



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1071295  
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: \_\_\_\_\_

1071295

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	Russell Oil, Inc.
Well Name	James D 1-5
Doc ID	1071295

All Electric Logs Run

MICRORESISTIVITY
DUAL COMPENSATED POROSITY
DUAL INDUCTION
BOREHOLE COMPENSATED SONIC
COMPUTER PROCESSED INTERPRETATION

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	James D 1-5
Doc ID	1071295

Tops

Name	Top	Datum
BASE ANHYDRITE	2772	+487
TOPEKA	3911	-652
HEEBNER	4131	-872
TORONTO	4154	-895
LANSING KC	4170	-911
STARK SHALE	4398	-1139
BASE KC	4479	-1220
MARMATON	4503	-1244
PAWNEE	4588	-1329
MYRIC STATION	4623	-1364
FT SCOTT	4645	-1386
CHEROKEE SHALE	4676	-1417
ATOKA LIME	4752	-1493
BASE PENN SD	4778	-1519
MISSISSIPPI	4858	-1599

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 05, 2012

LEROY HOLT  
Russell Oil, Inc.  
PO BOX 8050  
EDMOND, OK 73083

Re: ACO1  
API 15-109-21032-00-00  
James D 1-5  
SE/4 Sec.05-11S-34W  
Logan County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
LEROY HOLT



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil, Inc

**5 11s 34w Logan, KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44485

**DST#: 1**

ATTN: Steve Angle

Test Start: 2011.09.28 @ 10:58:00

## GENERAL INFORMATION:

Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:38:15  
 Time Test Ended: 19:22:45  
 Interval: **4310.00 ft (KB) To 4339.00 ft (KB) (TVD)**  
 Total Depth: 4339.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 40  
 Reference Elevations: 3260.00 ft (KB)  
 3249.00 ft (CF)  
 KB to GR/CF: 11.00 ft

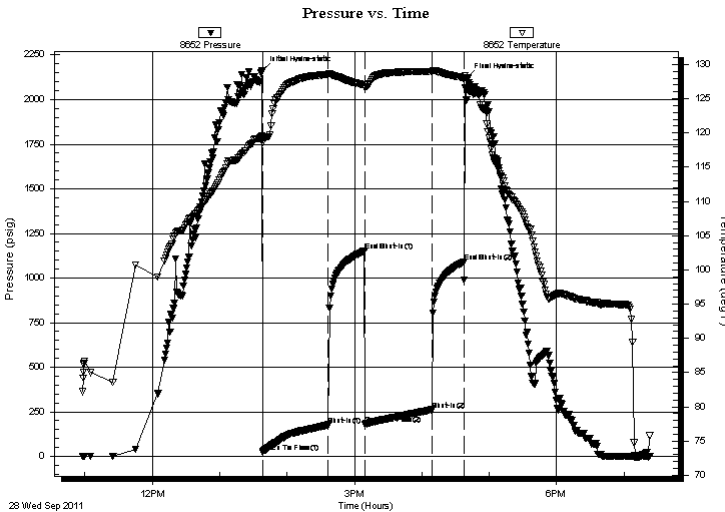
## Serial #: 8652

Inside

Press @ Run Depth: 261.45 psig @ 4311.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.09.28 End Date: 2011.09.28 Last Calib.: 2011.09.28  
 Start Time: 10:58:05 End Time: 19:22:44 Time On Btm: 2011.09.28 @ 13:38:00  
 Time Off Btm: 2011.09.28 @ 16:40:30

TEST COMMENT: IF: BOB @ 34 minutes.  
 IS: No return.  
 FF: 9" blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2163.90	119.59	Initial Hydro-static
1	23.86	118.57	Open To Flow (1)
59	176.64	128.54	Shut-In(1)
91	1151.80	126.98	End Shut-In(1)
92	181.16	126.55	Open To Flow (2)
151	261.45	128.98	Shut-In(2)
180	1091.50	128.03	End Shut-In(2)
183	2122.15	126.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
480.00	mcw 10m 90w (oil spots in tool)	4.18

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil, Inc

**5 11s 34w Logan,KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44485

**DST#: 1**

ATTN: Steve Angle

Test Start: 2011.09.28 @ 10:58:00

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbf
480.00	mcw 10m 90w (oil spots in tool)	4.182

Total Length: 480.00 ft      Total Volume: 4.182 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .172 @ 83f = 32000ppm

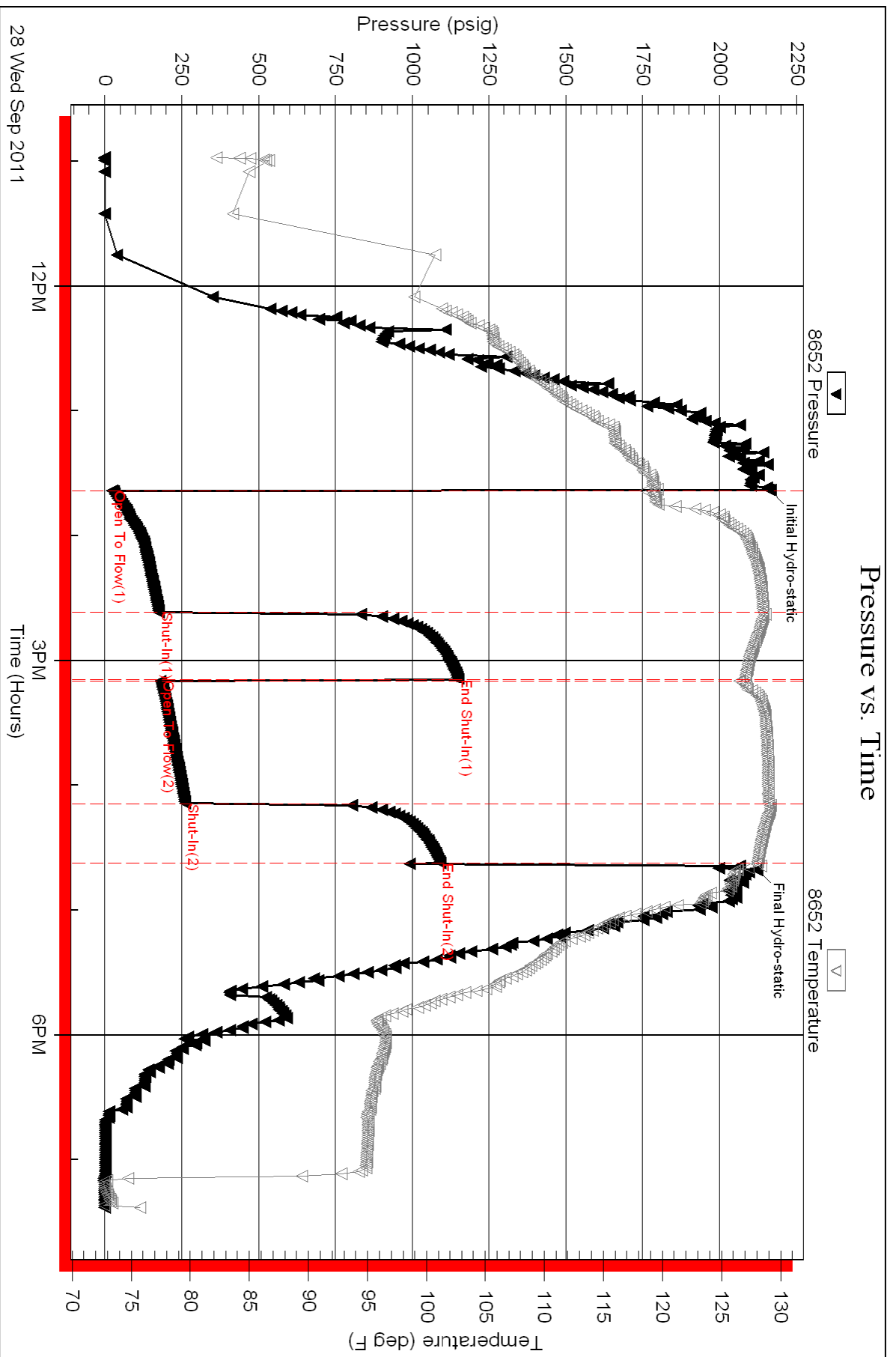
Serial #: 8652

Inside

Russell Oil, Inc

James D-1-5

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 44485

Printed: 2011.09.29 @ 08:18:16





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil, Inc

**5 11s 34w Logan, KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44486

**DST#: 2**

ATTN: Steve Angle

Test Start: 2011.09.29 @ 08:18:00

## GENERAL INFORMATION:

Formation: **LKC J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:36:30

Time Test Ended: 16:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 40

**Interval: 0.00 ft (KB) To 0.00 ft (KB) (TVD)**

Reference Elevations: 3260.00 ft (KB)

Total Depth: 4396.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8652**

**Inside**

Press @ Run Depth: 28.91 psig @ 4346.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.29

End Date:

2011.09.29

Last Calib.:

2011.09.29

Start Time: 08:18:05

End Time:

16:00:59

Time On Btm:

2011.09.29 @ 11:36:15

Time Off Btm:

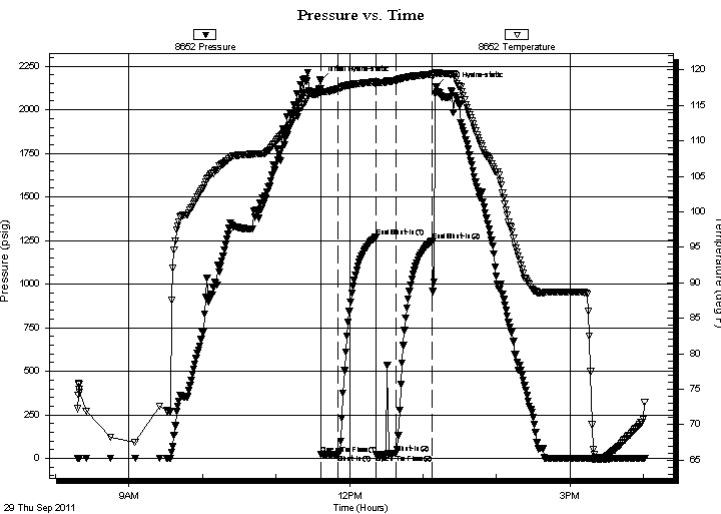
2011.09.29 @ 13:10:45

**TEST COMMENT:** IF: Surface blow, died @ 9 minutes..

IS: No return.

FF: No blow.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2166.49	117.40	Initial Hydro-static
1	22.94	116.71	Open To Flow (1)
15	23.42	117.38	Shut-In(1)
45	1268.43	118.35	End Shut-In(1)
46	25.03	117.97	Open To Flow (2)
62	28.91	118.54	Shut-In(2)
92	1249.30	119.41	End Shut-In(2)
95	2130.60	119.55	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100m	0.10

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil, Inc

**5 11s 34w Logan, KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44486

**DST#: 2**

ATTN: Steve Angle

Test Start: 2011.09.29 @ 08:18:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud 100m	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8652

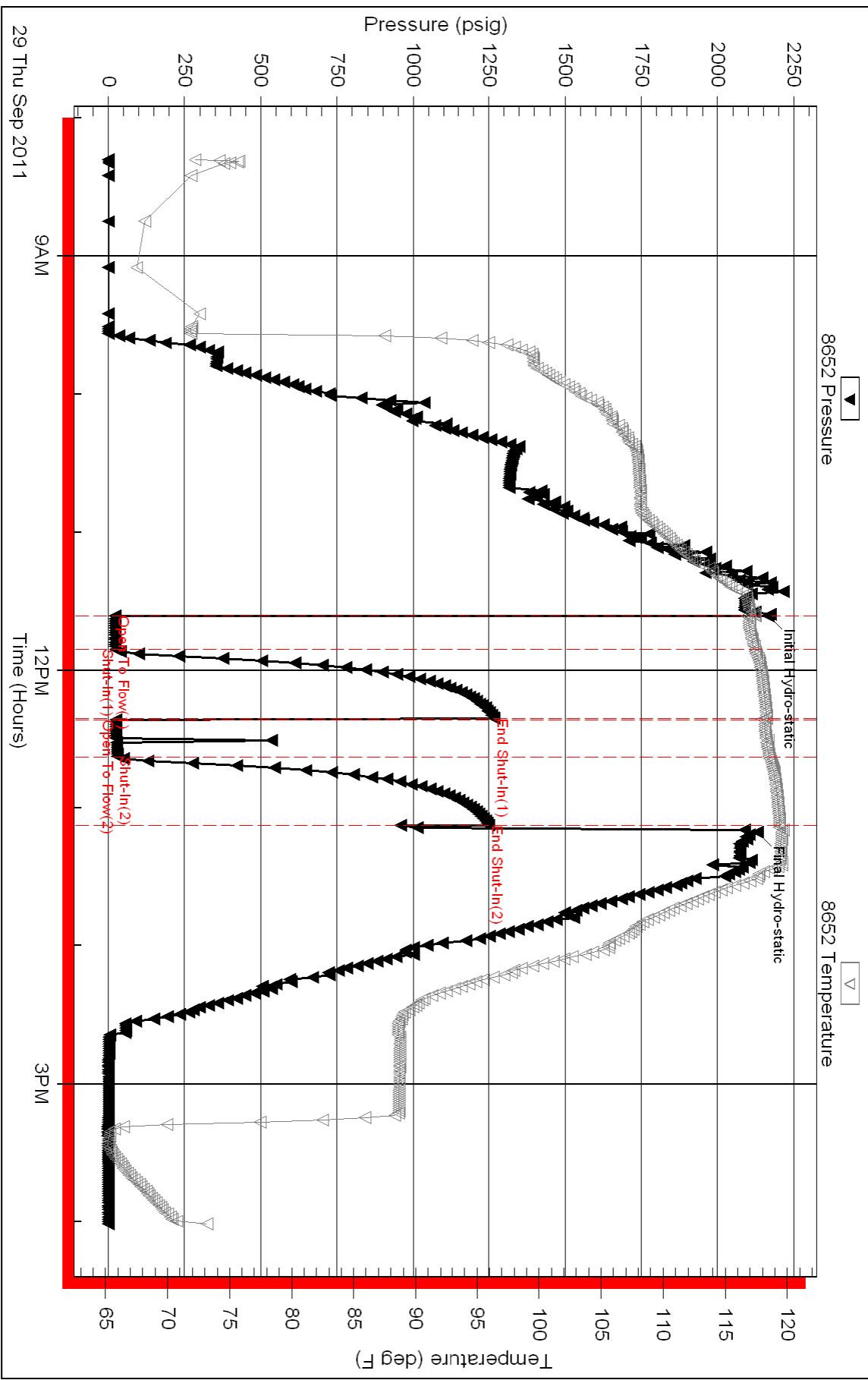
Inside

Russell Oil, Inc

James D 1-5

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44486

Printed: 2011.09.30 @ 08:28:23



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil, Inc

**5 11s 34w Logan, KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

ATTN: Steve Angle

Job Ticket: 44487

**DST#: 3**

Test Start: 2011.09.30 @ 00:45:00

## GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:17:30

Time Test Ended: 09:25:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 40

**Interval: 4396.00 ft (KB) To 4430.00 ft (KB) (TVD)**

Reference Elevations: 3260.00 ft (KB)

Total Depth: 4339.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8652**

**Inside**

Press @ Run Depth: 320.28 psig @ 4397.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.30

End Date:

2011.09.30

Last Calib.:

2011.09.30

Start Time: 00:45:05

End Time:

09:25:15

Time On Btm:

2011.09.30 @ 03:17:15

Time Off Btm:

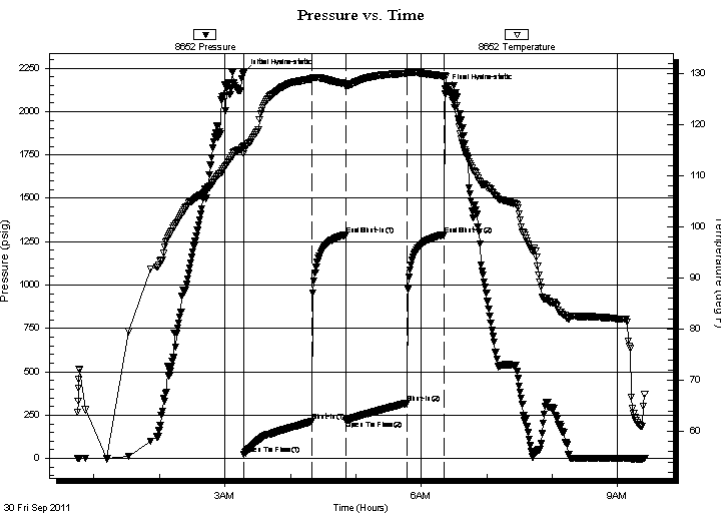
2011.09.30 @ 06:22:15

TEST COMMENT: IF: BOB 26 minutes.

IS: No return.

FF: BOB @ 50 minutes.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2221.68	115.74	Initial Hydro-static
1	24.62	114.30	Open To Flow (1)
63	214.24	128.96	Shut-In(1)
94	1288.95	128.00	End Shut-In(1)
94	220.24	127.49	Open To Flow (2)
150	320.28	129.98	Shut-In(2)
184	1287.47	129.49	End Shut-In(2)
185	2130.49	129.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
640.00	mcw 10m 90w	6.79

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Russell Oil, Inc

**5 11s 34w Logan,KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44487

**DST#: 3**

ATTN: Steve Angle

Test Start: 2011.09.30 @ 00:45:00

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

50000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
640.00	mcw 10m 90w	6.791

Total Length: 640.00 ft      Total Volume: 6.791 bbl

Num Fluid Samples: 0

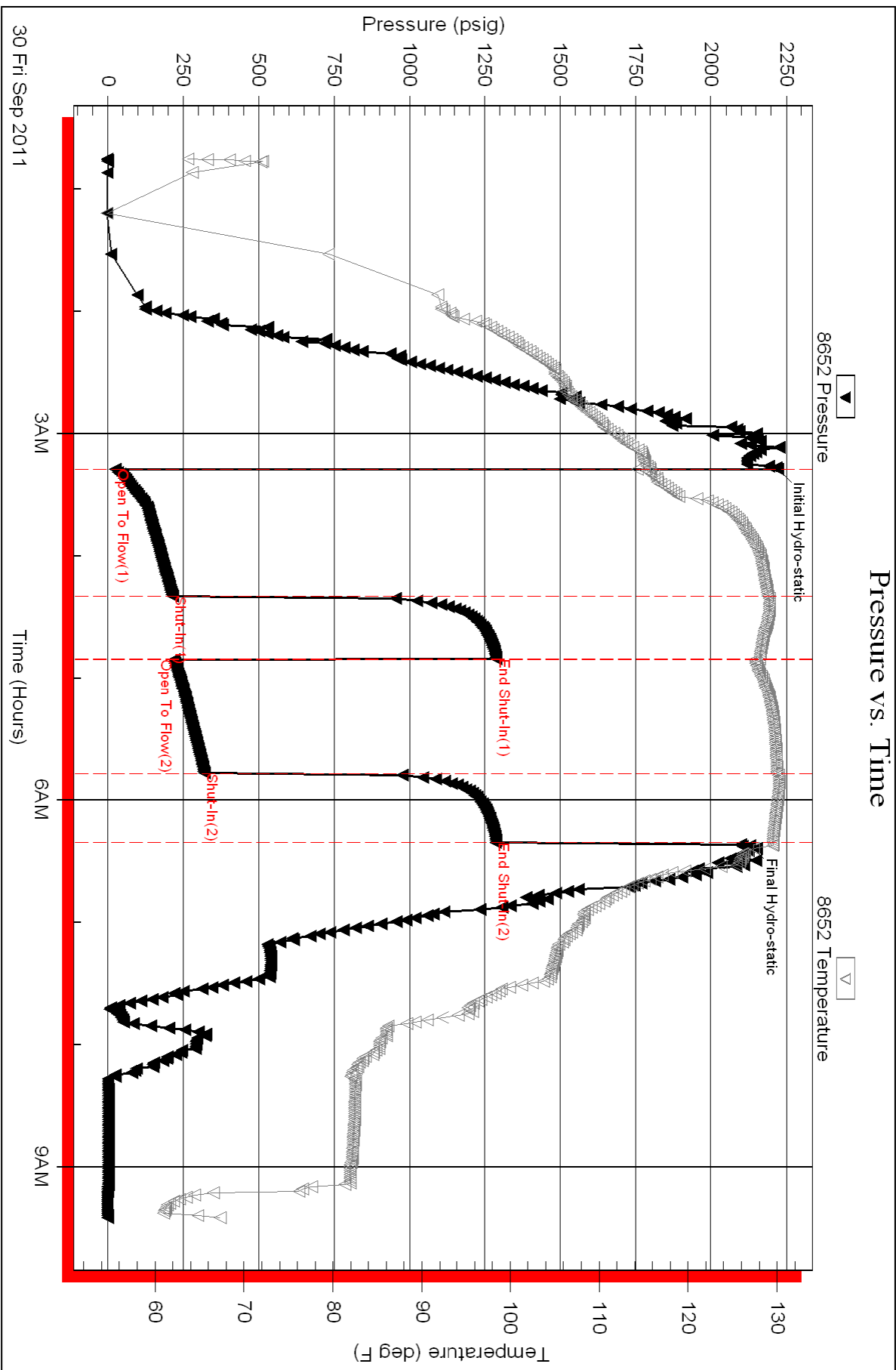
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .159 @ 65F = 50,000ppm





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Russell Oil, Inc

**5 11s 34w Logan, KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44488

**DST#: 4**

ATTN: Steve Angle

Test Start: 2011.10.01 @ 19:36:00

## GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:40:45

Time Test Ended: 05:08:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 40

**Interval: 4671.00 ft (KB) To 4678.00 ft (KB) (TVD)**

Reference Elevations: 3260.00 ft (KB)

Total Depth: 4748.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8652 Inside**

Press @ Run Depth: 532.65 psig @ 4672.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.01

End Date:

2011.10.02

Last Calib.: 2011.10.02

Start Time: 19:36:05

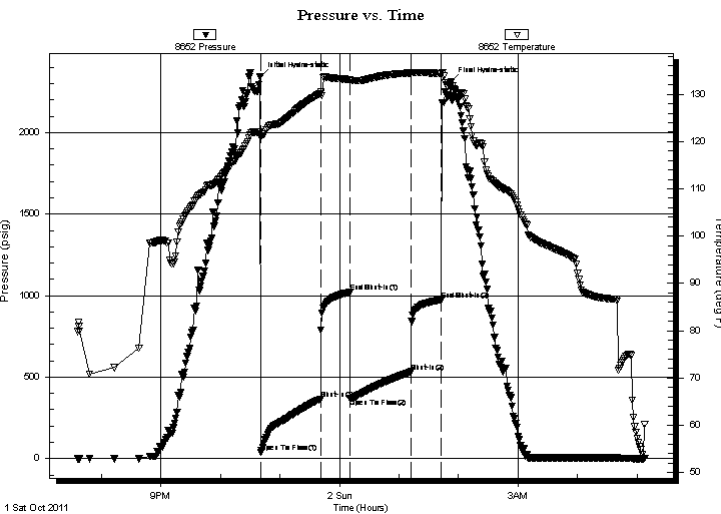
End Time:

05:08:15

Time On Btm: 2011.10.01 @ 22:40:30

Time Off Btm: 2011.10.02 @ 01:52:15

**TEST COMMENT:** IF: BOB @ 9 minutes.  
IS: No return.  
FF: BOB @ 13 minutes.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2341.46	122.12	Initial Hydro-static
1	38.54	120.77	Open To Flow (1)
61	366.22	130.19	Shut-In(1)
90	1019.66	133.09	End Shut-In(1)
91	369.75	132.90	Open To Flow (2)
152	532.65	134.51	Shut-In(2)
182	972.88	134.33	End Shut-In(2)
192	2311.22	131.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
740.00	mcw 5m 95w	7.64
445.00	ow cm 1o 9m 90w	6.24
5.00	oil 100o	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Russell Oil, Inc

**5 11s 34w Logan,KS**

P.O. Box 8050  
Edmond, Ok 73083

**James D 1-5**

Job Ticket: 44488

**DST#: 4**

ATTN: Steve Angle

Test Start: 2011.10.01 @ 19:36:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

54000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
740.00	mcw 5m 95w	7.638
445.00	ow cm 1o 9m 90w	6.242
5.00	oil 100o	0.070

Total Length: 1190.00 ft      Total Volume: 13.950 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

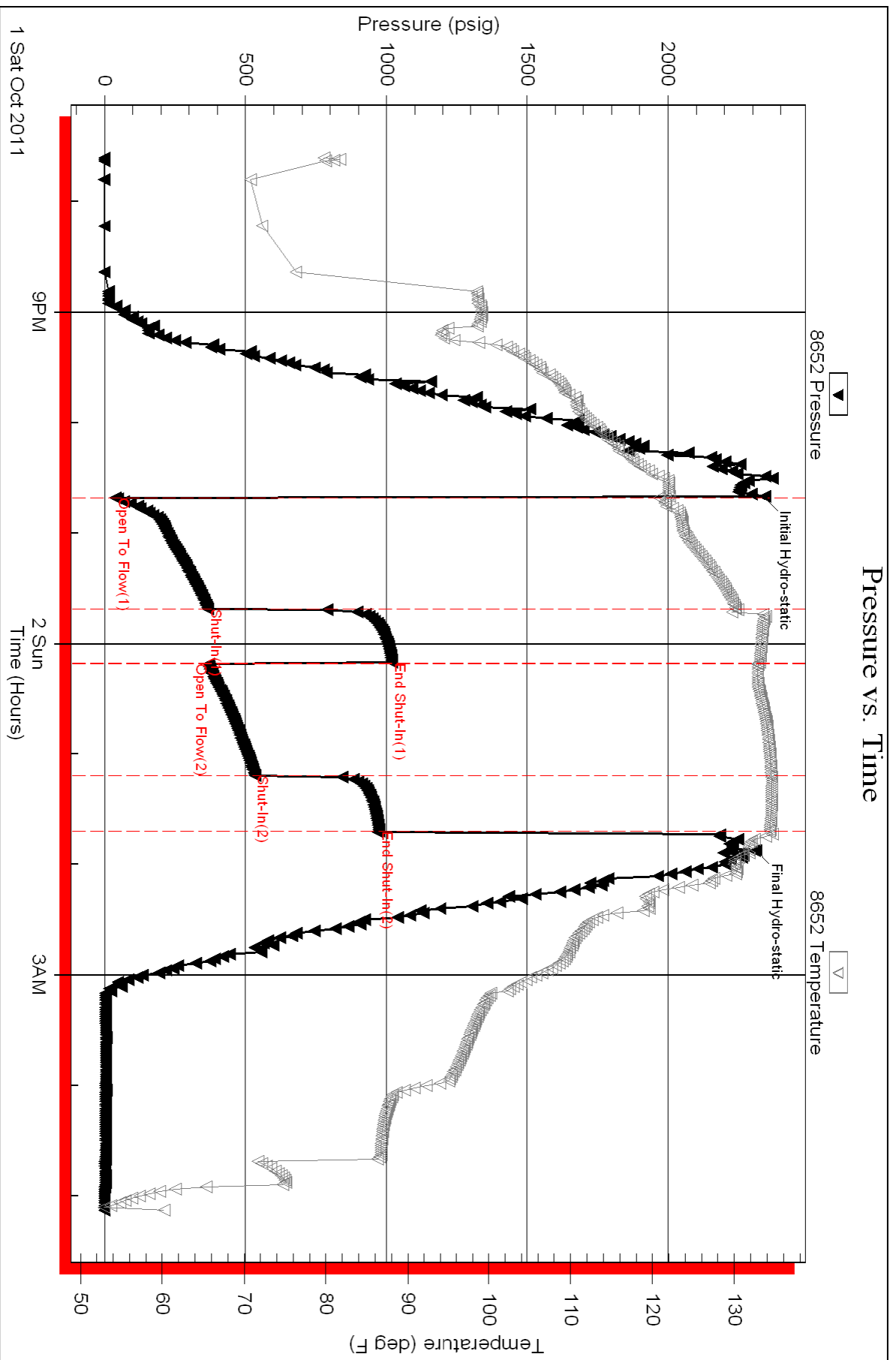
Laboratory Name:

Laboratory Location:

Recovery Comments: .170 @ 55f = 54000ppm



# Pressure vs. Time







# GEOLOGICAL REPORT

DRILLING TIME

S.D. ANGLE - COPYRIGHT 2011

SAMPLE LOG

COMPANY Russell Oil, Inc.  
LEASE James "D"  
WELL NO. 1-5  
LOCATION 1600' FSL + 1500' FEL  
SEC 5 TWN 11S RNG 34 W  
COUNTY LOGAN STATE KANSAS  
POOL WILDCAT  
API NO. 15-109-21032-00-00

ELEVATIONS

KB 3260  
DF —  
GL 3249

MEASUREMENT FROM  
Top Kelly Bushing  
PIPE STRAP 4339'  
160 long to  
Board

CONTRACTOR H2 Drilling Rig #2  
COMMENCED September 22, 2011  
COMPLETED October 3, 2011  
RTD October 2, 2011  
MUD MUD-CO, INC. Chemical  
SAMPLES FROM 3800' TO 4900'  
DRILLING TIME FROM 3800' TO 4900'  
SUPERVISION FROM 3800' TO 4900'  
GEOLOGIST STEVEN D. ANGLE

CASING RECORD

SURFACE \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PRODUCTION NONE  
Plugged &  
Abandoned

REMARKS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

All formation tops, zones of interest, porosity, shows and sample time lag are based from the top of Kelly Bushing measurements. Any corrections in measurements during the drilling of this well have been incorporated into this report.

ORIGINAL  
COPY

Sincerely,

Steven D. Angle  
W. G. C.

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FORMATION TOPS

DATUM ELEVATION 3259 KB

FORMATION	SAMPLE	E LOG	DATUM	WELL A	WELL B
Anhydrite					
Base-Anhydrite		2772'	+ 487		
Topchka		3911'	- 652		
Hebner		4131'	- 872		
Toronto		4154'	- 895		
Kassins-Ke		4170'	- 911		
STARK shale		4398'	- 1139		
Base-Kassins City		4479'	- 1220		
MANHATTAN		4523'	- 1244		
PLUMITE		4588'	- 1329		
MYRIC STATION		4623'	- 1364		
FT. SCOTT		4645'	- 1386		
Cherokee shale		4676'	- 1417		
Atoka lime		4752'	- 1493		
Base Perm SD		4778'	- 1519		
MISSISSIPPI		4858'	- 1599		
Rotary Total Depth		4920'	- 1641		
406 Total Depth		4905'	- 1646		

CORRELATION WELLS

A.	
B.	

DAILY PENETRATION

DEPTH	@	TIME	ON	DATE
UNDER SURFACE				
1350'		3:30 P.M.		9-23-11
2570'		7:00 A.M.		9-25-11
3335'		7:00 A.M.		9-26-11
3985'		7:00 A.M.		9-27-11
4339'		7:00 A.M.		9-28-11
4396'		7:00 A.M.		9-29-11
4430'		7:00 A.M.		9-30-11
4667'		7:00 A.M.		10-1-11
4748'		7:00 A.M.		10-2-11
4900'		10:33 P.M.		10-2-11

MUD RECORD

DEPTH	TYPE & AMOUNTS
2185'	255x Gel, 165x hulls.
3136'	855x Gel, 185x hulls
4859'	355x Gel, 45x Soda Ash, 25x caustic Soda,
	1125x lignite, 15x Duxime, 105x hulls
3730'	355x Gel, 25x Soda Ash, 15x caustic Soda,
	15x lianite.
4396'	305x Gel, 25x caustic Soda, 45x Soda Ash,
	1185x lianite, 15x Duxime, 105x hulls
4590'	355x Gel, 85x Soda Ash, 35x caustic Soda,
	1125x lianite, 205x hulls.



**D R I L L I N G I N F O R M A T I O N**

DRILLING CONTR: Wd Drilling, Inc, Rig # 2

RIG PHONE: 680-890-6399

TOOL PUSHER: Steve Craig

PHONE: 680-770-2814

DRILLERS - DAYLIGHT TOUR: Daniel Moore

EVENING TOUR: Michael Moore

MORNING TOUR: Terry Christensen

SPUD DATE: \_\_\_\_\_ DATE OF RTD: October 2, 2011

SITE DIRECTIONS: 1 mi W of monument, 2 1/2 N to 1st line

W. 3 mi to 300 Rd S 1/2 mile, West into location.

SURFACE PIPE: \_\_\_\_\_

WELL STATUS: Placed & Abandoned

PRODUCTION CASING: None

DRILLING MUD CONTR: MWD-Co, Engineers: Tyler Adams

Ph. 785-731-5763

DRILL STEM TESTING: Triolobite Testrigs - 4 DST's,

Tester: Bradley (WALT) WATER-785-223-1407

CEMENTING: \_\_\_\_\_

ELECTRIC LOGGING: NOG-TECH, RAL Microservices,

Dual Compensated Density, Dual Inductance,

Benchek Compensated Sonic Log.

Engineer: D. Kerr.

**B I T R E C O R D**

NO. PURPOSE	SIZE	MAKE	TYPE	IN	OUT	JETS	PUMP
1	Surface	12 1/4	Value	ERISONS	0	264'	400
1	Bore	7 7/8	Value	HE 21	264'	4900'	850

DST NO. 1 INTERVAL 4310' TO 4339' TYPE Anchor 29' TIMES 60-30-60-30  
 Blow: Bottom of bucket in 34 minutes. SI. No returns. 2nd. Increased to 9" blow. SI No return.  
 Rec: 480' mud cut water (10% mud) w/oil spots in Tool. Chlorides 32,000 PPM.  
 IF/FF 24 - 177 SIF/SFF 181 - 261 ISI/FSI 1152-1092 IH/FH 2164-2122 Temp: 127°F

DST NO. 2 INTERVAL 4345' TO 4396' TYPE Anchor 51' TIMES 15-30-15-30  
 Blow: Surface blow, died in 9 minutes. SI, No returns. No blow - Flushed Tool - No help. SI - No returns.  
 Rec: 20' MUD.  
 IF/FF 23 - 23 SIF/SFF 25 - 29 ISI/FSI 1268-1249 IH/FH 2166-2131 Temp: 117°F

DST NO. 3 INTERVAL 4396' TO 4430' TYPE Anchor 34' TIMES 60-30-60-30  
 Blow: Bottom of bucket at 26 minutes. SI - No return. 2nd. B.O.B at 50 minutes. SI - No return.  
 Rec: 640' mud cut water (10% mud). Chlorides 50,000 PPM.  
 IF/FF 25 - 214 SIF/SFF 220 - 320 ISI/FSI 1289-1287 IH/FH 2222-1287 Temp: 128°F

DST NO. 4 INTERVAL 4611 TO 7178 TYPE Anchor 11 TIMES 60-30-60-30

Blow : Bottom of bucket in 9 minutes SI - NO return. 2nd - Bottom of bucket in 13 minutes, SI - No return.

Rec: 5' Free Oil, 445' oily MUD CUT WATER (1% oil - 5% mud - 95% water), 740' MUD CUT WATER (5% mud - 95% water), Chlorides 54,000 ppm

IF/FF 39-366 SIF/SFF 370-533 ISI/FSI 1020-973 IH/FH 2341-2311 Temp: 128°f

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_

Blow : \_\_\_\_\_

Rec: \_\_\_\_\_

IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_

Blow : \_\_\_\_\_

Rec: \_\_\_\_\_

IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_

Blow : \_\_\_\_\_

Rec: \_\_\_\_\_

IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_

Blow : \_\_\_\_\_

Rec: \_\_\_\_\_

IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_

Blow : \_\_\_\_\_

Rec: \_\_\_\_\_










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DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_  
 Blow : \_\_\_\_\_  
 Rec: \_\_\_\_\_  
 IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

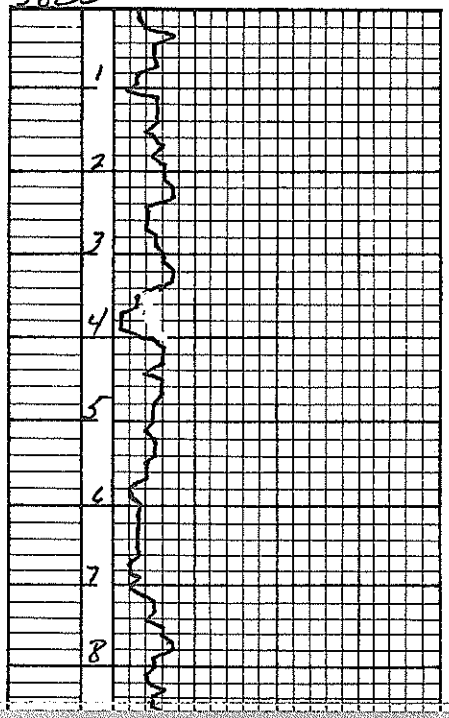
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 Blow : \_\_\_\_\_  
 Rec: \_\_\_\_\_  
 IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

DST NO. \_\_\_\_\_ INTERVAL \_\_\_\_\_ TO \_\_\_\_\_ TYPE \_\_\_\_\_ TIMES \_\_\_\_\_  
 Blow : \_\_\_\_\_  
 Rec: \_\_\_\_\_  
 IF/FF \_\_\_\_\_ SIF/SFF \_\_\_\_\_ ISI/FSI \_\_\_\_\_ IH/FH \_\_\_\_\_ Temp: \_\_\_\_\_

### LEGEND

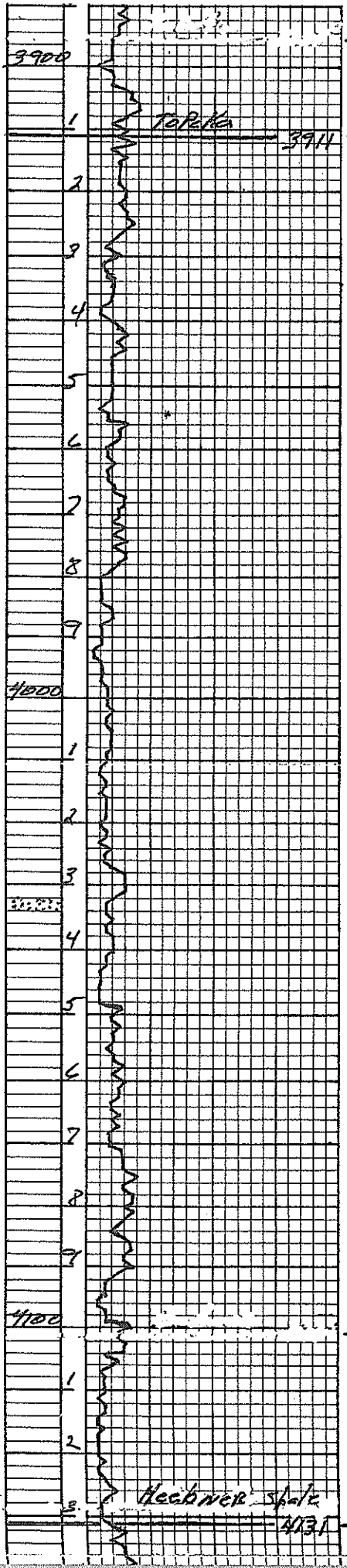
- Anhydrite  

- Salt  

- Sandstone  

- Shale  

- Carb Sh  

- Limestone  

- Ool. Lime  

- Chert  

- Dolomite  


X = SHOW OR ODR  
 LOG TOPS MARKED  
 3800



Varied Group - Tan xgn ls SCAT Foss ls  
 Varied Grp xgn ls - Tan Buff Foss xgn ls  
 Tan Carb Mkt Sh - Couple Turquoise sh  
 Tan Fw sdy sh  
 White - off wht to tan Fw xgn ls - SCAT Foss ls  
 Fw weathered off white to tan  
 xgn ls + Foss ls.  
 SCAT Ft tan weathered Fw xgn  
 Micro Foss ls  
 white to tan xgn ls + SCAT wht + tan  
 Fw xgn ls - some sdy + Foss ls  
 white to tan Fw xgn ls. Some  
 weathered Fw xgn ls - some sdy ls.  
 SCAT white Chky clay - white off  
 white Fw xgn Success ls  
 Some weathered and Foss ls.  
 SCAT white sh - off white Fw - med  
 xgn ls w/ some weathered print  
 white - off tan weathered





-659  
-652  
56  
50  
50  
-875  
-872

lt tan to lt grey weathered  
xgn ls to fm xgn dense ls

lt tan xgn fissile hd ls + scat  
weathered friable loose ls.

varied wht + varicol tan xgn + dense pass ls

varicol tan fm xgn + xgn ls +  
xgn pass ls.

varicol wht varicol tan + v fm  
sl. weathered ls.

lt. tan weathered ls + scat sl.  
vuggy ls.

lt. tan scat weathered sh ls  
scat sl. vugginess

lt. tan pass - sl. weathered  
scat v sl. vuggy ls.

lt tan firm tan hd microp sh pass + pass  
sl. weathered ls.

scat white saet chh - lt tan fm xgn  
+ fm xgn pass ls.  
wht saet chh + few blk shs

white saet chh - lt tan fm xgn sl.  
weathered ls. some wht sd clusters  
some fm loose blk sd grains

scat saet to firm wht chh  
lt tan fm xgn sl. shly - sl  
weathered ls

scat blk shs + varicol  
tan xgn ls + xgn pass ls.

Number pieces conk blk sh - lt tan  
xgn - dense ls w/ blk dead air

scat dk redol grn sd clusters fairly loose

varicol tan pass + xgn ls few scat  
pieces lt grey sd - fairly tight.

50

varicol tan - varicol xgn ls.  
scat buff congl pass shly ls.

buff - tan dense ls scat sl.  
weathered ls

varicol wht xgn dense ls. few shly ls  
few grey firm sd clusters.

lt grey soft white xgn ls. few  
off wht pass ls.

same as above with few wht pass ls

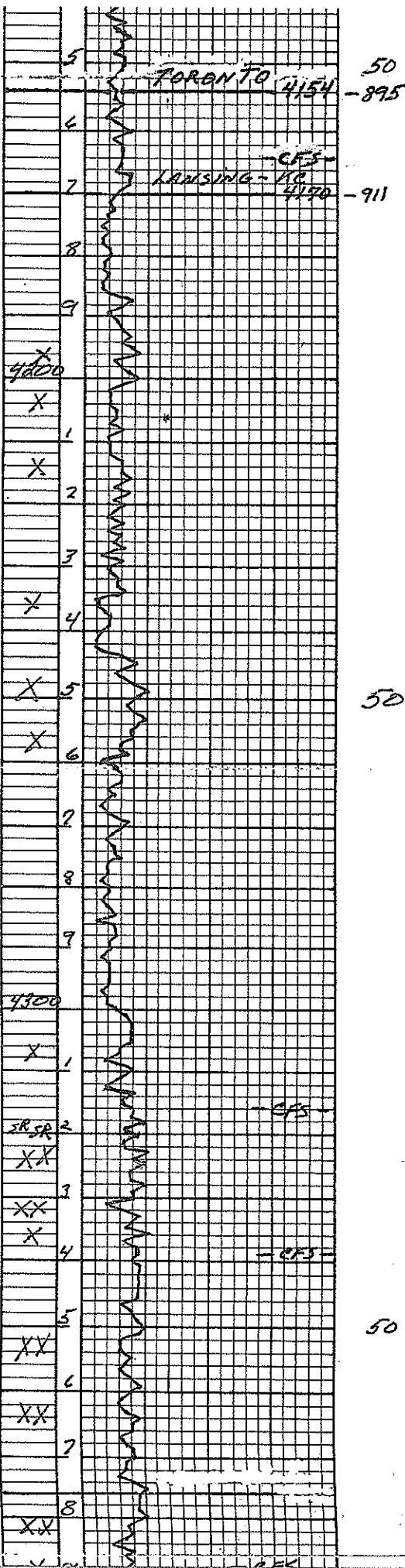
varicol lt. tan xgn ls - few pass ls.

buff - lt tan sl. weathered xgn  
dense - same pass ls. few grey  
fm sd clusters

Fair number conk blk shs  
varicol tan's xgn pass ls.  
Several pieces conk blk shs  
vari tan xgn dense + some  
tan pass ls.

Several pieces conk blk shs

Heckner shale

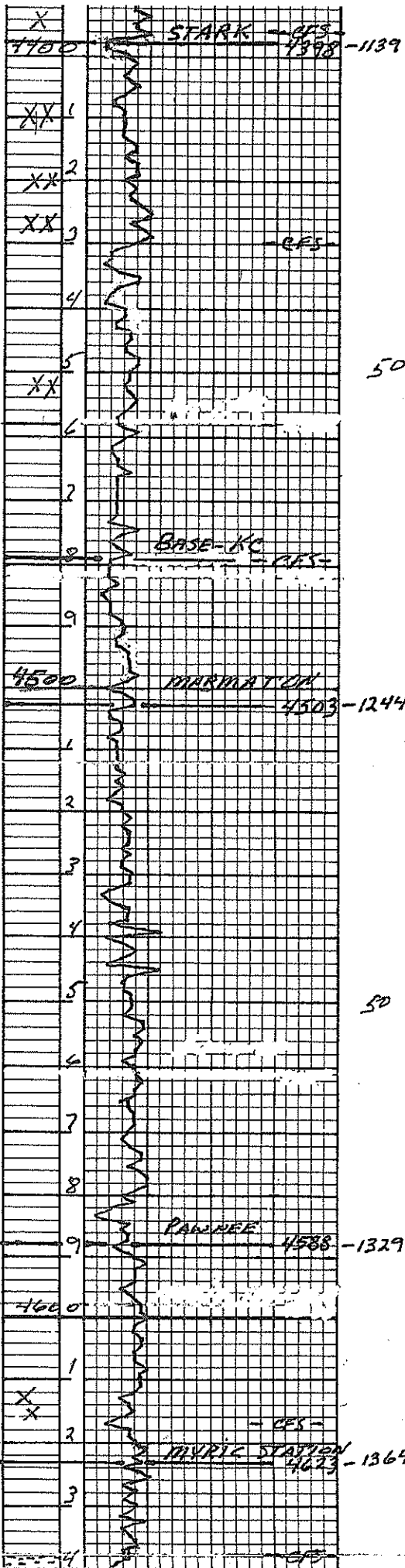


+ Tan xgn + Pass xgn ls  
 + Pass xgn ls.  
 50  
 5 SCAT Varied wlt. xgn friable ls  
 + Tan clms = xgn ls  
 Varied sl. silty ch. friable ls  
 + BK Tan ch. ls.  
 6  
 7 Wlt + lt Tan weathered Pass xgn ls.  
 White xgn ls + lt. SCAT Tan  
 Hd Pass chly ls.  
 8  
 9 SAME as above  
 3 pieces wlt xgn st. weath sl. Fract  
 + sl. vuggy ls. F5 BK hv oil + drops  
 NO OGOR  
 4000  
 X  
 1 2 Pieces same as above w/ sl. silty  
 NO OGOR  
 X  
 2 2 pieces wlt xgn sl. weath - sl  
 vuggy sl. Fract F5 BK hv oil - few Drops  
 SCAT white ch. - white xgn ls - some  
 weathered sl. silty sl. SCAT + print of  
 N50 NO OGOR  
 3  
 X 4 Couple wlt xgn ls w/ some  
 vuggy of F5 BK hv oil - some  
 Gilsonite NO OGOR  
 X 5 2 pieces wlt xgn ls. Good vuggy of  
 50  
 6 F5 BK hv oil 3 pieces vuggy w/ BK  
 2 pieces sl. vuggy - Fract dead oil.  
 sl. silty w/ BK hv tan oil.  
 SCAT white ch. - var wlt xgn + SCAT  
 sl. silty - SCAT weath sl. vuggy of  
 2  
 8  
 9 same as above  
 same as above w/ couple  
 pieces Turquoise SCAT 565  
 4300  
 varied wlt. ls - xgn - dense - sl. weathered  
 sl. silty sl. vuggy also - no OGOR  
 same w/ 2 pieces wlt xgn ls sl  
 weath SCAT vuggy of 52 BK Asphaltic oil.  
 X 1  
 CFS  
 SR SR 2 1 small piece - wlt xgn weath sl. vuggy  
 Fract km w/ 55 tan oil  
 1 piece wlt xgn weath hv 55 tan oil  
 Varied wlt dense - sl. xgn w/ SCAT  
 vugginess - SCAT F5D Fair OGOR - few  
 Drops when 1500 ft  
 Fair amount of xgn 2 in sl. silty cap  
 white km. GSEP - OGOR Fair vugginess  
 Same 55 drops  
 Fair amount wlt xgn w/ some vugginess  
 + 2 in xgn of OGOR  
 3  
 XX  
 X 4  
 CFS  
 50  
 5 white dense ls. wlt tan xgn  
 ls. BK - BK - Grey shales  
 6  
 XX 1 piece xgn km w/ 50 - some  
 rainbows w/ faint OGOR  
 SCAT pieces wlt xgn weathered  
 Fractured - some Pass ls SCAT 560  
 some wet oil STD - Rainbows  
 7  
 XX 8 SCAT wlt xgn Pass - some Pass  
 STD 560 F5 Rainbows wlt STD  
 Fair OGOR - 560 BK w/ oil  
 Varied white dense  
 vugginess

DST 1 4154 - 4190

DST 2

4154 - 4190



1 small piece km-55 BIK and  
 Few off wht - Grey very weather  
 base pass ls sl silty seat sep  
 Some Brun wht STAY FS weathered  
 strong sour odor  
 1 small piece wht 792 km  
 w/ show of oil + good sour odor  
 BUFF ls - odor when broken but also  
 Few pieces wht XTIZ Comp AMF 550  
 Few clay foss ls 550 GIP sour odor  
 SEAT COAL MIX SHS - Multi Col SHS. Vari  
 dense xgn ls  
 Varied wht + Tan dense to chly  
 To sl chly sl chly - xgn ls 150 - 200  
 wht - Tan xgn ls / tiny piece wht  
 sh. vuggy xgn ls w/ 50 no odor  
  
 wht to tan varied xgn ls  
 Few tan foss hd chly dense ls  
  
 Var. wht. tan xgn ls  
 IT grey fr sil clust - some reddish yellow  
 Tan dense xgn ls coarse soil zone  
 Few seat grey - wht + tan sil clusters  
 Varied wht - Tan dense - xgn ls.  
 wht - Tan dense - xgn - seat foss ls.  
 Few grey soft clays  
 wht - Tan ls.  
  
 Brun shales - Tan + Grey xgn ls  
  
 wht. Grey Brun xgn seat foss ls  
  
 BIK - Brun - Grey shs  
 + wht to Tan dense - xgn ls.  
  
 wht - Tan - Grey ls.  
 Few pieces orange chts  
  
 wht - Tan ls - Few orange chts  
  
 wht tan xgn ls  
 Some wht weathered xgn ls.  
  
 SEAT Grey chts - Varied Tan dense  
 xgn ls Few chly foss ls.  
  
 SEAT Tan - Brun xgn sl. weather ls  
 Few Grey Fr chts - Varied Tan ls  
  
 Varied wht - Tan - Brun ls  
 Brun - Grey xgn chly ls - some foss  
 Grey ls  
 1 piece Tan very foss xgn col. km  
 w/ oil saturation 1550 chly xgn  
 wht - buff - Tan ls  
 dk Brun chly ls  
 wht - buff - Tan xgn ls.  
 Brun - Grey xgn chly ls.  
 SEAT COAL MIX SHS - Buff - Tan xgn ls  
 Few grey FG chts

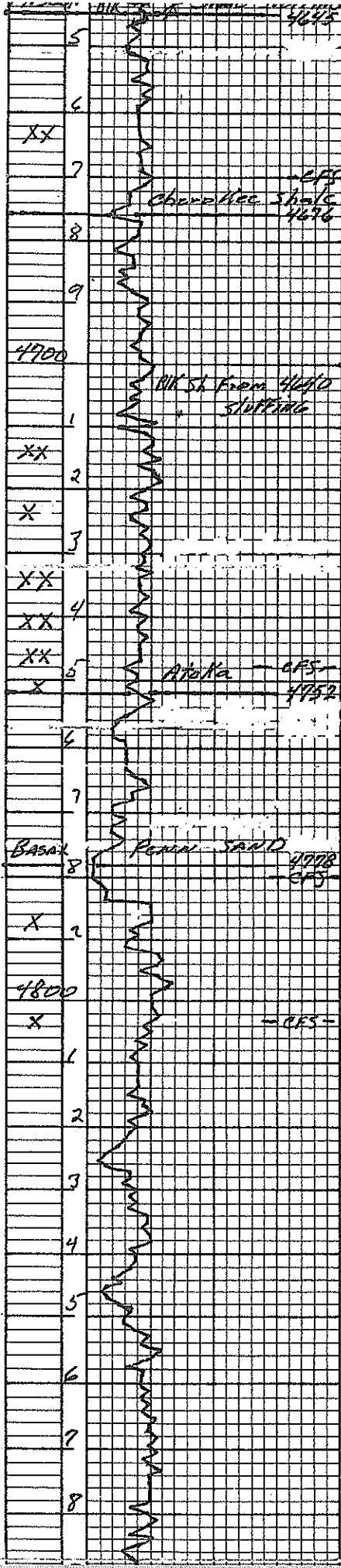
0573 4396-4430

50

50

X

X



Buff-Tan clay ls - same Brun City ls  
 Same as above w/ Grey fn chts  
 1 piece buff weathered ls w/ gel. irregular fat + print por varied w/ fso - E odor Pass ls - seat grey chts  
 white - tan ls - cream very hd dense congl limy chit - seat tan xgn pass ls.  
 Few seat tan congl. chty ls + Brun Pass weathered limcs  
 Varied wbt. tan dense xgn weath ls. - All - Grey Brun shs  
 tan - brown varied ls  
 1 piece buff fithy ls w/ fso couple brown oil drops - gel odor few small shrapes seat Brun yellow weath pass hd chty - sky congl. ls fso - E odor  
 seat pieces grey weath hd vuggy to vugular ls - fso - E odor fat odor  
 2 pieces - weath grey dense vuggy ls w/ fso - fso - few ht Brun xgn hd limy seat Brun yellow weath pass  
 2 pieces - weath grey hd dense vuggy ls w/ fso - E odor  
 some as above w/ 1 piece xgn ls w/ fso - E odor  
 Multi col shs - soft wbt clay - few Brun sd clust.  
 multi - col shs - few off white shly - v fine gran sd clusters some loose v fine gran clc sds  
 multi - col shs - turquoise shs - few pale grey chts - seat off wbt + ht Brun sd clust few pale green blue seat wbt sd clust sd clusters  
 several tan chty xgn ls w/ oil hd oil. 1 piece Brun ls sh. vugular fso - vugs seat wbt Brun sd clust.  
 1 wbt sd clust w/ fso asphaltic oil seat green - yellow shs - Van dr sd few wbt shly also dd filky sd clusters wbt shly shs - wbt sd clusters wbt limy sd - seat tan chty ls seat grey sd clusters  
 same as above - couple pass tan ls + ht grey chts  
 Varied wbt + tan xgn chty sky ls seat wbt hd pass ls - few wbt limy sd clusters  
 Vari tan dense seat xgn ls few greenish sd clusters  
 50  
 tan dense to fine xgn ls. few ht tan chts - seat varied white to tan fine gran sd clusters  
 tan dense - xgn sky ls.  
 white to ht tan weathered xgn ls seat sky ls couple ht limy chts. few tan grey chts - white xgn ls - tan hd pass ls - white weathered pass ls.  
 tan dense shly ls - white xgn ls

4900

CFS

Top clay ls. - white xgr ls.  
few milky cherts - few white limy sd clusters

RTD 4900' @ 10:33 P.M. on 10-2-11

1

2

3

