



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

15/2s/36w Rawlins KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Frisbie #1-15

Job Ticket: 62152

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2015.02.08 @ 07:03:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:13:00

Time Test Ended: 15:39:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4135.00 ft (KB) To 4196.00 ft (KB) (TVD)

Reference Elevations: 3330.00 ft (KB)

Total Depth: 4196.00 ft (KB) (TVD)

3325.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 79.24 psig @ 4136.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.08

End Date:

2015.02.08

Last Calib.:

2015.02.08

Start Time:

07:03:05

End Time:

15:39:30

Time On Btm:

2015.02.08 @ 09:12:45

Time Off Btm:

2015.02.08 @ 13:16:00

TEST COMMENT:

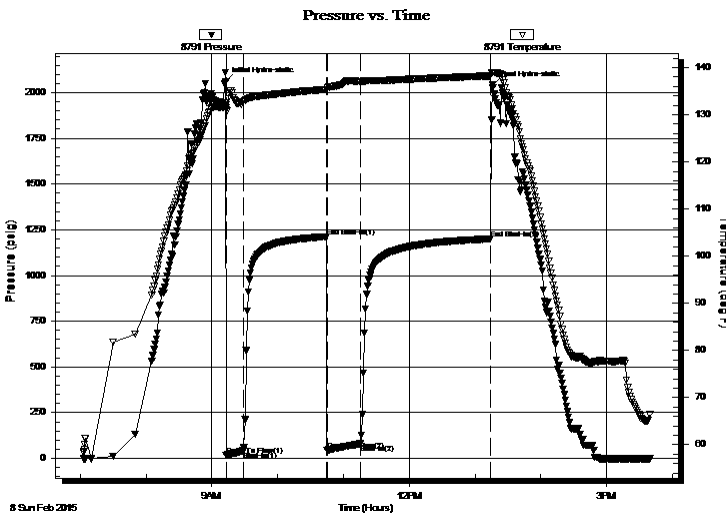
15 - IF: 1/4" Blow at open, built to 2 1/2"

75 - IS: No blow back

30 - FF: Blow started at 7 min., built to just under 3"

120 - FSI: Weak surface blow back, lasted a few minutes then dead

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.37	132.15	Initial Hydro-static
1	15.80	131.05	Open To Flow (1)
16	40.92	132.75	Shut-In(1)
92	1212.36	135.37	End Shut-In(1)
93	44.82	135.37	Open To Flow (2)
123	79.24	136.98	Shut-In(2)
242	1200.64	138.24	End Shut-In(2)
244	2040.73	138.98	Final Hydro-static

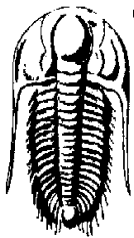
Recovery

Length (ft)	Description	Volume (bbl)
67.00	SOCM 90% m, 6% o, 4% g	0.33
31.00	OCM 76% m, 22% o, 2% g	0.15
60.00	SMCO 93% o, 4% m, 3% g	0.30

Gas Rates

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

* Recovery from multiple tests



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Total Depth: 4196.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3330.00 ft (KB)

3325.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8366 Outside

Press @ Run Depth: psig @ 4136.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.08

End Date:

2015.02.08

Last Calib.:

2015.02.08

Start Time: 07:03:05

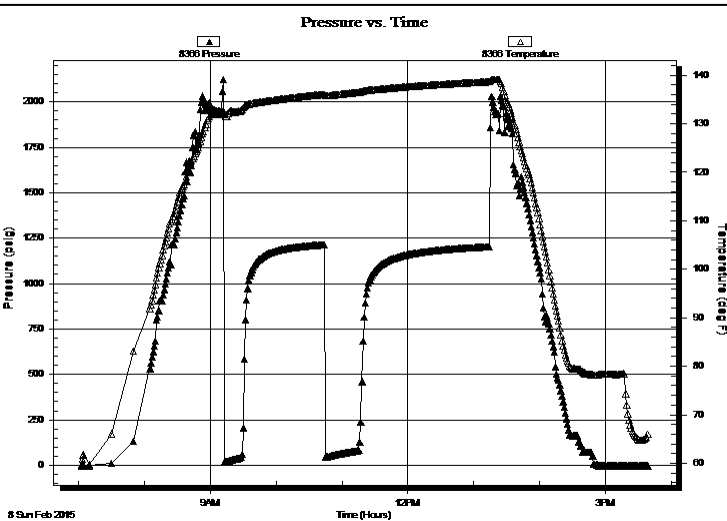
End Time:

15:38:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 15 - IF: 1/4" Blow at open, built to 2 1/2"
75 - IS: No blow back
30 - FF: Blow started at 7 min., built to just under 3"
120 - FS: Weak surface blow back, lasted a few minutes then dead



PRESSURE SUMMARY

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

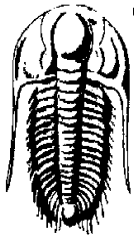
Recovery

Length (ft)	Description	Volume (bbl)
67.00	SOCM 90% m, 6% o, 4% g	0.33
31.00	OCM 76% m, 22% o, 2% g	0.15
60.00	SMCO 93% o, 4% m, 3% g	0.30

Gas Rates

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

* Recovery from multiple tests



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Frisbie #1-15

Job Ticket: 62152

DST#: 2

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Time Tool Opened: 09:13:00

Time Test Ended: 15:39:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4135.00 ft (KB) To 4196.00 ft (KB) (TVD)

Total Depth: 4196.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3330.00 ft (KB)

3325.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8320 Fluid

Press @ Run Depth: psig @ 4102.00 ft (KB)

Start Date: 2015.02.08

End Date:

2015.02.08

Start Time: 07:03:05

End Time:

15:37:45

Capacity: 8000.00 psig

Last Calib.:

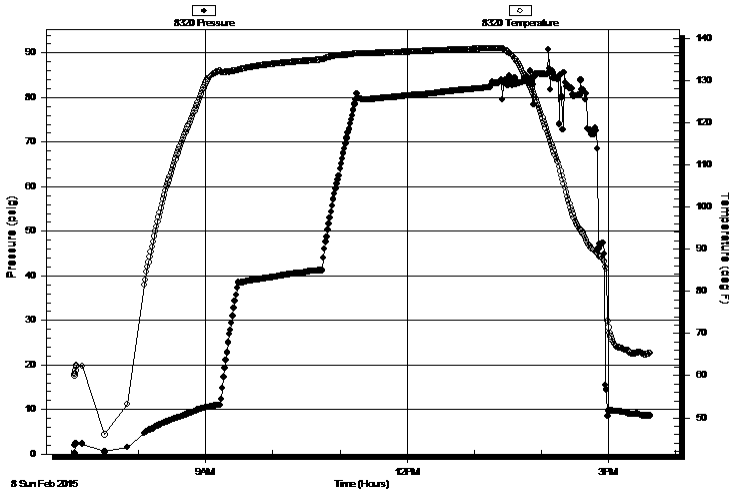
2015.02.08

Time On Btm:

Time Off Btm:

TEST COMMENT: 15 - IF: 1/4" Blow at open, built to 2 1/2"
75 - IS: No blow back
30 - FF: Blow started at 7 min., built to just under 3"
120 - FS: Weak surface blow back, lasted a few minutes then dead

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
67.00	SOCM 90%m, 6%o, 4%g	0.33
31.00	OCM 76%m, 22%o, 2%g	0.15
60.00	SMCO 93%o, 4%m, 3%g	0.30

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

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Denver, CO 80202

Frisbie #1-15

Job Ticket: 62152

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2015.02.08 @ 07:03:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 51.00 sec/qt
Water Loss: 6.19 in³
Resistivity: ohm.m
Salinity: 1500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 22 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
67.00	SOCM 90% <i>m</i> , 6% <i>o</i> , 4% <i>g</i>	0.329
31.00	OCM 76% <i>m</i> , 22% <i>o</i> , 2% <i>g</i>	0.152
60.00	SMCO 93% <i>o</i> , 4% <i>m</i> , 3% <i>g</i>	0.295

Total Length: 158.00 ft Total Volume: 0.776 bbl

Num Fluid Samples: 0

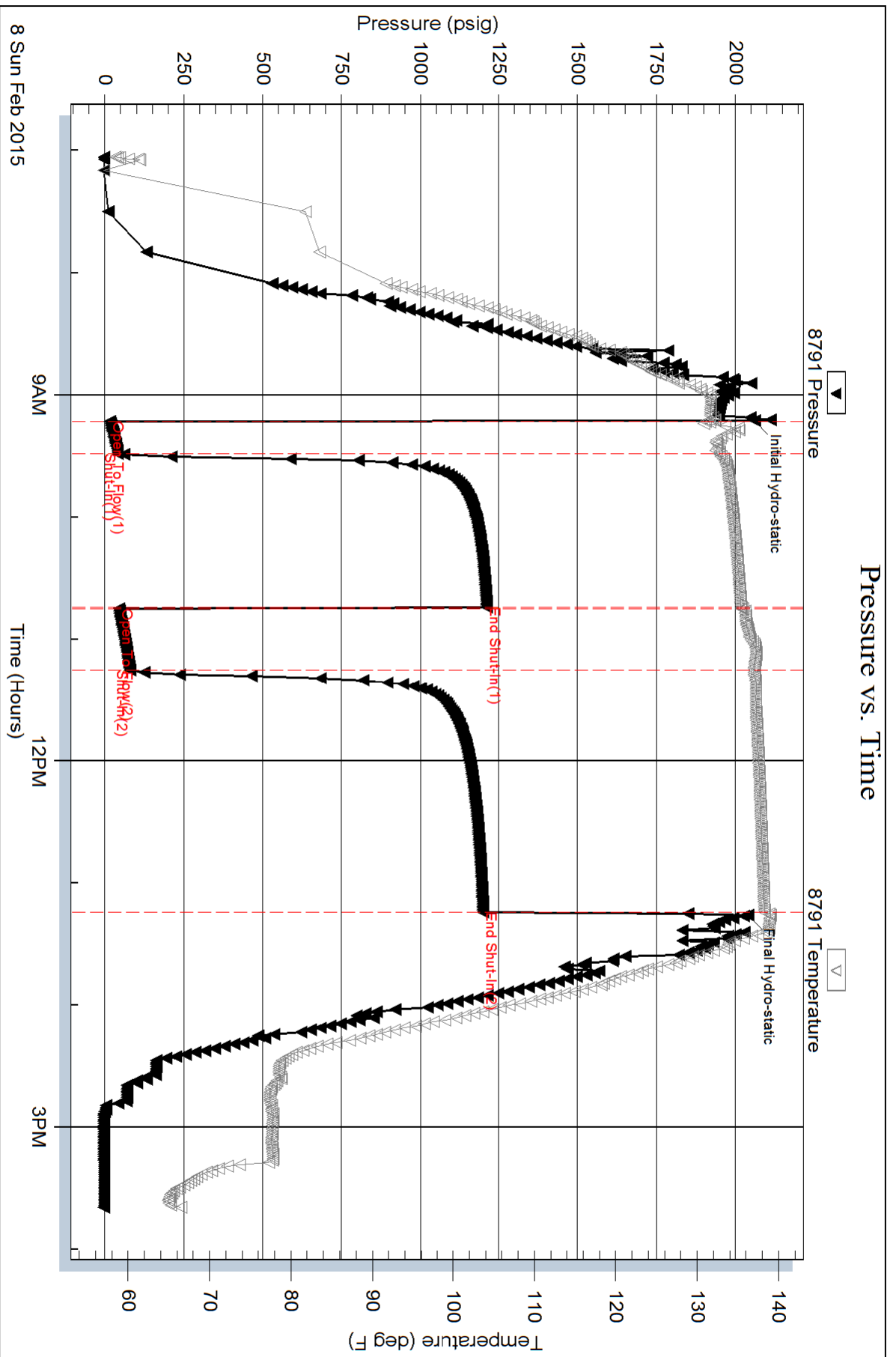
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 23.2 api @ 72 deg F
Corrected Gravity = 22 api

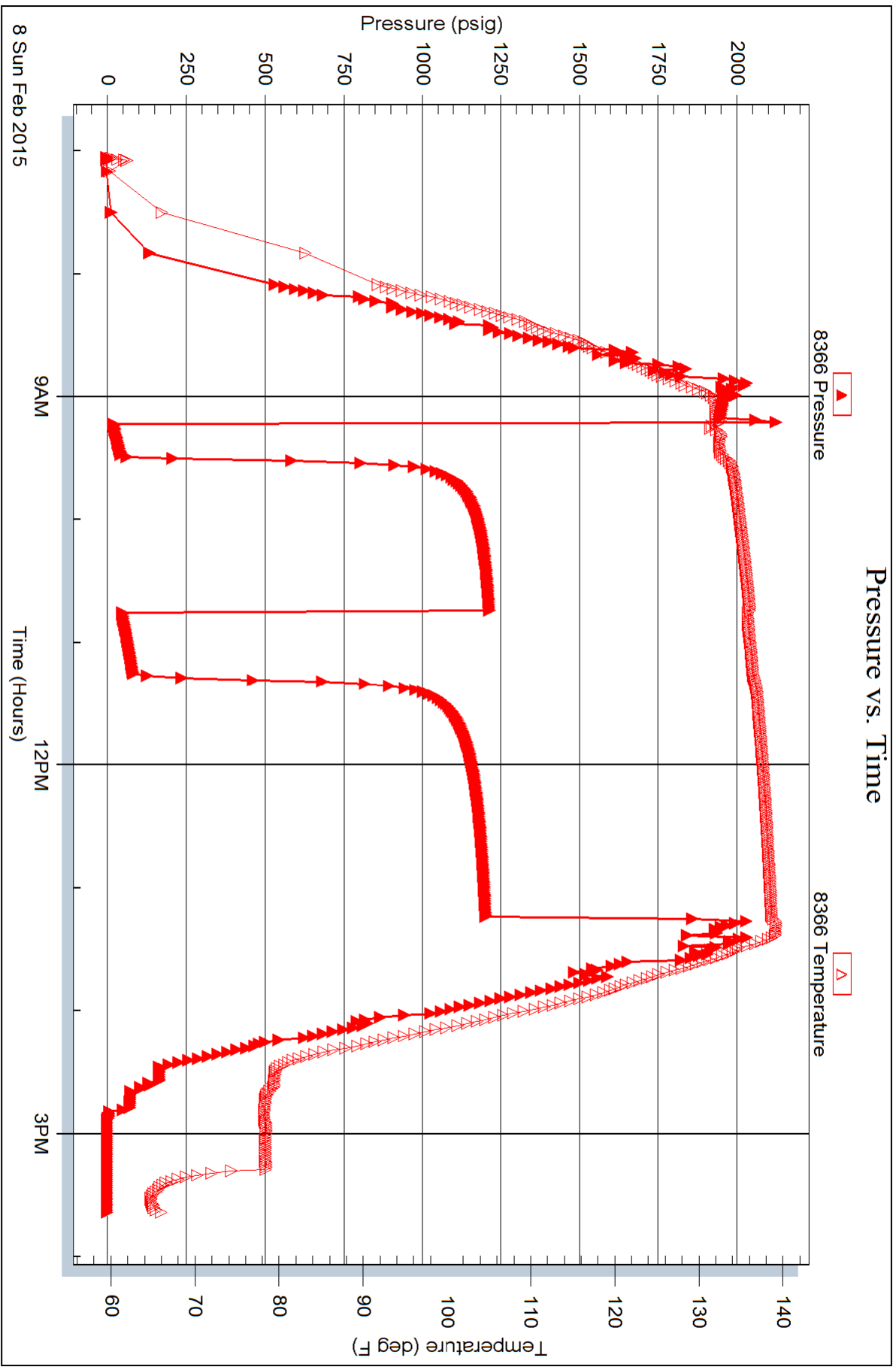


Serial #: 8366

Outside Samuel Gary Jr. & Associates

Frisbie #1-15

DST Test Number: 2



Serial #: 8320

Fluid

Samuel Gary Jr. & Associates

Frisbie #1-15

DST Test Number: 2

