.57	0.39	92.0°F
4628.00	1.26	276.49	4626.27	-1.52	68.50	91.27	68.52	1.37	0.04	92.0°F
4722.00	1.14	282.88	4720.25	-1.20	66.57	91.03	66.58	1.05	0.19	92.0°F
4816.00	1.14	268.60	4814.23	-1.01	64.72	90.90	64.73	0.87	0.30	92.0°F
4910.00	0.92	269.77	4908.22	-1.04	63.03	90.94	63.04	0.90	0.24	92.0°F
5004.00	1.05	271.84	5002.20	-1.01	61.41	90.95	61.42	0.87	0.14	92.0°F
5098.00	1.27	278.79	5096.18	-0.83	59.52	90.80	59.53	0.69	0.28	92.0°F
5192.00	0.92	289.69	5190.17	-0.41	57.78	90.41	57.79	0.28	0.43	92.0°F
5286.00	0.95	283.35	5284.16	0.02	56.31	89.98	56.31	-0.15	0.11	92.0°F
5380.00	0.80	299.81	5378.14	0.53	54.99	89.45	54.99	-0.65	0.31	92.0°F
5474.00	0.72	288.17	5472.14	1.04	53.86	88.90	53.87	-1.16	0.18	99.1°F
5568.00	0.91	262.96	5566.13	1.13	52.55	88.77	52.57	-1.25	0.43	99.1°F
5622.00	1.02	267.69	5620.12	1.06	51.65	88.83	51.66	-1.18	0.25	99.1°F
5735.00	0.86	256.50	5733.10	0.83	49.82	89.04	49.82	-0.95	0.20	99.1°F
5829.00	0.90	259.16	5827.09	0.54	48.40	89.36	48.41	-0.65	0.05	106.30
5923.00	0.88	246.38	5921.08	0.11	47.02	89.86	47.02	-0.22	0.21	106.30
6017.00	0.91	246.81	6015.07	-0.47	45.67	90.59	45.67	0.37	0.03	106.30
6112.00	0.90	246.71	6110.06	-1.06	44.29	91.37	44.30	0.96	0.01	113.40
6205.00	0.91	245.39	6203.05	-1.66	42.95	92.21	42.98	1.56	0.02	113.40
6299.00	0.94	243.50	6297.03	-2.31	41.58	93.18	41.64	2.22	0.05	113.40
6393.00	0.89	239.52	6391.02	-3.03	40.26	94.30	40.37	2.94	0.09	113.40
6487.00	0.95	243.44	6485.01	-3.75	38.93	95.49	39.11	3.66	0.09	120.60
6581.00	0.90	243.36	6579.00	-4.42	37.58	96.72	37.84	4.34	0.05	120.60
6675.00	0.88	242.41	6672.99	-5.09	36.28	97.99	36.63	5.01	0.03	120.60
6769.00	0.95	247.87	6766.97	-5.72	34.92	99.30	35.38	5.64	0.12	120.60
6863.00	1.05	248.19	6860.96	-6.33	33.39	100.74	33.99	6.26	0.11	120.60
6957.00	0.43	275.88	6954.95	-6.62	32.24	101.59	32.91	6.54	0.74	127.70
7051.00	0.34	286.39	7048.95	-6.50	31.62	101.62	32.29	6.43	0.12	127.70
7145.00	0.50	283.82	7142.95	-6.32	30.96	101.54	31.60	6.25	0.17	127.70
7239.00	0.57	259.24	7236.94	-6.31	30.10	101.85	30.76	6.24	0.25	127.70

7333.00	0.14	172.09	7330.94	-6.51	29.66	102.39	30.36	6.45	0.62	127.70
7427.00	0.31	144.34	7424.94	-6.83	29.82	102.91	30.59	6.77	0.21	127.70
7521.00	0.54	84.38	7518.94	-7.00	30.41	102.96	31.21	6.93	0.50	127.70
7615.00	0.67	77.14	7612.93	-6.83	31.39	102.28	32.12	6.76	0.16	127.70
7709.00	0.68	75.68	7706.93	-6.57	32.46	101.44	33.12	6.50	0.02	127.70
7803.00	0.62	73.19	7800.92	-6.29	33.49	100.63	34.08	6.21	0.07	134.90
7897.00	0.56	79.70	7894.92	-6.06	34.43	99.98	34.96	5.98	0.10	134.90
7991.00	0.43	74.48	7988.91	-5.88	35.22	99.48	35.71	5.80	0.15	134.90
8085.00	0.44	88.63	8082.91	-5.78	35.92	99.14	36.38	5.70	0.11	134.90
8180.00	0.36	74.79	8177.91	-5.69	36.58	98.84	37.02	5.61	0.13	134.90
8274.00	0.37	68.90	8271.90	-5.50	37.14	98.43	37.55	5.42	0.04	134.90
8368.00	0.39	81.50	8365.90	-5.35	37.74	98.06	38.12	5.26	0.09	134.90
8461.00	0.42	89.94	8458.90	-5.30	38.40	97.86	38.76	5.21	0.07	142.00
8555.00	0.39	96.68	8552.90	-5.34	39.06	97.78	39.42	5.25	0.06	142.00
8649.00	0.36	106.78	8646.90	-5.46	39.66	97.84	40.03	5.37	0.08	142.00
8743.00	0.48	135.58	8740.89	-5.83	40.22	98.24	40.64	5.74	0.25	142.00
8837.00	0.54	98.90	8834.89	-6.18	40.93	98.58	41.39	6.08	0.35	142.00
8931.00	0.67	74.97	8928.88	-6.10	41.90	98.29	42.34	6.01	0.30	142.00
9025.00	0.59	85.94	9022.88	-5.93	42.91	97.86	43.32	5.83	0.15	142.00
9119.00	0.72	89.22	9116.87	-5.88	43.99	97.62	44.38	5.78	0.14	142.00
9213.00	0.73	74.21	9210.87	-5.71	45.15	97.21	45.51	5.61	0.20	142.00
9307.00	0.87	64.36	9304.86	-5.24	46.37	96.45	46.67	5.14	0.21	149.10
9401.00	0.92	47.65	9398.84	-4.42	47.57	95.31	47.78	4.32	0.28	149.10
9495.00	1.16	42.41	9492.83	-3.21	48.77	93.77	48.88	3.10	0.27	149.10
9588.00	1.11	35.86	9585.81	-1.79	49.94	92.05	49.97	1.67	0.15	149.10
9682.00	0.89	21.13	9679.80	-0.37	50.73	90.42	50.73	0.25	0.36	149.10
9776.00	0.97	7.88	9773.78	1.10	51.10	88.77	51.12	-1.22	0.24	149.10
9870.00	1.09	352.35	9867.77	2.78	51.09	86.89	51.17	-2.89	0.32	149.10
9964.00	1.21	339.28	9961.75	4.59	50.62	84.82	50.83	-4.70	0.31	149.10
10058.00	1.40	310.77	10055.73	6.27	49.40	82.77	49.80	-6.38	0.71	149.10
10152.00	1.56	300.67	10149.70	7.67	47.43	80.81	48.05	-7.78	0.32	149.10
10246.00	0.74	284.46	10243.68	8.47	45.74	79.50	46.52	-8.58	0.93	149.10
10340.00	0.79	258.53	10337.67	8.50	44.52	79.19	45.33	-8.60	0.37	156.30
10434.00	0.94	268.76	10431.66	8.35	43.12	79.04	43.92	-8.45	0.23	156.30
10528.00	0.72	256.25	10525.65	8.19	41.77	78.90	42.57	-8.29	0.30	156.30
10621.00	1.04	276.98	10618.64	8.16	40.37	78.57	41.18	-8.25	0.48	156.30
10735.00	3.90	195.90	10732.54	4.55	38.28	83.21	38.55	-4.64	3.40	142.00
10766.00	8.61	189.29	10763.35	1.25	37.61	88.10	37.63	-1.33	15.35	142.00
10797.00	12.46	184.72	10793.82	-4.38	36.96	96.75	37.22	4.29	12.70	142.00
10829.00	16.34	185.16	10824.81	-12.30	36.27	108.74	38.30	12.22	12.13	142.00
10876.00	20.63	183.17	10869.37	-27.16	35.22	127.64	44.48	27.08	9.22	142.00
10923.00	23.95	181.96	10912.85	-44.97	34.44	142.56	56.64	44.89	7.13	142.00
10970.00	30.00	182.80	10954.72	-66.26	33.54	153.15	74.26	66.18	12.90	142.00
11017.00	35.51	183.32	10994.23	-91.64	32.17	160.66	97.12	91.57	11.74	142.00
11064.00	41.08	184.86	11031.11	-120.68	30.07	166.01	124.37	120.61	12.02	142.00
11111.00	45.81	184.71	11065.22	-152.88	27.38	169.85	155.31	152.81	10.07	142.00
11158.00	48.48	186.00	11097.19	-187.18	24.15	172.65	188.73	187.12	6.03	142.00
11205.00	53.64	185.27	11126.72	-223.54	20.57	174.74	224.49	223.50	11.04	142.00
11252.00	60.05	182.84	11152.41	-262.77	17.82	176.12	263.37	262.73	14.31	142.00
11299.00	65.51	182.36	11173.90	-304.51	15.93	177.01	304.92	304.47	11.65	142.00
11346.00	72.12	181.38	11190.88	-348.28	14.51	177.61	348.58	348.25	14.20	142.00

11393.00	76.43	181.54	11203.61	-393.50	13.36	178.06	393.72	393.47	9.18	142.00
11440.00	79.41	182.50	11213.45	-439.42	11.74	178.47	439.58	439.39	6.65	142.00
11488.00	82.05	183.15	11221.18	-486.73	9.40	178.89	486.82	486.71	5.66	142.00
11498.00	83.26	183.23	11222.46	-496.64	8.85	178.98	496.71	496.61	12.13	142.00
11514.00	84.34	183.28	11224.18	-512.52	7.94	179.11	512.58	512.50	6.76	142.00
11545.00	88.68	184.02	11226.07	-543.39	5.97	179.37	543.42	543.37	14.20	142.00
11608.00	88.26	183.72	11227.75	-606.22	1.72	179.84	606.22	606.22	0.82	142.00
11702.00	85.85	183.32	11232.58	-699.91	-4.04	180.33	699.93	699.92	2.60	142.00
11796.00	84.28	183.15	11240.67	-793.41	-9.32	180.67	793.47	793.43	1.68	142.00
11891.00	84.45	182.87	11250.00	-887.82	-14.29	180.92	887.94	887.85	0.34	149.10
11922.00	84.37	182.57	11253.02	-918.64	-15.75	180.98	918.78	918.67	1.00	149.10
11947.00	84.36	182.53	11255.47	-943.50	-16.86	181.02	943.65	943.53	0.16	134.90
11978.00	85.06	182.71	11258.33	-974.33	-18.27	181.07	974.50	974.37	2.33	134.90
12010.00	87.11	181.51	11260.51	-1006.23	-19.45	181.11	1006.42	1006.27	7.42	142.00
12041.00	88.80	181.42	11261.62	-1037.20	-20.24	181.12	1037.40	1037.25	5.46	142.00
12072.00	89.66	180.61	11262.04	-1068.19	-20.79	181.11	1068.40	1068.24	3.81	142.00
12104.00	90.22	180.19	11262.07	-1100.19	-21.01	181.09	1100.39	1100.24	2.19	142.00
12135.00	90.50	179.93	11261.87	-1131.19	-21.04	181.07	1131.39	1131.24	1.23	149.10
12166.00	90.81	179.99	11261.52	-1162.19	-21.02	181.04	1162.38	1162.23	1.02	149.10
12198.00	91.09	179.57	11260.99	-1194.19	-20.90	181.00	1194.37	1194.23	1.58	149.10
12229.00	91.48	179.54	11260.29	-1225.18	-20.66	180.97	1225.35	1225.22	1.26	149.10
12260.00	92.07	179.41	11259.33	-1256.16	-20.37	180.93	1256.33	1256.20	1.95	149.10
12292.00	92.55	179.18	11258.04	-1288.13	-19.98	180.89	1288.29	1288.17	1.66	149.10
12323.00	91.60	178.85	11256.92	-1319.11	-19.45	180.84	1319.25	1319.15	3.24	149.10
12354.00	90.28	178.45	11256.41	-1350.09	-18.72	180.79	1350.22	1350.13	4.45	149.10
12386.00	90.42	178.69	11256.22	-1382.08	-17.92	180.74	1382.20	1382.12	0.87	156.30
12448.00	89.83	178.37	11256.08	-1444.06	-16.33	180.65	1444.15	1444.09	1.08	156.30
12542.00	90.00	177.77	11256.22	-1538.01	-13.16	180.49	1538.06	1538.03	0.66	156.30
12636.00	88.99	177.74	11257.05	-1631.93	-9.48	180.33	1631.96	1631.95	1.07	156.30
12731.00	89.69	177.27	11258.14	-1726.83	-5.35	180.18	1726.84	1726.84	0.89	156.30
12825.00	89.44	178.03	11258.86	-1820.75	-1.49	180.05	1820.75	1820.75	0.85	156.30
12919.00	89.75	179.90	11259.52	-1914.73	0.21	179.99	1914.73	1914.72	2.02	156.30
13013.00	90.90	179.82	11258.99	-2008.73	0.44	179.99	2008.73	2008.72	1.23	156.30
13107.00	91.57	180.23	11256.96	-2102.70	0.40	179.99	2102.70	2102.70	0.84	156.30
13201.00	91.18	180.11	11254.71	-2196.67	0.12	180.00	2196.67	2196.67	0.43	156.30
13296.00	90.50	180.06	11253.32	-2291.66	-0.02	180.00	2291.66	2291.66	0.72	156.30
13390.00	89.19	179.98	11253.57	-2385.66	-0.06	180.00	2385.66	2385.66	1.40	156.30
13484.00	87.73	180.74	11256.10	-2479.62	-0.65	180.01	2479.62	2479.62	1.75	156.30
13579.00	87.67	179.61	11259.91	-2574.54	-0.94	180.02	2574.54	2574.54	1.19	163.40
13673.00	87.67	179.56	11263.73	-2668.46	-0.26	180.01	2668.46	2668.46	0.05	163.40
13767.00	87.70	179.87	11267.53	-2762.39	0.21	180.00	2762.39	2762.38	0.33	163.40
13861.00	86.86	181.15	11271.99	-2856.27	-0.62	180.01	2856.27	2856.27	1.63	163.40
13955.00	87.06	180.47	11276.97	-2950.13	-1.95	180.04	2950.13	2950.13	0.75	163.40
14049.00	86.89	180.46	11281.93	-3044.00	-2.71	180.05	3044.00	3044.00	0.18	163.40
14144.00	86.89	180.67	11287.09	-3138.85	-3.65	180.07	3138.85	3138.85	0.22	163.40
14238.00	88.12	180.78	11291.18	-3232.75	-4.84	180.09	3232.76	3232.76	1.31	163.40
14332.00	88.43	180.36	11294.01	-3326.71	-5.77	180.10	3326.71	3326.71	0.56	163.40
14426.00	89.50	179.74	11295.71	-3420.69	-5.85	180.10	3420.69	3420.69	1.32	163.40
14520.00	88.66	179.37	11297.22	-3514.67	-5.12	180.08	3514.68	3514.68	0.98	163.40
14614.00	88.49	178.73	11299.55	-3608.63	-3.57	180.06	3608.63	3608.63	0.70	163.40
14708.00	88.71	179.02	11301.85	-3702.58	-1.72	180.03	3702.58	3702.58	0.39	163.40

[illegible]