



1148870

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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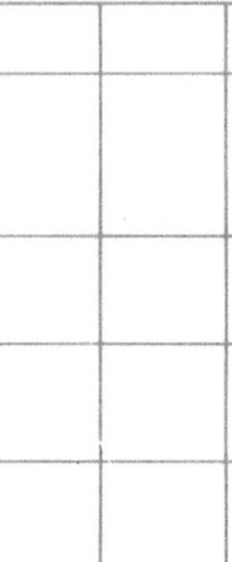
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Marc Downing
 Consulting Petroleum Geologist
 1411 Washington Circle
 Hays, KS 67601
 Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY: H&C Oil Operating, Inc.
 WELL: Minimum # 24-1
 FIELD: Wildcat



LOCATION: 840' ESE + 1450' East
 SEC. 24 TWP. 4S RGE. 25W

COUNTY: Graham
 STATE: Kansas

OPERATOR: H&C Oil Operating, Inc.
 CONTRACTOR: American Engr., Rig # 3
 COMM: 4-9-13
 CORR: 6-17-13

PRODUCTION: LHC
 ELEVATION: KB 2393
 DF: GL 2388

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DRAIN	STRUCTURAL POSITION
Top Anhydrite	2114	2115	4294	
Base Anhydrite	2149	2149	4294	
Taranta	3440	3440	-1647	
Heebner	3675	3675	-1292	
LKC	3714	3714	-1321	
BKC	3934	3934	-1541	

REFERENCE WELL FOR STRUCTURE: H&C Oil Operating, Inc.
 David Trust # 24-1 2300' ESE + 700' East Sct. 24-8S-25W

DRILL STEM TESTS

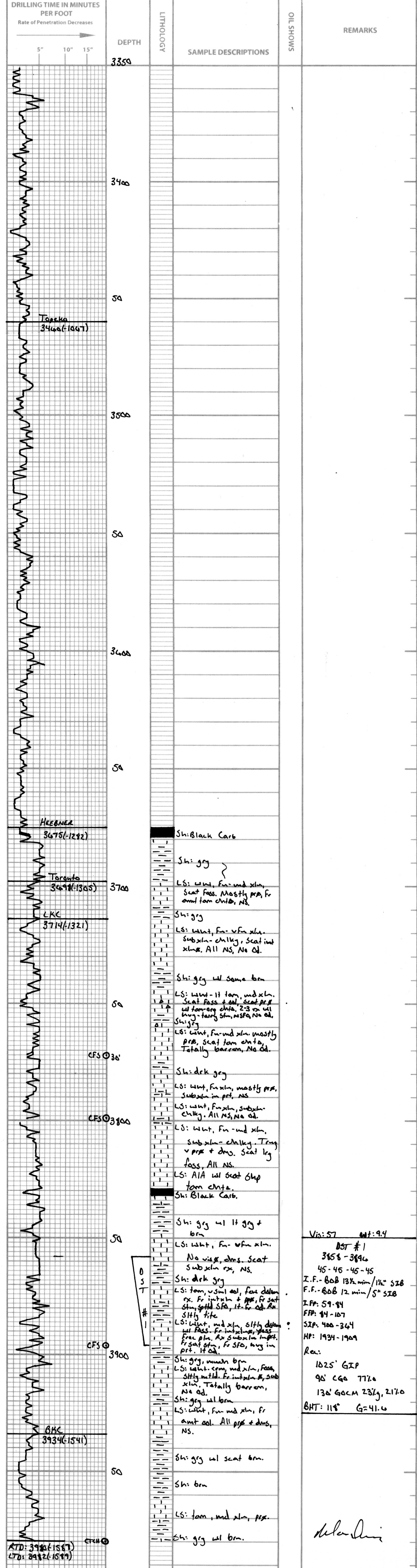
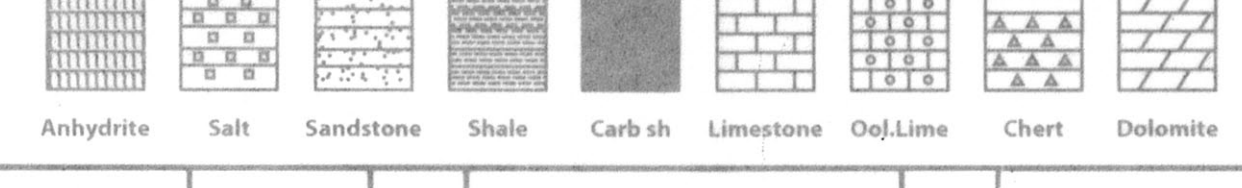
No.	Interval	IFP/Time	ISP/Time	FFP/Time	HP/HP	RECOVERY

REMARKS AND RECOMMENDATIONS: Due to structural position, DST recovery & log evaluation, it was decided to set 5 1/2" production casing.

Perforate:
 LKC "S": 3886-3888
 "I": 3849-3873

Marc Downing

LEGEND



KTD: 3986(1587)
 LTD: 3932(1599)

Marc Downing



DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

Minium #26-1

26-8s-25w Graham KS

Start Date: 2013.06.16 @ 00:58:00

End Date: 2013.06.16 @ 09:32:45

Job Ticket #: 52751 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.18 @ 11:20:13



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

26-8s-25w Graham KS

PO Box 86
Plainville, KS 67663

Minium #26-1

Job Ticket: 52751

DST#: 1

ATTN: Marc Downing

Test Start: 2013.06.16 @ 00:58:00

GENERAL INFORMATION:

Formation: **LKC "I - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:50:45

Time Test Ended: 09:32:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3858.00 ft (KB) To 3896.00 ft (KB) (TVD)

Reference Elevations: 2393.00 ft (KB)

Total Depth: 3896.00 ft (KB) (TVD)

2388.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8671

Inside

Press @ Run Depth: 106.88 psig @ 3859.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.16

End Date:

2013.06.16

Last Calib.:

2013.06.16

Start Time: 00:58:05

End Time:

09:32:45

Time On Btm:

2013.06.16 @ 03:50:30

Time Off Btm:

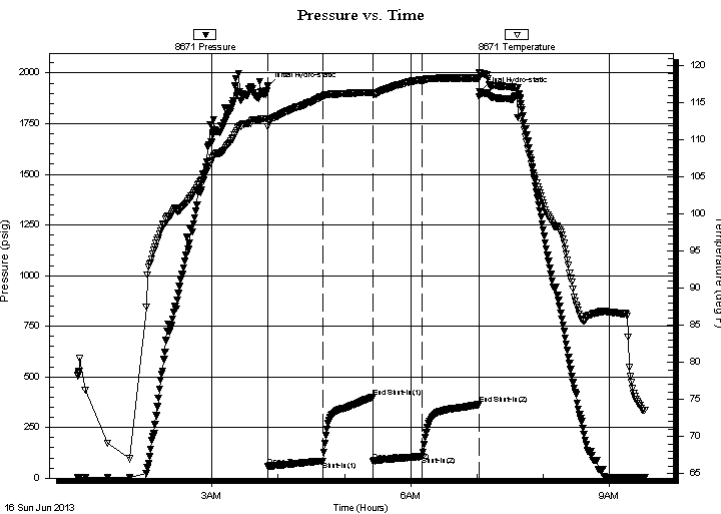
2013.06.16 @ 07:02:45

TEST COMMENT: 45 - IF: Blow built to BOB in 13 1/2 min.

45 - IS: Blow back built to 1 1/2"

45 - FF: Blow built to BOB in 12 min.

45 - FS: Blow back built to 5"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1934.09	112.89	Initial Hydro-static
1	58.59	111.78	Open To Flow (1)
50	84.30	115.86	Shut-In(1)
96	400.22	116.43	End Shut-In(1)
96	83.63	116.18	Open To Flow (2)
140	106.88	118.04	Shut-In(2)
192	363.91	118.37	End Shut-In(2)
193	1909.09	119.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	GOCM 56% _m , 23% _g , 21% _o	1.82
90.00	CGO 77% _o , 21% _g , 2% _m	1.26
0.00	GIP = 1025'	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.

26-8s-25w Graham KS

PO Box 86
Plainville, KS 67663

Minium #26-1

Job Ticket: 52751

DST#: 1

ATTN: Marc Downing

Test Start: 2013.06.16 @ 00:58:00

Tool Information

Drill Pipe:	Length: 3871.00 ft	Diameter: 3.80 inches	Volume: 54.30 bbl	Tool Weight: 2000.00 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: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 54.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3858.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: tool opened on bridge 3' - 4' high lost about 20' of mud - had to add another joint to get to bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3843.00	
Hydraulic tool	5.00			3848.00	
Packer	5.00			3853.00	20.00 Bottom Of Top Packer
Packer	5.00			3858.00	
Stubb	1.00			3859.00	
Recorder	0.00	8671	Inside	3859.00	
Recorder	0.00	8320	Outside	3859.00	
Perforations	34.00			3893.00	
Bullnose	3.00			3896.00	38.00 Bottom Packers & Anchor
Total Tool Length:	58.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

26-8s-25w Graham KS

PO Box 86
Plainville, KS 67663

Minium #26-1

Job Ticket: 52751

DST#: 1

ATTN: Marc Downing

Test Start: 2013.06.16 @ 00:58:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 57.00 sec/qt
Water Loss: 7.38 in³
Resistivity: ohm.m
Salinity: 1100.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 41.6 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	GOCM 56% <i>m</i> , 23% <i>g</i> , 21% <i>o</i>	1.824
90.00	CGO 77% <i>o</i> , 21% <i>g</i> , 2% <i>m</i>	1.262
0.00	GIP = 1025'	0.000

Total Length: 220.00 ft Total Volume: 3.086 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 42.8 api @ 72 deg F
Corrected Gravity = 41.6 api

Serial #: 8671

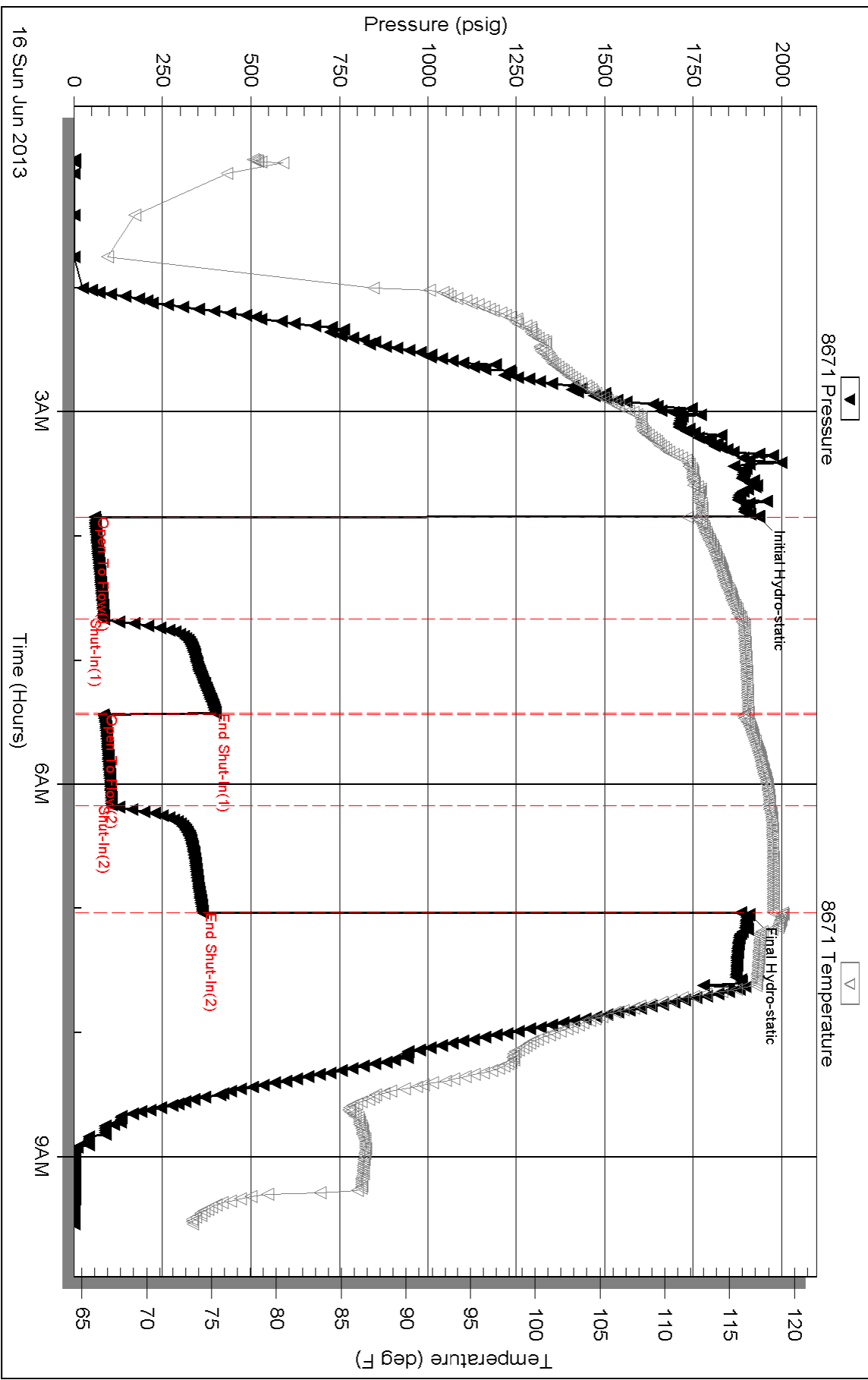
Inside

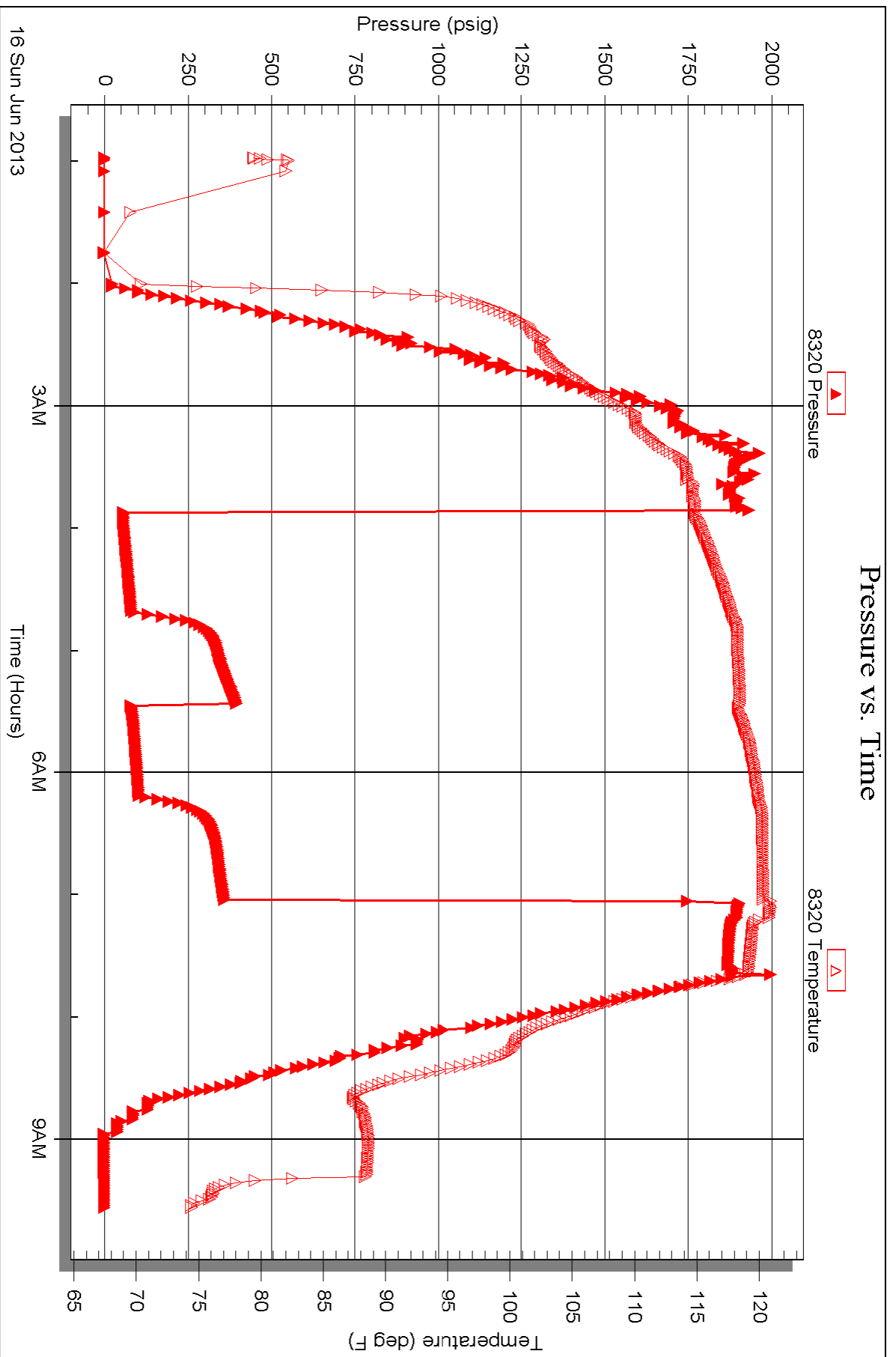
H&C Oil Operating, Inc.

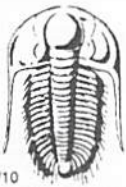
Mnium#26-1

DST Test Number: 1

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52751

Well Name & No. Minium #26-1 Test No. 1 Date 6-16-13
 Company H&C Oil Operating Inc Elevation 2393 KB 2388 GL
 Address PO Box 86 Plainville, KS 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #3
 Location: Sec. 26 Twp. 8s Rge. 25w Co. Graham State KS

Interval Tested 3858-3896 Zone Tested LKC "I-J"
 Anchor Length 38 Drill Pipe Run 3871 Mud Wt. 9.4
 Top Packer Depth 3853 Drill Collars Run - Vis 57
 Bottom Packer Depth 3858 Wt. Pipe Run - WL 7.4
 Total Depth 3896 Chlorides 1100 ppm System LCM -

Blow Description IF: Blow built to BOB in 13 1/2 min.
ISI: Blowback built to 1 1/2"
FF: Blow built to BOB in 12 min.
FSI: Blowback built to 5"

Rec	Feet of	%gas	%oil	%water	%mud
90 90	CGO	21	77	-	2
130 130	60cm	23	21	-	56
	GIP = 1025'				

Rec Total 220 Fluid 1025 GAS BHT 118 Gravity 41.6 API RW - @ - ° F Chlorides - ppm
 (A) Initial Hydrostatic 1934 Test * 1150 T-On Location 23:15 6/15
 (B) First Initial Flow 59 Jars T-Started 00:58 6/16
 (C) First Final Flow 84 Safety Joint T-Open 3:50
 (D) Initial Shut-In 400 Circ Sub * T-Pulled 7:02
 (E) Second Initial Flow 84 Hourly Standby 1 1/4 hr 125 T-Out 9:30 6/16
 (F) Second Final Flow 107 Mileage 122 RT x 2 378.20 Comments Tool opened on
 (G) Final Shut-In 364 Sampler lost 20' mud - Added 1J+ to
 (H) Final Hydrostatic 1909 Straddle get to bottom
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1653.20
 MP/DST Disc't

Approved By _____ Our Representative James Winkler

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.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

July 1, 2013

Charles Ramsay
H & C Oil Operating Inc.
PO BOX 86
PLAINVILLE, KS 67663-0086

Re: ACO1
API 15-065-23942-00-00
Minium 26-1
SW/4 Sec.26-08S-25W
Graham County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Charles Ramsay

QUALITY CEMENTING, INC.

Federal Tax I.D.# 20-2886107

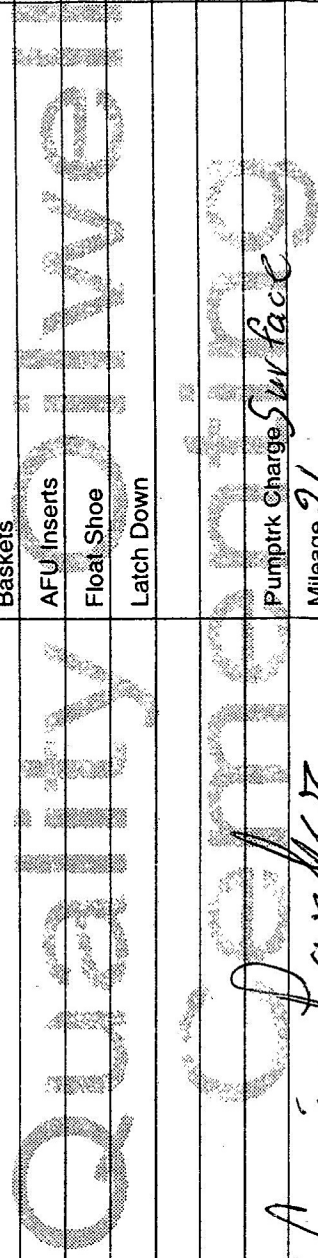
Phone 785-483-2025

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

No. 7910

Cell 785-324-1041

Date	6-9-13	Sec.	26	Twp.	8	Range	25	County	Graham	State	Ks	On Location		Finish	2:45 AM	
Lease	Minimum															
Contractor	American Eagle #3															
Type Job	Surface															
Hole Size	12 1/4"															
Csg.	8 5/8"															
Tbg. Size	26.5'															
Tool	26.5'															
Cement Left in Csg.	15'															
Meas Line	Displace 15 3/4 BLS															
EQUIPMENT																
Pumptrk	15	No.	Cementer	Nick												
Bulktrk	12	No.	Driver	David L.												
Bulktrk	P. U. I.	No.	Driver	Rick												
JOB SERVICES & REMARKS																
Remarks:	Cement did Circulate.															
Rat Hole																
Mouse Hole																
Centralizers																
Baskets																
D/V or Port Collar																
	Sand															
	Handling 169															
	Mileage															
	FLOAT EQUIPMENT															
	Guide Shoe															
	Centralizer															
	Baskets															
	AFU Inserts															
	Float Shoe															
	Latch Down															
	Pumptrk Charge															
	Mileage 21															
	Surface															
	Tax															
	Discount															
	Total Charge															



Chris Parker

X 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. 6869

Date 6-17-13	Sec. 26	Twp. 8	Range 25	County Graham	State KS	On Location	Finish 7:00PM
Lease Minimum				Location Morland 1 1/2 S			
Well No. 26-1				Owner			
Contractor American Eagle #3				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 long string				Charge H&C oil			
Hole Size 7 7/8				T.D. 3980			
Csg. 5 1/2 14Lb				Depth 3979			
Tbg. Size				Depth			
Tool				Depth			
Cement Left in Csg. 34.05				Shoe Joint 34.05			
Meas Line				Displace 96661			
EQUIPMENT							
Pumptrk 17	No. Cementer Cody	Helper Travis		PU			
Bulktrk 18	No. Driver David						
Bulktrk 14	No. Driver Heath						
JOB SERVICES & REMARKS							
Remarks:							
Rat Hole 30 sx							
Mouse Hole							
Centralizers 1,2,3,4,5,6,7,8,44,64							
Baskets 2,45,65							
DN or Port Collar							
pipe on bottom broke circulation pumped							
500gal Mud CLR 48 with 1066l/w behind							
17. Plug Rat hole with 30.sx. Hooked to							
5 1/2 mixed 395 sx QMDC by Flow and							
150 sx 10% salt 5% gilsonite shut down							
washed pump and lines. Released plug and							
displaced with 9666l/w Plug landed							
Released and held							
lift presser at 1000 psi							
landed plug at 1800 psi							
Cement did not circulate							
Pumptrk Charge				Mileage 21			
Tax				Discount			
Total Charge							

X Signature **Bob Plante**

Pumptrk Charge
Mileage **21** **Pro-R King String**

Float Shoe 1 with ball
Latch Down 1 with plug

FLOAT EQUIPMENT

Guide Shoe
Centralizer **10 Turbos**
Baskets **3**
AFU Inserts

Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-28886107

785-483-2025
785-324-1041

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

No. 7965

Date	7-1-13	Sec.	Twp.	Range	County	State	On Location	Finish
Lease	Well No. 1-26							
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	Charge To							
Hole Size	Street							
Csg. Size	City							
Tbg. Size	State							
Tool	The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.	Cement Amount Ordered							
Meas Line	Cement							
EQUIPMENT								
Pumptrk	No.	Cement						
Bulktrk	No.	Helper						
Bulktrk	No.	Driver						
Bulktrk	No.	Driver						
JOB SERVICES & REMARKS								
Remarks:								
Rat Hole								
Mouse Hole								
Centralizers								
Baskets								
D/V or Port Collar								
Mileage								
Guide Shoe								
Centralizer								
Baskets								
AFJ Inserts								
Float Shoe								
Latch Down								
Pumptrk Charge								
Mileage								
Tax								
Discount								
Total Charge								

Caraham KS
Location Merland 1/4 S Rnt

Owner
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.
Charge To
Street
City
State
The above was done to satisfaction and supervision of owner agent or contractor.
Cement Amount Ordered 150 ccm
(V SPS 102K) Charge for 6940
Common 65
Poz. Mix 45
Gel.
Calcium
Hulls
Salt
Flowseal
Kol-Seal
Mud CLR 48
CFL-117 or CD110 CAF 38
Sand
Handling 150
Mileage
FLOAT EQUIPMENT
Guide Shoe
Centralizer
Baskets
AFJ Inserts
Float Shoe
Latch Down
Pumptrk Charge
Mileage 21

1" Set @ 664 Mixed 102K
4 Cement + Grease + etc.
MINIMUM 1-26

Quality Oilwell Cementing, Inc.
Signature Desb Plouffe