



DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr. & assoc.**

1515 Wynkoop ste 700
Denver Co. 80202

ATTN: Neil Sharpe

1-15s-17w Ellis co

Schumacher-Dreiling 1-1

Start Date: 2010.09.25 @ 08:00:05

End Date: 2010.09.25 @ 17:53:00

Job Ticket #: 040397 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary Jr. & assoc.
 1515 Wynkoop ste 700
 Denver Co. 80202
 ATTN: Neil Sharpe

Schumacher-Dreiling 1-1
1-15s-17w Ellis co
 Job Ticket: 040397 **DST#: 2**
 Test Start: 2010.09.25 @ 08:00:05

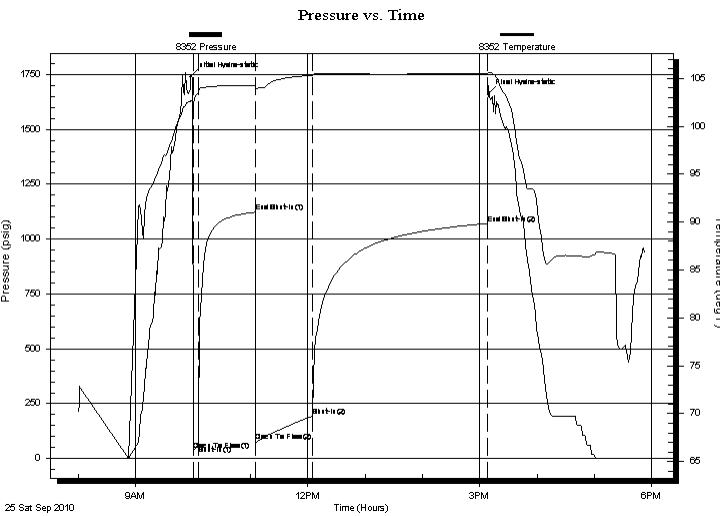
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole
 Time Tool Opened: 09:59:50 Tester: Andy Carreira
 Time Test Ended: 17:53:00 Unit No: 31
 Interval: **3447.00 ft (KB) To 3509.00 ft (KB) (TVD)** Reference Elevations: 1942.00 ft (KB)
 Total Depth: 3509.00 ft (KB) (TVD) 1932.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8352 Outside

Press @ Run Depth: 194.65 psig @ 3452.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2010.09.25 End Date: 2010.09.25 Last Calib.: 2010.09.25
 Start Time: 08:00:05 End Time: 17:53:00 Time On Btm: 2010.09.25 @ 09:57:30
 Time Off Btm: 2010.09.25 @ 15:09:09

TEST COMMENT: IF: 8 inch blow
 IS: No Return
 FF: BOB, 11 min.
 FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.41	102.65	Initial Hydro-static
3	39.67	102.39	Open To Flow (1)
9	60.58	103.53	Shut-In(1)
68	1122.62	104.26	End Shut-In(1)
68	78.91	103.93	Open To Flow (2)
128	194.65	105.34	Shut-In(2)
311	1070.70	105.47	End Shut-In(2)
312	1662.25	105.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	W w =100%	1.74
62.00	OCM o=30% m=80%	0.87
124.00	OCM o=30% m=70%	1.74
92.00	O o=100%	1.29

Gas Rates

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



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Schumacher-Dreiling 1-1

1515 Wynkoop ste 700
Denver Co. 80202

1-15s-17w Ellis co

Job Ticket: 040397 **DST#: 2**

ATTN: Neil Sharpe

Test Start: 2010.09.25 @ 08:00:05

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:59:50

Time Test Ended: 17:53:00

Test Type: Conventional Bottom Hole

Tester: Andy Carreira

Unit No: 31

Interval: 3447.00 ft (KB) To 3509.00 ft (KB) (TVD)

Reference Elevations: 1942.00 ft (KB)

Total Depth: 3509.00 ft (KB) (TVD)

1932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8017 Inside

Press @ Run Depth: psig @ 3452.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.25

End Date: 2010.09.25

Last Calib.: 2010.09.25

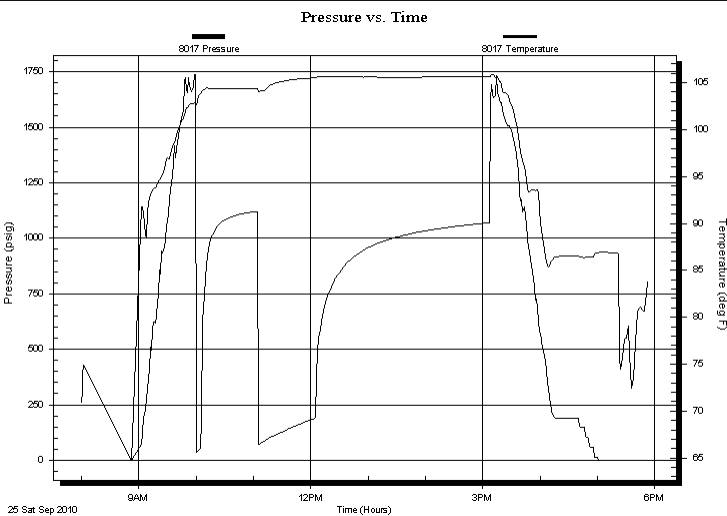
Start Time: 08:00:05

End Time: 17:53:00

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 8 inch blow
IS: No Return
FF: BOB, 11 min.
FS: No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	W w=100%	1.74
62.00	OCM o=30% m=80%	0.87
124.00	OCM o=30% m=70%	1.74
92.00	O o=100%	1.29

Gas Rates

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



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DRILL STEM TEST REPORT

Sam Gary Jr. & assoc.

Schumacher-Dreiling 1-1

1515 Wynkoop ste 700
Denver Co. 80202

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

ATTN: Neil Sharpe

Test Start: 2010.09.25 @ 08:00:05

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:59:50

Time Test Ended: 17:53:00

Test Type: Conventional Bottom Hole

Tester: Andy Carreira

Unit No: 31

Interval: 3447.00 ft (KB) To 3509.00 ft (KB) (TVD)

Reference Elevations: 1942.00 ft (KB)

Total Depth: 3509.00 ft (KB) (TVD)

1932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8650 Fluid

Press @ Run Depth: 150.24 psig @ 3357.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.25

End Date:

2010.09.25

Last Calib.:

2010.09.25

Start Time: 08:00:01

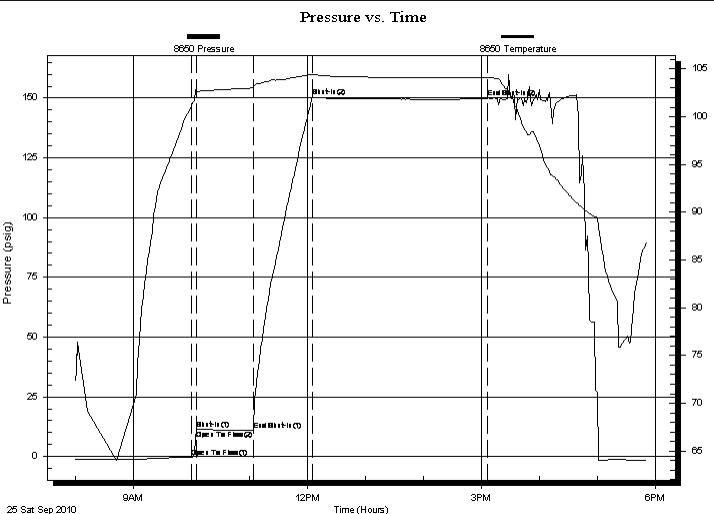
End Time:

17:50:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 8 inch blow
IS: No Return
FF: BOB, 11 min.
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	-0.21	101.09	Open To Flow (1)
6	11.47	102.64	Shut-In(1)
64	11.15	103.01	End Shut-In(1)
65	11.15	103.01	Open To Flow (2)
125	150.62	104.42	Shut-In(2)
307	150.24	104.14	End Shut-In(2)

Recovery

Length (ft)	Description	Volume (bbl)
124.00	W w=100%	1.74
62.00	OCM o=30% m=80%	0.87
124.00	OCM o=30% m=70%	1.74
92.00	O o=100%	1.29

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary Jr. & assoc.

Schumacher-Dreiling 1-1

1515 Wynkoop ste 700
Denver Co. 80202

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

ATTN: Neil Sharpe

Test Start: 2010.09.25 @ 08:00:05

Tool Information

Drill Pipe:	Length: 3381.00 ft	Diameter: 3.80 inches	Volume: 47.43 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 47.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3447.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	152.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8650	Fluid	3357.00	
Blank Spacing	62.00			3419.00	
Change Over Sub	1.00			3420.00	
Shut In Tool	5.00			3425.00	
Hydraulic tool	5.00			3430.00	
Jars	5.00			3435.00	
Safety Joint	3.00			3438.00	
Packer	5.00			3443.00	90.00 Bottom Of Top Packer
Packer	4.00			3447.00	
Stubb	1.00			3448.00	
Perforations	3.00			3451.00	
Change Over Sub	1.00			3452.00	
Recorder	0.00	8017	Inside	3452.00	
Recorder	0.00	8352	Outside	3452.00	
Drill Pipe	31.00			3483.00	
Change Over Sub	1.00			3484.00	
Perforations	22.00			3506.00	
Bullnose	3.00			3509.00	62.00 Bottom Packers & Anchor

Total Tool Length: 152.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

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Schumacher-Dreiling 1-1

1515 Wynkoop ste 700
Denver Co. 80202

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

ATTN: Neil Sharpe

Test Start: 2010.09.25 @ 08:00:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

24 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

28000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	W w =100%	1.739
62.00	OCM o=30% m=80%	0.870
124.00	OCM o=30% m=70%	1.739
92.00	O o=100%	1.291

Total Length: 402.00 ft

Total Volume: 5.639 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Sam Gary Jr. & assoc.

Schumacher-Dreiling 1-1

1515 Wynkoop ste 700
Denver Co. 80202

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

ATTN: Neil Sharpe

Test Start: 2010.09.25 @ 08:00:05

Gas Rates Information

Temperature: 59 deg C

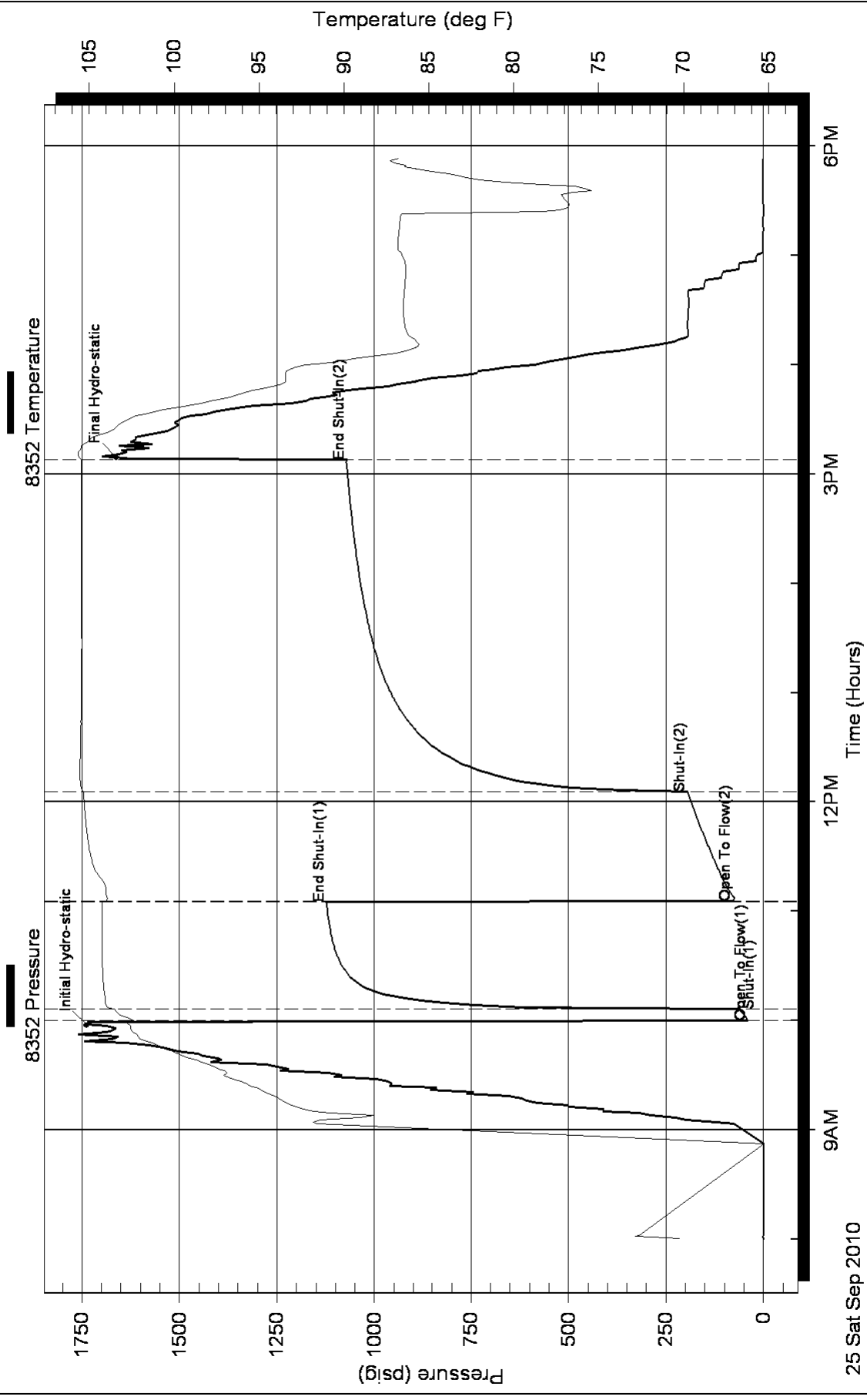
Relative Density: 0.65

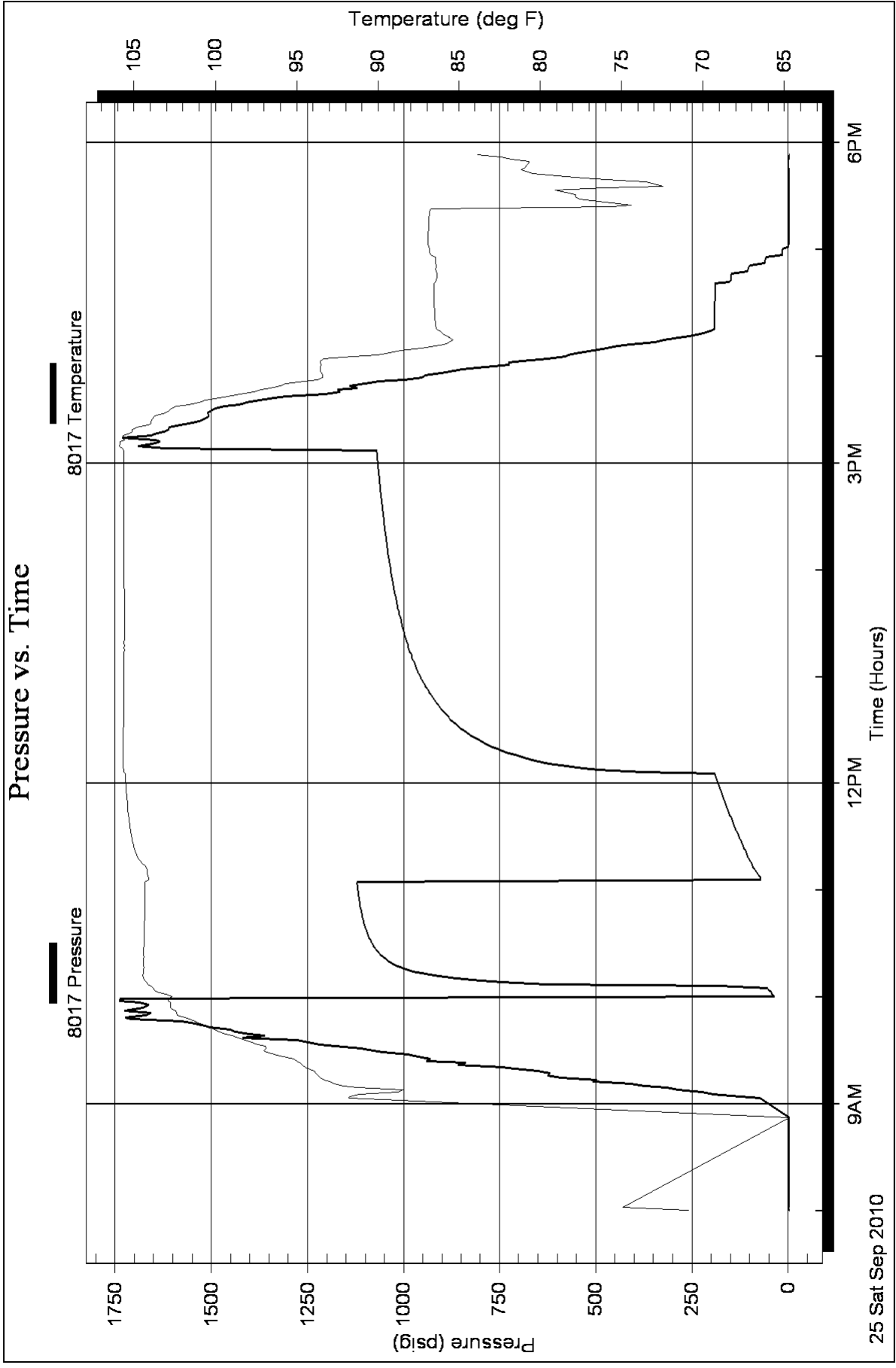
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
		0.00	0.00	0.00

Pressure vs. Time





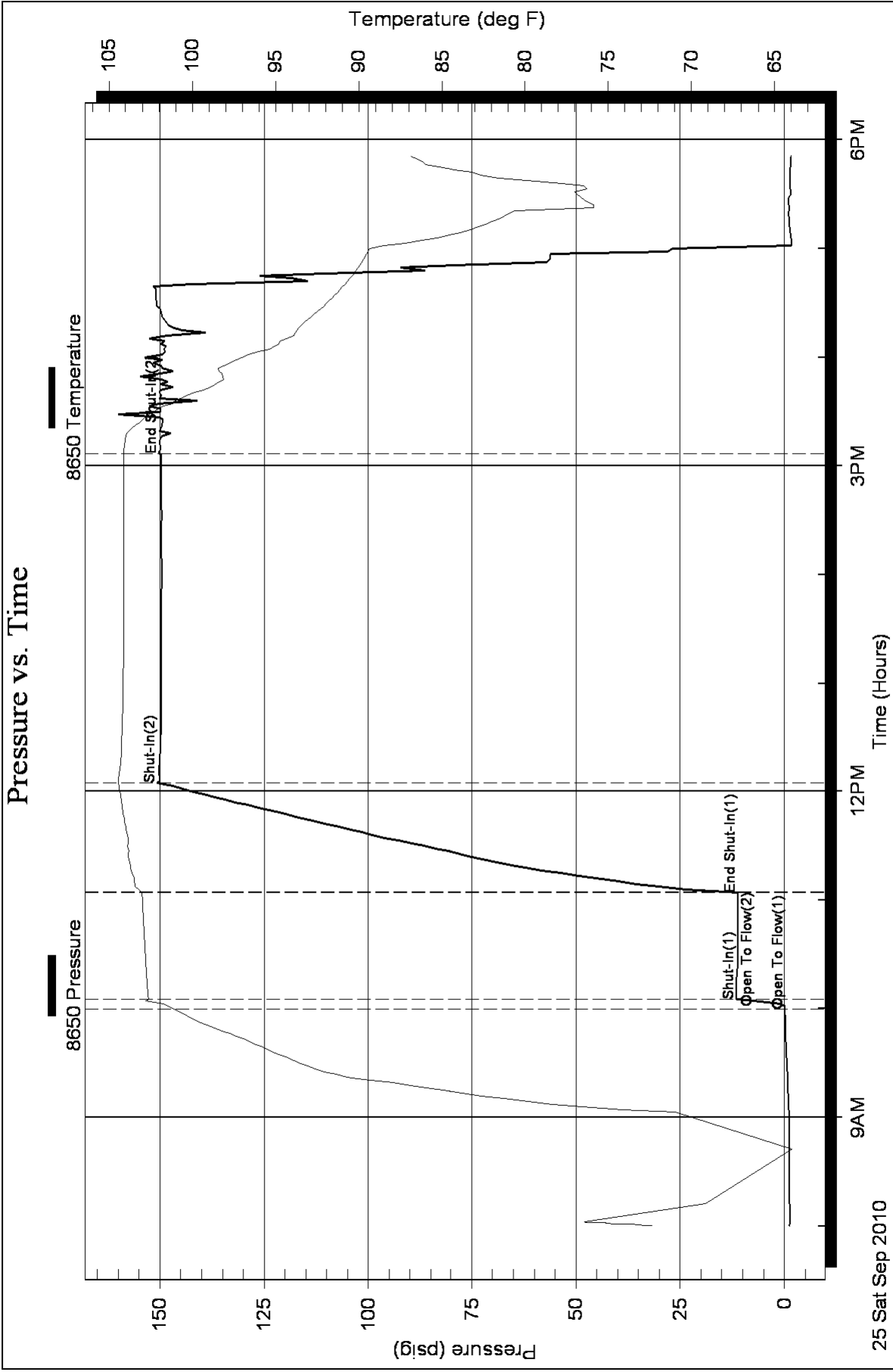
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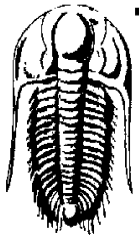
Fluid

Sam Gary Jr. & assoc.

1-15s-17w Ellis co

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr. & assoc.

1515 Wynkoop ste 700
Denver Co. 80202

ATTN: Neil Sharpe

Schumacher-Dreiling 1-1

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

Test Start: 2010.09.25 @ 08:00:05

Serial # 8352 Outside				Serial # 8352 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-0.68	70.3		112.1	1705.34	102.2
	0.8	-0.32	72.2		113.8	1679.25	102.5
	1.7	-0.25	72.6		115.4	1662.81	102.5
	62.1	73.31	91.3		117.1	1750.71	102.6
	63.8	121.40	91.8		117.3	1766.85	102.6
	65.4	196.89	91.0	Initial Hydro-static	117.4	1738.41	102.6
	67.1	256.82	88.3		117.6	1737.58	102.7
	68.8	317.81	90.8		117.8	1738.87	102.7
	70.4	378.17	92.1		117.9	1738.75	102.7
	72.1	439.12	92.8		119.4	1739.28	102.8
	73.8	499.65	93.2		119.6	52.35	102.2
	75.4	565.49	93.6	Open To Flow (1)	119.8	39.67	102.4
	77.1	620.84	93.9		119.9	38.14	102.4
	78.8	690.99	94.3		120.1	38.23	102.5
	80.4	744.07	94.7		120.3	38.81	102.5
	82.1	804.50	95.0		121.9	44.80	103.1
	83.8	868.23	95.4		123.6	52.37	103.3
	85.4	931.89	95.8		125.3	59.35	103.5
	87.1	996.94	96.4		125.4	60.40	103.5
	88.8	1054.91	97.0		125.6	60.61	103.5
	90.4	1139.34	97.0	Shut-In(1)	125.8	60.58	103.5
	92.1	1242.50	97.0		125.9	115.08	103.6
	93.8	1283.62	97.4		126.1	298.59	103.7
	95.4	1278.62	97.9		126.3	419.13	103.8
	97.1	1346.40	98.5		127.9	712.58	104.0
	98.8	1458.17	99.0		129.6	828.29	104.0
	100.4	1437.03	99.5		131.3	904.66	104.0
	102.1	1580.11	99.9		132.9	953.00	104.1
	103.8	1518.14	100.4		134.6	985.34	104.1
	105.4	1651.22	100.8		136.3	1008.17	104.1
	107.1	1613.56	101.3		137.9	1025.26	104.1
	108.8	1659.07	101.7		139.6	1038.78	104.2
	110.4	1660.95	102.1		141.3	1049.68	104.2

Printing every 10 samples

Serial # 8352 Outside				Serial # 8352 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	142.9	1058.61	104.2		199.1	108.07	104.5
	144.6	1066.08	104.2		200.8	111.57	104.6
	146.3	1072.49	104.2		202.4	115.45	104.7
	147.9	1078.01	104.2		204.1	118.81	104.7
	149.6	1082.82	104.2		205.8	122.14	104.8
	151.3	1086.98	104.2		207.4	125.13	104.8
	152.9	1090.68	104.2		209.1	128.67	104.9
	154.6	1093.90	104.2		210.8	131.71	104.9
	156.3	1096.91	104.2		212.4	135.01	105.0
	157.9	1099.61	104.2		214.1	138.55	105.0
	159.6	1101.94	104.2		215.8	142.15	105.0
	161.3	1104.28	104.2		217.4	145.52	105.1
	162.9	1106.27	104.2		219.1	148.50	105.1
	164.6	1108.21	104.2		220.8	151.67	105.1
	166.3	1109.92	104.2		222.4	154.74	105.1
	167.9	1111.40	104.2		224.1	158.01	105.2
	169.6	1112.89	104.2		225.8	161.27	105.2
	171.3	1114.27	104.3		227.4	163.90	105.2
	172.9	1115.48	104.3		229.1	166.68	105.2
	174.6	1116.68	104.3		230.8	170.13	105.2
	176.3	1117.84	104.2		232.4	172.75	105.2
	177.9	1118.85	104.3		234.1	175.87	105.2
	179.6	1119.99	104.3		235.8	178.60	105.3
	181.3	1120.79	104.3		237.4	181.30	105.3
	182.9	1121.80	104.3		239.1	184.01	105.3
	184.4	1122.48	104.3		240.8	186.59	105.3
	184.6	1122.56	104.3		242.4	189.35	105.3
End Shut-In(1)	184.8	1122.62	104.3		244.1	192.38	105.3
	184.9	1119.12	104.3		244.9	193.87	105.3
	185.1	88.85	103.6		245.1	194.04	105.3
Open To Flow (2)	185.3	78.91	103.9	Shut-In(2)	245.3	194.65	105.3
	185.4	76.94	104.0		245.4	194.75	105.3
	185.6	70.71	104.0		245.6	195.33	105.3
	185.8	70.75	104.0		245.8	195.51	105.3
	187.4	76.88	104.0		247.4	501.06	105.5
	189.1	82.81	104.0		249.1	573.06	105.5
	190.8	88.30	104.0		250.8	621.54	105.5
	192.4	92.76	104.0		252.4	658.79	105.5
	194.1	96.38	104.1		254.1	689.36	105.5
	195.8	100.15	104.2		255.8	715.09	105.5
	197.4	104.59	104.3		257.4	737.84	105.5

Printing every 10 samples

Serial # 8352 Outside				Serial # 8352 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	259.1	757.80	105.5		327.4	1003.70	105.4
	260.8	775.44	105.5		329.1	1005.81	105.4
	262.4	791.18	105.5		330.8	1007.70	105.4
	264.1	805.62	105.5		332.4	1009.54	105.4
	265.8	819.01	105.5		334.1	1011.43	105.4
	267.4	831.00	105.5		335.8	1013.08	105.4
	269.1	842.18	105.5		337.4	1014.97	105.4
	270.8	852.43	105.5		339.1	1016.67	105.4
	272.4	862.11	105.5		340.8	1018.30	105.5
	274.1	870.99	105.5		342.4	1019.96	105.5
	275.8	879.27	105.5		344.1	1021.50	105.5
	277.4	887.09	105.5		345.8	1023.12	105.5
	279.1	894.30	105.5		347.4	1024.54	105.5
	280.8	901.12	105.5		349.1	1025.98	105.5
	282.4	907.70	105.5		350.8	1027.47	105.5
	284.1	913.73	105.5		352.4	1028.84	105.5
	285.8	919.61	105.5		354.1	1030.33	105.5
	287.4	925.11	105.5		355.8	1031.70	105.5
	289.1	930.31	105.5		357.4	1032.91	105.5
	290.8	935.26	105.5		359.1	1034.30	105.5
	292.4	939.96	105.5		360.8	1035.54	105.5
	294.1	944.66	105.5		362.4	1036.85	105.5
	295.8	948.64	105.5		364.1	1038.00	105.5
	297.4	952.75	105.5		365.8	1039.25	105.5
	299.1	956.55	105.5		367.4	1040.35	105.5
	300.8	960.34	105.5		369.1	1041.49	105.5
	302.4	964.24	105.5		370.8	1042.64	105.5
	304.1	967.27	105.5		372.4	1043.68	105.5
	305.8	970.58	105.5		374.1	1044.69	105.5
	307.4	973.70	105.5		375.8	1045.84	105.5
	309.1	976.74	105.5		377.4	1046.83	105.5
	310.8	979.66	105.4		379.1	1047.91	105.5
	312.4	982.36	105.4		380.8	1048.91	105.5
	314.1	985.17	105.4		382.4	1049.89	105.5
	315.8	987.72	105.4		384.1	1050.85	105.5
	317.4	990.27	105.4		385.8	1051.79	105.5
	319.1	992.68	105.4		387.4	1052.72	105.5
	320.8	995.02	105.4		389.1	1053.57	105.5
	322.4	997.34	105.4		390.8	1054.48	105.5
	324.1	999.46	105.4		392.4	1055.38	105.5
	325.8	1001.70	105.4		394.1	1056.31	105.5

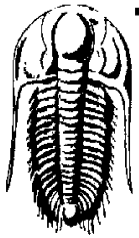
Printing every 10 samples

Serial # 8352 Outside				Serial # 8352 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	395.8	1057.10	105.5		447.9	1512.61	103.1
	397.4	1057.95	105.5		449.6	1445.81	102.7
	399.1	1058.74	105.5		451.3	1476.52	102.3
	400.8	1059.56	105.5		452.9	1421.06	101.6
	402.4	1060.33	105.5		454.6	1400.56	100.8
	404.1	1061.24	105.5		456.3	1334.59	99.9
	405.8	1061.98	105.5		457.9	1289.75	98.8
	407.4	1062.76	105.5		459.6	1177.00	97.9
	409.1	1063.53	105.5		461.3	1188.59	97.0
	410.8	1064.24	105.5		462.9	1095.61	96.3
	412.4	1065.04	105.5		464.6	1097.19	95.7
	414.1	1065.75	105.5		466.3	1037.50	95.0
	415.8	1066.48	105.5		467.9	938.11	94.1
	417.4	1067.25	105.5		469.6	927.61	93.5
	419.1	1067.92	105.5		471.3	880.32	93.4
	420.8	1068.56	105.5		472.9	804.98	93.5
	422.4	1069.31	105.5		474.6	732.13	93.5
	424.1	1069.98	105.5		476.3	723.93	93.4
	425.8	1070.94	105.5		477.9	662.16	93.0
	427.3	1071.20	105.5		479.6	601.72	92.2
	427.4	1071.24	105.5		481.3	532.79	90.5
End Shut-In(2)	427.6	1070.70	105.5		482.9	509.36	89.5
	427.8	1600.77	105.7		484.6	459.21	88.0
	427.9	1605.83	105.6		486.3	413.42	86.8
	428.1	1624.69	105.5		487.9	353.20	86.1
	428.8	1666.88	105.5		489.6	320.07	85.7
Final Hydro-static	428.9	1660.13	105.6		491.3	259.80	85.6
	429.1	1662.25	105.6		492.9	225.89	85.8
	429.3	1698.74	105.6		494.6	196.02	86.1
	429.4	1683.42	105.6		496.3	193.12	86.2
	429.6	1681.39	105.6		497.9	192.67	86.3
	431.3	1639.88	105.6		499.6	193.10	86.4
	432.9	1641.77	105.5		501.3	192.09	86.4
	434.6	1684.29	105.5		502.9	193.25	86.5
	436.3	1570.11	105.3		504.6	191.93	86.5
	437.9	1618.99	105.0		506.3	192.66	86.5
	439.6	1625.30	104.8		507.9	192.53	86.5
	441.3	1561.79	104.3		509.6	191.86	86.5
	442.9	1537.72	103.8		511.3	193.13	86.5
	444.6	1518.55	103.5		512.9	191.93	86.5
	446.3	1504.05	103.3		514.6	191.08	86.5

Printing every 10 samples

Serial # 8352 Outside				Serial # 8352 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	516.3	192.37	86.5		584.6	0.45	84.0
	517.9	191.64	86.5		586.3	0.57	85.2
	519.6	190.84	86.5		587.9	0.69	86.4
	521.3	154.12	86.4		589.6	0.74	86.7
	522.9	149.82	86.4		591.3	0.57	87.3
	524.6	150.85	86.4		592.9	0.50	86.8
	526.3	149.04	86.4				
	527.9	107.57	86.4				
	529.6	105.10	86.4				
	531.3	80.78	86.4				
	532.9	62.36	86.4				
	534.6	61.28	86.4				
	536.3	17.52	86.4				
	537.9	17.31	86.5				
	539.6	16.91	86.6				
	541.3	-0.32	86.6				
	542.9	-0.42	86.8				
	544.6	-0.51	86.8				
	546.3	-0.54	86.8				
	547.9	-0.57	86.8				
	549.6	-0.52	86.8				
	551.3	-0.55	86.8				
	552.9	-0.56	86.8				
	554.6	-0.56	86.8				
	556.3	-0.57	86.7				
	557.9	-0.57	86.7				
	559.6	-0.47	86.7				
	561.3	-0.51	86.7				
	562.9	-0.70	80.1				
	564.6	-0.66	77.3				
	566.3	-0.61	76.8				
	567.9	-0.56	76.7				
	569.6	-0.49	76.9				
	571.3	-0.40	77.1				
	572.9	-0.40	77.2				
	574.6	-0.54	75.9				
	576.3	-0.39	75.8				
	577.9	-0.20	77.0				
	579.6	0.03	80.2				
	581.3	0.17	82.4				
	582.9	0.31	83.3				

Printing every 9 samples



**TRILOBITE
TESTING, INC.**

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr. & assoc.

1515 Wynkoop ste 700
Denver Co. 80202

ATTN: Neil Sharpe

Schumacher-Dreiling 1-1

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

Test Start: 2010.09.25 @ 08:00:05

Serial # 8017 Inside				Serial # 8017 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-1.91	70.9		106.6	1618.44	101.4
	0.8	-1.96	73.1		108.1	1641.13	101.8
	1.5	-1.85	73.8		109.6	1670.72	102.3
	41.9	-2.29	63.7		111.1	1652.32	102.4
	63.1	72.76	91.8		112.6	1695.23	102.7
	64.6	162.98	91.7		114.1	1674.10	102.7
	66.1	224.17	89.3		115.6	1660.78	102.8
	67.6	285.53	88.5		117.1	1760.68	102.8
	69.1	382.33	91.5		118.6	1737.54	102.9
	70.6	437.75	92.4		120.1	36.17	102.7
	72.1	455.24	93.0		121.6	41.49	103.2
	73.6	497.51	93.3		123.1	47.25	103.6
	75.1	564.13	93.6		124.6	53.68	103.8
	76.6	655.26	93.7		126.1	356.84	104.0
	78.1	650.12	93.9		127.6	685.01	104.2
	79.6	713.05	94.4		129.1	801.49	104.3
	81.1	774.42	94.6		130.6	879.35	104.4
	82.6	837.62	94.7		132.1	931.81	104.4
	84.1	907.87	95.1		133.6	967.21	104.4
	85.6	929.07	95.2		135.1	992.39	104.4
	87.1	995.19	96.3		136.6	1011.11	104.4
	88.6	1055.00	96.8		138.1	1025.87	104.4
	90.1	1106.20	97.0		139.6	1037.86	104.4
	91.6	1156.85	96.9		141.1	1047.58	104.4
	93.1	1220.22	97.3		142.6	1055.96	104.4
	94.6	1247.32	97.8		144.1	1062.86	104.4
	96.1	1301.21	98.4		145.6	1069.05	104.4
	97.6	1331.35	98.8		147.1	1074.17	104.4
	99.1	1400.73	99.4		148.6	1078.83	104.4
	100.6	1414.24	99.8		150.1	1082.90	104.4
	102.1	1579.25	100.1		151.6	1086.63	104.4
	103.6	1518.56	100.6		153.1	1089.77	104.4
	105.1	1544.42	100.9		154.6	1092.80	104.4

Printing every 9 samples

Serial # 8017 Inside				Serial # 8017 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	156.1	1095.46	104.4		217.6	143.24	105.3
	157.6	1097.92	104.4		219.1	146.11	105.3
	159.1	1100.07	104.4		220.6	149.00	105.3
	160.6	1102.16	104.4		222.1	151.82	105.3
	162.1	1104.17	104.3		223.6	154.60	105.4
	163.6	1105.84	104.3		225.1	157.77	105.4
	165.1	1107.47	104.3		226.6	160.05	105.4
	166.6	1109.00	104.3		228.1	162.48	105.4
	168.1	1110.30	104.3		229.6	165.54	105.4
	169.6	1111.65	104.3		231.1	168.19	105.4
	171.1	1112.84	104.3		232.6	170.65	105.4
	172.6	1113.96	104.3		234.1	173.46	105.4
	174.1	1115.11	104.3		235.6	176.02	105.5
	175.6	1116.12	104.3		237.1	178.20	105.5
	177.1	1117.10	104.3		238.6	180.78	105.5
	178.6	1118.04	104.3		240.1	183.36	105.5
	180.1	1118.82	104.3		241.6	185.82	105.5
	181.6	1119.71	104.3		243.1	188.03	105.5
	183.1	1120.42	104.3		244.6	190.76	105.5
	184.6	1121.30	104.3		246.1	377.76	105.6
	186.1	69.16	104.1		247.6	511.64	105.6
	187.6	74.69	104.1		249.1	573.43	105.7
	189.1	80.32	104.2		250.6	617.13	105.7
	190.6	85.32	104.2		252.1	651.53	105.7
	192.1	89.74	104.2		253.6	680.24	105.7
	193.6	92.94	104.3		255.1	704.57	105.7
	195.1	96.25	104.5		256.6	726.05	105.7
	196.6	100.43	104.6		258.1	745.31	105.7
	198.1	103.45	104.8		259.6	762.39	105.7
	199.6	106.60	104.8		261.1	777.81	105.7
	201.1	110.01	104.9		262.6	791.65	105.6
	202.6	113.40	105.0		264.1	804.63	105.6
	204.1	116.42	105.0		265.6	816.64	105.6
	205.6	119.38	105.0		267.1	827.67	105.6
	207.1	121.98	105.1		268.6	837.81	105.6
	208.6	125.39	105.1		270.1	847.25	105.6
	210.1	128.10	105.1		271.6	856.27	105.6
	211.6	131.01	105.2		273.1	864.58	105.6
	213.1	134.22	105.2		274.6	872.37	105.6
	214.6	137.41	105.2		276.1	879.75	105.6
	216.1	140.56	105.3		277.6	886.61	105.6

Printing every 9 samples

Serial # 8017 Inside				Serial # 8017 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	279.1	893.18	105.6		340.6	1016.76	105.6
	280.6	899.34	105.6		342.1	1018.28	105.6
	282.1	905.33	105.6		343.6	1019.62	105.6
	283.6	910.87	105.6		345.1	1021.05	105.6
	285.1	916.41	105.6		346.6	1022.44	105.6
	286.6	921.13	105.6		348.1	1023.71	105.6
	288.1	925.99	105.6		349.6	1025.04	105.6
	289.6	930.85	105.6		351.1	1026.41	105.6
	291.1	935.05	105.6		352.6	1027.64	105.6
	292.6	939.44	105.6		354.1	1028.89	105.6
	294.1	943.19	105.6		355.6	1030.15	105.6
	295.6	947.08	105.6		357.1	1031.36	105.6
	297.1	950.72	105.6		358.6	1032.44	105.6
	298.6	954.22	105.6		360.1	1033.70	105.6
	300.1	957.65	105.6		361.6	1034.84	105.6
	301.6	960.93	105.6		363.1	1035.91	105.6
	303.1	964.01	105.6		364.6	1036.91	105.6
	304.6	967.01	105.6		366.1	1038.07	105.6
	306.1	969.93	105.6		367.6	1039.08	105.6
	307.6	972.68	105.6		369.1	1040.16	105.6
	309.1	975.39	105.6		370.6	1041.11	105.6
	310.6	978.12	105.6		372.1	1042.16	105.6
	312.1	980.57	105.6		373.6	1043.00	105.6
	313.6	982.97	105.6		375.1	1044.05	105.6
	315.1	985.37	105.6		376.6	1045.00	105.6
	316.6	987.68	105.6		378.1	1045.86	105.6
	318.1	989.89	105.6		379.6	1046.84	105.6
	319.6	992.18	105.6		381.1	1047.64	105.6
	321.1	994.18	105.6		382.6	1048.56	105.6
	322.6	996.29	105.6		384.1	1049.41	105.6
	324.1	998.18	105.6		385.6	1050.28	105.6
	325.6	1000.10	105.6		387.1	1051.08	105.6
	327.1	1001.94	105.6		388.6	1051.92	105.6
	328.6	1003.82	105.6		390.1	1052.71	105.6
	330.1	1005.60	105.6		391.6	1053.55	105.6
	331.6	1007.30	105.6		393.1	1054.33	105.6
	333.1	1008.97	105.6		394.6	1055.13	105.6
	334.6	1010.63	105.6		396.1	1055.84	105.6
	336.1	1012.19	105.6		397.6	1056.63	105.6
	337.6	1013.85	105.6		399.1	1057.34	105.6
	339.1	1015.35	105.6		400.6	1058.08	105.6

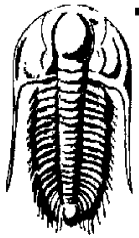
Printing every 9 samples

Serial # 8017 Inside				Serial # 8017 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	402.1	1058.87	105.6		463.6	1125.95	95.9
	403.6	1059.64	105.6		465.1	1078.60	95.2
	405.1	1060.25	105.6		466.6	1000.80	93.8
	406.6	1061.00	105.6		468.1	975.66	93.4
	408.1	1061.76	105.6		469.6	880.51	93.4
	409.6	1062.29	105.6		471.1	880.25	93.6
	411.1	1063.13	105.6		472.6	793.05	93.5
	412.6	1063.67	105.6		474.1	785.47	93.6
	414.1	1064.43	105.6		475.6	712.30	93.5
	415.6	1065.04	105.6		477.1	691.65	93.6
	417.1	1065.67	105.6		478.6	639.04	92.8
	418.6	1066.27	105.6		480.1	596.30	90.6
	420.1	1066.98	105.6		481.6	543.25	89.3
	421.6	1067.48	105.6		483.1	504.31	88.4
	423.1	1068.08	105.6		484.6	441.46	87.1
	424.6	1068.74	105.6		486.1	411.46	86.1
	426.1	1069.59	105.6		487.6	347.53	85.6
	427.6	1060.33	105.6		489.1	319.41	85.4
	429.1	1709.52	105.9		490.6	286.56	85.7
	430.6	1648.82	105.9		492.1	226.59	86.0
	432.1	1626.85	105.8		493.6	194.39	86.2
	433.6	1690.72	105.6		495.1	191.75	86.4
	435.1	1654.00	105.6		496.6	190.55	86.5
	436.6	1653.94	105.2		498.1	191.23	86.5
	438.1	1615.17	105.1		499.6	190.88	86.5
	439.6	1620.22	104.9		501.1	189.87	86.5
	441.1	1574.54	104.1		502.6	190.47	86.5
	442.6	1540.42	103.9		504.1	190.91	86.5
	444.1	1522.02	103.9		505.6	189.95	86.5
	445.6	1508.11	103.7		507.1	189.73	86.5
	447.1	1497.68	103.6		508.6	190.54	86.6
	448.6	1517.52	102.9		510.1	190.79	86.6
	450.1	1498.97	102.7		511.6	190.01	86.6
	451.6	1459.04	102.4		513.1	189.08	86.6
	453.1	1366.17	101.5		514.6	188.91	86.6
	454.6	1394.55	100.7		516.1	190.23	86.6
	456.1	1336.69	100.1		517.6	190.05	86.6
	457.6	1224.03	98.9		519.1	189.49	86.6
	459.1	1251.99	98.0		520.6	182.50	86.6
	460.6	1207.90	97.2		522.1	150.80	86.4
	462.1	1167.10	96.4		523.6	150.13	86.4

Printing every 9 samples

Serial # 8017 Inside				Serial # 8017 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	525.1	146.82	86.4		586.6	-1.76	80.8
	526.6	133.23	86.4		588.1	-1.52	80.7
	528.1	104.90	86.5		589.6	-1.30	81.1
	529.6	102.72	86.4		591.1	-2.28	82.5
	531.1	88.41	86.4		592.6	-2.31	83.9
	532.6	60.24	86.5		592.9	-2.25	84.7
	534.1	59.31	86.5				
	535.6	54.38	86.5				
	537.1	15.01	86.8				
	538.6	15.32	86.8				
	540.1	14.53	86.8				
	541.6	0.73	87.0				
	543.1	-1.98	86.9				
	544.6	-2.05	86.9				
	546.1	-2.04	86.9				
	547.6	-2.03	86.9				
	549.1	-2.09	86.9				
	550.6	-2.07	86.9				
	552.1	-2.04	86.9				
	553.6	-2.01	86.9				
	555.1	-2.14	86.9				
	556.6	-2.29	86.9				
	558.1	-2.27	86.9				
	559.6	-2.28	86.8				
	561.1	-2.28	86.8				
	562.6	-2.75	84.2				
	564.1	-2.38	74.3				
	565.6	-2.25	75.4				
	567.1	-2.15	77.0				
	568.6	-2.09	77.8				
	570.1	-2.04	77.8				
	571.6	-2.12	78.4				
	573.1	-2.39	79.2				
	574.6	-2.37	73.1				
	576.1	-2.17	72.8				
	577.6	-2.12	73.7				
	579.1	-2.06	76.1				
	580.6	-2.04	78.5				
	582.1	-2.04	80.5				
	583.6	-1.98	81.0				
	585.1	-1.88	81.0				

Printing every 4 samples



**TRILOBITE
TESTING, INC.**

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr. & assoc.

1515 Wynkoop ste 700
Denver Co. 80202

ATTN: Neil Sharpe

Schumacher-Dreiling 1-1

1-15s-17w Ellis co

Job Ticket: 040397

DST#: 2

Test Start: 2010.09.25 @ 08:00:05

Serial #	8650	Fluid		Serial #	8650	Fluid	
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-1.23	72.4		65.5	-1.11	76.6
	0.1	-1.24	72.6		67.5	-1.08	78.8
	0.1	-1.26	72.8		69.5	-1.03	80.8
	0.2	-1.26	72.9		71.5	-0.99	82.6
	0.3	-1.26	73.0		73.5	-0.96	84.2
	0.3	-1.26	73.0		75.5	-0.94	85.7
	0.4	-1.27	73.0		77.5	-0.92	86.9
	0.5	-1.25	73.0		79.5	-0.89	88.3
	0.5	-1.24	73.1		81.5	-0.85	90.5
	0.6	-1.22	73.1		83.5	-0.81	91.4
	0.7	-1.23	73.2		85.5	-0.78	92.3
	0.7	-1.25	73.4		87.5	-0.74	92.9
	0.8	-1.26	73.8		89.5	-0.70	93.5
	0.9	-1.27	74.1		91.5	-0.64	94.0
	0.9	-1.28	74.5		93.5	-0.61	94.5
	1.0	-1.30	74.8		95.5	-0.56	95.0
	1.1	-1.32	75.0		97.5	-0.50	95.5
	1.1	-1.31	75.1		99.5	-0.45	96.0
	1.2	-1.33	75.1		101.5	-0.40	96.6
	1.3	-1.32	75.1		103.5	-0.35	97.1
	1.3	-1.32	75.1		105.5	-0.32	97.6
	1.4	-1.28	75.1		107.5	-0.29	98.2
	1.5	-1.28	75.0		109.5	-0.29	98.8
	1.5	-1.27	75.1		111.5	-0.29	99.4
	1.6	-1.28	75.1		113.5	-0.28	99.9
	1.7	-1.31	75.3		115.5	-0.24	100.3
	1.7	-1.31	75.7		117.5	-0.23	100.6
	1.8	-1.33	76.0		118.5	-0.22	100.8
	1.9	-1.31	76.2		119.0	-0.21	100.9
	1.9	-1.28	76.4	Open To Flow (1)	119.5	-0.21	101.1
	12.0	-1.23	69.1		120.0	-0.18	101.2
	52.0	-1.18	63.6		120.5	-0.15	101.4
	63.5	-1.15	73.2		121.0	-0.17	101.5

Printing every 4 samples

Serial # 8650	Fluid			Serial # 8650	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	123.0	3.11	101.6		189.0	37.44	103.5
Shut-In(1)	124.0	7.54	102.8		191.0	43.18	103.5
	124.5	9.47	102.7		193.0	49.24	103.5
	125.0	11.47	102.6		195.0	55.12	103.6
	125.5	11.47	102.6		197.0	60.79	103.7
	126.0	11.44	102.6		199.0	65.39	103.7
	126.5	11.37	102.6		201.0	70.31	103.8
	128.5	11.41	102.7		203.0	74.15	103.8
	130.5	11.43	102.7		205.0	77.88	103.9
	132.5	11.46	102.7		207.0	81.82	103.8
	134.5	11.47	102.7		209.0	85.70	103.9
	136.5	11.41	102.7		211.0	89.47	103.9
	138.5	11.33	102.7		213.0	93.69	103.8
	140.5	11.26	102.8		215.0	97.91	103.9
	142.5	11.18	102.8		217.0	101.52	103.9
	144.5	11.15	102.8		219.0	105.14	104.0
	146.5	11.11	102.8		221.0	108.85	104.0
	148.5	11.08	102.8		223.0	112.63	104.0
	150.5	11.08	102.8		225.0	116.41	104.1
	152.5	11.06	102.8		227.0	119.69	104.1
	154.5	11.04	102.8		229.0	123.84	104.2
	156.5	11.03	102.9		231.0	127.19	104.2
	158.5	11.01	102.9		233.0	131.07	104.2
	160.5	11.02	102.9		235.0	134.34	104.3
	162.5	11.01	102.9		237.0	137.83	104.3
	164.5	11.00	102.9		239.0	141.10	104.3
	166.5	11.02	102.9		241.0	144.44	104.4
	168.5	11.04	102.9		243.0	147.93	104.4
	170.5	11.07	102.9		243.5	148.72	104.4
	172.5	11.08	103.0		244.0	149.75	104.4
	174.5	11.09	103.0	Shut-In(2)	244.5	150.62	104.4
	176.5	11.10	103.0		245.0	150.19	104.4
	178.5	11.12	103.0		245.5	150.05	104.4
	180.5	11.13	103.0		246.0	150.02	104.4
	182.5	11.14	103.0		248.0	150.09	104.4
	183.0	11.14	103.0		250.0	150.12	104.4
End Shut-In(1)	183.5	11.15	103.0		252.0	150.13	104.3
Open To Flow (2)	184.0	11.15	103.0		254.0	150.10	104.3
	184.5	18.03	103.1		256.0	150.03	104.3
	185.0	21.21	103.1		258.0	149.97	104.3
	187.0	30.11	103.4		260.0	149.90	104.3

Printing every 4 samples

Serial # 8650				Serial # 8650			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	262.0	149.84	104.3		344.0	149.57	104.1
	264.0	149.78	104.2		346.0	149.56	104.1
	266.0	149.74	104.2		348.0	149.55	104.1
	268.0	149.71	104.2		350.0	149.54	104.1
	270.0	149.69	104.2		352.0	149.53	104.1
	272.0	149.67	104.2		354.0	149.50	104.1
	274.0	149.66	104.2		356.0	149.49	104.1
	276.0	149.64	104.2		358.0	149.48	104.1
	278.0	149.63	104.2		360.0	149.48	104.1
	280.0	149.63	104.2		362.0	149.48	104.1
	282.0	149.65	104.2		364.0	149.48	104.1
	284.0	149.65	104.2		366.0	149.50	104.1
	286.0	149.66	104.2		368.0	149.52	104.1
	288.0	149.67	104.2		370.0	149.54	104.1
	290.0	149.66	104.2		372.0	149.54	104.1
	292.0	149.67	104.2		374.0	149.53	104.1
	294.0	149.66	104.2		376.0	149.52	104.1
	296.0	149.64	104.2		378.0	149.53	104.1
	298.0	149.64	104.2		380.0	149.54	104.1
	300.0	149.64	104.1		382.0	149.53	104.1
	302.0	149.64	104.1		384.0	149.53	104.1
	304.0	149.65	104.1		386.0	149.52	104.1
	306.0	149.65	104.1		388.0	149.52	104.1
	308.0	149.65	104.1		390.0	149.50	104.1
	310.0	149.65	104.1		392.0	149.50	104.1
	312.0	149.63	104.1		394.0	149.50	104.1
	314.0	149.63	104.1		396.0	149.53	104.1
	316.0	149.62	104.1		398.0	149.57	104.1
	318.0	149.63	104.1		400.0	149.59	104.1
	320.0	149.64	104.1		402.0	149.60	104.1
	322.0	149.63	104.1		404.0	149.60	104.1
	324.0	149.61	104.1		406.0	149.58	104.1
	326.0	149.59	104.1		408.0	149.60	104.1
	328.0	149.57	104.1		410.0	149.59	104.1
	330.0	149.56	104.1		412.0	149.61	104.1
	332.0	149.57	104.1		414.0	149.61	104.1
	334.0	149.56	104.1		416.0	149.62	104.1
	336.0	149.56	104.1		418.0	149.62	104.1
	338.0	149.56	104.1		420.0	149.63	104.1
	340.0	149.56	104.1		422.0	149.64	104.1
	342.0	149.55	104.1		424.0	149.65	104.1

Printing every 4 samples

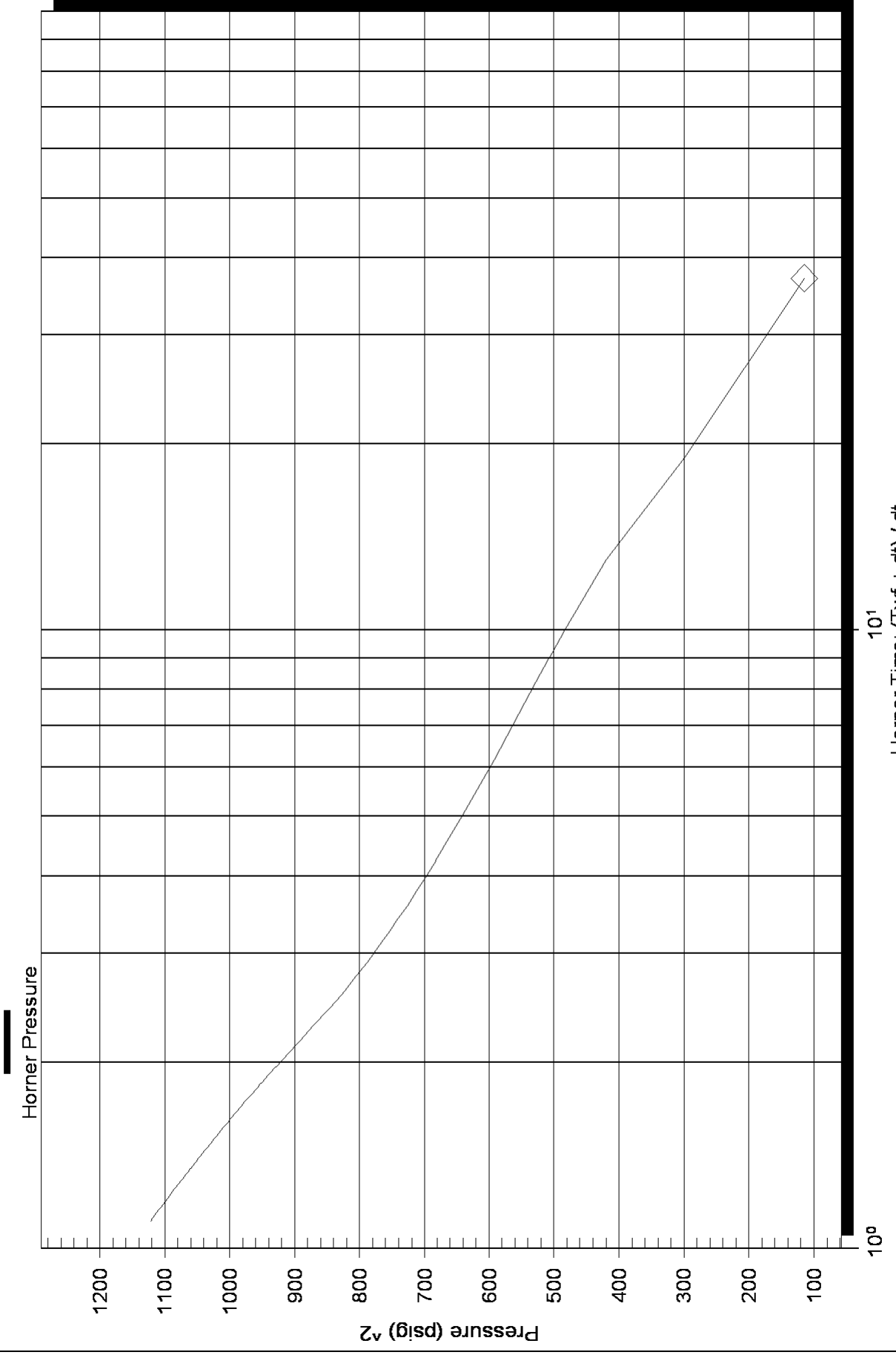
Serial # 8650				Serial # 8650			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	425.5	149.59	104.1		500.0	148.89	93.1
	426.0	148.82	104.1		502.0	149.40	92.9
End Shut-In(2)	426.5	150.24	104.1		504.0	149.66	92.6
	427.0	150.34	104.1		506.0	150.03	92.4
	427.5	150.19	104.1		508.0	150.60	92.1
	428.0	150.46	104.1		510.0	150.41	91.9
	430.0	149.74	104.1		512.0	150.85	91.6
	432.0	152.48	104.1		514.0	150.91	91.4
	434.0	149.98	104.0		516.0	150.95	91.2
	436.0	149.66	104.0		518.0	151.70	91.0
	438.0	150.00	103.9		520.0	142.34	90.8
	440.0	150.75	103.7		522.0	114.25	90.6
	442.0	149.42	103.4		524.0	122.18	90.4
	444.0	149.33	103.1		526.0	110.48	90.3
	446.0	150.07	102.9		528.0	89.28	90.1
	448.0	159.90	102.6		530.0	81.94	90.0
	450.0	146.86	102.2		532.0	56.96	89.8
	452.0	149.89	101.9		534.0	55.05	89.7
	454.0	150.26	101.2		536.0	56.10	89.6
	456.0	150.07	100.9		538.0	27.96	89.5
	458.0	150.24	100.5		540.0	26.32	89.3
	460.0	150.17	99.9		542.0	-1.74	87.5
	462.0	148.83	99.2		544.0	-1.73	86.2
	464.0	149.77	98.8		546.0	-1.66	85.0
	466.0	148.08	98.4		548.0	-1.52	84.1
	468.0	150.20	98.1		550.0	-1.40	83.3
	470.0	151.09	98.2		552.0	-1.29	82.6
	472.0	146.83	98.4		554.0	-1.21	82.1
	474.0	149.41	98.3		556.0	-1.16	81.6
	476.0	149.87	97.8		558.0	-1.13	81.1
	478.0	149.37	97.3		560.0	-1.08	80.7
	480.0	149.03	96.9		562.0	-1.21	75.9
	482.0	147.91	96.2		564.0	-1.05	76.0
	484.0	149.09	95.4		566.0	-1.06	76.3
	486.0	148.44	94.9		568.0	-1.03	76.7
	488.0	149.56	94.7		570.0	-1.66	76.9
	490.0	152.47	94.3		572.0	-1.53	76.3
	492.0	148.95	93.8		574.0	-1.47	76.4
	494.0	143.58	93.8		576.0	-1.47	78.4
	496.0	147.10	93.6		578.0	-1.49	81.0
	498.0	148.23	93.4		580.0	-1.51	82.6

Printing every 4 samples

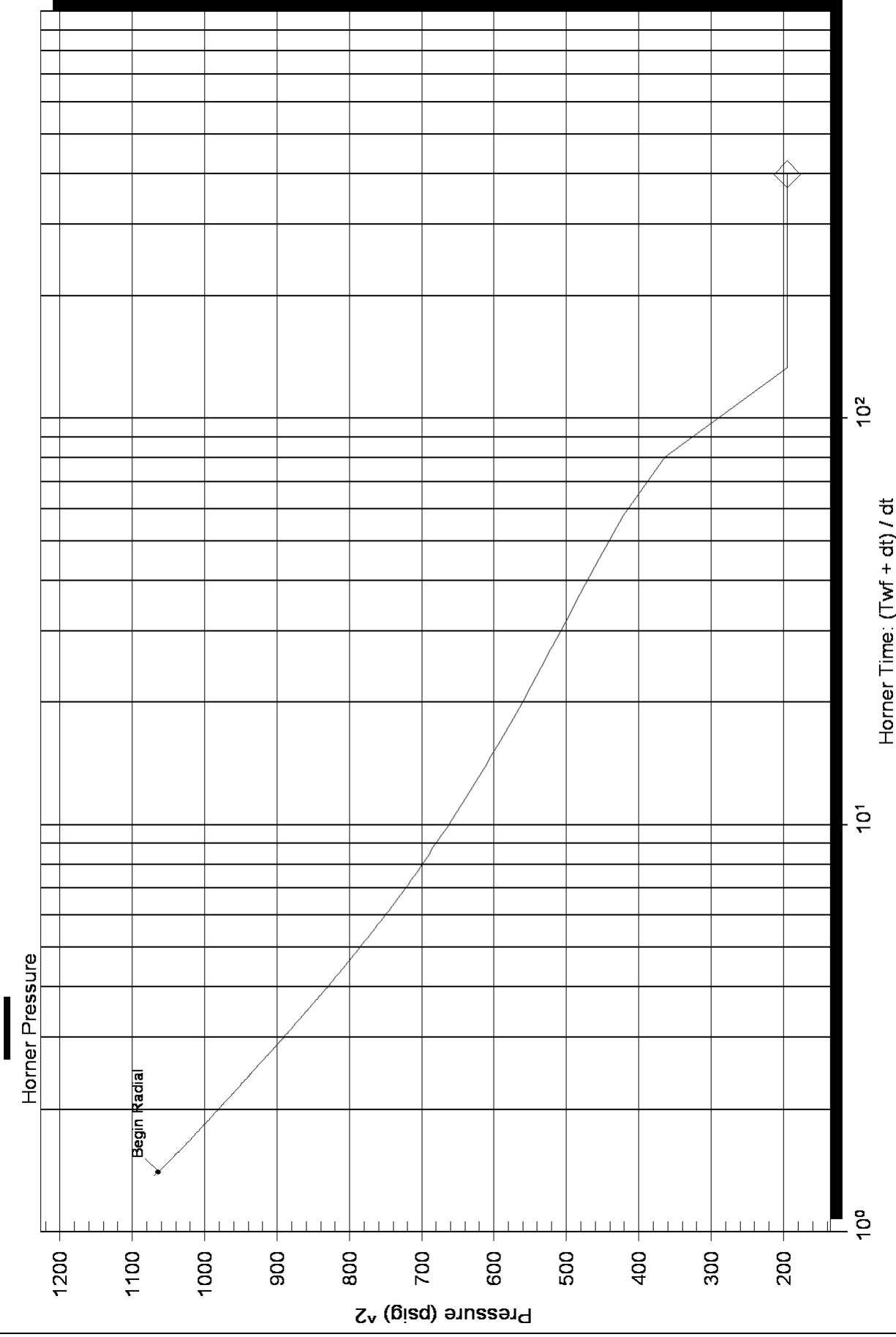
Serial # 8650		Fluid	
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	582.0	-1.52	83.4
	584.0	-1.58	84.9
	586.0	-1.65	86.0
	588.0	-1.45	86.4
	590.0	-1.76	86.7
	590.5	-1.67	86.9

Printing every 4 samples

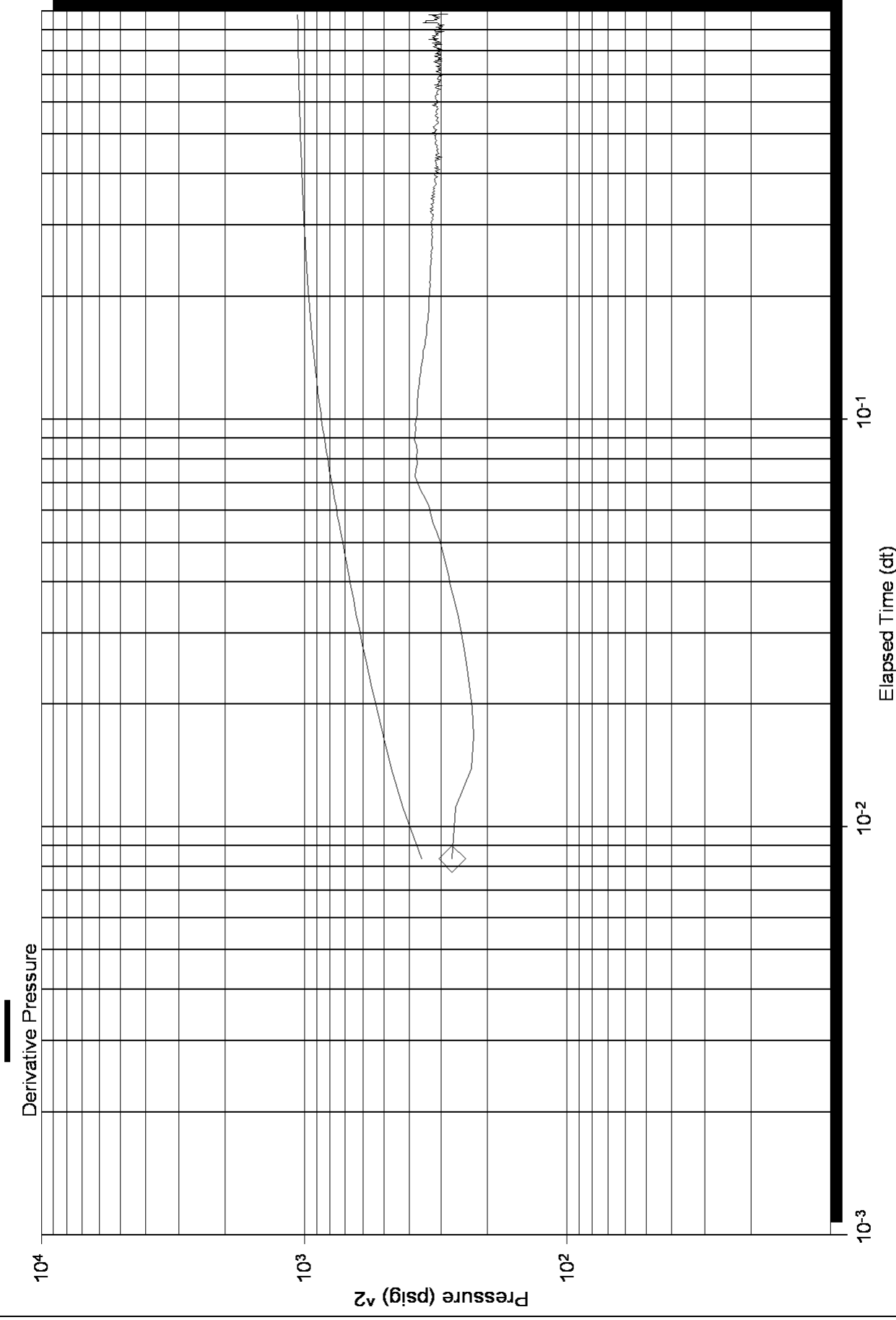
Homer Plot



Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative

