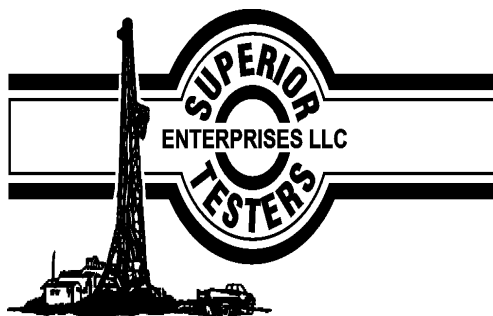




DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188

ATTN: Max Lovely

Inman #8C

8/15s/31w/Gove

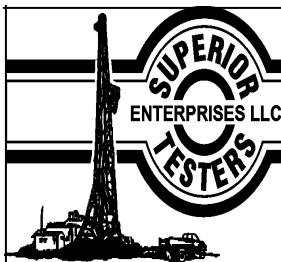
Start Date: 2013.06.14 @ 02:15:00

End Date: 2013.06.14 @ 07:52:00

Job Ticket #: 17595 DST #: 1

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

Printed: 2013.06.14 @ 08:08:21



DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17595

DST#: 1

Test Start: 2013.06.14 @ 02:15:00

GENERAL INFORMATION:

Formation: **Lansing "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:07:30

Time Test Ended: 07:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **3816.00 ft (KB) To 3836.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 3836.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: **8405** Inside

Press@RunDepth: 77.45 psia @ 3832.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.14

End Date:

2013.06.14

Last Calib.: 2013.06.14

Start Time: 02:15:00

End Time:

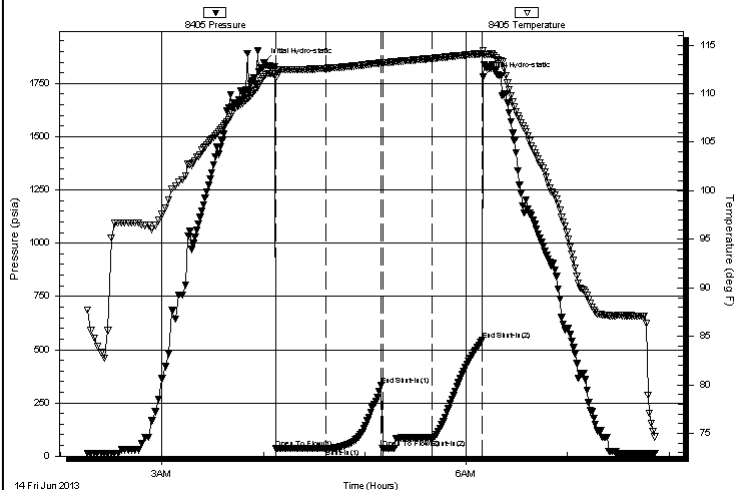
07:52:00

Time On Btm: 2013.06.14 @ 04:00:30

Time Off Btm: 2013.06.14 @ 06:10:00

TEST COMMENT: 1st Open/ 30 Minutes. Weak surface blow .
1st SHut In/ 30 Minutes. No blow back.
2nd Open/ 30 Minutes. No blow , flushed tool and gained a weak blow that built to 1 1/2 inches in a 5 gallon bucket.

Pressure vs. Time



PRESSURE SUMMARY

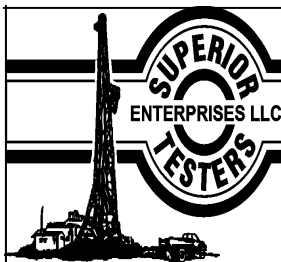
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1847.94	111.75	Initial Hydro-static
7	34.75	111.69	Open To Flow (1)
37	36.51	112.61	Shut-In(1)
69	331.58	113.19	End Shut-In(1)
70	37.37	113.16	Open To Flow (2)
100	77.45	113.64	Shut-In(2)
129	545.96	114.13	End Shut-In(2)
130	1780.33	114.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas	0.00
80.00	100% mud	0.39

Gas Rates

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

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17595

DST#: 1

Test Start: 2013.06.14 @ 02:15:00

GENERAL INFORMATION:

Formation: **Lansing "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:07:30

Time Test Ended: 07:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **3816.00 ft (KB) To 3836.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 3836.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: **8400** Outside

Press@RunDepth: 547.87 psia @ 3833.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.14

End Date:

2013.06.14

Last Calib.: 2013.06.14

Start Time: 02:25:00

End Time:

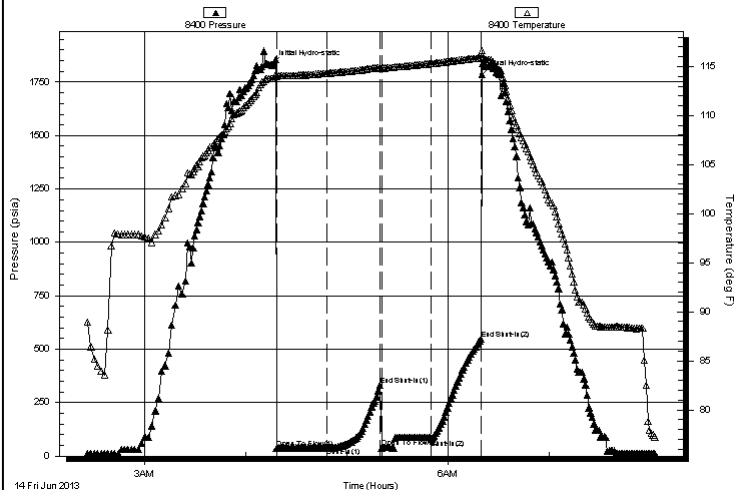
08:02:30

Time On Btm: 2013.06.14 @ 04:15:30

Time Off Btm: 2013.06.14 @ 06:20:00

TEST COMMENT: 1st Open/ 30 Minutes. Weak surface blow .
1st Shut In/ 30 Minutes. No blow back.
2nd Open/ 30 Minutes. No blow , flushed tool and gained a weak blow that built to 1 1/2 inches in a 5 gallon bucket.

Pressure vs. Time



PRESSURE SUMMARY

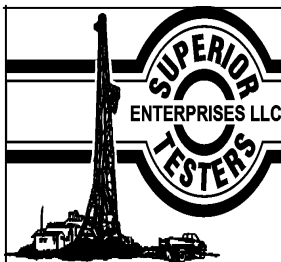
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1830.31	113.79	Initial Hydro-static
3	38.14	114.00	Open To Flow (1)
33	39.20	114.30	Shut-In(1)
64	332.33	114.94	End Shut-In(1)
65	39.67	114.82	Open To Flow (2)
95	79.11	115.29	Shut-In(2)
124	547.87	115.89	End Shut-In(2)
125	1785.15	116.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas	0.00
80.00	100% mud	0.39

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17595

DST#: 1

Test Start: 2013.06.14 @ 02:15:00

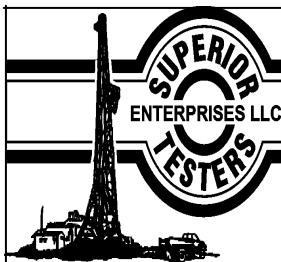
Tool Information

Drill Pipe:	Length:	3693.00 ft	Diameter:	3.80 inches	Volume:	51.80 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:	124.26 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	52.41 bbl	Tool Chased	2.00 ft
Drill Pipe Above KB:		29.26 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3816.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		20.00 ft						
Tool Length:		48.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

SHut-InTool	5.00		Inside	3793.00		
Hydrolic Tool	5.00			3798.00		
Jars	6.00			3804.00		
Safety Joint	2.00			3806.00		
Packer	5.00			3811.00	28.00	Bottom Of Top Packer
Packer	5.00			3816.00		
Anchor	15.00			3831.00		
Recorder	1.00	8405	Inside	3832.00		
Recorder	1.00	8400	Outside	3833.00		
Bullnose	3.00			3836.00	20.00	Bottom Packers & Anchor
Total Tool Length:	48.00					



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17595

DST#: 1

Test Start: 2013.06.14 @ 02:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 7.20 in³

Resistivity: ohm.m

Salinity: 2300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	No gas	0.000
80.00	100% mud	0.393

Total Length: 80.00 ft

Total Volume: 0.393 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

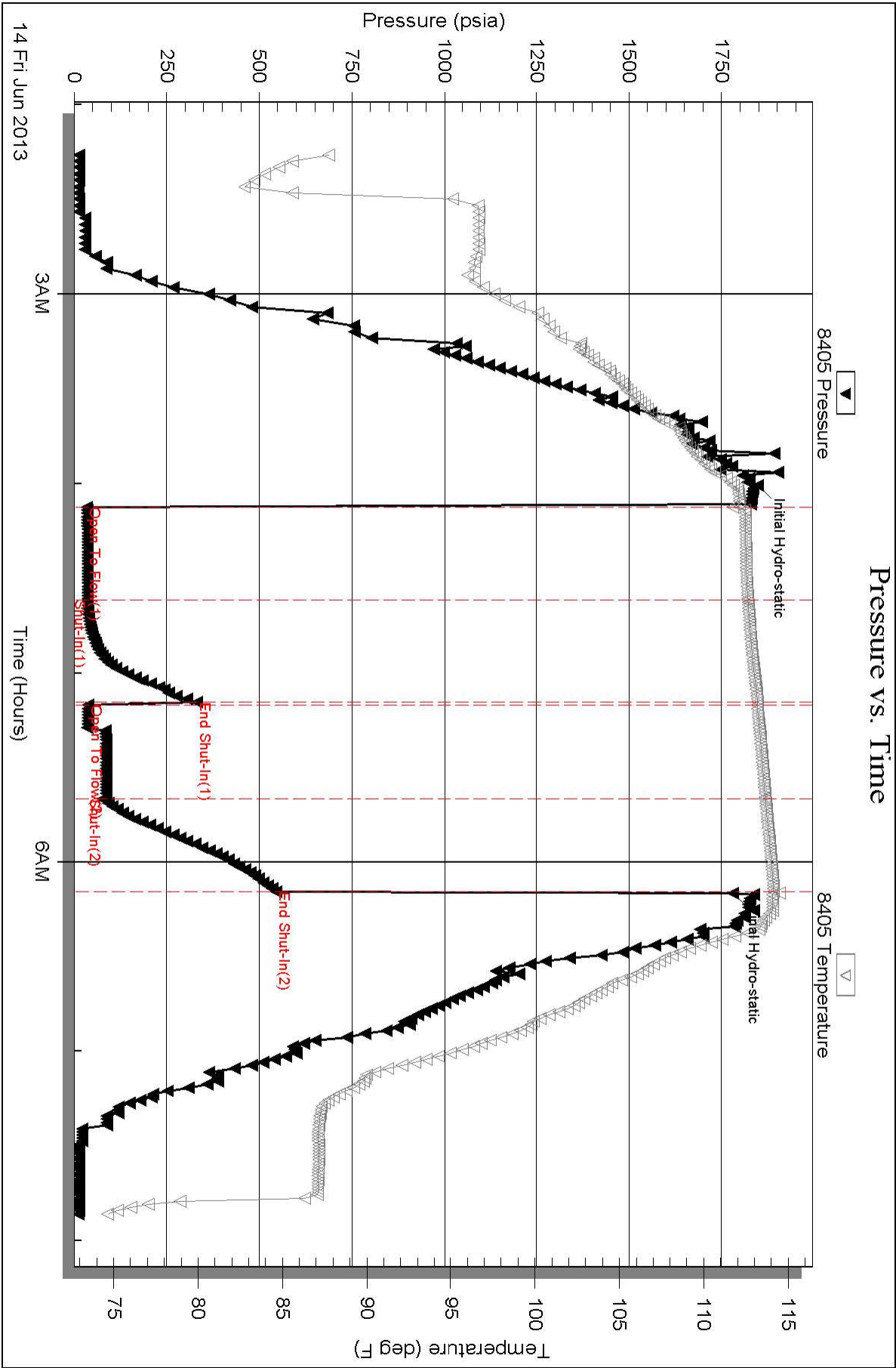
Serial #: 8405

Inside

Ritchie Exploration Inc.

Inman #8C

DST Test Number: 1

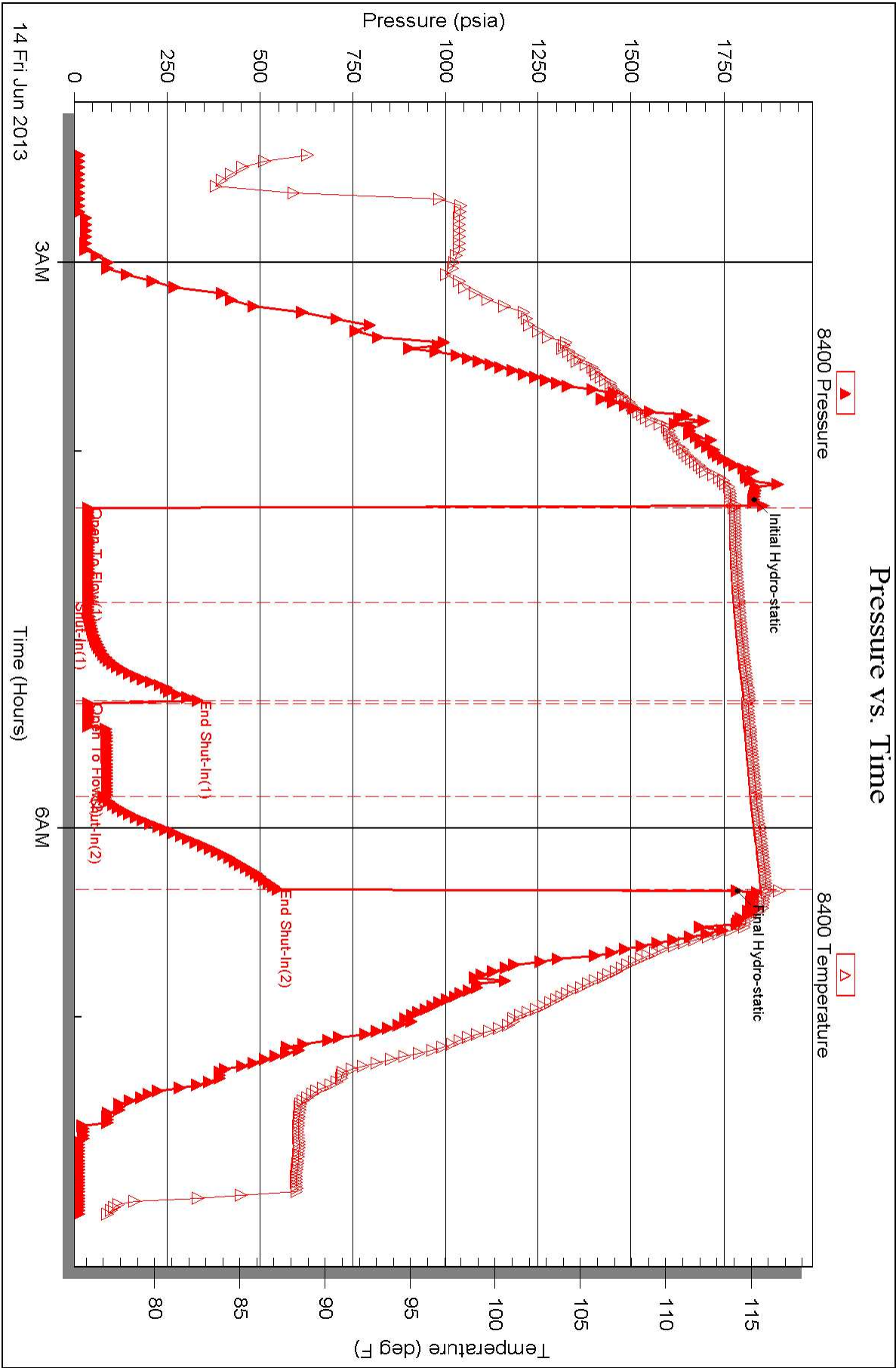


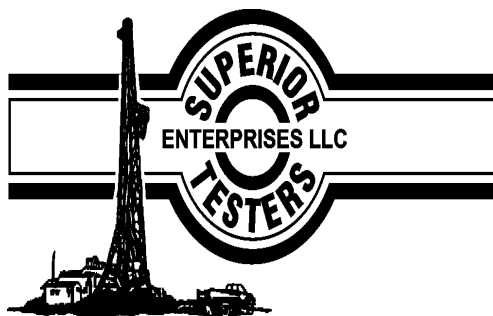
Serial #: 8400

Outside Ritchie Exploration Inc.

Inman #8C

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188

ATTN: Max Lovely

Inman #8C

8/15s/31w/Gove

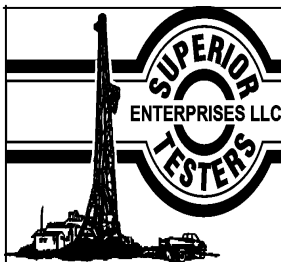
Start Date: 2013.06.15 @ 22:30:00

End Date: 2013.06.16 @ 05:20:30

Job Ticket #: 17596 DST #: 2

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

Printed: 2013.06.15 @ 05:39:21



DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17596

DST#: 2

Test Start: 2013.06.15 @ 22:30:00

GENERAL INFORMATION:

Formation: **Lansing "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:30

Time Test Ended: 05:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **3917.00 ft (KB) To 3946.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 3946.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: **8405** Inside

Press@RunDepth: 115.15 psia @ 3942.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.15

End Date:

2013.06.16

Last Calib.:

2013.06.15

Start Time: 22:30:00

End Time:

05:20:30

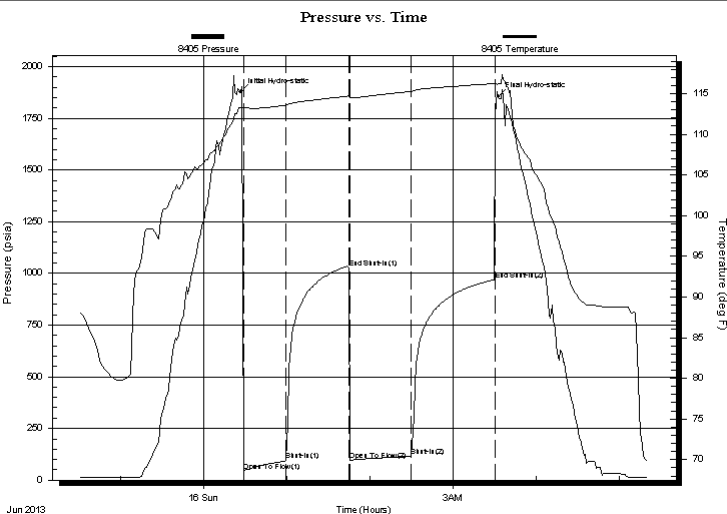
Time On Btm:

2013.06.16 @ 00:26:30

Time Off Btm:

2013.06.16 @ 03:32:30

TEST COMMENT: 1st Open/ 30 Minutes. Fair blow built to 2 inches in 5 gallon bucket.
1st Shut In/ 45 Minutes. No blow back.
2nd Open/ 45 Minutes. Weak blow built to 1 inch in 5 gallon bucket.
2nd Shut In/ 60 Minutes. No blow back.



PRESSURE SUMMARY

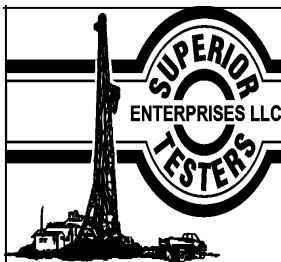
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1876.36	113.30	Initial Hydro-static
2	42.05	113.18	Open To Flow (1)
33	93.58	113.57	Shut-In(1)
78	1024.15	114.69	End Shut-In(1)
79	97.47	114.50	Open To Flow (2)
123	115.15	115.26	Shut-In(2)
184	970.39	116.24	End Shut-In(2)
186	1853.60	116.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	180 foot gas	0.00
2.00	100% clean oil	0.01
60.00	100% mud	0.30
88.00	90% water, 10% mud	0.67
0.00	resist recov .22 ohms at 40 degrees	0.00
0.00	Chloride recov. 29000	0.00

Gas Rates

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

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17596

DST#: 2

Test Start: 2013.06.15 @ 22:30:00

GENERAL INFORMATION:

Formation: **Lansing "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:30

Time Test Ended: 05:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **3917.00 ft (KB) To 3946.00 ft (KB) (TVD)**

Total Depth: 3946.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2716.00 ft (KB)

2711.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8400** Outside

Press@RunDepth: 971.95 psia @ 3943.00 ft (KB)

Start Date: 2013.06.15

End Date:

2013.06.16

Capacity: 5000.00 psia

Last Calib.: 2013.06.15

Start Time: 22:30:00

End Time:

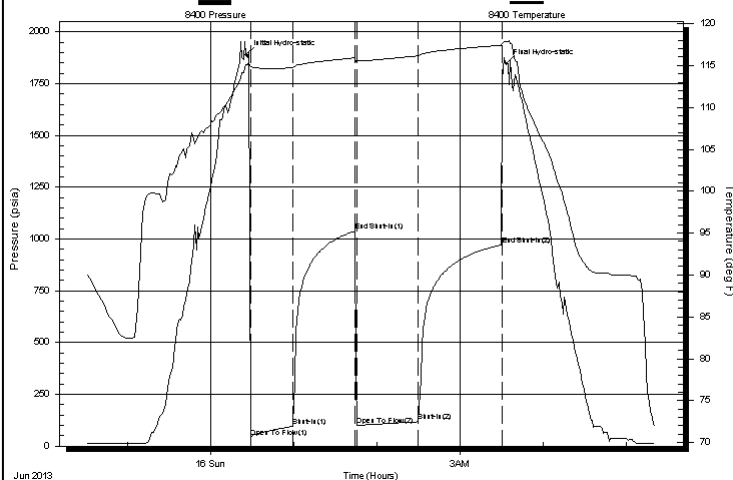
05:20:30

Time On Btm: 2013.06.16 @ 00:25:30

Time Off Btm: 2013.06.16 @ 03:33:30

TEST COMMENT: 1st Open/ 30 Minutes. Fair blow built to 2 inches in 5 gallon bucket.
1st Shut In/ 45 Minutes. No blow back.
2nd Open/ 45 Minutes. Weak blow built to 1 inch in 5 gallon bucket.
2nd Shut In/ 60 Minutes. No blow back.

Pressure vs. Time



PRESSURE SUMMARY

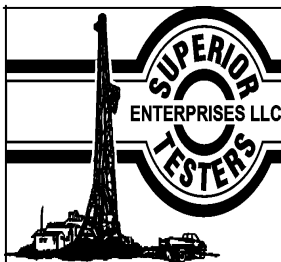
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1888.30	115.09	Initial Hydro-static
3	44.73	114.86	Open To Flow (1)
34	95.26	114.75	Shut-In(1)
79	1037.24	115.92	End Shut-In(1)
80	99.46	115.55	Open To Flow (2)
125	118.42	116.15	Shut-In(2)
185	971.95	117.42	End Shut-In(2)
188	1844.22	117.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	180 foot gas	0.00
2.00	100% clean oil	0.01
60.00	100% mud	0.30
88.00	90% water, 10% mud	0.67
0.00	resist recov .22 ohms at 40 degrees	0.00
0.00	Chloride recov. 29000	0.00

Gas Rates

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

TOOL DIAGRAM

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17596

DST#: 2

Test Start: 2013.06.15 @ 22:30:00

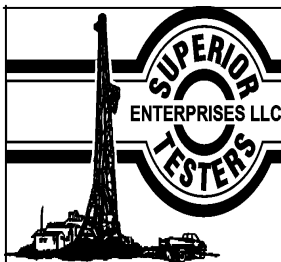
Tool Information

Drill Pipe:	Length:	3798.00 ft	Diameter:	3.80 inches	Volume:	53.28 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	68000.00 lb
					Total Volume:	53.89 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		25.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		3917.00 ft					Final	53000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		29.00 ft						
Tool Length:		49.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	3902.00	
Hydraulic Tool	5.00			3907.00	
Packer	5.00			3912.00	20.00 Bottom Of Top Packer
Packer	5.00			3917.00	
Anchor	24.00			3941.00	
Recorder	1.00	8405	Inside	3942.00	
Recorder	1.00	8400	Outside	3943.00	
Bullnose	3.00			3946.00	29.00 Bottom Packers & Anchor

Total Tool Length: 49.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17596

DST#: 2

Test Start: 2013.06.15 @ 22:30:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 8.80 in³
Resistivity: ohm.m
Salinity: 3000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	180 foot gas	0.000
2.00	100% clean oil	0.010
60.00	100% mud	0.295
88.00	90% water, 10% mud	0.670
0.00	resist recov .22 ohms at 40 degrees	0.000
0.00	Chloride recov. 29000	0.000

Total Length: 150.00 ft Total Volume: 0.975 bbl

Num Fluid Samples: 0

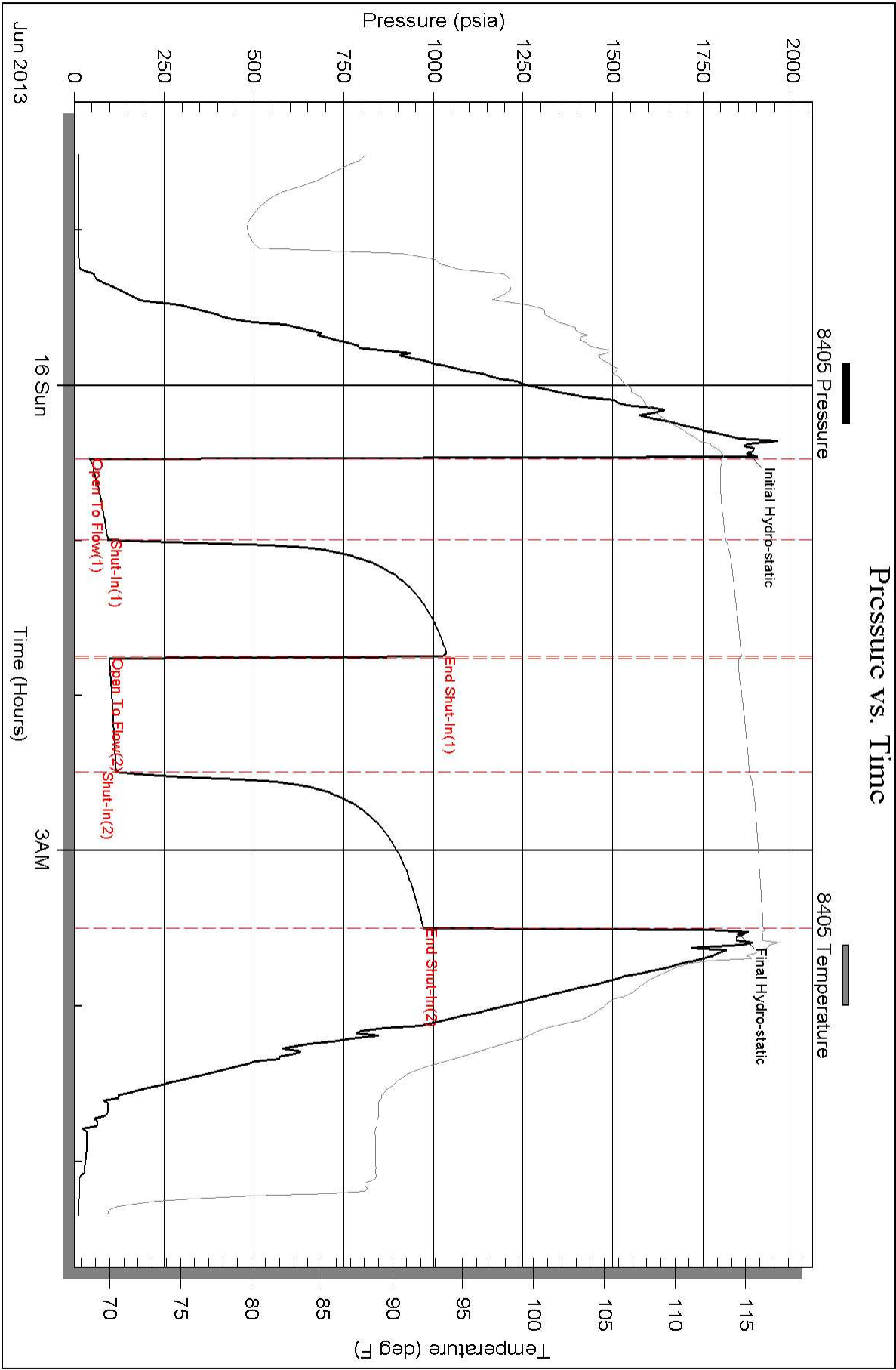
Num Gas Bombs: 0

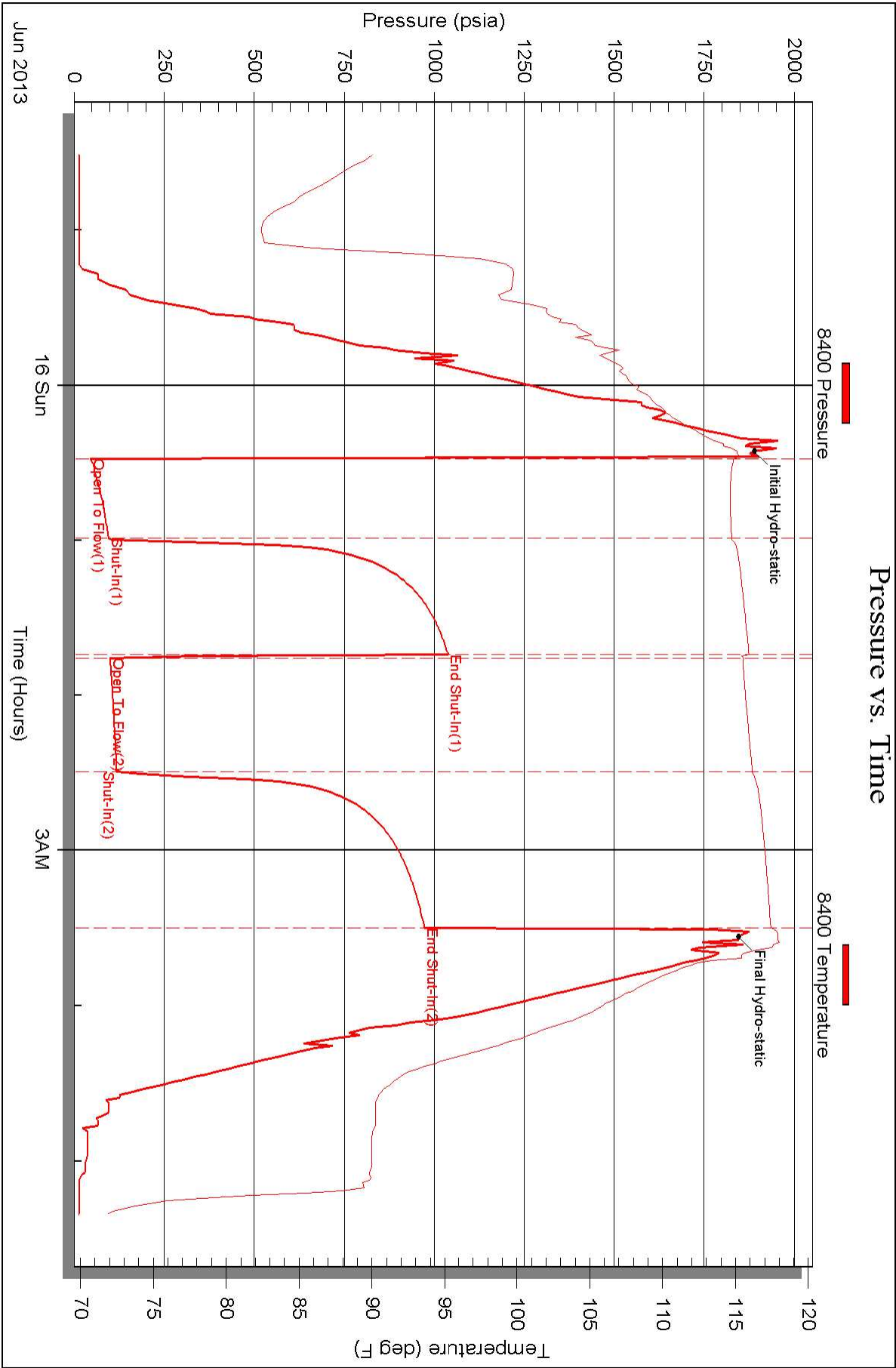
Serial #:

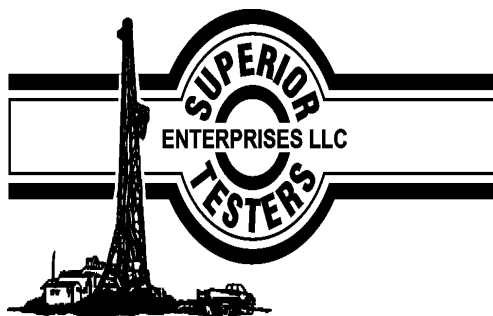
Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188

ATTN: Max Lovely

Inman #8C

8/15s/31w/Gove

Start Date: 2013.06.15 @ 00:00:00

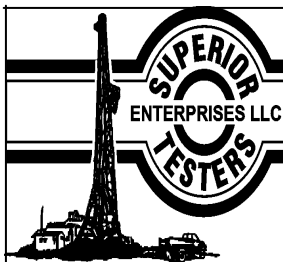
End Date:

Job Ticket #: 17597

DST #: 3

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

Printed: 2013.06.15 @ 20:28:03



DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17597

DST#: 3

Test Start: 2013.06.15 @ 00:00:00

GENERAL INFORMATION:

Formation: **kansas City "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330-50 scott city

Interval: **3953.00 ft (KB) To 3953.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 3993.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: **8405** Inside

Press@RunDepth: 1111.24 psia @ 3989.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.15

End Date:

2013.06.15

Last Calib.:

2013.06.15

Start Time: 01:30:00

End Time:

06:42:00

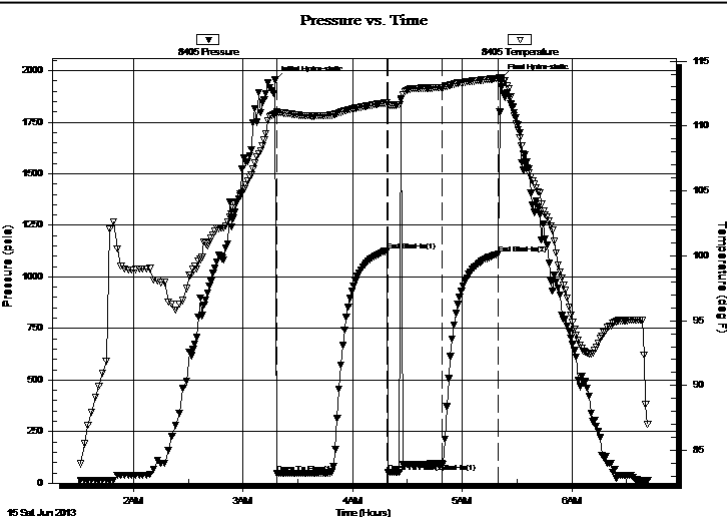
Time On Btm:

2013.06.15 @ 03:17:30

Time Off Btm:

2013.06.15 @ 05:21:00

TEST COMMENT: 1st Opening 30 Minutes good surg no blow
1st Shut-In 30 Minutes no blow back
2nd Opening 30 Minutes No blow -Flushed tool-Good surge-Weak building blow built to 1 inch
2nd Shut-In 30 Minutes No blow back



PRESSURE SUMMARY

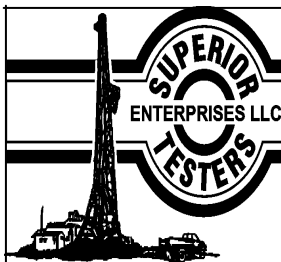
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1953.63	110.98	Initial Hydro-static
1	45.87	111.09	Open To Flow (1)
61	1126.23	111.80	End Shut-In(1)
62	51.14	111.61	Open To Flow (2)
92	94.16	112.97	Shut-In(1)
122	1111.24	113.67	End Shut-In(2)
124	1963.60	113.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Drilling Mud	1.05

Gas Rates

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

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17597

DST#: 3

Test Start: 2013.06.15 @ 00:00:00

GENERAL INFORMATION:

Formation: **kansas City "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330-50 scott city

Interval: **3953.00 ft (KB) To 3953.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 3993.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: **8400** Outside

Press@RunDepth: 1112.38 psia @ 3990.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.05.15

End Date:

2013.05.15

Last Calib.: 2013.06.15

Start Time: 01:30:00

End Time:

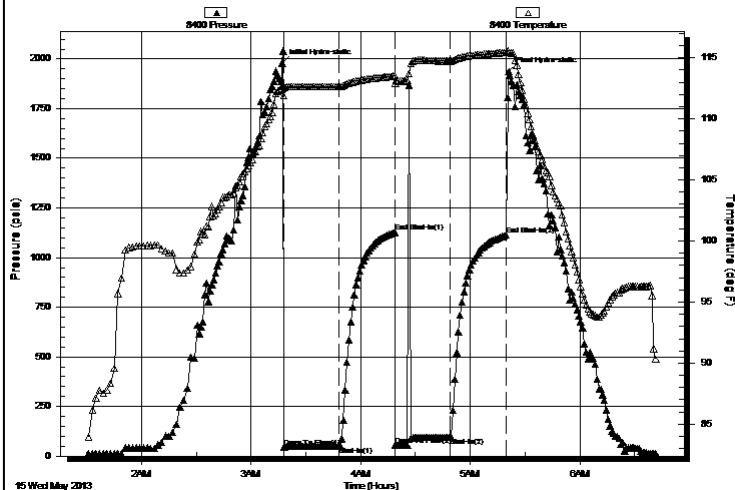
06:41:30

Time On Btm: 2013.05.15 @ 03:17:00

Time Off Btm: 2013.05.15 @ 05:21:00

TEST COMMENT: 1st Opening 30 Minutes good surg no blow
1st Shut-In 30 Minutes no blow back
2nd Opening 30 Minutes No blow -Flushed tool-Good surge-Weak building blow built to 1 inch
2nd Shut-In 30 Minutes No blow back

Pressure vs. Time



PRESSURE SUMMARY

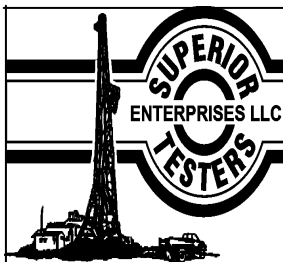
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1977.93	112.45	Initial Hydro-static
1	46.80	111.89	Open To Flow (1)
31	51.63	112.64	Shut-In(1)
62	1127.33	113.52	End Shut-In(1)
62	53.15	112.91	Open To Flow (2)
92	96.04	114.72	Shut-In(2)
123	1112.38	115.44	End Shut-In(2)
124	1937.41	115.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Drilling Mud	1.05

Gas Rates

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

TOOL DIAGRAM

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17597

DST#: 3

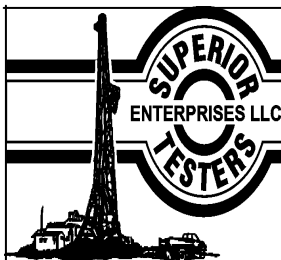
Test Start: 2013.06.15 @ 00:00:00

Tool Information

Drill Pipe:	Length:	3952.00 ft	Diameter:	3.80 inches	Volume:	55.44 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:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	55.44 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	53000.00 lb
Depth to Top Packer:		3953.00 ft					Final	53000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		40.00 ft						
Tool Length:		61.00 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			3933.00	
Shut-In Tool	5.00			3938.00	
Hydroic Tool	5.00			3943.00	
Packer	5.00			3948.00	21.00 Bottom Of Top Packer
Packer	5.00			3953.00	
Perforations	35.00			3988.00	
Recorder	1.00	8405	Inside	3989.00	
Recorder	1.00	8400	Outside	3990.00	
Bullnose	3.00			3993.00	40.00 Bottom Packers & Anchor
Total Tool Length:	61.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17597

DST#: 3

Test Start: 2013.06.15 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 71.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	Drilling Mud	1.052

Total Length: 75.00 ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

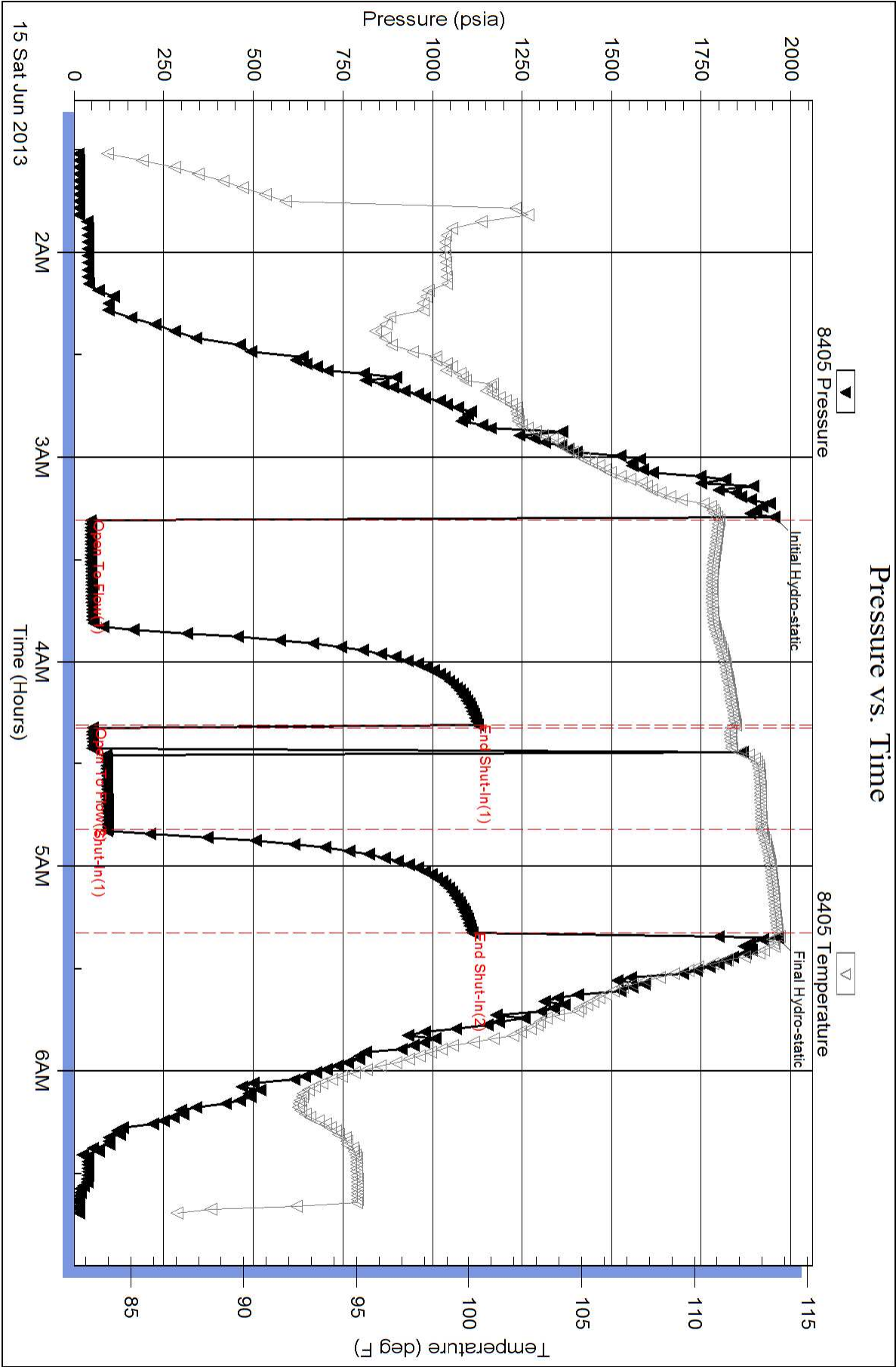
Serial #: 8405

Inside

Ritchie Exploration Inc.

Inman #8C

DST Test Number: 3



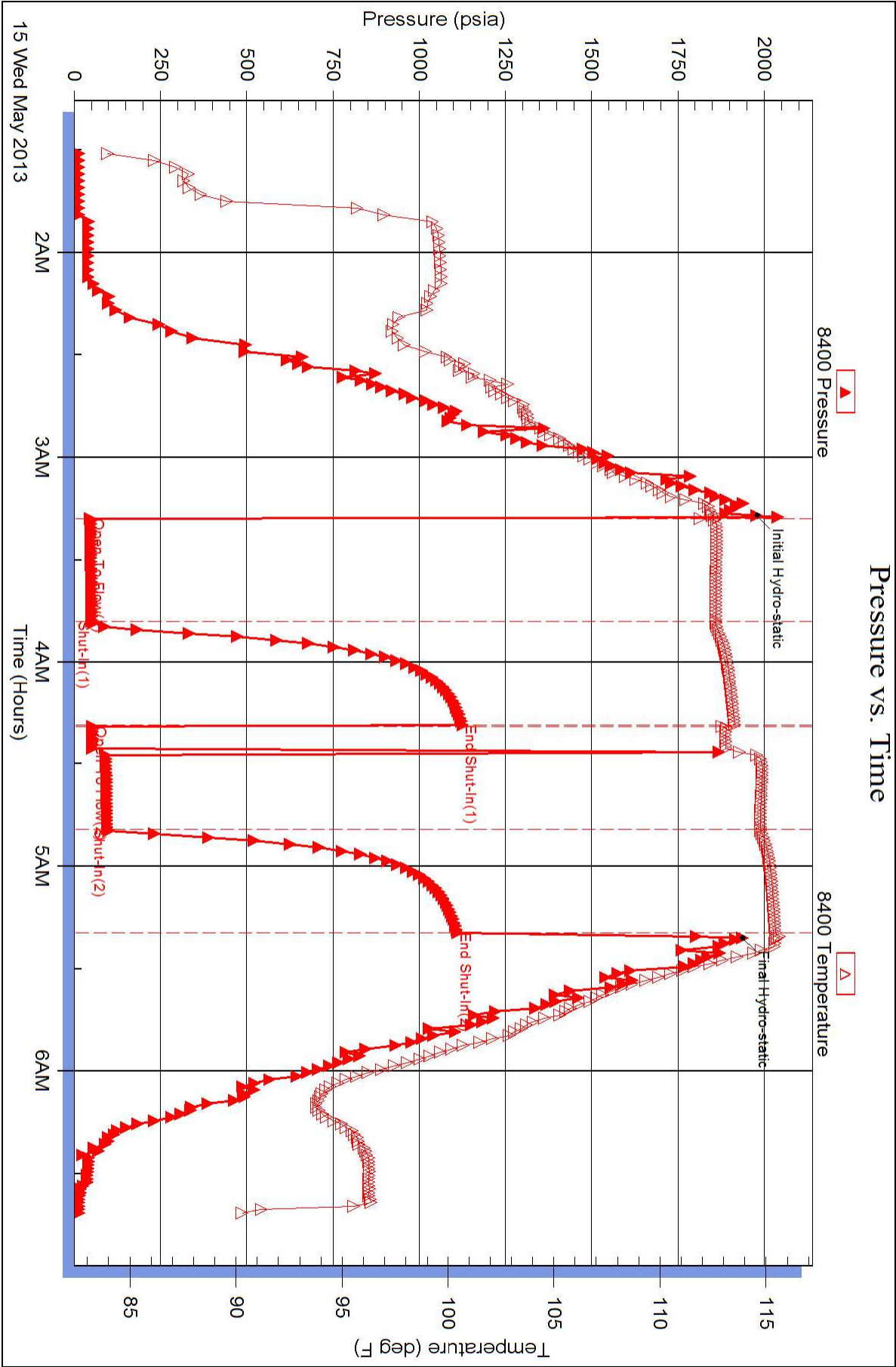
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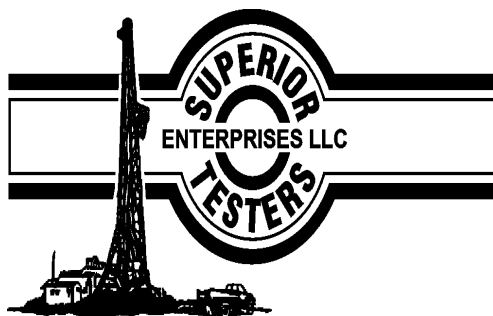
Outside

Ritchie Exploration Inc.

Inman #8C

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188

ATTN: Max Lovely

Inman #8C

8/15s/31w/Gove

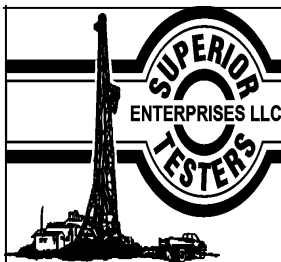
Start Date: 2013.06.16 @ 05:55:00

End Date: 2013.06.16 @ 17:41:23

Job Ticket #: 1798 DST #: 4

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

Printed: 2013.06.16 @ 12:47:25



DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 1798

DST#: 4

Test Start: 2013.06.16 @ 05:55:00

GENERAL INFORMATION:

Formation: **Lansing "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:57:23

Time Test Ended: 17:41:23

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **4043.00 ft (KB) To 4084.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 4084.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: **8405** Inside

Press@RunDepth: 122.84 psia @ 4080.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.16

End Date:

2013.06.16

Last Calib.:

2013.06.16

Start Time: 05:55:00

End Time:

17:41:23

Time On Btm:

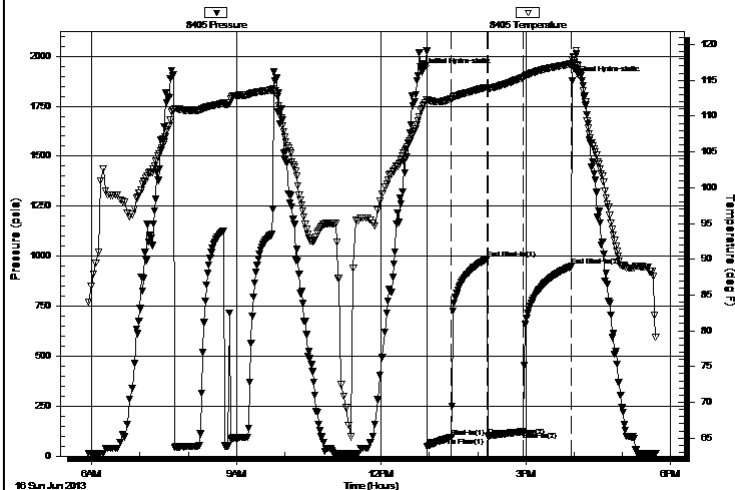
2013.06.16 @ 12:50:23

Time Off Btm:

2013.06.16 @ 15:57:53

TEST COMMENT: 1st Open/ 30 Minutes. Fair blow built to 1 1/2 inches in 5 gallon bucket.
1st Shut In/ 45 Minutes. No blow back.
2nd Open/ 45 Minutes. Fair blow built to 1 inches in a 5 gallon bucket.
2nd Shut In/ 60 Minutes. No blow back.

Pressure vs. Time



PRESSURE SUMMARY

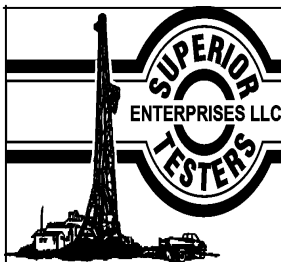
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1920.19	110.97	Initial Hydro-static
7	48.70	112.22	Open To Flow (1)
37	95.93	112.41	Shut-In(1)
82	986.23	114.05	End Shut-In(1)
83	99.46	113.90	Open To Flow (2)
127	122.84	115.40	Shut-In(2)
187	949.78	117.31	End Shut-In(2)
188	1875.81	117.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas present	0.00
40.00	100% Mud	0.20
120.00	30% mud, 70% water	0.92
0.00	chloride recov. 27000 ppm	0.00
0.00	resist recov. .21 ohms at 50 degrees.	0.00

Gas Rates

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

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 1798

DST#: 4

Test Start: 2013.06.16 @ 05:55:00

GENERAL INFORMATION:

Formation: **Lansing "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:57:23

Time Test Ended: 17:41:23

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **4043.00 ft (KB) To 4084.00 ft (KB) (TVD)**

Reference Elevations: 2716.00 ft (KB)

Total Depth: 4084.00 ft (KB) (TVD)

2711.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: **8400** Outside

Press@RunDepth: 950.77 psia @ 4081.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.16

End Date:

2013.06.16

Last Calib.: 2013.06.16

Start Time: 05:55:00

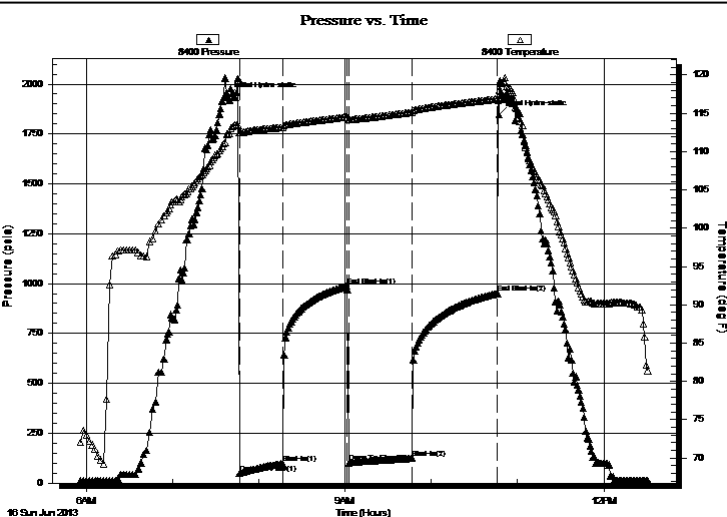
End Time:

12:31:00

Time On Btm: 2013.06.16 @ 07:38:30

Time Off Btm: 2013.06.16 @ 10:47:00

TEST COMMENT: 1st Open/ 30 Minutes. Fair blow built to 1 1/2 inches in 5 gallon bucket.
1st Shut In/ 45 Minutes. No blow back.
2nd Open/ 45 Minutes. Fair blow built to 1 inches in a 5 gallon bucket.
2nd Shut In/ 60 Minutes. No blow back.



PRESSURE SUMMARY

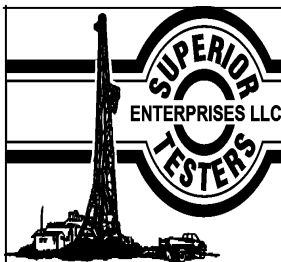
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1935.61	112.28	Initial Hydro-static
8	50.70	112.49	Open To Flow (1)
38	98.38	113.15	Shut-In(1)
83	987.25	114.51	End Shut-In(1)
84	102.30	114.19	Open To Flow (2)
128	126.10	115.13	Shut-In(2)
188	950.77	116.86	End Shut-In(2)
189	1846.01	117.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas present	0.00
40.00	100% Mud	0.20
120.00	30% mud, 70% water	0.92
0.00	chloride recov. 27000 ppm	0.00
0.00	resist recov. .21 ohms at 50 degrees.	0.00

Gas Rates

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

TOOL DIAGRAM

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 1798

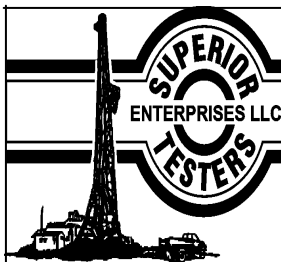
DST#: 4

Test Start: 2013.06.16 @ 05:55:00

Tool Information

Drill Pipe:	Length:	3918.00 ft	Diameter:	3.80 inches	Volume:	54.96 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	72000.00 lb
					Total Volume:	55.57 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	56000.00 lb
Depth to Top Packer:		4043.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		41.00 ft						
Tool Length:		62.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4023.00	
Shut-In Tool	5.00			4028.00	
Hydroic Tool	5.00			4033.00	
Packer	5.00			4038.00	21.00 Bottom Of Top Packer
Packer	5.00			4043.00	
Perforations	36.00			4079.00	
Recorder	1.00	8405	Inside	4080.00	
Recorder	1.00	8400	Outside	4081.00	
Bullnose	3.00			4084.00	41.00 Bottom Packers & Anchor
Total Tool Length:	62.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 1798

DST#: 4

Test Start: 2013.06.16 @ 05:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 71.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	No gas present	0.000
40.00	100% Mud	0.197
120.00	30% mud, 70% water	0.918
0.00	chloride recov. 27000 ppm	0.000
0.00	resist recov. .21 ohms at 50 degrees.	0.000

Total Length: 160.00 ft

Total Volume: 1.115 bbl

Num Fluid Samples: 0

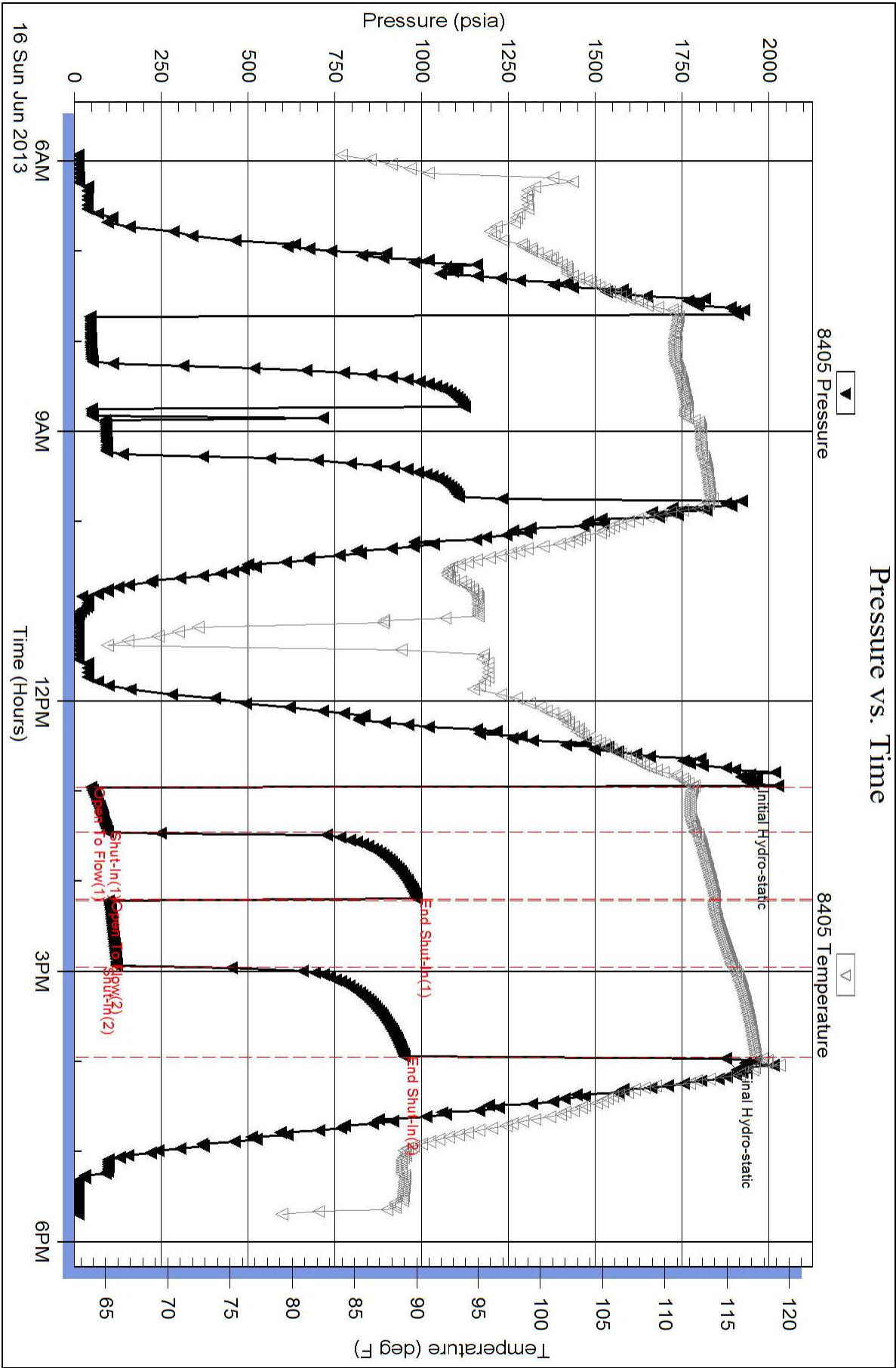
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

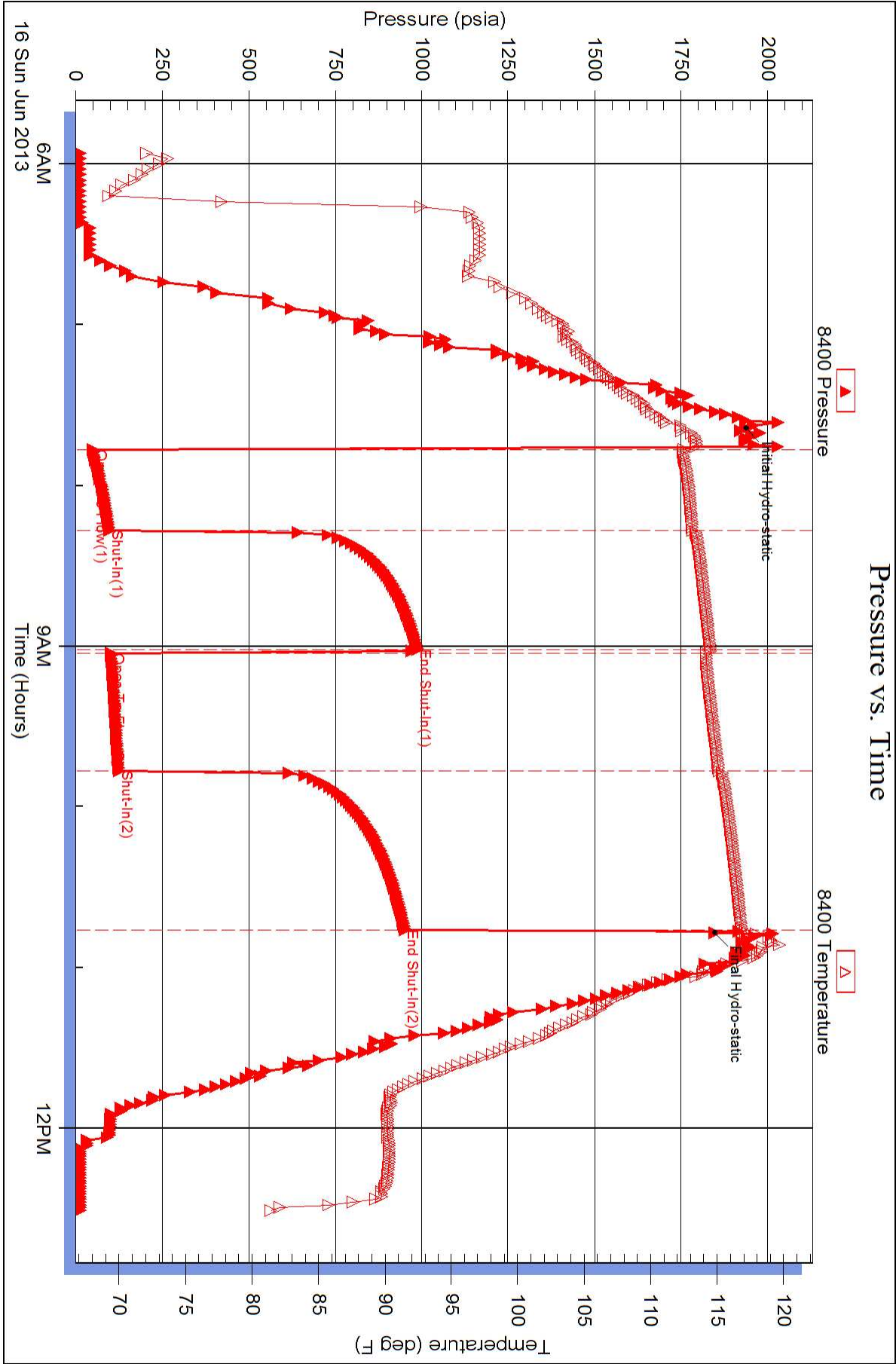


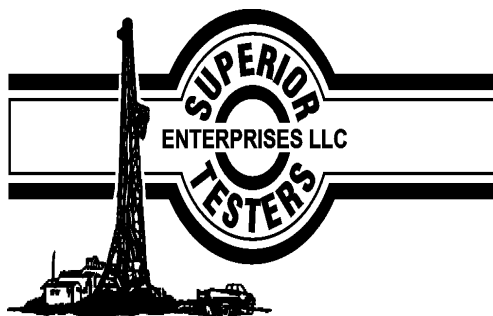
Serial #: 8400

Outside Ritchie Exploration Inc.

Inman #8C

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188

ATTN: Max Lovely

Inman #8C

8/15s/31w/Gove

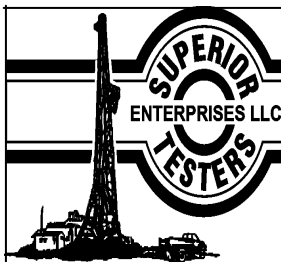
Start Date: 2013.06.17 @ 16:55:00

End Date: 2013.06.17 @ 22:22:30

Job Ticket #: 17599 DST #: 5

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

Printed: 2013.06.17 @ 22:39:47



DRILL STEM TEST REPORT

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17599

DST#: 5

Test Start: 2013.06.17 @ 16:55:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:45:30

Time Test Ended: 22:22:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **4312.00 ft (KB) To 4355.00 ft (KB) (TVD)**

Total Depth: 4355.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2716.00 ft (KB)

2711.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8405** Inside

Press@RunDepth: 52.90 psia @ 4351.00 ft (KB)

Start Date: 2013.06.17

End Date:

2013.06.17

Start Time: 16:55:00

End Time:

22:22:00

Capacity: 5000.00 psia

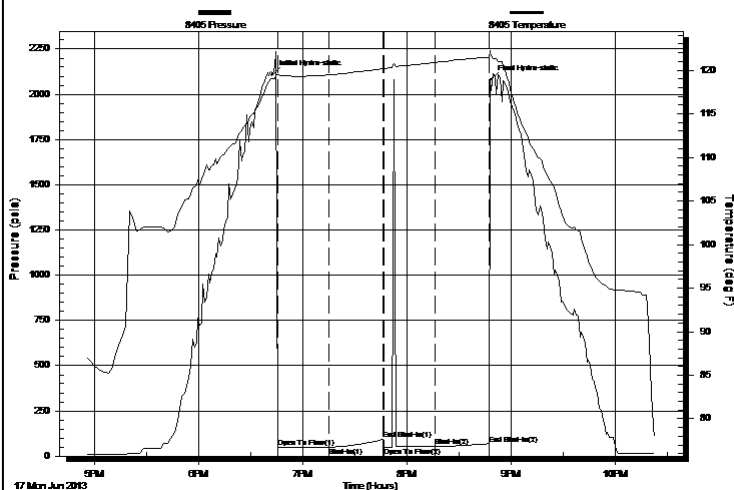
Last Calib.: 2013.06.17

Time On Btm: 2013.06.17 @ 18:42:30

Time Off Btm: 2013.06.17 @ 20:48:00

TEST COMMENT: 1st Open/ 30 Minutes. Weak surface blow that died after 20 minutes.
1st Shut In/ 30 Minutes. No blow back.
2nd Open/ 30 Minutes. No blow, flushed tool after 5 minutes and did not gain any blow.
2nd Shut In/ 30 Minutes. No blow back.

Pressure vs. Time



PRESSURE SUMMARY

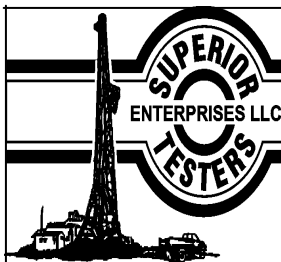
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2107.91	119.05	Initial Hydro-static
3	48.57	119.44	Open To Flow (1)
33	49.97	119.48	Shut-In(1)
64	93.17	120.18	End Shut-In(1)
64	50.03	120.19	Open To Flow (2)
94	52.90	120.88	Shut-In(2)
125	68.01	121.51	End Shut-In(2)
126	2080.85	121.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% mud	0.05

Gas Rates

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

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17599

DST#: 5

Test Start: 2013.06.17 @ 16:55:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:45:30

Time Test Ended: 22:22:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Scott City

Interval: **4312.00 ft (KB) To 4355.00 ft (KB) (TVD)**

Total Depth: 4355.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2716.00 ft (KB)

2711.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8400** Outside

Press@RunDepth: 70.19 psia @ 4352.00 ft (KB)

Start Date: 2013.06.17

End Date:

2013.06.17

Start Time: 16:55:00

End Time:

22:22:00

Capacity: 5000.00 psia

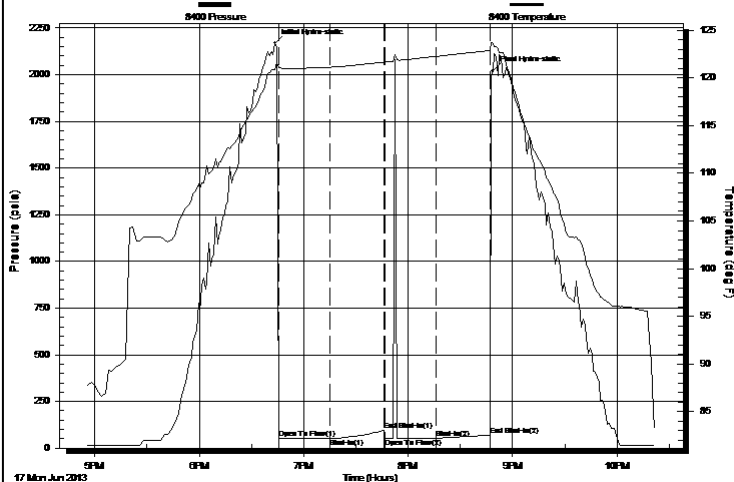
Last Calib.: 2013.06.17

Time On Btm: 2013.06.17 @ 18:43:30

Time Off Btm: 2013.06.17 @ 20:48:30

TEST COMMENT: 1st Open/ 30 Minutes. Weak surface blow that died after 20 minutes.
1st Shut In/ 30 Minutes. No blow back.
2nd Open/ 30 Minutes. No blow, flushed tool after 5 minutes and did not gain any blow.
2nd Shut In/ 30 Minutes. No blow back.

Pressure vs. Time



PRESSURE SUMMARY

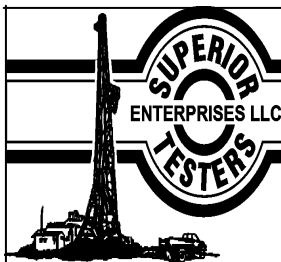
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2168.94	120.85	Initial Hydro-static
2	50.28	121.11	Open To Flow (1)
32	51.06	121.13	Shut-In(1)
63	95.77	121.66	End Shut-In(1)
63	51.59	121.65	Open To Flow (2)
93	54.62	122.26	Shut-In(2)
124	70.19	122.88	End Shut-In(2)
125	2020.43	123.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% mud	0.05

Gas Rates

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

TOOL DIAGRAM

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17599

DST#: 5

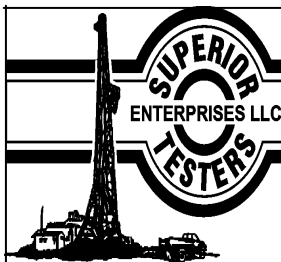
Test Start: 2013.06.17 @ 16:55:00

Tool Information

Drill Pipe:	Length:	4178.00 ft	Diameter:	3.80 inches	Volume:	58.61 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	59.22 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		11.00 ft					String Weight: Initial	56000.00 lb
Depth to Top Packer:		4312.00 ft					Final	57000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		43.00 ft						
Tool Length:		64.00 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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Change Over Sub	1.00			4292.00	
Shut-In Tool	5.00			4297.00	
Hydroic Tool	5.00			4302.00	
Packer	5.00			4307.00	21.00 Bottom Of Top Packer
Packer	5.00			4312.00	
Perforations	38.00			4350.00	
Recorder	1.00	8405	Inside	4351.00	
Recorder	1.00	8400	Outside	4352.00	
Bullnose	3.00			4355.00	43.00 Bottom Packers & Anchor
Total Tool Length:	64.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

8/15s/31w/Gove

8100 E 22nd St. N #700
PO Box 783188
Wichita Ks, 67278-3188
ATTN: Max Lovely

Inman #8C

Job Ticket: 17599

DST#: 5

Test Start: 2013.06.17 @ 16:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 7.99 in³

Resistivity: ohm.m

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100% mud	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 #: 8405

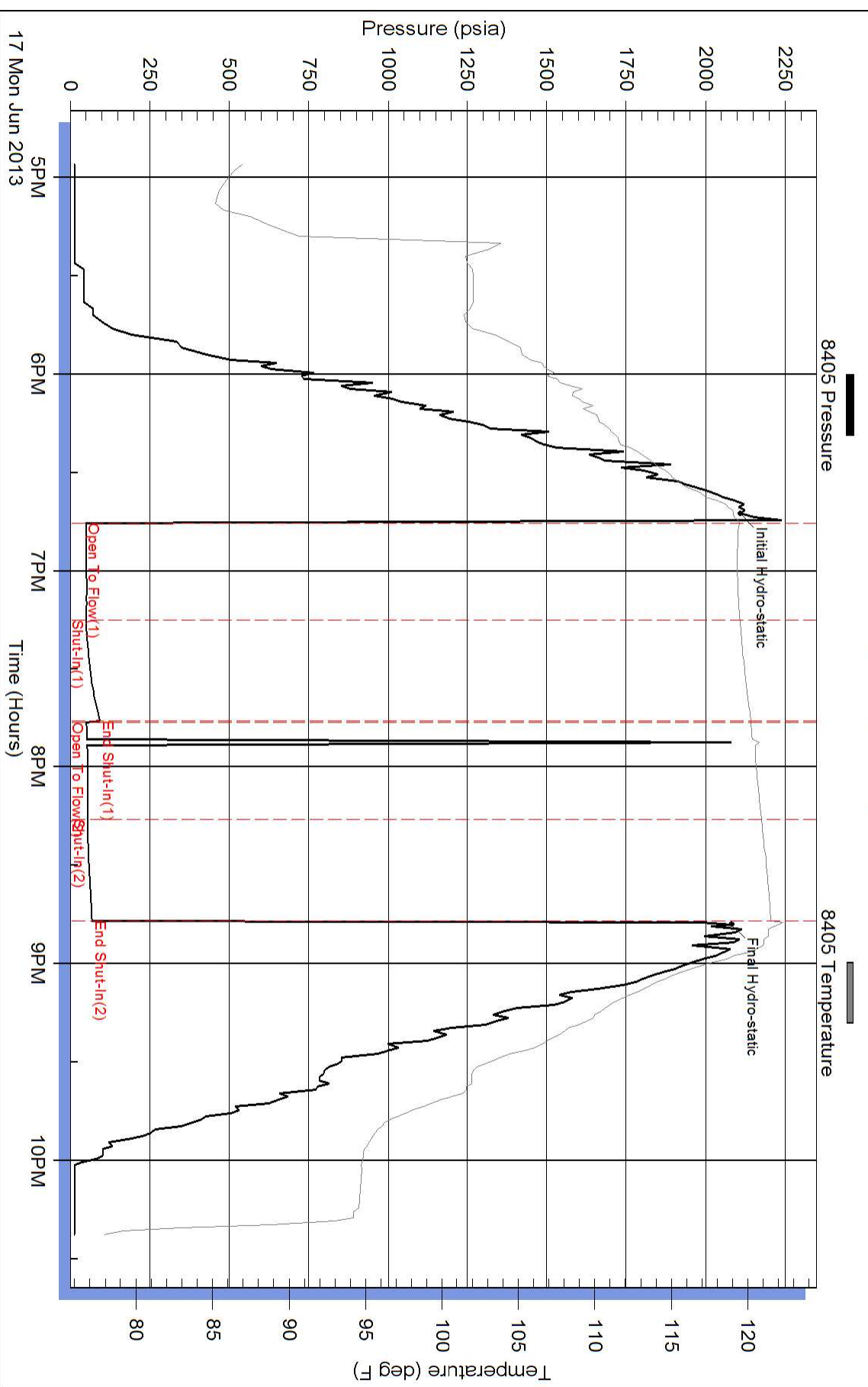
Inside

Ritchie Exploration Inc.

Inman #8C

DST Test Number: 5

Pressure vs. Time



Serial #: 8400

Outside Ritchie Exploration Inc.

Inman #8C

DST Test Number: 5

