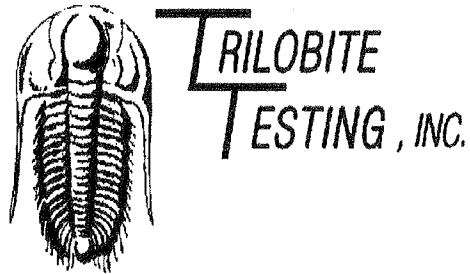


15-009-25208

33-17s-13w

IND



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates**

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

33 17S 13W Barton KS

Morgernstern Trust # 1-33

Start Date: 2008.07.08 @ 08:24:10

End Date: 2008.07.08 @ 15:07:04

Job Ticket #: 32836 DST #: 1

KCC
OCT 27 2008
CONFIDENTIAL

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

Morgernstern Trust # 1-33

33 17S 13W Barton KS

Job Ticket: 32836

DST#: 1

Test Start: 2008.07.08 @ 08:24:10

GENERAL INFORMATION:

Formation: **LKC "A-E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:19:05

Time Test Ended: 15:07:04

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: **3132.00 ft (KB) To 3200.00 ft (KB) (TVD)**

Total Depth: 3200.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1877.00 ft (KB)

1870.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8371

Outside

Press@RunDepth: 81.92 psig @ 3135.00 ft (KB)

Start Date: 2008.07.08

End Date:

2008.07.08

Start Time: 08:24:10

End Time:

15:07:04

Capacity: 7000.00 psig

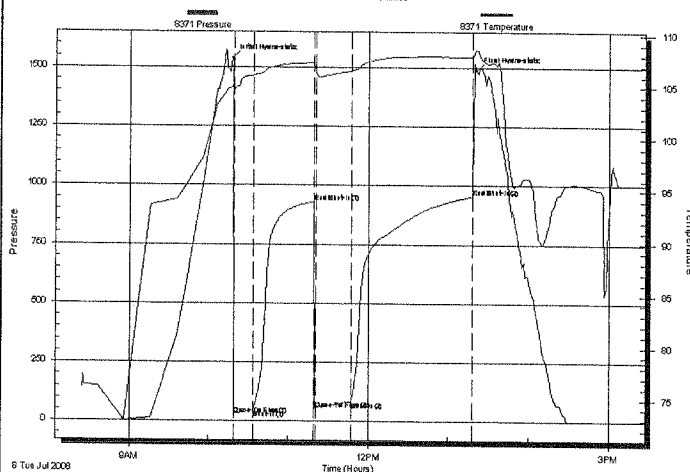
Last Calib.: 2008.07.08

Time On Btm: 2008.07.08 @ 10:18:05

Time Off Btm: 2008.07.08 @ 13:21:04

TEST COMMENT: IFP BOB 3 min.
ISI Sur blow back died 4 min.
FFP BOB 30 sec.
FSI 2 " blow back died

Pressure vs. Time



PRESSURE SUMMARY

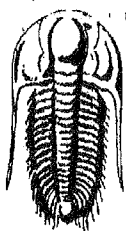
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1537.21	104.99	Initial Hydro-static
1	26.34	104.44	Open To Flow (1)
15	45.81	106.09	Shut-In (1)
61	929.26	107.32	End Shut-In (1)
62	49.68	106.73	Open To Flow (2)
89	81.92	106.51	Shut-In (2)
181	954.01	107.93	End Shut-In (2)
183	1489.31	108.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
33.00	GOCM 65%G 25%O 10%M	0.46
32.00	GHOCM 40%G 30%O 30%M	0.45
60.00	GOCM 55%G 20%O 25%M	0.84
45.00	GSOCM 15%G 10%O 75%M	0.63
0.00	1470' GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

Morgernstern Trust # 1-33

33 17S 13W Barton KS

Job Ticket: 32836

DST#: 1

Test Start: 2008.07.08 @ 08:24:10

Tool Information

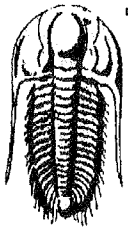
Drill Pipe:	Length: 3128.00 ft	Diameter: 3.80 inches	Volume: 43.88 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
		Total Volume:	43.88 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3132.00 ft			Final	39000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	68.00 ft				
Tool Length:	95.00 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			3110.00	
Hydraulic tool	5.00			3115.00	
Jars	5.00			3120.00	
Safety Joint	2.00			3122.00	
Packer	5.00			3127.00	27.00 Bottom Of Top Packer
Packer	5.00			3132.00	
Stubb	1.00			3133.00	
Perforations	1.00			3134.00	
Change Over Sub	1.00			3135.00	
Recorder	0.00	8018	Inside	3135.00	
Recorder	0.00	8371	Outside	3135.00	
Blank Spacing	61.00			3196.00	
Change Over Sub	1.00			3197.00	
Bullnose	3.00			3200.00	68.00 Bottom Packers & Anchor

Total Tool Length: 95.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates

Morgernstern Trust # 1-33

1560 Broadway Ste 2100
Denver CO 80202

33 17S 13W Barton KS

Job Ticket: 32836

DST#: 1

ATTN: Justin Carter

Test Start: 2008.07.08 @ 08:24:10

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:

bbl

Water Loss: 9.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
33.00	GOCM 65%G 25%O 10%M	0.463
32.00	GHOCM 40%G 30%O 30%M	0.449
60.00	GOCM 55%G 20%O 25%M	0.842
45.00	GSOCM 15%G 10%O 75%M	0.631
0.00	1470' GIP	0.000

Total Length: 170.00 ft

Total Volume: 2.385 bbl

Num Fluid Samples: 0

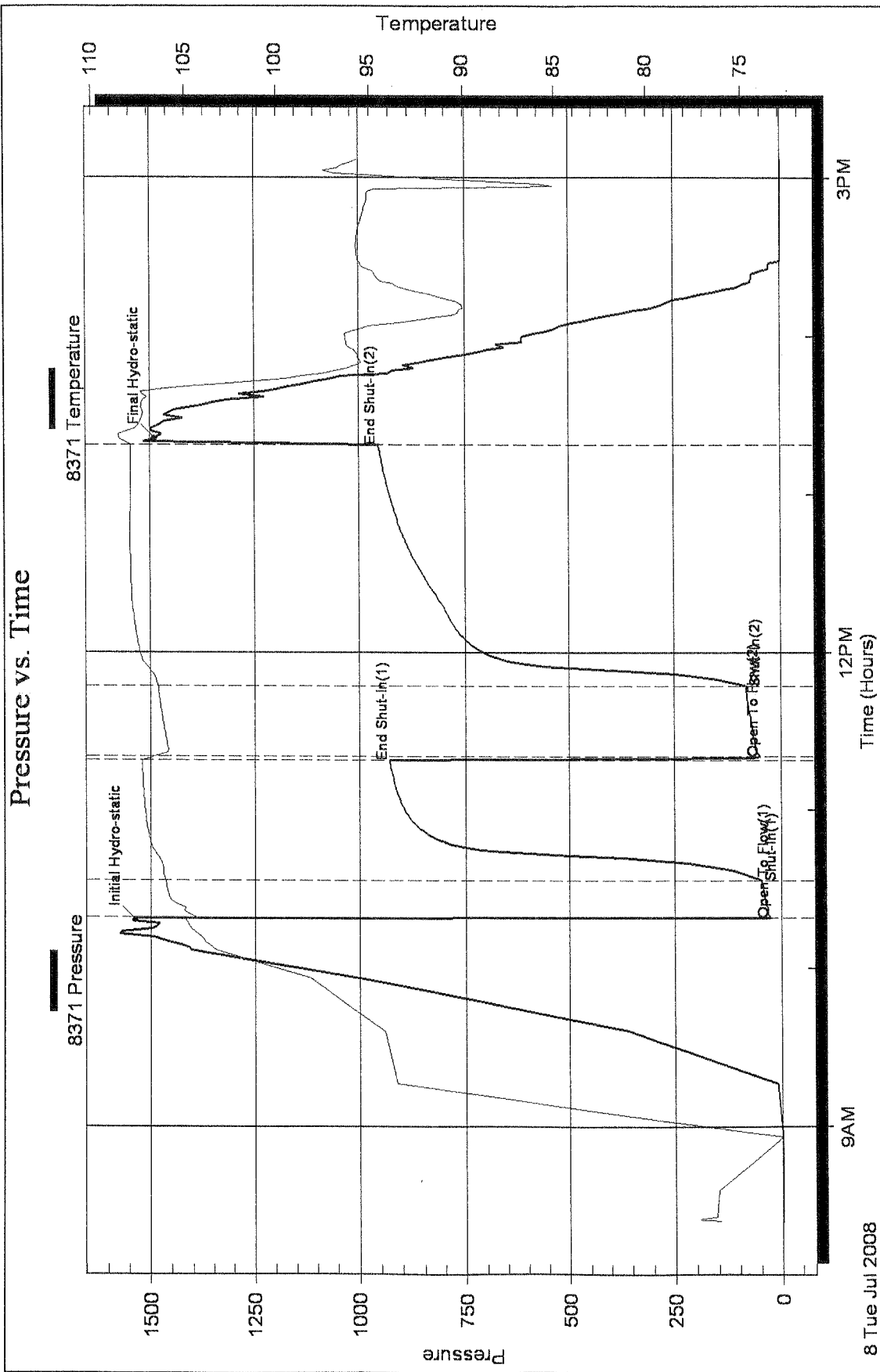
Num Gas Bombs: 0

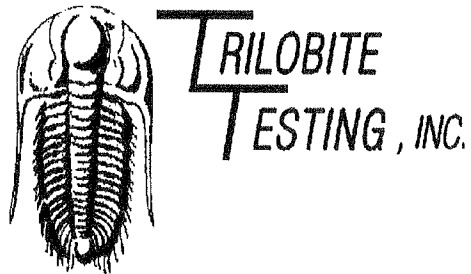
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates**

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

33 17S 13W Barton KS

Morgernstern Trust # 1-33

Start Date: 2008.07.09 @ 10:28:42

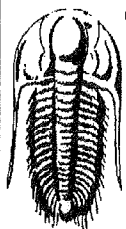
End Date: 2008.07.09 @ 18:01:06

Job Ticket #: 32837 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

Morgernstern Trust # 1-33

33 17S 13W Barton KS

Job Ticket: 32837

DST#: 2

Test Start: 2008.07.09 @ 10:28:42

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:25:07

Time Test Ended: 18:01:06

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: **3335.00 ft (KB) To 3362.00 ft (KB) (TVD)**

Total Depth: 3362.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1877.00 ft (KB)

1870.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8371 Outside

Press@RunDepth: 85.41 psig @ 3339.00 ft (KB)

Start Date: 2008.07.09

End Date: 2008.07.09

Start Time: 10:28:42

End Time: 18:01:06

Capacity: 7000.00 psig

Last Calib.: 2008.07.09

Time On Btm: 2008.07.09 @ 12:23:37

Time Off Btm: 2008.07.09 @ 16:25:36

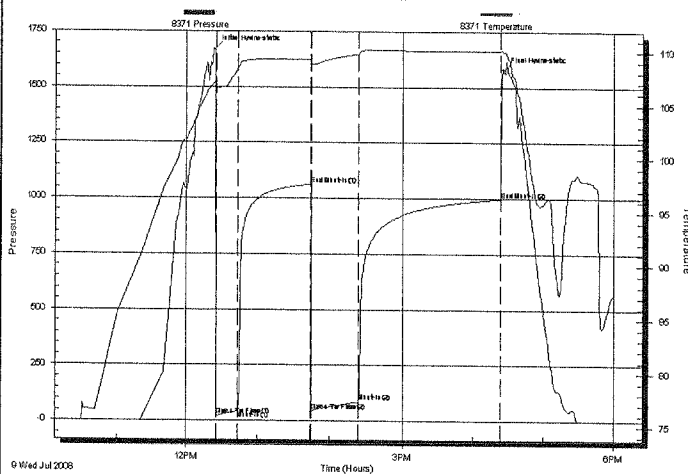
TEST COMMENT: IFP Weak to good blow 1/2" - 7"

ISI No blow back

FFP BOB 34 min.

FSI Sur blow back died 14 min.

Pressure vs. Time



PRESSURE SUMMARY

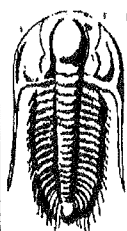
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1667.13	107.06	Initial Hydro-static
2	21.74	106.53	Open To Flow (1)
20	44.06	108.49	Shut-In (1)
80	1061.75	109.28	End Shut-In (1)
81	44.90	108.84	Open To Flow (2)
120	85.41	109.73	Shut-In (2)
240	997.78	110.06	End Shut-In (2)
242	1577.14	110.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WM 40%W 60%M	0.84
30.00	GHOCM 5%G 45%O 50%M	0.42
75.00	FREE OIL	1.05
0.00	60' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates

1560 Broadway Ste 2100
Denver CO 80202

ATTN: Justin Carter

Morgernstern Trust # 1-33

33 17S 13W Barton KS

Job Ticket: 32837

DST#: 2

Test Start: 2008.07.09 @ 10:28:42

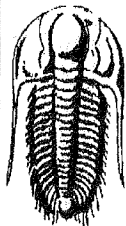
Tool Information

Drill Pipe:	Length: 3315.00 ft	Diameter: 3.80 inches	Volume: 46.50 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			Total Volume: 46.50 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3335.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	54.00 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			3313.00	
Hydraulic tool	5.00			3318.00	
Jars	5.00			3323.00	
Safety Joint	2.00			3325.00	
Packer	5.00			3330.00	27.00 Bottom Of Top Packer
Packer	5.00			3335.00	
Stubb	1.00			3336.00	
Perforations	3.00			3339.00	
Recorder	0.00	8018	Inside	3339.00	
Recorder	0.00	8371	Outside	3339.00	
Perforations	20.00			3359.00	
Bullnose	3.00			3362.00	27.00 Bottom Packers & Anchor

Total Tool Length: 54.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates

Morgernstern Trust # 1-33

1560 Broadway Ste 2100
Denver CO 80202

33 17S 13W Barton KS

Job Ticket: 32837

DST#: 2

ATTN: Justin Carter

Test Start: 2008.07.09 @ 10:28:42

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 9.16 in³

Resistivity: ohm.m

Salinity: 9200.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

37 deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WM 40%W 60%M	0.842
30.00	GHOCM 5%G 45%O 50%M	0.421
75.00	FREE OIL	1.052
0.00	60' GIP	0.000

Total Length: 165.00 ft

Total Volume: 2.315 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

