



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Herman L Loeb LLC
 PO Box 838
 Lawrenceville, IL 62439
 ATTN: Jon Christensen

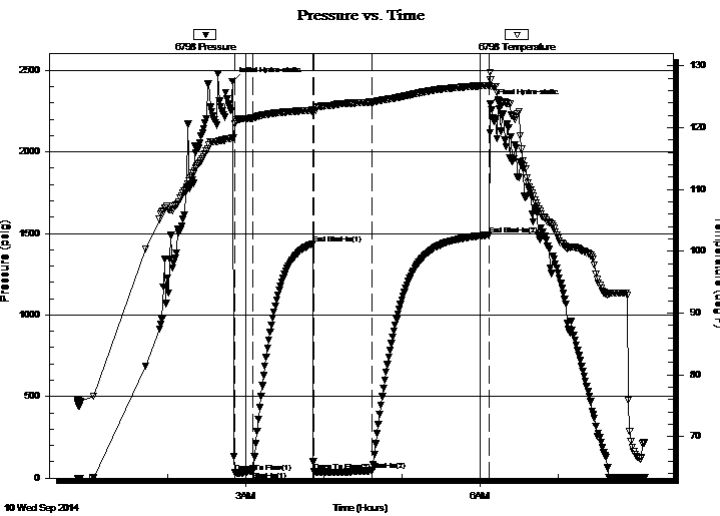
20-27S-18W Kiowa
Randel 3-20
 Job Ticket: 57758 **DST#: 3**
 Test Start: 2014.09.10 @ 00:51:11

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:51:41 Tester: Leal Cason
 Time Test Ended: 08:06:23 Unit No: 74
 Interval: **4728.00 ft (KB) To 4792.00 ft (KB) (TVD)** Reference Elevations: 2201.00 ft (KB)
 Total Depth: 4792.00 ft (KB) (TVD) 2188.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 13.00 ft

Serial #: 6798 Inside
 Press@RunDepth: 46.99 psig @ 4729.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.10 End Date: 2014.09.10 Last Calib.: 2014.09.10
 Start Time: 00:51:12 End Time: 08:06:23 Time On Btm: 2014.09.10 @ 02:49:56
 Time Off Btm: 2014.09.10 @ 06:08:11

TEST COMMENT: IF: Strong Blow , BOB in 45 seconds
 IS: Blow Back Built to 9 inches
 FF: Strong Blow , BOB immediate, GTS in 5 minutes, Gauged & Caught Sample
 FS: 2 inch Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2431.31	118.36	Initial Hydro-static
2	33.85	120.65	Open To Flow (1)
16	43.39	121.56	Shut-In(1)
62	1436.50	122.83	End Shut-In(1)
63	42.79	122.73	Open To Flow (2)
108	46.99	124.13	Shut-In(2)
198	1491.21	126.80	End Shut-In(2)
199	2296.15	127.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4674 GIP	0.00
50.00	SGCM 2%G 98%M	0.25

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	5.00	30.78
Last Gas Rate	0.13	12.00	9.88
Max. Gas Rate	0.13	12.00	9.88



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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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 0.02 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4674 GIP	0.000
50.00	SGCM 2%G 98%M	0.246

Total Length: 50.00 ft Total Volume: 0.246 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



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GAS RATES

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Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	5.00	30.78
2	20	0.13	5.00	7.26
2	30	0.13	9.00	8.76
2	40	0.13	12.00	9.88
2	45	0.13	12.00	9.88

