



**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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Pickrell Drilling Company, Inc.
Well Name	Popp 'A' 5
Doc ID	1154929

Tops

Name	Top	Datum
T/Anhydrite	1782	+674
B/Anhydrite	1810	+648
Heebner	3740	-1282
Lansing	3779	-1321
Stark	4027	-1569
Fort Scott	4287	-1829
Cherokee	4313	-1855
Mississippi	4383	-1925



## DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Co, Inc.**

100 S. Main STE 505  
Wichita, KS 67202

ATTN: Jerry Smith

### **Popp "A" #5**

#### **24-17s-26w Ness,KS**

Start Date: 2013.07.23 @ 12:45:00

End Date: 2013.07.23 @ 21:51:15

Job Ticket #: 48763                      DST #: 1

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

Printed: 2013.07.29 @ 09:08:04



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48763

**DST#: 1**

ATTN: Jerry Smith

Test Start: 2013.07.23 @ 12:45:00

## GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:22:00

Time Test Ended: 21:51:15

Test Type: Conventional Straddle (Initial)

Tester: Bradley Walter

Unit No: 69

**Interval: 3771.00 ft (KB) To 3786.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 3871.00 ft (KB) (TVD)

2451.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8678 Outside**

Press @ Run Depth: 253.65 psig @ 3772.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.23

End Date: 2013.07.23

Last Calib.: 2013.07.23

Start Time: 12:45:05

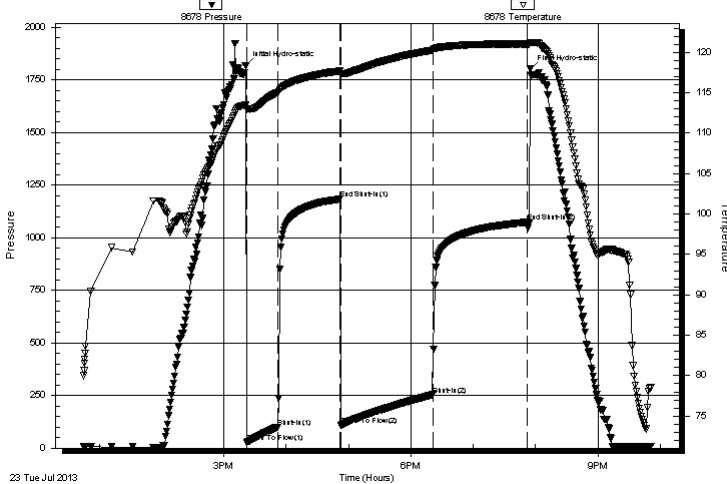
End Time: 21:51:15

Time On Btm: 2013.07.23 @ 15:21:15

Time Off Btm: 2013.07.23 @ 19:54:45

**TEST COMMENT:** IF: BOB @ 17 min.  
IS: No return.  
FF: BOB @ 25 min.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.61	113.50	Initial Hydro-static
1	27.00	113.05	Open To Flow (1)
31	100.37	115.07	Shut-In(1)
91	1184.21	117.69	End Shut-In(1)
92	108.10	117.40	Open To Flow (2)
180	253.65	120.26	Shut-In(2)
271	1074.16	121.05	End Shut-In(2)
274	1801.79	121.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
475.00	mcw 5m 95w	6.66
5.00	oil 100o	0.07

## Gas Rates

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





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Pickrell Drilling Co, Inc.

**24-17s-26w Ness, KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48763

**DST#: 1**

ATTN: Jerry Smith

Test Start: 2013.07.23 @ 12:45:00

## GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:22:00

Time Test Ended: 21:51:15

Test Type: Conventional Straddle (Initial)

Tester: Bradley Walter

Unit No: 69

**Interval: 3771.00 ft (KB) To 3786.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 3871.00 ft (KB) (TVD)

2451.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8522 Below (Straddle)**

Press @ Run Depth: psig @ 3804.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.23

End Date:

2013.07.23

Last Calib.:

2013.07.23

Start Time: 12:45:05

End Time:

21:52:45

Time On Btm:

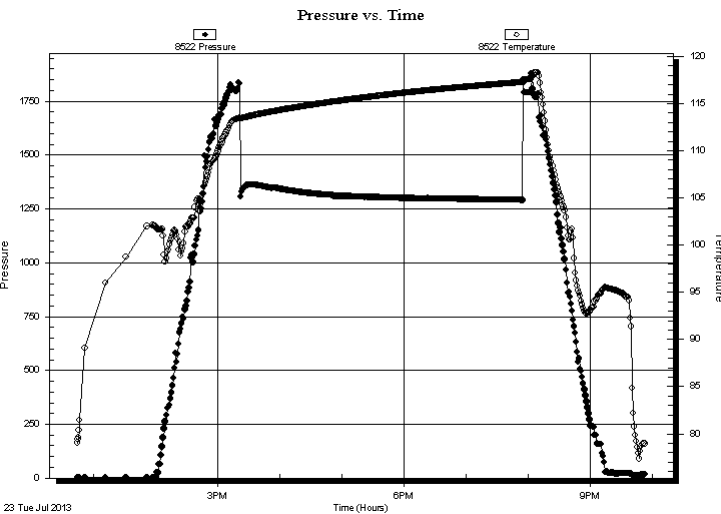
Time Off Btm:

TEST COMMENT: IF: BOB @ 17 min.

IS: No return.

FF: BOB @ 25 min.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
475.00	mcw 5m 95w	6.66
5.00	oil 100o	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48763

**DST#: 1**

ATTN: Jerry Smith

Test Start: 2013.07.23 @ 12:45:00

## Tool Information

Drill Pipe:	Length: 3781.00 ft	Diameter: 3.80 inches	Volume: 53.04 bbl	Tool Weight:	3000.00 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:	69000.00 lb
			<u>Total Volume: 53.04 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	3771.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	3783.00 ft				
Interval between Packers:	12.00 ft				
Tool Length:	122.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3750.00	
Shut In Tool	5.00			3755.00	
Hydraulic tool	5.00			3760.00	
Safety Joint	2.00			3762.00	
Packer	5.00			3767.00	22.00 Bottom Of Top Packer
Packer	4.00			3771.00	
Stubb	1.00			3772.00	
Recorder	0.00	8677	Inside	3772.00	
Recorder	0.00	8678	Outside	3772.00	
Perforations	10.00			3782.00	
Change Over Sub	1.00			3783.00	12.00 Tool Interval
Packer	3.00			3786.00	
Blank Spacing	1.00			3787.00	
Perforations	16.00			3803.00	
Change Over Sub	1.00			3804.00	
Recorder	0.00	8522	Below	3804.00	
Drill Pipe	63.00			3867.00	
Change Over Sub	1.00			3868.00	
Bullnose	3.00			3871.00	88.00 Bottom Packers & Anchor

**Total Tool Length: 122.00**





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48763

**DST#: 1**

ATTN: Jerry Smith

Test Start: 2013.07.23 @ 12:45:00

**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:

58000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 3000.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
475.00	mcw 5m 95w	6.663
5.00	oil 100o	0.070

Total Length: 480.00 ft      Total Volume: 6.733 bbl

Num Fluid Samples: 0

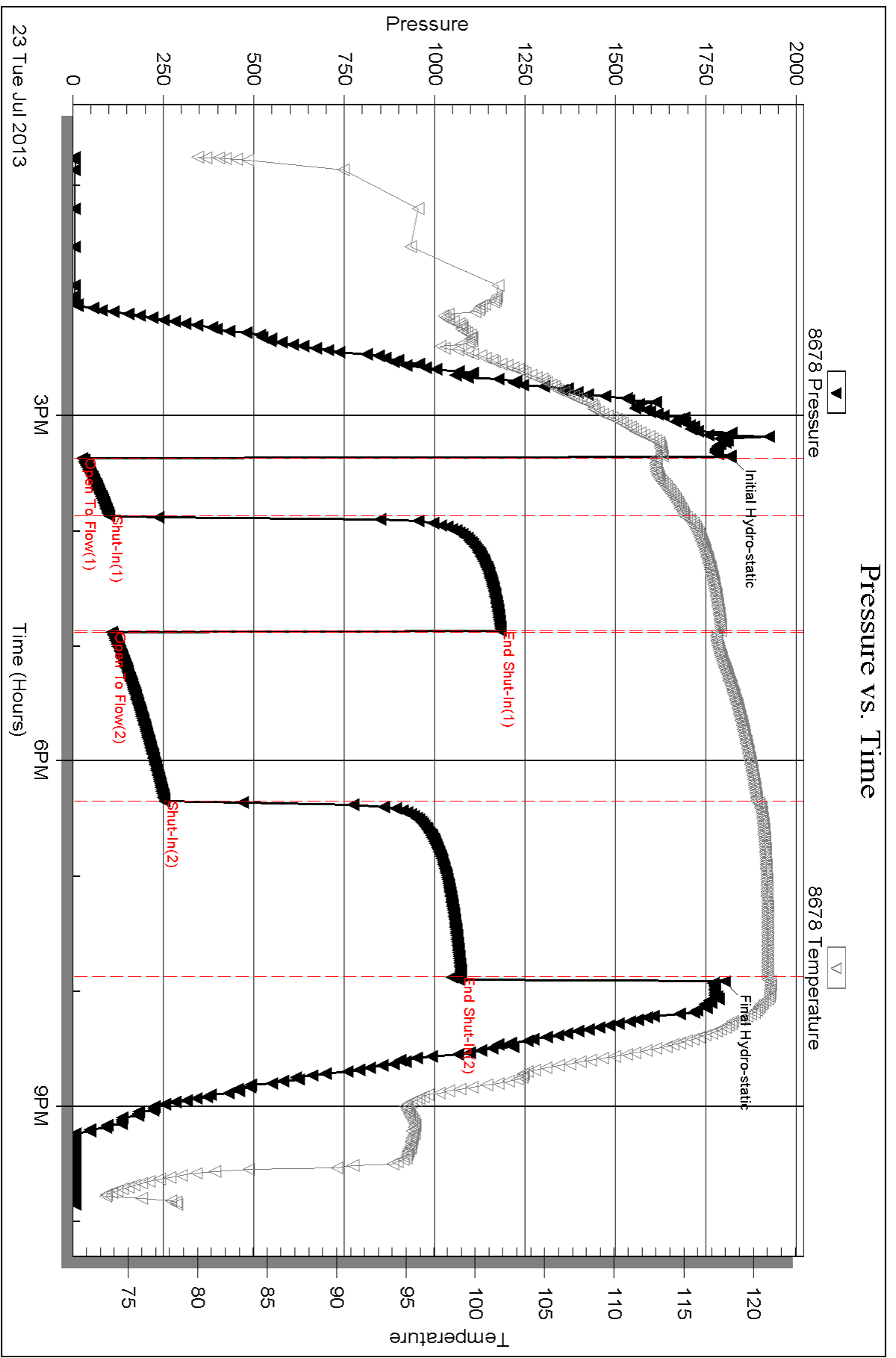
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .130 @ 72F = 58000ppm



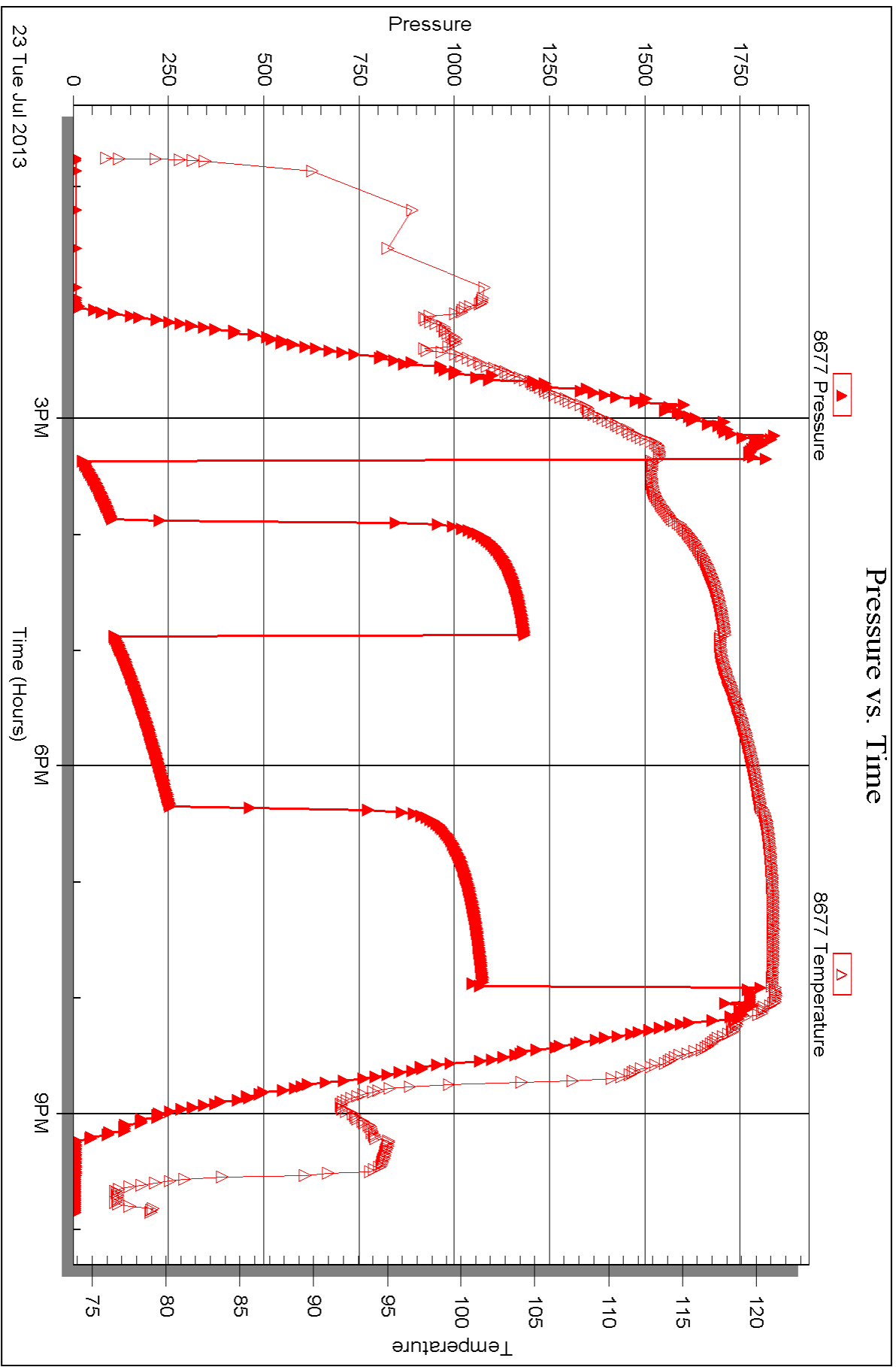
Serial #: 8677

Inside

Pickrell Drilling Co. Inc.

Popp "A" #5

DST Test Number: 1



23 Tue Jul 2013

Triobite Testing, Inc

Ref. No: 48763

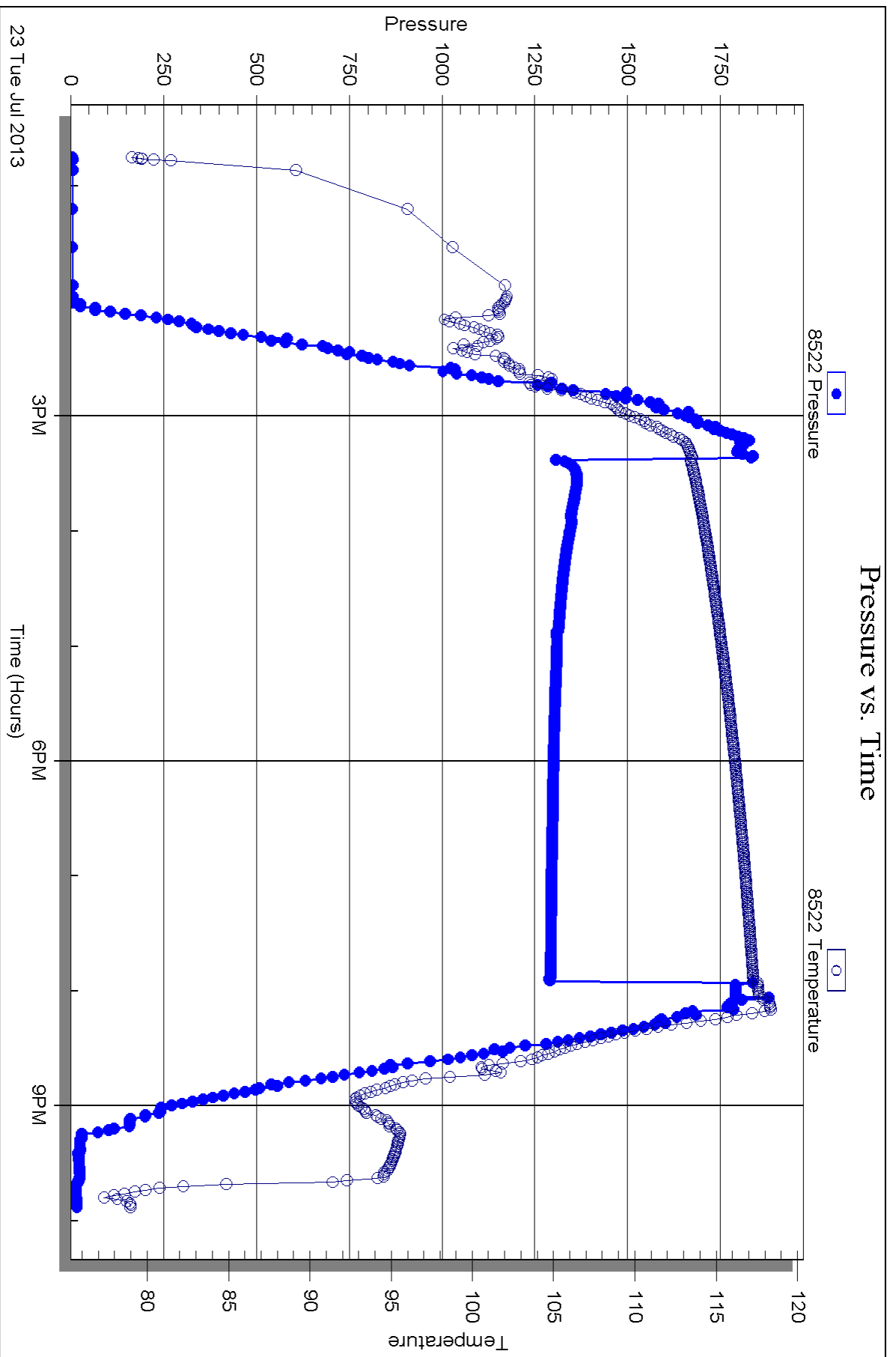
Printed: 2013.07.29 @ 09:08:08

Serial #: 8522

Below (Stratton) Drilling Co. Inc.

Popp "A" #5

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Co, Inc.**

100 S. Main STE 505  
Wichita, KS 67202

ATTN: Jerry Smith

### **Popp "A" #5**

#### **24-17s-26w Ness,KS**

Start Date: 2013.07.25 @ 13:38:00

End Date: 2013.07.25 @ 19:08:00

Job Ticket #: 48764                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.07.29 @ 09:07:18



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48764

**DST#: 2**

ATTN: Jerry Smith

Test Start: 2013.07.25 @ 13:38:00

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:33:30

Time Test Ended: 19:08:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4332.00 ft (KB) To 4390.00 ft (KB) (TVD)**

Reference Elevations: 2458.00 ft (KB)

Total Depth: 4390.00 ft (KB) (TVD)

2451.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

**Serial #: 8522 Outside**

Press @ Run Depth: 36.19 psig @ 4333.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.25

End Date:

2013.07.25

Last Calib.:

2013.07.25

Start Time:

13:38:05

End Time:

19:07:59

Time On Btm:

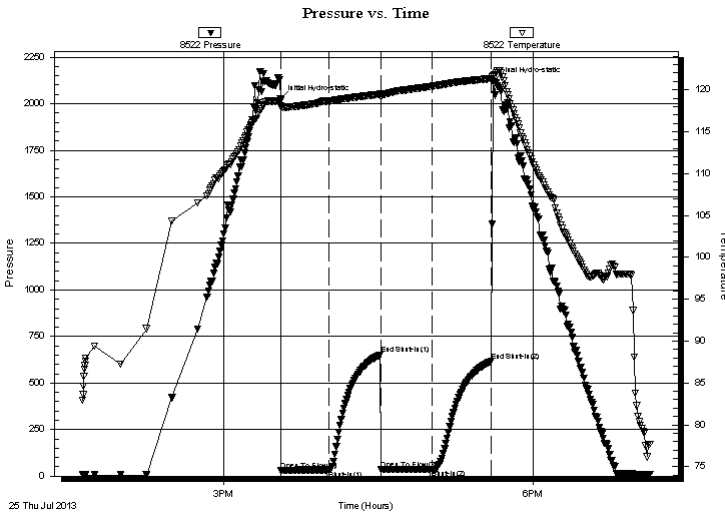
2013.07.25 @ 15:33:00

Time Off Btm:

2013.07.25 @ 17:37:00

TEST COMMENT: IF: 1/2" blow.  
IS: No return.  
FF: No blow.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2024.06	118.70	Initial Hydro-static
1	30.91	118.10	Open To Flow (1)
28	33.87	118.64	Shut-In(1)
59	652.90	119.46	End Shut-In(1)
59	36.91	119.11	Open To Flow (2)
89	36.19	120.41	Shut-In(2)
123	616.71	121.33	End Shut-In(2)
124	2119.43	121.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100m (oil puddle on top)	0.28

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48764

**DST#: 2**

ATTN: Jerry Smith

Test Start: 2013.07.25 @ 13:38:00

## Tool Information

Drill Pipe:	Length: 4343.00 ft	Diameter: 3.80 inches	Volume: 60.92 bbl	Tool Weight:	3000.00 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:	72000.00 lb
			<u>Total Volume: 60.92 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	4332.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	58.00 ft				
Tool Length:	80.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4311.00	
Shut In Tool	5.00			4316.00	
Hydraulic tool	5.00			4321.00	
Safety Joint	2.00			4323.00	
Packer	5.00			4328.00	22.00 Bottom Of Top Packer
Packer	4.00			4332.00	
Stubb	1.00			4333.00	
Recorder	0.00	8677	Inside	4333.00	
Recorder	0.00	8522	Outside	4333.00	
Perforations	21.00			4354.00	
Change Over Sub	1.00			4355.00	
Drill Pipe	31.00			4386.00	
Change Over Sub	1.00			4387.00	
Bullnose	3.00			4390.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 80.00**





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48764

**DST#: 2**

ATTN: Jerry Smith

Test Start: 2013.07.25 @ 13:38:00

**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:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 3600.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
20.00	mud 100m (oil puddle on top)	0.281

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

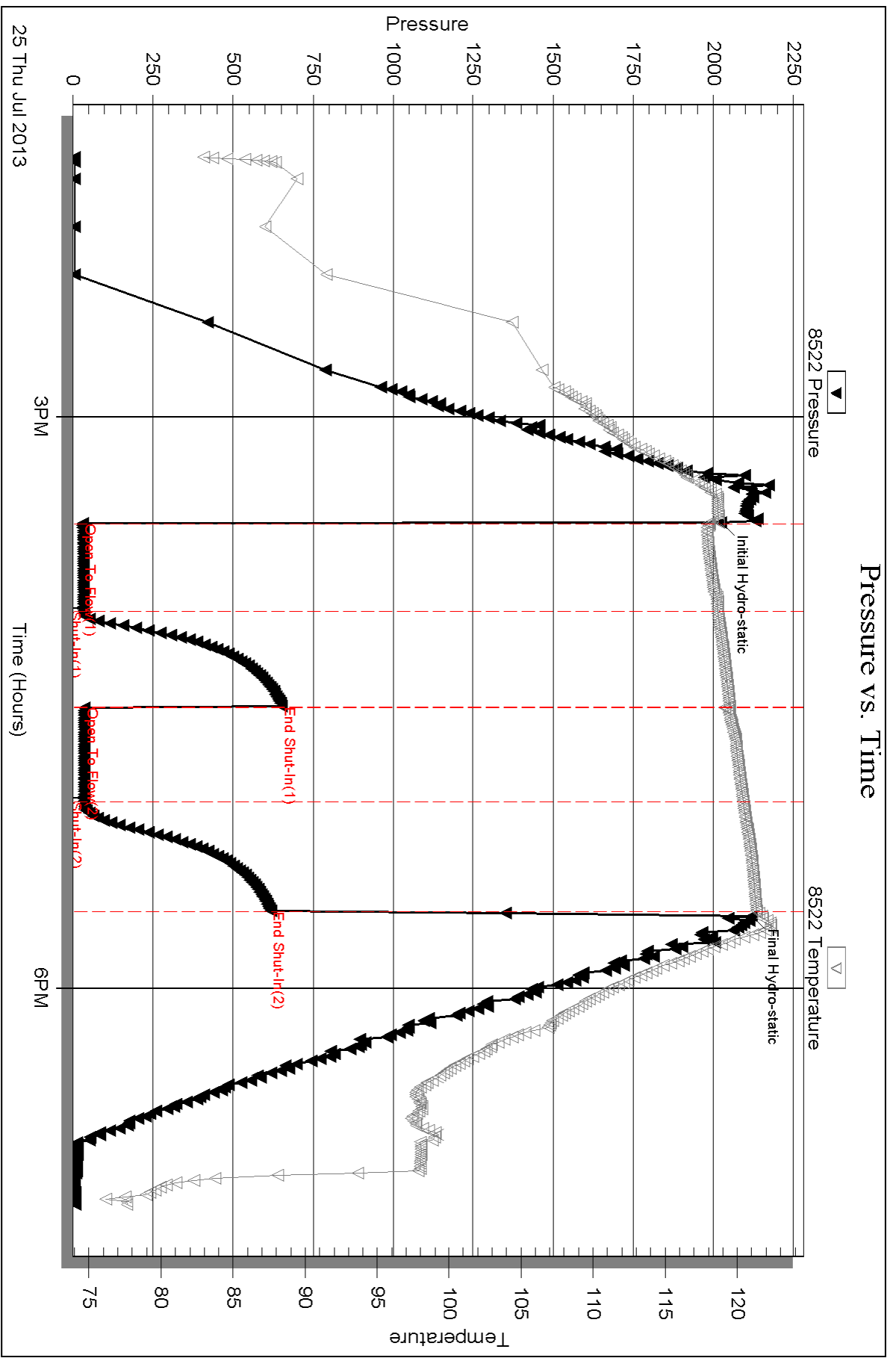
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



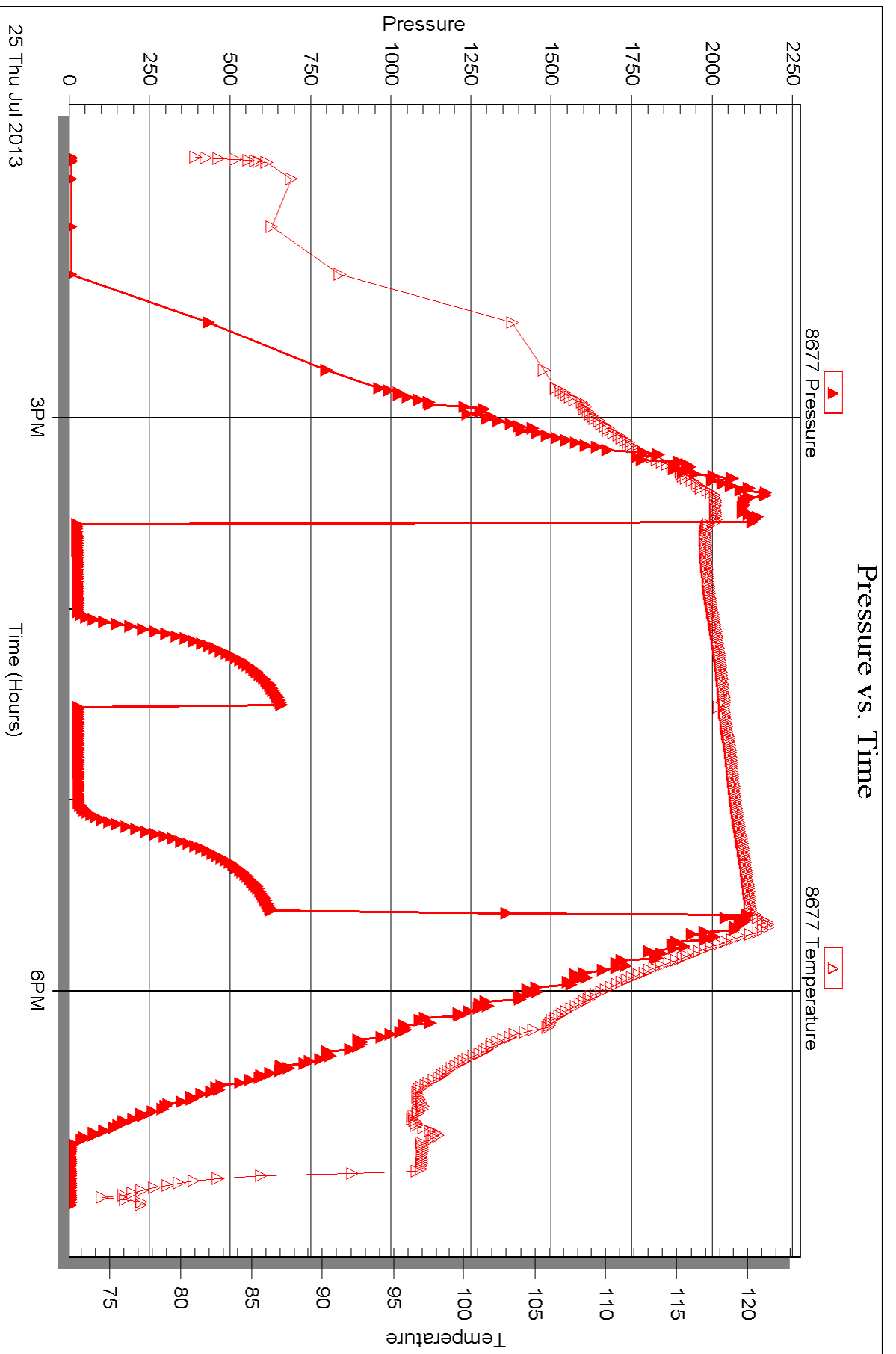
Serial #: 8677

Inside

Pickell Drilling Co. Inc.

Popp "A" #5

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Pickrell Drilling Co, Inc.**

100 S. Main STE 505  
Wichita, KS 67202

ATTN: Jerry Smith

### **Popp "A" #5**

#### **24-17s-26w Ness,KS**

Start Date: 2013.07.26 @ 06:30:05

End Date: 2013.07.26 @ 15:09:00

Job Ticket #: 48765                      DST #: 3

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

Printed: 2013.07.29 @ 09:06:29



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48765

**DST#: 3**

ATTN: Jerry Smith

Test Start: 2013.07.26 @ 06:30:05

## GENERAL INFORMATION:

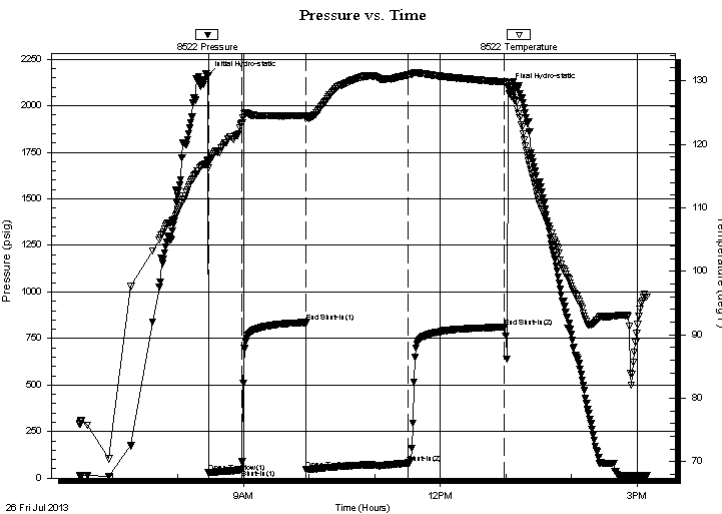
Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:27:45  
 Time Test Ended: 15:09:00  
 Interval: **4390.00 ft (KB) To 4405.00 ft (KB) (TVD)**  
 Total Depth: 4405.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 69  
 Reference Elevations: 2458.00 ft (KB)  
 2451.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 8522

**Outside**

Press @ Run Depth: 81.55 psig @ 4391.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.26 End Date: 2013.07.26 Last Calib.: 2013.07.26  
 Start Time: 06:30:05 End Time: 15:09:00 Time On Btm: 2013.07.26 @ 08:27:30  
 Time Off Btm: 2013.07.26 @ 13:01:45

TEST COMMENT: IF: 4" blow.  
 IS: No return  
 FF: 5" blow.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.19	117.48	Initial Hydro-static
1	29.02	116.32	Open To Flow (1)
31	48.50	123.23	Shut-In(1)
90	836.22	124.48	End Shut-In(1)
90	46.46	124.01	Open To Flow (2)
184	81.55	130.90	Shut-In(2)
272	809.75	129.81	End Shut-In(2)
275	2099.98	129.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
125.00	mcw 15m 85w	1.75
25.00	oil 100o	0.35

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48765

**DST#: 3**

ATTN: Jerry Smith

Test Start: 2013.07.26 @ 06:30:05

## Tool Information

Drill Pipe:	Length: 4375.00 ft	Diameter: 3.80 inches	Volume: 61.37 bbl	Tool Weight:	2500.00 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:	72000.00 lb
			<u>Total Volume: 61.37 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4390.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	37.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4369.00	
Shut In Tool	5.00			4374.00	
Hydraulic tool	5.00			4379.00	
Safety Joint	2.00			4381.00	
Packer	5.00			4386.00	22.00 Bottom Of Top Packer
Packer	4.00			4390.00	
Stubb	1.00			4391.00	
Recorder	0.00	8677	Inside	4391.00	
Recorder	0.00	8522	Outside	4391.00	
Perforations	11.00			4402.00	
Bullnose	3.00			4405.00	15.00 Bottom Packers & Anchor

**Total Tool Length: 37.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pickrell Drilling Co, Inc.

**24-17s-26w Ness,KS**

100 S. Main STE 505  
Wichita, KS 67202

**Popp "A" #5**

Job Ticket: 48765

**DST#: 3**

ATTN: Jerry Smith

Test Start: 2013.07.26 @ 06:30:05

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

17000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 2600.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	mcw 15m 85w	1.753
25.00	oil 100o	0.351

Total Length: 150.00 ft      Total Volume: 2.104 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

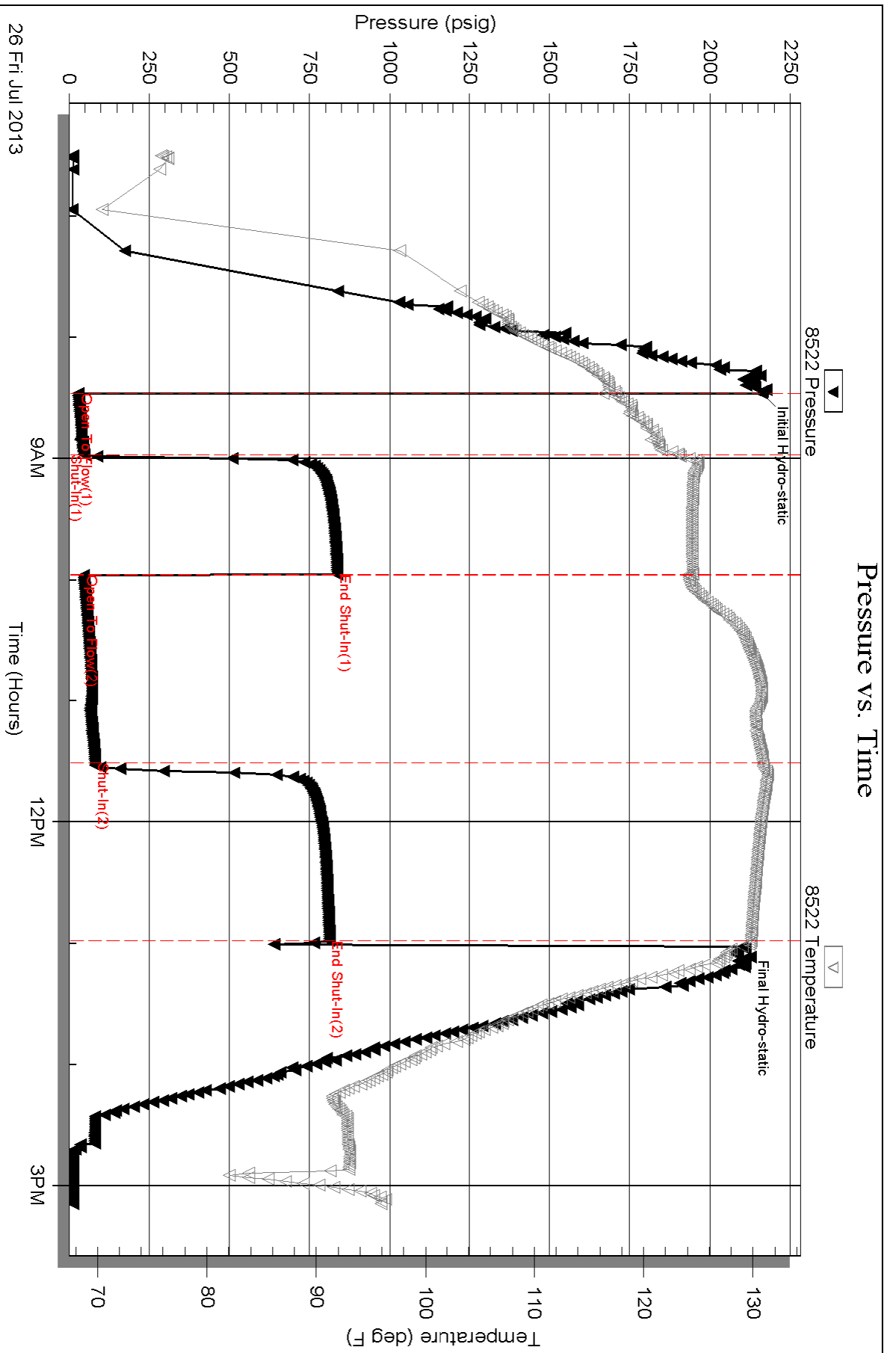
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .410 @ 71F = 17,000ppm





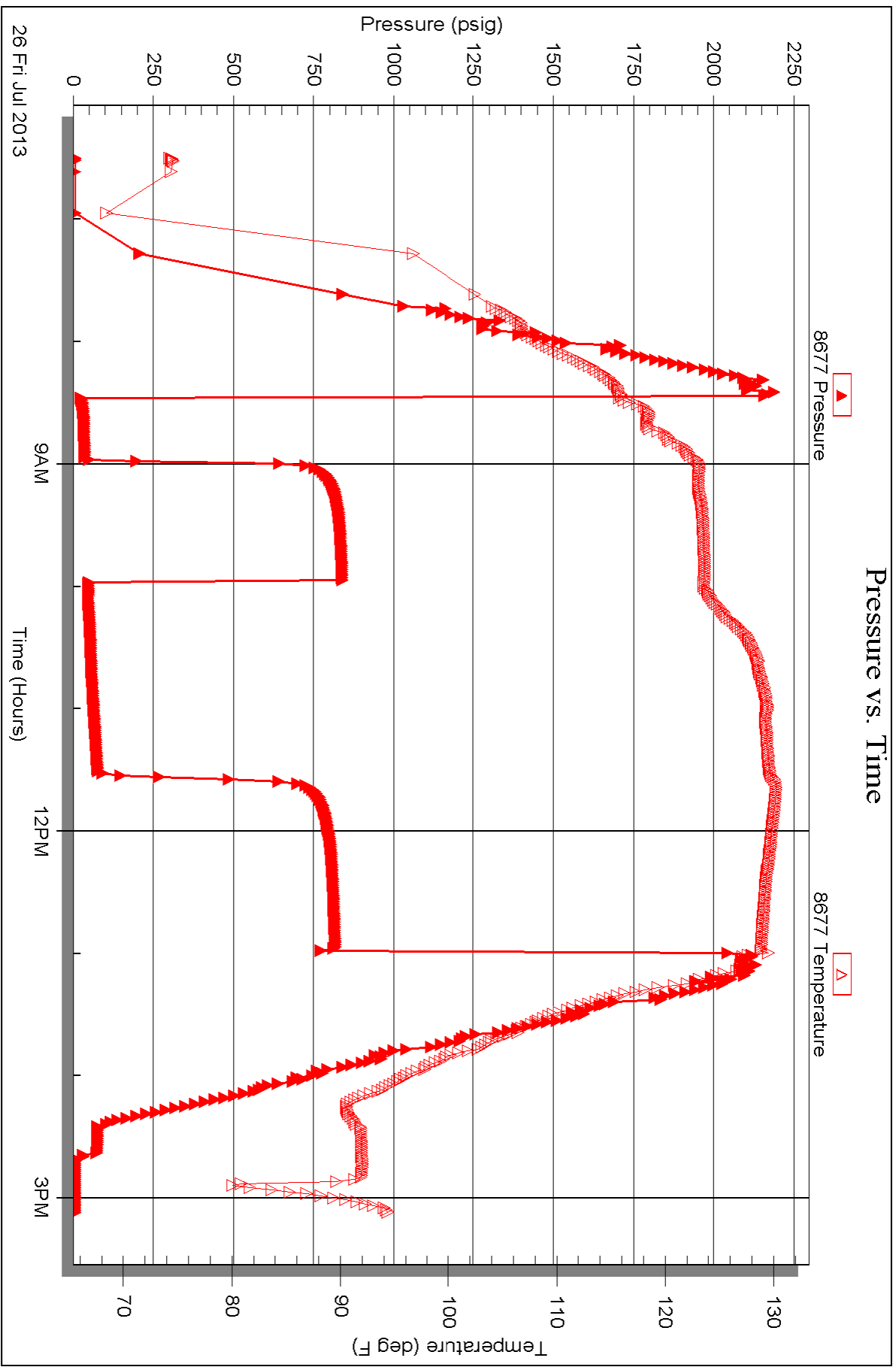
Serial #: 8677

Inside

Pickell Drilling Co. Inc.

Popp "A" #5

DST Test Number: 3





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48763

Well Name & No. Popp "A" #5 Test No. 1 Date 7/23/13  
 Company Pickrell Drilling Co, Inc Elevation 2458 KB 2451 GL  
 Address 100 s. Main STE 505 Wichita, KS 67207  
 Co. Rep / Geo. Jerry Smith Rig Pickrell #10  
 Location: Sec. 24 Twp. 17s Rge. 26 W Co. Ness State KS

Interval Tested 3771-3786 Zone Tested Lansing  
 Anchor Length 15' Drill Pipe Run 3781 Mud Wt. 9.0  
 Top Packer Depth 3786 Drill Collars Run 0 Vis 48  
 Bottom Packer Depth 3771 - S.P. 3786 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3786 3871 Chlorides 3,000 ppm System LCM 1.5#  
 Blow Description IF: BOB@ 17 min.  
ISI: BOB@ 25. No return.  
FF: BOB@ 25 min.  
FSI: No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OTL</u>	<u>100</u>			
<u>475</u>	<u>mcw</u>		<u>95</u>	<u>5</u>	

Rec Total 480 BHT 121 Gravity — API RW .130 @ 72 °F Chlorides 58000 ppm

(A) Initial Hydrostatic 1817  Test 1150 T-On Location 1000  
 (B) First Initial Flow 27  Jars T-Started 1245  
 (C) First Final Flow 100  Safety Joint 75 T-Open 1522  
 (D) Initial Shut-In 1184  Circ Sub N/C T-Pulled 1952  
 (E) Second Initial Flow 108  Hourly Standby T-Out 2153  
 (F) Second Final Flow 254  Mileage 115 RT 178.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 1074  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 121  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Day Standby \_\_\_\_\_ Total 2003.25  
 Final Flow 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 2003.25

Approved By \_\_\_\_\_ Our Representative [Signature]

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.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48764

Well Name & No. Popp "A" #5 Test No. 2 Date 7/25/13  
 Company Pickrell Drilling Co, Inc Elevation 2458 KB 2451 GL  
 Address 100 S. Main  
 Co. Rep / Geo. Jerry Smith Rig Pickrell #10  
 Location: Sec. 24 Twp. 17S Rge. 26 W Co. Ness State Ks

Interval Tested 4332-4390 Zone Tested Mississippian  
 Anchor Length 58 Drill Pipe Run 4343 Mud Wt. 9.0  
 Top Packer Depth 4327 Drill Collars Run 0 Vis 48  
 Bottom Packer Depth 4332 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4390 Chlorides 3600 ppm System LCM 3#

Blow Description IF: 1/2" blow  
ISI: No return.  
FF: No blow.  
FSI: No return.

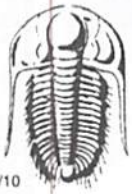
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MUD</u>			<u>100</u>	
	<u>OIL Puddle on top</u>				

Rec Total 20 BHT 121 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2024</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1300</u>
(B) First Initial Flow <u>31</u>	<input type="checkbox"/> Jars	T-Started <u>1338</u>
(C) First Final Flow <u>34</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1532</u>
(D) Initial Shut-In <u>653</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>1732</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1908</u>
(F) Second Final Flow <u>36</u>	<input checked="" type="checkbox"/> Mileage <u>115RT</u> <u>178.25</u>	Comments
(G) Final Shut-In <u>617</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2119</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1503.25</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1503.25</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48765

Well Name & No. Popp "A" #5 Test No. 3 Date 7/26/13  
 Company Pickrell Drilling Co, Inc Elevation 2458 KB 2451 GL  
 Address 100 South Main STE 505 Wichita, KS 67202  
 Co. Rep / Geo. Jerry Smith Rig Pickrell #10  
 Location: Sec. 24 Twp. 17S Rge. 26W Co. Ness State Ks

Interval Tested 4390 - 4405 Zone Tested Mississippian  
 Anchor Length 15 Drill Pipe Run 4375 Mud Wt. 9.2  
 Top Packer Depth 4385 Drill Collars Run 0 Vis 52  
 Bottom Packer Depth 4390 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4405 Chlorides 2600 ppm System LCM 2#  
 Blow Description TF: 4" blow.  
ISI: No return.  
FF: 5" blow  
FST: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>Oil</u>		<u>100</u>		
<u>125</u>	<u>MCW</u>			<u>85</u>	<u>15</u>

Rec Total 150 BHT 129 Gravity 39 API RW 410 @ 71 °F Chlorides 17,000 ppm

(A) Initial Hydrostatic <u>2161</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0530</u>
(B) First Initial Flow <u>29</u>	<input type="checkbox"/> Jars	T-Started <u>0630</u>
(C) First Final Flow <u>49</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0827</u>
(D) Initial Shut-In <u>836</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>1257</u>
(E) Second Initial Flow <u>47</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1509</u>
(F) Second Final Flow <u>82</u>	<input checked="" type="checkbox"/> Mileage <u>115 RT</u> 178.25	Comments
(G) Final Shut-In <u>810</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2100</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1503.25</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1503.25</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# ALLIED OIL & GAS SERVICES, LLC 060593

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Great Bend

DATE <u>7-27-13</u>	SEC. <u>24</u>	TWP. <u>17</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION	JOB START <u>12 pm</u>	JOB FINISH <u>12:30 pm</u>
LEASE <u>Pop A</u>		WELL# <u>5</u>		LOCATION <u>Nessity to Hed 8N 2W</u>		COUNTY <u>Ness</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one)							

CONTRACTOR Pickrel Drilling

TYPE OF JOB Rotary plug

HOLE SIZE 12 1/2 T.D.

CASING SIZE 8 3/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 1813

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. All

PERFS.

DISPLACEMENT Freshwater

OWNER

CEMENT

AMOUNT ORDERED 270 sks 60/40 4 1/2 gal 4 Flo

COMMON <u>162</u>	@ <u>17.90</u>	<u>2899.80</u>
POZMIX <u>108</u>	@ <u>9.35</u>	<u>1009.80</u>
GEL <u>9</u>	@ <u>23.40</u>	<u>210.60</u>
CHLORIDE	@	
ASC	@	
<u>FloSeed 67.50</u>	@ <u>2.97</u>	<u>200.48</u>
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING <u>289.98</u>	@ <u>2.48</u>	<u>719.15</u>
MILEAGE <u>12.11 x 19</u>	@ <u>2.60</u>	<u>598.23</u>
TOTAL		<u>5,638.06</u>

EQUIPMENT

PUMP TRUCK CEMENTER Josh Isaac

# 398 HELPER Ben Newell

BULK TRUCK

# 344 DRIVER Shawn Kearns

BULK TRUCK

# DRIVER

REMARKS:

On location, Rig up, had safety meeting

Run Drill pipe, fill hole with log mud

Hook up cement pipe

#1-1813 82-50516

#2-1150 80 RH-30516

#3-500 50

#4-240 40 Rig down 12:30pm

#5-60 20

Plug down

CHARGE TO: Pickrel Drilling

STREET \_\_\_\_\_

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

SERVICE

DEPTH OF JOB 1813

PUMP TRUCK CHARGE 2,249.84

EXTRA FOOTAGE @

MILEAGE HVM 19 @ 7.70 146.30

MANIFOLD @

LVM 19 @ 4.40 83.60

@

TOTAL 2479.74

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 X Mike Kern

SIGNATURE X Mike Kern

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

TOTAL CHARGES \$ 8,117.80

DISCOUNT - 2,1029.45 IF PAID IN 30 DAYS

\$6,088.35

# ALLIED OIL & GAS SERVICES, LLC 060585

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Great Bend

DATE <u>7-18-13</u>	SEC. <u>24</u>	TWP. <u>17</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION	JOB START <u>1:00 pm</u>	JOB FINISH <u>11:30 pm</u>
LEASE <u>Pepp A</u>		WELL # <u>5</u>	LOCATION <u>Laird west to Hrd 6 N</u>		COUNTY <u>WESS</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)			<u>to 200 rd 2 west</u>				

CONTRACTOR Pickrell Drilling Comp  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/2 T.D.  
 CASING SIZE 8 5/8 DEPTH 215  
 TUBING SIZE DEPTH  
 DRILL PIPE 4 1/2 DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 15Ft  
 PERFS.  
 DISPLACEMENT

OWNER

CEMENT  
 AMOUNT ORDERED 150 SK class A 3% gel  
2 1/2 cc

EQUIPMENT

PUMP TRUCK CEMENTER Josh Isaac  
 # 398 HELPER Kevin Eddy  
 BULK TRUCK  
 # 344 DRIVER Mike Eldridge  
 BULK TRUCK  
 # DRIVER

COMMON	<u>150</u>	@	<u>17.90</u>	<u>2685.00</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>23.40</u>	<u>70.20</u>
CHLORIDE	<u>5</u>	@	<u>64.00</u>	<u>320.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>162.09</u>	@	<u>2.48</u>	<u>401.98</u>
MILEAGE	<u>7.4 X 19 X</u>	@	<u>2.60</u>	<u>366.56</u>
TOTAL				<u>3842.74</u>

REMARKS:

on location - pig up - Had safety meeting  
run 8 5/8 casing  
cement with pig and  
pump 5 bbls fresh water ahead  
run 150 SK class A 3% gel  
displace 1 bbls fresh water and start  
cement did cure  
big class

SERVICE

DEPTH OF JOB	<u>215</u>		
PUMP TRUCK CHARGE			<u>1512.25</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>HVM 19</u>	@	<u>7.70</u>
MANIFOLD		@	
	<u>LVM 19</u>	@	<u>4.40</u>
		@	

TOTAL 4742.15

PLUG & FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		

TOTAL \_\_\_\_\_

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

TOTAL CHARGES 5,584.89

DISCOUNT -1396.22 IF PAID IN 30 DAYS

\$4,188.66

CHARGE TO: Pickrell Drilling Comp  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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 x Mike Kern

SIGNATURE x Mike Kern

Thank you