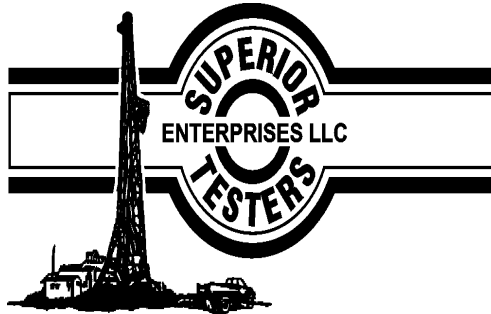




DRILL STEM TEST REPORT

Prepared For: **Ritchie Explortion**

Po Box 783188 Wichita Kansas 67278

ATTN: Terry

Roemer 34C#1

34-12s-29w Grove

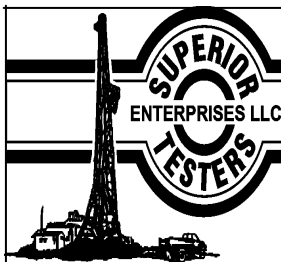
Start Date: 2012.12.30 @ 09:31:00

End Date: 2012.12.30 @ 10:14:30

Job Ticket #: 17718 DST #: 1

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

Printed: 2012.12.30 @ 23:38:40



DRILL STEM TEST REPORT

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17718

DST#: 1

Test Start: 2012.12.30 @ 09:31:00

GENERAL INFORMATION:

Formation: **Lansing I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:24:30

Time Test Ended: 10:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend -300

Interval: 3935.00 ft (KB) To 4010.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4010.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8405 Outside

Press@RunDepth: 202.00 psia @ 4007.55 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.12.30

End Date:

2012.12.30

Last Calib.:

2012.12.30

Start Time: 03:31:00

End Time:

16:12:53

Time On Btm:

2012.12.30 @ 05:24:00

Time Off Btm:

2012.12.30 @ 08:25:00

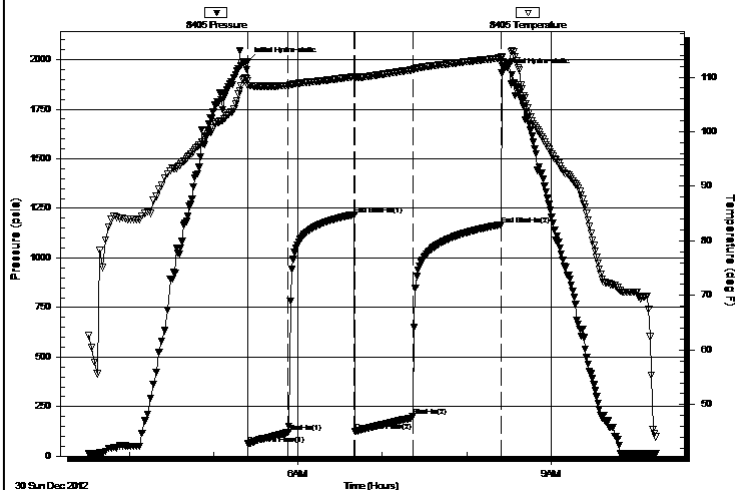
TEST COMMENT: 1st Open 30 minutes Fair building blow blew off bottom bucket 23 minutes.

1st Shut in 45 minutes No blow back

2nd Open 45 minutes Fair building blow blew bottom bucket 31 minutes.

2nd Shut in 60 minutes No blow back.

Pressure vs. Time



PRESSURE SUMMARY

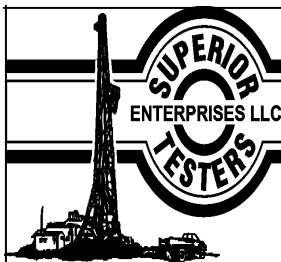
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1990.93	109.35	Initial Hydro-static
1	61.45	108.42	Open To Flow (1)
29	119.73	108.46	Shut-In(1)
76	1218.54	110.08	End Shut-In(1)
77	126.02	109.80	Open To Flow (2)
118	202.00	111.34	Shut-In(2)
181	1167.99	113.51	End Shut-In(2)
181	1932.72	113.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Oil cut mud 5%Oil 95%Mud	0.42
244.00	Muddy Water 80%Water20%Mud	3.42
0.00	Chlorides 36,000 .3ohms 62 degrees	0.00

Gas Rates

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

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17718

DST#: 1

Test Start: 2012.12.30 @ 09:31:00

GENERAL INFORMATION:

Formation: **Lansing I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:24:30

Time Test Ended: 10:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend -300

Interval: 3935.00 ft (KB) To 4010.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4010.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6651 Inside

Press@RunDepth: 1170.29 psia @ 4006.55 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.12.30

End Date:

2012.12.30

Last Calib.:

2012.12.30

Start Time: 03:31:00

End Time:

16:12:53

Time On Btm:

2012.12.30 @ 11:22:53

Time Off Btm:

2012.12.30 @ 14:23:53

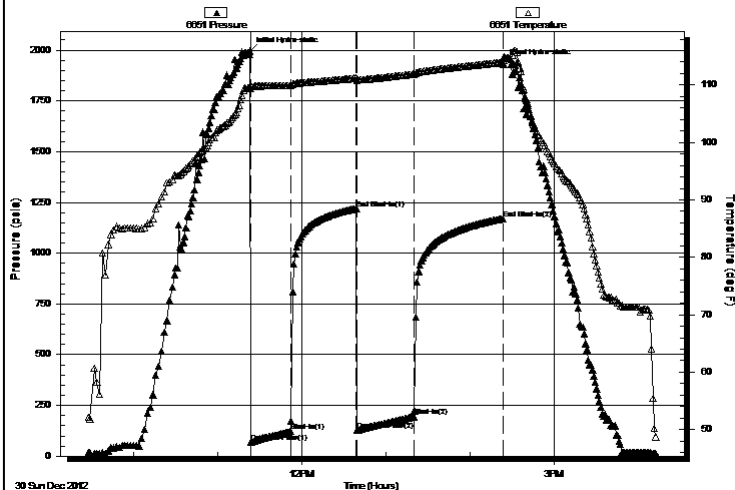
TEST COMMENT: 1st Open 30 minutes Fair building blow blew off bottom bucket 23 minutes.

1st Shut in 45 minutes No blow back

2nd Open 45 minutes Fair building blow blew bottom bucket 31 minutes.

2nd Shut in 60 minutes No blow back.

Pressure vs. Time



PRESSURE SUMMARY

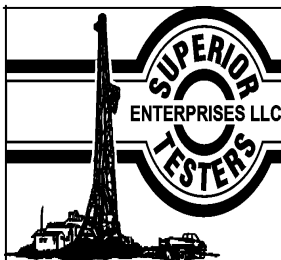
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1994.99	109.70	Initial Hydro-static
1	66.55	109.33	Open To Flow (1)
29	121.63	109.95	Shut-In(1)
76	1220.17	111.21	End Shut-In(1)
77	129.54	110.85	Open To Flow (2)
117	193.97	111.90	Shut-In(2)
181	1170.29	113.95	End Shut-In(2)
181	1931.69	114.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Oil cut mud 5%Oil 95%Mud	0.42
244.00	Muddy Water 80%Water20%Mud	3.42
0.00	Chlorides 36,000 .3ohms 62 degrees	0.00

Gas Rates

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

TOOL DIAGRAM

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17718

DST#: 1

ATTN: Terry

Test Start: 2012.12.30 @ 09:31:00

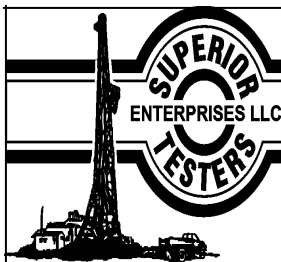
Tool Information

Drill Pipe:	Length:	3939.00 ft	Diameter:	3.80 inches	Volume:	55.25 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:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	55.25 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		24.00 ft					String Weight: Initial	58000.00 lb
Depth to Top Packer:		3935.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		75.55 ft						
Tool Length:		95.55 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			3920.00	
Hydraulic Tool	5.00			3925.00	
Packer	5.00			3930.00	20.00 Bottom Of Top Packer
Packer	5.00			3935.00	
Anchor	5.00			3940.00	
Change Over Sub	0.75			3940.75	
Drill Pipe	31.05			3971.80	
Change Over Sub	0.75			3972.55	
Anchor	33.00			4005.55	
Recorder	1.00	6651	Inside	4006.55	
Recorder	1.00	8405	Outside	4007.55	
Bullnose	3.00			4010.55	75.55 Bottom Packers & Anchor

Total Tool Length: 95.55



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Explortion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17718

DST#: 1

ATTN: Terry

Test Start: 2012.12.30 @ 09:31:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 7.60 in³

Resistivity: ohm.m

Salinity: 1200.00 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
30.00	Oil cut mud 5%Oil 95%Mud	0.421
244.00	Muddy Water 80%Water20%Mud	3.423
0.00	Chlorides 36,000 .3ohms 62 degrees	0.000

Total Length: 274.00 ft

Total Volume: 3.844 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

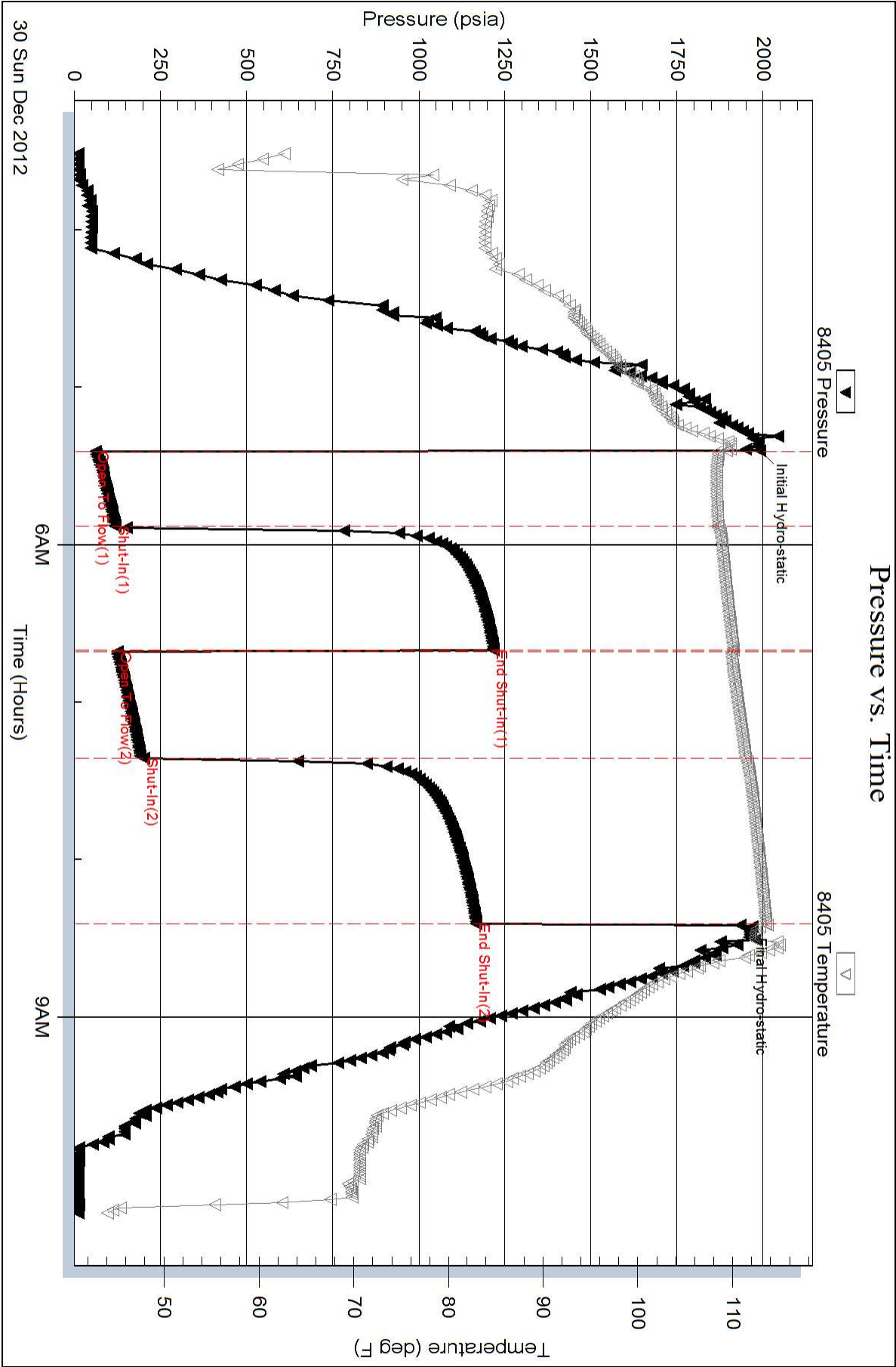
Recovery Comments:

Serial #: 8405

Outside Ritchie Exploration

Roerner 34C#1

DST Test Number: 1



Serial #: 6651

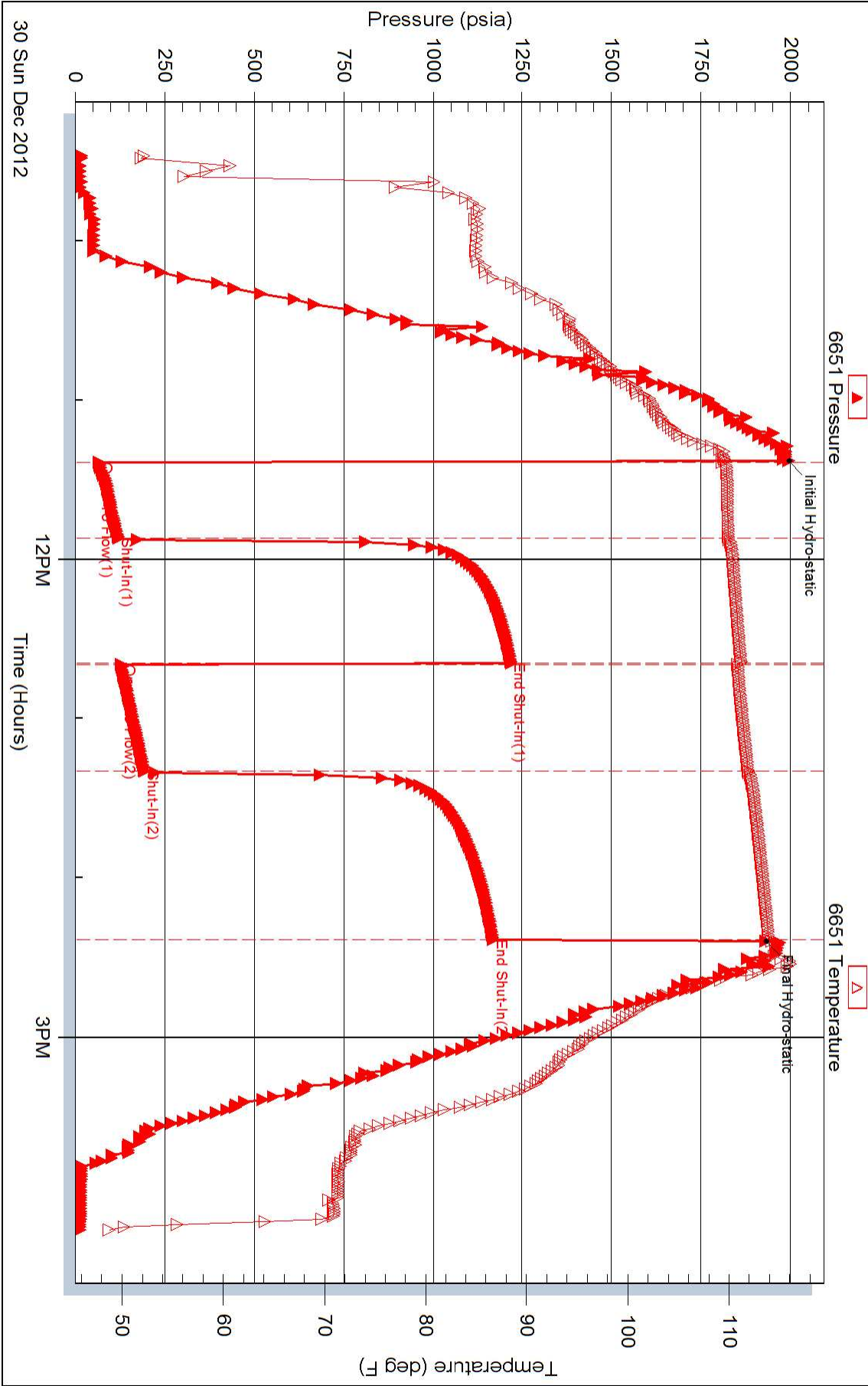
Inside

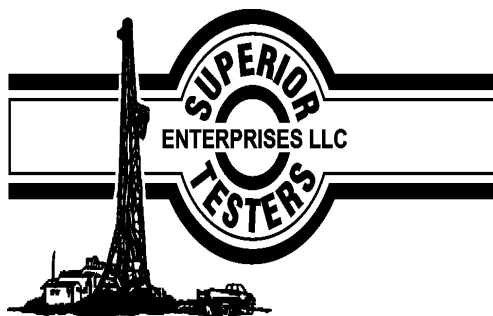
Ritchie Exploration

Roerner 34C#1

DST Test Number: 1

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Explortion**

Po Box 783188 Wichita Kansas 67278

ATTN: Terry

Roemer 34C#1

34-12s-29w Grove

Start Date: 2012.12.31 @ 06:14:00

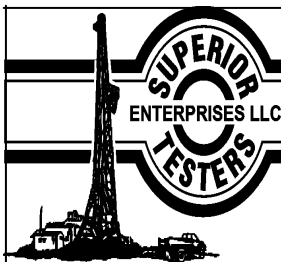
End Date: 2012.12.31 @ 12:06:00

Job Ticket #: 17719 DST #: 2

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

Printed: 2012.12.31 @ 12:18:19

Ritchie Explortion
34-12s-29w Grove
Roemer 34C#1
DST # 2
Lansing J
2012.12.31



DRILL STEM TEST REPORT

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17719

DST#: 2

Test Start: 2012.12.31 @ 06:14:00

GENERAL INFORMATION:

Formation: **Lansing J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:55:00

Time Test Ended: 12:06:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4001.00 ft (KB) To 4050.00 ft (KB) (TVD)

Total Depth: 4050.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2693.00 ft (KB)

2685.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8405

Press@RunDepth: 55.50 psia @ ft (KB)

Start Date: 2012.12.31

End Date:

2012.12.31

Start Time: 06:14:00

End Time:

12:06:00

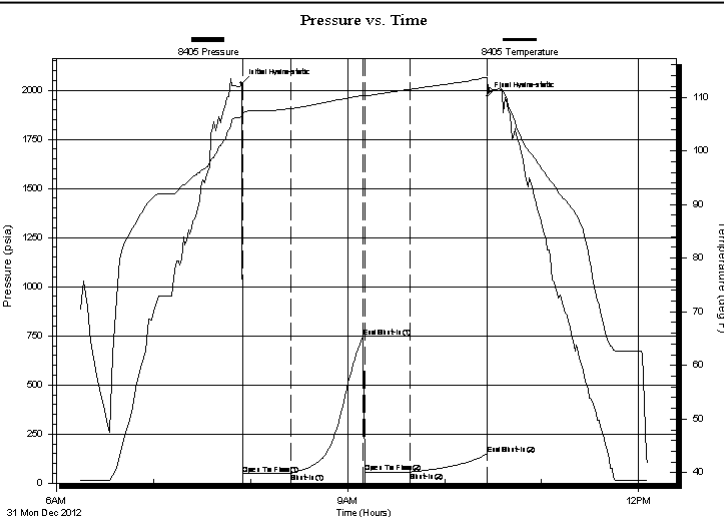
Capacity: 5000.00 psia

Last Calib.: 2012.12.31

Time On Btm: 2012.12.31 @ 07:54:30

Time Off Btm: 2012.12.31 @ 10:26:30

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1 inch.
1st Shut in 45 minutes No blow back.
2nd Open 30 minutes Weak blow blew 1.5 inches.
2nd Shut in 45 minutes No blow back.



PRESSURE SUMMARY

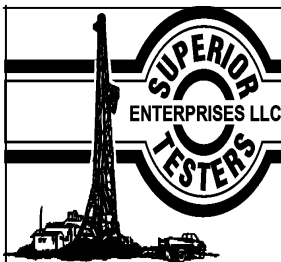
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2034.94	106.44	Initial Hydro-static
1	46.95	106.64	Open To Flow (1)
31	51.51	107.87	Shut-In(1)
75	742.30	110.33	End Shut-In(1)
76	53.23	110.25	Open To Flow (2)
104	55.50	111.45	Shut-In(2)
152	147.07	113.68	End Shut-In(2)
152	1968.11	113.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil cut Mud 1% Oil 99% Mud	0.21

Gas Rates

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

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17719

DST#: 2

Test Start: 2012.12.31 @ 06:14:00

GENERAL INFORMATION:

Formation: **Lansing J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:55:00

Time Test Ended: 12:06:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4001.00 ft (KB) To 4050.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4050.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6651

Inside

Press@RunDepth: 147.66 psia @ 4046.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.12.31

End Date:

2012.12.31

Last Calib.: 2012.12.31

Start Time: 06:14:00

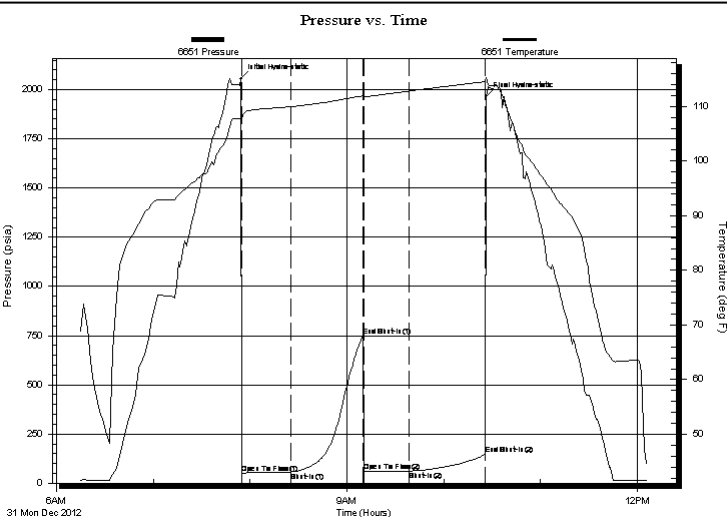
End Time:

12:06:30

Time On Btm: 2012.12.31 @ 07:54:30

Time Off Btm: 2012.12.31 @ 10:26:30

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1 inch.
1st Shut in 45 minutes No blow back.
2nd Open 30 minutes Weak blow blew 1.5 inches.
2nd Shut in 45 minutes No blow back.



PRESSURE SUMMARY

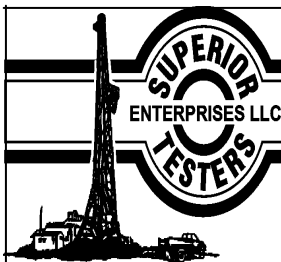
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2056.05	107.57	Initial Hydro-static
1	51.71	107.36	Open To Flow (1)
31	55.68	109.95	Shut-In(1)
76	749.38	111.92	End Shut-In(1)
76	57.99	111.76	Open To Flow (2)
104	59.74	112.81	Shut-In(2)
152	147.66	114.53	End Shut-In(2)
152	1966.06	115.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil cut Mud 1% Oil 99% Mud	0.21

Gas Rates

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

TOOL DIAGRAM

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17719

DST#: 2

ATTN: Terry

Test Start: 2012.12.31 @ 06:14:00

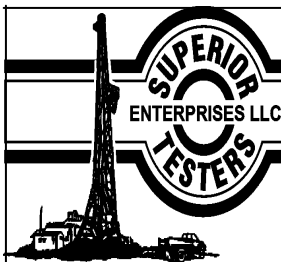
Tool Information

Drill Pipe:	Length:	4003.00 ft	Diameter:	3.80 inches	Volume:	56.15 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:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	56.15 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft							
Depth to Top Packer:	4001.00 ft							
Depth to Bottom Packer:	ft							
Interval between Packers:	49.00 ft							
Tool Length:	69.00 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			3986.00	
Hydraulic Tool	5.00			3991.00	
Packer	5.00			3996.00	20.00 Bottom Of Top Packer
Packer	5.00			4001.00	
Anchor	44.00			4045.00	
Recorder	1.00	6651	Inside	4046.00	
Recorder	1.00	8400	Outside	4047.00	
Bullnose	3.00			4050.00	49.00 Bottom Packers & Anchor

Total Tool Length: 69.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Explortion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17719

DST#:2

ATTN: Terry

Test Start: 2012.12.31 @ 06:14:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 7.60 in³

Resistivity: ohm.m

Salinity: 1200.00 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
15.00	Oil cut Mud 1% Oil 99%Mud	0.210

Total Length: 15.00 ft

Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

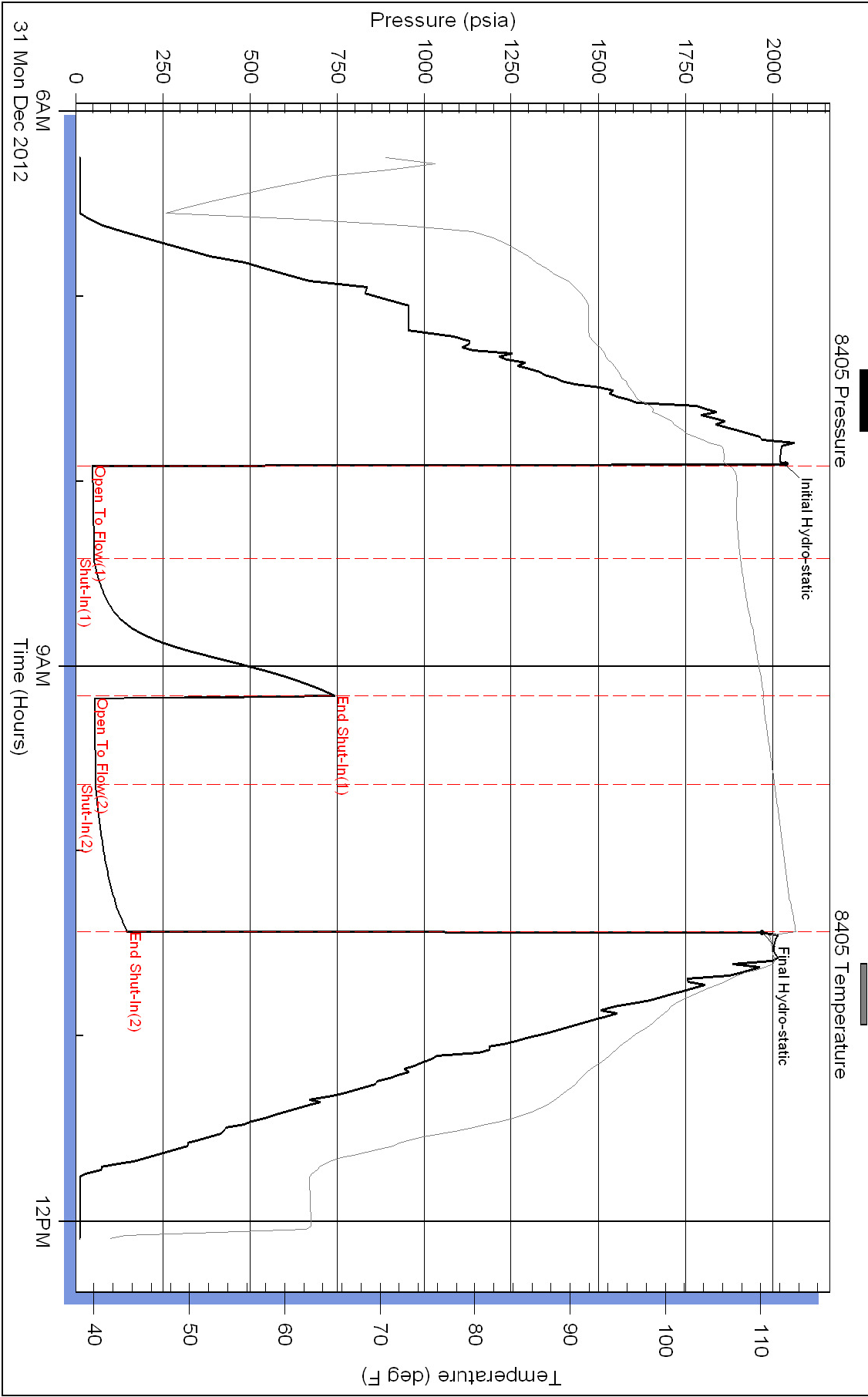
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Serial #: 6651

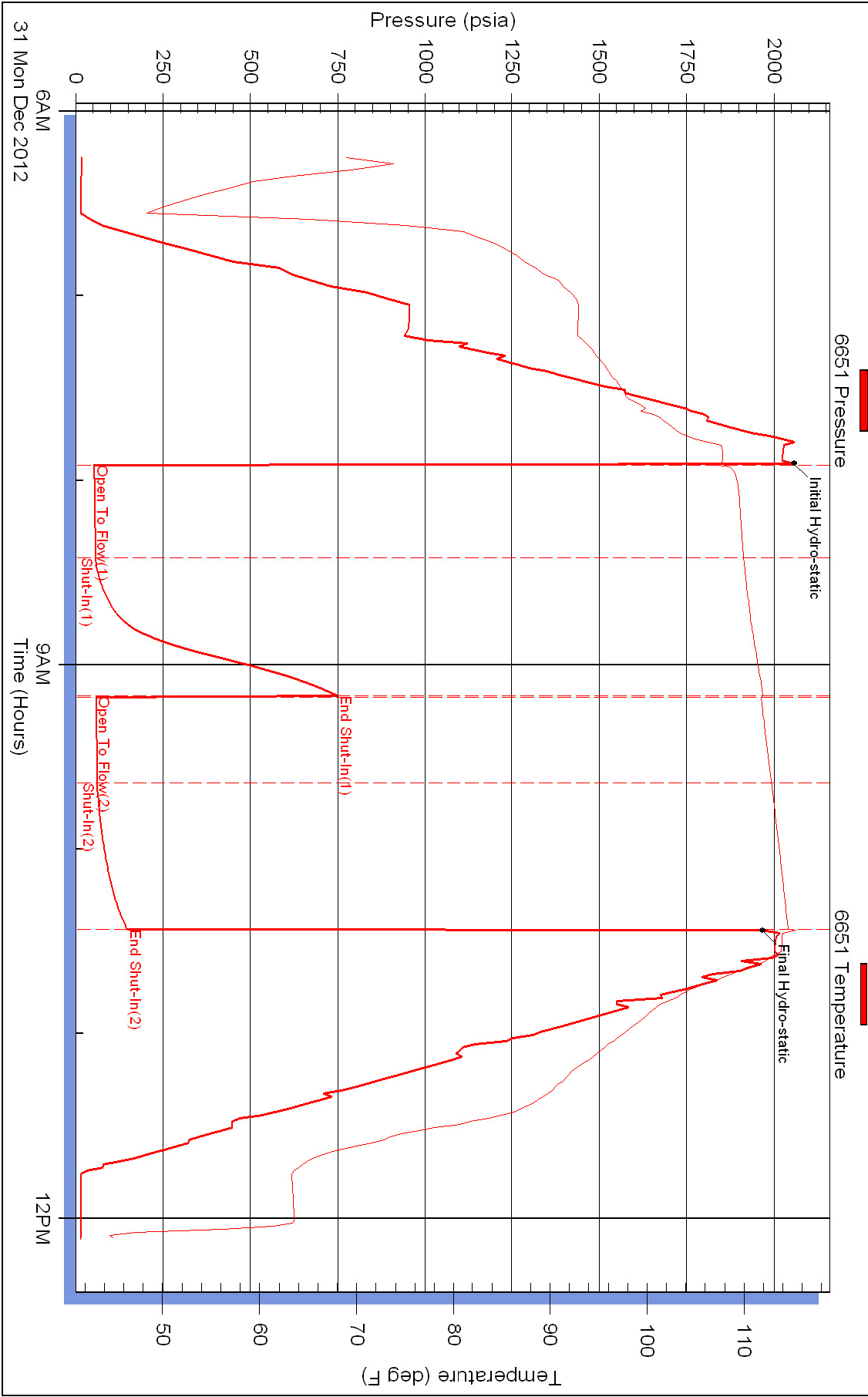
Inside

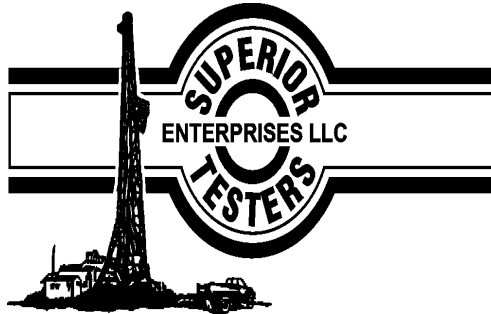
Ritchie Exploration

Roerner 34C#1

DST Test Number: 2

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Explortion**

Po Box 783188 Wichita Kansas 67278

ATTN: Terry

Roemer 34C#1

34-12s-29w Grove

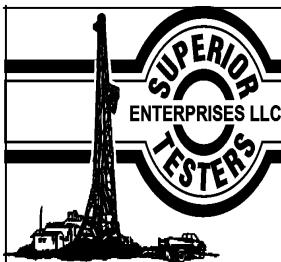
Start Date: 2012.12.31 @ 10:05:00

End Date: 2012.12.31 @ 16:42:30

Job Ticket #: 17720 DST #: 3

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

Printed: 2013.01.01 @ 04:56:07



DRILL STEM TEST REPORT

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17720

DST#: 3

Test Start: 2012.12.31 @ 10:05:00

GENERAL INFORMATION:

Formation: **Lansing K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:14:30

Time Test Ended: 16:42:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4025.00 ft (KB) To 4100.00 ft (KB) (TVD)

Total Depth: 4100.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2693.00 ft (KB)

2685.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8405 Outside

Press@RunDepth: 97.55 psia @ 4097.55 ft (KB)

Start Date: 2012.12.31

End Date:

2012.12.31

Start Time: 10:05:00

End Time:

16:42:30

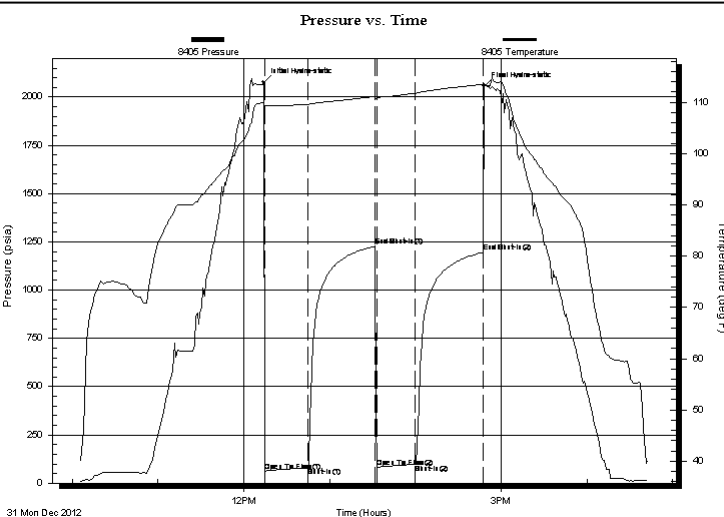
Capacity: 5000.00 psia

Last Calib.: 2013.01.01

Time On Btm: 2012.12.31 @ 12:14:00

Time Off Btm: 2012.12.31 @ 14:48:00

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1 inch.
1st Shut in 45 minutes No blow back
2nd Open 30 minutes Weak blow blew 2 inches.
2nd Shut in 45 minutes No blow back.



PRESSURE SUMMARY

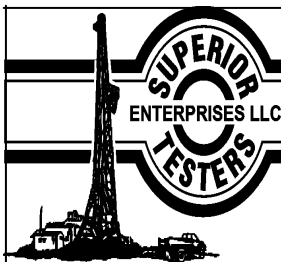
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2076.90	109.87	Initial Hydro-static
1	61.30	108.94	Open To Flow (1)
31	81.00	109.55	Shut-In(1)
78	1227.09	111.11	End Shut-In(1)
79	82.47	110.95	Open To Flow (2)
106	97.55	111.72	Shut-In(2)
154	1195.77	113.50	End Shut-In(2)
154	2055.60	113.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Lightly oil spotted mud Mud 100%	1.05

Gas Rates

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

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17720

DST#: 3

Test Start: 2012.12.31 @ 10:05:00

GENERAL INFORMATION:

Formation: **Lansing K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:14:30

Time Test Ended: 16:42:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4025.00 ft (KB) To 4100.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4100.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6651

Inside

Press@RunDepth: 1198.08 psia @ 4096.55 ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.12.31

End Date:

2012.12.31

Last Calib.:

2013.01.01

Start Time: 10:05:00

End Time:

16:34:30

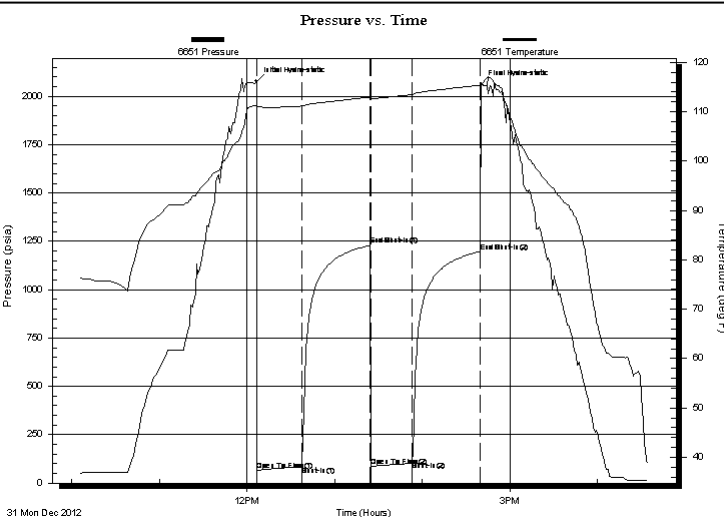
Time On Btm:

2012.12.31 @ 12:06:30

Time Off Btm:

2012.12.31 @ 14:40:30

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1 inch.
1st Shut in 45 minutes No blow back
2nd Open 30 minutes Weak blow blew 2 inches.
2nd Shut in 45 minutes No blow back.



PRESSURE SUMMARY

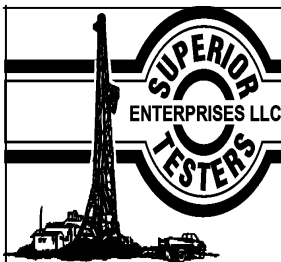
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2078.20	111.28	Initial Hydro-static
1	66.11	110.78	Open To Flow (1)
31	87.26	111.16	Shut-In(1)
78	1229.50	112.99	End Shut-In(1)
79	87.08	112.59	Open To Flow (2)
107	115.07	113.50	Shut-In(2)
154	1198.08	115.37	End Shut-In(2)
154	2063.01	115.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Lightly oil spotted mud Mud 100%	1.05

Gas Rates

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

TOOL DIAGRAM

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17720

DST#: 3

ATTN: Terry

Test Start: 2012.12.31 @ 10:05:00

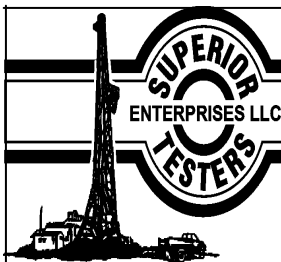
Tool Information

Drill Pipe:	Length:	4033.00 ft	Diameter:	3.80 inches	Volume:	56.57 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:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	56.57 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft						String Weight: Initial	58000.00 lb
Depth to Top Packer:	4025.00 ft						Final	58000.00 lb
Depth to Bottom Packer:	ft							
Interval between Packers:	75.55 ft							
Tool Length:	95.55 ft							
Number of Packers:	2		Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			4010.00	
Hydraulic Tool	5.00			4015.00	
Packer	5.00			4020.00	20.00 Bottom Of Top Packer
Packer	5.00			4025.00	
Anchor	5.00			4030.00	
Change Over Sub	0.75			4030.75	
Drill Pipe	31.05			4061.80	
Change Over Sub	0.75			4062.55	
Anchor	33.00			4095.55	
Recorder	1.00	6651	Inside	4096.55	
Recorder	1.00	8405	Outside	4097.55	
Bullnose	3.00			4100.55	75.55 Bottom Packers & Anchor

Total Tool Length: 95.55



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Explortion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17720

DST#: 3

ATTN: Terry

Test Start: 2012.12.31 @ 10:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 7.60 in³

Resistivity: ohm.m

Salinity: 1200.00 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
75.00	Lightly oil spotted mud Mud 100%	1.052

Total Length: 75.00 ft

Total Volume: 1.052 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

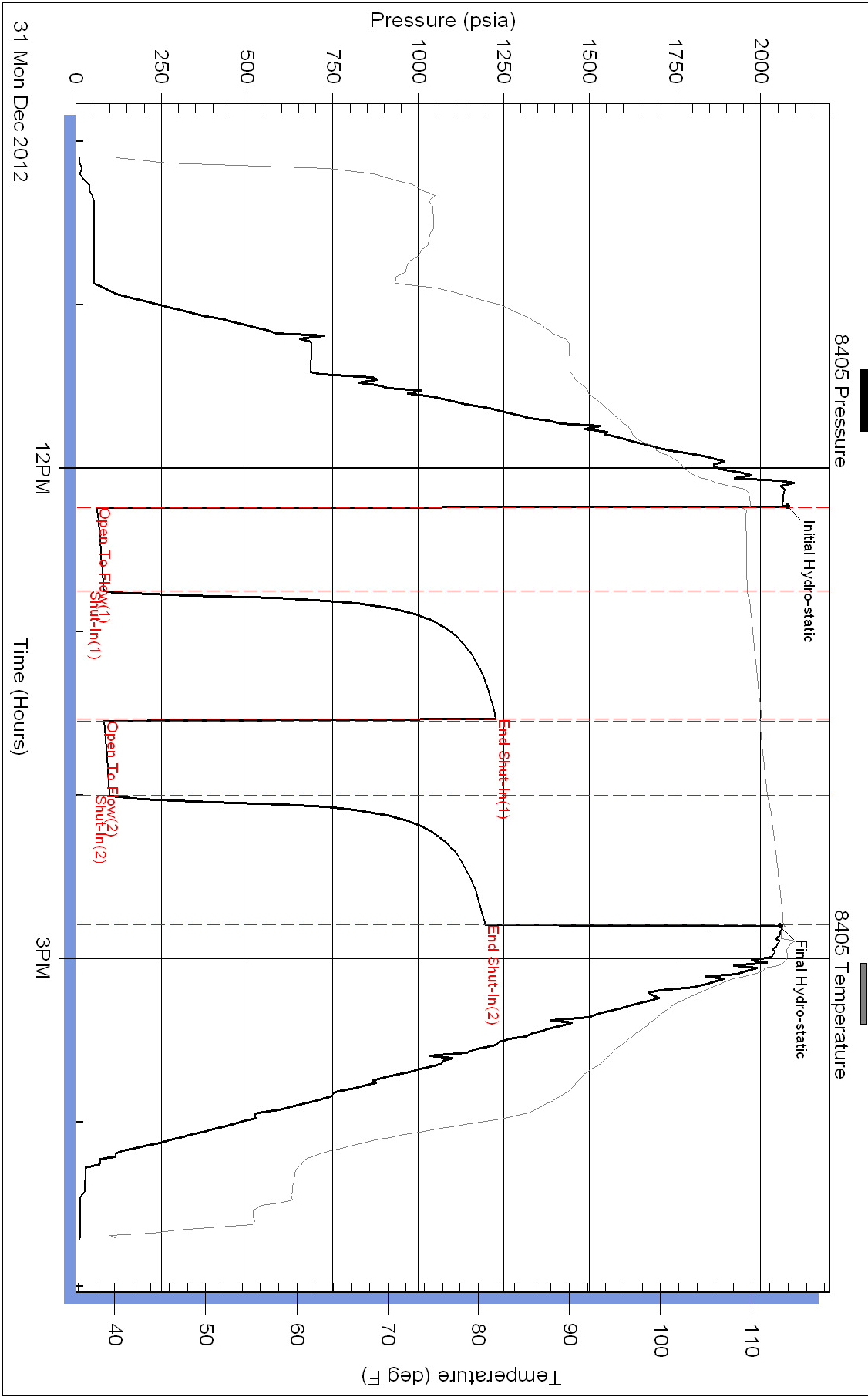
Serial #: 8405

Outside Ritchie Exploration

Roerner 34C#1

DST Test Number: 3

Pressure vs. Time



Serial #: 6651

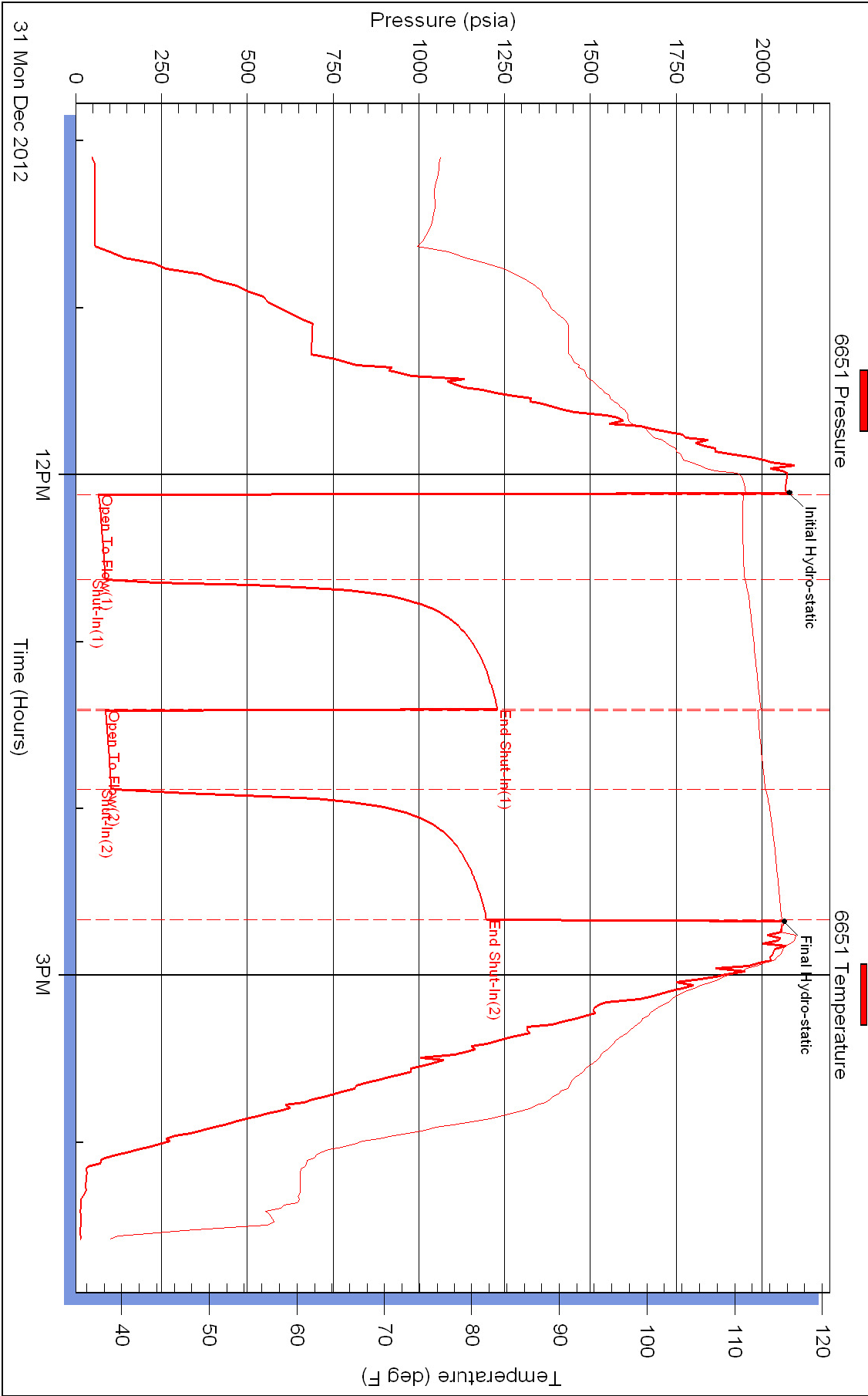
Inside

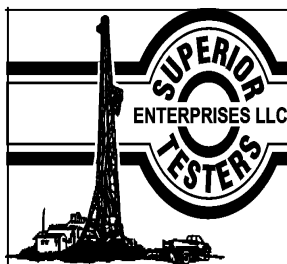
Ritchie Exploration

Roerner 34C#1

DST Test Number: 3

Pressure vs. Time





DRILL STEM TESTING - DATA LISTING

Ritchie Explortion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17720

DST#:3

ATTN: Terry

Test Start: 2012.12.31 @ 10:05:00

Serial # 8405 Outside				Serial # 8405 Outside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	1.0	11.08	40.2		80.0	720.49	90.3
	4.0	11.79	44.3		81.5	865.72	90.5
	7.0	11.72	68.4		83.0	815.45	91.1
	10.0	24.40	70.9		84.5	879.54	91.5
	13.0	39.73	73.6		86.0	943.74	92.0
	16.0	42.96	74.8		87.5	967.46	92.1
	19.0	53.80	74.9		89.0	1203.84	92.7
	22.0	53.67	75.0		90.5	1100.34	93.2
	25.0	53.59	75.0		92.0	1164.78	93.9
	28.0	53.56	74.9		93.5	1229.29	94.3
	31.0	53.54	74.5		95.0	1262.96	94.7
	34.0	53.51	74.0		96.5	1325.28	95.3
	37.0	53.50	73.4		98.0	1389.17	95.8
	40.0	53.49	72.1		99.5	1534.17	96.5
	43.0	53.47	72.0		101.0	1484.20	96.8
	46.0	53.47	70.8		102.5	1545.76	96.9
	49.0	84.81	75.2		104.0	1623.21	97.3
	52.0	149.26	79.4		105.5	1642.02	98.2
	55.0	243.20	82.5		107.0	1728.87	99.2
	58.0	337.58	84.3		108.5	1736.27	99.5
	60.5	433.49	85.8		110.0	1767.20	100.7
	62.0	497.11	86.8		111.5	1865.98	101.4
	63.5	527.88	87.3		113.0	1861.84	102.3
	65.0	594.56	88.1		114.5	1861.42	102.4
	66.5	726.70	88.8		116.0	1985.35	103.0
	68.0	676.08	89.8		117.5	1975.29	103.7
	69.5	687.25	90.0		119.0	1989.54	105.2
	71.0	686.41	90.0		120.5	2097.64	106.1
	72.5	685.79	90.0		122.0	2069.03	108.8
	74.0	685.46	90.0		123.5	2067.72	109.5
	75.5	685.22	90.0		125.0	2066.09	109.7
	77.0	684.78	90.0		126.5	2064.47	109.8
	78.5	684.76	90.0		128.0	2063.43	109.8

Printing every 3 samples

Superior Testers Enterprises LLC

Ref. No: 17720

Printed: 2013.01.01 @ 04:56:10

Serial # 8405 Outside				Serial # 8405 Outside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
Initial Hydro-static Open To Flow (1)	128.5	2063.34	109.8		181.0	1144.32	110.3
	129.0	2076.90	109.9		182.5	1153.20	110.4
	129.5	61.30	108.9		184.0	1161.25	110.4
	130.0	61.89	109.4		185.5	1168.39	110.4
	130.5	62.84	109.4		187.0	1174.92	110.5
	132.0	63.97	109.4		188.5	1180.90	110.5
	133.5	65.28	109.4		190.0	1186.37	110.6
	135.0	66.18	109.4		191.5	1191.40	110.6
	136.5	67.38	109.4		193.0	1196.14	110.7
	138.0	68.63	109.4		194.5	1200.42	110.7
	139.5	69.35	109.4		196.0	1204.50	110.8
	141.0	70.35	109.4		197.5	1208.21	110.8
	142.5	71.15	109.4		199.0	1211.70	110.9
	144.0	72.12	109.4		200.5	1214.90	110.9
	145.5	73.00	109.4		202.0	1218.01	110.9
	147.0	73.85	109.4		203.5	1220.89	111.0
	148.5	74.78	109.4		205.0	1223.56	111.0
	150.0	75.66	109.4		206.0	1225.31	111.1
	151.5	76.63	109.5		206.5	1226.10	111.1
	153.0	77.52	109.5	End Shut-In(1)	207.0	1227.09	111.1
	154.5	78.36	109.5		207.5	337.42	110.8
	156.0	79.05	109.5	Open To Flow (2)	208.0	82.47	110.9
	157.5	79.91	109.5		208.5	82.52	111.0
	159.0	80.78	109.5		210.0	83.62	111.0
	159.5	80.89	109.5		211.5	84.90	111.0
Shut-In(1)	160.0	81.00	109.5		213.0	85.92	111.0
	160.5	109.88	109.6		214.5	86.72	111.1
	161.0	190.93	109.6		216.0	87.64	111.1
	161.5	327.27	109.6		217.5	88.63	111.2
	163.0	665.57	109.7		219.0	89.35	111.2
	164.5	821.72	109.8		220.5	90.22	111.3
	166.0	905.80	109.9		222.0	91.23	111.3
	167.5	961.00	109.9		223.5	92.43	111.3
	169.0	1001.14	110.0		225.0	93.49	111.4
	170.5	1032.23	110.0		226.5	93.97	111.4
	172.0	1057.29	110.1		228.0	94.57	111.5
	173.5	1077.95	110.1		229.5	95.36	111.5
	175.0	1095.29	110.1		231.0	95.99	111.6
	176.5	1110.15	110.2		232.5	96.68	111.6
	178.0	1123.02	110.2		234.0	97.42	111.7
	179.5	1134.35	110.3		234.5	97.49	111.7

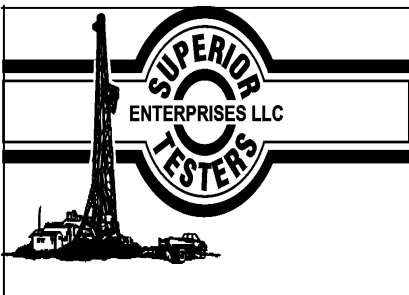
Printing every 3 samples

Serial # 8405 Outside				Serial # 8405 Outside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
Shut-In(2)	235.0	97.55	111.7		288.5	2055.16	114.8
	235.5	104.16	111.7		290.0	2046.75	114.1
	236.0	135.29	111.8		291.5	2035.01	113.8
	236.5	190.77	111.8		293.0	2036.74	113.9
	238.0	510.33	111.9		294.5	2032.23	113.9
	239.5	731.67	112.0		296.0	2021.03	113.6
	241.0	841.94	112.1		297.5	1919.70	113.0
	242.5	908.23	112.2		299.0	1931.95	111.3
	244.0	954.40	112.2		300.5	1928.92	110.3
	245.5	988.75	112.3		302.0	1895.74	108.3
	247.0	1015.56	112.3		303.5	1862.95	107.1
	248.5	1037.47	112.4		305.0	1830.49	106.1
	250.0	1055.88	112.5		306.5	1707.52	104.8
	251.5	1071.51	112.5		308.0	1737.29	103.7
	253.0	1084.86	112.6		309.5	1704.54	102.9
	254.5	1096.69	112.6		311.0	1622.91	102.0
	256.0	1107.01	112.7		312.5	1610.31	101.1
	257.5	1116.38	112.7		314.0	1577.73	100.6
	259.0	1124.66	112.8		315.5	1523.74	100.0
	260.5	1132.25	112.8		317.0	1483.33	99.4
	262.0	1139.04	112.9		318.5	1451.26	98.8
	263.5	1145.42	112.9		320.0	1383.67	98.3
	265.0	1151.11	113.0		321.5	1360.25	97.7
	266.5	1156.47	113.0		323.0	1324.57	97.1
	268.0	1161.55	113.1		324.5	1265.86	96.5
	269.5	1166.14	113.1		326.0	1229.14	95.9
	271.0	1170.45	113.1		327.5	1196.26	95.3
	272.5	1174.42	113.2		329.0	1163.75	94.9
	274.0	1178.15	113.2		330.5	1029.27	94.4
	275.5	1181.60	113.3		332.0	1092.54	94.0
	277.0	1185.13	113.3		333.5	1068.39	93.5
	278.5	1188.11	113.4		335.0	1008.93	92.6
	280.0	1191.10	113.4		336.5	973.62	92.0
	281.5	1194.03	113.5		338.0	941.21	91.5
	282.0	1194.80	113.5		339.5	865.97	91.1
End Shut-In(2)	282.5	1195.77	113.5		341.0	844.25	90.7
Final Hydro-static	283.0	2055.60	113.6		342.5	814.48	90.2
	283.5	2059.24	113.4		344.0	783.13	89.6
	284.0	2063.14	113.3		345.5	745.13	89.0
	285.5	2055.94	113.3		347.0	694.49	88.2
	287.0	2054.23	113.3		348.5	655.27	87.3

Printing every 3 samples

Serial # 8405 Outside				Serial # 6651 Inside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	350.0	623.22	86.5				
	351.5	532.39	85.5				
	353.0	527.86	83.3				
	354.5	496.02	81.3				
	356.0	405.81	78.4				
	357.5	401.12	75.2				
	359.0	335.85	73.1				
	360.5	306.61	70.3				
	362.0	274.09	68.1				
	363.5	211.89	66.2				
	365.0	180.46	64.1				
	366.5	116.20	62.6				
	368.0	104.93	61.6				
	369.5	70.05	60.6				
	371.0	51.94	60.5				
	372.5	27.05	59.9				
	374.0	27.04	59.8				
	375.5	27.45	59.7				
	377.0	27.45	59.7				
	378.5	25.43	59.6				
	380.0	24.81	59.5				
	381.5	19.15	59.4				
	383.0	11.88	59.5				
	384.5	11.50	58.0				
	386.0	12.61	55.8				
	387.5	11.60	55.2				
	389.0	11.78	55.2				
	390.5	12.10	55.3				
	392.0	12.00	55.4				
	393.5	12.32	50.3				
	395.0	12.33	45.4				
	396.5	12.62	39.5				
	397.5	11.95	40.3				

Printing every 3 samples

				DRILL STEM TESTING - DATA LISTING			
Ritchie Explortion Po Box 783188 Wichita Kansas 67278 ATTN: Terry				34-12s-29w Grove Roemer 34C#1 Job Ticket: 17720 DST#: 3 Test Start: 2012.12.31 @ 10:05:00			
Serial # 6651 Inside Comments Time Pressure Temp. (Min.) (psia) (deg F)				Serial # 6651 Inside Comments Time Pressure Temp. (Min.) (psia) (deg F)			
	1.0	48.54	76.4		80.0	1008.92	93.3
	4.0	55.82	76.2		81.5	1083.26	93.9
	7.0	55.69	76.1		83.0	1168.82	94.4
	10.0	55.65	75.9		84.5	1184.79	94.9
	13.0	55.63	75.7		86.0	1231.46	95.4
	16.0	55.59	75.7		87.5	1327.96	95.8
	19.0	55.56	75.7		89.0	1308.23	96.4
	22.0	55.54	75.5		90.5	1390.91	97.0
	25.0	55.53	75.4		92.0	1400.18	97.5
	28.0	55.51	74.9		93.5	1545.25	97.8
	31.0	55.49	74.3		95.0	1549.06	97.9
	34.0	89.23	76.5		96.5	1554.14	98.3
	37.0	142.77	79.4		98.0	1713.72	99.5
	40.0	245.40	83.0		99.5	1729.32	100.1
	43.0	363.90	84.9		101.0	1738.81	100.7
	46.0	435.94	86.7		102.5	1842.34	101.8
	49.0	497.95	88.0		104.0	1840.27	102.6
	52.0	529.31	88.3		105.5	1864.21	103.3
	55.0	593.85	89.0		107.0	1940.45	103.4
	58.0	650.79	90.2		108.5	1964.35	104.0
	60.5	689.77	91.0		110.0	1961.07	104.9
	62.0	688.36	91.1		111.5	2093.32	106.0
	63.5	687.48	91.1		113.0	2092.40	106.9
	65.0	686.94	91.1		114.5	2073.16	110.3
	66.5	686.57	91.1		116.0	2071.16	110.9
	68.0	686.04	91.1		117.5	2069.42	111.0
	69.5	685.95	91.1		119.0	2067.97	111.2
	71.0	685.87	91.1		120.5	2066.97	111.2
	72.5	721.50	91.4		121.0	2086.46	111.2
	74.0	789.35	91.5	Initial Hydro-static	121.5	2078.20	111.3
	75.5	816.57	92.2	Open To Flow (1)	122.0	66.11	110.8
	77.0	880.92	92.7		122.5	66.82	111.0
	78.5	943.62	93.0		123.0	67.64	111.0

Printing every 3 samples

Serial # 6651 Inside				Serial # 6651 Inside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	124.5	68.57	110.9		181.0	1182.78	112.4
	126.0	69.67	110.9		182.5	1188.18	112.4
	127.5	70.52	110.9		184.0	1193.14	112.5
	129.0	71.82	110.9		185.5	1197.82	112.5
	130.5	72.88	110.9		187.0	1202.20	112.6
	132.0	73.76	110.9		188.5	1206.24	112.6
	133.5	74.75	110.9		190.0	1210.12	112.7
	135.0	75.61	110.9		191.5	1213.72	112.7
	136.5	76.50	110.9		193.0	1216.95	112.8
	138.0	77.30	110.9		194.5	1220.14	112.8
	139.5	78.22	111.0		196.0	1223.10	112.9
	141.0	78.97	111.0		197.5	1225.88	112.9
	142.5	80.04	111.0		198.5	1227.67	113.0
	144.0	81.05	111.0		199.0	1228.58	113.0
	145.5	81.77	111.0	End Shut-In(1)	199.5	1229.50	113.0
	147.0	82.56	111.0	Open To Flow (2)	200.0	87.08	112.6
	148.5	83.33	111.1		200.5	87.18	112.7
	150.0	84.10	111.1		201.0	87.10	112.7
	151.5	85.00	111.1		202.5	88.00	112.7
	152.0	85.16	111.1		204.0	89.29	112.7
Shut-In(1)	152.5	87.26	111.2		205.5	90.51	112.8
	153.0	132.34	111.2		207.0	91.30	112.8
	153.5	234.38	111.2		208.5	91.98	112.9
	154.0	379.98	111.3		210.0	93.01	112.9
	155.5	691.51	111.4		211.5	93.74	113.0
	157.0	834.86	111.5		213.0	94.57	113.0
	158.5	914.20	111.6		214.5	95.58	113.0
	160.0	967.24	111.6		216.0	96.59	113.1
	161.5	1006.14	111.7		217.5	97.71	113.1
	163.0	1036.50	111.8		219.0	98.53	113.2
	164.5	1060.99	111.8		220.5	98.70	113.2
	166.0	1081.24	111.9		222.0	99.57	113.3
	167.5	1098.20	111.9		223.5	100.16	113.3
	169.0	1112.82	112.0		225.0	100.85	113.4
	170.5	1125.49	112.0		226.5	101.61	113.4
	172.0	1136.63	112.1		227.0	101.66	113.5
	173.5	1146.51	112.1		227.5	101.72	113.5
	175.0	1155.26	112.2	Shut-In(2)	228.0	115.07	113.5
	176.5	1163.09	112.2		228.5	152.79	113.5
	178.0	1170.32	112.3		229.0	219.31	113.6
	179.5	1176.77	112.3		229.5	320.66	113.6

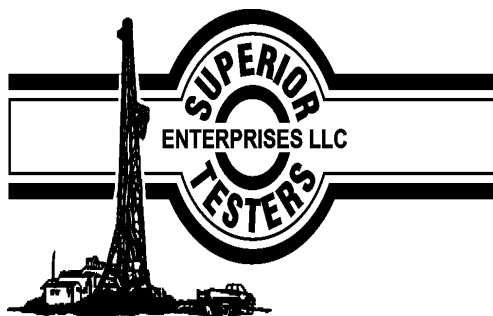
Printing every 3 samples

Serial # 6651 Inside				Serial # 6651 Inside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	231.0	631.72	113.8		287.0	2032.45	115.3
	232.5	790.70	113.9		288.5	2020.85	114.8
	234.0	876.32	114.0		290.0	1995.32	114.2
	235.5	932.04	114.0		291.5	1960.88	112.5
	237.0	972.06	114.1		293.0	1928.08	111.1
	238.5	1002.66	114.2		294.5	1895.10	109.5
	240.0	1027.19	114.2		296.0	1862.73	108.3
	241.5	1047.34	114.3		297.5	1749.47	107.3
	243.0	1064.36	114.3		299.0	1772.56	105.9
	244.5	1078.93	114.4		300.5	1736.66	104.6
	246.0	1091.57	114.4		302.0	1632.13	103.5
	247.5	1102.67	114.5		303.5	1643.97	102.8
	249.0	1112.55	114.6		305.0	1609.82	102.0
	250.5	1121.34	114.6		306.5	1512.56	101.3
	252.0	1129.41	114.7		308.0	1515.91	100.6
	253.5	1136.55	114.7		309.5	1483.46	100.1
	255.0	1143.26	114.8		311.0	1377.43	99.4
	256.5	1149.28	114.8		312.5	1389.36	98.9
	258.0	1154.85	114.9		314.0	1358.07	98.2
	259.5	1160.07	114.9		315.5	1324.95	97.8
	261.0	1164.86	114.9		317.0	1262.78	97.1
	262.5	1169.36	115.0		318.5	1229.52	96.4
	264.0	1173.61	115.0		320.0	1196.72	96.0
	265.5	1177.73	115.1		321.5	1164.32	95.5
	267.0	1181.47	115.1		323.0	1092.26	95.0
	268.5	1184.96	115.2		324.5	1003.74	94.6
	270.0	1188.19	115.2		326.0	983.22	94.2
	271.5	1191.38	115.3		327.5	1006.59	93.3
	273.0	1194.40	115.3		329.0	974.30	92.8
	274.0	1196.23	115.3		330.5	941.90	92.3
	274.5	1197.20	115.4		332.0	879.32	91.8
End Shut-In(2)	275.0	1198.08	115.4		333.5	848.54	91.3
Final Hydro-static	275.5	2063.01	115.6		335.0	815.73	91.0
	276.0	2062.25	115.4		336.5	784.07	90.2
	276.5	2061.61	115.4		338.0	681.11	89.8
	278.0	2056.35	115.3		339.5	688.93	88.9
	279.5	2054.80	115.2		341.0	655.95	87.6
	281.0	2057.86	117.0		342.5	624.11	86.8
	282.5	2047.56	116.8		344.0	550.66	85.6
	284.0	2035.93	116.1		345.5	528.37	83.2
	285.5	2036.45	115.5		347.0	496.47	81.4

Printing every 3 samples

Serial # 6651 Inside			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	348.5	434.63	77.8
	350.0	401.68	75.0
	351.5	335.86	72.7
	353.0	307.07	69.9
	354.5	274.82	67.5
	356.0	211.90	65.9
	357.5	180.96	63.6
	359.0	119.76	62.5
	360.5	86.74	61.9
	362.0	72.61	61.1
	363.5	36.27	60.9
	365.0	30.82	60.4
	366.5	30.97	60.4
	368.0	31.36	60.4
	369.5	30.02	60.4
	371.0	28.93	60.3
	372.5	28.81	60.3
	374.0	20.85	60.2
	375.5	15.03	60.3
	377.0	13.52	59.1
	378.5	15.88	58.2
	380.0	13.95	56.6
	381.5	14.81	57.0
	383.0	14.74	57.3
	384.5	14.39	56.6
	386.0	12.77	49.6
	387.5	12.42	43.1
	389.0	13.86	38.3
	389.5	14.33	38.7

Printing every 3 samples



DRILL STEM TEST REPORT

Prepared For: **Ritchie Explortion**

Po Box 783188 Wichita Kansas 67278

ATTN: Terry

Roemer 34C#1

34-12s-29w Grove

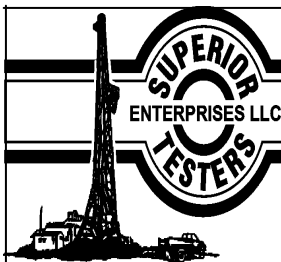
Start Date: 2013.01.02 @ 04:55:00

End Date: 2013.01.02 @ 10:38:00

Job Ticket #: 17722 DST #: 4

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

Printed: 2013.01.02 @ 10:53:39



DRILL STEM TEST REPORT

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17722

DST#: 4

Test Start: 2013.01.02 @ 04:55:00

GENERAL INFORMATION:

Formation: **Pawnee-Myrick**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:51:30

Time Test Ended: 10:38:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4193.00 ft (KB) To 4275.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4275.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8405 Outside

Press@RunDepth: 77.84 psia @ 4272.41 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.01.02

End Date:

2013.01.02

Last Calib.:

2013.01.02

Start Time: 04:55:00

End Time:

10:38:00

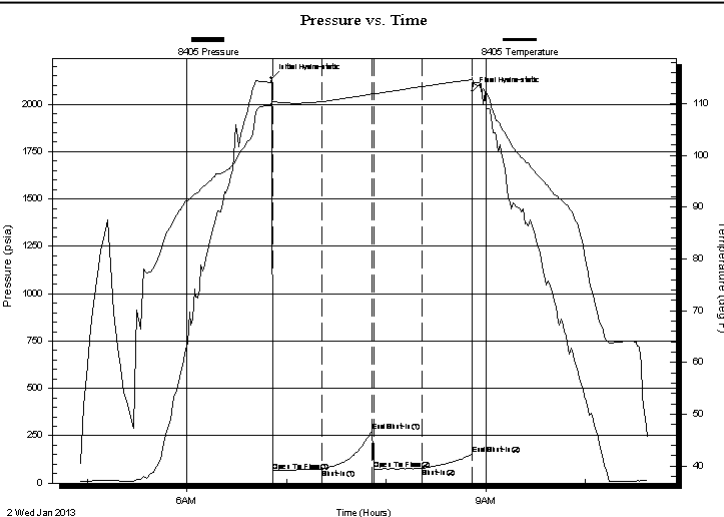
Time On Btm:

2013.01.02 @ 06:51:00

Time Off Btm:

2013.01.02 @ 08:52:00

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1/2 inch.
1st Shut in 30 minutes No blow back
2nd Open 30 minutes Weak blow blew 1 inch.
2nd Shut in 30 minutes No blow back.



PRESSURE SUMMARY

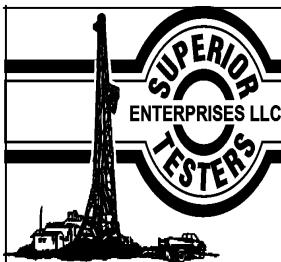
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2137.30	110.43	Initial Hydro-static
1	65.13	110.37	Open To Flow (1)
30	73.97	110.39	Shut-In(1)
61	275.60	111.87	End Shut-In(1)
62	74.90	111.88	Open To Flow (2)
91	77.84	113.29	Shut-In(2)
121	152.46	114.64	End Shut-In(2)
121	2068.02	115.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
21.00	Oil spotted mud 1%Oil 99%Mud	0.29

Gas Rates

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

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

ATTN: Terry

Job Ticket: 17722

DST#: 4

Test Start: 2013.01.02 @ 04:55:00

GENERAL INFORMATION:

Formation: **Pawnee-Myrick**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:51:30

Time Test Ended: 10:38:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-300

Interval: 4193.00 ft (KB) To 4275.00 ft (KB) (TVD)

Reference Elevations: 2693.00 ft (KB)

Total Depth: 4275.00 ft (KB) (TVD)

2685.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8400

Inside

Press@RunDepth: 153.94 psia @ 4271.41 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.01.02

End Date:

2013.01.02

Last Calib.:

2013.01.02

Start Time: 04:55:00

End Time:

10:37:30

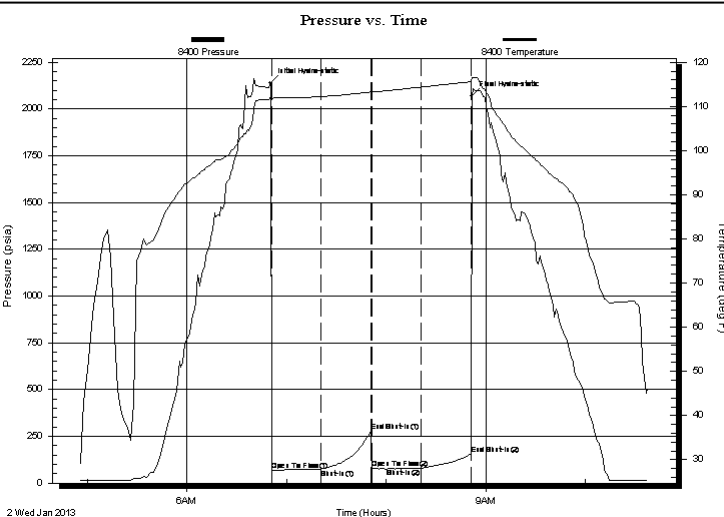
Time On Btm:

2013.01.02 @ 06:50:30

Time Off Btm:

2013.01.02 @ 08:51:30

TEST COMMENT: 1st Open 30 minutes Weak blow blew 1/2 inch.
1st Shut in 30 minutes No blow back
2nd Open 30 minutes Weak blow blew 1 inch.
2nd Shut in 30 minutes No blow back.



PRESSURE SUMMARY

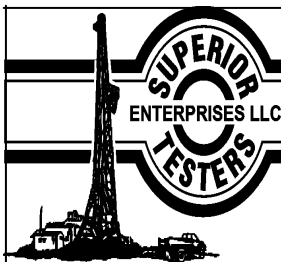
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2139.36	112.16	Initial Hydro-static
1	66.92	111.82	Open To Flow (1)
30	75.79	112.22	Shut-In(1)
61	277.95	113.30	End Shut-In(1)
61	79.65	113.20	Open To Flow (2)
91	79.35	114.39	Shut-In(2)
121	153.94	115.60	End Shut-In(2)
121	2071.20	116.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
21.00	Oil spotted mud 1%Oil 99%Mud	0.29

Gas Rates

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

TOOL DIAGRAM

Ritchie Explorion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17722

DST#: 4

ATTN: Terry

Test Start: 2013.01.02 @ 04:55:00

Tool Information

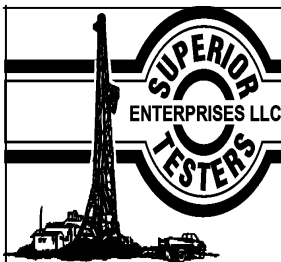
Drill Pipe:	Length:	4196.00 ft	Diameter:	3.80 inches	Volume:	58.86 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	58.86 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft					String Weight: Initial	58000.00 lb	
Depth to Top Packer:	4193.00 ft					Final	58000.00 lb	
Depth to Bottom Packer:	ft							
Interval between Packers:	82.41 ft							
Tool Length:	102.41 ft							
Number of Packers:	2	Diameter:	6.75 inches					
Tool Comments:								

Tool Description

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

Shut-In Tool	5.00			4178.00	
Hydraulic Tool	5.00			4183.00	
Packer	5.00			4188.00	20.00 Bottom Of Top Packer
Packer	5.00			4193.00	
Anchor	5.00			4198.00	
Change Over Sub	0.75			4198.75	
Drill Pipe	31.91			4230.66	
Change Over Sub	0.75			4231.41	
Anchor	39.00			4270.41	
Recorder	1.00	8400	Inside	4271.41	
Recorder	1.00	8405	Outside	4272.41	
Bullnose	3.00			4275.41	82.41 Bottom Packers & Anchor

Total Tool Length: 102.41



DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Explortion

34-12s-29w Grove

Po Box 783188 Wichita Kansas 67278

Roemer 34C#1

Job Ticket: 17722

DST#: 4

ATTN: Terry

Test Start: 2013.01.02 @ 04:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.99 in³

Resistivity: ohm.m

Salinity: 2200.00 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
21.00	Oil spotted mud 1%Oil 99%Mud	0.295

Total Length: 21.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

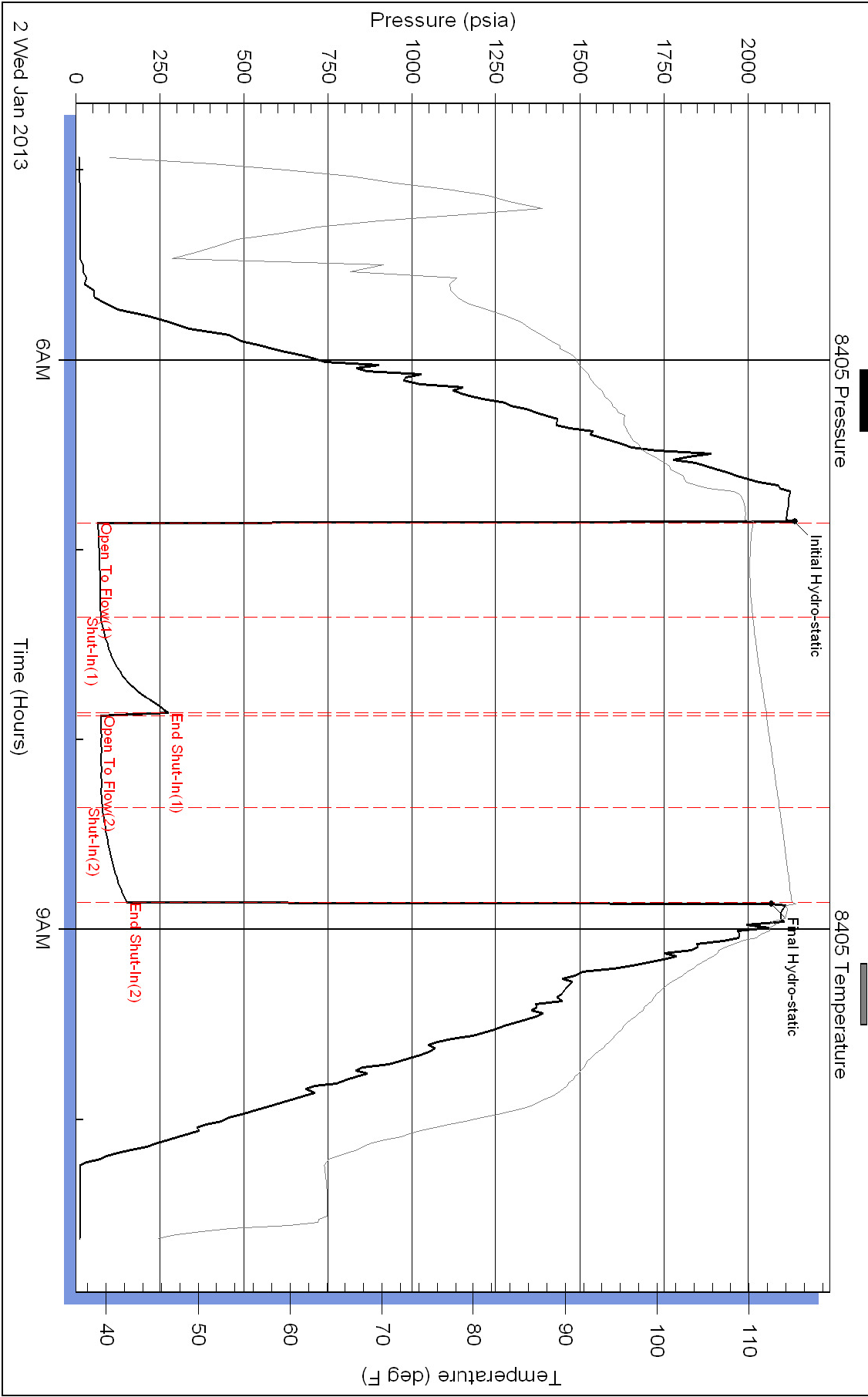
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Serial #: 8400

Inside

Ritchie Exploration

Roerner 34C#1

DST Test Number: 4

