



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1218314  
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: \_\_\_\_\_

1218314

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 <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  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
<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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Delbert 19-1
Doc ID	1218314

Tops

Name	Top	Datum
Anhydrite top	2176	+367
Anhydrite Base	2208	+335
Topeka	3570	-1027
Heebner	3787	-1244
Toronto	3810	-1267
Lansing	3826	-1283
Muncie Creek	3941	-1398
Stark	4010	-1467
Base KC	4056	-1513





## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating**

PO Box 86  
Plainville KS 67663-0086

ATTN: Charles Ramsay, Anth

### **Delbert Walt #19-1**

#### **19-10s-25w Graham,KS**

Start Date: 2014.08.04 @ 21:55:32

End Date: 2014.08.05 @ 03:38:56

Job Ticket #: 58837                      DST #: 1

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

Printed: 2014.08.07 @ 10:22:29

H&C Oil Operating  
19-10s-25w Graham,KS  
Delbert Walt #19-1  
DST # 1  
LKC E-F  
2014.08.04



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

ATTN: Charles Ramsay, Anth

Job Ticket: 58837

**DST#: 1**

Test Start: 2014.08.04 @ 21:55:32

## GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:07:27

Time Test Ended: 03:38:56

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3848.00 ft (KB) To 3870.00 ft (KB) (TVD)**

Reference Elevations: 2543.00 ft (KB)

Total Depth: 3870.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

## Serial #: 8018

Inside

Press@RunDepth: 31.54 psig @ 3849.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.04

End Date:

2014.08.05

Last Calib.:

2014.08.05

Start Time: 21:55:32

End Time:

03:38:56

Time On Btm:

2014.08.05 @ 00:03:57

Time Off Btm:

2014.08.05 @ 02:12:56

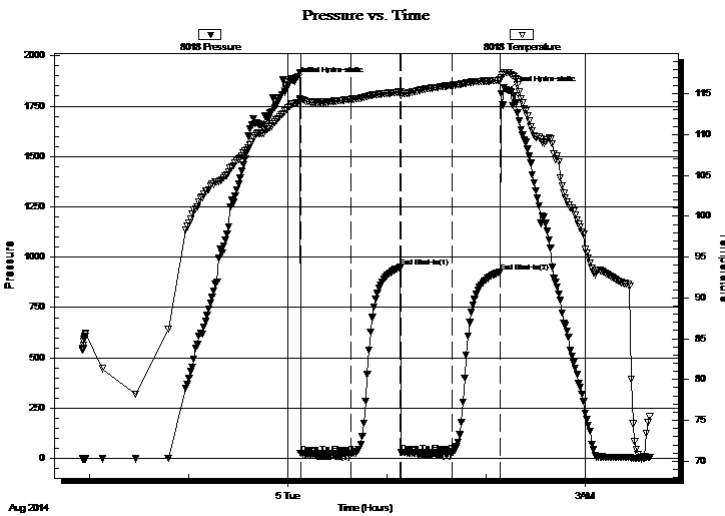
TEST COMMENT: 30-IFP-w eak surface bl thru-out

30-ISIP-no bl

30-FFP-no bl

30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1872.22	113.82	Initial Hydro-static
4	26.63	114.20	Open To Flow (1)
34	25.63	114.31	Shut-In(1)
64	949.32	115.21	End Shut-In(1)
65	32.50	114.78	Open To Flow (2)
96	31.54	116.04	Shut-In(2)
125	927.40	116.66	End Shut-In(2)
129	1827.71	117.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/show of oil	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

Job Ticket: 58837

**DST#: 1**

ATTN: Charles Ramsay, Anth

Test Start: 2014.08.04 @ 21:55:32

## Tool Information

Drill Pipe:	Length: 3801.00 ft	Diameter: 3.80 inches	Volume: 53.32 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 53.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3848.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	51.00 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			3820.00	
Shut In Tool	5.00			3825.00	
Hydraulic tool	5.00			3830.00	
Jars	5.00			3835.00	
Safety Joint	3.00			3838.00	
Packer	5.00			3843.00	29.00 Bottom Of Top Packer
Packer	5.00			3848.00	
Stubb	1.00			3849.00	
Recorder	0.00	8018	Inside	3849.00	
Recorder	0.00	8700	Outside	3849.00	
Perforations	18.00			3867.00	
Bullnose	3.00			3870.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 51.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

Job Ticket: 58837

**DST#: 1**

ATTN: Charles Ramsay, Anth

Test Start: 2014.08.04 @ 21:55:32

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w/show of oil	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:

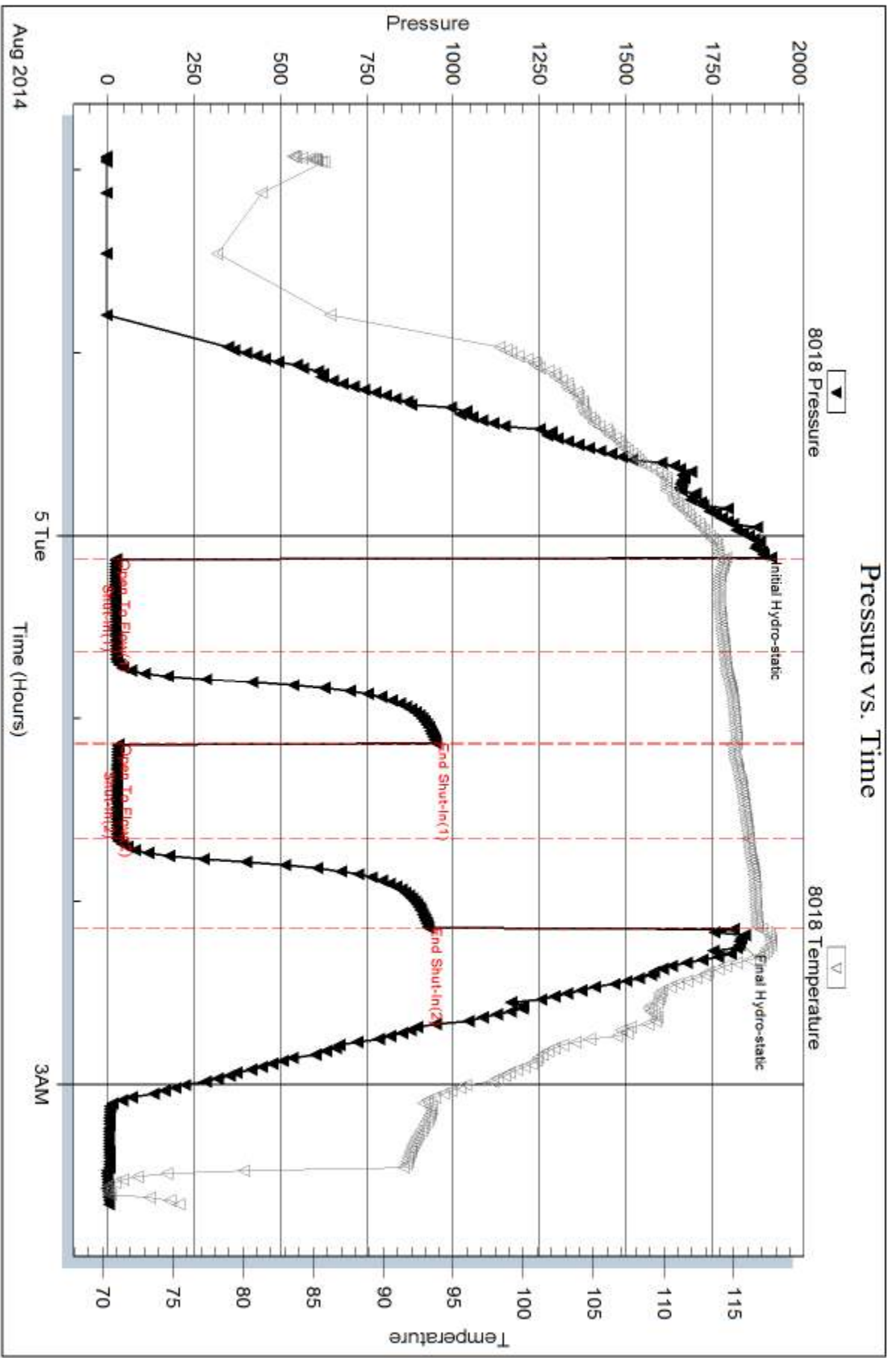
Serial #: 8018

Inside

H&C Oil Operating

Delbert Well #19-1

DST Test Number: 1

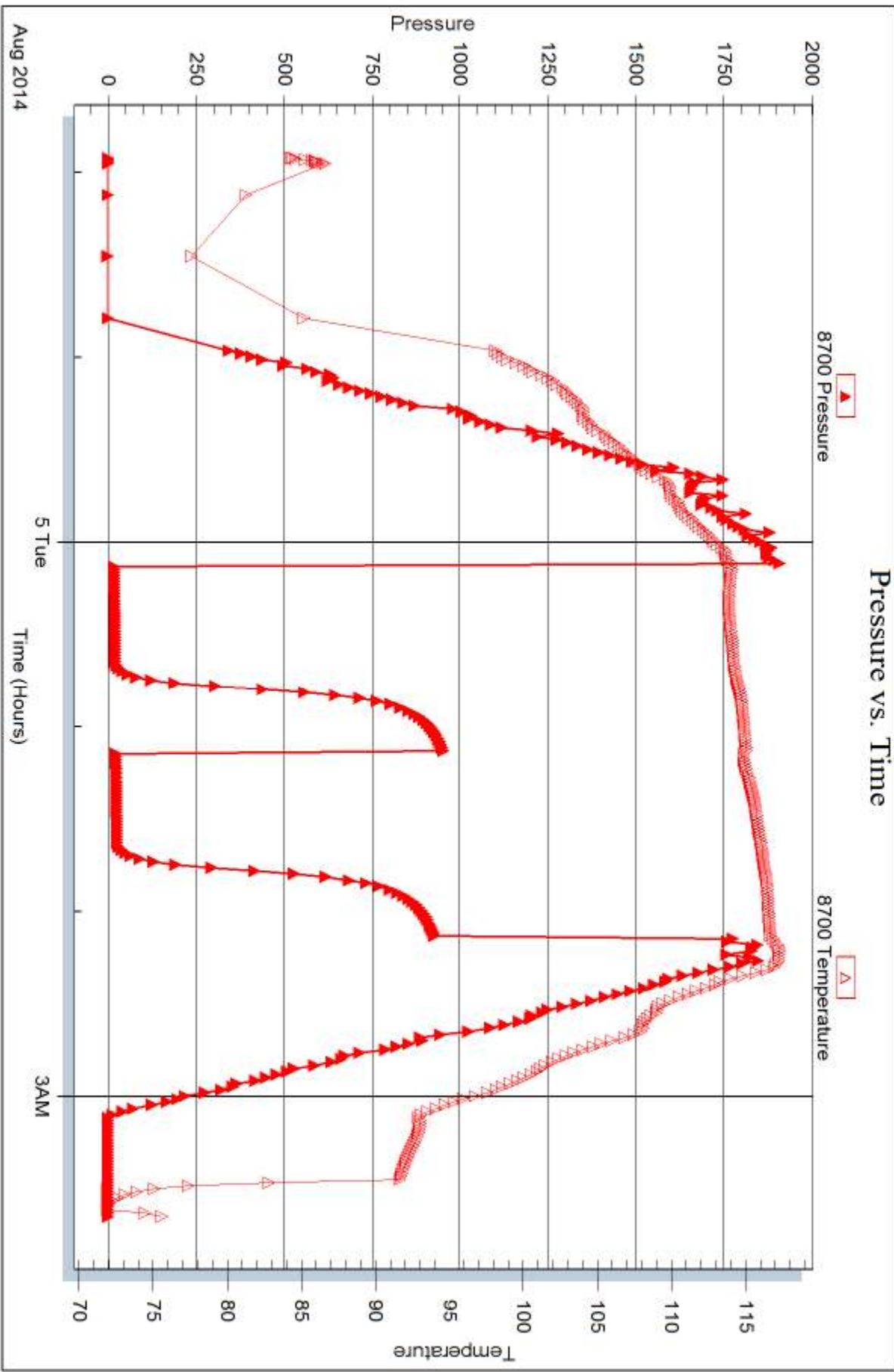


Serial #: 8700

Outside H&C Oil Operating

Delbert Well #19-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58837

Printed: 2014.08.07 @ 10:22:30



## DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating**

PO Box 86  
Plainville KS 67663-0086

ATTN: Charles Ramsay, Anth

### **Delbert Walt #19-1**

#### **19-10s-25w Graham,KS**

Start Date: 2014.08.05 @ 21:25:52

End Date: 2014.08.06 @ 04:15:16

Job Ticket #: 58838                      DST #: 2

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

Printed: 2014.08.07 @ 10:21:38

H&C Oil Operating  
19-10s-25w Graham,KS  
Delbert Walt #19-1  
DST # 2  
LKC:HK  
2014.08.05



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

Job Ticket: 58838

**DST#: 2**

ATTN: Charles Ramsay, Anth

Test Start: 2014.08.05 @ 21:25:52

## GENERAL INFORMATION:

Formation: **LKC H-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:30:47

Time Test Ended: 04:15:16

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3896.00 ft (KB) To 4002.00 ft (KB) (TVD)**

Reference Elevations: 2543.00 ft (KB)

Total Depth: 4002.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8018**

**Inside**

Press@RunDepth: 134.70 psig @ 3905.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.05

End Date:

2014.08.06

Last Calib.:

2014.08.06

Start Time:

21:25:52

End Time:

04:15:16

Time On Btm:

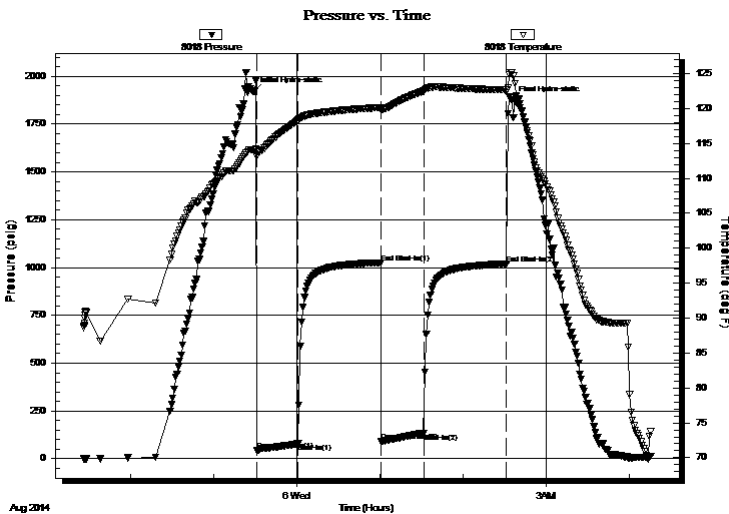
2014.08.05 @ 23:28:47

Time Off Btm:

2014.08.06 @ 02:35:16

**TEST COMMENT:** 30-IFP-w k to a gd bl 1/2" to 7" bl  
60-ISIP-no bl  
30-FFP-w k to a fr bl , surface to 5" bl  
60-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1921.66	114.08	Initial Hydro-static
2	44.12	113.13	Open To Flow (1)
32	79.14	118.30	Shut-In(1)
92	1025.86	120.12	End Shut-In(1)
92	92.87	119.86	Open To Flow (2)
123	134.70	122.48	Shut-In(2)
183	1020.05	122.63	End Shut-In(2)
187	1873.60	125.16	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
210.00	MW 15%M85%W	2.67

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

Job Ticket: 58838

**DST#: 2**

ATTN: Charles Ramsay, Anth

Test Start: 2014.08.05 @ 21:25:52

## Tool Information

Drill Pipe:	Length: 3865.00 ft	Diameter: 3.80 inches	Volume: 54.22 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 54.37 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3896.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	106.00 ft				
Tool Length:	135.00 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			3868.00	
Shut In Tool	5.00			3873.00	
Hydraulic tool	5.00			3878.00	
Jars	5.00			3883.00	
Safety Joint	3.00			3886.00	
Packer	5.00			3891.00	29.00 Bottom Of Top Packer
Packer	5.00			3896.00	
Stubb	1.00			3897.00	
Perforations	8.00			3905.00	
Recorder	0.00	8018	Inside	3905.00	
Recorder	0.00	8700	Outside	3905.00	
Blank Spacing	94.00			3999.00	
Bullnose	3.00			4002.00	106.00 Bottom Packers & Anchor

**Total Tool Length: 135.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating

**19-10s-25w Graham,KS**

PO Box 86  
Plainville KS 67663-0086

**Delbert Walt #19-1**

Job Ticket: 58838

**DST#: 2**

ATTN: Charles Ramsay, Anth

Test Start: 2014.08.05 @ 21:25:52

## 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:

58000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	MW 15%M85%W	2.672

Total Length: 210.00 ft      Total Volume: 2.672 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

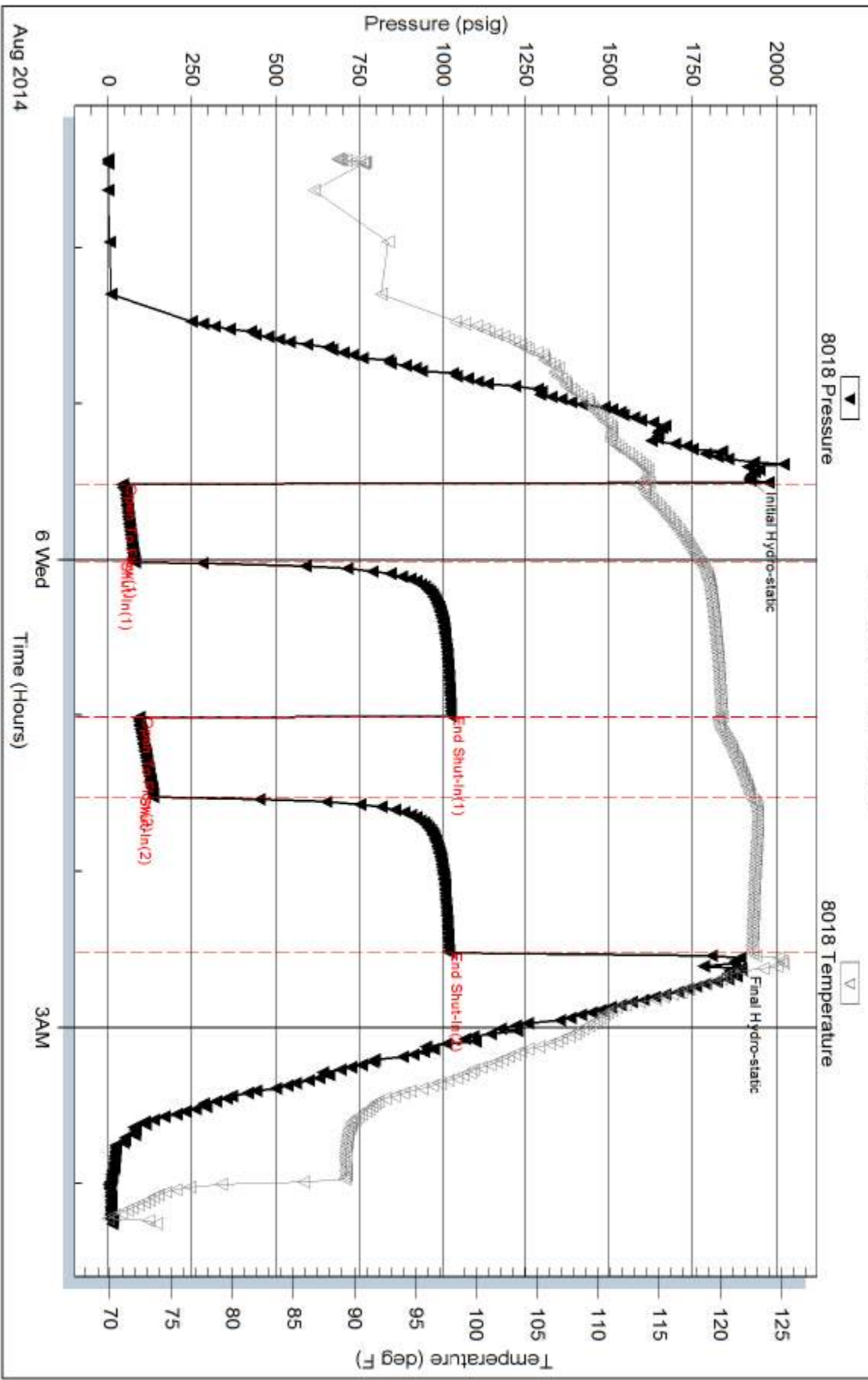
Laboratory Name:

Laboratory Location:

Recovery Comments: RW .16@60F



### Pressure vs. Time

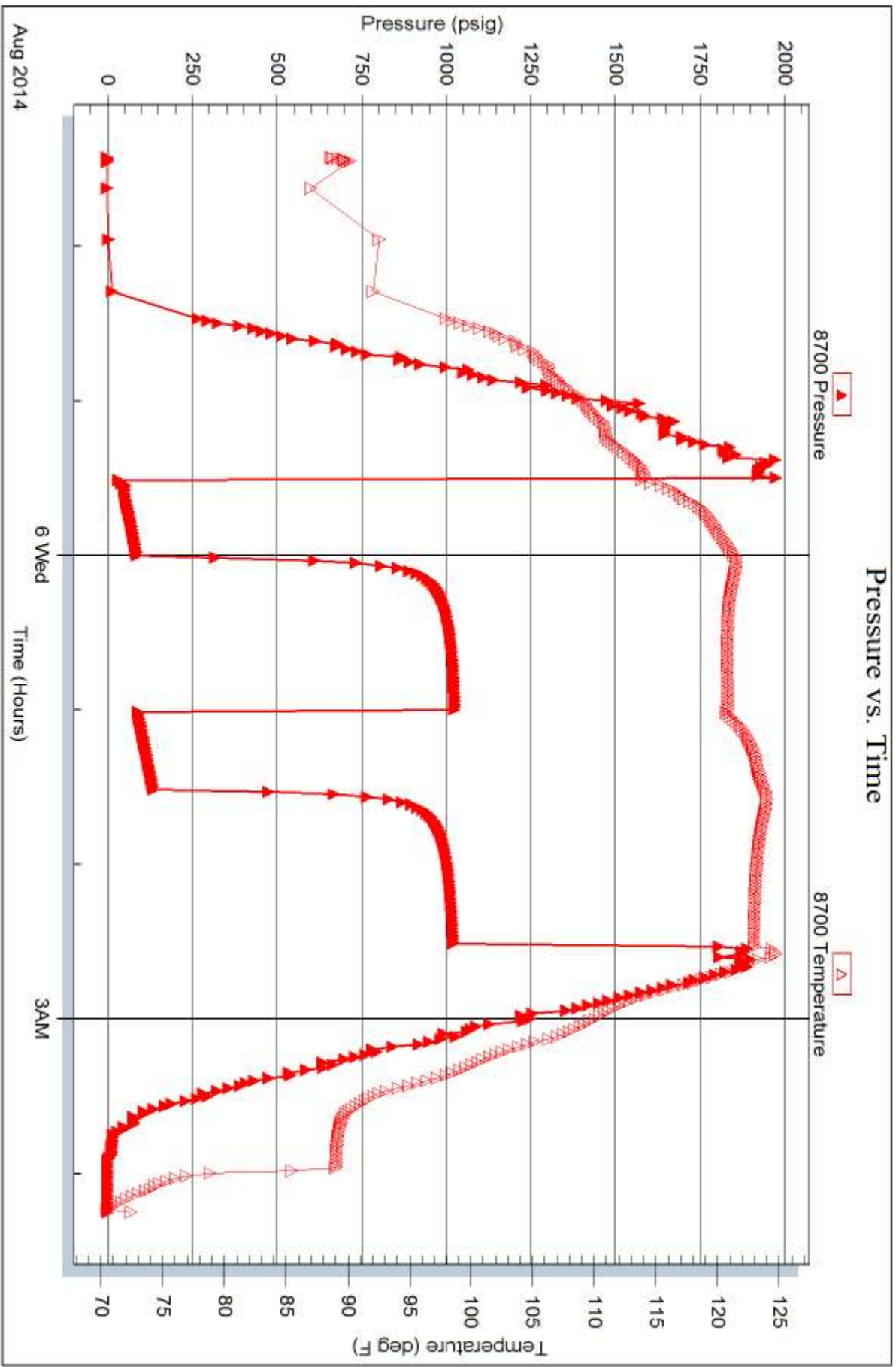


Serial #: 8700

Outside H&C Oil Operating

Delbert Well #19-1

DST Test Number: 2





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58837

Well Name & No. Delbert WALT #19-1 Test No. 1 Date 8-4-14  
 Company H+C OIL OPERATING Elevation 2543 KB 2536 GL  
 Address PO Box 86 PLAINVILLE, Ks 67663-0086  
 Co. Rep / Geo. Anthony Luna Rig AM Eagle rig 2  
 Location: Sec. 19 Twp. 10<sup>s</sup> Rge. 25<sup>w</sup> Co. GRAHAM State Ks

Interval Tested 3848-3870 Zone Tested LKC E-F  
 Anchor Length 22 Drill Pipe Run 3801 Mud Wt. 9.4  
 Top Packer Depth 3843 Drill Collars Run 30 Vis 60  
 Bottom Packer Depth 3848 Wt. Pipe Run - WL 6.8  
 Total Depth 3870 Chlorides 900 ppm System LCM -

Blow Description IFP-WEAK SURFACE Blow thru-out  
ISIP-NO BLOW  
FFP-NO BLOW  
FSIP-NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>				
	<u>w/show of oil</u>				

Rec Total 5 BHT 116 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1872</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2020</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2155</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0010</u>
(D) Initial Shut-In <u>949</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0210</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0338</u>
(F) Second Final Flow <u>31</u>	<input checked="" type="checkbox"/> Mileage <u>125 RT</u> 193.75	Comments
(G) Final Shut-In <u>927</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1827</u>	<input type="checkbox"/> Straddle	

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

Sub Total 0  
 Total 1668.75  
 MP/DST Disc't

Sub Total 1668.75

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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. 58838

4/10

Well Name & No. Delbert WALT #19-1 Test No. 2 Date 8-5-14  
 Company H+C O&L OPERATING Elevation 2543 KB 2536 GL  
 Address PO Box 86 PLAINVILLE, Ks 67663-0086  
 Co. Rep / Geo. Anthony Luna Rig Am Eagle rig 2  
 Location: Sec. 19 Twp. 10<sup>s</sup> Rge. 25<sup>w</sup> Co. GRAHAM State Ks

Interval Tested 3896-4002 Zone Tested LKC H-K  
 Anchor Length 106 Drill Pipe Run 3865 Mud Wt. 9.4  
 Top Packer Depth 3891 Drill Collars Run 30 Vis 60  
 Bottom Packer Depth 3896 Wt. Pipe Run — WL 6.8  
 Total Depth 4002 Chlorides 900 ppm System LCM —

Blow Description IFP - WEAK TO A GOOD BLOW 1/2" TO 7" BLOW  
ISIP - NO BLOW  
FFP - WEAK TO A FAIR BLOW, SURFACE TO 5" BLOW  
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>210</u>	<u>mw</u>		<u>85</u>	<u>15</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 210 BHT 122 Gravity — API RW .16 @ 60 °F Chlorides 58000 ppm  
 (A) Initial Hydrostatic 1921  Test 1250 T-On Location 1820  
 (B) First Initial Flow 44  Jars 250 T-Started 2125  
 (C) First Final Flow 79  Safety Joint 75 T-Open 2330  
 (D) Initial Shut-In 1025  Circ Sub \_\_\_\_\_ T-Pulled 0230  
 (E) Second Initial Flow 92  Hourly Standby \_\_\_\_\_ T-Out 0415  
 (F) Second Final Flow 134  Mileage 193.75 Comments \_\_\_\_\_  
 (G) Final Shut-In 1020  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1873  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

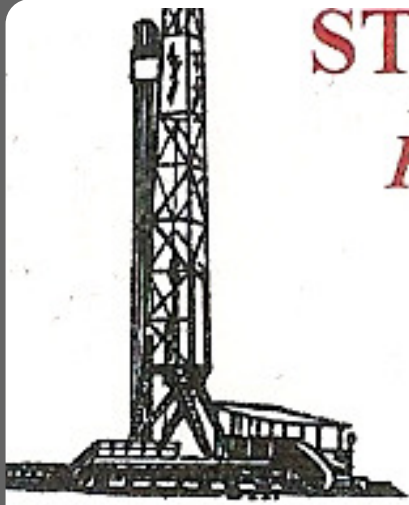
Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60  
 Sub Total 0  
 Total 1768.75  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1768.75

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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.

# STEVEN P. MURPHY, P.G.

*Petroleum Geologist (KS #228)*



Cell 620.639.3030

Fax 785.387.2400

RR#1, Box 69

Otis, Kansas 67565

geomurphy@gbta.net

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Delbert #19-1  
API: 15-065-24051-00-00

Location: Graham County

License Number: 8914

Spud Date: 7/31/2014

Region: Kansas

Drilling Completed: 8/6/2014

Surface Coordinates: 1150' FNL & 475' FWL (Approx. SE SW NW NW )

Section 19-T10S-R25W

Bottom Hole Coordinates: Same as above (Vertical well w/min deviation)

Ground Elevation (ft): 2536'

K.B. Elevation (ft): 2543'

Logged Interval (ft): 3450 To: TD

Total Depth (ft): LTD - 4080'

Formation: Topeka through BKC

Type of Drilling Fluid: Chemical

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

Company: H&C Oil Operating  
Address: P.O. Box 86  
Plainville KS 67663

## GEOLOGIST

Name: Steven P. Murphy, PG (KS License #228) & Anthony Luna  
Company: Consulting Petroleum Geologist  
Address: 3365 CR 390  
Otis, KS 67565

## LogTops (Datum)

Open-hole logging was performed by Pioneer Log-Tech. The following are formation tops w/associated datums:

Anhydrite Top - 2176 (+367)  
Anhydrite Base - 2208 (+335)  
Topeka - 3570 (-1027)  
Heebner - 3787 (-1244)  
Toronto - 3810 (-1267)  
Lansing - 3826 (-1283)  
Muncie Creek - 3941(-1398)  
Stark - 4010 (-1467)  
Base KC - 4056 (-1513)

### DSTs

Drillstem testing was performed by Trilobite Testing (Hays shop):

**DST #1 3848-3870 LKC ("EF")**

30:30:30:30

IF: Surface blow, no return

FF: No blow, no return

Recovery: 5' Mud w/show of oil

IHP: 1872            FHP: 1827

IFP: 26-32          ISIP: 949

FFP: 25-31          FSIP: 927

BHT - 116 F

**DST #2 3896-4002 LKC ("HIJK")**

30:60:30:60

IF: Built to 7in, no return

FF: Built to 5in, no return

Recovery: 210' MW (85%W, 15%M)

IHP: 1921            FHP: 1873

IFP: 44-92          ISIP: 1025

FFP: 79-134        FSIP: 1020

BHT - 122 F

Chlorides 58,000 ppm


### COMMENTS

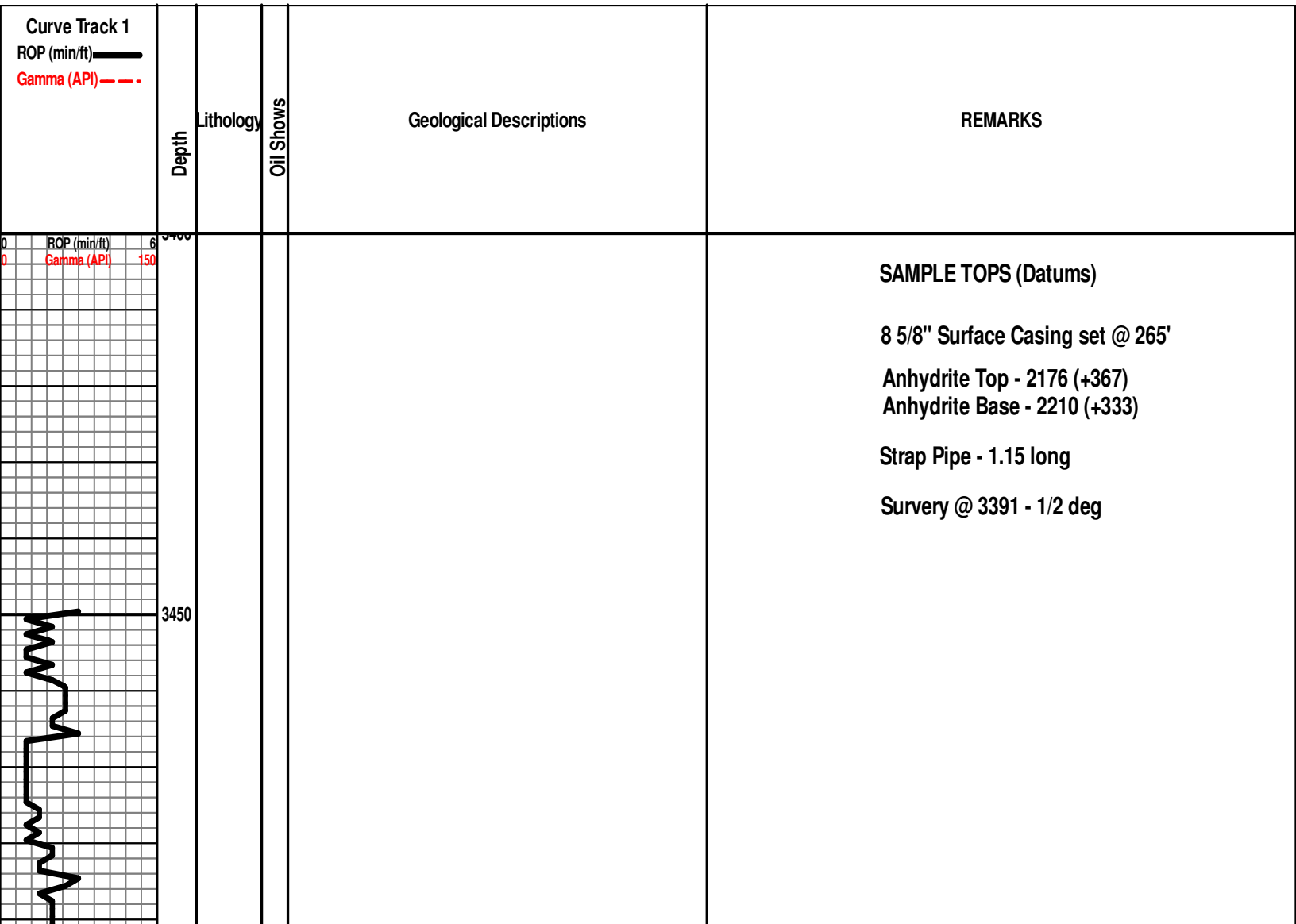
Based on sample & log analysis it was determined that this well is non-commercial and should be plugged & abandoned.

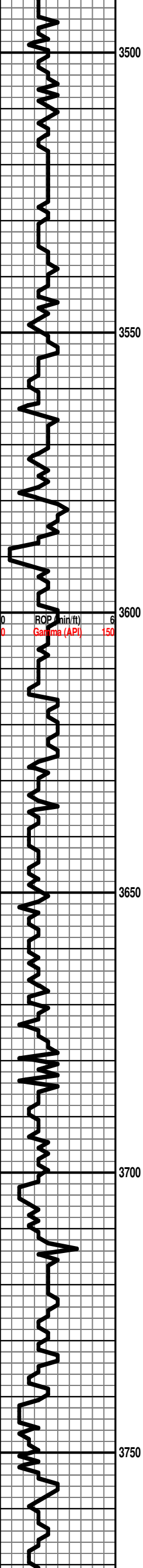
### ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst	 Coal  Congl  Dol  Gyp  Igne	 Lmst  Meta  Mrlst  Salt  Shale	 Shcol  Shgy  Sltst  Ss  Till
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### OTHER SYMBOLS

<b>OIL SHOW</b>  Even  Spotted  Ques	 Dead  Gas	<b>INTERVAL</b>  Core  Dst	<b>EVENT</b>  Conn  Rft  Sidewall
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Topeka 3542 (-999)

LS: wht-crm-gry, vfxln, sl ool, NS

LS: wht-crm-gry, fxln, sl ool, sl fos, NS

LS: same as above

SH: gry-grn-brn

LS: wht-tan-gry, fxln, sl fos, NS

SH: blk, carb

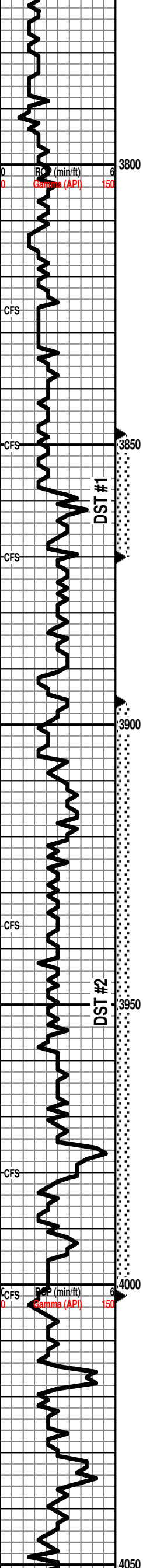
Heebner 3746 (-1203)

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-brn

Toronto 3769 (-1226)

LS: wht-crm-gry, vfxln, sl cherty, sl fos, sl cherty, NS



SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS

SH: gry-grn-brn-blk

LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-blk

LS: wht-tan-gry, vfxln, sl fos, NS

LS: wht-crm-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-brn-blk

LS: wht-crm-gry, fxl, sl fos, fr intr-ool por, sl vug, vssfo, sl odor

LS: same as above

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

LS: wht-crm-gry, vfxln, sl fos, NS

LS: same as above

SH: blk, carb

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, pr-fr por, oolitic, tr fo on brk, wk odor

LS: same as above

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, pr intr-ool por, nsfo, dense, spotty stn, no odor

SH: gry-grn-brn-blk

SH: same as above

LS: wht-crm-gry, vfxln, fos, dense, rare stn, nsfo, no odor

SH: blk

SH: gry-grn-brn

LS: wht-tan-gry, vfxln, sl cherty, sl fos, spotty stn, dense, nsfo, no odor

LS: wht-gry, vfxln, pr ool por, tight, tr fo on brk, no odor

SH: blk

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS

LS: wht-tan-gry, vfxln, sl cherty, sl ool, sl fos, NS

SH: gry-grn-brn

SH: same as above

**Lansing 3788 (-1245)**

DST #1 3848-3870 LKC ("EF")  
 30:30:30:30  
 IF: Surface blow, no return  
 FF: No blow, no return  
 Recovery: 5' Mud w/show of oil  
 IHP: 1872      FHP: 1827  
 IFP: 26-32      ISIP: 949  
 FFP: 25-31      FSIP: 927  
 BHT - 116 F

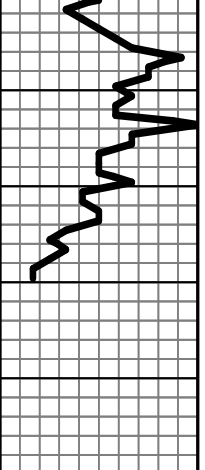
**Muncie Creek 3907 (-1364)**

DST #2 3896-4002 LKC ("HIJK")  
 30:60:30:60  
 IF: Built to 7in, no return  
 FF: Built to 5in, no return  
 Recovery: 210' MW (85%W, 15%M)  
 IHP: 1921      FHP: 1873  
 IFP: 44-92      ISIP: 1025  
 FFP: 79-134      FSIP: 1020  
 BHT - 122 F  
 Chlorides - 58,000 ppm

**Stark 3977 (-1434)**

**BKC 4019 (-1476)**





4100

LS: wht-crm-gry, vfxln, sl cherty, sl ool, NS

LS: same as above

SH: gry-grn-brn-blk

SH: gry-grn-brn

RTD - 4080'

LTD - 4080'

Survey @ 4080 - 3/4 deg

# 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. 371

Date	8-2-14	Sec.	19	Twp.	10	Range	25	County	Cochran	State	KS	On Location		Finish	7:30 AM		
Lease	Deibert		Well No. 19-1			Location St. Peter 3w 1s 3/4w Sinto											
Contractor	American Eagle #2																
Type Job	Rotary Plug																
Hole Size	7 7/8																
Csg.	T.D. 40 80																
Tbg. Size	Depth																
Tool	Depth																
Cement Left in Csg.	Shoe Joint																
Meas Line	Displace																
EQUIPMENT																	
Pumptrk	18	No.	Cement													124	
Bulktrk		No.	Cody													96	
Bulktrk	15	No.	Flyer													9	
JOB SERVICES & REMARKS																	
Remarks:																	
Rat Hole	30SK																
Mouse Hole																	
Centralizers																	
Baskets																	
DN or Port Collar																	
	1st	2193	50SK													Handling	249
	2nd	1286	100SK													Mileage	
	3rd	313	50SK													FLOAT EQUIPMENT	
	4th	40'	10SK													Guide Shoe	
																Centralizer	8 5/8 wooden plug
																Baskets	
																AFU Inserts	
																Float Shoe	
																Latch Down	
																Pumptrk Charge	plg
																Mileage	39
																Tax	
																Discount	
																Total Charge	
Signature																	

# QUALITY OILWELL CEMENTING, INC.

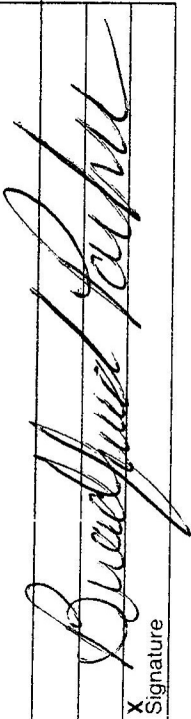
Federal Tax I.D.# 20-2886107

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

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

No. 527

Date	7-30-14	Sec.	19	Twp.	10	Range	25	County	Graham	State	KS	On Location		Finish	5:00 PM
Lease	Delbert														
Contractor	American Eagle #2														
Type Job	Surface														
Hole Size	12 1/4														
Csg.	8 3/8														
Tbg. Size															
Tool															
Cement Left in Csg.	20'														
Meas Line	Displace 15 1/2 bbl														
<b>EQUIPMENT</b>															
Pumptrk	5	No.	Cementer Helper David												
Bulktrk	14	No.	Driver Chad												
Bulktrk	Pu	No.	Driver Brett												
<b>JOB SERVICES &amp; REMARKS</b>															
Remarks:															
Rat Hole															
Mouse Hole															
Centralizers															
Baskets															
D/V or Port Collar															
	Common 170														
	Poz. Mix														
	Gel. 3														
	Calcium 6														
	Hulls														
	Salt														
	Flowseal														
	Kol-Seal														
	Mud CLR 48														
	CFL-117 or CD110 CAF 38														
	Sand														
	Handling 180														
	Mileage														
	FLOAT EQUIPMENT														
	Guide Shoe														
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Cement Circulator														
	Pumptrk Charge Surface														
	Mileage 3.5														
	Tax														
	Discount														
	Total Charge														

X  Signature