



DRILL STEM TEST REPORT

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

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Christopher Mitchell

VP #1-30

30-14s-17w Ellis,KS

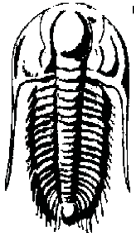
Start Date: 2013.04.10 @ 04:35:05

End Date: 2013.04.10 @ 13:42:50

Job Ticket #: 50950 DST #: 2

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

Printed: 2013.04.16 @ 13:21:56



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates Inc

30-14s-17w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

VP #1-30

Job Ticket: 50950

DST#: 2

ATTN: Christopher Mitchell

Test Start: 2013.04.10 @ 04:35:05

GENERAL INFORMATION:

Formation: **Lan I-K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:34:05

Time Test Ended: 13:42:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Chris Staats

Unit No: 47

Interval: 3388.00 ft (KB) To 3440.00 ft (KB) (TVD)

Reference Elevations: 1946.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

1941.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6755

Inside

Press@RunDepth: 65.52 psig @ 3389.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.10

End Date: 2013.04.10

Last Calib.: 2013.04.10

Start Time: 04:35:10

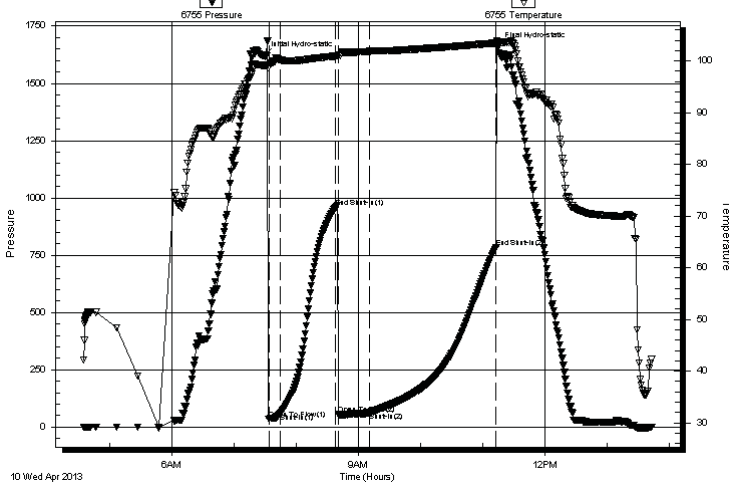
End Time: 13:42:50

Time On Btm: 2013.04.10 @ 07:29:20

Time Off Btm: 2013.04.10 @ 11:13:50

TEST COMMENT: IF: Weak blow 2"
IS: No blow back
FF: Weak blow 4"
FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1620.04	99.14	Initial Hydro-static
5	35.98	99.00	Open To Flow (1)
15	60.55	100.20	Shut-In(1)
69	960.02	100.95	End Shut-In(1)
71	55.73	100.93	Open To Flow (2)
102	65.52	101.89	Shut-In(2)
224	785.13	103.47	End Shut-In(2)
225	1660.97	103.68	Final Hydro-static

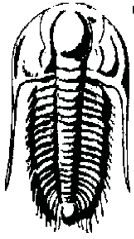
Recovery

Length (ft)	Description	Volume (bbl)
50.00	MUD	0.70

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates Inc

30-14s-17w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

VP #1-30

Job Ticket: 50950

DST#: 2

ATTN: Christopher Mitchell

Test Start: 2013.04.10 @ 04:35:05

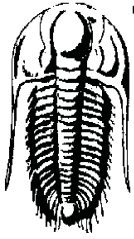
Tool Information

Drill Pipe:	Length: 3375.00 ft	Diameter: 3.80 inches	Volume: 47.34 bbl	Tool Weight: 2200.00 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: 52000.00 lb
			<u>Total Volume: 47.34 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3388.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	4.00			3356.00	
Change Over Sub	1.00			3357.00	
Shut In Tool	5.00			3362.00	
Sampler	3.00			3365.00	
Hydraulic tool	5.00			3370.00	
Jars	5.00			3375.00	
Safety Joint	3.00			3378.00	
Packer	5.00			3383.00	36.00 Bottom Of Top Packer
Packer	5.00			3388.00	
Stubb	1.00			3389.00	
Recorder	0.00	6773	Outside	3389.00	
Recorder	0.00	6755	Inside	3389.00	
Change Over Sub	0.50			3389.50	
Drill Pipe	31.00			3420.50	
Change Over Sub	0.50			3421.00	
Perforations	16.00			3437.00	
Bullnose	3.00			3440.00	52.00 Bottom Packers & Anchor
Total Tool Length:	88.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates Inc

30-14s-17w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

VP #1-30

Job Ticket: 50950

DST#: 2

ATTN: Christopher Mitchell

Test Start: 2013.04.10 @ 04:35:05

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8600.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	MUD	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

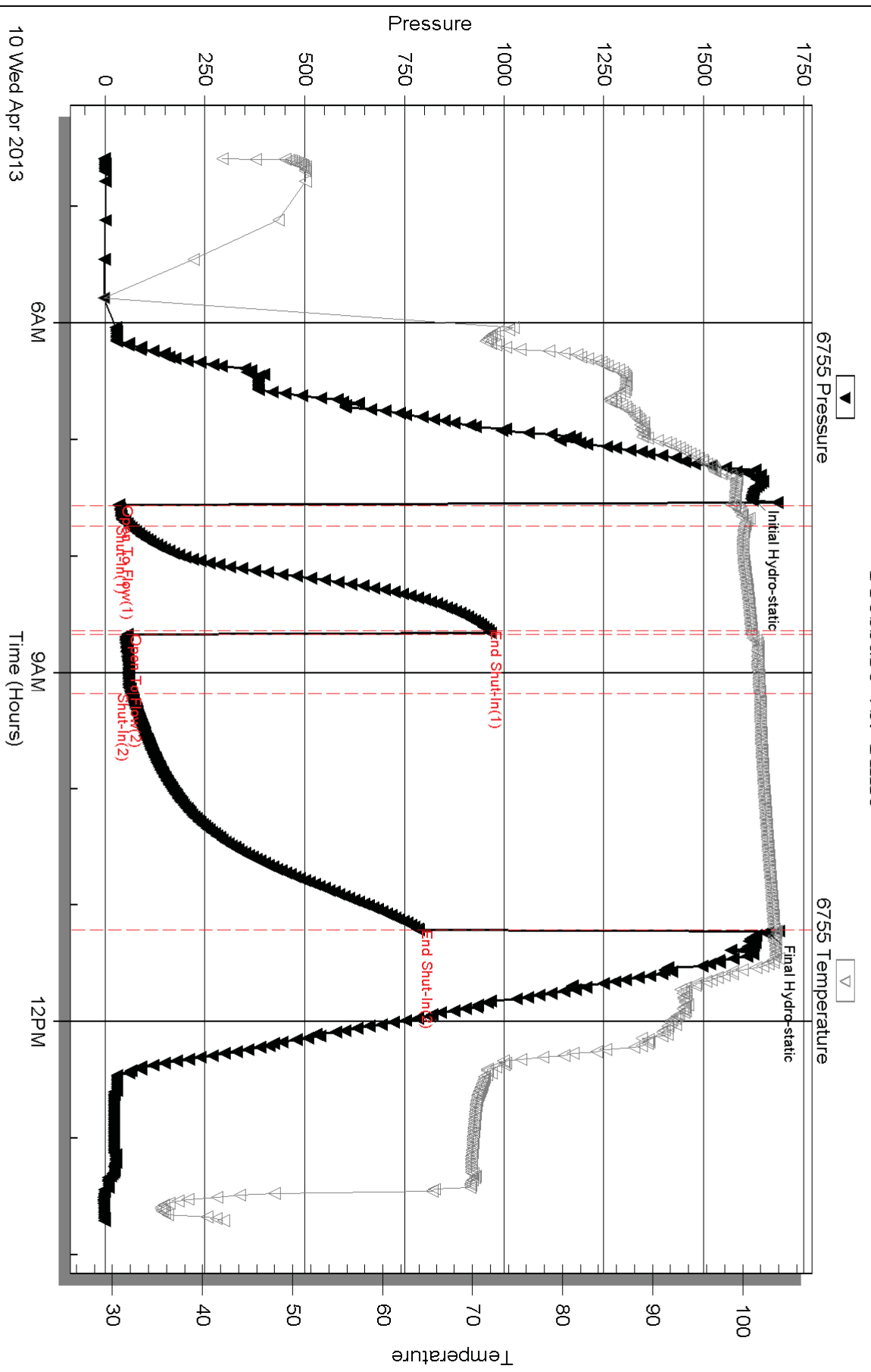
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler 100# Pressure
50 Milleters of MUD

Pressure vs. Time



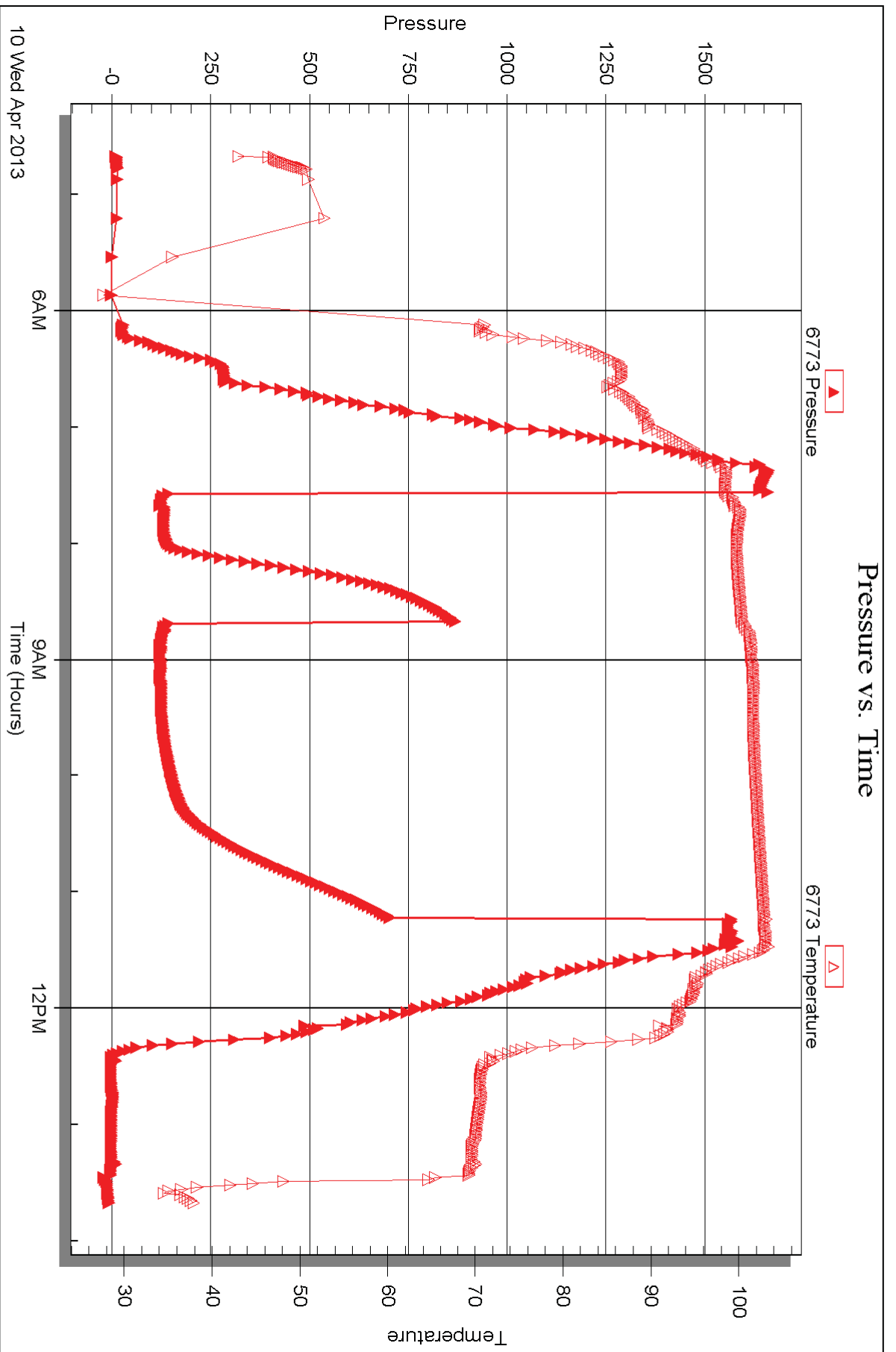
Serial #: 6773

Outside

Samuel Gary Jr & Associates Inc

VP#1-30

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50949

Well Name & No. VP #1-30 Test No. 1 Date 4-9-13
 Company Sam Gary JR & Associates INC Elevation 1946 KB 1941 GL
 Address 1515 WYN KOOP STE 700 DENVER CO 80202
 Co. Rep / Geo. Christopher Mitchell Rig Val #6
 Location: Sec. 30 Twp. 14 Rge. 17 Co. ELLIS State KS

Interval Tested 3235 - 3285 Zone Tested Lansing C, D
 Anchor Length 50' Drill Pipe Run 3220 Mud Wt. 9.0
 Top Packer Depth 3230 Drill Collars Run 0 Vis 45
 Bottom Packer Depth 3235 Wt. Pipe Run 0 WL 8.0
 Total Depth 3285 Chlorides 5200 ppm System LCM 0

Blow Description Weak blow 3 1/2"
ISI: NO blow back
FF: Fair blow 5"
F.SI NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>80'</u>	Feet of <u>0, W, M</u>	%gas <u>1</u>	%oil <u>39</u>	%water <u>60</u>	%mud
Rec <u>Sampler</u>	Feet of <u>200# pressure</u>	%gas	%oil	%water	%mud
Rec	Feet of <u>200 Mill OF FLUID</u>	%gas	%oil <u>40</u>	%water <u>60</u>	%mud
Rec	Feet of <u>⊙</u>	%gas	%oil	%water	%mud

Rec Total 80 BHT 100 Gravity — API RW .23 @ 41 °F Chlorides 65,000 ppm

(A) Initial Hydrostatic 1535 Test 1150 T-On Location 1:20
 (B) First Initial Flow 35 Jars 250 T-Started 1:49
 (C) First Final Flow 60 Safety Joint 75 T-Open 5:07
 (D) Initial Shut-In 563 Circ Sub _____ T-Pulled 8:45
 (E) Second Initial Flow 50 Hourly Standby _____ T-Out 11:10
 (F) Second Final Flow 72 Mileage ~~216 miles~~ 14rt 21.70 Comments _____
 (G) Final Shut-In 526 Sampler 250 _____
 (H) Final Hydrostatic 1550 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 5
 Initial Shut-In 60 Extra Recorder 200 Sub Total 0
 Final Flow 30 Day Standby _____ Total 1946.70
 Final Shut-In 120 Accessibility _____ MP/DST Disc't _____
 Sub Total 1946.70

Approved By _____ Our Representative Chris

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. 50950

Well Name & No. VP # 1-30 Test No. 2 Date 4-10-13
 Company Sam Gary SR & Associates INC Elevation 1946 KB 1941 GL
 Address 1515 WYN KOOP STE 700 DENVER CO 80202
 Co. Rep / Geo. Christopher Mitchell Rig Vec 1 #6
 Location: Sec. 30 Twp. 14 Rge. 17 Co. Ellis State KS

Interval Tested 3388 - 3440 Zone Tested Lan I-K
 Anchor Length 5.2' Drill Pipe Run 3375 Mud Wt. 4.0
 Top Packer Depth 3383 Drill Collars Run 0 Vis 58
 Bottom Packer Depth 3388 Wt. Pipe Run 0 WL 8.8
 Total Depth 3440 Chlorides 8,600 ppm System LCM 0

Blow Description FP: Weak blow 2"
ISI: NO blow back
FP: Weak blow 4"
FSI: NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>50'</u>	Feet of <u>MUD</u>				
Rec	Feet of <u>Sampler 100# pressure</u>				
Rec	Feet of <u>50 millietous MUD</u>				
Rec	Feet of				

Rec Total 50 BHT 102 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 16.20 Test 1150 T-On Location 4:20
 (B) First Initial Flow 35 Jars 250 T-Started 4:35
 (C) First Final Flow 60 Safety Joint 75 T-Open 7:34
 (D) Initial Shut-In 960 Circ Sub T-Pulled 11:10
 (E) Second Initial Flow 55 Hourly Standby T-Out 13:35
 (F) Second Final Flow 65 Mileage 30 miles 21.70 Comments _____
 (G) Final Shut-In 785 Sampler 250 _____
 (H) Final Hydrostatic 1660 Straddle _____

Initial Open 10 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 12 Day Standby _____
 Accessibility _____
 Sub Total 1746.70 MP/DST Disc't _____

Approved By _____ Our Representative Chris Stead

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.