

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1247560
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1247560

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: January 27, 2015
 Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

Measured		Coordinates				Closure		Vib/Shk								
Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)	Color	Date	Time	Flow Rate	
Survey's are tied into: Assume Vertical at Casing Shoe @ 806'										Date Received: 01/27/15						
Company:																
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
1	902.00	0.60	358.00	901.98	-4.72	4.72	-0.16	4.72	358.00	0.07	0.00	79 °F	Green	01/27/15	7:00	563 (gpm)
2	1091.00	0.70	359.80	1,090.97	-6.87	6.86	-0.20	6.87	358.30	0.05	0.00	86 °F	Green	01/27/15	8:22	563 (gpm)
3	1281.00	0.80	351.30	1,280.96	-9.34	9.34	-0.41	9.34	357.50	0.08	0.00	91 °F	Green	01/27/15	9:42	563 (gpm)
4	1470.00	0.90	344.40	1,469.93	-12.08	12.07	-1.01	12.11	355.23	0.08	0.00	100 °F	Green	01/27/15	11:43	563 (gpm)
5	1659.00	0.80	319.80	1,658.91	-14.53	14.51	-2.26	14.68	351.15	0.20	0.00	109 °F	Green	01/27/15	13:32	587 (gpm)
6	1847.00	0.80	316.70	1,846.90	-16.52	16.46	-4.00	16.94	346.33	0.02	0.00	111 °F	Green	01/27/15	15:08	587 (gpm)
7	2034.00	0.90	319.50	2,033.88	-18.61	18.53	-5.85	19.43	342.47	0.06	0.00	118 °F	Green	01/27/15	16:23	587 (gpm)
8	2221.00	0.30	166.60	2,220.87	-19.26	19.17	-6.69	20.31	340.75	0.63	0.00	120 °F	Green	01/27/15	17:58	587 (gpm)
9	2411.00	0.40	175.90	2,410.87	-18.11	18.03	-6.53	19.17	340.08	0.06	0.00	122 °F	Green	01/27/15	19:22	587 (gpm)
10	2598.00	0.10	77.00	2,597.86	-17.49	17.41	-6.33	18.53	340.03	0.23	0.00	124 °F	Green	01/27/15	20:51	587 (gpm)
11	2784.00	0.20	160.20	2,783.86	-17.22	17.14	-6.06	18.18	340.54	0.11	0.00	127 °F	Green	01/27/15	22:44	587 (gpm)
12	2972.00	0.20	142.80	2,971.86	-16.65	16.57	-5.75	17.54	340.87	0.03	0.00	129 °F	Green	01/28/15	1:40	587 (gpm)
13	3161.00	0.20	158.10	3,160.86	-16.07	16.00	-5.43	16.90	341.27	0.03	0.00	93 °F	Green	01/28/15	3:27	587 (gpm)
14	3351.00	0.80	109.20	3,350.85	-15.31	15.26	-4.05	15.79	345.14	0.36	0.00	102 °F	Green	01/28/15	5:12	587 (gpm)
15	3446.00	0.40	124.70	3,445.85	-14.89	14.85	-3.15	15.18	348.02	0.45	0.00	108 °F	Green	01/28/15	6:06	587 (gpm)
16	3541.00	0.60	96.60	3,540.84	-14.64	14.61	-2.38	14.80	350.73	0.33	0.00	111 °F	Green	01/28/15	6:57	587 (gpm)
17	3635.00	0.30	69.70	3,634.84	-14.66	14.64	-1.66	14.73	353.51	0.38	0.00	113 °F	Green	01/28/15	7:40	587 (gpm)
18	3730.00	0.70	97.10	3,729.84	-14.66	14.65	-0.85	14.68	356.66	0.48	0.00	118 °F	Green	01/28/15	8:29	587 (gpm)
19	3823.00	0.50	95.80	3,822.83	-14.54	14.54	0.11	14.54	0.44	0.22	0.00	118 °F	Green	01/28/15	9:45	422 (gpm)
20	3886.00	2.50	165.50	3,885.81	-13.17	13.18	0.73	13.20	3.17	3.77	10.00	118 °F	Green	01/28/15	12:00	422 (gpm)
21	3918.00	6.60	178.00	3,917.70	-10.65	10.67	0.97	10.71	5.19	13.11	13.10	118 °F	Green	01/28/15	13:03	422 (gpm)
22	3950.00	10.80	184.00	3,949.33	-5.82	5.84	0.82	5.89	8.04	13.41	13.40	118 °F	Green	01/28/15	13:54	422 (gpm)
23	3981.00	13.50	189.20	3,979.63	0.64	-0.64	0.04	0.64	176.15	9.39	12.80	120 °F	Green	01/28/15	14:30	450 (gpm)
24	4013.00	15.20	189.70	4,010.63	8.44	-8.46	-1.26	8.55	188.48	5.33	11.40	120 °F	Green	01/28/15	15:35	450 (gpm)
25	4044.00	16.60	186.60	4,040.45	16.83	-16.86	-2.46	17.04	188.28	5.28	13.60	122 °F	Green	01/28/15	16:18	450 (gpm)
26	4076.00	18.20	181.90	4,070.98	26.36	-26.40	-3.15	26.59	186.80	6.65	14.20	122 °F	Green	01/28/15	17:02	450 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: January 27, 2015
 Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

	Measured			Coordinates				Closure			Vib/Shk					
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)	Color	Date	Time	Flow Rate
27	4107.00	20.00	178.70	4,100.28	36.49	-36.54	-3.19	36.68	184.98	6.72	13.80	124 °F	Green	01/28/15	18:04	450 (gpm)
28	4138.00	22.20	177.50	4,129.20	47.65	-47.69	-2.81	47.77	183.37	7.23	13.80	126 °F	Green	01/28/15	19:27	450 (gpm)
29	4169.00	24.40	178.90	4,157.67	59.91	-59.95	-2.43	60.00	182.32	7.32	14.50	127 °F	Green	01/28/15	20:50	450 (gpm)
30	4201.00	26.50	180.40	4,186.56	73.66	-73.69	-2.36	73.73	181.83	6.86	14.50	129 °F	Yellow	01/28/15	22:36	506 (gpm)
31	4232.00	29.30	180.70	4,213.95	88.16	-88.20	-2.50	88.23	181.62	9.04	15.00	129 °F	Yellow	01/28/15	23:43	506 (gpm)
32	4264.00	32.30	180.40	4,241.44	104.54	-104.58	-2.65	104.61	181.45	9.39	15.00	129 °F	Green	01/29/15	0:27	506 (gpm)
33	4295.00	34.60	181.30	4,267.30	121.62	-121.67	-2.91	121.70	181.37	7.59	18.00	129 °F	Green	01/29/15	1:44	506 (gpm)
34	4326.00	36.90	181.50	4,292.46	139.71	-139.77	-3.35	139.81	181.37	7.43	18.00	129 °F	Green	01/29/15	2:58	506 (gpm)
35	4357.00	39.10	181.80	4,316.89	158.78	-158.85	-3.90	158.89	181.41	7.12	18.00	129 °F	Yellow	01/29/15	4:02	506 (gpm)
36	4389.00	40.70	180.80	4,341.43	179.29	-179.37	-4.37	179.42	181.39	5.39	18.00	129 °F	Green	01/29/15	5:04	506 (gpm)
37	4421.00	42.30	180.00	4,365.40	200.49	-200.57	-4.51	200.62	181.29	5.27	15.30	129 °F	Green	01/29/15	5:53	510 (gpm)
38	4452.00	44.20	179.60	4,387.98	221.73	-221.81	-4.44	221.85	181.15	6.19	18.50	129 °F	Green	01/29/15	6:53	510 (gpm)
39	4483.00	46.40	179.30	4,409.78	243.76	-243.84	-4.22	243.88	180.99	7.13	20.00	131 °F	Green	01/29/15	7:54	510 (gpm)
40	4514.00	49.00	179.60	4,430.64	266.69	-266.77	-4.00	266.80	180.86	8.42	18.00	131 °F	Green	01/29/15	8:56	510 (gpm)
41	4545.00	51.50	179.60	4,450.47	290.52	-290.60	-3.84	290.62	180.76	8.06	17.80	131 °F	Green	01/29/15	9:41	510 (gpm)
42	4576.00	53.50	179.20	4,469.34	315.12	-315.19	-3.58	315.21	180.65	6.53	17.00	131 °F	Green	01/29/15	10:33	510 (gpm)
43	4607.00	55.90	178.90	4,487.25	340.41	-340.48	-3.16	340.50	180.53	7.78	18.40	131 °F	Green	01/29/15	11:25	520 (gpm)
44	4638.00	58.20	178.30	4,504.11	366.42	-366.49	-2.52	366.50	180.39	7.59	18.70	131 °F	Green	01/29/15	12:02	510 (gpm)
45	4669.00	60.40	178.20	4,519.93	393.07	-393.13	-1.71	393.13	180.25	7.10	18.20	133 °F	Green	01/29/15	12:49	510 (gpm)
46	4700.00	62.10	178.30	4,534.84	420.25	-420.29	-0.88	420.29	180.12	5.49	0.00	133 °F	Green	01/29/15	13:25	510 (gpm)
47	4731.00	62.70	178.00	4,549.21	447.71	-447.75	0.01	447.75	180.00	2.12	0.00	135 °F	Green	01/29/15	13:59	510 (gpm)
48	4761.00	62.90	177.80	4,562.92	474.39	-474.42	0.99	474.42	179.88	0.89	0.00	135 °F	Green	01/29/15	14:58	510 (gpm)
49	4792.00	62.80	178.00	4,577.07	501.97	-501.98	2.00	501.99	179.77	0.66	0.00	135 °F	Green	01/29/15	15:30	510 (gpm)
50	4823.00	63.00	177.50	4,591.19	529.55	-529.56	3.08	529.57	179.67	1.57	0.00	136 °F	Green	01/29/15	16:05	510 (gpm)
51	4855.00	63.50	177.90	4,605.59	558.12	-558.11	4.23	558.13	179.57	1.92	0.00	136 °F	Green	01/29/15	17:02	510 (gpm)
52	4886.00	65.60	178.00	4,618.91	586.10	-586.08	5.23	586.11	179.49	6.78	15.00	136 °F	Green	01/29/15	18:34	510 (gpm)
53	4918.00	68.90	178.50	4,631.28	615.60	-615.57	6.13	615.60	179.43	10.41	18.00	136 °F	Green	01/29/15	19:49	510 (gpm)
54	4949.00	71.30	179.20	4,641.84	644.75	-644.71	6.71	644.75	179.40	8.03	18.00	136 °F	Green	01/29/15	21:16	510 (gpm)
55	4980.00	73.40	179.80	4,651.23	674.29	-674.25	6.97	674.29	179.41	7.02	17.00	136 °F	Green	01/29/15	22:58	510 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
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Measured		Coordinates				Closure			Vib/Shk							
Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)	Color	Date	Time	Flow Rate	
56	5011.00	75.30	180.50	4,659.60	704.13	-704.10	6.89	704.14	179.44	6.50	17.00	133 °F	Green	01/30/15	0:58	510 (gpm)
57	5042.00	77.40	180.50	4,666.91	734.25	-734.22	6.63	734.25	179.48	6.77	17.30	133 °F	Green	01/30/15	2:42	510 (gpm)
58	5074.00	80.00	181.70	4,673.18	765.61	-765.59	6.02	765.62	179.55	8.92	17.30	133 °F	Green	01/30/15	3:54	510 (gpm)
59	5152.00	84.40	181.90	4,683.76	842.79	-842.82	3.60	842.82	179.76	5.65	0.00	133 °F	Yellow	01/31/15	14:30	193 (gpm)
60	5183.00	86.20	181.40	4,686.30	873.66	-873.70	2.71	873.70	179.82	6.02	0.00	131 °F	Yellow	01/31/15	15:54	221 (gpm)
61	5215.00	87.90	181.70	4,687.95	905.59	-905.64	1.84	905.64	179.88	5.39	0.00	133 °F	Yellow	01/31/15	16:32	264 (gpm)
62	5246.00	89.10	181.10	4,688.76	936.55	-936.62	1.08	936.62	179.93	4.33	0.00	133 °F	Yellow	01/31/15	16:59	264 (gpm)
63	5276.00	89.30	181.10	4,689.18	966.54	-966.61	0.51	966.61	179.97	0.67	0.00	133 °F	Yellow	01/31/15	17:32	264 (gpm)
64	5308.00	89.40	180.90	4,689.54	998.52	-998.61	-0.05	998.61	180.00	0.70	0.00	133 °F	Yellow	01/31/15	18:13	264 (gpm)
65	5339.00	89.80	180.50	4,689.76	1,029.51	-1,029.60	-0.43	1,029.60	180.02	1.82	0.00	133 °F	Yellow	01/31/15	18:51	264 (gpm)
66	5369.00	89.80	180.50	4,689.87	1,059.50	-1,059.60	-0.69	1,059.60	180.04	0.00	0.00	133 °F	Yellow	01/31/15	21:45	221 (gpm)
67	5399.00	89.70	180.30	4,690.00	1,089.49	-1,089.60	-0.90	1,089.60	180.05	0.75	0.00	131 °F	Yellow	01/31/15	20:24	221 (gpm)
68	5428.00	89.10	179.90	4,690.30	1,118.49	-1,118.60	-0.95	1,118.60	180.05	2.49	0.00	133 °F	Yellow	01/31/15	21:04	239 (gpm)
69	5459.00	88.10	179.70	4,691.06	1,149.48	-1,149.59	-0.84	1,149.59	180.04	3.29	0.00	133 °F	Yellow	01/31/15	21:59	239 (gpm)
70	5489.00	89.00	179.70	4,691.82	1,179.47	-1,179.58	-0.68	1,179.58	180.03	3.00	0.00	133 °F	Yellow	01/31/15	22:57	239 (gpm)
71	5520.00	90.10	179.40	4,692.06	1,210.47	-1,210.58	-0.44	1,210.58	180.02	3.68	0.00	133 °F	Yellow	01/31/15	23:48	239 (gpm)
72	5550.00	90.20	179.20	4,691.98	1,240.47	-1,240.57	-0.07	1,240.57	180.00	0.75	0.00	136 °F	Pink	02/01/15	0:43	239 (gpm)
73	5580.00	89.90	179.00	4,691.96	1,270.47	-1,270.57	0.40	1,270.57	179.98	1.20	0.00	136 °F	Yellow	02/01/15	1:27	239 (gpm)
74	5610.00	90.10	178.60	4,691.96	1,300.46	-1,300.56	1.02	1,300.56	179.95	1.49	0.00	136 °F	Yellow	02/01/15	2:22	239 (gpm)
75	5641.00	90.30	179.00	4,691.85	1,331.46	-1,331.56	1.67	1,331.56	179.93	1.44	0.00	136 °F	Yellow	02/01/15	3:21	228 (gpm)
76	5671.00	90.40	179.20	4,691.66	1,361.46	-1,361.55	2.14	1,361.55	179.91	0.75	0.00	140 °F	Yellow	02/01/15	4:13	228 (gpm)
77	5701.00	90.40	179.50	4,691.46	1,391.46	-1,391.55	2.49	1,391.55	179.90	1.00	0.00	140 °F	Yellow	02/01/15	4:56	228 (gpm)
78	5731.00	90.60	179.40	4,691.19	1,421.46	-1,421.55	2.77	1,421.55	179.89	0.75	0.00	142 °F	Yellow	02/01/15	5:40	228 (gpm)
79	5761.00	90.40	180.00	4,690.93	1,451.46	-1,451.54	2.93	1,451.55	179.88	2.11	0.00	142 °F	Yellow	02/01/15	6:27	228 (gpm)
80	5792.00	89.00	179.70	4,691.09	1,482.46	-1,482.54	3.01	1,482.55	179.88	4.62	0.00	144 °F	Yellow	02/01/15	7:11	228 (gpm)
81	5822.00	89.70	179.70	4,691.43	1,512.45	-1,512.54	3.17	1,512.54	179.88	2.33	0.00	144 °F	Yellow	02/01/15	8:07	228 (gpm)
82	5852.00	90.90	179.30	4,691.28	1,542.45	-1,542.54	3.43	1,542.54	179.87	4.22	0.00	144 °F	Yellow	02/01/15	8:56	228 (gpm)
83	5883.00	91.50	179.20	4,690.63	1,573.44	-1,573.53	3.84	1,573.53	179.86	1.96	0.00	144 °F	Yellow	02/01/15	9:53	228 (gpm)
84	5913.00	91.70	179.80	4,689.79	1,603.43	-1,603.52	4.10	1,603.52	179.85	2.11	0.00	144 °F	Yellow	02/01/15	10:45	228 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: January 27, 2015
 Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

Measured		Coordinates				Closure			Vib/Shk							
Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)	Color	Date	Time	Flow Rate	
85	5943.00	91.10	179.70	4,689.06	1,633.42	-1,633.51	4.23	1,633.51	179.85	2.03	0.00	145 °F	Yellow	02/01/15	11:44	228 (gpm)
86	5974.00	90.30	179.00	4,688.68	1,664.42	-1,664.50	4.58	1,664.51	179.84	3.43	0.00	144 °F	Yellow	02/01/15	12:33	228 (gpm)
87	6005.00	89.00	177.70	4,688.87	1,695.41	-1,695.49	5.47	1,695.50	179.82	5.93	0.00	145 °F	Yellow	02/01/15	13:29	228 (gpm)
88	6036.00	89.80	176.90	4,689.19	1,726.39	-1,726.45	6.93	1,726.46	179.77	3.65	0.00	145 °F	Yellow	02/01/15	14:16	228 (gpm)
89	6066.00	90.20	175.90	4,689.19	1,756.36	-1,756.39	8.82	1,756.41	179.71	3.59	0.00	147 °F	Yellow	02/01/15	15:01	228 (gpm)
90	6096.00	89.40	175.60	4,689.30	1,786.30	-1,786.31	11.04	1,786.34	179.65	2.85	0.00	147 °F	Yellow	02/01/15	16:00	228 (gpm)
91	6125.00	89.50	174.70	4,689.58	1,815.22	-1,815.20	13.49	1,815.25	179.57	3.12	0.00	149 °F	Yellow	02/01/15	16:54	228 (gpm)
92	6155.00	89.10	174.20	4,689.94	1,845.12	-1,845.06	16.39	1,845.13	179.49	2.13	0.00	149 °F	Yellow	02/01/15	17:54	228 (gpm)
93	6185.00	89.50	174.30	4,690.31	1,875.00	-1,874.91	19.40	1,875.01	179.41	1.37	0.00	149 °F	Yellow	02/01/15	19:03	228 (gpm)
94	6216.00	90.30	174.90	4,690.36	1,905.90	-1,905.77	22.32	1,905.90	179.33	3.23	0.00	149 °F	Yellow	02/01/15	20:08	228 (gpm)
95	6245.00	90.00	175.50	4,690.29	1,934.82	-1,934.67	24.74	1,934.82	179.27	2.31	0.00	151 °F	Yellow	02/01/15	21:15	228 (gpm)
96	6275.00	89.40	176.60	4,690.44	1,964.78	-1,964.59	26.81	1,964.78	179.22	4.18	0.00	153 °F	Yellow	02/01/15	21:58	228 (gpm)
97	6303.00	89.90	176.30	4,690.61	1,992.74	-1,992.54	28.54	1,992.74	179.18	2.08	0.00	136 °F	Yellow	02/02/15	11:15	256 (gpm)
98	6334.00	89.80	177.30	4,690.70	2,023.71	-2,023.49	30.27	2,023.72	179.14	3.24	0.00	136 °F	Yellow	02/02/15	12:01	256 (gpm)
99	6365.00	89.60	178.20	4,690.86	2,054.70	-2,054.47	31.49	2,054.71	179.12	2.97	0.00	138 °F	Yellow	02/02/15	12:35	256 (gpm)
100	6395.00	89.00	178.00	4,691.22	2,084.69	-2,084.45	32.48	2,084.70	179.11	2.11	0.00	138 °F	Yellow	02/02/15	13:13	256 (gpm)
101	6426.00	88.30	178.80	4,691.96	2,115.68	-2,115.43	33.35	2,115.69	179.10	3.43	0.00	138 °F	Yellow	02/02/15	13:49	256 (gpm)
102	6456.00	88.20	179.40	4,692.87	2,145.67	-2,145.41	33.82	2,145.67	179.10	2.03	0.00	138 °F	Yellow	02/02/15	14:37	256 (gpm)
103	6487.00	88.20	179.50	4,693.85	2,176.65	-2,176.39	34.12	2,176.66	179.10	0.32	0.00	138 °F	Yellow	02/02/15	15:32	256 (gpm)
104	6518.00	88.10	180.20	4,694.85	2,207.63	-2,207.37	34.20	2,207.64	179.11	2.28	0.00	138 °F	Yellow	02/02/15	16:31	256 (gpm)
105	6549.00	88.40	179.90	4,695.79	2,238.62	-2,238.36	34.17	2,238.62	179.13	1.37	0.00	138 °F	Yellow	02/02/15	17:43	256 (gpm)
106	6579.00	89.10	179.80	4,696.45	2,268.61	-2,268.35	34.25	2,268.61	179.13	2.36	0.00	138 °F	Yellow	02/02/15	18:37	256 (gpm)
107	6609.00	90.00	179.70	4,696.68	2,298.60	-2,298.35	34.38	2,298.61	179.14	3.02	0.00	138 °F	Yellow	02/02/15	19:39	256 (gpm)
108	6639.00	90.10	179.60	4,696.66	2,328.60	-2,328.35	34.57	2,328.61	179.15	0.47	0.00	140 °F	Yellow	02/02/15	20:20	256 (gpm)
109	6670.00	90.20	179.70	4,696.58	2,359.60	-2,359.35	34.75	2,359.61	179.16	0.46	0.00	140 °F	Yellow	02/02/15	21:29	256 (gpm)
110	6701.00	91.00	179.10	4,696.25	2,390.60	-2,390.35	35.08	2,390.60	179.16	3.23	0.00	140 °F	Yellow	02/02/15	22:30	256 (gpm)
111	6731.00	91.30	179.00	4,695.65	2,420.59	-2,420.34	35.58	2,420.60	179.16	1.05	0.00	140 °F	Yellow	02/02/15	23:13	256 (gpm)
112	6762.00	91.30	179.60	4,694.95	2,451.59	-2,451.33	35.95	2,451.59	179.16	1.93	0.00	140 °F	Yellow	02/02/15	23:48	256 (gpm)
113	6792.00	91.60	179.50	4,694.19	2,481.58	-2,481.31	36.19	2,481.58	179.16	1.05	0.00	142 °F	Yellow	02/03/15	0:17	256 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: January 27, 2015
 Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

	Measured		Coordinates				Closure			Mtr Yield	Temp (°F)	Vib/Shk				
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle			DLS	Color	Date	Time	Flow Rate
114	6822.00	91.60	179.20	4,693.35	2,511.56	-2,511.30	36.53	2,511.57	179.17	1.00	0.00	142 °F	Yellow	02/03/15	1:02	256 (gpm)
115	6853.00	91.70	179.30	4,692.46	2,542.55	-2,542.29	36.94	2,542.55	179.17	0.46	0.00	142 °F	Yellow	02/03/15	1:33	256 (gpm)
116	6883.00	90.30	178.50	4,691.93	2,572.55	-2,572.27	37.51	2,572.55	179.16	5.37	0.00	142 °F	Yellow	02/03/15	2:17	256 (gpm)
117	6913.00	88.40	177.40	4,692.27	2,602.53	-2,602.25	38.59	2,602.54	179.15	7.32	0.00	140 °F	Yellow	02/03/15	3:14	256 (gpm)
118	6944.00	89.80	179.30	4,692.76	2,633.52	-2,633.23	39.48	2,633.53	179.14	7.61	0.00	140 °F	Yellow	02/03/15	4:03	256 (gpm)
119	6974.00	90.50	179.70	4,692.68	2,663.52	-2,663.23	39.74	2,663.53	179.15	2.69	0.00	140 °F	Yellow	02/03/15	5:03	256 (gpm)
120	7005.00	90.90	181.10	4,692.30	2,694.51	-2,694.23	39.52	2,694.52	179.16	4.70	0.00	140 °F	Yellow	02/03/15	5:39	256 (gpm)
121	7035.00	90.10	179.50	4,692.04	2,724.51	-2,724.22	39.37	2,724.51	179.17	5.96	0.00	140 °F	Yellow	02/03/15	6:14	256 (gpm)
122	7066.00	90.90	180.40	4,691.77	2,755.50	-2,755.22	39.39	2,755.50	179.18	3.88	0.00	140 °F	Yellow	02/03/15	6:56	256 (gpm)
123	7096.00	91.00	180.40	4,691.27	2,785.49	-2,785.22	39.18	2,785.49	179.19	0.33	0.00	140 °F	Yellow	02/03/15	7:24	256 (gpm)
124	7127.00	90.60	179.60	4,690.84	2,816.49	-2,816.21	39.18	2,816.49	179.20	2.89	0.00	140 °F	Yellow	02/03/15	7:47	256 (gpm)
125	7159.00	89.70	177.70	4,690.76	2,848.48	-2,848.20	39.94	2,848.48	179.20	6.57	0.00	140 °F	Yellow	02/03/15	8:26	256 (gpm)
126	7190.00	89.30	176.80	4,691.03	2,879.46	-2,879.17	41.42	2,879.46	179.18	3.18	0.00	140 °F	Yellow	02/03/15	9:02	256 (gpm)
127	7222.00	88.60	175.00	4,691.61	2,911.40	-2,911.08	43.71	2,911.41	179.14	6.03	0.00	140 °F	Yellow	02/03/15	9:33	256 (gpm)
128	7253.00	88.30	174.40	4,692.45	2,942.29	-2,941.93	46.57	2,942.30	179.09	2.16	0.00	140 °F	Yellow	02/03/15	10:23	256 (gpm)
129	7285.00	88.60	174.30	4,693.32	2,974.16	-2,973.77	49.72	2,974.18	179.04	0.99	0.00	140 °F	Yellow	02/03/15	11:37	256 (gpm)
130	7316.00	88.70	173.70	4,694.05	3,005.02	-3,004.59	52.96	3,005.06	178.99	1.96	0.00	140 °F	Yellow	02/03/15	12:23	256 (gpm)
131	7347.00	88.00	173.10	4,694.94	3,035.85	-3,035.37	56.52	3,035.90	178.93	2.97	0.00	140 °F	Yellow	02/03/15	13:19	256 (gpm)
132	7381.00	87.30	171.80	4,696.33	3,069.58	-3,069.05	60.99	3,069.65	178.86	4.34	0.00	142 °F	Yellow	02/04/15	0:11	208 (gpm)
133	7413.00	88.00	172.00	4,697.65	3,101.29	-3,100.70	65.49	3,101.39	178.79	2.27	0.00	142 °F	Yellow	02/04/15	1:36	208 (gpm)
134	7444.00	88.80	172.10	4,698.51	3,132.03	-3,131.39	69.78	3,132.17	178.72	2.60	0.00	144 °F	Yellow	02/04/15	2:59	208 (gpm)
135	7475.00	89.20	172.40	4,699.05	3,162.80	-3,162.10	73.96	3,162.97	178.66	1.61	0.00	144 °F	Yellow	02/04/15	4:24	208 (gpm)
136	7507.00	90.20	173.90	4,699.22	3,194.62	-3,193.87	77.77	3,194.82	178.61	5.63	0.00	144 °F	Yellow	02/04/15	5:27	208 (gpm)
137	7539.00	91.80	174.70	4,698.66	3,226.49	-3,225.71	80.95	3,226.72	178.56	5.59	0.00	144 °F	Yellow	02/04/15	6:47	225 (gpm)
138	7571.00	92.60	176.10	4,697.43	3,258.39	-3,257.58	83.52	3,258.65	178.53	5.04	0.00	145 °F	Yellow	02/04/15	7:31	225 (gpm)
139	7602.00	92.70	176.70	4,696.00	3,289.32	-3,288.48	85.46	3,289.60	178.51	1.96	0.00	145 °F	Yellow	02/04/15	8:29	225 (gpm)
140	7634.00	92.80	177.60	4,694.46	3,321.26	-3,320.41	87.05	3,321.55	178.50	2.83	0.00	145 °F	Yellow	02/04/15	9:04	225 (gpm)
141	7665.00	93.00	177.80	4,692.90	3,352.21	-3,351.34	88.29	3,352.51	178.49	0.91	0.00	147 °F	Yellow	02/04/15	10:00	225 (gpm)
142	7697.00	93.10	179.20	4,691.19	3,384.16	-3,383.29	89.13	3,384.46	178.49	4.38	0.00	147 °F	Yellow	02/04/15	10:57	225 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Koblitz 3409 28-2H
Field/Block: Mississippi Lime
Co./Parish: Harper Co.
State: KS

PGS Job #: LKS6116815
MWD Operator: Ken Mitchell
Directional Driller: Kyle Underwood
Date of First Survey: January 27, 2015
Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

Measured		Coordinates				Closure				Vib/Shk						
Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)	Color	Date	Time	Flow Rate	
143	7728.00	92.00	179.90	4,689.81	3,415.13	-3,414.25	89.37	3,415.42	178.50	4.20	0.00	147 °F	Yellow	02/04/15	12:03	235 (gpm)
144	7759.00	91.00	179.60	4,689.00	3,446.12	-3,445.24	89.51	3,446.41	178.51	3.37	0.00	147 °F	Yellow	02/04/15	13:27	246 (gpm)
145	7791.00	90.60	179.60	4,688.56	3,478.12	-3,477.24	89.73	3,478.40	178.52	1.25	0.00	149 °F	Yellow	02/04/15	14:40	246 (gpm)
146	7823.00	90.00	179.40	4,688.39	3,510.11	-3,509.24	90.01	3,510.39	178.53	1.98	0.00	149 °F	Yellow	02/04/15	15:59	246 (gpm)
147	7854.00	89.90	179.60	4,688.42	3,541.11	-3,540.24	90.28	3,541.39	178.54	0.72	0.00	149 °F	Yellow	02/04/15	17:11	246 (gpm)
148	7886.00	90.10	179.60	4,688.42	3,573.11	-3,572.23	90.50	3,573.38	178.55	0.63	0.00	147 °F	Yellow	02/04/15	18:51	246 (gpm)
149	7917.00	90.20	180.40	4,688.33	3,604.11	-3,603.23	90.50	3,604.37	178.56	2.60	0.00	147 °F	Yellow	02/04/15	19:22	246 (gpm)
150	7949.00	90.20	180.20	4,688.22	3,636.10	-3,635.23	90.34	3,636.36	178.58	0.62	0.00	147 °F	Yellow	02/04/15	19:49	246 (gpm)
151	7980.00	90.60	180.20	4,688.01	3,667.10	-3,666.23	90.23	3,667.34	178.59	1.29	0.00	147 °F	Yellow	02/04/15	20:24	246 (gpm)
152	8012.00	90.80	179.10	4,687.62	3,699.10	-3,698.23	90.42	3,699.33	178.60	3.49	0.00	149 °F	Yellow	02/04/15	20:51	246 (gpm)
153	8043.00	91.20	179.70	4,687.07	3,730.09	-3,729.22	90.75	3,730.33	178.61	2.33	0.00	149 °F	Yellow	02/04/15	21:47	246 (gpm)
154	8074.00	90.70	180.40	4,686.56	3,761.08	-3,760.22	90.72	3,761.31	178.62	2.77	0.00	149 °F	Yellow	02/04/15	22:26	246 (gpm)
155	8106.00	90.60	180.50	4,686.20	3,793.07	-3,792.22	90.47	3,793.29	178.63	0.44	0.00	149 °F	Yellow	02/04/15	23:02	246 (gpm)
156	8137.00	90.70	180.40	4,685.85	3,824.07	-3,823.21	90.23	3,824.28	178.65	0.46	0.00	149 °F	Yellow	02/04/15	23:36	246 (gpm)
157	8169.00	90.90	180.20	4,685.40	3,856.06	-3,855.21	90.06	3,856.26	178.66	0.88	0.00	149 °F	Yellow	02/05/15	0:09	246 (gpm)
158	8200.00	91.30	179.90	4,684.80	3,887.05	-3,886.20	90.03	3,887.25	178.67	1.61	0.00	151 °F	Yellow	02/05/15	1:27	246 (gpm)
159	8232.00	90.50	179.90	4,684.30	3,919.04	-3,918.20	90.09	3,919.23	178.68	2.50	0.00	151 °F	Yellow	02/05/15	2:05	246 (gpm)
160	8264.00	90.10	179.70	4,684.13	3,951.04	-3,950.20	90.20	3,951.23	178.69	1.40	0.00	151 °F	Yellow	02/05/15	2:50	246 (gpm)
161	8295.00	90.40	180.00	4,684.00	3,982.04	-3,981.20	90.28	3,982.22	178.70	1.37	0.00	151 °F	Yellow	02/05/15	3:35	246 (gpm)
162	8327.00	90.60	179.70	4,683.72	4,014.04	-4,013.20	90.37	4,014.21	178.71	1.13	0.00	151 °F	Yellow	02/05/15	4:52	246 (gpm)
163	8358.00	90.20	180.00	4,683.50	4,045.03	-4,044.20	90.45	4,045.21	178.72	1.61	0.00	151 °F	Yellow	02/05/15	5:34	246 (gpm)
164	8421.00	90.20	179.90	4,683.28	4,108.03	-4,107.19	90.50	4,108.19	178.74	0.16	0.00	151 °F	Yellow	02/05/15	7:46	246 (gpm)
165	8484.00	89.80	180.30	4,683.28	4,171.02	-4,170.19	90.39	4,171.17	178.76	0.90	0.00	151 °F	Yellow	02/05/15	9:22	246 (gpm)
166	8516.00	89.70	180.30	4,683.42	4,203.01	-4,202.19	90.22	4,203.16	178.77	0.31	0.00	153 °F	Yellow	02/05/15	10:05	246 (gpm)
167	8578.00	89.80	179.70	4,683.69	4,265.01	-4,264.19	90.22	4,265.15	178.79	0.98	0.00	154 °F	Yellow	02/05/15	11:40	246 (gpm)
168	8610.00	89.50	179.80	4,683.89	4,297.01	-4,296.19	90.36	4,297.14	178.80	0.99	0.00	154 °F	Yellow	02/05/15	12:31	246 (gpm)
169	8673.00	89.90	180.20	4,684.22	4,360.00	-4,359.19	90.36	4,360.13	178.81	0.90	0.00	154 °F	Yellow	02/05/15	13:36	246 (gpm)
170	8737.00	90.60	179.60	4,683.94	4,423.99	-4,423.19	90.47	4,424.11	178.83	1.44	0.00	156 °F	Yellow	02/05/15	15:07	246 (gpm)
171	8800.00	90.40	179.50	4,683.39	4,486.99	-4,486.18	90.97	4,487.11	178.84	0.35	0.00	156 °F	Yellow	02/05/15	17:07	246 (gpm)

MWD SURVEYS

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Co./Parish: Harper Co.
State: KS

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MWD Operator: Ken Mitchell
Directional Driller: Kyle Underwood
Date of First Survey: January 27, 2015
Date of Last Survey: February 5, 2015



Total Correction: 4.31 East Grid

Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

	<i>Measured</i>			<i>Coordinates</i>				<i>Closure</i>			<i>Mtr Yield</i>	<i>Temp (°F)</i>	<i>Vib/Shk</i>			
	<i>Depth</i>	<i>Inc.</i>	<i>Azm.</i>	<i>T.V.D.</i>	<i>Ver. Sect.</i>	<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>	<i>DLS</i>			<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>
172	8832.00	89.60	180.00	4,683.39	4,518.99	-4,518.18	91.11	4,519.10	178.84	2.95	0.00	156 °F	Yellow	02/05/15	17:55	246 (gpm)
173	8895.00	89.90	179.90	4,683.66	4,581.98	-4,581.18	91.16	4,582.09	178.86	0.50	0.00	156 °F	Yellow	02/05/15	19:41	246 (gpm)
174	8958.00	90.30	178.70	4,683.55	4,644.98	-4,644.18	91.93	4,645.09	178.87	2.01	0.00	158 °F	Yellow	02/05/15	21:21	246 (gpm)
175	8989.00	90.50	179.00	4,683.34	4,675.98	-4,675.17	92.56	4,676.09	178.87	1.16	0.00	158 °F	Yellow	02/05/15	21:56	246 (gpm)
176	9018.00	90.50	179.00	4,683.08	4,704.98	-4,704.16	93.06	4,705.09	178.87	0.00	0.00	158 °F	Yellow	02/05/15	22:45	246 (gpm)
TD	9073.00	90.50	179.00	4,682.60	4,759.98	-4,759.15	94.02	4,760.08	178.87	0.00						

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Vertical Section Plane: 179.25 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.515

<i>Measured</i>			<i>Coordinates</i>				<i>Closure</i>			<i>Vib/Shk</i>					
<i>Depth</i>	<i>Inc.</i>	<i>Azm.</i>	<i>T.V.D.</i>	<i>Ver. Sect.</i>	<i>+N / -S</i>	<i>+E / -W</i>	<i>Dist.</i>	<i>Angle</i>	<i>DLS</i>	<i>Mtr Yield</i>	<i>Temp (°F)</i>	<i>Color</i>	<i>Date</i>	<i>Time</i>	<i>Flow Rate</i>

MWD SURVEYS

Customer: Tapstone Energy
 Well: Koblitz 3409 28-2H
 Field/Block: Mississippi Lime
 Co./Parish: Harper Co.
 State: KS

PGS Job #: LKS6116815
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: January 27, 2015
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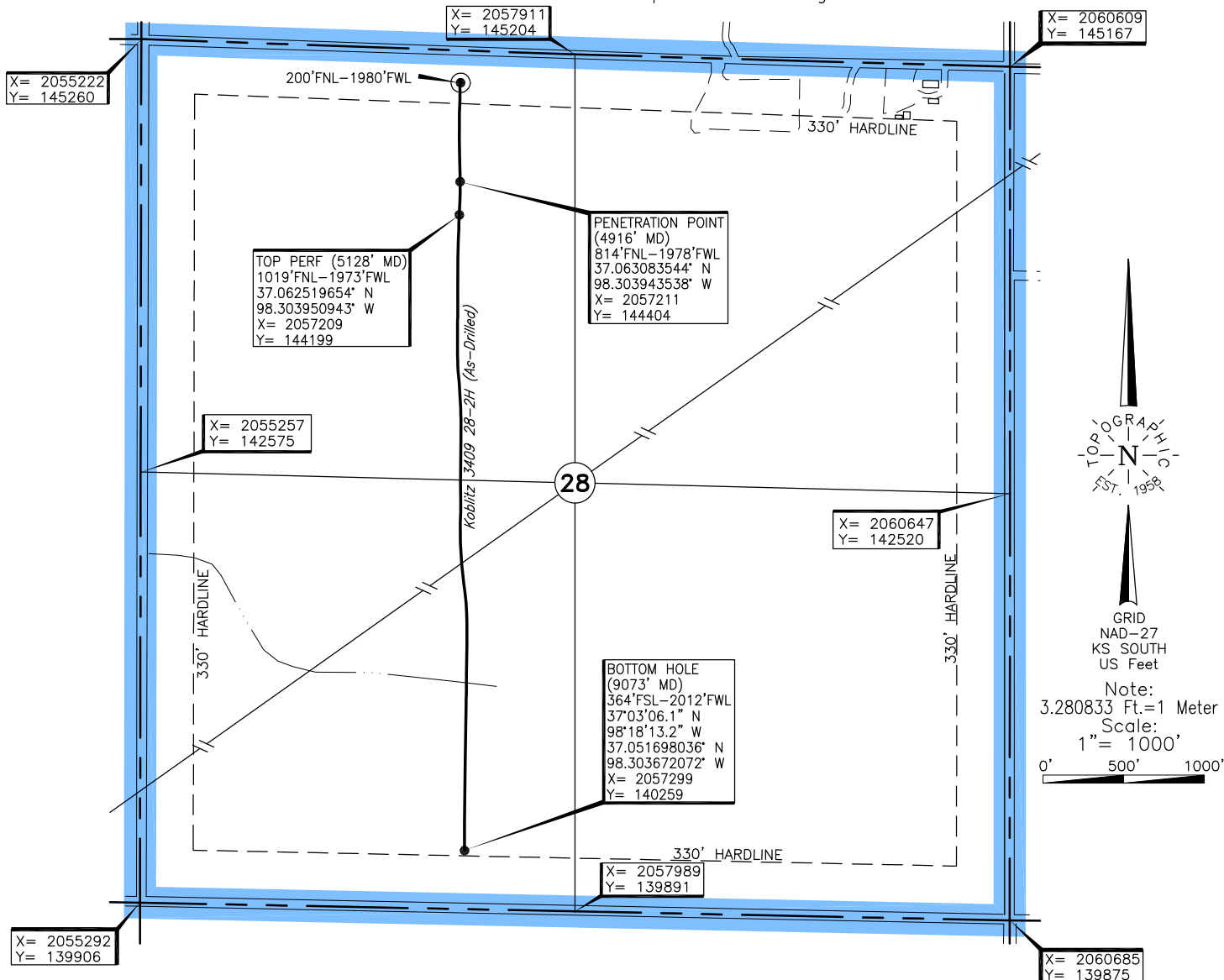
TOPOGRAPHIC LAND SURVEYORS

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. LS-99, Exp. Dec. 31, 2015

HARPER

County, Kansas

200'FNL - 1980'FWL Section 28 Township 34S Range 9W P.M.



Operator: TAPSTONE ENERGY

Lease Name: KOBLITZ 3409

Well No.: 28-2H

ELEVATION:
1271' Gr. at Stake

Topography & Vegetation Loc. fell in level canola field

Good Drill Site? Yes

Reference Stakes or Alternate Location
 Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction
 from Hwy Jct or Town From Oklahoma-Kansas State line on St. Hwy. 58, go ±4.5 mi. North, then ±1.0 mi. West
to the NW Cor. of Sec. 28-T34S-R9W

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.

DATUM: NAD-27
 LAT: 37°03'53.2" N
 LONG: 98°18'14.3" W
 LAT: 37.064769134° N
 LONG: 98.303959930° W
 STATE PLANE
 COORDINATES: (US Feet)
 ZONE: KS SOUTH
 X: 2057205
 Y: 145018

240259 Date of Drawing: Feb. 10, 2015
 Invoice # 237254 Date Staked: Jan. 02, 2015 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY TAPSTONE ENERGY

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 372073	Ship To #: 3287243	Quote #: 0021987064	Sales Order #: 0902047990
Customer: TAPSTONE ENERGY LLC		Customer Rep: SKIPPER GRAPE	
Well Name: KOBLITZ 3409	Well #: 28-2H	API/UWI #: 15-077-22125-01	
Field: WLD CAT	City (SAP): ANTHONY	County/Parish: HARPER	State: KANSAS
Legal Description: E2 NE NW NE-28-34S-9W-330FNL-1505FEL			
Contractor: NOMAC		Rig/Platform Name/Num: NOMAC 07	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX25353		Srvc Supervisor: Stuart Christensen	
Job			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	812ft		Job Depth TVD 806 FT
Water Depth			Wk Ht Above Floor 3 FT
Perforation Depth (MD)	From		To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole Section			12.25				0	806	0	806
Casing	3	9.625	8.921	36	LTC	J-55	0	812	0	812

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		812	Top Plug	9.625	1	HES
Float Shoe	9.625	1			Bottom Plug	9.625	1	HES
Float Collar	9.625	1			SSR plug set	9.625	1	HES
Insert Float	9.625	1			Plug Container	9.625	1	HES
Stage Tool	9.625	1			Centralizers	9.625	1	HES

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc
Treatment Fid	Conc	Inhibitor	Conc	Sand Type	Size	Qty

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Water Spacer	Water Spacer	10	bbl	8.33				

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Primary Cement	SWIFTCEM (TM) SYSTEM	490	sack	15	1.319		4	6.25
		94 lbm CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)							

HALLIBURTON

Cementing Job Summary

2 %		CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
0.1250 lbm		POLY-E-FLAKE (101216940)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement	Displacement	59	bbl	8.33				
Cement Left In Pipe		Amount 46 ft	Reason				Shoe Joint		
Comment									

Summary Report



Sales Order #: 0902047990
WO #: 0902047990
PO/AFE #: NA

Crew: _____

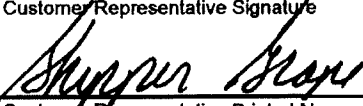
Job Start Date: 1/26/2015

Customer: TAPSTONE ENERGY LLC
UWI / API Number: 15-077-22125-01
Well Name: KOBLITZ 3409
Well No: 28-2H

Field: WILDCAT
County/Parish: HARPER
State: KANSAS
Latitude: 37.064351
Longitude: -98.297773
Sec / Twn / Rng: 28/34/9

Job Type: CMT SURFACE CASING BOM
Service Supervisor: Stuart Christensen
Cust Rep Name: SKIPPER GRAPE
Cust Rep Phone #:

Remarks:

<i>The Information Stated Herein Is Correct</i>	Customer Representative Signature 	Date <i>1/26/15</i>
	Customer Representative Printed Name <i>Skipper Grape</i>	

1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Pump Stage Total (b bl)	Downhole Density (ppg)	Comments
Event	1	Call Out	Call Out	1/25/2015	18:00:00	USER					CREW CALLED TO YARD FOR JOB. ON LOCATION AS SOON AS SAFELY POSSIBLE.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	1/25/2015	21:35:00	USER					CREW DISCUSSED ROUTE OF TRAVEL, HAZARDS, AND WEATHER.
Event	3	Depart Home for Location	Depart Home for Location	1/25/2015	21:45:00	USER					CREW DEPARTED YARD FOR LOCATION. CONTACTED JO URNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	1/26/2015	03:00:00	USER					CREW ARRIVED ON LOCATION. CONFIRMED ON LOCATION TIME AT 0800, PER EMAIL FROM COORDINATOR. RIG ON BOTTOM WITH DRILL PIPE, ABOUT TO REMOVE DRILL PIPE.
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	1/26/2015	03:05:00	USER					CREW DISCUSSED SPOTTING OF EQUIPMENT, LOCATION OF RESOURCES, SAFETY CONCERNS, AND HAZARDS.
Event	6	Other	Other	1/26/2015	03:15:00	USER					TALKED WITH COMAN: TD: 806', TP: 812', 9 5/8", 36#, J-55, ST: 46', OH: 12 1/4", MUD: 9.0 PPG, WATER TEST: GOOD.
Event	7	Other	Other	1/26/2015	03:25:00	USER					UNABLE TO SPOT EQUIPMENT UNTIL

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Drv-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Downhole Density (ppg)	Comments
Event	8	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/26/2015	09:35:00	USER					CASING NEAR COMPLETION, CONFIRMED WITH COMAN.
Event	9	Rig-Up Equipment	Rig-Up Equipment	1/26/2015	09:45:00	USER					CREW DISCUSSED JOB TASKS, SAFETY CONCERNS, RIG UP PROCEDURES, AND HAZARDS.
Event	10	Rig-Up Completed	Rig-Up Completed	1/26/2015	10:40:00	USER	7.50	100.00	12.9	8.56	CREW BEGAN RIGGING UP.
Event	11	Safety Meeting	Safety Meeting	1/26/2015	10:45:00	USER	0.00	-16.00	18.6	8.40	CREW HELD SAFETY MEETING WITH RIG CREW: DISCUSSED PUMP SCHEDULE, JOB TASKS, SAFETY CONCERNS, HAZARDS, AND EMERGENCY RESPONSE.
Event	12	Start Job	Start Job	1/26/2015	10:53:48	COM5	0.00	-3.00	0.0	8.30	STARTED JOB.
Event	13	Test Lines	Test Lines	1/26/2015	10:57:39	COM5	0.60	38.00	2.2	8.33	TESTED KICKOUTS TO 500 PSI.
Event	14	Test Lines	Test Lines	1/26/2015	10:58:49	COM5	0.60	3.00	2.3	8.22	TESTED LINES TO 3000 PSI, HELD FOR 3 MINUTES. RESET KICKOUTS TO 1500 PSI.
Event	15	Pump Spacer 1	Pump Spacer 1	1/26/2015	11:06:04	COM5	0.80	-4.00	0.0	8.23	PUMPED 10 BBLS OF FRESH WATER SPACER.
Event	16	Pump Cement	Pump Cement	1/26/2015	11:12:58	COM5	5.10	143.00	0.0	9.04	PUMPED 115 BBLS OF CEMENT MIXED @ 15 PPG, 490 SKS.
Event	17	Check Weight	Check weight	1/26/2015	11:17:30	COM5	5.10	165.00	23.1	14.84	MUD CUP SAMPLE: 15 PPG.

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Drive-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Downhole Density (ppg)	Comments
Event	18	Drop Top Plug	Drop Top Plug	1/26/2015	11:37:41	COM5	2.10	4.00	105.5	8.99	SHUT DOWN. DROPPED TOP PLUG FROM PLUG CONTAINER WITH COMAN.
Event	19	Pump Displacement	Pump Displacement	1/26/2015	11:37:45	COM5	2.10	6.00	105.6	13.28	PUMPED 59 BBLS OF FRESH WATER DISPLACEMENT.
Event	20	Other	Other	1/26/2015	11:42:01	COM5	5.90	216.00	19.8	8.37	CEMENT RETURNS TO SURFACE @ 18 BBLS GONE, ABOUT 40 BBLS BACK TO SURFACE.
Event	21	Displ Reached Cmnt	Displ Reached Cmnt	1/26/2015	11:42:42	COM5	5.90	235.00	23.9	8.36	DISPLACEMENT REACHED CEMENT @ 20 BBLS GONE.
Event	22	Other	Other	1/26/2015	11:45:53	COM5	3.10	263.00	42.2	8.30	SLOWED RATE TO 3 BPM @ 40 BBLS GONE.
Event	23	Bump Plug	Bump Plug	1/26/2015	11:51:05	COM5	0.00	1388.00	57.9	8.32	BUMPED PLUG @ 340 PSI. PLUS 500 PSI OVER. PRESSURE ROSE QUICKLY TO 1490 PSI.
Event	24	Other	Other	1/26/2015	11:52:32	COM5	0.00	1490.00	57.9	8.34	CHECKED FLOATS. FLOATS HELD. 0.5 BBLS BACK.
Event	25	End Job	End Job	1/26/2015	11:54:16	COM5					ENDED JOB.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/26/2015	12:00:00	USER	0.00	-20.00	57.9	8.29	CREW DISCUSSED RIG DOWN PROCEDURES, JOB TASKS, SAFETY CONCERNS, AND HAZARDS.
Event	27	Rig-Down Equipment	Rig-Down Equipment	1/26/2015	12:10:00	USER					CREW BEGAN RIGGING DOWN.
Event	28	Rig-Down Completed	Rig-Down Completed	1/26/2015	13:15:00	USER					CREW COMPLETED RIG DOWN.
Event	29	Depart Location Safety Meeting	Depart Location Safety Meeting	1/26/2015	13:20:00	USER					CREW DISCUSSED ROUTE OF TRAVEL.

HALLIBURTON

TAPSTONE ENERGY LLC
 TAPSTONE KOBLITZ 3409 28-2H SURFACE
 Case 1

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Downhole Density (ppg)	Comments
Event	30	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	1/26/2015	13:30:00	USER					WEATHER, AND HAZARDS.
Event	31	Other	Other	1/26/2015	13:31:00	USER					CREW DEPARTED LOCATION FOR YARD. CONTACTED JOURNEY MANAGEMENT. THANK YOU FOR CHOOSING HALLIBURTON.

The Road to Excellence Starts with Safety

Sold To #: 372073	Ship To #: 3287243	Quote #: 0021987178	Sales Order #: 0902083670
Customer: TAPSTONE ENERGY LLC	Customer Rep:		
Well Name: KOBELITZ 3409	Well #: 28-2H	API/UWI #: 15-077-22125-01	
Field: WILDCAT	City (SAP): ANTHONY	County/Parish: HARPER	State: KANSAS
Legal Description: E2 NE NW NE-28-34S-9W-330FNL-1505FEL			
Contractor: NOMAC	Rig/Platform Name/Num: NOMAC 07		
Job BOM: 7522			
Well Type: HORIZONTAL OIL	Srvc Supervisor: John Marinis		
Sales Person: HALAMERICA\HX25353	Job		

Formation Name		Bottom	
Formation Depth (MD)	Top	BHST	
Form Type		Job Depth TVD	
Job depth MD	5138ft		
Water Depth		Mk Ht Above Floor	
Perforation Depth (MD)	From	To	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing	3	9.625	8.921	36	LTC	J-55	0	800	0	4740
Casing	3	7	6.276	26	LTC	P-110	0	5138	0	4685
Open Hole Section			8.75				800	5161	800	4685

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	7	1		5138	Top Plug	7	1	HES
Float Shoe	7				Bottom Plug	7	1	HES
Float Collar	7	1			SSR plug set	7		HES
Insert Float	7				Plug Container	7		HES
Stage Tool	7				Centralizers	7		HES

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Conc	Qty	Conc
Treatment Fld	Conc	Inhibitor	Conc	Sand Type		Size	Qty

Fluid Data

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi	Total Mix Fluid Gal
1	Mud Flush III (Liquid)	Mud Flush III	10	bbl	8.33				
FRESH WATER									
			41 gal/bbl						

Summary Report



Sales Order #: 0902083670
WO #: 0902083670
PO/AFE #: NA

Crew:

Job Start Date: 1/30/2015

Customer: TAPSTONE ENERGY LLC

Field: WILDCAT

Job Type:

CMT INTERMEDIATE

UWI / APL Number: 15-077-22125-01

County/Parish: HARPER

Service Supervisor: John Marinis

CASING BOM

Well Name: KOBELITZ 3409

State: KANSAS

Well No: 28-2H

Latitude: 37.064351

Longitude: -98.297773

Sect / Twn / Rng: 28/34/9

Cust Rep Name:
Cust Rep Phone #:

Remarks:

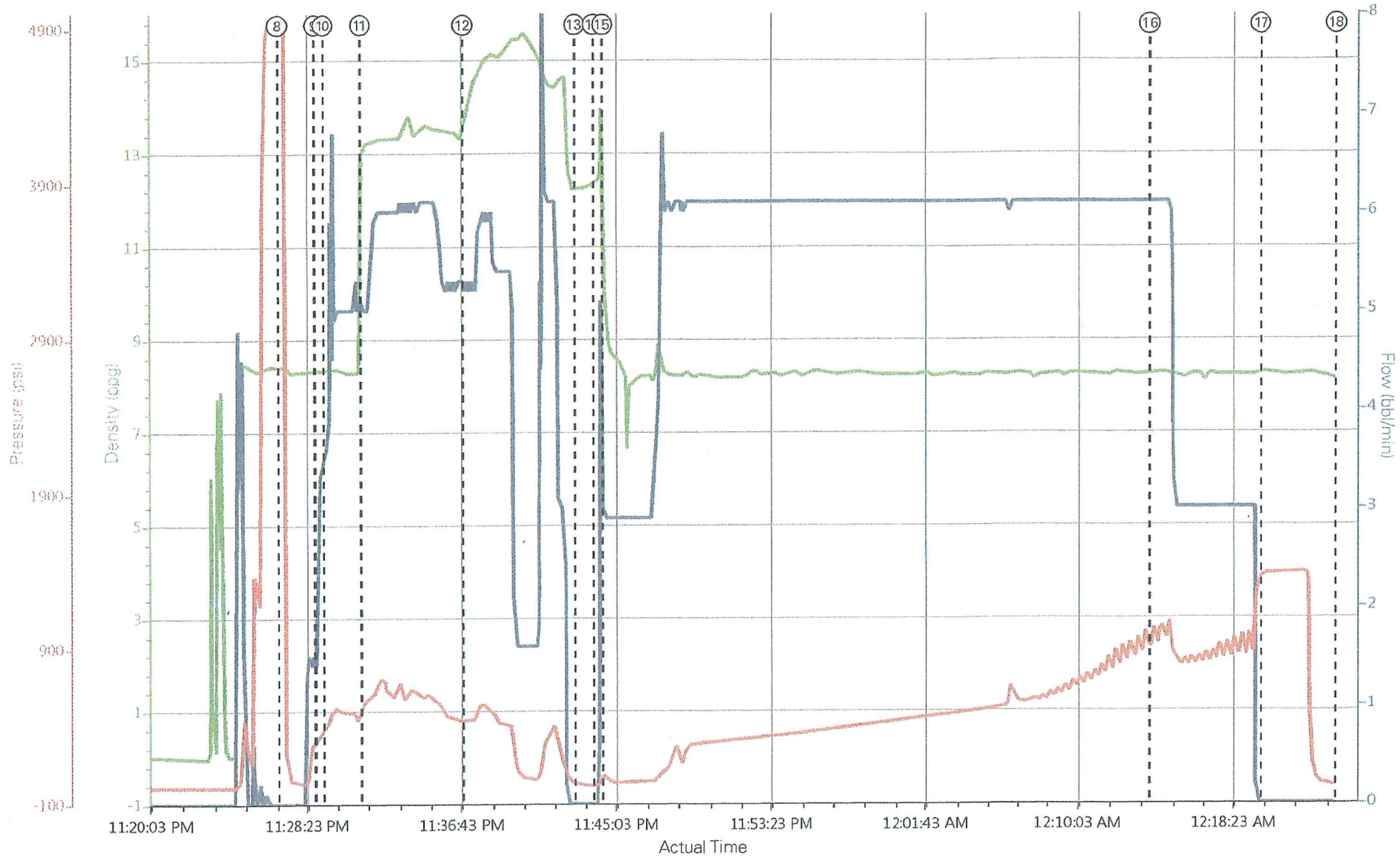
The Information Stated Herein Is Correct		Date
Customer Representative Signature		
Customer Representative Printed Name		

1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	1/30/2015	13:30:00	USER				requested on location at 19:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/30/2015	16:15:00	USER				stay on route and in convoy, use smith driving skills
Event	3	Arrive At Loc	Arrive At Loc	1/30/2015	18:00:00	USER				running casing, wait for racks to be moved out of way
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/30/2015	20:20:00	USER				watch hand and feet placement, use proper lifting
Event	5	Rig-Up Equipment	Rig-Up Equipment	1/30/2015	20:25:00	USER				
Event	6	Rig-Up Completed	Rig-Up Completed	1/30/2015	21:00:00	USER				rigged up ground, wait on casing
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	1/30/2015	23:10:00	USER				stay clear of red zone, don't hammer on pressurized iron, use tag lines on overhead loads
Event	8	Test Lines	Test Lines	1/30/2015	23:27:00	COM7	8.34	0.00	5000.00	test lines 500 psi low and 5000 psi high
Event	9	Drop Bottom Plug	Drop Bottom Plug	1/30/2015	23:29:00	USER	8.34	2.90	323.00	drop bottom plug
Event	10	Pump Spacer 1	Pump Spacer 1	1/30/2015	23:29:30	COM7	8.40	3.80	410.00	pump 10 bbls mud flush ahead...good returns
Event	11	Pump Lead Cement	Pump Lead Cement	1/30/2015	23:31:30	COM7	13.60	5.00	552.00	pump 37.4 bbls (140 sks) lead at 13.6# TOL 3157'...good returns
Event	12	Pump Tail Cement	Pump Tail Cement	1/30/2015	23:37:00	COM7	15.60	5.30	434.00	pump 19 bbls (90 sks) tail at 15.6# TOT

										4553'...good returns
Event	13	Shutdown	Shutdown	1/30/2015	23:43:00	USER				
Event	14	Drop Top Plug	Drop Top Plug	1/30/2015	23:44:00	COM7				drop top plug
Event	15	Pump Displacement	Pump Displacement	1/30/2015	23:44:30	COM7	8.34	6.00	210.00	pump 193 bbls water displacement...good returns
Event	16	Slow Rate	Slow Rate	1/31/2015	00:14:00	USER	8.34	3.00	849.00	slow rate to 3 bbls min last 20 bbls...good returns
Event	17	Bump Plug	Bump Plug	1/31/2015	00:20:00	COM7	8.34	0.00	1390.00	land plug from 875-1390 psi
Event	18	Check Floats	Check Floats	1/31/2015	00:24:00	USER				floats holding 1 bbl back
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/31/2015	00:28:00	USER				stay clear of line of fire, use tag line on stand pipe, stay clear of overhead loads
Event	20	Rig-Down Equipment	Rig-Down Equipment	1/31/2015	00:31:00	USER				
Event	21	Rig-Down Completed	Rig-Down Completed	1/31/2015	01:00:00	USER				
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/31/2015	01:05:00	USER				stay in convoy and on route
Event	23	Depart Location	Depart Location	1/31/2015	01:15:00	USER				

Tapstone Koblitz 3409 28-2H intermediate



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi)

- ① Call Out n/a;n/a;n/a
- ② Pre-Convoy Safety Meeting n/a;n/a;n/a
- ③ Arrive At Loc n/a;n/a;n/a
- ④ Pre-Rig Up Safety Meeting n/a;n/a;n/a
- ⑤ Rig-Up Equipment n/a;n/a;n/a
- ⑥ Rig-Up Completed n/a;n/a;n/a
- ⑦ Safety Meeting - Pre Job -0.04;0;5
- ⑧ Test Lines 8.4;0;4950
- ⑨ Drop Bottom Plug 8.3;2.9;323
- ⑩ Pump Spacer 1 8.31;3.8;410
- ⑪ Pump
- ⑫ Pump