



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

SAMUEL GARY & ASSOC. INC.

**SEC. 11-5S.-23W.- NORTON CO.**

1515 WYNKOOP SUITE 700  
DENVER CO.  
80202  
ATTN: CLAYTON CAMOZZI

**HAGER TRUST**

Job Ticket: 55860

**DST#: 2**

Test Start: 2013.11.17 @ 11:18:39

## GENERAL INFORMATION:

Formation: **ARB.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:51:39

Time Test Ended: 18:02:54

Test Type: Conventional Bottom Hole (Reset)

Tester: BOB HAMEL

Unit No: 44

**Interval: 3707.00 ft (KB) To 3830.00 ft (KB) (TVD)**

Reference Elevations: 2190.00 ft (KB)

Total Depth: 3830.00 ft (KB) (TVD)

2182.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8879 Outside**

Press @ Run Depth: 786.41 psig @ 3807.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.17

End Date: 2013.11.17

Last Calib.: 2013.11.17

Start Time: 11:18:44

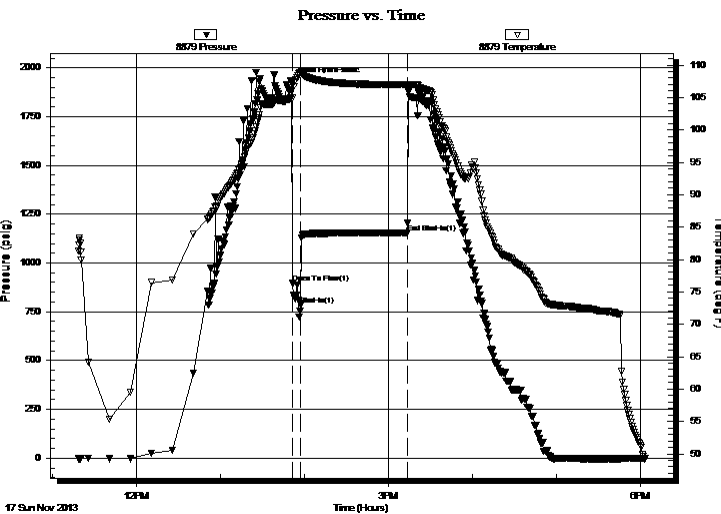
End Time: 18:02:53

Time On Btm: 2013.11.17 @ 13:50:54

Time Off Btm:

TEST COMMENT: I.F. - 5 - 1/2 INT. BLOW BUILT TO (B.O.B. IN 45 SEC.)  
I.S.I. - 75 - NO B.B.

" PULLED TOOL AFTER I.S.I."



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1932.08	104.95	Initial Hydro-static
1	895.49	104.93	Open To Flow (1)
7	786.41	108.85	Shut-In(1)
83	1153.92	106.95	End Shut-In(1)

## Recovery

Length (ft)	Description	Volume (bbl)
1071.00	WCM 40%WATER 60%MUD	14.73

## Gas Rates

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

\* Recovery from multiple tests



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ATTN: CLAYTON CAMOZZI

**HAGER TRUST**

Job Ticket: 55860 **DST#: 2**  
Test Start: 2013.11.17 @ 11:18:39

## GENERAL INFORMATION:

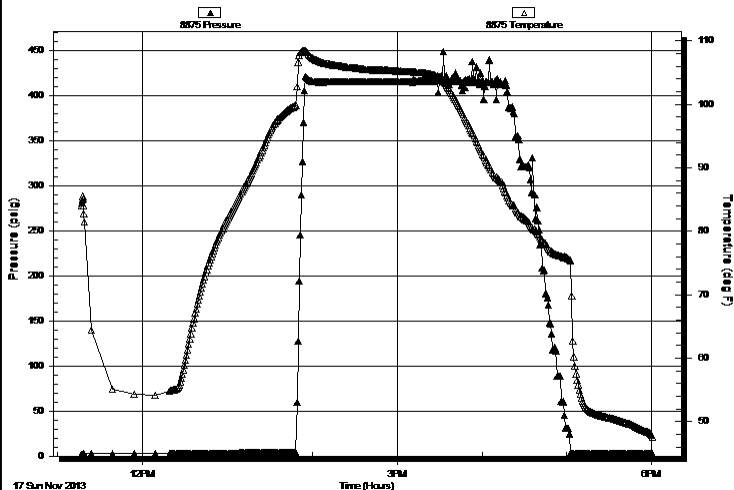
Formation: <b>ARB.</b>		
Deviated: No Whipstock: ft (KB)		Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 13:51:39		Tester: BOB HAMEL
Time Test Ended: 18:02:54		Unit No: 44
<b>Interval: 3707.00 ft (KB) To 3830.00 ft (KB) (TVD)</b>		Reference Elevations: 2190.00 ft (KB)
Total Depth: 3830.00 ft (KB) (TVD)		2182.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair		KB to GR/CF: 8.00 ft

## Serial #: 8875

Press @ Run Depth: psig @ ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.11.17 End Date: 2013.11.17	Last Calib.: 2013.11.17
Start Time: 11:17:05 End Time: 18:00:59	Time On Btm:
	Time Off Btm:

TEST COMMENT: I.F. - 5 - 1/2 INT. BLOW BUILT TO (B.O.B. IN 45 SEC.)  
I.S.I. - 75 - NO B.B.  
" PULLED TOOL AFTER I.S.I."

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1071.00	WCM 40%WATER 60%MUD	14.73

## Gas Rates

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

\* Recovery from multiple tests



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**SEC. 11-5S.-23W.- NORTON CO.**

1515 WYNKOOP SUITE 700  
DENVER CO.  
80202  
ATTN: CLAYTON CAMOZZI

**HAGER TRUST**

Job Ticket: 55860      **DST#: 2**  
Test Start: 2013.11.17 @ 11:18:39

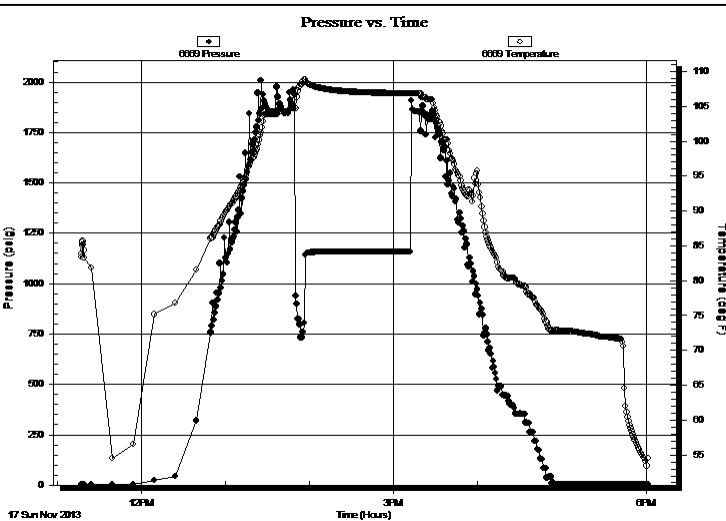
## GENERAL INFORMATION:

Formation: <b>ARB.</b>			
Deviated:      No      Whipstock:                      ft (KB)		Test Type:      Conventional Bottom Hole (Reset)	
Time Tool Opened: 13:51:39		Tester:          BOB HAMEL	
Time Test Ended: 18:02:54		Unit No:        44	
<b>Interval:      3707.00 ft (KB) To    3830.00 ft (KB) (TVD)</b>		Reference Elevations:      2190.00 ft (KB)	
Total Depth:      3830.00 ft (KB) (TVD)			2182.00 ft (CF)
Hole Diameter:      7.88 inches	Hole Condition:      Fair	KB to GR/CF:              8.00 ft	

## Serial #: 6669

Press @ RunDepth:                      psig @                      ft (KB)		Capacity:                                  8000.00 psig
Start Date:                                  2013.11.17                      End Date:                                  2013.11.17		Last Calib.:                                2013.11.17
Start Time:                                 11:17:05                      End Time:                                 18:01:14		Time On Btm:
		Time Off Btm:

TEST COMMENT: I.F. - 5 - 1/2 INT. BLOW BUILT TO (B.O.B. IN 45 SEC.)  
I.S.I. - 75 - NO B.B.  
" PULLED TOOL AFTER I.S.I."



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1071.00	WCM 40%WATER 60%MUD	14.73

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

SAMUEL GARY & ASSOC. INC.

**SEC. 11-5S.-23W.- NORTON CO.**

1515 WYNKOOP SUITE 700  
DENVER CO.  
80202  
ATTN: CLAYTON CAMOZZI

**HAGER TRUST**

Job Ticket: 55860

**DST#: 2**

Test Start: 2013.11.17 @ 11:18:39

## 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: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1071.00	WCM 40%WATER 60%MUD	14.732

Total Length: 1071.00 ft      Total Volume: 14.732 bbl

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

Laboratory Name:      Laboratory Location:

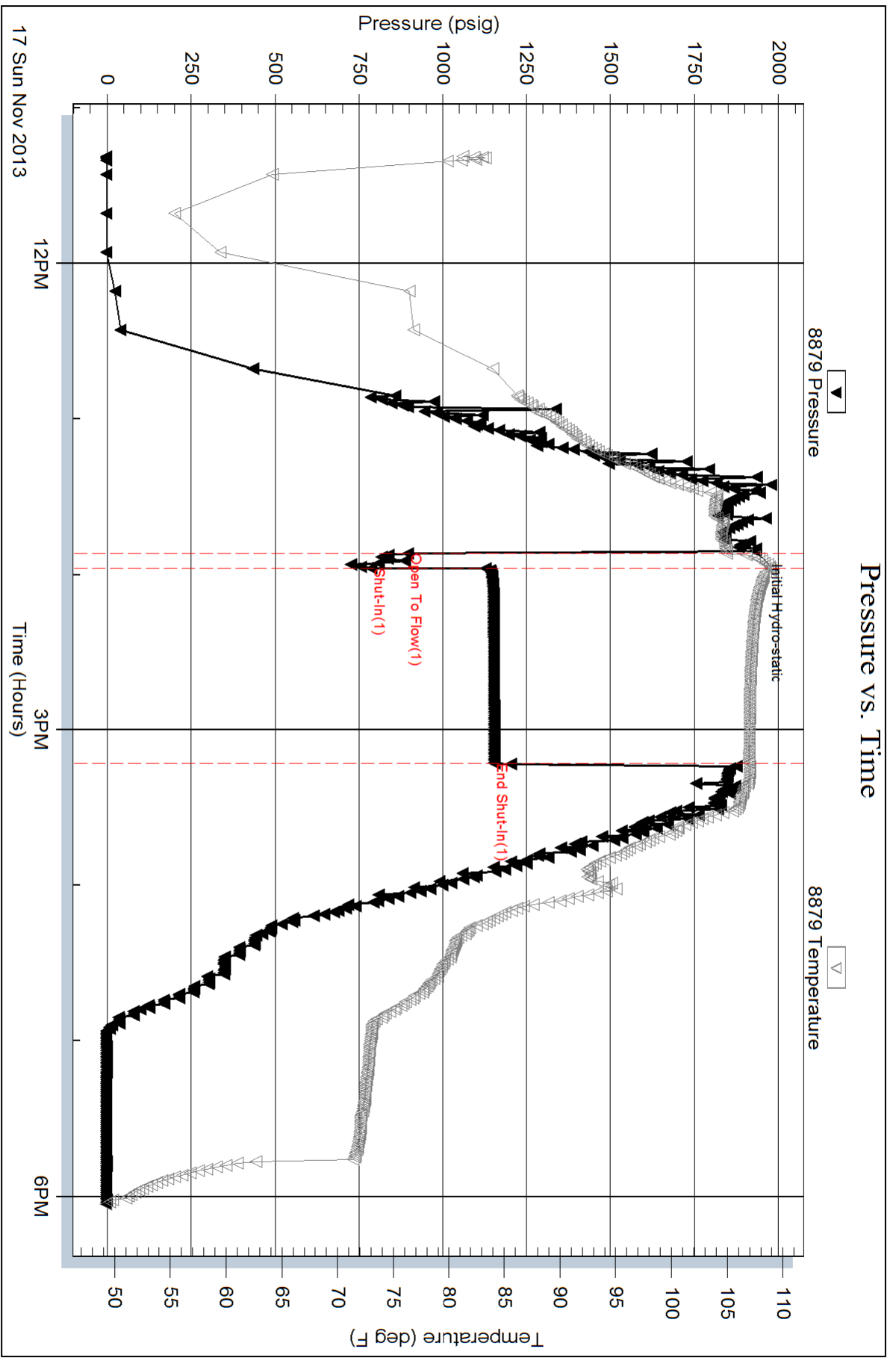
Recovery Comments: R.W. .51 @ 40 F CHLORIDES 25000 P.P.M.  
SAMPLER RECOVERY = 500 M.L. MUDDY WATER @ 50 P.S.I.

Serial #: 8879

Outside SAMUEL GARY & ASSOC. INC.

HAGERTRUST

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 55860

Printed: 2013.11.17 @ 22:55:51

