



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1206647
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: _____

1206647

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Most 1-23
Doc ID	1206647

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



PO Box 93999
Southlake, TX 76092

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

acct, Prod-mgr
INVOICE

Invoice Number: 142362

Invoice Date: Apr 2, 2014

Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	61333	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Apr 2, 2014	5/2/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Most #1-23		
190.00	CEMENT MATERIALS	Class A Common	17.90	3,401.00
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
199.50	CEMENT SERVICE	Cubic Feet Charge	2.48	494.76
460.00	CEMENT SERVICE	Ton Mileage Charge	2.60	1,196.00
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	EQUIPMENT OPERATOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Tyler Flipse		
1.00	OPERATOR ASSISTANT	Adam Flipse		

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

\$ 2,776.20 ✓

ONLY IF PAID ON OR BEFORE
Apr 27, 2014

Subtotal	7,932.01
Sales Tax	304.07
Total Invoice Amount	8,236.08
Payment/Credit Applied	
TOTAL	8,236.08

OK SA - 2776.20
5459.88



PO Box 93999
Southlake, TX 76092

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

*acct.
Prod-mo*

INVOICE

Invoice Number: 142481
Invoice Date: Apr 9, 2014
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	55188	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Russell	Apr 9, 2014	5/9/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Most #1-23		
220.00	CEMENT MATERIALS	60/40 Blend	15.30	3,366.00
220.00	CEMENT SERVICE	Cubic Feet Charge	2.48	545.60
475.00	CEMENT SERVICE	Ton Mileage Charge	2.60	1,235.00
1.00	CEMENT SERVICE	Plug to Abandon	2,483.59	2,483.59
100.00	CEMENT SERVICE	Heavy Vehicle Mileage	7.70	770.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	Tony Pfannenstiel		
1.00	OPERATOR ASSISTANT	Danny Sinner		
1.00	OPERATOR ASSISTANT	Jesse Cozart		

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

\$ 3,017.06 ✓ *gh*

ONLY IF PAID ON OR BEFORE
May 4, 2014

Subtotal	8,620.19
Sales Tax	681.00
Total Invoice Amount	9,301.19
Payment/Credit Applied	
TOTAL	9,301.19

SR

-3017.06
6284.13

ALLIED OIL & GAS SERVICES, LLC 055188

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell KS

DATE <u>4.2.14</u>	SEC. <u>23</u>	TWP. <u>4</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00</u>	JOB FINISH <u>1:30</u>
LEASE <u>Most</u>	WELL # <u>1-23</u>	LOCATION <u>Roxford KS</u>		COUNTY <u>Rawlins</u>	STATE <u>KS</u>		
OLD OR <input checked="" type="radio"/> NEW (Circle one)		W do Vin rd e - n to 105th 3w n into					

CONTRACTOR <u>Murkin Drilling #2</u>	OWNER
TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 7/8</u>	T.D.
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH <u>2655'</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	
EQUIPMENT	
PUMP TRUCK # <u>417</u>	CEMENTER <u>Dony Plummer</u>
BULK TRUCK # <u>378</u>	HELPER <u>Jerry S</u>
BULK TRUCK #	DRIVER <u>Jesse C</u>
BULK TRUCK #	DRIVER
HANDLING <u>220 SK</u>	@ <u>2.48</u> \$ <u>545.60</u>
MILEAGE <u>475</u>	@ <u>2.60</u> \$ <u>1235.00</u>
TOTAL <u>\$5,146.60</u>	

REMARKS:

See Current Job Log

SERVICE

DEPTH OF JOB	<u>2655'</u>
PUMP TRUCK CHARGE	<u>\$2,483.59</u>
EXTRA FOOTAGE	@
MILEAGE <u>Heavy 100m</u>	@ <u>7.7</u> \$ <u>770.00</u>
MANIFOLD <u>High 50m</u>	@ <u>4.4</u> \$ <u>220.00</u>
	@
	@

TOTAL \$3,473.59

CHARGE TO: Murkin Drilling LLC
STREET _____
CITY _____ STATE _____ ZIP 67665

PLUG & FLOAT EQUIPMENT

<u>4 x 8 1/2" wooden plugs</u>	@	<u>\$100.00</u>
	@	
	@	
	@	
	@	

TOTAL \$100.00

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.

SALES TAX (If Any)	<u>\$8,620.19</u>
TOTAL CHARGES	<u>3,573.59</u>
DISCOUNT	<u>\$3017.06</u>
IF PAID IN 30 DAYS	
<u>Net 5603,13</u>	

PRINTED NAME _____
SIGNATURE _____

Most #1-23
 Daily Drilling Report
 Page Two

4/7/14 Depth 4090'. Cut 134'. DT: None. CT: 16¾ hrs. Dev.: None. **DST #2 3956-4010 (LKC D-G):** 30-60-30-60. IF: surf blw built to 1". FF: No surf blw. Rec.: 64'WM. HP: 1990-1925. FP: 18/38, 41/51. SIP: 1201-1157. BHT: 114°. **LKC H:** Ls., crm/tan, fn xln, pr intfoss por, dns, calc IP, pyrc, chky, scat brn sptd stn, lt sat, fr amt slw bld irid pp FO, sli ti, Tr dl yel fluor, v fnt odr, S-FSFO. **LKC J:** Ls., crm/tan, fn xln, foss, pr-fr intfoss & micr Oolc por, dns, calc IP, sli fri, scat lt brn sat stn, Tr slw bld pp FO & G Bubls, dl fluor, fnt odr, SSFO. **DST #3 4023-4090 (LKC H-J):**

4/8/14 Depth 4270'. Cut 180'. DT: None. CT: 14hrs. Dev.: None. **DST #3 4023-4090 (LKC H-J):** 30-60-60-90. IF: BOB in 5 mins. ISI: weak surf blow FF: BOB in 5 mins. Rec.: 1507' MSW (83%W, 17%M), HP: 2039-1975. FP: 39/341, 348/722. SIP: 1339-1332. BHT: 124°, Chl: 100,000 PPM, RW: .117 @ 56° F

4/9/14 RTD: 4530'. Cut 260'. DT: None. CT: 8¼ hrs. Dev.: 1° @ 4530'. HC @ 1:45AM 4/9. TOOH

4/10/14 RTD: 4530'. CT: 17½ hrs. Pioneer logged 8:00AM-12:00PM 4/9. LTD: 4530'. Allied plugged hole, 5:45PM-8:30PM 4/9, using 60/40Poz, 4%Gel, ¼#flo seal, 25sxs @2655', 100sxs @ 1870', 40sxs @ 275', 10sxs @ 40', 30sxs RH, 15sxs MH. Orders by Ed Schumacher, KCC Hays. RR @ 12:30AM 4/10/14. FINAL REPORT

Most #1-23 900' FNL 1000' FWL Sec. 23-4S-31W 2879' KB							Holle Trust #1-22 1800' FNL 405' FEL Sec. 22-4S-31W 2871' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2636	+243	+9	2638	+241	+7	2637	+234
B/Anhydrite	2672	+207	+6	2672	+207	+6	2670	+201
Topeka	3724	-845	-6	3712	-833	+6	3710	-839
Heebner	3878	-999	+3	3877	-998	+4	3873	-1002
Lansing	3926	-1047	+2	3925	-1046	+3	3920	-1049
Stark	4090	-1211	+5	4091	-1212	+4	4087	-1216
BKC	4138	-1259	+4	4137	-1258	+5	4134	-1263
Pawnee	4250	-1371	+5	4256	-1376	Flat	4247	-1376
Cherokee	4338	-1459	+2	4341	-1462	-1	4332	-1461
Mississippi	4458	-1579	+1	4477	-1598	-18	4451	-1580
RTD	4530						4522	
LTD				4530			4524	



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Saman ShariFaie

Most #1-23

23-4S-31W Rawlins,KS

Start Date: 2014.04.05 @ 20:34:00

End Date: 2014.04.06 @ 04:58:00

Job Ticket #: 55205 DST #: 1

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

Printed: 2014.04.10 @ 09:22:52



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55205

DST#: 1

ATTN: Saman ShariFaie

Test Start: 2014.04.05 @ 20:34:00

GENERAL INFORMATION:

Formation: **Toronto - LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:48:15

Time Test Ended: 04:58:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 3876.00 ft (KB) To 3956.00 ft (KB) (TVD)

Reference Elevations: 2879.00 ft (KB)

Total Depth: 3956.00 ft (KB) (TVD)

2868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6753

Inside

Press@RunDepth: 147.18 psig @ 3877.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.05

End Date:

2014.04.06

Last Calib.:

2014.04.06

Start Time:

20:34:05

End Time:

04:57:59

Time On Btm:

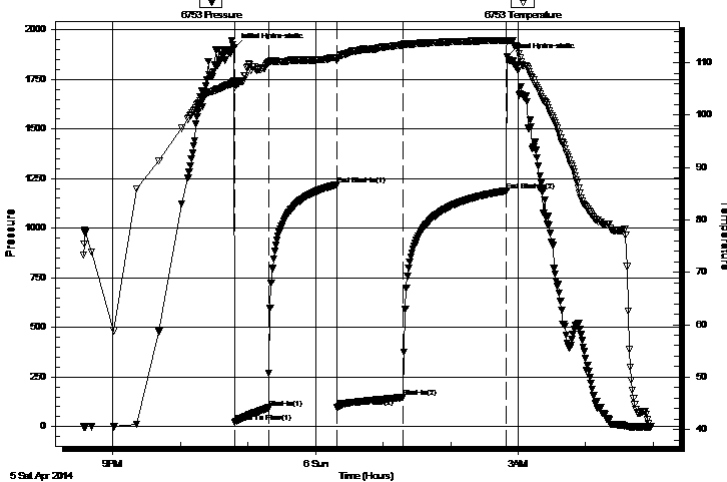
2014.04.05 @ 22:48:00

Time Off Btm:

2014.04.06 @ 02:50:30

TEST COMMENT: 30 - IF - Surface blow built to 3 3/4"
60 - ISI - No Return
60 - FF - Surface blow started 5 mins. into and built to 2 1/4"
90 - FSI - No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1909.93	106.59	Initial Hydro-static
1	22.97	105.31	Open To Flow (1)
31	93.96	109.95	Shut-In(1)
91	1218.99	110.97	End Shut-In(1)
92	98.77	110.42	Open To Flow (2)
150	147.18	113.41	Shut-In(2)
242	1188.73	114.20	End Shut-In(2)
243	1862.30	114.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
278.00	WM - 60M - 40W	2.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55205

DST#: 1

ATTN: Saman ShariFaie

Test Start: 2014.04.05 @ 20:34:00

Tool Information

Drill Pipe:	Length: 3661.03 ft	Diameter: 3.80 inches	Volume: 51.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 52.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.37 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3876.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	107.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3854.00	
Hydraulic tool	5.00			3859.00	
Jars	5.00			3864.00	
Safety Joint	3.00			3867.00	
Packer	4.00			3871.00	27.00 Bottom Of Top Packer
Packer	5.00			3876.00	
Stubb	1.00			3877.00	
Recorder	0.00	8368	Inside	3877.00	
Recorder	0.00	6753	Inside	3877.00	
Perforations	10.00			3887.00	
Change Over Sub	1.00			3888.00	
Drill Pipe	63.00			3951.00	
Change Over Sub	1.00			3952.00	
Bullnose	4.00			3956.00	80.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55205

DST#: 1

ATTN: Saman ShariFaie

Test Start: 2014.04.05 @ 20:34:00

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:

32000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
278.00	WM - 60M - 40W	2.011

Total Length: 278.00 ft Total Volume: 2.011 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

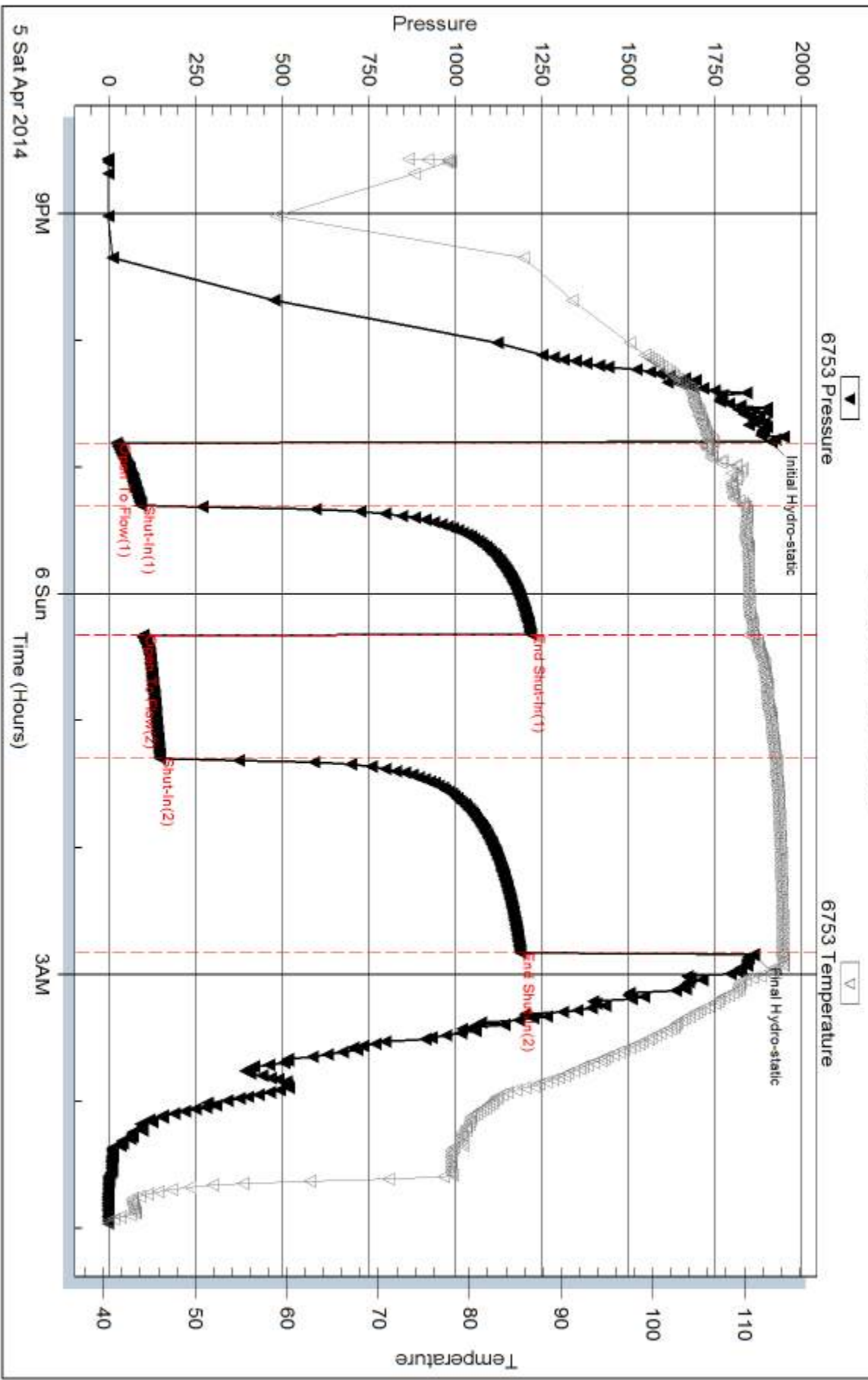
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



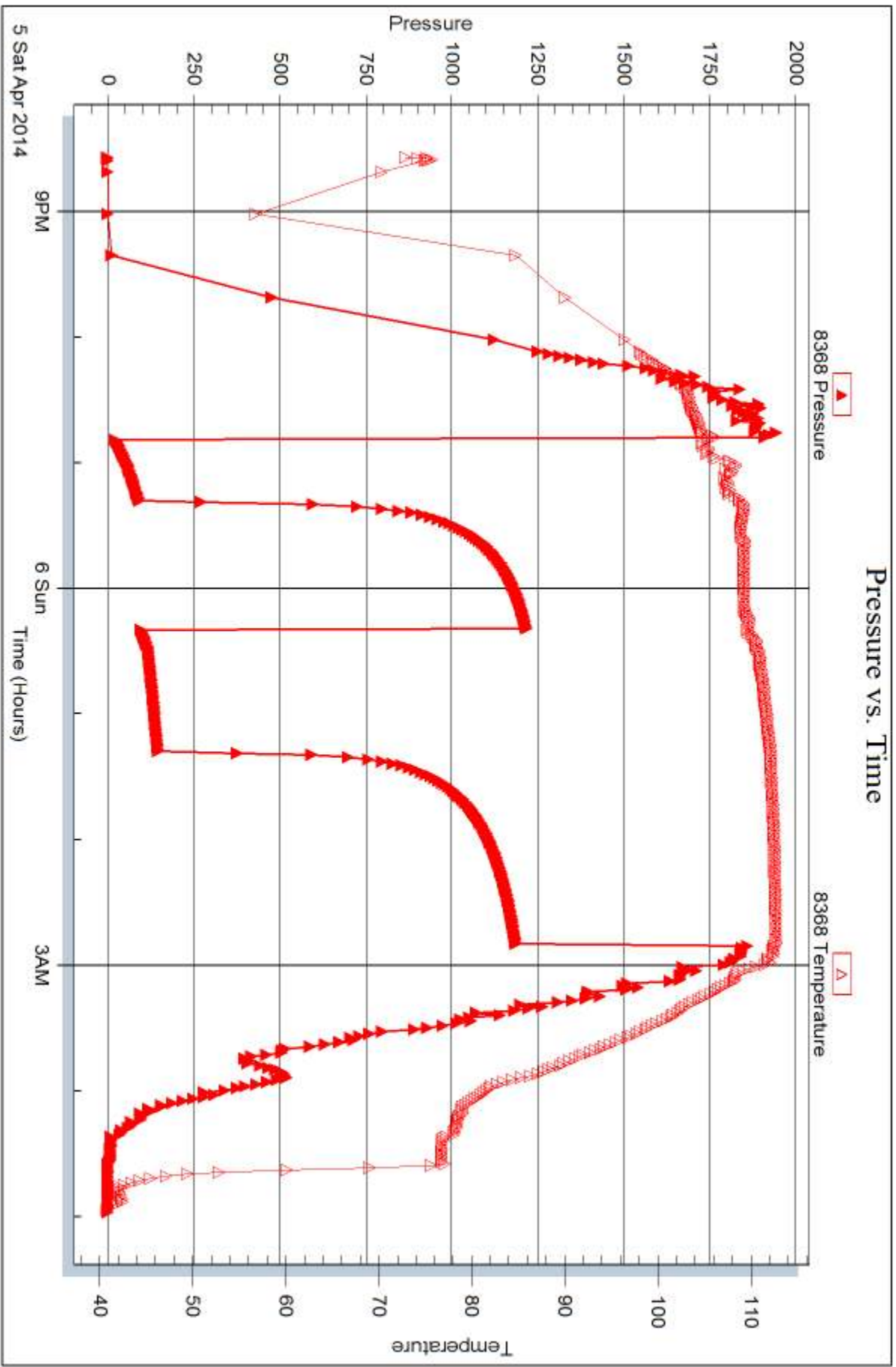
Serial #: 8368

Inside

Murfin Drilling Co., Inc.

Most #1-23

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55205

Printed: 2014.04.10 @ 09:22:55



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Saman ShariFaie

Most #1-23

23-4S-31W Rawlins,KS

Start Date: 2014.04.06 @ 14:23:00

End Date: 2014.04.06 @ 21:43:15

Job Ticket #: 55206 DST #: 2

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

Printed: 2014.04.10 @ 09:22:28



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55206

DST#: 2

ATTN: Saman ShariFaie

Test Start: 2014.04.06 @ 14:23:00

GENERAL INFORMATION:

Formation: **LKC D-G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:30

Time Test Ended: 21:43:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 3956.00 ft (KB) To 4010.00 ft (KB) (TVD)

Reference Elevations: 2879.00 ft (KB)

Total Depth: 4010.00 ft (KB) (TVD)

2868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6753

Inside

Press@RunDepth: 50.91 psig @ 3957.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.06

End Date:

2014.04.06

Last Calib.:

2014.04.06

Start Time: 14:23:05

End Time:

21:43:14

Time On Btm:

2014.04.06 @ 16:37:15

Time Off Btm:

2014.04.06 @ 19:39:00

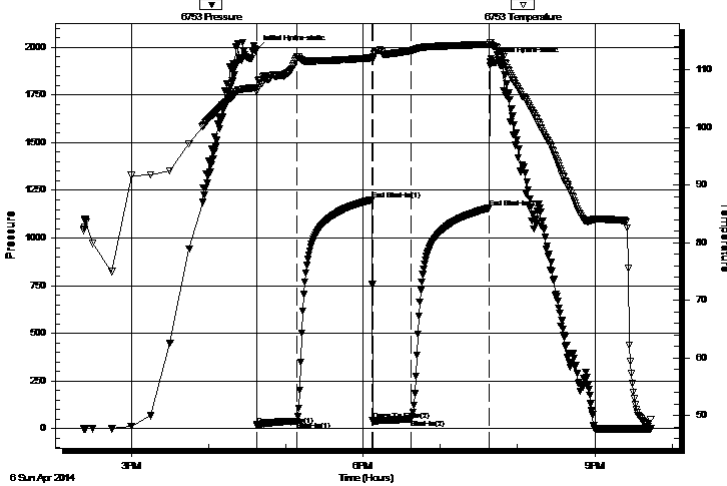
TEST COMMENT: 30 - IF - Surface blow built to 1"

60 - ISI - No Return

30 - FF - No Surface blow

60 - FSI - No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1989.61	106.90	Initial Hydro-static
1	17.71	106.24	Open To Flow (1)
32	37.57	112.18	Shut-In(1)
90	1200.85	112.07	End Shut-In(1)
91	41.34	111.71	Open To Flow (2)
120	50.91	113.33	Shut-In(2)
181	1157.46	114.39	End Shut-In(2)
182	1925.25	114.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00		0.31

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55206

DST#: 2

ATTN: Saman ShariFaie

Test Start: 2014.04.06 @ 14:23:00

Tool Information

Drill Pipe:	Length: 3751.66 ft	Diameter: 3.80 inches	Volume: 52.63 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3956.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	81.00 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			3934.00	
Hydraulic tool	5.00			3939.00	
Jars	5.00			3944.00	
Safety Joint	3.00			3947.00	
Packer	4.00			3951.00	27.00 Bottom Of Top Packer
Packer	5.00			3956.00	
Stubb	1.00			3957.00	
Recorder	0.00	8368	Inside	3957.00	
Recorder	0.00	6753	Inside	3957.00	
Perforations	16.00			3973.00	
Change Over Sub	1.00			3974.00	
Drill Pipe	31.00			4005.00	
Change Over Sub	1.00			4006.00	
Bullnose	4.00			4010.00	54.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55206

DST#: 2

ATTN: Saman ShariFaie

Test Start: 2014.04.06 @ 14:23:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
64.00		0.315

Total Length: 64.00 ft Total Volume: 0.315 bbl

Num Fluid Samples: 0

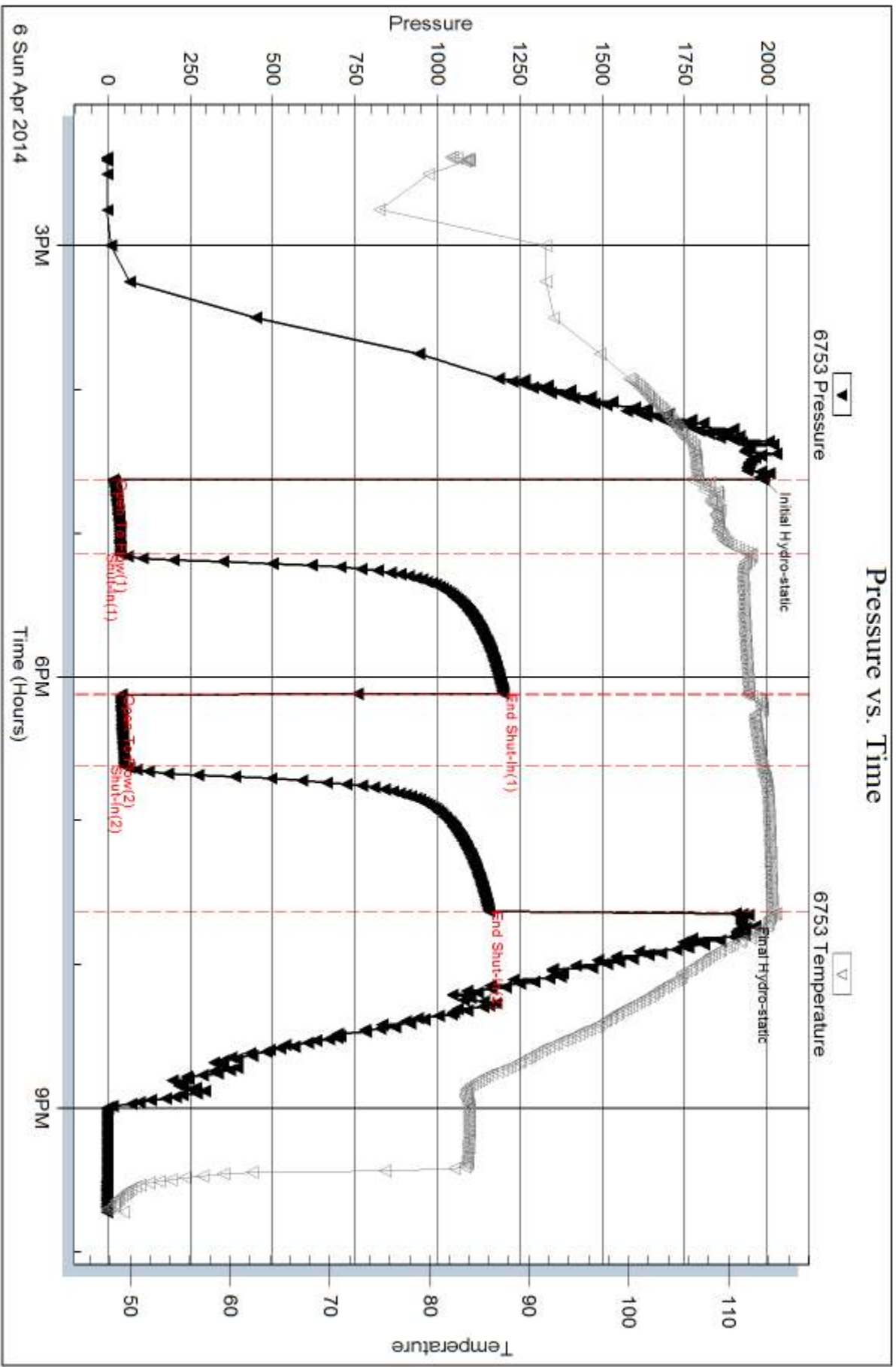
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



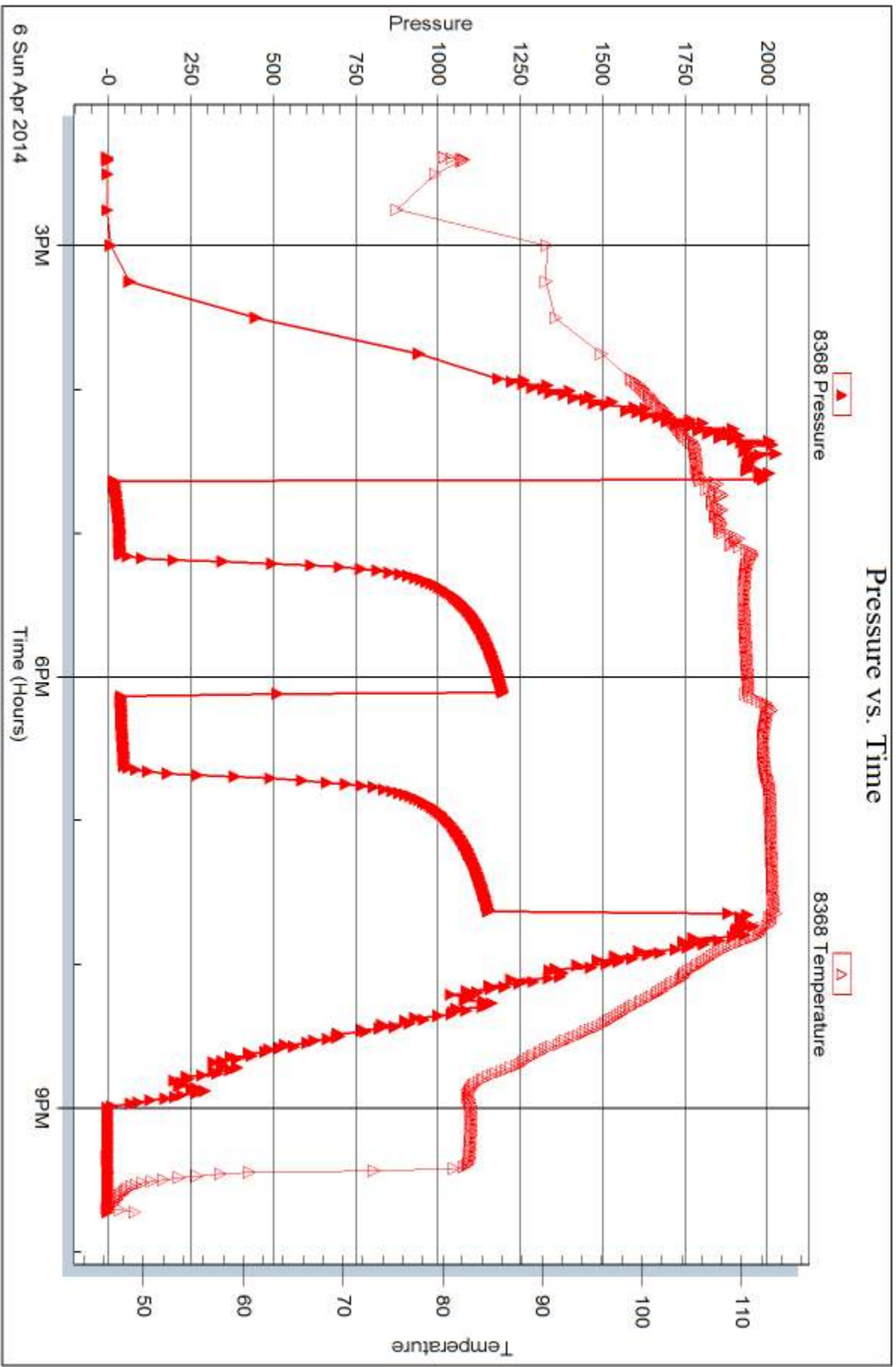
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Inside

Murfin Drilling Co., Inc.

Most #1-23

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Ste 300
Wichita KS 67202

ATTN: Saman ShariFaie

Most #1-23

23-4S-31W Rawlins,KS

Start Date: 2014.04.07 @ 08:25:00

End Date: 2014.04.07 @ 16:52:00

Job Ticket #: 55984 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.10 @ 09:20:44



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55984

DST#: 3

ATTN: Saman ShariFaie

Test Start: 2014.04.07 @ 08:25:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:15:45

Time Test Ended: 16:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Robert Zodrow

Unit No: 54

Interval: 4023.00 ft (KB) To 4090.00 ft (KB) (TVD)

Reference Elevations: 2879.00 ft (KB)

Total Depth: 4090.00 ft (KB) (TVD)

2868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6753

Inside

Press@RunDepth: 722.28 psig @ 4024.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.07

End Date:

2014.04.07

Last Calib.:

2014.04.07

Start Time:

08:25:05

End Time:

16:51:59

Time On Btm:

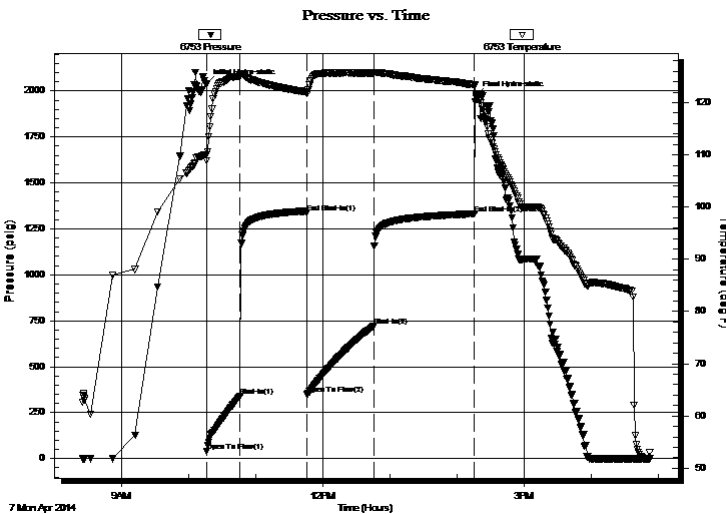
2014.04.07 @ 10:15:30

Time Off Btm:

2014.04.07 @ 14:17:00

TEST COMMENT: 30-IF- Bob In 5 Mins
60-ISI- Return Built To Weak Surface Blow
60-FF- Bob In 5 Mins
90-FSI- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2038.67	110.03	Initial Hydro-static
1	39.30	108.91	Open To Flow (1)
31	341.17	125.10	Shut-In(1)
90	1338.67	122.02	End Shut-In(1)
91	348.45	121.81	Open To Flow (2)
150	722.28	125.63	Shut-In(2)
240	1331.95	123.49	End Shut-In(2)
242	1974.98	120.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1507.00	msw 17%m 83%sw	20.03

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55984

DST#: 3

ATTN: Saman ShariFaie

Test Start: 2014.04.07 @ 08:25:00

Tool Information

Drill Pipe:	Length: 3816.00 ft	Diameter: 3.88 inches	Volume: 55.81 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.00 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 56.83 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4023.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4001.00	
Hydraulic tool	5.00			4006.00	
Jars	5.00			4011.00	
Safety Joint	3.00			4014.00	
Packer	4.00			4018.00	27.00 Bottom Of Top Packer
Packer	5.00			4023.00	
Stubb	1.00			4024.00	
Recorder	0.00	8368	Inside	4024.00	
Recorder	0.00	6753	Inside	4024.00	
Perforations	29.00			4053.00	
Change Over Sub	1.00			4054.00	
Drill Pipe	31.00			4085.00	
Change Over Sub	1.00			4086.00	
Bullnose	4.00			4090.00	67.00 Bottom Packers & Anchor

Total Tool Length: 94.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-4S-31W Rawlins,KS

250 N. Water Ste 300
Wichita KS 67202

Most #1-23

Job Ticket: 55984

DST#: 3

ATTN: Saman ShariFaie

Test Start: 2014.04.07 @ 08:25:00

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:

100000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1507.00	msw 17%m 83%sw	20.029

Total Length: 1507.00 ft Total Volume: 20.029 bbl

Num Fluid Samples: 0

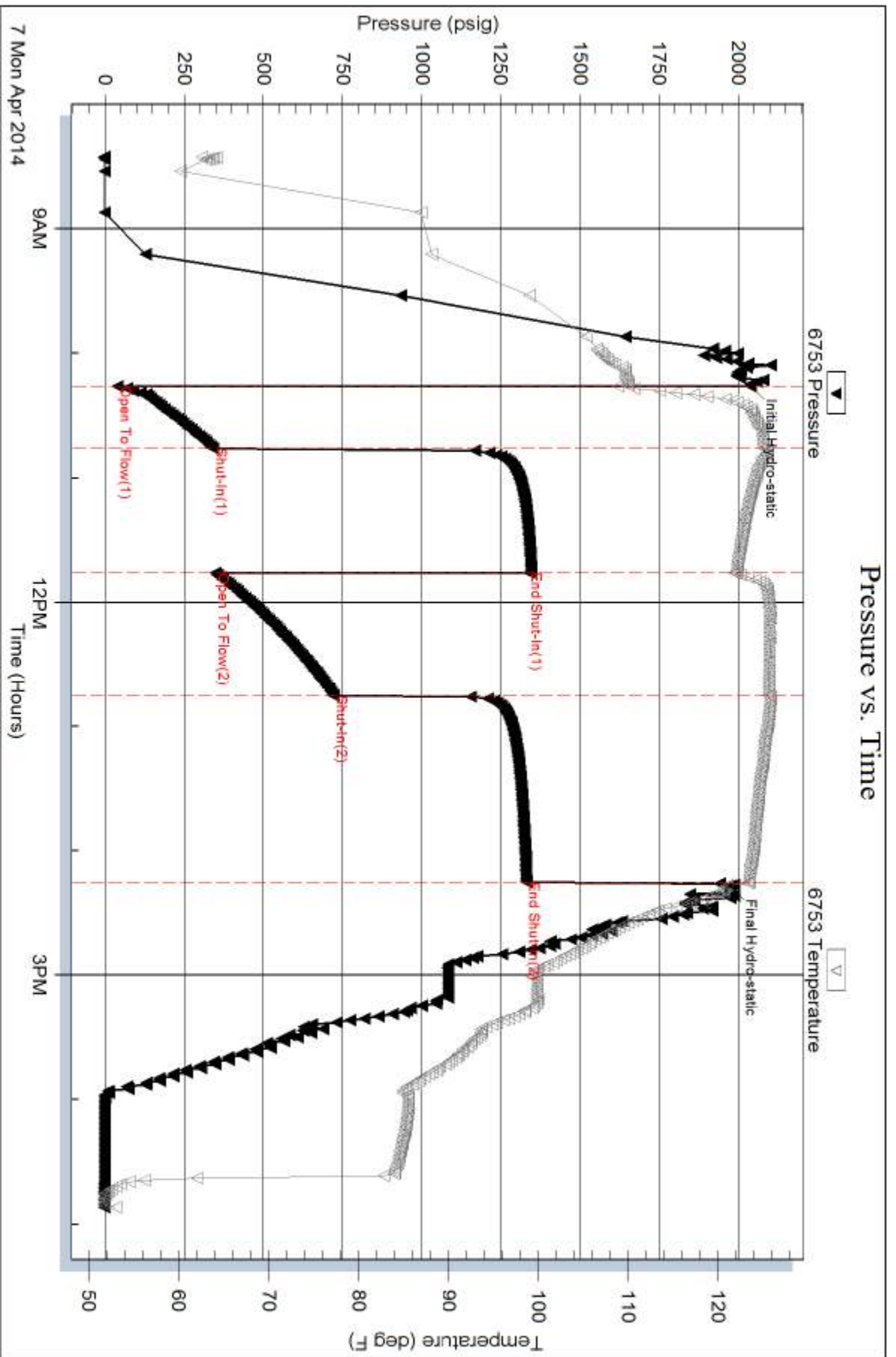
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .117@56deg F =100000





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55205**

Well Name & No. Most #1-23 Test No. 1 Date 4-5-14
 Company Murfin Drilling Co., Inc. Elevation 2879 KB 2868 GL
 Address 250 N. Water Ste 300, Wichita KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

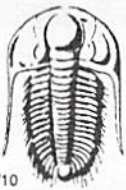
Interval Tested 3876 - 3956 Zone Tested Top, LKC A-B
 Anchor Length 80' Drill Pipe Run 3661.03' Mud Wt. 9.0
 Top Packer Depth 3871 Drill Collars Run 207.34' Vis 53
 Bottom Packer Depth 3876 Wt. Pipe Run 0 WL 6.0
 Total Depth 3956 Chlorides 1500 ppm System LCM 6#
 Blow Description IF-Surface blow built to 3 3/4"
ISI-No Return
FF-Surface blow started 5mins. into and built to 2 1/4"
FSI-No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>278'</u>	<u>WM</u>		<u>40</u>	<u>60</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 278 BHT 114°F Gravity _____ API RW 356 @ 43 °F Chlorides 32,000 ppm
 (A) Initial Hydrostatic 1909 Test 1150 T-On Location 6:30pm
 (B) First Initial Flow 22 Jars 250 T-Started 8:34pm
 (C) First Final Flow 93 Safety Joint 75 T-Open 10:48pm
 (D) Initial Shut-In 128 Circ Sub N/C T-Pulled 2:48am
 (E) Second Initial Flow 98 Hourly Standby _____ T-Out 4:57am
 (F) Second Final Flow 147 Mileage 50 RT 77.50 Comments _____
 (G) Final Shut-In 1188 Sampler _____
 (H) Final Hydrostatic 1862 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1552.50

Approved By _____ 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55206

Well Name & No. Most #1-23 Test No. 2 Date 4-6-14
 Company Murfin Drilling Co., Inc. Elevation 2879 KB 2868 GL
 Address 250 N. Water Ste 300, Wichita KS 67202
 Co. Rep / Geo. Saman Shari Faie Rig Murfin #2
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3956 - 4010 Zone Tested LKC - D, F, G,
 Anchor Length 54' Drill Pipe Run 3751.66' Mud Wt. 9.1
 Top Packer Depth 3951 Drill Collars Run 207.34' Vis 57
 Bottom Packer Depth 3956 Wt. Pipe Run 0 WL 6.8
 Total Depth 4010 Chlorides 1500 ppm System LCM 6#
 Blow Description TF-Surface blow built to 1"
ISI-No Return
FF-No Surface Blow
FSI-No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>64'</u>	<u>OSWm</u>	<u>spots</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

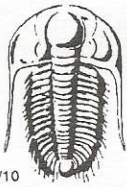
Rec Total 64' BHT 114°F Gravity _____ API RW 228 @ 51 °F Chlorides 48,000 ppm

(A) Initial Hydrostatic 1989 Test 1250 T-On Location 1:45pm
 (B) First Initial Flow 17 Jars 250 T-Started 2:23pm
 (C) First Final Flow 37 Safety Joint 75 T-Open 4:37pm
 (D) Initial Shut-In 1200 Circ Sub n/c T-Pulled 7:37pm
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 9:43
 (F) Second Final Flow 50 Mileage 50 R/T 77.50
 (G) Final Shut-In 1157 Sampler _____
 (H) Final Hydrostatic 1925 Straddle _____
 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 1552.50
 Total 1552.50
 MP/DST Disc't _____

Approved By _____ 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55984

Well Name & No. MOST # 1-23 Test No. 3 Date 4-7-2014
 Company MURFIN DRILLING CO, Inc. Elevation 2879 KB 2868 GL
 Address 250 N water STE. 300, Wichita KS. 67202
 Co. Rep / Geo. Saman Sharifaie Rig MURFIN #2
 Location: Sec. 23 Twp. 45 Rge. 31W Co. Rawlins State KS

Interval Tested 4023 - 4090 Zone Tested LKC "H-J"
 Anchor Length 67 Drill Pipe Run 3816 Mud Wt. 9.1
 Top Packer Depth 4018 Drill Collars Run 207 Vis 57
 Bottom Packer Depth 4023 Wt. Pipe Run 0 WL 6.8
 Total Depth 4090 Chlorides 1,500 ppm System LCM 6.0

Blow Description IF - ~~Bob~~ Bob In 5 mins
ISI - weak surface blow on Return
FF - Bob In 5 mins
FSI - NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>1507</u>	<u>msw</u>		<u>83</u>	<u>17</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 1507 BHT 124 Gravity - API RW .117 @ 56 °F Chlorides 100,000 ppm

(A) Initial Hydrostatic 2039 Test 1250 T-On Location 8:00 Am 4-7
 (B) First Initial Flow 39 Jars 250 T-Started 8:25 Am 4-7
 (C) First Final Flow 341 Safety Joint 75 T-Open 10:15 Am 4-7
 (D) Initial Shut-In 1339 Circ Sub _____ T-Pulled 2:15 pm 4-7
 (E) Second Initial Flow 348 Hourly Standby _____ T-Out 4:52 pm 4-7
 (F) Second Final Flow 722 Mileage 50 RT x2 155 Comments Loaded tool set
 (G) Final Shut-In 1332 Sampler _____ 12:00 pm on 4-9-2014
 (H) Final Hydrostatic 1975 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 800
 Total 2530
 MP/DST Disc't _____
 Sub Total 1730

Approved By [Signature] Our Representative Robert Zechow

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.

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **Martin Drilling Co., Inc.**
 LEASE: **Mos #1-23**

FIELD: **Wildcat**
 LOCATION: **900' FNL & 1000' FWL**
 SEC: **23** TWP: **4S** RGE: **31W**
 COUNTY: **Randolph** STATE: **Kansas**

CONTRACTOR: **Martin Drilling #2**
 RTD: **04/02/14** COMP: **04/09/14**
 SPUD: **4:51:00** LTD: **4:53:00**
 MUD UP: **3:40:00** TYPE MUD: **Chemical**

SAMPLES SAVED FROM: **3630'** TO RTD
 DRILLING TIME KEPT FROM: **3:60:00** TO RTD
 SAMPLES EXAMINED FROM: **3630'** TO RTD

GEOLOGICAL SUPERVISION FROM: **3:32:00**
 REFERENCE WELL: **Holle Trust #1-22**

CND: **D.L. MEL; S.MIC**
 GEOTECH: **Power Hiredline**

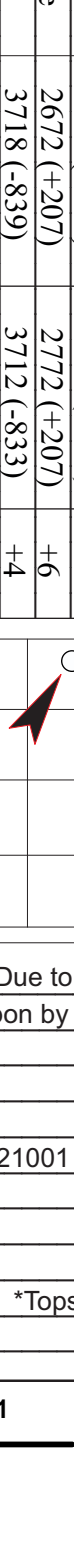
ELEVATIONS
 KB: **2879'**
 DF: _____
 GL: **2868'**
 MEASUREMENTS ARE ALL FROM KELLY BUSHING

CASING
 CONDUCTOR: _____
 SURFACE: **8-5/8" at 22.5'**
 PRODUCTION: **N/A**

ELECTRICAL SURVEYS
 CND: **D.L. MEL; S.MIC**
 REFERENCE WELL: **Holle Trust #1-22**

Formation

Sample Tops	E-log Tops	Start
Ambydrite	2638 (+241)	+7
Base Ambydrite	2772 (+207)	+6
Truband	3718 (+833)	+4
Truband	3877 (+992)	+3
Truband	3926 (+1047)	+4
Truband	4091 (+1211)	+5
Truband	4250 (+1371)	-
Truband	4338 (+1459)	-
Mississippian	4477 (+1598)	-18



REMARKS Due to poor shows of oil in all potential pay zones and negative DST results, it is recommended and agreed upon by all parties that this well be plugged and abandoned.

Respectfully Submitted,
 Saman Sharifaie
 Petroleum Geologist

API #15-153-21001

*Tops have been adjusted to electric logs

