



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1084543  
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: \_\_\_\_\_

1084543

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	K. Ottley 1-14
Doc ID	1084543

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	K. Ottley 1-14
Doc ID	1084543

Tops

Name	Top	Datum
Base Anhydrite	2294	+530
Heebner	3789	-966
Lansing	3825	-1001
Muncie Creek	3990	-1166
Stark Shale	4079	-1255
Huspuckney	4113	-1287
BKC	4154	-1330
Pawnee	4282	-1458
Cherokee Shale	4363	-1539
Johnson	4404	-1580
Mississippian	4450	-1626



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

ATTN: Steve Davis

Job Ticket: 48256

**DST#: 1**

Test Start: 2012.06.01 @ 15:56:09

## GENERAL INFORMATION:

Formation: **B**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 18:07:54  
 Time Test Ended: 22:00:54  
 Interval: **3846.00 ft (KB) To 3870.00 ft (KB) (TVD)**  
 Total Depth: 3870.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Shane McBride  
 Unit No: 55  
 Reference Elevations: 2824.00 ft (KB)  
 2819.00 ft (CF)  
 KB to GR/CF: 5.00 ft

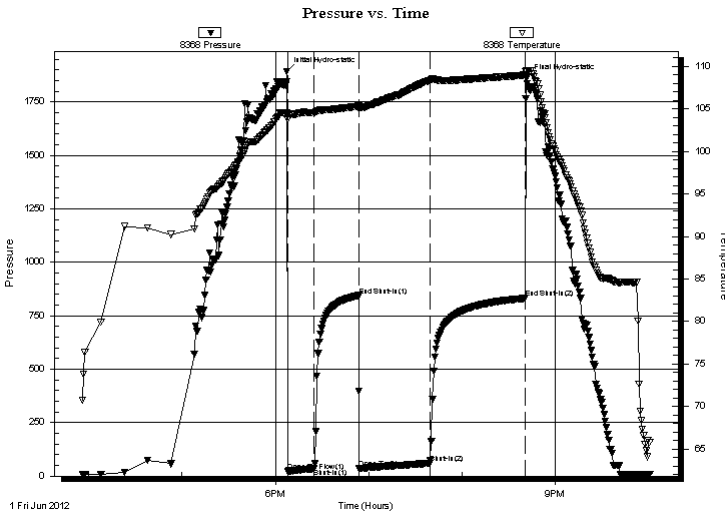
## Serial #: 8368

Inside

Press @ Run Depth: 60.39 psig @ 3847.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01  
 Start Time: 15:56:09 End Time: 22:00:54 Time On Btm: 2012.06.01 @ 18:07:24  
 Time Off Btm: 2012.06.01 @ 20:41:24

TEST COMMENT: Weak 1/4" blow  
 No return  
 Surface blow in 9 min  
 No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.59	104.52	Initial Hydro-static
1	23.11	103.72	Open To Flow (1)
18	34.73	104.57	Shut-In(1)
46	844.81	105.33	End Shut-In(1)
47	35.80	105.06	Open To Flow (2)
92	60.39	108.37	Shut-In(2)
153	831.86	108.98	End Shut-In(2)
154	1861.31	109.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	w c m 50%w 50%m	0.32

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 48256

**DST#: 1**

ATTN: Steve Davis

Test Start: 2012.06.01 @ 15:56:09

## 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: 29500 ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.56 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2500.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	w c m 50%w 50%m	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: rw .247 @ 65\*f = 29,500

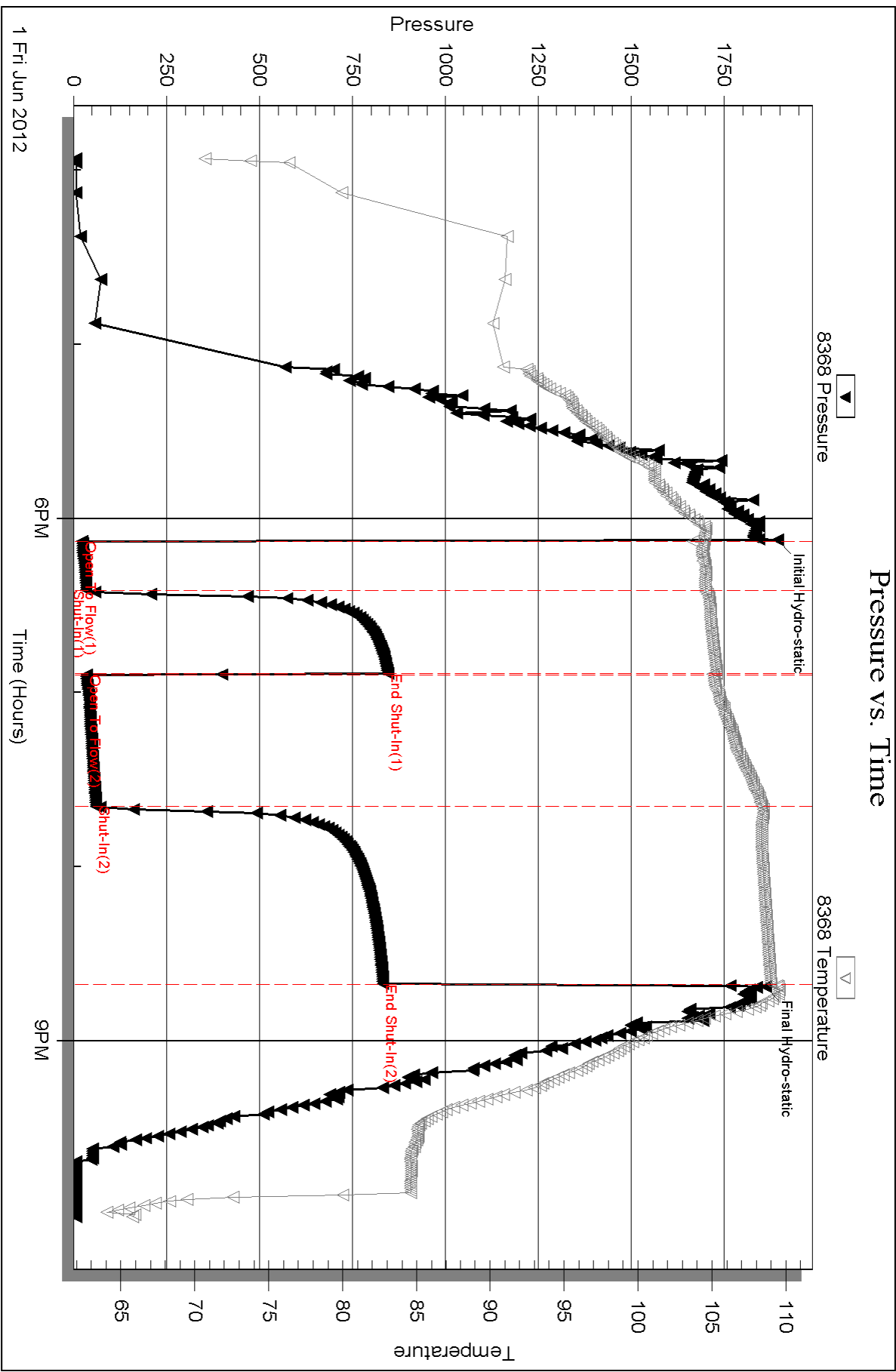
Serial #: 8368

Inside

Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48256

Printed: 2012.06.04 @ 08:43:33



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 48257

**DST#: 2**

ATTN: Steve Davis

Test Start: 2012.06.02 @ 04:55:27

## GENERAL INFORMATION:

Formation: **D**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 06:42:12  
 Time Test Ended: 10:20:57  
 Interval: **3896.00 ft (KB) To 3916.00 ft (KB) (TVD)**  
 Total Depth: 3916.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Shane McBride  
 Unit No: 55  
 Reference Elevations: 2824.00 ft (KB)  
 2819.00 ft (CF)  
 KB to GR/CF: 5.00 ft

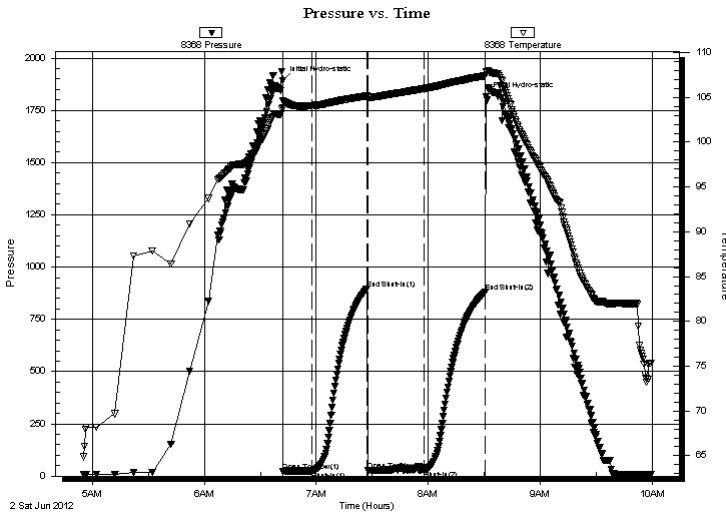
## Serial #: 8368

Inside

Press @ Run Depth: 26.76 psig @ 3897.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.02 End Date: 2012.06.02 Last Calib.: 2012.06.02  
 Start Time: 04:55:27 End Time: 09:58:57 Time On Btm: 2012.06.02 @ 06:41:57  
 Time Off Btm: 2012.06.02 @ 08:30:57

TEST COMMENT: Weak blow died in 8 min  
 No return  
 No blow  
 No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.78	104.63	Initial Hydro-static
1	24.12	103.88	Open To Flow (1)
16	24.68	104.08	Shut-In(1)
45	895.54	105.16	End Shut-In(1)
46	25.65	104.78	Open To Flow (2)
76	26.76	105.98	Shut-In(2)
109	880.79	107.41	End Shut-In(2)
109	1816.22	107.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 48257

**DST#: 2**

ATTN: Steve Davis

Test Start: 2012.06.02 @ 04:55:27

## 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:	0 ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.56 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100%m	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

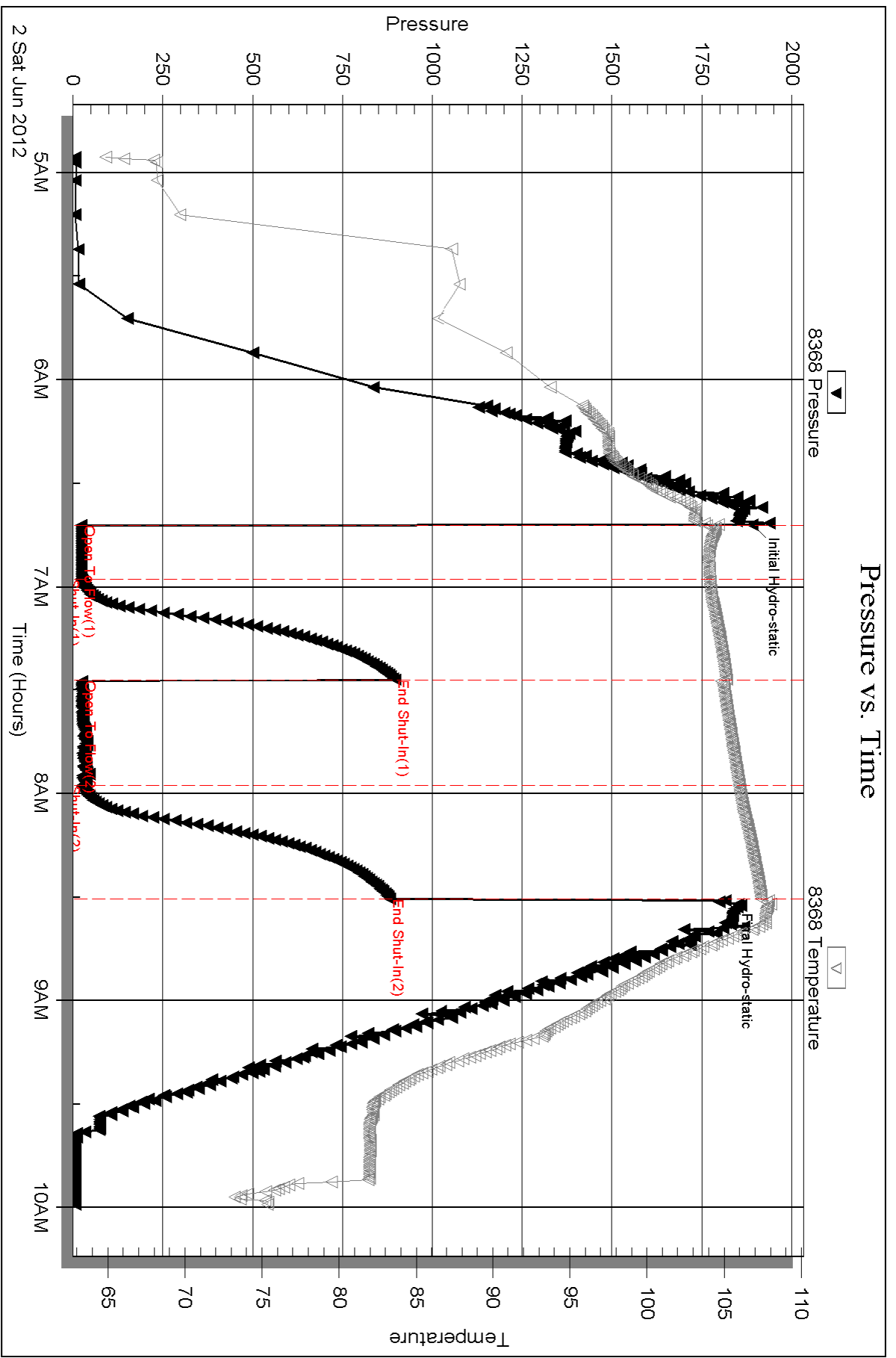
Serial #: 8368

Inside

Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 2





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

ATTN: Steve Davis

Job Ticket: 48258

**DST#: 3**

Test Start: 2012.06.02 @ 19:30:56

## GENERAL INFORMATION:

Formation: **H**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 21:04:41  
 Time Test Ended: 01:20:41  
 Interval: **3982.00 ft (KB) To 4012.00 ft (KB) (TVD)**  
 Total Depth: 4012.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Shane McBride  
 Unit No: 55  
 Reference Elevations: 2824.00 ft (KB)  
 2819.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6771

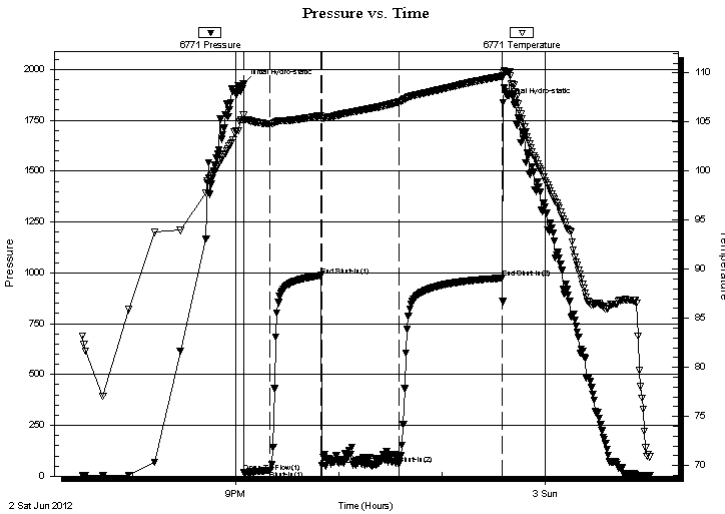
**Outside**

Press @ Run Depth: 56.70 psig @ 3983.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.02 End Date: 2012.06.03 Last Calib.: 2012.06.03  
 Start Time: 19:30:56 End Time: 01:00:41 Time On Btm: 2012.06.02 @ 21:04:26  
 Time Off Btm: 2012.06.02 @ 23:35:26

TEST COMMENT: 1/4" blow  
 No return  
 Surface blow  
 No return

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1928.66	105.71	Initial Hydro-static
1	18.51	105.12	Open To Flow (1)
16	28.57	104.81	Shut-In(1)
46	986.62	105.67	End Shut-In(1)
46	51.31	105.41	Open To Flow (2)
91	56.70	107.02	Shut-In(2)
151	974.29	109.67	End Shut-In(2)
151	1838.36	109.97	Final Hydro-static



## Recovery

Length (ft)	Description	Volume (bbl)
65.00	w c m w/oil spots on top 45%w 55%m	0.32

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 48258

**DST#: 3**

ATTN: Steve Davis

Test Start: 2012.06.02 @ 19:30:56

## 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:

32000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	w c m w/oil spots on top 45%w 55%m	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

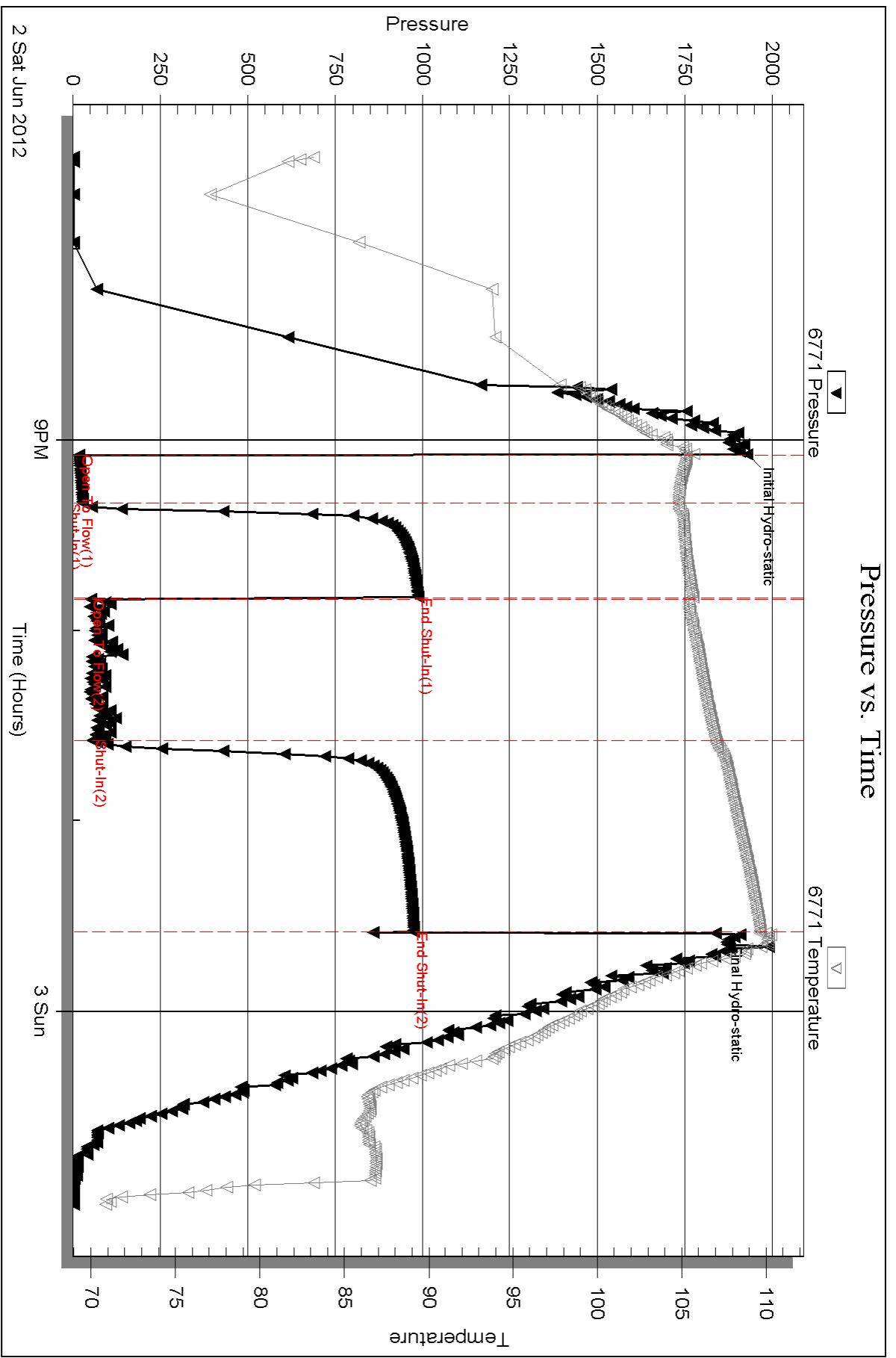
Recovery Comments: rw .230 @ 65\*f = 32,000 chlor

Serial #: 6771

Outside Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 48258

Printed: 2012.06.04 @ 08:41:46



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

ATTN: Steve Davis

Job Ticket: 48259

**DST#: 4**

Test Start: 2012.06.03 @ 07:35:34

## GENERAL INFORMATION:

Formation: **I**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 09:19:19

Time Test Ended: 13:45:19

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 55

**Interval: 4017.00 ft (KB) To 4045.00 ft (KB) (TVD)**

Reference Elevations: 2824.00 ft (KB)

Total Depth: 4045.00 ft (KB) (TVD)

2819.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Outside**

Press @ Run Depth: 57.66 psig @ 4018.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.03

End Date:

2012.06.03

Last Calib.:

2012.06.03

Start Time: 07:35:34

End Time:

13:23:19

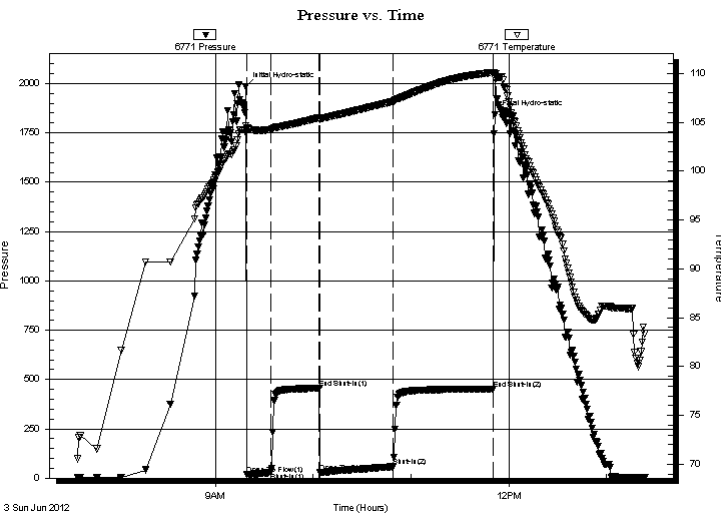
Time On Btm:

2012.06.03 @ 09:18:49

Time Off Btm:

2012.06.03 @ 11:51:34

**TEST COMMENT:** 1/4" blow  
No return  
1/8" blow  
No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1986.10	104.63	Initial Hydro-static
1	18.21	104.03	Open To Flow (1)
15	27.96	104.27	Shut-In(1)
45	454.92	105.48	End Shut-In(1)
46	29.04	105.29	Open To Flow (2)
90	57.66	107.13	Shut-In(2)
152	451.65	110.11	End Shut-In(2)
153	1842.99	109.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	s w c m 15%w 85%m oil spots on top	0.32

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 48259

**DST#: 4**

ATTN: Steve Davis

Test Start: 2012.06.03 @ 07:35:34

## 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:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	s w c m 15%w 85%m oil spots on top	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

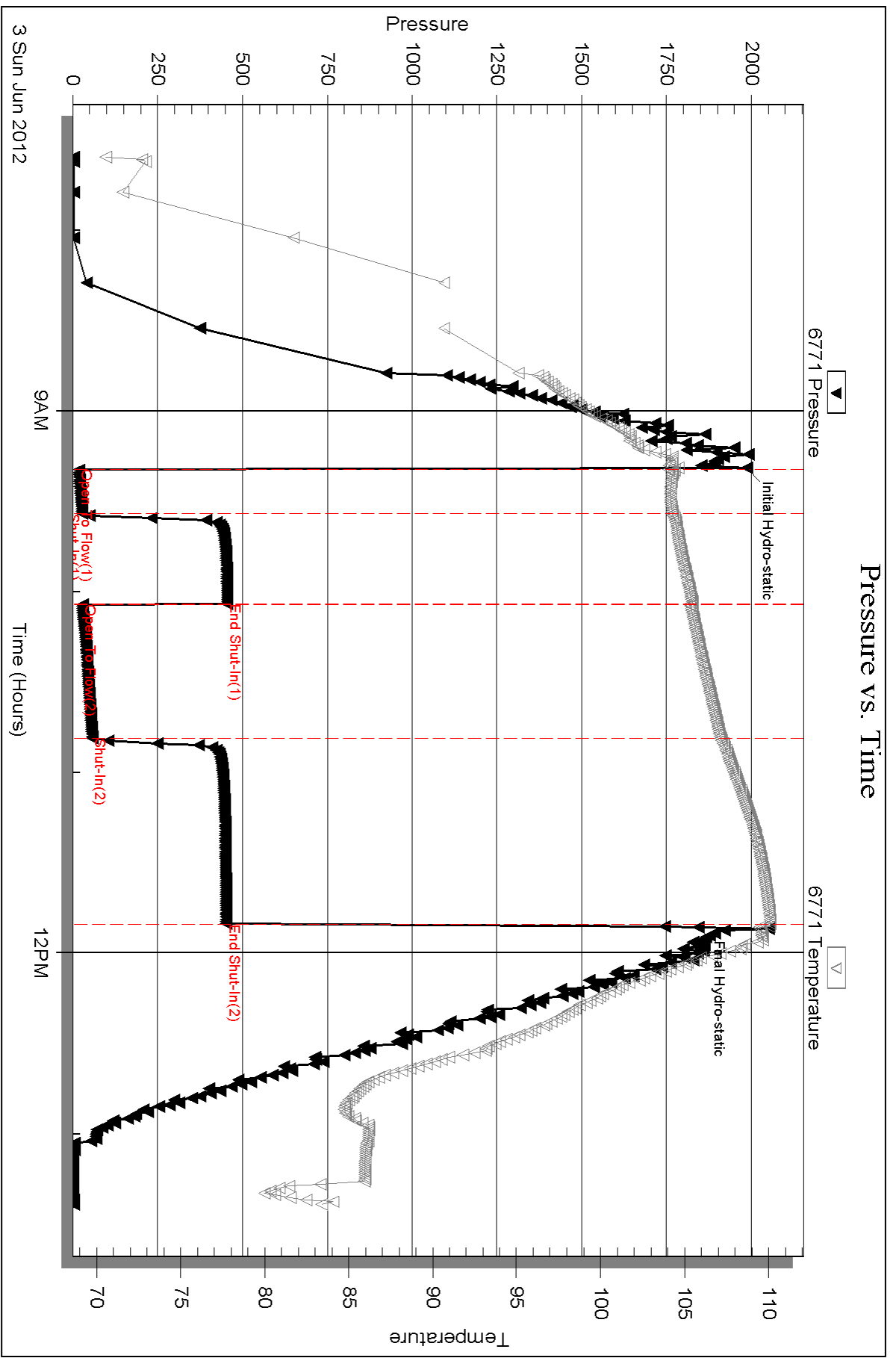
Recovery Comments:

Serial #: 6771

Outside Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 48259

Printed: 2012.06.04 @ 08:40:27





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

ATTN: Steve Davis

Job Ticket: 46592

**DST#: 5**

Test Start: 2012.06.03 @ 19:25:15

## GENERAL INFORMATION:

Formation: **J**  
 Deviated: **No** Whipstock: **0.00 ft (KB)**  
 Time Tool Opened: 20:56:30  
 Time Test Ended: 01:06:45  
 Interval: **4046.00 ft (KB) To 4072.00 ft (KB) (TVD)**  
 Total Depth: **4072.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Cole Archibald**  
 Unit No: **55**  
 Reference Elevations: **2824.00 ft (KB)**  
**2819.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

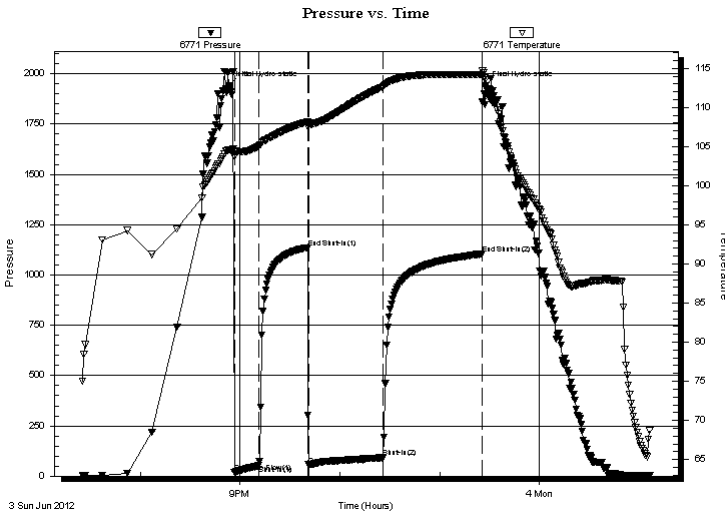
## Serial #: 6771

**Outside**

Press @ Run Depth: **91.56 psig @ 4047.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2012.06.03** End Date: **2012.06.04** Last Calib.: **2012.06.04**  
 Start Time: **19:25:15** End Time: **01:06:45** Time On Btm: **2012.06.03 @ 20:53:00**  
 Time Off Btm: **2012.06.03 @ 23:27:30**

TEST COMMENT: 1/2 inch blow  
no return  
built to 1.5 inch  
no return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.43	104.57	Initial Hydro-static
4	19.94	103.70	Open To Flow (1)
19	54.30	105.06	Shut-In(1)
48	1135.84	108.14	End Shut-In(1)
48	56.27	107.83	Open To Flow (2)
93	91.56	112.65	Shut-In(2)
153	1104.62	114.20	End Shut-In(2)
155	1941.14	113.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	mw 50/50	0.97
5.00	o 100	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**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 46592

**DST#: 5**

ATTN: Steve Davis

Test Start: 2012.06.03 @ 19:25:15

**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: 52.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
150.00	mw 50/50	0.975
5.00	o 100	0.070

Total Length: 155.00 ft      Total Volume: 1.045 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

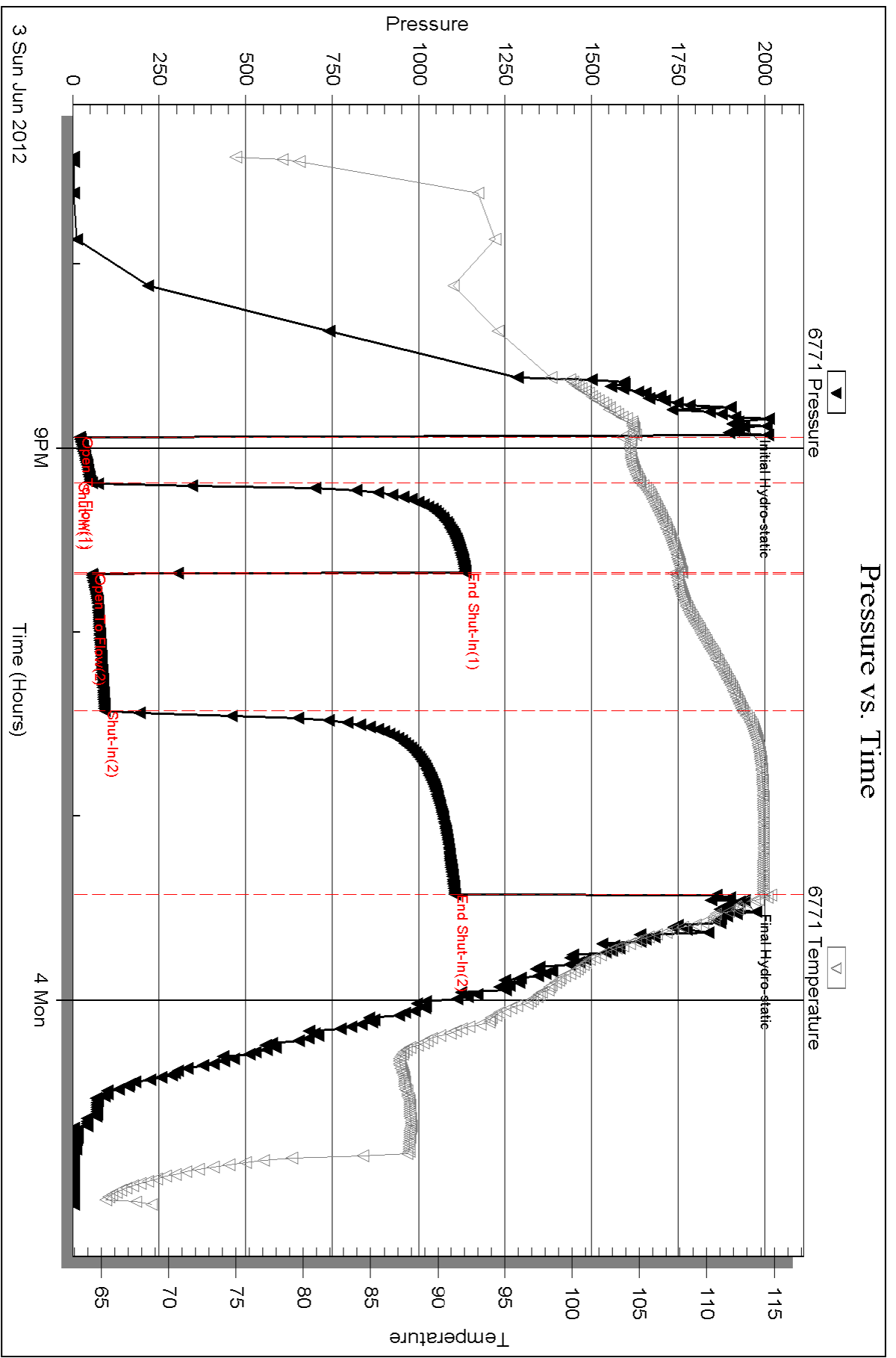
Recovery Comments:

Serial #: 6771

Outside Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 46592

Printed: 2012.06.04 @ 08:39:22



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

ATTN: Steve Davis

Job Ticket: 46592

**DST#: 5**

Test Start: 2012.06.03 @ 19:25:15

## GENERAL INFORMATION:

Formation: **J**  
 Deviated: **No** Whipstock: **0.00 ft (KB)**  
 Time Tool Opened: 20:56:30  
 Time Test Ended: 01:06:45  
 Interval: **4046.00 ft (KB) To 4072.00 ft (KB) (TVD)**  
 Total Depth: **4072.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Cole Archibald**  
 Unit No: **55**  
 Reference Elevations: **2824.00 ft (KB)**  
**2819.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

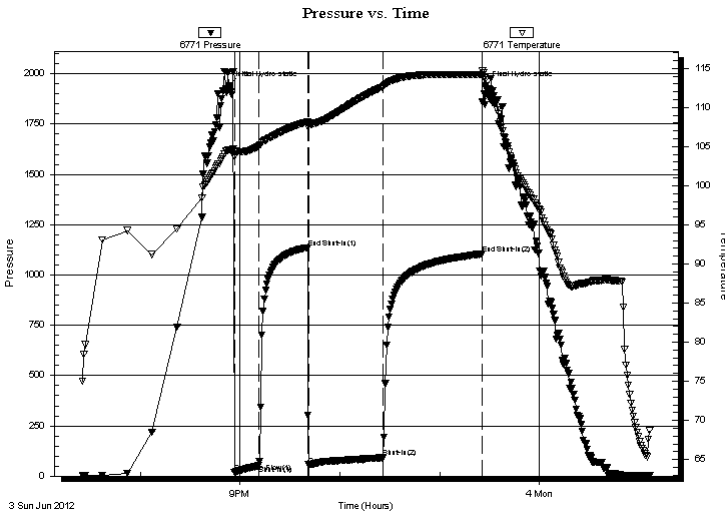
## Serial #: 6771

**Outside**

Press @ Run Depth: **91.56 psig @ 4047.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2012.06.03** End Date: **2012.06.04** Last Calib.: **2012.06.04**  
 Start Time: **19:25:15** End Time: **01:06:45** Time On Btm: **2012.06.03 @ 20:53:00**  
 Time Off Btm: **2012.06.03 @ 23:27:30**

TEST COMMENT: 1/2 inch blow  
no return  
built to 1.5 inch  
no return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.43	104.57	Initial Hydro-static
4	19.94	103.70	Open To Flow (1)
19	54.30	105.06	Shut-In(1)
48	1135.84	108.14	End Shut-In(1)
48	56.27	107.83	Open To Flow (2)
93	91.56	112.65	Shut-In(2)
153	1104.62	114.20	End Shut-In(2)
155	1941.14	113.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	mw 50/50	0.97
5.00	o 100	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**

Shakespeare Oil Co Inc

**14-14s-32w Logan,KS**

202 W Main St  
Salem, IL 62881

**K Ottley #1-14**

Job Ticket: 46592

**DST#: 5**

ATTN: Steve Davis

Test Start: 2012.06.03 @ 19:25:15

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
150.00	mw 50/50	0.975
5.00	o 100	0.070

Total Length: 155.00 ft

Total Volume: 1.045 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

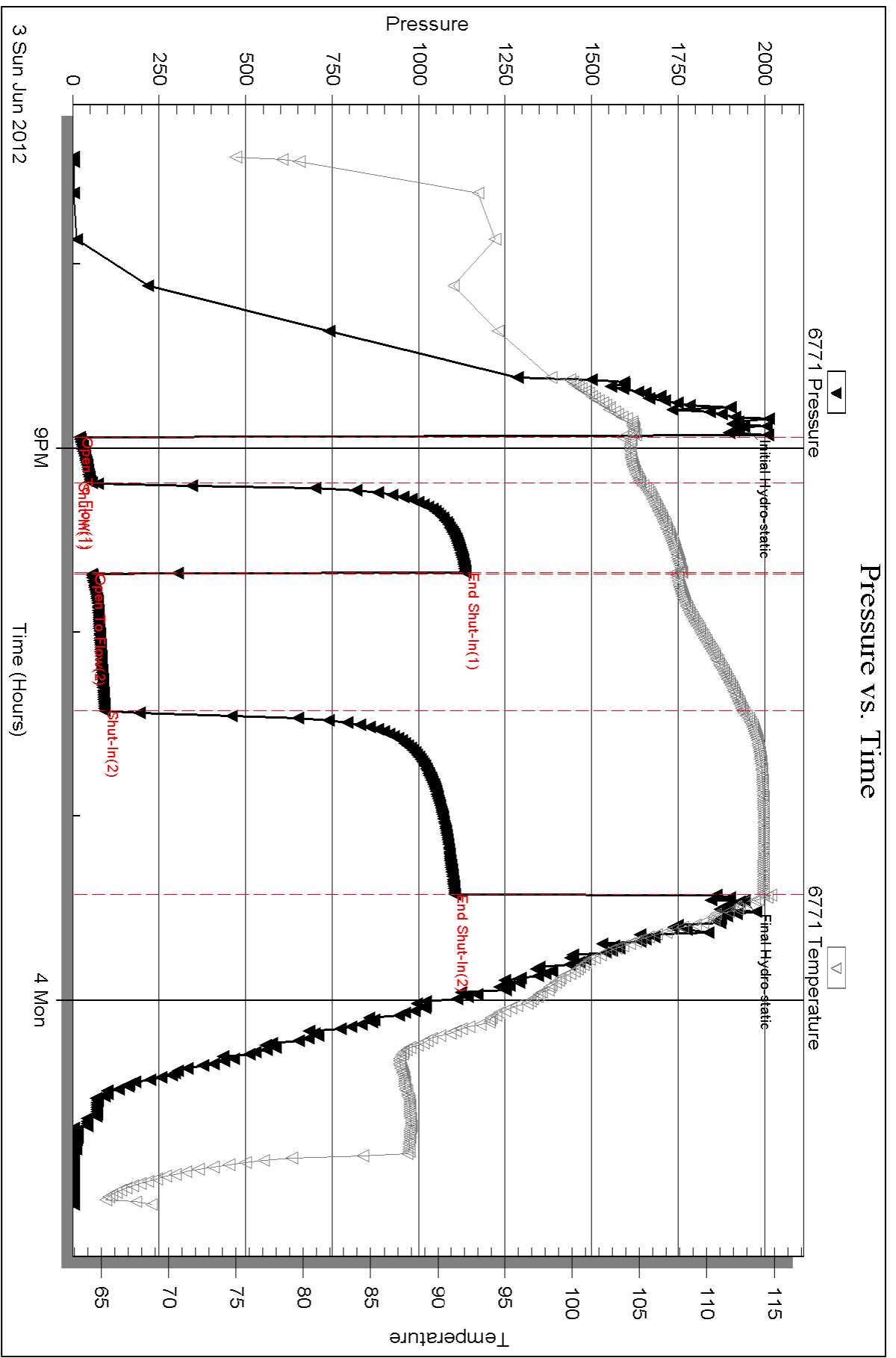
Recovery Comments:

Serial #: 6771

Outside Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 5





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

14-14-32 Logan, Ks

202 W Main St  
Saem, Il  
62881

**K Ottley #1-14**

Job Ticket: 46593

**DST#: 6**

ATTN: Steve Davis

Test Start: 2012.06.04 @ 00:17:15

## GENERAL INFORMATION:

Formation: **myran station**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 02:27:00

Time Test Ended: 06:36:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cole Archibald

Unit No: 55

**Interval: 4302.00 ft (KB) To 4330.00 ft (KB) (TVD)**

Reference Elevations: 2824.00 ft (KB)

Total Depth: 4330.00 ft (KB) (TVD)

2819.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771 Outside**

Press @ Run Depth: 23.41 psig @ 4303.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.04

End Date: 2012.06.04

Last Calib.: 2012.06.05

Start Time: 12:17:15

End Time: 18:36:30

Time On Btm: 2012.06.04 @ 14:26:45

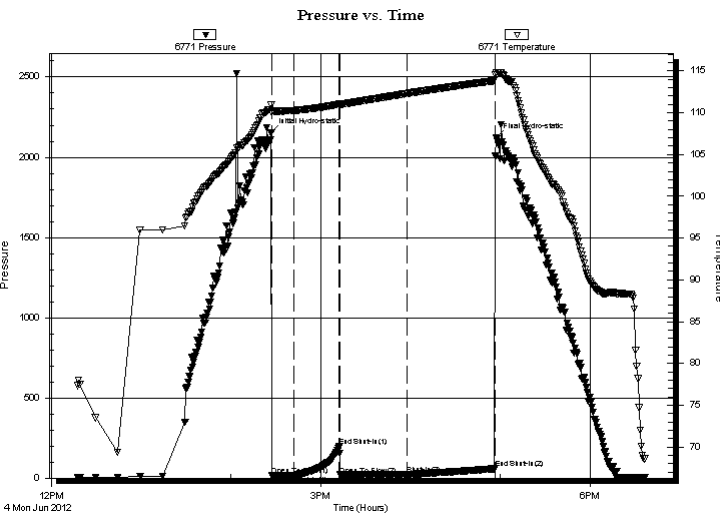
Time Off Btm: 2012.06.04 @ 16:57:15

**TEST COMMENT:** dying surface blow

no return

no blow

no return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2155.10	110.90	Initial Hydro-static
1	18.06	110.04	Open To Flow (1)
16	19.41	110.27	Shut-In(1)
46	195.74	111.03	End Shut-In(1)
46	20.59	110.99	Open To Flow (2)
91	23.41	112.29	Shut-In(2)
150	58.78	113.83	End Shut-In(2)
151	2123.93	114.83	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	M	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14-32 Logan, Ks**

202 W Main St  
Saem, Il  
62881

**K Ottley #1-14**

Job Ticket: 46593

**DST#: 6**

ATTN: Steve Davis

Test Start: 2012.06.04 @ 00:17:15

## 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: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

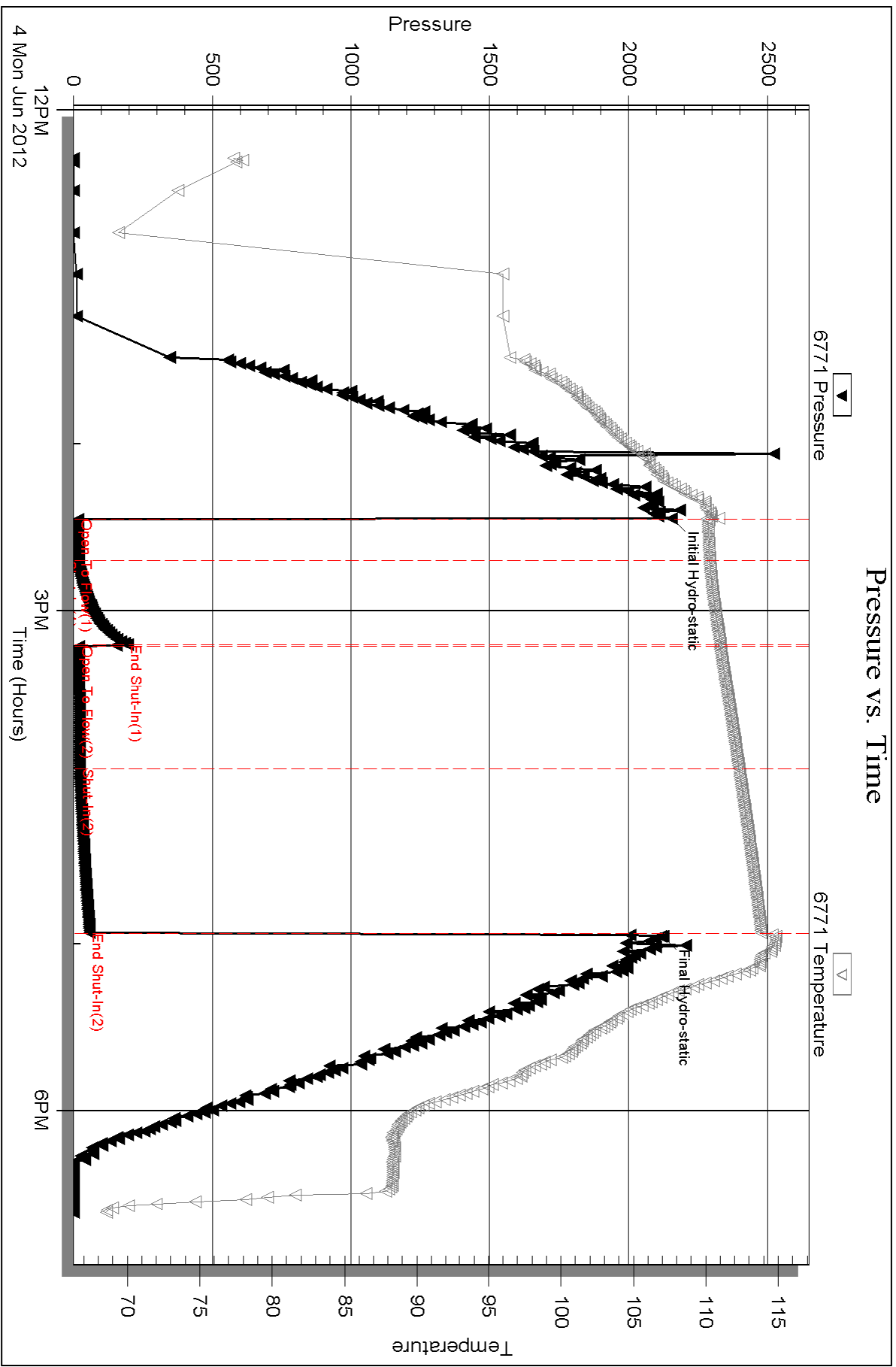


Serial #: 6771

Outside Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 6





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

14-14-32 Logan, Ks

202 W Main St  
Saem, Il  
62881

**K Ottley #1-14**

Job Ticket: 46594

**DST#: 7**

ATTN: Steve Davis

Test Start: 2012.06.05 @ 18:00:15

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 19:42:45

Time Test Ended: 23:05:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cole Archibald

Unit No: 55

**Interval: 4383.00 ft (KB) To 4425.00 ft (KB) (TVD)**

Reference Elevations: 2824.00 ft (KB)

Total Depth: 3870.00 ft (KB) (TVD)

2819.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8368**

**Inside**

Press @ Run Depth: 42.64 psig @ 4384.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.05

End Date:

2012.06.05

Last Calib.:

2012.06.05

Start Time: 18:00:15

End Time:

23:05:15

Time On Btm:

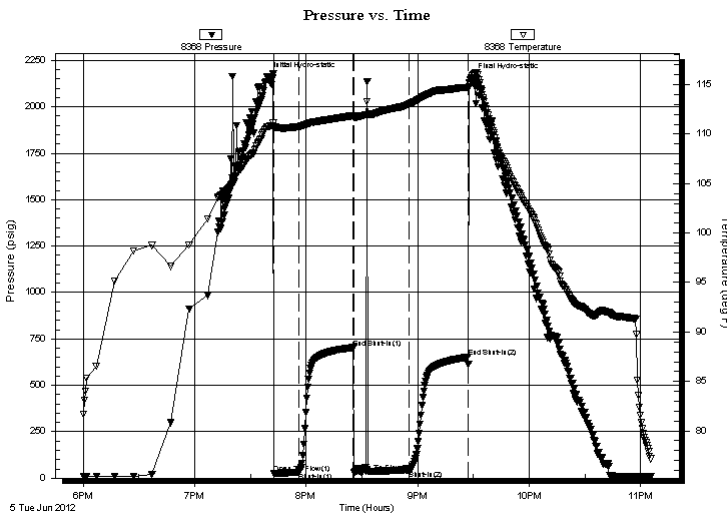
2012.06.05 @ 19:38:45

Time Off Btm:

2012.06.05 @ 21:28:45

**TEST COMMENT:** weak surface blow died after 12 min  
no return  
no blow, flushed tool, no blow  
no return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2164.89	110.78	Initial Hydro-static
4	26.02	110.69	Open To Flow (1)
17	31.36	110.76	Shut-In(1)
47	703.14	111.86	End Shut-In(1)
47	32.86	111.66	Open To Flow (2)
77	42.64	113.05	Shut-In(2)
109	652.00	114.71	End Shut-In(2)
110	2156.58	115.61	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	M	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Shakespeare Oil Co Inc

**14-14-32 Logan, Ks**

202 W Main St  
Saem, Il  
62881

**K Ottley #1-14**

Job Ticket: 46594

**DST#: 7**

ATTN: Steve Davis

Test Start: 2012.06.05 @ 18:00:15

**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: 53.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
15.00	M	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

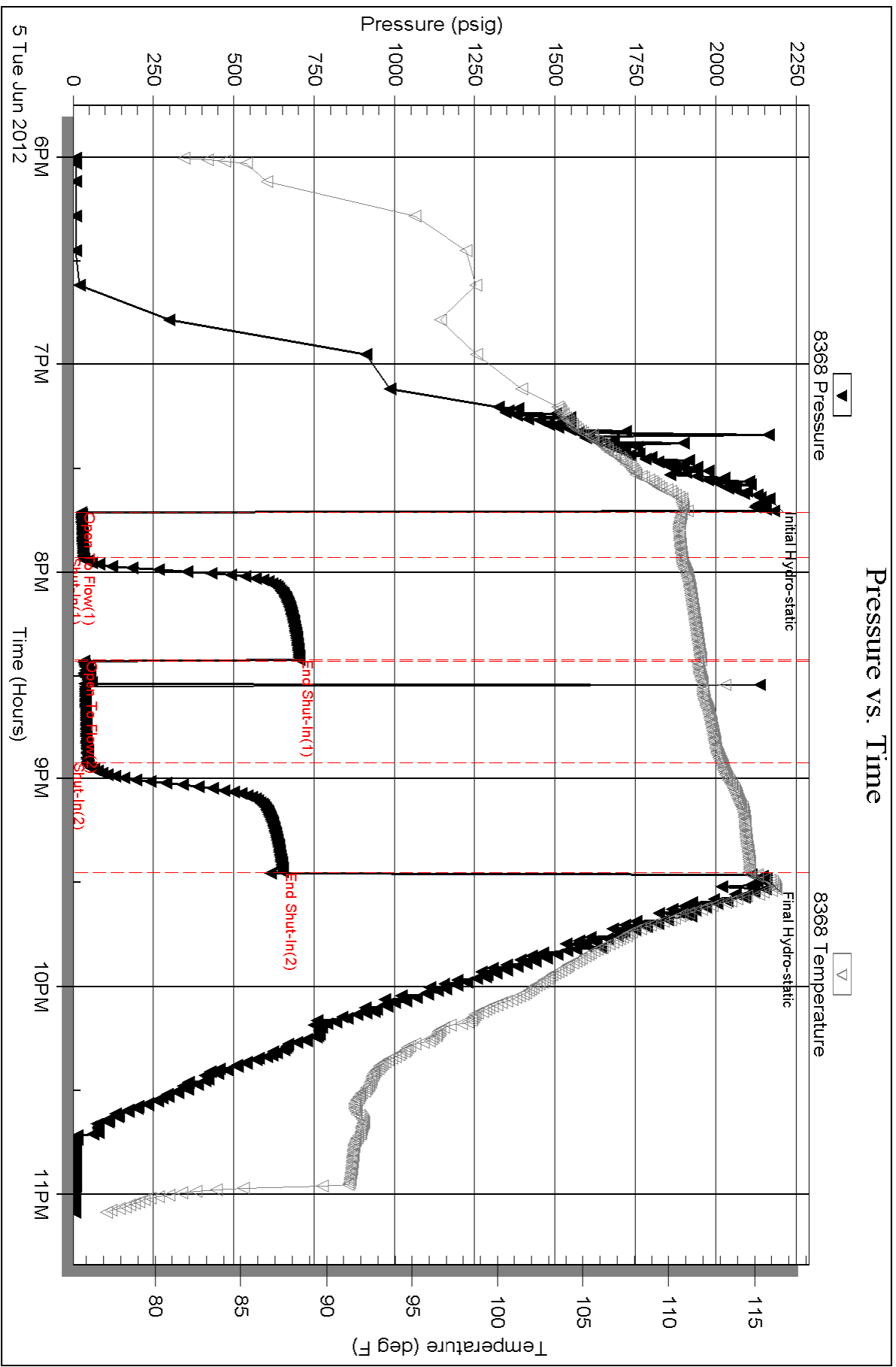
Serial #: 8368

Inside

Shakespeare Oil Co Inc

K Otley #1-14

DST Test Number: 7



Triobite Testing, Inc

Ref. No: 46594

Printed: 2012.06.06 @ 08:44:40



PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

# INVOICE

Invoice Number: 131369

Invoice Date: May 29, 2012

Page: 1

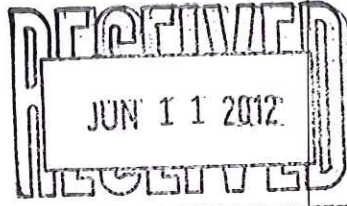


**Bill To:**

Shakespeare Oil Co., Inc.  
202 West Main St.  
Salem, IL 62881

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Shak	K Ottley #1-14	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 29, 2012	6/28/12

Quantity	Item	Description	Unit Price	Amount
160.00	MAT	Class A Common	16.25	2,600.00
3.00	MAT	Gel	21.25	63.75
6.00	MAT	Chloride	58.20	349.20
173.00	SER	Cubic Feet	2.10	363.30
157.92	SER	Ton Miles	2.35	371.11
1.00	SER	Surface	1,125.00	1,125.00
1.00	SER	Manifold Head Rental	200.00	200.00
20.00	SER	Heavy Vehicle Mileage	7.00	140.00
20.00	SER	Light Vehicle Mileage	4.00	80.00
1.00	CEMENTER	Andrew Forslund		
1.00	EQUIP OPER	Jerry Yates		
1.00	OPER ASSIST	Adam Holcomb		



INT

Surface Cement  
10502-5

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 1323.09

ONLY IF PAID ON OR BEFORE  
Jun 23, 2012

Subtotal	5,292.36
Sales Tax	219.95
Total Invoice Amount	5,512.31
Payment/Credit Applied	
<b>TOTAL</b>	<b>5,512.31</b>

DW

# ALLIED OIL & GAS SERVICES, LLC 056270

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: oakley  
5-29-12

DATE <u>5-29-12</u>	SEC. <u>14</u>	TWP. <u>14S</u>	RANGE <u>32W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>K Oakley</u>	WELL.# <u>1-14</u>	LOCATION <u>Oakley 19.5- 1/2 N</u>		COUNTY <u>Logan</u>	STATE <u>KS</u>		
JOB OR (NEW) (Circle one)		E. into					

CONTRACTOR <u>WTAJ 2</u>	OWNER <u>same</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>219'</u>
CASING SIZE <u>8 5/8</u>	DEPTH <u>219'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>15</u>	
PERFS.	
DISPLACEMENT <u>12,99 BBL</u>	

CEMENT	AMOUNT ORDERED <u>1600 lbs com</u>
	<u>3800 29692</u>
COMMON <u>160 s/s</u>	@ <u>16.25</u> <u>2600.00</u>
POZMIX	@
GEL <u>13 s/s</u>	@ <u>21.25</u> <u>63.75</u>
CHLORIDE <u>6.5 s/s</u>	@ <u>58.20</u> <u>349.20</u>
ASC	@

EQUIPMENT	
PUMP TRUCK CEMENTER <u>Andrew</u>	
# <u>423-281</u> HELPER <u>Jerry</u>	
BULK TRUCK	
# <u>347</u> DRIVER <u>Adam</u>	
BULK TRUCK	
#	DRIVER

HANDLING <u>127 cu/ft</u>	@ <u>2.10</u>	<u>363.30</u>
MILEAGE <u>2.25 miles/ton</u>	<u>282.20</u>	<u>371.11</u>
		TOTAL <u>3747.36</u>

REMARKS:

Cement did circulate

Thank you

SERVICE

DEPTH OF JOB <u>219'</u>	
PUMP TRUCK CHARGE	<u>1125.00</u>
EXTRA FOOTAGE	@
MILEAGE <u>20 miles</u>	@ <u>2.00</u> <u>140.00</u>
MANIFOLD <u>head</u>	@ <u>200.00</u>
<u>Light vehicle</u>	@ <u>4.00</u> <u>80.00</u>
	@

TOTAL 1545.00

CHARGE TO: Shakespeare oil & gas

STREET \_\_\_\_\_

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

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	

TOTAL \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) 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 and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Lonnie Yang

SIGNATURE Lonnie Yang

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES \_\_\_\_\_

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

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 131451  
Invoice Date: Jun 6, 2012  
Page: 1

Voice: (817) 546-7282  
Fax: (817) 246-3361

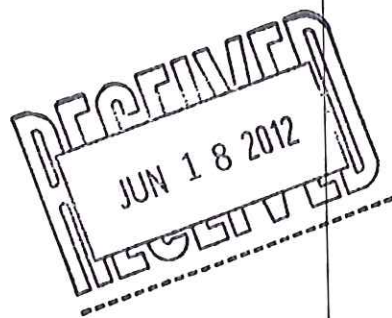


*INT*

**Bill To:**  
Shakespeare Oil Co., Inc.  
202 West Main St.  
Salem, IL 62881

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Shak	K Otley#1-14	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Jun 6, 2012	7/6/12

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Class A Common	16.25	2,145.00
88.00	MAT	Pozmix	8.50	748.00
8.00	MAT	Gel	21.25	170.00
55.00	MAT	FloSeal	2.70	148.50
236.30	SER	Handling	2.10	496.23
20.00	SER	Ton Miles	23.19	463.75
1.00	SER	Plugged to Abandon	1,250.00	1,250.00
20.00	SER	Heavy Vehicle Mileage	7.00	140.00
20.00	SER	Light Vehicle Mileage	4.00	80.00
1.00	EQP	8 5/8 Wooden Plug	92.00	92.00
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	EQUIP OPER	Kevin Eddy		



*Cement (Pluggings)  
10502-5*

Subtotal	5,733.48
Sales Tax	418.54
Total Invoice Amount	6,152.02
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,152.02</b>

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ *1433.97*

ONLY IF PAID ON OR BEFORE  
Jul 1, 2012

*DW*

# ALLIED CEMENTING CO., LLC. 035404

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:

*Dakley, Ky*

DATE <i>6/6/02</i>	SEC <i>14</i>	TWP. <i>14</i>	RANGE <i>32</i>	CALLED OUT	ON LOCATION	JOB START <i>11:00am</i>	JOB FINISH <i>12:00pm</i>
EASE <i>Kottley</i>	WELL# <i>1-14</i>	LOCATION <i>Dakley 205 E. N. Ervitz</i>			COUNTY <i>Logan</i>	STATE <i>KY</i>	
OLD OR NEW (Circle one)							

CONTRACTOR *WW 2*

TYPE OF JOB *PTA*

HOLE SIZE *7 7/8* TD.

CASING SIZE *8 5/8* DEPTH *250'*

TUBING SIZE DEPTH

DRILL PIPE *4 1/2* DEPTH

COOL DEPTH

RES. MAX MINIMUM

WEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

WEBS.

DISPLACEMENT

OWNER *Same*

CEMENT

AMOUNT ORDERED *220 60/40 407ozal*  
*114F10 seal*

COMMON <i>132</i>	@ <i>16.25</i>	<i>2145.00</i>
POZMIX <i>80</i>	@ <i>8.50</i>	<i>748.00</i>
GEL <i>8</i>	@ <i>21.25</i>	<i>170.00</i>
CHLORIDE	@	
ASC	@	
<i>Flo Seal 55lb</i>	@ <i>2.20</i>	<i>148.50</i>
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING <i>226.3 CF</i>	@ <i>2.10</i>	<i>496.23</i>
MILBAGE <i>22.5 700/psi</i>	<i>9.86770N</i>	<i>463.75</i>
TOTAL		<i>4171.98</i>

**EQUIPMENT**

PUMP TRUCK CEMENTER *Alan*

*402* HELPER *Wayne*

TULK TRUCK

*378* DRIVER *Kevin - AB*

TULK TRUCK DRIVER

**REMARKS:**

*2285' - 25 SK*

*1160' - 100 SK*

*270' - 40 SK*

*40' - 10 SK*

*RH - 30 SK*

*MH 15 SK*

*Truck  
Alan, Wayne, Kevin*

**SERVICE**

DEPTH OF JOB	<i>2285</i>	
PUMP TRUCK CHARGE		<i>1250.00</i>
EXTRA FOOTAGE	@	
MILBAGE <i>20</i>	@ <i>7.00</i>	<i>140.00</i>
MANIFOLD	@	
<i>Estelweld 20</i>	@ <i>4.00</i>	<i>80.00</i>
	@	

TOTAL *1470.00*

**PLUG & FLOAT EQUIPMENT**

<i>8512 Wooden Plug</i>	@	<i>92.00</i>
	@	
	@	
	@	
	@	

TOTAL *92.00*

CHARGE TO: *Shakespeare*

STREET

CITY STATE ZIP

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

PRINTED NAME *Honnie Lang*

SIGNATURE *Honnie Lang*

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



# RICHARD S. (Steve) DAVIS JR.

## Petroleum Geologist

212 N. Market

Wichita, Kansas 67202

Phone (316) 267-9115

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

<p>COMPANY <u>SHAKESPEARE OIL COMPANY, INC.</u></p> <p>LEASE <u>K. OTTLEY #1-14</u></p> <p>FIELD <u>UNNAMED</u></p> <p>LOCATION <u>2298' ESL S 800' FWL</u></p> <p>SEC. <u>14</u> TWSP <u>14S</u> RGE <u>32W</u></p> <p>COUNTY <u>LOGAN</u> STATE <u>KANSAS</u></p>	<p style="text-align: center;">ELEVATIONS</p> <p>KB <u>2824</u></p> <p>DF <u>          </u></p> <p>GL <u>2819</u></p> <p>Measurements Are All From <u>KB 2824</u></p>		
<p>CONTRACTOR <u>WW DRILLING RIG #2</u></p> <p>SPUD <u>5-29-2012</u> COMP <u>6-6-2012</u></p> <p>RTD <u>                  </u> LTD <u>                  </u></p> <p>MUD UP <u>3412</u> TYPE MUD <u>CHEMICAL</u></p>	<p style="text-align: center;">CASING</p> <p>SURFACE <u>8 5/8 @ 219'</u></p> <p>PRODUCTION <u>                  </u></p> <p style="text-align: center;">ELECTRICAL SURVEYS</p>		
<p>SAMPLES SAVED FROM <u>          3700          </u> TO <u>RTD</u></p> <p>DRILLING TIME KEPT FROM <u>          3700          </u> TO <u>RTD</u></p> <p>SAMPLES EXAMINED FROM <u>          3700          </u> TO <u>RTD</u></p> <p>GEOLOGICAL SUPERVISION FROM <u>          3700          </u> TO <u>RTD</u></p> <p>GEOLOGIST ON WELL <u>          STEVE DAVIS          </u></p>			
FORMATION TOPS	LOG	SAMPLES	
<u>GLANNYDRITE</u>	<u>2294-4530</u>	<u>2296</u>	
<u>WEEBNER</u>	<u>3790-966</u>	<u>3790</u>	
<u>LANSING</u>	<u>3826-1002</u>	<u>3825</u>	
<u>MUNCIE CREEK</u>	<u>3990-1166</u>	<u>3989</u>	
<u>STARK</u>	<u>4080-1256</u>	<u>4079</u>	
<u>B.K.C.</u>	<u>4154-1330</u>	<u>4156</u>	
<u>FORT SCOTT</u>	<u>4336-1512</u>	<u>4334</u>	
<u>CHEROKEE SH</u>	<u>4363-1539</u>	<u>4363</u>	
<u>JOHNSON</u>	<u>4404-1580</u>	<u>4405</u>	
<u>MISSISSIPPI</u>	<u>4431-1627</u>	<u>4450</u>	
API: 15-109-21091			

## BIT RECORD

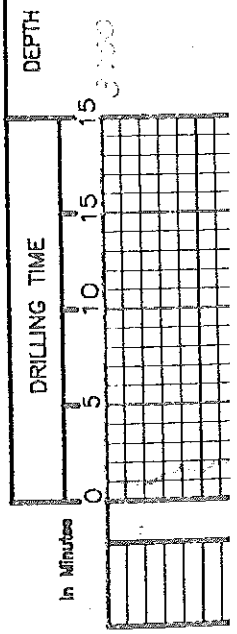
NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS
1	1 7/8	SM	RT	219	219	24
2	1 7/8	SM	F.27	4570	4351	95

DATE	DEPTH
5-20-12	<i>seal</i>
5-30	1330
5-31	2930
6-1	3770
6-2	3916
6-3	4045
6-4	4125
6-5	4330
6-6	4505
6-7	4570 <i>PEA</i>

### LEGEND

Anhydrite    
 Salt    
 Sandstone    
 Shale    
 Carb sh    
 Limestone    
 Col.Lime    
 Chert    
 Dolomite

SCALE " = 100'



DEPTH	SAMPLE DESCRIPTION	REMARKS



1/2 Weck 1/4  
AF Surface 9 min.  
RECOVERY:  
OS M.C.W. 650% W. 50% M.  
I.N.P. 1893# ON 29,900  
I.F.P. 23-34#  
I.S.I.P. 844#  
F.F.P. 35-50#  
F.S.I.P. 831#  
F.H.P. 1861# BAIT 110°F

Vis. 59 Wt. 8.7 Fil. 7.5  
CAL. 2,500 PH 11 CCM 2#  
8-1-12 @ 3835

DST #2 3896 · 3916  
15 · 30 · 30 · 30  
BLOW:  
I.F. Surface dried 8 min.  
FF No blow  
RECOVERY: 2'M  
I.H.P. 1890#  
I.F.P. 24-24#  
I.S.I.P. 895#  
F.F.P. 25-26#  
F.S.I.P. 880#  
F.H.P. 1816# BAIT 108°F

Vis. 52 Wt. 9.1 Fil. 8.8  
CAL. 3,200 PH 10 CCM 3#  
8-2-12 @ 3916

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

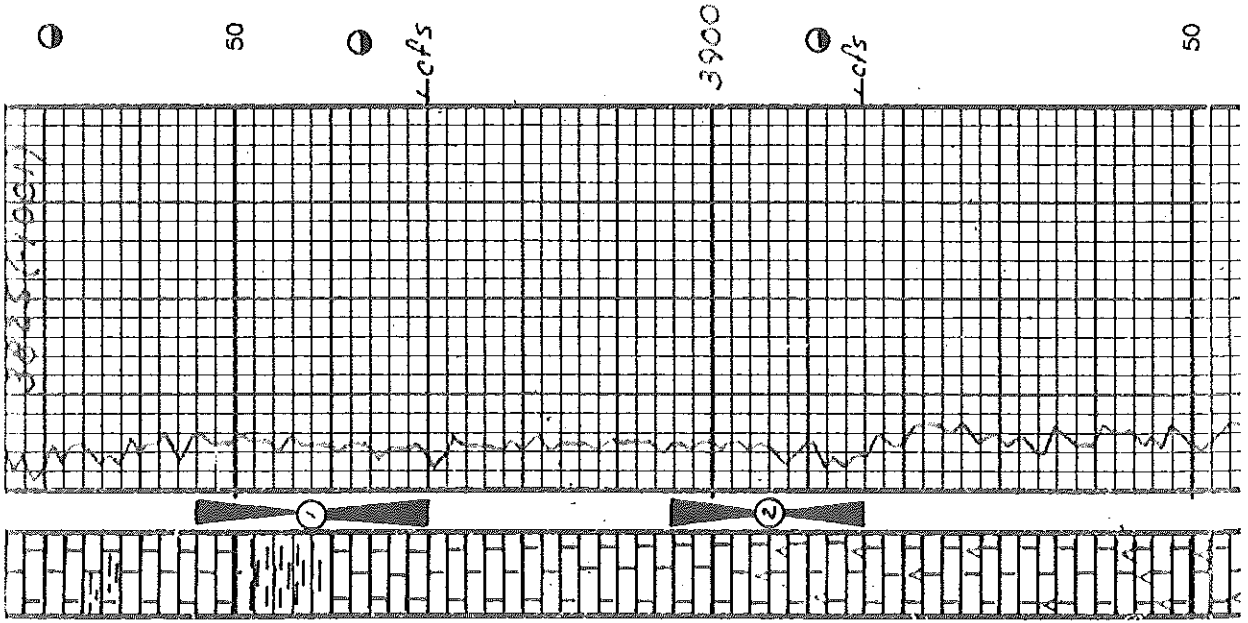
LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

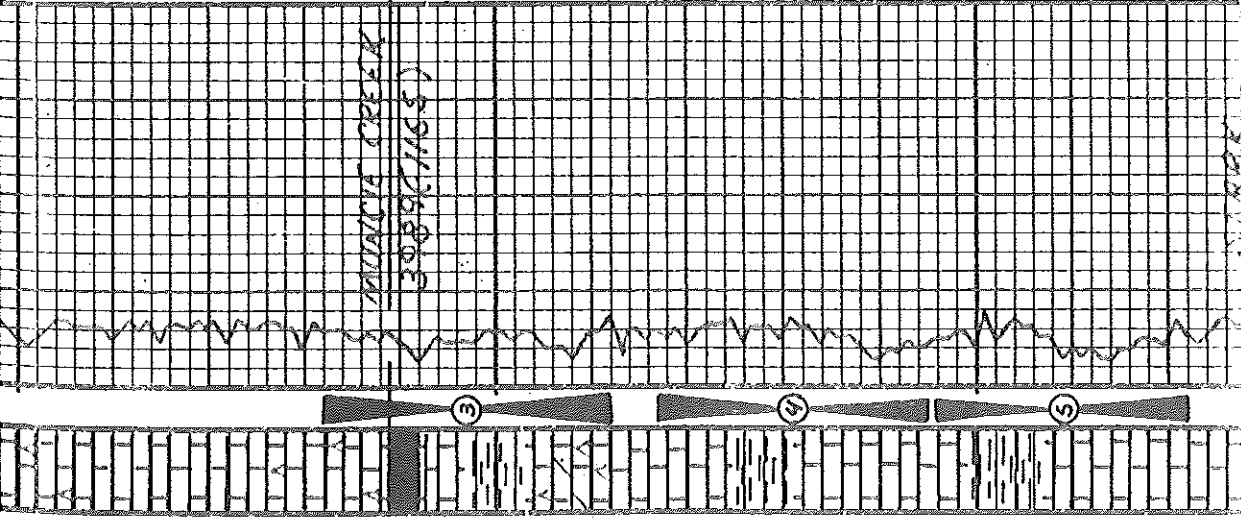
LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown

LS fine white fibrous mat  
less dense mat  
shade dk grey & brown





MURPHY (REF.)  
3089 (1165)

4000

4cfs

4cfs

50

4cfs

LS tan, white f. to oil base and  
oil base

LS tan, gray, brown, f. to oil base  
low log, oil base

LS brown, gray, oil base, sh. bed  
above oil base

Shale black, calc.

LS brown, gray, mica, oil base  
bed

Shale black, gray, green

LS tan, white f. to oil base, oil  
base, oil base

LS white, gray, f. to oil base, oil  
base, oil base

Shale gray, black, green

LS tan, white f. to oil base, oil  
base, oil base

LS tan, gray, f. to oil base, oil  
base, oil base

Shale black, gray, green, oil base

LS tan, gray, f. to oil base, oil  
base, oil base

LS tan, gray, f. to oil base, oil  
base, oil base

LS tan, gray, f. to oil base, oil  
base, oil base

OST #3 3982-4012  
15-30-45-60

BCOW: " throughout  
I.F. 1/4" throughout

F.F. Surface throughout  
RECOVERY:

OS: W.C.M. w/oil spots  
75% w 55% M  
I.N.P. 1928# oil 32,000

I.F.P. 18,28#  
I.S.I.P. 986#

F.F.P. 51,56#  
F.S.I.P. 974#  
F.N.P. 1838# B.H.T. 110°F  
(Plugging on I.F. F.F.)

OST #4 4017-4045  
15-30-45-50

BCOW: " throughout  
I.F. 1/4" throughout

F.F. 1/8" throughout  
RECOVERY:

OS: S.W.C.M. w/oil spots  
I.N.P. 1986# 75% w 85% M  
I.F.P. 18,27#

I.S.I.P. 454#  
F.F.P. 29,57#

F.S.I.P. 451#  
F.N.P. 1842# B.H.T. 110°F

Vis. 52 wt 9.1 Fl. 8.0  
ON 3,000 PHIO.S. CCM 2#

6-3-72 @ 4045

OST#5 4046-4072  
15-30. 45.60

Blow: ...  
I.F. 1/2  
FF 1 1/2

RECOVERY:

5' FO. (100% O)

150' MW (50% W 50% M)

155' Total fluid (chl. 30,000)

I.H.P. 1940#

I.F.P. 20.54#

I.S.I.P. 1136#

F.F.P. 56.92#

F.S.I.P. 1105#

F.H.P. 1941#? B.H.T. 113°F

Vis. 22 W# 8.8 F.I. 10.4

Chl. 4,400 PH 9.0 CCM 2#

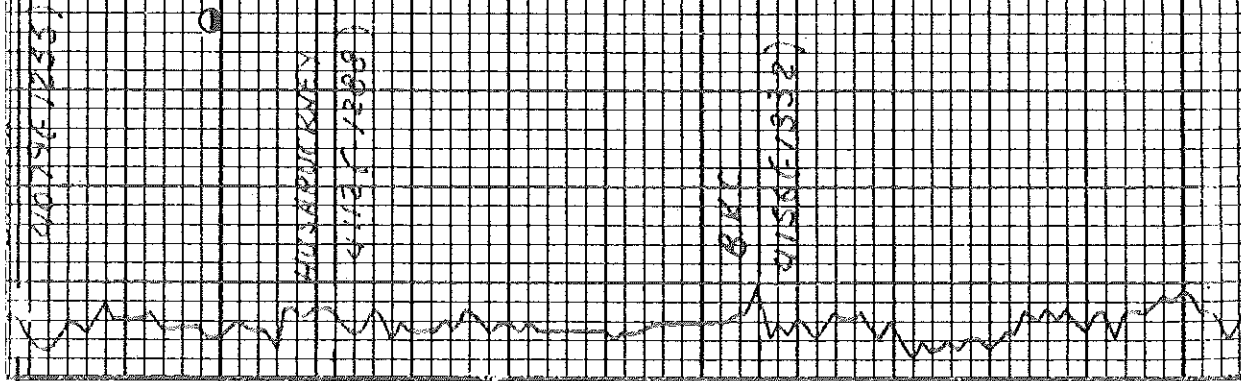
6-4-12 @ 4114

Shale black carb
LS tan. brown & gray with sil. fass clase and shale gray, black, rust & green
LS gray. tan. fass and fass clase and shale gray, black, rust solid sil. & lime fass and
Shale black carb
Most is tan. brown with green sil. silty fass. classe and sil. gray. white fass. silty and black foss & silty. silty. silty. silty. silty. foss. fass. fass. fass. fass. fass. and
LS tan. gray. fass. fass. and clase. chky. IP. and
LS. brown. gray. silty. and foss. fass. shale gray & black & green
shale gray. black & green sils brown. gray. silty. and fass and some arg.
LS. silty. shale black, gray, rust & green. some silty.
shale multi. color AA
shale AA silty. LS. brown. white foss. chky. some fass. and ? silty. sil. LS. fass. nodular
LS. gray. tan. fass. and and shale gray. black

4100  
-cfs

50  
-cfs

4200



4100

4125

4150

4200

50

4300



FAVORITE  
 4200-4300

6

LS gray to black silty fine  
 clay sh. + shale gray black

LS tan gray x-lim. mica x-lim. sub-nal  
 dense sh. + silty sh.

Shale shale brown gray s. flint +  
 LS tan gray brown silty sh.

LS brown gray to tan silty sh.  
 clay + LS tan silty sh. base. base  
 fine pegged sh.

LS sh. + shale gray black crust  
 + green

LS tan brown buff to black silty  
 clay sh. + shale base silty edge  
 sh. + s.s. sh. nodal

LS tan gray silty mica x-lim. dense sh.  
 some black carb

LS gray tan silty mica x-lim. dense  
 silty sh. base sh. + carb gray  
 white carb

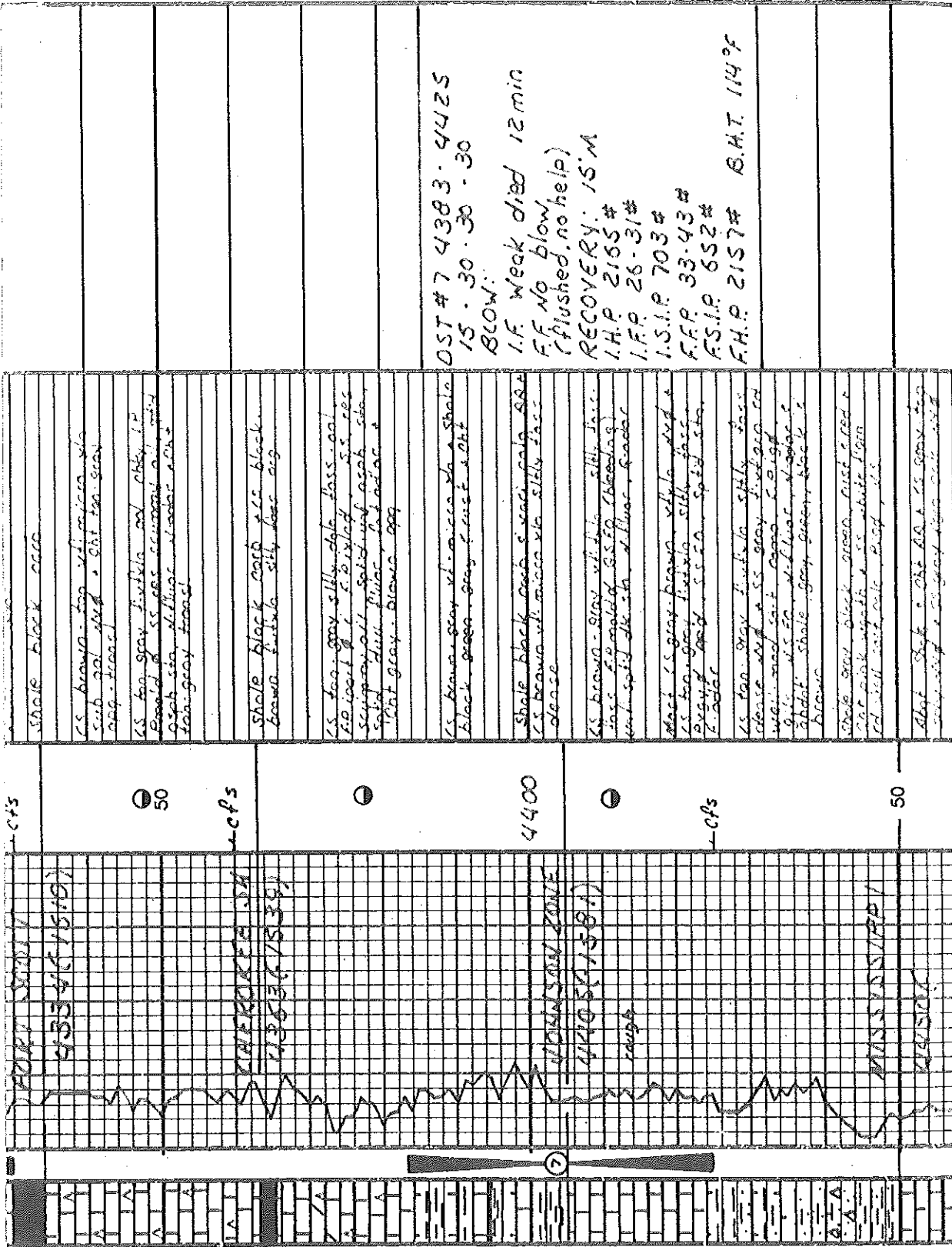
LS tan brown gray silty mica x-lim.  
 dense sh. + carb gray - sh. to clay

Black black carb + sh. brown  
 gray mica x-lim. sh. base  
 sh. + carb gray white clay  
 basal some carb

Sh. + LS tan brown gray silty mica  
 sh. base + sh. + sh. + sh. + sh.  
 sh. + sh. + sh. + sh. + sh.

DST #5 4302 - 4330  
 15. 30. 45. 60  
 I.F. Weak surface  
 F.F. No blow  
 RECOVERY: 5'M  
 I.H.P. 2155#  
 I.F.P. 18.19#  
 I.S.I.P. 196#  
 F.F.P. 2123#  
 F.S.I.P. 59#  
 F.H.P. 2125# B.M.T 113°F

VIS. 53 Wt. 9.1 Fil. 9.2  
 Chl. 5,000 PH 9.5 LCM 2#  
 S. 512 @ 4330



OST #7 4383. 4425  
 15.30.30 - 30  
 BLOW:  
 I.F. Weak died 12 min  
 F.F. No blow  
 (flushed, no help)  
 RECOVERY: 15. M  
 I.H.P. 2155 #  
 I.F.P. 26-31#  
 I.S.I.P. 703 #  
 F.F.P. 33-43 #  
 F.S.I.P. 652 #  
 F.H.P. 2157 # B.H.T. 1149F

435

50

4400

50

FORRY ZONE  
 433-426 (1509)

WATSON ZONE  
 430-424 (1509)

WATSON ZONE  
 440-431 (1509)

MISSISSIPPI

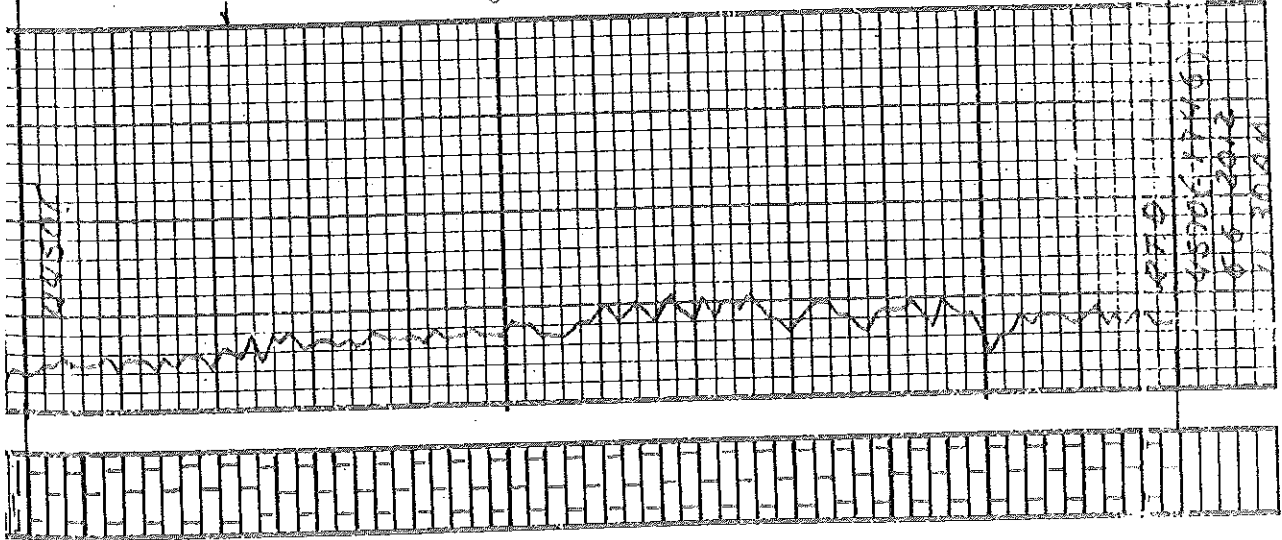


50

← cps

4500

50



<p>1st 20' = One dark grey          clay, soft. 5' of red clay          below and red ss. 1' of          red clay. 1' of red          clay.</p> <p>20' to 40' white. red clay          clay.</p> <p>40' to 60' black grey &amp; brown          red clay. 1' of red clay.</p> <p>60' to 80' white. 1' of red          clay. (about shale clough)</p> <p>80' to 100' white. 1' of red          clay. (about shale clough)</p> <p>100' to 120' white. 1' of red          clay. (about shale clough)</p> <p>120' to 140' white. 1' of red          clay. (about shale clough)</p> <p>140' to 160' white. 1' of red          clay. (about shale clough)</p> <p>160' to 180' white. 1' of red          clay. (about shale clough)</p> <p>180' to 200' white. 1' of red          clay. (about shale clough)</p> <p>200' to 220' white. 1' of red          clay. (about shale clough)</p> <p>220' to 240' white. 1' of red          clay. (about shale clough)</p> <p>240' to 260' white. 1' of red          clay. (about shale clough)</p> <p>260' to 280' white. 1' of red          clay. (about shale clough)</p> <p>280' to 300' white. 1' of red          clay. (about shale clough)</p>	<p>vis. SB wt 91 5.1.88          chl. 4.300 PH10 CCM 2#          8-6-12 @ 4474</p>
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vis. SB wt 91 5.1.88  
chl. 4.300 PH10 CCM 2#  
8-6-12 @ 4474

CPS  
(4500-1746)  
6-6-2012  
1300

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

June 20, 2012

Don Williams  
Shakespeare Oil Co., Inc.  
202 W MAIN ST  
SALEM, IL 62881-1519

Re: ACO1  
API 15-109-21091-00-00  
K. Ottley 1-14  
SW/4 Sec.14-14S-32W  
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,  
Don Williams