



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.17 @ 00:45:00

End Date: 2013.07.17 @ 14:16:15

Job Ticket #: 53929 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.19 @ 10:47:27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

ATTN: Marc Downing

Job Ticket: 53929

DST#: 1

Test Start: 2013.07.17 @ 00:45:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:55:45

Time Test Ended: 14:16:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

Interval: 3840.00 ft (KB) To 3880.00 ft (KB) (TVD)

Reference Elevations: 2479.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

2475.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

Serial #: 6799

Inside

Press @ RunDepth: 295.58 psig @ 3845.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.17

End Date:

2013.07.17

Last Calib.:

2013.07.17

Start Time: 00:45:05

End Time:

14:16:15

Time On Btm:

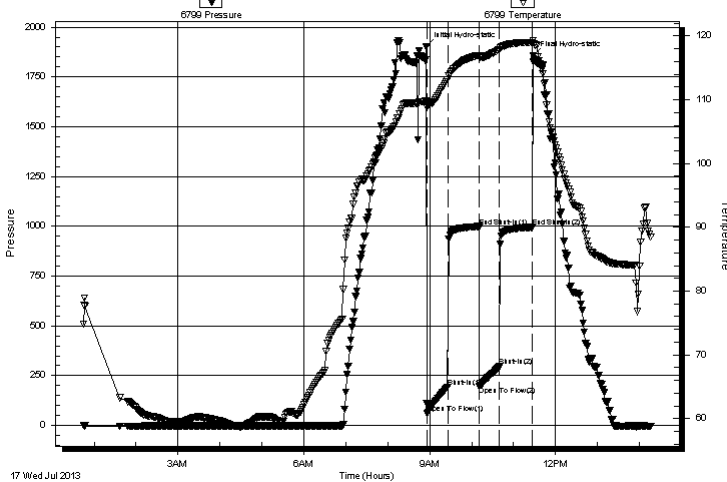
2013.07.17 @ 08:55:15

Time Off Btm:

2013.07.17 @ 11:28:00

TEST COMMENT: 30 - IF- B.O.B. in 7 minutes
45 - IS- Surface return throughout
30 - FF- B.O.B. in 10 minutes
45 - FS- 1/4" return throughout

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.45	109.80	Initial Hydro-static
1	59.77	109.29	Open To Flow (1)
31	192.74	113.18	Shut-In(1)
76	998.64	116.94	End Shut-In(1)
76	196.60	116.67	Open To Flow (2)
105	295.58	117.82	Shut-In(2)
151	995.15	118.94	End Shut-In(2)
153	1854.99	119.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MW, 10%M, 90%W	0.87
248.00	SOCMW, 10%M, 10%O, 80%W	3.48
340.00	GHOCWM, 10%G, 10%W, 40%O, 40%M	4.77
0.00	310' of G.I.P.	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

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53929

DST#: 1

ATTN: Marc Downing

Test Start: 2013.07.17 @ 00:45:00

Tool Information

Drill Pipe:	Length: 3844.00 ft	Diameter: 3.80 inches	Volume: 53.92 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 53.92 bbl</u>	Tool Chased 25.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3840.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: on tool open, tagged btm early... had to open up tool and let it slid 15 feet. then picked back up on tool, set in slips, added last piece and reopened tool.slid 10 more feet to btm.

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	
Packer	5.00			3835.00	21.00 Bottom Of Top Packer
Packer	5.00			3840.00	
Stubb	1.00			3841.00	
Perforations	3.00			3844.00	
Change Over Sub	1.00			3845.00	
Recorder	0.00	6799	Inside	3845.00	
Recorder	0.00	8648	Outside	3845.00	
Drill Pipe	31.00			3876.00	
Change Over Sub	1.00			3877.00	
Bullnose	3.00			3880.00	40.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53929

DST#: 1

ATTN: Marc Downing

Test Start: 2013.07.17 @ 00:45:00

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:

32000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	MW, 10%M, 90%W	0.870
248.00	SOCMW, 10%M, 10%O, 80%W	3.479
340.00	GHOCWM, 10%G, 10%W, 40%O, 40%M	4.769
0.00	310' of G.I.P.	0.000

Total Length: 650.00 ft Total Volume: 9.118 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

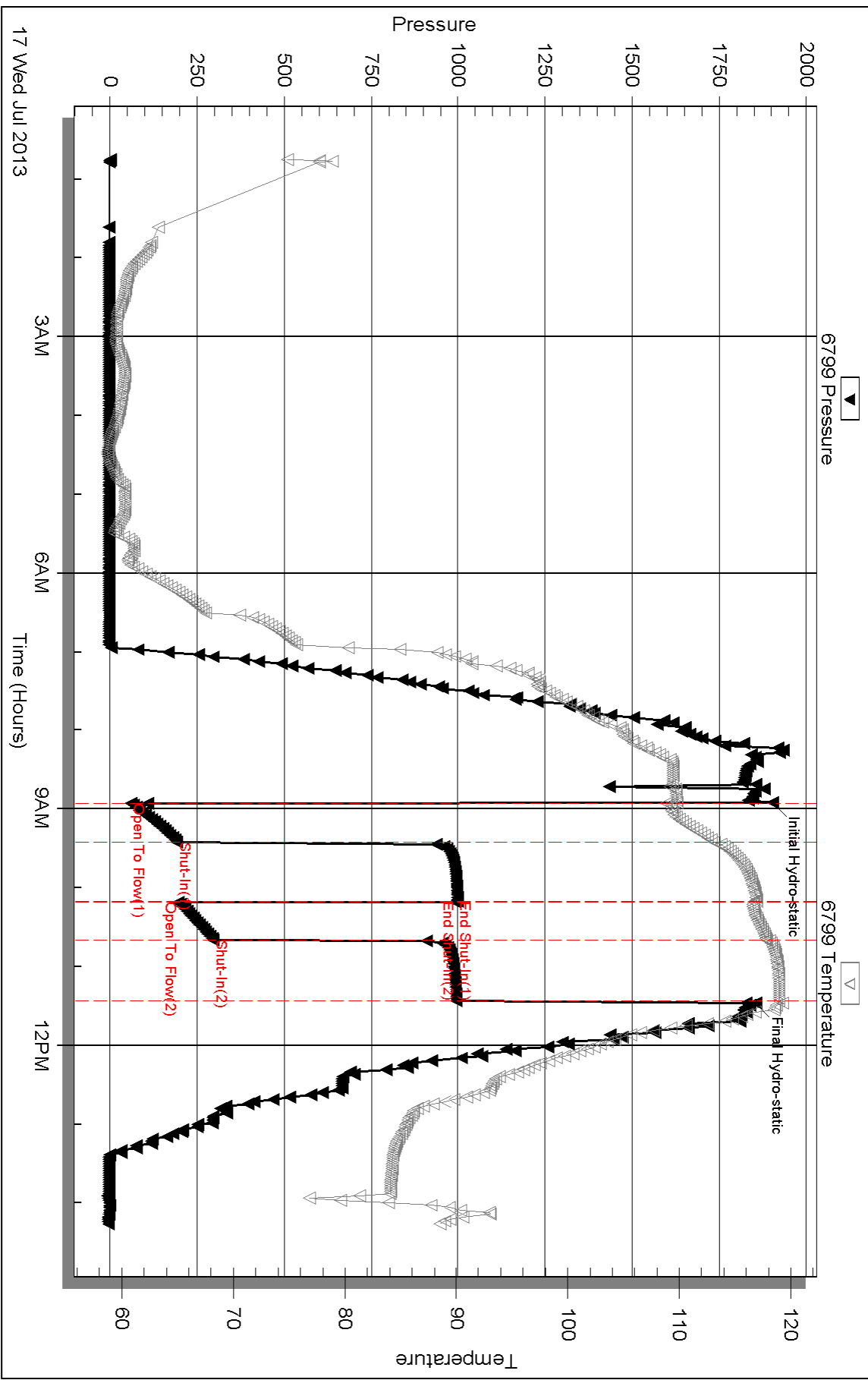
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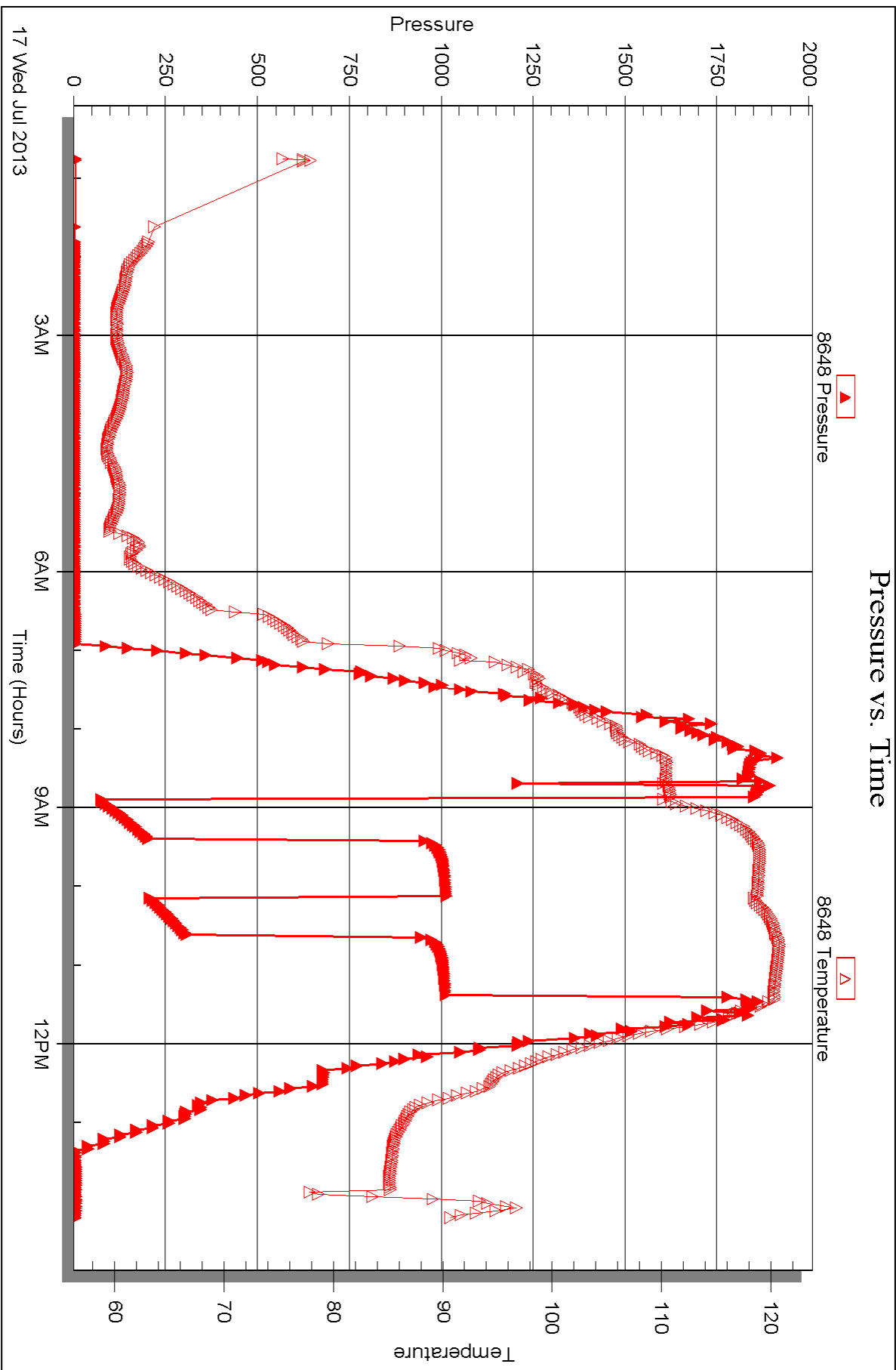
Laboratory Name:

Laboratory Location:

Recovery Comments: Salinity: .22 @ 70 degrees = 32000

Pressure vs. Time







DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.18 @ 05:17:00

End Date: 2013.07.18 @ 14:14:45

Job Ticket #: 53930 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.19 @ 10:46:50



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

ATTN: Marc Downing

Job Ticket: 53930

DST#: 2

Test Start: 2013.07.18 @ 05:17:00

GENERAL INFORMATION:

Formation: **LKC "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:40:15
 Time Test Ended: 14:14:45
 Interval: **3926.00 ft (KB) To 3962.00 ft (KB) (TVD)**
 Total Depth: 3962.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 53
 Reference Elevations: 2479.00 ft (KB)
 2475.00 ft (CF)
 KB to GR/CF: 4.00 ft

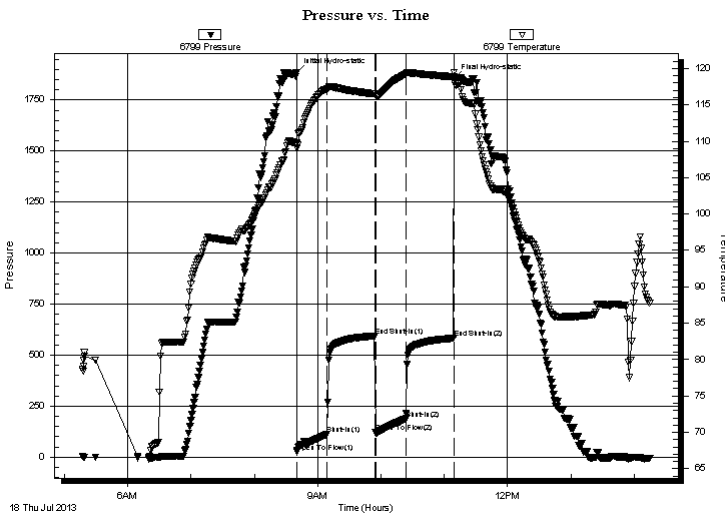
Serial #: 6799

Inside

Press @ RunDepth: 187.98 psig @ 3959.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.18 End Date: 2013.07.18 Last Calib.: 2013.07.18
 Start Time: 05:17:05 End Time: 14:14:45 Time On Btm: 2013.07.18 @ 08:40:00
 Time Off Btm: 2013.07.18 @ 11:09:15

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
 45 - IS- B.O.B. in 12 minutes
 30 - FF- B.O.B. instantly
 45 - FS- B.O.B. in 9 minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.98	109.70	Initial Hydro-static
1	25.45	109.01	Open To Flow (1)
29	112.39	117.15	Shut-In(1)
74	593.50	116.51	End Shut-In(1)
75	119.81	116.21	Open To Flow (2)
104	187.98	119.21	Shut-In(2)
149	582.93	118.80	End Shut-In(2)
150	1853.09	119.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GMCO, 10%G, 40%M, 50%O	1.74
558.00	GO, 30%G, 70%O	7.83
0.00	1364' of G.I.P.	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

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

Tool Information

Drill Pipe:	Length: 3937.00 ft	Diameter: 3.80 inches	Volume: 55.23 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 55.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3926.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	57.00 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			3906.00	
Shut In Tool	5.00			3911.00	
Hydraulic tool	5.00			3916.00	
Packer	5.00			3921.00	21.00 Bottom Of Top Packer
Packer	5.00			3926.00	
Stubb	1.00			3927.00	
Perforations	32.00			3959.00	
Recorder	0.00	6799	Inside	3959.00	
Recorder	0.00	8648	Outside	3959.00	
Bullnose	3.00			3962.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	GMCO, 10%G, 40%M, 50%O	1.739
558.00	GO, 30%G, 70%O	7.827
0.00	1364' of G.I.P.	0.000

Total Length: 682.00 ft Total Volume: 9.566 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

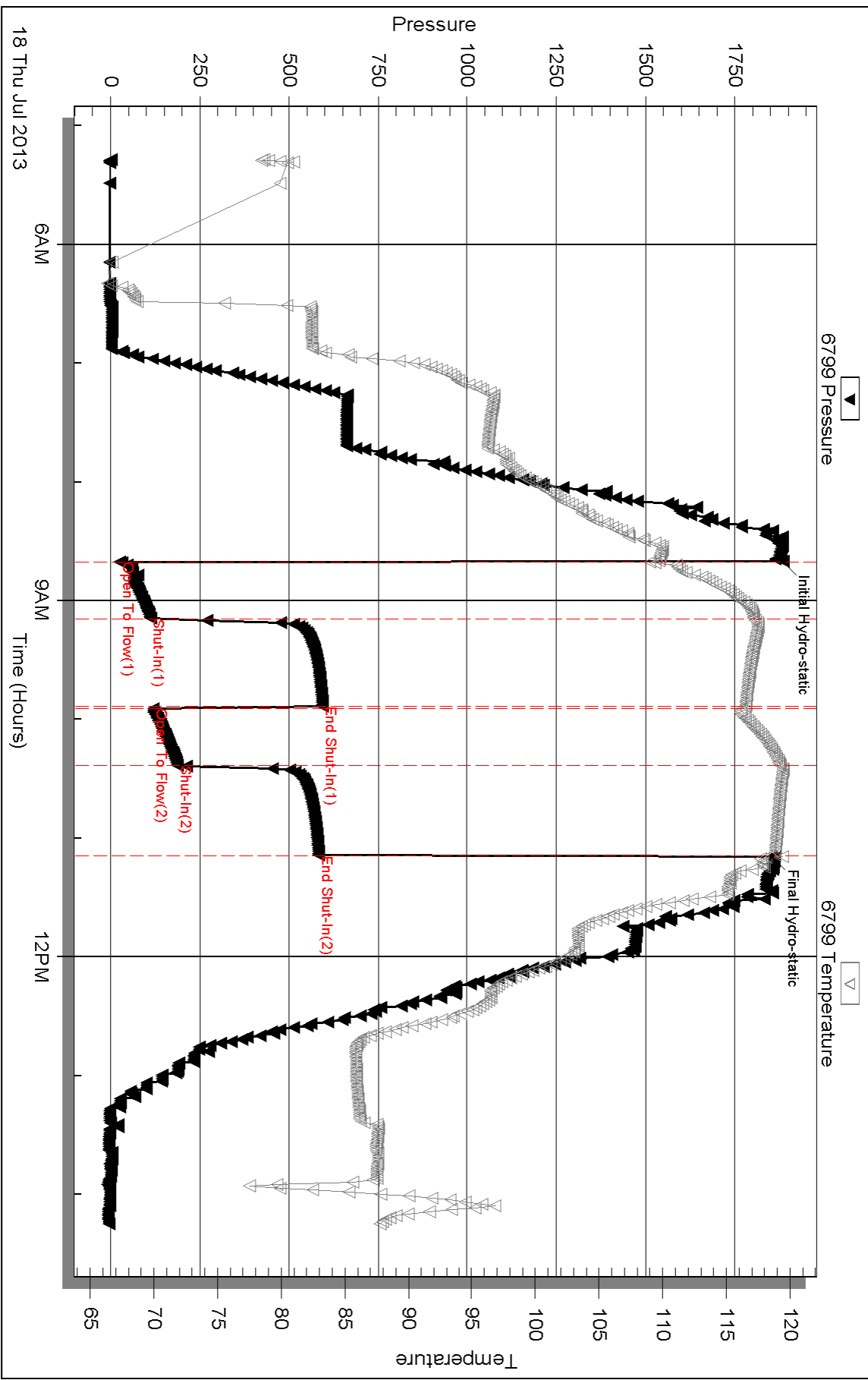
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 34 @ 80 Degrees = 32

Pressure vs. Time

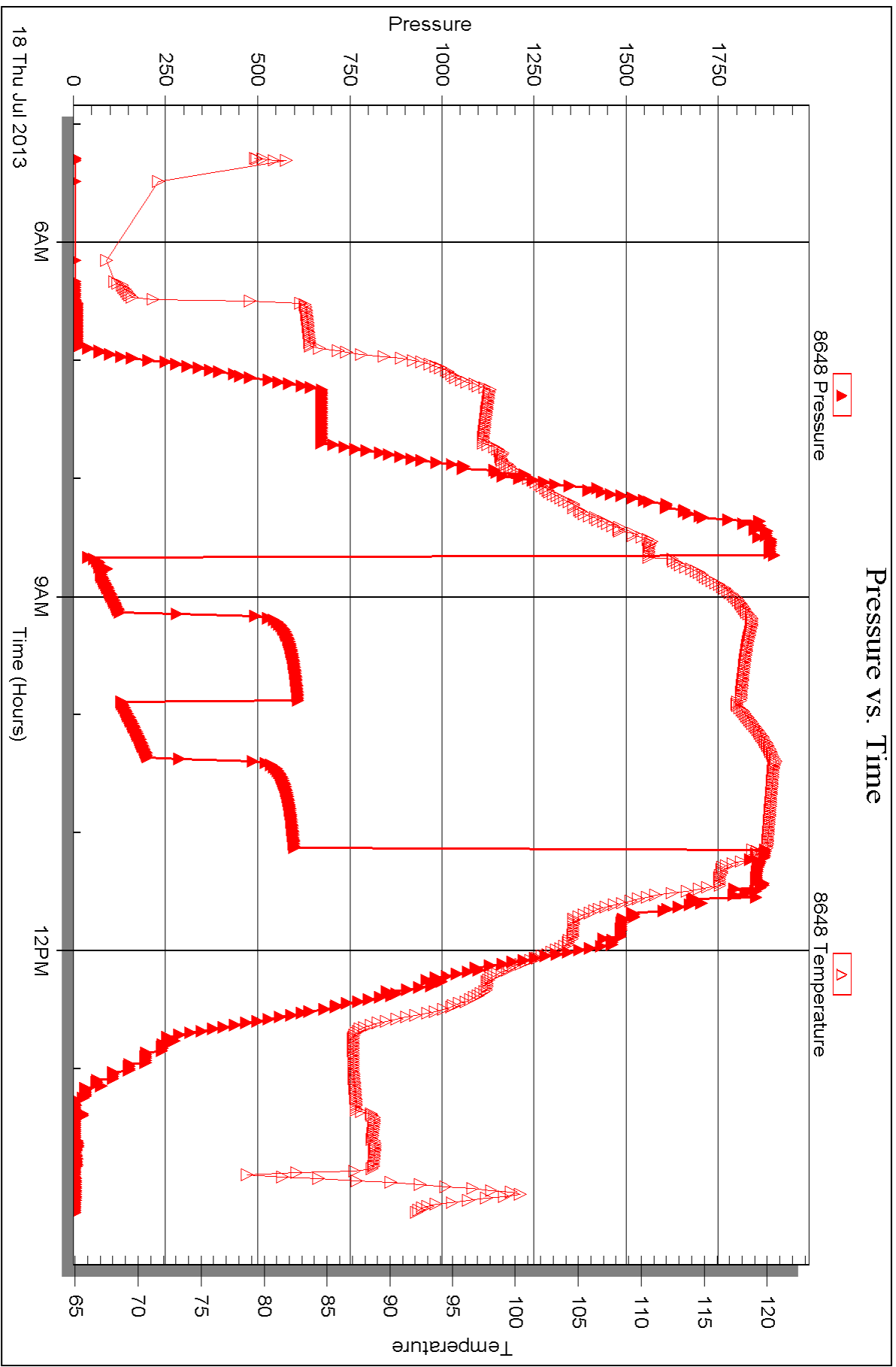


Serial #: 8648

Outside H&C Oil Operating Inc

Rosalie #17-1

DST Test Number: 2





DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.18 @ 23:30:00

End Date: 2013.07.19 @ 07:22:00

Job Ticket #: 53931 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.19 @ 10:45:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

GENERAL INFORMATION:

Formation: **LKC "I,J,K"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:07:45
 Tester: Cody Bloedorn
 Time Test Ended: 07:22:00
 Unit No: 53
 Interval: **3956.00 ft (KB) To 4015.00 ft (KB) (TVD)**
 Reference Elevations: 2479.00 ft (KB)
 Total Depth: 4015.00 ft (KB) (TVD)
 2475.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 4.00 ft

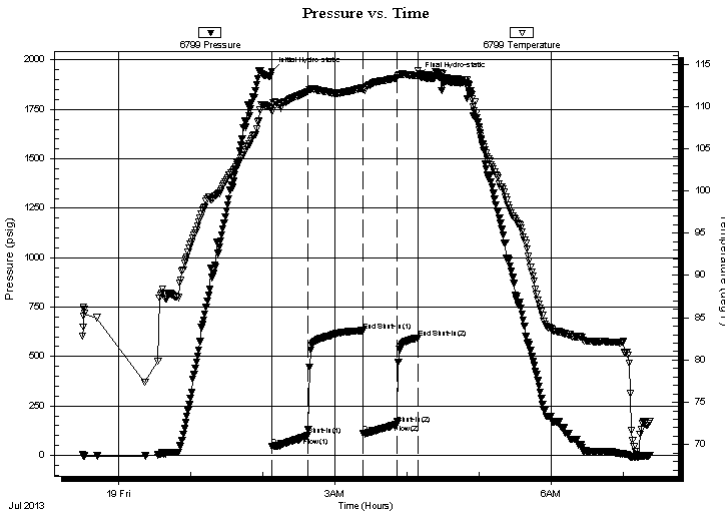
Serial #: 6799

Inside

Press @ Run Depth: 158.39 psig @ 3961.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.18 End Date: 2013.07.19 Last Calib.: 2013.07.19
 Start Time: 23:30:05 End Time: 07:21:59 Time On Btm: 2013.07.19 @ 02:07:30
 Time Off Btm: 2013.07.19 @ 04:09:00

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
 45 - IS- 8" return
 30 - FF- B.O.B. in 2 minutes
 20 - FS- B.O.B. in 3 minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.55	109.85	Initial Hydro-static
1	47.17	109.43	Open To Flow (1)
30	100.13	111.75	Shut-In(1)
76	628.14	112.18	End Shut-In(1)
76	110.60	112.00	Open To Flow (2)
104	158.39	113.37	Shut-In(2)
122	594.40	113.60	End Shut-In(2)
122	1917.62	114.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCM, 20%O, 30%M, 50%G	0.87
310.00	GO, 50%G, 50%O	4.35
30.00	GO, 20%G, 80%O	0.42
0.00	1700' of G.I.P.	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

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

Tool Information

Drill Pipe:	Length: 3968.00 ft	Diameter: 3.80 inches	Volume: 55.66 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:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	46000.00 lb
			<u>Total Volume: 55.66 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3956.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	59.00 ft				
Tool Length:	80.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: *****on final shut in tool back lashed questioned being truly shut in so we pulled it after being shut in for 20 min.*****

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3936.00	
Shut In Tool	5.00			3941.00	
Hydraulic tool	5.00			3946.00	
Packer	5.00			3951.00	21.00 Bottom Of Top Packer
Packer	5.00			3956.00	
Stubb	1.00			3957.00	
Perforations	3.00			3960.00	
Change Over Sub	1.00			3961.00	
Recorder	0.00	6799	Inside	3961.00	
Recorder	0.00	8648	Outside	3961.00	
Drill Pipe	31.00			3992.00	
Change Over Sub	1.00			3993.00	
Perforations	19.00			4012.00	
Bullnose	3.00			4015.00	59.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GOCM, 20%O, 30%M, 50%G	0.870
310.00	GO, 50%G, 50%O	4.348
30.00	GO, 20%G, 80%O	0.421
0.00	1700' of G.I.P.	0.000

Total Length: 402.00 ft

Total Volume: 5.639 bbl

Num Fluid Samples: 0

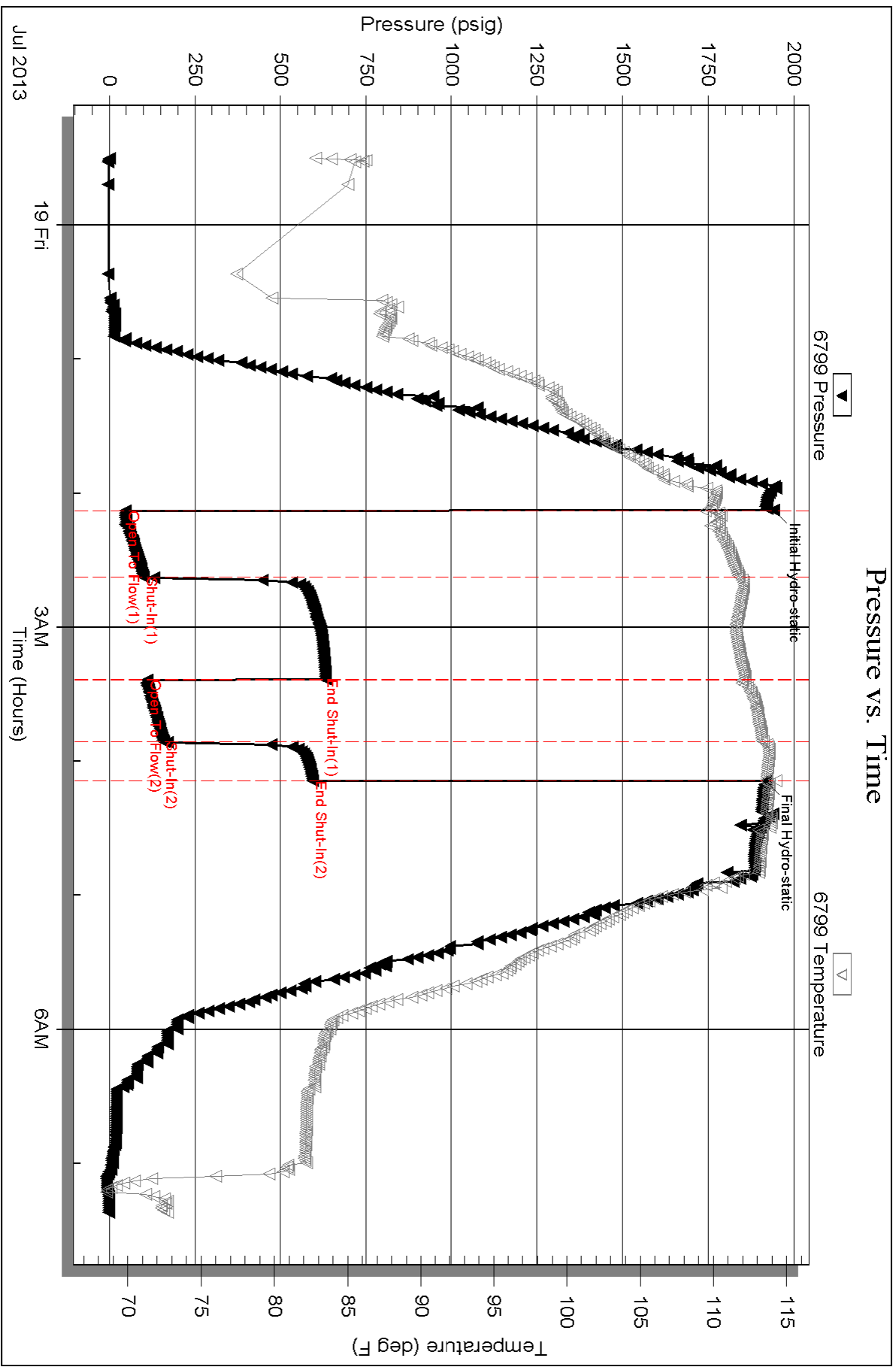
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

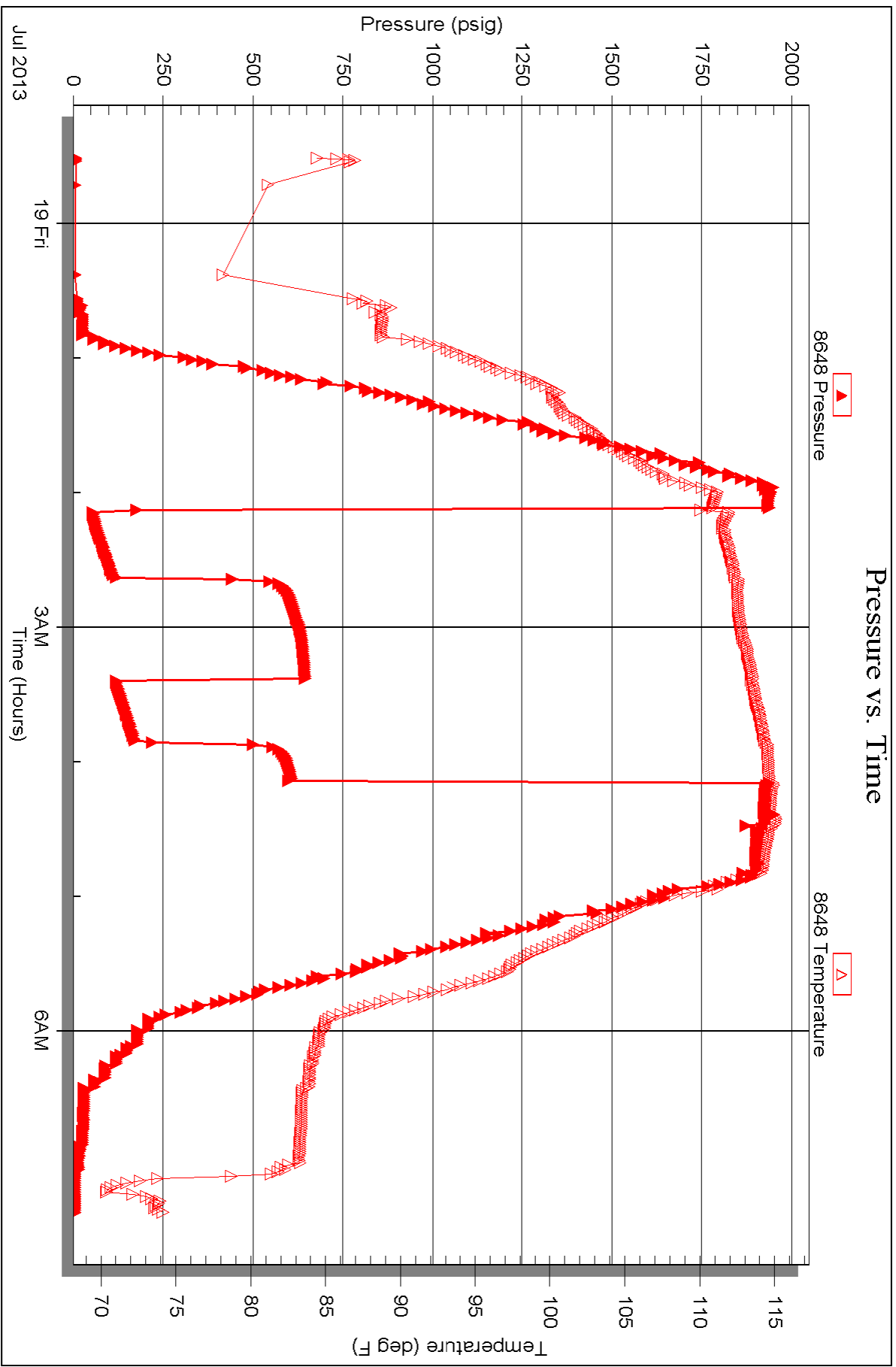


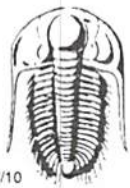
Serial #: 8648

Outside H&C Oil Operating Inc

Rosalie #17-1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53929

Well Name & No. Rosalie #17-1 Test No. 1 Date 7-17-13
 Company H&C Oil Operating Inc Elevation 2479 KB 2475 GL
 Address PO Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 9S Rge. 24W Co. Graham State KS

Interval Tested 3840 - 3880 Zone Tested LKC "C&D"
 Anchor Length 40' Drill Pipe Run 3844' Mud Wt. 8.9
 Top Packer Depth 3835 Drill Collars Run — Vis 46
 Bottom Packer Depth 3840 Wt. Pipe Run — WL 7.2
 Total Depth 3880 Chlorides 1,100 ppm System LCM —

Blow Description IF - B.O.B. in 7 minutes
IS - Surface return throughout
FF - B.O.B. in 10 minutes
FSI - 1/4" return throughout

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>MW</u>			<u>90</u>	<u>10</u>
<u>248</u>	<u>SOC MW</u>	<u>10</u>	<u>80</u>	<u>10</u>	<u>10</u>
<u>340</u>	<u>GHO CWM</u>	<u>10</u>	<u>40</u>	<u>10</u>	<u>40</u>

Rec Total 650' BHT 118° Gravity — API RW, 22 @ 70 °F Chlorides 32,000 ppm
 (A) Initial Hydrostatic 1903 Test 1150 T-On Location 12:45am
 (B) First Initial Flow 59 Jars _____ T-Started 1:28am
 (C) First Final Flow 192 Safety Joint _____ T-Open 9:38am
 (D) Initial Shut-In 998 Circ Sub _____ T-Pulled 12:08pm
 (E) Second Initial Flow 196 Hourly Standby 5.25h 525 T-Out 3:00pm
 (F) Second Final Flow 275 Mileage 121 RT 187.55 Comments Wait on Rig.
 (G) Final Shut-In 995 Sampler _____
 (H) Final Hydrostatic 1854 Straddle _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____
 Sub Total 0
 Total 1862.55
 MP/DST Disc't _____
 Sub Total 1862.55

Approved By _____ Our Representative Cody Bl...

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. 53930

Well Name & No. Rosalie # 17-1 Test No. 2 Date 7-18-13
 Company H&C Oil Operating INC Elevation 2479 KB 2475 GL
 Address Po Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 19S Rge. 24W Co. Graham State KS

Interval Tested 3926-3962 Zone Tested LKC "H"
 Anchor Length 36' Drill Pipe Run 3937' Mud Wt. 9.1
 Top Packer Depth 3921 Drill Collars Run — Vis 41
 Bottom Packer Depth 3926 Wt. Pipe Run — WL 6.8
 Total Depth 3962 Chlorides 1,400 ppm System LCM —

Blow Description IF - B.O.B. in 3 minutes
ISI - B.O.B. in 12 minutes
FF - B.O.B. instantly
FSI - B.O.B. in 9 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>6MCO</u>	<u>10</u>	<u>50</u>	<u>40</u>	
<u>558</u>	<u>60</u>	<u>30</u>	<u>70</u>		
	<u>1364' G.I.P.</u>				

Rec Total 682' BHT 118° Gravity 32 API RW — @ — °F Chlorides — ppm

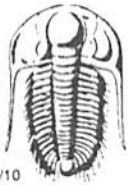
(A) Initial Hydrostatic <u>1883</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>4:53am</u>
(B) First Initial Flow <u>25</u>	<input type="checkbox"/> Jars	T-Started <u>5:17am</u>
(C) First Final Flow <u>112</u>	<input type="checkbox"/> Safety Joint	T-Open <u>8:39am</u>
(D) Initial Shut-In <u>593</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:09am</u>
(E) Second Initial Flow <u>119</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:15pm</u>
(F) Second Final Flow <u>187</u>	<input checked="" type="checkbox"/> Mileage <u>121 RT</u> 187.55	Comments
(G) Final Shut-In <u>582</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1853</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30
 Initial Shut-In 45'
 Final Flow 30
 Final Shut-In 45

Sub Total 1337.55

Approved By _____ Our Representative Cody Blak

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. 53931

Well Name & No. Rosalie #17-1 Test No. 3 Date 7-18-13
 Company H & C Oil Operating Inc Elevation 2479 KB 2475 GL
 Address Po Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 9s Rge. 24w Co. Graham State KS

Interval Tested 3956 - 4015 Zone Tested LKC 'I-K'
 Anchor Length 59' Drill Pipe Run 3968' Mud Wt. 9.1
 Top Packer Depth 3951 Drill Collars Run — Vis 45
 Bottom Packer Depth 3956 Wt. Pipe Run — WL 7.8
 Total Depth 4015 Chlorides 3,700 ppm System LCM —

Blow Description IF - B.O.B. in 3 minutes
ISI - 8" return
FF - B.O.B. in 2 minutes
FSI - ~~not recorded~~ B.O.B. in 3 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>GOCM</u>	<u>50</u>	<u>20</u>	<u>30</u>	
<u>310</u>	<u>GO</u>	<u>50</u>	<u>50</u>		
<u>30</u>	<u>GO</u>	<u>20</u>	<u>80</u>		
	<u>1700' G.I.P.</u>				

Rec Total 402' BHT 113° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1940</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:08pm</u>
(B) First Initial Flow <u>47</u>	<input type="checkbox"/> Jars <u>—</u>	T-Started <u>11:30pm</u>
(C) First Final Flow <u>100</u>	<input type="checkbox"/> Safety Joint <u>—</u>	T-Open <u>2:07 am</u>
(D) Initial Shut-In <u>628</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>4:30 am</u>
(E) Second Initial Flow <u>110</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>7:21 am</u>
(F) Second Final Flow <u>158</u>	<input checked="" type="checkbox"/> Mileage <u>121 RT</u> 187.55	Comments <u>ran 20min. final shut in b/c I thought I had tool problems.</u>
(G) Final Shut-In <u>594</u>	<input type="checkbox"/> Sampler <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
(H) Final Hydrostatic <u>1917</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>—</u>	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Total <u>1337.55</u>
Final Shut-In <u>20</u>	<input type="checkbox"/> Day Standby <u>—</u>	MP/DST Disc't <u>—</u>
	<input type="checkbox"/> Accessibility <u>—</u>	
	Sub Total <u>1337.55</u>	

Approved By _____ Our Representative Cody Blum

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