

Brown-Todd 1-7 Survey Sheet Final.txt  
 Calmena Energy Services  
 Well Report

Company : Reeder Energy  
 Well : Brown-Todd # 1-7H  
 Location : Coldwater, KS  
 Reference : GRIDNORTH

Date : 12/28/2011  
 File :

KB Elevation : 2076.5  
 License :

Gr Elevation : 2063.00

UWI :

Vertical Section Calculated Along Azimuth .05°

MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg °/100	Build °/100	Turn °/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.26	183.98	200.00	-0.45	-0.03	-0.45	0.13	0.13	-88.01
400.00	0.30	233.14	400.00	-1.22	-0.48	-1.22	0.12	0.02	24.58
600.00	0.84	260.52	599.99	-1.78	-2.35	-1.78	0.29	0.27	13.69
800.00	0.65	237.22	799.97	-2.63	-4.75	-2.63	0.18	-0.10	-11.65
1000.00	0.30	214.64	999.96	-3.68	-6.00	-3.68	0.20	-0.17	-11.29
1200.00	0.39	201.72	1199.96	-4.74	-6.55	-4.74	0.06	0.05	-6.46
1400.00	0.29	263.23	1399.96	-5.43	-7.30	-5.44	0.18	-0.05	30.76
1600.00	0.58	313.67	1599.95	-4.79	-8.54	-4.80	0.23	0.15	25.22
1800.00	0.70	304.21	1799.94	-3.41	-10.28	-3.41	0.08	0.06	-4.73
2000.00	0.25	290.54	1999.93	-2.57	-11.70	-2.58	0.23	-0.22	-6.84
2200.00	0.40	285.25	2199.93	-2.23	-12.78	-2.24	0.08	0.07	-2.65
2400.00	0.01	309.94	2399.93	-2.03	-13.47	-2.05	0.20	-0.20	12.35
2600.00	0.50	261.50	2599.92	-2.15	-14.34	-2.16	0.25	0.24	-24.22
2800.00	0.11	243.46	2799.92	-2.37	-15.38	-2.38	0.20	-0.20	-9.02
3000.00	0.27	263.25	2999.92	-2.51	-16.02	-2.52	0.09	0.08	9.89
3200.00	0.36	299.77	3199.92	-2.25	-17.03	-2.27	0.11	0.05	18.26
3400.00	0.48	289.44	3399.91	-1.66	-18.37	-1.68	0.07	0.06	-5.17
3600.00	0.78	281.02	3599.90	-1.12	-20.49	-1.14	0.16	0.15	-4.21
3800.00	1.27	288.50	3799.87	-0.16	-23.93	-0.18	0.25	0.24	3.74
4000.00	1.54	281.97	3999.81	1.10	-28.66	1.08	0.16	0.13	-3.26
4151.00	1.17	284.71	4150.76	1.91	-32.14	1.89	0.25	-0.25	1.81
4197.00	1.00	280.10	4196.76	2.10	-32.99	2.08	0.42	-0.37	-10.02
4229.00	1.20	272.90	4228.75	2.17	-33.60	2.14	0.76	0.63	-22.50
4259.00	0.90	273.70	4258.74	2.20	-34.15	2.17	1.00	-1.00	2.67
4291.00	1.10	265.50	4290.74	2.19	-34.70	2.16	0.77	0.63	-25.62
4322.00	0.90	281.60	4321.74	2.22	-35.24	2.19	1.11	-0.65	51.94
4353.00	0.90	272.50	4352.73	2.28	-35.72	2.25	0.46	0.00	-29.35
4384.00	0.90	286.60	4383.73	2.36	-36.20	2.33	0.71	0.00	45.48
4414.00	0.80	277.20	4413.72	2.45	-36.63	2.42	0.57	-0.33	-31.33
4447.00	0.90	283.40	4446.72	2.54	-37.11	2.51	0.41	0.30	18.79
4478.00	1.00	272.10	4477.72	2.61	-37.62	2.58	0.68	0.32	-36.45
4509.00	0.90	275.60	4508.71	2.64	-38.13	2.61	0.37	-0.32	11.29
4541.00	0.90	289.40	4540.71	2.75	-38.62	2.72	0.68	0.00	43.12
4571.00	0.60	292.20	4570.71	2.89	-38.99	2.85	1.01	-1.00	9.33
4602.00	1.10	7.90	4601.70	3.24	-39.09	3.21	3.60	1.61	244.19
4633.00	2.40	24.60	4632.69	4.13	-38.78	4.09	4.46	4.19	53.87
4663.00	4.20	24.70	4662.64	5.70	-38.06	5.66	6.00	6.00	0.33
4695.00	6.00	13.10	4694.51	8.39	-37.19	8.36	6.46	5.62	-36.25
4726.00	8.70	6.30	4725.25	12.30	-36.57	12.27	9.14	8.71	-21.94

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4757.00	11.70	4.40	4755.76	17.77	-36.07	17.73	9.74	9.68	-6.13
4787.00	14.40	5.80	4784.98	24.51	-35.46	24.48	9.06	9.00	4.67
4818.00	17.50	5.60	4814.79	32.99	-34.62	32.96	10.00	10.00	-0.65
4849.00	20.30	5.10	4844.11	42.98	-33.68	42.95	9.05	9.03	-1.61
4881.00	23.80	4.40	4873.77	54.95	-32.69	54.93	10.97	10.94	-2.19
4911.00	27.30	3.30	4900.83	67.86	-31.83	67.83	11.77	11.67	-3.67
4943.00	30.70	2.60	4928.81	83.35	-31.04	83.33	10.68	10.62	-2.19
4974.00	34.00	2.00	4955.00	99.93	-30.38	99.90	10.70	10.65	-1.94
5005.00	37.30	2.00	4980.18	117.98	-29.75	117.95	10.65	10.65	0.00
5036.00	40.90	2.30	5004.24	137.51	-29.01	137.49	11.63	11.61	0.97
5068.00	43.10	1.50	5028.02	158.91	-28.31	158.89	7.08	6.88	-2.50
5100.00	45.30	0.00	5050.96	181.22	-28.02	181.19	7.61	6.87	-4.69
5131.00	48.30	358.70	5072.18	203.81	-28.28	203.79	10.15	9.68	-4.19
5162.00	52.00	357.70	5092.04	227.59	-29.04	227.57	12.19	11.94	-3.23
5193.00	55.10	357.10	5110.45	252.50	-30.17	252.47	10.12	10.00	-1.94
5225.00	58.70	357.40	5127.92	279.27	-31.45	279.24	11.28	11.25	0.94
5255.00	61.60	358.00	5142.86	305.27	-32.50	305.24	9.82	9.67	2.00
5287.00	63.90	358.40	5157.51	333.70	-33.39	333.67	7.27	7.19	1.25
5318.00	65.90	359.10	5170.66	361.76	-34.00	361.73	6.77	6.45	2.26
5349.00	67.40	359.50	5182.94	390.22	-34.35	390.19	4.98	4.84	1.29
5380.00	68.70	359.90	5194.53	418.97	-34.50	418.94	4.36	4.19	1.29
5410.00	69.60	0.10	5205.21	447.01	-34.50	446.98	3.06	3.00	0.67
5441.00	71.20	359.80	5215.61	476.21	-34.52	476.18	5.24	5.16	-0.97
5472.00	73.50	359.70	5225.00	505.75	-34.65	505.72	7.43	7.42	-0.32
5502.00	76.00	0.00	5232.90	534.69	-34.73	534.66	8.39	8.33	1.00
5532.00	78.60	359.70	5239.49	563.96	-34.80	563.92	8.72	8.67	-1.00
5563.00	81.00	0.00	5244.98	594.46	-34.88	594.43	7.80	7.74	0.97
5617.00	84.90	0.30	5251.61	648.04	-34.74	648.01	7.24	7.22	0.56
5645.00	87.30	0.70	5253.51	675.98	-34.50	675.95	8.69	8.57	1.43
5673.00	87.90	0.50	5254.68	703.95	-34.21	703.92	2.26	2.14	-0.71
5705.00	87.30	0.60	5256.02	735.92	-33.90	735.89	1.90	-1.88	0.31
5735.00	88.00	1.00	5257.25	765.89	-33.48	765.86	2.69	2.33	1.33
5766.00	89.80	0.80	5257.85	796.88	-32.99	796.85	5.84	5.81	-0.65
5796.00	91.50	0.50	5257.51	826.88	-32.65	826.85	5.75	5.67	-1.00
5825.00	91.20	0.60	5256.82	855.87	-32.37	855.84	1.09	-1.03	0.34
5856.00	91.10	0.70	5256.20	886.86	-32.02	886.83	0.46	-0.32	0.32
5886.00	91.40	359.80	5255.55	916.85	-31.89	916.82	3.16	1.00	-3.00
5916.00	90.70	0.50	5255.00	946.85	-31.81	946.82	3.30	-2.33	2.33
5946.00	89.70	0.20	5254.89	976.84	-31.63	976.82	3.48	-3.33	-1.00
5977.00	89.60	0.20	5255.08	1007.84	-31.52	1007.82	0.32	-0.32	0.00
6006.00	89.70	359.90	5255.26	1036.84	-31.50	1036.81	1.09	0.34	-1.03
6036.00	91.20	359.60	5255.02	1066.84	-31.63	1066.81	5.10	5.00	-1.00
6065.00	91.80	359.20	5254.26	1095.83	-31.93	1095.80	2.49	2.07	-1.38
6096.00	91.30	359.20	5253.43	1126.81	-32.36	1126.79	1.61	-1.61	0.00
6128.00	91.40	358.40	5252.67	1158.80	-33.03	1158.77	2.52	0.31	-2.50
6159.00	91.90	357.90	5251.78	1189.77	-34.03	1189.74	2.28	1.61	-1.61
6191.00	91.60	357.50	5250.80	1221.73	-35.32	1221.70	1.56	-0.94	-1.25
6223.00	91.70	357.00	5249.88	1253.68	-36.85	1253.65	1.59	0.31	-1.56
6255.00	92.10	357.20	5248.82	1285.62	-38.47	1285.59	1.40	1.25	0.63
6286.00	91.20	357.60	5247.93	1316.57	-39.88	1316.54	3.18	-2.90	1.29
6318.00	90.80	357.90	5247.37	1348.54	-41.13	1348.51	1.56	-1.25	0.94
6350.00	90.90	357.60	5246.89	1380.52	-42.39	1380.48	0.99	0.31	-0.94
6381.00	90.50	357.20	5246.52	1411.48	-43.79	1411.44	1.82	-1.29	-1.29

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6413.00	90.00	358.50	5246.38	1443.46	-45.00	1443.42	4.35	-1.56	4.06
6445.00	90.00	358.60	5246.38	1475.45	-45.80	1475.41	0.31	0.00	0.31
6477.00	91.30	358.50	5246.01	1507.44	-46.61	1507.39	4.07	4.06	-0.31
6508.00	91.90	358.90	5245.15	1538.41	-47.32	1538.37	2.33	1.94	1.29
6540.00	91.70	0.00	5244.14	1570.40	-47.62	1570.35	3.49	-0.62	3.44
6572.00	91.20	359.70	5243.33	1602.39	-47.71	1602.34	1.82	-1.56	-0.94
6604.00	89.40	359.30	5243.17	1634.38	-47.99	1634.34	5.76	-5.62	-1.25
6636.00	89.20	359.50	5243.56	1666.38	-48.32	1666.34	0.88	-0.63	0.63
6668.00	90.20	359.30	5243.72	1698.38	-48.66	1698.33	3.19	3.13	-0.63
6700.00	91.00	359.20	5243.39	1730.37	-49.08	1730.33	2.52	2.50	-0.31
6732.00	90.60	358.90	5242.94	1762.36	-49.61	1762.32	1.56	-1.25	-0.94
6763.00	90.30	0.50	5242.70	1793.36	-49.77	1793.32	5.25	-0.97	5.16
6795.00	90.80	0.80	5242.39	1825.36	-49.41	1825.31	1.82	1.56	0.94
6827.00	91.50	0.30	5241.75	1857.35	-49.10	1857.31	2.69	2.19	-1.56
6858.00	91.90	0.40	5240.83	1888.34	-48.91	1888.29	1.33	1.29	0.32
6890.00	91.10	0.50	5239.99	1920.32	-48.66	1920.28	2.52	-2.50	0.31
6921.00	91.00	0.90	5239.42	1951.32	-48.28	1951.27	1.33	-0.32	1.29
6953.00	89.60	1.80	5239.26	1983.31	-47.53	1983.26	5.20	-4.37	2.81
6985.00	89.50	2.00	5239.51	2015.29	-46.47	2015.25	0.70	-0.31	0.63
7017.00	90.70	2.20	5239.45	2047.26	-45.29	2047.22	3.80	3.75	0.63
7048.00	90.60	2.20	5239.10	2078.24	-44.10	2078.20	0.32	-0.32	0.00
7080.00	91.10	2.10	5238.62	2110.21	-42.90	2110.18	1.59	1.56	-0.31
7112.00	90.20	1.80	5238.26	2142.19	-41.81	2142.16	2.96	-2.81	-0.94
7144.00	89.90	1.40	5238.23	2174.18	-40.92	2174.14	1.56	-0.94	-1.25
7175.00	90.20	1.50	5238.21	2205.17	-40.14	2205.13	1.02	0.97	0.32
7207.00	89.90	1.80	5238.18	2237.16	-39.21	2237.12	1.33	-0.94	0.94
7239.00	91.20	2.00	5237.87	2269.14	-38.15	2269.10	4.11	4.06	0.63
7270.00	93.20	2.60	5236.68	2300.09	-36.91	2300.05	6.74	6.45	1.94
7302.00	93.20	2.20	5234.90	2332.01	-35.57	2331.98	1.25	0.00	-1.25
7334.00	93.50	2.10	5233.03	2363.93	-34.37	2363.90	0.99	0.94	-0.31
7365.00	93.30	1.70	5231.19	2394.86	-33.35	2394.83	1.44	-0.65	-1.29
7397.00	93.70	1.60	5229.23	2426.79	-32.43	2426.76	1.29	1.25	-0.31
7428.00	93.80	2.10	5227.21	2457.71	-31.43	2457.68	1.64	0.32	1.61
7460.00	93.40	0.90	5225.20	2489.63	-30.59	2489.60	3.95	-1.25	-3.75
7491.00	93.60	1.30	5223.30	2520.57	-30.00	2520.54	1.44	0.65	1.29
7523.00	93.10	1.10	5221.43	2552.50	-29.33	2552.48	1.68	-1.56	-0.63
7555.00	93.20	1.50	5219.68	2584.45	-28.61	2584.42	1.29	0.31	1.25
7587.00	91.80	0.50	5218.28	2616.41	-28.05	2616.39	5.37	-4.37	-3.13
7618.00	90.80	359.80	5217.58	2647.40	-27.97	2647.38	3.94	-3.23	-2.26
7650.00	90.60	0.10	5217.19	2679.40	-27.99	2679.38	1.13	-0.63	0.94
7682.00	90.90	359.60	5216.77	2711.40	-28.08	2711.37	1.82	0.94	-1.56
7713.00	91.20	359.70	5216.20	2742.39	-28.27	2742.37	1.02	0.97	0.32
7745.00	90.80	359.00	5215.64	2774.38	-28.63	2774.36	2.52	-1.25	-2.19
7776.00	89.40	358.40	5215.59	2805.38	-29.33	2805.35	4.91	-4.52	-1.94
7808.00	88.50	358.60	5216.17	2837.36	-30.17	2837.33	2.88	-2.81	0.63
7840.00	89.10	358.30	5216.84	2869.34	-31.04	2869.31	2.10	1.88	-0.94
7871.00	89.70	358.30	5217.17	2900.32	-31.96	2900.30	1.94	1.94	0.00
7903.00	89.90	358.20	5217.28	2932.31	-32.93	2932.28	0.70	0.63	-0.31
7934.00	90.00	358.00	5217.31	2963.29	-33.96	2963.26	0.72	0.32	-0.65
7966.00	90.10	357.30	5217.28	2995.27	-35.27	2995.23	2.21	0.31	-2.19
7998.00	90.50	357.60	5217.11	3027.23	-36.70	3027.20	1.56	1.25	0.94
8030.00	90.40	358.80	5216.86	3059.22	-37.70	3059.18	3.76	-0.31	3.75

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8061.00	90.40	358.60	5216.64	3090.21	-38.41	3090.17	0.65	0.00	-0.65
8093.00	90.60	358.70	5216.36	3122.20	-39.16	3122.16	0.70	0.63	0.31
8124.00	90.90	358.50	5215.96	3153.18	-39.92	3153.15	1.16	0.97	-0.65
8156.00	91.40	359.20	5215.32	3185.17	-40.56	3185.14	2.69	1.56	2.19
8188.00	91.40	0.00	5214.53	3217.16	-40.78	3217.12	2.50	0.00	2.50
8219.00	91.70	0.50	5213.70	3248.15	-40.65	3248.11	1.88	0.97	1.61
8250.00	92.20	359.80	5212.64	3279.13	-40.57	3279.09	2.77	1.61	-2.26
8282.00	92.00	0.30	5211.47	3311.11	-40.54	3311.07	1.68	-0.63	1.56
8313.00	93.00	0.20	5210.12	3342.08	-40.40	3342.04	3.24	3.23	-0.32
8344.00	91.50	0.20	5208.90	3373.05	-40.30	3373.02	4.84	-4.84	0.00
8376.00	89.50	0.40	5208.62	3405.05	-40.13	3405.01	6.28	-6.25	0.63
8408.00	88.90	0.60	5209.07	3437.05	-39.85	3437.01	1.98	-1.88	0.63
8440.00	88.40	0.50	5209.82	3469.04	-39.54	3469.00	1.59	-1.56	-0.31
8472.00	88.30	359.60	5210.74	3501.02	-39.51	3500.99	2.83	-0.31	-2.81
8503.00	89.20	0.30	5211.42	3532.01	-39.54	3531.98	3.68	2.90	2.26
8535.00	89.70	0.60	5211.72	3564.01	-39.29	3563.98	1.82	1.56	0.94
8567.00	90.00	0.20	5211.81	3596.01	-39.07	3595.98	1.56	0.94	-1.25
8599.00	90.00	0.20	5211.81	3628.01	-38.95	3627.98	0.00	0.00	0.00
8630.00	90.40	0.50	5211.70	3659.01	-38.76	3658.97	1.61	1.29	0.97
8662.00	90.90	0.00	5211.34	3691.01	-38.62	3690.97	2.21	1.56	-1.56
8694.00	91.10	0.00	5210.78	3723.00	-38.62	3722.97	0.62	0.63	0.00
8726.00	91.10	359.60	5210.16	3755.00	-38.74	3754.96	1.25	0.00	-1.25
8758.00	91.20	359.70	5209.52	3786.99	-38.93	3786.95	0.44	0.31	0.31
8790.00	91.80	359.50	5208.68	3818.98	-39.16	3818.94	1.98	1.88	-0.63
8821.00	91.70	0.50	5207.74	3849.96	-39.16	3849.93	3.24	-0.32	3.23
8853.00	91.30	0.50	5206.90	3881.95	-38.88	3881.91	1.25	-1.25	0.00
8885.00	91.00	0.50	5206.26	3913.94	-38.60	3913.91	0.94	-0.94	0.00
8917.00	90.20	359.70	5205.92	3945.94	-38.54	3945.90	3.54	-2.50	-2.50
8948.00	90.20	0.20	5205.81	3976.94	-38.57	3976.90	1.61	0.00	1.61
8980.00	90.50	359.80	5205.62	4008.94	-38.57	4008.90	1.56	0.94	-1.25
9012.00	90.40	0.30	5205.37	4040.94	-38.54	4040.90	1.59	-0.31	1.56
9043.00	90.40	359.80	5205.15	4071.94	-38.51	4071.90	1.61	0.00	-1.61
9075.00	90.70	0.00	5204.84	4103.94	-38.57	4103.90	1.13	0.94	0.63
9107.00	91.70	0.40	5204.17	4135.93	-38.46	4135.89	3.37	3.13	1.25
9139.00	92.00	0.30	5203.14	4167.91	-38.26	4167.88	0.99	0.94	-0.31
9171.00	91.30	0.00	5202.22	4199.90	-38.18	4199.86	2.38	-2.19	-0.94
9203.00	90.00	359.90	5201.86	4231.89	-38.21	4231.86	4.07	-4.06	-0.31
9234.00	90.30	359.90	5201.78	4262.89	-38.26	4262.86	0.97	0.97	0.00
9266.00	91.40	0.70	5201.30	4294.89	-38.09	4294.85	4.25	3.44	2.50
9298.00	91.20	0.70	5200.57	4326.88	-37.70	4326.84	0.62	-0.63	0.00
9330.00	89.80	0.00	5200.30	4358.88	-37.51	4358.84	4.89	-4.37	-2.19
9362.00	89.40	359.50	5200.52	4390.87	-37.65	4390.84	2.00	-1.25	-1.56
9393.00	89.60	359.20	5200.79	4421.87	-38.00	4421.84	1.16	0.65	-0.97
9425.00	89.70	0.20	5200.99	4453.87	-38.17	4453.83	3.14	0.31	3.13
9457.00	90.60	0.60	5200.90	4485.87	-37.94	4485.83	3.08	2.81	1.25
9489.00	91.30	0.60	5200.37	4517.86	-37.61	4517.83	2.19	2.19	0.00
9521.00	91.50	0.50	5199.59	4549.85	-37.30	4549.82	0.70	0.62	-0.31
9553.00	90.70	359.50	5198.97	4581.84	-37.30	4581.81	4.00	-2.50	-3.13
9584.00	89.90	359.40	5198.81	4612.84	-37.60	4612.81	2.60	-2.58	-0.32
9616.00	90.00	359.60	5198.84	4644.84	-37.88	4644.81	0.70	0.31	0.63
9648.00	90.30	359.80	5198.76	4676.84	-38.04	4676.81	1.13	0.94	0.62
9680.00	90.90	359.80	5198.42	4708.84	-38.16	4708.80	1.87	1.88	0.00
9740.00	90.90	359.80	5197.48	4768.83	-38.37	4768.80	0.00	0.00	0.00

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Bottom Hole Closure 4768.99ft Along Azimuth 359.54°