



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

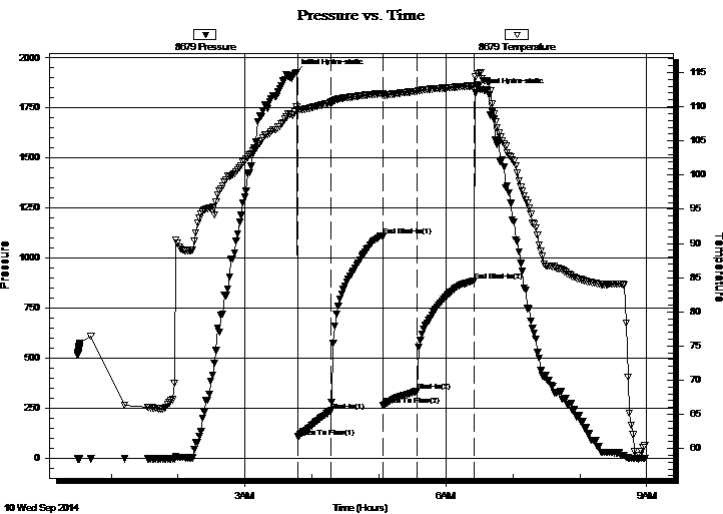
Time On Btm:

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 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

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 #: 6625 Outside

Press@RunDepth: psig @ 3911.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.10 End Date: 2014.09.10

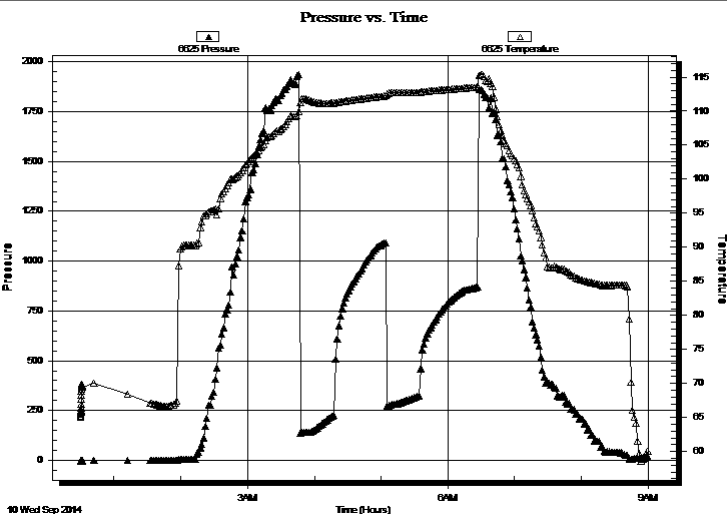
Last Calib.: 1899.12.30

Start Time: 00:30:01 End Time: 08:59:30

Time On Btm:

Time Off Btm:

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 SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

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

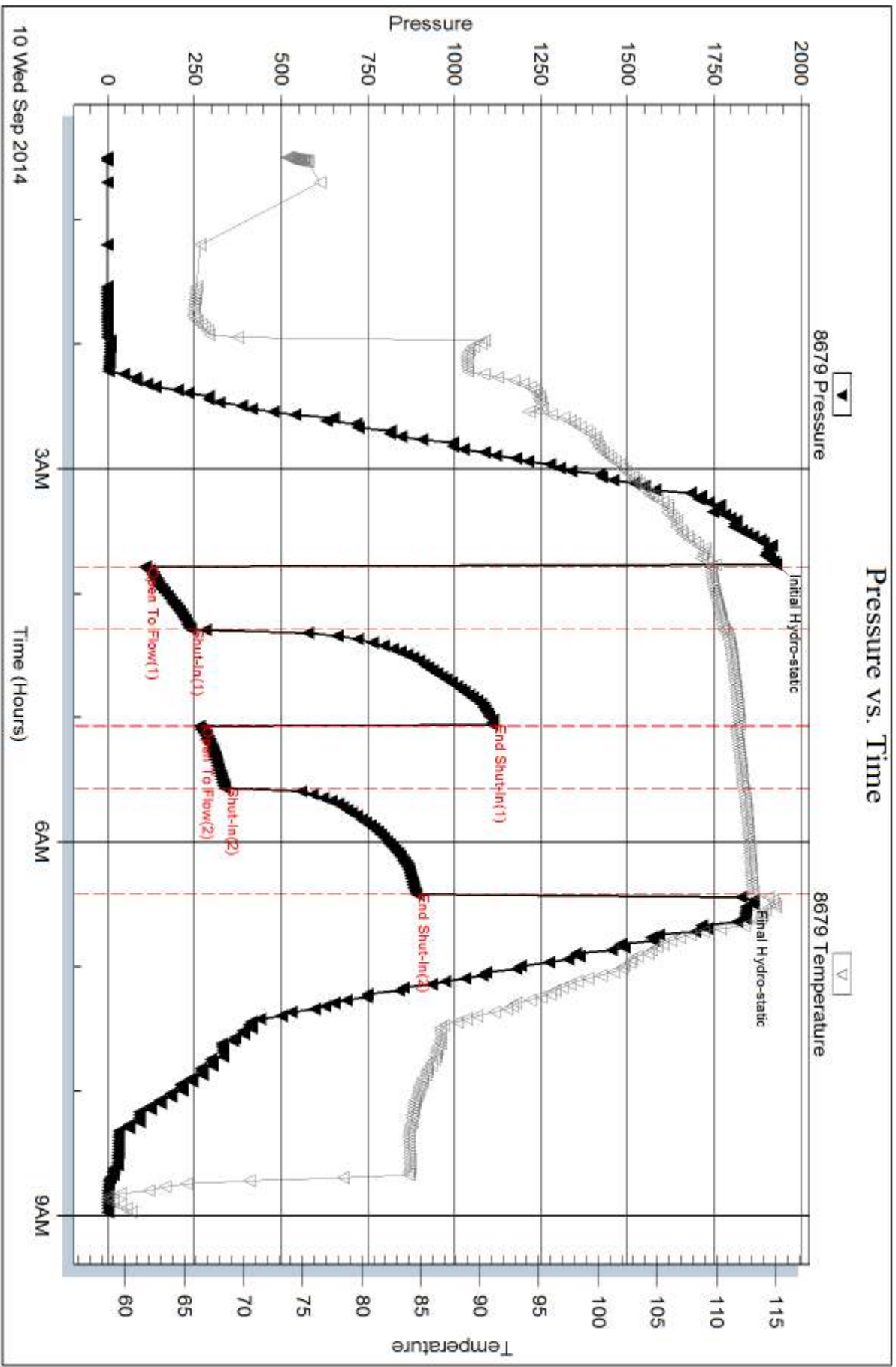
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

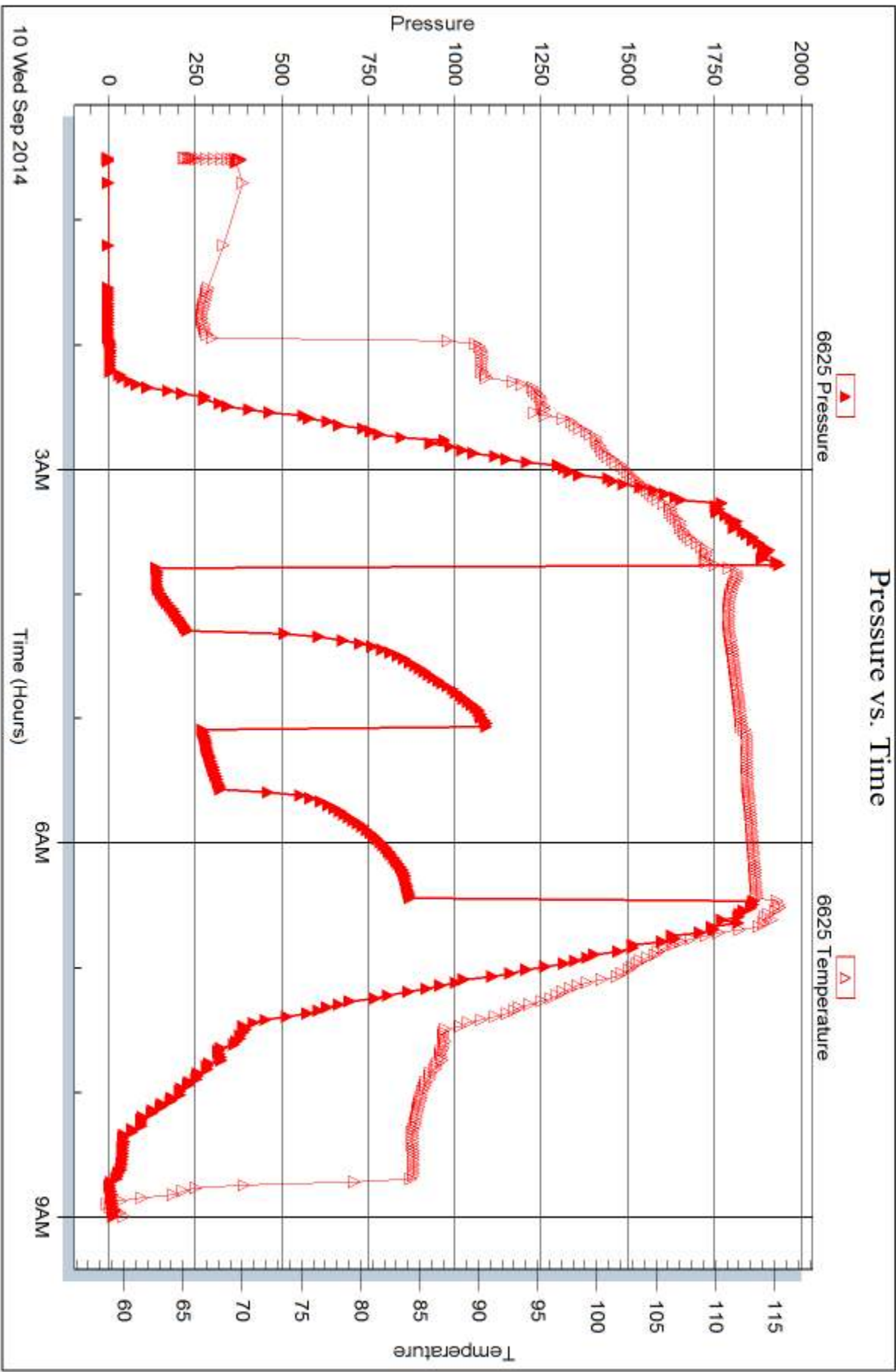


Serial #: 6625

Outside H & C Oil Operating Inc.

Rosalie #17-3

DST Test Number: 1





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:

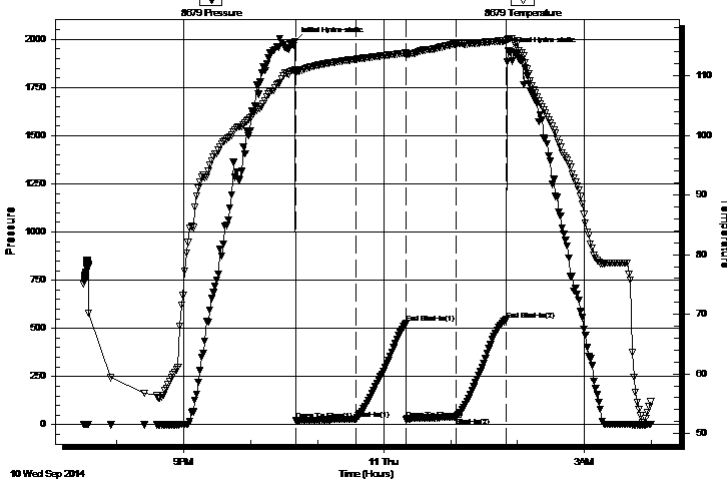
2014.09.10 @ 22:39:58

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

* Recovery from multiple tests

Gas Rates

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



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 #: 6625 Outside

Press@RunDepth: psig @ 3978.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.10

End Date: 2014.09.11

Last Calib.: 2014.09.11

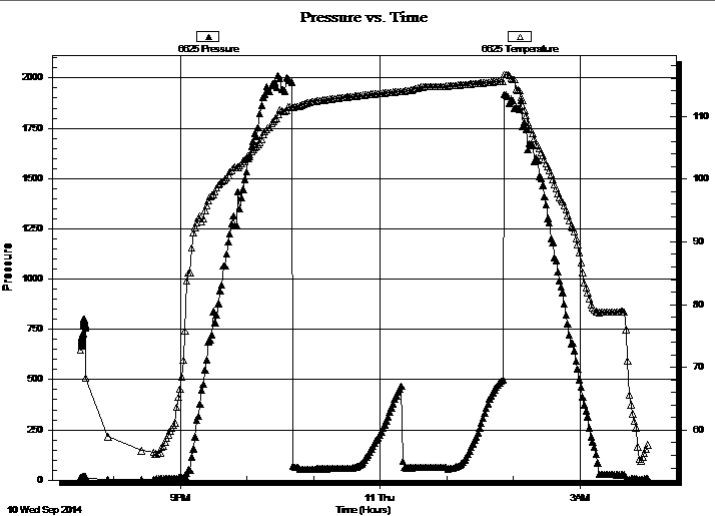
Start Time: 19:30:01

End Time: 04:01:07

Time On Btm:

Time Off Btm:

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



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

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

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

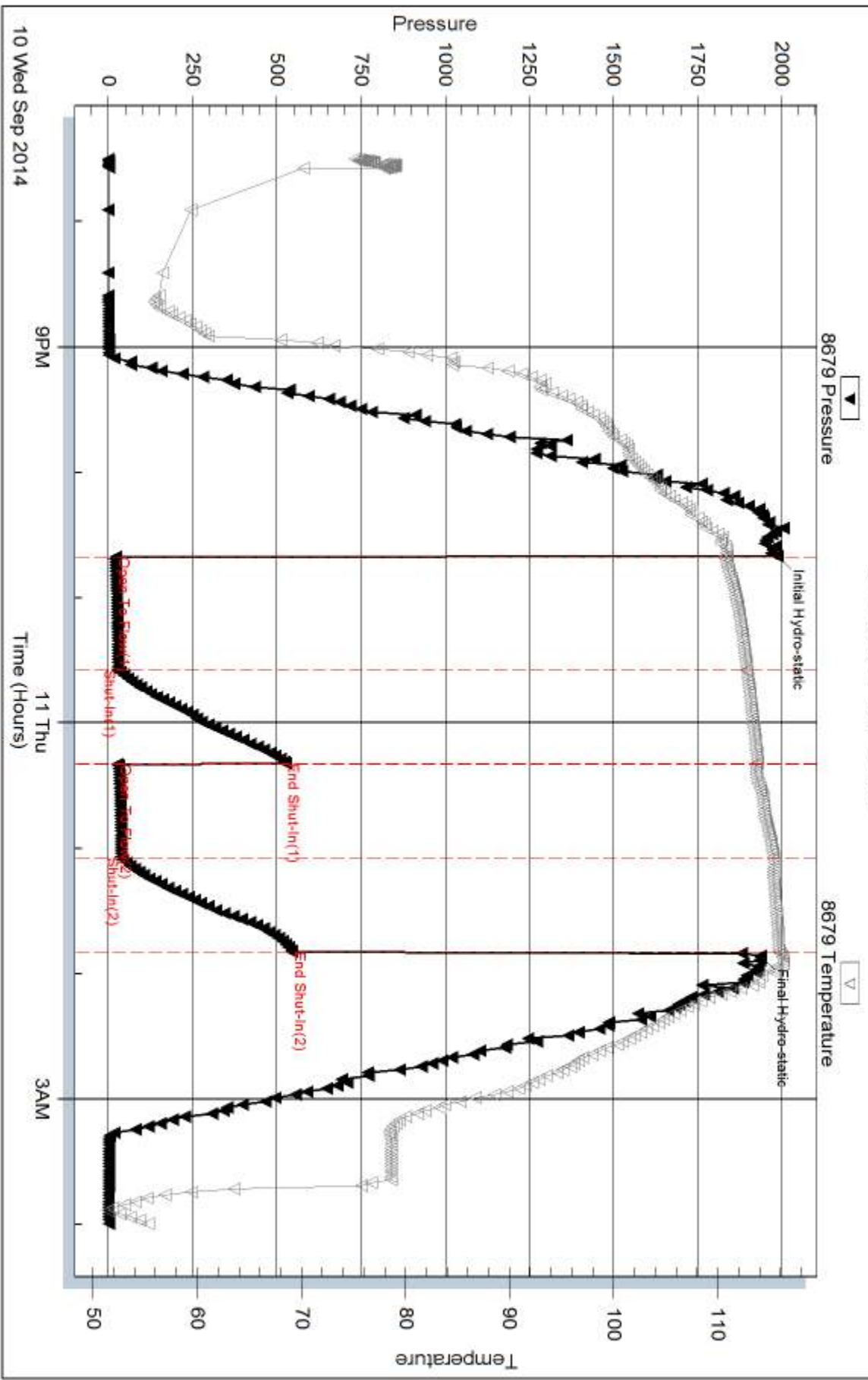
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

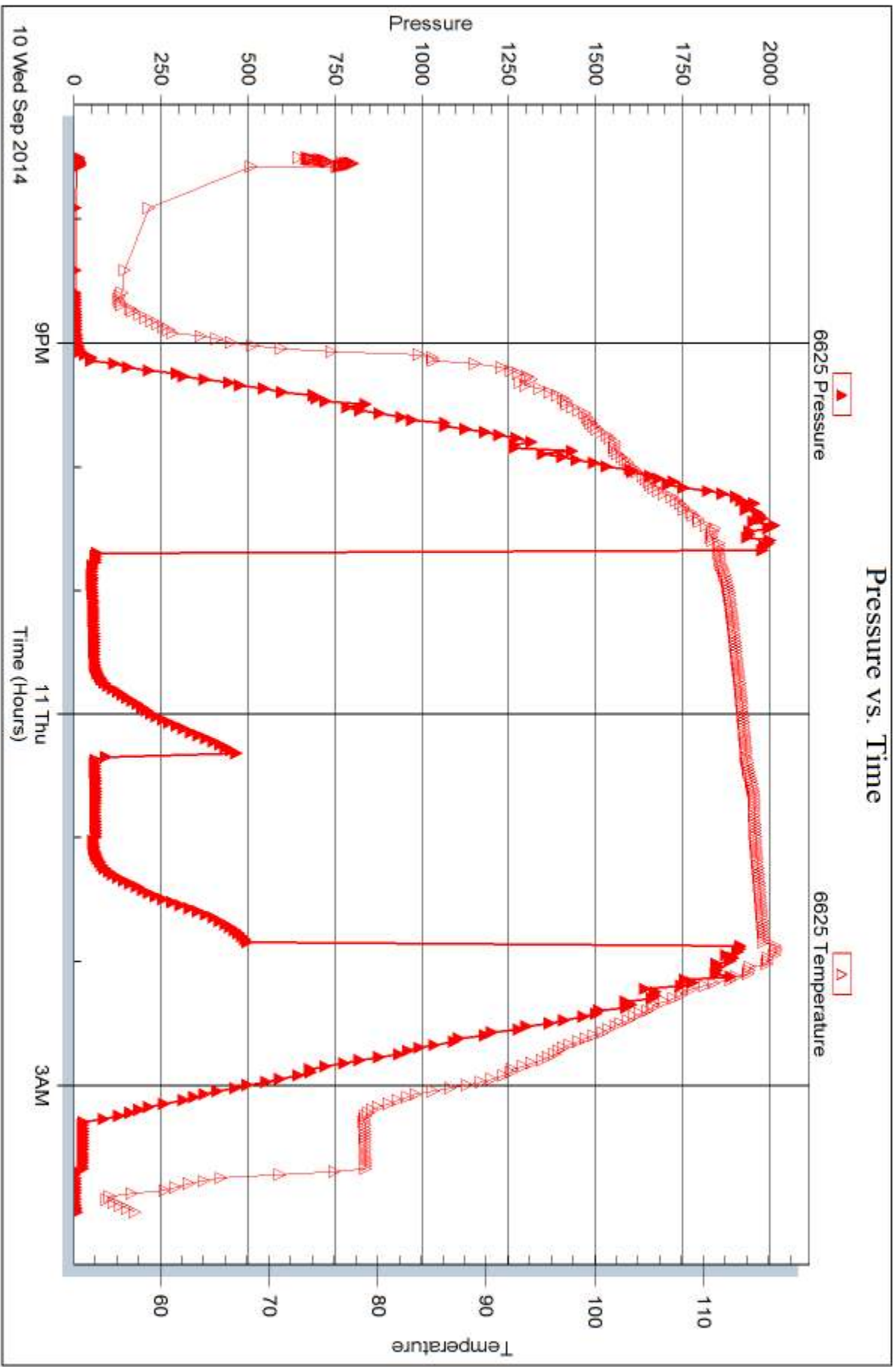


Serial #: 6625

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

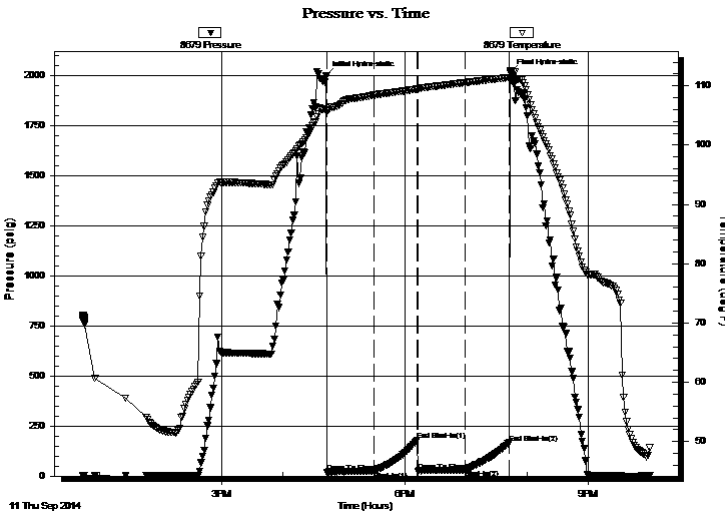
Serial #: 8679

Inside

Press@RunDepth: 32.47 psig @ 4007.00 ft (KB)
 Start Date: 2014.09.11 End Date: 2014.09.11
 Start Time: 12:43:01 End Time: 22:01:00
 Capacity: 8000.00 psig
 Last Calib.: 2014.09.11
 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

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

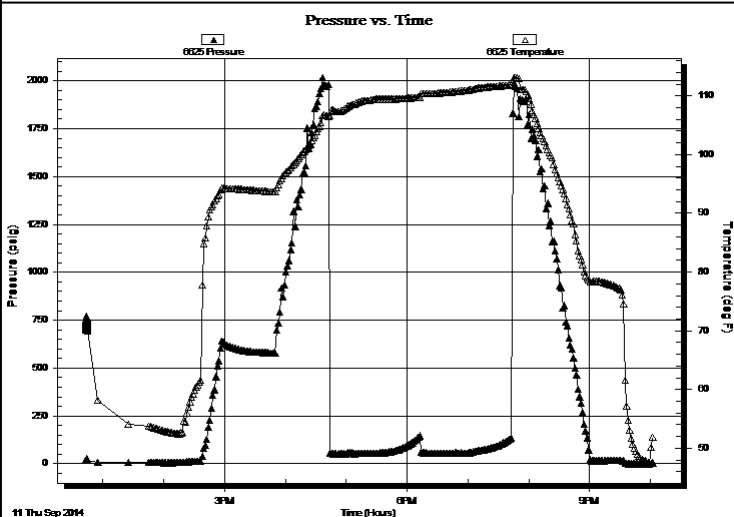
GENERAL INFORMATION:

Formation: **LKC "I-K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:43:00
Time Test Ended: 22:01:00
Test Type: Conventional Bottom Hole (Reset)
Tester: Phillip Gage
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 #: 6625 Outside

Press@RunDepth: 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: 22:02:30 Time On Btm:
Time Off Btm:

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

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

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: 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

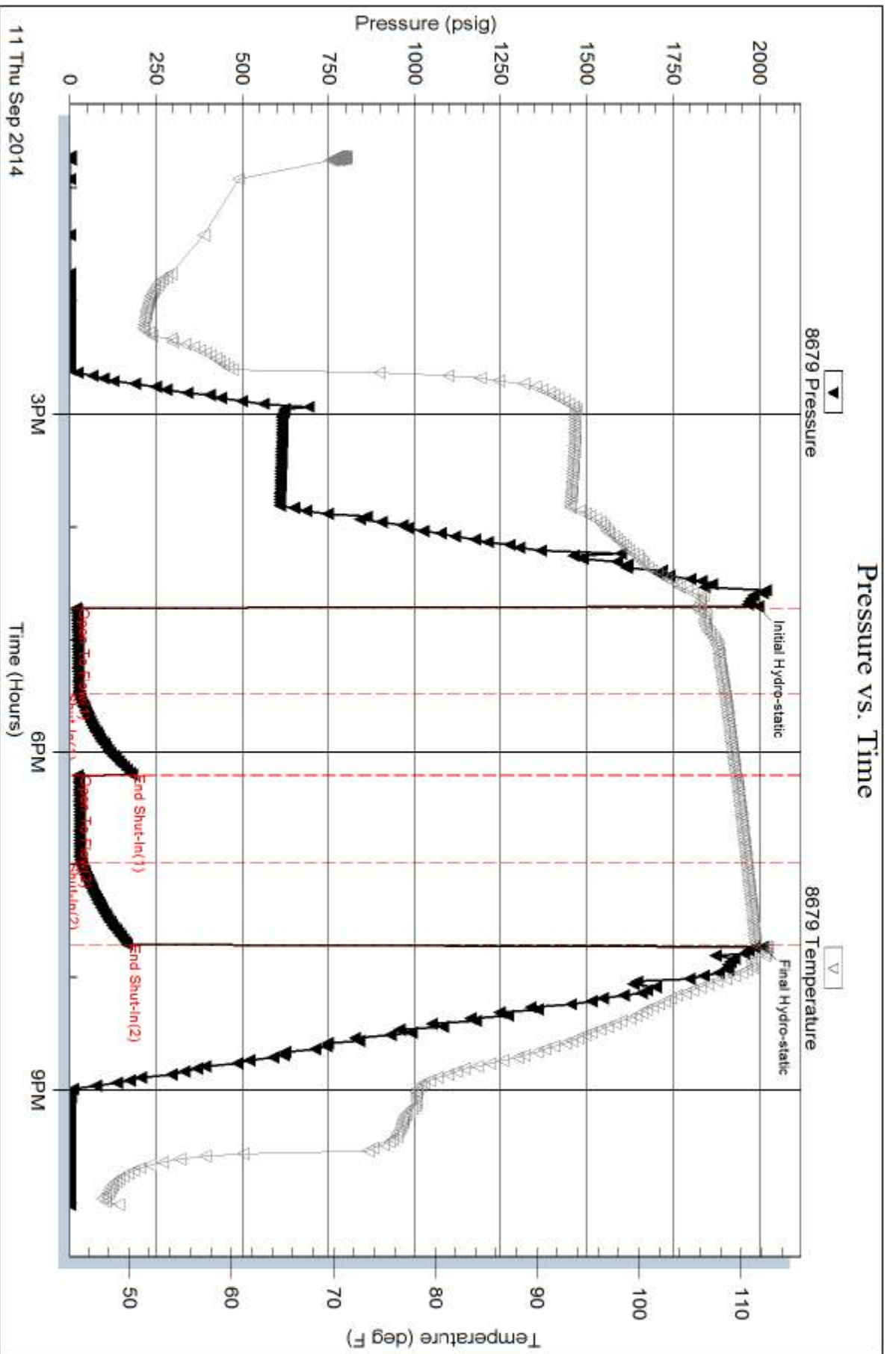
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

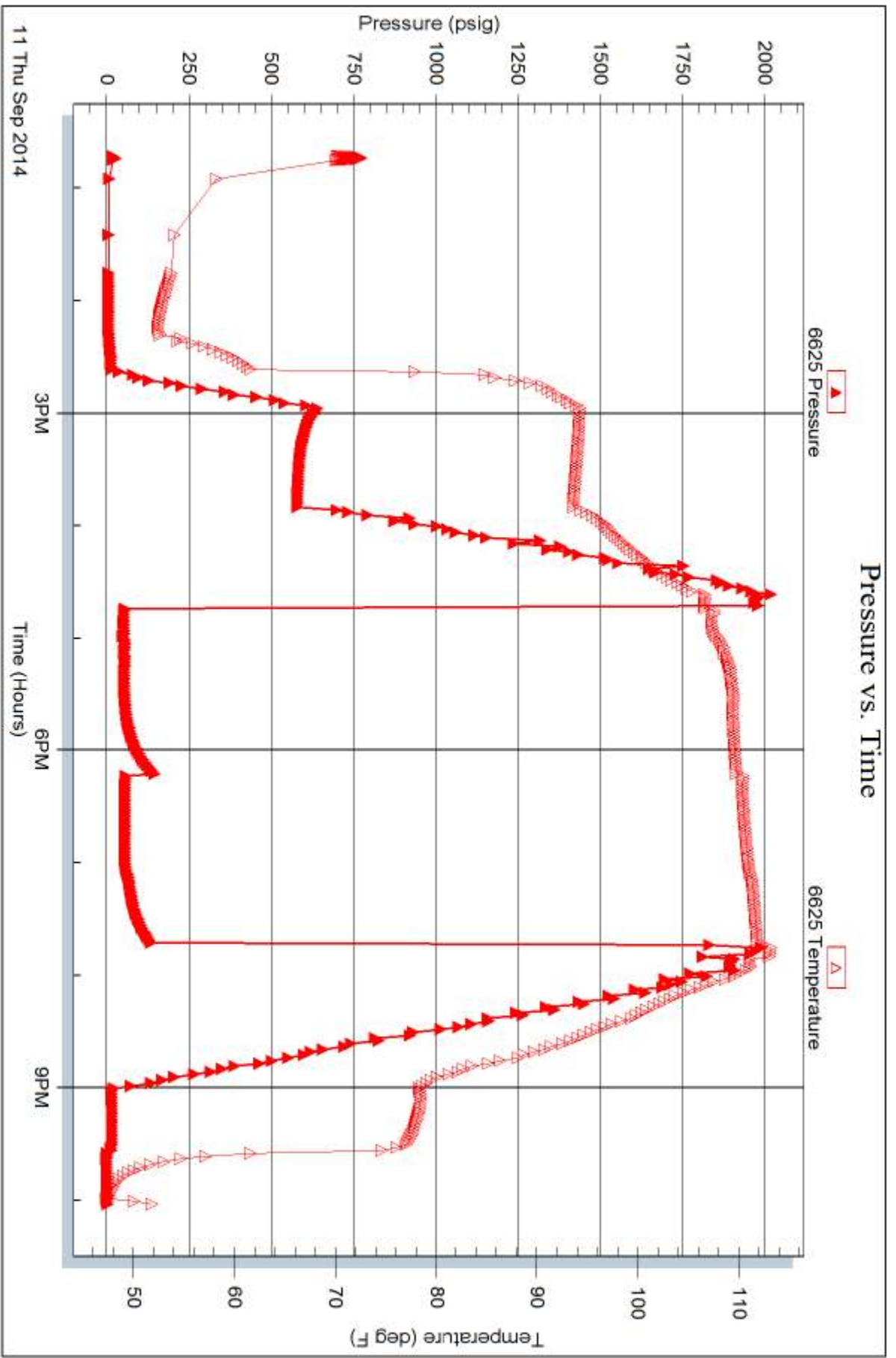


Serial #: 6625

Outside H & C Oil Operating Inc.

Rosalie #17-3

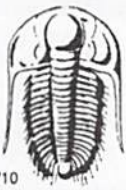
DST Test Number: 3



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>
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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 23 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 02:05
 (E) Second Initial Flow 26 Hourly Standby _____ T-Out 04:16
 (F) Second Final Flow 37 Mileage 124 / R.T. 192.20 Comments Also using
 (G) Final Shut-In 545 Sampler _____ Monster Pump
 (H) Final Hydrostatic 1,938 Straddle _____ 'thank-you'

Initial Open 55 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 45 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____
 Sub Total 0
 Total 1342.20
 MP/DST Disc't _____
 Sub Total 1342.20

Approved By _____ Our Representative [Signature] 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"
FSI - 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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