



DRILL STEM TEST REPORT

Prepared For: **BOP West L.L.C**

Po Box 129 Wooster OH 44691

ATTN: Ken Wallace

Van Meter#20-1

20-16-1 Saline

Start Date: 2012.11.02 @ 02:40:00

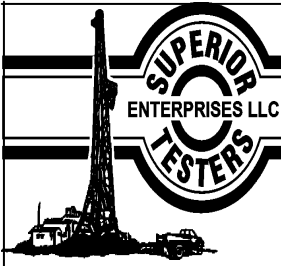
End Date: 2012.11.02 @ 09:14:30

Job Ticket #: 16891 DST #: 1

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

Printed: 2012.11.02 @ 09:31:34

BOP West L.L.C
20-16-1 Saline
Van Meter#20-1
DST # 1
Douglas
2012.11.02



DRILL STEM TEST REPORT

BOP West L.L.C
 Po Box 129 Wooster OH 44691
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20-16-1 Saline
Van Meter#20-1
 Job Ticket: 16891 **DST#: 1**
 Test Start: 2012.11.02 @ 02:40:00

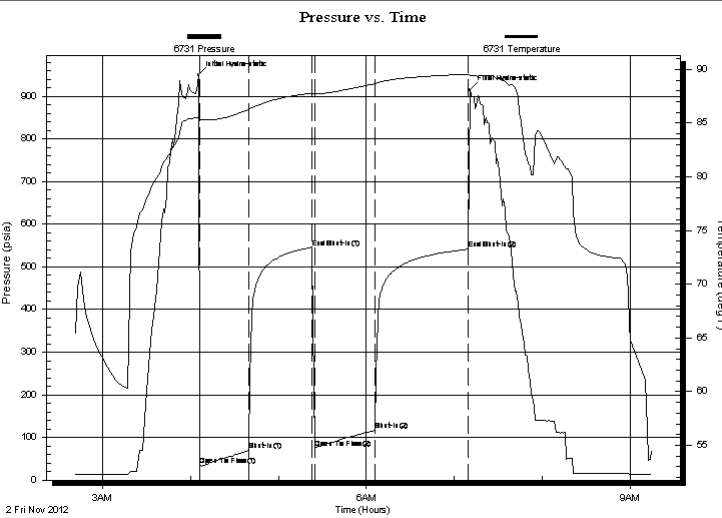
GENERAL INFORMATION:

Formation: **Douglas**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 04:06:30 Tester: Jared Scheck
 Time Test Ended: 09:14:30 Unit No: 3320-220-Great Bend
 Interval: **1861.00 ft (KB) To 1870.00 ft (KB) (TVD)** Reference Elevations: 1325.00 ft (KB)
 Total Depth: 1870.00 ft (KB) (TVD) 1319.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 6.00 ft

Serial #: 6731

Press@RunDepth: 116.21 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2012.11.02 End Date: 2012.11.02 Last Calib.: 2012.11.02
 Start Time: 02:40:00 End Time: 09:14:30 Time On Btm: 2012.11.02 @ 04:05:30
 Time Off Btm: 2012.11.02 @ 07:10:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 6 inches into bucket w ater in 30 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 45 Minutes-Weak blow built 6 1/2 inches into bucket w ater in 45 minutes
 2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

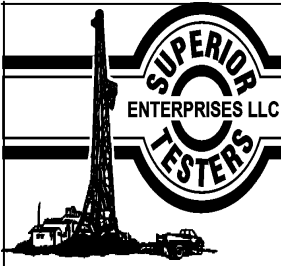
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	949.70	85.49	Initial Hydro-static
1	33.60	85.31	Open To Flow (1)
34	69.02	86.23	Shut-In(1)
78	545.78	87.78	End Shut-In(1)
79	74.41	87.70	Open To Flow (2)
120	116.21	88.66	Shut-In(2)
184	541.37	89.53	End Shut-In(2)
185	914.74	89.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	Water 95%w ater 5%mud	0.89
0.00	Chlorides 100,000 resistivity .1@65deg	0.00

Gas Rates

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



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 Job Ticket: 16891 **DST#: 1**
 Test Start: 2012.11.02 @ 02:40:00

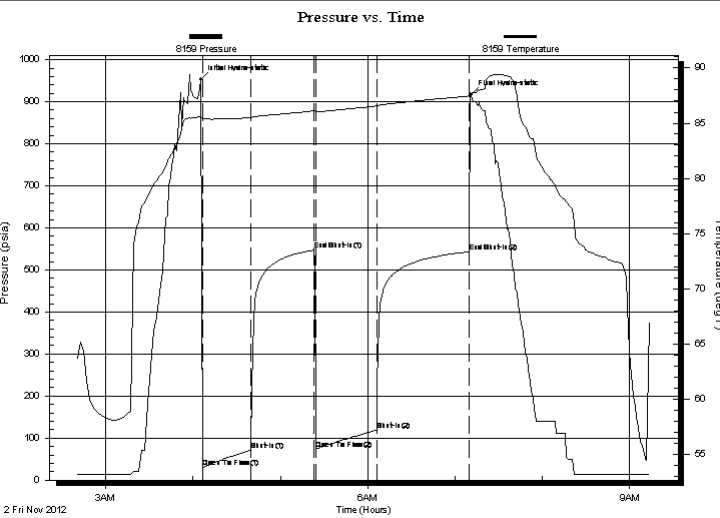
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Formation: **Douglas**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:06:30
 Time Test Ended: 09:14:30
Interval: 1861.00 ft (KB) To 1870.00 ft (KB) (TVD)
 Total Depth: 1870.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3320-220-Great Bend
 Reference Elevations: 1325.00 ft (KB)
 1319.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8159

Press@RunDepth: 542.92 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2012.11.02 End Date: 2012.11.02 Last Calib.: 2012.11.02
 Start Time: 02:40:00 End Time: 09:14:00 Time On Btm: 2012.11.02 @ 04:05:30
 Time Off Btm: 2012.11.02 @ 07:11:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 6 inches into bucket w ater in 30 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 45 Minutes-Weak blow built 6 1/2 inches into bucket w ater in 45 minutes
 2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	952.89	85.58	Initial Hydro-static
2	31.44	85.41	Open To Flow (1)
34	71.28	85.50	Shut-In(1)
78	547.24	86.11	End Shut-In(1)
79	73.95	86.03	Open To Flow (2)
121	118.56	86.55	Shut-In(2)
184	542.92	87.45	End Shut-In(2)
186	915.95	87.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	Water 95%w ater 5%mud	0.89
0.00	Chlorides 100,000 resistivity .1@65deg	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

BOP West L.L.C
 Po Box 129 Wooster OH 44691
 ATTN: Ken Wallace

20-16-1 Saline
Van Meter#20-1
 Job Ticket: 16891 **DST#: 1**
 Test Start: 2012.11.02 @ 02:40:00

Tool Information

Drill Pipe:	Length: 1620.00 ft	Diameter: 3.80 inches	Volume: 22.72 bbl	Tool Weight: 1000.00 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 23.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	1861.00 ft			Final 20000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	35.00 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			1840.00	
Hydraulic Tool	5.00			1845.00	
Jars	6.00			1851.00	
Packer	5.00			1856.00	26.00 Bottom Of Top Packer
Packer	5.00			1861.00	
Anchor	4.00			1865.00	
Recorder	1.00	6731	Inside	1866.00	
Recorder	1.00	8159	Outside	1867.00	
Bullnose	3.00			1870.00	9.00 Bottom Packers & Anchor
Total Tool Length:	35.00				



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FLUID SUMMARY

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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: 0.00 sec/qt	Cushion Volume: bbl		
Water Loss: 0.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	Water 95%w ater 5%mud	0.885
0.00	Chlorides 100,000 resistivity .1@65deg	0.000

Total Length: 180.00 ft Total Volume: 0.885 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

