

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION 1155852

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 #	API No. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from Cast / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
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:	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.
Operator:	
Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
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 #: Permit #: Dual Completion Permit #: Permit #: SWD Permit #: Permit #: ENHR Permit #: Permit #:	Chloride content: ppm Fluid volume: bbls Dewatering method used: bbls Location of fluid disposal if hauled offsite: Operator Name: Lease Name: Quarter Sec. S. R
GSW Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date Recompletion Date	

AFFIDAVIT

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

Submitted Electronically

	Side Two	1155852
Operator Name:	Lease Name:	Well #:
Sec TwpS. 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 (Attach Additional Sh	eets)	Yes No		-	n (Top), Depth and		Sample
Samples Sent to Geolog	gical Survey	Yes No	Nar	ne		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitted B (If no, Submit Copy)	Electronically	 Yes No Yes No Yes No 					
List All E. Logs Run:							
		CASIN		lew Used			
		Report all strings se	et-conductor, surface, in	termediate, producti	on, 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: —— Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD				
Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated					e			ement Squeeze Record d of Material Used)	Depth
TUBING RECORD:	Siz	ze:	Set At:		Packer	r At:	Liner R	un:	No	
Date of First, Resumed F	Product	ion, SWD or ENHF	λ .	Producing N	1ethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wate	ər	Bbls.	Gas-Oil Ratio	Gravity
DISPOSITIO	N OF C	BAS:			METHOD	OF COMPLE	TION:		PRODUCTION INT	ERVAL:
Vented Sold Used on Lease			Open Hole	Perf.	Dually (Submit)	Comp. AC <i>O-5)</i>	Commingled (Submit ACO-4)			
(If vented, Subi	mit ACC)-18.)		Other (Specify)						

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

No. 8000

Pho	ne	785	-48	3-20	02
Cell	78	5-32	4-1	04	t

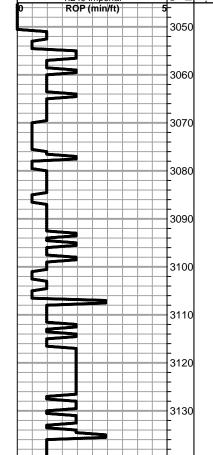
Home Office P.O. Box 32 Russell, KS 67665

Date 8-7-13	Sec.	Twp.	Range	11	County	State K 5	On Location	12.30A.m		
Date 3-2-101	21	Q		Locati	ion Brave	IW340RDA	EPRITA 3	20 Mint		
ALIAAA	2		Well No.	1.00000	Owner		nor - Antes P			
Lease A.WeCest			AAGII IAO'T		To Quality	Oilwell Cementing, In		at and furnish		
Contractor White Kni	Sht			-	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Type Job Sor take		1000	222		Charge Worth Ewloration					
Hole Size 12/4		1.5 11 1 1 1 1 1 1 1	223	-	123.578	North Equilation	D CA. L			
Csg. 818	_			8	Street		Chala			
Tbg. Size		Depth			City		State	er scent or contractor.		
Depth					The above	was done to satisfaction	and supervision of own	- JILEI		
Cement Left in Csg.	5	Shoe		_	Cement A	mount Ordered	Dum Stolle	Jule		
Meas Line			ACE 13BC	5				-		
	EQUIPA	1			Common	150				
Pumptrk / S Helpe		is.	-		Poz. Mix					
Buiktrk No. Driver	119	~			Gel	3				
Bulktrk & No. Driver	1	2		_	Calcium _	5				
	RVICES	& REN	ARKS		Hulls					
Remarks:					Salt					
1012 V/0 200 11					Flowseal					
Rat Hole					Kol-Seal					
Mouse Hole				_	Mud CLR 48					
Centralizers					CFL-117 or CD110 CAF 38					
Baskets										
D/V or Port Collar	-	1	1.000	a	Sand Handling 158					
S 18 on hotten	15	* Cic	atation L	ny	COLUMN AND A	100				
1505K + Disp	fact			Contraction of the	Mileage					
-1	1	1			FLOAT EQUIPMENT					
_ Ctment	C.	NU	wited 1	10	Guide Sh	1251	1984 Contract Contract Contract			
					Centraliz	er 5/8 50	sage			
	1				Baskets	The second second		15		
		1000	1 2 4	2.1	AFU Inse	arts	R. 7 8. 18			
		and the second		2.9	Float Sh	08	W 3 0 8			
A DESCRIPTION OF A		-	D 10 10 10	. d	Latch Do	nwo				
						10 M				
		100	N. Starte	1	S Pre					
				110	Pumptrk	Charge Surfa	nce			
1					Mileage	5/	And and a second			
	~				-			Тах		
		-	8 1 1 10	1	-		Disco	unt		
x Au	1		*		The second		Total Cha	rge		
Signature erry	au	an	~							

Company: Address:	OPERATOR ANDY WERTH dba WERTH E 1308 SCHWALLER AVENUE HAYS, KANSAS 67601	XPLORATION T	RUST			
Contact Geologist: Contact Phone Nbr: Well Name: Location: Pool: State:	ANDY WERTH 785-625-4968 A. WORCESTER #1 NW SW NE SE SEC.34 T6S F KANSAS	22W API: Field: Country:	15-065-23960-00-00 LAST HOPE NORTHEAST USA			
	Scale 1:240 Imperia	l				
Well Name: Surface Location: Bottom Location: API:	A. WORCESTER #1 NW SW NE SE SEC.34 T6S F 15-065-23960-00-00	22W				
License Number:	34743	Timor	E. 4E DM			
Spud Date: Region:	8/6/2013 GRAHAM COUNTY	Time:	5:45 PM			
Drilling Completed: Surface Coordinates: Bottom Hole Coordinates:	8/11/2013 1966 FSL & 1023 FEL	Time:	7:10 PM			
Ground Elevation: K.B. Elevation:	2244.00ft 2249.00ft					
Logged Interval: Total Depth:	3050.00ft 3870.00ft	To:	3870.00ft			
Formation: Drilling Fluid Type:	LANSING KANSAS CITY CHEMICAL/ FRESH WATER (GEL				
	SURFACE CO-ORDINA	TES				
Well Type:	Vertical					
Longitude: N/S Co-ord: E/W Co-ord:	1966 FSL 1023 FEL	Latitude:				
	LOGGED BY					
l l		0110				
		UNS ting				
Company: Address:	SOLUTIONS CONSULTING, I 108 W 35TH HAYS, KS 67601	NC				
Phone Nbr: Logged By:	(785) 639-1337 Geologist	Name:	STEVE REED/ HERB DEINES			
Contractor: Rig #:	CONTRACTOR WHITE KNIGHT DRILLING LL 1	С				
Rig Type: Spud Date:	MUD ROTARY 8/6/2013	Time:	5:45 PM			
TD Date:	8/11/2013	Time:	7:10 PM			
Rig Release:	8/12/2013	Time:	5:00 PM			
K.B. Elevation:	ELEVATIONS 2249.00ft Gro	und Elevation:	2244.00ft			
K.B. to Ground:	5.00ft					
	NOTES					
RECOMMENDATION TO PLUG DEVELOPMENT OF PRIMARY P						
GEOPHYSICAL WELL LOGGING RADIATION GUARD LOG AND N		OMPLETIONS A	ND PRODUCTION SERVICES CO:			
NO DRILL STEM TESTS WERE	PERFORMED.					

	WELL	NAME	COMP. WELL	COMP. WELL	COMP. WELL	COMP. WELL	
	A. WORCESTER #1		DAVIS #2	DAVIS #1	WORCESTER #1	WORCESTER #1	
FORMATION	SAMPLE	LOG TOPS	LOG TOPS	LOG TOPS	SW NW SE LOG TOPS	NE NE SE LOG TOPS	
ANHYDRITE	1895 + 354	1895 + 354	+353	+347	+353	+358	
B-ANHYDRITE	1927 + 322	1927 + 322	+321	+317	+322		
ΤΟΡΕΚΑ	3250 - 1001	3248 - 999	-999	-1004	-1011	-992	
HEEBNER SHALE	3452 - 1203	3449 - 1200	-1200	-1206	-1211	-1205	
TORONTO	3478 - 1229	3477 - 1228	-1226	-1231	-1237	-1231	
LKC	3494 - 1245	3494 - 1245	-1242	-1247	-1255	-1250	
MUNCIE CREEK SH.	3602 - 1353	3598 - 1349	-1350		-1360		
ВКС	3690 - 1441	3681 - 1432	-1437	-1439	-1443	-1437	
ARBUCKLE	3826 - 1577	3810 - 1561	-1573	-1585		-1591	

RTD & LTD	3870 - 1621 387	70 - 1621	-1629	-1634	-1558	-1663				
	SUMMARY OF DAILY ACTIVITY									
	8-6-13 RU, spud @ 5:45 pm, drilling, set 8 5/8" surface pipe to 223 w/150 sxs common 2% gel, 3%CC, plug down, WOC 8 hrs									
8-7-13	223', drilling									
8-8-13	1173', drilling									
8-9-13	2238' drilling, repair	r hole in pi	pe							
8-10-13	2916' drilling, repair	rotary tab	le							
8-11-13	3500' drilling, CFS @	3510', CFS	5 @ 3660' rea	ched 3870' R1	D at 7:10pm, Sł	nort trip.				
8-12-13	3870', Logging , P&A	, rig down								
		RC	OCK TYPES							
Cht ▲ ▲ ▲ ▲ Cht vari	Dol Lime		shale, grn shale, gry		Shcol Ss					
Chtcongl	Lmst fw7>		Carbon Sh shale, red		Cht gy					
	-	AC	CESSORIES							
MINERAL FOS				-						
△ Chert White										
OTHER SYMBOLS										
DST DST Int DST alt	DST Int									
				Printed by	<u>y GEOstrip VC S</u> tri	plog version 4.0.7.0	(www.grsi.ca			
Curve Track #1 ROP (min/ft)						Curve Tra	ack #3			
tervals										
Depth Intervals	Oil Show									
	DST 🗄 👸		Geolog	gical Descriptions						
D 22 Unterval D 22 Unterval D 20 Coded D 22 Unterval D 22 Unterval										
1:240 Imperial 0 0						1:240 lm	ıperial			



BEGIN 1' DRILL TIME FROM 3050' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 3050' TO RTD

ANHYDRITE TOP 1895' + 354 ANHYDRITE BASE 1927' + 322

Shale orange-brown-gray-green soft blocky pyrite

Shale various colors soft blocky

P P

N N

Sandstone well sorted, well rounded clusters with glauconite inclusions (tarkio)

Shales soft fissile various colors

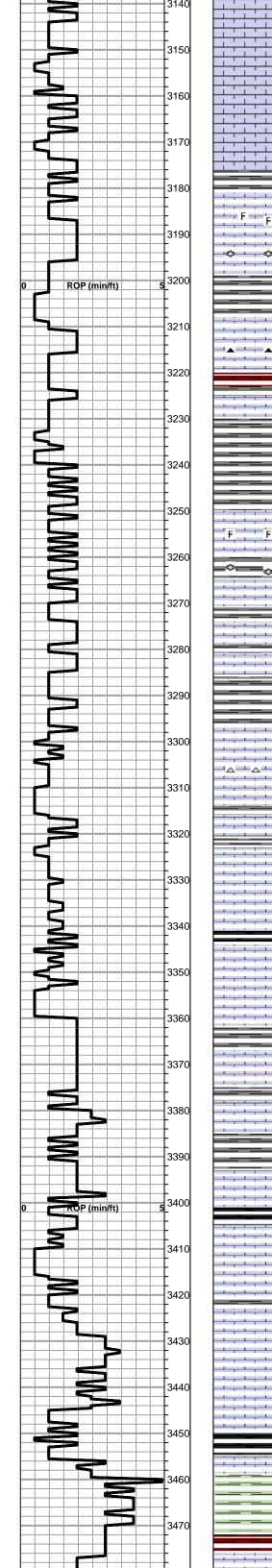
Lime, off white fnxIn, friable Sandstone, light gray sucrosic

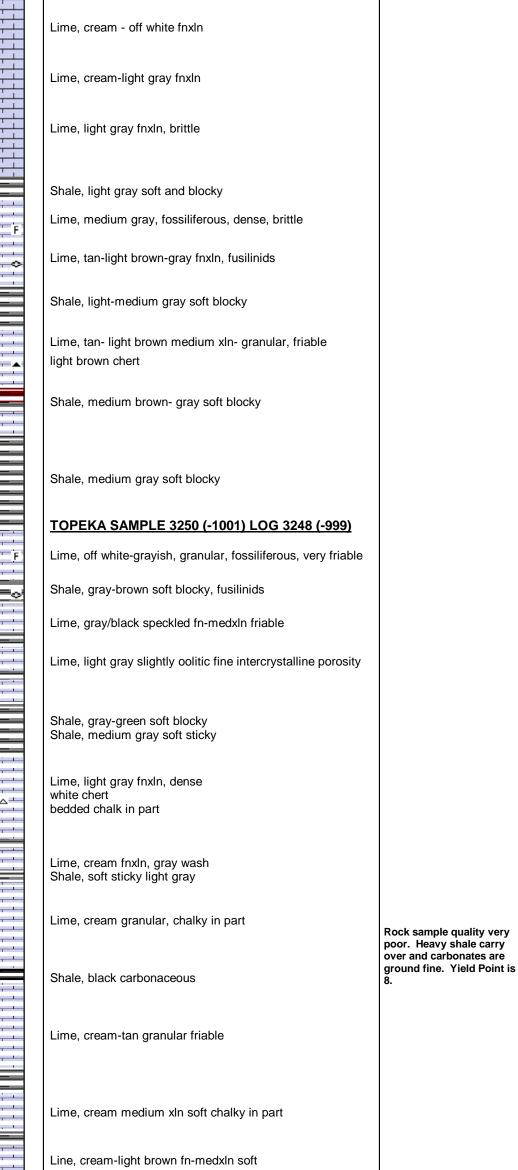
Lime, off white-gray fnxln, fossiliferous, low porosity

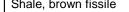
Lime, light gray, granular friable

Shales, soft blocky various colors

8 5/8' SURFACE CASING SET TO 218' W/150 SXS COMMON, 2% GEL, 3%CC







1

Lime, cream-off white oolitic, not well developed

Shale, black carbonaceous

Lime, cream-light gray oolitic in part, NSFO, no odor

Shale, gray soft and sticky

Lime, cream-off white fnxln dense

HEEBNER SAMPLES 3452 (-1203) LOG 3449 (-

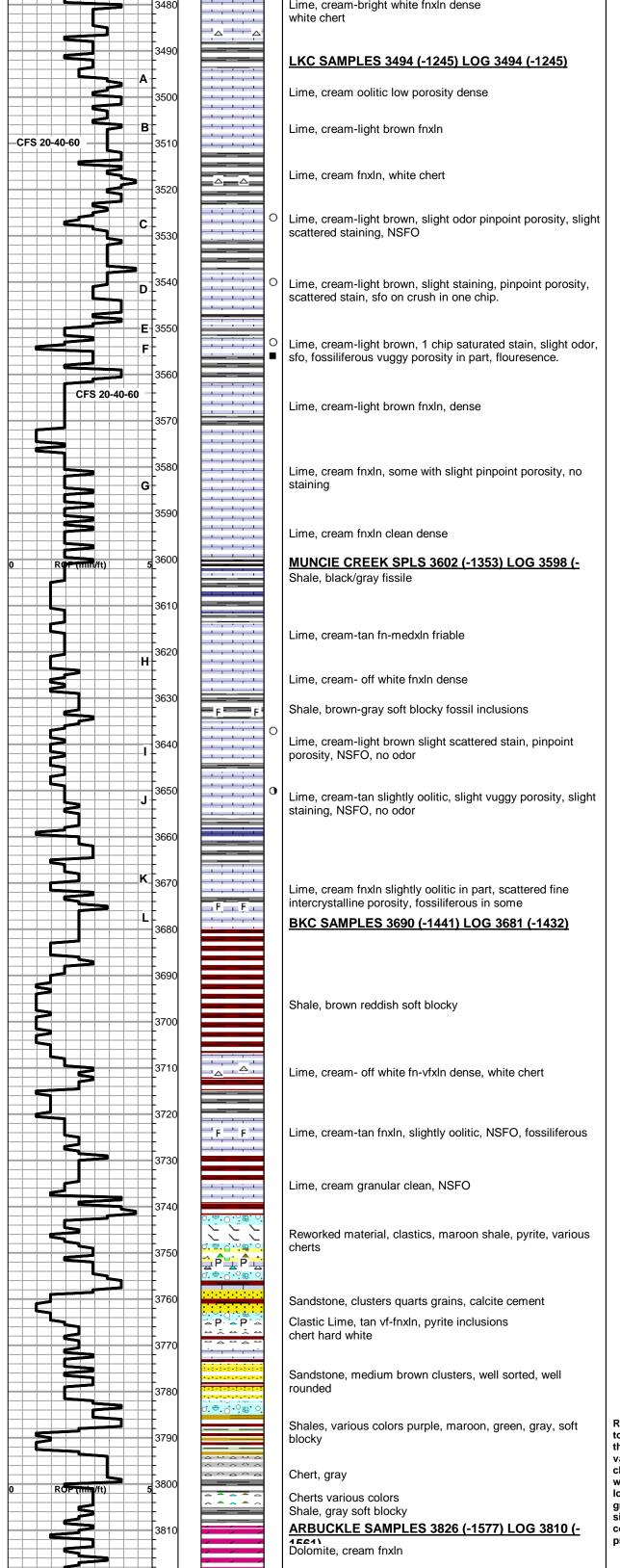
1200) Shale, black carbonaceous

Shale, dove gray/green soft blocky

Shale, reddish brown soft blocky

TORONTO SAMPLES 3478 (-1229) LOG 3477 (-

Note: rop spike at 3460 was caused by change in weight on the bit.



Rock samples continued to decline in quality throughout the well, various things were changed to correct this, with no success. Samples loaded with maroon and gray soft shale, carbonate sizes were very small. correlating samples proved to be very difficult.

