

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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](mailto: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 <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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
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>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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# ALLIED CEMENTING CO., INC.

33248

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell

DATE <u>7-24-07</u>	SEC. <u>18</u>	TWP. <u>14</u>	RANGE <u>13</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00 am</u>	JOB FINISH <u>9:00 am</u>
LEASE <u>Amke's</u>	WELL # <u>4</u>	LOCATION <u>Power 25 NE 11th</u>		COUNTY <u>Russell</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one) <u>OLD</u>							

CONTRACTOR Russell Drilling

TYPE OF JOB Production String

HOLE SIZE \_\_\_\_\_ T.D. 3450'

CASING SIZE 5 1/2 100 DEPTH 3378

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT 10'

CEMENT LEFT IN CSG. 10'

PERFS \_\_\_\_\_

DISPLACEMENT 78 1/4 BBL

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 150 L + e / 225 Com

COMMON \_\_\_\_\_ @ \_\_\_\_\_

POZMIX \_\_\_\_\_ @ \_\_\_\_\_

GEL \_\_\_\_\_ @ \_\_\_\_\_

CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_

ASC \_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

HANDLING \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE \_\_\_\_\_ @ \_\_\_\_\_

**EQUIPMENT**

PUMP TRUCK CEMENTER Craig / Justin

# 409 HELPER Alan

BULK TRUCK \_\_\_\_\_

# 345 DRIVER Chris B

BULK TRUCK \_\_\_\_\_

# 378 DRIVER Chris B

TOTAL \_\_\_\_\_

Rathle 155x

Miscellaneous

Plug landed 150 lbs. Held. Released in RV

Thanks!

CHARGE TO: Stark

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**SERVICE**

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_

EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE \_\_\_\_\_ @ \_\_\_\_\_

MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

1 1/2" API TUBING

1 Plug Shoe @ \_\_\_\_\_

30 Baskets @ \_\_\_\_\_

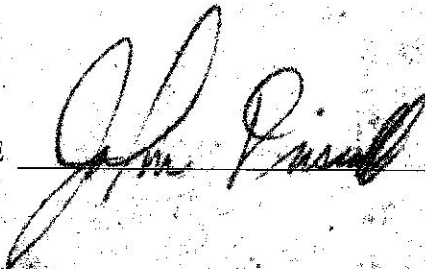
38 Centralizers @ \_\_\_\_\_

1 Solid Rubber Plug @ \_\_\_\_\_

TOTAL \_\_\_\_\_

To Allied Cementing Co., Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE



PRINTED NAME

TAX \_\_\_\_\_

TOTAL CHARGE \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

# ALLIED CEMENTING CO., INC.

33122

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell

DATE <u>7-12-07</u>	SEC. <u>16</u>	TWP. <u>14</u>	RANGE <u>13 W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Dunlap B</u>	WELL # <u>4</u>	LOCATION			COUNTY <u>Russell</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Royal Drilling

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD. 803

CASING SIZE 8 5/8 DEPTH 803

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 50.19 bbls

OWNER Steve F. Schlabochn

CEMENT

AMOUNT ORDERED 350 sks

EQUIPMENT

PUMP TRUCK CEMENTER Jason Halger

# 366 HELPER Mark Davis

BULK TRUCK

# 396 DRIVER Douglas

BULK TRUCK

# DRIVER

COMMON 350 @

POZMIX @

GEL 2% @

CHLORIDE 3% @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

on location, rig up, mix cement 350 sks  
dead plug, pump displacement, shut  
in, rig down, leave

CHARGE TO:

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

4 5/8 top rubber plug @

TOTAL

To Allied Cementing Co., Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

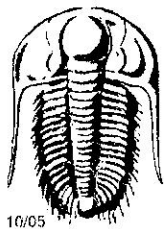
TAX

TOTAL CHARGE

DISCOUNT IF PAID IN 30 DAYS

SIGNATURE

PRINTED NAME



# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

28872

## Test Ticket

Well Name & No. DUMLER SE No. 1 Test No. 1 Date 7-23-07  
 Company STARR F. Schleich Zone Tested Cragg S.  
 Address 1 Greenleaf Drive Wolf Lake, NH 07894-4226 Elevation 1867 KB 1862 GL  
 Co. Rep / Geo. Francis Whistler Rig Royal rig 1  
 Location: Sec. 16 Twp. 14 Rge. 13 Co. Russell State Ko  
 Comment: \_\_\_\_\_ Release date / time: \_\_\_\_\_

Interval Tested 3270-3310 Initial Str Wt./Lbs. 20000 Unseated Str Wt./Lbs. 36000  
 Anchor Length 40 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 45000  
 Top Packer Depth 3265 Tool Weight 2200  
 Bottom Packer Depth 3270 Hole Size 7 7/8" \_\_\_\_\_ Rubber Size 6 3/4" \_\_\_\_\_  
 Total Depth 3310 Wt. Pipe Run \_\_\_\_\_ Drill Collar Run \_\_\_\_\_  
 Mud Wt. 9.2 LCM 4# Vis. 49 WL 9.6 Drill Pipe Size 4 1/2 XH Ft. Run 3254  
 Blow Description JFF - STRONG Blow in 1 min 30 sec  
FFP - STRONG Blow in 2 min  
NO Blow on shut-in

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
1305	-	-	1305
Rec. <u>165</u>	Feet of <u>0960 MW</u>	<u>5</u> %gas <u>10</u> %oil	<u>55</u> %water <u>30</u> %mu
Rec. <u>440 360</u>	Feet of <u>0760 MW</u>	<u>5</u> %gas <u>10</u> %oil	<u>65</u> %water <u>20</u> %mu
Rec. <u>700 600</u>	Feet of <u>0460 W</u>	<u>5</u> %gas <u>12</u> %oil	<u>83</u> %water _____ %mu
Rec. <u>180</u>	Feet of <u>500 W</u>	_____ %gas <u>1</u> %oil	<u>99</u> %water _____ %mu
Rec. _____	Feet of _____	_____ %gas _____ %oil	_____ %water _____ %mu
BHT <u>105</u>	*F Gravity _____	*API D @ _____	*F Corrected Gravity _____
RW <u>4</u>	@ <u>65</u> *F	Chlorides <u>18000</u> ppm	Recovery _____ Chlorides <u>4000</u> ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		<u>1593</u> PSI	<u>6753</u>	Test <input checked="" type="checkbox"/>
(B) First Initial Flow Pressure		<u>116</u> PSI	(depth) <u>3271</u>	Jars _____
(C) First Final Flow Pressure		<u>121</u> PSI	Recorder No. <u>13534</u>	Safety Jt. _____
(D) Initial Shut-In Pressure		<u>1090</u> PSI	(depth) <u>3276</u>	Circ Sub _____
(E) Second Initial Flow Pressure		<u>227</u> PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure		<u>618</u> PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure		<u>1076</u> PSI	Initial Opening <u>5</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud		<u>1541</u> PSI	Initial Shut-In <u>45</u>	Shale Packer _____
			Final Flow <u>30</u>	Ruined Packer _____
			Final Shut-In <u>45</u>	Mileage <input checked="" type="checkbox"/> <u>661T</u>
			T-On Location <u>0445</u>	Sub Total: _____
			T-Started <u>0505</u>	Std. By _____
			T-Open <u>0630</u>	Acc. Chg: _____
			T-Pulled <u>0825</u>	Other: _____
			T-Out <u>1053</u>	Total: _____

Approved By Francis Whistler

Our Representative Ray Schwager Thank you

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.



DUMLER SE No. 1

DST Test Number: 1

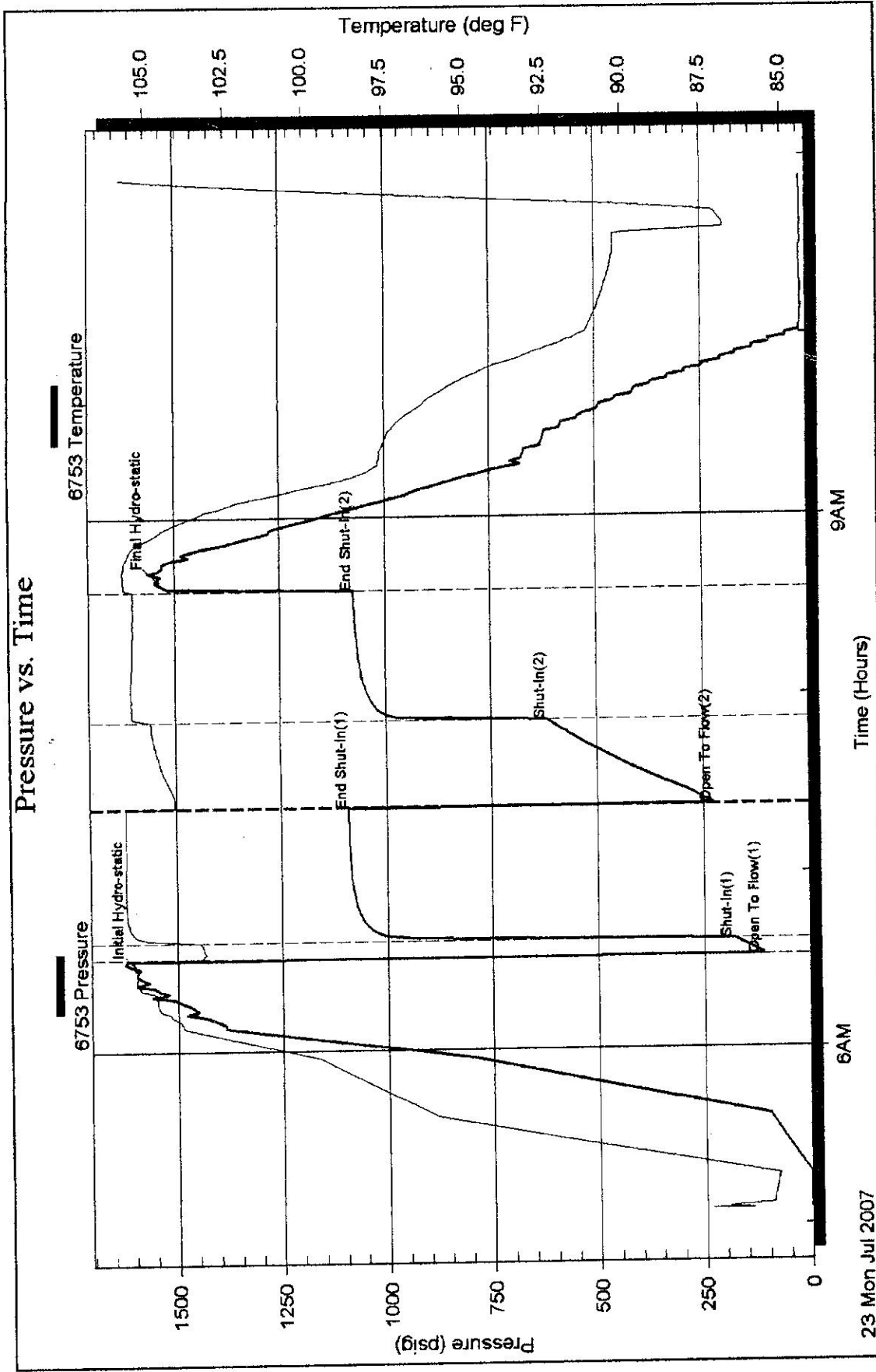
16-14s-13w Russel

Starr F. Schlobohm

Inside

Serial #: 6753

### Pressure vs. Time



23 Mon Jul 2007

9AM

6AM

FRANCIS C. WHISLER

Certified Petroleum Geologist

837 East First St.

Russell, Kansas 67665

STARR F. SCHLOBOHM OIL  
OPERATIONS

GEOLOGICAL REPORT

DUMLER SE No. 1

710' From South Line &  
1930' From East Line of  
Section 16 T 14 S, R 13 W  
Russell County, Kansas

July 27, 2007



STARR F. SCHLOBOHM OIL OPERATIONS  
10 Greenleaf Drive  
Wolfeboro, New Hampshire 03894-4226

GEOLOGICAL REPORT: DUMLER SE No. 1  
710' FSL & 1930' FEL  
Sec. 16, T 14 S, R 13 W  
Russell County, Kansas

CONTRACTOR: Royal Drilling, Inc.  
Russell, Kansas

DRILLING COMMENCED: July 16, 2007

DRILLING COMPLETED: July 23, 2007

CASING RECORD: 8 5/8" surface casing set at 803'  
and cemented with 375 sacks.  
5 1/2" production casing set 3368'  
and cemented with 375 sacks.

SAMPLES: Saved and examined from 2300' to  
3450', RTD. Zones of interest are  
described in this report.

DRILLING TIME: Recorded and plotted from 2300' to  
3450', RTD. A copy of the drilling  
time/lithology log is included with  
this report.

DRILLSTEM TESTS: (1) by Trilobite Testing, LLC of  
Hays, Kansas.

ELECTRIC LOGS: By Superior Well Services of  
Hays, Kansas.

ELEVATIONS: Kelly Bushing: 1857'  
Ground Level: 1852'  
Measurements From: K. B.

FORMATIONS:	ROTARY DEPTHS:	E. LOG DEPTHS:	DATUMS: E. Log
Anhydrite	797'	802'	+1055
Grand Haven Lime	2367	2366	- 509
Dry Shale (1st. Tarkio Sand)		2378	- 521
Dover Lime	2390	2389	- 532
Langdon Shale (2nd. Tk. Sand)		2401	- 544
Tarkio Lime	<del>2376</del> 2376	2337	- 580
Willard Shale (3rd. Tk. Sand)		2463	- 606
Elmont Lime	2505	2504	- 647
Topeka Lime	2710	2710	- 853
Heebner Shale	2943	2943	-1086
Toronto Lime	2963	2964	-1107
Lansing-Kansas City	3007	3008	-1151
Base of Kansas City	3274	3276	-1419
Quartzite Sand	3295	3294	-1437
Arbuckle Dolomite	3307	3304	-1447
Total Depth	3450	3451	-1594

LITHOLOGY, ZONES OF INTEREST & TEST DATA:

1st. Tarkio Sand:

2376-2384: SS, light gray, very fine grained, both dense and soft and friable and porous. Light brown oil stain, very slight show of free oil and oily taste. No odor. Micaceous.

2nd. Tarkio Sand:

2401-2416: SS, light gray, fine grained, micaceous, pyritic, soft and friable with light oil stain, very slight show of free oil and oily taste. Faint odor.

3rd. Tarkio Sand:

2463-2474 &

2478-2484: SS, Abundant shales with small amount of light gray, fine grained, micaceous with small amount of light oil stain. No free oil or odor.

Topeka Lime:

2894-2904: LS, white, dense to chalky with some fossiliferous porosity. Minor trace of dark oil stain with no free oil or odor.

Toronto Lime:

2964-2970: LS, white, dense with trace of light oil stain. No free oil or odor. Log shows porosity from 2966-68.

Lansing-Kansas City:

3008-3020: LS, white, dense with minor rare oil stain in poor porosity. A zone Faint odor.

3034-3038: LS, white, fossiliferous, porous, with rare light oil stain, very slight show of free oil and odor. Some white dense lime. B zone

LITHOLOGY, cont...

Lansing-Kansas City:

3044-3052: LS, white, fine oolitic, barren porosity with no oil stain.  
C zone Porosity indicated 3050-52.

3104-3107: LS, white, fossiliferous and porous. Some oolitic porosity.  
F zone No oil stain.

3112-3120: LS, white, fine to coarse oolitic, porous with no oil stain.  
G zone

Thin streaks of porosity in the H, I, J zones with no oil stain noted.  
No porosity and no oil stain in the K and L zones.

3286-3290: LS, brown, dense and nodular, very hard (called white lime  
on log). This lime very unrepresentative for this interval.

Quartzite Sand:

3094-3300: SS, samples circulated at 3295 and 3300 showed abundant quartzitic  
sand; coarse grained, dense, few sand inclusions and some  
medium to coarse sand clusters. Light brown oil stain and  
quick faint odor. No free oil noted. Some milky white  
to clear medium to coarse grained, sub angular and some  
friable and porous. Light brown oil stain and quick odor.  
E. log shows minor porosity 3297-99.

3300-3310: SS, samples circulated at 3310 showed abundant white quartz  
sand with medium to coarse grained sand clusters, soft and  
porous with increase of light brown oil stain. Slight show  
of free oil and good odor. Bottom sample showed some  
white, fine crystalline dolomite with sand inclusions.

DRILLSTEM TEST No. 1: 3270 to 3310. Tool open 5 min. with strong blow.  
Blew off bottom of bucket in 1 1/2 min.

Tool Shut In 45 minutes

Tool open 30 minutes with strong blow  
throughout open period.

Tool Shut In 45 minutes.

Recovery:

165' of oil & gas cut muddy water  
5% gas, 10% oil, 55% water, 30% mud

360' of oil & gas cut muddy water  
5% gas, 10% oil, 65% wtr, 20% mud

600' of oil & gas cut water  
5% gas, 12% oil, 83% water

180' slight oil cut water  
1% oil and 99% water

Initial Flow Pressure: 116-181 psi

Initial shut in Press. 1090 psi

Final Flow Pressure: 227-618 psi

Final Shut in Press. 1076 psi

LITHOLOGY, cont...

Arbuckle Dolomite:

- 3304-3310: DOL; E. Log indicates the top of the Arbuckle @ 3304 with white fine to medium crystalline dolomite with sand inclusions. Spotty dark oil stain with show of free oil and good oil odor. Fair saturation. The interval covering the Quartz sand and the upper Arbuckle were included in the drillstem test interval. Positive results.
- 
- E. log shows good porosity from 3305-09.
- 3310-3320: DOL: as above with fine to coarse sand inclusions. Fine to coarse crystalline with increase in oil staining. Fair saturation show of free oil and good oil odor. Good porosity.
- 3320-3330: DOL: white, fine to coarse crystalline with sand inclusions. Scattered dark spotty oil stain, dark show of free oil and good oil odor. Good porosity.
- 3330-3350: DOL & QUARTZ SD. 50/50 with spotty dark oil stain, fair saturation; slight show of free oil and good oil odor. With medium sand clusters. Fair to good porosity.
- 3350-3368: DOL: as above with sand as above. Still sand clusters, spotty oil stain-saturation, slight show of free oil and odor.
- 3368-3380: DOL: white, very fine dense with trace of oil stain. Still some sand clusters. Slight to fair porosity.
- 3380-3398: DOL: as above and SS as above with trace of dark oil stain. Dolomite mostly dense.
- 3398-3434: DOL: as above with ss clusters and trace of dark oil stain.
- 3434-3450: DOL: Fine crystalline dense to medium crystalline porous with abundant coarse, rounded quartz grains, rounded and unconsolidated. Some fine to medium grained sand clusters. Definite increase in coarse unconsolidate sand grains and sand clusters. Only trace of oil stain noted.

REMARKS & RECOMMENDATIONS:

Based on sample analysis and E. log porosities, I recommend the following completion:

- First: Perforate and test the Quartzite Sand 3297-99
- Then: Perforate the upper Arbuckle from 3305-09
- 3rd. Perforate the B zone from 3034-37
- 4th. Perforate the Toronto from 2966-68

Respectfully submitted;

*Francis C. Whisler*  
Francis C. Whisler