

1226179

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: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____					
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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Rosalie 17-3
Doc ID	1226179

All Electric Logs Run

Microresistivity log
Dual induction log
Dual compensated porosity log
Sector Bond/Gamma Ray CCL Log



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS. 67603

ATTN: Mark Downing

Rosalie #17-3

17-7s-24w.Graham,KS

Start Date: 2014.09.10 @ 00:30:00

End Date: 2014.09.10 @ 08:58:00

Job Ticket #: 60528 DST #: 1

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

Printed: 2014.09.16 @ 08:14:23



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60528

DST#: 1

ATTN: Mark Downing

Test Start: 2014.09.10 @ 00:30:00

GENERAL INFORMATION:

Formation: **LKC "C - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:47:00

Time Test Ended: 08:58:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bob Hamel

Unit No: 58

Interval: 3875.00 ft (KB) To 3920.00 ft (KB) (TVD)

Reference Elevations: 2528.00 ft (KB)

Total Depth: 3920.00 ft (KB) (TVD)

2521.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8679

Inside

Press@RunDepth: 337.27 psig @ 3911.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.10

End Date:

2014.09.10

Last Calib.:

2014.09.10

Start Time: 00:30:01

End Time:

08:58:00

Time On Btm:

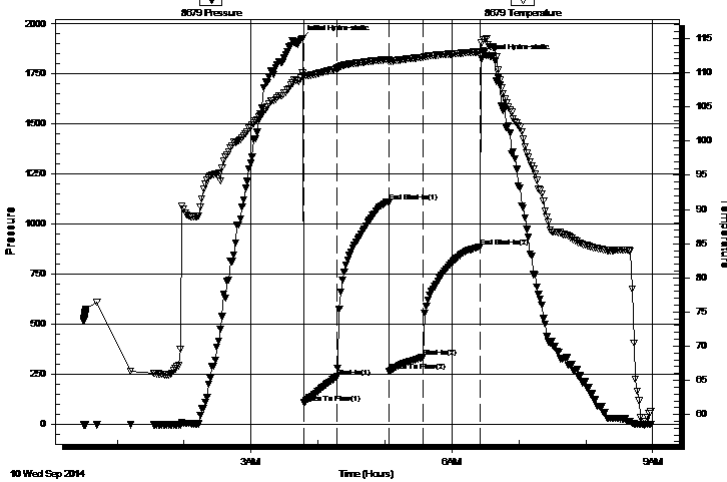
2014.09.10 @ 03:44:30

Time Off Btm:

2014.09.10 @ 06:26:30

TEST COMMENT: I.F. - 30 - BOB in 2 min
I.S.I. - 45 - Weak surface blow back built to 7"
F.F. - 30 - BOB in 1 min
F.S.I. -45 - BOB in 38 min

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1922.40	109.19	Initial Hydro-static
3	109.02	109.54	Open To Flow (1)
33	239.11	110.61	Shut-In(1)
79	1110.09	111.96	End Shut-In(1)
80	265.82	111.68	Open To Flow (2)
110	337.27	112.26	Shut-In(2)
161	888.15	113.08	End Shut-In(2)
162	1827.30	114.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	S,W,O,C,M, 10%W 20%O 70%M	1.49
756.00	S,G,H,O,C,M, 10%G 30%O 60%M	10.60
0.00	441' G.I.P. 100%	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.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60528

DST#: 1

ATTN: Mark Downing

Test Start: 2014.09.10 @ 00:30:00

Tool Information

Drill Pipe:	Length: 3835.00 ft	Diameter: 3.80 inches	Volume: 53.79 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: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 53.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3875.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	65.00 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			3856.00	
Shut In Tool	5.00			3861.00	
Hydraulic tool	5.00			3866.00	
Packer	4.00			3870.00	20.00 Bottom Of Top Packer
Packer	5.00			3875.00	
Stubb	1.00			3876.00	
Perforations	2.00			3878.00	
Change Over Sub	1.00			3879.00	
Drill Pipe	31.00			3910.00	
Change Over Sub	1.00			3911.00	
Recorder	0.00	6625	Outside	3911.00	
Recorder	0.00	8679	Inside	3911.00	
Perforations	5.00			3916.00	
Bullnose	4.00			3920.00	45.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60528

DST#: 1

ATTN: Mark Downing

Test Start: 2014.09.10 @ 00:30:00

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	S,W,O,C,M, 10%W 20%O 70%M	1.485
756.00	S,G,H,O,C,M, 10%G 30%O 60%M	10.605
0.00	441' G.I.P. 100%	0.000

Total Length: 882.00 ft Total Volume: 12.090 bbl

Num Fluid Samples: 0

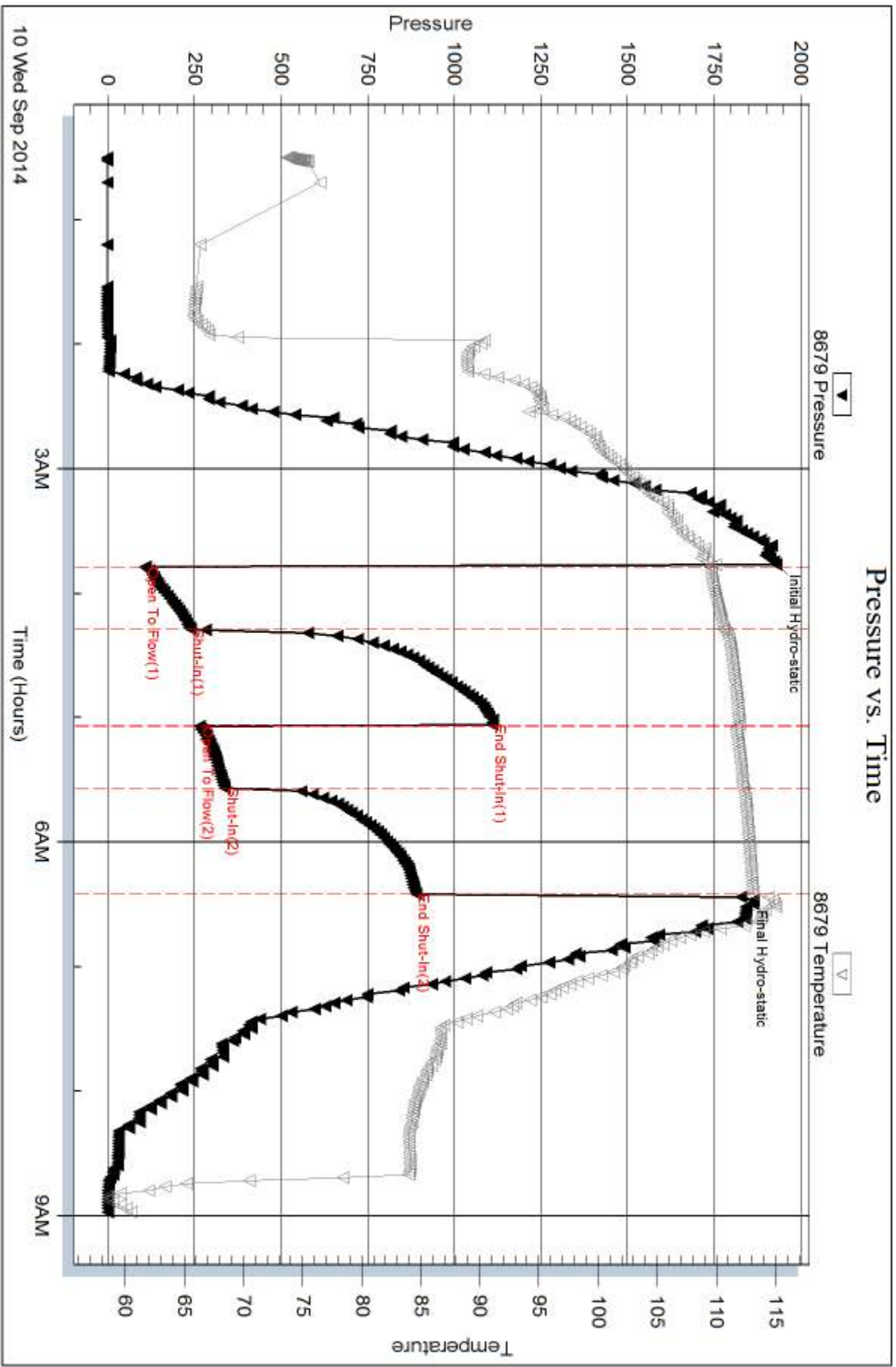
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

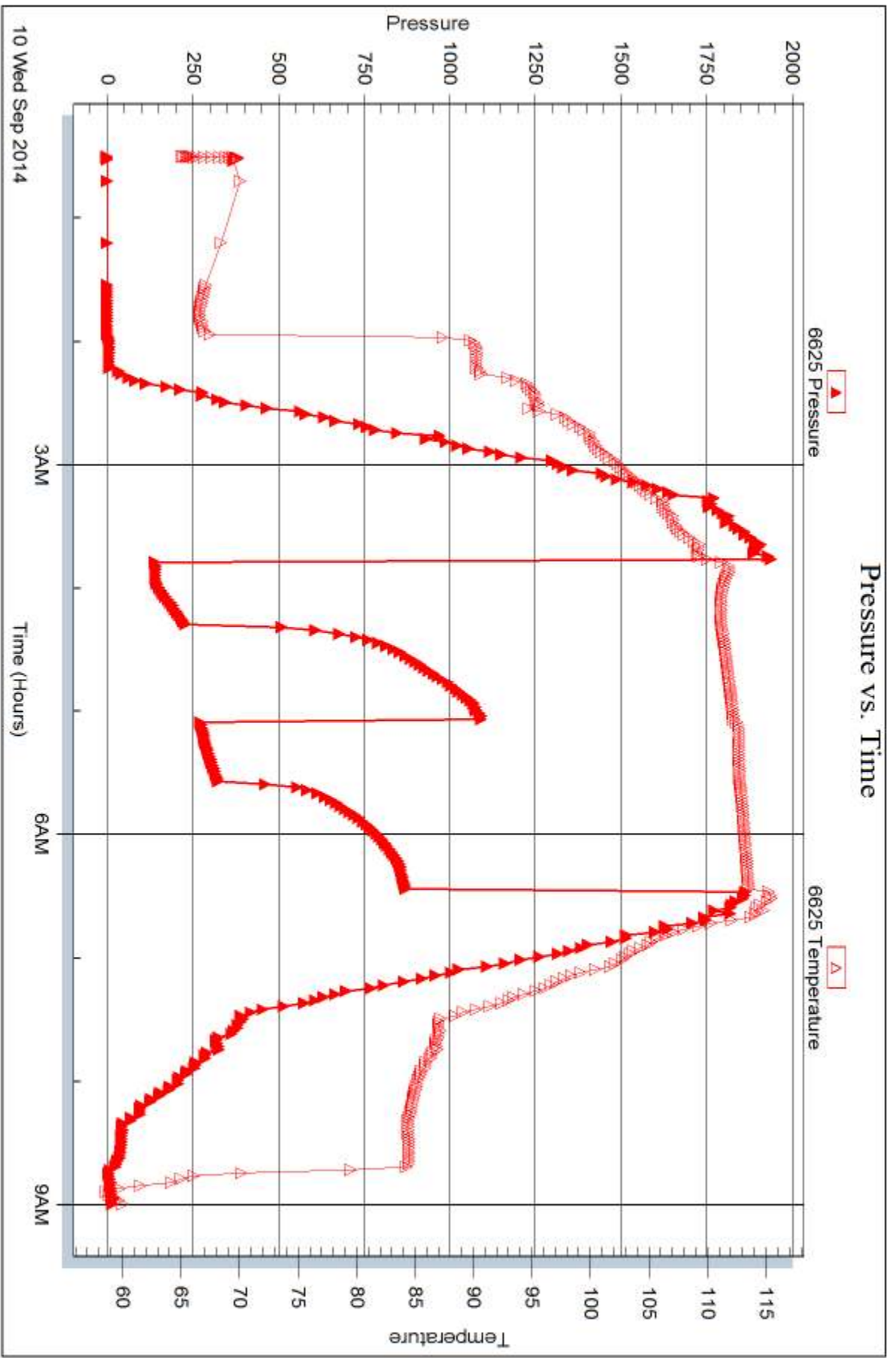


Serial #: 6625

Outside H & C Oil Operating Inc.

Rosalie #17-3

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60528

Printed: 2014.09.16 @ 08:14:24



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS. 67603

ATTN: Mark Downing

Rosalie #17-3

17-7s-24w.Graham,KS

Start Date: 2014.09.10 @ 19:30:00

End Date: 2014.09.11 @ 03:59:28

Job Ticket #: 60530 DST #: 2

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

Printed: 2014.09.16 @ 08:14:01



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60530

DST#: 2

ATTN: Mark Downing

Test Start: 2014.09.10 @ 19:30:00

GENERAL INFORMATION:

Formation: **LCK "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:40:28

Time Test Ended: 03:59:28

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 58

Interval: 3975.00 ft (KB) To 4005.00 ft (KB) (TVD)

Reference Elevations: 2528.00 ft (KB)

Total Depth: 4005.00 ft (KB) (TVD)

2521.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8679

Inside

Press@RunDepth: 37.96 psig @ 3978.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.10

End Date:

2014.09.11

Last Calib.:

2014.09.11

Start Time: 19:30:01

End Time:

03:59:28

Time On Btm:

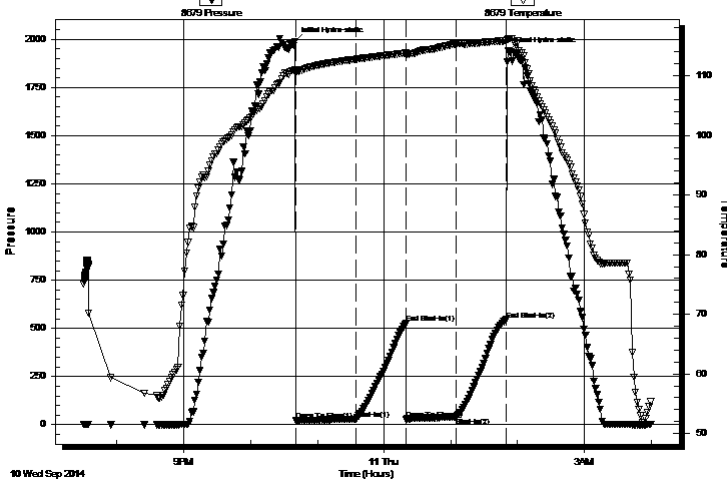
2014.09.10 @ 22:39:58

Time Off Btm:

2014.09.11 @ 01:51:28

TEST COMMENT: 55-IF-BOB in 29 mins.
45-ISI-No Return
45-FF-BOB in 22 mins.
45-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1986.82	110.92	Initial Hydro-static
1	22.11	110.56	Open To Flow (1)
55	28.98	112.76	Shut-In(1)
100	525.37	113.80	End Shut-In(1)
101	26.08	113.59	Open To Flow (2)
145	37.96	115.34	Shut-In(2)
190	545.32	115.84	End Shut-In(2)
192	1938.00	116.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSWGMC0, 5%w , 15%g, 20%m, 60%φ	0.56
0.00	GIP- 444' 100%g	0.00

Gas Rates

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 Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60530

DST#: 2

ATTN: Mark Downing

Test Start: 2014.09.10 @ 19:30:00

Tool Information

Drill Pipe:	Length: 3931.00 ft	Diameter: 3.80 inches	Volume: 55.14 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 55.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3975.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	50.00 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			3956.00	
Shut In Tool	5.00			3961.00	
Hydraulic tool	5.00			3966.00	
Packer	4.00			3970.00	20.00 Bottom Of Top Packer
Packer	5.00			3975.00	
Stubb	1.00			3976.00	
Perforations	2.00			3978.00	
Recorder	0.00	6625	Outside	3978.00	
Recorder	0.00	8679	Inside	3978.00	
Perforations	23.00			4001.00	
Bullnose	4.00			4005.00	30.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 60530

DST#: 2

ATTN: Mark Downing

Test Start: 2014.09.10 @ 19:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSWGMC0, 5%w , 15%g, 20%m, 60%o	0.559
0.00	GIP- 444' 100%g	0.000

Total Length: 60.00 ft Total Volume: 0.559 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8679

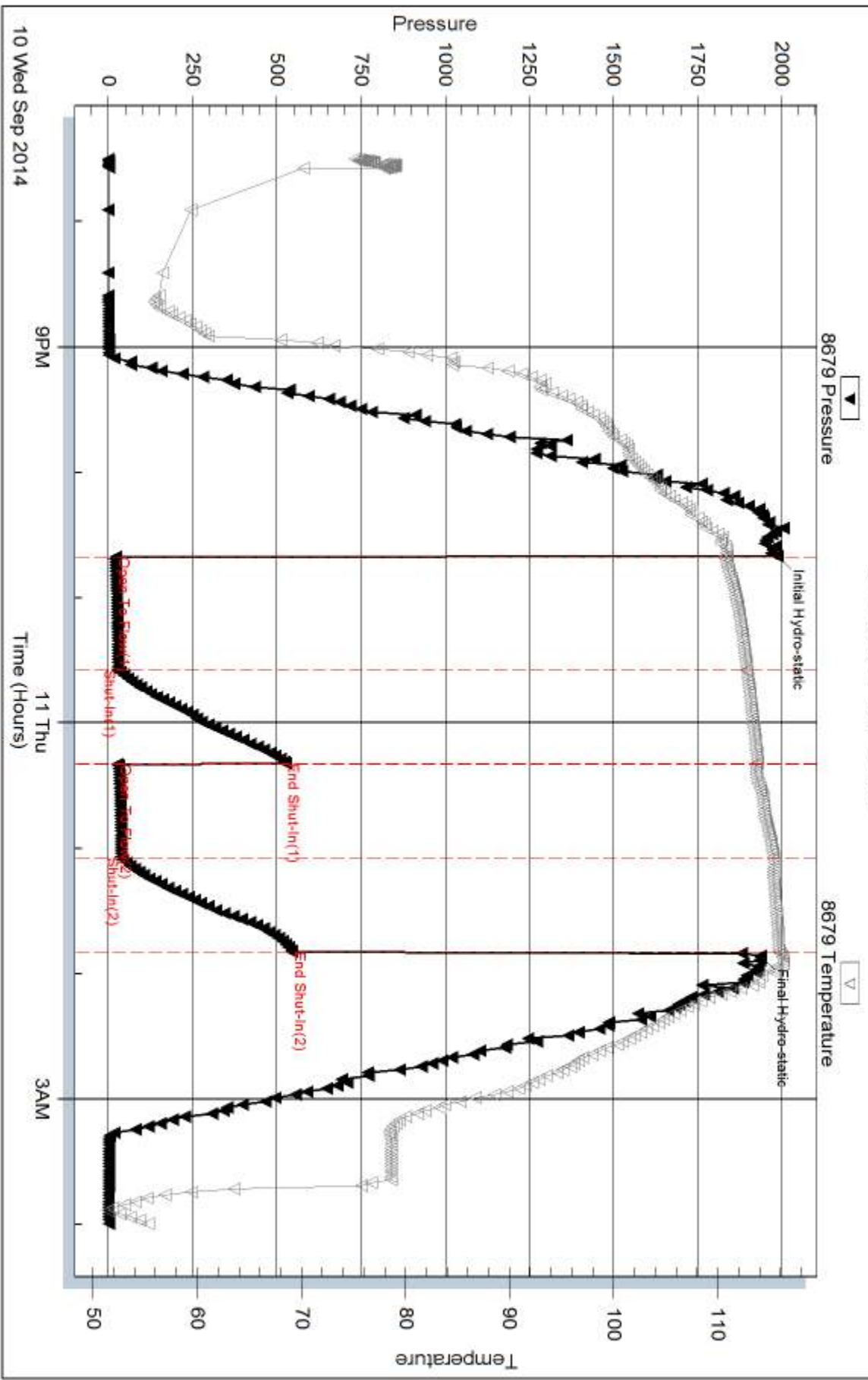
Inside

H & C Oil Operating Inc.

Rosalie #17-3

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 60530

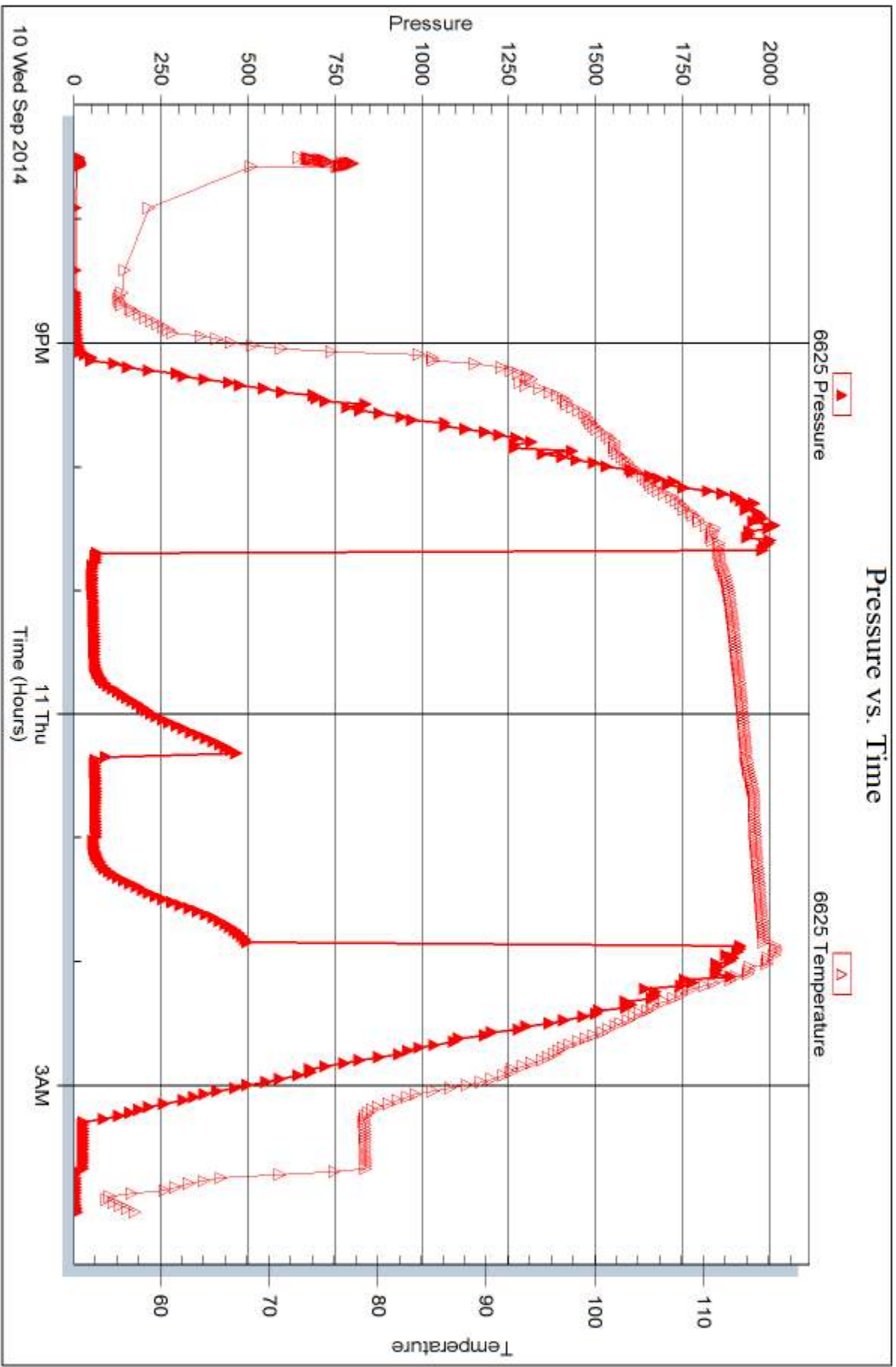
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Serial #: 6625

Outside H & C Oil Operating Inc.

Rosalie #17-3

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60530

Printed: 2014.09.16 @ 08:14:02



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS. 67603

ATTN: Mark Downing

Rosalie #17-3

17-7s-24w.Graham,KS

Start Date: 2014.09.11 @ 12:43:00

End Date: 2014.09.11 @ 22:01:00

Job Ticket #: 58741 DST #: 3

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

Printed: 2014.09.16 @ 08:12:49



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 58741

DST#: 3

ATTN: Mark Downing

Test Start: 2014.09.11 @ 12:43:00

GENERAL INFORMATION:

Formation: **LKC "I-K"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:43:00
 Tester: Phillip Gage
 Time Test Ended: 22:01:00
 Unit No: 58
 Interval: **4006.00 ft (KB) To 4063.00 ft (KB) (TVD)**
 Reference Elevations: 2528.00 ft (KB)
 Total Depth: 4063.00 ft (KB) (TVD)
 2521.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

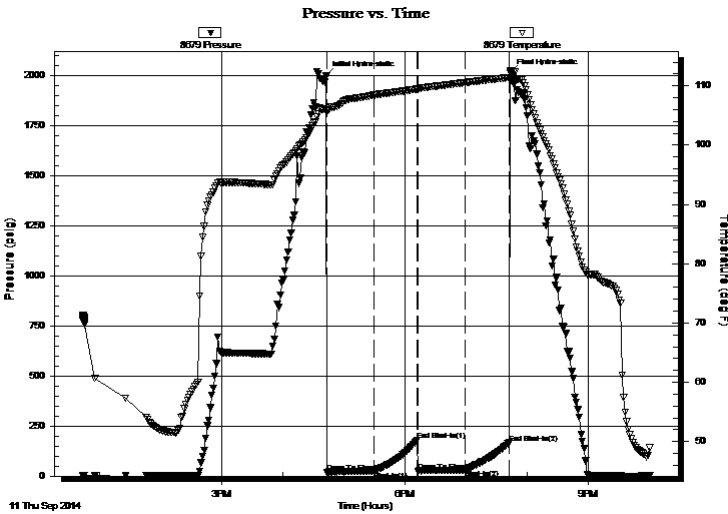
Serial #: 8679

Inside

Press@RunDepth: 32.47 psig @ 4007.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.11 End Date: 2014.09.11 Last Calib.: 2014.09.11
 Start Time: 12:43:01 End Time: 22:01:00 Time On Btm: 2014.09.11 @ 16:42:30
 Time Off Btm: 2014.09.11 @ 19:43:30

TEST COMMENT: 45-IF-Built to 2"
 45-ISI-No Return
 45-FF-Built to 3 1/4"
 45-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.59	106.01	Initial Hydro-static
1	19.46	105.72	Open To Flow (1)
47	25.89	108.41	Shut-In(1)
90	179.81	109.44	End Shut-In(1)
90	22.43	109.40	Open To Flow (2)
137	32.47	110.54	Shut-In(2)
180	166.48	111.41	End Shut-In(2)
181	2010.14	112.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	WOCM, 15%w, 25%o, 60%m	0.21
0.00	GIP-60' 100%g	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.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 58741

DST#: 3

ATTN: Mark Downing

Test Start: 2014.09.11 @ 12:43:00

Tool Information

Drill Pipe:	Length: 3988.00 ft	Diameter: 3.80 inches	Volume: 55.94 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 56.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	4006.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	77.00 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			3987.00	
Shut In Tool	5.00			3992.00	
Hydraulic tool	5.00			3997.00	
Packer	4.00			4001.00	20.00 Bottom Of Top Packer
Packer	5.00			4006.00	
Stubb	1.00			4007.00	
Recorder	0.00	6625	Outside	4007.00	
Recorder	0.00	8679	Inside	4007.00	
Perforations	19.00			4026.00	
Change Over Sub	1.00			4027.00	
Drill Pipe	31.00			4058.00	
Change Over Sub	1.00			4059.00	
Bullnose	4.00			4063.00	57.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc.

17-7s-24w.Graham,KS

PO Box 86
Plainville KS. 67603

Rosalie #17-3

Job Ticket: 58741

DST#: 3

ATTN: Mark Downing

Test Start: 2014.09.11 @ 12:43:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	WOCM, 15%w, 25%o, 60%m	0.209
0.00	GIP-60' 100%g	0.000

Total Length: 35.00 ft Total Volume: 0.209 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

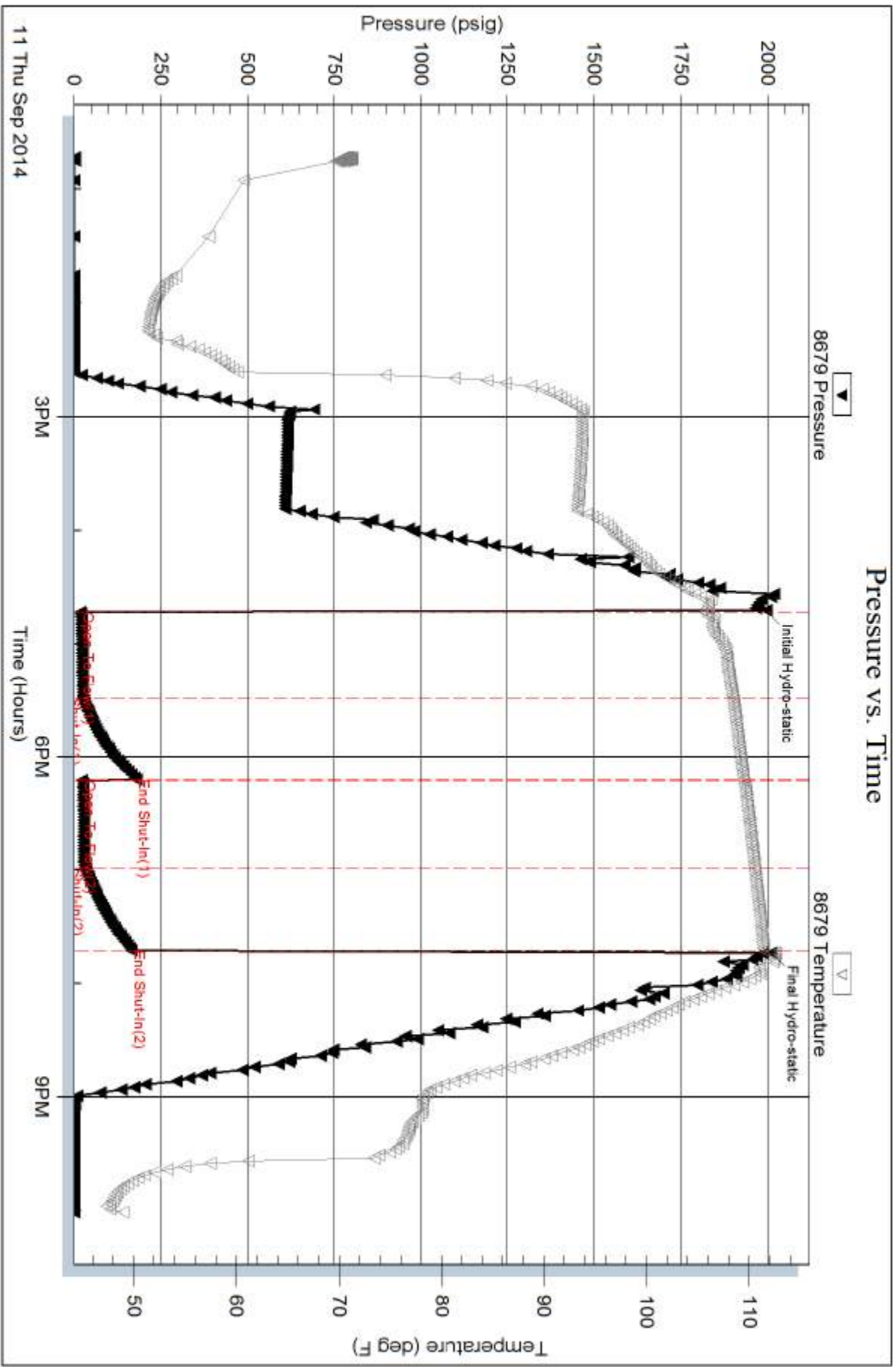
Serial #: 8679

Inside

H & C Oil Operating Inc.

Rosalie #17-3

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58741

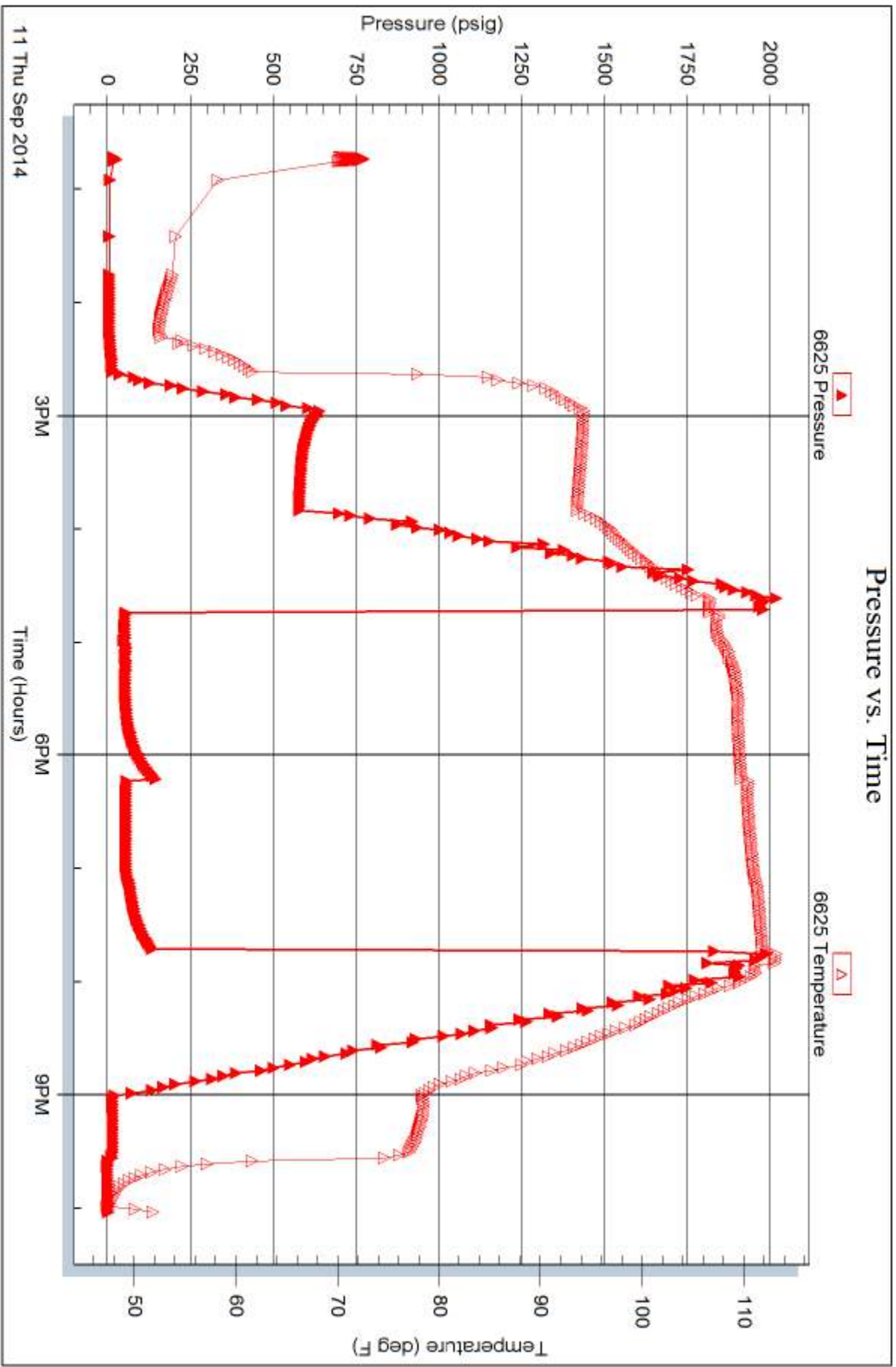
Printed: 2014.09.16 @ 08:12:50

Serial #: 6625

Outside H & C Oil Operating Inc.

Rosalie #17-3

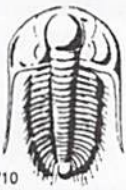
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58741

Printed: 2014.09.16 @ 08:12:50



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60528

Well Name & No. Rosalie #17-3 Test No. 1 Date 9-10-14
 Company H+C oil operating INC. Elevation 2528 KB 2521 GL
 Address P.O. Box 86 Plainville KS. 67603
 Co. Rep / Geo. Mark Downing / Charles R. Ramsey Rig Eagle #2
 Location: Sec. 17 Twp. 9 S. Rge. 29 W Co. Graham State KS

Interval Tested 3875-3920 Zone Tested h.K.C, 'C+D'
 Anchor Length 95 Drill Pipe Run 3835 Mud Wt. 9.2
 Top Packer Depth 3870 Drill Collars Run 31' Vis 48
 Bottom Packer Depth 3875 Wt. Pipe Run --- WL 6.8
 Total Depth 3920 Chlorides 2,800 ppm System LCM 1

Blow Description I.F-30-3/4" INT. Blow Built to B.O.B in 2 min.
I.S.I-45-W.S.B.B Started @ 3 min. Built to 7" in 15 min.
F.F-30-B.O.B 1 min.
F.S.I-45-W.S.B.B. Started @ 1 min. Built to

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>441' GIP</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>756</u>	<u>5, G, H, O, C, M</u>	<u>10</u>	<u>30</u>	<u>60</u>	<u>0</u>
<u>126'</u>	<u>5, W, O, C, M</u>	<u>---</u>	<u>20</u>	<u>10</u>	<u>70</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
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Rec Total 882' BHT 113 Gravity --- API RW --- @ --- ° F Chlorides --- ppm

(A) Initial Hydrostatic 1922 Test 1150 T-On Location 23:20:00
 (B) First Initial Flow 109 Jars --- T-Started 00:30:00
 (C) First Final Flow 239 Safety Joint --- T-Open 04:07:00
 (D) Initial Shut-In 1,111 Circ Sub --- T-Pulled 06:37:00
 (E) Second Initial Flow 266 Hourly Standby --- T-Out 08:58:00
 (F) Second Final Flow 337 Mileage 124 RT 192.20
 (G) Final Shut-In 888 Sampler ---
 (H) Final Hydrostatic 1,827 Straddle --- thank-you
 Ruined Shale Packer ---
 Ruined Packer ---

Initial Open 30 Extra Packer --- Extra Copies ---
 Initial Shut-In 95 Extra Recorder --- Sub Total 0
 Final Flow 30 Day Standby --- Total 1342.20
 Final Shut-In 95 Accessibility --- MP/DST Disc't ---
 Sub Total 1342.20

Approved By _____ Our Representative Bob Hume

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

60530

NO.

Well Name & No. Rosalie #17-3 Test No. 2 Date 9-11-14
 Company H+C oil operating INC. Elevation 2528 KB 2521 GL
 Address P.O. Box 86 Plainville KS. 67603
 Co. Rep / Geo. Mark Downing / Charles R. Ramsey Rig Eagle #2
 Location: Sec. 17 Twp. 9-S. Rge. 29 - W. Co. Graham State KS.

Interval Tested 3975 - 4005 Zone Tested LKL "H"
 Anchor Length 30 Drill Pipe Run 3931 Mud Wt. 9.1
 Top Packer Depth 3470 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3975 Wt. Pipe Run 0 WL 7.2
 Total Depth 4005 Chlorides 3,000 ppm System LCM Tr

Blow Description IF BOB in 29 mins
ISF No Return
FF BOB in 22 mins
FSI No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>USW&MCO</u>	<u>15</u>	<u>60</u>	<u>5</u>	<u>20</u>
<u>0</u>	<u>GIP - 444'</u>	<u>100</u>			

Rec Total 60 BHT 116 Gravity 33 API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 1,986 Test 1150 T-On Location 19:12:00
 (B) First Initial Flow 33 Jars T-Started 19:30:00
 (C) First Final Flow 86 Safety Joint T-Open 22:55
 (D) Initial Shut-In 525 Circ Sub T-Pulled 03:05
 (E) Second Initial Flow 36 Hourly Standby T-Out 04:16
 (F) Second Final Flow 37 Mileage 124 / R.T. 192.20 Comments Also using
Monster Pump
 (G) Final Shut-In 545 Sampler 'thank-you'
 (H) Final Hydrostatic 1,938 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1342.20
 Accessibility MP/DST Disc't

Initial Open 55
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1342.20

Approved By _____ Our Representative Thank You

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58741

4/10

Well Name & No. Rosalie #17-3 Test No. 3 Date 9-11-14
 Company H&C Oil Operating, Inc Elevation 2528 KB 2521 GL
 Address P.O. Box 86 Plainville KS, 67603
 Co. Rep / Geo. Mark Dewing / Charles Ramsey Rig Eagle #2
 Location: Sec. 17 Twp. 9s Rge. 24-w Co. Crawham State KS

Interval Tested 4006 - 4063 Zone Tested L&C "I-J-K"
 Anchor Length 57' Drill Pipe Run 3988 Mud Wt. 9.1
 Top Packer Depth 4001 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 4006 Wt. Pipe Run 0 WL 7.2
 Total Depth 4063 Chlorides 3,000 ppm System LCM Tr

Blow Description IF - Bulb to 2"
ISI - No Return
FF - Bulb to 3 1/4"
FSE - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>35'</u>	<u>WOCM</u>	<u>25</u>	<u>15</u>	<u>60</u>	
<u>0</u>	<u>GIP-60'</u>	<u>100</u>			

Rec Total 35 BHT 112 Gravity — API RW @ °F Chlorides — ppm

(A) Initial Hydrostatic 1995 Test 1150 T-On Location 12:41
 (B) First Initial Flow 19 Jars — T-Started 12:43
 (C) First Final Flow 25 Safety Joint — T-Open 16:44
 (D) Initial Shut-In 179 Circ Sub — T-Pulled 19:44
 (E) Second Initial Flow 22 Hourly Standby — T-Out 22:03
 (F) Second Final Flow 32 Mileage 124 RT 192.20 Comments —
 (G) Final Shut-In 166 Sampler —
 (H) Final Hydrostatic 2,010 Straddle — Ruined Shale Packer —

Initial Open 45 Shale Packer — Ruined Packer —
 Initial Shut-In 45 Extra Packer — Extra Copies —
 Final Flow 45 Extra Recorder — Sub Total 0
 Final Shut-In 45 Day Standby — Total 1342.20
 Accessibility — MP/DST Disc't —
 Sub Total 1342.20

Approved By — Our Representative Phillip Long Thank You

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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. 651

Date	9-13-14	Sec.	17	Twp.	9	Range	24	County	Graham	State	KS	On Location		Finish	4:15 AM
Lease	Rosalie														
Contractor	American Eagle Drilling #2														
Type Job	Top to Bottom														
Hole Size	7 7/8														
Csg.	5 1/2 14#														
Tbg. Size															
Tool															
Cement Left in Csg.	Shoe Joint 22.11														
Meas Line	Displace 100 bbl														
EQUIPMENT															
Pumptrk	No.	Cementer													
	5	Helper	Brett												
		Driver	Travis												
Bulktrk	No.	Driver	Londre M.												
Bulktrk	No.	Driver	Londre W.												
JOB SERVICES & REMARKS															
Remarks:															
Rat Hole	30 SX														
Mouse Hole															
Centralizers															
Baskets															
DV or Port Collar															
Pipe on bottom broke circulation. Pumped															
500 gal. Mud - CLR 48 with 10 bbl fw behind it.															
Plugged Rat hole with 30 sf. Hooped to 52.															
Mixed 520 sx Q-MDC to Flow and 130 sx															
Q-Proc. Shut down washed pump and lines.															
Released plug and displaced with 100 bbl fw															
Plug landed and held.															
LIFT pressure 1500 psi															
Plug landed at 2000 psi															
Cement Circulated															
Pumptrk Charge															
Mileage 39 proa Stray															
Tax															
Discount															
Total Charge															
Signature <i>Ann M. Conway</i>															

Location *WaKeeney Redline, v to 180, 2 N to SR Rd,*

Owner *3/4 w, snz*
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To *H&C Oil*

Street

City State

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

Cement Amount Ordered *560 sx QMDC 1/2 # Flow*

130 sx Q-Proc 10% salt 5% g/somite

Common *130 Q-pro-c*

Poz. Mix *560 QMDC*

Gel.

Calcium

Hulls

Salt *12*

Flowseal *140#*

Kot-Seal *650#*

Mud CLR 48 *500 gal*

CFL-117 or CD110 CAF-38

Sand

Handling ~~500~~ *708*

Mileage

Guide Shoe

Centralizer *13 Turbas*

Baskets *2*

AFU Inserts

Float Shoe

Latch Down

FLOAT EQUIPMENT

proa Stray

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. 547

Date	4-5-14	Sec.	17	Twp.	9	Range	24	County	Graham	State	KS	On Location		Finish	8:15 PM
Lease	Rosalie														
Contractor	American Eagle #2														
Type Job	Surface														
Hole Size	12 1/4														
Csg.	8 5/8														
Tbg. Size															
Tool															
Cement Left in Csg.	20'														
Meas Line	Displace 15 1/2 bbl														
EQUIPMENT															
Pumptrk	No.	Cementer													
	5	Helper	David												
Bulktrk	No.	Driver	Taylor												
Bulktrk	No.	Driver													
Bulktrk	No.	Driver	Brett												
JOB SERVICES & REMARKS															
Remarks:															
Rat Hole															
Mouse Hole															
Centralizers															
Baskets															
DN or Port Collar															
	CFL-117 or CD110 CAF 38														
	50 Sugar - 50 lbs														
	Handling 179														
	Mileage														
	FLOAT EQUIPMENT														
	Guide Shoe														
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Pumptrk Charge Surface														
	Mileage 39														
	Tax														
	Discount														
	Total Charge														
X Signature	