



KANSAS CORPORATION COMMISSION 1107937
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

CONFIDENTIAL

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2: _____
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 33132
Name: Dan D Drilling
Wellsite Geologist: BILLY KLAVER
Purchaser: PLAINS MARKETING / ATLAS PIPELINE

API No. 15 - 15-007-23946-01-00
Spot Description: _____
NE NE NE NW Sec. 6 Twp. 34 S. R. 10 East West
315 Feet from North / South Line of Section
2430 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Barber
Lease Name: JAHAY Well #: 6 H
Field Name: KOCHIA

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SLOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 CM (Coal Bed Methane)
 Cathodic Other (Core, Expl., etc.): _____

Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1455 Kelly Bushing: 1472
Total Depth: 8980 Plug Back Total Depth: 8930
Amount of Surface Pipe Set and Cemented at: 316 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from: _____
feet depth to: _____ w/ _____ sx cmt.

If Workover/Re-entry: Old Well Info as follows:
Operator: _____

Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW
 Plug Back: _____ Plug Back Total Depth: _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 13000 ppm Fluid volume: 2500 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite: _____
Operator Name: WOOLSEY OPERATING COMPANY LLC
Lease Name: HIBBARD 1 SWD License #: 33168
Quarter NE Sec. 23 Twp. 34 S. R. 9 East West
County: HARPER Permit #: D-30,773

10/01/2012 11/11/2012 12/18/2012
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

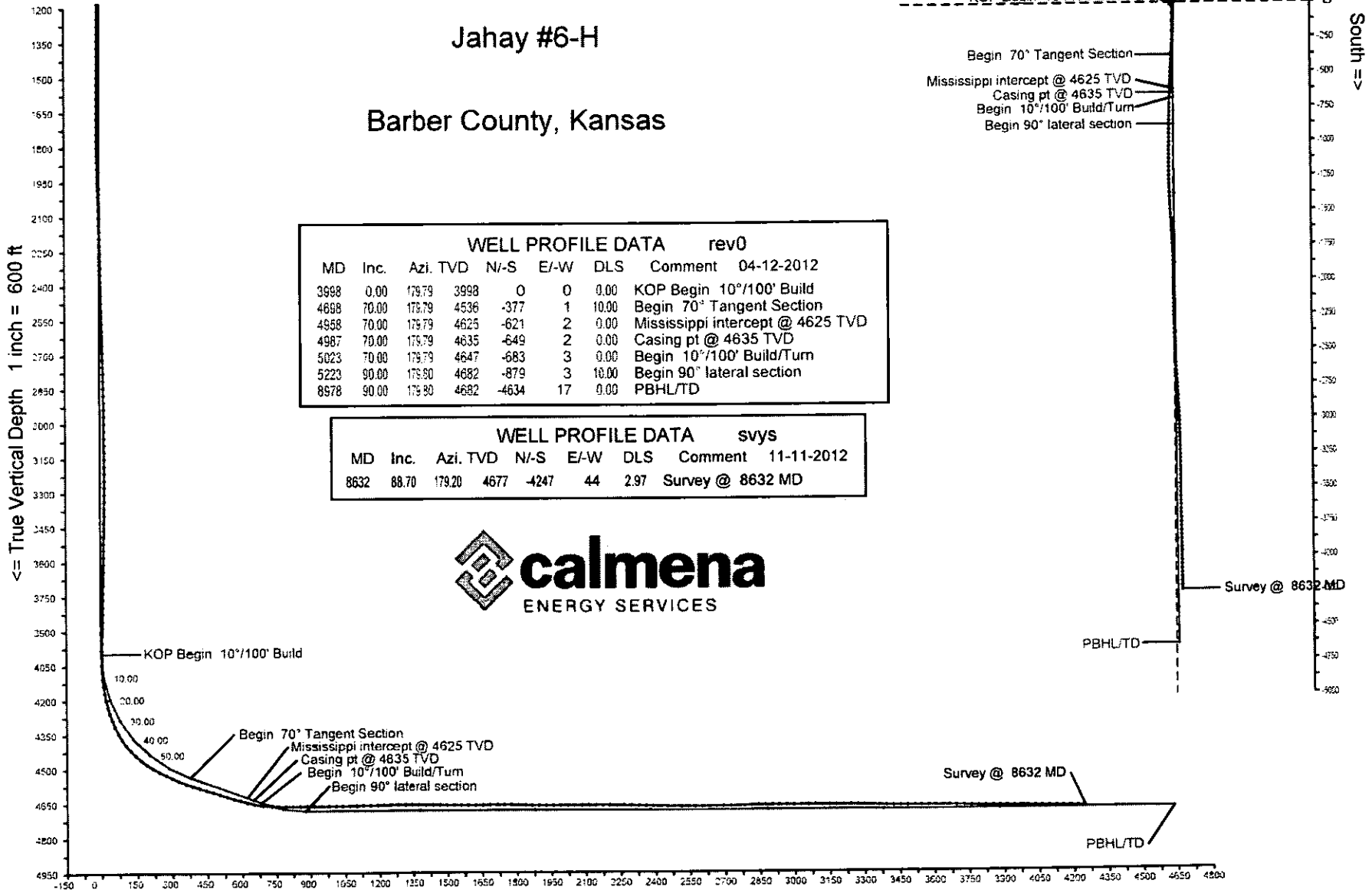
Letter of Confidentiality Received
Date: 01/29/2013
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: NAOMI JAMES Date: 01/30/2013

Woolsey Operating Company, LLC

Jahay #6-H

Barber County, Kansas

1 inch = 1000 ft <= West East =>



WELL PROFILE DATA rev0							
MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment
3998	0.00	179.79	3998	0	0	0.00	KOP Begin 10°/100' Build
4668	70.00	179.79	4536	-377	1	10.00	Begin 70° Tangent Section
4958	70.00	179.79	4625	-621	2	0.00	Mississippi intercept @ 4625 TVD
4987	70.00	179.79	4635	-649	2	0.00	Casing pt @ 4635 TVD
5023	70.00	179.79	4647	-683	3	0.00	Begin 10°/100' Build/Turn
5223	90.00	179.80	4682	-879	3	10.00	Begin 90° lateral section
8978	90.00	179.80	4682	-4634	17	0.00	PBHL/TD

WELL PROFILE DATA svys							
MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment
8632	88.70	179.20	4677	-4247	44	2.97	Survey @ 8632 MD



Vertical Section on 179.79 deg azimuth with reference 0.00 N, 0.00 E

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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 Job# : 6527

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
Surface Location								165829.00	2014295.40	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165829.00	2014295.40	
692.00	1.41	79.72	691.93	1.52	8.38	0.20	-1.49	165830.52	2014303.78	
723.00	1.76	95.72	722.92	1.54	9.23	1.81	-1.51	165830.54	2014304.63	
752.00	1.58	82.01	751.91	1.55	10.07	1.51	-1.51	165830.55	2014305.47	
783.00	1.70	94.50	782.89	1.57	10.95	1.21	-1.53	165830.57	2014306.35	
813.00	1.90	84.10	812.88	1.59	11.89	1.27	-1.55	165830.59	2014307.29	
843.00	1.90	88.50	842.86	1.65	12.88	0.49	-1.61	165830.65	2014308.28	
874.00	1.50	73.40	873.85	1.78	13.78	1.93	-1.73	165830.78	2014309.18	
906.00	1.20	82.00	905.84	1.95	14.51	1.13	-1.90	165830.95	2014309.91	
936.00	1.20	59.70	935.83	2.15	15.10	1.55	-2.10	165831.15	2014310.50	
967.00	1.00	30.20	966.83	2.55	15.51	1.91	-2.49	165831.55	2014310.91	
998.00	1.00	45.80	997.82	2.97	15.84	0.88	-2.91	165831.97	2014311.24	
1027.00	1.20	21.90	1026.82	3.43	16.14	1.71	-3.37	165832.43	2014311.54	
1058.00	1.40	26.80	1057.81	4.07	16.43	0.74	-4.01	165833.07	2014311.83	
1089.00	0.90	25.60	1088.80	4.63	16.70	1.61	-4.57	165833.63	2014312.10	
1119.00	1.10	352.50	1118.80	5.13	16.77	2.00	-5.06	165834.13	2014312.17	
1150.00	1.20	349.70	1149.79	5.74	16.67	0.37	-5.68	165834.74	2014312.07	
1180.00	1.00	347.80	1179.79	6.31	16.56	0.68	-6.24	165835.31	2014311.96	
1211.00	1.10	311.40	1210.78	6.77	16.28	2.14	-6.71	165835.77	2014311.68	
1243.00	0.90	297.90	1242.78	7.09	15.83	0.96	-7.03	165836.09	2014311.23	
1274.00	1.10	316.30	1273.77	7.42	15.41	1.21	-7.36	165836.42	2014310.81	
1306.00	1.50	295.90	1305.77	7.82	14.82	1.89	-7.77	165836.82	2014310.22	
1337.00	1.20	285.00	1336.76	8.08	14.14	1.27	-8.03	165837.08	2014309.54	
1368.00	1.70	288.60	1367.75	8.31	13.39	1.64	-8.26	165837.31	2014308.79	
1400.00	1.60	293.10	1399.73	8.64	12.53	0.51	-8.59	165837.64	2014307.93	
1431.00	1.40	274.70	1430.72	8.84	11.75	1.67	-8.80	165837.84	2014307.15	
1462.00	1.80	280.60	1461.71	8.96	10.90	1.39	-8.92	165837.96	2014306.30	
1493.00	1.50	278.20	1492.70	9.11	10.02	0.99	-9.07	165838.11	2014305.42	
1524.00	1.90	273.30	1523.68	9.20	9.10	1.37	-9.16	165838.20	2014304.50	
1554.00	1.80	281.90	1553.67	9.32	8.15	0.98	-9.29	165838.32	2014303.55	

NAD27 Ks South gr elev=1400 RKB=1417

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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Job# : 6527

NAD27 Ks South gr elev=1400 RKB=1417

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
1585.00	2.40	276.90	1584.65	9.50	7.02	2.02	-9.47	165838.50	2014302.42	
1616.00	2.10	278.20	1615.62	9.66	5.82	0.98	-9.64	165838.66	2014301.22	
1646.00	2.20	266.40	1645.60	9.70	4.70	1.51	-9.68	165838.70	2014300.10	
1676.00	2.60	268.70	1675.58	9.65	3.44	1.37	-9.64	165838.65	2014298.84	
1708.00	2.60	269.70	1707.54	9.63	1.99	0.14	-9.62	165838.63	2014297.39	
1740.00	2.10	264.60	1739.52	9.57	0.68	1.69	-9.57	165838.57	2014296.08	
1770.00	2.10	255.90	1769.50	9.38	-0.40	1.06	-9.39	165838.38	2014295.00	
1799.00	2.20	249.00	1798.48	9.06	-1.43	0.96	-9.06	165838.06	2014293.97	
1830.00	2.20	245.00	1829.45	8.59	-2.53	0.50	-8.60	165837.59	2014292.87	
1860.00	2.50	241.80	1859.43	8.04	-3.63	1.09	-8.05	165837.04	2014291.77	
1891.00	2.40	233.40	1890.40	7.33	-4.74	1.20	-7.35	165836.33	2014290.66	
1921.00	2.40	237.80	1920.37	6.62	-5.78	0.61	-6.64	165835.62	2014289.62	
1950.00	2.60	243.40	1949.35	6.00	-6.88	1.09	-6.03	165835.00	2014288.52	
1980.00	2.80	239.50	1979.31	5.33	-8.12	0.90	-5.36	165834.33	2014287.28	
2011.00	2.40	227.00	2010.28	4.50	-9.25	2.23	-4.54	165833.50	2014286.15	
2040.00	2.20	216.00	2039.26	3.64	-10.02	1.67	-3.67	165832.64	2014285.38	
2069.00	2.20	225.10	2068.24	2.79	-10.74	1.20	-2.83	165831.79	2014284.66	
2101.00	2.10	214.90	2100.21	1.88	-11.51	1.23	-1.92	165830.88	2014283.89	
2132.00	1.70	213.00	2131.20	1.03	-12.09	1.31	-1.07	165830.03	2014283.31	
2163.00	1.10	217.00	2162.19	0.40	-12.52	1.96	-0.45	165829.40	2014282.88	
2192.00	1.10	193.30	2191.18	-0.09	-12.75	1.56	0.04	165828.91	2014282.65	
2223.00	1.10	193.10	2222.18	-0.67	-12.88	0.01	0.62	165828.33	2014282.52	
2255.00	0.90	197.50	2254.17	-1.21	-13.03	0.67	1.16	165827.79	2014282.37	
2287.00	1.30	206.30	2286.17	-1.77	-13.26	1.35	1.72	165827.23	2014282.14	
2319.00	1.20	208.60	2318.16	-2.39	-13.59	0.35	2.34	165826.61	2014281.81	
2350.00	1.00	186.90	2349.15	-2.95	-13.77	1.48	2.89	165826.05	2014281.63	
2380.00	1.30	200.50	2379.15	-3.52	-13.92	1.35	3.47	165825.48	2014281.48	
2411.00	1.20	207.90	2410.14	-4.14	-14.20	0.61	4.09	165824.86	2014281.20	
2441.00	1.10	187.70	2440.13	-4.70	-14.38	1.38	4.65	165824.30	2014281.02	
2470.00	1.10	192.00	2469.13	-5.25	-14.48	0.28	5.20	165823.75	2014280.92	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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Job# : 6527

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	NI-S (feet)	EI-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	NAD27 Ks South gr elev=1400 RKB=1417 Comments
2502.00	1.40	206.10	2501.12	-5.90	-14.72	1.34	5.85	165823.10	2014280.68	
2530.00	1.40	208.60	2529.11	-6.51	-15.03	0.22	6.46	165822.49	2014280.37	
2562.00	1.50	205.90	2561.10	-7.23	-15.40	0.38	7.17	165821.77	2014280.00	
2594.00	1.30	189.10	2593.09	-7.97	-15.64	1.42	7.91	165821.03	2014279.76	
2625.00	1.40	207.70	2624.08	-8.65	-15.87	1.44	8.59	165820.35	2014279.53	
2656.00	1.70	199.80	2655.07	-9.42	-16.20	1.19	9.36	165819.58	2014279.20	
2687.00	1.70	195.90	2686.06	-10.29	-16.49	0.37	10.23	165818.71	2014278.91	
2718.00	1.40	188.40	2717.05	-11.11	-16.67	1.17	11.05	165817.89	2014278.73	
2750.00	1.10	174.80	2749.04	-11.80	-16.70	1.31	11.74	165817.20	2014278.70	
2779.00	1.30	181.70	2778.03	-12.41	-16.68	0.85	12.35	165816.59	2014278.72	
2810.00	1.00	168.50	2809.03	-13.02	-16.64	1.29	12.96	165815.98	2014278.76	
2841.00	0.80	175.00	2840.02	-13.50	-16.56	0.72	13.44	165815.50	2014278.84	
2873.00	1.20	170.60	2872.02	-14.06	-16.49	1.27	14.00	165814.94	2014278.91	
2904.00	1.20	165.50	2903.01	-14.69	-16.36	0.34	14.63	165814.31	2014279.04	
2934.00	0.90	152.80	2933.01	-15.20	-16.17	1.26	15.15	165813.80	2014279.23	
2965.00	1.10	128.60	2964.00	-15.61	-15.83	1.49	15.55	165813.39	2014279.57	
2997.00	0.80	103.80	2996.00	-15.85	-15.37	1.57	15.80	165813.15	2014280.03	
3029.00	0.90	107.50	3027.99	-15.98	-14.91	0.36	15.93	165813.02	2014280.49	
3060.00	1.30	101.30	3058.99	-16.12	-14.33	1.34	16.07	165812.88	2014281.07	
3090.00	1.00	97.10	3088.98	-16.22	-13.74	1.04	16.17	165812.78	2014281.66	
3121.00	1.00	86.90	3119.98	-16.24	-13.20	0.57	16.19	165812.76	2014282.20	
3152.00	1.00	95.70	3150.97	-16.25	-12.66	0.49	16.21	165812.75	2014282.74	
3183.00	1.40	90.10	3181.97	-16.28	-12.02	1.34	16.24	165812.72	2014283.38	
3214.00	1.30	100.60	3212.96	-16.35	-11.29	0.86	16.30	165812.65	2014284.11	
3245.00	1.30	73.70	3243.95	-16.31	-10.61	1.95	16.27	165812.69	2014284.79	
3275.00	1.50	75.70	3273.94	-16.12	-9.90	0.69	16.08	165812.88	2014285.50	
3305.00	2.10	64.40	3303.93	-15.78	-9.02	2.31	15.75	165813.22	2014286.38	
3336.00	2.10	60.60	3334.91	-15.26	-8.02	0.45	15.23	165813.74	2014287.38	
3366.00	1.50	57.90	3364.89	-14.78	-7.21	2.02	14.76	165814.22	2014288.19	
3397.00	1.60	41.90	3395.88	-14.24	-6.57	1.43	14.22	165814.76	2014288.83	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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Job# : 6527

NAD27 Ks South gr elev=1400 RKB=1417

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
3429.00	1.60	54.20	3427.87	-13.65	-5.91	1.07	13.63	165815.35	2014289.49	
3460.00	1.50	43.00	3458.86	-13.10	-5.29	1.03	13.08	165815.90	2014290.11	
3489.00	2.00	46.30	3487.84	-12.47	-4.66	1.76	12.46	165816.53	2014290.74	
3519.00	1.80	39.10	3517.83	-11.75	-3.98	1.04	11.73	165817.25	2014291.42	
3548.00	1.30	36.10	3546.82	-11.13	-3.50	1.75	11.11	165817.87	2014291.90	
3579.00	1.30	45.40	3577.81	-10.60	-3.05	0.68	10.58	165818.40	2014292.35	
3610.00	1.10	50.00	3608.80	-10.16	-2.57	0.72	10.15	165818.84	2014292.83	
3639.00	1.20	28.20	3637.79	-9.71	-2.21	1.54	9.70	165819.29	2014293.19	
3670.00	1.50	41.20	3668.79	-9.12	-1.79	1.38	9.11	165819.88	2014293.61	
3701.00	1.50	46.00	3699.78	-8.53	-1.23	0.41	8.53	165820.47	2014294.17	
3732.00	1.20	39.50	3730.77	-8.00	-0.73	1.09	8.00	165821.00	2014294.67	
3764.00	1.40	34.70	3762.76	-7.42	-0.30	0.71	7.42	165821.58	2014295.10	
3796.00	1.80	44.00	3794.75	-6.74	0.27	1.49	6.74	165822.26	2014295.67	
3825.00	1.70	47.90	3823.73	-6.12	0.91	0.54	6.12	165822.88	2014296.31	
3856.00	1.80	34.70	3854.72	-5.41	1.53	1.34	5.42	165823.59	2014296.93	
3887.00	2.00	44.20	3885.70	-4.62	2.18	1.20	4.63	165824.38	2014297.58	
3918.00	1.80	42.50	3916.68	-3.88	2.89	0.67	3.89	165825.12	2014298.29	
3949.00	2.00	39.80	3947.67	-3.10	3.56	0.71	3.12	165825.90	2014298.96	
3984.00	1.90	55.80	3982.65	-2.31	4.43	1.58	2.32	165826.69	2014299.83	
4015.00	1.50	92.20	4013.63	-2.03	5.27	3.64	2.05	165826.97	2014300.67	
4046.00	2.10	149.30	4044.62	-2.54	5.96	5.80	2.56	165826.46	2014301.36	
4077.00	4.00	168.30	4075.58	-4.09	6.47	6.86	4.11	165824.91	2014301.87	
4107.00	5.10	185.20	4105.48	-6.44	6.56	5.74	6.46	165822.56	2014301.96	
4138.00	6.80	185.70	4136.31	-9.64	6.25	5.49	9.66	165819.36	2014301.65	
4169.00	8.90	185.70	4167.02	-13.85	5.83	6.77	13.87	165815.15	2014301.23	
4200.00	11.60	185.70	4197.52	-19.34	5.29	8.71	19.36	165809.66	2014300.69	
4231.00	14.40	183.60	4227.73	-26.29	4.73	9.16	26.31	165802.71	2014300.13	
4261.00	17.50	180.90	4256.57	-34.52	4.43	10.62	34.54	165794.48	2014299.83	
4292.00	20.60	179.90	4285.87	-44.64	4.37	10.05	44.66	165784.36	2014299.77	
4323.00	24.20	180.00	4314.52	-56.45	4.37	11.61	56.47	165772.55	2014299.77	

Calmena Energy Services

Date: 11-Nov-2012

Surveys

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Job# : 6527

Company: Woolsey Operating Company, LLC

Well: Jahay #6-H

Location: Barber County, Kansas

NAD27 Ks South gr elev=1400 RKB=1417

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
4354.00	28.30	180.60	4342.32	-70.16	4.30	13.25	70.17	165758.84	2014299.70	
4385.00	32.50	181.10	4369.05	-85.84	4.06	13.57	85.85	165743.16	2014299.46	
4416.00	37.00	181.50	4394.52	-103.50	3.66	14.53	103.51	165725.50	2014299.06	
4447.00	41.50	181.30	4418.52	-123.10	3.18	14.52	123.12	165705.90	2014298.58	
4477.00	45.80	180.70	4440.22	-143.80	2.82	14.40	143.81	165685.20	2014298.22	
4508.00	50.10	180.20	4460.98	-166.82	2.64	13.92	166.83	165662.18	2014298.04	
4539.00	54.50	180.20	4479.93	-191.34	2.56	14.19	191.35	165637.66	2014297.96	
4570.00	59.50	180.60	4496.81	-217.33	2.38	16.17	217.34	165611.67	2014297.78	
4601.00	64.30	181.50	4511.41	-244.66	1.87	15.69	244.67	165584.34	2014297.27	
4632.00	63.30	182.90	4525.09	-272.45	0.80	5.18	272.46	165556.55	2014296.20	
4663.00	63.10	183.40	4539.07	-300.08	-0.72	1.58	300.08	165528.92	2014294.68	
4694.00	67.40	183.70	4552.05	-328.17	-2.46	13.90	328.16	165500.83	2014292.94	
4725.00	71.00	183.70	4563.05	-357.09	-4.33	11.61	357.07	165471.91	2014291.07	
4756.00	71.80	183.70	4572.94	-386.41	-6.23	2.58	386.38	165442.59	2014289.17	
4787.00	72.10	183.70	4582.55	-415.82	-8.13	0.97	415.79	165413.18	2014287.27	
4818.00	72.00	183.20	4592.10	-445.26	-9.90	1.57	445.22	165383.74	2014285.50	
4848.00	71.90	183.20	4601.40	-473.74	-11.50	0.33	473.69	165355.26	2014283.90	
4879.00	72.00	182.90	4611.00	-503.17	-13.06	0.98	503.12	165325.83	2014282.34	
4910.00	72.50	182.90	4620.45	-532.66	-14.56	1.61	532.60	165296.34	2014280.84	
4941.00	73.20	182.50	4629.59	-562.25	-15.95	2.57	562.18	165266.75	2014279.45	
4972.00	74.00	182.50	4638.35	-591.96	-17.25	2.58	591.89	165237.04	2014278.15	
5003.00	76.70	182.20	4646.19	-621.92	-18.48	8.76	621.85	165207.08	2014276.92	
5034.00	79.10	182.20	4652.68	-652.21	-19.64	7.74	652.13	165176.79	2014275.76	
5065.00	81.90	182.00	4657.80	-682.76	-20.76	9.05	682.68	165146.24	2014274.64	
5072.00	82.90	182.00	4658.72	-689.69	-21.01	14.29	689.61	165139.31	2014274.39	
5113.00	87.50	182.00	4662.15	-730.51	-22.43	11.22	730.42	165098.49	2014272.97	
5142.00	88.50	181.30	4663.17	-759.48	-23.27	4.21	759.39	165069.52	2014272.13	
5173.00	90.10	181.30	4663.54	-790.47	-23.97	5.16	790.38	165038.53	2014271.43	
5204.00	90.00	181.30	4663.52	-821.46	-24.67	0.32	821.37	165007.54	2014270.73	
5236.00	90.40	180.90	4663.41	-853.46	-25.29	1.77	853.36	164975.54	2014270.11	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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 Job# : 6527

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	NAD27 Ks South gr elev=1400 RKB=1417 Comments
5268.00	90.50	181.30	4663.15	-885.45	-25.90	1.29	885.35	164943.55	2014269.50	
5299.00	90.30	180.90	4662.94	-916.44	-26.50	1.44	916.34	164912.56	2014268.90	
5330.00	89.90	181.30	4662.88	-947.44	-27.09	1.82	947.33	164881.56	2014268.31	
5361.00	89.80	181.50	4662.97	-978.43	-27.85	0.72	978.32	164850.57	2014267.55	
5393.00	90.80	181.30	4662.80	-1010.42	-28.63	3.19	1010.31	164818.58	2014266.77	
5422.00	90.80	181.10	4662.39	-1039.41	-29.24	0.69	1039.29	164789.59	2014266.16	
5453.00	91.40	180.60	4661.80	-1070.40	-29.70	2.52	1070.28	164758.60	2014265.70	
5483.00	91.30	180.60	4661.09	-1100.39	-30.01	0.33	1100.27	164728.61	2014265.39	
5512.00	91.10	180.70	4660.48	-1129.38	-30.34	0.77	1129.26	164699.62	2014265.06	
5542.00	91.10	180.20	4659.91	-1159.37	-30.58	1.67	1159.25	164669.63	2014264.82	
5572.00	91.40	180.20	4659.25	-1189.37	-30.68	1.00	1189.25	164639.63	2014264.72	
5601.00	91.10	179.70	4658.62	-1218.36	-30.65	2.01	1218.24	164610.64	2014264.75	
5633.00	91.40	179.50	4657.92	-1250.35	-30.43	1.13	1250.23	164578.65	2014264.97	
5664.00	90.50	178.50	4657.41	-1281.34	-29.89	4.34	1281.22	164547.66	2014265.51	
5693.00	89.50	177.90	4657.41	-1310.33	-28.98	4.02	1310.21	164518.67	2014266.42	
5725.00	89.40	177.40	4657.72	-1342.30	-27.67	1.59	1342.19	164486.70	2014267.73	
5756.00	89.60	177.60	4657.99	-1373.27	-26.32	0.91	1373.16	164455.73	2014269.08	
5787.00	89.80	177.40	4658.15	-1404.24	-24.96	0.91	1404.14	164424.76	2014270.44	
5818.00	89.30	177.10	4658.39	-1435.20	-23.48	1.88	1435.11	164393.80	2014271.92	
5849.00	89.50	177.20	4658.72	-1466.16	-21.93	0.72	1466.07	164362.84	2014273.47	
5878.00	89.80	177.20	4658.89	-1495.13	-20.52	1.03	1495.04	164333.88	2014274.88	
5910.00	90.00	177.20	4658.95	-1527.09	-18.95	0.63	1527.01	164301.91	2014276.45	
5941.00	89.10	176.40	4659.19	-1558.04	-17.22	3.88	1557.96	164270.96	2014278.18	
5972.00	89.10	176.50	4659.68	-1588.97	-15.31	0.32	1588.91	164240.03	2014280.09	
6003.00	89.50	176.50	4660.06	-1619.91	-13.41	1.29	1619.85	164209.09	2014281.99	
6034.00	90.60	177.20	4660.03	-1650.87	-11.71	4.21	1650.81	164178.13	2014283.69	
6065.00	91.20	177.60	4659.54	-1681.83	-10.30	2.33	1681.78	164147.17	2014285.10	
6097.00	90.30	177.20	4659.13	-1713.79	-8.85	3.08	1713.75	164115.21	2014286.55	
6127.00	89.20	177.10	4659.26	-1743.76	-7.36	3.68	1743.72	164085.24	2014288.04	
6157.00	88.80	177.40	4659.78	-1773.72	-5.92	1.67	1773.68	164055.28	2014289.48	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

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NAD27 Ks South gr elev=1400 RKB=1417

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
6187.00	89.20	177.20	4660.30	-1803.68	-4.51	1.49	1803.65	164025.32	2014290.89	
6219.00	89.30	178.50	4660.72	-1835.65	-3.31	4.07	1835.63	163993.35	2014292.09	
6248.00	87.80	179.30	4661.46	-1864.64	-2.75	5.86	1864.62	163964.36	2014292.65	
6279.00	87.70	179.30	4662.67	-1895.61	-2.37	0.32	1895.59	163933.39	2014293.03	
6309.00	90.20	179.90	4663.22	-1925.60	-2.16	8.57	1925.58	163903.40	2014293.24	
6340.00	91.30	180.00	4662.82	-1956.60	-2.14	3.56	1956.58	163872.40	2014293.26	
6371.00	91.20	180.20	4662.14	-1987.59	-2.19	0.72	1987.57	163841.41	2014293.21	
6402.00	90.00	180.60	4661.82	-2018.59	-2.41	4.08	2018.57	163810.41	2014292.99	
6433.00	89.50	179.90	4661.95	-2049.59	-2.54	2.77	2049.57	163779.41	2014292.86	
6464.00	90.10	179.90	4662.06	-2080.59	-2.49	1.94	2080.57	163748.41	2014292.91	
6495.00	90.50	179.90	4661.90	-2111.59	-2.43	1.29	2111.56	163717.41	2014292.97	
6524.00	89.70	179.50	4661.85	-2140.59	-2.28	3.08	2140.56	163688.41	2014293.12	
6555.00	89.50	179.30	4662.06	-2171.58	-1.96	0.91	2171.56	163657.42	2014293.44	
6585.00	89.60	179.20	4662.30	-2201.58	-1.56	0.47	2201.56	163627.42	2014293.84	
6616.00	90.00	179.30	4662.41	-2232.58	-1.16	1.33	2232.56	163596.42	2014294.24	
6647.00	90.00	179.30	4662.41	-2263.58	-0.78	0.00	2263.56	163565.43	2014294.62	
6679.00	88.00	178.80	4662.97	-2295.56	-0.25	6.44	2295.55	163533.44	2014295.15	
6710.00	87.60	178.60	4664.16	-2326.53	0.45	1.44	2326.52	163502.47	2014295.85	
6741.00	88.00	178.60	4665.35	-2357.50	1.21	1.29	2357.49	163471.50	2014296.61	
6772.00	88.20	178.60	4666.37	-2388.48	1.97	0.65	2388.47	163440.53	2014297.37	
6803.00	88.70	178.60	4667.21	-2419.45	2.72	1.61	2419.45	163409.55	2014298.12	
6834.00	89.00	178.50	4667.83	-2450.44	3.51	1.02	2450.44	163378.56	2014298.91	
6865.00	89.00	178.30	4668.38	-2481.42	4.37	0.65	2481.42	163347.58	2014299.77	
6896.00	89.90	178.10	4668.67	-2512.40	5.35	2.97	2512.41	163316.60	2014300.75	
6925.00	89.50	178.10	4668.83	-2541.39	6.31	1.38	2541.39	163287.61	2014301.71	
6954.00	90.00	177.60	4668.95	-2570.37	7.40	2.44	2570.38	163258.63	2014302.80	
6985.00	90.30	177.80	4668.87	-2601.34	8.64	1.16	2601.36	163227.66	2014304.04	
7014.00	90.10	176.90	4668.77	-2630.31	9.98	3.18	2630.33	163198.69	2014305.38	
7046.00	90.60	176.70	4668.57	-2662.26	11.77	1.68	2662.29	163166.74	2014307.17	
7075.00	91.00	176.50	4668.17	-2691.21	13.49	1.54	2691.24	163137.79	2014308.89	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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 Job# : 6527

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	NAD27 Ks South gr elev=1400 RKB=1417 Comments
7106.00	91.30	176.50	4667.55	-2722.14	15.38	0.97	2722.18	163106.86	2014310.78	
7135.00	92.00	176.40	4666.71	-2751.07	17.17	2.44	2751.12	163077.93	2014312.57	
7165.00	92.40	176.00	4665.56	-2780.99	19.16	1.88	2781.04	163048.01	2014314.56	
7196.00	92.20	176.50	4664.32	-2811.89	21.19	1.74	2811.95	163017.11	2014316.59	
7225.00	91.20	177.20	4663.46	-2840.84	22.78	4.21	2840.90	162988.16	2014318.18	
7254.00	90.30	177.40	4663.08	-2869.80	24.15	3.18	2869.87	162959.20	2014319.55	
7285.00	90.40	177.20	4662.89	-2900.77	25.61	0.72	2900.84	162928.23	2014321.01	
7315.00	90.50	177.20	4662.65	-2930.73	27.07	0.33	2930.81	162898.27	2014322.47	
7347.00	90.30	178.10	4662.43	-2962.70	28.38	2.88	2962.79	162866.30	2014323.78	
7378.00	89.40	178.60	4662.51	-2993.69	29.28	3.32	2993.78	162835.31	2014324.68	
7409.00	89.20	178.60	4662.89	-3024.68	30.03	0.65	3024.77	162804.32	2014325.43	
7440.00	89.60	178.80	4663.21	-3055.67	30.74	1.44	3055.76	162773.33	2014326.14	
7471.00	89.80	178.30	4663.37	-3086.66	31.52	1.74	3086.75	162742.34	2014326.92	
7500.00	89.60	178.50	4663.53	-3115.65	32.33	0.98	3115.74	162713.35	2014327.73	
7531.00	90.00	178.50	4663.63	-3146.64	33.14	1.29	3146.74	162682.37	2014328.54	
7560.00	89.70	178.80	4663.71	-3175.63	33.83	1.46	3175.73	162653.37	2014329.23	
7591.00	89.70	179.20	4663.87	-3206.62	34.37	1.29	3206.73	162622.38	2014329.77	
7623.00	90.00	179.20	4663.96	-3238.62	34.81	0.94	3238.72	162590.38	2014330.21	
7652.00	89.10	178.80	4664.18	-3267.61	35.32	3.40	3267.72	162561.39	2014330.72	
7681.00	87.80	179.50	4664.97	-3296.60	35.75	5.09	3296.71	162532.40	2014331.15	
7712.00	87.60	179.00	4666.21	-3327.57	36.16	1.74	3327.68	162501.43	2014331.56	
7743.00	88.40	179.90	4667.29	-3358.55	36.45	3.88	3358.66	162470.45	2014331.85	
7775.00	88.60	180.20	4668.13	-3390.54	36.42	1.13	3390.65	162438.46	2014331.82	
7806.00	89.40	180.20	4668.67	-3421.53	36.32	2.58	3421.64	162407.47	2014331.72	
7835.00	90.20	180.40	4668.77	-3450.53	36.16	2.84	3450.64	162378.47	2014331.56	
7867.00	90.40	180.00	4668.61	-3482.53	36.05	1.40	3482.64	162346.47	2014331.45	
7896.00	90.50	180.00	4668.38	-3511.53	36.05	0.34	3511.64	162317.47	2014331.45	
7926.00	90.60	180.00	4668.09	-3541.53	36.05	0.33	3541.64	162287.47	2014331.45	
7957.00	89.70	179.50	4668.01	-3572.53	36.19	3.32	3572.64	162256.47	2014331.59	
7988.00	89.70	179.30	4668.17	-3603.53	36.51	0.65	3603.64	162225.47	2014331.91	

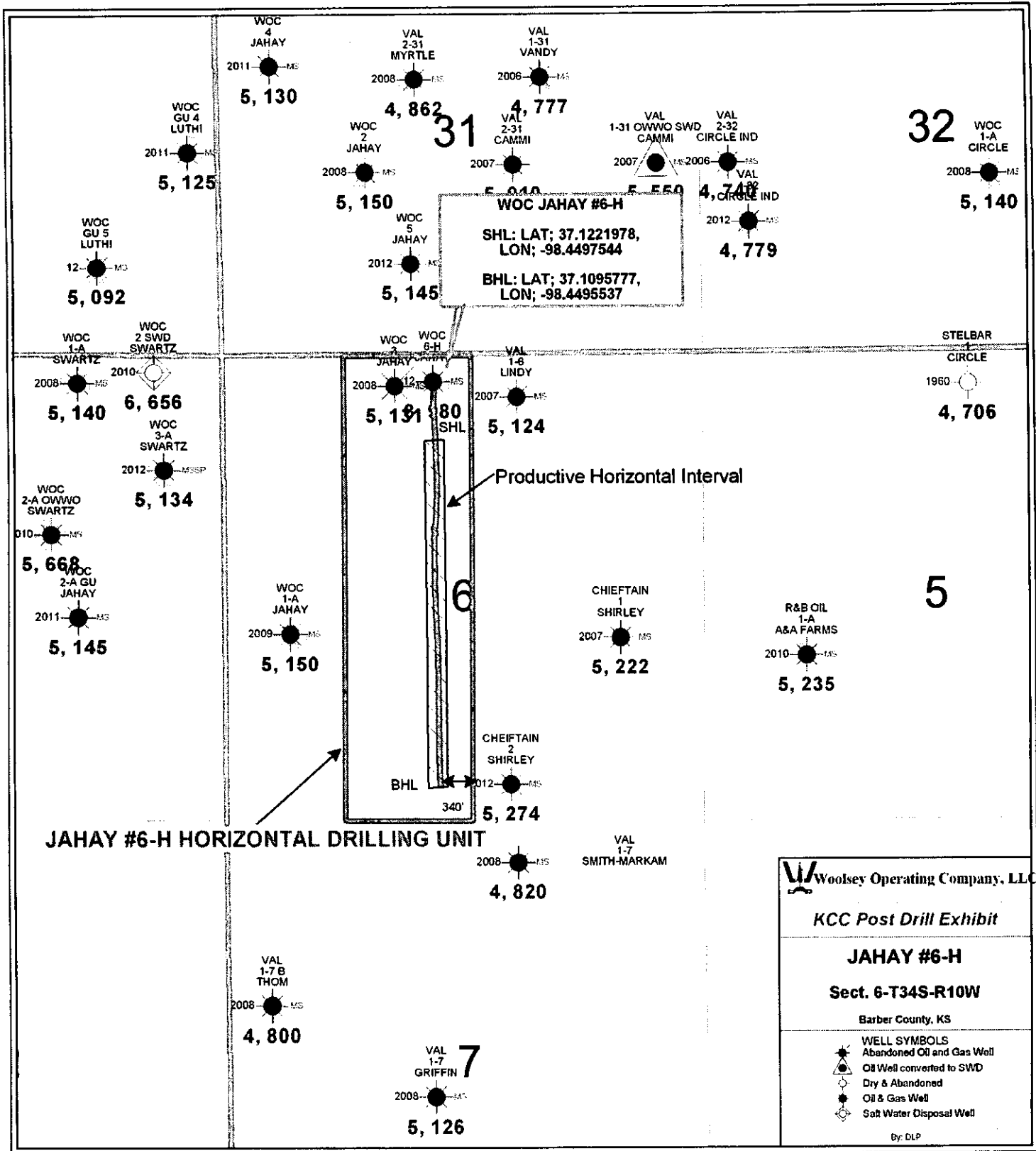
Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Jahay #6-H
 Location: Barber County, Kansas

Date: 11-Nov-2012
 Surveys
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 Job# : 6527

NAD27 Ks South gr elev=1400 RKB=1417

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 179.79° Az (feet)	Grid Y	Grid X	Comments
8019.00	89.60	179.20	4668.36	-3634.52	36.92	0.46	3634.63	162194.48	2014332.32	
8048.00	88.70	178.80	4668.79	-3663.52	37.42	3.40	3663.63	162165.49	2014332.82	
8079.00	88.50	179.20	4669.55	-3694.50	37.97	1.44	3694.62	162134.50	2014333.37	
8111.00	88.50	179.20	4670.39	-3726.49	38.41	0.00	3726.60	162102.51	2014333.81	
8142.00	88.80	179.00	4671.12	-3757.47	38.90	1.16	3757.59	162071.53	2014334.30	
8173.00	89.20	179.20	4671.66	-3788.47	39.39	1.44	3788.58	162040.53	2014334.79	
8203.00	89.50	179.00	4672.00	-3818.46	39.86	1.20	3818.58	162010.54	2014335.26	
8235.00	89.70	178.60	4672.22	-3850.45	40.53	1.40	3850.58	161978.55	2014335.93	
8265.00	89.50	179.30	4672.43	-3880.45	41.08	2.43	3880.57	161948.55	2014336.48	
8295.00	89.90	179.30	4672.59	-3910.44	41.44	1.33	3910.57	161918.56	2014336.84	
8325.00	89.30	179.90	4672.80	-3940.44	41.65	2.83	3940.57	161888.56	2014337.05	
8354.00	89.40	179.50	4673.13	-3969.44	41.80	1.42	3969.57	161859.56	2014337.20	
8385.00	89.00	179.90	4673.56	-4000.44	41.97	1.82	4000.56	161828.56	2014337.37	
8417.00	88.70	179.70	4674.20	-4032.43	42.08	1.13	4032.56	161796.57	2014337.48	
8446.00	89.10	179.90	4674.76	-4061.42	42.18	1.54	4061.55	161767.58	2014337.58	
8478.00	89.40	179.50	4675.18	-4093.42	42.35	1.56	4093.55	161735.58	2014337.75	
8509.00	89.30	179.20	4675.53	-4124.42	42.70	1.02	4124.55	161704.58	2014338.10	
8538.00	88.90	179.20	4675.99	-4153.41	43.10	1.38	4153.54	161675.59	2014338.50	
8569.00	89.40	179.30	4676.45	-4184.40	43.51	1.64	4184.54	161644.60	2014338.91	
8601.00	89.60	179.00	4676.72	-4216.40	43.98	1.13	4216.53	161612.60	2014339.38	
8632.00	88.70	179.20	4677.18	-4247.39	44.47	2.97	4247.53	161581.61	2014339.87	



Woolsey Operating Company, LLC

KCC Post Drill Exhibit

JAHAY #6-H

Sect. 6-T34S-R10W

Barber County, KS

WOC 4 JAHAY
2011-MS
5, 130

VAL 2-31 MYRTLE
2008-MS
4, 862

VAL 1-31 VANDY
2006-MS
4, 777

WOC GU 4 LUTHI
2011-MS
5, 125

WOC 2 JAHAY
2008-MS
5, 150

VAL 2-31 CAMMI
2007-MS
5, 010

VAL 1-31 OWWO SWD CAMMI
2007-MS
5, 550

VAL 2-32 CIRCLE IND
2006-MS
4, 748

WOC 1-A CIRCLE
2008-MS
5, 140

WOC GU 5 LUTHI
12-MS
5, 092

WOC 5 JAHAY
2012-MS
5, 145

VAL CIRCLE IND
2012-MS
4, 779

WOC 1-A SWARTZ
2008-MS
5, 140

WOC 2 SWD SWARTZ
2010-MS
6, 656

WOC 3 JAHAY
2008-MS
5, 131

WOC 6-H JAHAY
2008-MS
5, 180

VAL 1-8 LINDY
2007-MS
5, 124

STELBAR 1 CIRCLE
1960
4, 706

WOC 2-A OWWO SWARTZ
2010-MS
5, 668

WOC 3-A SWARTZ
2012-MS
5, 134

WOC 1-A JAHAY
2009-MS
5, 150

CHEIFTAIN 1 SHIRLEY
2007-MS
5, 222

R&B OIL 1-A A&A FARMS
2010-MS
5, 235

WOC 2-A GU JAHAY
2011-MS
5, 145

CHEIFTAIN 2 SHIRLEY
2012-MS
5, 274

VAL 1-7 SMITH-MARKAM
2008-MS
4, 820

VAL 1-7B THOM
2008-MS
4, 800

VAL 1-7 GRIFFIN
2008-MS
5, 126