



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Woolsey Operating Co
125 N Market Ste 1000
Wichita, KS 67202
ATTN: Bill Klaver

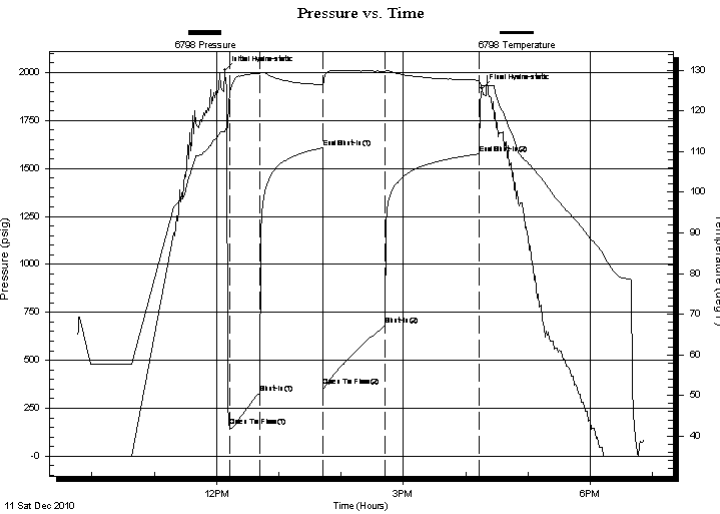
Koblitz #1
31-33S-8W Harper
Job Ticket: 039259 **DST#: 1**
Test Start: 2010.12.11 @ 09:46:15

GENERAL INFORMATION:

Formation: **Kansas City "Iola"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:12:45
Time Test Ended: 18:52:45
Interval: **4002.00 ft (KB) To 4025.00 ft (KB) (TVD)**
Total Depth: 4025.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
Press @ Run Depth: 684.12 psig @ 4003.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.12.11 End Date: 2010.12.11 Last Calib.: 2010.12.11
Start Time: 09:46:16 End Time: 18:52:45 Time On Btm: 2010.12.11 @ 12:08:15
Time Off Btm: 2010.12.11 @ 16:15:30

TEST COMMENT: IF: Strong Blow , BOB in 1 minute
IS: Bled Off , Blow back Built to BOB in 9 minutes
FF: Strong Blow , BOB in 3 minutes
FS: Bled Off , Blow back Built to 8 inches, GTS in 81 minutes



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2011.49	114.98	Initial Hydro-static
5	154.05	123.83	Open To Flow (1)
33	330.27	129.25	Shut-In(1)
94	1607.57	126.53	End Shut-In(1)
94	363.34	125.88	Open To Flow (2)
155	684.12	129.74	Shut-In(2)
245	1576.45	127.55	End Shut-In(2)
248	1918.19	126.27	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	2389 GIP	0.00
1395.00	GSY Water 5%G 95%W	19.38
93.00	GMCW 5%G 10%M 85%W	1.30
113.00	GWCM 5%G 25%W 70%M	1.59

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



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FLUID SUMMARY

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039259

DST#: 1

ATTN: Bill Klaver

Test Start: 2010.12.11 @ 09:46:15

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:

90000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2389 GIP	0.000
1395.00	GSY Water 5%G 95%W	19.376
93.00	GMCW 5%G 10%M 85%W	1.305
113.00	GWCM 5%G 25%W 70%M	1.585

Total Length: 1601.00 ft

Total Volume: 22.266 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

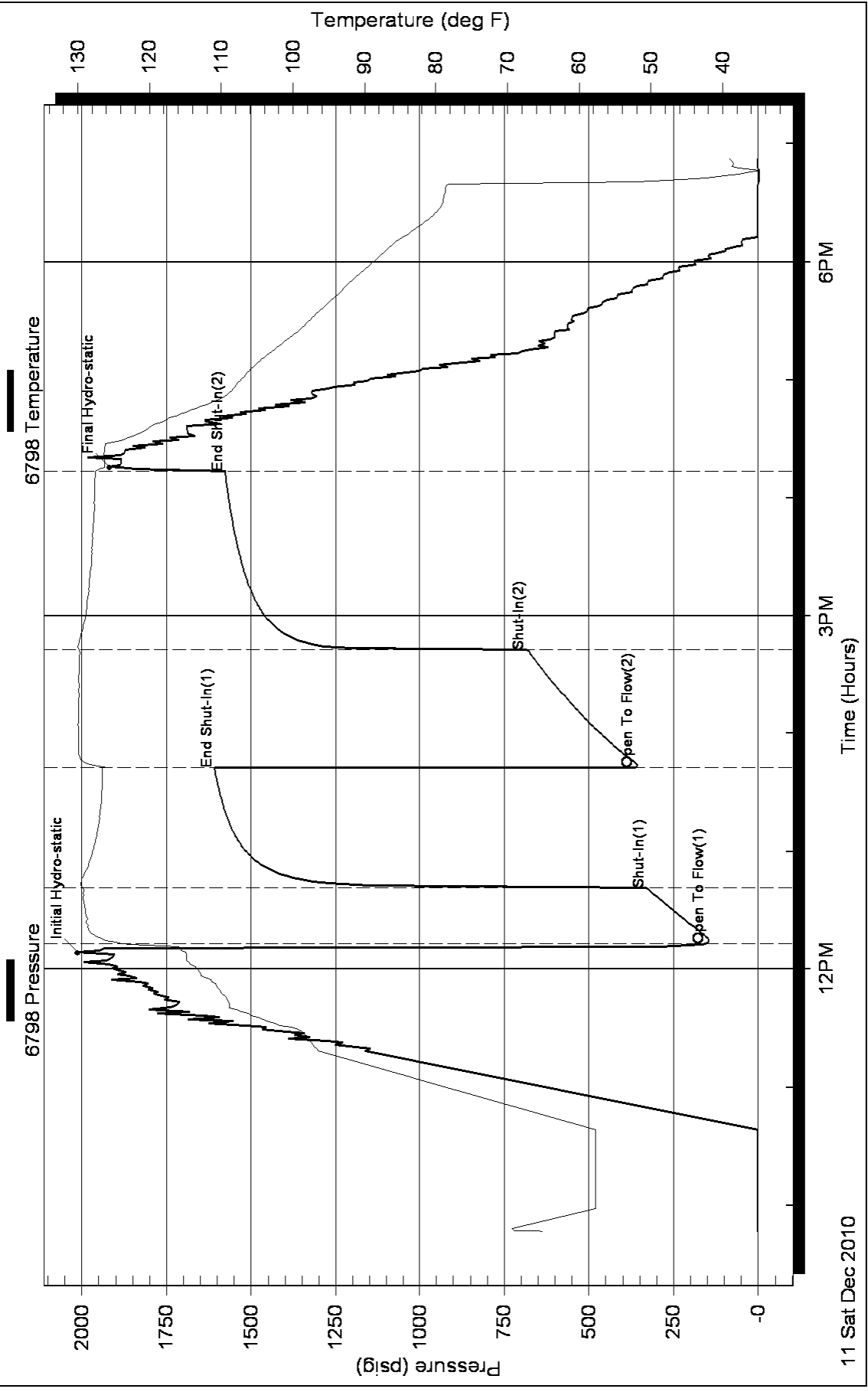
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



11 Sat Dec 2010



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Woolsey Operating Co
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Wichita, KS 67202
ATTN: Bill Klaver

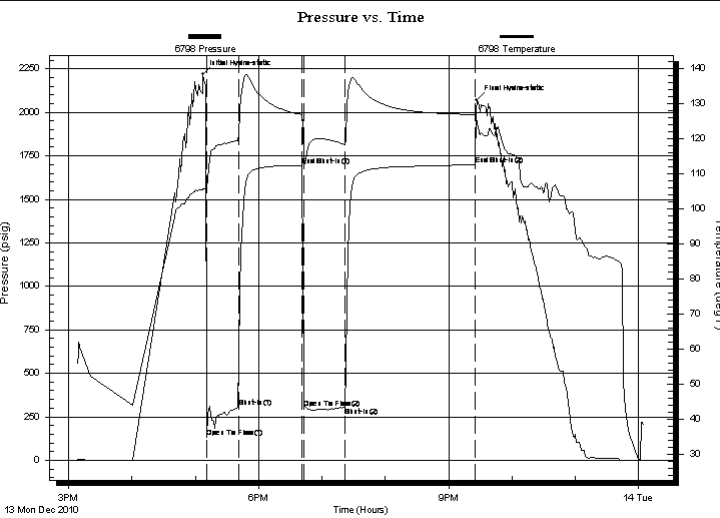
Koblitz #1
31-33S-8W Harper
Job Ticket: 039260 **DST#: 2**
Test Start: 2010.12.13 @ 15:08:29

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:10:29
Time Test Ended: 00:05:29
Interval: **4364.00 ft (KB) To 4520.00 ft (KB) (TVD)**
Total Depth: 4520.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**
Press @ Run Depth: 306.04 psig @ 4365.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.12.13 End Date: 2010.12.14 Last Calib.: 2010.12.14
Start Time: 15:08:30 End Time: 00:05:29 Time On Btm: 2010.12.13 @ 17:07:14
Time Off Btm: 2010.12.13 @ 21:26:29

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, GTS in 9 minutes, Guaged Gas and took sample
IS: Bled Off, No Blow back
FF: Strong Blow , BOB and GTS Immediate, Guaged Gas
FSI: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2218.83	105.51	Initial Hydro-static
4	133.18	105.82	Open To Flow (1)
34	304.17	119.34	Shut-In(1)
94	1693.02	126.77	End Shut-In(1)
96	301.75	112.57	Open To Flow (2)
135	306.04	118.10	Shut-In(2)
258	1698.25	126.79	End Shut-In(2)
260	2073.59	124.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4169 Feet GIP	0.00
196.00	GCM 8%G 92%M	2.56

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	80.00	637.47
Last Gas Rate	1.00	34.00	1394.32
Max. Gas Rate	0.50	100.00	772.38



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039260

DST#: 2

ATTN: Bill Klaver

Test Start: 2010.12.13 @ 15:08:29

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4169 Feet GIP	0.000
196.00	GCM 8%G 92%M	2.557

Total Length: 196.00 ft

Total Volume: 2.557 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
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DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039260

DST#: 2

ATTN: Bill Klaver

Test Start: 2010.12.13 @ 15:08:29

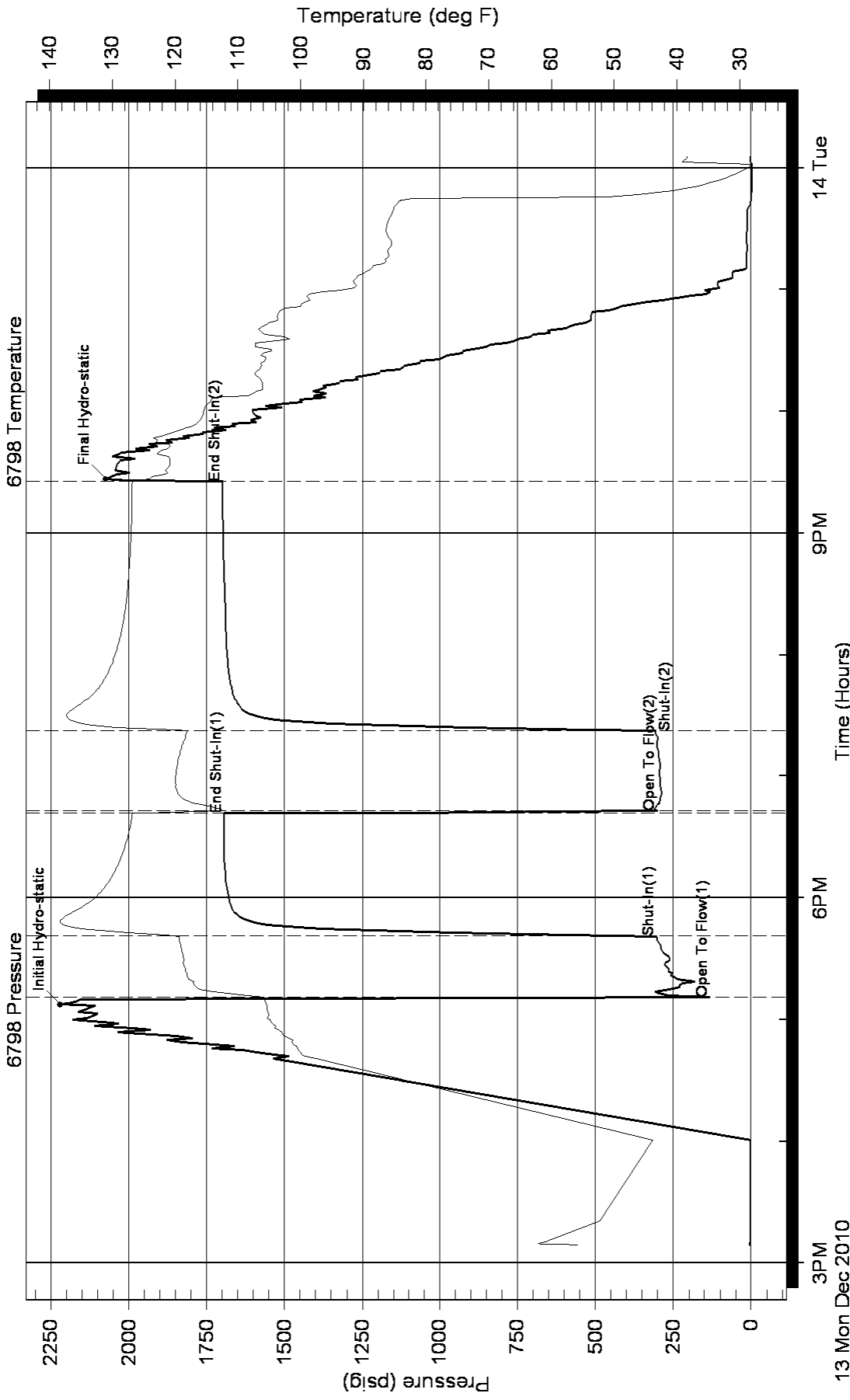
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.50	80.00	637.47
1	20	0.50	89.00	698.18
1	30	0.50	100.00	772.38
2	10	1.00	29.00	1250.57
2	20	1.00	31.00	1308.07
2	30	1.00	31.00	1308.07
2	40	1.00	34.00	1394.32

Pressure vs. Time





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DRILL STEM TEST REPORT

Woolsey Operating Co
125 N Market Ste 1000
Wichita, KS 67202
ATTN: Bill Klaver

Koblitz #1
31-33S-8W Harper
Job Ticket: 039261 **DST#: 3**
Test Start: 2010.12.14 @ 08:27:08

GENERAL INFORMATION:

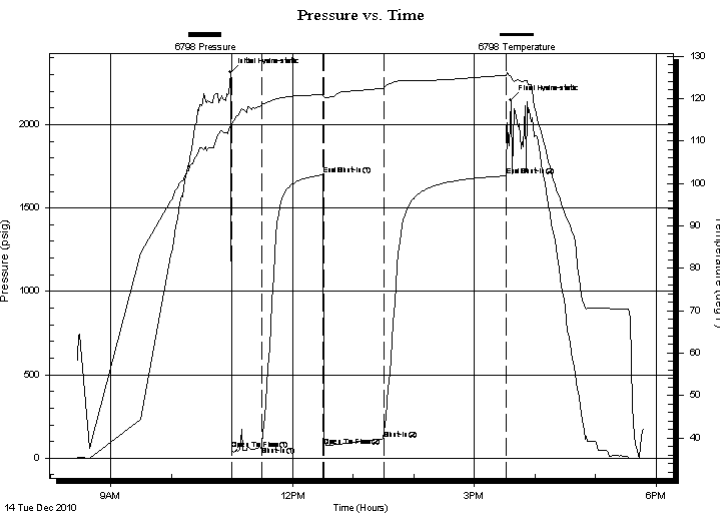
Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:59:38
Time Test Ended: 17:48:53
Interval: **4520.00 ft (KB) To 4540.00 ft (KB) (TVD)**
Total Depth: 4540.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798

Inside

Press @ Run Depth: 115.89 psig @ 4521.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.12.14 End Date: 2010.12.14 Last Calib.: 2010.12.14
Start Time: 08:27:09 End Time: 17:48:53 Time On Btm: 2010.12.14 @ 10:58:23
Time Off Btm: 2010.12.14 @ 15:35:53

TEST COMMENT: IF: Strong Blow , BOB in 5 minutes
IS: Bled Off, No Blow back
FF: Strong Blow , BOB immediate, GTS in 20 minutes, Gauged Gas & Caught Sample
FS: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2313.92	113.62	Initial Hydro-static
2	54.94	113.68	Open To Flow (1)
32	68.80	118.26	Shut-In(1)
92	1698.74	120.92	End Shut-In(1)
92	69.33	120.48	Open To Flow (2)
152	115.89	122.42	Shut-In(2)
273	1693.22	125.49	End Shut-In(2)
278	2148.85	125.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4283 Feet GIP	0.00
240.00	OGCM 6%O 40%G 54%M	3.17

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.50	28.56
Last Gas Rate	0.25	5.00	30.94
Max. Gas Rate	0.25	5.00	30.94



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039261

DST#: 3

ATTN: Bill Klaver

Test Start: 2010.12.14 @ 08:27:08

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4283 Feet GIP	0.000
240.00	OGCM 6%O 40%G 54%M	3.174

Total Length: 240.00 ft

Total Volume: 3.174 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
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DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039261

DST#: 3

ATTN: Bill Klaver

Test Start: 2010.12.14 @ 08:27:08

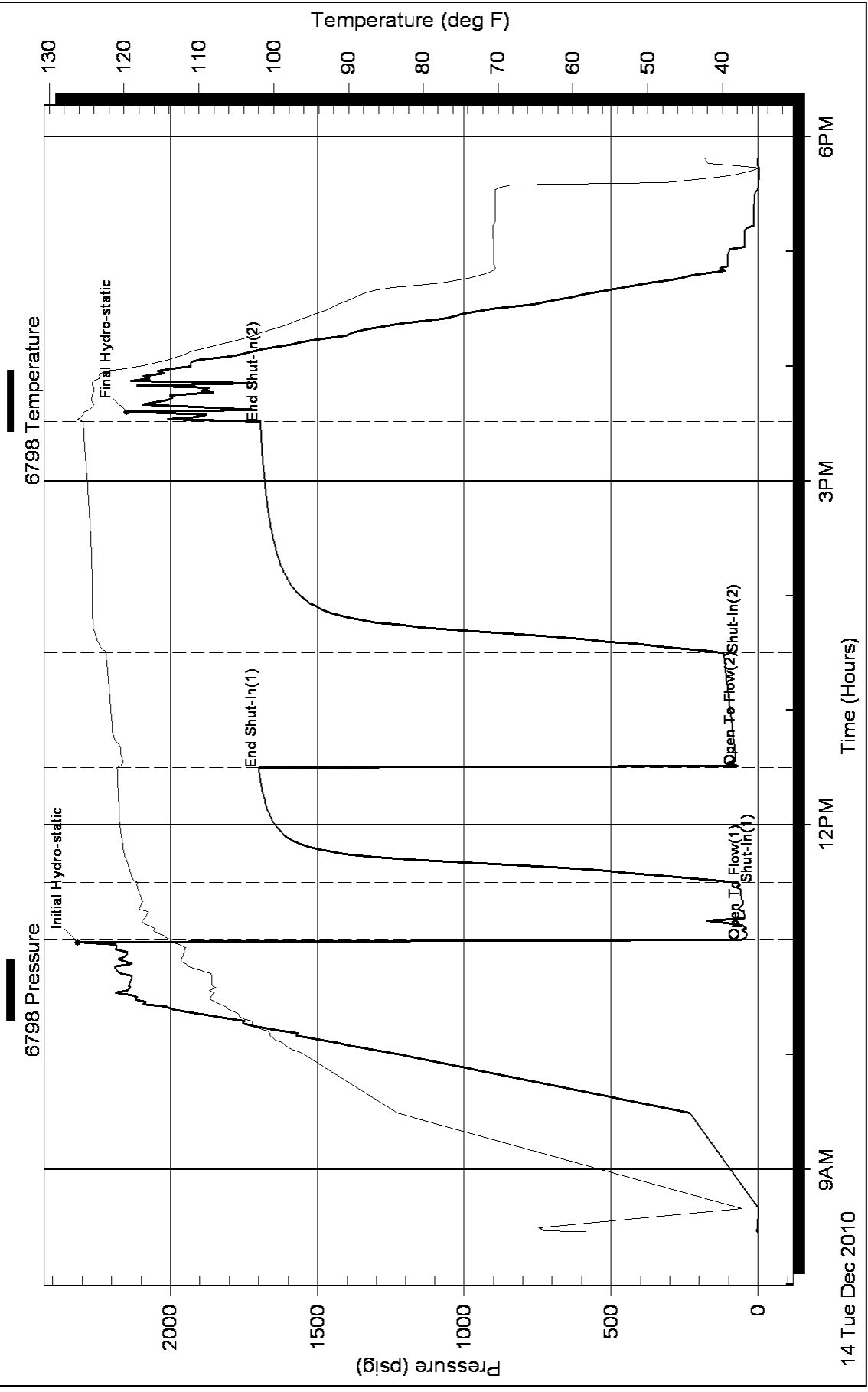
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	30	0.25	3.50	28.56
2	30	0.25	3.50	28.56
2	40	0.25	4.00	29.35
2	50	0.25	5.00	30.94

Pressure vs. Time





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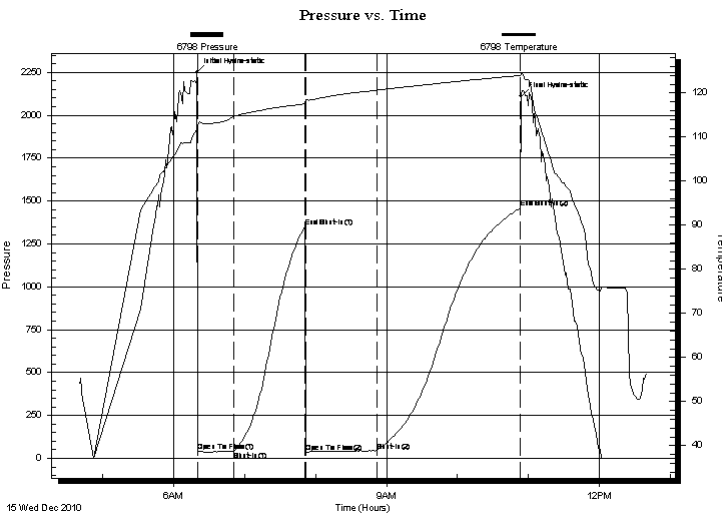
Koblitz #1
31-33S-8W Harper
Job Ticket: 039262 **DST#: 4**
Test Start: 2010.12.15 @ 04:40:16

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:20:01
Time Test Ended: 12:40:01
Interval: **4544.00 ft (KB) To 4575.00 ft (KB) (TVD)**
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
Press @ Run Depth: 43.57 psig @ 4545.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.12.15 End Date: 2010.12.15 Last Calib.: 2010.12.15
Start Time: 04:40:17 End Time: 12:40:01 Time On Btm: 2010.12.15 @ 06:19:31
Time Off Btm: 2010.12.15 @ 10:53:31

TEST COMMENT: IF: Fair Blow , Built to 7 inches
IS: Bled Off , No Blow back
FF: Fair Blow , BOB in 58 minutes
FS: Bled Off , No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2249.99	111.62	Initial Hydro-static
1	39.46	112.49	Open To Flow (1)
31	39.80	114.66	Shut-In(1)
92	1350.11	117.54	End Shut-In(1)
93	35.87	118.49	Open To Flow (2)
152	43.57	120.62	Shut-In(2)
274	1458.04	123.97	End Shut-In(2)
274	2110.05	124.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	200 Feet GIP	0.00
70.00	SOCM 1%O 99%M	0.79

Gas Rates

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



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Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039262

DST#: 4

ATTN: Bill Klaver

Test Start: 2010.12.15 @ 04:40:16

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	200 Feet GIP	0.000
70.00	SOCM 1%O 99%M	0.790

Total Length: 70.00 ft Total Volume: 0.790 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

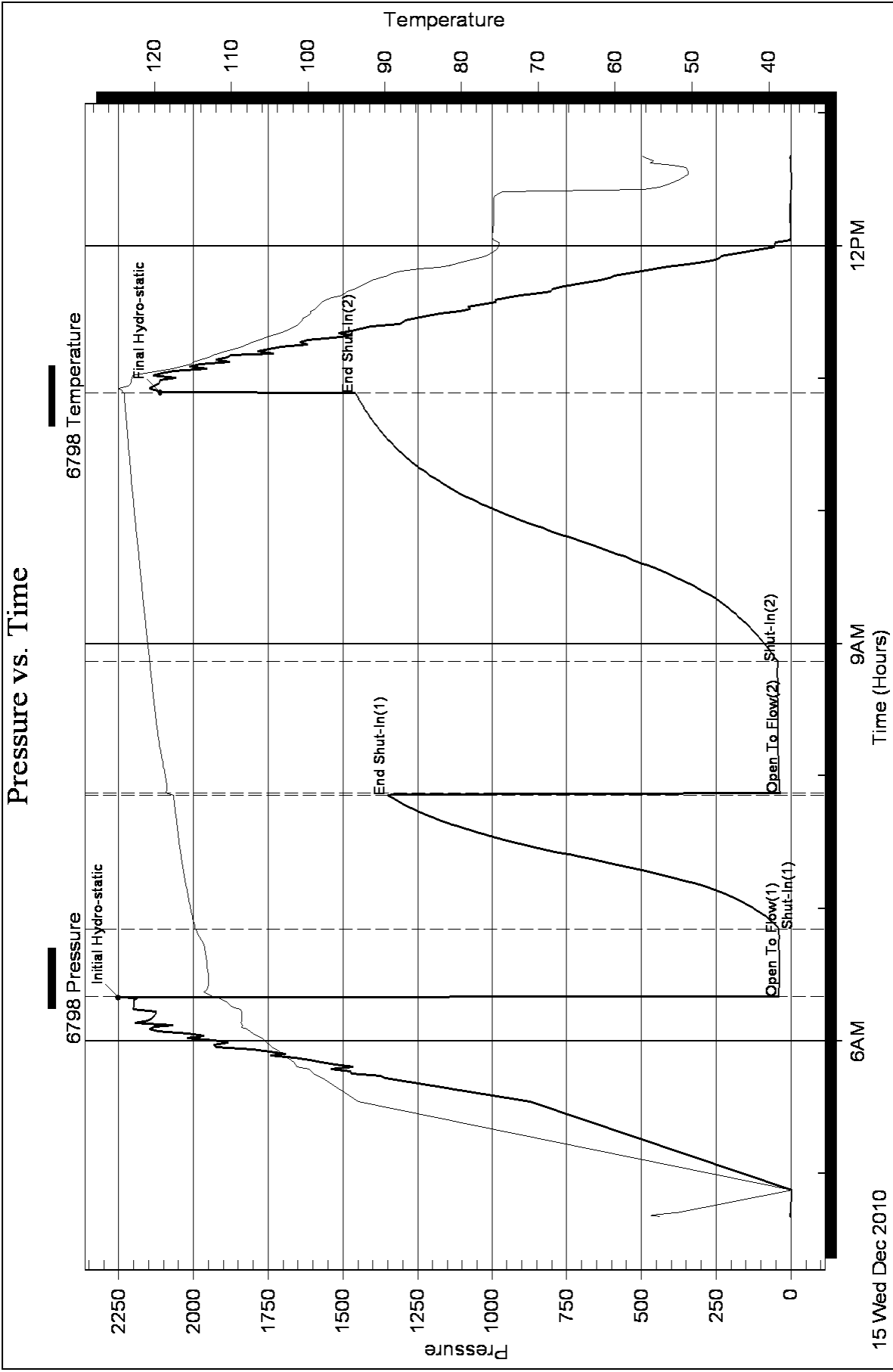
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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Woolsey Operating Co
 125 N Market Ste 1000
 Wichita, KS 67202
 ATTN: Bill Klaver

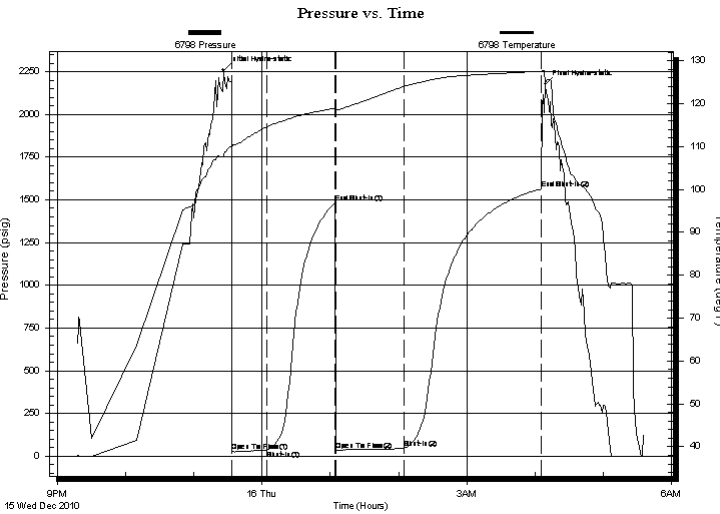
Koblitz #1
31-33S-8W Harper
 Job Ticket: 039263 **DST#: 5**
 Test Start: 2010.12.15 @ 21:18:05

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:33:20
 Time Test Ended: 05:36:50
 Interval: **4578.00 ft (KB) To 4598.00 ft (KB) (TVD)**
 Total Depth: 4598.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1308.00 ft (KB)
 1297.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6798 Inside
 Press @ Run Depth: 44.06 psig @ 4579.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2010.12.15 End Date: 2010.12.16 Last Calib.: 2010.12.16
 Start Time: 21:18:06 End Time: 05:36:50 Time On Btm: 2010.12.15 @ 23:26:05
 Time Off Btm: 2010.12.16 @ 04:08:50

TEST COMMENT: IF: Weak Blow , Built to 3 1/2 inches
 IS: Bled Off , No Blow back
 FF: Weak Blow , Built to 2 inches
 FS: Bled Off , No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2257.01	107.77	Initial Hydro-static
8	26.63	109.73	Open To Flow (1)
38	33.44	114.58	Shut-In(1)
98	1483.34	118.99	End Shut-In(1)
99	32.11	118.62	Open To Flow (2)
159	44.06	124.02	Shut-In(2)
280	1562.75	127.60	End Shut-In(2)
283	2176.62	124.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOSM -1%O +99%M	0.04

Gas Rates

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



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FLUID SUMMARY

Woolsey Operating Co

Koblitz #1

125 N Market Ste 1000
Wichita, KS 67202

31-33S-8W Harper

Job Ticket: 039263

DST#: 5

ATTN: Bill Klaver

Test Start: 2010.12.15 @ 21:18:05

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOSM -1%O +99%M	0.038

Total Length: 5.00 ft Total Volume: 0.038 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

