



DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr & Assoc. Inc.**

1515 Wynkoop STE 700
Denver CO 80202

ATTN: Chris Mitchell

Olson #1-28

28-15s-16w Ellis,KS

Start Date: 2013.02.18 @ 02:54:05

End Date: 2013.02.18 @ 10:50:20

Job Ticket #: 51480 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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Printed: 2013.02.27 @ 10:22:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sam Gary Jr & Assoc. Inc.

28-15s-16w Ellis,KS

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Denver CO 80202

Olson #1-28

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Test Start: 2013.02.18 @ 02:54:05

GENERAL INFORMATION:

Formation: **LKC "J-K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:47:20

Time Test Ended: 10:50:20

Test Type: Conventional Straddle (Initial)

Tester: Andy Carreira

Unit No: 39

Interval: 3309.00 ft (KB) To 3359.00 ft (KB) (TVD)

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3551.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8372 Outside

Press @ Run Depth: 61.83 psig @ 3316.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.18

End Date:

2013.02.18

Last Calib.:

2013.02.18

Start Time:

02:54:05

End Time:

10:50:20

Time On Btm:

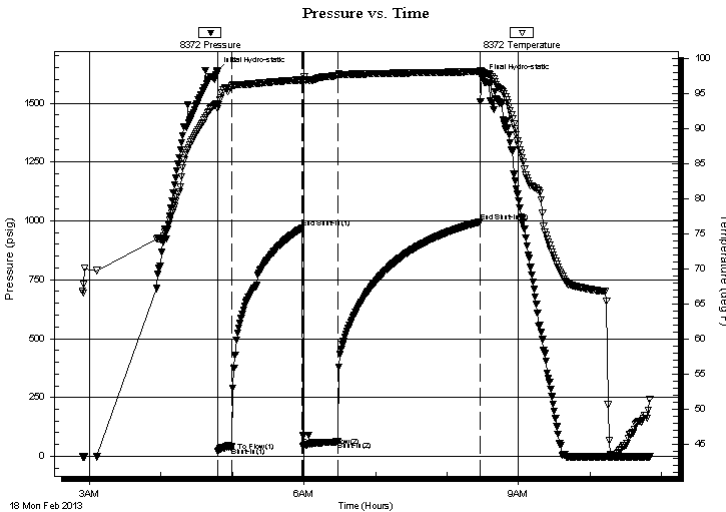
2013.02.18 @ 04:46:50

Time Off Btm:

2013.02.18 @ 08:29:39

TEST COMMENT: IF:(10min) 2" blow in 3 min. 3" in 6 min. 4" in 10 min.
ISl:(60min) No Return
FF:(30min) 1" blow in 5 min. Surging blow built to 2"
FSl:(120min) No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.95	93.57	Initial Hydro-static
1	19.79	92.84	Open To Flow (1)
13	40.37	96.10	Shut-In(1)
72	969.12	96.98	End Shut-In(1)
73	43.44	96.97	Open To Flow (2)
102	61.83	97.63	Shut-In(2)
221	996.15	98.15	End Shut-In(2)
223	1604.59	98.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud	0.99

Gas Rates

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



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TOOL DIAGRAM

Sam Gary Jr & Assoc. Inc.

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Job Ticket: 51480

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.02.18 @ 02:54:05

Tool Information

Drill Pipe:	Length: 3252.00 ft	Diameter: 3.80 inches	Volume: 45.62 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 45.77 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3309.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	3359.00 ft				
Interval between Packers:	50.00 ft				
Tool Length:	281.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			

Tool Comments:

Tool Description

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

Change Over Sub	1.00			3275.00	
Recorder	0.00	8736	Fluid	3275.00	
Blank Spacing	5.00			3280.00	
Shut In Tool	5.00			3285.00	
Sampler	2.00			3287.00	
Hydraulic tool	5.00			3292.00	
Jars	5.00			3297.00	
Safety Joint	3.00			3300.00	
Packer	5.00			3305.00	35.00 Bottom Of Top Packer
Packer	4.00			3309.00	
Stubb	1.00			3310.00	
Perforations	5.00			3315.00	
Change Over Sub	1.00			3316.00	
Recorder	0.00	8844	Inside	3316.00	
Recorder	0.00	8372	Outside	3316.00	
Drill Pipe	31.00			3347.00	
Change Over Sub	1.00			3348.00	
Perforations	6.00			3354.00	
Blank Off Sub	1.00			3355.00	
Blank Spacing	4.00			3359.00	50.00 Tool Interval
Packer	4.00			3363.00	
Stubb	1.00			3364.00	
Perforations	2.00			3366.00	
Change Over Sub	1.00			3367.00	
Recorder	0.00	8647	Below	3367.00	
Drill Pipe	188.00			3555.00	196.00 Bottom Packers & Anchor

Total Tool Length: 281.00



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1515 Wynkoop STE 700
Denver CO 80202

Olson #1-28

Job Ticket: 51480

DST#: 1

ATTN: Chris Mitchell

Test Start: 2013.02.18 @ 02:54:05

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Mud	0.989

Total Length: 90.00 ft Total Volume: 0.989 bbl

Num Fluid Samples: 0

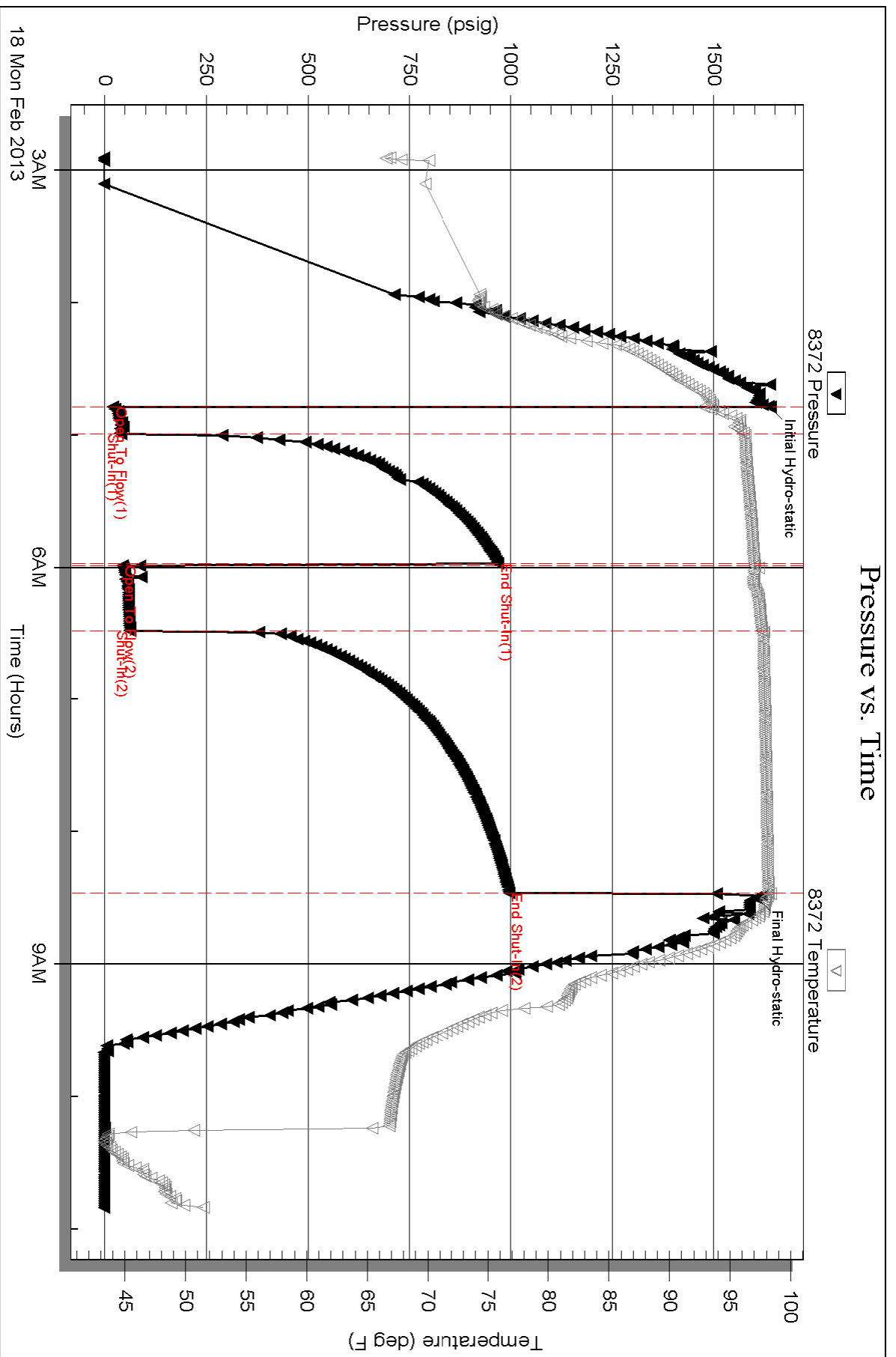
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



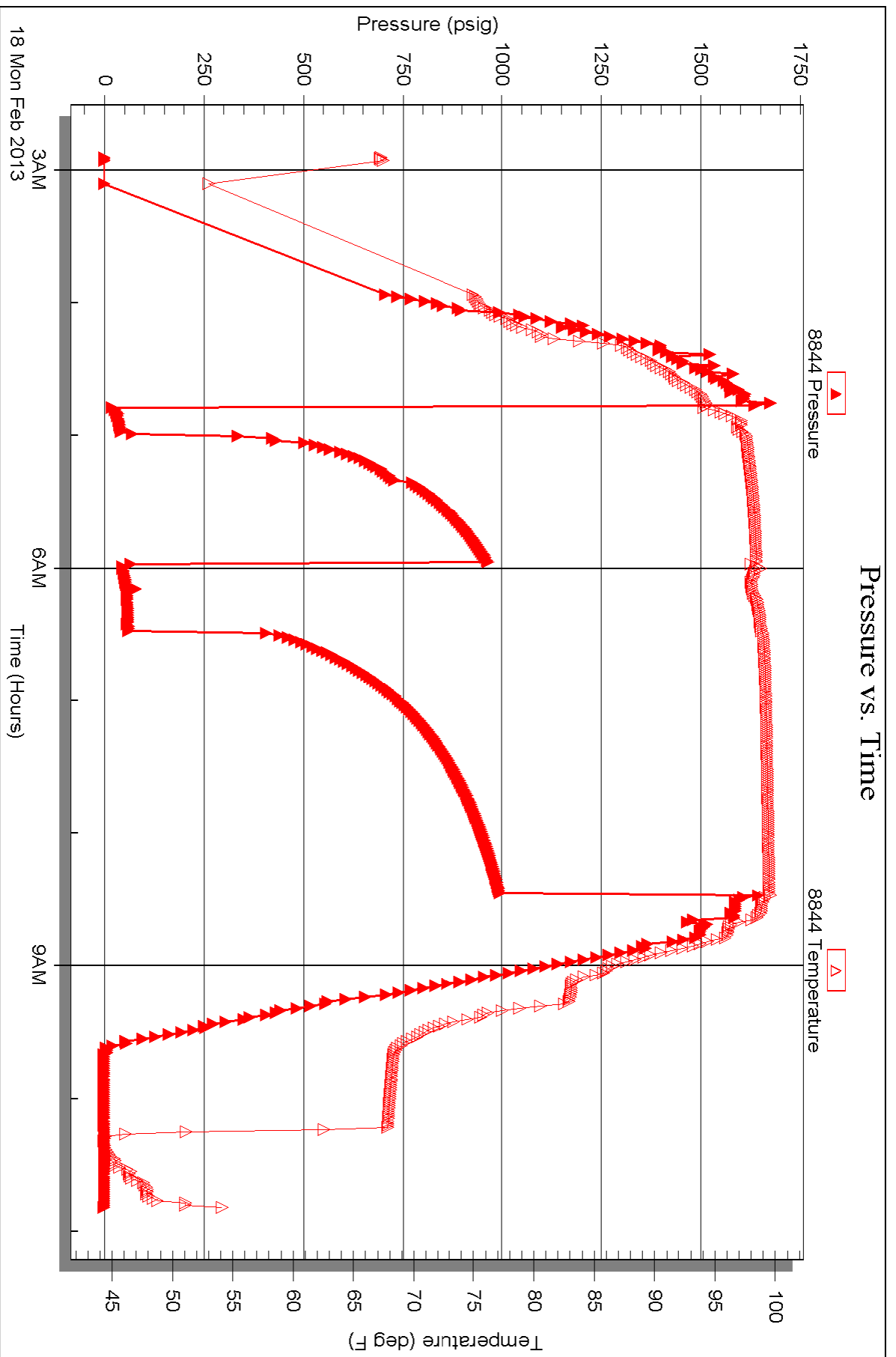
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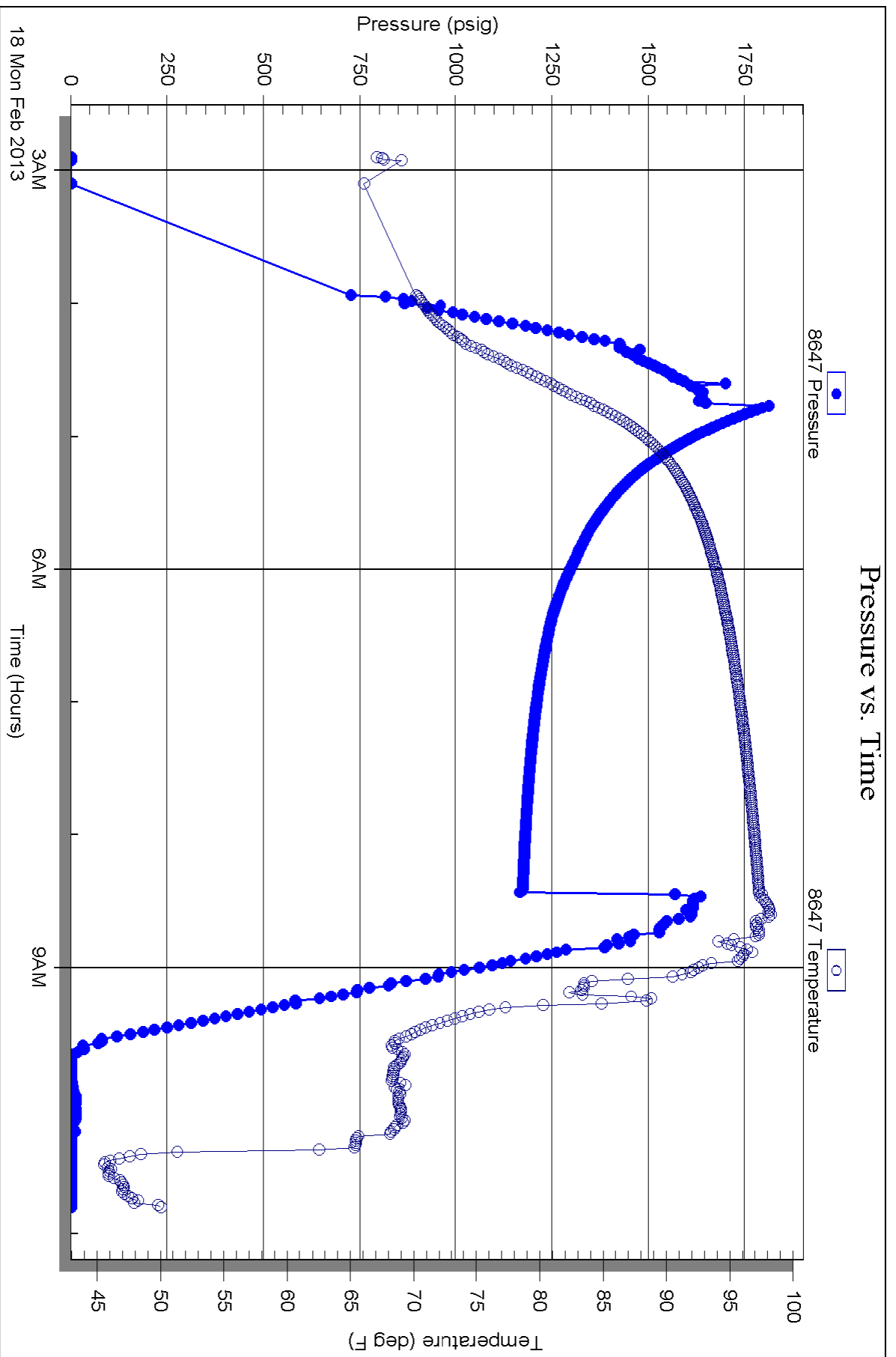
Inside

Sam Gary Jr & Assoc. Inc.

Olson #1-28

DST Test Number: 1





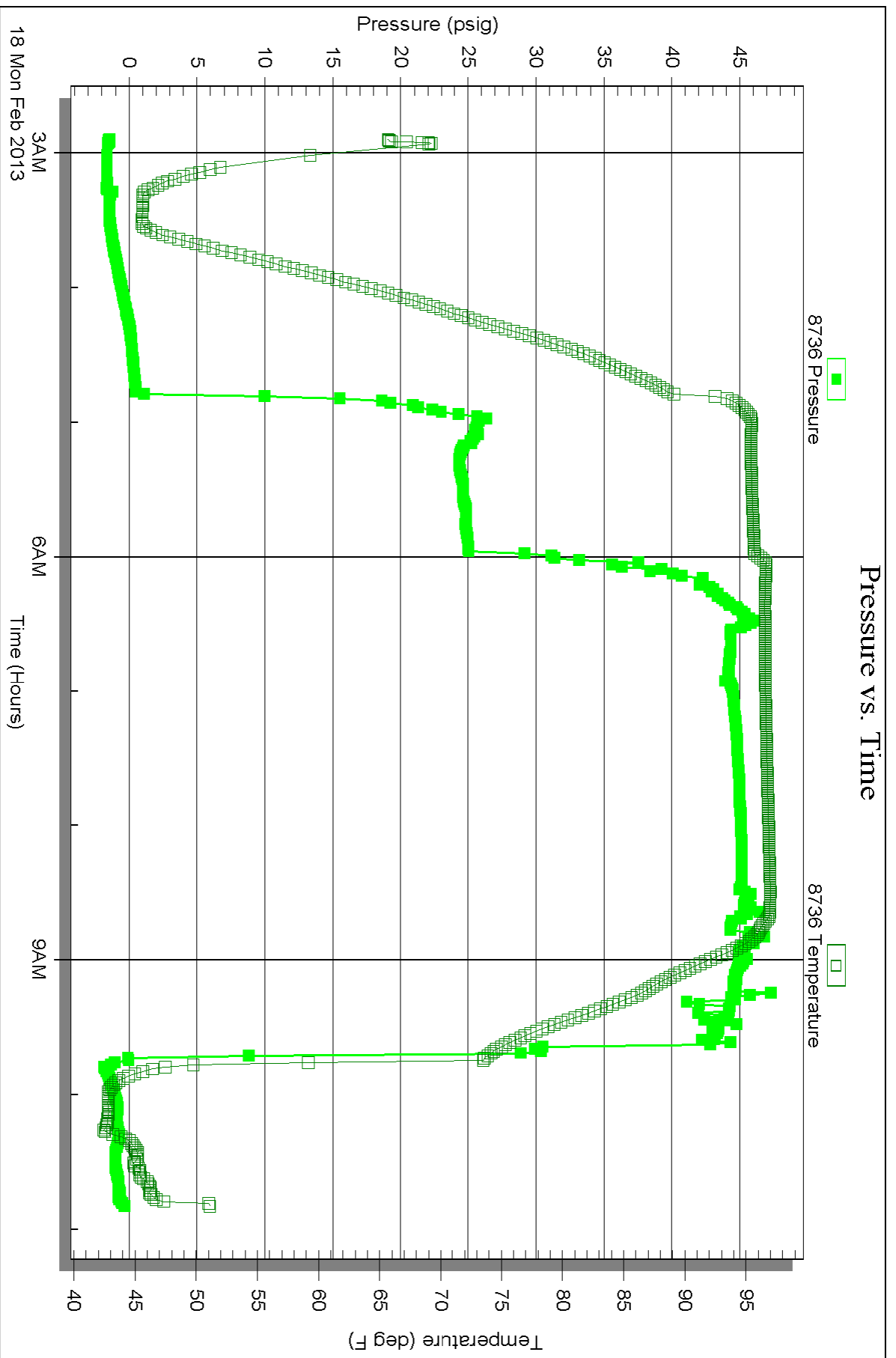
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Fluid

Sam Gary Jr & Assoc. Inc.

Olson #1-28

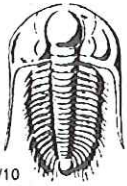
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51480

Printed: 2013.02.27 @ 10:22:41



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51480

4/10

Well Name & No. Olson #1-28 Test No. 1 Date 2-18-13
 Company S. Gary Jr & Assoc. Inc Elevation 1869 KB 1861 GL
 Address 1515 WYNKOOP STE 700 DENVER CO 80209
 Co. Rep / Geo. Chris Mitchell Rig Discovery #2
 Location: Sec. 28 Twp. 15s Rge. 16w Co. Ellis Co. State Ks

Interval Tested 3309 - 3359 Zone Tested LKC "J-K"
 Anchor Length 50 Drill Pipe Run _____ Mud Wt. 8.9
 Top Packer Depth 3309 Drill Collars Run 30 Vis 55
 Bottom Packer Depth 3359 Wt. Pipe Run 0 WL 8.0
 Total Depth 3551 Chlorides 6800 ppm System LCM 0

Blow Description IF: 2" blow in 3min, 3" in 6min 4" in 10min
FST: NO RETURN
FF: 1" blow in 5min, surging blow built to 2"
FST: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90 BHT 98° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 1634
- (B) First Initial Flow 19
- (C) First Final Flow 40
- (D) Initial Shut-In 969
- (E) Second Initial Flow 43
- (F) Second Final Flow 61
- (G) Final Shut-In 996
- (H) Final Hydrostatic 1604

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub _____
- Hourly Standby _____
- Mileage 48AT 74.40
- Sampler 250
- Straddle 600
- Shale Packer _____
- Extra Packer _____
- Extra Recorder 200
- Day Standby _____
- Accessibility _____
- Sub Total 2599.40

- T-On Location 01:50
- T-Started 02:54
- T-Open 04:58
- T-Pulled 08:38
- T-Out 11:00

- Comments _____
- Ruined Shale Packer _____
- Ruined Packer _____
- Extra Copies _____
- Sub Total 0
- Total 2599.40

Initial Open 10
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 120

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. 51480 Date 2-18-13
 Company Name S. Gary Jr & Assoc INC
 Lease Olson # 1-28 Test No. 1
 County Ellis Sec. 28 Twp. 15s Rng. 16w

SAMPLER RECOVERY

Gas 0 ML
 Oil 0 ML
 Mud 3000 ML
 Water 0 ML
 Other 0 ML
 Pressure 100 lbs ML
 Total 3000 ML

PIT MUD ANALYSIS

Chlorides 6800 ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity 55
 Mud Weight 8.9
 Filtrate 8.0
 Other LCM 2#s

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 Gravity _____ corrected @60F

PIPE RECOVERY

TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.

MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.

BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.