



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Slavik #1-25

25-5s-30w Decatur KS

Start Date: 2013.04.14 @ 10:45:00

End Date: 2013.04.14 @ 19:46:15

Job Ticket #: 51164 DST #: 1

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

Printed: 2013.04.23 @ 14:51:57

Murfin Drilling Co., Inc.
25-5s-30w Decatur KS
Slavik #1-25
DST # 1
Toronto - LKC "B"
2013.04.14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51164

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.14 @ 10:45:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:26:00
 Time Test Ended: 19:46:15
 Interval: **3886.00 ft (KB) To 3965.00 ft (KB) (TVD)**
 Total Depth: 3965.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2858.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 11.00 ft

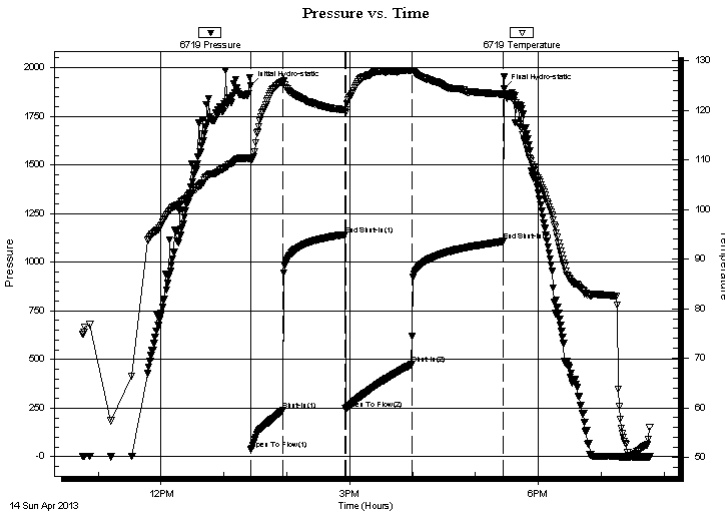
Serial #: 6719

Inside

Press @ Run Depth: 474.40 psig @ 3887.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.14 End Date: 2013.04.14 Last Calib.: 2013.04.14
 Start Time: 10:45:05 End Time: 19:46:15 Time On Btm: 2013.04.14 @ 13:25:15
 Time Off Btm: 2013.04.14 @ 17:27:30

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 8 1/2 min.
 60 - IS: Bled off, No blow back
 60 - FF: Blow built to BOB in 10 1/2 min.
 90 - FS: Bled off, No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1906.74	110.53	Initial Hydro-static
1	38.49	110.15	Open To Flow (1)
32	239.94	125.83	Shut-In(1)
91	1141.94	120.09	End Shut-In(1)
91	246.05	119.61	Open To Flow (2)
154	474.40	128.02	Shut-In(2)
241	1107.33	123.29	End Shut-In(2)
243	1891.06	123.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
485.00	SMCW 92%w, 8%m	4.66
260.00	MCW 64%w, 36%m	3.65
255.00	WM 52%m, 48%w	3.58

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51164

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.14 @ 10:45:00

Tool Information

Drill Pipe:	Length: 3657.00 ft	Diameter: 3.80 inches	Volume: 51.30 bbl	Tool Weight: 2500.00 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: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 52.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3886.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.00 ft			
Tool Length:	107.00 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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Shut In Tool	5.00			3863.00	
Hydraulic tool	5.00			3868.00	
Jars	5.00			3873.00	
Safety Joint	3.00			3876.00	
Packer	5.00			3881.00	28.00 Bottom Of Top Packer
Packer	5.00			3886.00	
Stubb	1.00			3887.00	
Recorder	0.00	6719	Inside	3887.00	
Recorder	0.00	8320	Outside	3887.00	
Perforations	8.00			3895.00	
Blank Spacing	65.00			3960.00	
Perforations	2.00			3962.00	
Bullnose	3.00			3965.00	79.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51164

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.14 @ 10:45:00

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:

48000 ppm

Viscosity: 80.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
485.00	SMCW 92%w , 8%m	4.663
260.00	MCW 64%w , 36%m	3.647
255.00	WM 52%m, 48%w	3.577

Total Length: 1000.00 ft Total Volume: 11.887 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

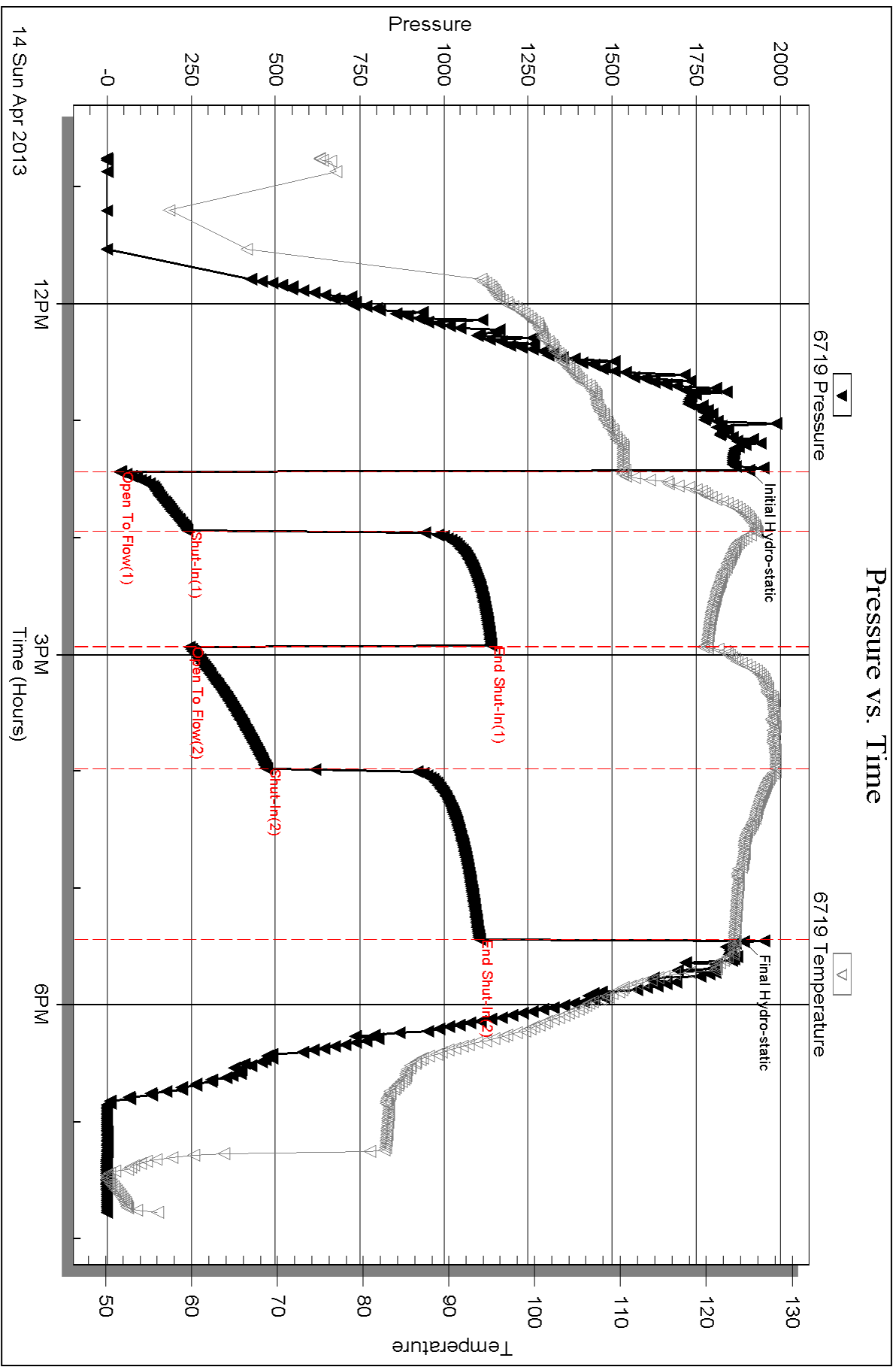
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .208 ohms @ 53.7 deg F

Chlorides = 48,000 ppm

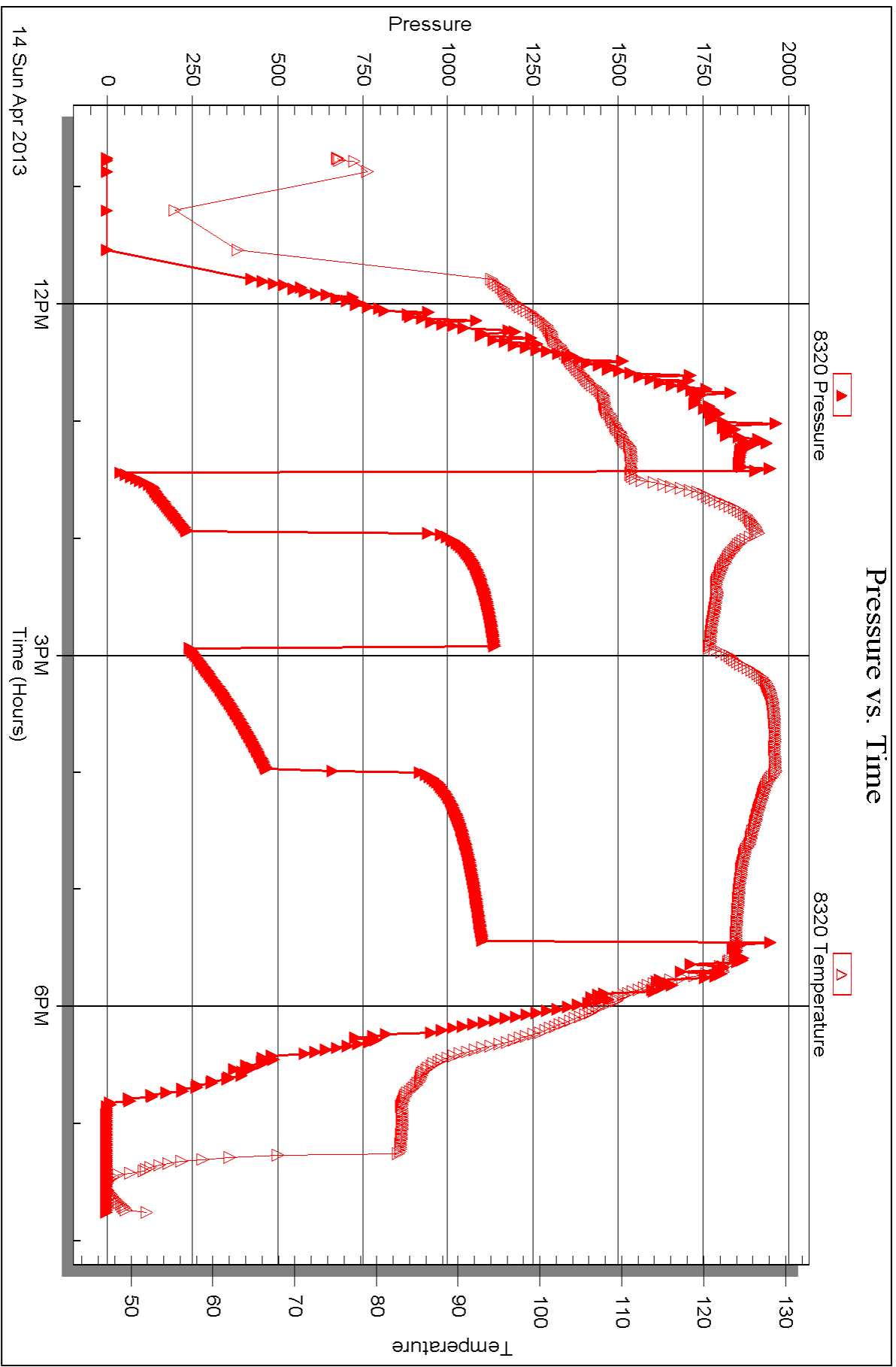


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Slavik #1-25

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51164

Printed: 2013.04.23 @ 14:52:00



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Slavik #1-25

25-5s-30w Decatur KS

Start Date: 2013.04.15 @ 01:31:00

End Date: 2013.04.15 @ 09:36:30

Job Ticket #: 51165 DST #: 2

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

Printed: 2013.04.23 @ 14:50:24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51165

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 01:31:00

GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:18:15
 Time Test Ended: 09:36:30
 Interval: **3965.00 ft (KB) To 3982.00 ft (KB) (TVD)**
 Total Depth: 3982.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2858.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 11.00 ft

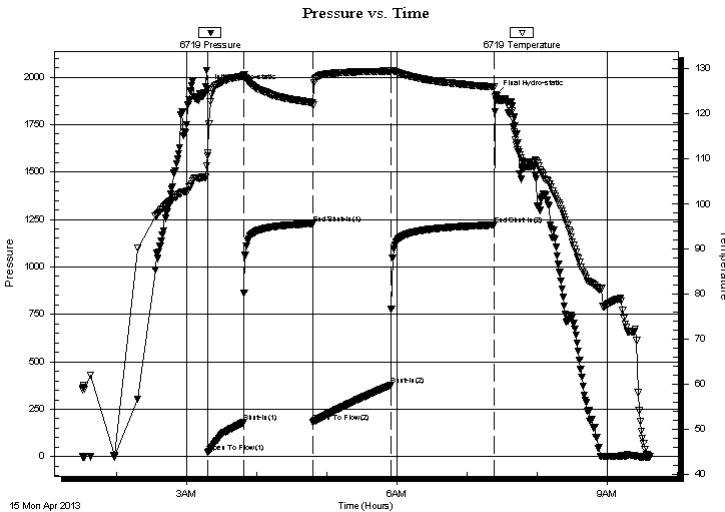
Serial #: 6719

Inside

Press @ Run Depth: 376.99 psig @ 3966.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.15 End Date: 2013.04.15 Last Calib.: 2013.04.15
 Start Time: 01:31:05 End Time: 09:36:29 Time On Btm: 2013.04.15 @ 03:18:00
 Time Off Btm: 2013.04.15 @ 07:24:45

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 13 min.
 60 - IS: Bled off, No blow back
 60 - FF: Blow built to BOB in 16 min.
 90 - FS: Bled off, No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.12	111.30	Initial Hydro-static
1	22.78	110.82	Open To Flow (1)
31	180.50	128.44	Shut-In(1)
90	1227.75	122.55	End Shut-In(1)
91	180.04	121.97	Open To Flow (2)
157	376.99	129.56	Shut-In(2)
246	1220.44	126.01	End Shut-In(2)
247	1906.16	123.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
490.00	Water 98%w , 2%m	4.73
310.00	MCW 89%w , 11%m	4.35

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51165

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 01:31:00

Tool Information

Drill Pipe:	Length: 3721.00 ft	Diameter: 3.80 inches	Volume: 52.20 bbl	Tool Weight:	2500.00 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: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 53.36 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	67000.00 lb
Depth to Top Packer:	3965.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	40.00 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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Shut In Tool	5.00			3947.00	
Hydraulic tool	5.00			3952.00	
Safety Joint	3.00			3955.00	
Packer	5.00			3960.00	23.00 Bottom Of Top Packer
Packer	5.00			3965.00	
Stubb	1.00			3966.00	
Recorder	0.00	6719	Inside	3966.00	
Recorder	0.00	8320	Outside	3966.00	
Perforations	13.00			3979.00	
Bullnose	3.00			3982.00	17.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51165

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 01:31:00

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:

50000 ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
490.00	Water 98%w , 2%m	4.733
310.00	MCW 89%w , 11%m	4.348

Total Length: 800.00 ft Total Volume: 9.081 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

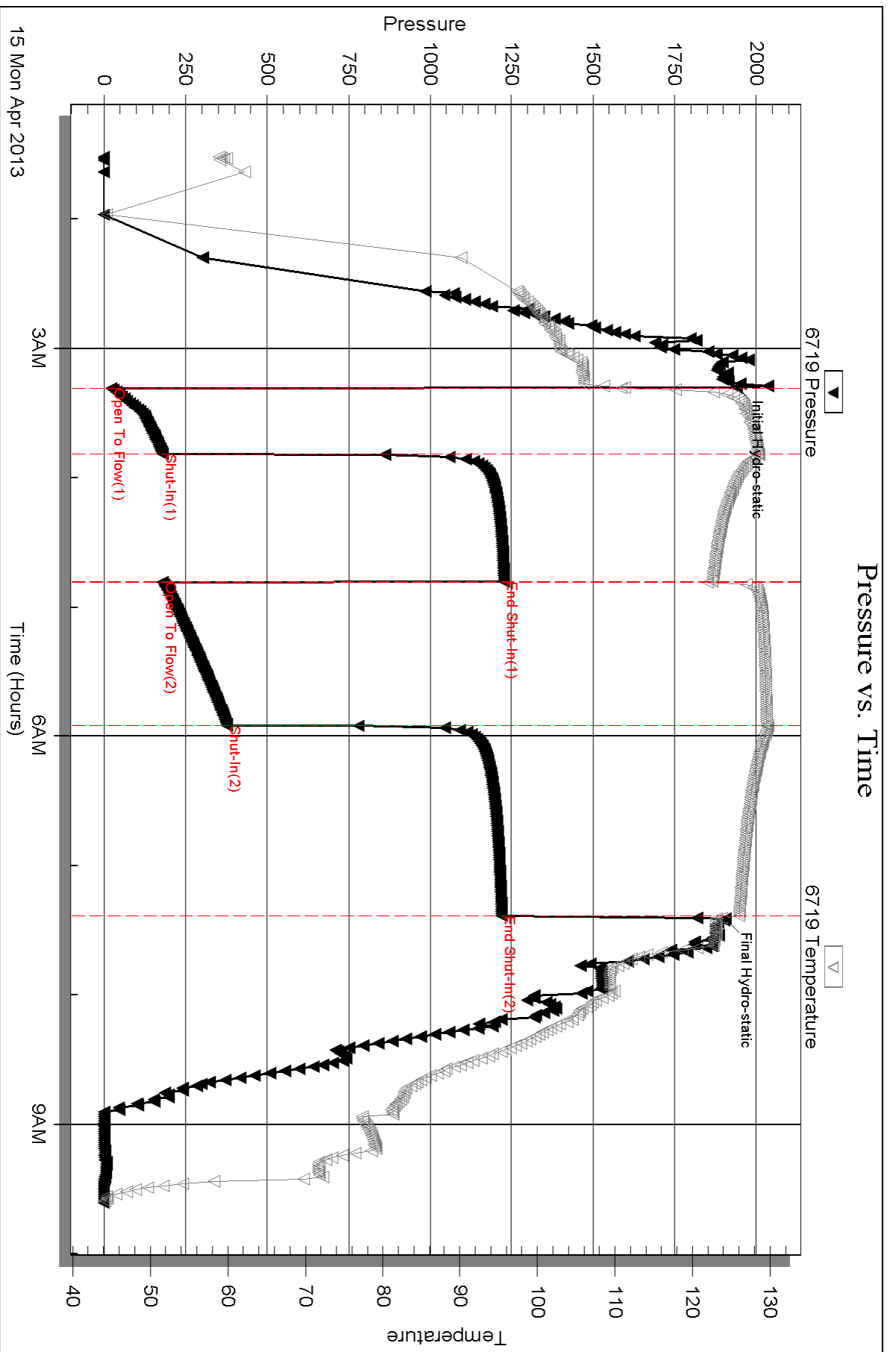
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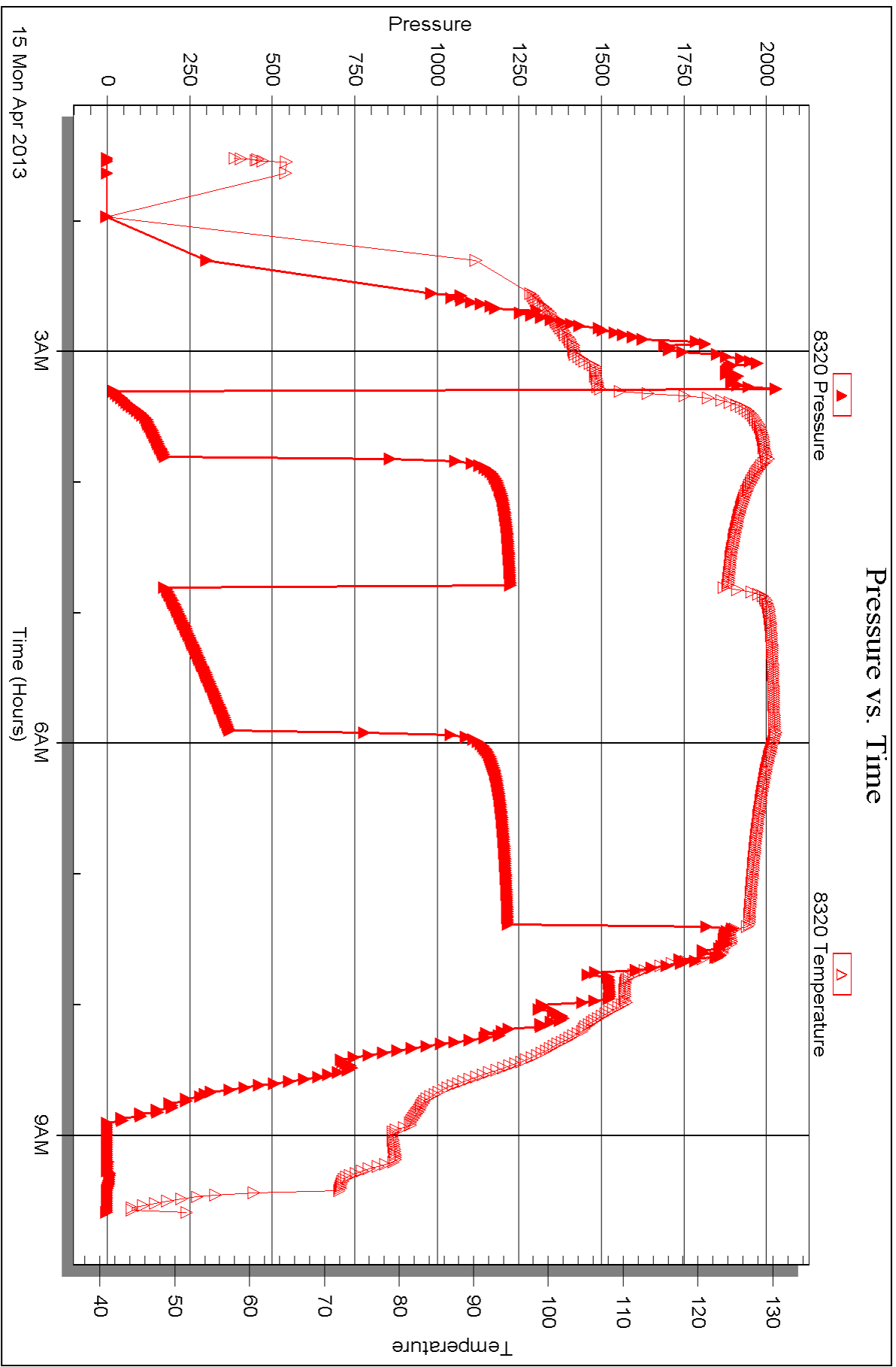
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .249 ohms @ 43.2 deg F

Chlorides = 50,000 ppm







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Slavik #1-25

25-5s-30w Decatur KS

Start Date: 2013.04.15 @ 16:50:00

End Date: 2013.04.15 @ 23:31:00

Job Ticket #: 51166 DST #: 3

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

Printed: 2013.04.23 @ 14:19:01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51166

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 16:50:00

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:44:30

Time Test Ended: 23:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3987.00 ft (KB) To 4007.00 ft (KB) (TVD)

Reference Elevations: 2858.00 ft (KB)

Total Depth: 4007.00 ft (KB) (TVD)

2847.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6719

Inside

Press @ Run Depth: 26.13 psig @ 3988.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.15 End Date: 2013.04.15

Last Calib.: 2013.04.15

Start Time: 16:50:05 End Time: 23:30:59

Time On Btm: 2013.04.15 @ 18:44:15

Time Off Btm: 2013.04.15 @ 21:46:15

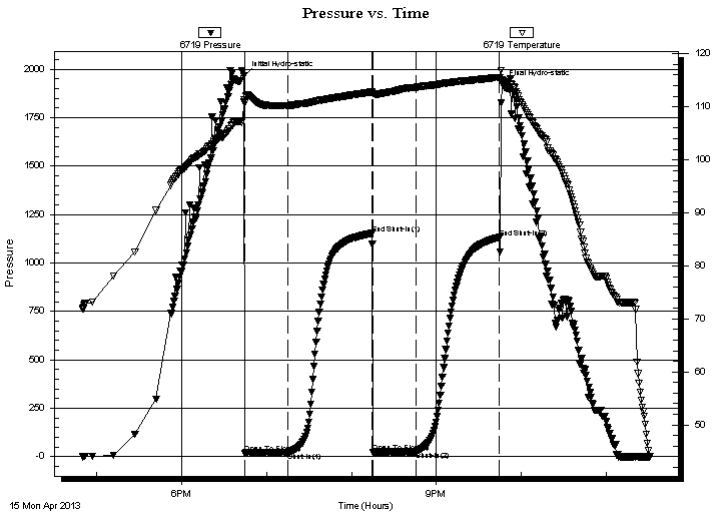
TEST COMMENT: 30 - IF: Blow built to 1" in 10 min., blew at just under 1" till close

60 - IS: Bled off, No blow back

30 - FF: No blow

60 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1964.46	111.24	Initial Hydro-static
1	16.68	110.70	Open To Flow (1)
31	23.06	110.20	Shut-In(1)
91	1152.23	112.81	End Shut-In(1)
91	23.98	112.56	Open To Flow (2)
121	26.13	113.69	Shut-In(2)
181	1131.68	115.58	End Shut-In(2)
182	1922.78	115.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud w /oil spots 99%m, 1%o	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51166

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 16:50:00

Tool Information

Drill Pipe:	Length: 3752.00 ft	Diameter: 3.80 inches	Volume: 52.63 bbl	Tool Weight: 2500.00 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: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 53.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	3987.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	43.00 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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Shut In Tool	5.00			3969.00	
Hydraulic tool	5.00			3974.00	
Safety Joint	3.00			3977.00	
Packer	5.00			3982.00	23.00 Bottom Of Top Packer
Packer	5.00			3987.00	
Stubb	1.00			3988.00	
Recorder	0.00	6719	Inside	3988.00	
Recorder	0.00	8320	Outside	3988.00	
Perforations	16.00			4004.00	
Bullnose	3.00			4007.00	20.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51166

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.15 @ 16:50:00

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:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud w /oil spots 99% _m , 1% _o	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

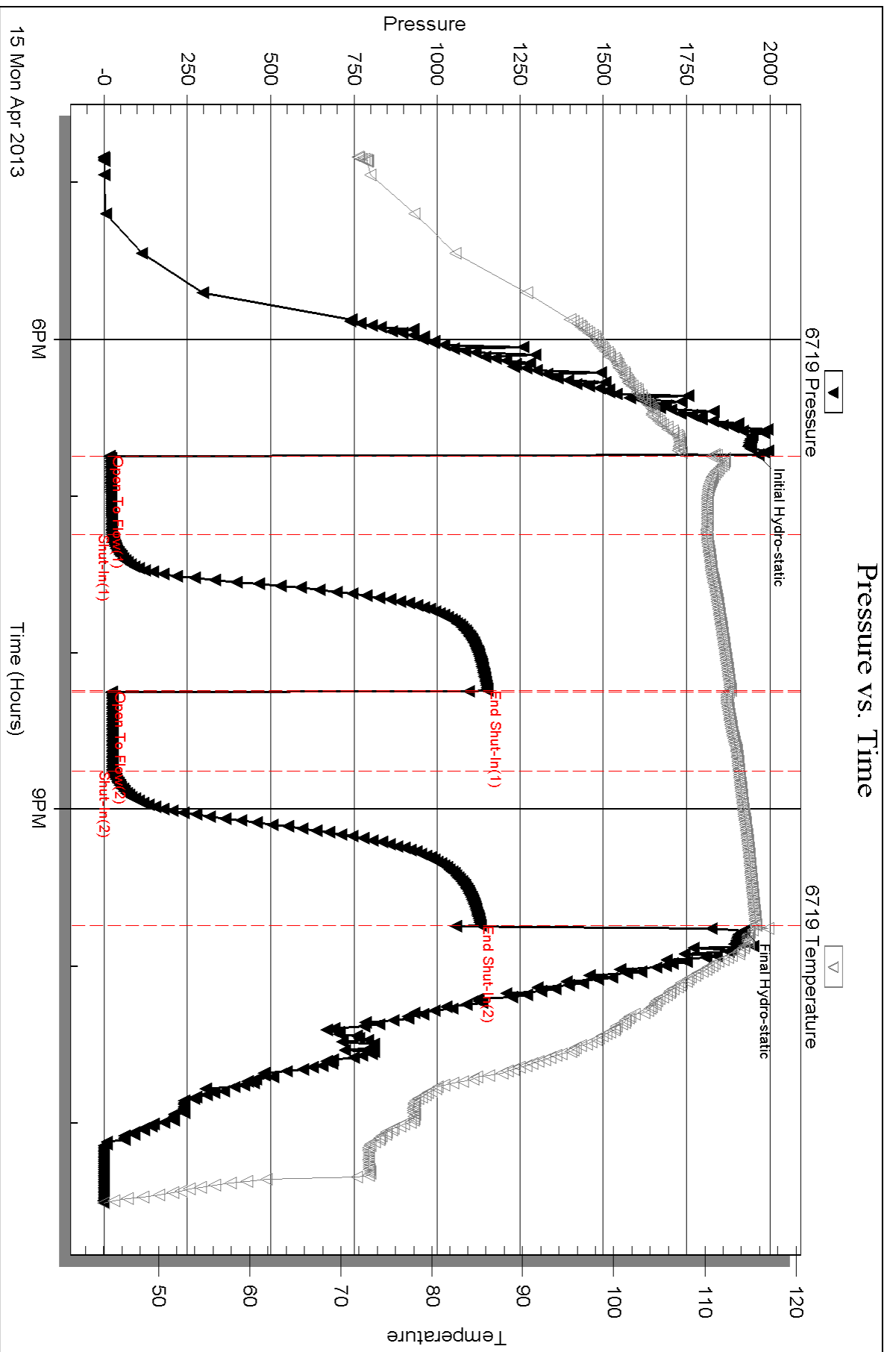
Num Gas Bombs: 0

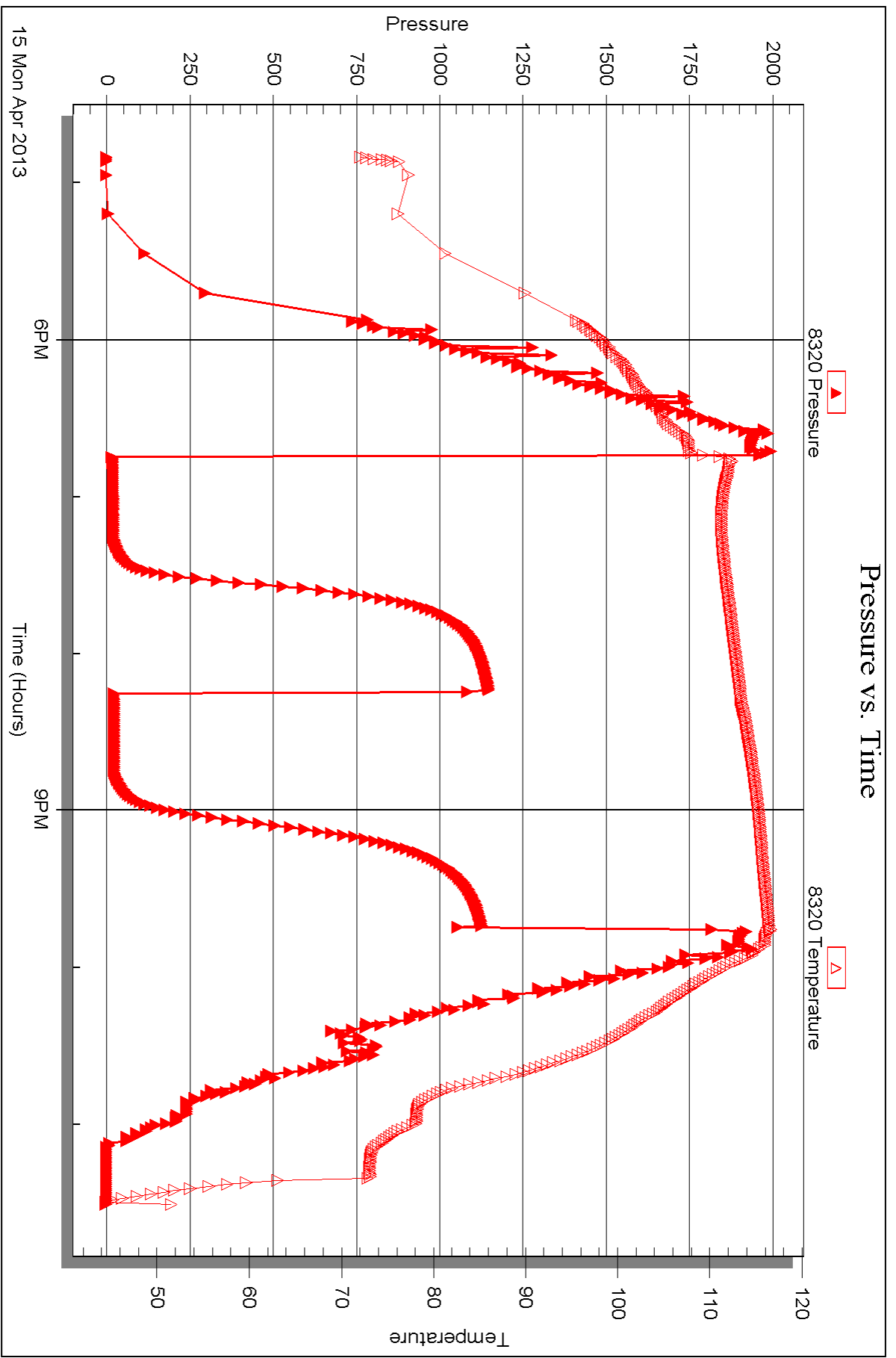
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Slavik #1-25

25-5s-30w Decatur KS

Start Date: 2013.04.16 @ 13:30:00

End Date: 2013.04.16 @ 21:18:30

Job Ticket #: 51167 DST #: 4

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

Printed: 2013.04.23 @ 14:12:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51167

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.04.16 @ 13:30:00

GENERAL INFORMATION:

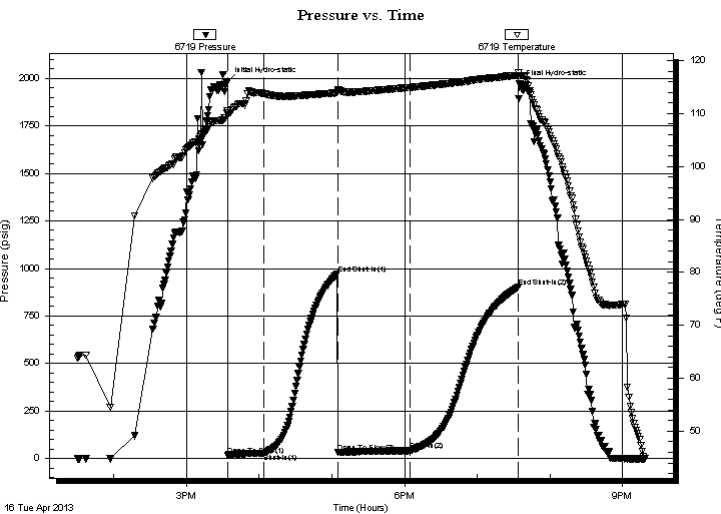
Formation: **LKC "H - K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:34:00
 Time Test Ended: 21:18:30
 Interval: **4027.00 ft (KB) To 4110.00 ft (KB) (TVD)**
 Total Depth: 4110.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2858.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6719

Inside

Press @ Run Depth: 42.25 psig @ 4028.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.16 End Date: 2013.04.16 Last Calib.: 2013.04.16
 Start Time: 13:30:05 End Time: 21:18:29 Time On Btm: 2013.04.16 @ 15:33:45
 Time Off Btm: 2013.04.16 @ 19:35:00

TEST COMMENT: IF: Blow built to 2 1/2"
 IS: Bled off, Blow back built to 1/2"
 FF: Blow built to 3"
 FS: Bled off, Surface blow back, did not build



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.89	110.57	Initial Hydro-static
1	18.19	110.19	Open To Flow (1)
31	29.78	113.76	Shut-In(1)
91	971.78	113.93	End Shut-In(1)
92	32.34	114.31	Open To Flow (2)
151	42.25	114.94	Shut-In(2)
240	900.76	117.21	End Shut-In(2)
242	1968.05	117.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 70% m, 28% o, 2% g	0.30

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51167

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.04.16 @ 13:30:00

Tool Information

Drill Pipe:	Length: 3783.00 ft	Diameter: 3.80 inches	Volume: 53.07 bbl	Tool Weight: 2500.00 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: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 54.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4027.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	106.00 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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Shut In Tool	5.00			4009.00	
Hydraulic tool	5.00			4014.00	
Safety Joint	3.00			4017.00	
Packer	5.00			4022.00	23.00 Bottom Of Top Packer
Packer	5.00			4027.00	
Stubb	1.00			4028.00	
Recorder	0.00	6719	Inside	4028.00	
Recorder	0.00	8320	Outside	4028.00	
Perforations	13.00			4041.00	
Blank Spacing	65.00			4106.00	
Perforations	1.00			4107.00	
Bullnose	3.00			4110.00	83.00 Bottom Packers & Anchor

Total Tool Length: 106.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

25-5s-30w Decatur KS

250 N. Water STE 300
Wichita, KS 67202

Slavik #1-25

Job Ticket: 51167

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.04.16 @ 13:30:00

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:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 70% <i>m</i> , 28% <i>o</i> , 2% <i>g</i>	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

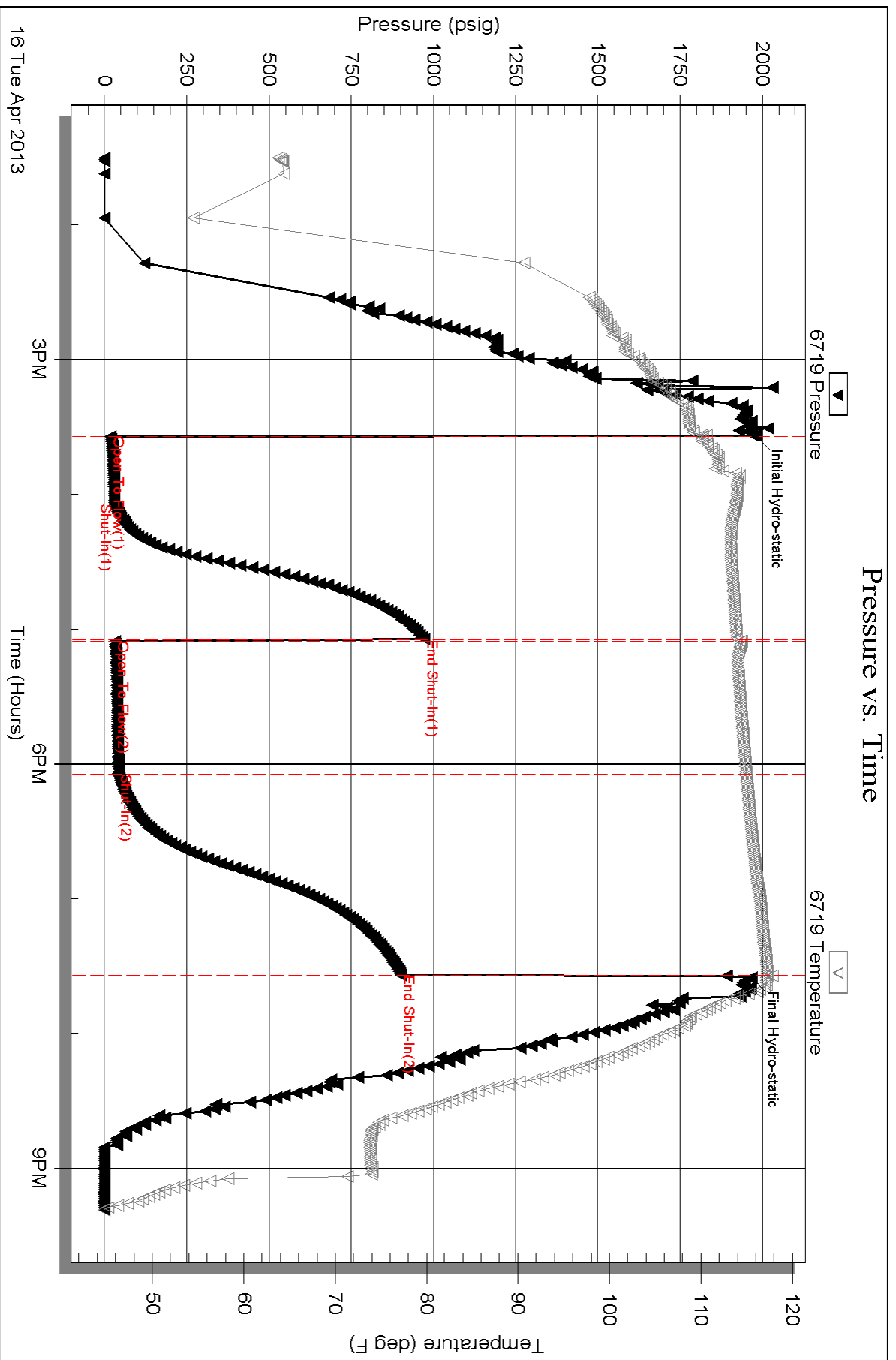
Serial #:

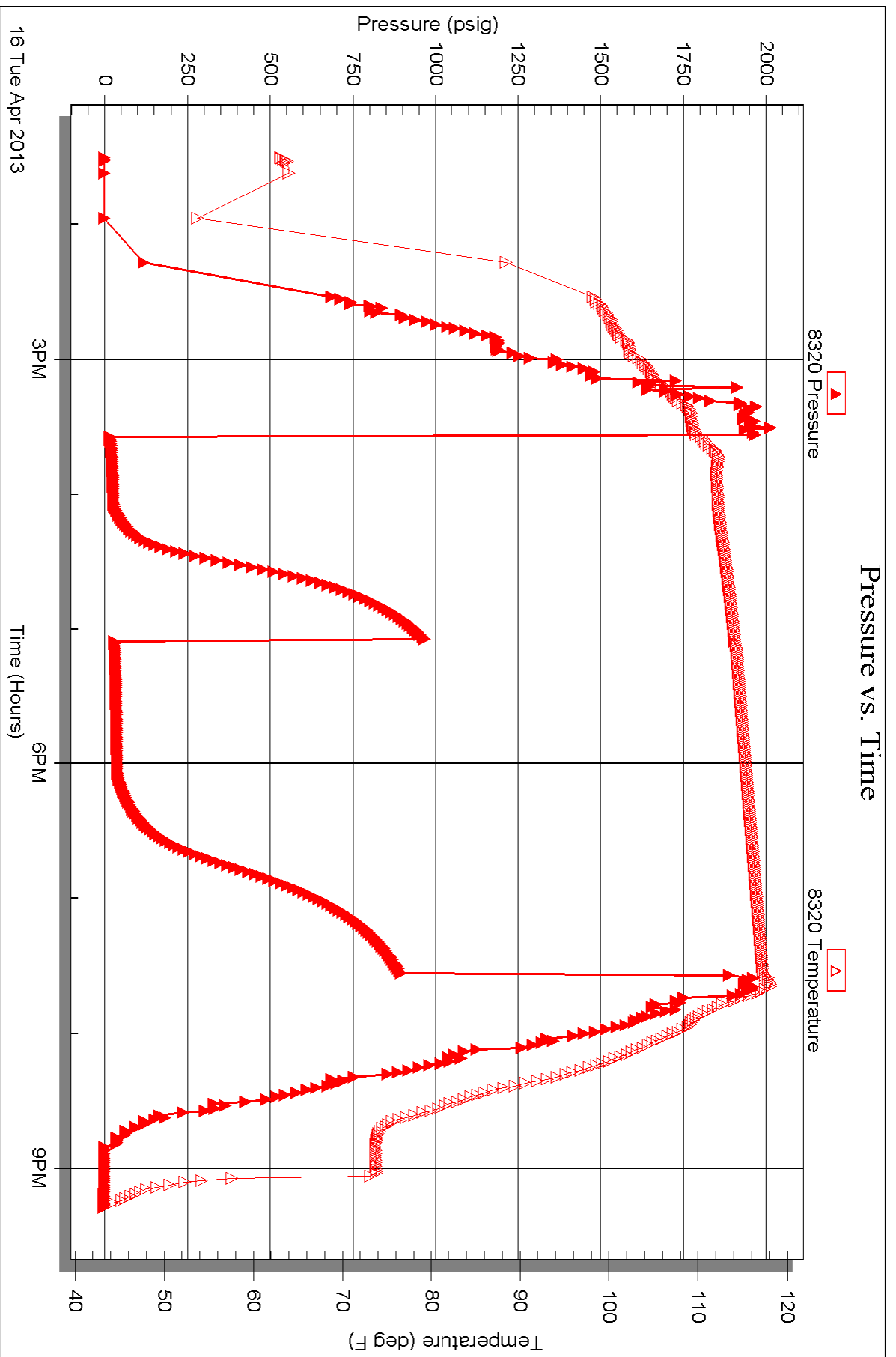
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51164

Well Name & No. Slavik #1-25 Test No. 1 Date 4-14-13
 Company Murfin Drilling Co. Inc. Elevation 2858 KB 2847 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5s Rge. 30w Co. Decatur State KS

Interval Tested 3886 - 3965 Zone Tested Toronto - LKC "B"
 Anchor Length 79 Drill Pipe Run 3657 Mud Wt. 9.2
 Top Packer Depth 3881 Drill Collars Run 235 Vis 80
 Bottom Packer Depth 3886 Wt. Pipe Run - WL 5.6
 Total Depth 3965 Chlorides 1600 ppm System LCM 4

Blow Description IF: Blow built to BOB (11") in 8 1/2 min.
ISI: Bled off, No blowback
FF: Blow built to BOB in 10 1/2 min.
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>255</u>	<u>WM</u>	-	-	<u>48</u>	<u>52</u>
<u>260</u>	<u>MCW</u>	-	-	<u>64</u>	<u>36</u>
<u>485</u>	<u>SMCW</u>	-	-	<u>92</u>	<u>8</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1000 BHT 123 Gravity - API RW .208 @ 53.7 °F Chlorides 48,000 ppm

(A) Initial Hydrostatic <u>1907</u>	<input type="checkbox"/> Test <u>*</u> 1150	T-On Location <u>8:30</u>
(B) First Initial Flow <u>38</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>10:45</u>
(C) First Final Flow <u>240</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>13:26</u>
(D) Initial Shut-In <u>1142</u>	<input checked="" type="checkbox"/> Circ Sub <u>ANA</u>	T-Pulled <u>17:26</u>
(E) Second Initial Flow <u>246</u>	<input type="checkbox"/> Hourly Standby <u>* Star 2hr</u> 200	T-Out <u>19:30</u>
(F) Second Final Flow <u>474</u>	<input type="checkbox"/> Mileage <u>48RT</u> 74.40	Comments _____
(G) Final Shut-In <u>1107</u>	<input checked="" type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1891</u>	<input checked="" type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer _____	<input checked="" type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer _____	<input checked="" type="checkbox"/> Extra Copies _____
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Day Standby _____	Total <u>1749.40</u>
	<input checked="" type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1749.40</u>	

Approved By [Signature]

Our Representative James Winder

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51165

4/10

Well Name & No. Slavik #1-25 Test No. 2 Date 4-15-13
 Company Murfin Drilling Co., Inc Elevation 2858 KB 2847 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5s Rge. 30w Co. Decatur State KS

Interval Tested 3965 - 3982 Zone Tested LKC "D"
 Anchor Length 17 Drill Pipe Run 3721 Mud Wt. 9.1
 Top Packer Depth 3960 Drill Collars Run 235 Vis 70
 Bottom Packer Depth 3965 Wt. Pipe Run - WL 5.6
 Total Depth 3982 Chlorides 1600 ppm System LCM 4

Blow Description IF: Blow built to BOB (11") in 13 min.
ISI: Bled off, No blowback
FF: Blow built to BOB in 16 min
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>MCW</u>		<u>89</u>	<u>11</u>	
<u>490</u>	<u>Water</u>	<u>-</u>	<u>98</u>	<u>2</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

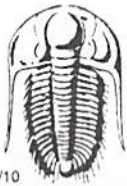
Rec Total 800 BHT 126 Gravity - API RW .249 @ 43.2 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic 1940 Test * 1150 T-On Location 1:15
 (B) First Initial Flow 23 Jars T-Started 1:31
 (C) First Final Flow 181 Safety Joint * 75 T-Open 3:18
 (D) Initial Shut-In 1228 Circ Sub *NA T-Pulled 7:23
 (E) Second Initial Flow 180 Hourly Standby T-Out 9:30
 (F) Second Final Flow 380 Mileage 48RT 74.40 Comments
 (G) Final Shut-In 1220 Sampler
 (H) Final Hydrostatic 1906 Straddle Ruined Shale Packer

Initial Open 30 Shale Packer Ruined Packer
 Initial Shut-In 60 Extra Packer Extra Copies
 Final Flow 60 Extra Recorder Sub Total 0
 Final Shut-In 90 Day Standby Total 1299.40
 Accessibility MP/DST Disc't
 Sub Total 1299.40

Approved By [Signature] Our Representative James Winde

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **51166**

4/10

Well Name & No. Slavik #1-25 Test No. 3 Date 4-15-13
 Company Murfin Drilling Co. Inc Elevation 2858 KB 2847 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5s Rge. 30w Co. Decatur State KS

Interval Tested 3987 - 4007 Zone Tested LKC "F"
 Anchor Length 20 Drill Pipe Run 3752 Mud Wt. 9.1
 Top Packer Depth 3982 Drill Collars Run 235 Vis 65
 Bottom Packer Depth 3987 Wt. Pipe Run - WL 5.6
 Total Depth 4007 Chlorides 2300 ppm System LCM 4

Blow Description IF: Blow built to 1" in 10 min., blew at just under 1" till close
ISI: Bled off, No blow back
FF: No blow
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud w/oil spots</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>99</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 116 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1964</u>	<input type="checkbox"/> Test <u>*</u> 1250	T-On Location <u>16:15</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars	T-Started <u>16:50</u>
(C) First Final Flow <u>23</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>18:44</u>
(D) Initial Shut-In <u>1152</u>	<input checked="" type="checkbox"/> Circ Sub <u>*NA</u>	T-Pulled <u>21:44</u>
(E) Second Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>23:30</u>
(F) Second Final Flow <u>26</u>	<input type="checkbox"/> Mileage <u>48RT</u> 74.40	Comments
(G) Final Shut-In <u>1132</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1923</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1399.40

Sub Total 1399.40

Approved By [Signature] Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51167

Well Name & No. Slavik #1-25 Test No. 4 Date 4-16-13
 Company Murfin Drilling Co. Inc. Elevation 2858 KB 2847 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 25 Twp. 5s Rge. 30w Co. Decatur State KS

Interval Tested 4027 - 4110 Zone Tested LKC "H-K"
 Anchor Length 83 Drill Pipe Run 3783 Mud Wt. 9.2
 Top Packer Depth 4022 Drill Collars Run 235 Vis 58
 Bottom Packer Depth 4027 Wt. Pipe Run - WL 6.0
 Total Depth 4110 Chlorides 2500 ppm System LCM 3

Blow Description IF: Blow built to 2 1/2"
ISI: Bled off, Blowback built to 1/2"
FF: Blow built to 3"
FSI: Bled off, Surface blowback, did not build

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>OCM</u>	<u>2</u>	<u>28</u>	<u>-</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60 BHT 117 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1981 Test X 1250 T-On Location 13:00
 (B) First Initial Flow 18 Jars T-Started 13:30
 (C) First Final Flow 30 Safety Joint X 75 T-Open 15:34
 (D) Initial Shut-In 972 Circ Sub ANA T-Pulled 19:33
 (E) Second Initial Flow 32 Hourly Standby T-Out 21:15
 (F) Second Final Flow 42 Mileage 48RT x2 148.80 Comments _____
 (G) Final Shut-In 901 Sampler _____
 (H) Final Hydrostatic 1968 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 800
 Day Standby X Released 10:00 Total 2273.80
1d 12.75h 4/18/13 MP/DST Disc't _____
 Accessibility _____
 Sub Total 1473.80

Approved By [Signature] Our Representative James Nindler

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.