



DRILL STEM TEST REPORT

Prepared For: **Herman L.Loeb LLC**

PO Box 838
Lawrenceville IL.62439

ATTN: Jon Christensen

Redetzke #5-22

22-22s-25w Hodgeman,KS

Start Date: 2012.08.14 @ 14:03:17

End Date: 2012.08.14 @ 20:58:47

Job Ticket #: 47595 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.16 @ 16:11:22

Herman L.Loeb LLC

22-22s-25w Hodgeman,KS

Redetzke #5-22

DST # 1

Miss. Dolomite

2012.08.14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

22-22s-25w Hodgeman,KS
Redetzke #5-22
Job Ticket: 47595 **DST#: 1**
Test Start: 2012.08.14 @ 14:03:17

GENERAL INFORMATION:

Formation: **Miss. Dolomite**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:02
Time Test Ended: 20:58:47
Interval: **4580.00 ft (KB) To 4618.00 ft (KB) (TVD)**
Total Depth: 4618.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Gary Pevoteaux
Unit No: 56
Reference Elevations: 2530.00 ft (KB)
2519.00 ft (CF)
KB to GR/CF: 11.00 ft

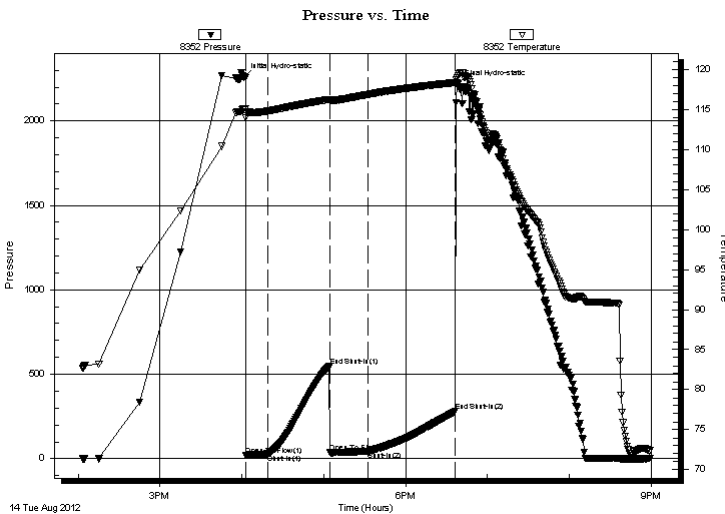
Serial #: 8352

Outside

Press @ RunDepth: 43.36 psig @ 4581.00 ft (KB)
Start Date: 2012.08.14 End Date: 2012.08.14
Start Time: 14:03:22 End Time: 20:58:46
Capacity: 8000.00 psig
Last Calib.: 2012.08.14
Time On Btm: 2012.08.14 @ 16:01:32
Time Off Btm: 2012.08.14 @ 18:38:02

TEST COMMENT: IF:Weak blow . 1/4 - 1/2".
IS:No blow .
FF:Weak blow . 1/4 - 1".
FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2258.31	115.07	Initial Hydro-static
2	19.04	113.95	Open To Flow (1)
18	28.49	114.76	Shut-In(1)
63	546.80	116.22	End Shut-In(1)
64	36.37	116.01	Open To Flow (2)
92	43.36	116.84	Shut-In(2)
155	280.90	118.34	End Shut-In(2)
157	2216.70	118.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	OCM 11%o 89%m	0.22
0.00	45 ft.of GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L.Loeb LLC

22-22s-25w Hodgeman,KS

PO Box 838
Lawrenceville IL.62439

Redetzke #5-22

Job Ticket: 47595

DST#: 1

ATTN: Jon Christensen

Test Start: 2012.08.14 @ 14:03:17

Tool Information

Drill Pipe:	Length: 4362.00 ft	Diameter: 3.80 inches	Volume: 61.19 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	88000.00 lb
			<u>Total Volume: 62.26 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4580.00 ft			Final	77000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	61.00 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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C.O. Sub	1.00			4558.00	
Shut in tool	5.00			4563.00	
HMV	5.00			4568.00	
Safety Joint	3.00			4571.00	
Packer	4.00			4575.00	23.00 Bottom Of Top Packer
Packer	5.00			4580.00	
Stubb	1.00			4581.00	
Recorder	0.00	8370	Inside	4581.00	
Recorder	0.00	8352	Outside	4581.00	
Perforations	32.00			4613.00	
Bullnose	5.00			4618.00	38.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-22s-25w Hodgeman,KS
Redetzke #5-22
 Job Ticket: 47595 **DST#: 1**
 Test Start: 2012.08.14 @ 14:03:17

Mud and Cushion Information

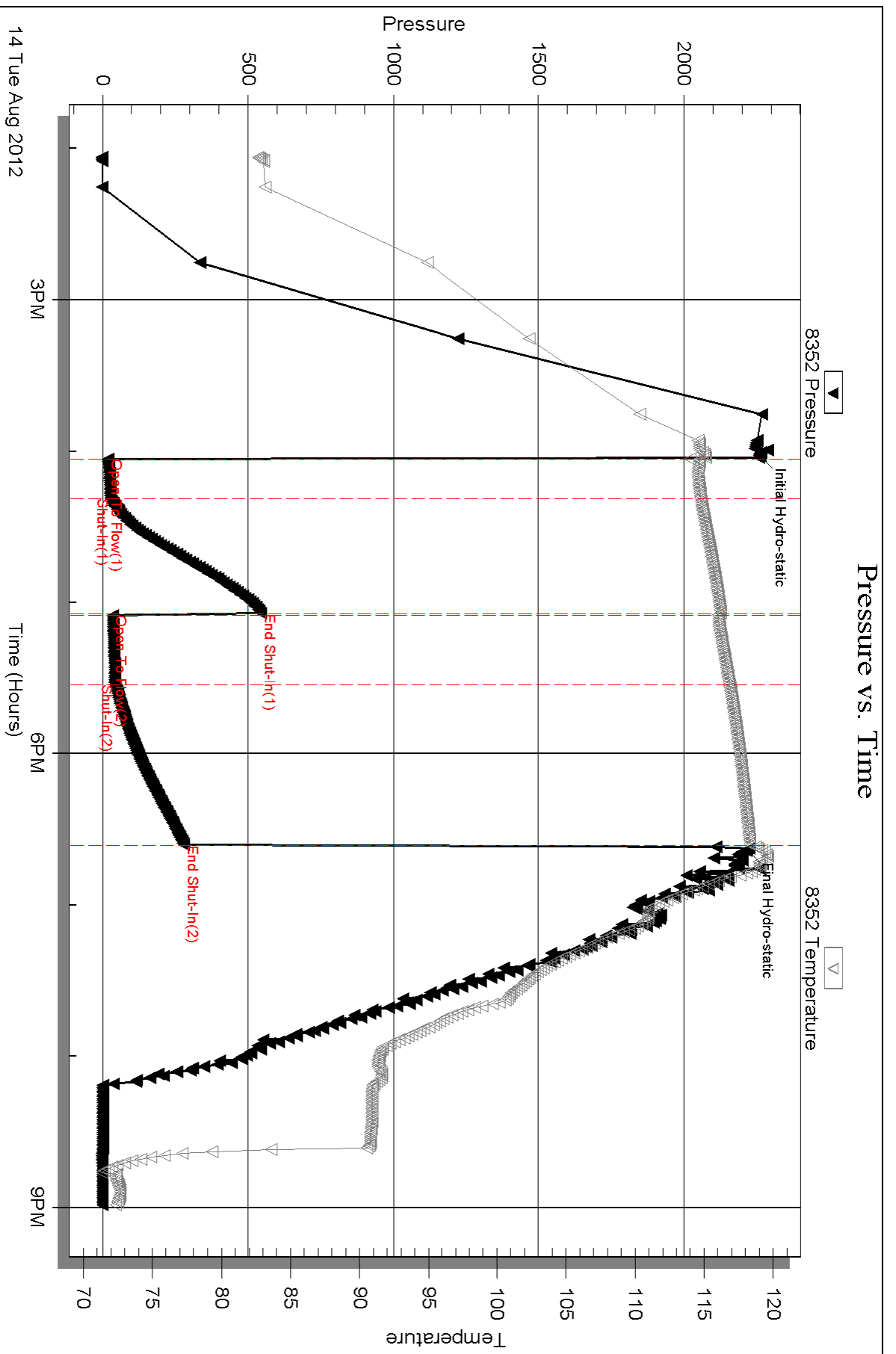
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	1500 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	OCM 11%o 89%m	0.221
0.00	45 ft.of GIP	0.000

Total Length: 45.00 ft Total Volume: 0.221 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:



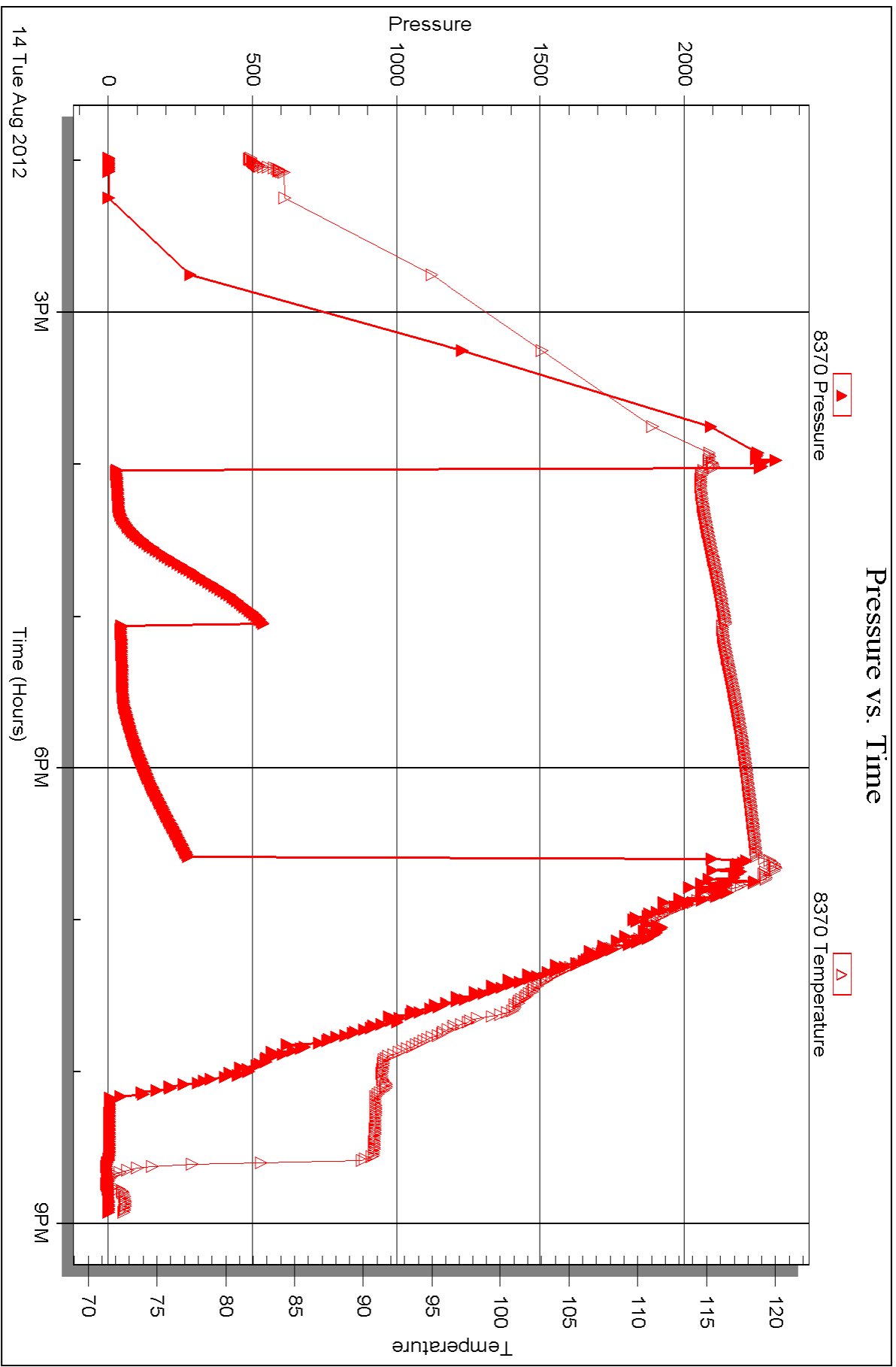
Serial #: 8370

Inside

Herrnan L.Loeb LLC

Redelzke #5-22

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Herman L.Loeb LLC**

PO Box 838
Lawrenceville IL.62439

ATTN: Jon Christensen

Redetzke #5-22

22-22s-25w Hodgeman,KS

Start Date: 2012.08.15 @ 05:42:58

End Date: 2012.08.15 @ 13:58:58

Job Ticket #: 47596 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.16 @ 16:10:38

Herman L.Loeb LLC

22-22s-25w Hodgeman,KS

Redetzke #5-22

DST # 2

Miss. Dolomite

2012.08.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

22-22s-25w Hodgeman,KS
Redetzke #5-22
Job Ticket: 47596 **DST#: 2**
Test Start: 2012.08.15 @ 05:42:58

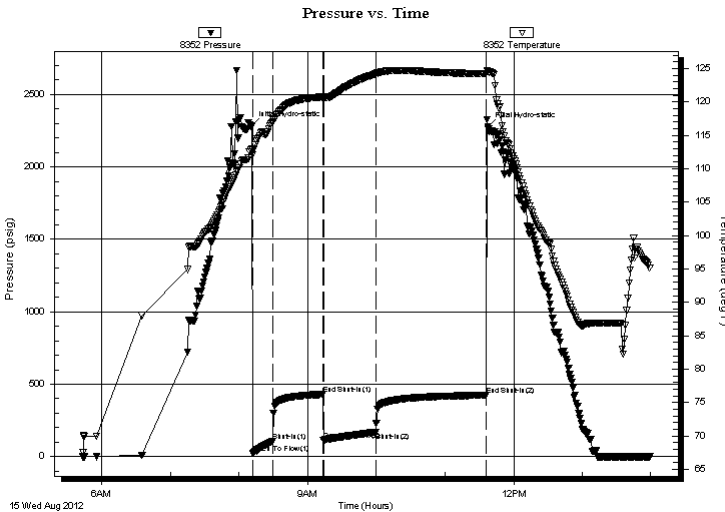
GENERAL INFORMATION:

Formation: **Miss. Dolomite**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:58
Time Test Ended: 13:58:58
Interval: **4620.00 ft (KB) To 4650.00 ft (KB) (TVD)**
Total Depth: 4650.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Gary Pevoteaux
Unit No: 56
Reference Elevations: 2530.00 ft (KB)
2519.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8352 Outside
Press @ RunDepth: 169.83 psig @ 4621.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.15 End Date: 2012.08.15 Last Calib.: 2012.08.15
Start Time: 05:43:03 End Time: 13:58:57 Time On Btm: 2012.08.15 @ 08:10:58
Time Off Btm: 2012.08.15 @ 11:37:43

TEST COMMENT: IF:Weak to fair blow . Slow increase to 6 1/2".
IS:No blow .
FF:Weak to fair blow . Slow increase to 7".
FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2280.66	113.02	Initial Hydro-static
1	20.71	112.06	Open To Flow (1)
19	106.24	117.00	Shut-In(1)
63	429.70	120.76	End Shut-In(1)
63	111.93	120.62	Open To Flow (2)
109	169.83	124.20	Shut-In(2)
206	424.31	124.24	End Shut-In(2)
207	2276.63	124.56	Final Hydro-static

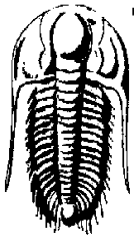
Recovery

Length (ft)	Description	Volume (bbl)
125.00	SW	0.61
125.00	MW w / oil specs 12%m 88%w	0.92
84.00	SOCMW 2%o 43%m 55%w	1.18
1.00	Clean oil	0.01

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

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

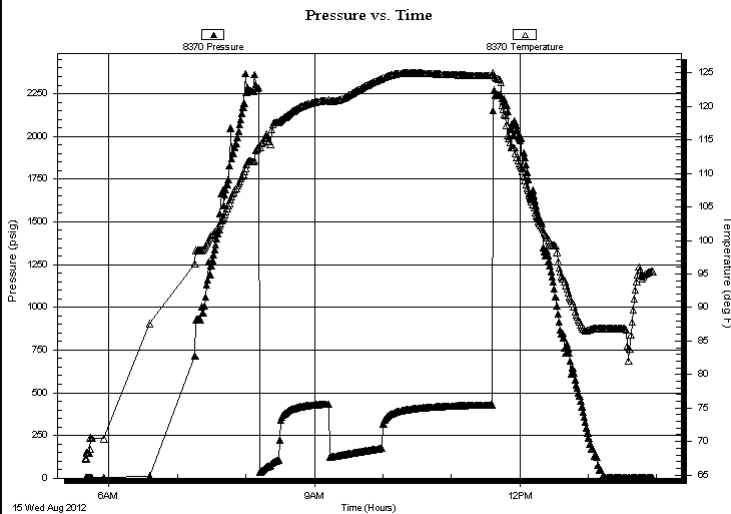
22-22s-25w Hodgeman,KS
Redetzke #5-22
Job Ticket: 47596 **DST#: 2**
Test Start: 2012.08.15 @ 05:42:58

GENERAL INFORMATION:

Formation: **Miss. Dolomite**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:58
Time Test Ended: 13:58:58
Interval: **4620.00 ft (KB) To 4650.00 ft (KB) (TVD)**
Total Depth: 4650.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Gary Pevoteaux
Unit No: 56
Reference Elevations: 2530.00 ft (KB)
2519.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8370 Inside
Press @ Run Depth: psig @ 4621.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.08.15 End Date: 2012.08.15 Last Calib.: 2012.08.15
Start Time: 05:39:32 End Time: 13:56:26 Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Weak to fair blow . Slow increase to 6 1/2".
IS:No blow .
FF:Weak to fair blow . Slow increase to 7".
FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
125.00	SW	0.61
125.00	MW w / oil specs 12%m 88%w	0.92
84.00	SOCMW 2%o 43%m 55%w	1.18
1.00	Clean oil	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L.Loeb LLC

22-22s-25w Hodgeman,KS

PO Box 838
Lawrenceville IL.62439

Redetzke #5-22

Job Ticket: 47596

DST#: 2

ATTN: Jon Christensen

Test Start: 2012.08.15 @ 05:42:58

Tool Information

Drill Pipe:	Length: 4396.00 ft	Diameter: 3.80 inches	Volume: 61.66 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 62.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4620.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	53.00 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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C.O. Sub	1.00			4598.00	
Shut in tool	5.00			4603.00	
HMV	5.00			4608.00	
Safety Joint	3.00			4611.00	
Packer	4.00			4615.00	23.00 Bottom Of Top Packer
Packer	5.00			4620.00	
Stubb	1.00			4621.00	
Recorder	0.00	8370	Inside	4621.00	
Recorder	0.00	8352	Outside	4621.00	
Perforations	24.00			4645.00	
Bullnose	5.00			4650.00	30.00 Bottom Packers & Anchor

Total Tool Length: 53.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-22s-25w Hodgeman,KS
Redetzke #5-22
Job Ticket: 47596 **DST#: 2**
Test Start: 2012.08.15 @ 05:42:58

Mud and Cushion Information

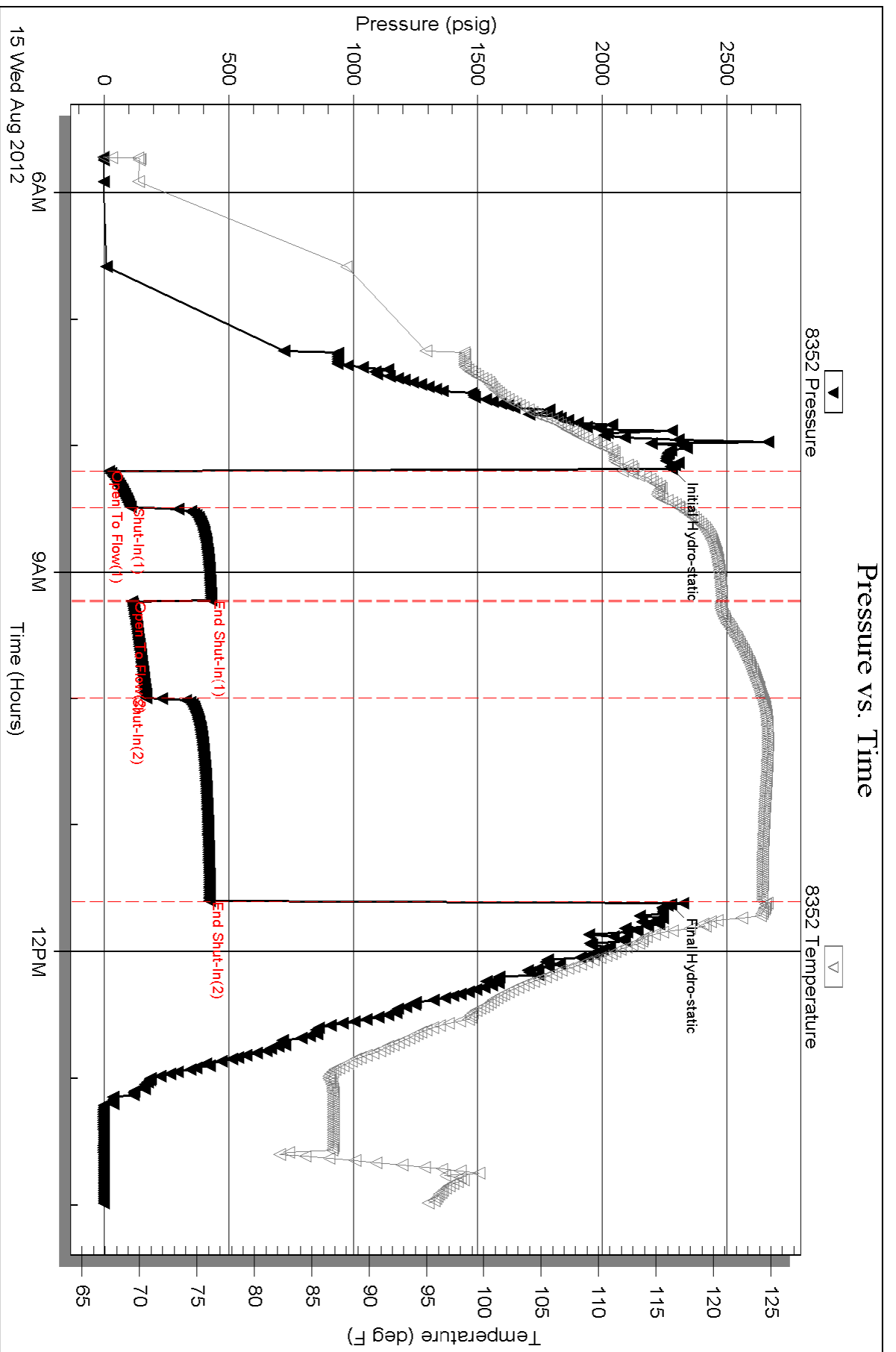
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 55000 ppm	
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2600.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	SW	0.615
125.00	MW w / oil specs 12%m 88%w	0.915
84.00	SOCMW 2%o 43%m 55%w	1.178
1.00	Clean oil	0.014

Total Length: 335.00 ft Total Volume: 2.722 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
Laboratory Name: Laboratory Location:
Recovery Comments: Rw .11ohms @89 deg



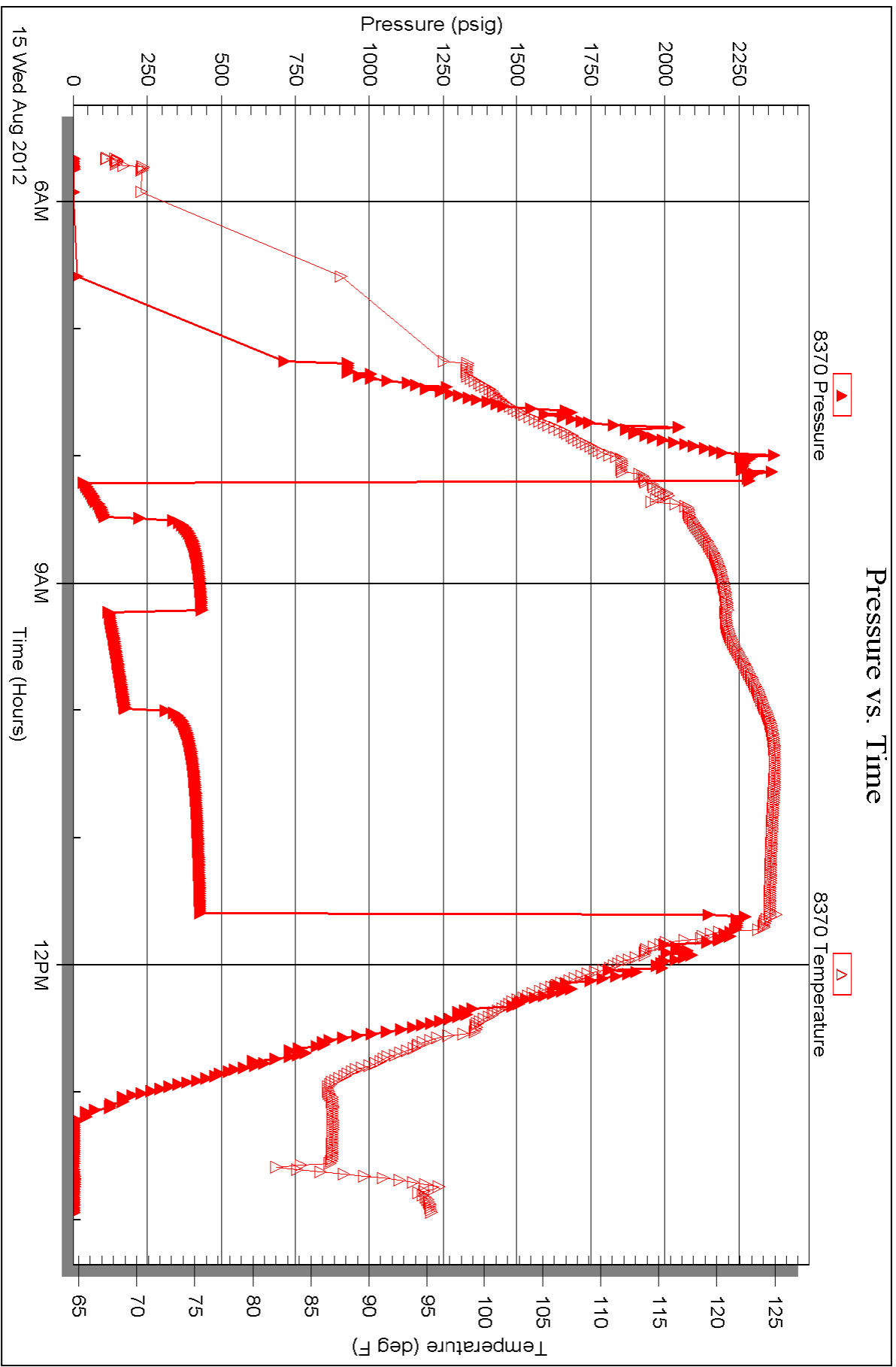
Serial #: 8370

Inside

Herrman L.Loeb LLC

Redelzke #5-22

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47595

4/10

Well Name & No. REDETZKE # 5-22 Test No. 1 Date 8-14-12
 Company HERMAN L. LOEB LLC Elevation 2530 KB 2519 GL
 Address P.O. Box 838, LAWRENCEVILLE IL. 62439
 Co. Rep / Geo. JEN CHRISTENSEN Rig STERLING DRUG #2
 Location: Sec. 22 Twp. 22^S Rge. 25^W Co. HOOZEMAN State KS.

Interval Tested 4580 - 4618 Zone Tested MISS. DOLOMITE
 Anchor Length 38' Drill Pipe Run 4362' Mud Wt. 9.3
 Top Packer Depth 4575' Drill Collars Run 217' Vis S2
 Bottom Packer Depth 4580' Wt. Pipe Run 0 WL 9.2cc
 Total Depth 4618' Chlorides 1500ppm System LCM 1#
 Blow Description IF: Weak below. 1/4 - 1/2". IST: No blow

FF: Weak below. 1/4 - 1". FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Gas in pipe</u>				
<u>45</u>	<u>OCM</u>		<u>11</u>		<u>89</u>

Rec Total 45 Fluid BHT 118° Gravity N/A API RW N.C. @ ~ °F Chlorides 1500 ppm
 (A) Initial Hydrostatic 2258 Test 1250 T-On Location 1247
 (B) First Initial Flow 19 Jars T-Started 1403
 (C) First Final Flow 28 Safety Joint 75 T-Open 1603
 (D) Initial Shut-In 547 Circ Sub T-Pulled 1833
 (E) Second Initial Flow 36 Hourly Standby T-Out 2058
 (F) Second Final Flow 43 Mileage 135 194rt 300.70 Comments MOTEL
 (G) Final Shut-In 281 Sampler
 (H) Final Hydrostatic 2117 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Initial Open 15 Extra Recorder Sub Total 0
 Initial Shut-In 45 Day Standby Total 1625
 Final Flow 30 Accessibility MP/DST Disc't
 Final Shut-In 46 Sub Total 1625.70

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47596

Well Name & No. REDETZKE # 5-22 Test No. 2 Date 8-15-12
 Company HERMAN L. LOEB LLC Elevation 2530 KB 2519 GL
 Address P.O. Box 838, LAWRENCEVILLE IL. 62439
 Co. Rep / Geo. Jon CHRISTENSEN Rig STERLING DRUG #2
 Location: Sec. 22 Twp. 22S Rge. 25W Co. HODGEMAN State Ks.

Interval Tested 4620 - 4650' Zone Tested Mess. Dolomite
 Anchor Length 30' Drill Pipe Run 4396' Mud Wt. 9.3
 Top Packer Depth 4615' Drill Collars Run 217' Vis 52
 Bottom Packer Depth 4620' Wt. Pipe Run 0 WL 8.8cc
 Total Depth 4650' Chlorides 2600 ppm System LCM 1#

Blow Description IF: Weak to fair blow. Slow increase to 6 1/2".
ISI: No blow.
FF: Weak to fair blow. Slow increase to 7". FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Open Oil</u>				
<u>84</u>	<u>500 MW</u>		<u>2</u>	<u>55</u>	<u>43</u>
<u>125</u>	<u>MW / wail speed.</u>			<u>88</u>	<u>12</u>
<u>125</u>	<u>SW</u>				

Rec Total 335 Fluid BHT 124° Gravity N/A API RW .11 @ 89 °F Chlorides 55,000 ppm

(A) Initial Hydrostatic <u>2281</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0527</u>
(B) First Initial Flow <u>21</u>	<input type="checkbox"/> Jars	T-Started <u>0542</u>
(C) First Final Flow <u>106</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0811</u>
(D) Initial Shut-In <u>430</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1139</u>
(E) Second Initial Flow <u>112</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1358</u>
(F) Second Final Flow <u>170</u>	<input checked="" type="checkbox"/> Mileage <u>235</u> 300.70	Comments
(G) Final Shut-In <u>424</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2277</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1625.70</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1625.70</u>	

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.