

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

ORIGINAL Form ACO-1
September 1999
Form Must Be Typed

WICHITA, KS

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33365	APł No. 15 - 125-31782-00-00
Name: Layne Energy Operating, LLC	County: Montgomery
Address: 1900 Shawnee Mission Parkway	NENENE_ Sec. 6 Twp. 31 S. R. 14
City/State/Zip: Mission Woods, KS 66205	350 feet from S / (N) (circle one) Line of Section
Purchaser: CANTED TO 1	350 feet from (E) W (circle one) Line of Section
Operator Contact Borney, Timothy H. Wright	Footages Calculated from Nearest Outside Section Corner:
Phone: (913) 748-3960	(circle one) NE SE NW SW
Contractor: Name: Thornton Air Rotary	Lease Name: Ratzlaff Well #: 1-6
License: 33606	Field Name: Cherokee Basin Coal Area
Wellsite Geologist:	Producing Formation: Cherokee Coals
Designate Type of Completion:	Elevation: Ground: 973' Kelly Bushing:
New Well Re-Entry Workover	Total Depth: 1487' Plug Back Total Depth: 1475'
OilSWDSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 22 Feet
	Multiple Stage Cementing Collar Used?
	If yes, show depth setFeet
Dry Other (Core, WSW, Expl., Cathodic, etc)	If Alternate II completion, cement circulated from 1475
If Workover/Re-entry: Old Well Info as follows:	feet depth to Surface w/ 155 sx cmt.
Operator:	
Well Name:	Drilling Fluid Management Plan AHI NO 4-13-09
Original Comp. Date: Original Total Depth:	(Data must be collected from the Reserve Fity
Deepening Re-perf Conv. to Enhr./SWD	Chloride content N/A ppm Fluid volume bbls
Plug Back Total Depth	Dewatering method used N/A - Air Drilled
Commingled Docket No.	Location of fluid disposal if hauled offsite:
Dual Completion Docket No	Operator Name:
Other (SWD or Enhr.?) Docket No.	
10/21/2008 10/23/2008 11/25/2008	Lease Name: License No.: Quarter Sec. Twp. S. R. East West
Spud Date or Date Reached TD Completion Date or Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workov Information of side two of this form will be held confidential for a period of 107 for confidentiality in excess of 12 months). One copy of all wireline log-TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. All requirements of the statutes, rules and regulations promulgated to regulations.	th the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, ver or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 12 months if requested in writing and submitted with the form (see rule 82-3-13) and geologist well report shall be attached with this form. ALL CEMENTING Is. Submit CP-111 form with all temporarily abandoned wells.
herein are complete and correct to the best of my knowledge.	
Signature:	KCC Office Use ONLY
Title: Project Engineer Date: 1/21/99	Letter of Confidentiality Attached
19	If Denied, Yes Date:
Subscribed and sworn to before me this 1 day of 4 will	
20.09.	Wireline Log Received RECEIVED Geologist Report ReceivenNSAS CORPORATION COMMS
Notary Public: Mac Jaughlen Warlen	UC Distribution
1-4-2013	MacLAUGHLIN DARLING JAN 3 0 2009 Notary Public - State of Kansas
Date Commission Expires: / 1 001	My Appt. Expires 4-20/3 CONSERVATION DIVISION

Side Two

KCC JAN ? C 2018

Operator Name: Layne Energy Operating, LLC

Lease Name: Ratzlaff CONFIDER County: _Montgomery Sec. 6 Twp. 31 S. R. 14 Fast West 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 copy of all Electric Wireline Logs surveyed. Attach final geological well site report. **Drill Stem Tests Taken** ☐ Yes No **✓** Log Formation (Top), Depth and Datum Sample (Attach Additional Sheets) Name Top Datum √ Yes Samples Sent to Geological Survey No -20 Pawnee Lime 993 GL **V** No Cores Taken Yes Electric Log Run Excello Shale 1109 GL -136 (Submit Copy) -204 V-Shale 1177 GL List All E. Logs Run: -247 Mineral Coal 1220 GL Compensated Density Neutron **Dual Induction** 1440 GL -467Mississippian CASING RECORD ✓ New Used Report all strings set-conductor, surface, intermediate, production, etc. Size Casing Set (In O.D.) Weight Lbs. / Ft. Type and Percent Size Hole Setting Type of Cement # Sacjs Purpose of String Depth Used Additives 22' Surface 11" 8.625" 24 Class A 4 Type 1 cement 6.75" 4.5" 10.5 1475' Thick Set 155 50/50 posmix w/2% get Casing ADDITIONAL CEMENTING / SQUEEZE RECORD Purpose: Depth Type of Cement **#Sacks Used** Type and Percent Additives Top Bottom Perforate Protect Casing Plug Back TD Plug Off Zone PERFORATION RECORD - Bridge Plugs Set/Type Acid, Fracture, Shot, Cement Squeeze Record Shots Per Foot Specify Footage of Each Interval Perforated (Amount and Kind of Material Used) Depth See Attached Page RECEIVED KANSAS CORPORATION COMMISSION JAN 3 0 2009 CONSERVATION DIVISION WICHITA, KS TUBING RECORD Size Set At Packer At Liner Run **✓** No Yes 2-3/8" 1281' Date of First, Resumerd Production, SWD or Enhr. **Producing Method** Flowing Pumping Gas Lift Other (Explain) 12/4/2008 **Estimated Production** Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity Per 24 Hours 0 5 Disposition of Gas METHOD OF COMPLETION Production Interval Vented

✓ Sold Used on Lease Open Hole Perf. Dually Comp. Commingled _ (If vented, Submit ACO-18.) Other (Specify)

Operator Name:	Layne Energy Operating, LLC.		
Lease Name:	Ratzlaff 1-6		1
	Sec. 6 Twp. 31S Rng. 14E, Montgomery County		
API:	15-125-31782-00-00		
Shots per Foot	Perforation Record	Acid, Fracture, Shot, Cement Squeeze Record	Depth
	Initial Perforation	ons (November 2008)	
4 M		2800 lbs 20/40 sand	
	Mineral 1219.5' - 1221'	187 bbls water	1219.5' - 1221'
		100 gals 15% HCl acid	
A 1	Croweburg 1177' - 1179.5' Bevier 1158.5' - 1160'	6000 lbs 20/40 sand	
		390 bbls water	1158.5' - 1179.5
		400 gals 15% HCl acid	
Δ.	Mulky 1109' - 1112.5' Summit 1096.5' - 1098.5'	7500 lbs 20/40 sand	
		424 bbls water	1096.5' - 1112.5
		450 gals 15% HCl acid	
<u>-</u>			

KCC IAN 2 9 2003 COXFIDENTIAL

RECEIVED KANSAS CORPORATION COMMISSION

JAN 3 0 2009

CONSERVATION DIVISION WICHITA, KS

GEOLOGIC REPORT

LAYNE ENERGY
Rattzlaff 1-6
SE SE, 350 FSL, 350 FEL
Section 6-T31S-R14E
Montgomery County, KS

Spud Date:	10/21/2008
Drilling Completed:	11/25/2008
Logged:	10/23/2008
A.P.I. #:	15125317820000
Ground Elevation:	973'
Depth Driller:	1487'
Depth Logger:	1486'
Surface Casing:	8.625 inches at 22'
Production Casing:	4.5 inches at 1475'
Cemented Job:	Consolidated
Open Hole Logs:	Dual Induction SFL/GR, Litho Density /
•	Neutron Logs

Formation	Tops			
	(below ground)	(subsea)		
Quaternary	Surface (Alluvium)	973		
Pawnee Limestone	993	-20		
Excello Shale	1,109	-136		
"V" Shale	1,177	-204		
Mineral Coal	1,220	-247		
Mississippian	1,440	-467		



RECEVEL KANSAS CORPORATION COMMISSION

JAN 3 0 2009

CONSERVATION DIVISION WICHITA, KS

Daily Well Work Report

RATZLAFF 1-6 10/21/2008

Well Location: MONTGOMERY KS 31S-14E-6 NE NE NE 350FNL / 350FEL

Cost Center Lease Number Property Code API Number

G01014200500 G010142 KSSY31S14E0601 15-125-31782

First Compl **First Prod EFM Install** CygnetID Spud Date **RDMO Date** 10/21/2008 10/23/2008 11/25/2008 12/4/2008 12/4/2008 RATZLAFF 1 6

Sf Csg Depth Pr Csg Depth Tbg Size **Csg Size** TD **PBTD** 1475 0 0 1487 1475 22

Reported By KRD Rig Number

Date

10/21/2008

Taken By **KRD**

Down Time

Present Operation DRILL OUT SURFACE

Contractor

THORNTON DRILLING

Narrative

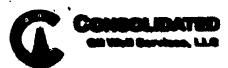
MIRU THORNTON DRILLING, DRILLED 11" HOLE, 22' DEEP, RIH W/1 JT 8 5/8" SURFACE CASING, MIXED 4 SX TYPE 1 CEMENT, DUMPED DOWN THE BACKSIDE. SDFN. DWC:\$2880

JAN 2 0 2008

RECEIVED KANSAS CORPORATION COMMISSION

JAN 3 0 2009

CONSERVATION DIVISION WICHITA, KS





TICKET NUMBER 20258

LOCATION EUROPE

FOREMAN HELD MECON

PO Box 884, Chanute, KS 66720 620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER#	WELL NAME & NUMBER		BER	SECTION	TOWNSHIP	RANGE	COUNTY
10-24-08	4758	RATZIAGE 1-6		6	3/5	145	100	
CUSTOMER							Annual Control of the	and the state of t
LAYNE	ENERGY] Gus	TRUCK#	DRIVER	TRESERVE	ORIVER
MAILING ADDRI	ESS			Jones	445	Justin		
P.O. B.	ex 160				439	CAlm		
CITY		STATE	ZIP CODE	7				
Sycamor	Re	Ks	ļ					
JOB TYPE LON	Igstring	HOLE SIZE	63/4	_ _ HOLE DEPTI	1487	CASING SIZE & V	VEIGHT #	A. S. INCW
244		_TUBING						
SLURRY WEIGHT 13.2 SLURRY VOL 48 864		WATER gal/s	l/sk 8.° CEMENT LEFT in CASING 0 '			Market No. 1 og 1011par pagetid		
DISPLACEMENT	T 23.8 Bbl	DISPLACEMEN	T P81 <u>700</u>	MIK PSI /20	00 Bump Plug	RATE		
						eculation w		
						PACE MARCE		
Set Ceme	wt w/8"	KOL-SEAL	15K 1/2%	CFL-110	1/4 % CAF-	38 18 Phe	NO SOL 15	K @ 13.
19AL. VIS	eld 1.75.	wash out	Pump \$ 4	INES. Sh	ut down. K	Pelease Plug.	Disal	29.8
BLL FRES	h water. 7	FINAL PUM	eing PACES	ure 700 /	PSI. Bump 1	9/00 to 1200	ASI. MARK	Mondes
Release Pi	pessure. fl	DAT Held.	Good Ce	ment Retu	IRNS to SURI	CACE = 10 860	Show the	PH.
	plete- Rig							

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNITHREE	TOTAL
5401		PUMP CHARGE	745.00	945.00
5406	40	MILEAGE	345	146-00
1126 A	155 sks	THICK Set General	17.00	£35.00
1110 A	1240 4	1/101-3576 0 /38	. 42	Sto. 80
1135	75 *	CFC-110 1/2 1/2 MAM 2 9 2019	7.50	582.50
1146	37	CAF-38 14 %.	7.70	224.90
1107 A	20 *	Pheno Seal 1/8 /SK CONTROL	1.15	23.00
1118 A	500 *	Gel frush	.17	\$5.00
1105	50 d	Halls	. 37. *	19.50
5407 A	8.53 -Tons	40 miles BULK TRUCK RECEIVED 41/2 Top Rubber Plug KANSAS CORPORTION COMMISS JAN 3 0 2009	1.20	409.44
4404		4/2 Top Rubber Plug KANSASCORPOTO	45.00	45.00
		JAN 3 0 2009	,	Yan wa
		CONSERVATION DIVISION OF THE WIEDLITA KE		
	**************************************			356.14
win 3737		THANK YOU 5.3%	SALES TAX	##/. 报

AUTHORIZTION WHIVESTED BY JACOB

TITLE LAYNE Co. Rep.

DATE