

TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W. State Rd. 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

17-19-28 Lane, KS

Joyce #1-17

Start Date: 2010.05.09 @ 12:13:00

End Date: 2010.05.09 @ 18:34:24

Job Ticket #: 38907 DST #: 1

KCC
AUG 27 2010
CONFIDENTIAL

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AUG 30 2010
KCC WICHITA

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Larson Engineering

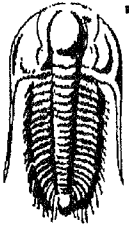
Joyce #1-17

17-19-28 Lane, KS

DST # 1

LKC 'r

2010.05.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering

562 W. State Rd. 4
Olmritz, KS 67564

ATTN: Bob Lew ellyn

Joyce #1-17

17-19-28 Lane, KS

Job Ticket: 38907

DST#: 1

Test Start: 2010.05.09 @ 12:13:00

GENERAL INFORMATION:

Formation: **LKC 'I'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:40:45

Time Test Ended: 18:34:24

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: 4226.00 ft (KB) To 4240.00 ft (KB) (TVD)

Reference Elevations: 2784.00 ft (KB)

Total Depth: 4240.00 ft (KB) (TVD)

2777.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6751

Outside

Press@RunDepth: 15.54 psig @ 4230.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.05.09

End Date:

2010.05.09

Last Calib.: 2010.05.09

Start Time: 12:13:05

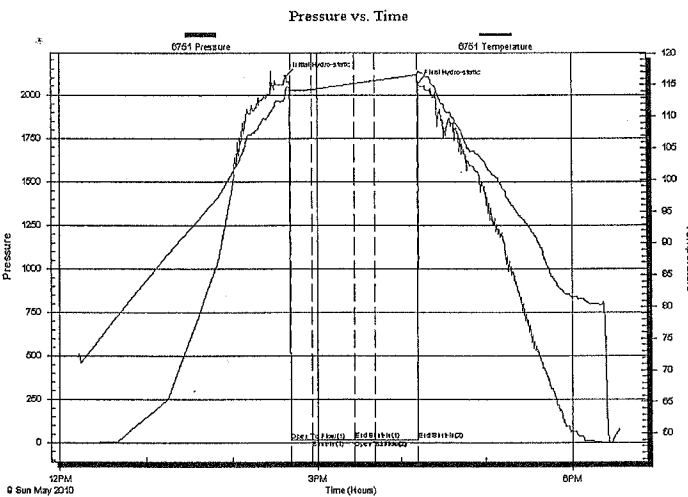
End Time:

18:34:25

Time On Btm: 2010.05.09 @ 14:38:05

Time Off Btm: 2010.05.09 @ 16:12:45

TEST COMMENT: IF: Weak surface blow.
IS: No return.
FF: No blow.
FSI: No return.



PRESSURE SUMMARY

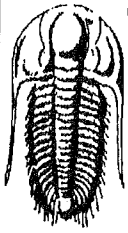
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.13	114.48	Initial Hydro-static
3	14.20	113.50	Open To Flow (1)
18	15.71	114.30	Shut-In(1)
48	17.54	115.23	End Shut-In(1)
48	15.46	115.24	Open To Flow (2)
63	15.54	115.70	Shut-In(2)
94	16.05	116.58	End Shut-In(2)
95	2066.54	117.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 100%M	0.01
0.00	RW: @ Degrees F = PPM	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmitz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38907

DST#: 1

ATTN: Bob Lewellyn

Test Start: 2010.05.09 @ 12:13:00

Tool Information

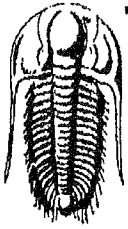
Drill Pipe:	Length: 4093.00 ft	Diameter: 3.80 inches	Volume: 57.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 113.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 57.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.50 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4226.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	41.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4199.50	
Shut In Tool	5.00			4204.50	
Hydraulic tool	5.00			4209.50	
Jars	5.00			4214.50	
Safety Joint	2.50			4217.00	
Packer	5.00			4222.00	27.50 Bottom Of Top Packer
Packer	4.00			4226.00	
Stubb	1.00			4227.00	
Perforations	3.00			4230.00	
Recorder	0.00	8357	Inside	4230.00	
Recorder	0.00	6751	Outside	4230.00	
Perforations	7.00			4237.00	
Bullnose	3.00			4240.00	14.00 Bottom Packers & Anchor

Total Tool Length: 41.50



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmitz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38907

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2010.05.09 @ 12:13:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	OSM 100%M	0.010
0.00	RW: @ Degrees F = PPM	0.000

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

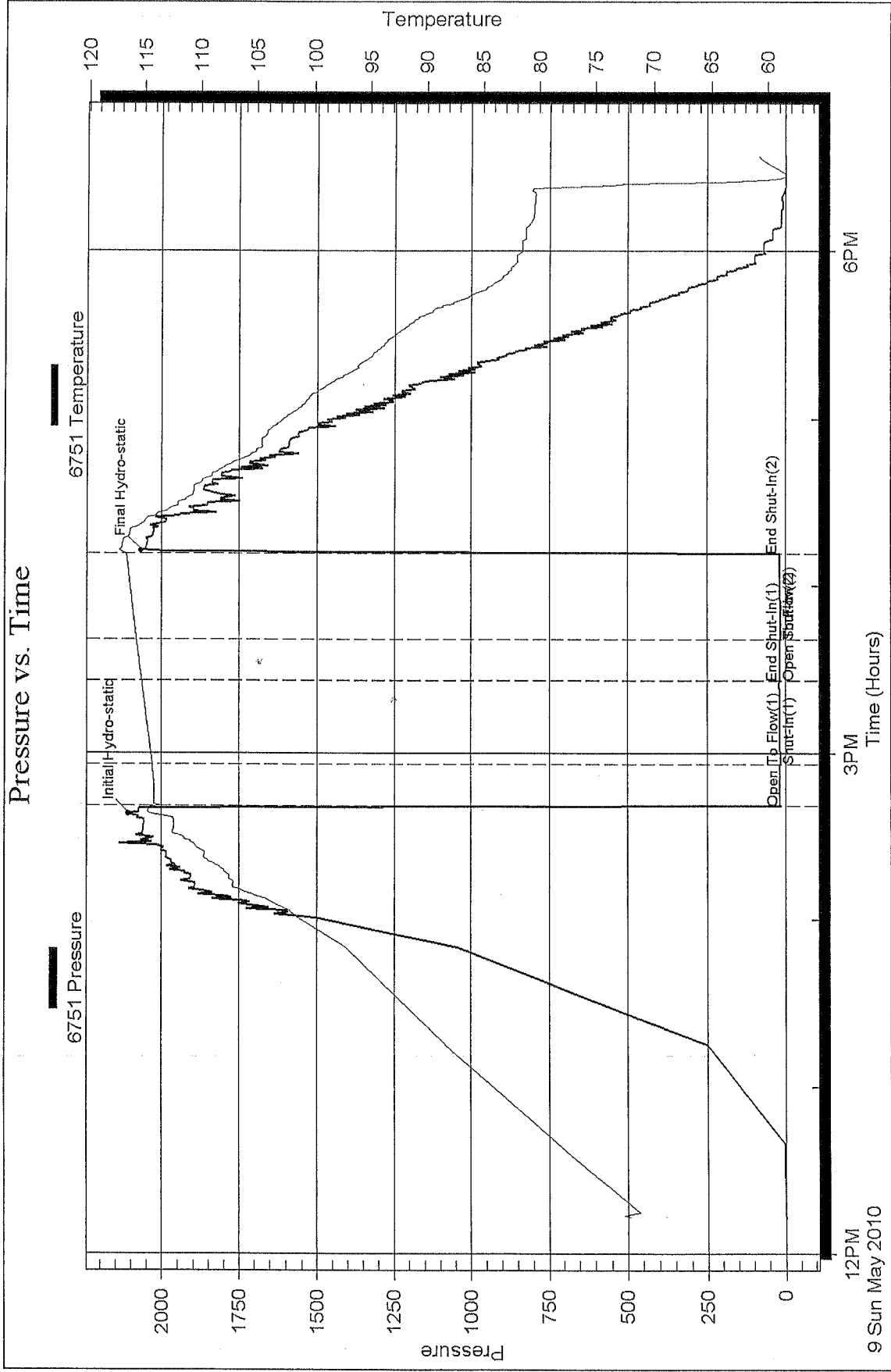
Num Gas Bombs: 0

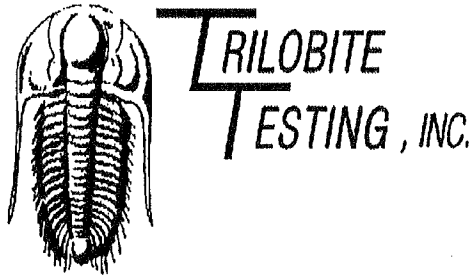
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: @ Degrees F =





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W. State Rd. 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

17-19-28 Lane, KS

Joyce #1-17

Start Date: 2010.05.10 @ 08:33:16

End Date: 2010.05.10 @ 18:13:35

Job Ticket #: 38908 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Larson Engineering

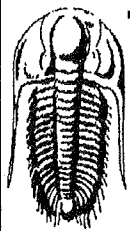
Joyce #1-17

17-19-28 Lane, KS

DST # 2

LKC:K

2010.05.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmritz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38908

DST#: 2

ATTN: Bob Lewellyn

Test Start: 2010.05.10 @ 08:33:16

GENERAL INFORMATION:

Formation: **LKC 'K'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:24:31

Time Test Ended: 18:13:35

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: **4281.00 ft (KB) To 4302.00 ft (KB) (TVD)**

Reference Elevations: 2784.00 ft (KB)

Total Depth: 4302.00 ft (KB) (TVD)

2777.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6751**

Outside

Press@RunDepth: 372.00 psig @ 4285.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.05.10 End Date: 2010.05.10

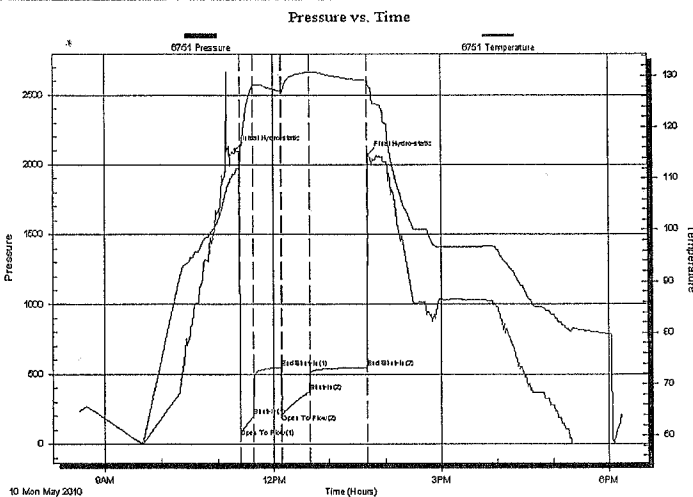
Last Calib.: 2010.05.10

Start Time: 08:33:21 End Time: 18:13:36

Time On Btm: 2010.05.10 @ 11:20:11

Time Off Btm: 2010.05.10 @ 13:41:51

TEST COMMENT: IF: B.O.B. @ 5 1/2 min.
IS: No return.
FF: B.O.B. @ 9 min.
FSI: No return.



PRESSURE SUMMARY

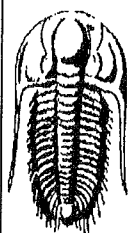
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2107.25	111.72	Initial Hydro-static
5	52.39	111.27	Open To Flow (1)
19	203.78	128.18	Shut-In(1)
49	546.96	127.07	End Shut-In(1)
49	211.64	126.88	Open To Flow (2)
79	372.00	130.72	Shut-In(2)
141	547.02	129.11	End Shut-In(2)
142	2068.84	128.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
450.00	MV 5%M 95%W	5.28
270.00	MV 30%M 70%W	3.79
0.00	RW: .170 @ 69 Degrees F = 40000 PPM	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmitz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38908

DST#: 2

ATTN: Bob Lewellyn

Test Start: 2010.05.10 @ 08:33:16

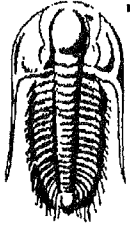
Tool Information

Drill Pipe:	Length: 4153.00 ft	Diameter: 3.80 inches	Volume: 58.26 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: 23000.00 lb
Drill Collar:	Length: 113.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.50 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4281.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	48.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4254.50	
Shut In Tool	5.00			4259.50	
Hydraulic tool	5.00			4264.50	
Jars	5.00			4269.50	
Safety Joint	2.50			4272.00	
Packer	5.00			4277.00	27.50 Bottom Of Top Packer
Packer	4.00			4281.00	
Stubb	1.00			4282.00	
Perforations	3.00			4285.00	
Recorder	0.00	8357	Inside	4285.00	
Recorder	0.00	6751	Outside	4285.00	
Perforations	14.00			4299.00	
Bullnose	3.00			4302.00	21.00 Bottom Packers & Anchor

Total Tool Length: 48.50



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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering
562 W. State Rd. 4
Olmitz, KS 67564
ATTN: Bob Lew elyn

Joyce #1-17
17-19-28 Lane, KS
Job Ticket: 38908 **DST#: 2**
Test Start: 2010.05.10 @ 08:33:16

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 55.00 sec/qt
Water Loss: 6.77 in³
Resistivity: 0.00 ohm.m
Salinity: 1800.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 0 deg API
Water Salinity: 40000 ppm

Recovery Information

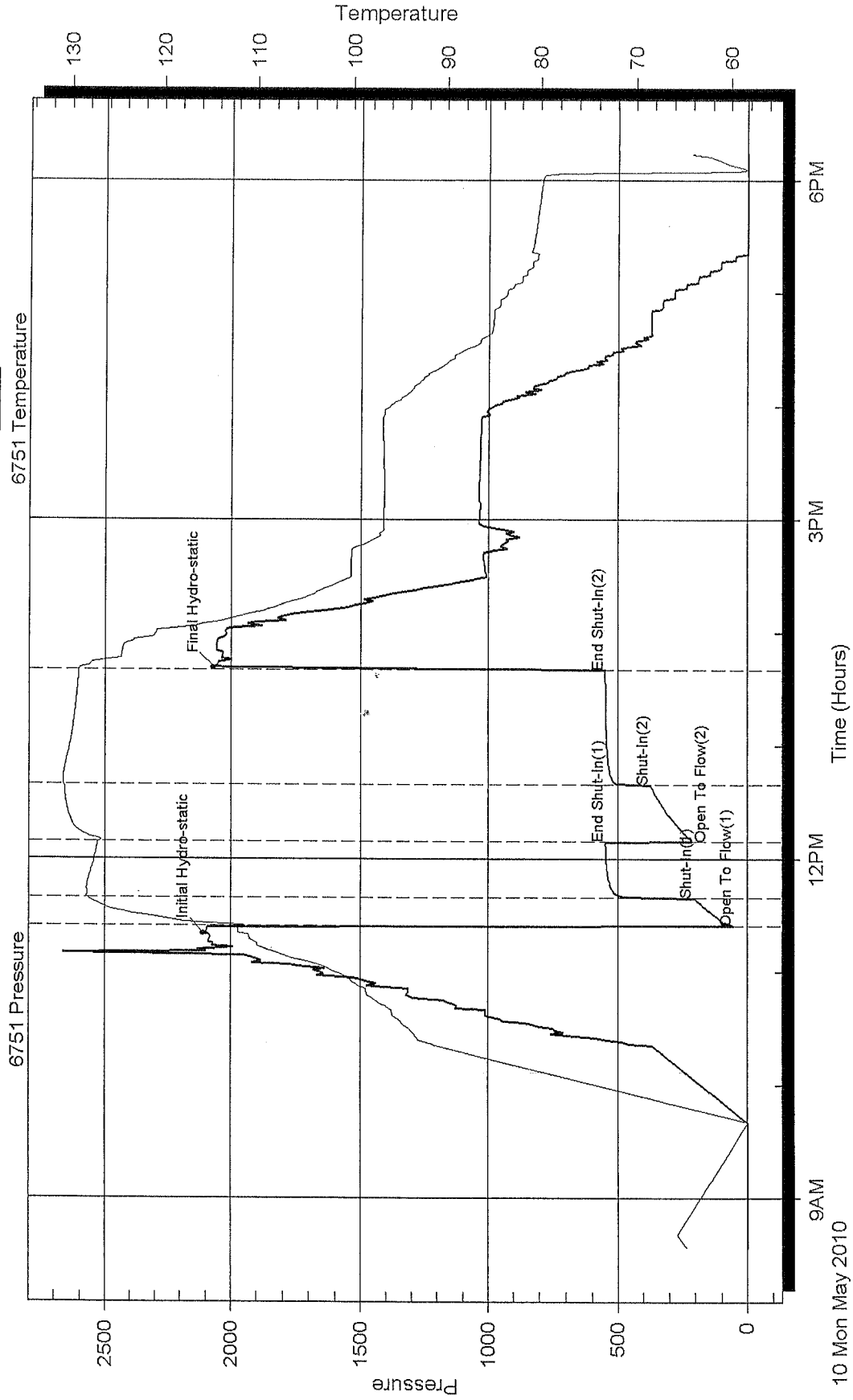
Recovery Table

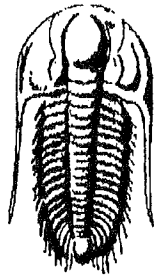
Length ft	Description	Volume bbl
450.00	MW 5%M 95%W	5.283
270.00	MW 30%M 70%W	3.787
0.00	RW: .170 @ 69 Degrees F = 40000 PPM	0.000

Total Length: 720.00 ft Total Volume: 9.070 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W. State Rd. 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

17-19-28 Lane, KS

Joyce #1-17

Start Date: 2010.05.11 @ 05:56:00

End Date: 2010.05.11 @ 13:26:00

Job Ticket #: 38909 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Larson Engineering

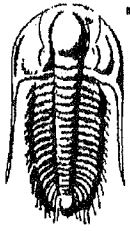
Joyce #1-17

17-19-28 Lane, KS

DST # 3

LKC 'L'

2010.05.11



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering

562 W. State Rd. 4
Olmritz, KS 67564

ATTN: Bob Lewellyn

Joyce #1-17

17-19-28 Lane, KS

Job Ticket: 38909

DST#: 3

Test Start: 2010.05.11 @ 05:56:00

GENERAL INFORMATION:

Formation: **LKC 'L'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:21:40

Time Test Ended: 13:26:00

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: **4323.00 ft (KB) To 4335.00 ft (KB) (TVD)**

Total Depth: 4335.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2784.00 ft (KB)

2777.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8357

Inside

Press@RunDepth: 100.88 psig @ 4327.00 ft (KB)

Start Date: 2010.05.11

End Date:

2010.05.11

Start Time: 05:56:05

End Time:

13:25:59

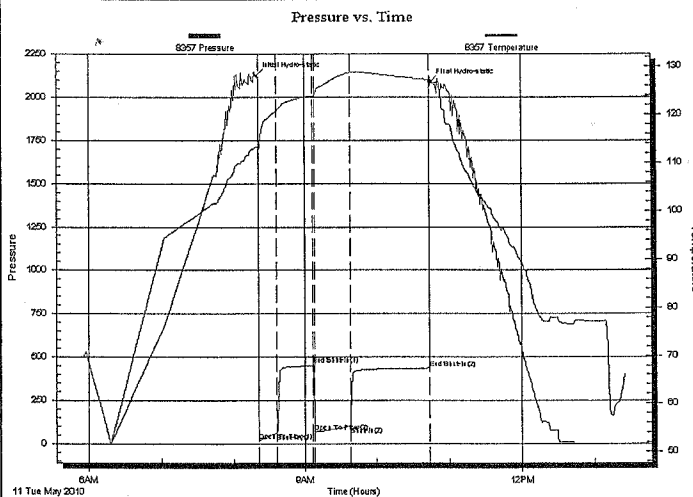
Capacity: 8000.00 psig

Last Calib.: 2010.05.11

Time On Btm: 2010.05.11 @ 08:20:00

Time Off Btm: 2010.05.11 @ 10:44:05

TEST COMMENT: IF: 8" Blow.
ISI: No return.
FF: B.O.B. @ 28 min.
FS: 3/4" Return died @ 29 min.



PRESSURE SUMMARY

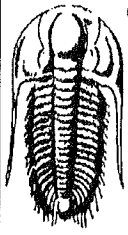
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.06	113.11	Initial Hydro-static
2	17.70	111.86	Open To Flow (1)
17	61.87	120.72	Shut-In(1)
47	454.21	123.77	End Shut-In(1)
49	69.00	123.75	Open To Flow (2)
79	100.88	128.64	Shut-In(2)
144	437.00	127.17	End Shut-In(2)
145	2084.09	127.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
58.00	GOCM 5%G 3%O 92%M	0.29
217.00	GO 10%G 90%O	2.27
0.00	145 Feet GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmitz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38909

DST#: 3

ATTN: Bob Lewellyn

Test Start: 2010.05.11 @ 05:56:00

Tool Information

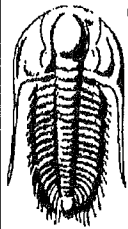
Drill Pipe:	Length: 4184.00 ft	Diameter: 3.80 inches	Volume: 58.69 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 23000.00 lb
Drill Collar:	Length: 143.00 ft	Diameter: 2.25 inches	Volume: 0.70 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.50 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4323.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	39.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4296.50	
Shut In Tool	5.00			4301.50	
Hydraulic tool	5.00			4306.50	
Jars	5.00			4311.50	
Safety Joint	2.50			4314.00	
Packer	5.00			4319.00	27.50 Bottom Of Top Packer
Packer	4.00			4323.00	
Stubb	1.00			4324.00	
Perforations	3.00			4327.00	
Recorder	0.00	8357	Inside	4327.00	
Recorder	0.00	6751	Outside	4327.00	
Perforations	5.00			4332.00	
Bullnose	3.00			4335.00	12.00 Bottom Packers & Anchor

Total Tool Length: 39.50



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmritz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38909

DST#: 3

ATTN: Bob Lewellyn

Test Start: 2010.05.11 @ 05:56:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
58.00	GOCM 5%G 3%O 92%M	0.285
217.00	GO 10%G 90%O	2.270
0.00	145 Feet GIP	0.000

Total Length: 275.00 ft Total Volume: 2.555 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

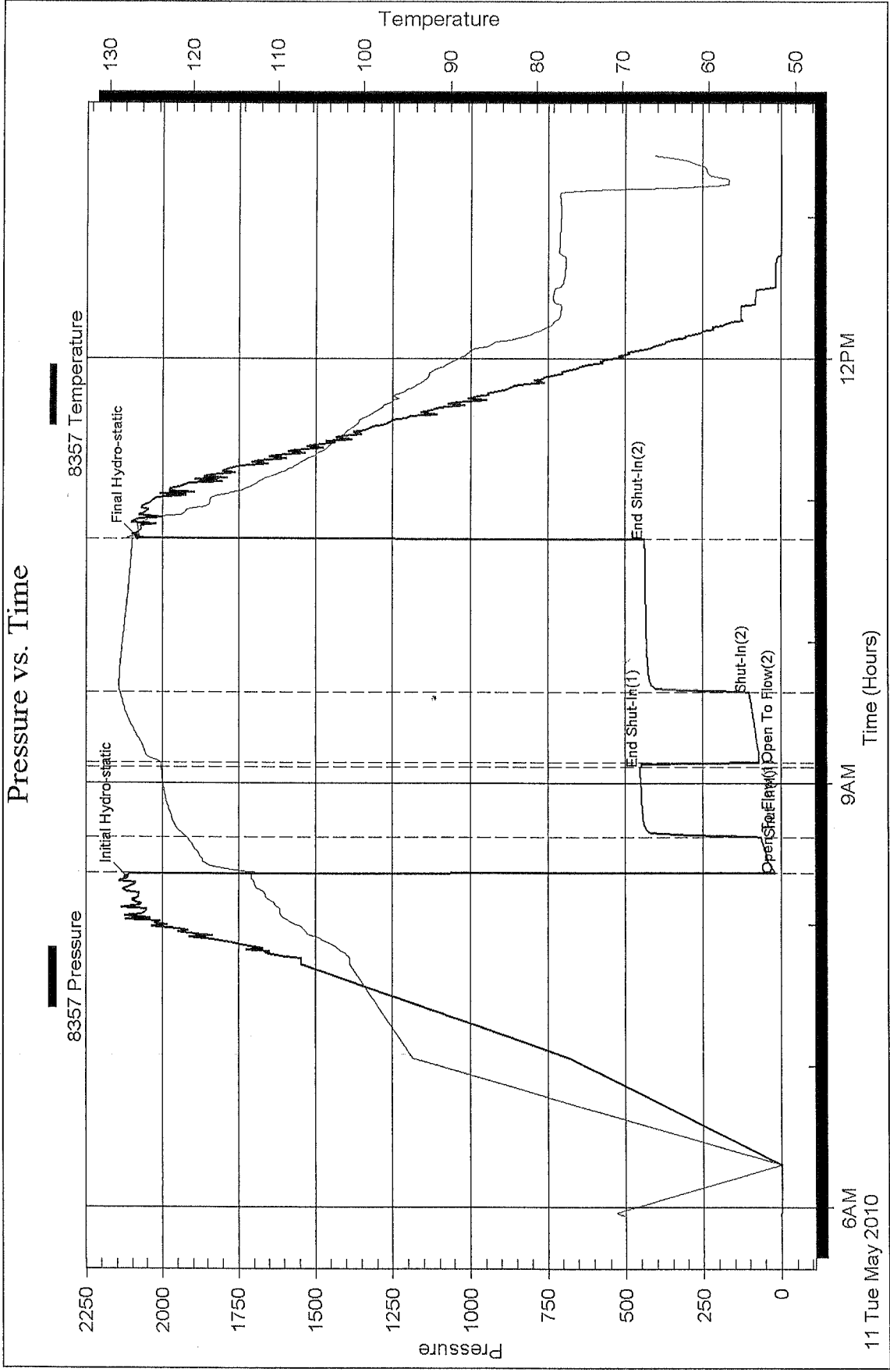
Serial #:

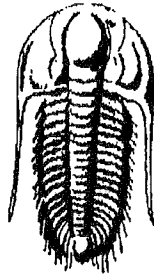
Laboratory Name:

Laboratory Location:

Recovery Comments: API: 39 @ 70 Degrees F = 38

Pressure vs. Time





**TRILOBITE
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DRILL STEM TEST REPORT

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562 W. State Rd. 4
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ATTN: Bob Lewellyn

17-19-28 Lane, KS

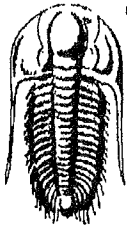
Joyce #1-17

Start Date: 2010.05.12 @ 12:33:00

End Date: 2010.05.12 @ 19:44:15

Job Ticket #: 38910 DST #: 4

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering

562 W. State Rd. 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Joyce #1-17

17-19-28 Lane, KS

Job Ticket: 38910

DST#: 4

Test Start: 2010.05.12 @ 12:33:00

GENERAL INFORMATION:

Formation: **Pleasanton - Altamon**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:36:45

Time Test Ended: 19:44:15

Interval: **4363.00 ft (KB) To 4462.00 ft (KB) (TVD)**

Total Depth: 4462.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Reference Elevations: 2784.00 ft (KB)

2777.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8357

Inside

Press@RunDepth: 46.66 psig @ 4367.00 ft (KB)

Start Date: 2010.05.12

End Date: 2010.05.12

Start Time: 12:33:05

End Time: 19:44:14

Capacity: 8000.00 psig

Last Calib.: 2010.05.12

Time On Btm: 2010.05.12 @ 14:35:25

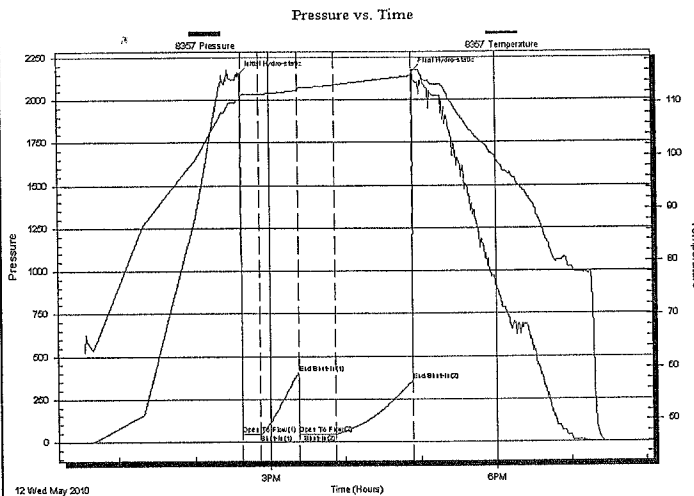
Time Off Btm: 2010.05.12 @ 16:54:00

TEST COMMENT: IF: 1" Blow receded to 1/2". Upon tool opening hole lost 10' mud.

ISI: No return.

FF: No blow.

FSI: No return.



PRESSURE SUMMARY

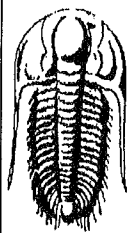
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2148.69	110.54	Initial Hydro-static
2	43.93	109.93	Open To Flow (1)
17	45.19	111.68	Shut-In(1)
47	402.03	112.41	End Shut-In(1)
48	46.36	112.33	Open To Flow (2)
78	46.66	113.47	Shut-In(2)
138	357.94	115.14	End Shut-In(2)
139	2167.59	116.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSM 100%M	0.30
0.00	RW: @ Degrees F = PPM	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmitz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38910

DST#: 4

ATTN: Bob Lewellyn

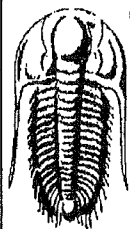
Test Start: 2010.05.12 @ 12:33:00

Tool Information

Drill Pipe:	Length: 4218.00 ft	Diameter: 3.80 inches	Volume: 59.17 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: 30000.00 lb
Drill Collar:	Length: 143.00 ft	Diameter: 2.25 inches	Volume: 0.70 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.50 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4363.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	99.00 ft			
Tool Length:	126.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4336.50	
Shut In Tool	5.00			4341.50	
Hydraulic tool	5.00			4346.50	
Jars	5.00			4351.50	
Safety Joint	2.50			4354.00	
Packer	5.00			4359.00	27.50 Bottom Of Top Packer
Packer	4.00			4363.00	
Stubb	1.00			4364.00	
Perforations	3.00			4367.00	
Recorder	0.00	8357	Inside	4367.00	
Recorder	0.00	6751	Outside	4367.00	
Perforations	27.00			4394.00	
Change Over Sub	1.00			4395.00	
Drill Pipe	63.00			4458.00	
Change Over Sub	1.00			4459.00	
Bullnose	3.00			4462.00	99.00 Bottom Packers & Anchor
Total Tool Length:	126.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

Joyce #1-17

562 W. State Rd. 4
Olmritz, KS 67564

17-19-28 Lane, KS

Job Ticket: 38910

DST#: 4

ATTN: Bob Lewellyn

Test Start: 2010.05.12 @ 12:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OSM 100%M	0.295
0.00	RW: @ Degrees F= PPM	0.000

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

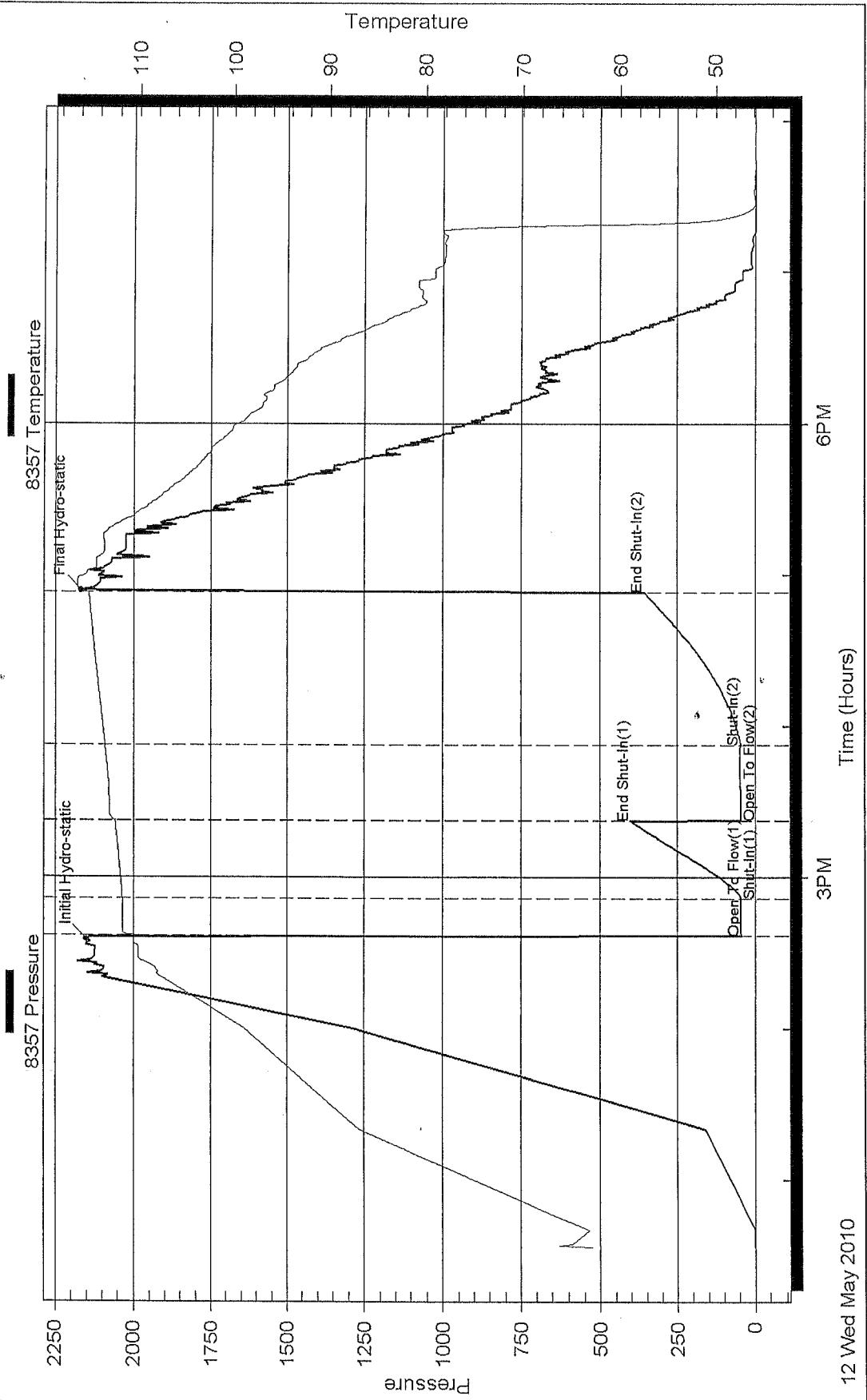
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

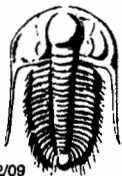


12 Wed May 2010

3PM

6PM

Time (Hours)



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAY 14 2010

Test Ticket

NO. 38907 14251

12/09

BY: _____

Well Name & No. Joyce #1-17 Test No. 1 Date 5-9-10
 Company Larson Engineering Elevation 2784 KB 2777 GL
 Address 562 W. St. Rd. 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 17 Twp. 19 Rge. 28 Co. Lane State KS

Interval Tested 4226-4240 Zone Tested LKC 'I'
 Anchor Length 14 Drill Pipe Run 4093 Mud Wt. 9.3
 Top Packer Depth 4222 Drill Collars Run 113 Vis 53
 Bottom Packer Depth 4226 Wt. Pipe Run 0 WL 6.8
 Total Depth 4240 Chlorides 1,800 ppm System LCM 2

Blow Description IF: Weak surface blow.
ISL: No return.
FF: No blow.
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
2	OSM			100	

Rec Total 2 BHT 117 Gravity - API RW - @ - ° F Chlorides - ppm

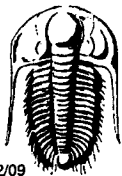
(A) Initial Hydrostatic 2104 Test 1,225' T-On Location 10:45
 (B) First Initial Flow 14 Jars 250' T-Started 12:13
 (C) First Final Flow 16 Safety Joint 75' T-Open 14:41
 (D) Initial Shut-In 18 Circ Sub NIC T-Pulled 16:12
 (E) Second Initial Flow 15 Hourly Standby T-Out 18:34
 (F) Second Final Flow 16 Mileage 62RT 77.50 Comments _____
 (G) Final Shut-In 16 Sampler _____
 (H) Final Hydrostatic 2,067 Straddle _____

Initial Open 15 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 15 Extra Recorder _____ Extra Copies _____
 Final Shut-In 30 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1627.50
 Sub Total 1627.50

Approved By [Signature]

Our Representative Chuck Smith

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

RECEIVED Test Ticket
MAY 14 2010
NO. 38908

12/09

BY: _____

Well Name & No. Joyce # 1-17 Test No. 2 Date 5-10-10
 Company Larson Engineering Elevation 2784 KB 2777 GL
 Address 562 W. St. Rd. #4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig H.D. #3
 Location: Sec. 17 Twp. 19 Rge. 28 Co. Lane State KS

Interval Tested 4281 - 4302 Zone Tested LKC 'K'
 Anchor Length 21 Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 4277 Drill Collars Run 113 Vis 55
 Bottom Packer Depth 4281 Wt. Pipe Run 0 WL 6.8
 Total Depth 4302 Chlorides 1,800 ppm System LCM 2

Blow Description IF: B.O.B. @ 5 1/2 min.
ISI: No return
FF: B.O.B. @ 9 min
FST: No return

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>270</u>	Feet of <u>MW</u>	%gas	%oil <u>70</u>	%water <u>30</u>	%mud
Rec <u>450</u>	Feet of <u>MW</u>	%gas	%oil <u>95</u>	%water <u>5</u>	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

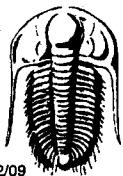
Rec Total 720 BHT _____ Gravity — API RW .170 @ 69 °F Chlorides 44,000 ppm

(A) Initial Hydrostatic 2107 Test 1,225 T-On Location 8:00
 (B) First Initial Flow 52 Jars 250 T-Started 8:33
 (C) First Final Flow 204 Safety Joint 75 T-Open 11:25
 (D) Initial Shut-In 547 Circ Sub NIC T-Pulled 13:41
 (E) Second Initial Flow 212 Hourly Standby 3/4 T-Out 18:14
 (F) Second Final Flow 372 Mileage 62RT 77⁵⁰ Comments _____
 (G) Final Shut-In 547 Sampler _____
 (H) Final Hydrostatic 2069 Straddle _____

Initial Open 15 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Extra Copies _____
 Final Shut-In 60 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1627.50
 Sub Total 1627.50

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAY 14 2010

Test Ticket

NO. 38909

12/09

BY:

Well Name & No. Joyce #1-17 Test No. 3 Date 5-11-10
 Company Larson Engineering Elevation 2784 KB 2777 GL
 Address 562 W. St. Rd. 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD#3
 Location: Sec. 17 Twp. 19 Rge. 28 Co. Lane State Ks

Interval Tested 2784323-4335 Zone Tested LKC '1'
 Anchor Length 12 Drill Pipe Run 4184 Mud Wt. 9.2
 Top Packer Depth 4319 Drill Collars Run 143 Vis 53
 Bottom Packer Depth 4323 Wt. Pipe Run 0 WL 7.6
 Total Depth 4335 Chlorides 2,000 ppm System LCM 1

Blow Description IF: 8" Blow
IST: No return
FF: B.O.B. @ 28 min.
FSI: 3/4" Return died @ 29 min.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>217</u>	Feet of <u>GO</u>	<u>10</u> %gas	<u>90</u> %oil	%water	%mud
Rec <u>58</u>	Feet of <u>60CM</u>	<u>5</u> %gas	<u>3</u> %oil	%water	<u>92</u> %mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 275 BHT 127 Gravity 38 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2135 Test 1,225 T-On Location 4:45
 (B) First Initial Flow 18 Jars 250 T-Started 5:56
 (C) First Final Flow 62 Safety Joint 75 T-Open 8:22
 (D) Initial Shut-In 454 Circ Sub _____ T-Pulled 10:44
 (E) Second Initial Flow 69 Hourly Standby _____ T-Out 13:26
 (F) Second Final Flow 101 Mileage 62RT 77⁵⁰ Comments _____
 (G) Final Shut-In 437 Sampler _____ 145 Feet GIP
 (H) Final Hydrostatic 2,120 Straddle _____

Initial Open 15 Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 60 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1627.50
 Sub Total 1627.50

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED Test Ticket

MAY 14 2010

NO. 38910

Well Name & No. Joyce #1-17 Test No. 4 Date 5-12-10
 Company Larson Engineering Elevation 2784 KB 2777 GL
 Address 562 W. St. Rd. #4 Omitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig H.D.#3
 Location: Sec. 17 Twp. 19 Rge. 28 Co. Lane State KS

Interval Tested 4363-4462 Zone Tested Pleasanton-Altrament
 Anchor Length 99 Drill Pipe Run 4218 Mud Wt. 9.3
 Top Packer Depth 4359 Drill Collars Run 143 Vis 56
 Bottom Packer Depth 4363 Wt. Pipe Run 0 WL 8.0
 Total Depth 4462 Chlorides 2,100 ppm System LCM 2
 Blow Description IF: 1" Blow receded to 1/2". Upon tool opening hole lost 10' mud.
ISI: No return.
FF: No blow.
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>60</u>	Feet of <u>OSM</u>	%gas	%oil	%water <u>100</u>	%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 _____ Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2197</u>	<input type="checkbox"/> Test <u>1,225-</u>	T-On Location <u>11:55</u>
(B) First Initial Flow <u>44</u>	<input type="checkbox"/> Jars <u>250-</u>	T-Started <u>12:33</u>
(C) First Final Flow <u>45</u>	<input type="checkbox"/> Safety Joint <u>75-</u>	T-Open <u>14:37</u>
(D) Initial Shut-In <u>402</u>	<input type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>16:53</u>
(E) Second Initial Flow <u>46</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:44</u>
(F) Second Final Flow <u>47</u>	<input type="checkbox"/> Mileage <u>62RT 77⁵⁰</u>	Comments _____
(G) Final Shut-In <u>358</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2168</u>	<input type="checkbox"/> Straddle _____	_____
Initial Open <u>15</u>	<input checked="" type="checkbox"/> Shale Packer <u>250-</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1877.50</u>
	Sub Total <u>1877.50</u>	

Approved By [Signature] Our Representative Chuck Smith

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