



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1210268  
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: \_\_\_\_\_

1210268

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Outlaw Well Service LLC
Well Name	Wolf 1
Doc ID	1210268

Tops

Name	Top	Datum
ANHYDRITE	1939	+383
TOPEKA	3410	-1088
HEEBNER SHALE	3626	-1304
TORONTO	3652	-1330
LKC	3664	-1342
BKC	3904	-1582
MARMATON	3950	-1628
RTD	4000	-1678



**OPERATOR**

Company: OUTLAW WELL SERVICE, LLC  
 Address: 1408 WEST 42ND  
 HAYS, KS 67601

Contact Geologist: PRESTON WOLF  
 Contact Phone Nbr: 785-650-2399  
 Well Name: WOLF #1  
 Location: NW NE SW NW S8 T11S R24W  
 API: 15-195-22950-00-00  
 Pool:  
 State: KANSAS

Field: TIDBALL EAST  
 Country: USA

**Scale 1:240 Imperial**

Well Name: WOLF #1  
 Surface Location: NW NE SW NW S8 T11S R24W  
 Bottom Location:  
 API: 15-195-22950-00-00  
 License Number: 34272  
 Spud Date: 5/28/2014 Time: 1:45 PM  
 Region: TREGO COUNTY  
 Drilling Completed: 6/2/2014 Time: 1:00 AM  
 Surface Coordinates: 1400 FNL & 692 FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2317.00ft  
 K.B. Elevation: 2322.00ft  
 Logged Interval: 3300.00ft To: 4000.00ft  
 Total Depth: 4000.00ft  
 Formation: LANSING / KANSAS CITY  
 Drilling Fluid Type: CHEMICAL / FRESH WATER GEL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -100.0153605  
 Latitude: 39.1135503  
 N/S Co-ord: 1400 FNL  
 E/W Co-ord: 692 FWL

**LOGGED BY**

Company: SOLUTIONS CONSULTING, INC.  
 Address: 108 W 35TH  
 HAYS, KS 67601

Phone Nbr: (785) 639-1337  
 Logged By: GEOLOGIST

Name: STEVE REED / HERB DEINES

**CONTRACTOR**

Contractor: WW DRILLING, LLC  
 Rig #: 6  
 Rig Type: MUD ROTARY  
 Spud Date: 5/28/2014 Time: 1:45 PM  
 TD Date: 6/2/2014 Time: 1:00 AM  
 Rig Release: 6/2/2014 Time: 2:00 PM

**ELEVATIONS**

K.B. Elevation: 2322.00ft Ground Elevation: 2317.00ft  
 K.B. to Ground: 5.00ft

**NOTES**

DUE TO LOW STRUCTURAL POSITION OF THE WOLF #1 COMPARED TO SURROUNDING WELLS, COMBINED WITH LACK OF SIGNIFICANT SHOWS AND CHALKY NATURE OF PRIMARY ZONES LKC "I, J, K". THE DECISION WAS MADE TO PLUG AND ABANDON WELL.

OPEN HOLE LOGGING PROVIDED BY: PIONEER ENERGY SERVICES  
 LOGGING WAS ATTEMPTED, BUT TOOL WAS STUCK AT A DEPTH OF 3814 FEET, DECISION  
 WAS MADE TO  
 ABORT LOGGING OPERATION DUE TO ADDED TIME TO RECONDITION HOLE.

DRILL STEM TESTING PROVIDED BY: TRILOBITE TESTING, INC:  
 ONE ( 1 ) CONVENTIONAL DRILL STEM TEST WAS PERFORMED, BUT PACKER FAILURE LEAD TO  
 MISRUN

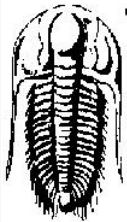
### FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

	WELL NAME	COMPARISON WELL	COMPARISON WELL	COMPARISON WELL
	WOLF #1	GARRETT #2	ROSA GARRETT #1	MARY #1-7
	API: 15-195-22950	API: 15-195-21011	API: 15-195-20427	API: 15-195-22901
FORMATION	SAMPLE TOPS	LOG TOPS (DATUM)	LOG TOPS (DATUM)	LOG TOPS (DATUM)
<b>ANHYDRITE</b>	1939' (+383)	+390	NA	+391
<b>TOPEKA</b>	3410' (-1088')	-1079'	NA	-1071'
<b>HEEBNER</b>	3626' (-1304')	-1296'	-1298'	-1289'
<b>TORONTO</b>	3652' (-1330')	NA	NA	-1313'
<b>LKC</b>	3664' (-1342')	-1334'	-1334'	-1328'
<b>BKC</b>	3904' (-1582')	-1567	-1574'	-1562'
<b>MARMATON</b>	3950' (-1628')	NA	NA	-1607'
<b>RTD</b>	4000' (-1678')	-1613'	-1594	-1675'

### SUMMARY OF DAILY ACTIVITY

- 5-28-14** R.U., spud @ 1:45pm, 8 5/8" surface casing set at 216' w/150 sxs common, 2% gel, 3% cc, plug down @ 5:45pm, WOC, drill plug @ 1:45am
- 5-29-14** 704', drilling
- 5-30-14** 2560', drilling
- 5-31-14** 3430', drilling, CFS @ 3590, short trip (22 stands), CTCH, CFS @ 3700, CFS @3815, CFS @3835
- 6-1-14** 3845', drilling, CFS @ 3877', mini trip (12 stands), CTCH, TOWB, survey 1°, DST #1 3839 to 3877, mis-run, packer failure, TD 4000 @ 1:00am, CTCH, out for logs
- 6-2-14** logging, log tool stuck in hole, worked 45 minutes to free, decision to end log, prepare to plug, plug down @2:15pm, release rig @ 4:15pm

### DST #1 SUMMARY

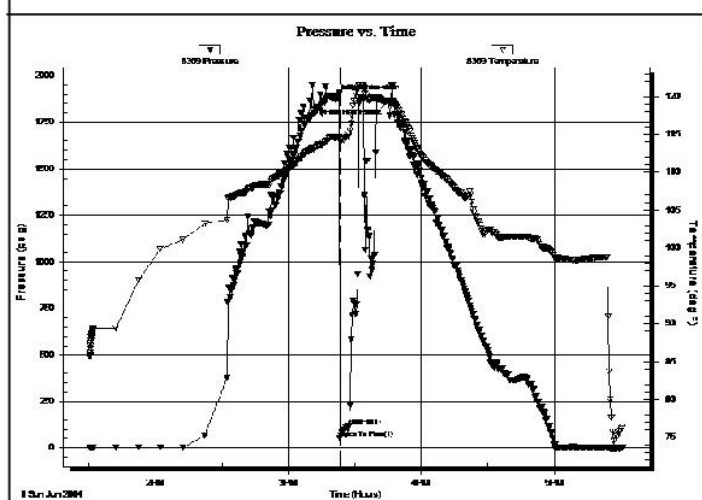
 <b>TRILOBITE TESTING, INC.</b>	<b>DRILL STEM TEST REPORT</b>	
	Outlaw Well Services LLC 1408 West 42nd Hays Ks 67601 ATTN: Preston Wolf, Steve	<b>8-11s-24w Trego</b>  <b>Wolf #1</b> Job Ticket: 59305 <b>DST#:1</b> Test Start: 2014.06.01 @ 13:30:23

**GENERAL INFORMATION:**

Formation: <b>LKC J-K</b>	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock:                      ft (KB)	Tester: Ray Schwager
Time Tool Opened: 15:23:18	Unit No: 70
Time Test Ended: 17:30:48	
<b>Interval: 3839.00 ft (KB) To 3877.00 ft (KB) (TVD)</b>	Reference Elevations: 2322.00 ft (KB)
Total Depth: 3877.00 ft (KB) (TVD)	2317.00 ft (CF)
Hole Diameter: 7.87 inches Hole Condition: Fair	KB to GR/CF: 5.00 ft

<b>Serial #: 8369</b> <b>Inside</b>	
Press@RunDepth:                      psig @      3843.00 ft (KB)	Capacity:                      8000.00 psig
Start Date:                      2014.06.01      End Date:                      2014.06.01	Last Calib.:                      2014.06.01
Start Time:                      13:30:23      End Time:                      17:30:48	Time On Btm:                      2014.06.01 @ 15:21:18
	Time Off Btm:                      2014.06.01 @ 15:44:48

**TEST COMMENT:** IFP-w k to strg in 4min , lost packer seat pulled tool



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1875.80	114.59	Initial Hydro-static
2	51.21	114.21	Open To Flow (1)
6	119.83	114.95	Shut-In(1)
24	1862.59	119.32	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1200.00	Mud	15.74

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

### DST #1 PRESSURE VS TIME CHART

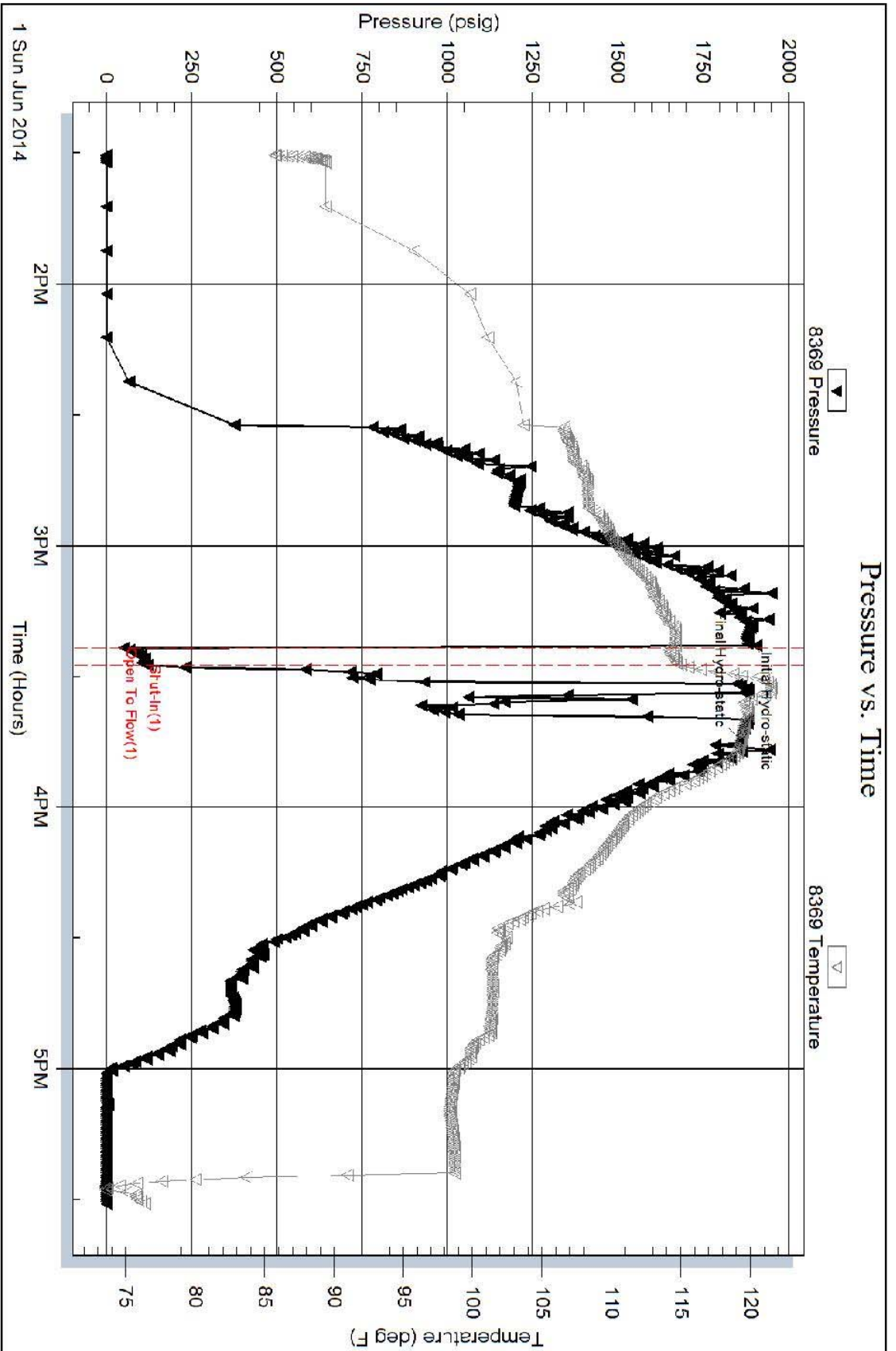
Serial #: 8369

Inside

Outlaw Well Services LLC

Well #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 59305

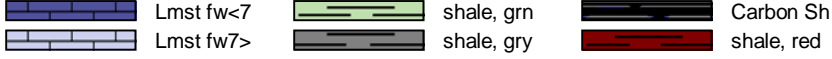
Printed: 2014.06.02 @ 08:03:29



Image Header 04

Image Header 05

ROCK TYPES



ACCESSORIES

MINERAL

P Pyrite

FOSSIL

F Fossils < 20%  
 O Oolite

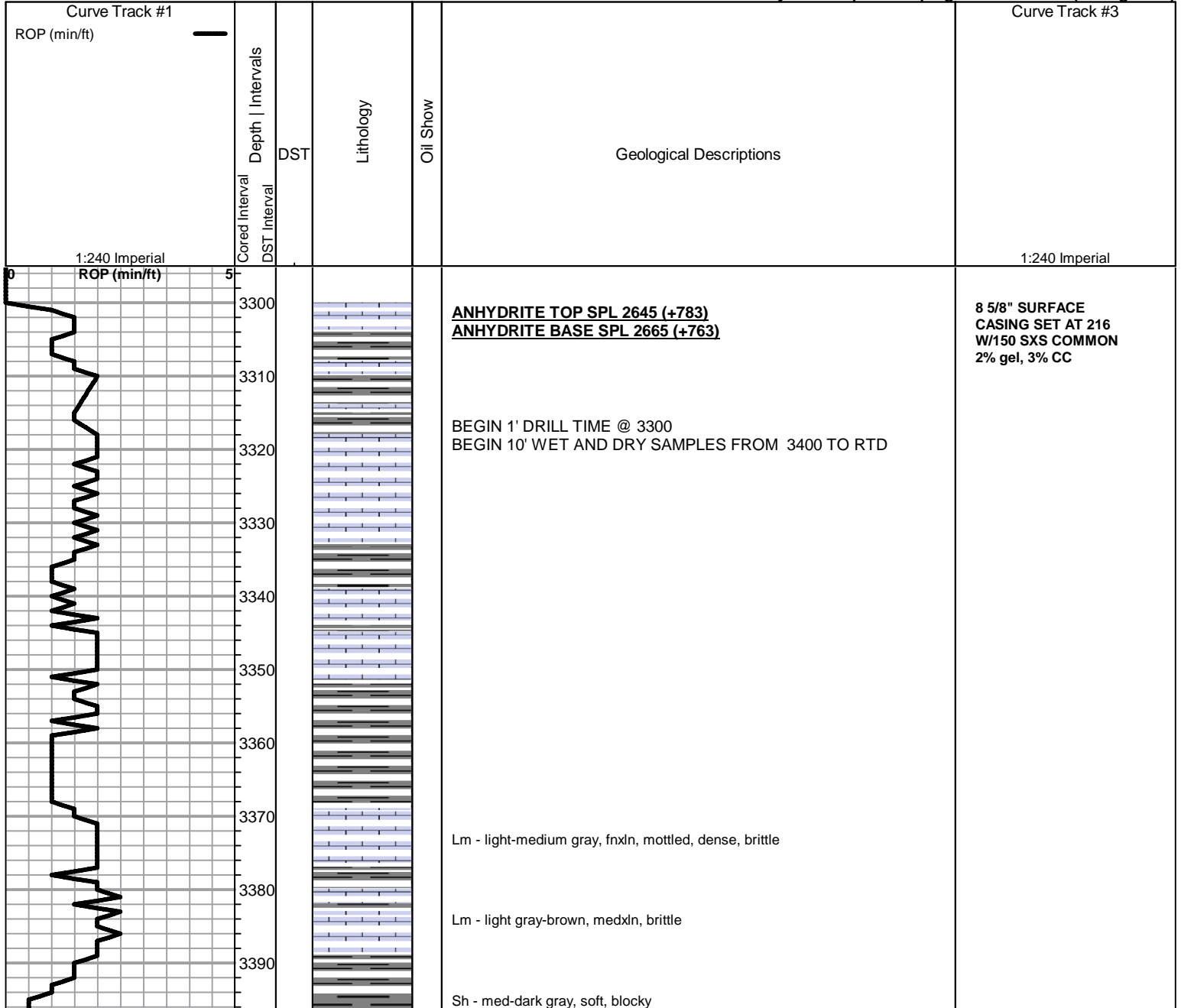
STRINGER

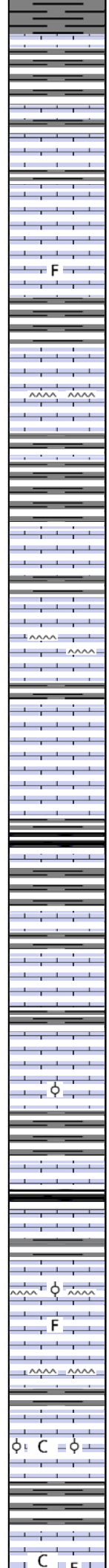
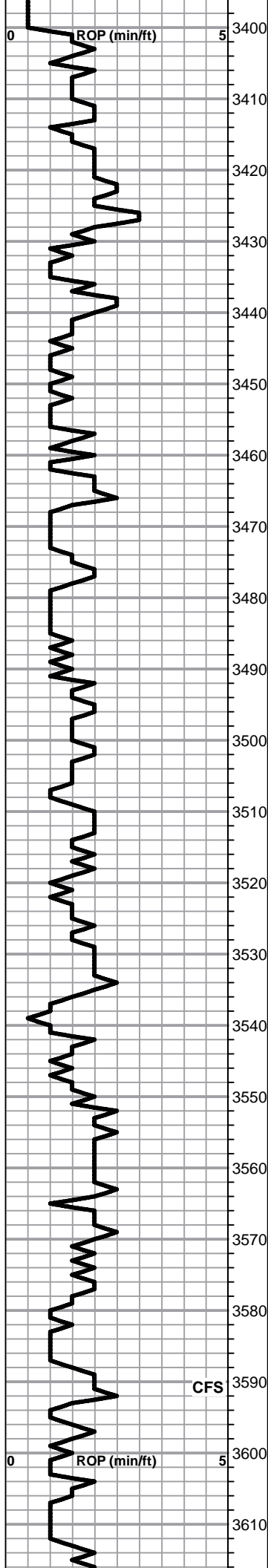
~ Chert  
 ■ red shale

TEXTURE

C Chalky  
 CX Cryptocrystalline  
 L Lithogr

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)





**TOPEKA SPL 3410 (-1088)**

Lm - cream, vfxln, hard, brittle, barren and clean

Lm - cream, fine interxln porosity, dense, hard

F

Lm - cream-tan, fossiliferous with vfxln matrix, brittle

Sh - dark brown/medium gray, soft, gritty, fissile

Lm - cream, scattered fine pinpoint porosity, granular, friable, no shows, cherty

Sh - light-medium gray, soft, blocky

Lm - buff, slightly fossiliferous with medxln matrix, hard, brittle

Lm - tan, fnxln, dense, brittle, cherty

Lm - cream-light brown, fnxln, moderately hard, brittle

Sh - dark gray-black, carboniferous, soft, waxy

Sh - light-medium gray, soft, fissile

Lm - tan, fnxln, dense, brittle

Lm - cream-tan, granular, friable

φ

Lm - cream, oolitic, scattered vuggy porosity, friable, no shows

Lm - tan, vfxln to lithographic, hard, no visible porosity, clean and barren

Sh - black, carbonaceous, firm, fissile

Lm - cream-light brown, slightly fossiliferous, fine interxln porosity, hard, brittle, no shows, cherty

F

D

Lm - cream, fossiliferous, granular, easily crushed, dark organic residue, NSFO, no odor, no fluorescence

Lm - light brown, fn-medxln, dense, hard, cherty

**SHORT TRIP**

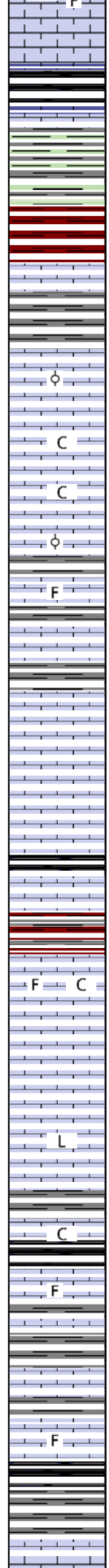
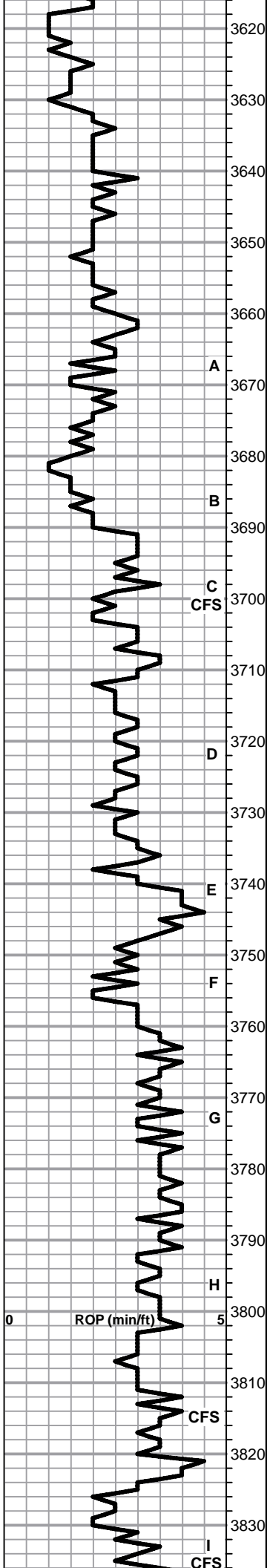
CFS

φ C φ

Lm - light brown, oolitic with very small oolites, fine interxln porosity, dense, hard, extremely chalky, white wash

C F

Lm - light brown, slightly fossiliferous with fnxln matrix, hard, brittle, white sticky shells, alumina



**HEEBNER SPL 3626 (-1304)**

Sh - black, carbonaceous, waxy  
 Sh - greenish / gray, soft, blocky, forming sticky clumps  
 Sh - maroon, soft, very sticky

**TORONTO SPL 3652 (-1330)**

Lm - bright white, granular, moderate hardness, brittle  
 Sh - medium gray, soft sticky

**LKC SPL 3664 (-1342)**

Lm - tan, oolitic, poor development, fine interxn porosity, dense, hard, brittle, no shows  
 Lm - cream-tan, cryptoxn, dense, hard, brittle, chalky, no shows  
 Lm - cream, fnxn to granular, friable, chalky in part, no shows  
 Lm - tan, oolites in fnxn matrix, dense, very hard, clean and barren

**C** Lm - tan, slightly fossiliferous, bedded chalk in part, one chip with fine pinpoint porosity and oil specks released with acid. no odor  
 Lm - tan, fnxn, dense, brittle  
**D** Lm - cream, slightly oolitic, vfxn, dense, hard, some with interxn porosity and scatered vuggy porosity, dark brown gilsonitic stain, NSFO, no odor

Lm - cream, fnxn, dense, hard, bedded chalk

Sh - black, carbonaceous, soft, fissile  
 Sh - light gray / maroon, soft, extremely sticky clumps

**F C** Lm - offwhite, fnxn, clean and bright, some slightly fossiliferous with fine pinpoint porosity, black gilsonitic stain, slight SFO upon crush, very chalky  
 Lm - buff, fn-medxn, dense, hard, bedded chalk in part, clean and barren

Lm - buff, vfxn to lithographic, dense, hard, brittle, clean and barren

Lm - cream-light gray, fine interxn porosity, dense, very hard, chalky  
 Sh - black, carbonaceous, waxy

Lm - tan-light brown, fnxn, slightly fossiliferous, brittle, bedded chalk  
 Lm - A/A

Lm - cream, fnxn, dense, hard, clean and barren, bedded chalk

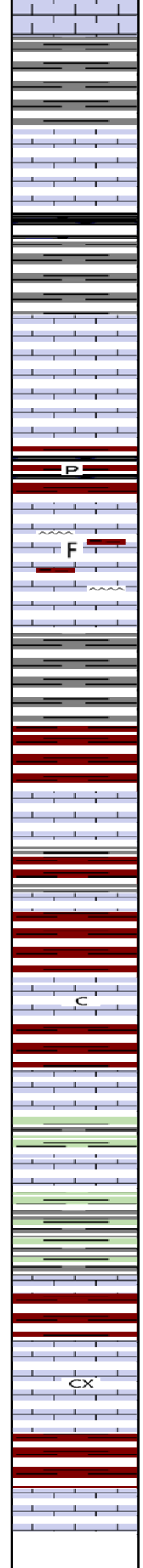
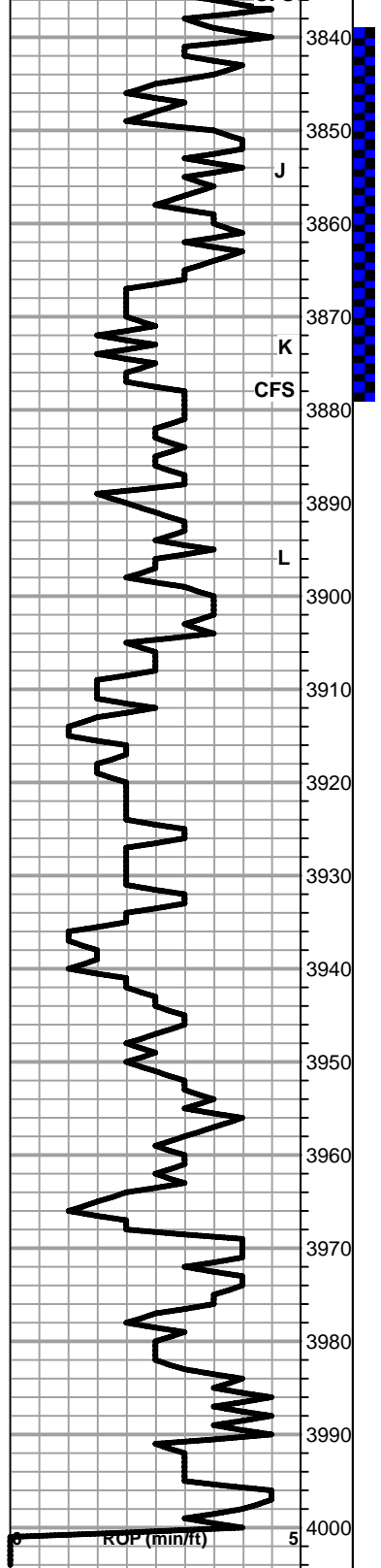
Lm - light brown, fossiliferous with medxn matrix, friable, no shows

Sh - dark gray / black, carbonaceous, firm, blocky, forming sticky clumps in part

**I** Lm - cream-light brown, fine pinpoint porosity, scattered light brown stain, NSFO, no odor

**MUD WT. 8.9  
 VIS. 59  
 LCM 2#**

good odor, excess sticky white chalk, SFO with acid, UV fluorescence



Sh - medium grain, soft, blocky, some sticky clumps

① Lm - buff, oolitic, scattered interxn porosity with slight vugs, dark brown stain, SFO upon crush, faint odor, streaming wet cut under UV light

Sh - dark gray, some black carbonaceous, soft, fissile, sticky in part

① Lm - buff, fine pinpoint porosity, scattered dark brown stain, SFO upon crush, slightly chalky

Sh - dark gray / maroon, soft, blocky, pyrite

Lm - cream-tan, slightly fossiliferous, fine interxn porosity, dense, hard, orange chert and shales

**BKC SPL 3904 (-1582)**

Sh - medium brown / gray, soft blocky, some extremely sticky

Sh - maroon, soft very sticky

Lm - buff, fnxln, dense, hard, clean and barren

Sh - maroon / gray, soft extremely sticky clumps

Sh - maroon / brown, soft fissile, forming sticky clumps

Lm - cream, fine interxn porosity, brittle, chalky

Sh - maroon, soft very sticky

**MARMATON SPL 3950 (-1628)**

Lm - cream - light gray, gritty, granular, dense, hard, no shows, no development

Sh - medium gray / green / brown, fissile, soft, sticky in part

Sh - orange / maroon, soft, extremely sticky

Lm - tan, cryptoxn, dense, very hard, bedded chalk in part

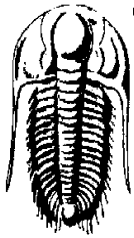
Sh - maroon / brown, soft fissile, extremely sticky clumps

**RTD 4000 (-1678)**

DST #1 3839 TO 3877

MISRUN: SEE HEADER FOR CHART

MUD WT. 9.5  
VIS. 58  
LCM 2#



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Outlaw Well Services LLC

**8-11s-24w Trego**

1408 West 42nd  
Hays Ks 67601

**Wolf #1**

Job Ticket: 59305

**DST#: 1**

ATTN: Preston Wolf, Steve

Test Start: 2014.06.01 @ 13:30:23

## GENERAL INFORMATION:

Formation: **LKC J-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:23:18

Time Test Ended: 17:30:48

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3839.00 ft (KB) To 3877.00 ft (KB) (TVD)**

Reference Elevations: 2322.00 ft (KB)

Total Depth: 3877.00 ft (KB) (TVD)

2317.00 ft (CF)

Hole Diameter: 7.87 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: psig @ 3843.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.01

End Date:

2014.06.01

Last Calib.:

2014.06.01

Start Time: 13:30:23

End Time:

17:30:48

Time On Btm:

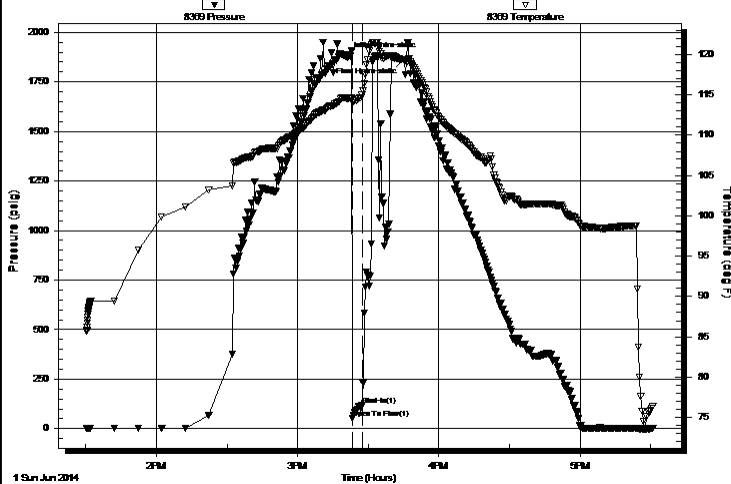
2014.06.01 @ 15:21:18

Time Off Btm:

2014.06.01 @ 15:44:48

TEST COMMENT: IFP-w k to strg in 4min , lost packer seat pulled tool

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1875.80	114.59	Initial Hydro-static
2	51.21	114.21	Open To Flow (1)
6	119.83	114.95	Shut-In(1)
24	1862.59	119.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1200.00	Mud	15.74

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Outlaw Well Services LLC

**8-11s-24w Trego**

1408 West 42nd  
Hays Ks 67601

**Wolf #1**

Job Ticket: 59305

**DST#: 1**

ATTN: Preston Wolf, Steve

Test Start: 2014.06.01 @ 13:30:23

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 6.79 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1200.00	Mud	15.740

Total Length: 1200.00 ft      Total Volume: 15.740 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8369

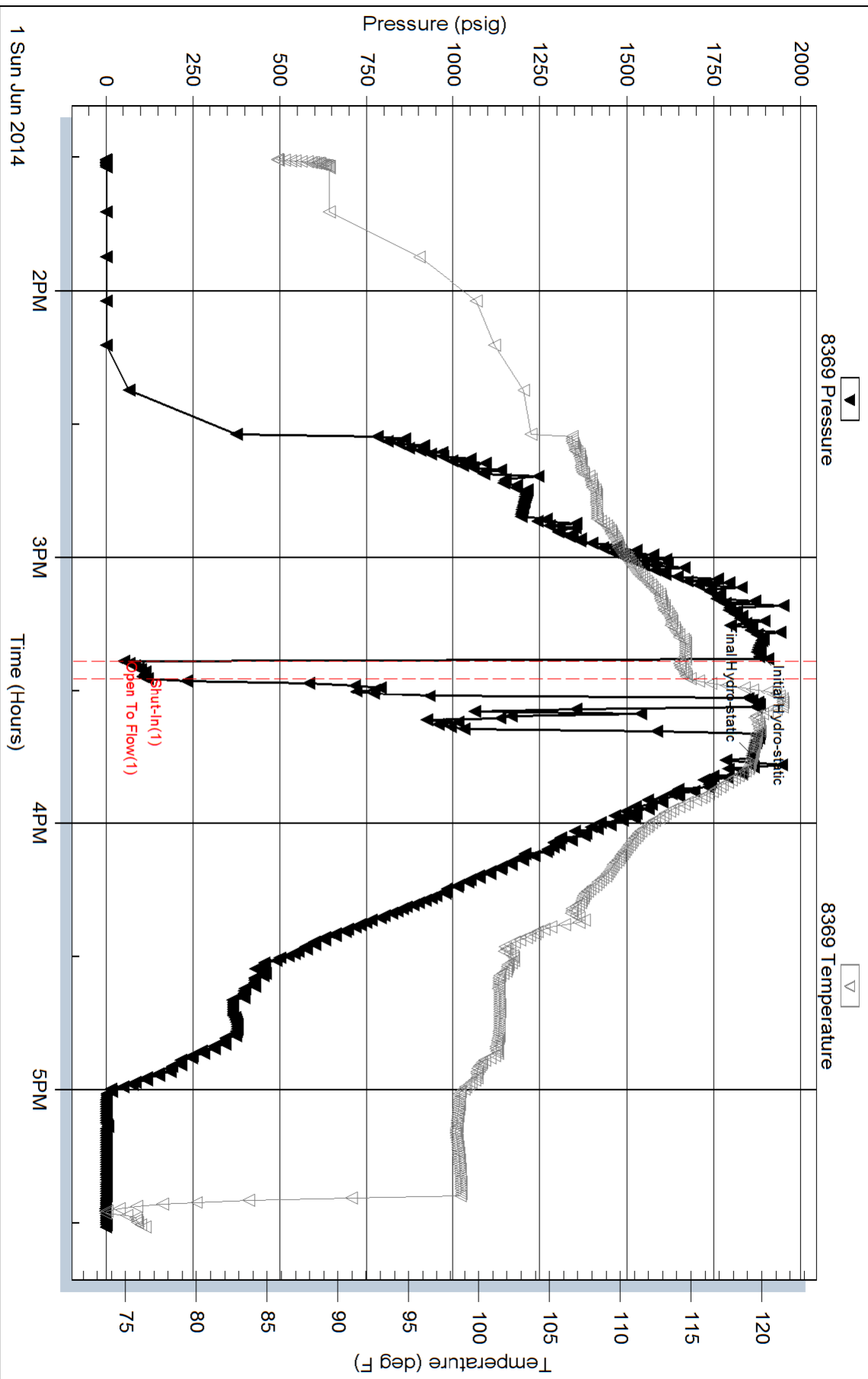
Inside

Outlaw Well Services LLC

Wolf #1

DST Test Number: 1

### Pressure vs. Time



# 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. 039

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-28-14	8	11	24	Trego	KS		5:45pm

Location Wakeeney v BRD 8w Sinto

Lease	Well No.	Owner	
Wolf	1	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.	
Contractor	Type Job	Charge To	
WW #6	Surface	Outlaw Well Service	
Hole Size	T.D.	Street	
12 1/4	217		
Csg.	Depth	City	
8 5/8	217		
Tbg. Size	Depth	State	
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered	
15		1500m 3/4 2/162	
Meas Line	Displace		
	12 1/2 BCL		

**EQUIPMENT**

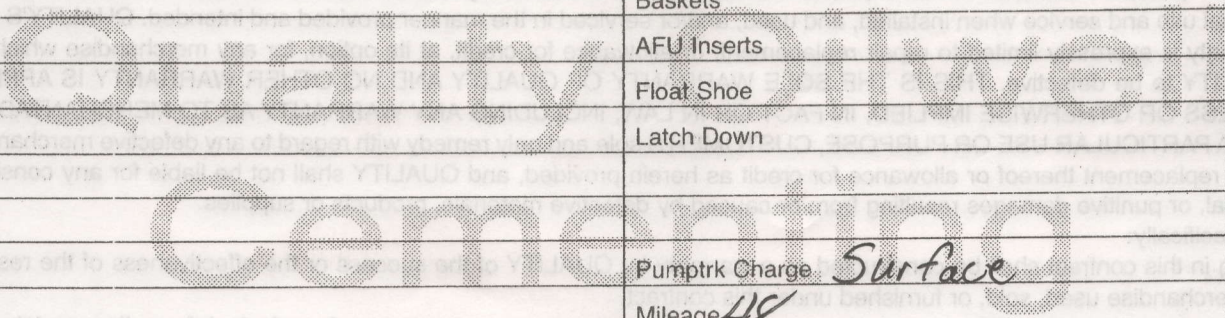
Pumptrk	No.	Cementer	Common
16		Craig	150
Bulktrk	No.	Helper	Poz. Mix
		Billy	
Bulktrk	No.	Driver	Gel.
14		Chad	3
			Calcium
			5

**JOB SERVICES & REMARKS**

Remarks:	Salt
Rat Hole	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
8 5/8 on bottom Est Circulation	Handling
Mix 150 SKY Displace	158
	Mileage

**FLOAT EQUIPMENT**

Cement Circulated!	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down



Pumptrk Charge	Mileage	Tax
Surface	48	
		Discount
		Total Charge
X Signature		
Mark Perry		