



DRILL STEM TEST REPORT

Prepared For: **Mike Kelso Oil Inc**

PO Box 467
Chase KS 67524+0467

ATTN: Mike Kelso

FHW-Wierman #15-1

15-17s-21w Ness,KS

Start Date: 2016.09.27 @ 18:08:00

End Date: 2016.09.28 @ 00:00:00

Job Ticket #: 63481 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.09.29 @ 13:50:20



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mika Kelso Oil Inc
PO Box 467
Chase KS 67524+0467
ATTN: Mika Kelso

15-17s-21w Ness, KS
FHW-Wierman #15-1
Job Ticket: 63481 DST#: 2
Test Start: 2016.09.27 @ 18:08:00

GENERAL INFORMATION:

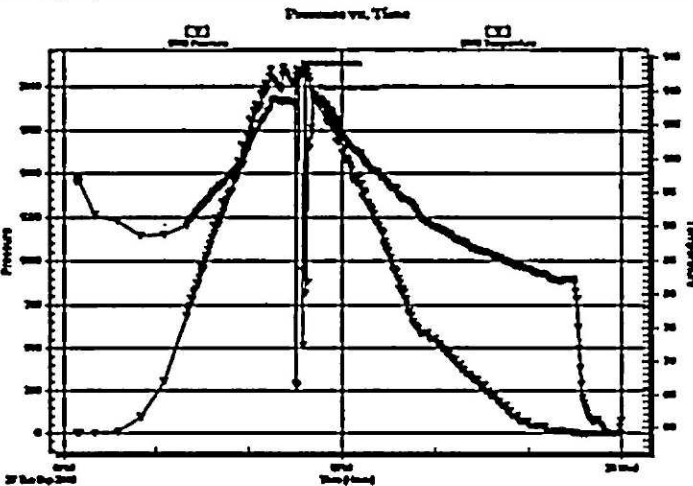
Formation: Cherokee Sand 'B'
Deviated: No Whipstock ft (KB)
Time Tool Opened:
Time Test Ended: 00:00:00
Interval: 4118.00 ft (KB) To 4148.00 ft (KB) (TVD)
Total Depth: 4148.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2210.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8938 Inside
Press@RunDepth: psig @ 4123.00 ft (KB)
Start Date: 2016.09.27 End Date:
Start Time: 18:08:15 End Time:

Capacity: 8000.00 psig
Last Calib.: 2016.09.28
Time On Btmt: 2016.09.27 @ 20:30:15
Time Off Btmt: 2016.09.27 @ 20:41:30

TEST COMMENT: FP - Packer Failure



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2068.88	108.34	Initial Hydro-static
12	1929.97	109.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1200.00	M 100% M with oil specs in tool	13.75

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mike Kelso Oil Inc
PO Box 467
Chase KS 67524+0467
ATTN: Mike Kelso

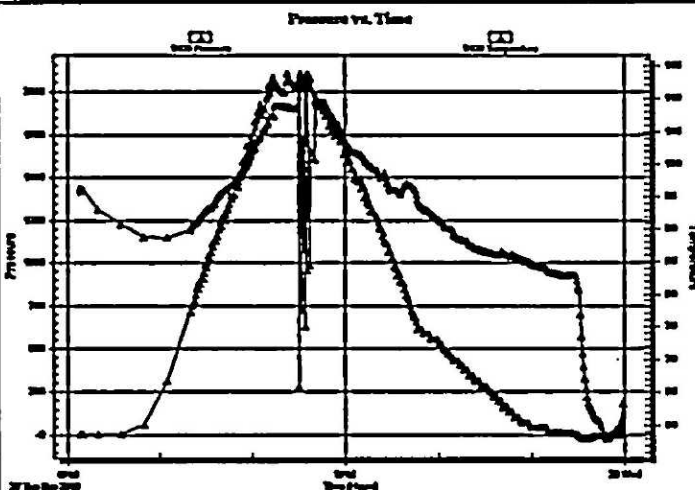
15-17s-21w Ness, KS
FHW-Wierman #15-1
Job Ticket: 63481 DST#: 2
Test Start: 2016.09.27 @ 18:08:00

GENERAL INFORMATION:

Formation: Cherokee Sand 'B'
Deviated: No Whipstock ft (KB)
Time Tool Opened:
Time Test Ended: 00:00:00
Interval: 4118.00 ft (KB) To 4148.00 ft (KB) (TVD)
Total Depth: 4148.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2210.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 9120 Outside
Press@RunDepth: psig @ 4123.00 ft (KB)
Start Date: 2016.09.27 End Date: 2016.09.27
Start Time: 18:08:15 End Time: 23:59:30
Capacity: 8000.00 psig
Last Calib.: 2016.09.28
Time On Bttr
Time Off Bttr

TEST COMMENT: FP- Packer Failure



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
1200.00	M 100% Mw th oil specs in tool	13.75

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mike Kelso Oil Inc
PO Box 467
Chase KS 67524+0467
ATTN: Mike Kelso

15-17s-21w Ness,KS
FHW-Wierman #15-1
Job Ticket: 63481 **DST#: 2**
Test Start: 2016.09.27 @ 18:08:00

Tool Information

Drill Pipe:	Length: 3688.00 ft	Diameter: 3.82 inches	Volume: 52.28 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 460.00 ft	Diameter: 2.70 inches	Volume: 3.26 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 55.54 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	54.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4118.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4095.00	
Shut In Tool	5.00			4100.00	
Hydraulic tool	5.00			4105.00	
Jars	5.00			4110.00	
Safety Joint	3.00			4113.00	
Packer	5.00			4118.00	24.00 Bottom Of Top Packer
Packer - Shale	4.00			4122.00	
Stubb	1.00			4123.00	
Recorder	0.00	9120	Outside	4123.00	
Recorder	0.00	8938	Inside	4123.00	
Perforations	25.00			4148.00	
Bullnose	4.00			4152.00	34.00 Anchor Tool

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mike Kelso Oil Inc
PO Box 467
Chase KS 67524+0467
ATTN: Mike Kelso

15-17s-21w Ness,KS
FHW-Wierman #15-1
Job Ticket: 63481 DST#:2
Test Start: 2016.09.27 @ 18:08:00

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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: 4000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1200.00	M 100% M with oil specs in tool	13.747

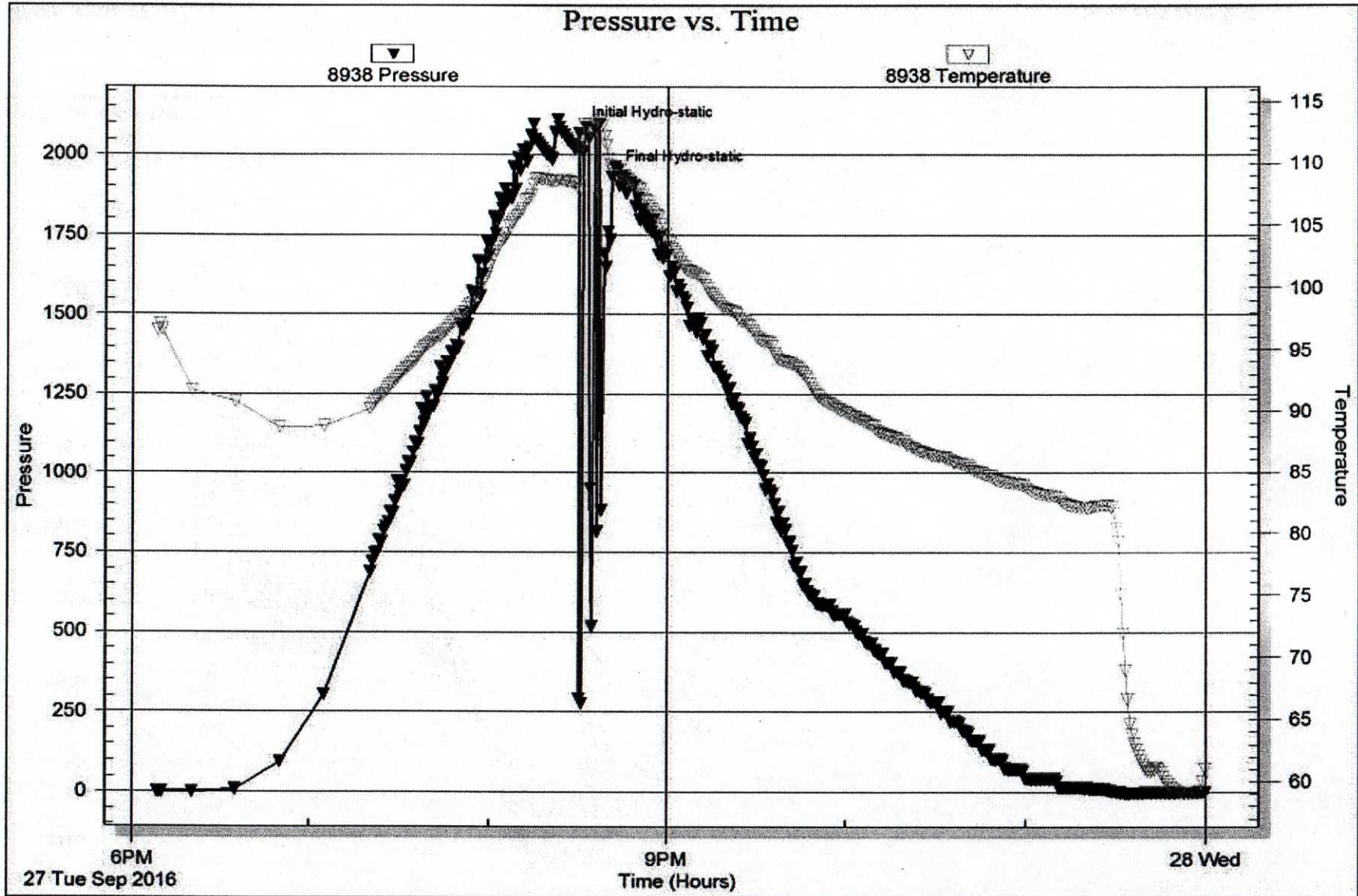
Total Length: 1200.00ft Total Volume: 13.747 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8938

Inside Mke Kelso Oil Inc

FHW-Wierman #15-1

DST Test Number: 2

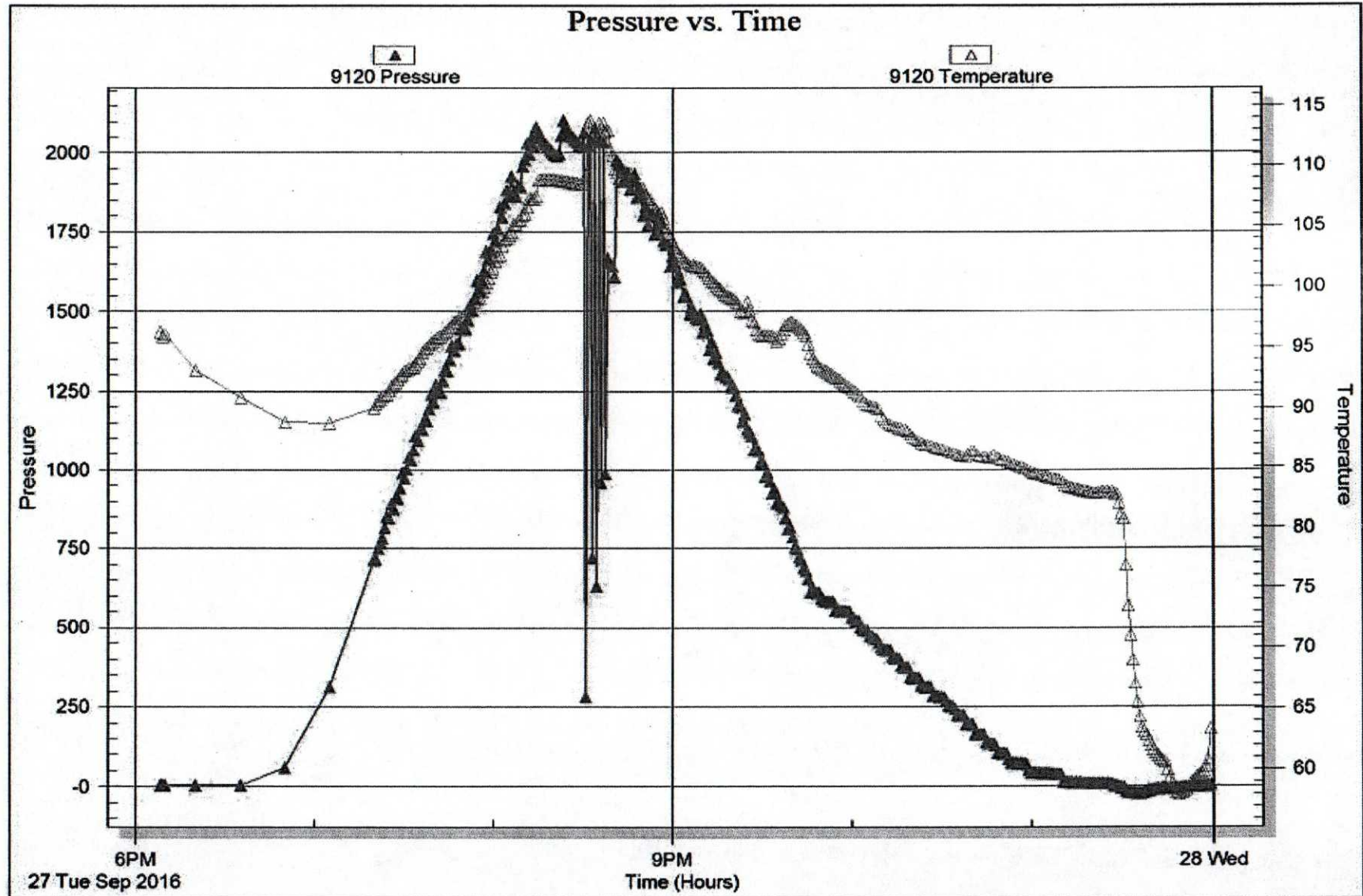


Serial #: 9120

Outside Mike Kelso Oil Inc

FHW-Wierman #15-1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63481

Well Name & No. F.H.W. - Wierman #15-1 Test No. 2 Date 09/26/2016
 Company Mike Kelso Oil Inc Elevation 2210 KB 2205 GL
 Address PO BOX 467 Chase KS 67524+0467
 Co. Rep / Geo. Sean D / Mike Kelso Rig Skytop #1
 Location: Sec. 15 Twp. 17 Rge. 21 Co. Ness State KS

Interval Tested 4118 - 4148 Zone Tested Cherokee Sand 'B'
 Anchor Length 30 Drill Pipe Run 3688 Mud Wt. 9.4
 Top Packer Depth 4113 Drill Collars Run — Vis 49
 Bottom Packer Depth 4118 Wt. Pipe Run 460 WL 9.2
 Total Depth 4148 Chlorides 4000 ppm System LCM 1#

Blow Description IF - Packer Failure
IST —
FF —
FST —

Rec	Feet of	%gas	%oil	%water	%mud
<u>1200</u>	<u>Mud</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 1200 BHT 113° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2069</u>	<input checked="" type="checkbox"/> Test <u>950</u>	T-On Location <u>15:25</u>
(B) First Initial Flow <u>—</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:08</u>
(C) First Final Flow <u>—</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:10</u>
(D) Initial Shut-In <u>—</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>20:15</u>
(E) Second Initial Flow <u>—</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>00:00 09/28/2016</u>
(F) Second Final Flow <u>—</u>	<input checked="" type="checkbox"/> Mileage <u>84 RT 63</u>	Comments <u>tried resetting packer 5 times</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1930</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open Packer Failure Shale Packer 250 Ruined Packer
 Initial Shut-In — Extra Packer Extra Copies
 Final Flow — Extra Recorder Sub Total 0
 Final Shut-In — Day Standby Total 1588
 Accessibility MP/DST Disc't
 Sub Total 1588

Approved By _____ Our Representative Spencer J. Stueb

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.