



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1137274
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1137274

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

May 01, 2013

Leon Rodak
Murfin Drilling Co., Inc.
250 N WATER STE 300
WICHITA, KS 67202-1216

Re: ACO1
API 15-023-21355-00-00
Jones 1-12
SW/4 Sec.12-01S-38W
Cheyenne County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Leon Rodak

MDCI Jones #1-12 1350' FSL 1500' FWL Sec. 12-T1S-R38W 3175' KB							MDCI Shones Unit #1-5 2600' FSL 660' FEL Sec. 5-T1S-R37W 3177' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	3140	+35	Flat	3145	+30	-5	3142	+35
B/Anhydrite	3178	-3	-4	3178	-3	-4	3176	+1
Neva	3594	-419	Flat	3595	-420	-1	3596	-419
Red Eagle	3661	-486	-2	3663	-488	-4	3661	-484
Foraker	3716	-541	-11	3718	-543	-13	3707	-530
Stotler	3850	-675	-1	3859	-684	-10	3851	-674
Topeka	3932	-757	-9	3937	-762	-14	3925	-748
Oread	4076	-901	-18	4073	-898	-15	4060	-883
Lansing	4145	-970	-9	4147	-972	-11	4138	-961
Stark	4347	-1199	-19	4376	-1201	-21	4357	-1180
BKC	4434	-1259	-22	4432	-1257	-20	4414	-1237
Pawnee	4550	-1375	-22	4553	-1378	-25	4530	-1353
Cherokee	4640	-1465	-23	4643	-1468	-26	4619	-1442
Mississippi	NR						4870	-1693
RTD	4725						4955	
LTD				4727			4960	

Jeff Christian

PETROLEUM GEOLOGIST

WICHITA FALLS, TEXAS

GEOLOGISTS' REPORT
 DRILLING TIME AND SAMPLE LOG

OPERATOR: **MURFIN DRILLING COMPANY**
 LEASE: **JONES # 1-12**
 LOCATION: **1390' FSI & 1800' FWL**

SEC: **12** TWP: **1 S** RANG: **38 W**
 COUNTY: **CHEYENNE** STATE: **KANSAS**

API FIELD: **WLDLCAT**
 15-02-23-21355

CONTRACTOR: **COMPANY TOOLS** RING NO. **14**
 DRILLING STARTED: **01/08/2013** COMPLETED: **01/18/2013**
 MUD DISPLAYED: **3302** MUD TYPE: **CHEMICAL**
 DRILLING TIME KEPT FROM: **3400'** TO RTD
 SAMPLES SAVED FROM: **3400'** TO RTD
 SAMPLES SKIPPED FROM: **3400'** TO RTD
 GEOLOGICAL SUPERVISION FROM: **3385'** TO RTD

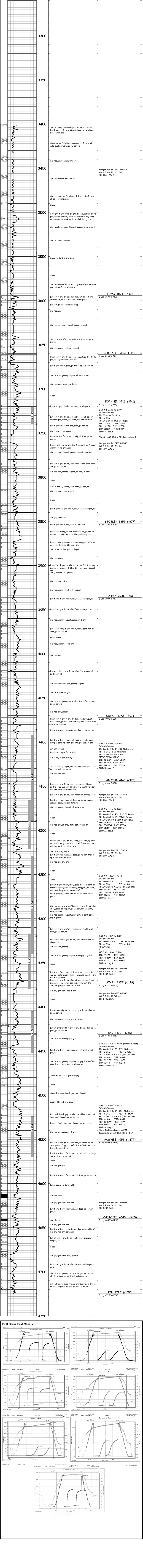
MEASUREMENTS:
 CASING RECORD
 SURFACE: **5.50 @ 23'**
 W/253: **5X**
 CONDUCTOR: **NONE**
 PRODUCTION: **NONE**

FORMATION NAME LOG SAMPLE DATE
 ANHYDRITE 3144' (-31) 3145' (-30)
 NEVA 3594' (-49) 3594' (-49)
 FORAKER 3718' (-54) 3716' (-54)
 TOPEKA 3937' (-76) 3932' (-76)
 LANSING 4146' (-97) 4145' (-97)
 STARK 4375' (-120) 4374' (-119)
 BKC 4432' (-127) 4434' (-125)
 PAWNEE 4553' (-137) 4550' (-137)
 CHEROKEE 4643' (-148) 4640' (-146)
 TOTAL DEPTH: 4727' (-152) 4725' (-150)

FORMATION NAME	LOG	SAMPLE DATE
ANHYDRITE	3144' (-31) 3145' (-30)	
NEVA	3594' (-49) 3594' (-49)	
FORAKER	3718' (-54) 3716' (-54)	
TOPEKA	3937' (-76) 3932' (-76)	
LANSING	4146' (-97) 4145' (-97)	
STARK	4375' (-120) 4374' (-119)	
BKC	4432' (-127) 4434' (-125)	
PAWNEE	4553' (-137) 4550' (-137)	
CHEROKEE	4643' (-148) 4640' (-146)	
TOTAL DEPTH	4727' (-152) 4725' (-150)	

DATE	7:00 AM DEPTH	REMARKS
1-8-13	MIRT	SPUD @ 8:00 pm
1-9-13	225'	WOC dev. 1/2 deg.
1-10-13	2175'	DRLG.
1-11-13	3380'	DRLG.
1-12-13	3740'	OB w/ DST # 1
1-13-13	4086'	DRLG.
1-14-13	4221'	TOH for DST # 3 dev. 2 deg.
1-15-13	4340'	TOH for DST # 4
1-16-13	4380'	TOH after DST # 5
1-17-13	4550'	TOH after DST # 6 RTD 4725' @ 5:00 pm dev. 2 deg.
1-18-13	4725'	Finish Lagging 4:00 am; DST 7 (straddle); P&A

Remarks
 All sample shows of free oil were drill stem tested and condemned in the Jones # 1-12.
 Electric log measurements correlate about 1' to 2' deep compared to rotary measurements.
 Sample tops adjusted to the electric log.
 Samples deposited at the Kansas Geological Survey.
 Respectfully Submitted,
Jeff Christian
 Jeff Christian





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.12 @ 02:35:00

End Date: 2013.01.12 @ 09:45:00

Job Ticket #: 48031 DST #: 1

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

Printed: 2013.01.21 @ 10:15:39



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48031

DST#: 1

ATTN: Jeff Christian

Test Start: 2013.01.12 @ 02:35:00

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:39:30

Time Test Ended: 09:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 3720.00 ft (KB) To 3740.00 ft (KB) (TVD)

Reference Elevations: 3175.00 ft (KB)

Total Depth: 3740.00 ft (KB) (TVD)

3165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8791 Inside

Press @ Run Depth: 24.77 psig @ 3721.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.12

End Date:

2013.01.12

Last Calib.:

2013.01.12

Start Time: 02:35:01

End Time:

09:45:00

Time On Btm:

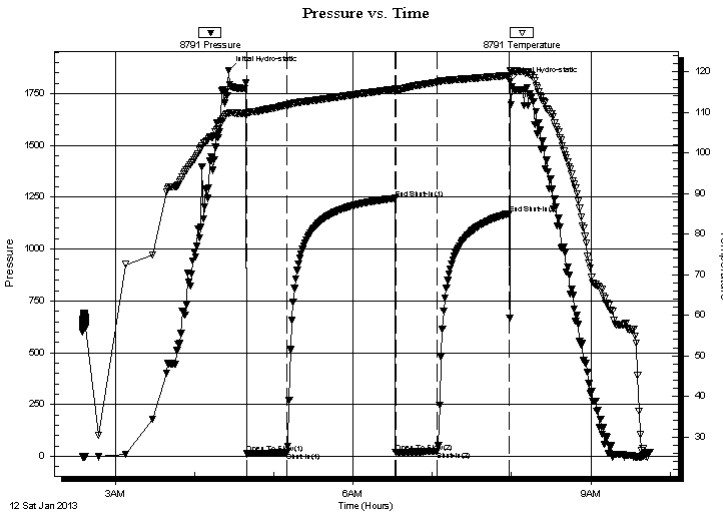
2013.01.12 @ 04:25:30

Time Off Btm:

2013.01.12 @ 07:59:00

TEST COMMENT: IF: Weak surface blow, Over 30 mins.
IS: No blow back over 60 mins.
FF: No blow over 30 mins.
FS: No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1862.24	109.62	Initial Hydro-static
14	12.73	109.53	Open To Flow (1)
44	17.99	111.76	Shut-In(1)
126	1244.51	115.71	End Shut-In(1)
127	19.16	115.23	Open To Flow (2)
158	24.77	117.42	Shut-In(2)
213	1171.67	119.10	End Shut-In(2)
214	1809.34	120.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud w ith oil specs	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48031

DST#: 1

ATTN: Jeff Christian

Test Start: 2013.01.12 @ 02:35:00

Tool Information

Drill Pipe:	Length: 3172.00 ft	Diameter: 3.80 inches	Volume: 44.49 bbl	Tool Weight:	2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 47.10 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	3720.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	20.00 ft				
Tool Length:	48.00 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			3697.00	
Hydraulic tool	5.00			3702.00	
Jars	5.00			3707.00	
Safety Joint	3.00			3710.00	
Packer	5.00			3715.00	28.00 Bottom Of Top Packer
Packer	5.00			3720.00	
Stubb	1.00			3721.00	
Recorder	0.00	8791	Inside	3721.00	
Recorder	0.00	8651	Outside	3721.00	
Perforations	16.00			3737.00	
Bullnose	3.00			3740.00	20.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48031

DST#: 1

ATTN: Jeff Christian

Test Start: 2013.01.12 @ 02:35:00

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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud w ith oil specs	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

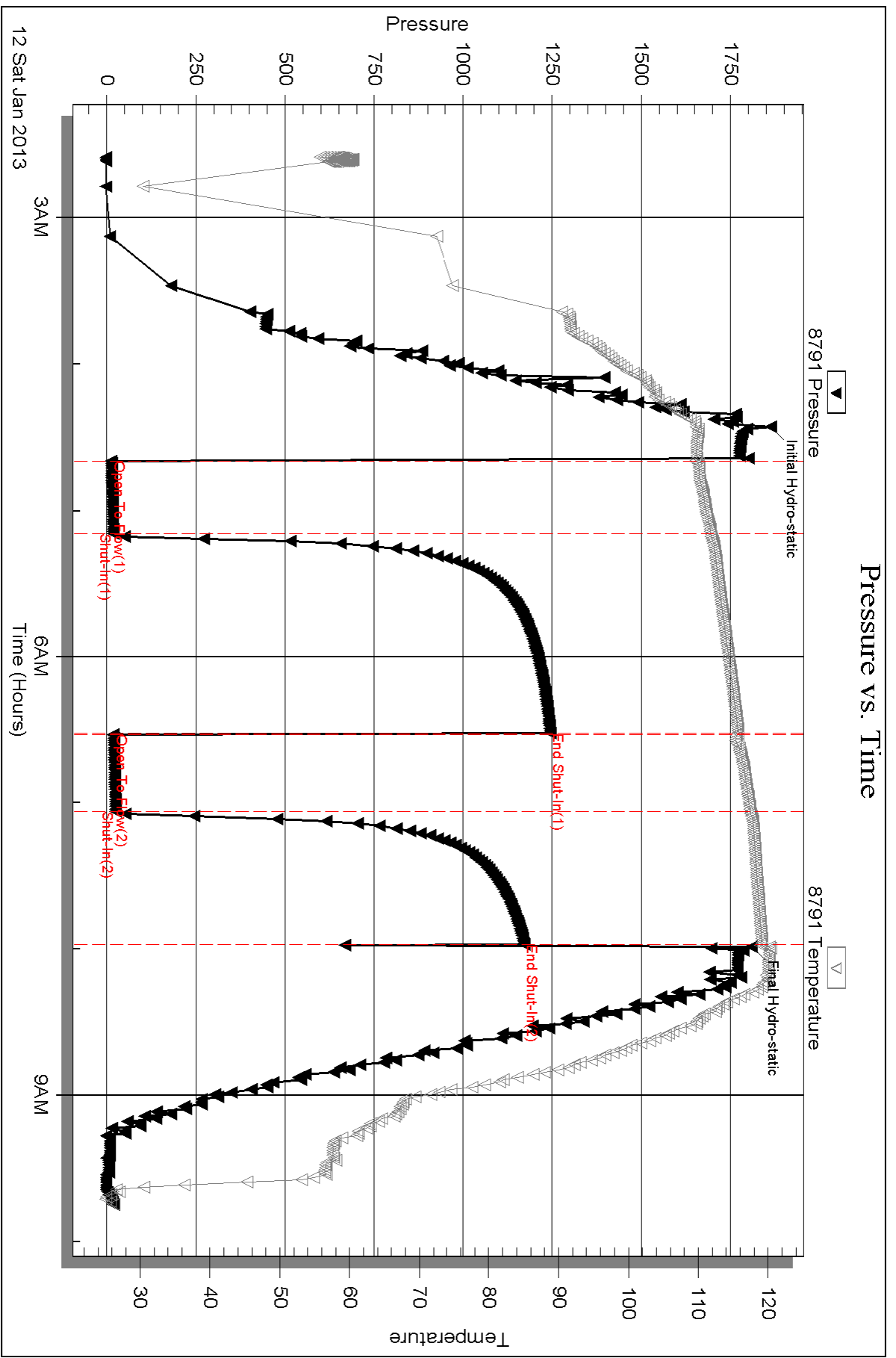
Serial #: 8791

Inside

Murfin Drilling Co.

Jones #1-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48031

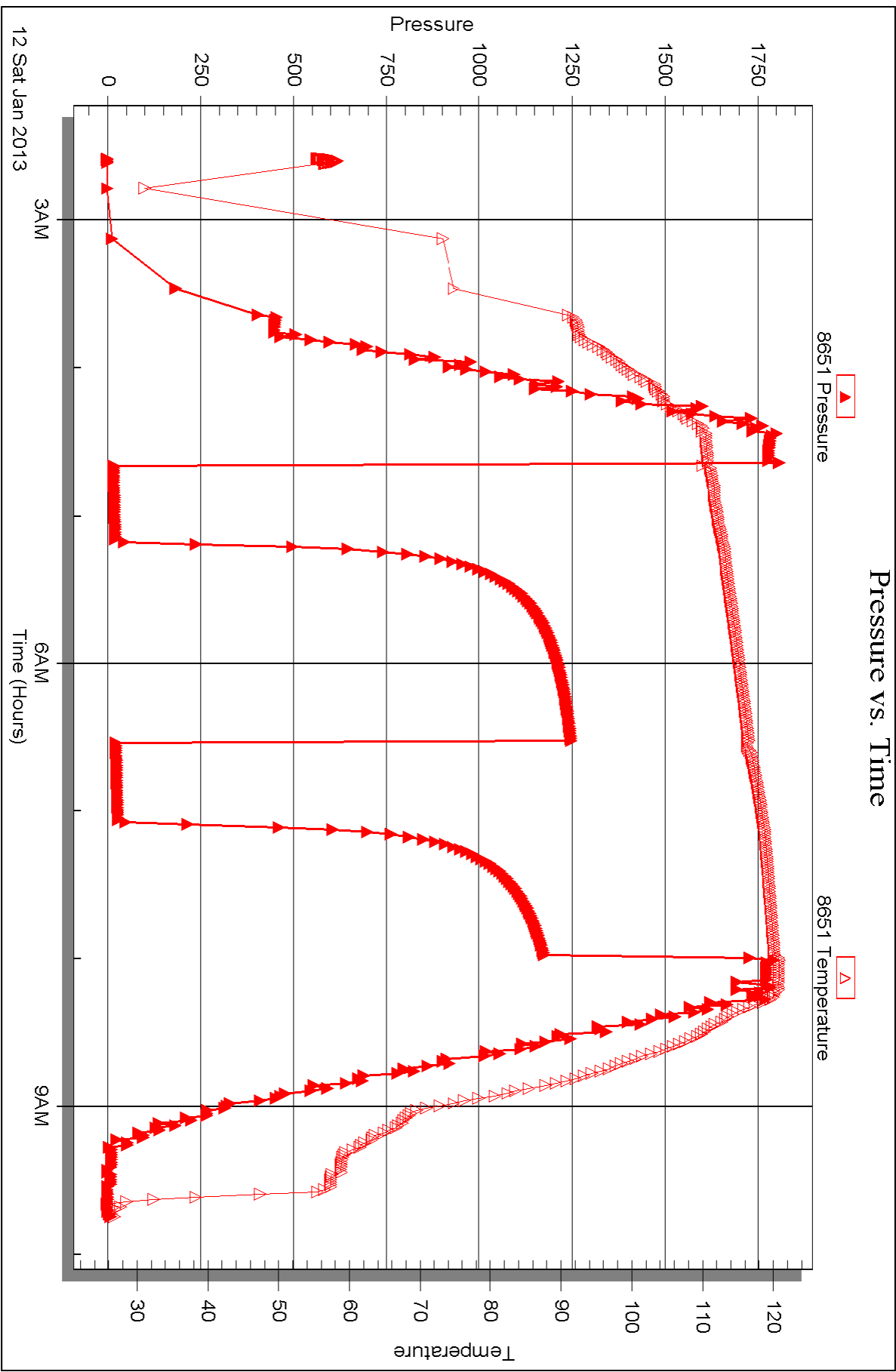
Printed: 2013.01.21 @ 10:15:41

Serial #: 8651

Outside Murfin Drilling Co.

Jones #1-12

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.13 @ 16:45:00

End Date: 2013.01.13 @ 23:38:30

Job Ticket #: 48033 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 10:14:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 2

ATTN: Jeff Christian

Test Start: 2013.01.13 @ 16:45:00

GENERAL INFORMATION:

Formation: **Oread-LKC-A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:41:30

Time Test Ended: 23:38:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4092.00 ft (KB) To 4189.00 ft (KB) (TVD)

Reference Elevations: 3175.00 ft (KB)

Total Depth: 4189.00 ft (KB) (TVD)

3165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 43.53 psig @ 4093.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.13

End Date:

2013.01.13

Last Calib.:

2013.01.13

Start Time: 16:45:01

End Time:

23:38:30

Time On Btm:

2013.01.13 @ 18:40:30

Time Off Btm:

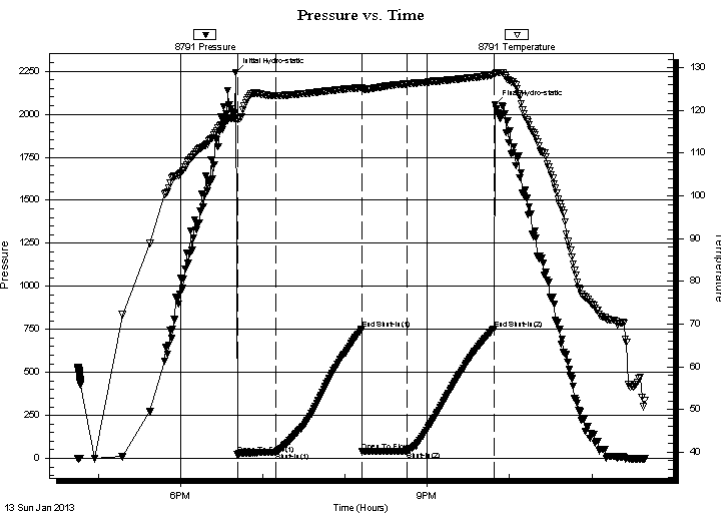
2013.01.13 @ 21:49:30

TEST COMMENT: IF: Weak blow, 4" over 30 mins.

ISI: No blow back

FF: No blow.

FSI: No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2242.90	118.37	Initial Hydro-static
1	21.76	117.94	Open To Flow (1)
29	36.76	123.43	Shut-In(1)
92	751.26	125.35	End Shut-In(1)
92	42.39	125.11	Open To Flow (2)
125	43.53	126.24	Shut-In(2)
188	752.57	128.36	End Shut-In(2)
189	2057.18	128.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	ocmw -40%o40%m20%w	0.30

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 2

ATTN: Jeff Christian

Test Start: 2013.01.13 @ 16:45:00

Tool Information

Drill Pipe:	Length: 3553.00 ft	Diameter: 3.80 inches	Volume: 49.84 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 52.45 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4092.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	125.00 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			4069.00	
Hydraulic tool	5.00			4074.00	
Jars	5.00			4079.00	
Safety Joint	3.00			4082.00	
Packer	5.00			4087.00	28.00 Bottom Of Top Packer
Packer	5.00			4092.00	
Stubb	1.00			4093.00	
Recorder	0.00	8791	Inside	4093.00	
Recorder	0.00	8651	Outside	4093.00	
Perforations	3.00			4096.00	
change Over Sub	1.00			4097.00	
Drill Pipe	63.00			4160.00	
Change Over Sub	1.00			4161.00	
Perforations	25.00			4186.00	
Bullnose	3.00			4189.00	97.00 Bottom Packers & Anchor

Total Tool Length: 125.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 2

ATTN: Jeff Christian

Test Start: 2013.01.13 @ 16:45:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	ocmw -40%o40%m20%w	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

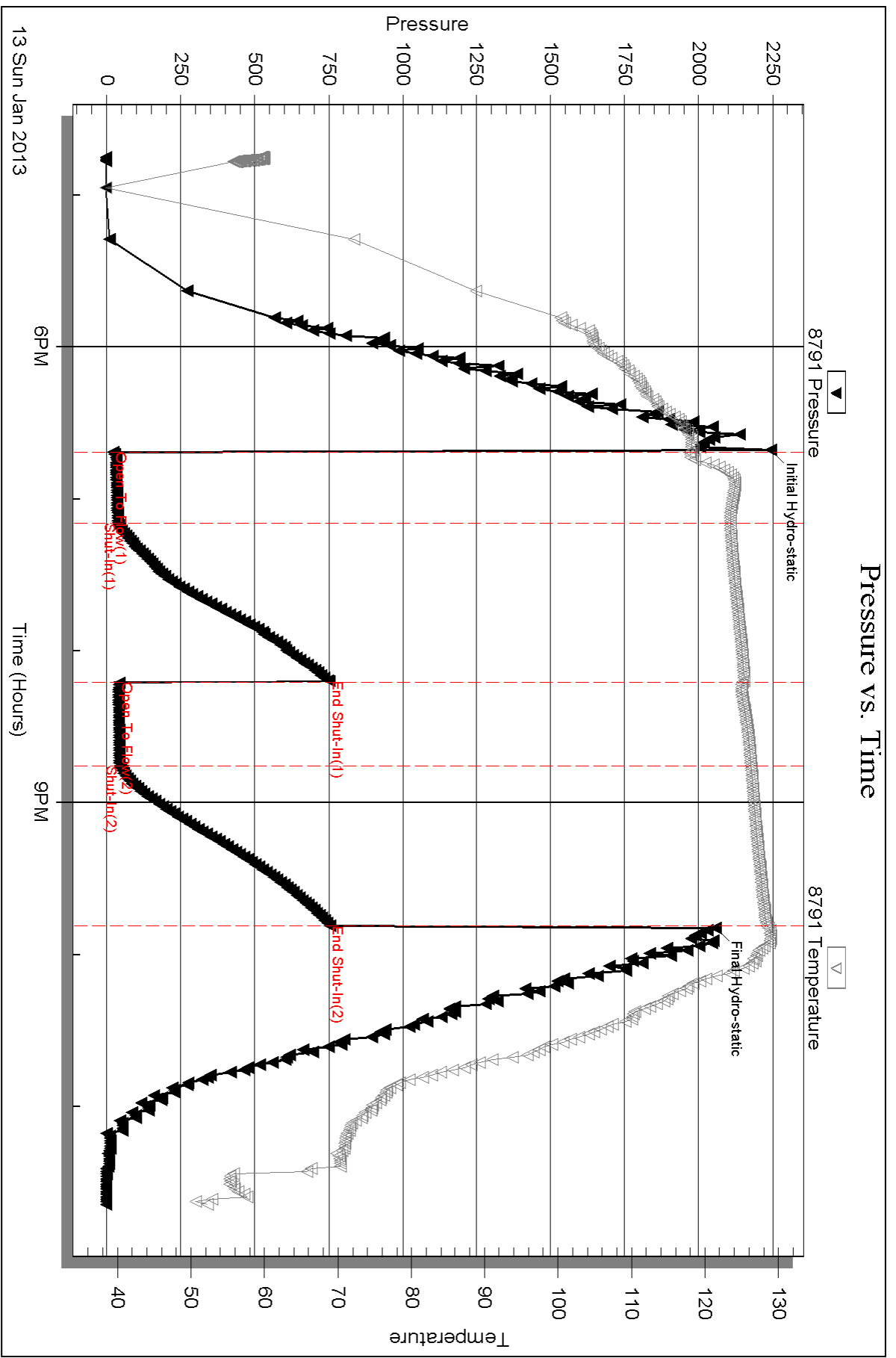
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

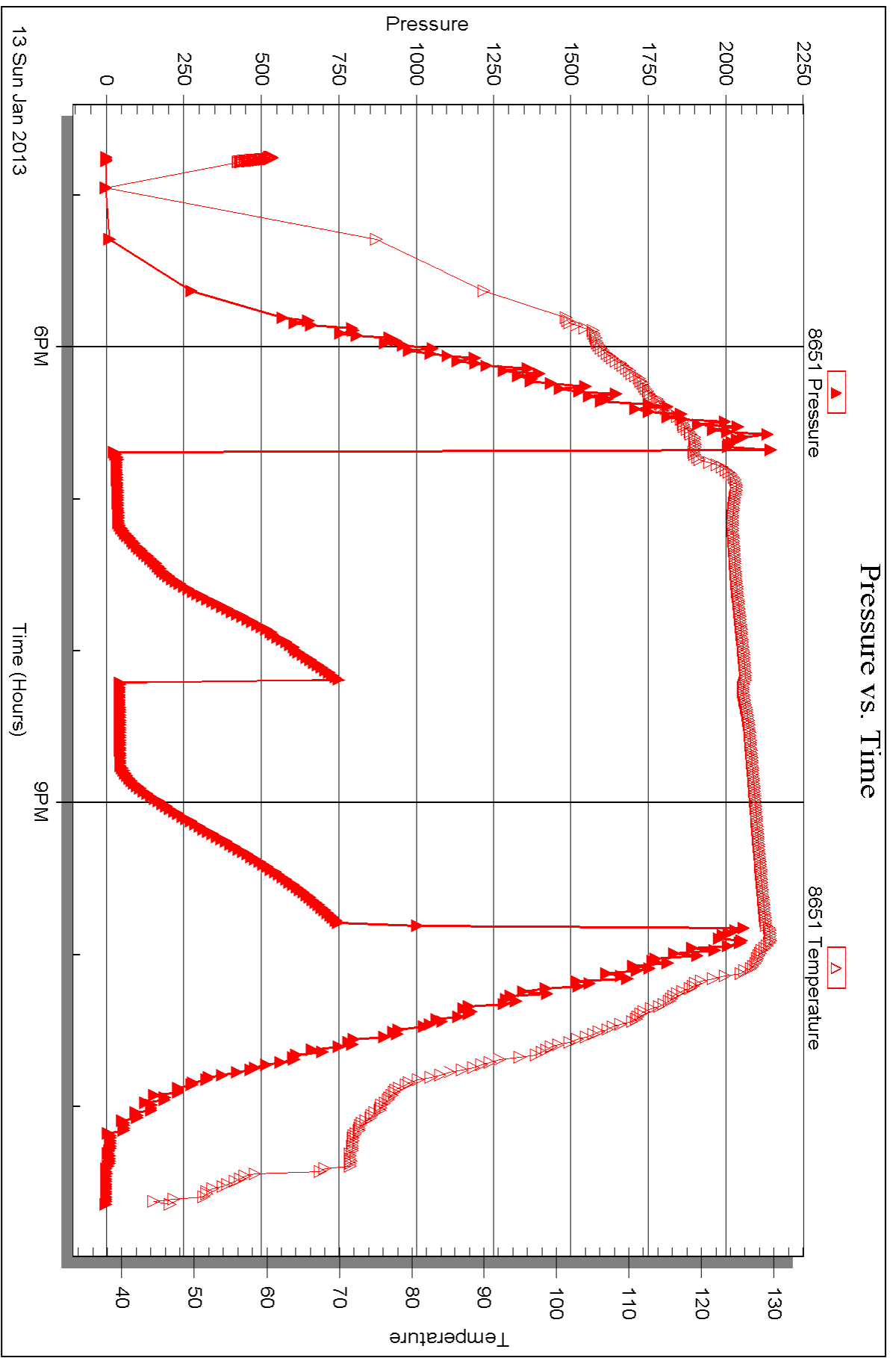


Serial #: 8651

Outside Murfin Drilling Co.

Jones #1-12

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.14 @ 07:30:00

End Date: 2013.01.14 @ 15:33:00

Job Ticket #: 48033 DST #: 3

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

Printed: 2013.01.21 @ 10:14:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 3

ATTN: Jeff Christian

Test Start: 2013.01.14 @ 07:30:00

GENERAL INFORMATION:

Formation: **LKC-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:42:00

Time Test Ended: 15:33:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4166.00 ft (KB) To 4221.00 ft (KB) (TVD)

Reference Elevations: 3175.00 ft (KB)

Total Depth: 4221.00 ft (KB) (TVD)

3165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 130.39 psig @ 4167.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.14

End Date:

2013.01.14

Last Calib.: 2013.01.14

Start Time: 07:30:01

End Time:

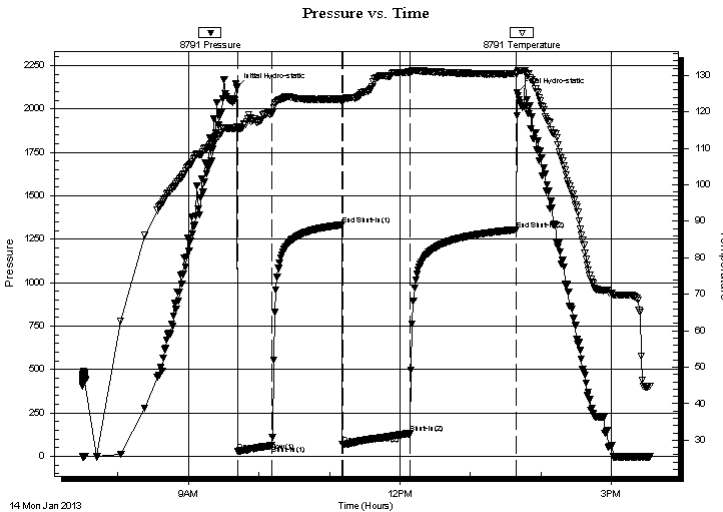
15:33:00

Time On Btm: 2013.01.14 @ 09:41:00

Time Off Btm: 2013.01.14 @ 13:40:00

TEST COMMENT: IF: Weak blow, Built to 4 in. over 30 mins.
IS: Weak blow back, Built to 1/2" over 60 mins.
FF: Weak blow, Built to 6 in. over 60 mins.
FS: Weak blow back, Built to 2" over 90 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2121.03	115.78	Initial Hydro-static
1	27.39	115.48	Open To Flow (1)
30	64.14	119.53	Shut-In(1)
90	1332.85	123.53	End Shut-In(1)
90	69.80	122.83	Open To Flow (2)
148	130.39	131.01	Shut-In(2)
238	1305.18	130.45	End Shut-In(2)
239	2093.98	130.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
210.00	ocm-5%o95%m	1.03

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 3

ATTN: Jeff Christian

Test Start: 2013.01.14 @ 07:30:00

Tool Information

Drill Pipe:	Length: 3617.00 ft	Diameter: 3.80 inches	Volume: 50.74 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 53.35 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4166.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 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			4143.00	
Hydraulic tool	5.00			4148.00	
Jars	5.00			4153.00	
Safety Joint	3.00			4156.00	
Packer	5.00			4161.00	28.00 Bottom Of Top Packer
Packer	5.00			4166.00	
Stubb	1.00			4167.00	
Recorder	0.00	8791	Inside	4167.00	
Recorder	0.00	8651	Outside	4167.00	
Perforations	3.00			4170.00	
change Over Sub	1.00			4171.00	
Drill Pipe	31.00			4202.00	
Change Over Sub	1.00			4203.00	
Perforations	15.00			4218.00	
Bullnose	3.00			4221.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48033

DST#: 3

ATTN: Jeff Christian

Test Start: 2013.01.14 @ 07:30:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	ocm-5%o95%m	1.033

Total Length: 210.00 ft Total Volume: 1.033 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

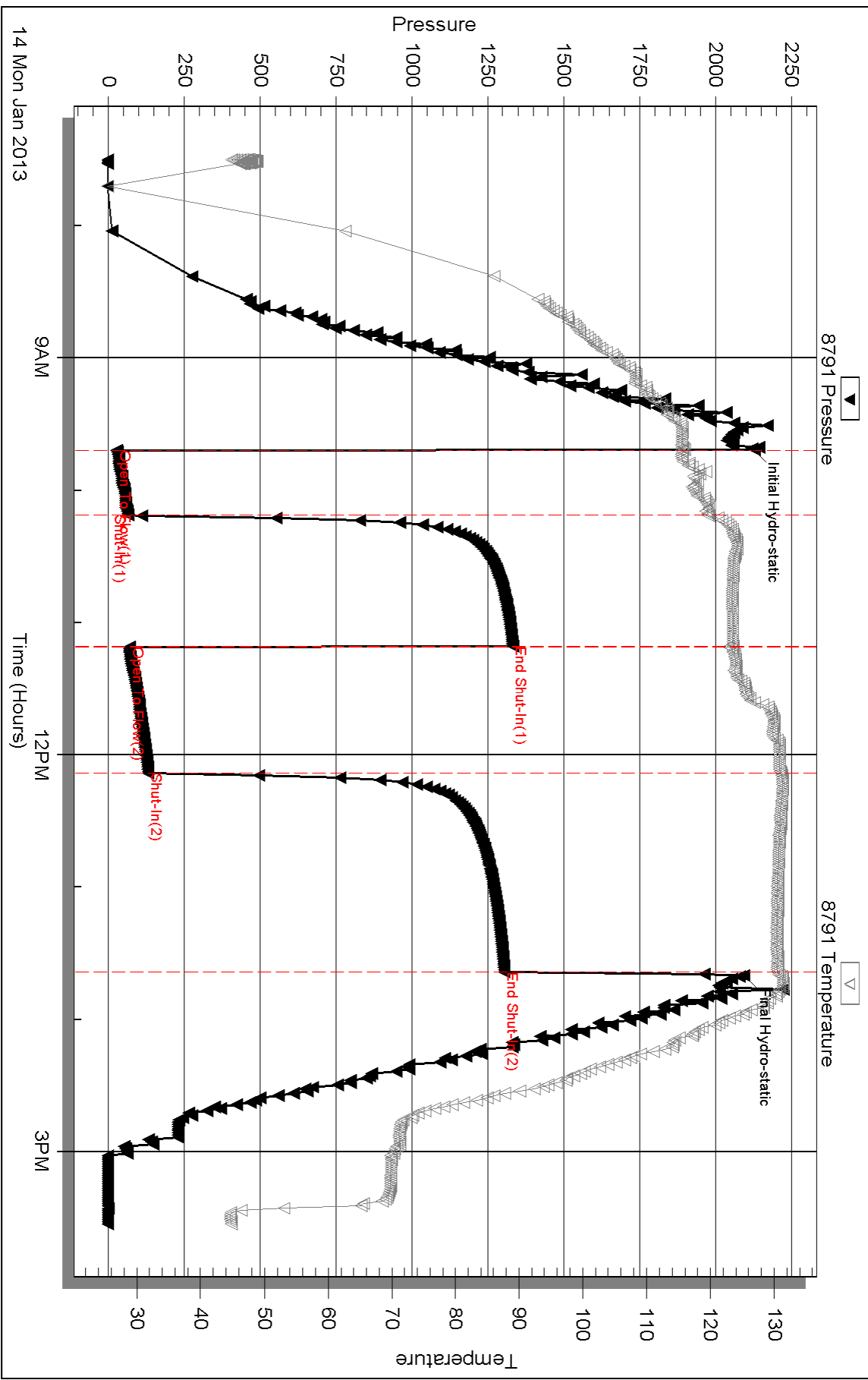
Inside

Murfin Drilling Co.

Jones #1-12

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48033

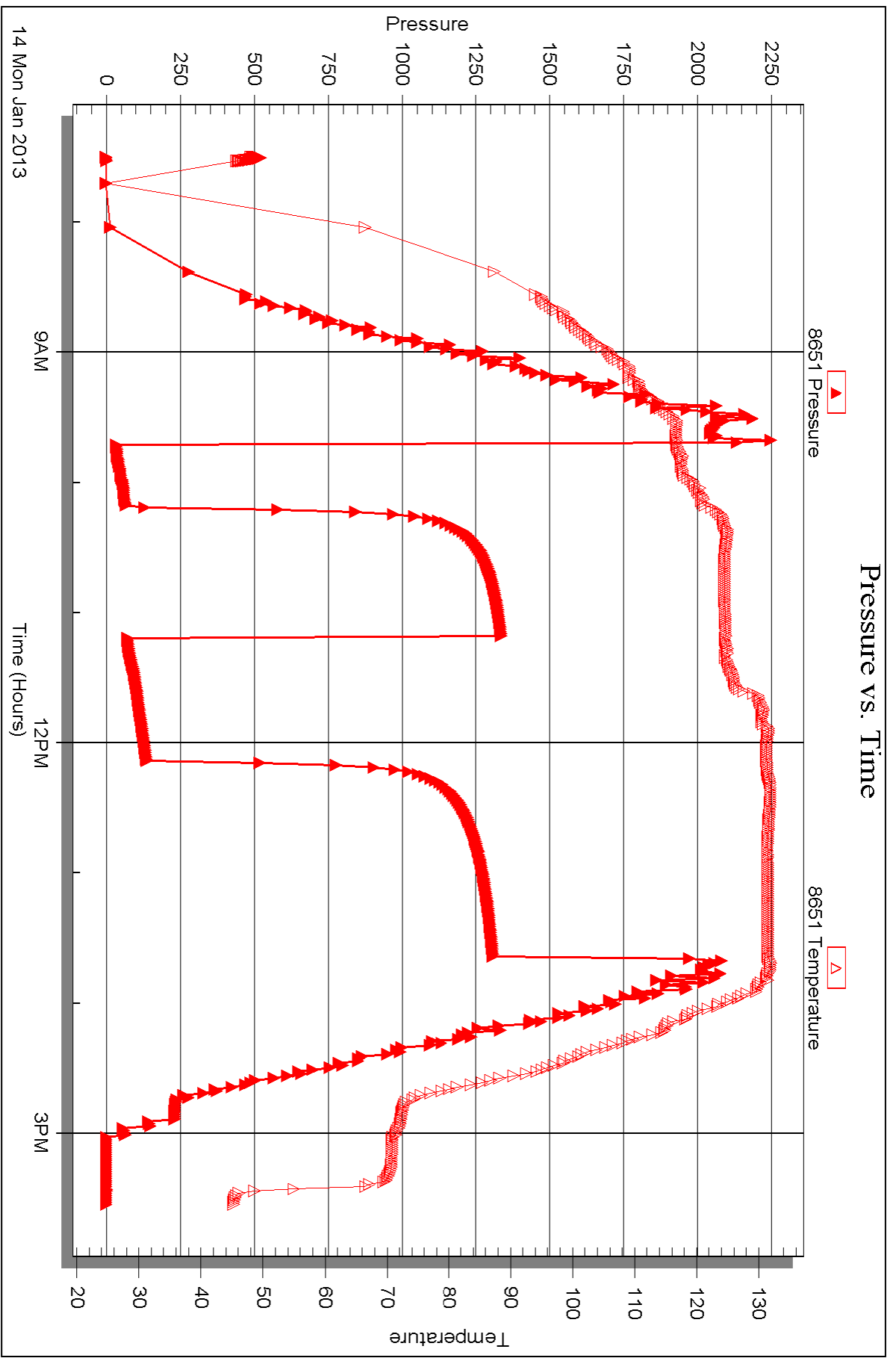
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Serial #: 8651

Outside Murfin Drilling Co.

Jones #1-12

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.15 @ 05:15:00

End Date: 2013.01.15 @ 12:50:00

Job Ticket #: 48034 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 10:13:18

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

Jones #1-12

DST # 4

LKC-G,H,I

2013.01.15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48034

DST#: 4

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 05:15:00

GENERAL INFORMATION:

Formation: **LKC-G,H,I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:04:00

Time Test Ended: 12:50:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreuzer Jr.

Unit No: 61

Interval: 4229.00 ft (KB) To 4340.00 ft (KB) (TVD)

Reference Elevations: 3175.00 ft (KB)

Total Depth: 4340.00 ft (KB) (TVD)

3165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 33.46 psig @ 4230.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.15

End Date:

2013.01.15

Last Calib.:

2013.01.15

Start Time:

05:15:01

End Time:

12:50:00

Time On Btm:

2013.01.15 @ 08:03:30

Time Off Btm:

2013.01.15 @ 10:56:30

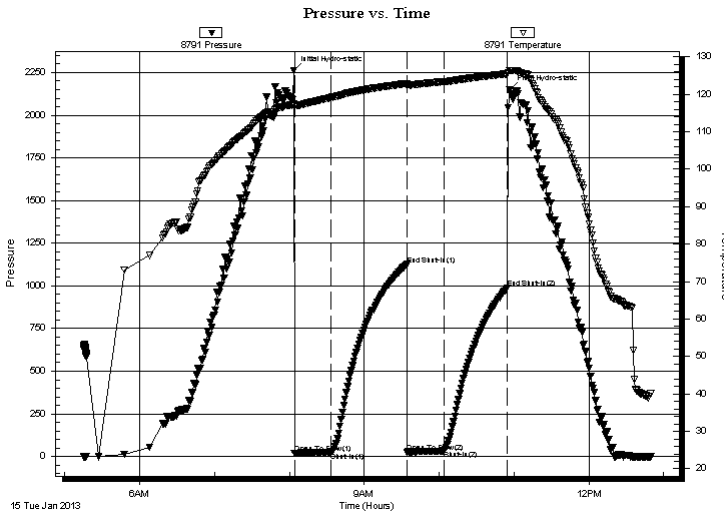
TEST COMMENT: IF: Weak blow, Built to 1 1/2" over 30 mins.

IS: No blow back over 60 mins.

FF: No blow over 30 mins.

FS: No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2262.54	117.47	Initial Hydro-static
1	19.14	116.81	Open To Flow (1)
30	24.49	119.14	Shut-In(1)
91	1125.59	122.86	End Shut-In(1)
91	26.26	122.34	Open To Flow (2)
121	33.46	123.35	Shut-In(2)
171	987.68	125.48	End Shut-In(2)
173	2149.73	126.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	vsocm-2%o98%m	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48034

DST#: 4

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 05:15:00

Tool Information

Drill Pipe:	Length: 3682.00 ft	Diameter: 3.80 inches	Volume: 51.65 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 54.26 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4229.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	139.00 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			4206.00	
Hydraulic tool	5.00			4211.00	
Jars	5.00			4216.00	
Safety Joint	3.00			4219.00	
Packer	5.00			4224.00	28.00 Bottom Of Top Packer
Packer	5.00			4229.00	
Stubb	1.00			4230.00	
Recorder	0.00	8791	Inside	4230.00	
Recorder	0.00	8651	Outside	4230.00	
Perforations	3.00			4233.00	
change Over Sub	1.00			4234.00	
Drill Pipe	95.00			4329.00	
Change Over Sub	1.00			4330.00	
Perforations	7.00			4337.00	
Bullnose	3.00			4340.00	111.00 Bottom Packers & Anchor

Total Tool Length: 139.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48034

DST#: 4

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 05:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	vsocm-2%o98%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

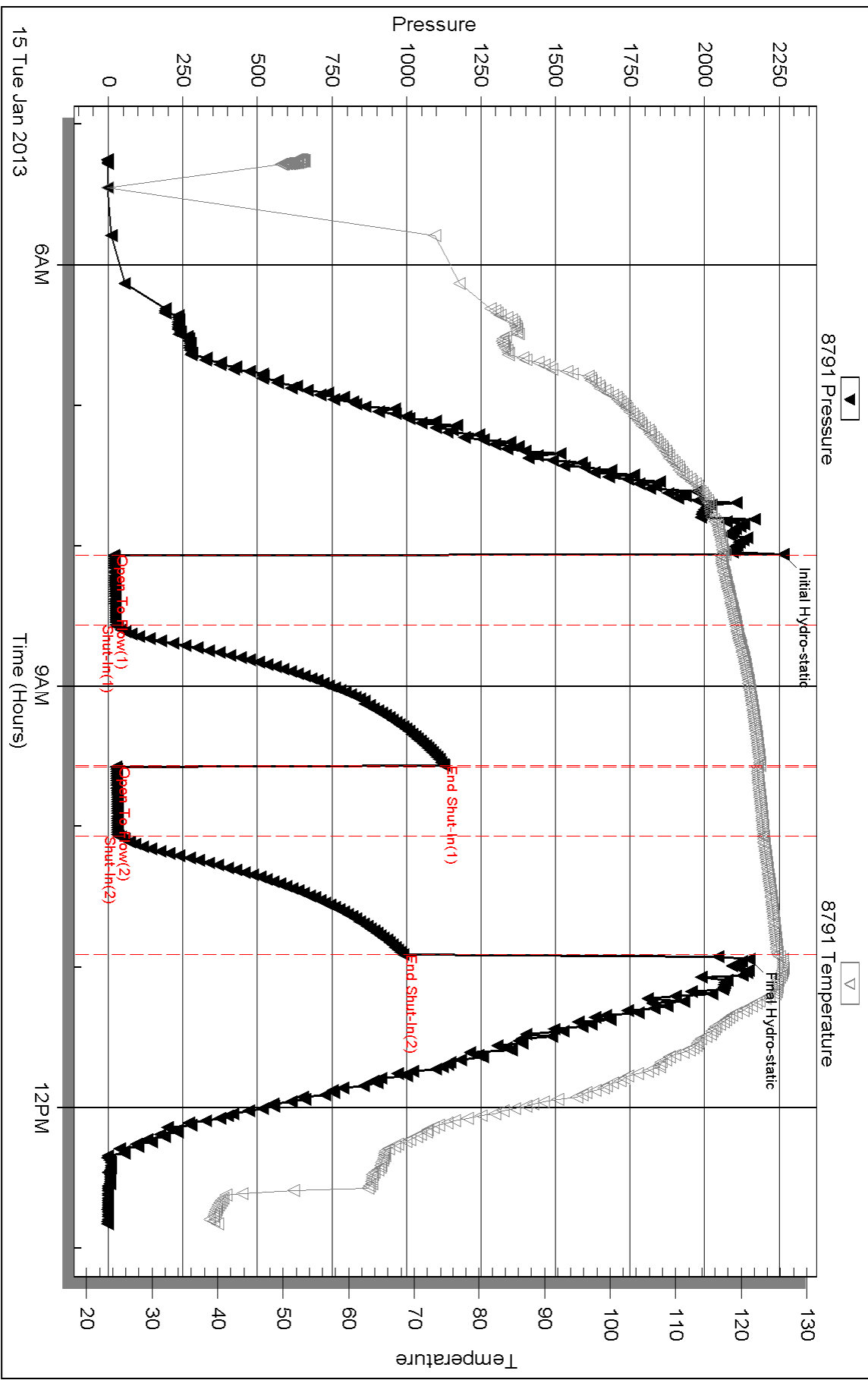
Inside

Murfin Drilling Co.

Jones #1-12

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48034

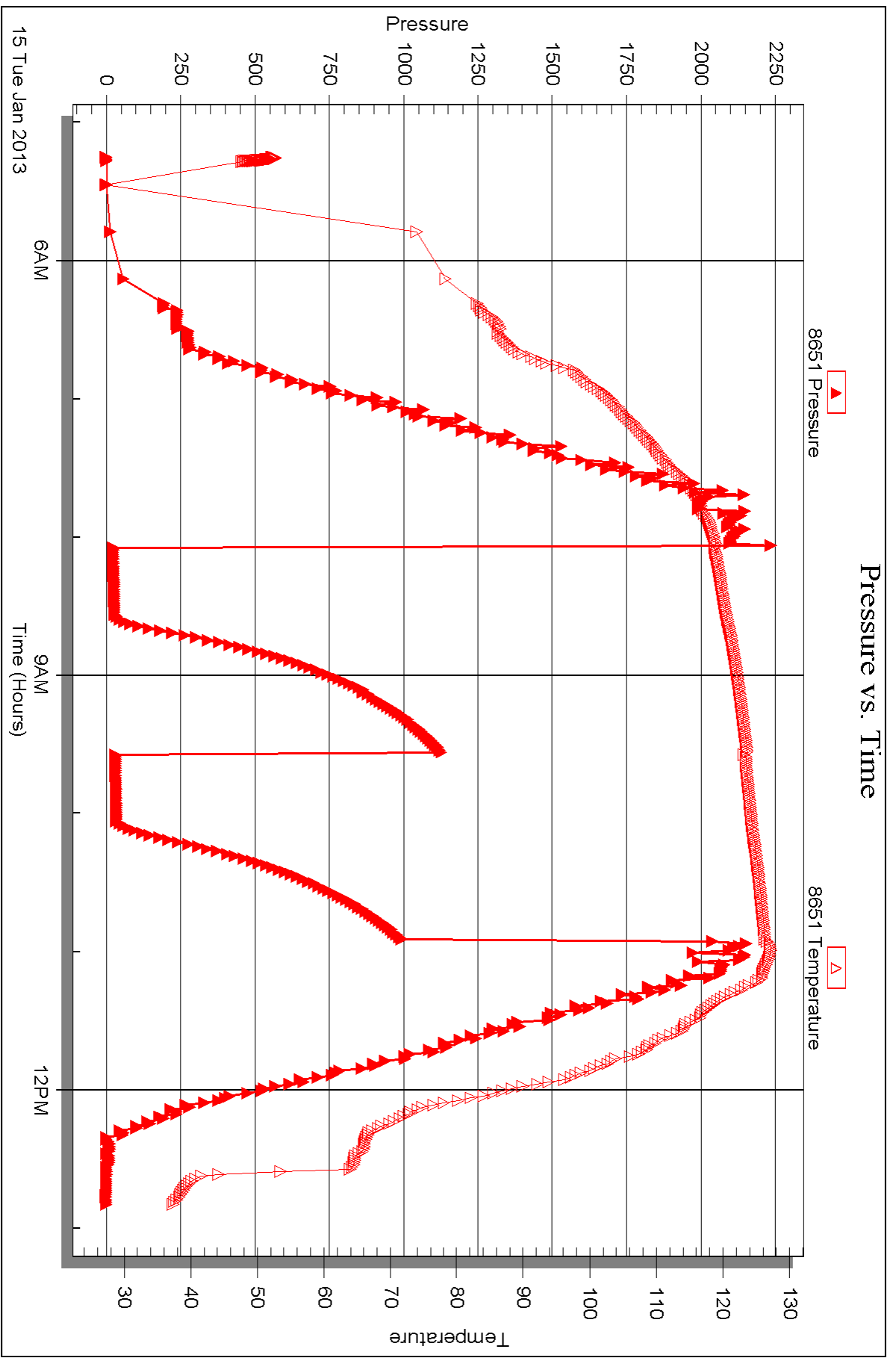
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Serial #: 8651

Outside Murfin Drilling Co.

Jones #1-12

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.15 @ 21:10:00

End Date: 2013.01.16 @ 04:03:00

Job Ticket #: 48035 DST #: 5

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

Printed: 2013.01.21 @ 10:12:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48035

DST#: 5

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 21:10:00

GENERAL INFORMATION:

Formation: **LKC-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:21:30

Time Test Ended: 04:03:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4317.00 ft (KB) To 4380.00 ft (KB) (TVD)

Total Depth: 4380.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3175.00 ft (KB)

3165.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 23.20 psig @ 4318.00 ft (KB)

Start Date: 2013.01.15

End Date:

2013.01.16

Start Time: 21:10:01

End Time:

04:03:00

Capacity: 8000.00 psig

Last Calib.: 2013.01.16

Time On Btm: 2013.01.15 @ 23:08:00

Time Off Btm: 2013.01.16 @ 02:27:30

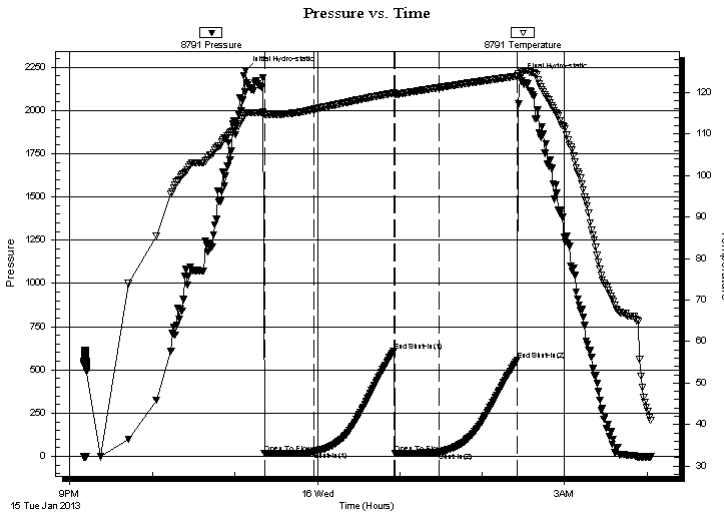
TEST COMMENT: IF: Weak blow, Built to 1/2" in 10 mins. Died to surface over 30 mins.

IS: No blow back

FF: No blow.

FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2232.17	114.96	Initial Hydro-static
14	16.88	114.72	Open To Flow (1)
50	26.56	115.93	Shut-In(1)
108	609.57	119.84	End Shut-In(1)
109	17.62	119.60	Open To Flow (2)
141	23.20	121.16	Shut-In(2)
198	557.29	123.91	End Shut-In(2)
200	2188.49	125.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	ocm-35%o65%m-3ft. free oil	0.10

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48035

DST#: 5

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 21:10:00

Tool Information

Drill Pipe:	Length: 3775.00 ft	Diameter: 3.80 inches	Volume: 52.95 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 55.56 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4317.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4294.00	
Hydraulic tool	5.00			4299.00	
Jars	5.00			4304.00	
Safety Joint	3.00			4307.00	
Packer	5.00			4312.00	28.00 Bottom Of Top Packer
Packer	5.00			4317.00	
Stubb	1.00			4318.00	
Recorder	0.00	8791	Inside	4318.00	
Recorder	0.00	8651	Outside	4318.00	
Change Over Sub	1.00			4319.00	
Drill Pipe	32.00			4351.00	
Change Over Sub	1.00			4352.00	
Perforations	25.00			4377.00	
Bullnose	3.00			4380.00	63.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48035

DST#: 5

ATTN: Jeff Christian

Test Start: 2013.01.15 @ 21:10:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	ocm-35%o65% m -3ft. free oil	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

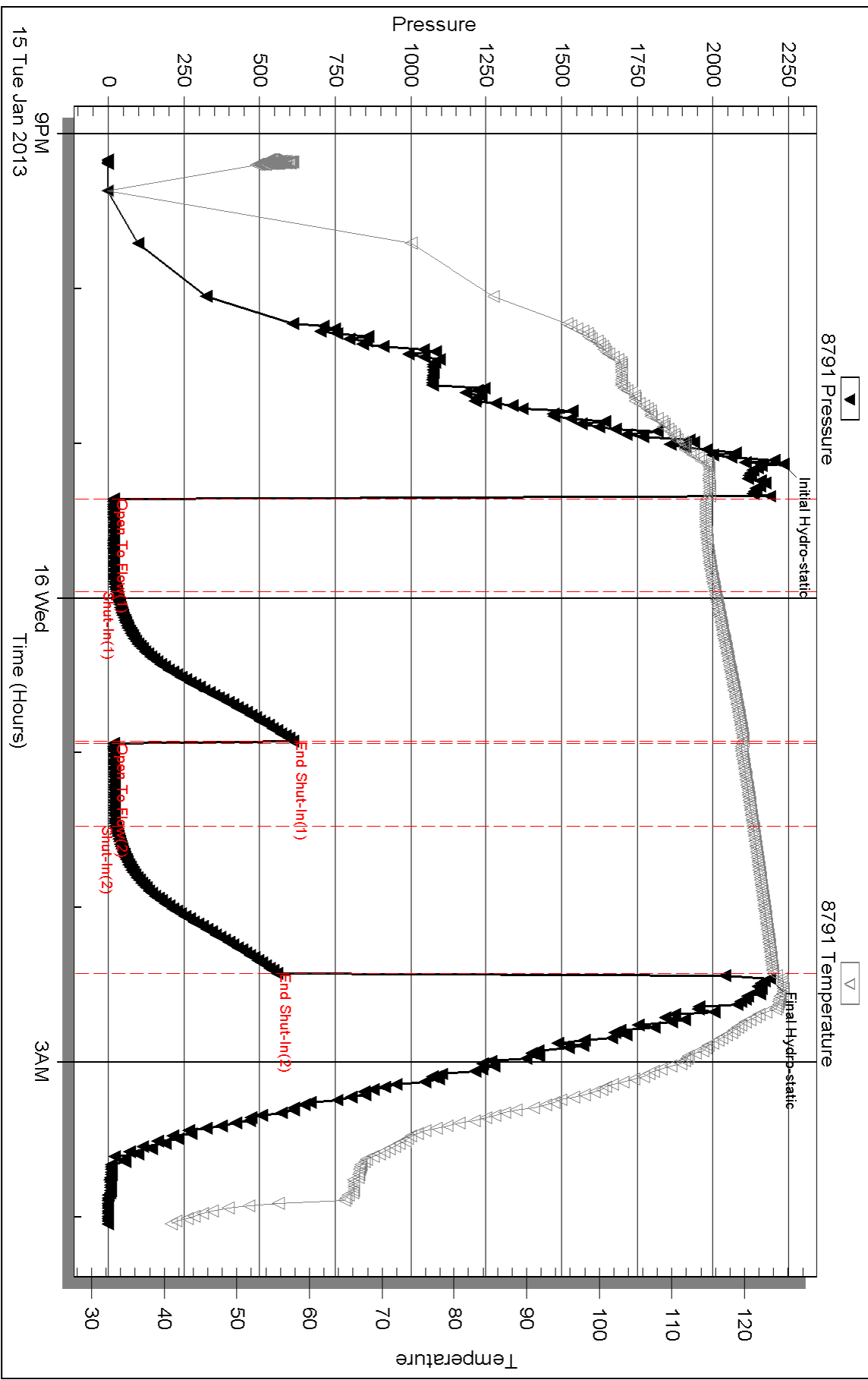
Inside

Murfin Drilling Co.

Jones #1-12

DST Test Number: 5

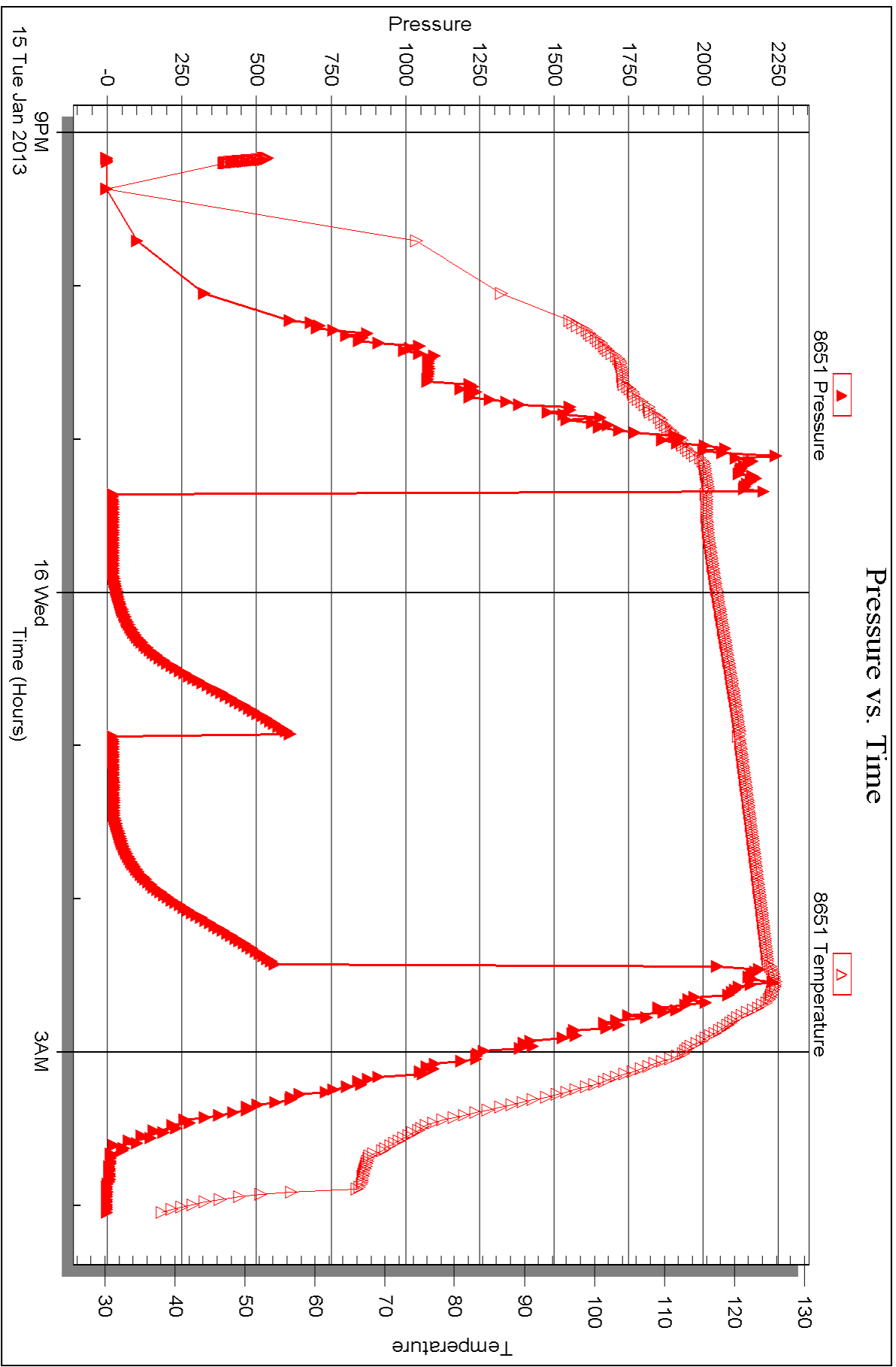
Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48035

Printed: 2013.01.21 @ 10:12:32





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.16 @ 22:30:00

End Date: 2013.01.17 @ 05:32:30

Job Ticket #: 48036 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 10:10:50



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48036

DST#: 6

ATTN: Jeff Christian

Test Start: 2013.01.16 @ 22:30:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:30:30

Time Test Ended: 05:32:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4524.00 ft (KB) To 4570.00 ft (KB) (TVD)

Reference Elevations: 3175.00 ft (KB)

Total Depth: 4570.00 ft (KB) (TVD)

3165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 217.10 psig @ 4525.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.16

End Date:

2013.01.17

Last Calib.:

2013.01.17

Start Time: 22:30:01

End Time:

05:32:30

Time On Btm:

2013.01.17 @ 00:21:30

Time Off Btm:

2013.01.17 @ 03:45:00

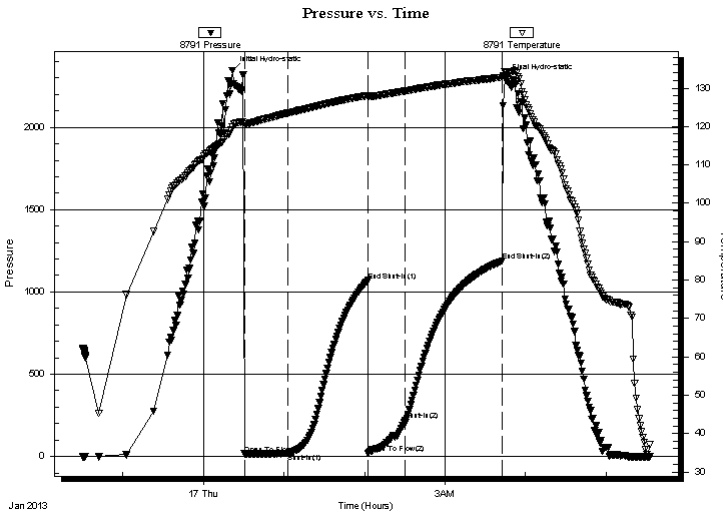
TEST COMMENT: IF: Weak surface blow, Died in 25 mins.(30)

IS: No blow back (60)

FF: No blow over(30) mins.

FS: No blow back (60)mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2346.43	119.85	Initial Hydro-static
9	16.27	120.63	Open To Flow (1)
42	18.39	123.48	Shut-In(1)
101	1069.44	128.07	End Shut-In(1)
102	20.77	127.75	Open To Flow (2)
129	217.10	129.21	Shut-In(2)
201	1187.24	132.73	End Shut-In(2)
204	2297.08	134.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	vsocm-2%o98%m	0.12

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48036

DST#: 6

ATTN: Jeff Christian

Test Start: 2013.01.16 @ 22:30:00

Tool Information

Drill Pipe:	Length: 3998.00 ft	Diameter: 3.80 inches	Volume: 56.08 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 58.69 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4524.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4501.00	
Hydraulic tool	5.00			4506.00	
Jars	5.00			4511.00	
Safety Joint	3.00			4514.00	
Packer	5.00			4519.00	28.00 Bottom Of Top Packer
Packer	5.00			4524.00	
Stubb	1.00			4525.00	
Recorder	0.00	8791	Inside	4525.00	
Recorder	0.00	8651	Outside	4525.00	
Perforations	1.00			4526.00	
change Over Sub	1.00			4527.00	
Drill Pipe	31.00			4558.00	
Change Over Sub	1.00			4559.00	
Perforations	8.00			4567.00	
Bullnose	3.00			4570.00	46.00 Bottom Packers & Anchor

Total Tool Length: 74.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48036

DST#: 6

ATTN: Jeff Christian

Test Start: 2013.01.16 @ 22:30:00

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: 71.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.89 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	vsocm-2%o98%m	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

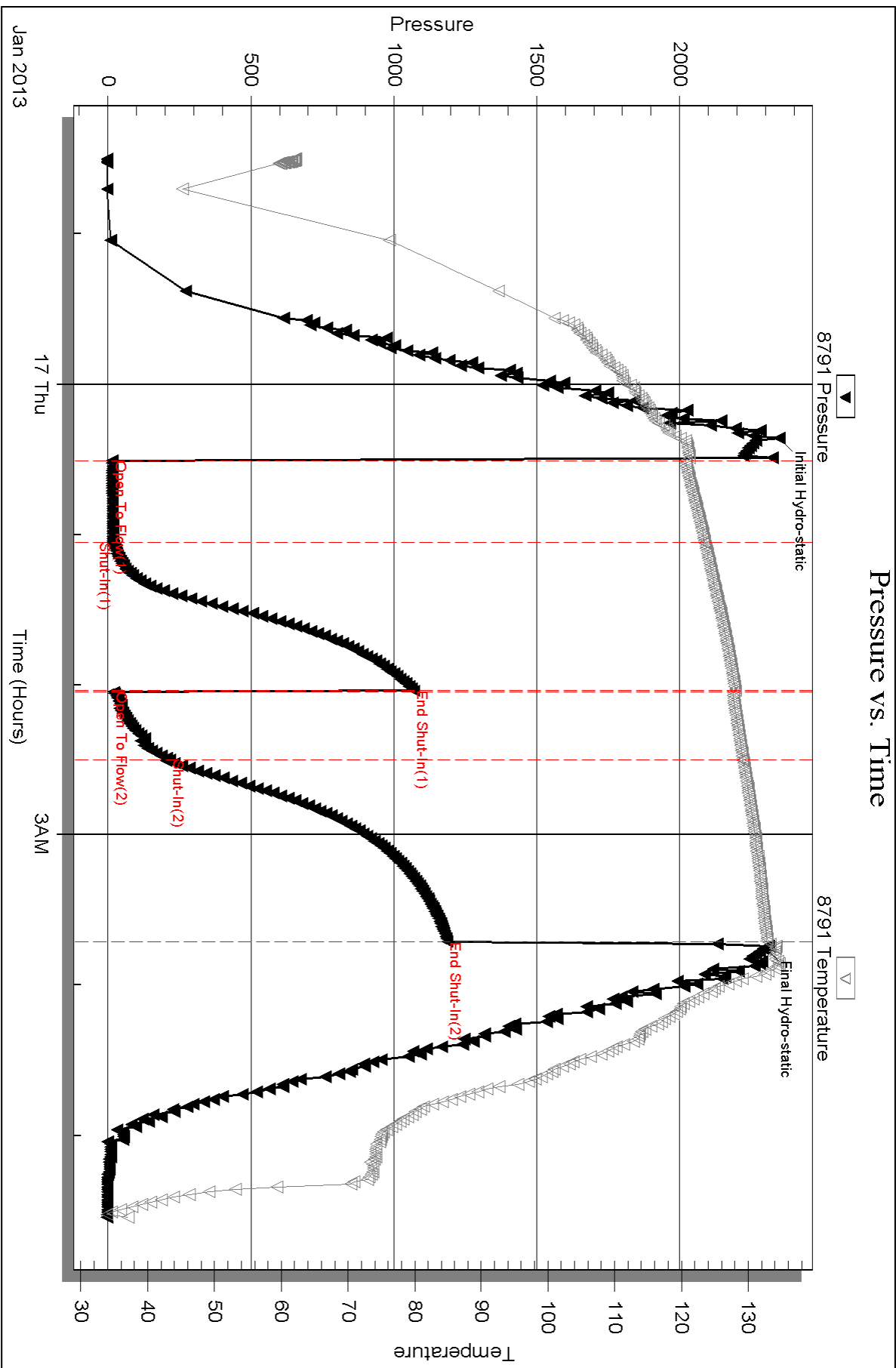
Num Gas Bombs: 0

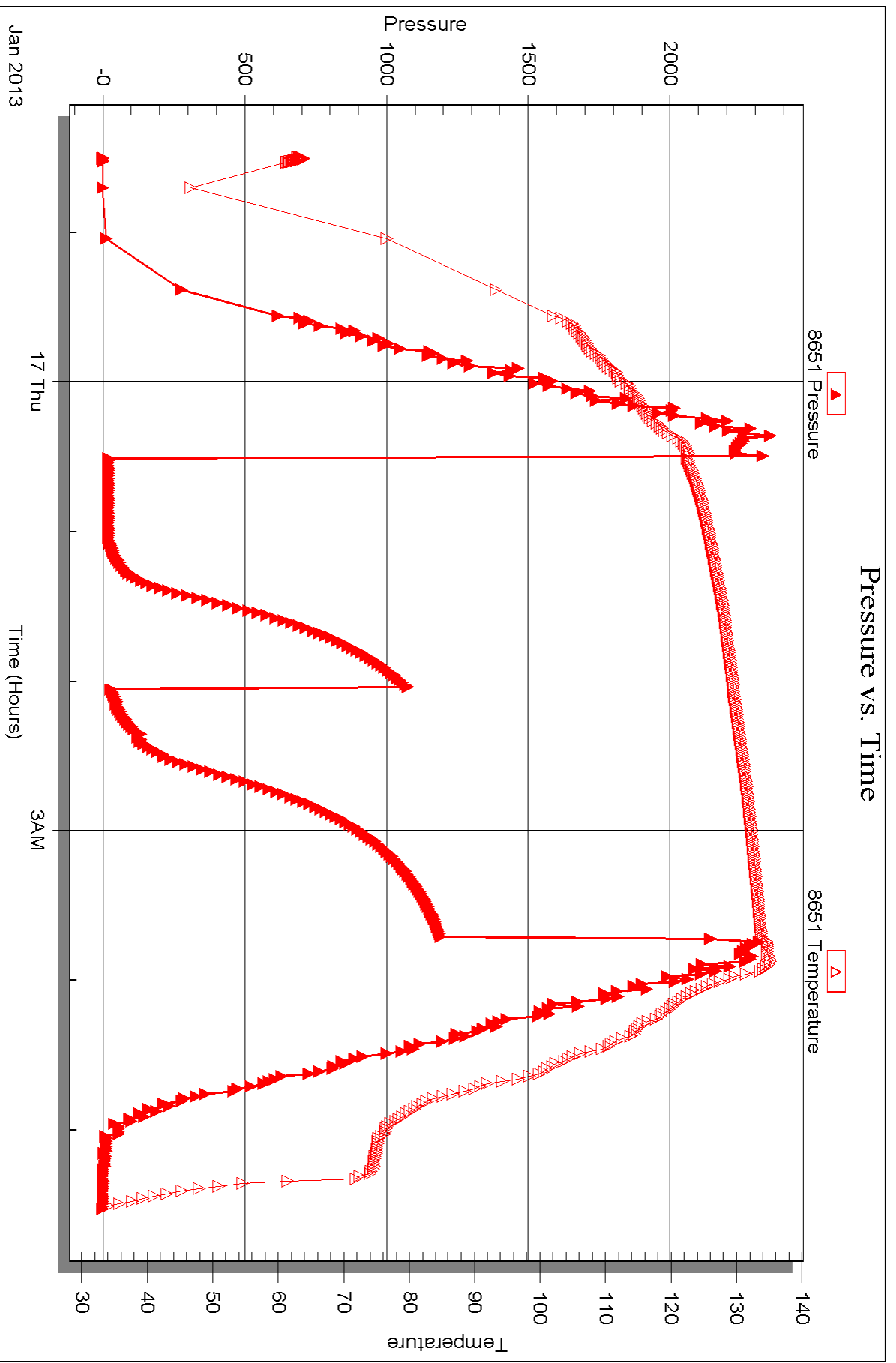
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Jeff Christian

Jones #1-12

12-1s-38w Cheyenne,KS

Start Date: 2013.01.18 @ 06:30:00

End Date: 2013.01.18 @ 15:53:30

Job Ticket #: 48037 DST #: 7

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

Printed: 2013.01.21 @ 10:04:14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

12-1s-38w Cheyenne, KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48037

DST#: 7

ATTN: Jeff Christian

Test Start: 2013.01.18 @ 06:30:00

GENERAL INFORMATION:

Formation: **LKC-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:17:00

Time Test Ended: 15:53:30

Test Type: Conventional Straddle (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4406.00 ft (KB) To 4453.00 ft (KB) (TVD)

Total Depth: 4725.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3175.00 ft (KB)

3165.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 95.08 psig @ 4410.00 ft (KB)

Start Date: 2013.01.18

End Date: 2013.01.18

Start Time: 06:30:01

End Time: 15:53:30

Capacity: 8000.00 psig

Last Calib.: 2013.01.18

Time On Btm: 2013.01.18 @ 10:16:00

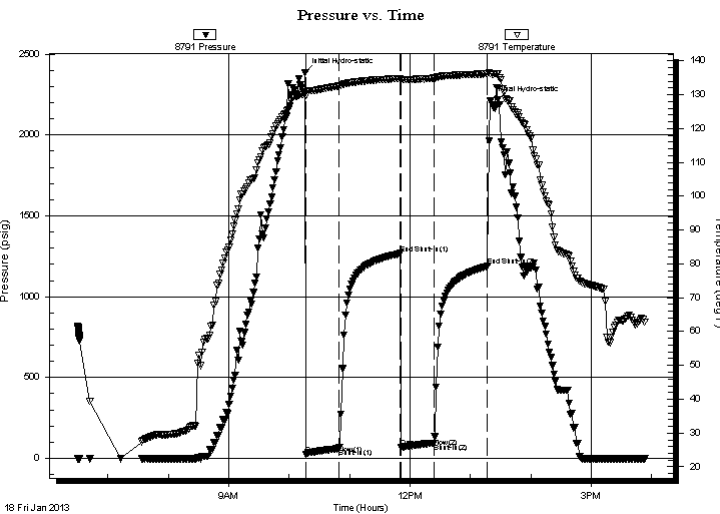
Time Off Btm: 2013.01.18 @ 13:20:00

TEST COMMENT: IF: Weak surface blow, Built to 2" over 30 mins.

IS: No blow back over 60 mins.

FF: Weak surface blow after 5 mins. Never built past surface over 30 mins

FS: No blow back over 60 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2386.74	130.23	Initial Hydro-static
1	27.68	129.81	Open To Flow (1)
34	61.25	132.61	Shut-In(1)
94	1266.41	134.77	End Shut-In(1)
96	67.75	134.47	Open To Flow (2)
128	95.08	134.88	Shut-In(2)
181	1187.99	136.15	End Shut-In(2)
184	2209.85	136.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	mud-100%	0.89

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48037

DST#: 7

ATTN: Jeff Christian

Test Start: 2013.01.18 @ 06:30:00

Tool Information

Drill Pipe:	Length: 3869.00 ft	Diameter: 3.80 inches	Volume: 54.27 bbl	Tool Weight: 2400.00 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: 531.00 ft	Diameter: 2.25 inches	Volume: 2.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.88 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4406.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	4453.00 ft			
Interval between Packers:	47.00 ft			
Tool Length:	350.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4381.00	
Sampler	2.00			4383.00	
Hydraulic tool	5.00			4388.00	
Jars	5.00			4393.00	
Safety Joint	3.00			4396.00	
Packer	5.00			4401.00	30.00 Bottom Of Top Packer
Packer	5.00			4406.00	
Stubb	1.00			4407.00	
Perforations	3.00			4410.00	
Recorder	0.00	8791	Inside	4410.00	
Recorder	0.00	8651	Outside	4410.00	
Change Over Sub	1.00			4411.00	
Blank Spacing	31.00			4442.00	
Change Over Sub	1.00			4443.00	
Perforations	5.00			4448.00	
Blank Off Sub	1.00			4449.00	
Blank Spacing	4.00			4453.00	47.00 Tool Interval
Packer	1.00			4454.00	
Packer - Shale	0.00			4454.00	
Recorder	0.00	8673	Below	4454.00	
Change Over Sub	1.00			4455.00	
Blank Spacing	252.00			4707.00	
Change Over Sub	1.00			4708.00	
Perforations	15.00			4723.00	
Bullnose	3.00			4726.00	273.00 Bottom Packers & Anchor
Total Tool Length:	350.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

12-1s-38w Cheyenne,KS

250 N. Water Ste 300
Wichita KS 67202

Jones #1-12

Job Ticket: 48037

DST#: 7

ATTN: Jeff Christian

Test Start: 2013.01.18 @ 06:30:00

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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	mud-100%	0.885

Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0

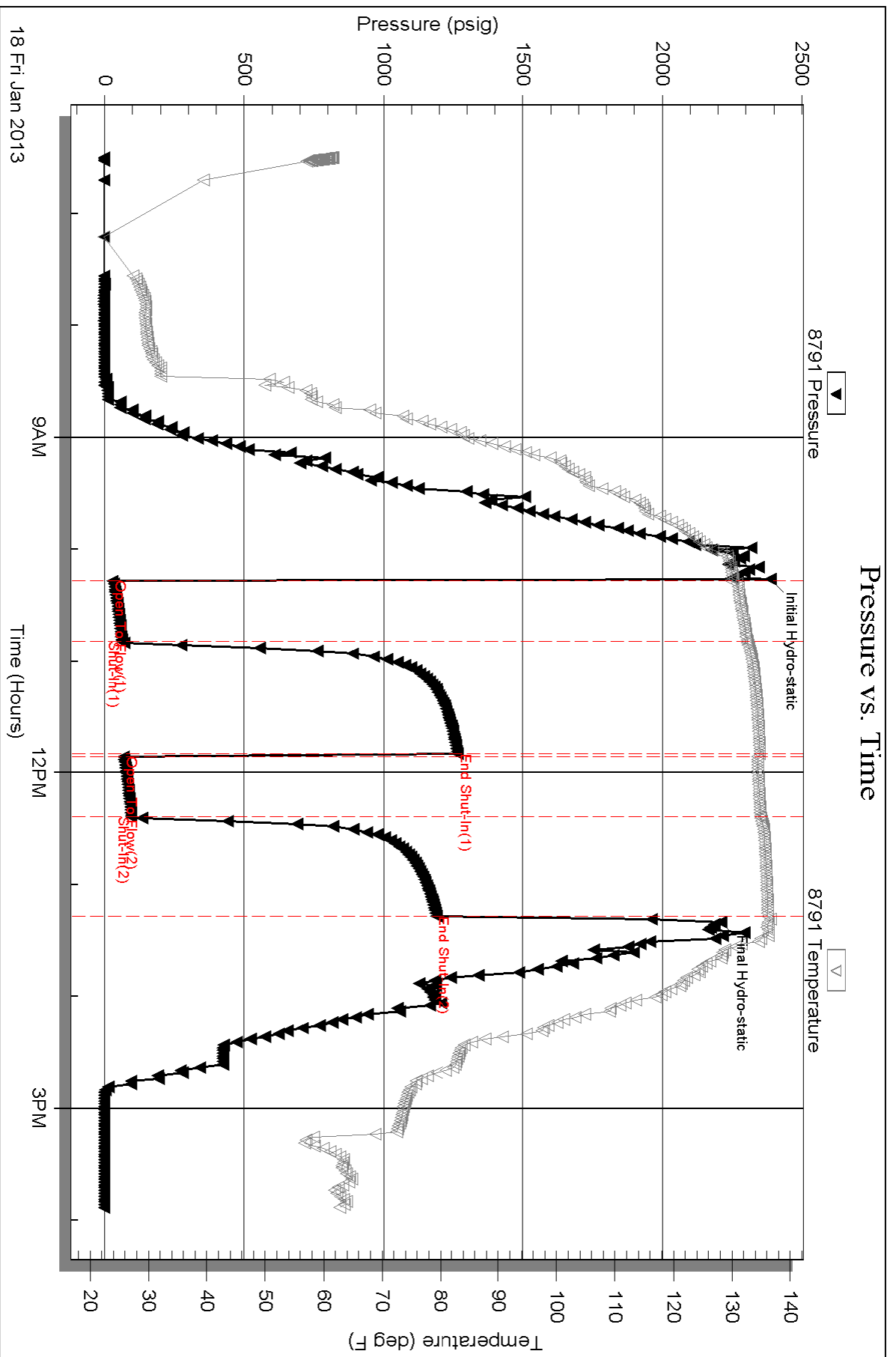
Num Gas Bombs: 0

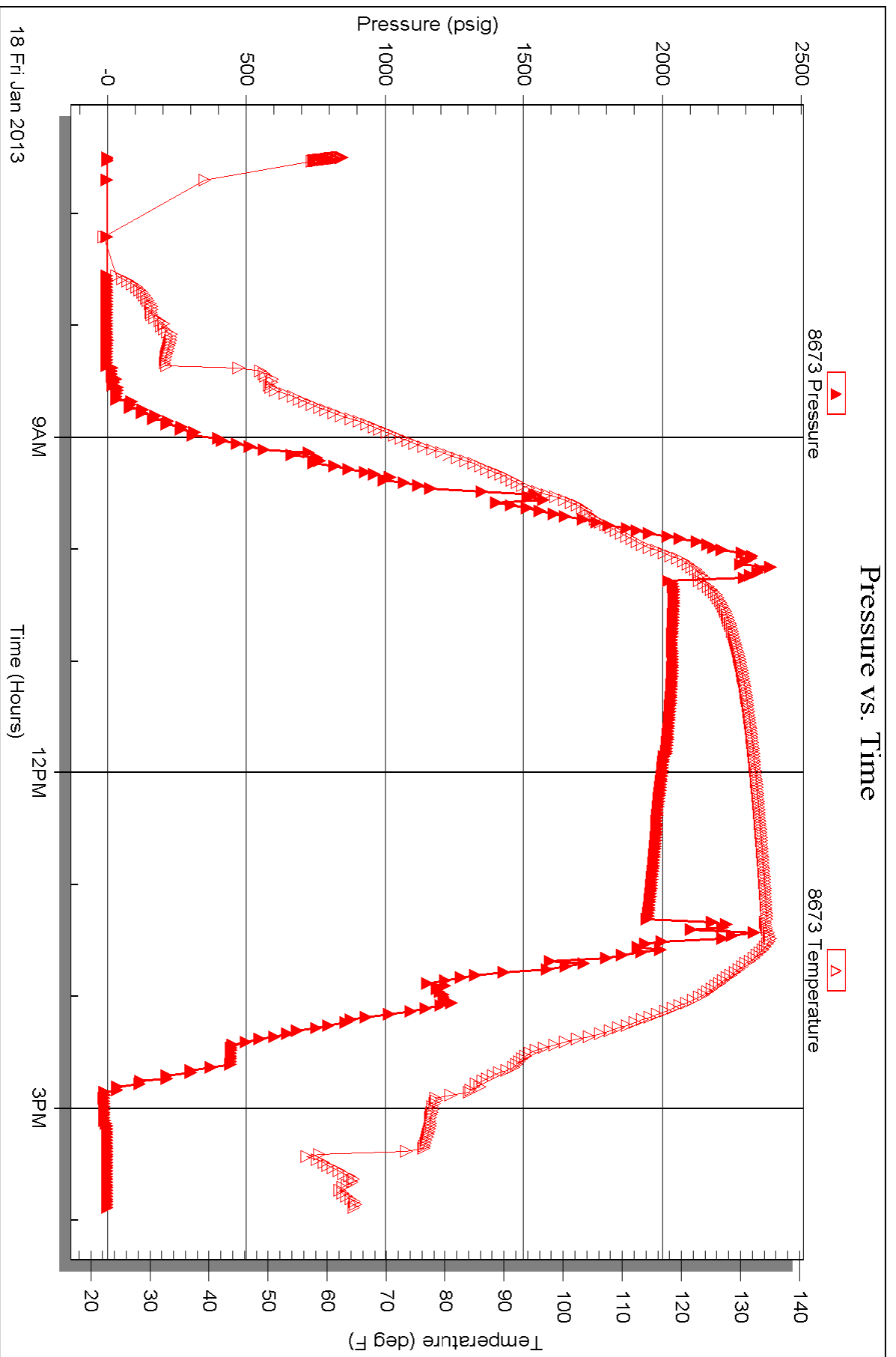
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



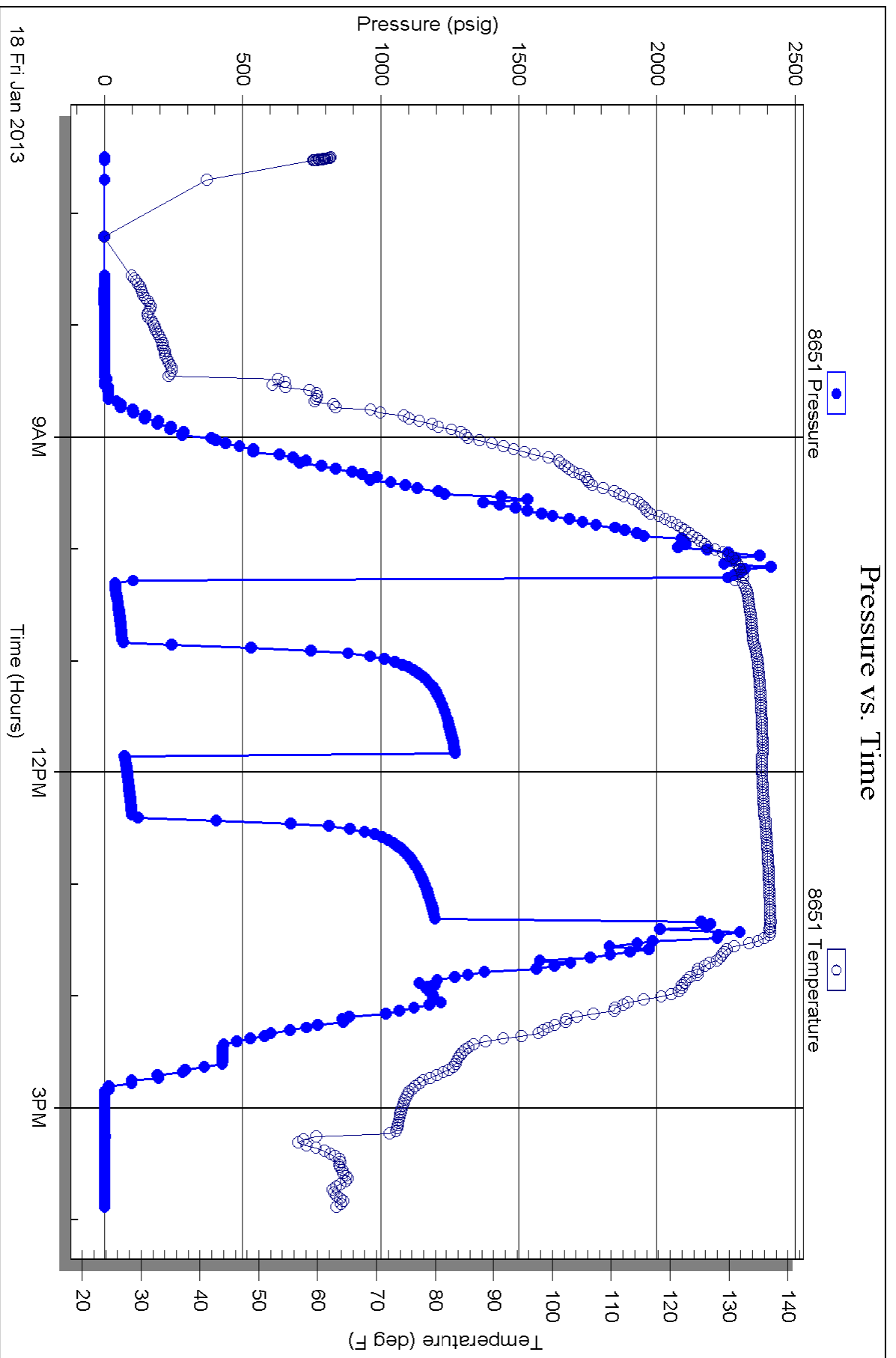


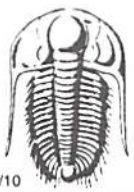
Serial #: 8651

Outside Murfin Drilling Co.

Jones #1-12

DST Test Number: 7





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48031

Well Name & No. Jones #1-12 Test No. 1 Date 1-10-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water St 300 Wichita KS 67202
 Co. Rep / Geo. Jeff Christian Rig Murfin #14
 Location: Sec. 12 Twp. 15 Rge. 38W Co. Cheyenne State Ks.

Interval Tested 3720 3740 Zone Tested Foraker
 Anchor Length 20 Drill Pipe Run 3172 Mud Wt. 8.6
 Top Packer Depth 3715 Drill Collars Run 531 Vis 75
 Bottom Packer Depth 3720 Wt. Pipe Run -0- WL 5.6
 Total Depth 3740 Chlorides 700 ppm System LCM 6#

Blow Description IF: Weak surface blow over 30 mins.
ISF: No blow back over 60 mins.
FF: No blow over 30 mins.
FSF: No blow back over 60 mins.

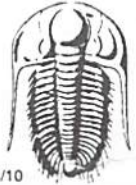
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud with oil specs</u>				

Rec Total 20 BHT 117 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1862</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>1:15</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>2:35</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>4:39</u>
(D) Initial Shut-In <u>1245</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>8:00</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:45</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>70x2=140x155=</u> 217	Comments _____
(G) Final Shut-In <u>1172</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1809</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1692</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1692</u>	

Approved By _____ Our Representative Chuck Koyner

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.



Well Name & No. Jones # 1-12 Test No. 2 Date 1-13-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. JEFF Christian Rig Murfin #14
 Location: Sec. 12 Twp. 15 Rge. 36W Co. Cherokee State Ks

Interval Tested 4092 4189 Zone Tested oread - LKC-A
 Anchor Length 97 Drill Pipe Run 3553 Mud Wt. 9.2
 Top Packer Depth 4087 Drill Collars Run 531 Vis 69
 Bottom Packer Depth 4092 Wt. Pipe Run -0- WL 5.6
 Total Depth 4189 Chlorides 700 ppm System LCM 4#

Blow Description IF: Weak blow, Built to 4 in. over 30 mins.

ISI: No blow Back over 60 mins.

FF: No blow

FSI: No blow back

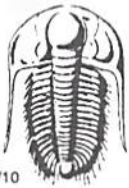
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>66MW</u>		<u>40%</u>	<u>20%</u>	<u>40%</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60 BHT 124 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2243</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>16:30</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>16:45</u>
(C) First Final Flow <u>37</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>18:41</u>
(D) Initial Shut-In <u>751</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>20:45</u>
(E) Second Initial Flow <u>42</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:38</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage <u>70x2 = 140x1.55 = 217</u>	Comments _____
(G) Final Shut-In <u>753</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2057</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>233.33</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>2025.33</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1 day 7 hours</u>	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1792</u>	

Approved By _____

Our Representative Chuck Hays



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48033

Well Name & No. Jones # 1-12 Test No. 3 Date 1-14-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water Ste-300 Wichita KS. 67202
 Co. Rep / Geo. Jeff Christen Rig Murfin #14
 Location: Sec. 12 Twp. 1S Rge. 38W Co. Cheyenne State KS

Interval Tested 4166 4221 Zone Tested CKC-D
 Anchor Length 55 Drill Pipe Run 3817 Mud Wt. 9.2
 Top Packer Depth 4161 Drill Collars Run 531 Vis 69
 Bottom Packer Depth 4166 Wt. Pipe Run -0- WL 5.8
 Total Depth 4221 Chlorides 700 ppm System LCM #4

Blow Description IF: Weak blow, Built to 4 in. over 30 mins.
ISF: Weak blow back Built to 2 in. over 60 mins
FF: Weak blow, Built to 6 in. over 60 mins
FSF: Weak blow back, Built to 2 in. over 90 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>210</u>	<u>OCM</u>		<u>5</u>		<u>95</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 210 BHT 131 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2121</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>6:55</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>7:30</u>
(C) First Final Flow <u>64</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>9:42</u>
(D) Initial Shut-In <u>1333</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1:45</u>
(E) Second Initial Flow <u>70</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:33</u>
(F) Second Final Flow <u>130</u>	<input checked="" type="checkbox"/> Mileage <u>70 x 2 = 140 x 1.55 = 217</u>	Comments _____
(G) Final Shut-In <u>1305</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2094</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1792</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1792</u>	

Approved By _____ Our Representative Chuck Hays

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48034

Well Name & No. Jones #1-12 Test No. 4 Date 1-15-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Jeff Christian Rig Murfin #14
 Location: Sec. 12 Twp. 15 Rge. 38W Co. Cherokee State Ks.

Interval Tested 4229 4340 Zone Tested LKC-G, H, I
 Anchor Length 111 Drill Pipe Run 3682 Mud Wt. 9.5
 Top Packer Depth 4224 Drill Collars Run 518 Vis 65
 Bottom Packer Depth 4229 Wt. Pipe Run 0- WL 5.6
 Total Depth 4340 Chlorides 800 ppm System LCM 2#

Blow Description IF: Weak blow, Built to 1 1/2 in over 30 mins.

ISI: No blow back over 60 mins.

FF: No blow over 30 mins

FSI: No blow back over 60 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>vsocm</u>		<u>2</u>		<u>98</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 30 BHT 124 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2263 Test 1250 T-On Location 5:00
 (B) First Initial Flow 19 Jars 250 T-Started 5:15
 (C) First Final Flow 24 Safety Joint 75 T-Open 8:04
 (D) Initial Shut-In 1126 Circ Sub _____ T-Pulled 11:00
 (E) Second Initial Flow 26 Hourly Standby _____ T-Out 12:50
 (F) Second Final Flow 33 Mileage 20 x 2 = 140 x 1.56 = 217 Comments _____
 (G) Final Shut-In 988 Sampler _____
 (H) Final Hydrostatic 2150 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Sub Total 1792 MP/DST Disc't _____

Approved By _____

Our Representative Chris [Signature]

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TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

NO. 48035

Well Name & No. Jones #1-12 Test No. 5 Date 1-15-2013
 Company Murfin Drilling Co Elevation 3175 KB 3165 GL
 Address 250. N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Jeff Christan Rig Murfin # 14
 Location: Sec. 12 Twp. 1S Rge. 38W Co. Cheyeme State Ks.

Interval Tested 4317 4380 Zone Tested LKC-J
 Anchor Length 63 Drill Pipe Run 3775 Mud Wt. 9.3
 Top Packer Depth 4312 Drill Collars Run 518 Vis 69
 Bottom Packer Depth 4317 Wt. Pipe Run -0- WL 6.0
 Total Depth 4380 Chlorides 1,400 ppm System LCM 4#

Blow Description IF: Weak blow 1/2 in in 10 mins. Died to surface OVER 30 mins.

ISI: No blow back

FF: No blow

FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>ocm- with 3ft free oil on top</u>		<u>35</u>		<u>65</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 20 BHT 121 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>2232</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>8:40</u>
(B) First Initial Flow	<u>17</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>9:40</u>
(C) First Final Flow	<u>27</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>22:21</u>
(D) Initial Shut-In	<u>610</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>2:25</u>
(E) Second Initial Flow	<u>18</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>4:03</u>
(F) Second Final Flow	<u>23</u>	<input checked="" type="checkbox"/> Mileage	<u>20 x 2 = 140 x 1.55 = 217</u>	Comments	
(G) Final Shut-In	<u>557</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2188</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

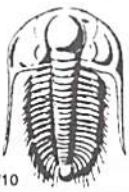
Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Sub Total 1792

Approved By _____

Our Representative Chris Meyer Jr

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

Test Ticket

NO. 48036

Well Name & No. Jones #1-12 Test No. 6 Date 1-16-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Jeff Christan Rig Murfin #14
 Location: Sec. 12 Twp. 1S Rge. 38W Co. Cheyenne State Ks

Interval Tested 4524 4570 Zone Tested Pawnee
 Anchor Length 46 Drill Pipe Run 3998 Mud Wt. 9.3
 Top Packer Depth 4519 Drill Collars Run 518 Vis 71
 Bottom Packer Depth 4524 Wt. Pipe Run ~0 WL 6.9
 Total Depth 4570 Chlorides 1,400 ppm System LCM 4#

Blow Description IF: Weak blow SW face, Died in 25 mins
ISI: No blow back over 60 mins
FF: No blow over 30 mins
FSI: No blow back over 60 mins

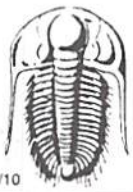
Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>USOCM</u>		<u>2</u>		<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 25 BHT 129 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2346</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>22:25</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>22:30</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>00:30</u>
(D) Initial Shut-In <u>1069</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>3:30</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>5:32</u>
(F) Second Final Flow <u>217</u>	<input checked="" type="checkbox"/> Mileage <u>70x2 = 140x1.55 = 217</u>	Comments _____
(G) Final Shut-In <u>1187</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2297</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1792</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1792</u>	

Approved By _____ Our Representative Chuck [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

Test Ticket

NO. 48037

Well Name & No. Jones # 1-12 Test No. 7 Date 1-18-2013
 Company Murfin Drilling Co. Elevation 3175 KB 3165 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Jeff Christian Rig Murfin #14
 Location: Sec. 12 Twp. 15 Rge. 35W Co. Cheyenne State Ks.

Interval Tested 4406 4453 Zone Tested LKC-L
 Anchor Length 47 Drill Pipe Run 3869 Mud Wt. 9.4
 Top Packer Depth 4401 Drill Collars Run 518 Vis 62
 Bottom Packer Depth 4453 Wt. Pipe Run -0- WL 6.4
 Total Depth 4725 Chlorides 1,200 ppm System LCM 4#

Blow Description IF: Weak surface blow, Built to 2 in. over 30 mins.

ISI: No blow back over 60 mins.

FF: Weak surface blow after 5 mins. Never Built Passed surface.

FSI: No blow back over 60 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>Mud</u>				<u>100</u>

Rec Total 180 BHT 135 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2387</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>6:00</u>
(B) First Initial Flow <u>28</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>6:30</u>
(C) First Final Flow <u>61</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:17</u>
(D) Initial Shut-In <u>1266</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>13:17</u>
(E) Second Initial Flow <u>68</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>15:53</u>
(F) Second Final Flow <u>95</u>	<input checked="" type="checkbox"/> Mileage <u>70x2=140x1.55=217</u>	Comments _____
(G) Final Shut-In <u>1188</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>2210</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>16.67+320</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>2978.67</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1 DAY</u> .5h	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>2642</u>	

Approved By _____

Our Representative Chuck [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.

acct.
Prod-LizH

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 134385

Invoice Date: Jan 8, 2013

Voice: (817) 546-7282

Page: 1

Fax: (817) 246-3361

Bill To:

Murfin Drfg. Co., Inc.
250 N. Water
STE #300
Wichita, KS 67202

Now Includes:



Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	Jones #1-12	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jan 8, 2013	2/7/13

Quantity	Item	Description	Unit Price	Amount
225.00	MAT	Class A Common	17.90	4,027.50
8.00	MAT	Chloride	64.00	512.00
236.25	SER	Cubic Feet	2.48	585.90
1,089.00	SER	Ton Mileage	2.60	2,831.40
1.00	SER	Surface	1,512.25	1,512.25
100.00	SER	Pump Truck Mileage	7.70	770.00
1.00	SER	Manifold Swedge Rental	275.00	275.00
100.00	SER	Light Vehicle Mileage	4.40	440.00
1.00	CEMENTER	LaRene Wentz		
1.00	OPER ASSIST	Paul Beaver		
1.00	OPER ASSIST	Kevin Ryan		

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 3943.45

ONLY IF PAID ON OR BEFORE

Feb 2, 2013

Subtotal	10,954.05
Sales Tax	376.78
Total Invoice Amount	11,330.83
Payment/Credit Applied	
TOTAL	11,330.83

015M

- 3943.45
7,387.38

ALLIED OIL & GAS SERVICES, LLC 058860

Federal Tax I.D.# 20-5976804

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Oakley, KS

DATE <u>1-8-13</u>	SEC. <u>12</u>	TWR. <u>1</u>	RANGE <u>38</u>	CALLED OUT	ON LOCATION <u>11:00pm</u>	JOB START <u>12:30a</u>	JOB FINISH <u>1:00am</u>
LEASE <u>Jones</u>	WELL # <u>1-12</u>	LOCATION <u>Bird City 14 3/4 N E 2</u>		COUNTY <u>Cherokee</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one) <u>NEW</u>				<u>E 5 into</u>			

CONTRACTOR Murfin 14
 TYPE OF JOB Surface
 HOLE SIZE 12 1/8 T.D. 2251
 CASING SIZE 8 7/8 DEPTH 225.71'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 1.5'
 PERFS.
 DISPLACEMENT 13.45

OWNER same
 CEMENT AMOUNT ORDERED 225 sks Cem 5% CC

EQUIPMENT
 PUMP TRUCK CEMENTER to Rene Wentz 1
 # 431 HELPER Paul Beaver 3
 BULK TRUCK DRIVER Kevin Ryan 3
 BULK TRUCK DRIVER

COMMON 225 sks @ 17.90 4027.50
 POZMIX @
 GBL @
 CHLORIDE 85 sks @ 64.00 512.00
 ASC @

HANDLING 236.25 sk @ 2.80 583.90
 MILEAGE 10.89 @ 200 x 260 2831.90
 TOTAL 7956.80

REMARKS:
Mix 225 sks cement
Displace with water
Cement did circulate

Thank you

CHARGE TO: Murfin Drilling
 STREET
 CITY STATE ZIP

1089 SERVICE
 DEPTH OF JOB 225.71'
 PUMP TRUCK CHARGE 1512.25
 EXTRA FOOTAGE @
 MILEAGE 10.89 @ 200 2178.00
 MANIFOLD swedge 225.00
MILL 400 @ 440 176.00
 TOTAL 2997.25

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Greg Clark
 SIGNATURE Greg Clark

PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @
 TOTAL
 SALES TAX (if Any) 376.77
 TOTAL CHARGES 10954.05
 DISCOUNT 3943.45 IF PAID IN 30 DAYS
7010.60
3670



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

Acct. Prod-LizH

INVOICE

Invoice Number: 134481

Invoice Date: Jan 18, 2013

Page: 1

Bill To:
Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Now Includes:



Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	Jones #1-12	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Jan 18, 2013	2/17/13

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Class A Common	17.90	2,362.80
88.00	MAT	Pozmix	9.35	822.80
8.00	MAT	Gel	23.40	187.20
55.00	MAT	Flo Seal	2.97	163.35
236.28	SER	Cubic Feet	2.48	585.97
937.65	SER	Ton Mileage	2.60	2,437.89
1.00	SER	Plug to Abandon	2,600.47	2,600.47
95.00	SER	Pump Truck Mileage	7.70	731.50
95.00	SER	Light Vehicle Mileage	4.40	418.00
1.00	EQP	8.5/8 Wooden Plug	107.64	107.64
1.00	CEMENTER	LaRene Wentz		
1.00	OPER ASSIST	Paul Beaver		
1.00	OPER ASSIST	David Scariano		

JP

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 4271.22

ONLY IF PAID ON OR BEFORE
Feb 12, 2013

Subtotal	10,417.62
Sales Tax	864.66
Total Invoice Amount	11,282.28
Payment/Credit Applied	
TOTAL	11,282.28

