



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Sam Gary Jr&Associates Inc
1515 Wynkoop
Ste 700
Denver Co 80202
ATTN: Spencer Musgrove,Jim

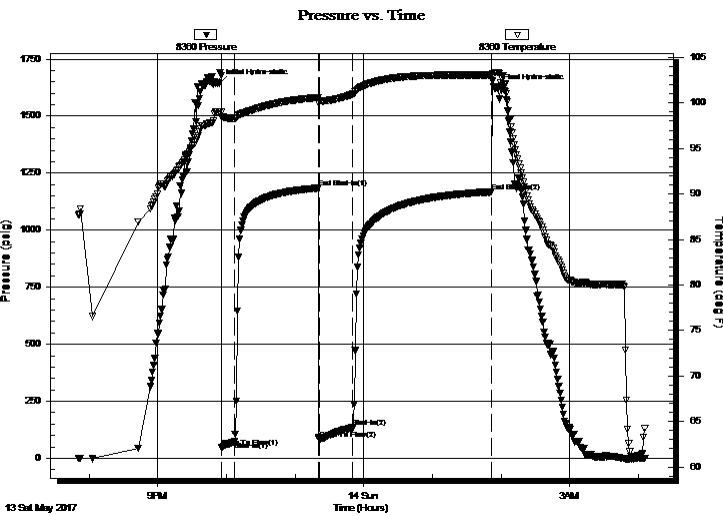
15-5s-23w Norton
Hilderbrand #1-15
Job Ticket: 63951 **DST#: 2**
Test Start: 2017.05.13 @ 19:50:44

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:55:39
Time Test Ended: 04:06:08
Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schwager
Unit No: 77
Interval: **3432.00 ft (KB) To 3473.00 ft (KB) (TVD)**
Reference Elevations: 2212.00 ft (KB)
Total Depth: 3473.00 ft (KB) (TVD) 2204.00 ft (CF)
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8360 **Inside**
Press@RunDepth: 134.84 psig @ 3437.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.05.13 End Date: 2017.05.14 Last Calib.: 2017.05.14
Start Time: 19:50:44 End Time: 04:06:08 Time On Btm: 2017.05.13 @ 21:53:54
Time Off Btm: 2017.05.14 @ 01:55:38

TEST COMMENT: 10-IFP-w k to a fr bl 1/2" to 5"bl
75-ISIP-no bl 1st 15min, then surface bl bk
30-FFP-w k to BOB in 30 min
120-FSIP-1/2 " bl bk



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.94	99.01	Initial Hydro-static
2	46.43	98.50	Open To Flow (1)
13	73.33	98.32	Shut-In(1)
87	1184.91	100.59	End Shut-In(1)
87	82.27	100.29	Open To Flow (2)
117	134.84	100.97	Shut-In(2)
238	1167.34	103.06	End Shut-In(2)
242	1621.98	103.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	GMO 10%G25%M65%O	0.92
155.00	CO	1.10
0.00	210' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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Job Ticket: 63951

DST#: 2

ATTN: Spencer Musgrove,Jim

Test Start: 2017.05.13 @ 19:50:44

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	GMO 10%G25%M65%O	0.921
155.00	CO	1.098
0.00	210' GIP	0.000

Total Length: 285.00 ft Total Volume: 2.019 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data: PSI 550# 500MLgas
1500MLOil

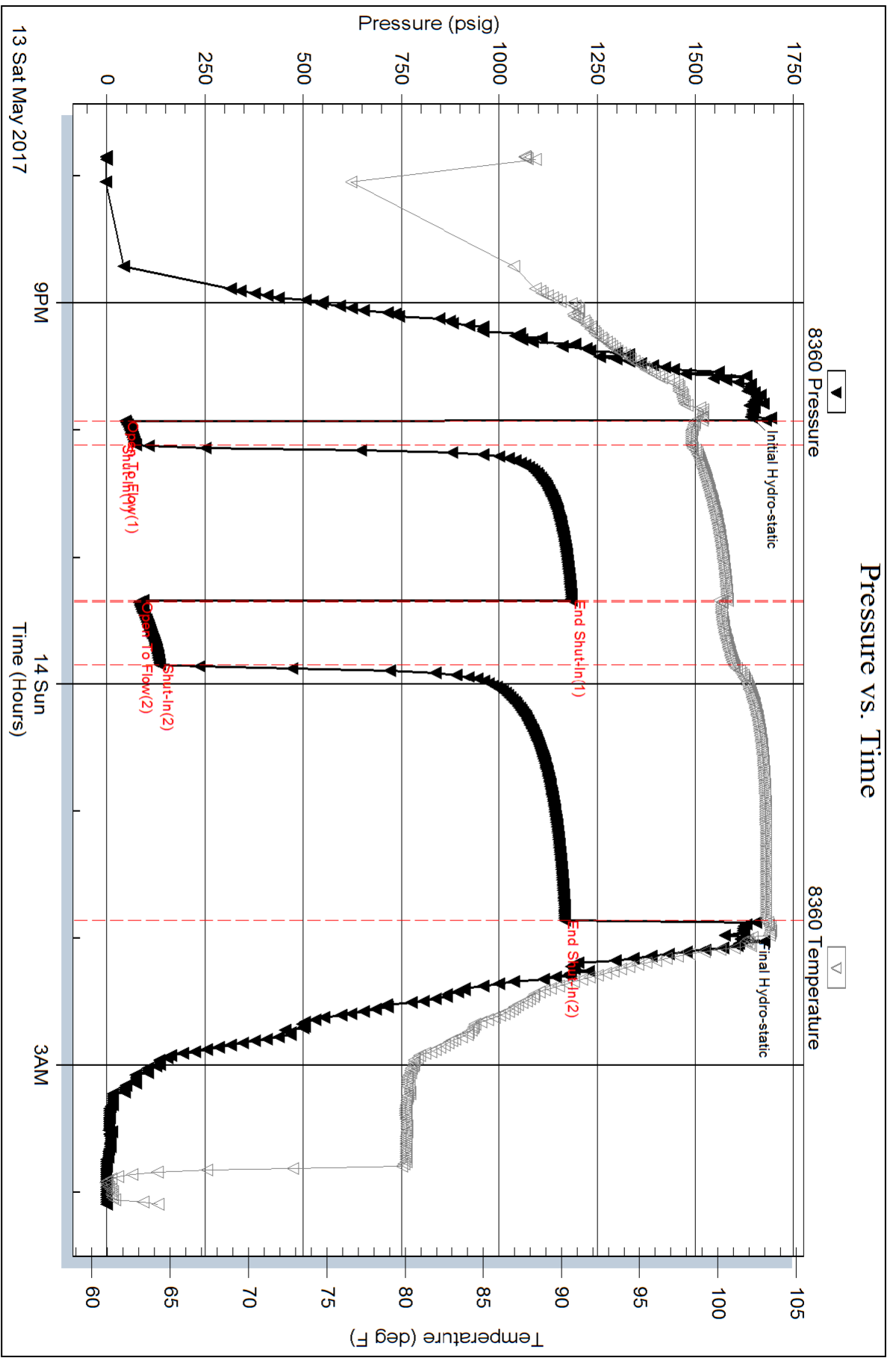
Serial #: 8360

Inside

Sam Gary Jr&Associates Inc

Hilderbrand #1-15

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 63951

Printed: 2017.05.14 @ 12:18:43

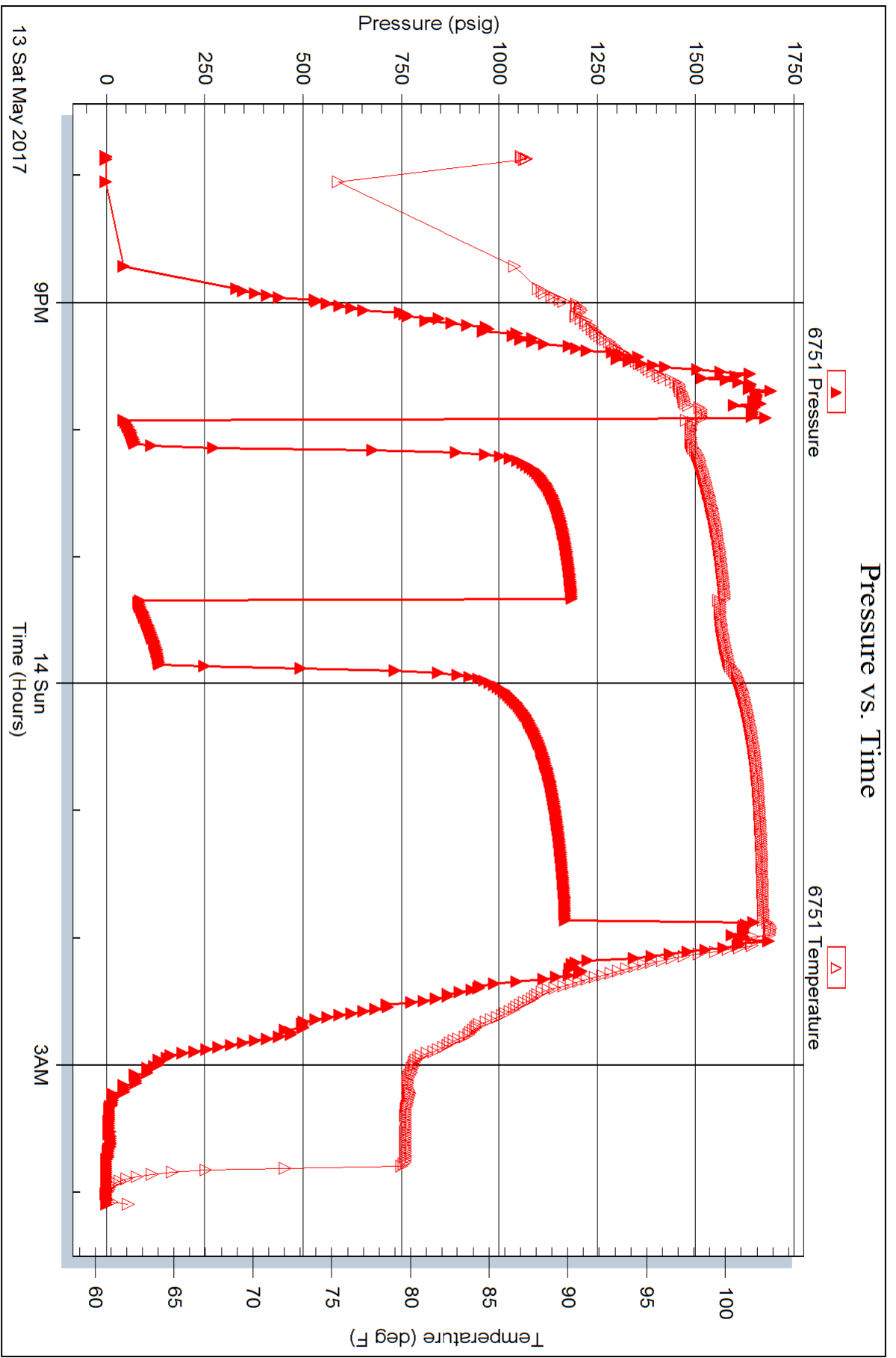
Serial #: 6751

Outside

Sam Gary Jr&Associates Inc

Hilderbrand #1-15

DST Test Number: 2



Serial #: 8373

Fluid

Sam Gary Jr&Associates Inc

Hilderbrand #1-15

DST Test Number: 2

