



KANSAS CORPORATION COMMISSION 1054468  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1054468

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  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				

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
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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 (Specify) _____	PRODUCTION INTERVAL: _____ _____
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# Well Report

## HUMMER 16C-28

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**API Number:**

**Project Area:**

SYCAMORE  
KS Wilson  
30S - 14E - 28  
1005FS1 - 980FEL

**AFE Number:** G01013600900

**AFE Amount:** \$0.00

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Activity Date	Activity Description
12/2/2010	MIRU THORNTON DRILLED 11" HOLE 40' DEEP, RIH W/2 JOINTS 8-5/8" SURFACE CASING MIXED 8 SX TYPE 1 CEMENT, DUMPED DOWN THE BACKSIDE. SDFN
12/3/2010	TIH W/ 6 3/4" BIT, HAMMER AND DRILL PIPE, DRILLED OUT FROM UNDER SURFACE TO 1237' TD, CATCHING SAMPLES AT ZONES OF INTEREST. RD DRILL RIG, RU OSAGE WIRELINE PULL LOGS FROM LOGGER DEPTH TO SURFACE. SDFN
12/6/2010	MI PU, RIH W/31 JOINTS 4-1/2" CASING, RIG UP CONSOLIDATED, BREAK CIRCULATION WITH 25 BBLs FRESH WATER WASHED DOWN 15' TO PBD PUMP 10 SKS GEL FLUSH W/HULLS, 25 BBLs CAUSTIC PRE-FLUSH, 10 BBLs DYE WATER MIXED 135 SKS THKSET CMT W/8#KOL-SEAL,1/8# PHENOSEAL PER SK., 1/2% CFL-110, 1/4% CAF-38 @ 13.4#/GAL YIELD 1.75. WASHED OUT PUMP AND LINES SHUTDOWN, RELEASE PLUG, DISPLACE W/19.1 BBLs FRESH WTR. FINAL PUMPING PRESSURE 600 PSI, BUMP PLUG TO 1100 PSI. WAIT 2 MINUTES, RELEASE PRESSURE, FLOAT HELD GOOD CEMENT RETURNS TO SURFACE, 42 BBLs SLURRY, 8 BBLs TO PIT. RD MOL.  CSG STRING: 31 JOINTS 4-1/2" LANDED CSG @ 1202.8' PBD - 1202.8' TD 1237"
12/16/2010	MOL RU Osage Wireline and Consolidated Oil Well Servicing. Osage RIH and ran CBL-CCL-VDL Log from 1193' to surface. Good Bond all depths. Osage Perfed the Cattleman sands from 1140' to 1150' with 2 spf, 180 degree phase, and 25 gm charges. Total 21 holes. Consolidated rigged up and spotted 100 gallons 15% HCL across Cattleman perfs. Pumped 200 gallons additional (300 gal total) 15% HCL and fracked Cattleman with 83 bbls PAD (25 ppt gelled water with 2% KCL & biocide) followed with 4,000 lbs of 16/30 and 8,000 lbs of 12/20 sand @ 0.25 - 3 ppg concentrations. Flushed with 23 bbls gel. Breakdown 1564 psig, ISIP 679 psig, 5 min 540 psig, 10 min 522 psig, 15 min 514 psig, ATP 950 psig, MTP 1020 psig, ATR 24 BPM, MTR 24 BPM. TOTAL JOB: 12,000 lbs 16/30 & 12/20 sand, 300 gallons 15% HCL, and 396 bbls gelled water SI WELL AFTER FRAC TO ALLOW GEL TO BREAK

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**12/17/2010**

TIH W/ TBG WASHED TO TD TIH W/ RODS SPACED ROD STRING HUNG ON JACK.  
WASHED 45' OF SAND

TBG STRING

36- 2 3/8 TBG

1-8',1-6',1-4'- SUBS

SN @ 1154

15' OEMA @ 1169

ROD STRING

45- 3/4 RODS

1-8',1-6' PONYS

1 1/2 X 6' BHD CUP INST PMP

1 1/8 X 11' POLISH ROD

Air Drilling Specialist  
Oil & Gas Wells

**THORNTON AIR ROTARY, LLC**  
Office Phone: 620-879-2073

PO Box 449  
Candy, KS 67333

Date Started	<b>12/2/2010</b>
Date Completed	<b>12/3/2010</b>

Well No.	Operator	Lease	A.P.I.#	County	State
<b>16C-28</b>	<b>Layne Energy Operating</b>	<b>Hummer</b>	<b>15-205-27889-00-00</b>	<b>Wilson</b>	<b>Kansas</b>

			Sec.	Twp.	Rge.
1/4	1/4	1/4	<b>28</b>	<b>30</b>	<b>14E</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Billy, Sean</b>	<b>Oil</b>	<b>8</b>	<b>40' 8 5/8</b>	<b>1237</b>	<b>6 3/4</b>

### Formation Record

0-8	DIRT	911-949	SHALE		
8-50	SHALE	949-972	LIME (OSWEGO)		
50-119	LIME	972-981	BLK SHALE (SUMMIT)		
119-208	SHALE	981-989	LIME		
208-344	LMY SHALE	989-994	BLK SHALE (EXCELLO)		
344-370	SAND	994-995	COAL		
370-400	SANDY SHALE	995-997	LIME		
411	WENT TO WATER	997-1000	SHALE		
400-460	SHALE	1000-1015	SAND		
460-476	LIME	1015-1039	SHALE		
476-483	SHALE	1039-1040	COAL		
483-574	LIME	1040-1057	SHALE		
574-580	SHALE	1057-1058	LIME		
580-596	SAND	1058-1060	SHALE		
596-615	LIME	1060-1061	COAL		
615-619	SHALE	1061-1067	SAND		
619-655	LIME	1067-1097	SANDY SHALE		
655-713	SHALE	1097-1098	COAL		
713-726	LMY SHALE	1098-1118	SHALE		
726-751	SANDY SHALE	1118-1142	SANDY SHALE		
751-766	LIME	1142-1159	SAND / ODOR		
766-780	SAND	1159-1167	SANDY SHALE		
780-786	SANDY SHALE	1167-1180	SHALE		
786-825	SHALE	1180-1186	SAND / LITE ODOR		
825-857	SAND	1186-1237	SANDY SHALE		
857-873	SHALE	1237	TD		
873-900	LIME				
900-903	BLACK SHALE				
903-906	LIME				
906-911	BLACK SHALE				



**CONSOLIDATED**  
Oil Well Services, LLC

**ENTERED**

TICKET NUMBER **30025**

LOCATION **Eureka**

FOREMAN **Troy Strickler**

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8678

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																
12-6-10	4758	Hummer 16C-28				Wilson																
CUSTOMER <b>Layne Energy</b>			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>445</td> <td>John</td> <td></td> <td></td> </tr> <tr> <td>479</td> <td>Ed</td> <td></td> <td></td> </tr> <tr> <td>437</td> <td>Shannon</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	445	John			479	Ed			437	Shannon		
TRUCK #	DRIVER	TRUCK #					DRIVER															
445	John																					
479	Ed																					
437	Shannon																					
MAILING ADDRESS <b>P.O. Box 160</b>																						
CITY <b>Sycamore</b>	STATE <b>Ks</b>	ZIP CODE																				

JOB TYPE L/S '0' HOLE SIZE 6 3/4" HOLE DEPTH 1237' CASING SIZE & WEIGHT 1 1/2"  
 CASING DEPTH 1203' DRILL PIPE TUBING OTHER  
 SLURRY WEIGHT 13.4" SLURRY VOL 42.861 WATER gal/sk 8" CEMENT LEFT IN CASING 0'  
 DISPLACEMENT 19.1861 DISPLACEMENT PSI 600 MIX PSI 1100 @ 1/2" RATE

REMARKS: Safety Meeting Rig up to 4 1/2" casing. Break Circulation w/ 25861 Fresh water. Wash down 15' to PBTD of 1203'. Pump 10SK Gel-Flush w/ hulls. Pump 25861 water. Rig up to Cement. Pump 10661 Caustic Soda Pic-Flush, 5861 water spacer, 10861 Dry water. Mixed 13.5% Thick Set Cement w/ 8" Kol-Seal, 1/2" Phenoseal, 1/2" FL-110 + 1/2" CAF-38 @ 13.4#/gal. Wash out Pup + liner. Release Plug. Displace w/ 19.1 861 Fresh water. Final Pump Pressure 600 PSI. Pump Plug to 1100 PSI. Wait 2 min. Release Pressure. Float Held. Good Cement to surface = 8861 Slurry to pit.  
Job complete.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	925.00	925.00
5406	40	MILEAGE	3.65	146.00
1126A	135361	Thick Set Cement	17.00	2295.00
1110A	1080"	8" Kol-Seal 1sk	.42	453.60
1107A	17"	1/2" Phenoseal 1sk	1.15	19.55
1135	68"	1/2" FL-110	7.50	510.00
1146	34"	1/2" CAF-38	7.70	261.80
1118A	500"	Gel-Flush	.20	100.00
1105	50"	hulls	.39	19.50
1103	100"	Caustic Soda	1.45	145.00
5407A	7.43	Ton-mileage Bulk Truck	1.20	356.64
1123	300gal	City Water	14.90/m	44.70
5502C	4hrs	80811 Vac-Trench	85.00/hr	340.00
4404	1	4 1/2" Top Rubber Plug	45.00	45.00
		Sub Total		5661.79
		SALES TAX 6.3%		245.35
		ESTIMATED TOTAL		5907.14

Rev'n 3737

AUTHORIZATION Troy Strickler TITLE Oil Well Services DATE 12/6/10

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.