



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1223005
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: _____

1223005

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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

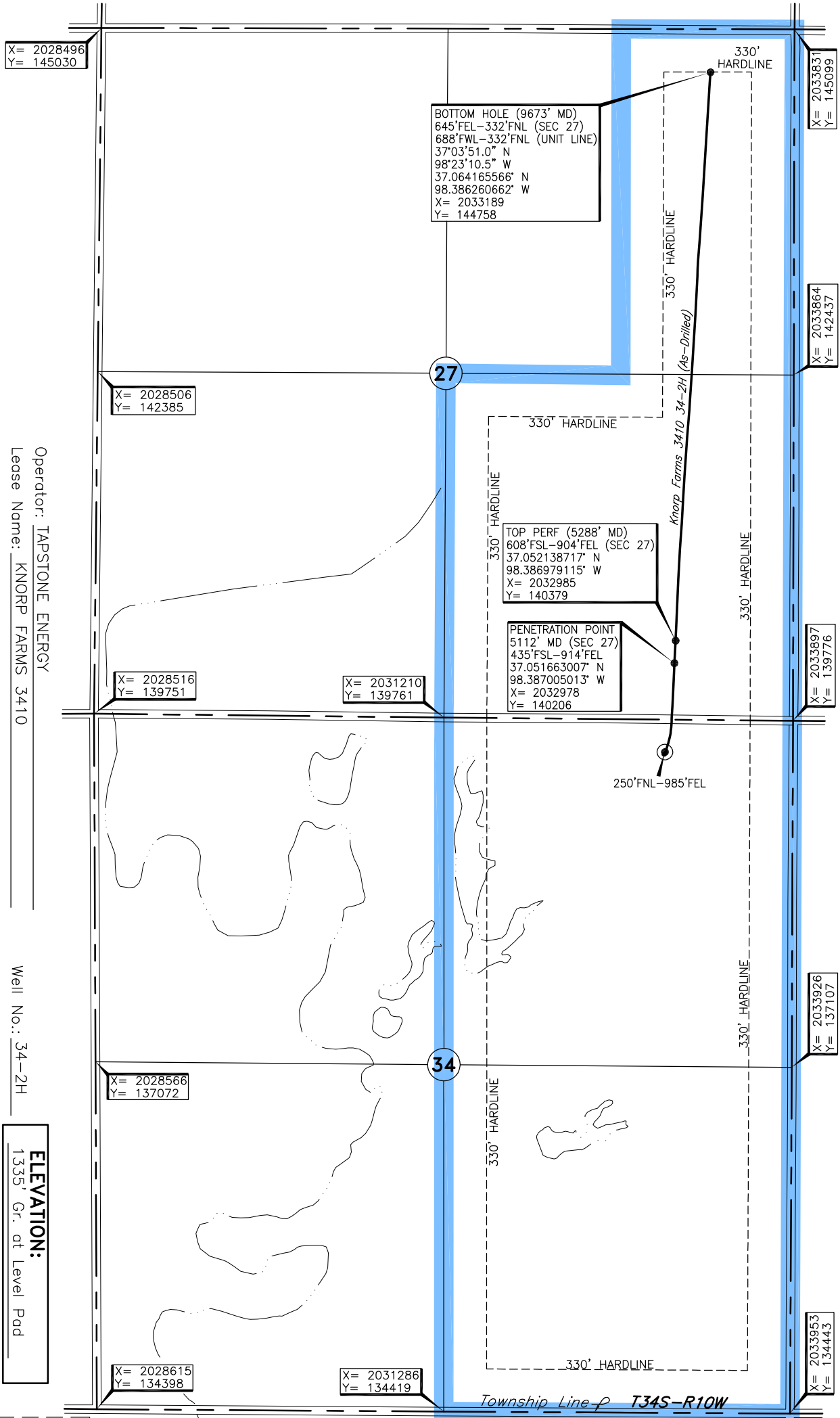
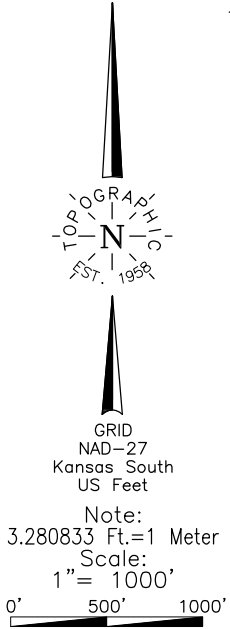
DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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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
 BARBER

County, Kansas

250'FNL-985'FEL Section 34 Township 34S Range 10W P.M.



X= 2028496
Y= 145030

BOTTOM HOLE (9673' MD)
 645'FEL-332'FNL (SEC 27)
 688'FWL-332'FNL (UNIT LINE)
 37°03'51.0" N
 98°23'10.5" W
 37.064165566' N
 98.386260662' W
 X= 2033189
 Y= 144758

TOP PERF (5288' MD)
 608'FSL-904'FEL (SEC 27)
 37.052138717' N
 98.386979115' W
 X= 2032985
 Y= 140379

PENETRATION POINT
 5112' MD (SEC 27)
 435'FSL-914'FEL
 37.051663007' N
 98.387005013' W
 X= 2032978
 Y= 140206

X= 2028506
Y= 142385

X= 2028516
Y= 139751

X= 2031210
Y= 139761

X= 2028566
Y= 137072

X= 2028615
Y= 134398

X= 2031286
Y= 134419

X= 2033831
Y= 145099

X= 2033864
Y= 142437

X= 2033897
Y= 139776

X= 2033926
Y= 137107

X= 2033953
Y= 134443

Operator: TAPSTONE ENERGY
 Lease Name: KNORP FARMS 3410
 Topography & Vegetation: Loc. fell at existing pad ±85' North of existing well heads
 Good Drill Site? Yes
 Reference Stakes or Alternate Location: Stakes Set None
 Best Accessibility to Location: From North off county road
 Distance & Direction: From Hazelton, KS., go ±2.5 mi. South on county road, then ±1.0 mi. East to NE corner Section 34-T34S-R10W
 Well No.: 34-2H
ELEVATION: 1335' Gr. at Level Pad

A boundary survey of the said section(s) shown hereon was not performed per the request of the operator shown hereon.

DATUM: NAD-27
 LAT: 37°02'59.2" N
 LONG: 98°23'14.0" W
 LAT: 37.049781809° N
 LONG: 98.387223780° W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: KS SOUTH
 X: 2032915
 Y: 139521

230864 Date of Drawing: Sep. 17, 2014
 Invoice # 220489 Date Staked: Apr. 30, 2014 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY TAPSTONE ENERGY

MWD SURVEYS

Customer: Tapstone Energy
 Well: Knorp Farms 3410 34-2H
 Field/Block: Mississippi Lime
 Co./Parish: Barber Co.
 State: KS

PGS Job #: LKS6113314
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: September 2, 2014
 Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

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: MWD										Date Received: 09/02/14						
Company: Pro Directional																
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
1	892.00	1.00	232.40	891.95	-5.05	-4.75	-6.17	7.78	232.40	0.11	0.00	104 °F	Green	09/02/14	18:35	661 (gpm)
2	1,082.00	0.70	219.60	1,081.93	-7.05	-6.66	-8.22	10.58	231.01	0.19	0.00	104 °F	Green	09/02/14	19:49	647 (gpm)
3	1,271.00	0.70	224.30	1,270.92	-8.84	-8.37	-9.76	12.86	229.39	0.03	0.00	105 °F	Green	09/02/14	21:04	668 (gpm)
4	1,461.00	1.30	212.20	1,460.89	-11.59	-11.03	-11.72	16.09	226.75	0.33	0.00	106 °F	Green	09/02/14	22:06	654 (gpm)
5	1,649.00	0.60	207.70	1,648.86	-14.34	-13.70	-13.32	19.11	224.18	0.37	0.00	106 °F	Green	09/03/14	0:20	645 (gpm)
6	1,836.00	0.50	204.10	1,835.85	-15.99	-15.31	-14.10	20.82	222.65	0.06	0.00	126 °F	Green	09/03/14	1:56	660 (gpm)
7	2,022.00	0.50	227.30	2,021.85	-17.33	-16.60	-15.03	22.40	222.15	0.11	0.00	127 °F	Green	09/03/14	3:12	643 (gpm)
8	2,209.00	0.50	221.60	2,208.84	-18.55	-17.77	-16.17	24.03	222.31	0.03	0.00	129 °F	Green	09/03/14	4:43	650 (gpm)
9	2,397.00	0.30	193.30	2,396.84	-19.67	-18.86	-16.83	25.28	221.75	0.15	0.00	135 °F	Green	09/03/14	6:36	662 (gpm)
10	2,582.00	0.20	144.70	2,581.83	-20.40	-19.60	-16.76	25.78	220.53	0.12	0.00	135 °F	Green	09/03/14	8:21	538 (gpm)
11	2,771.00	0.60	146.10	2,770.83	-21.45	-20.69	-16.01	26.16	217.74	0.21	0.00	135 °F	Green	09/03/14	10:10	330 (gpm)
12	2,959.00	0.90	128.10	2,958.81	-23.10	-22.41	-14.30	26.59	212.54	0.20	0.00	135 °F	Green	09/03/14	14:08	654 (gpm)
13	3,147.00	1.20	133.40	3,146.78	-25.23	-24.68	-11.71	27.32	205.39	0.17	0.00	115 °F	Green	09/03/14	16:22	651 (gpm)
14	3,334.00	0.90	88.90	3,333.75	-26.40	-25.99	-8.82	27.45	198.74	0.45	0.00	115 °F	Green	09/03/14	18:40	650 (gpm)
15	3,427.00	0.90	85.90	3,426.74	-26.26	-25.93	-7.36	26.95	195.85	0.05	0.00	129 °F	Green	09/03/14	20:15	655 (gpm)
16	3,522.00	0.80	86.40	3,521.73	-26.10	-25.83	-5.95	26.51	192.98	0.11	0.00	129 °F	Green	09/03/14	20:32	621 (gpm)
17	3,616.00	0.80	105.40	3,615.72	-26.17	-25.97	-4.67	26.38	190.19	0.28	0.00	131 °F	Green	09/03/14	21:32	672 (gpm)
18	3,710.00	0.80	99.80	3,709.71	-26.39	-26.25	-3.39	26.47	187.35	0.08	0.00	133 °F	Green	09/03/14	22:22	645 (gpm)
19	3,804.00	0.80	99.20	3,803.70	-26.54	-26.47	-2.09	26.55	184.52	0.01	0.00	135 °F	Green	09/03/14	23:30	650 (gpm)
20	3,897.00	0.70	100.00	3,896.70	-26.68	-26.67	-0.89	26.69	181.92	0.11	0.00	136 °F	Green	09/04/14	0:58	415 (gpm)
21	3,928.00	0.60	94.30	3,927.69	-26.71	-26.72	-0.54	26.72	181.17	0.38	10.00	133 °F	Green	09/04/14	1:47	422 (gpm)
22	3,960.00	1.40	38.50	3,959.69	-26.40	-26.42	-0.13	26.42	180.29	3.67	10.00	129 °F	Green	09/04/14	2:43	418 (gpm)
23	3,992.00	2.70	33.50	3,991.67	-25.43	-25.49	0.53	25.49	178.82	4.10	10.00	129 °F	Green	09/04/14	3:42	418 (gpm)
24	4,024.00	4.10	29.50	4,023.61	-23.76	-23.86	1.50	23.91	176.39	4.43	5.30	126 °F	Green	09/04/14	4:42	418 (gpm)
25	4,055.00	5.80	24.60	4,054.49	-21.32	-21.48	2.70	21.65	172.83	5.65	10.00	111 °F	Green	09/05/14	21:51	404 (gpm)
26	4,087.00	7.50	18.00	4,086.28	-17.80	-18.02	4.02	18.46	167.42	5.82	10.00	113 °F	Green	09/05/14	23:30	404 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Knorp Farms 3410 34-2H
 Field/Block: Mississippi Lime
 Co./Parish: Barber Co.
 State: KS

PGS Job #: LKS6113314
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: September 2, 2014
 Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

	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	4,119.00	10.10	13.10	4,117.90	-13.02	-13.30	5.30	14.32	158.26	8.45	8.50	115 °F	Green	09/05/14	0:45	404 (gpm)
28	4,150.00	12.40	11.10	4,148.30	-7.05	-7.38	6.56	9.88	138.39	7.52	8.00	115 °F	Green	09/05/14	1:45	359 (gpm)
29	4,181.00	15.00	10.00	4,178.42	0.22	-0.17	7.90	7.90	91.21	8.43	8.10	117 °F	Green	09/05/14	3:45	362 (gpm)
30	4,212.00	17.30	9.70	4,208.19	8.78	8.33	9.37	12.54	48.37	7.42	8.10	117 °F	Green	09/05/14	6:30	356 (gpm)
31	4,244.00	19.50	11.30	4,238.55	18.79	18.26	11.22	21.43	31.57	7.05	7.05	122 °F	Green	09/05/14	9:34	510 (gpm)
32	4,275.00	21.50	14.00	4,267.59	29.48	28.84	13.61	31.89	25.26	7.13	7.13	127 °F	Green	09/05/14	11:17	510 (gpm)
33	4,307.00	24.40	15.40	4,297.05	41.69	40.91	16.78	44.22	22.31	9.22	9.22	129 °F	Green	09/05/14	13:14	510 (gpm)
34	4,338.00	27.70	15.10	4,324.90	54.98	54.04	20.36	57.75	20.64	10.65	10.65	133 °F	Green	09/05/14	15:08	510 (gpm)
35	4,369.00	31.30	14.80	4,351.88	69.91	68.79	24.30	72.95	19.45	11.62	11.62	133 °F	Green	09/05/14	16:57	510 (gpm)
36	4,400.00	34.70	14.30	4,377.87	86.44	85.13	28.53	89.78	18.53	11.00	11.00	135 °F	Green	09/05/14	18:22	510 (gpm)
37	4,431.00	37.80	13.30	4,402.87	104.43	102.93	32.90	108.06	17.73	10.18	11.00	136 °F	Green	09/05/14	20:02	528 (gpm)
38	4,462.00	40.80	11.20	4,426.86	123.80	122.12	37.05	127.61	16.88	10.58	11.00	136 °F	Green	09/05/14	21:25	513 (gpm)
39	4,493.00	43.30	8.60	4,449.88	144.40	142.57	40.61	148.24	15.90	9.83	11.00	136 °F	Green	09/05/14	22:26	525 (gpm)
40	4,525.00	44.90	5.50	4,472.86	166.61	164.66	43.33	170.27	14.74	8.39	11.00	136 °F	Green	09/05/14	23:33	535 (gpm)
41	4,557.00	47.00	3.50	4,495.11	189.59	187.59	45.13	192.94	13.53	7.95	10.50	136 °F	Green	09/06/14	1:15	535 (gpm)
42	4,588.00	50.00	2.90	4,515.65	212.81	210.77	46.43	215.82	12.42	9.79	11.00	136 °F	Green	09/06/14	2:52	524 (gpm)
43	4,619.00	53.10	2.50	4,534.92	237.08	235.01	47.57	239.78	11.44	10.05	11.00	136 °F	Green	09/06/14	4:24	524 (gpm)
44	4,651.00	56.10	2.30	4,553.46	263.16	261.07	48.66	265.57	10.56	9.39	12.30	138 °F	Green	09/06/14	5:50	524 (gpm)
45	4,682.00	59.00	2.30	4,570.09	289.32	287.21	49.71	291.48	9.82	9.35	11.60	138 °F	Green	09/06/14	7:18	524 (gpm)
46	4,713.00	61.70	2.20	4,585.42	316.25	314.13	50.77	318.20	9.18	8.71	12.50	138 °F	Green	09/06/14	8:40	524 (gpm)
47	4,744.00	64.20	2.00	4,599.52	343.86	341.71	51.78	345.61	8.62	8.08	12.50	138 °F	Green	09/06/14	9:38	524 (gpm)
48	4,775.00	65.90	2.00	4,612.59	371.96	369.80	52.76	373.55	8.12	5.48	0.00	138 °F	Green	09/06/14	10:40	524 (gpm)
49	4,806.00	66.80	2.10	4,625.03	400.36	398.18	53.77	401.79	7.69	2.92	0.00	138 °F	Green	09/06/14	11:25	524 (gpm)
50	4,838.00	67.90	2.30	4,637.35	429.89	427.69	54.91	431.20	7.32	3.49	0.00	138 °F	Green	09/06/14	12:43	524 (gpm)
51	4,869.00	68.90	2.30	4,648.77	458.71	456.49	56.06	459.92	7.00	3.23	0.00	136 °F	Green	09/06/14	14:05	524 (gpm)
52	4,900.00	69.60	2.30	4,659.75	487.69	485.46	57.23	488.82	6.72	2.26	0.00	138 °F	Green	09/06/14	15:22	524 (gpm)
53	4,931.00	69.60	2.00	4,670.55	516.75	514.49	58.32	517.79	6.47	0.91	0.00	145 °F	Green	09/06/14	16:53	524 (gpm)
54	4,962.00	70.00	1.90	4,681.26	545.84	543.57	59.31	546.79	6.23	1.33	0.00	138 °F	Green	09/06/14	18:05	520 (gpm)
55	4,991.00	70.40	1.60	4,691.08	573.12	570.84	60.14	574.00	6.01	1.69	0.00	138 °F	Green	09/06/14	19:13	520 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
 Well: Knorp Farms 3410 34-2H
 Field/Block: Mississippi Lime
 Co./Parish: Barber Co.
 State: KS

PGS Job #: LKS6113314
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: September 2, 2014
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Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

	Measured		Coordinates				Closure			Vib/Shk			Date	Time	Flow Rate	
	Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N/-S	+E/-W	Dist.	Angle	DLS	Mtr Yield	Temp (°F)				Color
56	5,023.00	69.80	1.30	4,701.97	603.20	600.92	60.90	604.00	5.79	2.07	0.00	140 °F	Green	09/06/14	20:49	520 (gpm)
57	5,055.00	69.90	1.20	4,713.00	633.23	630.95	61.56	633.95	5.57	0.43	12.00	138 °F	Green	09/06/14	22:40	520 (gpm)
58	5,087.00	71.80	1.50	4,723.49	663.45	661.17	62.27	664.10	5.38	6.00	12.00	140 °F	Green	09/07/14	0:27	525 (gpm)
59	5,119.00	73.90	2.10	4,732.93	694.02	691.73	63.23	694.62	5.22	6.80	11.50	138 °F	Green	09/07/14	2:11	525 (gpm)
60	5,151.00	76.80	2.40	4,741.02	724.97	722.67	64.45	725.53	5.10	9.11	12.00	138 °F	Green	09/07/14	4:02	520 (gpm)
61	5,182.00	79.70	2.80	4,747.33	755.32	752.98	65.82	755.85	5.00	9.44	13.90	138 °F	Green	09/07/14	6:14	520 (gpm)
62	5,214.00	82.50	2.90	4,752.28	786.93	784.55	67.40	787.44	4.91	8.76	11.00	138 °F	Green	09/07/14	7:56	520 (gpm)
63	5,245.00	85.30	2.60	4,755.58	817.75	815.34	68.87	818.24	4.83	9.08	12.80	138 °F	Green	09/07/14	9:38	520 (gpm)
64	5,311.00	89.90	1.40	4,758.34	883.67	881.22	71.17	884.09	4.62	7.20	0.00	136 °F	Green	09/09/14	0:19	252 (gpm)
65	5,342.00	90.20	0.90	4,758.31	914.65	912.22	71.80	915.04	4.50	1.88	0.00	138 °F	Yellow	09/09/14	0:43	252 (gpm)
66	5,374.00	90.40	0.90	4,758.15	946.63	944.21	72.30	946.98	4.38	0.63	0.00	138 °F	Pink	09/09/14	1:25	252 (gpm)
67	5,405.00	90.40	1.10	4,757.93	977.62	975.21	72.84	977.92	4.27	0.65	0.00	138 °F	Yellow	09/09/14	2:00	256 (gpm)
68	5,469.00	90.30	1.50	4,757.54	1,041.59	1,039.19	74.29	1,041.84	4.09	0.64	0.00	140 °F	Yellow	09/09/14	3:07	256 (gpm)
69	5,532.00	89.80	1.60	4,757.48	1,104.58	1,102.17	76.00	1,104.78	3.94	0.81	0.00	142 °F	Yellow	09/09/14	4:15	256 (gpm)
70	5,593.00	90.20	1.90	4,757.48	1,165.57	1,163.14	77.86	1,165.74	3.83	0.82	0.00	142 °F	Pink	09/09/14	5:24	256 (gpm)
71	5,654.00	90.40	1.90	4,757.16	1,226.56	1,224.10	79.88	1,226.71	3.73	0.33	0.00	142 °F	Yellow	09/09/14	6:27	256 (gpm)
72	5,744.00	90.40	2.20	4,756.54	1,316.55	1,314.04	83.10	1,316.67	3.62	0.33	0.00	144 °F	Yellow	09/09/14	7:35	256 (gpm)
73	5,834.00	90.40	2.40	4,755.91	1,406.54	1,403.97	86.71	1,406.64	3.53	0.22	0.00	145 °F	Yellow	09/09/14	8:59	256 (gpm)
74	5,925.00	89.80	2.40	4,755.75	1,497.54	1,494.89	90.52	1,497.63	3.47	0.66	0.00	145 °F	Yellow	09/09/14	10:25	256 (gpm)
75	6,015.00	90.60	2.50	4,755.44	1,587.53	1,584.80	94.37	1,587.61	3.41	0.90	0.00	147 °F	Yellow	09/09/14	12:17	256 (gpm)
76	6,105.00	91.20	3.20	4,754.02	1,677.52	1,674.68	98.84	1,677.59	3.38	1.02	0.00	147 °F	Yellow	09/09/14	14:07	256 (gpm)
77	6,196.00	90.70	3.40	4,752.51	1,768.50	1,765.52	104.08	1,768.58	3.37	0.59	0.00	147 °F	Yellow	09/09/14	16:01	256 (gpm)
78	6,287.00	88.70	2.30	4,752.99	1,859.50	1,856.40	108.61	1,859.57	3.35	2.51	0.00	149 °F	Yellow	09/09/14	18:30	256 (gpm)
79	6,317.00	88.90	2.30	4,753.62	1,889.49	1,886.37	109.81	1,889.56	3.33	0.67	0.00	149 °F	Yellow	09/09/14	19:00	256 (gpm)
80	6,347.00	88.90	2.20	4,754.19	1,919.48	1,916.34	110.99	1,919.55	3.31	0.33	0.00	151 °F	Yellow	09/09/14	20:42	256 (gpm)
81	6,378.00	88.80	2.30	4,754.82	1,950.47	1,947.31	112.20	1,950.54	3.30	0.46	0.00	151 °F	Yellow	09/09/14	21:29	256 (gpm)
82	6,408.00	89.10	2.20	4,755.37	1,980.47	1,977.28	113.38	1,980.53	3.28	1.05	0.00	151 °F	Yellow	09/09/14	22:10	256 (gpm)
83	6,438.00	89.70	2.20	4,755.68	2,010.46	2,007.25	114.53	2,010.52	3.27	2.00	0.00	149 °F	Green	09/10/14	11:39	256 (gpm)
84	6,468.00	89.60	2.30	4,755.86	2,040.46	2,037.23	115.71	2,040.51	3.25	0.47	0.00	145 °F	Green	09/10/14	12:31	271 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Knorp Farms 3410 34-2H
Field/Block: Mississippi Lime
Co./Parish: Barber Co.
State: KS

PGS Job #: LKS6113314
MWD Operator: Ken Mitchell
Directional Driller: Kyle Underwood
Date of First Survey: September 2, 2014
Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

	<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>
85	6,528.00	90.10	2.60	4,756.02	2,100.46	2,097.18	118.28	2,100.51	3.23	0.97	0.00	145 °F	Green	09/10/14	14:01	271 (gpm)
86	6,558.00	90.20	2.80	4,755.94	2,130.46	2,127.14	119.69	2,130.51	3.22	0.75	0.00	145 °F	Green	09/10/14	14:39	271 (gpm)
87	6,588.00	90.10	2.80	4,755.86	2,160.46	2,157.11	121.15	2,160.51	3.21	0.33	0.00	145 °F	Green	09/10/14	15:08	271 (gpm)
88	6,618.00	90.20	3.00	4,755.78	2,190.46	2,187.07	122.67	2,190.51	3.21	0.75	0.00	145 °F	Green	09/10/14	15:32	271 (gpm)
89	6,648.00	89.90	2.80	4,755.76	2,220.46	2,217.03	124.19	2,220.51	3.21	1.20	0.00	145 °F	Green	09/10/14	16:15	271 (gpm)
90	6,678.00	89.90	2.70	4,755.81	2,250.46	2,246.99	125.63	2,250.50	3.20	0.33	0.00	145 °F	Green	09/10/14	17:05	271 (gpm)
91	6,708.00	90.40	3.20	4,755.73	2,280.46	2,276.95	127.17	2,280.50	3.20	2.36	0.00	144 °F	Green	09/10/14	17:38	271 (gpm)
92	6,738.00	90.30	3.10	4,755.55	2,310.46	2,306.91	128.82	2,310.50	3.20	0.47	0.00	144 °F	Green	09/10/14	18:11	250 (gpm)
93	6,768.00	90.30	3.20	4,755.39	2,340.46	2,336.86	130.47	2,340.50	3.20	0.33	0.00	144 °F	Green	09/10/14	18:32	250 (gpm)
94	6,827.00	90.20	3.50	4,755.13	2,399.45	2,395.76	133.92	2,399.50	3.20	0.54	0.00	144 °F	Green	09/10/14	19:15	260 (gpm)
95	6,887.00	89.90	3.70	4,755.08	2,459.45	2,455.64	137.69	2,459.50	3.21	0.60	0.00	144 °F	Green	09/10/14	19:48	260 (gpm)
96	6,947.00	89.90	3.80	4,755.19	2,519.44	2,515.51	141.61	2,519.50	3.22	0.17	0.00	151 °F	Green	09/10/14	20:53	255 (gpm)
97	7,008.00	90.30	3.70	4,755.08	2,580.43	2,576.38	145.60	2,580.49	3.23	0.68	0.00	151 °F	Green	09/10/14	21:53	260 (gpm)
98	7,068.00	89.90	2.90	4,754.98	2,640.43	2,636.28	149.05	2,640.49	3.24	1.49	0.00	153 °F	Green	09/10/14	22:43	256 (gpm)
99	7,128.00	90.10	2.70	4,754.98	2,700.43	2,696.21	151.98	2,700.49	3.23	0.47	0.00	153 °F	Green	09/10/14	23:47	256 (gpm)
100	7,188.00	91.30	3.00	4,754.24	2,760.43	2,756.13	154.97	2,760.49	3.22	2.06	0.00	151 °F	Green	09/11/14	0:38	260 (gpm)
101	7,249.00	93.80	4.00	4,751.53	2,821.36	2,816.95	158.69	2,821.42	3.22	4.41	0.00	153 °F	Green	09/11/14	2:21	260 (gpm)
102	7,279.00	92.80	3.30	4,749.80	2,851.30	2,846.84	160.59	2,851.37	3.23	4.07	0.00	153 °F	Green	09/11/14	2:54	256 (gpm)
103	7,338.00	91.80	2.90	4,747.43	2,910.25	2,905.71	163.78	2,910.32	3.23	1.83	0.00	153 °F	Green	09/11/14	4:03	256 (gpm)
104	7,400.00	90.10	2.40	4,746.41	2,972.24	2,967.63	166.65	2,972.30	3.21	2.86	0.00	153 °F	Green	09/11/14	5:03	256 (gpm)
105	7,462.00	91.00	2.80	4,745.81	3,034.24	3,029.56	169.46	3,034.30	3.20	1.59	0.00	153 °F	Green	09/11/14	6:16	256 (gpm)
106	7,525.00	90.90	3.00	4,744.77	3,097.23	3,092.47	172.65	3,097.29	3.20	0.35	0.00	154 °F	Green	09/11/14	7:36	256 (gpm)
107	7,588.00	89.80	2.80	4,744.38	3,160.23	3,155.39	175.83	3,160.29	3.19	1.77	0.00	154 °F	Green	09/11/14	8:14	256 (gpm)
108	7,651.00	89.80	2.30	4,744.60	3,223.23	3,218.33	178.64	3,223.28	3.18	0.79	0.00	154 °F	Green	09/11/14	10:08	256 (gpm)
109	7,714.00	89.80	2.40	4,744.82	3,286.22	3,281.27	181.22	3,286.27	3.16	0.16	0.00	154 °F	Green	09/11/14	11:27	256 (gpm)
110	7,777.00	89.40	2.30	4,745.26	3,349.22	3,344.22	183.80	3,349.27	3.15	0.65	0.00	156 °F	Green	09/11/14	13:02	256 (gpm)
111	7,839.00	89.60	2.70	4,745.80	3,411.21	3,406.16	186.51	3,411.26	3.13	0.72	0.00	156 °F	Green	09/11/14	14:25	256 (gpm)
112	7,903.00	89.00	2.60	4,746.58	3,475.21	3,470.08	189.47	3,475.25	3.13	0.95	0.00	156 °F	Green	09/11/14	15:49	256 (gpm)
113	7,966.00	89.10	1.90	4,747.63	3,538.20	3,533.03	191.94	3,538.24	3.11	1.12	0.00	154 °F	Green	09/11/14	18:13	256 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Knorp Farms 3410 34-2H
Field/Block: Mississippi Lime
Co./Parish: Barber Co.
State: KS

PGS Job #: LKS6113314
MWD Operator: Ken Mitchell
Directional Driller: Kyle Underwood
Date of First Survey: September 2, 2014
Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

	<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>
114	8,029.00	90.30	1.60	4,747.96	3,601.18	3,595.99	193.86	3,601.22	3.09	1.96	0.00	120 °F	Green	09/12/14	8:42	267 (gpm)
115	8,093.00	90.90	2.00	4,747.29	3,665.17	3,659.96	195.87	3,665.20	3.06	1.13	0.00	120 °F	Green	09/12/14	10:24	267 (gpm)
116	8,155.00	89.80	1.90	4,746.91	3,727.16	3,721.92	197.98	3,727.18	3.04	1.78	0.00	120 °F	Green	09/12/14	11:25	260 (gpm)
117	8,218.00	90.10	2.40	4,746.96	3,790.15	3,784.88	200.35	3,790.18	3.03	0.93	0.00	153 °F	Green	09/12/14	12:52	260 (gpm)
118	8,281.00	89.60	3.20	4,747.13	3,853.15	3,847.80	203.42	3,853.17	3.03	1.50	0.00	153 °F	Green	09/12/14	13:49	260 (gpm)
119	8,344.00	90.00	3.30	4,747.35	3,916.15	3,910.70	207.00	3,916.17	3.03	0.65	0.00	153 °F	Green	09/12/14	15:38	260 (gpm)
120	8,407.00	90.00	3.80	4,747.35	3,979.15	3,973.58	210.90	3,979.17	3.04	0.79	0.00	153 °F	Green	09/12/14	17:05	260 (gpm)
121	8,471.00	89.50	3.70	4,747.63	4,043.14	4,037.44	215.08	4,043.16	3.05	0.80	0.00	154 °F	Green	09/12/14	18:41	260 (gpm)
122	8,534.00	89.80	3.50	4,748.01	4,106.13	4,100.31	219.04	4,106.16	3.06	0.57	0.00	153 °F	Green	09/12/14	20:24	260 (gpm)
123	8,597.00	89.40	3.30	4,748.45	4,169.13	4,163.20	222.77	4,169.16	3.06	0.71	0.00	153 °F	Green	09/12/14	22:10	255 (gpm)
124	8,628.00	89.50	2.90	4,748.75	4,200.12	4,194.15	224.45	4,200.16	3.06	1.33	0.00	153 °F	Green	09/12/14	23:30	255 (gpm)
125	8,659.00	89.80	2.80	4,748.94	4,231.12	4,225.12	225.99	4,231.16	3.06	1.02	0.00	154 °F	Green	09/13/14	0:34	255 (gpm)
126	8,691.00	89.40	2.50	4,749.16	4,263.12	4,257.08	227.47	4,263.15	3.06	1.56	0.00	154 °F	Green	09/13/14	1:41	255 (gpm)
127	8,722.00	89.20	2.60	4,749.54	4,294.12	4,288.05	228.85	4,294.15	3.05	0.72	0.00	154 °F	Green	09/13/14	3:29	255 (gpm)
128	8,754.00	89.50	2.60	4,749.91	4,326.12	4,320.01	230.30	4,326.15	3.05	0.94	0.00	151 °F	Green	09/13/14	17:09	246 (gpm)
129	8,785.00	89.40	2.70	4,750.20	4,357.12	4,350.98	231.73	4,357.14	3.05	0.46	0.00	151 °F	Green	09/13/14	18:15	246 (gpm)
130	8,817.00	90.20	2.60	4,750.31	4,389.12	4,382.94	233.21	4,389.14	3.05	2.52	0.00	151 °F	Green	09/13/14	19:30	246 (gpm)
131	8,848.00	91.10	2.40	4,749.96	4,420.11	4,413.91	234.57	4,420.14	3.04	2.97	0.00	151 °F	Green	09/13/14	20:00	246 (gpm)
132	8,880.00	91.30	2.50	4,749.29	4,452.10	4,445.88	235.93	4,452.13	3.04	0.70	0.00	153 °F	Green	09/13/14	20:03	246 (gpm)
133	8,911.00	91.60	2.80	4,748.51	4,483.09	4,476.83	237.37	4,483.12	3.04	1.37	0.00	153 °F	Green	09/13/14	20:55	246 (gpm)
134	8,943.00	91.70	2.70	4,747.59	4,515.08	4,508.78	238.90	4,515.11	3.03	0.44	0.00	153 °F	Green	09/13/14	21:22	246 (gpm)
135	8,975.00	91.90	2.80	4,746.58	4,547.07	4,540.73	240.44	4,547.09	3.03	0.70	0.00	154 °F	Green	09/13/14	21:53	246 (gpm)
136	9,006.00	92.10	2.80	4,745.50	4,578.05	4,571.67	241.95	4,578.07	3.03	0.65	0.00	154 °F	Green	09/13/14	22:47	246 (gpm)
137	9,038.00	91.80	2.60	4,744.41	4,610.03	4,603.62	243.46	4,610.05	3.03	1.13	0.00	154 °F	Green	09/13/14	23:24	246 (gpm)
138	9,069.00	91.40	2.50	4,743.55	4,641.02	4,634.58	244.83	4,641.04	3.02	1.33	0.00	154 °F	Green	09/14/14	0:07	246 (gpm)
139	9,101.00	91.70	2.60	4,742.68	4,673.00	4,666.53	246.26	4,673.03	3.02	0.99	0.00	156 °F	Green	09/14/14	0:40	246 (gpm)
140	9,132.00	92.00	2.70	4,741.68	4,703.99	4,697.48	247.69	4,704.01	3.02	1.02	0.00	156 °F	Green	09/14/14	1:37	246 (gpm)
141	9,164.00	91.90	2.70	4,740.59	4,735.97	4,729.43	249.20	4,735.99	3.02	0.31	0.00	156 °F	Green	09/14/14	2:41	246 (gpm)
142	9,196.00	91.70	2.80	4,739.59	4,767.95	4,761.38	250.73	4,767.97	3.01	0.70	0.00	156 °F	Green	09/14/14	3:35	255 (gpm)

MWD SURVEYS

Customer: Tapstone Energy
Well: Knorp Farms 3410 34-2H
Field/Block: Mississippi Lime
Co./Parish: Barber Co.
State: KS

PGS Job #: LKS6113314
MWD Operator: Ken Mitchell
Directional Driller: Kyle Underwood
Date of First Survey: September 2, 2014
Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84 Nominal Dip Angle: 65.07 Magnetic Field Strength: 0.516

	<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>
143	9,227.00	91.50	2.60	4,738.72	4,798.94	4,792.33	252.19	4,798.96	3.01	0.91	0.00	156 °F	Green	09/14/14	4:32	250 (gpm)
144	9,259.00	90.80	2.80	4,738.08	4,830.93	4,824.29	253.70	4,830.95	3.01	2.27	0.00	154 °F	Green	09/14/14	5:10	250 (gpm)
145	9,290.00	90.90	2.60	4,737.62	4,861.93	4,855.25	255.16	4,861.95	3.01	0.72	0.00	154 °F	Green	09/14/14	5:36	250 (gpm)
146	9,322.00	91.00	2.50	4,737.09	4,893.92	4,887.21	256.58	4,893.95	3.01	0.44	0.00	156 °F	Green	09/14/14	6:04	250 (gpm)
147	9,353.00	91.40	2.60	4,736.44	4,924.92	4,918.18	257.96	4,924.94	3.00	1.33	0.00	158 °F	Green	09/14/14	6:41	250 (gpm)
148	9,385.00	92.00	2.90	4,735.49	4,956.90	4,950.13	259.50	4,956.92	3.00	2.10	0.00	158 °F	Green	09/14/14	7:37	250 (gpm)
149	9,417.00	91.70	3.10	4,734.46	4,988.89	4,982.07	261.17	4,988.91	3.00	1.13	0.00	158 °F	Green	09/14/14	8:36	250 (gpm)
150	9,448.00	90.90	2.60	4,733.75	5,019.88	5,013.02	262.71	5,019.90	3.00	3.04	0.00	158 °F	Green	09/14/14	9:33	250 (gpm)
151	9,512.00	90.30	2.40	4,733.08	5,083.87	5,076.95	265.50	5,083.89	2.99	0.99	0.00	158 °F	Green	09/14/14	10:17	250 (gpm)
152	9,543.00	91.00	2.80	4,732.73	5,114.87	5,107.92	266.91	5,114.89	2.99	2.60	0.00	160 °F	Green	09/14/14	11:02	250 (gpm)
153	9,618.00	91.90	3.70	4,730.83	5,189.84	5,182.77	271.16	5,189.86	2.99	1.70	0.00	160 °F	Green	09/14/14	11:47	250 (gpm)
TD	9,673.00	91.90	3.70	4,729.01	5,244.81	5,237.63	274.71	5,244.83	3.00	0.00						

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Total Correction: 4.46 East Grid

Vertical Section Plane: 2.84

Nominal Dip Angle: 65.07

Magnetic Field Strength: 0.516

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<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>

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<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: Knorp Farms 3410 34-2H
 Field/Block: Mississippi Lime
 Co./Parish: Barber Co.
 State: KS

PGS Job #: LKS6113314
 MWD Operator: Ken Mitchell
 Directional Driller: Kyle Underwood
 Date of First Survey: September 2, 2014
 Date of Last Survey: September 14, 2014



Total Correction: 4.46 East Grid

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Magnetic Field Strength: 0.516

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ALLIED OIL & GAS SERVICES, LLC 063166

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
MEDICINE LODGE 105

DATE <u>9-8-14</u>	SEC <u>34</u>	TWP. <u>34S</u>	RANGE <u>10 W</u>	CALLED OUT <u>1:00 AM</u>	ON LOCATION <u>3:00 AM</u>	JOB START <u>6:15 AM</u>	JOB FINISH <u>7:30 AM</u>
LEASE <u>KNORP FARMS</u>	WELL # <u>34-2H</u>	LOCATION <u>HAZELTON KS 1.7 S 1 E</u>			COUNTY <u>BARBER</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>1 S . 1 W 5 ENT0</u>				

CONTRACTOR NOMAC #7
 TYPE OF JOB INTERMEDIATE
 HOLE SIZE 8 3/4 T.D. 5295
 CASING SIZE 7" DEPTH 5284
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 84
 CEMENT LEFT IN CSG. 84 FT
 PERFS. _____
 DISPLACEMENT FRESH H2O 199 BBLs

OWNER THPSTONE ENERGY

CEMENT
 AMOUNT ORDERED 130 SX 50:50 POZ BLOWND
2% GGL .4% FL-160 .1% C51
90 SX CLASS A +.8% FL-160 .2% CD 31

EQUIPMENT

PUMP TRUCK CEMENTER SCOTT PRIDDY
 # 548-545 HELPER JUSTIN BOWEN
 BULK TRUCK
 # 819-823 DRIVER RON GILLEY
 BULK TRUCK
 # _____ DRIVER _____

COMMON <u>CLASS A 90</u>	@	<u>17.90</u>	<u>1611.00</u>
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC	@		

<u>ALLIED 50:50 POZ BLOWND</u>	<u>130</u>	@	<u>14.40</u>	<u>1872.00</u>
<u>FL-160</u>	<u>112</u>	@	<u>18.90</u>	<u>2116.80</u>
<u>SA-57</u>	<u>11</u>	@	<u>17.53</u>	<u>193.05</u>
<u>CD 31</u>	<u>17</u>	@	<u>10.30</u>	<u>175.10</u>
<u>SUPERFLUSH</u>	<u>20</u>	@	<u>58.70</u>	<u>1174.00</u>

HANDLING _____ @ _____
 MILEAGE 30% 2142.57
 TOTAL 7141.95

REMARKS:

DC14015
 KNORP FARMS 3410 342H
 NOMAC 7
 PH: 37
 11900
 9/8/2014

SERVICE

DEPTH OF JOB _____			
PUMP TRUCK CHARGE			<u>3099.25</u>
EXTRA FOOTAGE	@		
MILEAGE	<u>25</u>	@	<u>7.70</u>
MANIFOLD	@		<u>275.00</u>
<u>DETHACK TM</u>	<u>246.72</u>	@	<u>2.60</u>
<u>HANDLING FT³</u>	<u>227.25</u>	@	<u>2.45</u>
<u>LV</u>	<u>25</u>	@	<u>4.70</u>
<u>30% 1464.56</u>			
TOTAL			<u>4881.96</u>

CHARGE TO: THPSTONE ENERGY
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>TDD RUBBER PLUG</u>	@	<u>99.45</u>
<u>BOTTOM RUBBER PLUG</u>	@	<u>79.00</u>
<u>SURF SEAL FLOYD COLLAR</u>	@	<u>897.00</u>
<u>FLOAT SHOES</u>	@	<u>750.00</u>
<u>THREAD LOCIC</u>	@	<u>85.00</u>
<u>-30% 570.14</u>		

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was

Date 9-8-14 District M.L. 22 Ticket No. 62039
 Company Tapstone Rig Nomecc #7
 Lease Kappa Farms Well No. 3410 34-2H
 County Barber State KS
 Location Hazleton Ks 1.75, 1F Field _____
IS, 1W, SIN

CEMENT DATA:
 Spacer Type: 20 Bbls Super Flush
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 7" Type _____ Weight 26# Collar _____

LEAD: Pump Time _____ hrs. Type 50:50+2% gel
+ .4% FI-160 + .1% SASI Excess _____
 Amt. 130 Sks Yield 1.40 ft³/sk Density 13.6 PPG _____
 TAIL: Pump Time _____ hrs. Type Class 'A' + 2.8%
FI-160 + .2% CO-31 Excess _____
 Amt. 90 Sks Yield 1.18 ft³/sk Density 15.6 PPG _____
 WATER: Lead 6.75 gals/sk Tail 5.17 gals/sk Total 32 Bbls.

Casing Depths: Top _____ Bottom _____

Pump Trucks Used 548-545
 Bulk Equip. 819-823

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 8 3/4 T.D. 5295 ft. P.B. to _____ ft.

Float Equip: Manufacturer _____
 Shoe: Type DOWN SET FLOAT SHOE Depth 5283
SHURG SEAL FLOAT COLLAR Depth 5198
 Float: Type _____ Plugs Top RUBBER Btm. RUBBER

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 1.0383 Lin. ft./Bbl. 26.14
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. 1.0268 Lin. ft./Bbl. 37.3484
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type Fresh H2O Amt. 199 Bbls. Weight 8.33 PPG _____
 Mud Type _____ Weight _____ PPG _____

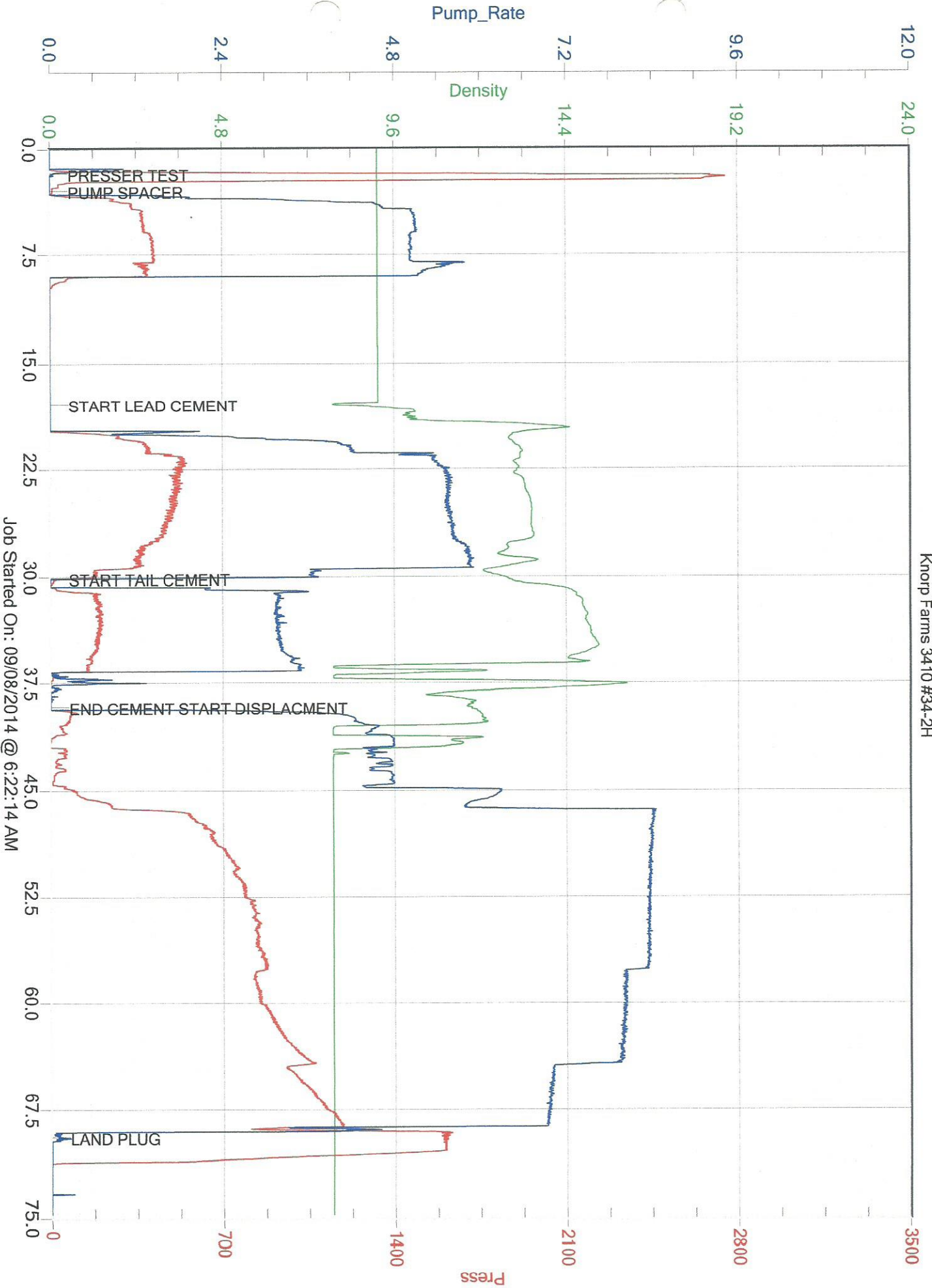
COMPANY REPRESENTATIVE _____

CEMENTER SCOTT PRIDD

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
3:00 AM						ON LOCATION TAILGATE MEETING
						SPOT TO RIG UP
						PREJOB SAFETY MEETING
6:25 AM		2300				PRESSURE TEST
6:25 AM		400		20	5	PUMP SPACER
6:30 AM						SHUT DOWN RELIEVE BOTTOM PLUG
6:35 AM		600		32 1/2	5	PUMP LEAD CEMENT
6:50 AM		300		19	3	PUMP TAIL CEMENT
7:00 AM						SHUT DOWN RELIEVE TOP PLUG
7:00 AM		600			6.5	START DISPLACEMENT
7:15 AM						LAND BOTTOM PLUG
7:20 AM		1100		190	3	SLOW RATE
7:30 AM		1600		199	3	BUMP PLUG
						RELIEVE PRESSURE
						FLOAT DID HOLD

FINAL DISP. PRESS: 1100 PSI BUMP PLUG TO 1600 PSI BLEEDBACK 1 1/2 BBLs. THANK YOU

Tapstone Energy
Knorp Farms 34:10 #34-2H



Job Started On: 09/08/2014 @ 6:22:14 AM



Depend on US

Post Job Report

Tapstone Energy

9/1/2014

Knorp Farms 3410 34-2H

Barber County, KS





Tapstone Energy
Knorp Farms 3410 34-2H
Barber County, KS.

Table of Contents:

1.0 Executive Summary.....3

2.0 Job Summary.....4

 2.1 Job Event Log.....4

 2.2 Job Summary Chart.....5

3.0 Customer Satisfaction Survey.....6



Tapstone Energy
Knorp Farms 3410 34-2H
Barber County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Knorp Farms Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 2000 psi. After a successful test we began the job by pumping 10 bbls of preflush spacer. We then mixed and pumped the following cements:

85 Bbls (255 sacks) of 12.7 ppg Lead slurry:
65:35 Class A:Poz Blend - 1.87 Yield
6.0% Gel
2%cc
¼# Floseal

32 Bbls (150 sacks) of 15.6 ppg Tail slurry:
2% cc 1.20 Yeild
¼# Floseal

The top plug was then released and displaced with 57.25 of fresh water. The plug bumped and pressured up to 1000 psi. Pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

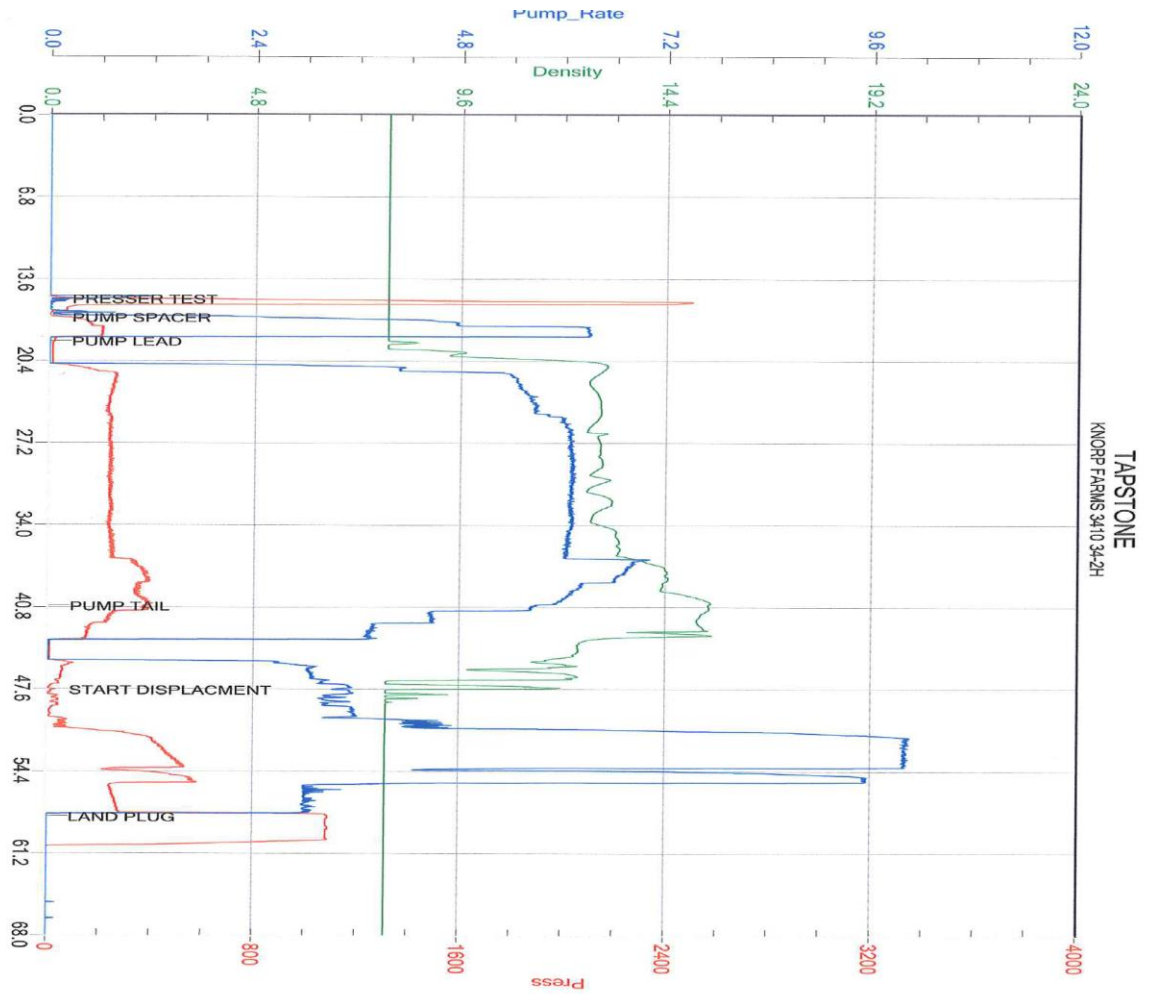


2.0 Job Summary

2.1 Job Log

Time	Pressures PSI		Fluid Pumped Data			Remarks
	AM /PM	Drill Pipe /Casing	Annulus	Total Fluid	Pumped per Period	
						Held Safety Meeting
						Rig Up
						Pre-Job Safety Meeting
						Finish Rig Up
8:00pm	2000		.25		.25	Pressure Test Lines
8:05pm	200		85		6	Pump Spacer
8:08pm	240		32		6	Mix & Pump Lead Cement (255 sacks)
8:23pm	300		32		5	Mix & Pump Tail Cement (150 sacks)
						Cement in stop pumps + release plug
8:30pm	0		1		3	Start fresh water displacement
	400		10		10	Continue Displacement
	270		50		3	Slow Rate
8:45pm	1000		57.25		3	Bump Plug
						Release psi float held
						Cement did circulate
						Circulate 49 Bbls

2.2 Job Summary Chart





Tapstone Energy
 Knorp Farms 3410 34-2H
 Barber County, KS.

3.0 Customer Satisfaction Survey

Customer: Tapstone
 Date: 9.1.14
 Well Name: Knorp Farms 3410 34-2H
 Well Location: Vic Hazelton KS
 Supervisor: Jake Heard
 Equipment Operators: Justin - pump Wayne - Roll



Performance	Customer	
Was the appearance of the personnel and equipment satisfactory?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Was the job performed in a professional manner?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Were the calculations prepared and explained properly?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Were the correct services dispatched to the job site?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Were the services performed as requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Did the job site environment remain unchanged?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Did the equipment perform in the manner expected?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Did the materials meet your expectations?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Was the crew prepared for the job?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Was the crew prompt in the rig-up and actual job?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Were reasonable recommendations given, as requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Did the crew perform safely?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Was the job performed to your satisfaction?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Customer Signature: <u>Shyann Seane</u> Date: <u>9/1/14</u>		
Additional Comments:		