

## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum, Inc.**

525 S. Main  
Kingman, KS 67068

ATTN: Jon Messenger

**15-29s-9w Kingman KS**

**LeRoy #1**

Start Date: 2010.06.07 @ 16:06:00

End Date: 2010.06.07 @ 22:42:20

Job Ticket #: 36960                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.07.02 @ 12:49:03

Messenger Petroleum, Inc.      LeRoy #1      15-29s-9w Kingman KS      DST # 2      STOTLER      2010.06.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36960

**DST#: 2**

Test Start: 2010.06.07 @ 16:06:00

## GENERAL INFORMATION:

Formation: **STOTLER**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:42:30

Time Test Ended: 22:42:20

Test Type: Conventional Straddle (Initial)

Tester: Jake Fahrenbruch

Unit No: 43

**Interval: 2590.00 ft (KB) To 2605.00 ft (KB) (TVD)**

Reference Elevations: 1695.00 ft (KB)

Total Depth: 2635.00 ft (KB) (TVD)

1686.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

**Serial #: 8648**

**Inside**

Press@RunDepth: 122.83 psig @ 2597.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.07 End Date: 2010.06.07

Last Calib.: 2010.06.07

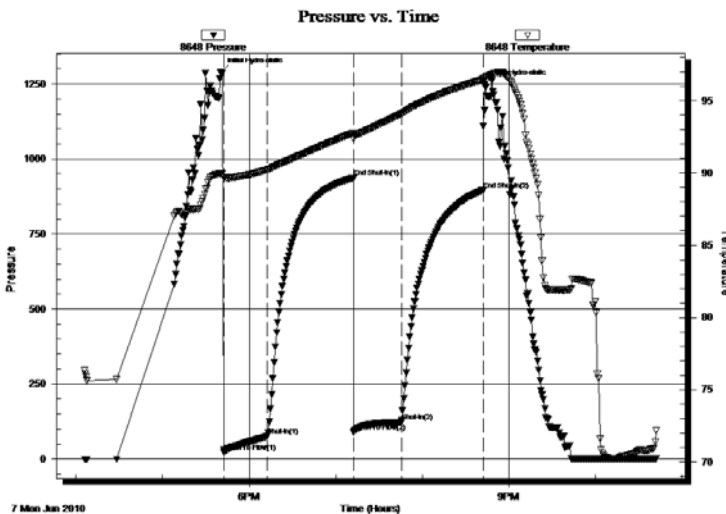
Start Time: 16:06:05 End Time: 22:42:20

Time On Btm: 2010.06.07 @ 17:40:30

Time Off Btm: 2010.06.07 @ 20:43:20

**TEST COMMENT:** IF: Strong blow, BOB 25 seconds, No GTS.  
 ISI: Bled off, weak blowback @ .5", blowback died.  
 FF: Fair blow, BOB 30 minutes. No GTS.  
 FSI: Bled off, no blowback.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1287.61	89.97	Initial Hydro-static
2	22.31	89.69	Open To Flow(1)
33	74.29	90.22	Shut-In(1)
92	936.42	92.75	End Shut-In(1)
92	89.00	92.35	Open To Flow(2)
125	122.83	94.08	Shut-In(2)
182	896.04	96.45	End Shut-In(2)
183	1247.21	96.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume(bbl)
130.00	Salt Water 100%w	0.64
110.00	WCM 10%w 90%m	0.72
0.00	120' +/- GIP	0.00
0.00	62,500 ppm chlorides	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36960

**DST#: 2**

ATTN: Jon Messenger

Test Start: 2010.06.07 @ 16:06:00

## Tool Information

Drill Pipe:	Length: 2356.00 ft	Diameter: 3.80 inches	Volume: 33.05 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 220.00 ft	Diameter: 2.25 inches	Volume: 1.08 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 34.13 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	57000.00 lb
Depth to Top Packer:	2590.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	2605.00 ft				
Interval between Packers:	15.00 ft				
Tool Length:	73.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			2567.00	
Hydraulic tool	5.00			2572.00	
Jars	5.00			2577.00	
Safety Joint	3.00			2580.00	
Packer	5.00			2585.00	28.00 Bottom Of Top Packer
Packer	5.00			2590.00	
Stubb	1.00			2591.00	
Perforations	6.00			2597.00	
Recorder	0.00	8648	Inside	2597.00	
Recorder	0.00	8655	Outside	2597.00	
Perforations	5.00			2602.00	
Blank Off Sub	3.00			2605.00	15.00 Tool Interval
Packer	3.00			2608.00	
Perforations	22.00			2630.00	
Recorder	0.00	6799	Below	2630.00	
Bullnose	5.00			2635.00	30.00 Bottom Packers & Anchor Tool

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36960

**DST#: 2**

ATTN: Jon Messenger

Test Start: 2010.06.07 @ 16:06:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

62500 ppm

Viscosity: 28.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 156000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
130.00	Salt Water 100%w	0.639
110.00	WCM 10%w 90%m	0.723
0.00	120' +/- GIP	0.000
0.00	62,500 ppm chlorides	0.000

Total Length: 240.00 ft      Total Volume: 1.362 bbl

Num Fluid Samples: 0

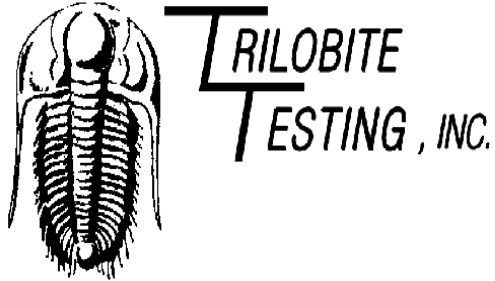
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .115 @ 73.6 = 62500 chlorides



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum, Inc.**

525 S. Main  
Kingman, KS 67068

ATTN: Jon Messenger

**15-29s-9w Kingman KS**

**LeRoy #1**

Start Date: 2010.06.13 @ 01:30:00

End Date: 2010.06.13 @ 10:05:40

Job Ticket #: 36964                      DST #: 6

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.07.02 @ 12:50:31



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36964

**DST#: 6**

Test Start: 2010.06.13 @ 01:30:00

## GENERAL INFORMATION:

Formation: **VIOLA**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:13:30

Time Test Ended: 10:05:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Jake Fahrenbruch

Unit No: 43

**Interval: 4464.00 ft (KB) To 4470.00 ft (KB) (TVD)**

Reference Elevations: 1695.00 ft (KB)

Total Depth: 4470.00 ft (KB) (TVD)

1686.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

**Serial #: 8648**

**Inside**

Press@RunDepth: 1367.52 psig @ 4465.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.13

End Date: 2010.06.13

Last Calib.: 2010.06.13

Start Time: 01:30:05

End Time: 10:05:39

Time On Btm: 2010.06.13 @ 04:12:30

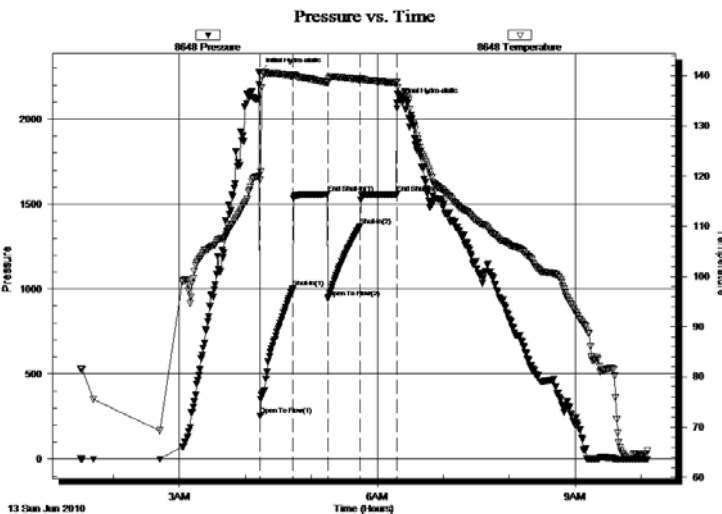
Time Off Btm: 2010.06.13 @ 06:17:50

**TEST COMMENT:** IF: Strong blow, BOB in 45 seconds. GTS 28 min (TSTM).

ISI: Bled off, 5 min, strong blow at BOB.

FF: Strong blow, BOB in 30 seconds.

FSI: Bled off, 10 minutes, strong blowback at BOB.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2273.44	120.01	Initial Hydro-static
1	253.72	119.32	Open To Flow(1)
31	1003.41	139.98	Shut-In(1)
63	1559.64	138.67	End Shut-In(1)
63	945.35	138.55	Open To Flow(2)
92	1367.52	139.23	Shut-In(2)
125	1558.81	138.62	End Shut-In(2)
126	2095.17	138.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume(bbl)
2555.00	Salt Water 100%w	33.84
580.00	Gassy Clean Oil	8.14
65.00	HGCW&OCM 25%g 5%w 15%o 55%m	0.91
0.00	Gas in A.F.F.P.	0.00

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36964

**DST#: 6**

ATTN: Jon Messenger

Test Start: 2010.06.13 @ 01:30:00

### Tool Information

Drill Pipe:	Length: 4238.00 ft	Diameter: 3.80 inches	Volume: 59.45 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 220.00 ft	Diameter: 2.25 inches	Volume: 1.08 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 60.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4464.00 ft			Final	84000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	6.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4441.00	
Hydraulic tool	5.00			4446.00	
Jars	5.00			4451.00	
Safety Joint	3.00			4454.00	
Packer	5.00			4459.00	28.00 Bottom Of Top Packer
Packer	5.00			4464.00	
Stubb	1.00			4465.00	
Recorder	0.00	8648	Inside	4465.00	
Recorder	0.00	6799	Inside	4465.00	
Bullnose	5.00			4470.00	6.00 Bottom Packers & Anchor Tool

**Total Tool Length: 34.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36964

**DST#: 6**

ATTN: Jon Messenger

Test Start: 2010.06.13 @ 01:30:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

77000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
2555.00	Salt Water 100%w	33.836
580.00	Gassy Clean Oil	8.136
65.00	HGCW&OCM 25%g 5%w 15%o 55%m	0.912
0.00	Gas in A.F.F.P.	0.000

Total Length: 3200.00 ft      Total Volume: 42.884 bbl

Num Fluid Samples: 0

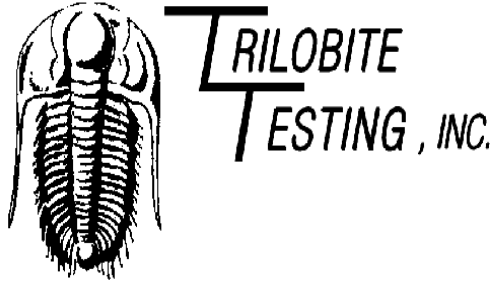
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .104 @ 67F = 77000 ppm chlorides



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum, Inc.**

525 S. Main  
Kingman, KS 67068

ATTN: Jon Messenger

**15-29s-9w Kingman KS**

**LeRoy #1**

Start Date: 2010.06.11 @ 23:56:00

End Date: 2010.06.12 @ 07:17:00

Job Ticket #: 36963                      DST #: 5

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.07.02 @ 12:50:10



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36963

**DST#: 5**

Test Start: 2010.06.11 @ 23:56:00

## GENERAL INFORMATION:

Formation: **MISSISSIPPIAN**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:41:30

Time Test Ended: 07:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jake Fahrenbruch

Unit No: 43

**Interval: 4197.00 ft (KB) To 4208.00 ft (KB) (TVD)**

Reference Elevations: 1695.00 ft (KB)

Total Depth: 4208.00 ft (KB) (TVD)

1686.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

## Serial #: 8648

Inside

Press@RunDepth: 83.00 psig @ 4203.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.11

End Date:

2010.06.12

Last Calib.: 2010.06.12

Start Time: 23:56:05

End Time:

07:16:59

Time On Btm: 2010.06.12 @ 01:39:40

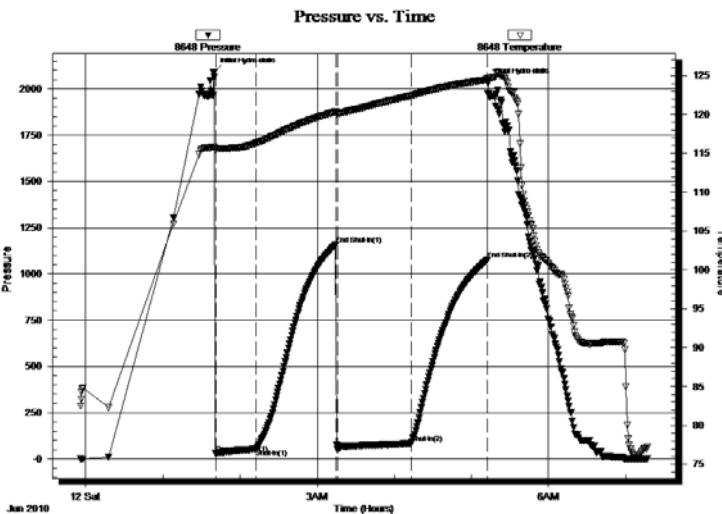
Time Off Btm: 2010.06.12 @ 05:12:50

**TEST COMMENT:** IF: Fair blow, BOB in 1 minute.

ISI: Bled off, blowback @ 5".

FF: Fair blow, BOB in 30 seconds.

FSI: Bled off, blowback @ 2".



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2087.56	115.83	Initial Hydro-static
2	27.08	115.39	Open To Flow(1)
33	52.06	116.28	Shut-In(1)
95	1157.73	120.35	End Shut-In(1)
96	48.25	120.13	Open To Flow(2)
154	83.00	122.41	Shut-In(2)
213	1075.93	124.47	End Shut-In(2)
214	2031.80	124.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume(bbl)
60.00	Gssy MOW 25%g 20%m 25%o 30%w	0.30
80.00	Vry Gssy MCOw 45%g 10%m 20%o 25%w	0.39
50.00	SOMCW 5%o 10%m 85%w	0.25
0.00	2370' GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36963

**DST#: 5**

ATTN: Jon Messenger

Test Start: 2010.06.11 @ 23:56:00

## Tool Information

Drill Pipe:	Length: 3982.00 ft	Diameter: 3.80 inches	Volume: 55.86 bbl	Tool Weight:	3000.00 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: 220.00 ft	Diameter: 2.25 inches	Volume: 1.08 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 56.94 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4197.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	11.00 ft				
Tool Length:	39.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4174.00	
Hydraulic tool	5.00			4179.00	
Jars	5.00			4184.00	
Safety Joint	3.00			4187.00	
Packer	5.00			4192.00	28.00 Bottom Of Top Packer
Packer	5.00			4197.00	
Stubb	1.00			4198.00	
Perforations	5.00			4203.00	
Recorder	0.00	8648	Inside	4203.00	
Recorder	0.00	6799	Inside	4203.00	
Bullnose	5.00			4208.00	11.00 Bottom Packers & Anchor Tool

**Total Tool Length: 39.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36963

**DST#: 5**

ATTN: Jon Messenger

Test Start: 2010.06.11 @ 23:56:00

### 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:

80000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	Gssy MOW 25%g 20%m 25%o 30%w	0.295
80.00	Vry Gssy MCOw 45%g 10%m 20%o 25%w	0.393
50.00	SOMCW 5%o 10%m 85%w	0.246
0.00	2370' GIP	0.000

Total Length: 190.00 ft      Total Volume: 0.934 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

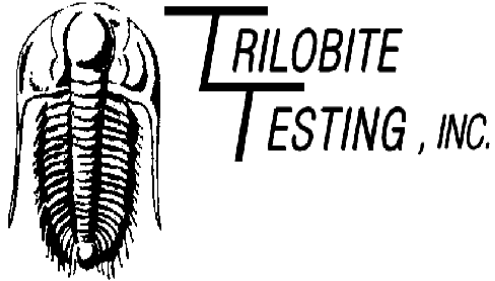
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .09 @ 76F = 80000 ppm chlorides





## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum, Inc.**

525 S. Main  
Kingman, KS 67068

ATTN: Jon Messenger

**15-29s-9w Kingman KS**

**LeRoy #1**

Start Date: 2010.06.10 @ 21:17:00

End Date: 2010.06.11 @ 04:08:50

Job Ticket #: 36962                      DST #: 4

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.07.02 @ 12:49:48

Messenger Petroleum, Inc.  
LeRoy #1  
15-29s-9w Kingman KS  
DST # 4  
HERTHA  
2010.06.10



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36962

**DST#: 4**

Test Start: 2010.06.10 @ 21:17:00

## GENERAL INFORMATION:

Formation: **HERTHA**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:57:30

Time Test Ended: 04:08:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Jake Fahrenbruch

Unit No: 43

**Interval: 3940.00 ft (KB) To 3949.00 ft (KB) (TVD)**

Reference Elevations: 1695.00 ft (KB)

Total Depth: 3949.00 ft (KB) (TVD)

1686.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

**Serial #: 8648**

**Inside**

Press@RunDepth: 109.14 psig @ 3944.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.10

End Date:

2010.06.11

Last Calib.: 2010.06.11

Start Time: 21:17:05

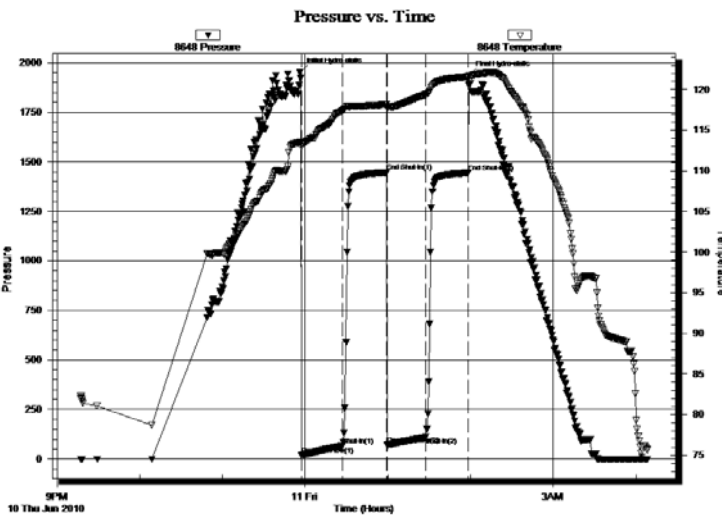
End Time:

04:08:50

Time On Btm: 2010.06.10 @ 23:56:20

Time Off Btm: 2010.06.11 @ 01:58:40

**TEST COMMENT:** IF: Weak blow, built to 4.5".  
ISI: No blowback.  
FF: Weak blow, built to 2.5".  
FSI: No blowback.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1949.94	113.47	Initial Hydro-static
2	18.20	112.94	Open To Flow(1)
31	66.29	117.39	Shut-In(1)
63	1446.08	118.16	End Shut-In(1)
63	70.02	117.76	Open To Flow(2)
92	109.14	119.39	Shut-In(2)
123	1444.10	121.58	End Shut-In(2)
123	1933.78	121.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume(bbl)
190.00	SMCW 10%w 90%w	0.93
0.00	72,000 ppm chlorides	0.00
0.00	No GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36962

**DST#: 4**

ATTN: Jon Messenger

Test Start: 2010.06.10 @ 21:17:00

**Tool Information**

Drill Pipe:	Length: 3733.00 ft	Diameter: 3.80 inches	Volume: 52.36 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 220.00 ft	Diameter: 2.25 inches	Volume: 1.08 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 53.44 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	69000.00 lb
Depth to Top Packer:	3940.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	9.00 ft				
Tool Length:	29.00 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			3925.00		
Hydraulic tool	5.00			3930.00		
Packer	5.00			3935.00	20.00	Bottom Of Top Packer
Packer	5.00			3940.00		
Stubb	1.00			3941.00		
Perforations	3.00			3944.00		
Recorder	0.00	8648	Inside	3944.00		
Recorder	0.00	6799	Outside	3944.00		
Bullnose	5.00			3949.00	9.00	Bottom Packers & Anchor Tool

**Total Tool Length: 29.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36962

**DST#: 4**

ATTN: Jon Messenger

Test Start: 2010.06.10 @ 21:17:00

### 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:

72000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
190.00	SMCW 10%m 90%w	0.934
0.00	72,000 ppm chlorides	0.000
0.00	No GIP	0.000

Total Length: 190.00 ft      Total Volume: 0.934 bbl

Num Fluid Samples: 0

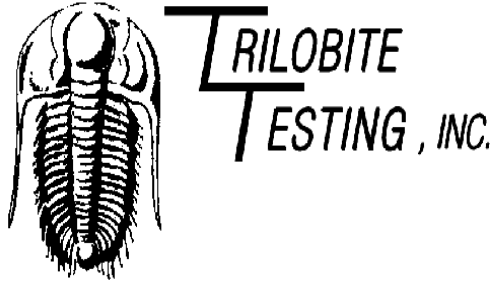
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .10 @ 75F = 72000 ppm chlorides



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum, Inc.**

525 S. Main  
Kingman, KS 67068

ATTN: Jon Messenger

**15-29s-9w Kingman KS**

**LeRoy #1**

Start Date: 2010.06.10 @ 07:14:00

End Date: 2010.06.10 @ 13:58:20

Job Ticket #: 36961                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.07.02 @ 12:49:27



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36961

**DST#: 3**

Test Start: 2010.06.10 @ 07:14:00

## GENERAL INFORMATION:

Formation: **DENNIS & SWOPE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:11:40

Time Test Ended: 13:58:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Jake Fahrenbruch

Unit No: 43

**Interval: 3870.00 ft (KB) To 3914.00 ft (KB) (TVD)**

Reference Elevations: 1695.00 ft (KB)

Total Depth: 3914.00 ft (KB) (TVD)

1686.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

**Serial #: 8648**

**Inside**

Press@RunDepth: 319.75 psig @ 3875.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.10

End Date: 2010.06.10

Last Calib.: 2010.06.10

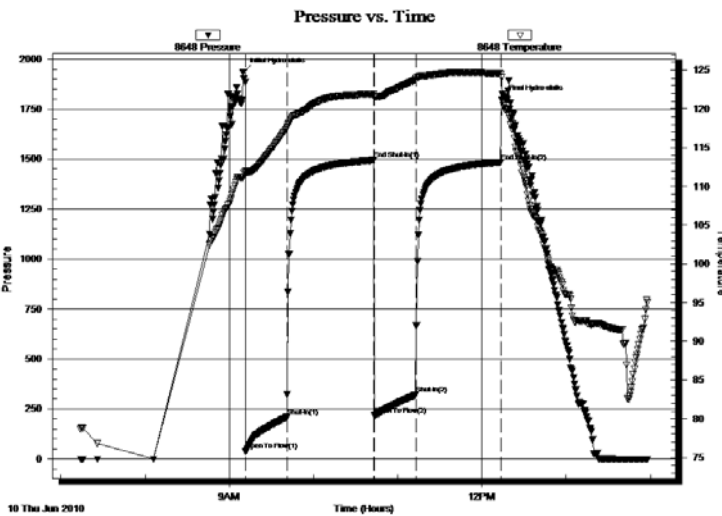
Start Time: 07:14:05

End Time: 13:58:20

Time On Btm: 2010.06.10 @ 09:10:10

Time Off Btm: 2010.06.10 @ 12:14:00

**TEST COMMENT:** IF: Fair blow, built to BOB in 9 minutes.  
 ISI: Bled off, weak surface blowback died after 40 minutes.  
 FF: Fair blow, built to BOB in 16 minutes.  
 FSI: Bled off, no blowback.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1932.56	111.21	Initial Hydro-static
2	38.96	111.61	Open To Flow(1)
31	210.35	117.50	Shut-In(1)
93	1494.49	121.89	End Shut-In(1)
93	216.20	121.51	Open To Flow(2)
123	319.75	123.78	Shut-In(2)
184	1484.87	124.53	End Shut-In(2)
184	1795.15	124.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume(bbl)
580.00	Salt Water 100%w	6.13
40.00	MCW 15%m 85%w	0.56
0.00	118,000 ppm chlorides	0.00
0.00	scum of oil on top of fluid	0.00
0.00	60' GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36961

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2010.06.10 @ 07:14:00

## Tool Information

Drill Pipe:	Length: 3640.00 ft	Diameter: 3.80 inches	Volume: 51.06 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 220.00 ft	Diameter: 2.25 inches	Volume: 1.08 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 52.14 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	67000.00 lb
Depth to Top Packer:	3870.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	64.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3855.00	
Hydraulic tool	5.00			3860.00	
Packer	5.00			3865.00	20.00 Bottom Of Top Packer
Packer	5.00			3870.00	
Stubb	1.00			3871.00	
Perforations	4.00			3875.00	
Recorder	0.00	8648	Inside	3875.00	
Recorder	0.00	6799	Inside	3875.00	
Blank Spacing	34.00			3909.00	
Bullnose	5.00			3914.00	44.00 Bottom Packers & Anchor Tool

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petroleum, Inc.

**LeRoy #1**

525 S. Main  
Kingman, KS 67068

**15-29s-9w Kingman KS**

Job Ticket: 36961

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2010.06.10 @ 07:14:00

### 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:

118000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
580.00	Salt Water 100%w	6.132
40.00	MCW 15%w 85%w	0.561
0.00	118,000 ppm chlorides	0.000
0.00	scum of oil on top of fluid	0.000
0.00	60' GIP	0.000

Total Length: 620.00 ft      Total Volume: 6.693 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .055@ 89F = 118000 chlorides