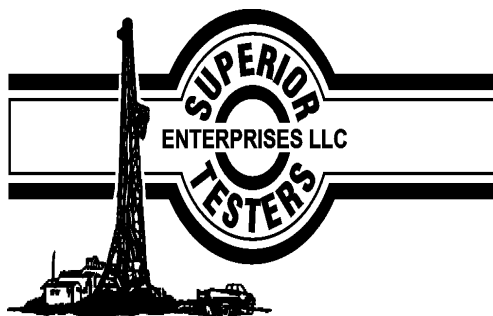




DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Incorporated**

8100 East 22ND Street North
#700
PO Box 783188

ATTN: Mike Engelbrecht

#1 Beougher-Ottley

12/13S/31W/Gove

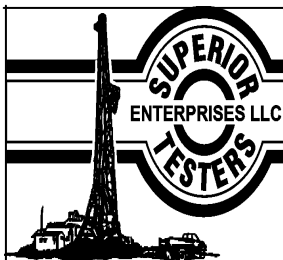
Start Date: 2012.07.31 @ 16:48:00

End Date: 2012.07.31 @ 22:23:30

Job Ticket #: 17688 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.07.31 @ 22:33:47



DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17688

DST#: 1

Test Start: 2012.07.31 @ 16:48:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:46:30

Time Test Ended: 22:23:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4030.00 ft (KB) To 4052.00 ft (KB) (TVD)**

Total Depth: 4052.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2877.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: **6749** Inside

Press@RunDepth: 48.78 psia @ 4048.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.31

End Date:

2012.07.31

Last Calib.:

2012.07.31

Start Time: 16:48:00

End Time:

22:23:30

Time On Btm:

2012.07.31 @ 18:44:00

Time Off Btm:

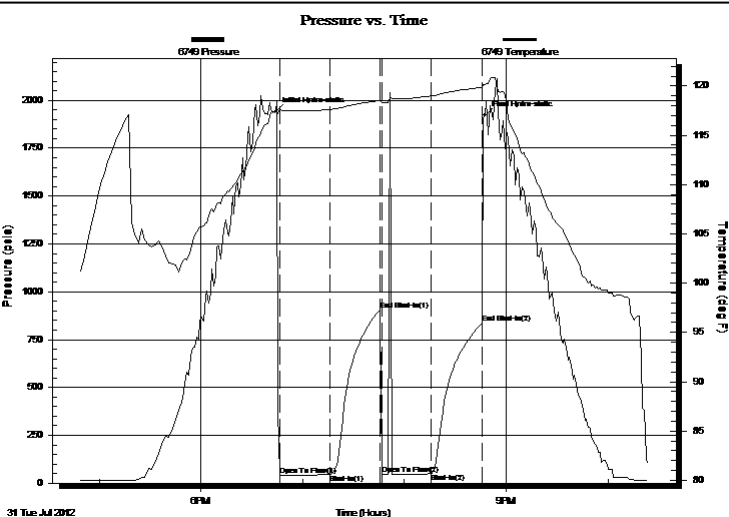
2012.07.31 @ 20:47:30

TEST COMMENT: 1ST Open 30 Minutes/Weak surface blow/Blow died in 7 minutes

1ST Shut In 30 Minutes/No blow back

2ND Open 30 Minutes/Dead/No blow /Flush tool didn't help

2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

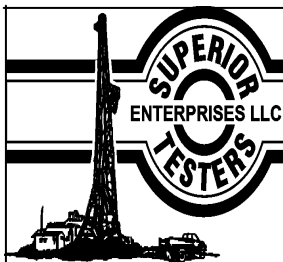
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1938.95	117.45	Initial Hydro-static
3	40.20	117.61	Open To Flow (1)
32	43.91	117.62	Shut-In(1)
62	904.51	118.51	End Shut-In(1)
63	44.89	118.29	Open To Flow (2)
92	48.78	118.99	Shut-In(2)
122	836.94	119.86	End Shut-In(2)
124	1920.55	120.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oil spotted mud	0.02
0.00	Oil 1% Mud 99%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17688

DST#: 1

Test Start: 2012.07.31 @ 16:48:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:46:30

Time Test Ended: 22:23:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4030.00 ft (KB) To 4052.00 ft (KB) (TVD)**

Total Depth: 4052.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2877.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: **6999** Outside

Press@RunDepth: 837.19 psia @ 4049.00 ft (KB)

Start Date: 2012.07.31

End Date:

2012.07.31

Start Time: 16:48:00

End Time:

22:23:00

Capacity: 5000.00 psia

Last Calib.: 2012.07.31

Time On Btm: 2012.07.31 @ 18:44:00

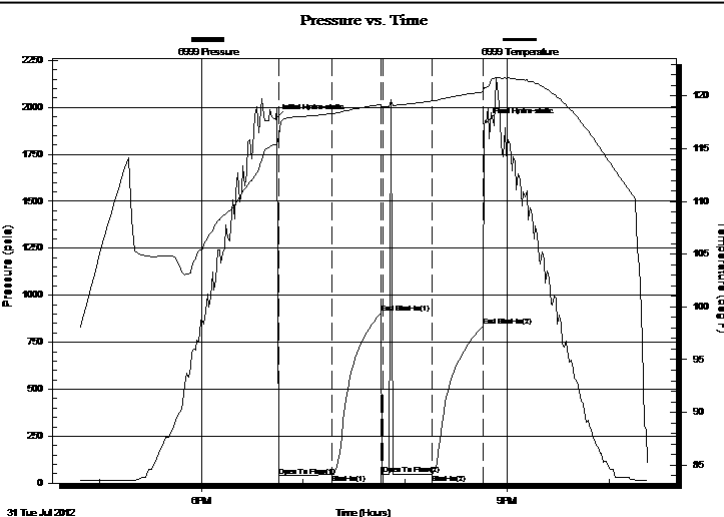
Time Off Btm: 2012.07.31 @ 20:47:30

TEST COMMENT: 1ST Open 30 Minutes/Weak surface blow/Blow died in 7 minutes

1ST Shut In 30 Minutes/No blow back

2ND Open 30 Minutes/Dead/No blow /Flush tool didn't help

2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

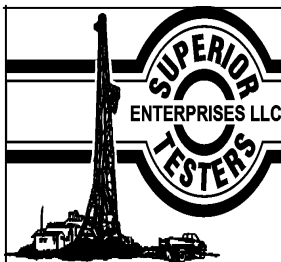
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1938.72	115.41	Initial Hydro-static
2	39.14	116.27	Open To Flow (1)
33	44.57	118.33	Shut-In(1)
62	904.26	119.20	End Shut-In(1)
63	45.11	119.03	Open To Flow (2)
92	49.05	119.53	Shut-In(2)
122	837.19	120.40	End Shut-In(2)
124	1919.14	120.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oil spotted mud	0.02
0.00	Oil 1% Mud 99%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17688

DST#: 1

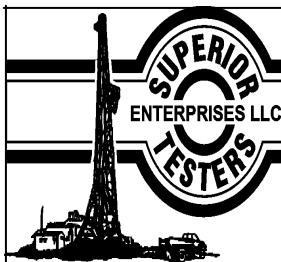
Test Start: 2012.07.31 @ 16:48:00

Tool Information

Drill Pipe:	Length:	3478.00 ft	Diameter:	3.80 inches	Volume:	48.79 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	540.00 ft	Diameter:	2.25 inches	Volume:	2.66 bbl	Weight to Pull Loose:	115000.0 lb
					Total Volume:	51.45 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight: Initial	71000.00 lb
Depth to Top Packer:		4030.00 ft					Final	71000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		22.00 ft						
Tool Length:		49.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4008.00	
Hydrolic Tool	5.00			4013.00	
Jars	5.00			4018.00	
Safety Joint	2.00			4020.00	
Packer	5.00			4025.00	27.00 Bottom Of Top Packer
Packer	5.00			4030.00	
Anchor	17.00			4047.00	
Recorder	1.00	6749	Inside	4048.00	
Recorder	1.00	6999	Outside	4049.00	
Bullnose	3.00			4052.00	22.00 Bottom Packers & Anchor
Total Tool Length:	49.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17688

DST#: 1

PO Box 783188

Test Start: 2012.07.31 @ 16:48:00

ATTN: Mike Engelbrecht

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: 63.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Oil spotted mud	0.025
0.00	Oil 1% Mud 99%	0.000

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

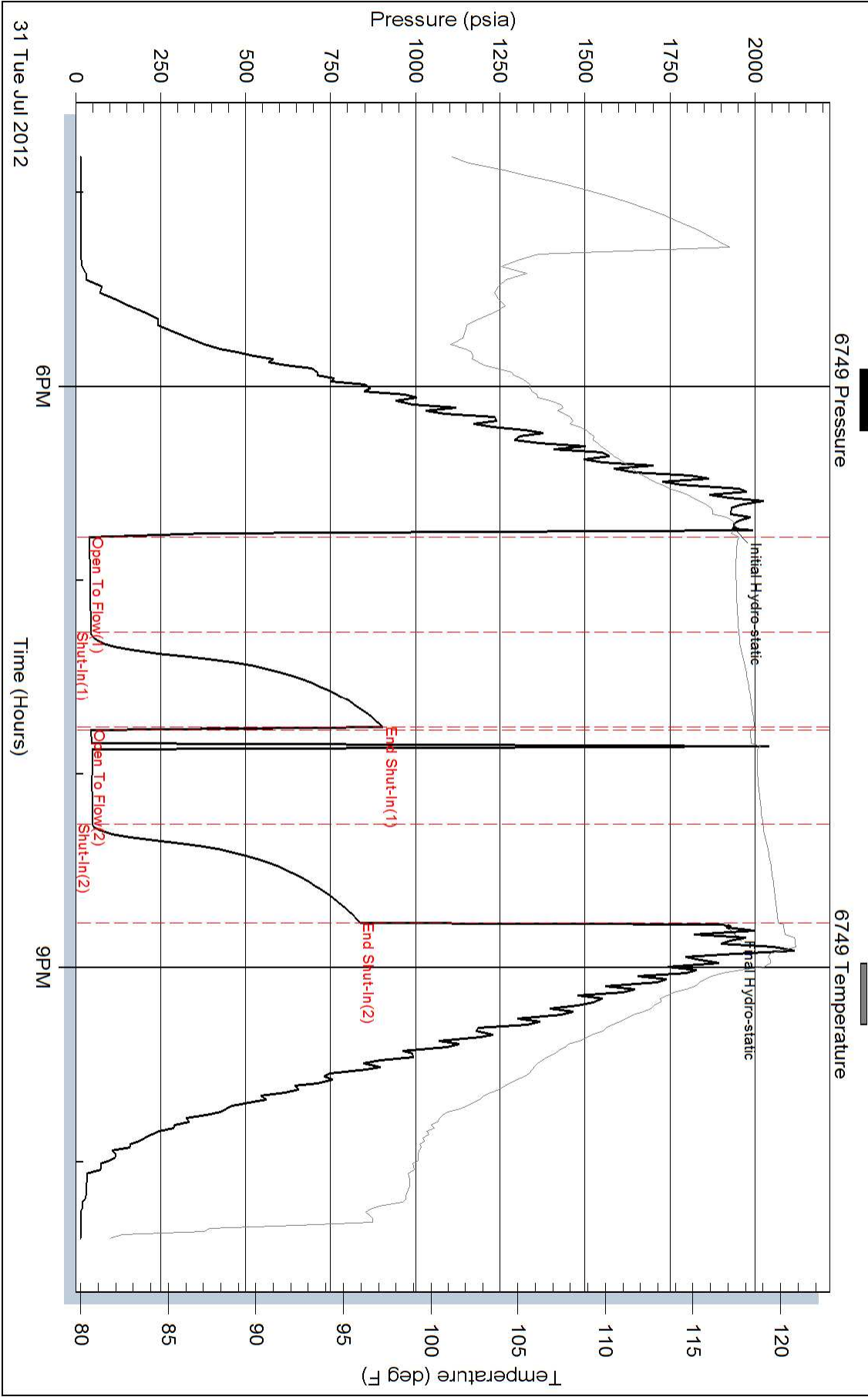
Serial #:

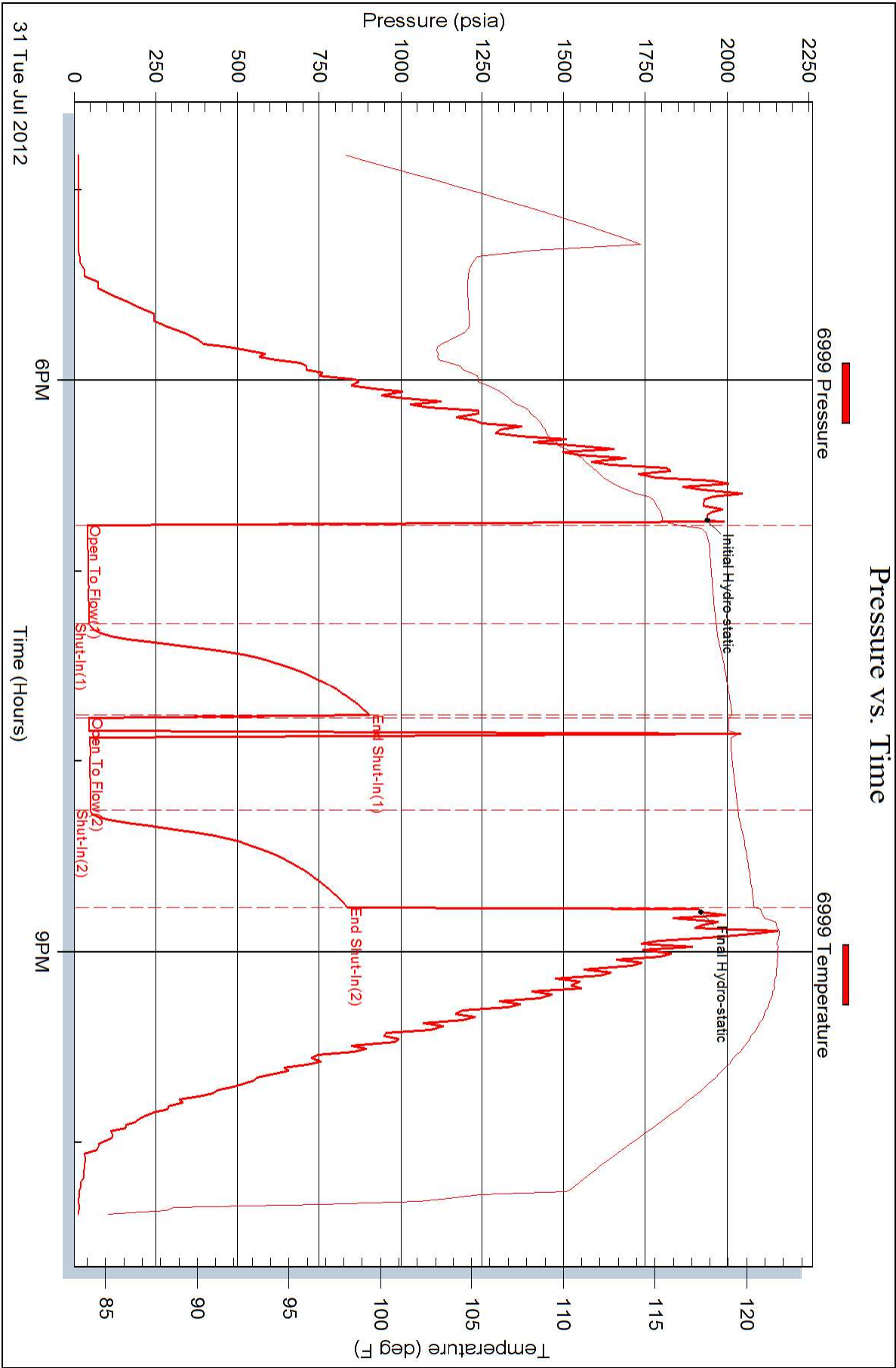
Laboratory Name:

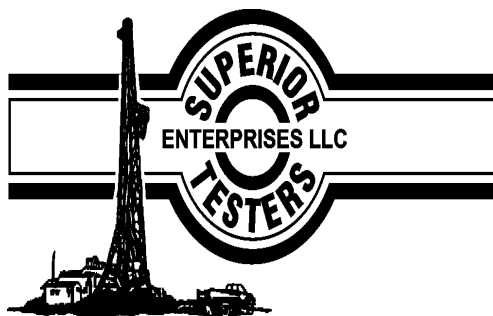
Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Incorporated**

8100 East 22ND Street North
#700
PO Box 783188

ATTN: Mike Engelbrecht

#1 Beougher-Ottley

12/13S/31W/Gove

Start Date: 2012.08.01 @ 13:50:00

End Date: 2012.08.01 @ 19:02:30

Job Ticket #: 17689 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.08.01 @ 19:14:13

Ritchie Exploration Incorporated

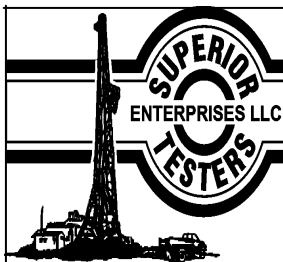
12/13S/31W/Gove

#1 Beougher-Ottley

DST # 2

Lansing/Kansas City

2012.08.01



DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17689

DST#: 2

Test Start: 2012.08.01 @ 13:50:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:37:30

Time Test Ended: 19:02:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4139.00 ft (KB) To 4170.00 ft (KB) (TVD)**

Total Depth: 4170.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2879.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6749** Inside

Press@RunDepth: 48.46 psia @ 4166.00 ft (KB)

Start Date: 2012.08.01

End Date:

2012.08.01

Start Time: 13:50:00

End Time:

19:02:30

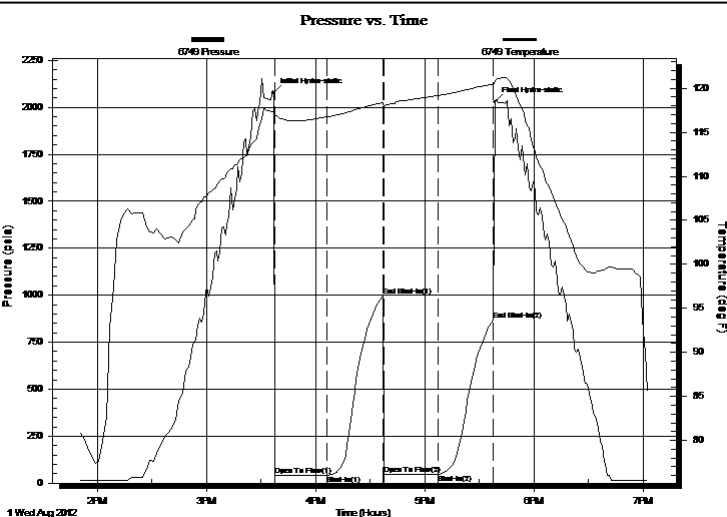
Capacity: 5000.00 psia

Last Calib.: 2012.08.01

Time On Btm: 2012.08.01 @ 15:37:00

Time Off Btm: 2012.08.01 @ 17:38:30

TEST COMMENT: 1ST Open 30 Minutes/Weak surface blow/Blow did not build/Blow died in 18 minutes
1ST Shut In 30 Minutes/No blow back
2ND Open 30 Minutes/Dead/No blow/Flush tool didn't help
2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

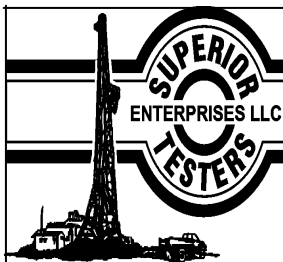
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2078.32	117.39	Initial Hydro-static
1	40.48	117.09	Open To Flow (1)
30	43.06	116.76	Shut-In(1)
60	997.67	118.36	End Shut-In(1)
61	44.93	117.86	Open To Flow (2)
91	48.46	119.19	Shut-In(2)
121	867.57	120.46	End Shut-In(2)
122	2029.64	120.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud with show of oil in tool/Mud 100%	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17689

DST#: 2

Test Start: 2012.08.01 @ 13:50:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:37:30

Time Test Ended: 19:02:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4139.00 ft (KB) To 4170.00 ft (KB) (TVD)**

Reference Elevations: 2889.00 ft (KB)

Total Depth: 4170.00 ft (KB) (TVD)

2879.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: **6999** Outside

Press@RunDepth: 868.29 psia @ 4167.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.08.01

End Date:

2012.08.01

Last Calib.:

2012.08.01

Start Time: 13:50:00

End Time:

19:02:30

Time On Btm:

2012.08.01 @ 15:37:00

Time Off Btm:

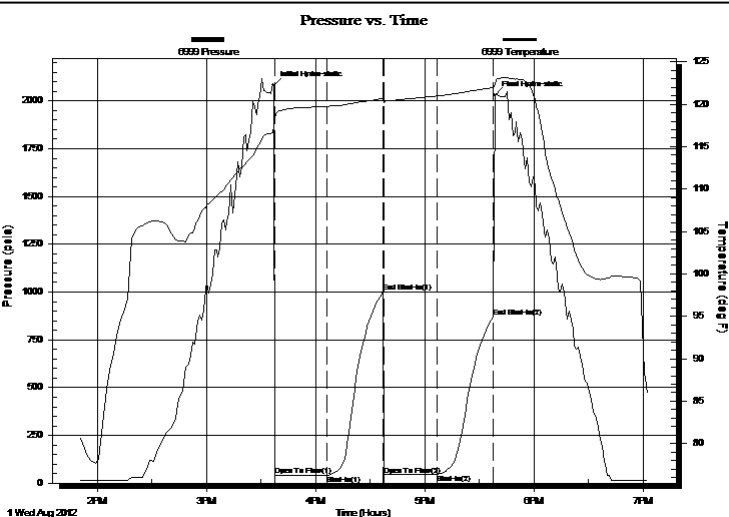
2012.08.01 @ 17:38:30

TEST COMMENT: 1ST Open 30 Minutes/Weak surface blow/Blow did not build/Blow died in 18 minutes

1ST Shut In 30 Minutes/No blow back

2ND Open 30 Minutes/Dead/No blow/Flush tool didn't help

2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

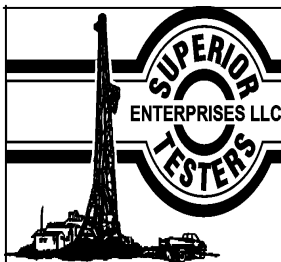
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2082.21	117.48	Initial Hydro-static
1	39.34	118.19	Open To Flow (1)
29	42.72	119.76	Shut-In(1)
60	998.55	120.64	End Shut-In(1)
61	43.40	120.14	Open To Flow (2)
90	48.47	120.99	Shut-In(2)
121	868.29	121.95	End Shut-In(2)
122	2030.42	122.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud with show of oil in tool/Mud 100%	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17689

DST#: 2

PO Box 783188

Test Start: 2012.08.01 @ 13:50:00

ATTN: Mike Engelbrecht

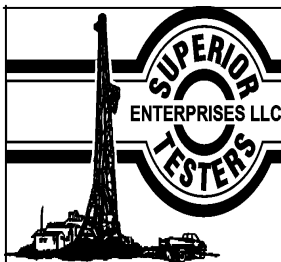
Tool Information

Drill Pipe:	Length:	3604.00 ft	Diameter:	3.80 inches	Volume:	50.55 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	540.00 ft	Diameter:	2.25 inches	Volume:	2.66 bbl	Weight to Pull Loose:	100000.0 lb
					Total Volume:	53.21 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		25.00 ft					String Weight: Initial	72000.00 lb
Depth to Top Packer:		4139.00 ft					Final	72000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		31.00 ft						
Tool Length:		51.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4124.00	
Hydraulic Tool	5.00			4129.00	
Packer	5.00			4134.00	20.00 Bottom Of Top Packer
Packer	5.00			4139.00	
Anchor	26.00			4165.00	
Recorder	1.00	6749	Inside	4166.00	
Recorder	1.00	6999	Outside	4167.00	
Bullnose	3.00			4170.00	31.00 Bottom Packers & Anchor

Total Tool Length: 51.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17689

DST#: 2

PO Box 783188

Test Start: 2012.08.01 @ 13:50:00

ATTN: Mike Engelbrecht

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:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud with show of oil in tool/Mud 100%	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6749

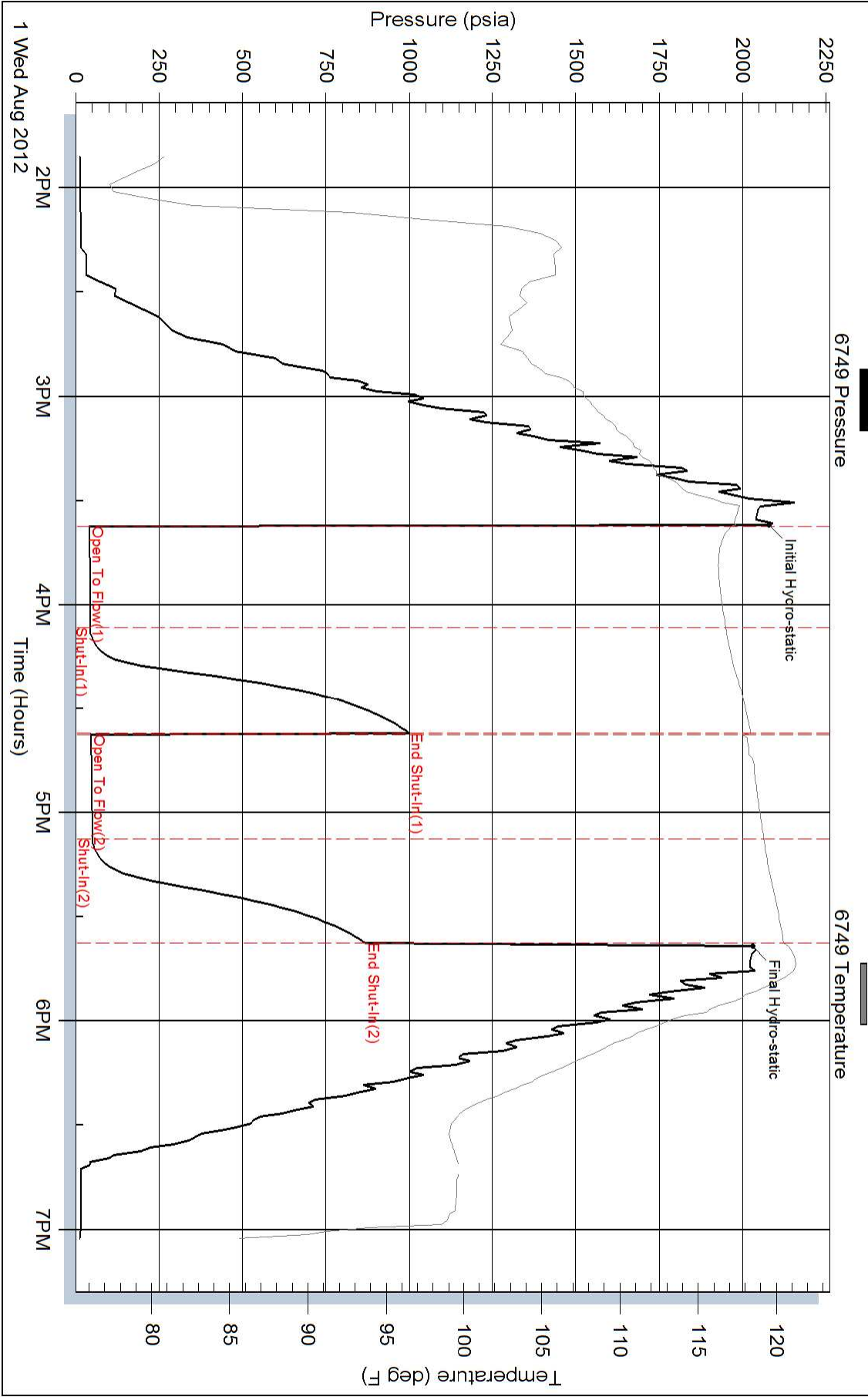
Inside

Ritchie Exploration Incorporated

#1 Beaugher-Ottley

DST Test Number: 2

Pressure vs. Time



Serial #: 6999

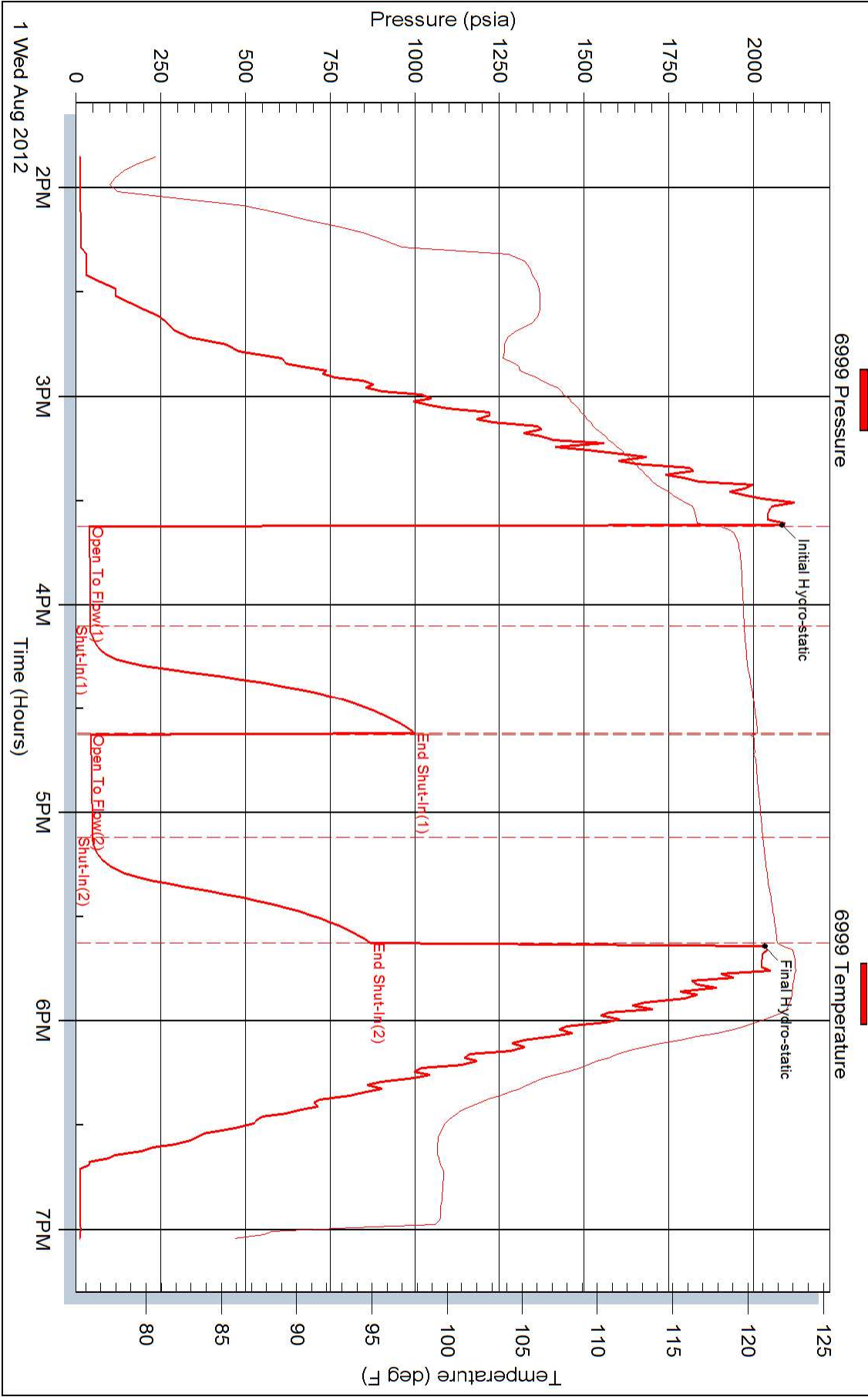
Outside

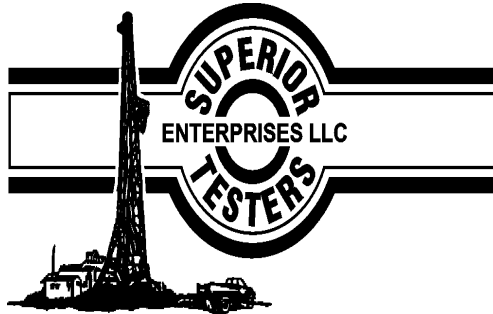
Ritchie Exploration Incorporated

#1 Beougher-Ottley

DST Test Number: 2

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Incorporated**

8100 East 22ND Street North
#700
PO Box 783188

ATTN: Mike Engelbrecht

#1 Beougher-Ottley

12/13S/31W/Gove

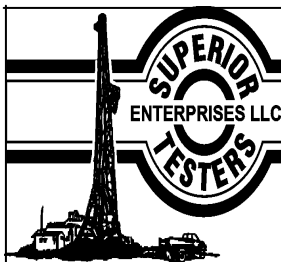
Start Date: 2012.08.02 @ 02:16:00

End Date: 2012.08.02 @ 08:58:30

Job Ticket #: 17690 DST #: 3

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.08.02 @ 09:10:44



DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17690

DST#: 3

Test Start: 2012.08.02 @ 02:16:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:20:30

Time Test Ended: 08:58:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4166.00 ft (KB) To 4198.00 ft (KB) (TVD)**

Total Depth: 4198.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2879.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6749** Inside

Press@RunDepth: 68.02 psia @ 4181.00 ft (KB)

Start Date: 2012.08.02

End Date:

2012.08.02

Start Time: 02:16:00

End Time:

08:58:30

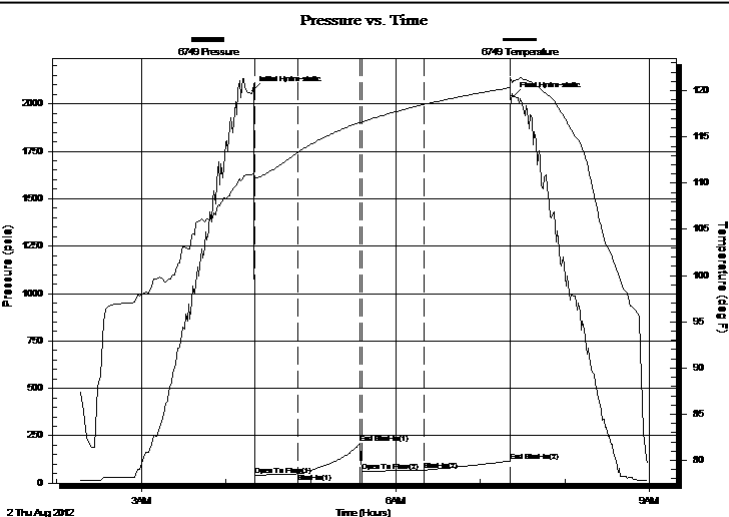
Capacity: 5000.00 psia

Last Calib.: 2012.08.02

Time On Btm: 2012.08.02 @ 04:19:00

Time Off Btm: 2012.08.02 @ 07:23:00

TEST COMMENT: 1ST Open 30 Mintues/Weak blow /Blow built to 2 1/2 inches
1ST Shut In 45 Mintues/No blow back
2ND Open 45 Minutes/Weak surface blow /Blow did not build/Blow died in 15 minutes
2ND Shut In 60 Minutes/No blow back



PRESSURE SUMMARY

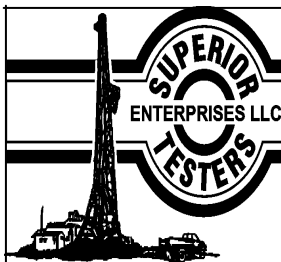
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2067.58	111.01	Initial Hydro-static
2	41.30	110.64	Open To Flow (1)
32	49.13	113.31	Shut-In(1)
76	210.70	116.62	End Shut-In(1)
78	60.91	116.65	Open To Flow (2)
121	68.02	118.51	Shut-In(2)
182	116.74	120.32	End Shut-In(2)
184	2039.82	121.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Oil cut Mud	0.15
0.00	Oil 7% Mud 93%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17690

DST#: 3

Test Start: 2012.08.02 @ 02:16:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:20:30

Time Test Ended: 08:58:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4166.00 ft (KB) To 4198.00 ft (KB) (TVD)**

Total Depth: 4198.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2879.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6999** Outside

Press@RunDepth: 117.25 psia @ 4182.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.08.02

End Date:

2012.08.02

Last Calib.: 2012.08.02

Start Time: 02:16:00

End Time:

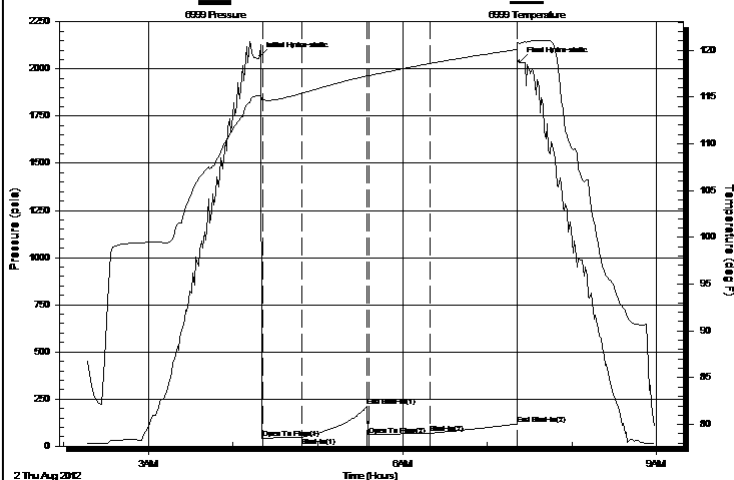
08:58:30

Time On Btm: 2012.08.02 @ 04:19:00

Time Off Btm: 2012.08.02 @ 07:23:00

TEST COMMENT: 1ST Open 30 Mintues/Weak blow /Blow built to 2 1/2 inches
1ST Shut In 45 Mintues/No blow back
2ND Open 45 Minutes/Weak surface blow /Blow did not build/Blow died in 15 minutes
2ND Shut In 60 Minutes/No blow back

Pressure vs. Time



PRESSURE SUMMARY

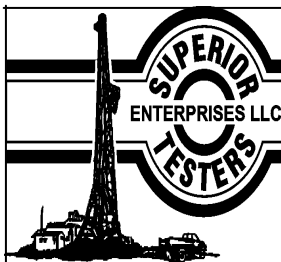
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2067.70	115.18	Initial Hydro-static
2	39.78	114.72	Open To Flow (1)
30	48.86	115.43	Shut-In(1)
76	211.74	117.28	End Shut-In(1)
77	59.79	117.28	Open To Flow (2)
121	68.30	118.58	Shut-In(2)
182	117.25	120.08	End Shut-In(2)
184	2038.28	120.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Oil cut Mud	0.15
0.00	Oil 7% Mud 93%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17690

DST#: 3

PO Box 783188

Test Start: 2012.08.02 @ 02:16:00

ATTN: Mike Engelbrecht

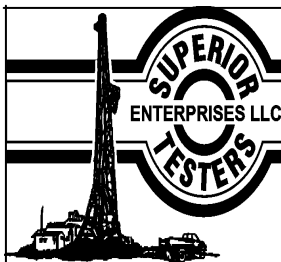
Tool Information

Drill Pipe:	Length:	3637.00 ft	Diameter:	3.88 inches	Volume:	53.19 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	540.00 ft	Diameter:	2.25 inches	Volume:	2.66 bbl	Weight to Pull Loose:	102000.0 lb
					Total Volume:	55.85 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		31.00 ft					String Weight: Initial	70000.00 lb
Depth to Top Packer:		4166.00 ft					Final	70000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		19.00 ft						
Tool Length:		39.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4151.00	
Hydraulic Tool	5.00			4156.00	
Packer	5.00			4161.00	20.00 Bottom Of Top Packer
Packer	5.00			4166.00	
Anchor	14.00			4180.00	
Recorder	1.00	6749	Inside	4181.00	
Recorder	1.00	6999	Outside	4182.00	
Bullnose	3.00			4185.00	19.00 Bottom Packers & Anchor

Total Tool Length: 39.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17690

DST#: 3

PO Box 783188

Test Start: 2012.08.02 @ 02:16:00

ATTN: Mike Engelbrecht

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:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Oil cut Mud	0.148
0.00	Oil 7% Mud 93%	0.000

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

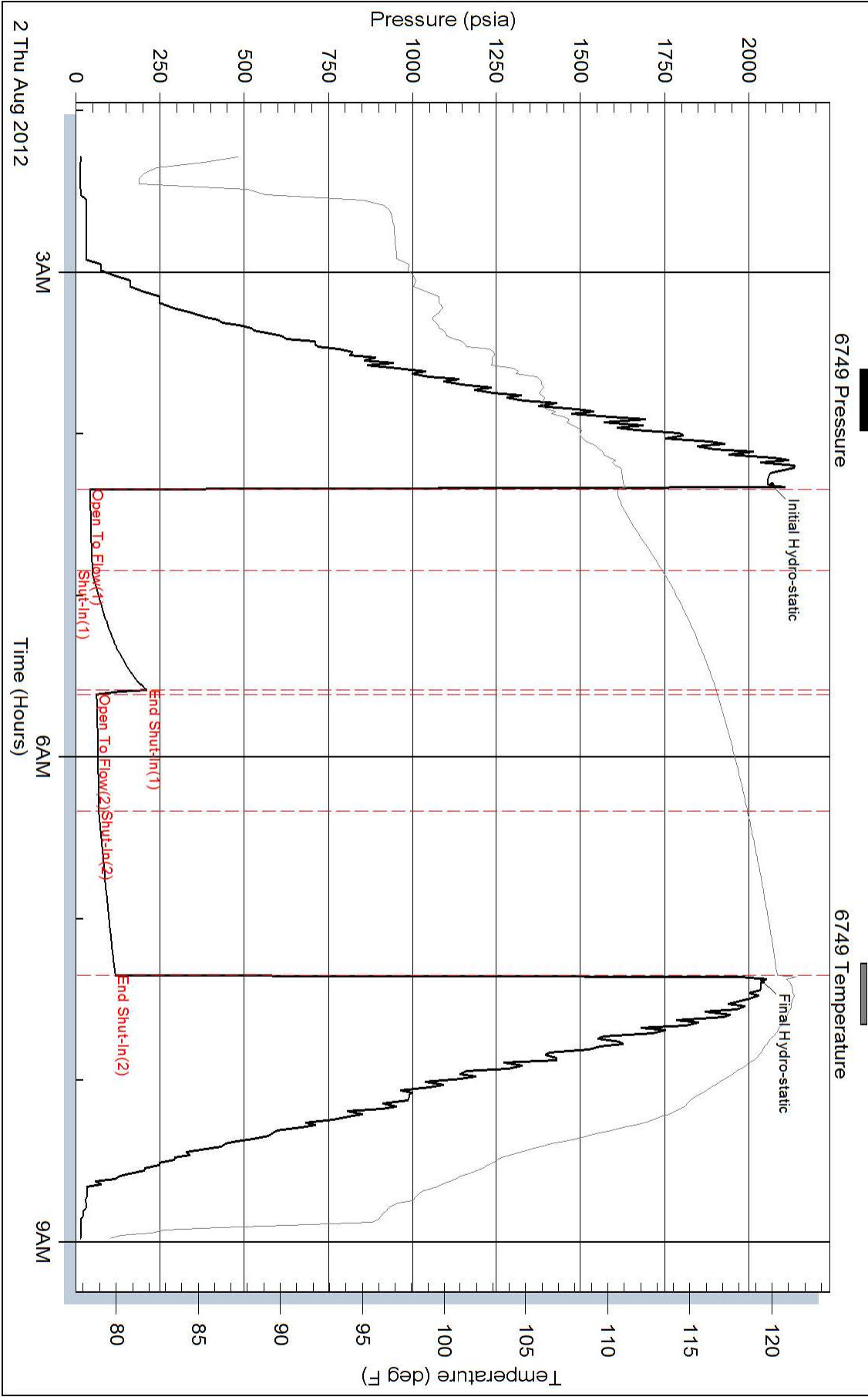
Serial #:

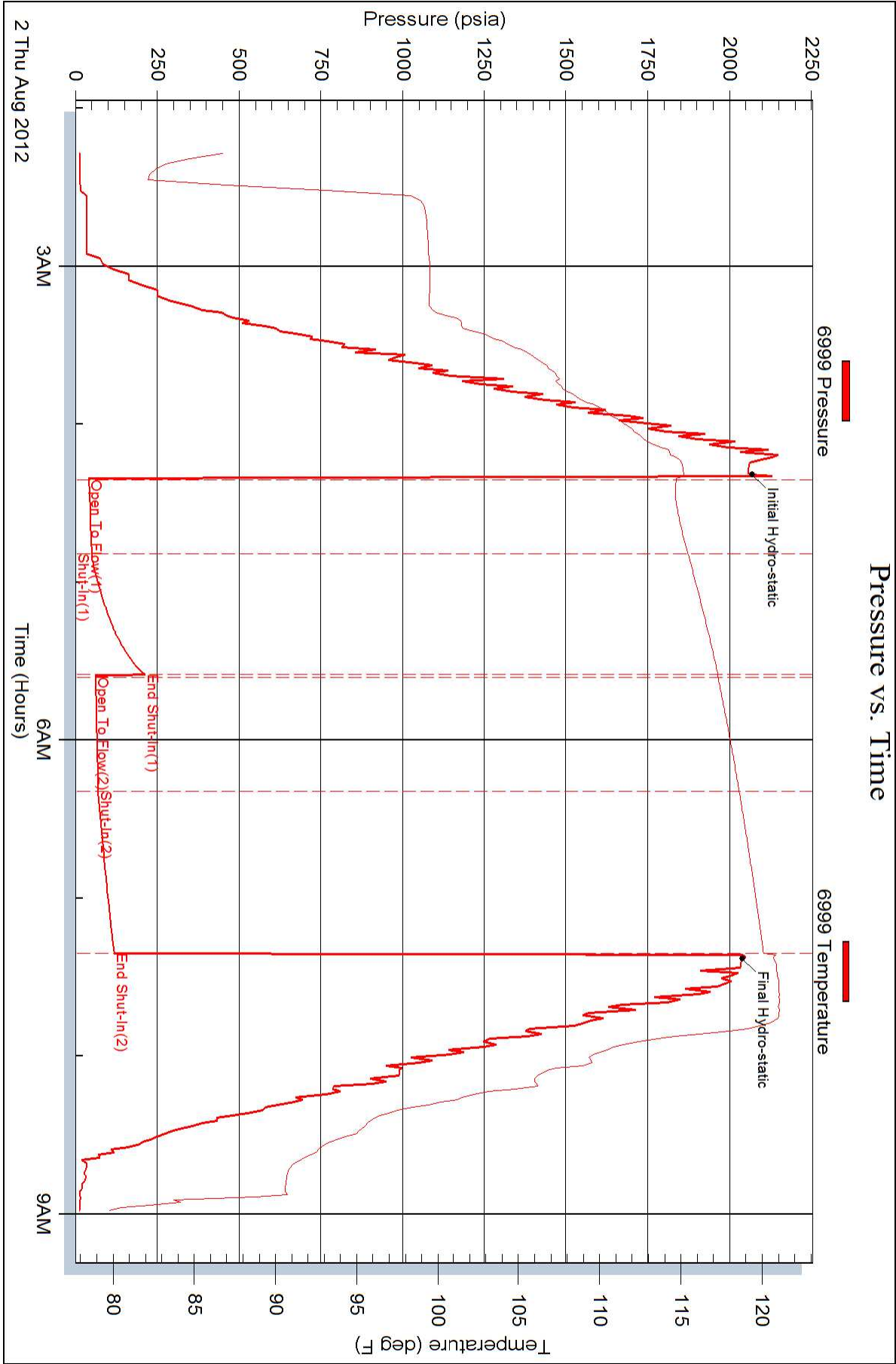
Laboratory Name:

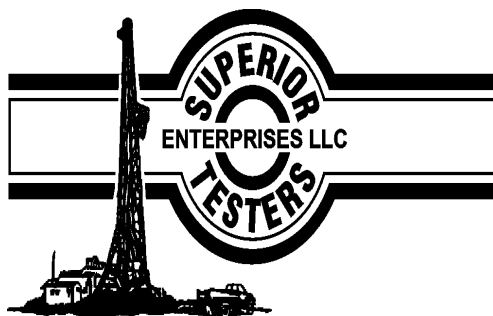
Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Incorporated**

8100 East 22ND Street North
#700
PO Box 783188

ATTN: Mike Engelbrecht

#1 Beougher-Ottley

12/13S/31W/Gove

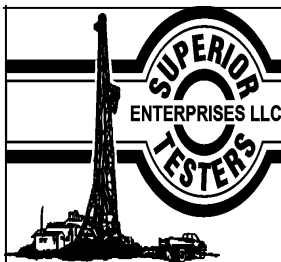
Start Date: 2012.08.04 @ 00:50:00

End Date: 2012.08.04 @ 08:53:00

Job Ticket #: 17671 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.08.04 @ 09:07:25



DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17671

DST#: 4

Test Start: 2012.08.04 @ 00:50:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:00:30

Time Test Ended: 08:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4500.00 ft (KB) To 4550.00 ft (KB) (TVD)**

Total Depth: 4550.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2879.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6749** Inside

Press@RunDepth: 59.27 psia @ 4546.00 ft (KB)

Start Date: 2012.08.04

End Date:

2012.08.04

Start Time: 00:50:00

End Time:

08:53:00

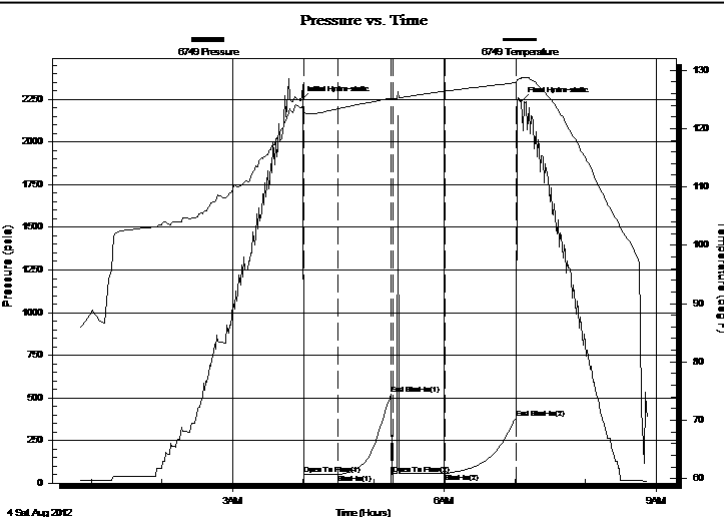
Capacity: 5000.00 psia

Last Calib.: 2012.08.04

Time On Btm: 2012.08.04 @ 03:58:00

Time Off Btm: 2012.08.04 @ 07:05:00

TEST COMMENT: 1ST Open 30 Minutes/Weak blow/Blow built to 1/4 inch then died in 23 minutes
1ST Shut In 45 Minutes/No blow back
2ND Open 45 Minutes/Dead/No blow/Flush tool didn't help
2ND Shut In 60 Minutes/No blow back



PRESSURE SUMMARY

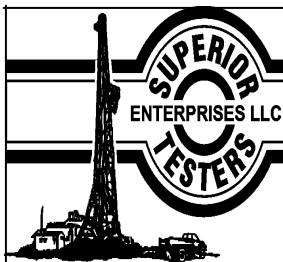
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2242.93	123.62	Initial Hydro-static
3	51.66	123.01	Open To Flow (1)
32	53.20	123.42	Shut-In(1)
77	519.31	125.22	End Shut-In(1)
78	53.34	125.10	Open To Flow (2)
123	59.27	126.42	Shut-In(2)
183	383.44	127.89	End Shut-In(2)
187	2238.62	128.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Slightly oil cut mud	0.05
0.00	Oil 5% Mud 95%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North
#700
PO Box 783188
ATTN: Mike Engelbrecht

#1 Beougher-Ottley

Job Ticket: 17671

DST#: 4

Test Start: 2012.08.04 @ 00:50:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:00:30

Time Test Ended: 08:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/92

Interval: **4500.00 ft (KB) To 4550.00 ft (KB) (TVD)**

Total Depth: 4550.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2889.00 ft (KB)

2879.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6999** Outside

Press@RunDepth: 383.47 psia @ 4547.00 ft (KB)

Start Date: 2012.08.04

End Date:

2012.08.04

Start Time: 00:50:00

End Time:

08:53:00

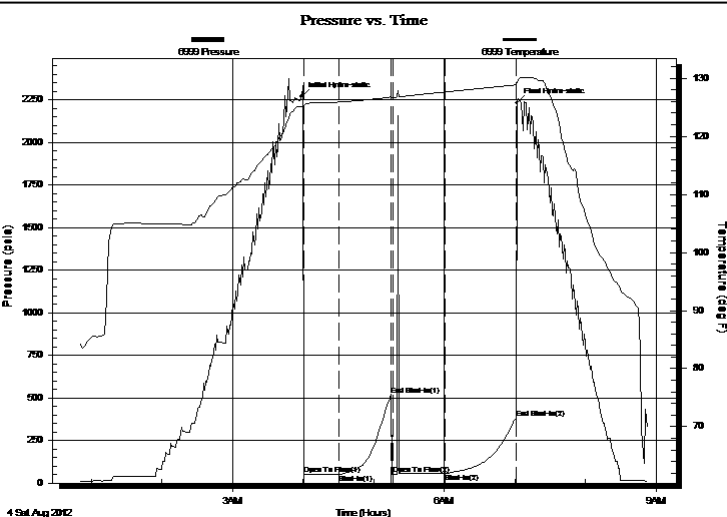
Capacity: 5000.00 psia

Last Calib.: 2012.08.04

Time On Btm: 2012.08.04 @ 03:58:30

Time Off Btm: 2012.08.04 @ 07:01:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow/Blow built to 1/4 inch then died in 23 minutes
1ST Shut In 45 Minutes/No blow back
2ND Open 45 Minutes/Dead/No blow/Flush tool didn't help
2ND Shut In 60 Minutes/No blow back



PRESSURE SUMMARY

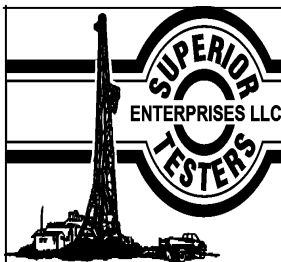
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2268.05	125.18	Initial Hydro-static
2	49.48	125.26	Open To Flow (1)
32	51.42	125.90	Shut-In(1)
76	519.21	126.80	End Shut-In(1)
78	53.47	126.72	Open To Flow (2)
122	58.67	127.65	Shut-In(2)
182	383.47	128.88	End Shut-In(2)
183	2229.68	129.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Slightly oil cut mud	0.05
0.00	Oil 5% Mud 95%	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17671

DST#: 4

PO Box 783188

Test Start: 2012.08.04 @ 00:50:00

ATTN: Mike Engelbrecht

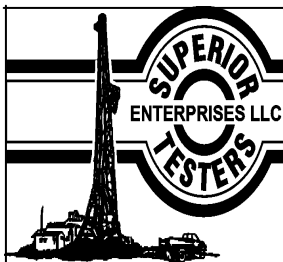
Tool Information

Drill Pipe:	Length:	3954.00 ft	Diameter:	3.80 inches	Volume:	55.46 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	540.00 ft	Diameter:	2.25 inches	Volume:	2.66 bbl	Weight to Pull Loose:	108000.0 lb
					Total Volume:	58.12 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		14.00 ft					String Weight: Initial	74000.00 lb
Depth to Top Packer:		4500.00 ft					Final	74000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		50.00 ft						
Tool Length:		70.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4485.00	
Hydraulic Tool	5.00			4490.00	
Packer	5.00			4495.00	20.00 Bottom Of Top Packer
Packer	5.00			4500.00	
Anchor	45.00			4545.00	
Recorder	1.00	6749	Inside	4546.00	
Recorder	1.00	6999	Outside	4547.00	
Bullnose	3.00			4550.00	50.00 Bottom Packers & Anchor

Total Tool Length: 70.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Incorporated

12/13S/31W/Gove

8100 East 22ND Street North

#1 Beougher-Ottley

#700

Job Ticket: 17671

DST#: 4

PO Box 783188

Test Start: 2012.08.04 @ 00:50:00

ATTN: Mike Engelbrecht

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: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Slightly oil cut mud	0.049
0.00	Oil 5% Mud 95%	0.000

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

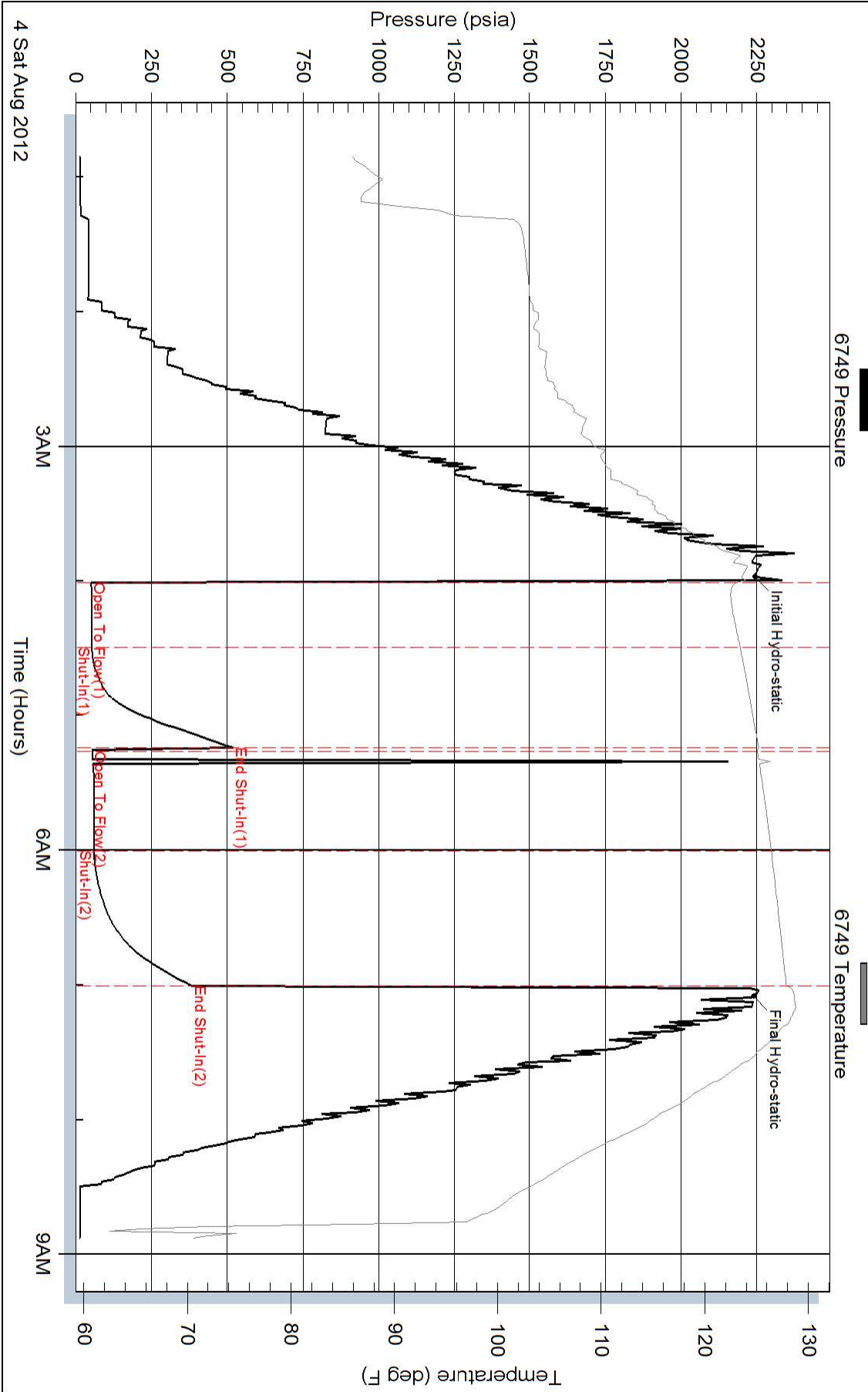
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

