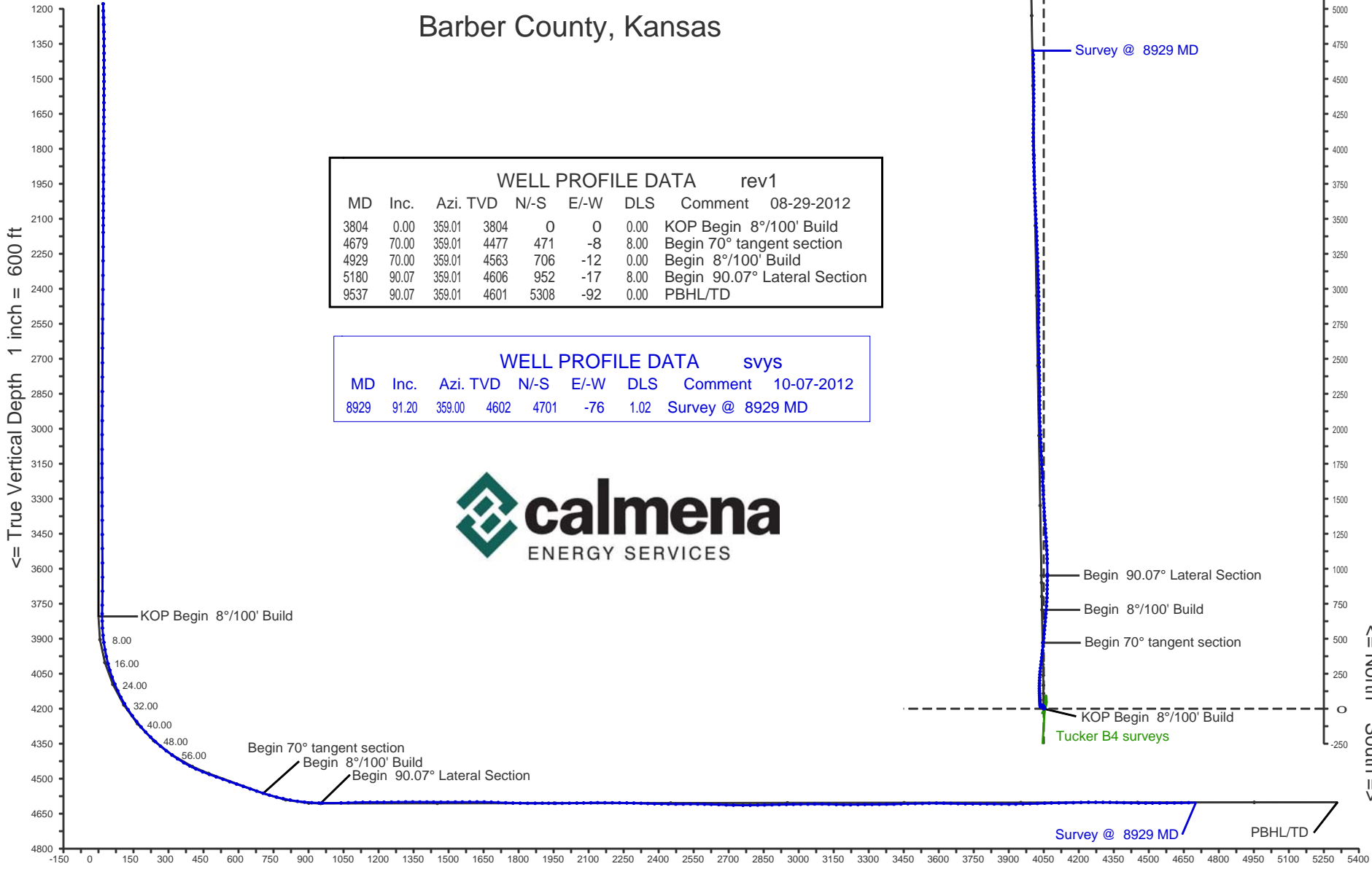


# Woolsey Operating Company, LLC

## Spicer #1-H

### Barber County, Kansas

<= West East => 1 inch = 1000 ft



WELL PROFILE DATA rev1							
MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment
3804	0.00	359.01	3804	0	0	0.00	KOP Begin 8°/100' Build
4679	70.00	359.01	4477	471	-8	8.00	Begin 70° tangent section
4929	70.00	359.01	4563	706	-12	0.00	Begin 8°/100' Build
5180	90.07	359.01	4606	952	-17	8.00	Begin 90.07° Lateral Section
9537	90.07	359.01	4601	5308	-92	0.00	PBHL/TD

WELL PROFILE DATA svys							
MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment
8929	91.20	359.00	4602	4701	-76	1.02	Survey @ 8929 MD



Vertical Section on 359.01 deg azimuth with reference 0.00 N, 0.00 E

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
 Surveys  
 Page 1  
 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
<b>Surface Location</b>								<b>160613.00</b>	<b>2002441.00</b>	175 FNL 773 FWL Sec11
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	160613.00	2002441.00	
659.00	0.70	64.60	658.98	1.73	3.64	0.11	1.66	160614.73	2002444.64	
689.00	1.00	39.50	688.98	2.01	3.97	1.57	1.94	160615.01	2002444.97	
721.00	1.70	22.80	720.97	2.66	4.33	2.49	2.59	160615.66	2002445.33	
752.00	2.00	1.90	751.96	3.62	4.53	2.36	3.55	160616.62	2002445.53	
781.00	2.50	354.70	780.93	4.76	4.48	1.98	4.68	160617.76	2002445.48	
813.00	3.20	346.20	812.89	6.32	4.21	2.55	6.25	160619.32	2002445.21	
842.00	3.20	345.20	841.85	7.89	3.81	0.19	7.82	160620.89	2002444.81	
873.00	2.90	330.60	872.80	9.41	3.20	2.68	9.35	160622.41	2002444.20	
903.00	2.80	326.50	902.77	10.68	2.42	0.76	10.64	160623.68	2002443.42	
933.00	2.70	329.20	932.73	11.90	1.66	0.55	11.87	160624.90	2002442.66	
964.00	2.60	329.90	963.70	13.14	0.93	0.34	13.12	160626.14	2002441.93	
995.00	2.60	326.90	994.67	14.33	0.19	0.44	14.33	160627.33	2002441.19	
1026.00	2.40	329.50	1025.64	15.48	-0.52	0.74	15.49	160628.48	2002440.48	
1057.00	2.30	330.00	1056.61	16.58	-1.16	0.33	16.60	160629.58	2002439.84	
1088.00	2.20	319.90	1087.59	17.57	-1.85	1.32	17.60	160630.57	2002439.15	
1120.00	2.40	310.40	1119.56	18.48	-2.76	1.34	18.52	160631.48	2002438.24	
1147.00	2.50	307.00	1146.54	19.20	-3.66	0.65	19.26	160632.20	2002437.34	
1179.00	2.60	307.00	1178.51	20.06	-4.80	0.31	20.14	160633.06	2002436.20	
1209.00	2.70	308.10	1208.48	20.90	-5.90	0.37	21.00	160633.90	2002435.10	
1238.00	2.60	304.90	1237.44	21.70	-6.97	0.62	21.82	160634.70	2002434.03	
1268.00	2.40	301.40	1267.42	22.42	-8.07	0.84	22.55	160635.42	2002432.93	
1299.00	2.10	298.10	1298.39	23.02	-9.12	1.05	23.18	160636.02	2002431.88	
1329.00	2.00	293.50	1328.37	23.49	-10.09	0.64	23.66	160636.49	2002430.91	
1360.00	1.40	282.60	1359.36	23.79	-10.95	2.19	23.97	160636.79	2002430.05	
1391.00	1.20	271.30	1390.35	23.88	-11.65	1.05	24.08	160636.88	2002429.35	
1421.00	1.10	260.30	1420.34	23.84	-12.25	0.81	24.04	160636.84	2002428.75	
1453.00	0.80	253.20	1452.34	23.72	-12.76	1.01	23.94	160636.72	2002428.24	
1482.00	0.60	254.30	1481.34	23.62	-13.10	0.69	23.84	160636.62	2002427.90	
1512.00	0.60	258.00	1511.34	23.54	-13.41	0.13	23.77	160636.54	2002427.59	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
 Surveys  
 Page 2  
 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
1543.00	0.50	253.20	1542.34	23.47	-13.70	0.35	23.71	160636.47	2002427.30	
1572.00	0.50	234.20	1571.33	23.36	-13.92	0.57	23.60	160636.36	2002427.08	
1603.00	0.50	238.50	1602.33	23.21	-14.14	0.12	23.45	160636.21	2002426.86	
1634.00	0.50	237.40	1633.33	23.07	-14.37	0.03	23.31	160636.07	2002426.63	
1665.00	0.50	230.20	1664.33	22.91	-14.59	0.20	23.16	160635.91	2002426.41	
1694.00	0.50	225.80	1693.33	22.74	-14.78	0.13	22.99	160635.74	2002426.22	
1726.00	0.50	221.20	1725.33	22.54	-14.97	0.13	22.79	160635.54	2002426.03	
1757.00	0.40	219.00	1756.33	22.35	-15.13	0.33	22.61	160635.35	2002425.87	
1789.00	0.50	217.70	1788.33	22.15	-15.28	0.31	22.41	160635.15	2002425.72	
1820.00	0.50	217.20	1819.33	21.94	-15.45	0.01	22.20	160634.94	2002425.55	
1849.00	0.40	228.10	1848.32	21.77	-15.60	0.45	22.04	160634.77	2002425.40	
1881.00	0.30	196.60	1880.32	21.62	-15.71	0.67	21.88	160634.62	2002425.29	
1912.00	0.40	207.90	1911.32	21.44	-15.78	0.39	21.71	160634.44	2002425.22	
1942.00	0.40	207.40	1941.32	21.26	-15.88	0.01	21.53	160634.26	2002425.12	
1973.00	0.40	226.70	1972.32	21.09	-16.01	0.43	21.36	160634.09	2002424.99	
2004.00	0.40	213.30	2003.32	20.92	-16.14	0.30	21.20	160633.92	2002424.86	
2035.00	0.40	205.20	2034.32	20.73	-16.25	0.18	21.01	160633.73	2002424.75	
2066.00	0.40	212.60	2065.32	20.54	-16.35	0.17	20.82	160633.54	2002424.65	
2097.00	0.30	217.40	2096.32	20.39	-16.46	0.34	20.67	160633.39	2002424.54	
2129.00	0.30	216.70	2128.32	20.26	-16.56	0.01	20.54	160633.26	2002424.44	
2159.00	0.40	208.80	2158.32	20.10	-16.66	0.37	20.39	160633.10	2002424.34	
2221.00	0.30	196.60	2220.32	19.76	-16.81	0.20	20.04	160632.76	2002424.19	
2281.00	0.40	219.50	2280.32	19.44	-16.99	0.28	19.73	160632.44	2002424.01	
2343.00	0.30	211.90	2342.31	19.14	-17.21	0.18	19.43	160632.14	2002423.79	
2404.00	0.50	218.80	2403.31	18.80	-17.46	0.34	19.09	160631.80	2002423.54	
2467.00	0.40	213.20	2466.31	18.40	-17.76	0.17	18.70	160631.40	2002423.24	
2530.00	0.60	214.60	2529.31	17.94	-18.06	0.32	18.25	160630.94	2002422.94	
2592.00	0.40	208.60	2591.31	17.48	-18.35	0.33	17.80	160630.48	2002422.65	
2655.00	0.40	215.60	2654.30	17.11	-18.59	0.08	17.43	160630.11	2002422.41	
2718.00	0.40	220.20	2717.30	16.77	-18.86	0.05	17.09	160629.77	2002422.14	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
 Surveys  
 Page 3  
 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
2779.00	0.30	208.40	2778.30	16.46	-19.07	0.20	16.79	160629.46	2002421.93	
2841.00	0.20	195.00	2840.30	16.22	-19.17	0.19	16.54	160629.22	2002421.83	
2903.00	0.10	183.40	2902.30	16.06	-19.21	0.17	16.39	160629.06	2002421.79	
2966.00	0.30	207.90	2965.30	15.86	-19.29	0.34	16.19	160628.86	2002421.71	
3026.00	0.40	224.20	3025.30	15.57	-19.51	0.23	15.90	160628.57	2002421.49	
3089.00	0.30	196.60	3088.30	15.25	-19.71	0.31	15.59	160628.25	2002421.29	
3150.00	0.30	248.80	3149.30	15.04	-19.90	0.43	15.38	160628.04	2002421.10	
3212.00	0.40	276.60	3211.30	15.01	-20.27	0.31	15.35	160628.01	2002420.73	
3273.00	0.50	290.10	3272.29	15.12	-20.73	0.24	15.48	160628.12	2002420.27	
3332.00	0.70	296.80	3331.29	15.37	-21.29	0.36	15.74	160628.37	2002419.71	
3393.00	0.50	325.70	3392.29	15.76	-21.77	0.58	16.14	160628.76	2002419.23	
3454.00	0.50	296.50	3453.29	16.10	-22.16	0.41	16.48	160629.10	2002418.84	
3514.00	0.50	332.50	3513.28	16.45	-22.52	0.52	16.84	160629.45	2002418.48	
3576.00	0.60	313.90	3575.28	16.91	-22.88	0.33	17.31	160629.91	2002418.12	
3637.00	0.40	295.10	3636.28	17.23	-23.30	0.42	17.63	160630.23	2002417.70	
3697.00	0.80	177.10	3696.28	16.90	-23.47	1.75	17.30	160629.90	2002417.53	
3757.00	1.00	159.20	3756.27	15.99	-23.26	0.57	16.39	160628.99	2002417.74	
3794.00	0.50	189.90	3793.27	15.53	-23.17	1.69	15.93	160628.53	2002417.83	
3825.00	1.40	325.50	3824.26	15.71	-23.41	5.78	16.11	160628.71	2002417.59	
3855.00	3.40	339.00	3854.24	16.84	-23.94	6.88	17.25	160629.84	2002417.06	
3886.00	5.70	350.10	3885.14	19.21	-24.53	7.91	19.64	160632.21	2002416.47	
3917.00	7.90	354.60	3915.92	22.85	-25.00	7.30	23.28	160635.85	2002416.00	
3948.00	10.10	354.80	3946.53	27.68	-25.44	7.10	28.12	160640.68	2002415.56	
3978.00	12.00	355.00	3975.98	33.41	-25.95	6.33	33.85	160646.41	2002415.05	
4010.00	14.40	354.80	4007.13	40.69	-26.61	7.50	41.14	160653.69	2002414.39	
4039.00	16.90	356.10	4035.05	48.48	-27.22	8.70	48.95	160661.48	2002413.78	
4070.00	19.70	357.10	4064.48	58.20	-27.79	9.09	58.67	160671.20	2002413.21	
4102.00	22.20	357.80	4094.36	69.63	-28.29	7.85	70.11	160682.63	2002412.71	
4133.00	24.70	357.30	4122.80	81.95	-28.82	8.09	82.44	160694.95	2002412.18	
4164.00	27.20	357.10	4150.67	95.50	-29.49	8.07	96.00	160708.50	2002411.51	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
 Surveys  
 Page 4  
 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
4195.00	30.00	357.50	4177.89	110.32	-30.19	9.05	110.83	160723.32	2002410.81	
4226.00	33.00	358.20	4204.32	126.51	-30.79	9.75	127.02	160739.51	2002410.21	
4257.00	35.80	0.10	4229.89	144.01	-31.04	9.67	144.53	160757.01	2002409.96	
4288.00	38.30	0.80	4254.63	162.69	-30.89	8.18	163.20	160775.69	2002410.11	
4318.00	40.50	1.30	4277.81	181.73	-30.54	7.41	182.23	160794.73	2002410.46	
4348.00	43.30	2.20	4300.14	201.75	-29.92	9.55	202.24	160814.75	2002411.08	
4378.00	45.60	3.10	4321.55	222.73	-28.95	7.95	223.20	160835.73	2002412.05	
4407.00	47.50	4.10	4341.50	243.74	-27.62	7.01	244.19	160856.74	2002413.38	
4436.00	50.00	5.20	4360.62	265.47	-25.85	9.08	265.88	160878.47	2002415.15	
4468.00	52.80	5.90	4380.58	290.36	-23.43	8.92	290.72	160903.36	2002417.57	
4499.00	54.90	6.60	4398.87	315.24	-20.70	7.02	315.55	160928.24	2002420.30	
4528.00	57.10	6.90	4415.08	339.12	-17.88	7.63	339.38	160952.12	2002423.12	
4559.00	60.00	6.90	4431.25	365.37	-14.70	9.35	365.57	160978.37	2002426.30	
4589.00	62.70	6.60	4445.64	391.51	-11.61	9.04	391.65	161004.51	2002429.39	
4618.00	65.50	6.40	4458.30	417.43	-8.65	9.68	417.51	161030.43	2002432.35	
4650.00	68.80	5.90	4470.73	446.74	-5.50	10.41	446.77	161059.74	2002435.50	
4681.00	69.90	5.40	4481.66	475.61	-2.64	3.86	475.58	161088.61	2002438.36	
4712.00	70.20	5.40	4492.24	504.62	0.10	0.97	504.54	161117.62	2002441.10	
4743.00	70.60	5.40	4502.64	533.69	2.85	1.29	533.57	161146.69	2002443.85	
4774.00	70.80	5.20	4512.88	562.83	5.55	0.89	562.65	161175.83	2002446.55	
4805.00	71.00	5.00	4523.03	592.00	8.16	0.89	591.78	161205.00	2002449.16	
4836.00	70.80	4.80	4533.17	621.19	10.66	0.89	620.91	161234.19	2002451.66	
4867.00	70.70	4.70	4543.39	650.36	13.08	0.44	650.03	161263.36	2002454.08	
4897.00	71.00	4.70	4553.23	678.60	15.40	1.00	678.23	161291.60	2002456.40	
4926.00	71.60	4.50	4562.53	705.98	17.61	2.17	705.57	161318.98	2002458.61	
4955.00	74.00	3.80	4571.10	733.61	19.61	8.59	733.16	161346.61	2002460.61	
4986.00	76.40	3.10	4579.02	763.53	21.41	8.04	763.04	161376.53	2002462.41	
5015.00	77.90	2.40	4585.47	791.77	22.77	5.68	791.25	161404.77	2002463.77	
5046.00	79.30	1.70	4591.60	822.13	23.86	5.03	821.60	161435.13	2002464.86	
5078.00	81.50	0.80	4596.94	853.68	24.54	7.41	853.12	161466.68	2002465.54	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
 Surveys  
 Page 5  
 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
5108.00	84.40	0.80	4600.62	883.44	24.96	9.67	882.88	161496.44	2002465.96	
5139.00	86.80	0.80	4603.00	914.35	25.39	7.74	913.77	161527.35	2002466.39	
5170.00	88.20	0.60	4604.35	945.31	25.77	4.56	944.73	161558.31	2002466.77	
5185.00	89.20	0.30	4604.69	960.31	25.89	6.96	959.72	161573.31	2002466.89	
5265.00	91.70	359.20	4604.06	1040.30	25.54	3.41	1039.70	161653.30	2002466.54	
5296.00	92.10	358.00	4603.03	1071.27	24.78	4.08	1070.68	161684.27	2002465.78	
5327.00	92.00	357.30	4601.92	1102.23	23.51	2.28	1101.65	161715.23	2002464.51	
5358.00	91.20	356.80	4601.06	1133.17	21.92	3.04	1132.62	161746.17	2002462.92	
5389.00	89.80	356.40	4600.79	1164.12	20.08	4.70	1163.59	161777.12	2002461.08	
5420.00	89.90	356.40	4600.87	1195.05	18.13	0.32	1194.56	161808.05	2002459.13	
5449.00	90.10	356.10	4600.87	1223.99	16.23	1.24	1223.53	161836.99	2002457.23	
5481.00	90.60	355.90	4600.67	1255.91	14.00	1.68	1255.48	161868.91	2002455.00	
5511.00	91.20	355.90	4600.20	1285.83	11.86	2.00	1285.44	161898.83	2002452.86	
5542.00	90.60	356.20	4599.71	1316.75	9.72	2.16	1316.39	161929.75	2002450.72	
5572.00	89.70	356.20	4599.64	1346.69	7.73	3.00	1346.35	161959.69	2002448.73	
5603.00	89.60	356.10	4599.82	1377.62	5.65	0.46	1377.31	161990.62	2002446.65	
5633.00	89.00	356.40	4600.19	1407.55	3.69	2.24	1407.28	162020.55	2002444.69	
5662.00	89.40	356.60	4600.60	1436.49	1.92	1.54	1436.25	162049.49	2002442.92	
5693.00	90.00	356.80	4600.76	1467.44	0.14	2.04	1467.22	162080.44	2002441.14	
5723.00	91.40	356.60	4600.39	1497.39	-1.59	4.71	1497.19	162110.39	2002439.41	
5755.00	90.30	357.30	4599.92	1529.34	-3.29	4.07	1529.17	162142.34	2002437.71	
5785.00	90.10	357.30	4599.81	1559.31	-4.71	0.67	1559.16	162172.31	2002436.29	
5817.00	90.80	357.10	4599.56	1591.27	-6.27	2.28	1591.14	162204.27	2002434.73	
5848.00	89.90	357.50	4599.37	1622.23	-7.73	3.18	1622.12	162235.23	2002433.27	
5879.00	88.80	357.10	4599.72	1653.19	-9.19	3.78	1653.11	162266.19	2002431.81	
5909.00	87.80	357.30	4600.61	1683.15	-10.65	3.40	1683.08	162296.15	2002430.35	
5939.00	87.50	357.30	4601.84	1713.09	-12.07	1.00	1713.04	162326.09	2002428.93	
5971.00	87.50	356.80	4603.24	1745.01	-13.71	1.56	1744.99	162358.01	2002427.29	
6002.00	88.30	356.80	4604.38	1775.94	-15.44	2.58	1775.95	162388.94	2002425.56	
6033.00	89.20	357.30	4605.05	1806.90	-17.04	3.32	1806.92	162419.90	2002423.96	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
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 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
6065.00	89.90	357.30	4605.30	1838.86	-18.54	2.19	1838.91	162451.86	2002422.46	
6097.00	90.50	357.50	4605.19	1870.83	-20.00	1.98	1870.89	162483.83	2002421.00	
6128.00	89.80	357.50	4605.11	1901.80	-21.35	2.26	1901.88	162514.80	2002419.65	
6155.00	89.60	357.50	4605.25	1928.77	-22.53	0.74	1928.87	162541.77	2002418.47	
6184.00	89.90	357.50	4605.38	1957.74	-23.79	1.03	1957.86	162570.74	2002417.21	
6213.00	90.20	357.30	4605.35	1986.71	-25.11	1.24	1986.85	162599.71	2002415.89	
6244.00	90.60	357.30	4605.14	2017.68	-26.57	1.29	2017.83	162630.68	2002414.43	
6276.00	91.10	358.50	4604.66	2049.65	-27.74	4.06	2049.82	162662.65	2002413.26	
6305.00	91.50	358.90	4604.00	2078.64	-28.40	1.95	2078.82	162691.64	2002412.60	
6336.00	91.00	358.90	4603.33	2109.62	-28.99	1.61	2109.81	162722.62	2002412.01	
6365.00	90.00	359.70	4603.07	2138.62	-29.35	4.42	2138.81	162751.62	2002411.65	
6396.00	89.60	359.60	4603.18	2169.62	-29.53	1.33	2169.80	162782.62	2002411.47	
6428.00	90.00	0.10	4603.29	2201.62	-29.62	2.00	2201.80	162814.62	2002411.38	
6459.00	89.00	359.90	4603.56	2232.62	-29.62	3.29	2232.79	162845.62	2002411.38	
6490.00	89.10	359.60	4604.08	2263.61	-29.75	1.02	2263.79	162876.61	2002411.25	
6520.00	88.50	359.40	4604.71	2293.60	-30.02	2.11	2293.78	162906.60	2002410.98	
6551.00	88.40	359.00	4605.55	2324.59	-30.45	1.33	2324.77	162937.59	2002410.55	
6580.00	88.20	359.20	4606.41	2353.57	-30.90	0.98	2353.76	162966.57	2002410.10	
6609.00	88.10	358.90	4607.34	2382.55	-31.38	1.09	2382.74	162995.55	2002409.62	
6639.00	88.70	358.90	4608.18	2412.54	-31.96	2.00	2412.73	163025.54	2002409.04	
6668.00	89.40	358.90	4608.66	2441.53	-32.52	2.41	2441.72	163054.53	2002408.48	
6700.00	89.70	358.70	4608.91	2473.52	-33.19	1.13	2473.72	163086.52	2002407.81	
6732.00	90.70	358.70	4608.80	2505.51	-33.91	3.13	2505.72	163118.51	2002407.09	
6763.00	90.40	358.70	4608.50	2536.50	-34.62	0.97	2536.72	163149.50	2002406.38	
6794.00	88.70	359.00	4608.75	2567.49	-35.24	5.57	2567.72	163180.49	2002405.76	
6823.00	88.50	359.40	4609.45	2596.48	-35.64	1.54	2596.71	163209.48	2002405.36	
6852.00	88.70	359.20	4610.16	2625.47	-36.00	0.98	2625.70	163238.47	2002405.00	
6884.00	88.00	359.20	4611.08	2657.45	-36.44	2.19	2657.69	163270.45	2002404.56	
6916.00	87.40	358.90	4612.37	2689.42	-36.97	2.10	2689.66	163302.42	2002404.03	
6947.00	88.30	359.70	4613.53	2720.40	-37.35	3.88	2720.64	163333.40	2002403.65	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
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 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
6988.00	90.20	0.80	4614.07	2761.39	-37.17	5.35	2761.62	163374.39	2002403.83	
7019.00	91.00	0.60	4613.74	2792.39	-36.79	2.66	2792.61	163405.39	2002404.21	
7051.00	91.20	1.00	4613.13	2824.38	-36.35	1.40	2824.58	163437.38	2002404.65	
7080.00	91.30	0.60	4612.50	2853.37	-35.94	1.42	2853.56	163466.37	2002405.06	
7112.00	91.20	0.10	4611.80	2885.36	-35.75	1.59	2885.55	163498.36	2002405.25	
7143.00	91.20	359.60	4611.15	2916.35	-35.83	1.61	2916.54	163529.35	2002405.17	
7174.00	91.40	358.30	4610.45	2947.34	-36.40	4.24	2947.53	163560.34	2002404.60	
7204.00	90.90	358.50	4609.84	2977.32	-37.23	1.80	2977.52	163590.32	2002403.77	
7235.00	90.00	358.20	4609.60	3008.31	-38.13	3.06	3008.52	163621.31	2002402.87	
7266.00	91.10	358.70	4609.30	3039.29	-38.97	3.90	3039.51	163652.29	2002402.04	
7295.00	91.80	358.50	4608.57	3068.28	-39.67	2.51	3068.50	163681.28	2002401.33	
7327.00	88.80	357.80	4608.40	3100.25	-40.71	9.63	3100.50	163713.25	2002400.29	
7356.00	87.30	357.60	4609.39	3129.21	-41.87	5.22	3129.47	163742.21	2002399.13	
7388.00	87.50	358.50	4610.84	3161.16	-42.96	2.88	3161.43	163774.16	2002398.04	
7419.00	89.30	358.90	4611.71	3192.14	-43.66	5.95	3192.42	163805.14	2002397.34	
7449.00	90.80	357.80	4611.68	3222.13	-44.52	6.20	3222.42	163835.13	2002396.48	
7481.00	91.40	357.50	4611.06	3254.09	-45.84	2.10	3254.40	163867.09	2002395.16	
7510.00	90.70	358.00	4610.53	3283.07	-46.97	2.97	3283.39	163896.07	2002394.03	
7541.00	90.30	357.50	4610.26	3314.04	-48.19	2.07	3314.38	163927.04	2002392.81	
7572.00	90.70	358.50	4609.99	3345.02	-49.27	3.47	3345.37	163958.02	2002391.73	
7603.00	90.70	358.00	4609.61	3376.00	-50.22	1.61	3376.37	163989.00	2002390.78	
7635.00	90.60	356.90	4609.25	3407.97	-51.64	3.45	3408.35	164020.97	2002389.36	
7665.00	92.50	357.30	4608.44	3437.92	-53.16	6.47	3438.32	164050.92	2002387.84	
7695.00	92.20	356.80	4607.21	3467.85	-54.70	1.94	3468.28	164080.85	2002386.30	
7726.00	90.00	356.90	4606.61	3498.80	-56.41	7.10	3499.25	164111.80	2002384.59	
7757.00	91.20	357.30	4606.29	3529.76	-57.97	4.08	3530.23	164142.76	2002383.03	
7786.00	91.60	357.80	4605.58	3558.72	-59.21	2.21	3559.21	164171.72	2002381.79	
7817.00	90.50	357.60	4605.01	3589.69	-60.46	3.61	3590.20	164202.69	2002380.54	
7849.00	89.00	358.00	4605.15	3621.67	-61.69	4.85	3622.19	164234.67	2002379.31	
7879.00	87.90	358.00	4605.96	3651.64	-62.73	3.67	3652.18	164264.64	2002378.27	



## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
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 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
7910.00	88.10	357.30	4607.05	3682.59	-64.00	2.35	3683.15	164295.59	2002377.00	
7941.00	89.30	358.00	4607.75	3713.56	-65.27	4.48	3714.13	164326.56	2002375.73	
7973.00	90.30	357.80	4607.86	3745.53	-66.45	3.19	3746.12	164358.53	2002374.55	
8005.00	90.10	358.90	4607.75	3777.52	-67.37	3.49	3778.12	164390.52	2002373.63	
8034.00	89.30	358.90	4607.90	3806.51	-67.92	2.76	3807.12	164419.51	2002373.08	
8065.00	89.40	357.60	4608.25	3837.50	-68.87	4.21	3838.11	164450.50	2002372.13	
8096.00	88.50	358.70	4608.82	3868.48	-69.87	4.58	3869.11	164481.48	2002371.13	
8128.00	89.90	358.00	4609.27	3900.46	-70.79	4.89	3901.10	164513.46	2002370.21	
8157.00	91.10	358.70	4609.01	3929.44	-71.63	4.79	3930.10	164542.44	2002369.37	
8188.00	91.80	358.20	4608.23	3960.42	-72.47	2.77	3961.08	164573.42	2002368.53	
8218.00	92.30	358.90	4607.16	3990.39	-73.22	2.87	3991.06	164603.39	2002367.78	
8250.00	92.20	358.50	4605.90	4022.36	-73.95	1.29	4023.04	164635.36	2002367.05	
8281.00	91.90	359.20	4604.79	4053.33	-74.57	2.46	4054.02	164666.33	2002366.43	
8310.00	90.80	0.10	4604.11	4082.32	-74.75	4.90	4083.01	164695.32	2002366.25	
8342.00	90.10	1.00	4603.86	4114.32	-74.44	3.56	4114.99	164727.32	2002366.56	
8372.00	90.80	0.60	4603.62	4144.32	-74.02	2.69	4144.98	164757.32	2002366.98	
8404.00	91.40	1.00	4603.01	4176.31	-73.58	2.25	4176.96	164789.31	2002367.42	
8437.00	92.10	0.60	4602.00	4209.29	-73.12	2.44	4209.92	164822.29	2002367.88	
8469.00	90.70	0.40	4601.22	4241.28	-72.84	4.42	4241.90	164854.28	2002368.16	
8500.00	89.30	1.10	4601.22	4272.27	-72.43	5.05	4272.89	164885.27	2002368.57	
8531.00	89.90	0.40	4601.43	4303.27	-72.02	2.97	4303.87	164916.27	2002368.98	
8561.00	89.90	0.30	4601.49	4333.27	-71.84	0.33	4333.86	164946.27	2002369.16	
8590.00	88.40	359.60	4601.92	4362.27	-71.87	5.71	4362.86	164975.27	2002369.13	
8621.00	87.80	0.10	4602.94	4393.25	-71.95	2.52	4393.84	165006.25	2002369.05	
8652.00	88.40	0.30	4603.97	4424.23	-71.84	2.04	4424.81	165037.23	2002369.16	
8684.00	89.40	359.20	4604.59	4456.22	-71.98	4.65	4456.80	165069.22	2002369.02	
8714.00	90.20	358.70	4604.69	4486.22	-72.53	3.14	4486.80	165099.22	2002368.47	
8743.00	90.40	359.60	4604.54	4515.21	-72.96	3.18	4515.80	165128.21	2002368.04	
8774.00	90.50	359.20	4604.30	4546.21	-73.28	1.33	4546.80	165159.21	2002367.72	
8805.00	90.50	359.00	4604.03	4577.21	-73.77	0.65	4577.80	165190.21	2002367.23	

## Calmena Energy Services

Company: Woolsey Operating Company  
 Well: Spicer #1-H  
 Location: Barber County, Kansas

Date: 7-Oct-2012  
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 Job# : 6526

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 359.67° (feet)	Az Grid Y	NAD27 Ks South gr elev=1400 RKB=1417 Grid X	Comments
8837.00	90.50	358.90	4603.75	4609.20	-74.36	0.31	4609.80	165222.20	2002366.64	
8867.00	90.40	359.20	4603.51	4639.20	-74.85	1.05	4639.80	165252.20	2002366.15	
8898.00	91.10	358.70	4603.10	4670.19	-75.42	2.77	4670.79	165283.19	2002365.58	
8929.00	91.20	359.00	4602.48	4701.17	-76.04	1.02	4701.79	165314.17	2002364.96	