

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1231636  
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: \_\_\_\_\_

1231636

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. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Griffith Unit 3-1
Doc ID	1231636

All Electric Logs Run

Microresisitvity Log
Dual compensated porosity log
Sector Bond/Gamm a Ray CCL log
Dual induction log

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Griffith Unit 3-1
Doc ID	1231636

Tops

Name	Top	Datum
Top Anhydrite	1747	+414
Base Anhydrite	1778	+383
Topeka	3146	-985
Heebner	3351	-1190
Toronto	3372	-1211
LKC	3387	-1226
BKC	3581	-1420
Arbuckle	3744	-1583







## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

PO Box 86  
Plainville KS 6763

ATTN: Marc Downing

### **Griffith #3-1**

### **3-8s-22w Graham,KS**

Start Date: 2014.11.11 @ 02:50:00

End Date: 2014.11.11 @ 11:47:30

Job Ticket #: 62527                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.14 @ 13:48:15



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62527

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.11.11 @ 02:50:00

## GENERAL INFORMATION:

Formation: **KC"E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:49:30

Time Test Ended: 11:47:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

**Interval: 3440.00 ft (KB) To 3454.00 ft (KB) (TVD)**

Reference Elevations: 2161.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

2154.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8957 Outside**

Press@RunDepth: 58.30 psig @ 3441.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.11 End Date: 2014.11.11

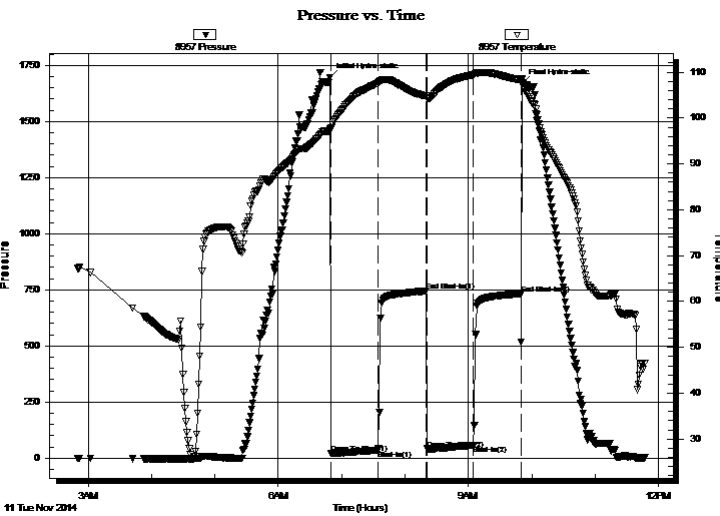
Last Calib.: 2014.11.11

Start Time: 02:50:05 End Time: 11:47:30

Time On Btm: 2014.11.11 @ 06:48:45

Time Off Btm: 2014.11.11 @ 09:50:30

**TEST COMMENT:** IF-BOB in 26 min  
ISI-Very weak surface blow  
FF-BOB in 35 min  
FSI-Very Weak surface blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.94	97.57	Initial Hydro-static
1	21.89	97.51	Open To Flow (1)
46	35.56	107.66	Shut-In(1)
91	744.69	104.77	End Shut-In(1)
93	40.98	104.36	Open To Flow (2)
136	58.30	109.43	Shut-In(2)
181	732.42	108.25	End Shut-In(2)
182	1670.27	108.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSGMCO 5%G 5%M 90%O	0.57
70.00	SGO 5%G 95%O	0.98
0.00	180ft GIP	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62527

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.11.11 @ 02:50:00

## Tool Information

Drill Pipe:	Length: 3424.00 ft	Diameter: 3.80 inches	Volume: 48.03 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3440.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3425.00	
Hydraulic tool	5.00			3430.00	
Packer	5.00			3435.00	20.00 Bottom Of Top Packer
Packer	5.00			3440.00	
Stubb	1.00			3441.00	
Recorder	0.00	8736	Inside	3441.00	
Recorder	0.00	8957	Outside	3441.00	
Perforations	10.00			3451.00	
Bullnose	3.00			3454.00	14.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>34.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62527

**DST#: 1**

ATTN: Marc Downing

Test Start: 2014.11.11 @ 02:50:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	VSGMCO 5%G 5%M 90%O	0.568
70.00	SGO 5%G 95%O	0.982
0.00	180ft GIP	0.000

Total Length: 130.00 ft

Total Volume: 1.550 bbl

Num Fluid Samples: 0

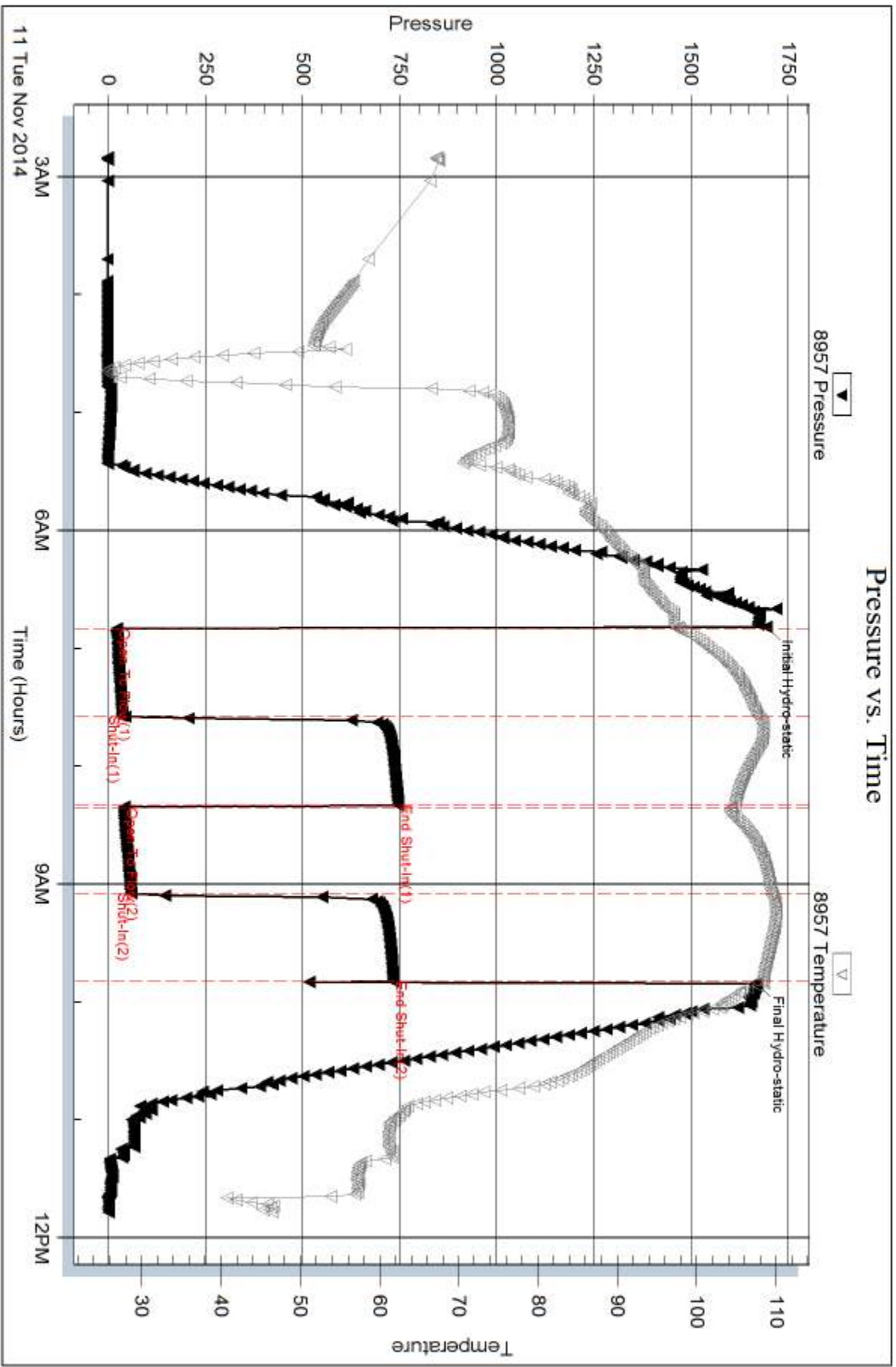
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



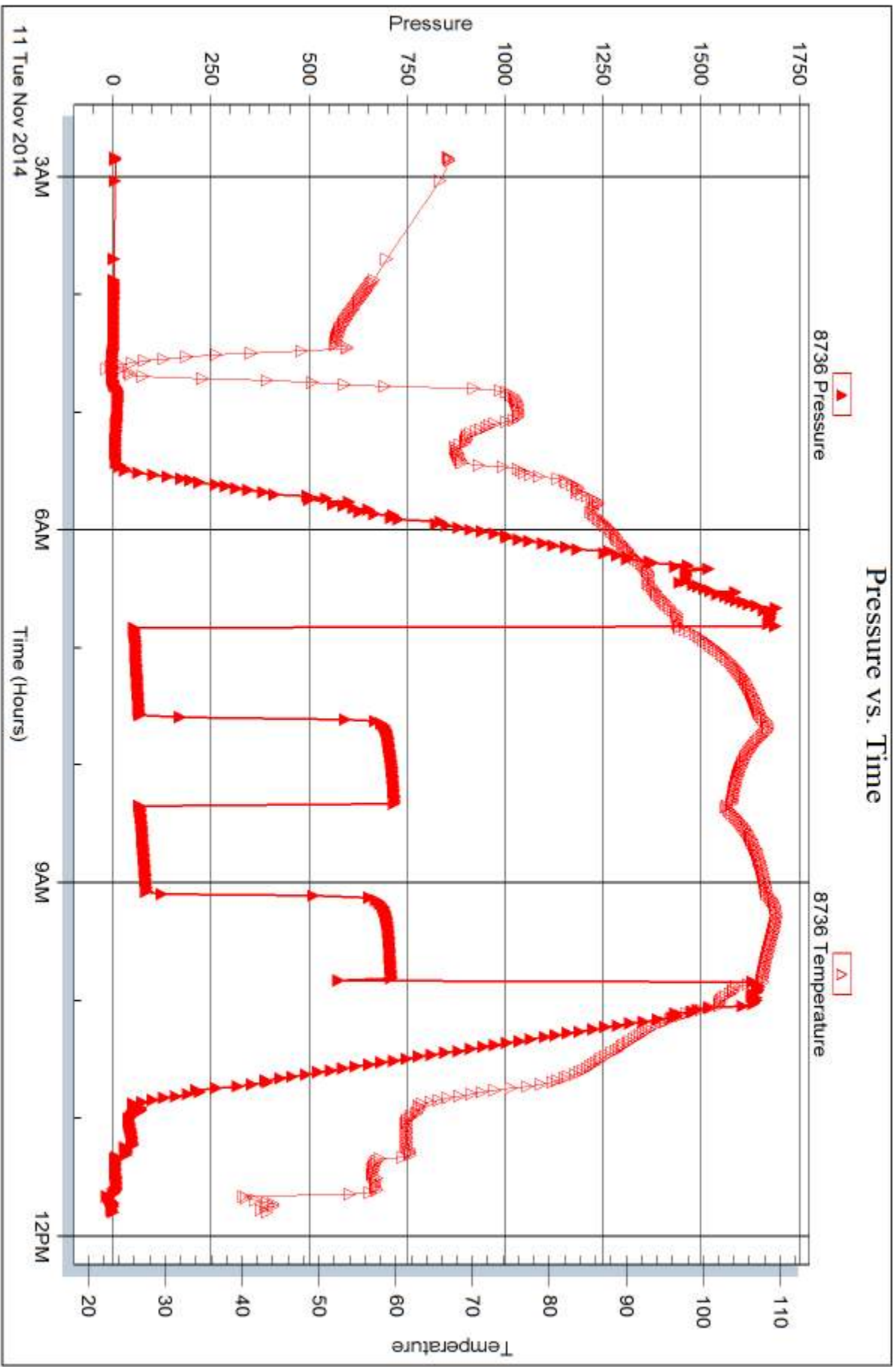
Serial #: 8736

Inside

H&C Oil Operating, Inc.

Griffith #3-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62527

Printed: 2014.11.14 @ 13:48:18



## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

PO Box 86  
Plainville KS 6763

ATTN: Marc Downing

### **Griffith #3-1**

### **3-8s-22w Graham, KS**

Start Date: 2014.11.12 @ 01:05:00

End Date: 2014.11.12 @ 08:22:45

Job Ticket #: 62528                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.14 @ 13:47:15



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62528

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.11.12 @ 01:05:00

## GENERAL INFORMATION:

Formation: **KC "H-K"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 03:31:00  
 Tester: Brett Dickinson  
 Time Test Ended: 08:22:45  
 Unit No: 59  
 Interval: **3493.00 ft (KB) To 3572.00 ft (KB) (TVD)**  
 Reference Elevations: 2161.00 ft (KB)  
 Total Depth: 3572.00 ft (KB) (TVD)  
 2154.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 7.00 ft

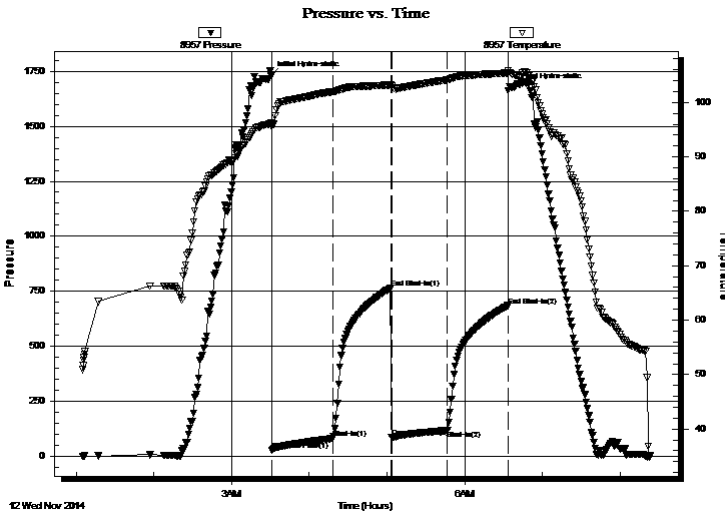
## Serial #: 8957

**Outside**

Press@RunDepth: 115.87 psig @ 3496.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.11.12 End Date: 2014.11.12 Last Calib.: 2014.11.12  
 Start Time: 01:05:05 End Time: 08:22:44 Time On Btm: 2014.11.12 @ 03:30:15  
 Time Off Btm: 2014.11.12 @ 06:37:45

TEST COMMENT: IF-BOB in 14 min  
 IS-1" blow  
 FF-BOB in 24 min  
 FS-Surface blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1731.59	96.12	Initial Hydro-static
1	26.46	95.60	Open To Flow (1)
48	79.89	101.97	Shut-In(1)
93	764.40	103.23	End Shut-In(1)
94	86.64	102.99	Open To Flow (2)
137	115.87	104.14	Shut-In(2)
183	684.06	105.39	End Shut-In(2)
188	1677.02	105.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 20%O 80%M	0.57
125.00	VSGOCM 5%G 45%O 50%M	1.75
55.00	VSGMCO 5%G 5% M 90%O	0.77
0.00	700ft GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62528

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.11.12 @ 01:05:00

## Tool Information

Drill Pipe:	Length: 3458.00 ft	Diameter: 3.80 inches	Volume: 48.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3493.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.00 ft			
Tool Length:	99.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3478.00	
Hydraulic tool	5.00			3483.00	
Packer	5.00			3488.00	20.00 Bottom Of Top Packer
Packer	5.00			3493.00	
Stubb	1.00			3494.00	
Perforations	1.00			3495.00	
Change Over Sub	1.00			3496.00	
Recorder	0.00	8736	Inside	3496.00	
Recorder	0.00	8957	Outside	3496.00	
Drill Pipe	63.00			3559.00	
Change Over Sub	1.00			3560.00	
Perforations	9.00			3569.00	
Bullnose	3.00			3572.00	79.00 Bottom Packers & Anchor

**Total Tool Length: 99.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating, Inc.

**3-8s-22w Graham, KS**

PO Box 86  
Plainville KS 6763

**Griffith #3-1**

Job Ticket: 62528

**DST#: 2**

ATTN: Marc Downing

Test Start: 2014.11.12 @ 01:05:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	OCM 20%O 80%M	0.568
125.00	VSGOCM 5%G 45%O 50%M	1.753
55.00	VSGMCO 5%G 5% M 90%O	0.772
0.00	700ft GIP	0.000

Total Length: 240.00 ft

Total Volume: 3.093 bbl

Num Fluid Samples: 0

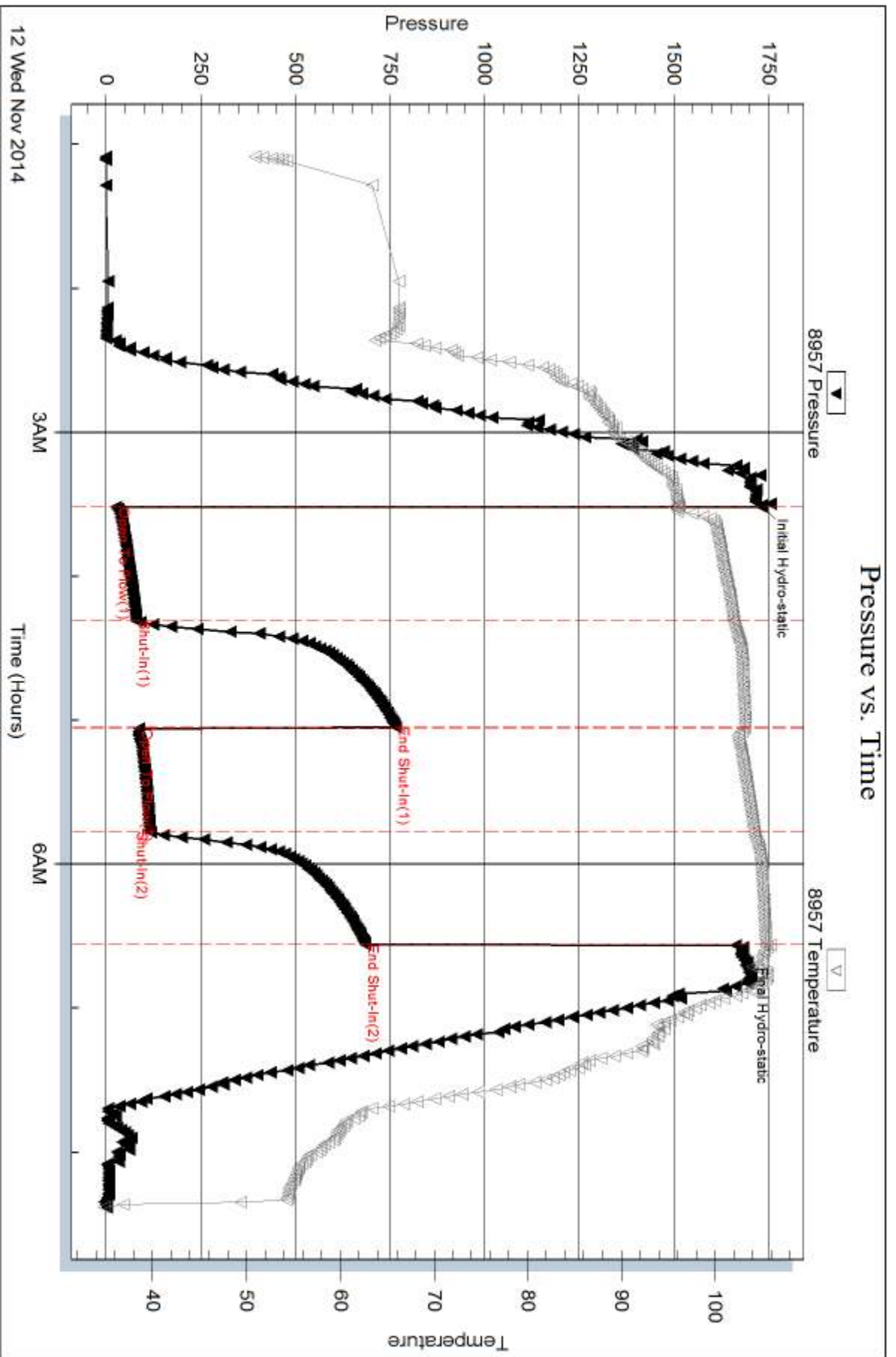
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



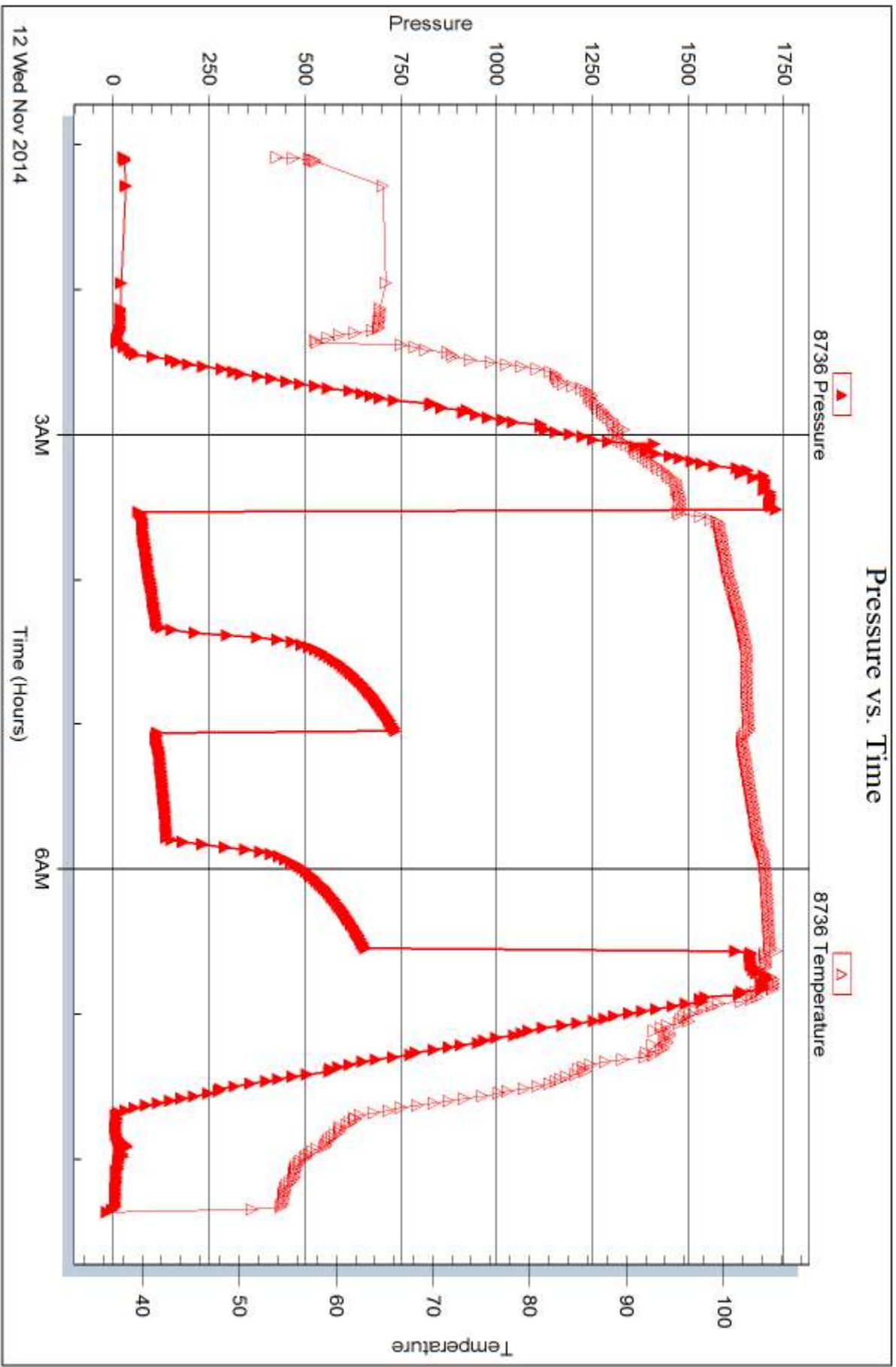
Serial #: 8736

Inside

H&C Oil Operating, Inc.

Griffith #3-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62528

Printed: 2014.11.14 @ 13:47:17



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62527

Well Name & No. Gri-tith # 3-1 Test No. 1 Date 11-11-14  
 Company HOC Oil Operating, Inc Elevation 2161 KB 2154 GL  
 Address P.O. Box 86 Plainville KS 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle  
 Location: Sec. 3 Twp. 8s Rge. 22w Co. Graham State KS

Interval Tested 3440-3454 Zone Tested Kc "E"  
 Anchor Length 14 Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.2  
 Top Packer Depth 3435 Drill Collars Run 30 Vis 56  
 Bottom Packer Depth 3440 Wt. Pipe Run - WL 6.0  
 Total Depth 3454 Chlorides 900 ppm System LCM -

Blow Description IF- BOB in 26min  
ISI - Very weak surface blow  
FF- BOB in 35min  
ISI - very weak surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<del>70</del>	<u>560</u>	<u>5</u>	<u>95</u>		
<u>60</u>	<u>VSM 60</u>	<u>5</u>	<u>90</u>		<u>5</u>
	<u>180ft GAP</u>				

Rec Total 130 BHT 108 Gravity 35 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 4694  Test 1150 T-On Location 1:50  
 (B) First Initial Flow 22  Jars \_\_\_\_\_ T-Started 2:50  
 (C) First Final Flow 36  Safety Joint \_\_\_\_\_ T-Open 6:47  
 (D) Initial Shut-In 745  Circ Sub \_\_\_\_\_ T-Pulled 9:47  
 (E) Second Initial Flow 41  Hourly Standby \_\_\_\_\_ T-Out 11:47  
 (F) Second Final Flow 58  Mileage 130rt 201.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 732  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 4670  Straddle \_\_\_\_\_  
 Initial Open 45  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Shale Packer \_\_\_\_\_  
 Final Flow 45  Extra Packer \_\_\_\_\_  
 Final Shut-In 45  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1351.50  
 Sub Total 1351.50 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Burt Down

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **62528**

Well Name & No. Griffith #3-1 Test No. 2 Date 11-12-14  
 Company H C Oil Operating, Inc Elevation 2161 KB 2154 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Marc D Rig Eagle  
 Location: Sec. B Twp. 8 Rge. 22 Co. Graham State KS

Interval Tested 3493-3572 Zone Tested KC "H-A"  
 Anchor Length 29 Drill Pipe Run \_\_\_\_\_ Mud Wt. \_\_\_\_\_  
 Top Packer Depth 3498 Drill Collars Run 30 Vis \_\_\_\_\_  
 Bottom Packer Depth 3493 Wt. Pipe Run - WL \_\_\_\_\_  
 Total Depth 3572 Chlorides \_\_\_\_\_ ppm System \_\_\_\_\_ LCM \_\_\_\_\_  
 Blow Description FF-BOB in 14 min  
FSI - lin blow  
FF-BOB in 24 min  
FSI - surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>VSGMCO</u>	<u>5</u>	<u>90</u>	<u>5</u>	<u>5</u>
<u>125</u>	<u>VSG OCM</u>	<u>5</u>	<u>45</u>	<u>50</u>	<u>50</u>
<u>60</u>	<u>OCM</u>	<u>20</u>	<u>80</u>	<u>80</u>	<u>80</u>
____	<u>200 FT GIP</u>	____	____	____	____
____	____	____	____	____	____

Rec Total 240 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1732  Test 1150 T-On Location 00:30  
 (B) First Initial Flow 26  Jars \_\_\_\_\_ T-Started 1:05  
 (C) First Final Flow 80  Safety Joint \_\_\_\_\_ T-Open 3:30  
 (D) Initial Shut-In 264  Circ Sub \_\_\_\_\_ T-Pulled 6:30  
 (E) Second Initial Flow 87  Hourly Standby \_\_\_\_\_ T-Out 8:15  
 (F) Second Final Flow 116  Mileage 130.712 Comments \_\_\_\_\_  
 (G) Final Shut-In 684  Sampler 201.50+201.50 loaded tools  
 (H) Final Hydrostatic 1077  Straddle \_\_\_\_\_ 11-13-14 AM  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 45  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1553.00 Total 1553.00 MP/DST Disc't \_\_\_\_\_

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.

# 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. 972

Date	11-7-14	Sec.	3	Twp.	8	Range	22	County	Wichita	State	KS	On Location		Finish	11.5 in
Lease	Gr. With On +		Well No.		3-1		Location <u>HILGAY 4E to 320th 120 int</u>								
Contractor	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.														
Type Job	Surbic														
Hole Size	17 1/4														
Csg.	8 5/8														
Tbg. Size	Depth 261														
Tool	Depth														
Cement Left in Csg.	15'														
Meas Line	Shoe Joint <del>15'</del> Displace 15' 2 3/4														
<b>EQUIPMENT</b>															
Pumptrk	5	No.	Cementer												
			Helper												
Bulktrk		No.	Driver	BIRT											
			Driver												
Bulktrk	9	No.	Driver	LEWIS											
			Driver												
<b>JOB SERVICES &amp; REMARKS</b>															
Remarks:															
Rat Hole															
Mouse Hole															
Centralizers															
Baskets															
DW or Port Collar															
	8 5/8" Baskets + 15' Est. Circulation														
	MIX WASTE + DISPOSE														
	Cement Circulation														
	FLOAT EQUIPMENT														
	Guide Shoe														
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Pumptrk Charge <u>Surface</u>														
	Mileage <u>37</u>														
	Tax														
	Discount														
	Total Charge														

X  
Signature: *Bradford Burt*

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 844

Federal Tax I.D.# 20-2886107

Date	11-14-2014	Sec.	3	Twp.	B 3	Range	B 2 W	County	GRAHAM	State	KANSAS	On Location	6:00 AM	Finish
Lease	GRIFFITH UNIT Well No. 3-1-BAD													
Contractor	AMERICAN EAGLE Rig #2 PARKER													
Type Job	PRODUCTION STRING (CIAC. Cement)													
Hole Size	7 7/8	T.D.												
Csg.	5 1/2 New	Depth	3797'											
Tbg. Size	14 # csg.	Depth												
Tool	LATCH DN. BAFEL @ 3776'													
Cement Left in Csg.	20.98	Shoe Joint	20.98											
Meas Line	Displace 92.20 / BBL													
EQUIPMENT														
Pumptrk	No. 18	Cement	GLENN GR.											
		Helper	CODY B.											
Bulktrk	No. 21	Driver	RYAN M.											
		Driver	LOHME M.											
Bulktrk	No. 9	Driver												
		Driver												
JOB SERVICES & REMARKS														
Remarks:														
Rat Hole														
Mouse Hole	30 SX													
Centralizers	1, 14, 23, 41, 56, 78, 91, 95, 97, 99, 100													
Baskets	3, 51, 71													
DV or Port Collar	RAN 90 JTS													
	Set 5 1/2 csg @ 3797'													
	Review Circulation, Drop "AFU" Ball													
	Circulate 1 1/2 Hr, Pump Mud-Flush													
	Cement Ret hole w/ 30 SX													
	Mixed 445 SX Qm Dc. 4" Flo Seal and													
	150 SX Q, Pro. C. Clear-line													
	Release LATCH Down Plug													
	Displace 92.20 BBL Ho													
	HAD 1100 # LIFT #													
	Land Plug @ 1800 #.													
	Release Pressure & "AFU" Plug"													
	(HELD). DID ROTATE w/ cementing													
	Cement DID Circulate													
	TO SURFACE!													
	THANK'S!													
	GUYCHUCK KUBAL													
	D. H. Coates													
X	Signature													
	Tax													
	Discount													
	Total Charge													

The above was done to satisfaction and supervision of owner agent or contractor.  
 Cement Amount Ordered 150 SX Q. PRO-C. Seal  
 475 Qm Dc. 1/4" Flo-Seal 500 GAL CLR  
 Common 150 Qm Dc. 5% gelant

PO Mix 475 Qm Dc

Salt 13  
 Flowseal 118#  
 Kol-Seal 750#  
 Mud CLR 48 500 GAL  
 CFL-117 or CD110 CAF 38  
 Sand  
 Handling 646  
 Mileage  
 Guide Shoe  
 Centralizer TURBO X16  
 Baskets 3  
 AFU Inserts  
 Float Shoe X1  
 Latch Down X1  
 ROTATING HEAD

Pumptrk Charge pro-d string  
 Mileage 37

Tax  
 Discount  
 Total Charge