



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1212024  
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: \_\_\_\_\_

1212024

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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**JAMES C. MUSGROVE**

Petroleum Geologist, LLC  
212 Main Street  
P.O. Box 215  
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations  
T.P. Miller #1  
NE-SW-SW-NW (2300' FNL & 480' FWL)  
Section 31-16s-19w  
Rush County, Kansas

Page 1

**5 1/2" Production Casing Set**

**Contractor:** Southwind Drilling Co. (rig #3)  
**Commenced:** April 15, 2014  
**Completed:** April 21, 2014  
**Elevation:** 2082' K.B., 2080' D.F., 2074' G.L.  
**Casing program:** Surface; 8 5/8" @ 1103'  
Production, 5 1/2" @ 3899'  
**Sample:** Samples saved and examined 3300' to the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 3300 ft. to the Rotary Total Depth.  
**Measurements:** All depths measured from the Kelly Bushing.  
**Drill Stem Tests:** There were two (2) Drill Stem Tests ran by Trilobite Testing Co.  
**Electric Log:** By Nabors, Dual Induction, Compensated Density/Neutron and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	1308	+774
Base Anhydrite	1343	+739
Heebner	3401	-1319
Toronto	3419	-1337
Lansing	3444	-1362
Base Kansas City	3714	-1632
Marmaton	3753	-1671
Arbuckkle Sand	3829	-1747
Arbuckle	3834	-1752
Rotary Total Depth	3899	-1817
Log Total Depth	3900	-1818

(All top and zone determination were made from a correlation of Electric Log measurements).

**SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.**

**TORONTO SECTION**

3420-3427' Limestone, tan, gray, fossiliferous in part, chalky; no shows.

**LANSING SECTION**

- 3445-3451' Limestone, tan, white gray, slightly chalky, poor porosity, no shows.
- 3468-3480' Limestone, white, cream, gray, oomoldic, fair oomoldic porosity, brown stain, show of free oil and faint to fair odor fresh samples.

**Drill Stem Test #1 3460-3485**

**Times: 30-30-45-60**

**Blow: Weak**

**Recovery: 1' clean oil  
 19' slightly oil cut mud  
 (10% oil; 90% mud)  
 60' muddy water**

**Pressures: ISIP 680 psi  
 FSIP 690 psi  
 IFP 13-29 psi  
 FFP 31-48 psi  
 HSH 1700-1635 psi**

- 3490-3497' Limestone, white, cream oomoldic, scattered oomoldic porosity, chalky; no shows.
- 3524-3540' Limestone, white, tan, fossiliferous/oolitic, chalky increasingly cherty, poorly developed porosity, no shows.
- 3546-3560' Limestone, white, gray, oomoldic, few oolitic, fair oomoldic porosity, no shows.
- 3594-3600' Limestone, white, oolitic, sub-oomoldic, fair oomoldic porosity, no shows.
- 3618-3634' Limestone, tan, highly oolitic/fossiliferous, poor visible porosity.
- 3640-3652' Limestone, tan, oolitic, few medium crystalline, oomoldic in part; fair to good oomoldic to vuggy type porosity, no shows.
- 3666-3680' Limestone, gray, fossiliferous, chalky; poor visible porosity, no shows

**MARMATON SECTION**

- 3753-3796' Limestone, tan, fossiliferous/oolitic, slightly chalky, poor porosity, poor light brown stain, trace of free oil and no odor in fresh samples



Mai Oil Operations  
T.P. Miller #1  
NE-SW-SW-NW (2300' FNL & 480' FWL)  
Section 31-16s-19w  
Rush County, Kansas

Page 4

**Rotary Total Depth**            **3899**  
**Log Total Depth**            **3900**

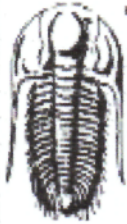
**Recommendations:**

The 5 ½ Production Casing Set and cemented on the T&P Miller #1.

Respectfully submitted;

*James C. Musgrove*  
James C. Musgrove  
Petroleum Geologist





**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Mai Oil Operations, Inc.  
 8411 Preston Rd  
 Ste 800 Dallas TX 75225  
 ATTN: Jim Musgrove

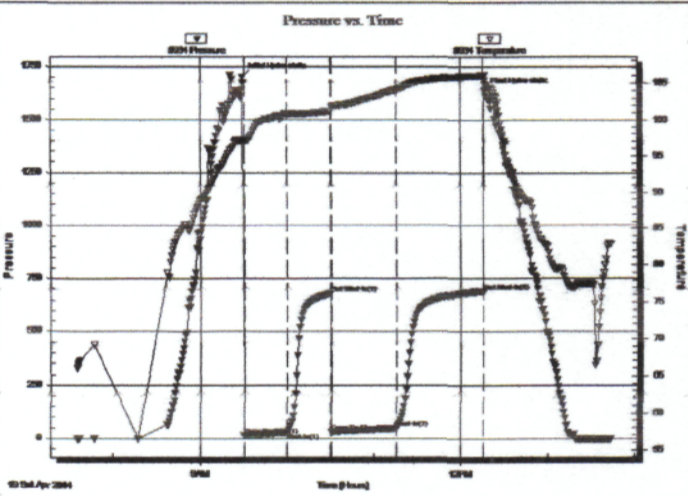
**31-16s-19w Rush,KS**  
**T&P Miller #1**  
 Job Ticket: 54120 **DST#: 1**  
 Test Start: 2014.04.19 @ 07:35:00

**GENERAL INFORMATION:**

Formation: **KC "B"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:30:30  
 Time Test Ended: 13:43:45  
 Interval: **3460.00 ft (KB) To 3485.00 ft (KB) (TVD)**  
 Total Depth: 3485.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brett Dickinson  
 Unit No: 59  
 Reference Elevations: 2082.00 ft (KB)  
 2074.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8934** Outside  
 Press@RunDepth: 48.32 psig @ 3482.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.19 End Date: 2014.04.19 Last Calib.: 2014.04.19  
 Start Time: 07:35:05 End Time: 13:43:44 Time On Btm: 2014.04.19 @ 09:29:15  
 Time Off Btm: 2014.04.19 @ 12:16:30

**TEST COMMENT:** F-2 1/2" blow  
 IS- No blow  
 FF-3" blow  
 FSI- No blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.06	97.00	Initial Hydro-static
2	12.93	96.76	Open To Flow (1)
31	28.95	100.73	Shut-in(1)
61	679.71	101.15	End Shut-in(1)
62	30.50	101.72	Open To Flow (2)
107	48.32	104.11	Shut-in(2)
167	689.65	105.97	End Shut-in(2)
168	1635.03	105.41	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	SMCW 10%M 90%W	0.84
19.00	SOCM 10%O 90%M	0.27
1.00	Free Oil	0.01

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)





# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 206

Date 4-16-14	Sec. 31	Twp. 16	Range 19	County Rush	State KS	On Location	Finish 1:00 P.M
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Location *Lilenthal, 15, 8W, 15*

Lease <i>T&amp;P Miller</i>	Well No. <i>1</i>	Owner
Contractor <i>Southwind #3</i>		To Quality Oilwell Cementing, Inc. 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 <i>Surface</i>		
Hole Size <i>12 1/4</i>	T.D. <i>1,103</i>	Charge To <i>Maid Oil</i>
Csg. <i>8 5/8</i>	Depth <i>1,103</i>	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint <i>20</i>	Cement Amount Ordered <i>450 sx 60/40, 3%cc, 2%gel</i>
Meas Line	Displace <i>68 1/2 bbl</i>	

**EQUIPMENT**

Pumptrk <i>5</i>	No.	Cementer Helper <i>Lonniew.</i>	Common
Bulktrk <i>19</i>	No.	Driver <i>Lonniew.</i>	Poz. Mix
Bulktrk <i>P4</i>	No.	Driver <i>Travis</i>	Gel.
			Calcium

**JOB SERVICES & REMARKS**

Remarks: <i>cement did circulate</i>	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling
	Mileage

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Quality Oilwell Cementing

	Pumptrk Charge	
	Mileage	
		Tax
		Discount
		Total Charge

X Signature *Kent*

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 7200

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-21-14	31	16	19	Rush	Ks		9:30 PM

Location Leebenthal Ks - 15, W to 160 Rd

Lease	T+P Miller	Well No.	1	Owner	1/2 S, E1/4
Contractor	Southwind	#3		To Quality Oilwell Cementing, Inc. 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	Production			Charge To	Major oil operations
Hole Size	7 7/8"	T.D.	3899'		
Csg.	14# 5 1/2" New	Depth	3899'	Street	
Tbg. Size		Depth	3894'	City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	18.8'	Shoe Joint	18.8'	Cement Amount Ordered	60140 40% Salt 26 Gal
Meas Line		Displace	94 1/2 Bcs	1/4 # Fl. seal	1000 gal mud clear 48

**EQUIPMENT**

Pumptrk	16	No.	Cementer	Billie	Common
			Helper		
Bulktrk	14	No.	Driver	Clayton	Poz. Mix
			Driver		
Bulktrk	p.u.	No.	Driver	Rick	Gel.
			Driver		

**JOB SERVICES & REMARKS**

Remarks:		Hulls
Rat Hole		Salt
Mouse Hole		Flowseal
Centralizers		Kol-Seal
Baskets	pipe on bottom break Circulator	Mud CLR 48
D/V or Port Collar	pump 500 gal Mud Clear 48	CFL-117 or CD110 CAF 38
plug	Bottom cut 300, Hook to 5 1/2"	Sand
Casing	mix 1200 Cement	Handling
Shut down	wash pump lines Release	Mileage
plug + Displaced	with 94 1/2 Bcs	<b>FLOAT EQUIPMENT</b>
lot water	Released + held	Guide Shoe
Lift pressure	600 #	Centralizer
Land plug to	1500 #	10 turbo's
		Baskets
		AFU Inserts
		Float Shoe
		Latch Down

		Pumptrk Charge
		Mileage
		Tax
		Discount
		Total Charge

X Signature *Butt Thomas*

