



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. and Associates, Inc.**

1515 Wynkoop St. Ste 700
Denver, CO 80202

ATTN: Chris Mitchell

Peggy #1-28

28 11s 16w Ellis,KS

Start Date: 2013.03.26 @ 00:35:00

End Date: 2013.03.26 @ 10:24:00

Job Ticket #: 52069 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.27 @ 11:02:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. and Associates, Inc.

28 11s 16w Ellis,KS

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Job Ticket: 52069

DST#: 1

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Test Start: 2013.03.26 @ 00:35:00

GENERAL INFORMATION:

Formation: **LKC " C & D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:54:00

Time Test Ended: 10:24:00

Test Type: Conventional Straddle (Initial)

Tester: Jim Svaty

Unit No: 41

Interval: 3049.00 ft (KB) To 3071.00 ft (KB) (TVD)

Reference Elevations: 1801.00 ft (KB)

Total Depth: 3453.00 ft (KB) (TVD)

1793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 48.24 psig @ 3050.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.26

End Date:

2013.03.26

Last Calib.:

2013.03.26

Start Time: 00:35:01

End Time:

10:24:00

Time On Btm:

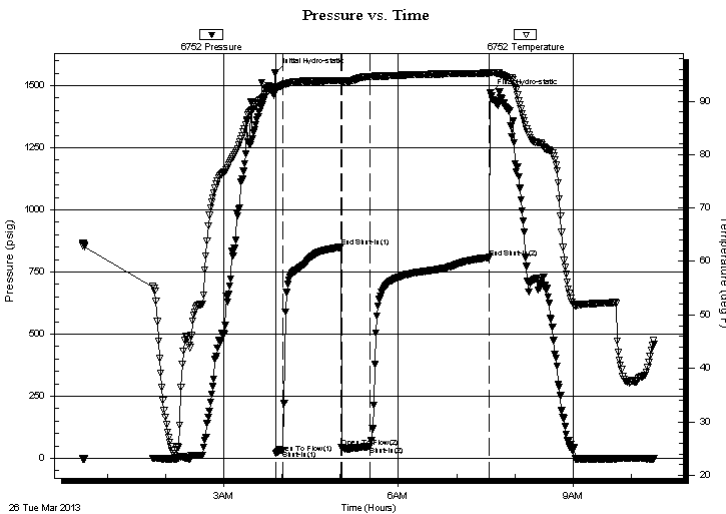
2013.03.26 @ 03:53:40

Time Off Btm:

2013.03.26 @ 07:34:39

TEST COMMENT: 5-IFP- Surface Blow Building to 3"
60-ISIP- Surface Blow
30-FFP- Surface Blow Building to 8 1/2"
120-FSIP- Surface Blow Died in 80 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1553.16	92.68	Initial Hydro-static
1	19.68	92.45	Open To Flow (1)
8	30.82	92.97	Shut-In(1)
68	850.04	93.86	End Shut-In(1)
68	42.50	93.74	Open To Flow (2)
98	48.24	94.62	Shut-In(2)
220	808.44	95.25	End Shut-In(2)
221	1469.30	95.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	OWCM 1%o 44%w 55%m	0.67
7.00	OWCM 30%o 30%w 40%m	0.10
3.00	CO 100%o	0.04
0.00	115 GIP	0.00

Gas Rates

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



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Total Depth: 3453.00 ft (KB) (TVD)

1793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8322 Outside

Press @ Run Depth: psig @ 3050.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.26

End Date:

2013.03.26

Last Calib.:

2013.03.26

Start Time: 00:35:01

End Time:

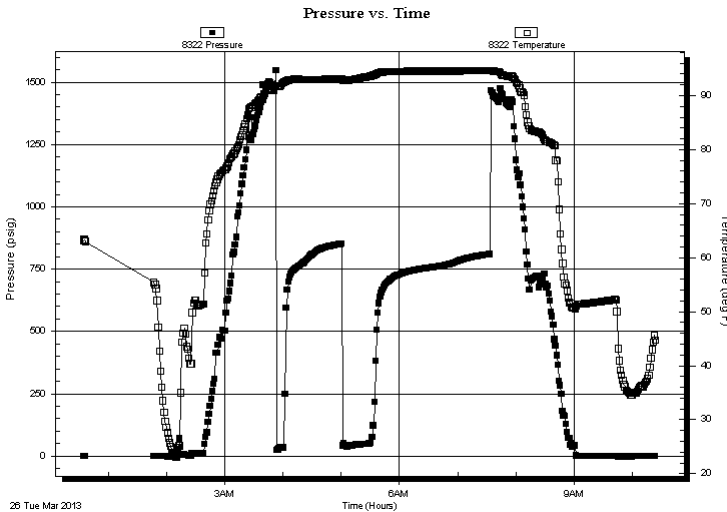
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Time On Btm:

Time Off Btm:

TEST COMMENT: 5-IFP- Surface Blow Building to 3"
60-ISIP- Surface Blow
30-FFP- Surface Blow Building to 8 1/2"
120-FSIP- Surface Blow Died in 80 min.

PRESSURE SUMMARY



Time (Min.)

Pressure (psig)

Temp (deg F)

Annotation

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
67.00	OWCM 1%o 44%w 55%m	0.67
7.00	OWCM 30%o 30%w 40%m	0.10
3.00	CO 100%o	0.04
0.00	115 GIP	0.00

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. and Associates, Inc.

28 11s 16w Ellis,KS

1515 Wynkoop St. Ste 700
Denver, CO 80202

Peggy #1-28

Job Ticket: 52069

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.03.26 @ 00:35:00

Tool Information

Drill Pipe:	Length: 3008.00 ft	Diameter: 3.80 inches	Volume: 42.19 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 42.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3049.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	3071.00 ft			
Interval between Packers:	22.00 ft			
Tool Length:	439.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	6.00			3020.00	
Recorder	0.00	8734	Fluid	3020.00	
Shut In Tool	5.00			3025.00	
Sampler	2.00			3027.00	
Hydraulic tool	5.00			3032.00	
Jars	5.00			3037.00	
Safety Joint	2.00			3039.00	
Packer	5.00			3044.00	35.00 Bottom Of Top Packer
Packer	5.00			3049.00	
Stubb	1.00			3050.00	
Recorder	0.00	6752	Inside	3050.00	
Recorder	0.00	8322	Outside	3050.00	
Perforations	17.00			3067.00	
Blank Off Sub	1.00			3068.00	
Blank Spacing	3.00			3071.00	22.00 Tool Interval
Packer	1.00			3072.00	
Stubb	1.00			3073.00	
Perforations	1.00			3074.00	
Recorder	0.00	8736	Below	3074.00	
Change Over Sub	0.50			3074.50	
Blank Spacing	375.00			3449.50	
Change Over Sub	0.50			3450.00	
Bullnose	3.00			3453.00	382.00 Bottom Packers & Anchor
Total Tool Length:	439.00				



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FLUID SUMMARY

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28 11s 16w Ellis,KS

1515 Wynkoop St. Ste 700
Denver, CO 80202

Peggy #1-28

Job Ticket: 52069

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.03.26 @ 00:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 4.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
67.00	OWCM 1%o 44%w 55%m	0.667
7.00	OWCM 30%o 30%w 40%m	0.098
3.00	CO 100%o	0.042
0.00	115 GIP	0.000

Total Length: 77.00 ft Total Volume: 0.807 bbl

Num Fluid Samples: 0

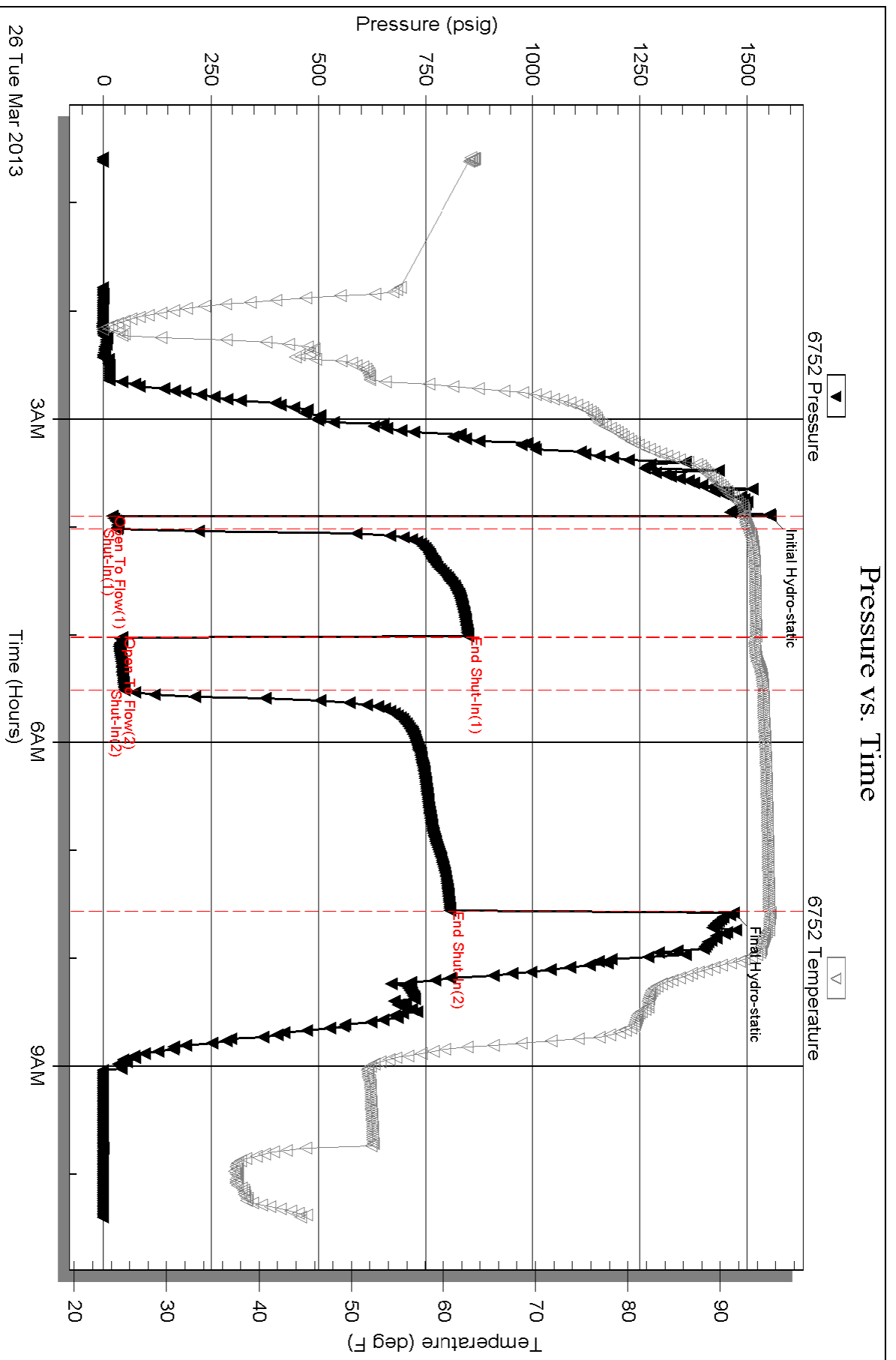
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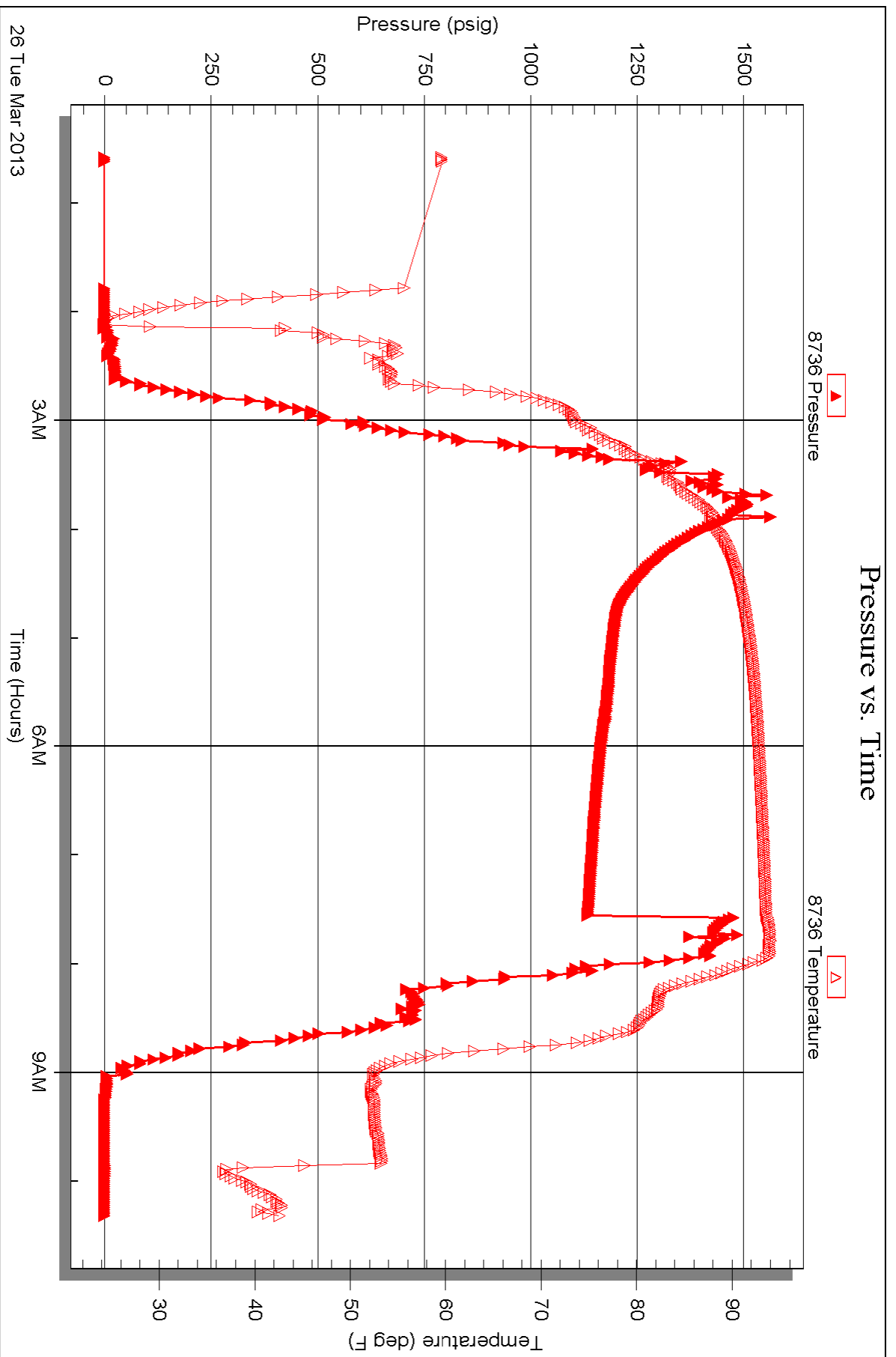
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER 40ml total 30ml Water 8ml Mud 2ml Oil
.398 @ 31





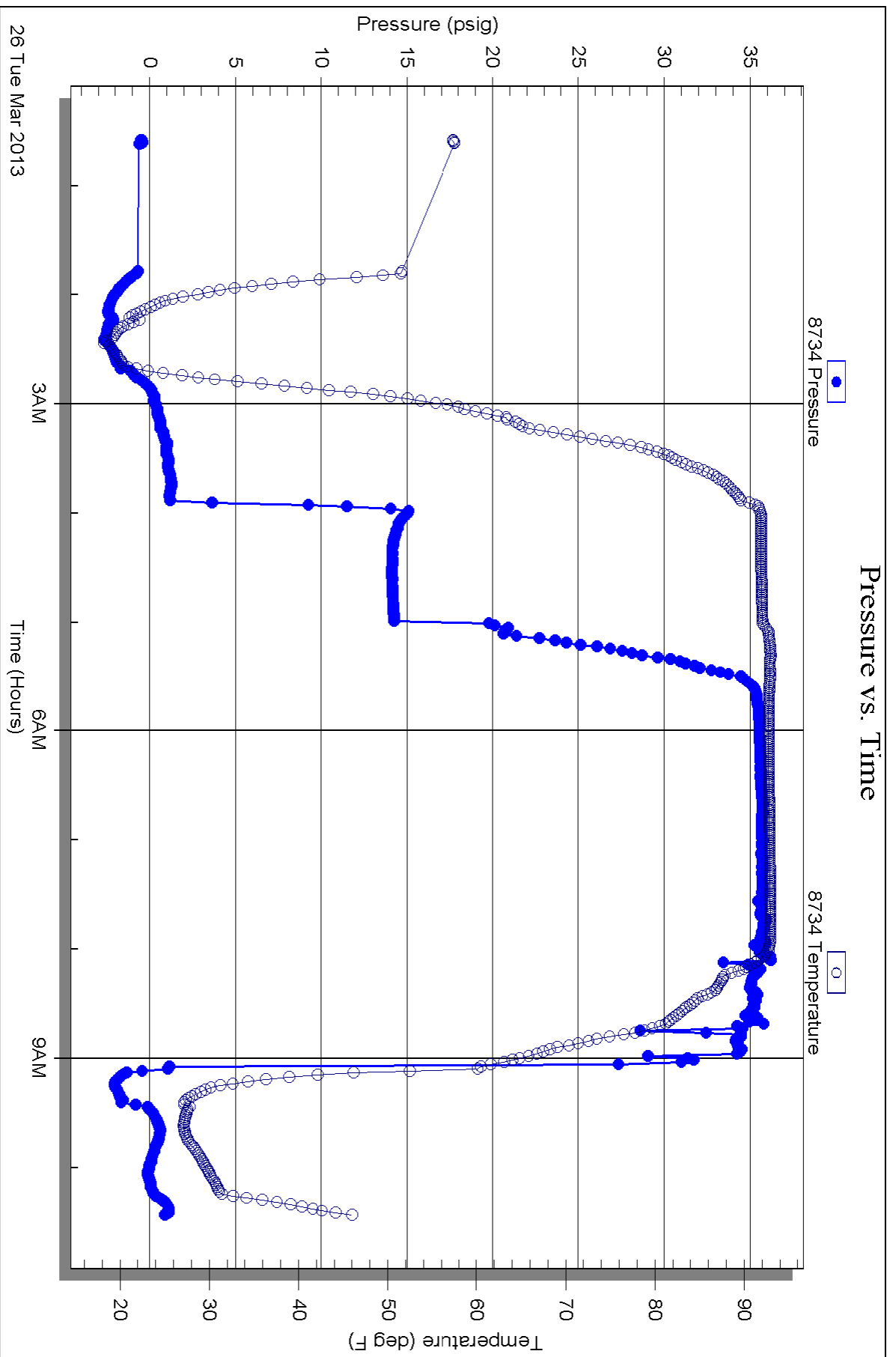
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Fluid

Samuel Gary Jr. and Associates, Inc.

Peggy #1-28

DST Test Number: 1

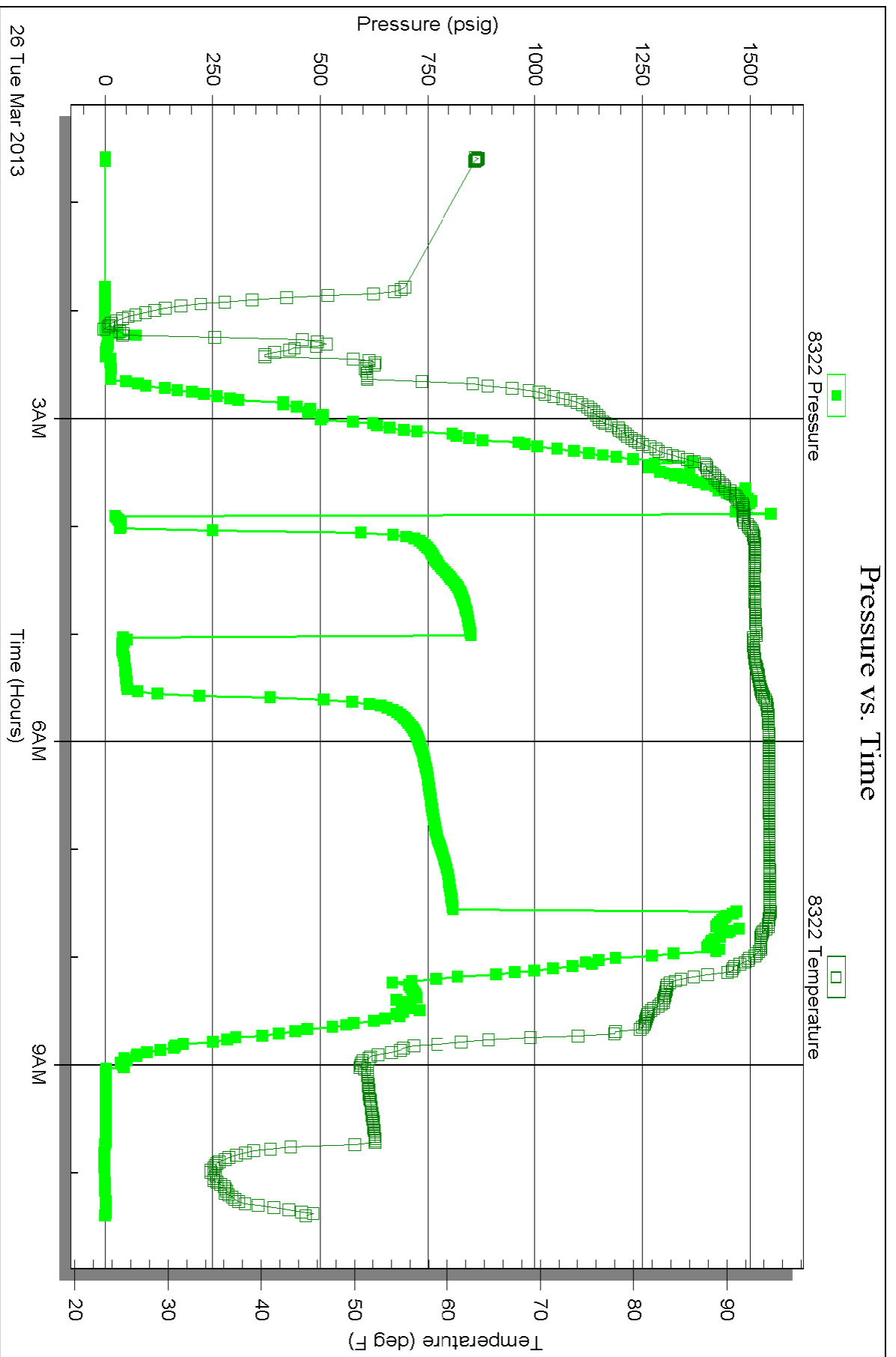


Serial #: 8322

Outside Samuel Gary Jr. and Associates, Inc.

Peggy #1-28

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52069

Well Name & No. Peggy 1-28 Test No. 1 Date 3-26-13
 Company Samuel Gary JR. and Assoc, Inc Elevation 1801 KB 1793 GL
 Address 1515 Wynkoop St. Ste. 700 Denver CO. 80202
 Co. Rep / Geo. Chris Mitchell Rig Discovery #2
 Location: Sec. 28 Twp. 11^s Rge. 16^w Co. Ellis State KS

Interval Tested 3049-3071 Zone Tested LKC "C&P"
 Anchor Length 22 (382 T.P.) Drill Pipe Run 3008 Mud Wt. 8.9
 Top Packer Depth 3049 Drill Collars Run 30 Vis 60
 Bottom Packer Depth 3071 Wt. Pipe Run 0 WL 8.4
 Total Depth 3453 Chlorides 3000 ppm System LCM 4

Blow Description IFP- Surface Blow Building To 3 in.
ISIP- Surface Blow
FFP- Surface Blow Building To 8 1/2 in.
FSIP- Surface Blow Died in 80 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>OWCM</u>	<u>1</u>	<u>44</u>	<u>55</u>	
<u>7</u>	<u>OWCM</u>	<u>30</u>	<u>30</u>	<u>40</u>	
<u>3</u>	<u>CO</u>	<u>100</u>			
	<u>115 DIP</u>				

Rec Total 77 BHT 95 Gravity 28 API RW .398 @ 31 °F Chlorides 42000 ppm

(A) Initial Hydrostatic 1553 Test 1150 T-On Location 00:20
 (B) First Initial Flow 19 Jars 250 T-Started 00:35
 (C) First Final Flow 30 Safety Joint 75 T-Open 03:55
 (D) Initial Shut-In 850 Circ Sub _____ T-Pulled 07:30
 (E) Second Initial Flow 42 Hourly Standby _____ T-Out 10:21
 (F) Second Final Flow 48 Mileage 58 RT 89.90 Comments _____
 (G) Final Shut-In 808 Sampler 250 _____
 (H) Final Hydrostatic 1469 Straddle 600 _____
 Ruined Shale Packer _____
 Ruined Packer _____

Initial Open 5 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder 200 Sub Total 0
 Final Flow 30 Day Standby _____ Total 2864.90
 Final Shut-In 120 Accessibility _____ MP/DST Disc't _____
 Sub Total 2864.90

Approved By _____ Our Representative [Signature]
 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.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 52069 Date 3-26-13
 Company Name Samuel Gary Jr. & Assoc. Inc.
 Lease Peggy 1-28 Test No. 1
 County Ellis Sec. 28 Twp. 11^S Rng. 16^W

SAMPLER RECOVERY

Gas _____ ML
 Oil 2 ML
 Mud 8 ML
 Water 30 ML
 Other _____ ML
 Pressure 0 psi
 Total 40 ML

PIT MUD ANALYSIS

Chlorides 3000 ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity 60
 Mud Weight 8.9
 Filtrate 8.4
 Other _____

SAMPLER ANALYSIS

Resistivity 1398 ohms @ 31 F
 Chlorides 42000 ppm.
 Gravity 28 corrected @60F

PIPE RECOVERY

TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.

MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.

BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.