



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Assoc Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Clayton Camozzi

Windholz #1-17

17 12s 16w Ellis,KS

Start Date: 2012.08.14 @ 10:20:00

End Date: 2012.08.14 @ 16:43:00

Job Ticket #: 47640 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.17 @ 09:14:56



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr & Assoc Inc

17 12s 16w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Windholz #1-17

Job Ticket: 47640

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.08.14 @ 10:20:00

GENERAL INFORMATION:

Formation: **LKC " A-C "**

Deviated: No Whipstock: 1961.00 ft (KB)

Time Tool Opened: 12:03:30

Time Test Ended: 16:43:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 58

Interval: 3160.00 ft (KB) To 3238.00 ft (KB) (TVD)

Reference Elevations: 1961.00 ft (KB)

Total Depth: 3238.00 ft (KB) (TVD)

1953.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8672 Outside

Press @ Run Depth: 36.28 psig @ 3161.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.14

End Date:

2012.08.14

Last Calib.:

2012.08.14

Start Time: 10:20:05

End Time:

16:42:29

Time On Btm:

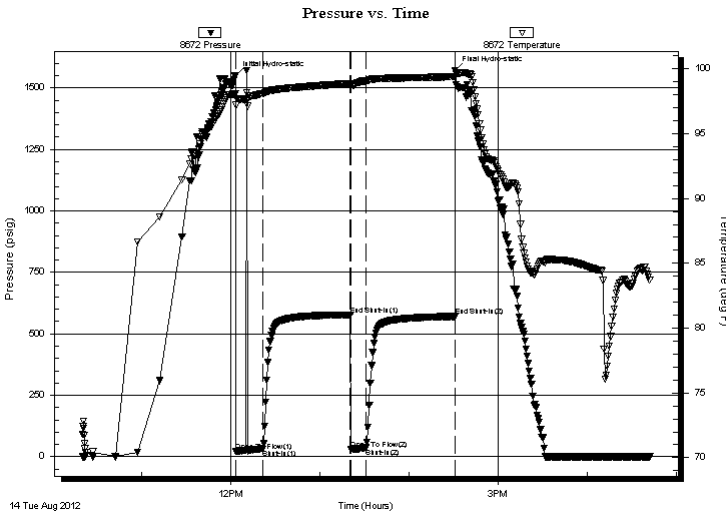
2012.08.14 @ 12:03:15

Time Off Btm:

2012.08.14 @ 14:31:15

TEST COMMENT: 10-IFP- No Blow
60-ISIP- No Blow
10-FFP- No Blow
60-FSIP- No Blow

PRESSURE SUMMARY



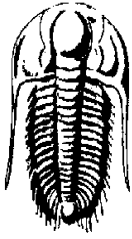
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1551.52	98.09	Initial Hydro-static
1	21.97	97.21	Open To Flow (1)
19	31.06	98.09	Shut-In(1)
78	577.84	98.87	End Shut-In(1)
78	31.25	98.68	Open To Flow (2)
88	36.28	99.06	Shut-In(2)
148	571.08	99.39	End Shut-In(2)
148	1571.80	99.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	MUD 100%	0.28

Gas Rates

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



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Tester: Jim Svaty

Unit No: 58

Interval: **3160.00 ft (KB) To 3238.00 ft (KB) (TVD)**

Total Depth: 3238.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1961.00 ft (KB)

1953.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8674

Fluid

Press @ RunDepth: psig @ 3126.00 ft (KB)

Start Date: 2012.08.14

Start Time: 10:20:05

End Date: 2012.08.14

End Time: 16:41:20

Capacity: 8000.00 psig

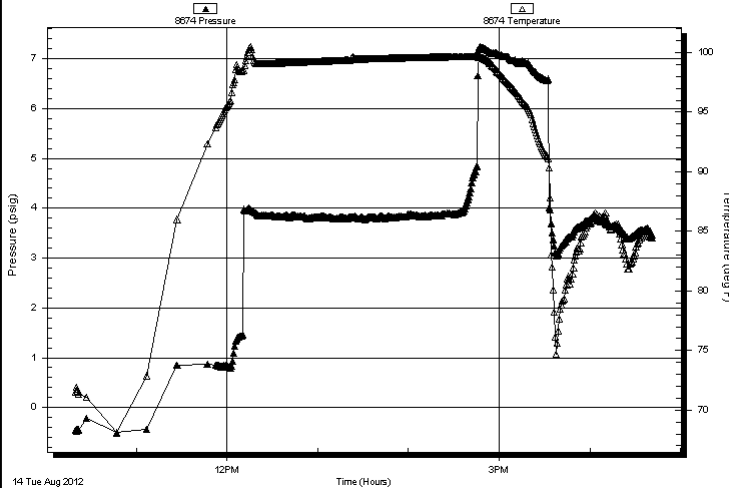
Last Calib.: 2012.08.14

Time On Btm:

Time Off Btm:

TEST COMMENT: 10-IFP- No Blow
60-ISIP- No Blow
10-FFP- No Blow
60-FSIP- No Blow

Pressure vs. Time



PRESSURE SUMMARY

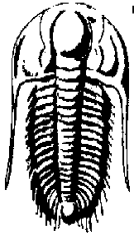
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
20.00	MUD 100%	0.28

Gas Rates

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



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17 12s 16w Ellis,KS

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Windholz #1-17

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Job Ticket: 47640

DST#: 1

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Time Test Ended: 16:43:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 58

Interval: **3160.00 ft (KB) To 3238.00 ft (KB) (TVD)**

Total Depth: 3238.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1961.00 ft (KB)

1953.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **8355** Inside

Press @ Run Depth: psig @ 3161.00 ft (KB)

Start Date: 2012.08.14

End Date: 2012.08.14

Capacity: 8000.00 psig

Last Calib.: 2012.08.14

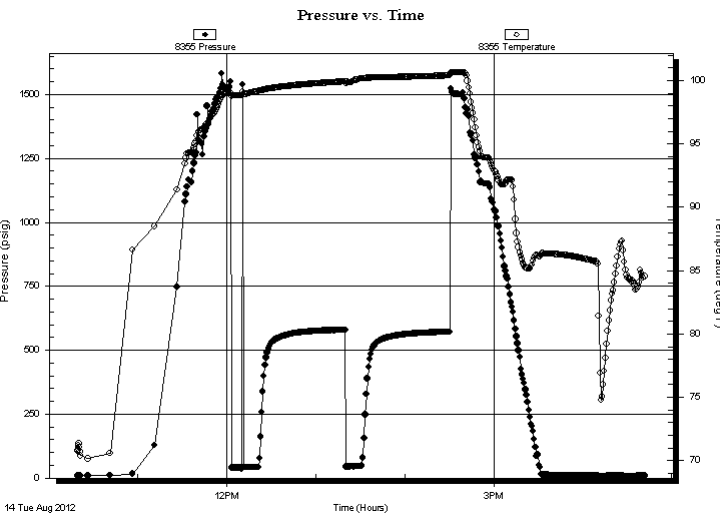
Start Time: 10:19:35

End Time: 16:42:14

Time On Btm:

Time Off Btm:

TEST COMMENT: 10-IFP- No Blow
60-ISIP- No Blow
10-FFP- No Blow
60-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	MUD 100%	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Assoc Inc

17 12s 16w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Windholz #1-17

Job Ticket: 47640

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.08.14 @ 10:20:00

Tool Information

Drill Pipe:	Length: 3155.00 ft	Diameter: 3.80 inches	Volume: 44.26 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 44.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3160.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	113.00 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			3126.00	
Recorder	0.00	8674	Fluid	3126.00	
Stubb	5.00			3131.00	
Shut In Tool	5.00			3136.00	
Sampler	2.00			3138.00	
Hydraulic tool	5.00			3143.00	
Jars	5.00			3148.00	
Safety Joint	3.00		Fluid	3151.00	
Packer	5.00			3156.00	35.00 Bottom Of Top Packer
Packer	4.00			3160.00	
Stubb	1.00			3161.00	
Recorder	0.00	8355	Inside	3161.00	
Recorder	0.00	8672	Outside	3161.00	
Perforations	9.00			3170.00	
Change Over Sub	1.00			3171.00	
Drill Pipe	63.00			3234.00	
Change Over Sub	1.00			3235.00	
Bullnose	3.00			3238.00	78.00 Bottom Packers & Anchor

Total Tool Length: 113.00



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FLUID SUMMARY

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Windholz #1-17

Job Ticket: 47640

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.08.14 @ 10:20:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MUD 100%	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

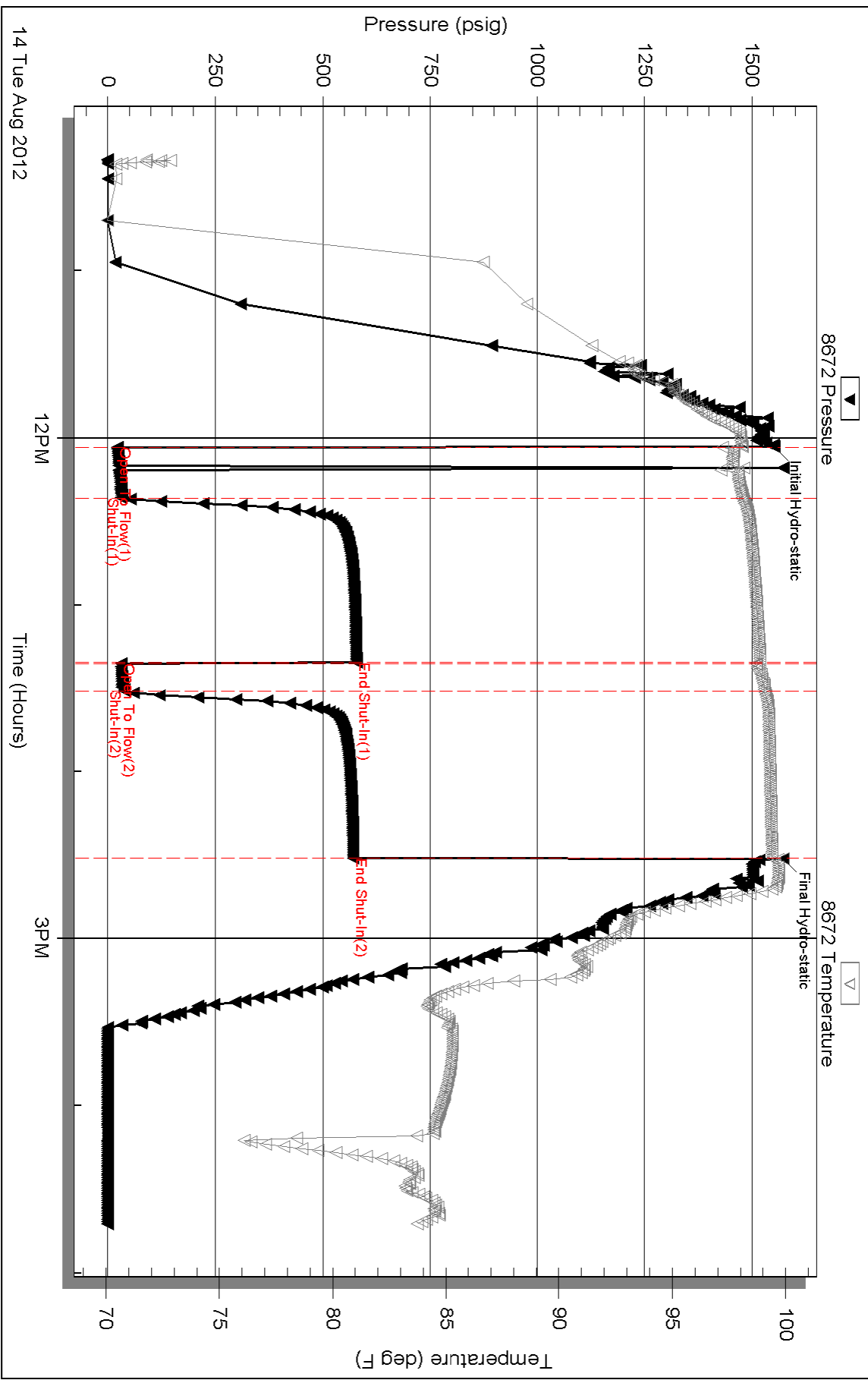
Serial #: 8672

Outside Samuel Gary Jr & Assoc Inc

Windhoz #1-17

DST Test Number: 1

Pressure vs. Time



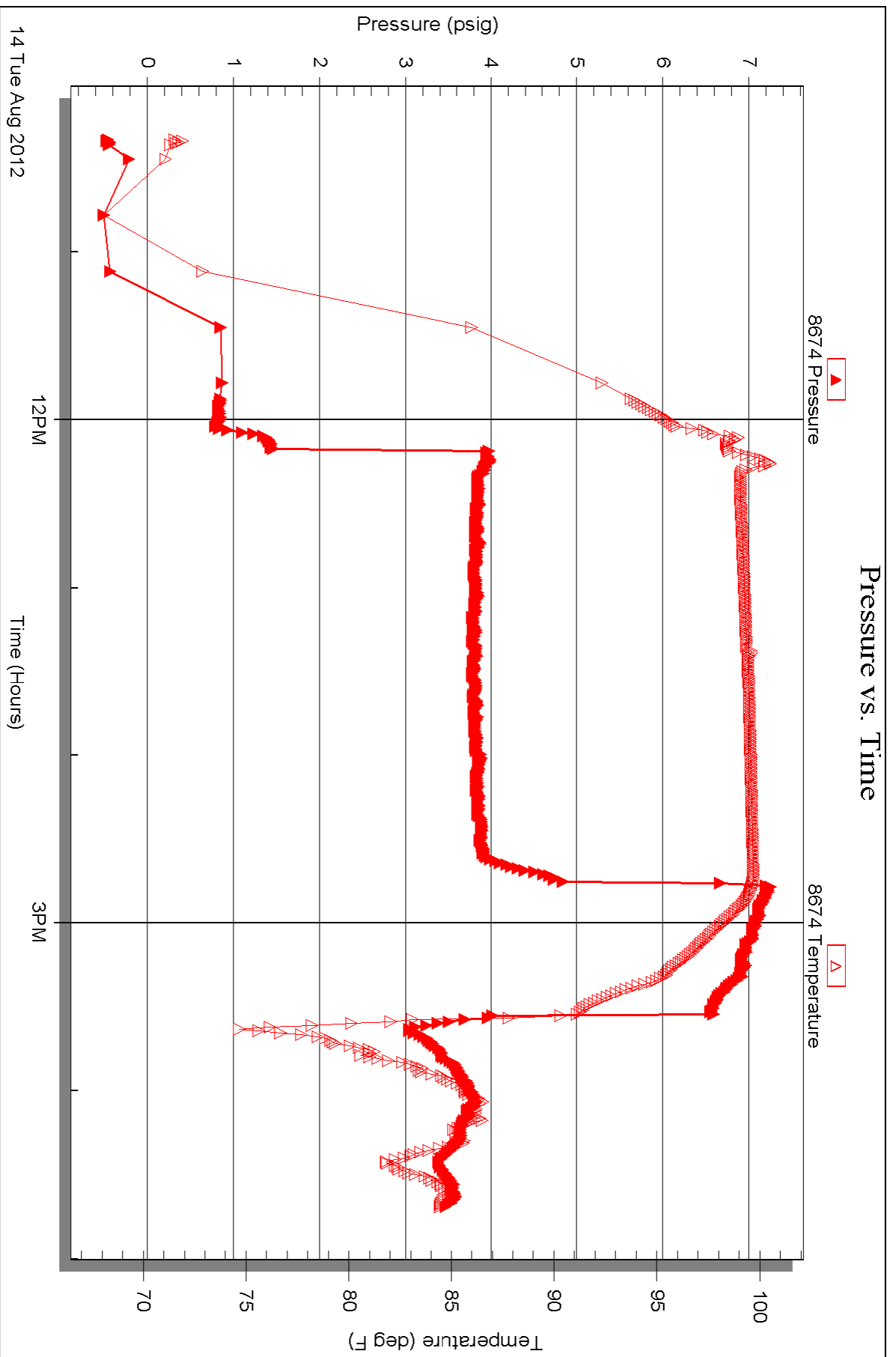
Serial #: 8674

Fluid

Samuel Gary Jr & Assoc Inc

Windholz #1-17

DST Test Number: 1



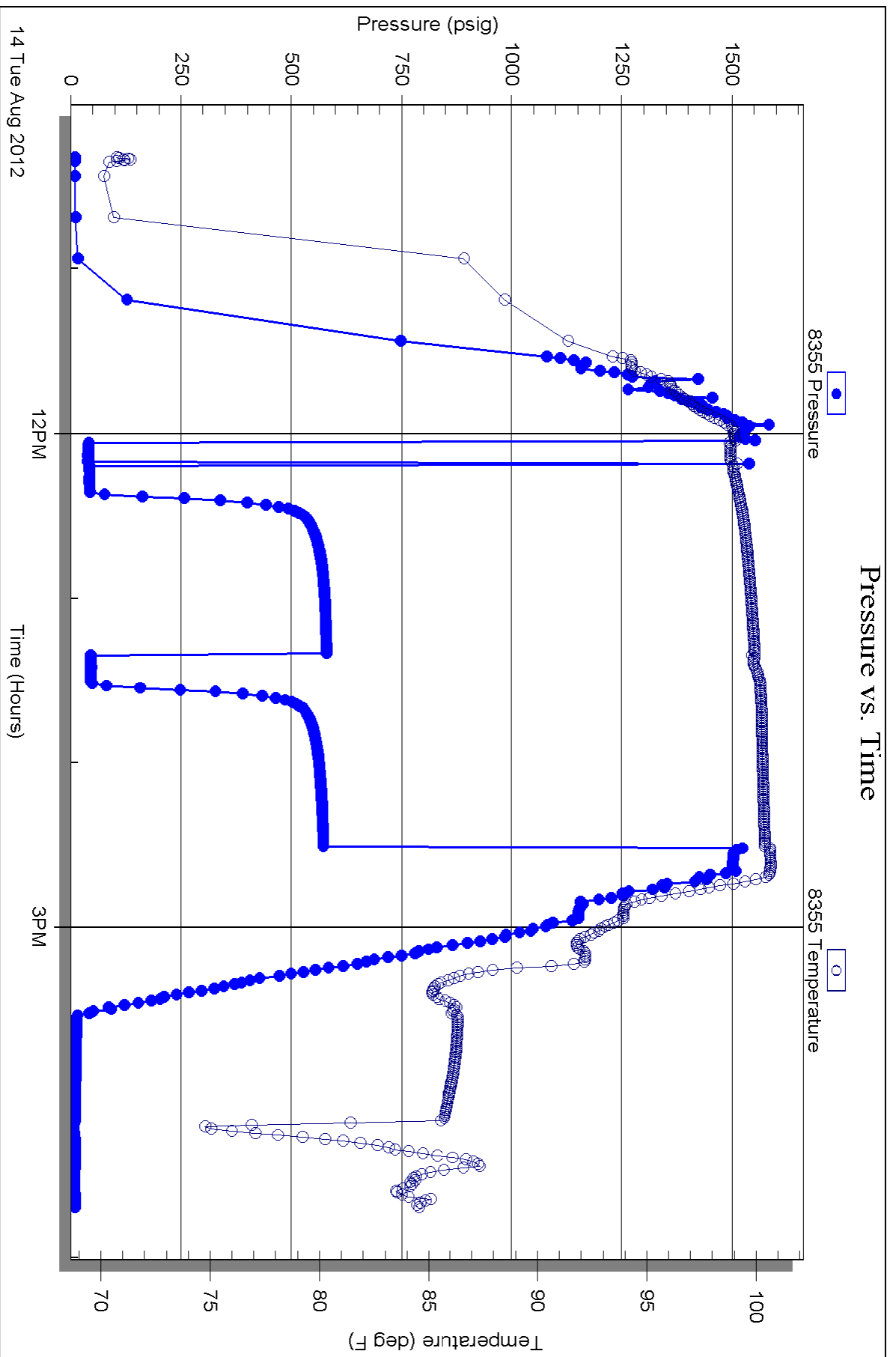
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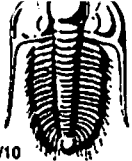
Inside

Samuel Gary Jr & Assoc Inc

Windholz #1-17

DST Test Number: 1





TRIBOLITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47640

Well Name & No. Windholz 1-17 Test No. 1 Date 8-14-12
 Company Samuel Wary Jr. & Assoc. INC. Elevation 1961 KB 1953 GL
 Address 1515 WYNROOP Ste 700 DENVER CO 80202
 Co. Rep / Geo. Clayton Camozzi Rig Discovery #2
 Location: Sec. 17 Twp. 125 Rge. 16W Co. Ellis State KS

Interval Tested 3160-3238 Zone Tested LKC "A-C"
 Anchor Length 78 Drill Pipe Run 3155 Mud Wt. 8.7
 Top Packer Depth 3155 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 3160 Wt. Pipe Run 0 WL 8.0
 Total Depth 3238 Chlorides 4000 ppm System LCM NA

Blow Description IFP- No Blow Load Surge + Flushed.
ISIP- No Blow
FFP- No Blow
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 1551
- (B) First Initial Flow 21
- (C) First Final Flow 31
- (D) Initial Shut-In 577
- (E) Second Initial Flow 31
- (F) Second Final Flow 36
- (G) Final Shut-In 571
- (H) Final Hydrostatic 1571

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub _____
- Hourly Standby _____
- Mileage 57 RT 176.70
- Sampler 250
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder 200
- Day Standby 1d 7hrs
- Accessibility _____
- Sub Total 2101.70

- T-On Location 08137
- T-Started 10:20
- T-Open 12:12
- T-Pulled 14:32
- T-Out 16:43

Comments called AT
23:55 8-15-12 to
pickup Tool.

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

- Ruined Shale Packer _____
- Ruined Packer _____
- Extra Copies _____
- Sub Total 800
- Total 2901.70
- MP/DST Disc't _____

Approved By _____

Our Representative [Signature]

Tribolite 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. 47640 Date 8-14-12
 Company Name Samuel Gary Jr. & Assoc. Inc.
 Lease Windholz 1-17 Test No. ①
 County Ellis Sec. 17 Twp. 12^s Rng. 16^w

SAMPLER RECOVERY

Gas _____ ML
 Oil _____ ML
 Mud _____ ML
 Water _____ ML
 Other _____ ML
 Pressure 120 PSI
 Total 0 ML

No Fluid

PIT MUD ANALYSIS

Chlorides 4000 ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity 51
 Mud Weight 8.7
 Filtrate NA
 Other _____

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.