



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1203654  
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: \_\_\_\_\_

1203654

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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## DRILL STEM TEST REPORT

Prepared For: **Craig Oil Company**

15 S. Main  
Russell, KS 67665-2901

ATTN: Ward Craig, Bruce Ba

### **H J Mai #6**

#### **23-15s-14w Russell,KS**

Start Date: 2013.11.25 @ 03:15:52

End Date: 2013.11.25 @ 08:32:31

Job Ticket #: 55451                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.11.26 @ 10:47:25



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Craig Oil Company

**23-15s-14w Russell,KS**

15 S. Main  
Russell,KS 67665-2901

**H J Mai #6**

Job Ticket: 55451

**DST#: 1**

ATTN: Ward Craig, Bruce Ba

Test Start: 2013.11.25 @ 03:15:52

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:15:32

Time Test Ended: 08:32:31

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3316.00 ft (KB) To 3361.00 ft (KB) (TVD)**

Reference Elevations: 1920.00 ft (KB)

Total Depth: 3361.00 ft (KB) (TVD)

1913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8369**

**Inside**

Press@RunDepth: 80.27 psig @ 3325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.25

End Date:

2013.11.25

Last Calib.:

2013.11.25

Start Time:

03:15:52

End Time:

08:32:31

Time On Btm:

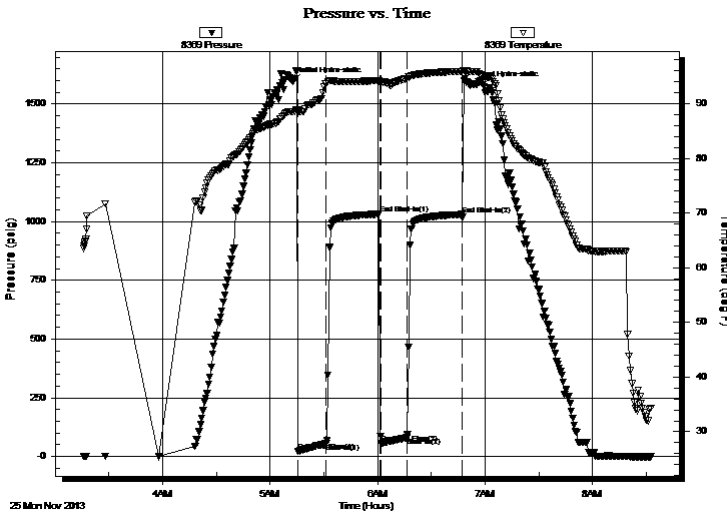
2013.11.25 @ 05:12:47

Time Off Btm:

2013.11.25 @ 06:51:47

**TEST COMMENT:** 15-IFP-w k to strg in 12 min  
30-ISIP-surface bl bk  
15-FFP-w k to strg in 14 min  
30-FSIP-surface bl bk

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1596.14	88.59	Initial Hydro-static
3	21.46	88.41	Open To Flow (1)
19	54.87	93.68	Shut-In(1)
49	1031.72	94.23	End Shut-In(1)
49	56.19	93.99	Open To Flow (2)
64	80.27	94.62	Shut-In(2)
95	1030.25	95.89	End Shut-In(2)
99	1580.24	95.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	785'GIP	0.00
30.00	CO	0.42
115.00	HO&GCM 10%G25%O65%M	1.61

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Craig Oil Company

**23-15s-14w Russell,KS**

15 S. Main  
Russell,KS 67665-2901

**H J Mai #6**

Job Ticket: 55451

**DST#: 1**

ATTN: Ward Craig, Bruce Ba

Test Start: 2013.11.25 @ 03:15:52

## Tool Information

Drill Pipe:	Length: 3317.00 ft	Diameter: 3.80 inches	Volume: 46.53 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 46.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3316.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	45.00 ft				
Tool Length:	68.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3294.00	
Shut In Tool	5.00			3299.00	
Hydraulic tool	5.00			3304.00	
Safety Joint	2.00			3306.00	
Packer	5.00			3311.00	23.00 Bottom Of Top Packer
Packer	5.00			3316.00	
Stubb	1.00			3317.00	
Perforations	8.00			3325.00	
Recorder	0.00	8369	Inside	3325.00	
Recorder	0.00	8700	Outside	3325.00	
Blank Spacing	33.00			3358.00	
Bullnose	3.00			3361.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Craig Oil Company

**23-15s-14w Russell,KS**

15 S. Main  
Russell,KS 67665-2901

**H J Mai #6**

Job Ticket: 55451

**DST#: 1**

ATTN: Ward Craig, Bruce Ba

Test Start: 2013.11.25 @ 03:15:52

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	785'GIP	0.000
30.00	CO	0.421
115.00	HO&GCM 10%G25%O65%M	1.613

Total Length: 145.00 ft      Total Volume: 2.034 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

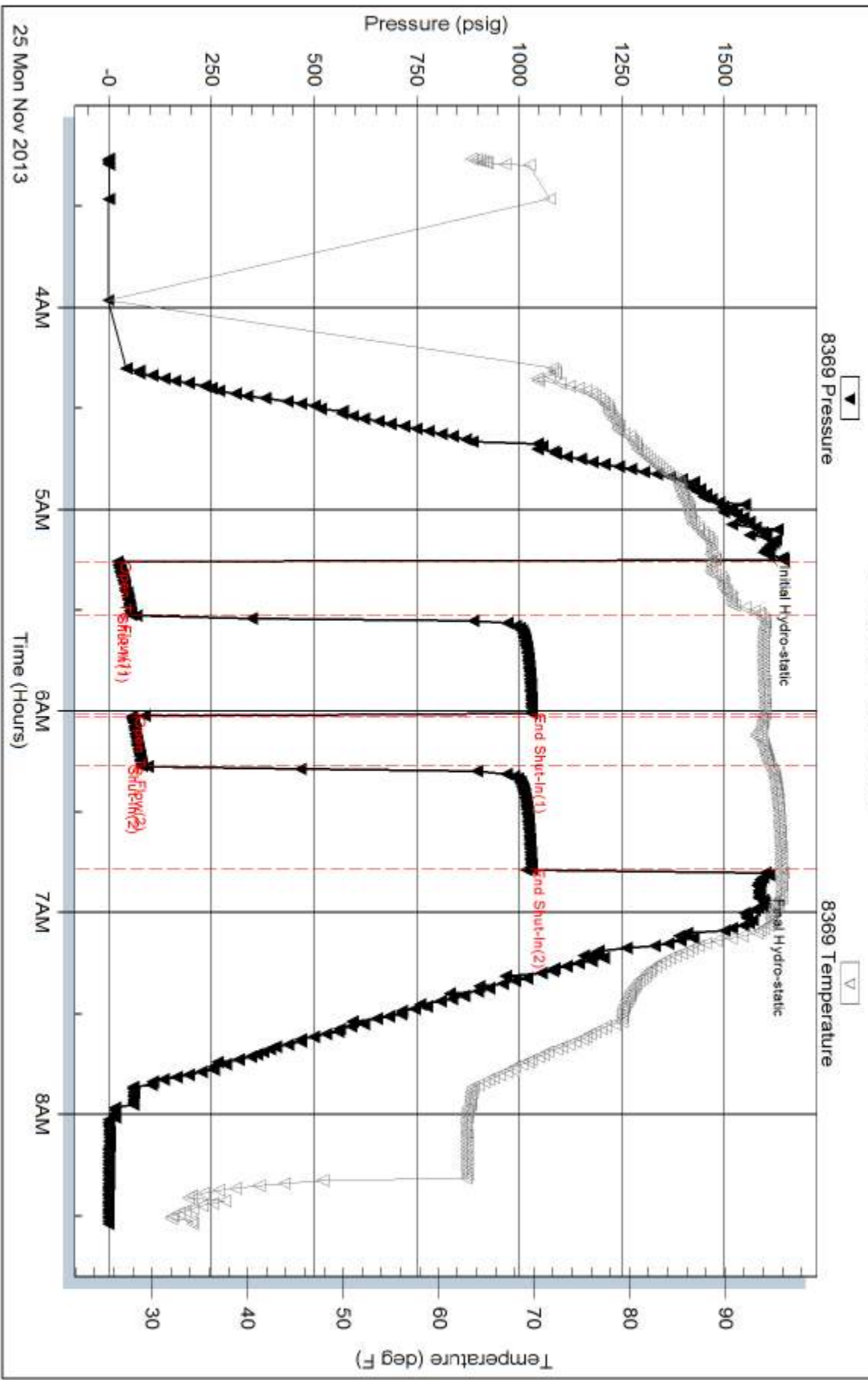
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



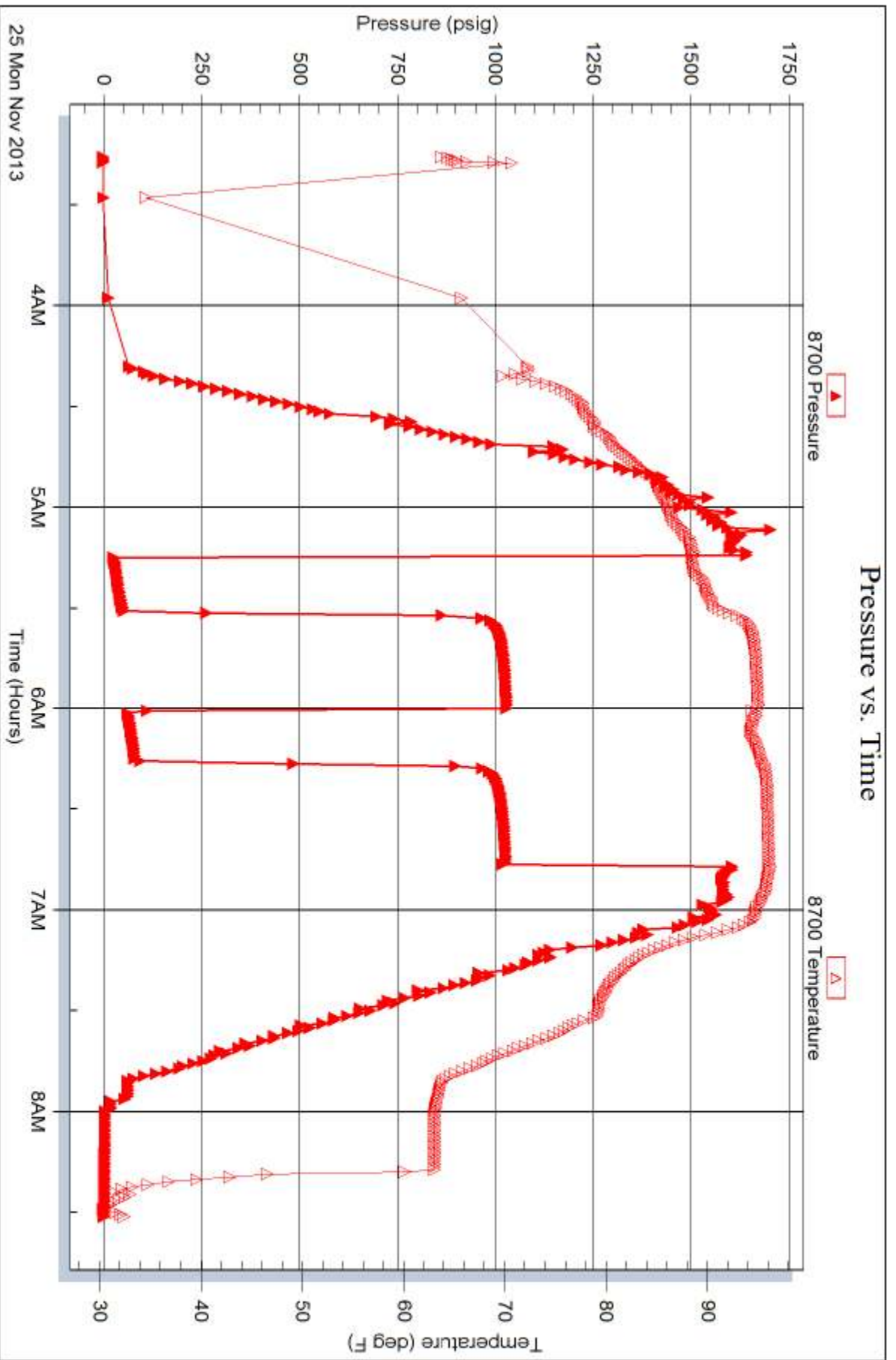


Serial #: 8700

Outside Craig Oil Company

H J Mai #6

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55451

Printed: 2013.11.26 @ 10:47:28



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55451

Well Name & No. H. J. MAI #6 Test No. 1 Date 11-25-13  
 Company Craig Oil Company Elevation 1920 KB 1913 GL  
 Address 155 MAIN Russell, Ks 67665-2901  
 Co. Rep / Geo. Bruce Basye, Ward Craig Rig Royal rig 2  
 Location: Sec. 23 Twp. 15<sup>s</sup> Rge. 14<sup>w</sup> Co. Russell State Ks

Interval Tested 3316-3361 Zone Tested Arbuckle  
 Anchor Length 45 Drill Pipe Run 3317 Mud Wt. 9  
 Top Packer Depth 3311 Drill Collars Run - Vis 57  
 Bottom Packer Depth 3316 Wt. Pipe Run - WL 8  
 Total Depth 3361 Chlorides 4000 ppm System LCM 2#

Blow Description IFP - WEAK TO STRONG IN 12 MIN  
ISIP - SURFACE BLOW BACK  
FFP - WEAK TO STRONG IN 14 MIN  
FSTP - SURFACE BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>785</u>	<u>GIP</u>				
<u>30</u>	<u>CO</u>				
<u>115</u>	<u>HO+6CM</u>	<u>10</u>	<u>25</u>		<u>65</u>

Rec Total 145 BHT 96 Gravity 37 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1596  Test 1150 T-On Location 0100  
 (B) First Initial Flow 21  Jars - T-Started 0315  
 (C) First Final Flow 54  Safety Joint 75 T-Open 0515  
 (D) Initial Shut-In 1031  Circ Sub - T-Pulled 0645  
 (E) Second Initial Flow 56  Hourly Standby - T-Out 0832  
 (F) Second Final Flow 80  Mileage 66 RT 102.30  
 (G) Final Shut-In 1030  Sampler -  
 (H) Final Hydrostatic 1580  Straddle -  
 Shale Packer -  
 Shale Packer -  
 Extra Packer -  
 Extra Recorder -  
 Day Standby -  
 Accessibility -

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In 30

Sub Total 0  
 Total 1327.30  
 MP/DST Disc't -

Approved By Bruce D. Basye Our Representative RAY Schwager Frank 404

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# 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. 7488

Date	11-26-13	Sec.	23	Twp.	15	Range	14	County	Russell	State	KS	On Location		Finish	4:30 PM
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Location Russell & Winterset Rd NW Sinto

Lease	H J Ma	Well No.	6	Owner	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	Proal #2	Type Job	Production string	Charge To	Craig O. I.
Hole Size	7 7/8	T.D.	<del>3412</del> 3413	Street	
Csg.	5 1/2 13.500	Depth	3412	City	State
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor	
Tool		Depth		Cement Amount Ordered	180 com 100% salt 5/6 bar
Cement Left in Csg.	21.35	Shoe Joint	21.35	300 gal mud clear	
Meas Line		Displace	80 3/4 BCL	Common	180

### EQUIPMENT

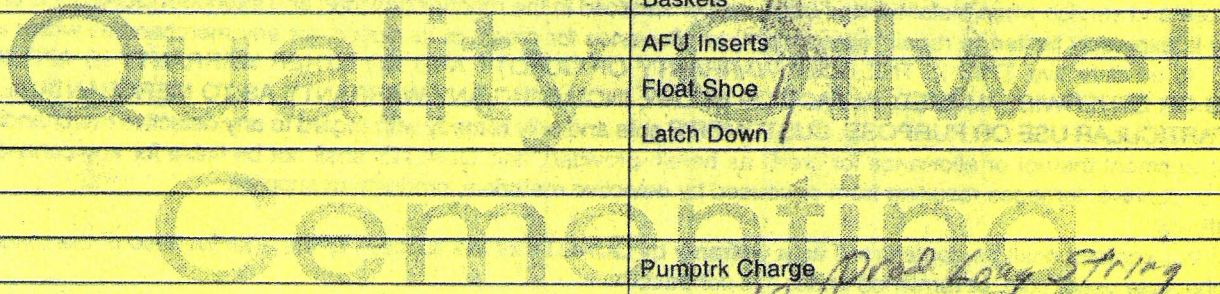
Pumptrk	17	No.	Cementor		Poz. Mix
			Helper		
Bulktrk		No.	Driver		Gel.
			Driver		Calcium
Bulktrk	9	No.	Driver		Hulls
			Driver		Salt 16

### JOB SERVICES & REMARKS

Remarks:		Flowseal	
Rat Hole	30SK	Kol-Seal	900#
Mouse Hole	15SK	Mud CLR 48	500 gal
Centralizers		CFL-117 or CD110 CAF 38	
Baskets		Sand	
D/V or Port Collar		Handling	205
5 1/2 gal @ 3412 - Inside 3390.65		Mileage	
12SK Circulation Pump 500 gal mud clear			
+ 10 BCL spacer Plug Ruthless mud clear			
Cement 5 1/2 with 13.5SK clear lines			
Displace Plug			

### FLOAT EQUIPMENT

Guide Shoe	5/8
Centralizer	7 Turbos
Baskets	1
AFU Inserts	
Float Shoe	1/11 well
Latch Down	1



Pumptrk Charge Proal Long String  
Mileage 12

X Signature *WDC*

Tax
Discount
Total Charge

# 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. 7019

Date	11-21-13	Sec.	33	Twp.	15	Range	14	County	Russell	State	KS	On Location		Finish	6:00 PM
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Location *Russell 9 10 W. Russell Rd W 1/2 S*

Lease *H7 M* Well No. *6* Owner *To Quality Oilwell Cementing, Inc.*

Contractor *Royal 2* You are hereby requested to rent cementing equipment and furnish

Type Job *Surface* cementer and helper to assist owner or contractor to do work as listed

Hole Size *12 1/8* T.D. *921* Charge *Ward Craig*

Csg. *8 5/8* Depth *924* Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor

Cement Left in Csg. *29'* Shoe Joint *24'* Cement Amount Ordered *350 3 1/2 cc 2 1/2 lb*

Meas Line Displace *57.4 m*

### EQUIPMENT

Pumptrk <i>16</i>	No.	Cementer	Common <i>350</i>
		Helper <i>Ma</i>	Poz. Mix
Bulktrk <i>12</i>	No.	Driver <i>Clayton</i>	Gel. <i>7</i>
		Driver	Calcium <i>13</i>
Bulktrk <i>Pu</i>	No.	Driver <i>Brian</i>	
		Driver	

### JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling <i>370</i>
	Mileage <i>79</i>

### FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	<i>Russell Pk</i>
	<i>Surface</i>
	Pumptrk Charge <i>12</i>
	Mileage <i>12</i>

X Signature *Tom Blake* Tax Discount Total Charge

# 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. 7019

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-21-13	33	15	14	Russell	KS		6:00 PM

Location: Russell & 10 W. Russell Rd W 1/2 S

Lease: H7 M. Well No.: 6 Owner: To Quality Oilwell Cementing, Inc.

Contractor: Royal 2 You are hereby requested to rent cementing equipment and furnish

Type Job: Surface cementer and helper to assist owner or contractor to do work as listed

Hole Size: 12" T.D.: 92' Charge To: Ward Craig

Csg.: 8 5/8" Depth: 924' Street:

Tbg. Size: Depth: City: State:

Tool: Depth: The above was done to satisfaction and supervision of owner agent or contractor

Cement Left in Csg.: 29' Shoe Joint: 24' Cement Amount Ordered: 350 3/4 sec 24' total

Meas Line: Displace: 57.44 mbl

### EQUIPMENT

Pumptrk 16	No.	Cementer	Common 350
		Helper Ma	Poz. Mix
Bulktrk 12	No.	Driver Clavin	Gel. 7
		Driver	Calcium 13
Bulktrk 20	No.	Driver Bros	

### JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling 370
	Mileage 79.9

### FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Russell Pk
	Surface
	Pumptrk Charge
	Mileage 12

X Signature: *[Handwritten Signature]*

Tax \_\_\_\_\_

Discount \_\_\_\_\_

Total Charge \_\_\_\_\_