



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc, Inc

11 5s 23w Norton, Ks

1315 Wynkoop, STE 700
Denver, Co 80202

Hager Trust 1-11

Job Ticket: 52879

DST#: 3

ATTN: Clayton Camozzi

Test Start: 2013.07.10 @ 22:46:00

GENERAL INFORMATION:

Formation: **LKC - F & G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:49:00

Time Test Ended: 07:05:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 3523.00 ft (KB) To 3583.00 ft (KB) (TVD)

Reference Elevations: 2255.00 ft (KB)

Total Depth: 3583.00 ft (KB) (TVD)

2247.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8678 Outside

Press @ RunDepth: 107.80 psig @ 3524.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.10

End Date:

2013.07.11

Last Calib.: 2013.07.11

Start Time: 22:46:05

End Time:

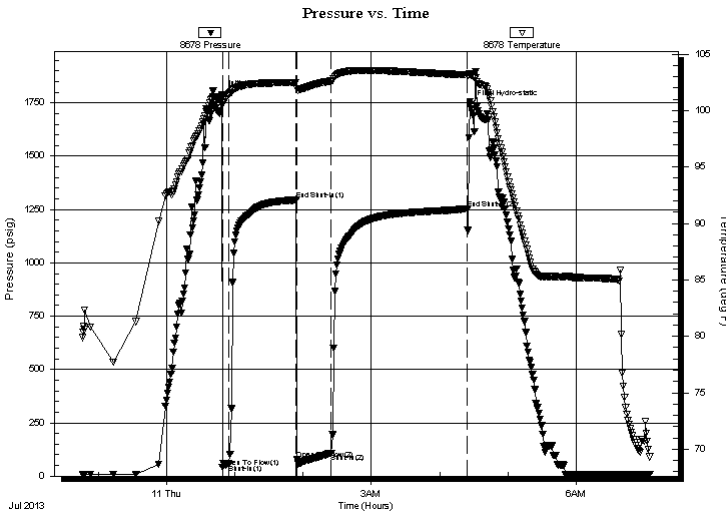
07:05:29

Time On Btm: 2013.07.11 @ 00:48:45

Time Off Btm: 2013.07.11 @ 04:27:00

TEST COMMENT: IF: 9" blow.
IS: No return.
FF: BOB @ 7 min.
FS: 3" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1790.21	101.24	Initial Hydro-static
1	41.58	100.72	Open To Flow (1)
6	57.13	101.40	Shut-In(1)
65	1294.61	102.45	End Shut-In(1)
66	79.50	101.94	Open To Flow (2)
96	107.80	102.61	Shut-In(2)
216	1253.97	103.16	End Shut-In(2)
219	1742.86	103.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	sgocm 5g 25o 70m	0.84
165.00	gsmco 20g 3m 77o	2.31
0.00	500 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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Tester: Bradley Walter

Unit No: 53

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Reference Elevations: 2255.00 ft (KB)

Total Depth: 3583.00 ft (KB) (TVD)

2247.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8522 Fluid

Press @ RunDepth: psig @ 3489.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.10

End Date: 2013.07.11

Last Calib.: 2013.07.11

Start Time: 22:46:05

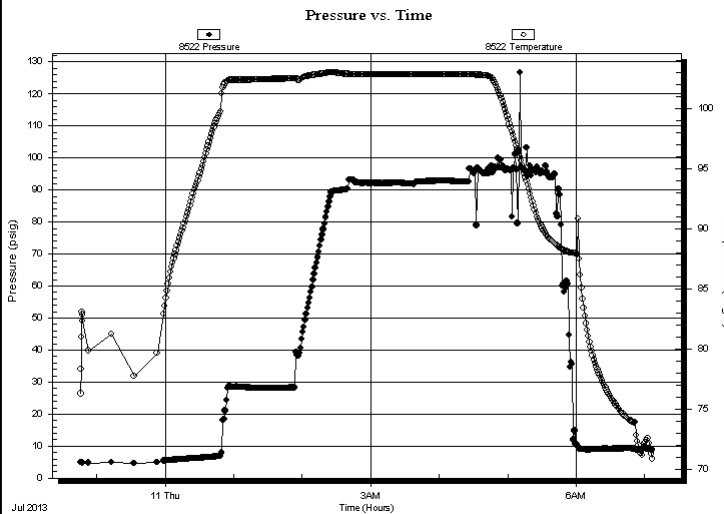
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Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 9" blow.
IS: No return.
FF: BOB @ 7 min.
FS: 3" return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
80.00	sgocm 5g 25o 70m	0.84
165.00	gsmco 20g 3m 77o	2.31
0.00	500 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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11 5s 23w Norton, Ks

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Hager Trust 1-11

Job Ticket: 52879

DST#: 3

ATTN: Clayton Camozzi

Test Start: 2013.07.10 @ 22:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	sgocm 5g 25o 70m	0.840
165.00	gsmco 20g 3m 77o	2.315
0.00	500 GIP	0.000

Total Length: 245.00 ft Total Volume: 3.155 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

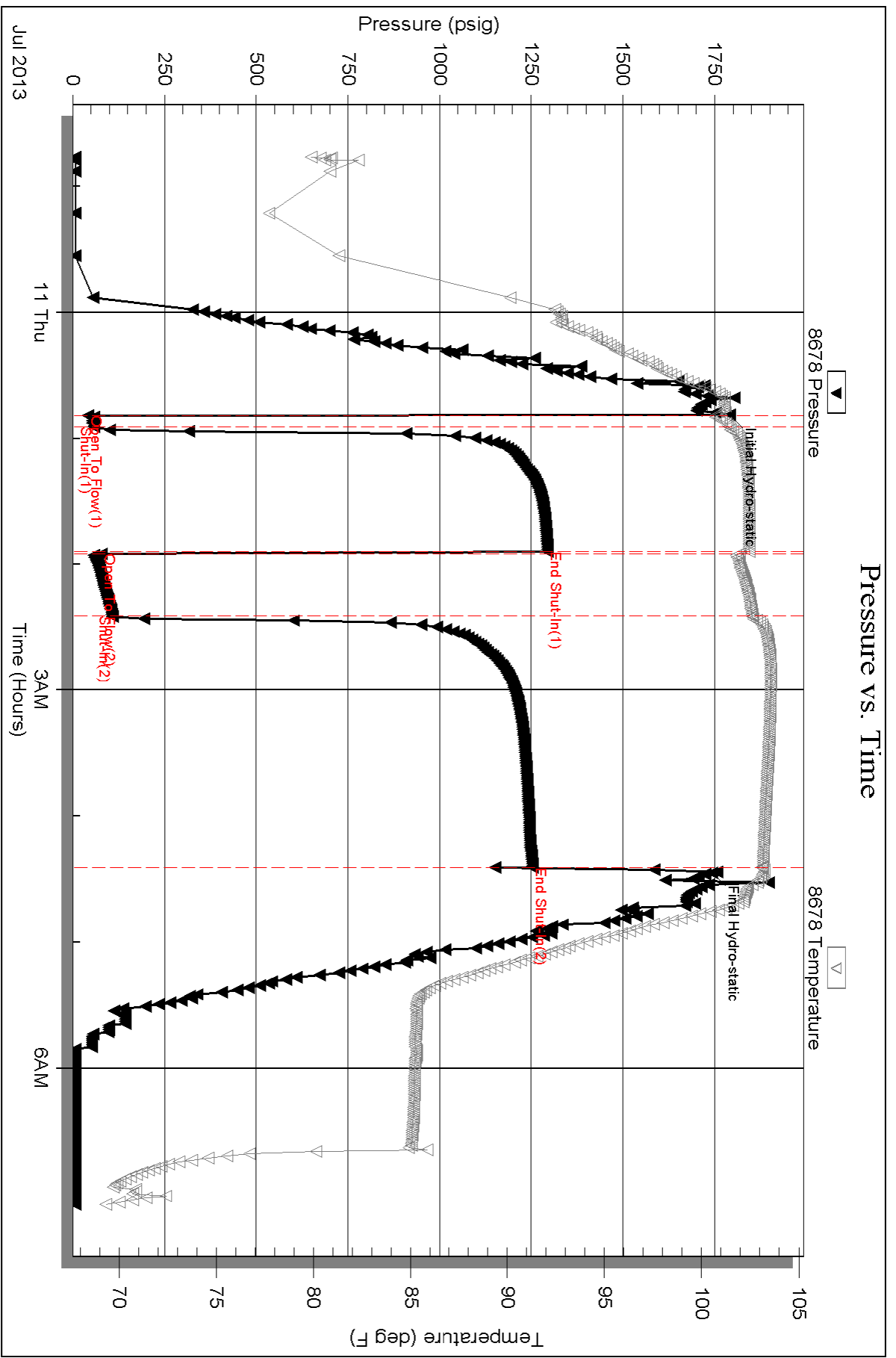
Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler - 2,000 ml Oil

250 PSIG

0.2 Cubic Ft of gas



Serial #: 8522

Fluid

Samuel Gary Jr & Assoc, Inc

Hager Trust 1-11

DST Test Number: 3

