



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Mull

1700 N Waterfront PKWY
Wichita, KS 67206

ATTN: Phil Askey

Harkness Trust #1-5

5-17s-23w Ness

Job Ticket: 39177

DST#: 1

Test Start: 2010.06.26 @ 05:54:05

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:36:15

Time Test Ended: 11:14:44

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 48

Interval: 4400.00 ft (KB) To 4450.00 ft (KB) (TVD)

Reference Elevations: 2494.00 ft (KB)

Total Depth: 4450.00 ft (KB) (TVD)

2489.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8322 Inside

Press@RunDepth: 30.89 psig @ 4401.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.26

End Date:

2010.06.26

Last Calib.:

2010.06.26

Start Time: 05:54:05

End Time:

11:14:44

Time On Btm:

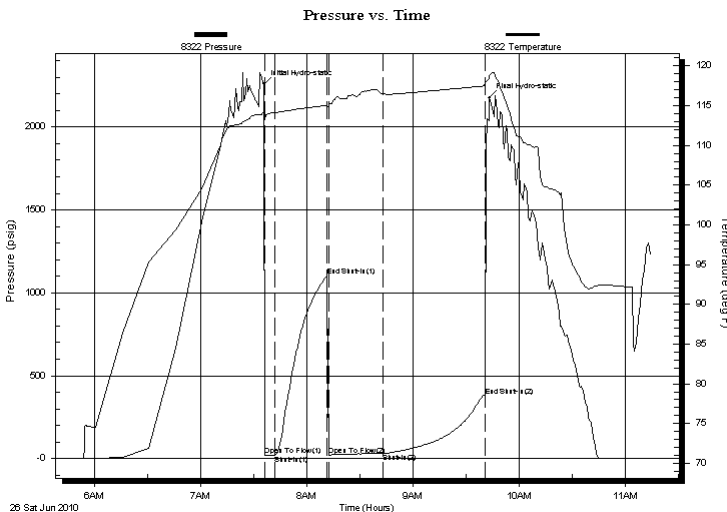
2010.06.26 @ 07:36:00

Time Off Btm:

2010.06.26 @ 09:43:15

TEST COMMENT: IF: Built to 1/4 inch.
IS: No return.
FF: Surface blow for 6 mins.
FS: No return.

PRESSURE SUMMARY



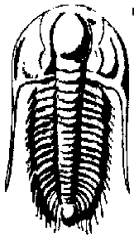
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2258.13	114.13	Initial Hydro-static
1	17.49	113.28	Open To Flow (1)
7	19.53	114.12	Shut-In(1)
36	1100.95	115.04	End Shut-In(1)
37	21.11	115.01	Open To Flow (2)
67	30.89	116.48	Shut-In(2)
125	377.67	117.48	End Shut-In(2)
128	2175.15	118.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mw / O spots 100% m	0.01
0.00	GIP = 0	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

FLUID SUMMARY

Mull

Harkness Trust #1-5

1700 N Waterfront PKWY
Wichita, KS 67206

5-17s-23w Ness

Job Ticket: 39177

DST#: 1

ATTN: Phil Askey

Test Start: 2010.06.26 @ 05:54:05

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: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 13.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mw / O spots 100% _m	0.015
0.00	GIP = 0	0.000

Total Length: 3.00 ft

Total Volume: 0.015 bbl

Num Fluid Samples: 0

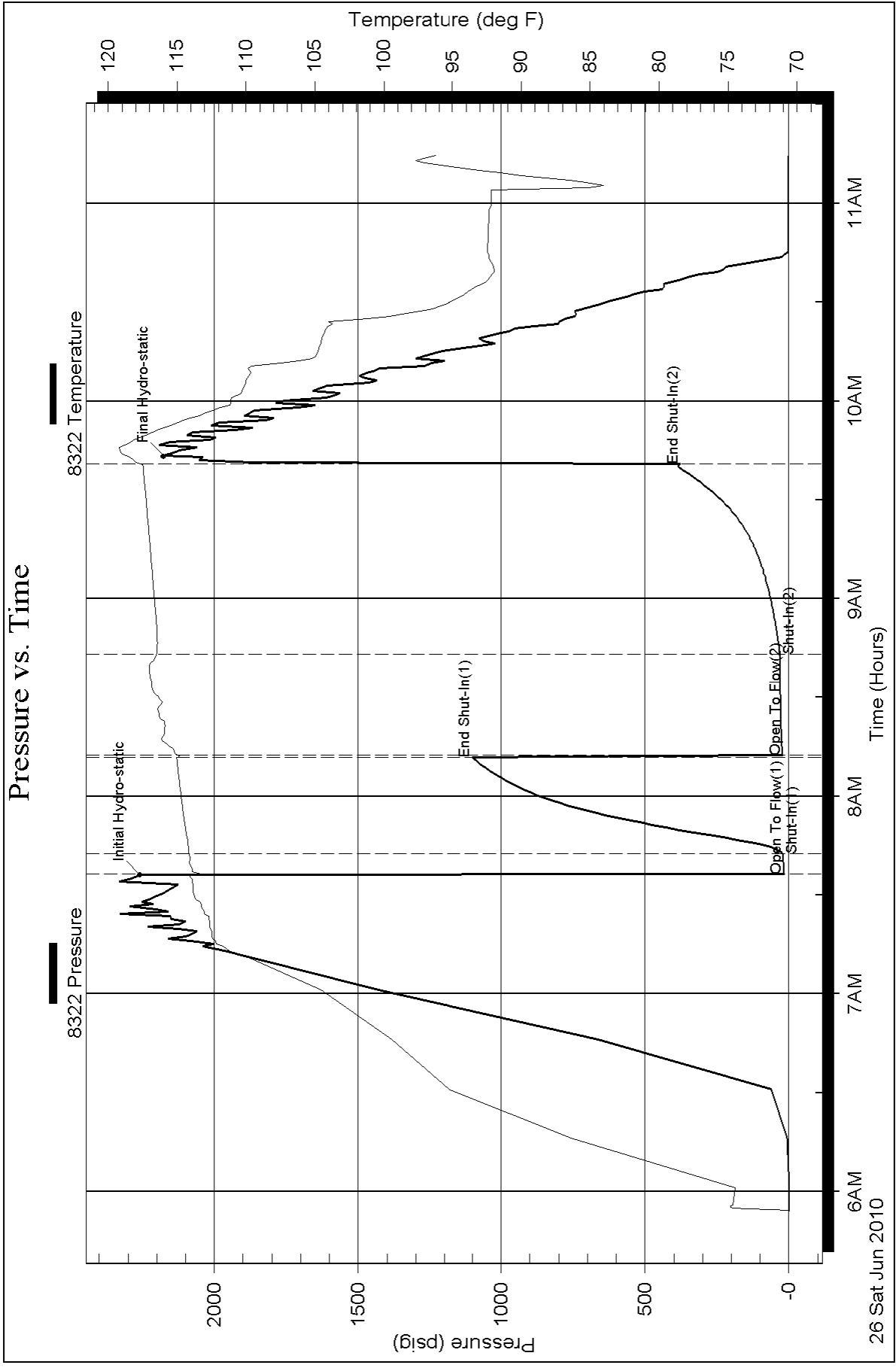
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Mull

1700 N Waterfront PKWY
Wichita, KS 67206

ATTN: Phil Askey

Harkness Trust #1-5

5-17s-23w Ness

Job Ticket: 39178

DST#: 2

Test Start: 2010.06.26 @ 23:43:05

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:14:15

Time Test Ended: 06:59:59

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 48

Interval: 4437.00 ft (KB) To 4525.00 ft (KB) (TVD)

Total Depth: 4525.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2494.00 ft (KB)

2489.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8322 Inside

Press@RunDepth: 628.35 psig @ 4438.00 ft (KB)

Start Date: 2010.06.26

End Date:

2010.06.27

Start Time: 23:43:05

End Time:

06:59:59

Capacity: 8000.00 psig

Last Calib.: 2010.06.27

Time On Btm: 2010.06.27 @ 02:14:00

Time Off Btm: 2010.06.27 @ 04:21:00

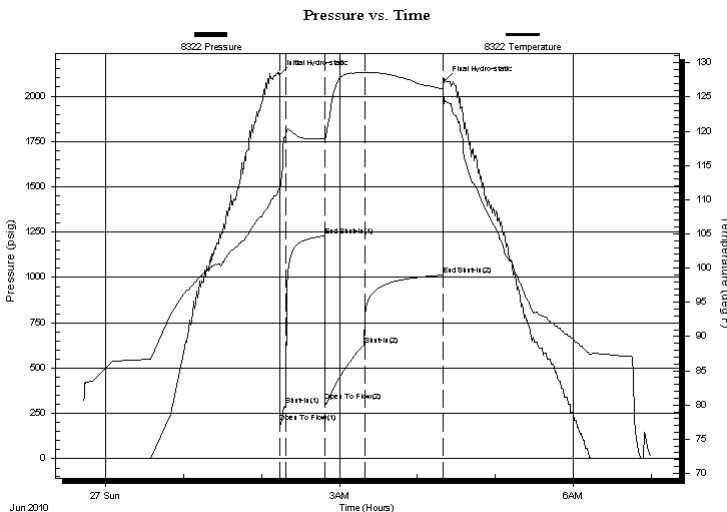
TEST COMMENT: IF:BOB in 1 1/2 mins.

IS: Surface blow for 5 mins.

FF: BOB in 2 mins.

FS: Surface blow for 12 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.78	111.65	Initial Hydro-static
1	199.13	111.32	Open To Flow (1)
5	295.04	119.53	Shut-In(1)
35	1228.66	118.82	End Shut-In(1)
35	318.01	118.55	Open To Flow (2)
66	628.35	128.54	Shut-In(2)
126	1013.06	126.20	End Shut-In(2)
127	2086.17	124.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100%m	0.15
591.00	CW 100%w	7.43
124.00	MCW 80%w 20%m	1.74
375.00	SO&WCM 5%o 35%w 60%m	5.26
90.00	M 100%m	1.26
0.00	GIP = 0	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

FLUID SUMMARY

Mull

Harkness Trust #1-5

1700 N Waterfront PKWY
Wichita, KS 67206

5-17s-23w Ness

Job Ticket: 39178

DST#: 2

ATTN: Phil Askey

Test Start: 2010.06.26 @ 23:43:05

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 61.00 sec/qt

Water Loss: 9.57 in³

Resistivity: 0.00 ohm.m

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

42000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100%m	0.148
591.00	CW 100%w	7.434
124.00	MCW 80%w 20%m	1.739
375.00	SO&WCM 5%o 35%w 60%m	5.260
90.00	M 100%m	1.262
0.00	GIP = 0	0.000
0.00	RW = .165@78F = 42000ppm	0.000

Total Length: 1210.00 ft

Total Volume: 15.843 bbl

Num Fluid Samples: 0

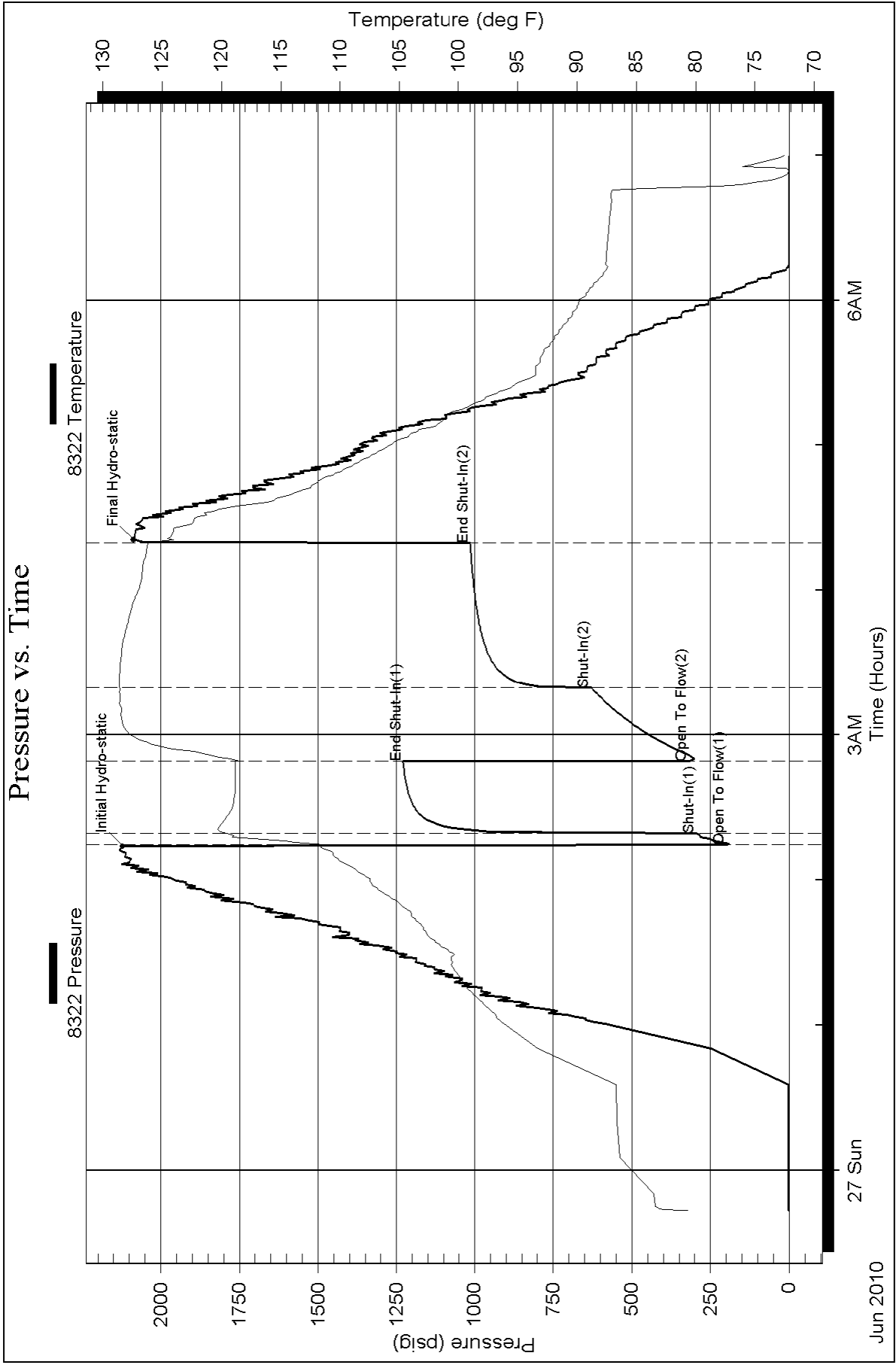
Num Gas Bombs: 0

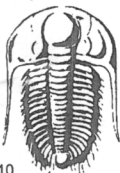
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
JUL 06 2010

Test Ticket

NO. 039177 14443

4/10

BY:

Well Name & No. Harkness Trust #1-5 Test No. 1 Date 6-26-10
Company Mull Elevation 2494 KB 2489 GL
Address 1700 N Waterfront PKWY, Wichita KS 67206
Co. Rep / Geo. Phil Askey Rig WW #10
Location: Sec. 5 Twp. 17S Rge. 23 W Co. Ness State KS

Interval Tested 4400-4450 Zone Tested FT Scott
Anchor Length 50' Drill Pipe Run 4268 Mud Wt. 9.4
Top Packer Depth 4395 Drill Collars Run 124 Vis 59
Bottom Packer Depth 4400 Wt. Pipe Run 0 WL 13.6
Total Depth 4450 Chlorides 7300 ppm System LCM 0

Blow Description IF: Built to 1/4 inch.

IS: No return.

FF: Surface blow for 6 mins.

GIP=0

FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>M w/o spots</u>			<u>100</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 3 BHT 117 Gravity API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2258

(B) First Initial Flow 17

(C) First Final Flow 19

(D) Initial Shut-In 1100

(E) Second Initial Flow 21

(F) Second Final Flow 30

(G) Final Shut-In 377

(H) Final Hydrostatic 2175

Initial Open 5

Initial Shut-In 30

Final Flow 30

Final Shut-In 60

☒ Test 1225

☐ Jars

☐ Safety Joint

☒ Circ Sub N/C

☐ Hourly Standby

☒ Mileage 140 x 1.25 = \$175.00

☐ Sampler

☐ Straddle

☐ Shale Packer

☐ Extra Packer

☐ Extra Recorder

☐ Day Standby

☐ Accessibility

Sub Total 1400

T-On Location 05:10 am

T-Started 05:54 am

T-Open 07:37 am

T-Pulled 09:42 am

T-Out 11:16 am

Comments

☐ Ruined Shale Packer

☐ Ruined Packer

☐ Extra Copies

Sub Total 0

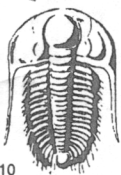
Total 1400

MP/DST Disc't

Approved By Phil Askey

Our Representative [Signature]

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
JUL 06 2010

Test Ticket

NO. 039178

Well Name & No. Harkness Trust #1-5 Test No. 2 Date 8-26-10
Company Mull Elevation 2494 KB 2489 GL
Address 1700 N Waterfront PKWY, Wichita KS 67206
Co. Rep / Geo. Phil Askey Rig WW#10
Location: Sec. 5 Twp. 17s Rge. 23w Co. Ness State KS

Interval Tested 4437-4525 Zone Tested Cherokee Sand
Anchor Length 88' Drill Pipe Run 4308 Mud Wt. 9.2
Top Packer Depth 4432 Drill Collars Run 124 Vis 61
Bottom Packer Depth 4437 Wt. Pipe Run 0 WL 9.6
Total Depth 4525 Chlorides 6000 ppm System LCM Trc

Blow Description IP: BOB in 1 1/2 mins.

IS: Surface blow for 5 mins

FF: BOB in 2 mins.

GIP = 0

PS: Surface blow for 12 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>M</u>			<u>100</u>	<u>0</u>
<u>375</u>	<u>50+WCW</u>		<u>5</u>	<u>35</u>	<u>60</u>
<u>124</u>	<u>MCW</u>			<u>80</u>	<u>20</u>
<u>591</u>	<u>CW</u>			<u>100</u>	<u>0</u>
<u>30</u>	<u>M</u>			<u>100</u>	<u>0</u>

Rec Total 1210 BHT 126 Gravity API RW .165 @ 78 °F Chlorides 42000 ppm

(A) Initial Hydrostatic 2120

(B) First Initial Flow 199

(C) First Final Flow 295

(D) Initial Shut-In 1228

(E) Second Initial Flow 318

(F) Second Final Flow 628

(G) Final Shut-In 1013

(H) Final Hydrostatic 2086

Initial Open 5

Initial Shut-In 30

Final Flow 30

Final Shut-In 60

☒ Test 1225

☒ Jars 250

☒ Safety Joint 75

☒ Circ Sub N/C

☐ Hourly Standby

☒ Mileage 24 x 1.25 = \$30.00

☐ Sampler

☐ Straddle

☐ Shale Packer

☐ Extra Packer

☐ Extra Recorder

☐ Day Standby

☐ Accessibility

Sub Total 1580

T-On Location 23:05 pm

T-Started 23:43 pm

T-Open 02:15 am

T-Pulled 04:20 pm

T-Out 07:00 am

Comments

☐ Ruined Shale Packer

☒ Ruined Packer x1 = \$260.00

☐ Extra Copies

Sub Total 260

Total 1840

MP/DST Disc't

Approved By Phil Askey

Our Representative Brenda Duli

Trilobite Testing Inc. shall not be liable for damaged or destroyed 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.