



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1223979
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: _____

1223979

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Gilbert 'A' 1-23
Doc ID	1223979

All Electric Logs Run

DIL
DUCP
MEL
BHCS



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Gilbert 'A' #1-23

23-4s-31w Rawlins,KS

Start Date: 2014.05.30 @ 05:00:00

End Date: 2014.05.30 @ 13:14:30

Job Ticket #: 58228 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.09 @ 11:06:15

Murfin Drilling Co., Inc.

23-4s-31w Rawlins,KS

Gilbert 'A' #1-23

DST # 1

Toronto-LKC "A-B"

2014.05.30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4s-31w Rawlins,KS

250 N Water STE #300
Wichita, KS 67202

Gilbert 'A' #1-23

Job Ticket: 58228

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 05:00:00

GENERAL INFORMATION:

Formation: **Toronto-LKC "A-B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:12:30

Time Test Ended: 13:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3887.00 ft (KB) To 3969.00 ft (KB) (TVD)

Reference Elevations: 2895.00 ft (KB)

Total Depth: 3969.00 ft (KB) (TVD)

2890.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 35.18 psig @ 3888.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.30

End Date:

2014.05.30

Last Calib.:

2014.05.30

Start Time: 05:01:00

End Time:

13:14:30

Time On Btm:

2014.05.30 @ 08:10:30

Time Off Btm:

2014.05.30 @ 11:14:30

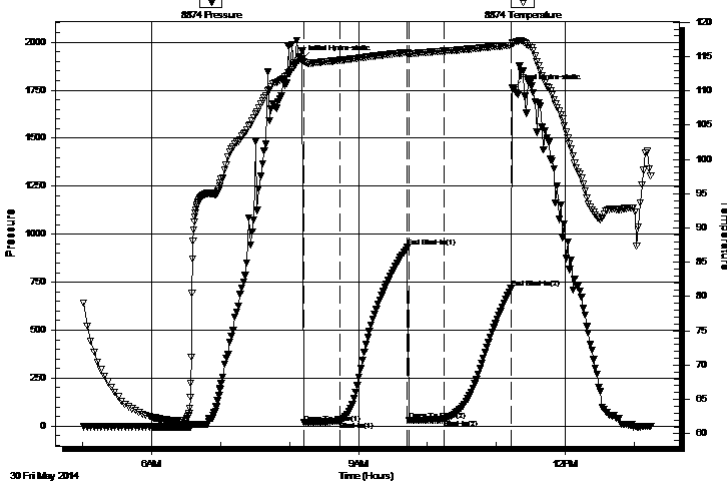
TEST COMMENT: 30 - IF- 1/4" Blow did not build or die.

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1909.34	114.61	Initial Hydro-static
2	17.47	114.25	Open To Flow (1)
33	25.77	114.45	Shut-In(1)
92	931.08	115.60	End Shut-In(1)
94	29.26	115.24	Open To Flow (2)
124	35.18	115.80	Shut-In(2)
182	717.84	116.66	End Shut-In(2)
184	1757.93	116.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4s-31w Rawlins, KS

250 N Water STE #300
Wichita, KS 67202

Gilbert 'A' #1-23

Job Ticket: 58228

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 05:00:00

GENERAL INFORMATION:

Formation: **Toronto-LKC "A-B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:12:30

Time Test Ended: 13:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3887.00 ft (KB) To 3969.00 ft (KB) (TVD)

Reference Elevations: 2895.00 ft (KB)

Total Depth: 3969.00 ft (KB) (TVD)

2890.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 3888.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.30

End Date:

2014.05.30

Last Calib.:

2014.05.30

Start Time: 05:01:00

End Time:

13:13:00

Time On Btm:

Time Off Btm:

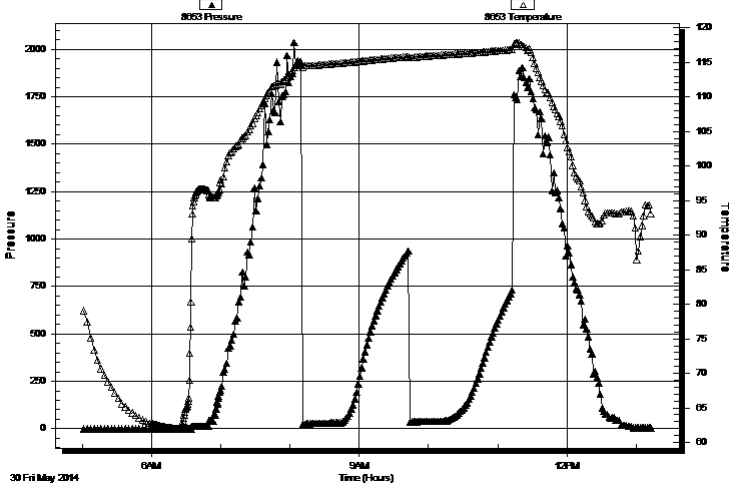
TEST COMMENT: 30 - IF- 1/4" Blow did not build or die.

60 - ISI- No Return

30 - FF- No Blow

60 - FSI- No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

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

Gilbert 'A' #1-23

Job Ticket: 58228

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 05:00:00

Tool Information

Drill Pipe:	Length: 3830.00 ft	Diameter: 3.80 inches	Volume: 53.72 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: 61.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.02 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3887.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	110.00 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
Change Over Sub	1.00			3860.00	
Shut In Tool	5.00			3865.00	
Hydraulic tool	5.00			3870.00	
Jars	5.00			3875.00	
Safety Joint	3.00			3878.00	
Packer	5.00			3883.00	28.00 Bottom Of Top Packer
Packer	4.00			3887.00	
Stubb	1.00			3888.00	
Recorder	0.00	8653	Outside	3888.00	
Recorder	0.00	8874	Inside	3888.00	
Perforations	11.00			3899.00	
Change Over Sub	1.00			3900.00	
Drill Pipe	63.00			3963.00	
Change Over Sub	1.00			3964.00	
Bullnose	5.00			3969.00	82.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**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

Gilbert 'A' #1-23

Job Ticket: 58228

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 05:00:00

Mud and Cushion Information

Mud Type: Invert	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: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 700.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

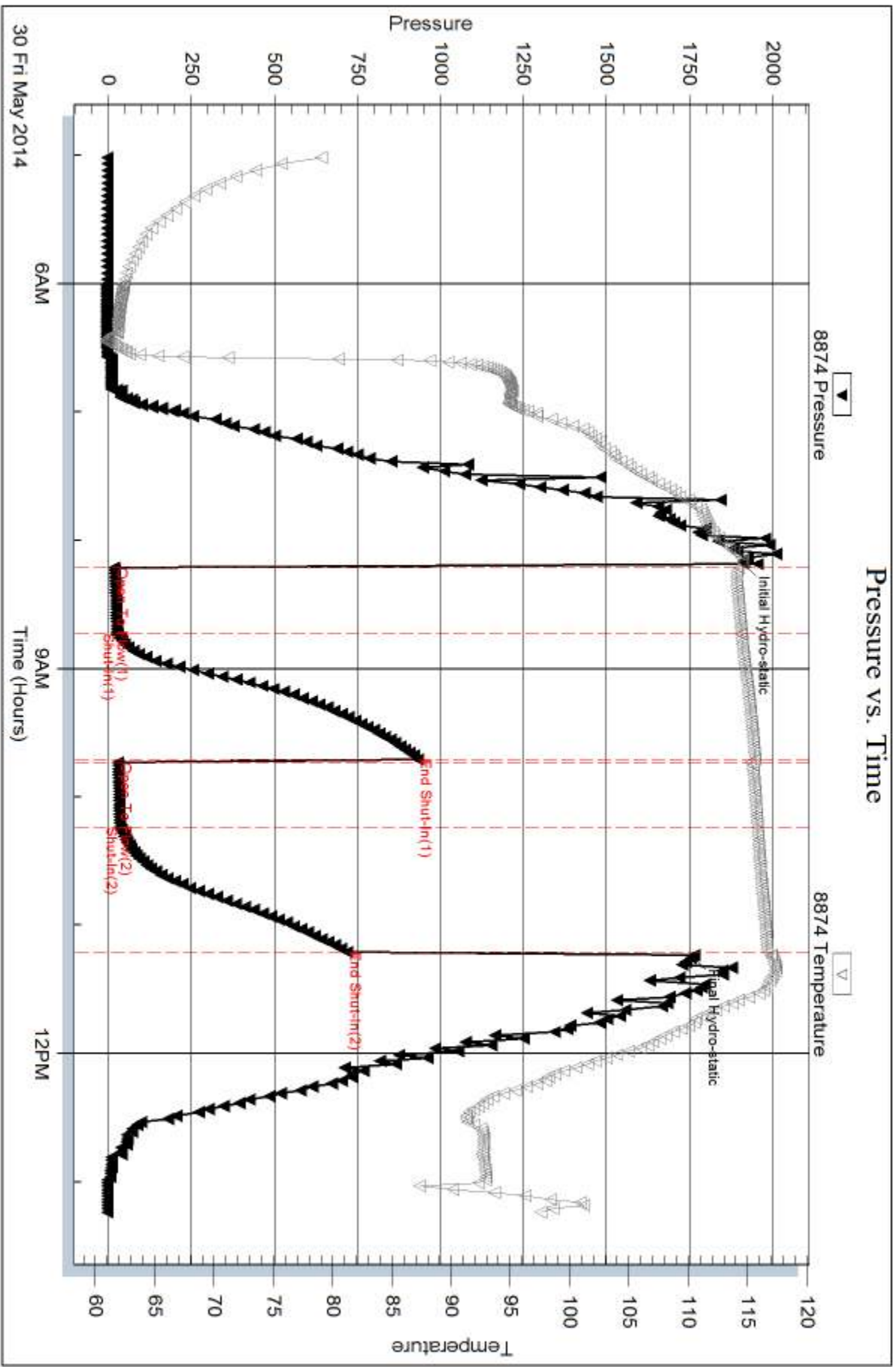
Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

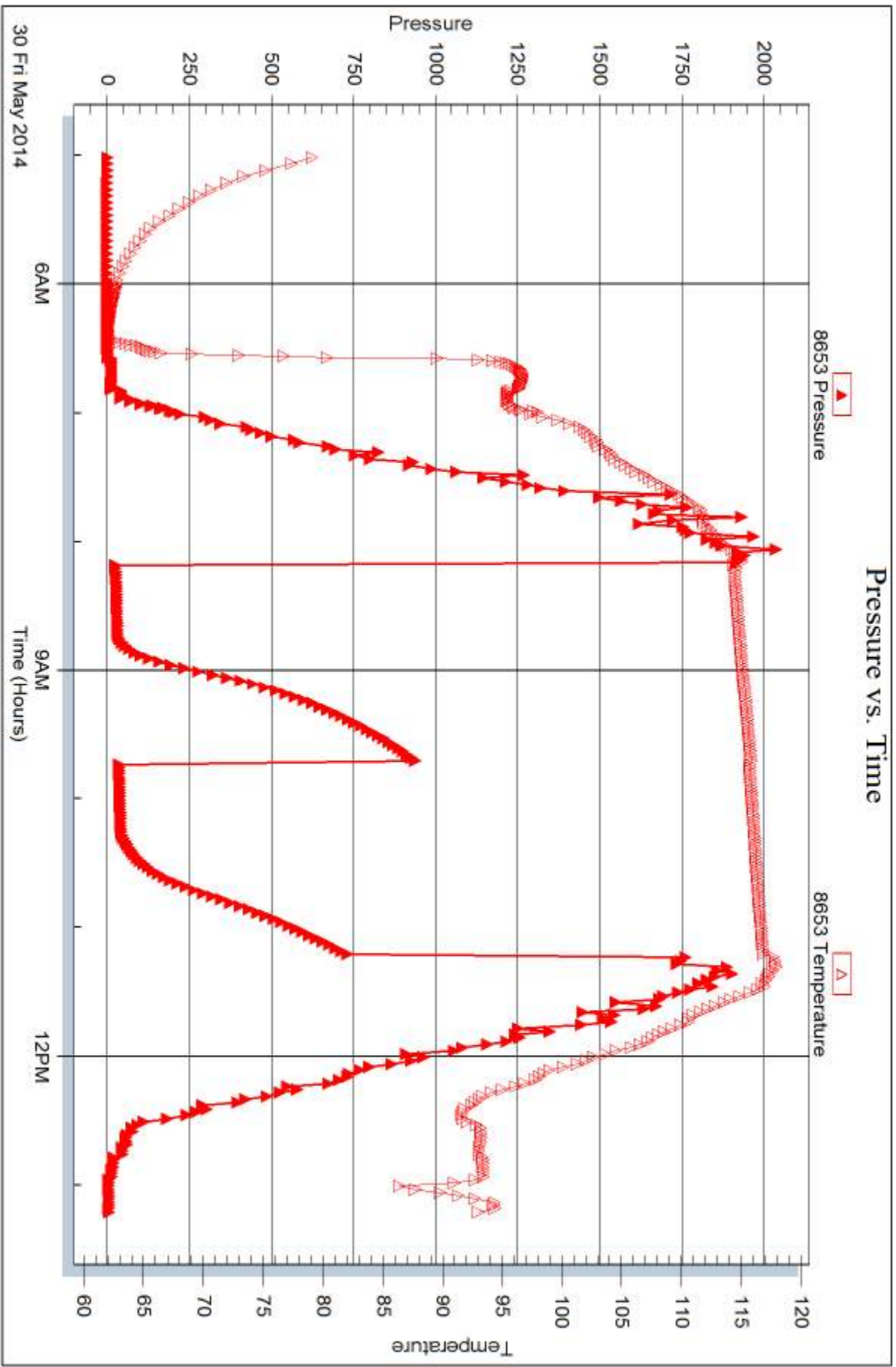


Serial #: 8653

Outside Murfin Drilling Co., Inc.

Gilbert A' #1-23

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58228

Printed: 2014.06.09 @ 11:06:16



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Gilbert 'A' #1-23

23-4s-31w Rawlins,KS

Start Date: 2014.05.30 @ 23:26:00

End Date: 2014.05.31 @ 08:10:30

Job Ticket #: 56846 DST #: 2

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

Printed: 2014.06.09 @ 11:04:16

Murfin Drilling Co., Inc. 23-4s-31w Rawlins,KS Gilbert 'A' #1-23 DST # 2 LKC "F-G" 2014.05.30



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
 250 N Water STE #300
 Wichita, KS 67202
 ATTN: Keith Reavis

23-4s-31w Rawlins,KS

Gilbert 'A' #1-23

Job Ticket: 56846

DST#: 2

Test Start: 2014.05.30 @ 23:26:00

GENERAL INFORMATION:

Formation: **LKC "F-G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:48:00
 Time Test Ended: 08:10:30
 Interval: **3984.00 ft (KB) To 4022.00 ft (KB) (TVD)**
 Total Depth: 4022.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66
 Reference Elevations: 2895.00 ft (KB)
 2890.00 ft (CF)
 KB to GR/CF: 5.00 ft

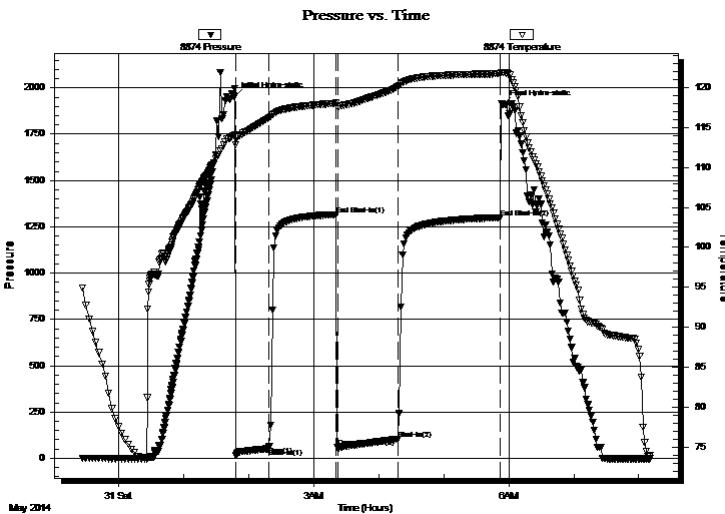
Serial #: 8874

Inside

Press@RunDepth: 103.68 psig @ 3985.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.30 End Date: 2014.05.31 Last Calib.: 2014.05.31
 Start Time: 23:27:00 End Time: 08:10:30 Time On Btm: 2014.05.31 @ 01:47:00
 Time Off Btm: 2014.05.31 @ 05:55:00

TEST COMMENT: 30 - IF- BoB in 8 min
 60 - IS- No Return
 60 - FF- BoB in 9 min.
 90 - FS- Surface Return started at 3 min. Built to 2 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1954.68	114.04	Initial Hydro-static
1	18.08	112.83	Open To Flow (1)
32	53.52	116.17	Shut-In(1)
94	1316.59	118.02	End Shut-In(1)
95	57.07	117.67	Open To Flow (2)
151	103.68	120.07	Shut-In(2)
245	1298.78	121.69	End Shut-In(2)
248	1910.42	121.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	MCO 60o 40M	0.30
189.00	Clean Gassy Oil 20G 80o	2.65
0.00	441 GIP	0.00

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

Gilbert 'A' #1-23

Job Ticket: 56846

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 23:26:00

Tool Information

Drill Pipe:	Length: 3925.00 ft	Diameter: 3.80 inches	Volume: 55.06 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: 61.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 55.36 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3984.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	66.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3957.00	
Shut In Tool	5.00			3962.00	
Hydraulic tool	5.00			3967.00	
Jars	5.00			3972.00	
Safety Joint	3.00			3975.00	
Packer	5.00			3980.00	28.00 Bottom Of Top Packer
Packer	4.00			3984.00	
Stubb	1.00			3985.00	
Recorder	0.00	8653	Outside	3985.00	
Recorder	0.00	8874	Inside	3985.00	
Perforations	1.00			3986.00	
Change Over Sub	1.00			3987.00	
Drill Pipe	31.00			4018.00	
Change Over Sub	1.00			4019.00	
Bullnose	3.00			4022.00	38.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**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

Gilbert 'A' #1-23

Job Ticket: 56846

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.05.30 @ 23:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 71.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
61.00	MCO 60o 40M	0.300
189.00	Clean Gassy Oil 20G 80o	2.651
0.00	441 GIP	0.000

Total Length: 250.00 ft Total Volume: 2.951 bbl

Num Fluid Samples: 0

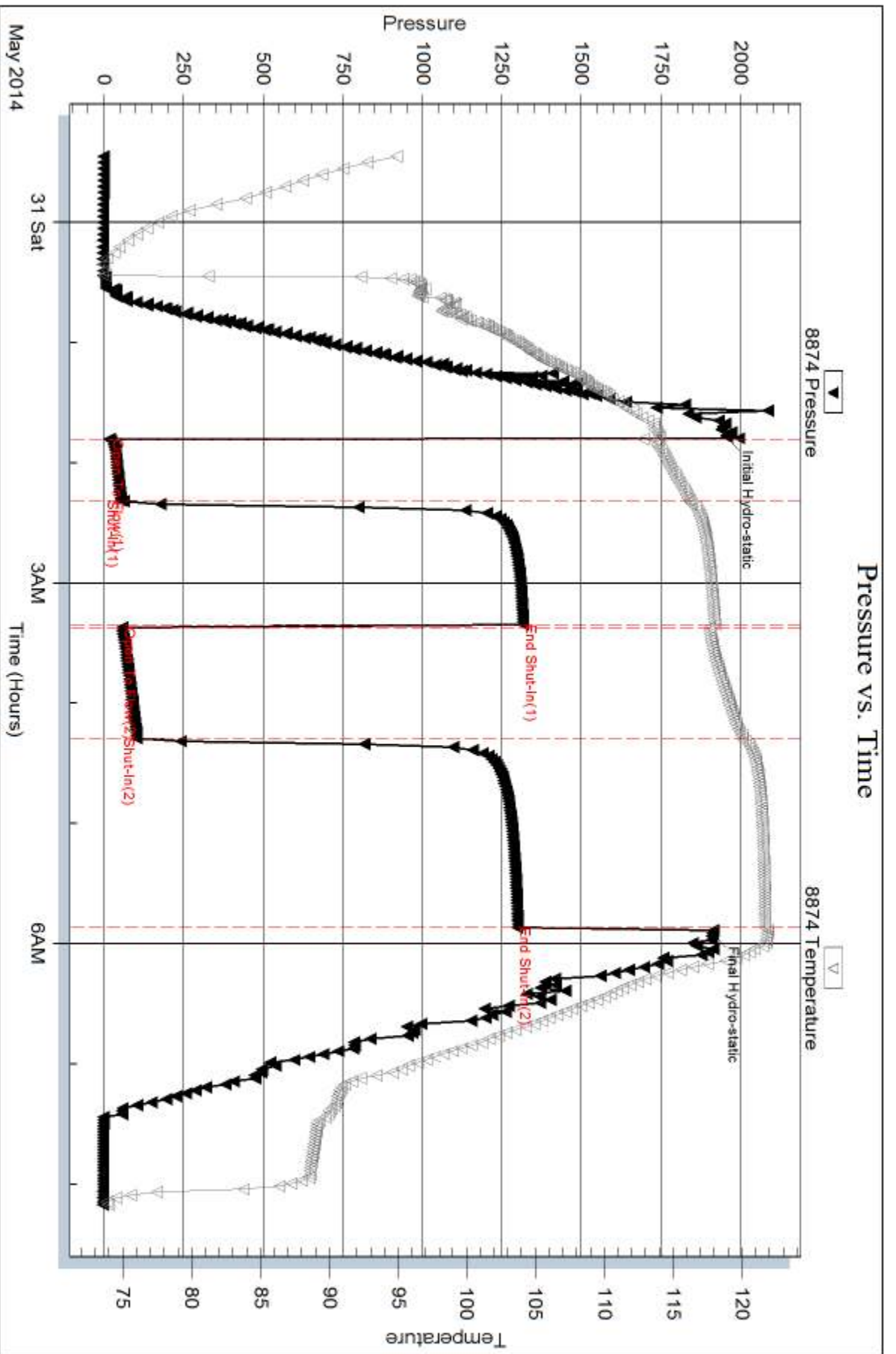
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API 37 @ 80 deg = 35 corr.

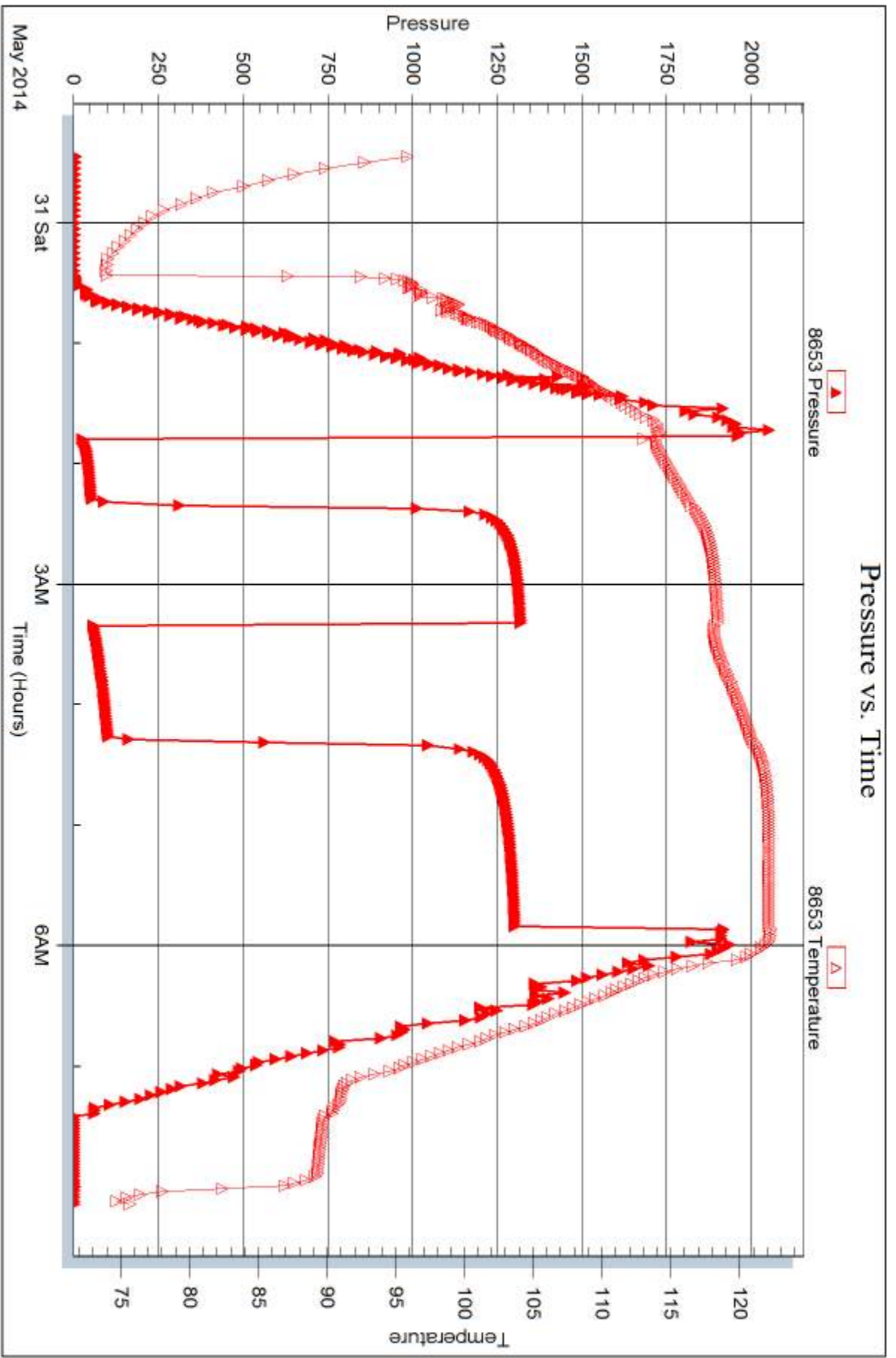


Serial #: 8653

Outside Murfin Drilling Co., Inc.

Gilbert A' #1-23

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56846

Printed: 2014.06.09 @ 11:04:17



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Gilbert 'A' #1-23

23-4s-31w Rawlins,KS

Start Date: 2014.05.31 @ 19:00:00

End Date: 2014.06.01 @ 04:11:00

Job Ticket #: 56847 DST #: 3

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

Printed: 2014.06.09 @ 11:03:52



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

23-4s-31w Rawlins,KS

250 N Water STE #300
Wichita, KS 67202

Gilbert 'A' #1-23

Job Ticket: 56847

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.31 @ 19:00:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:39:30

Time Test Ended: 04:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4029.00 ft (KB) To 4105.00 ft (KB) (TVD)

Reference Elevations: 2895.00 ft (KB)

Total Depth: 4105.00 ft (KB) (TVD)

2890.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 24.66 psig @ 4030.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.31

End Date:

2014.06.01

Last Calib.: 2014.06.01

Start Time: 19:01:00

End Time:

04:11:00

Time On Btm: 2014.05.31 @ 22:37:30

Time Off Btm: 2014.06.01 @ 01:42:30

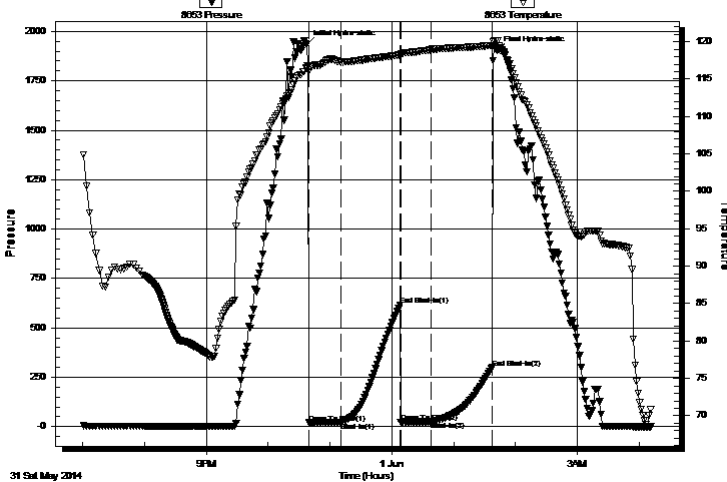
TEST COMMENT: 30 - IF- 1/4" Blow died in 20 min.

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.59	116.53	Initial Hydro-static
2	18.97	115.96	Open To Flow (1)
33	23.91	117.29	Shut-In(1)
91	614.62	118.23	End Shut-In(1)
91	23.58	118.14	Open To Flow (2)
121	24.66	118.94	Shut-In(2)
180	297.83	119.49	End Shut-In(2)
185	1905.05	120.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

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

Gilbert 'A' #1-23

Job Ticket: 56847

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.31 @ 19:00:00

Tool Information

Drill Pipe:	Length: 3958.00 ft	Diameter: 3.80 inches	Volume: 55.52 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: 61.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 55.82 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4029.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	104.00 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
Change Over Sub	1.00			4002.00	
Shut In Tool	5.00			4007.00	
Hydraulic tool	5.00			4012.00	
Jars	5.00			4017.00	
Safety Joint	3.00			4020.00	
Packer	5.00			4025.00	28.00 Bottom Of Top Packer
Packer	4.00			4029.00	
Stubb	1.00			4030.00	
Recorder	0.00	8653	Outside	4030.00	
Recorder	0.00	8874	Inside	4030.00	
Perforations	5.00			4035.00	
Change Over Sub	1.00			4036.00	
Drill Pipe	63.00			4099.00	
Change Over Sub	1.00			4100.00	
Bullnose	5.00			4105.00	76.00 Bottom Packers & Anchor

Total Tool Length: 104.00



**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

Gilbert 'A' #1-23

Job Ticket: 56847

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.31 @ 19:00:00

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: 34.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Mud 100M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

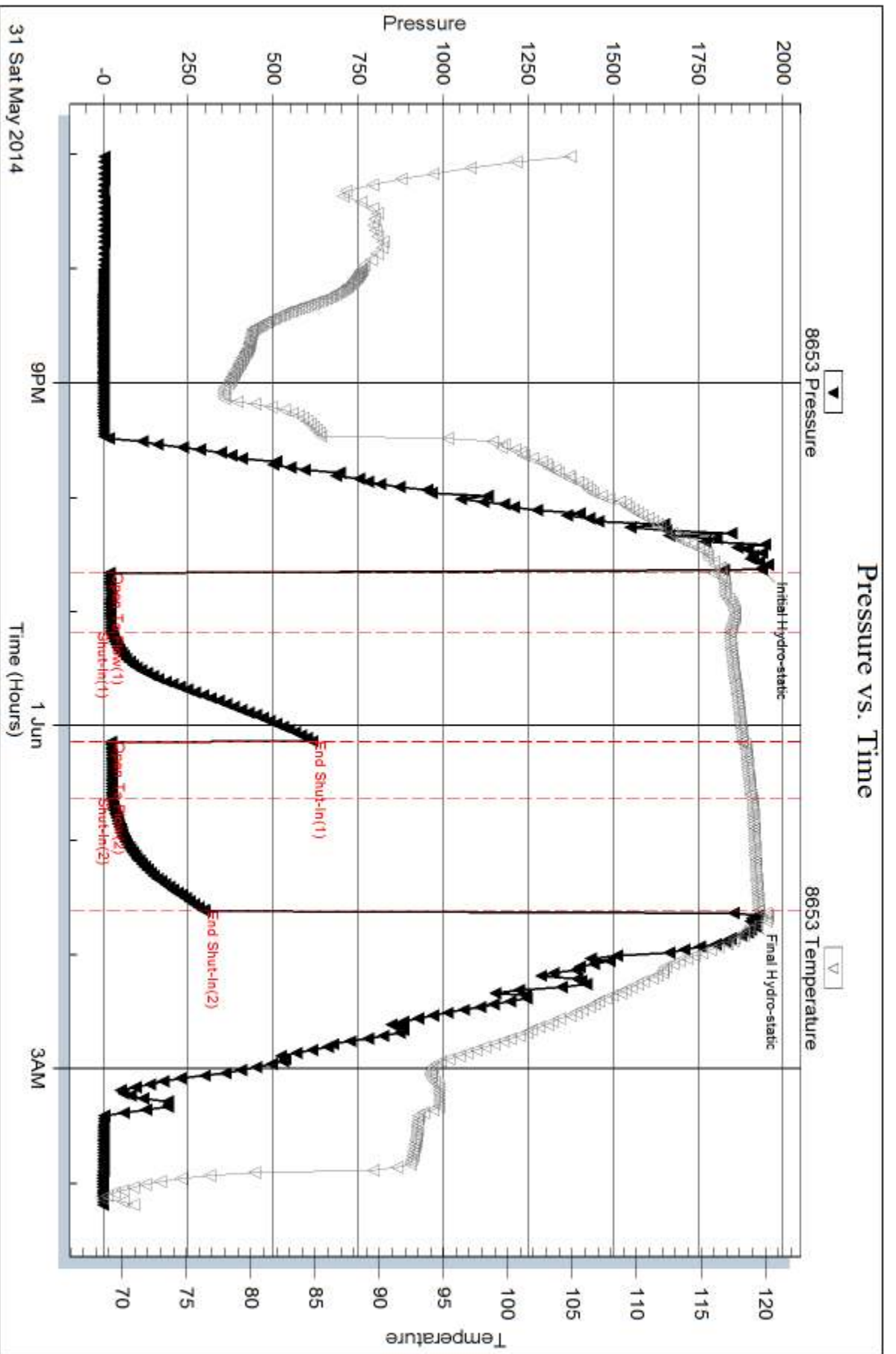
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



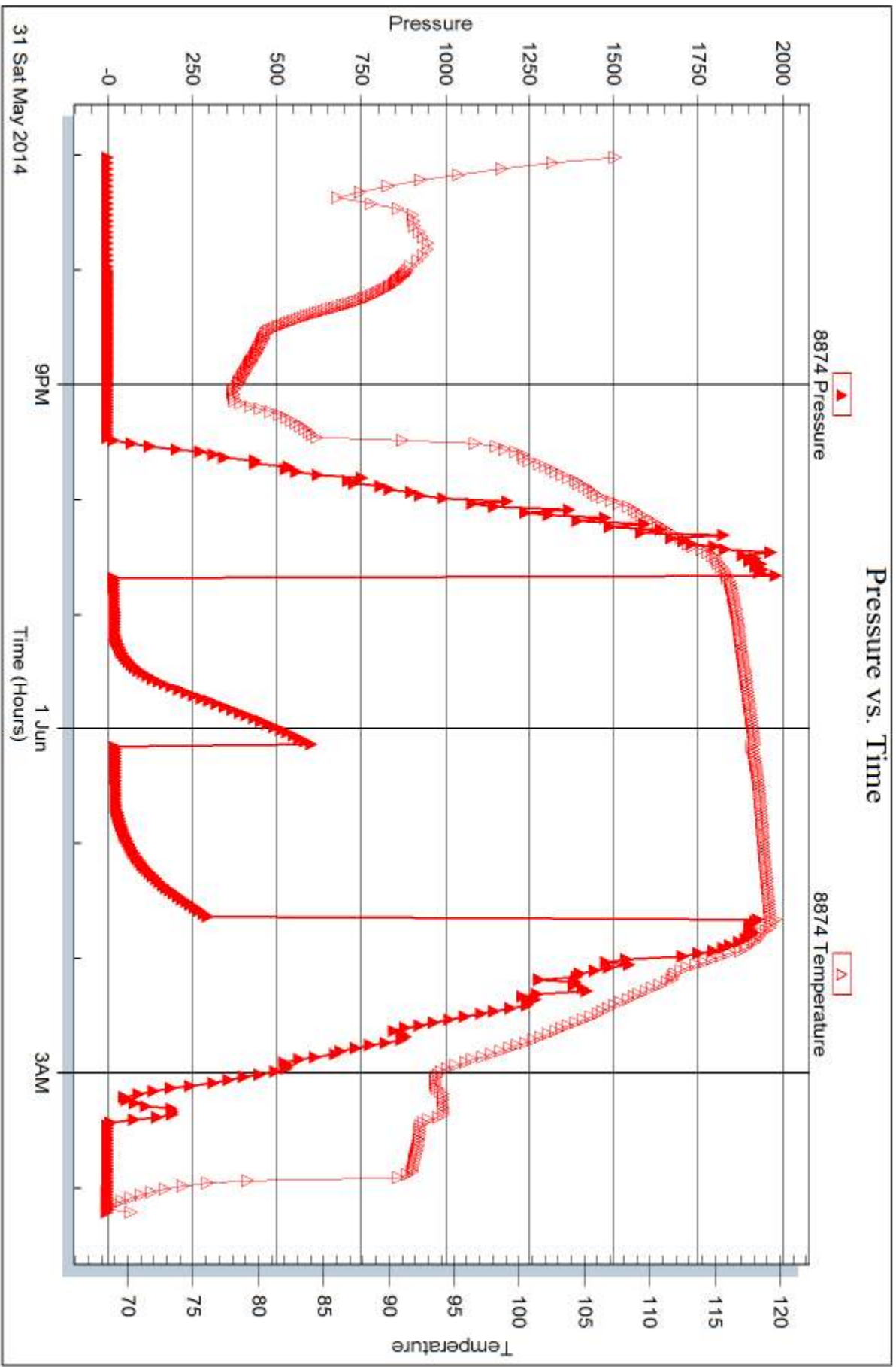
Serial #: 8874

Inside

Murfin Drilling Co., Inc.

Gilbert A' #1-23

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56847

Printed: 2014.06.09 @ 11:03:54



DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Gilbert 'A' #1-23

23-4s-31w Rawlins,KS

Start Date: 2014.06.01 @ 13:55:00

End Date: 2014.06.01 @ 21:54:30

Job Ticket #: 56848 DST #: 4

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

Printed: 2014.06.09 @ 11:00:51



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N Water STE #300
Wichita, KS 67202
ATTN: Keith Reavis

23-4s-31w Rawlins, KS

Gilbert 'A' #1-23

Job Ticket: 56848

DST#: 4

Test Start: 2014.06.01 @ 13:55:00

GENERAL INFORMATION:

Formation: **Stark - LKC "K-L"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:22:00
 Time Test Ended: 21:54:30
 Interval: **4095.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Total Depth: 4160.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66
 Reference Elevations: 2895.00 ft (KB)
 2890.00 ft (CF)
 KB to GR/CF: 5.00 ft

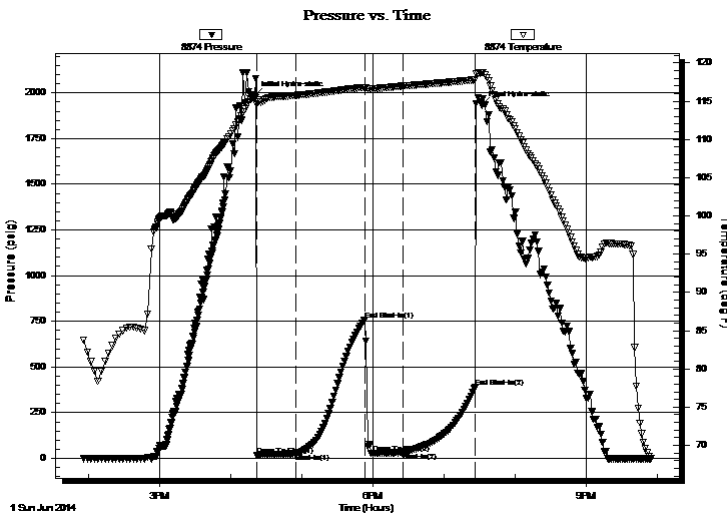
Serial #: 8874

Inside

Press@RunDepth: 32.40 psig @ 4096.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.06.01 End Date: 2014.06.01 Last Calib.: 2014.06.01
 Start Time: 13:56:00 End Time: 21:54:30 Time On Btm: 2014.06.01 @ 16:20:30
 Time Off Btm: 2014.06.01 @ 19:32:00

TEST COMMENT: 30 - IF- 1/4" Blow died back to weak surface blow .
 60 - IS- No Return
 30 - FF- No Blow
 60 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1985.03	115.46	Initial Hydro-static
2	16.58	114.56	Open To Flow (1)
35	24.87	115.75	Shut-In(1)
93	757.53	116.81	End Shut-In(1)
100	27.43	116.64	Open To Flow (2)
125	32.40	116.96	Shut-In(2)
186	388.82	117.79	End Shut-In(2)
192	1932.85	118.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 70M 30o	0.05

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

Gilbert 'A' #1-23

Job Ticket: 56848

DST#: 4

ATTN: Keith Reavis

Test Start: 2014.06.01 @ 13:55:00

Tool Information

Drill Pipe:	Length: 4021.00 ft	Diameter: 3.80 inches	Volume: 56.40 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: 61.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 56.70 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4095.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4068.00	
Shut In Tool	5.00			4073.00	
Hydraulic tool	5.00			4078.00	
Jars	5.00			4083.00	
Safety Joint	3.00			4086.00	
Packer	5.00			4091.00	28.00 Bottom Of Top Packer
Packer	4.00			4095.00	
Stubb	1.00			4096.00	
Recorder	0.00	8653	Outside	4096.00	
Recorder	0.00	8874	Inside	4096.00	
Perforations	25.00			4121.00	
Change Over Sub	1.00			4122.00	
Drill Pipe	32.00			4154.00	
Change Over Sub	1.00			4155.00	
Bullnose	5.00			4160.00	65.00 Bottom Packers & Anchor

Total Tool Length: 93.00



**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

Gilbert 'A' #1-23

Job Ticket: 56848

DST#: 4

ATTN: Keith Reavis

Test Start: 2014.06.01 @ 13:55:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 70M 30o	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

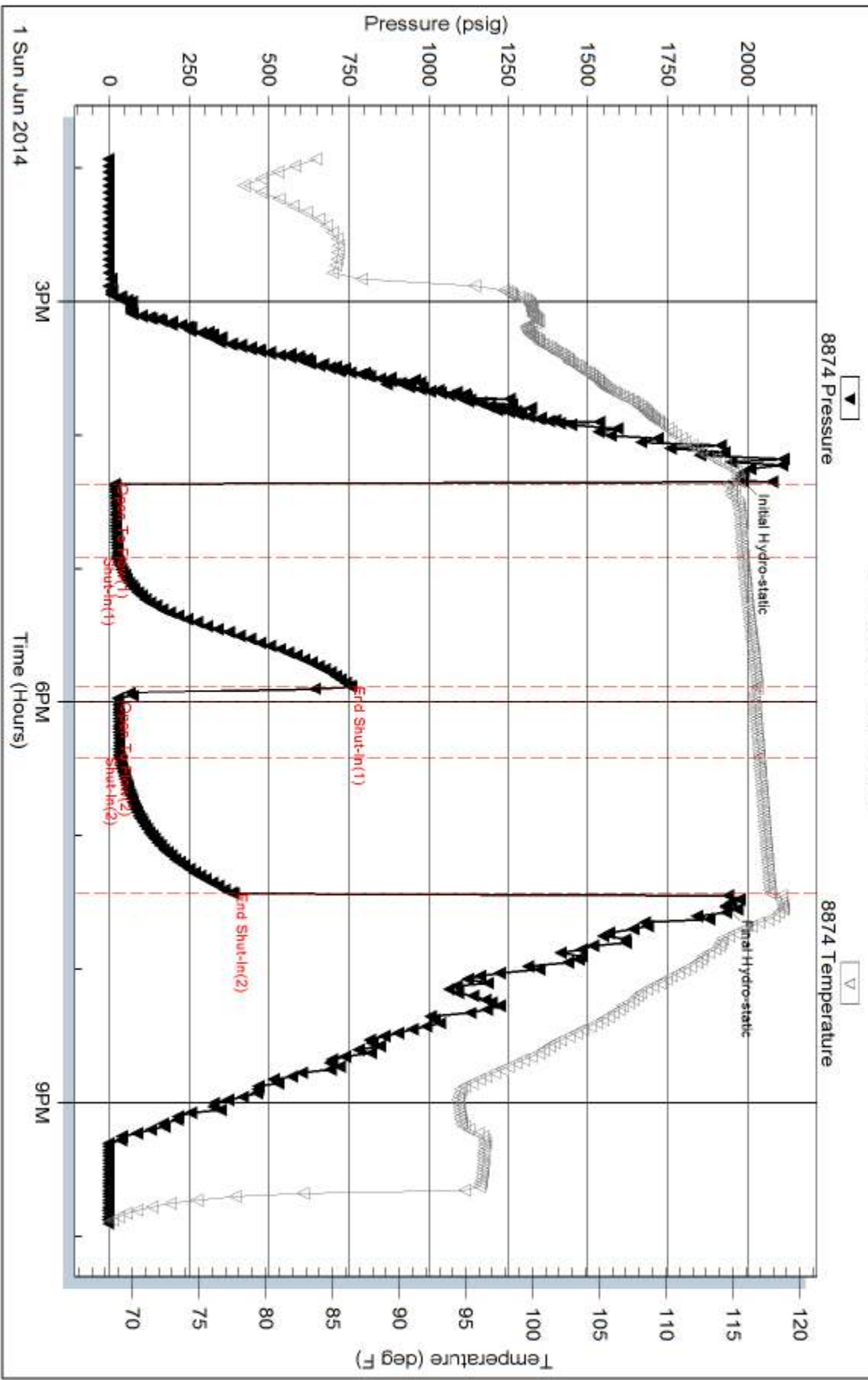
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

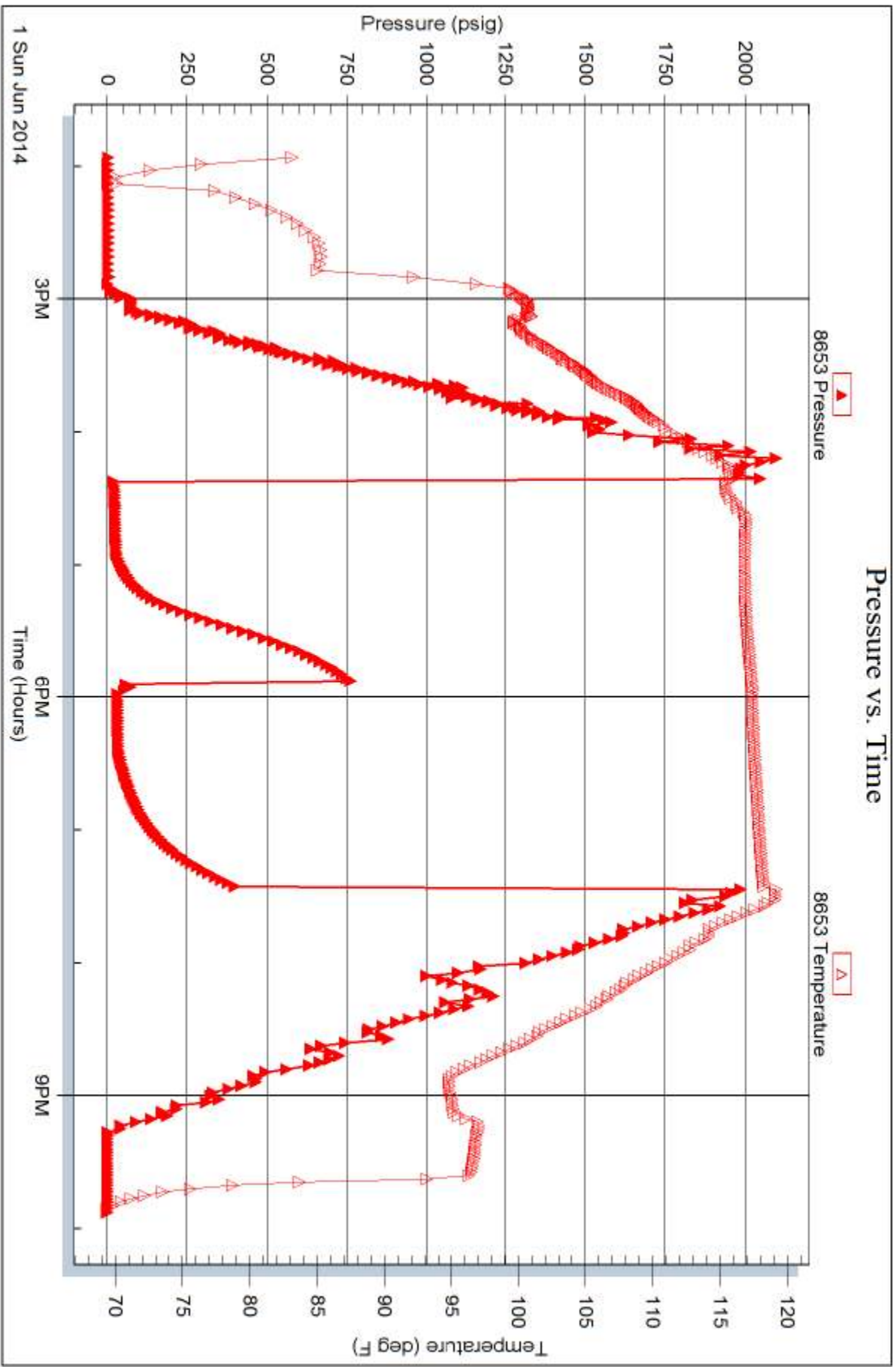


Serial #: 8653

Outside Murfin Drilling Co., Inc.

Gilbert A' #1-23

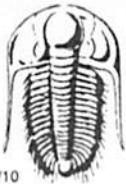
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 56848

Printed: 2014.06.09 @ 11:00:52



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58228

4/10

Well Name & No. Gilbert 'A' #1-23 Test No. 1 Date 5-30-14
 Company Muffin Drilling Co., Inc Elevation 2895 KB 2890 GL
 Address 250 N Water STE # 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Muffin #7
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3887-3964 Zone Tested Toronto - Like "A-B"
 Anchor Length 82' Drill Pipe Run 3830 Mud Wt. 8.6
 Top Packer Depth 3883 Drill Collars Run 61' Vis 71
 Bottom Packer Depth 3887 Wt. Pipe Run 0 WL 6.4
 Total Depth 3969 Chlorides 700 ppm System LCM 2#
 Blow Description IF- 1/4" Blow did not build or die.
ISI- No Return
FF- NO Blow
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>OSM</u>	<u>spots</u>		<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 105' BHT 117 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>1909</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>4:10 AM</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:00 AM</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>8:15 AM</u>
(D) Initial Shut-In <u>931</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:15 AM</u>
(E) Second Initial Flow <u>29</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:15 PM</u>
(F) Second Final Flow <u>35</u>	<input checked="" type="checkbox"/> Mileage <u>71.30</u>	Comments
(G) Final Shut-In <u>717</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1757</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>1546.30</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1546.30</u>	

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56846

Well Name & No. Gilbert 'A' # 1-23 Test No. 2 Date 5-30-14
 Company Murphy Drilling Co, Inc Elevation 2895 KB 2895 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavie Rig Murphy #7
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3984-4022 Zone Tested LKC "F-6"
 Anchor Length 38' Drill Pipe Run _____ Mud Wt. 8.6
 Top Packer Depth 3980 Drill Collars Run 61' Vis 71
 Bottom Packer Depth 3984 Wt. Pipe Run 0 WL 6.4
 Total Depth 4022 Chlorides 700 ppm System LCM 2#
 Blow Description IF - BOB in 8 min
ISI - No Return
FF - BOB in 9 min
FSI - Surface Return started at 3 min. Built to 2 1/2"

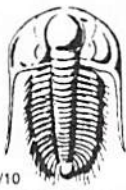
Rec	Feet of	%gas	%oil	%water	%mud
<u>189</u>	<u>Clean Gassy Oil</u>	<u>20</u>	<u>80</u>		
<u>61</u>	<u>MCO</u>		<u>60</u>	<u>40</u>	
<u>441</u>	<u>GIP</u>	<u>1000</u>			

Rec Total 2505' BHT 122 Gravity 35 API RW - @ - ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1954</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>10:30 PM</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:26 PM</u>
(C) First Final Flow <u>53</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1:50 AM</u>
(D) Initial Shut-In <u>1316</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>5:50 AM</u>
(E) Second Initial Flow <u>57</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>2:10 AM</u>
(F) Second Final Flow <u>103</u>	<input checked="" type="checkbox"/> Mileage <u>46RT</u> 71.30	Comments _____
(G) Final Shut-In <u>1298</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1910</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>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1546.30</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1546.30</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56847

Well Name & No. Gilbert 'A' #1-23 Test No. 3 Date 5-31-14
 Company Murfin Drilling Co., Inc Elevation 2895 KB 2895 GL
 Address 2508 N Water STE #3000 Wichita KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #7
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4029-4105 Zone Tested LKC "H-5"
 Anchor Length 76' Drill Pipe Run 3958 Mud Wt. 9.0
 Top Packer Depth 4025 Drill Collars Run 6' Vis 34
 Bottom Packer Depth 4029 Wt. Pipe Run 0 WL 8.8
 Total Depth 4105 Chlorides 800 ppm System LCM 3#
 Blow Description IF - 1/4" Blow died in 20 min.
ISI - NO Return
FF - NO Blow
FSI - NO Return

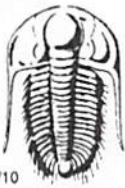
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100%</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT _____ Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1935</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>6:30 PM</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>7:00 PM</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:40 PM</u>
(D) Initial Shut-In <u>614</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>1:40 AM</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>4:15 AM</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>71.30</u>	Comments _____
(G) Final Shut-In <u>297</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1905</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>1546.30</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total _____
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1546.30</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56848

4/10

Well Name & No. Gilbert 'A' #123 Test No. 4 Date 6-1-14
 Company Murphy Drilling Co., Inc. Elevation 2895 KB 2890 GL
 Address 2508 N Water STE #3000 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murphy #7
 Location: Sec. 23 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4095-4168 Zone Tested STARK - LKC "K-L"
 Anchor Length 65' Drill Pipe Run 4021' Mud Wt. 9.1
 Top Packer Depth 4091 Drill Collars Run 61' Vis 56
 Bottom Packer Depth 4095 Wt. Pipe Run 0 WL 6:4
 Total Depth 4168 Chlorides 9000 ppm System LCM 3#
 Blow Description IF - 1/4" Blow died back to weak surface Blow
IST - No Return
FF - No Blow
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>0CM</u>		<u>30</u>		<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 118 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1985</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1:30 PM</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:55 PM</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:25 PM</u>
(D) Initial Shut-In <u>757</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>7:25 PM</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:00 PM</u>
(F) Second Final Flow <u>32</u>	<input checked="" type="checkbox"/> Mileage <u>71.30</u>	Comments
(G) Final Shut-In <u>388</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1932</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>1546.30</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1546.30</u>	

Approved By _____ Our Representative [Signature]

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OPERATOR

Company: Murfin Drilling Company
 Address: 250 N. Water
 Suite 300
 Wichita, KS 67202
 Contact Geologist: Shauna Gunzelman
 Contact Phone Nbr: 316-267-3241
 Well Name: Gilbert 'A' #1-23
 Location: Sec. 23 - T4S - R31W
 Pool:
 State: Kansas
 API: 15-153-21018-0000
 Field: Wildcat
 Country: USA



Scale 1:240 Imperial

Well Name: Gilbert 'A' #1-23
 Surface Location: Sec. 23 - T4S - R31W
 Bottom Location:
 API: 15-153-21018-0000
 License Number: 30606
 Spud Date: 5/27/2014
 Region: Rawlins County
 Drilling Completed: 6/3/2014
 Surface Coordinates: 400' FSL & 1900' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2890.00ft
 K.B. Elevation: 2895.00ft
 Logged Interval: 3620.00ft
 Total Depth: 4550.00ft
 Formation: Mississippian
 Drilling Fluid Type: Chemical/Fresh Water Gel
 Time: 16:30
 Time: 08:00
 To: 4550.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 N/S Co-ord: 400' FSL
 E/W Co-ord: 1900' FEL
 Latitude:

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530
 Phone Nbr: 620-617-4091
 Logged By: KLG #136
 Name: Keith Reavis

CONTRACTOR

Contractor: Murfin Drilling Company
 Rig #: 7
 Rig Type: mud rotary
 Spud Date: 5/27/2014
 TD Date: 6/3/2014
 Rig Release:
 Time: 16:30
 Time: 08:00
 Time:

ELEVATIONS

K.B. Elevation: 2895.00ft
 K.B. to Ground: 5.00ft
 Ground Elevation: 2890.00ft

NOTES

Due to favorable results of Drill Stem Test #2, it was determined that 5 1/2" production casing be set and cemented and that the Gilbert 'A' #1-23 be tested and evaluated through perforations and stimulation.

Gamma ray and caliper curves were imported from the electrical log suite and laid in along ROP on this report. All log tops were consistently about 2 ft. low to sample/DT tops. No curves were shifted to provide an exact match but rather, left as recorded in the field. The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully submitted,
 Keith Reavis

Murfin Drilling Company
daily drilling report

DATE	7:00 AM DEPTH	REMARKS
05/29/2014	3648	Geologist Keith Reavis on location @ midnight, 3600', bit trip, back on bottom, drilling ahead, Topeka, Oread, Heebner, Toronto, Lansing, shows in Toronto and Lansing A - B warrant DST
05/30/2014	3969	short trip, ctoh, conducting and complete DST #1, successful test, back on bottom with bit, drill D, F, G, shows in F and G warrant test, TOH for DST #2
05/31/2014	4022	TIH w/tools, conduct and complete DST #2, successful test, back on bottom w/bit, resume drlg, H and J zones, shows warrant test, TOH for DST #3
06/01/2014	4105	conduct and complete DST #3, TIH w/bit, drill K & L, show in K warrants test, TOH w/bit, conduct and complete DST #4
06/02/2014	4224	TIH w/bit, resume drilling, Marmaton, Pawnee, Cherokee
06/03/2014	4535	drilling Cherokee, Mississippian, TD @ 4550', 0800 hrs, ofs, short trip, ctoh, TOH for logs, conduct and complete logging operations, off loc 1900 hrs

well comparison sheet

DRILLING WELL					COMPARISON WELL			
Murfin - Gilbert A #1-23					Murfin - Hammerschmidt #1-24			
400' FSL & 1900' FEL					660' FSL & 330' FWL			
Sec 23-T4S-R31W					Sec 24-T4S-R31W			
2895 KB					2916 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Topeka	3722	-827	3726	-831	3744	-828	1	-3
Heebner	3888	-993	3890	-995	3910	-994	1	-1
Lansing	3936	-1041	3938	-1043	3957	-1041	0	-2
Stark	4101	-1206	4100	-1205	4122	-1206	0	1
Base KC	4152	-1257	4154	-1259	4176	-1260	3	1
Pawnee	4264	-1369	4264	-1369	4282	-1366	-3	-3
Cherokee	4346	-1451	4347	-1452	4367	-1451	0	-1
Mississippian	4464	-1569	4466	-1571	4482	-1566	-3	-5
Total Depth	4550	-1655	4550	-1655	4583	-1667	12	12


Drill Stem Test #1

	DRILL STEM TEST REPORT Murfin Drilling Co., Inc. 250 N Water STE #300 Wichita, KS 67202 ATTN: Keith Reavis		23-4S-31 Rawlins, KS Gilbert 'A' #1-23 Job Ticket: 58228 Test Start: 2014.05.30 @ 05:00:00 DST#: 1																																				
	GENERAL INFORMATION: Formation: Toronto-LKC "A-B" Deviated: No Whipstock ft (KB) Time Tool Opened: 08:12:30 Time Test Ended: 13:14:30 Test Type: Conventional Bottom Hole (Initial) Tester: Kevin Mack Unit No: 66 Interval: 3887.00 ft (KB) To 3969.00 ft (KB) (TVD) Total Depth: 3969.00 ft (KB) (TVD) Reference Elevations: 2895.00 ft (KB) Hole Diameter: 7.88 inches-Hole Condition: Good KB to GR/CF: 5.00 ft																																						
Serial #: 8874 Inside Press@RunDepth: 35.18 psig @ 3888.00 ft (KB) Start Date: 2014.05.30 Start Time: 05:01:00 Capacity: 8000.00 psig Last Calib.: 2014.05.30 Time On Btm: 2014.05.30 @ 08:10:30 Time Off Btm: 2014.05.30 @ 11:14:30																																							
TEST COMMENT: 30 - IF- 1/4" Blow did not build or die. 60 - IS- No Return 30 - FF- No Blow 60 - FSI- No Return																																							
		PRESSURE SUMMARY <table border="1"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1909.34</td><td>114.61</td><td>Initial Hydro-static</td></tr> <tr><td>2</td><td>17.47</td><td>114.25</td><td>Open To Flow (1)</td></tr> <tr><td>33</td><td>25.77</td><td>114.45</td><td>Shut-In(1)</td></tr> <tr><td>92</td><td>931.08</td><td>115.60</td><td>End Shut-In(1)</td></tr> <tr><td>94</td><td>29.26</td><td>115.24</td><td>Open To Flow (2)</td></tr> <tr><td>124</td><td>35.18</td><td>115.80</td><td>Shut-In(2)</td></tr> <tr><td>182</td><td>717.84</td><td>116.66</td><td>End Shut-In(2)</td></tr> <tr><td>184</td><td>1757.93</td><td>116.95</td><td>Final Hydro-static</td></tr> </tbody> </table>		Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1909.34	114.61	Initial Hydro-static	2	17.47	114.25	Open To Flow (1)	33	25.77	114.45	Shut-In(1)	92	931.08	115.60	End Shut-In(1)	94	29.26	115.24	Open To Flow (2)	124	35.18	115.80	Shut-In(2)	182	717.84	116.66	End Shut-In(2)	184	1757.93	116.95	Final Hydro-static
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation																																				
0	1909.34	114.61	Initial Hydro-static																																				
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33	25.77	114.45	Shut-In(1)																																				
92	931.08	115.60	End Shut-In(1)																																				
94	29.26	115.24	Open To Flow (2)																																				
124	35.18	115.80	Shut-In(2)																																				
182	717.84	116.66	End Shut-In(2)																																				
184	1757.93	116.95	Final Hydro-static																																				

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

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

Drill Stem Test #2

	DRILL STEM TEST REPORT	
	Murfin Drilling Co., Inc. 250 N Water STE#300 Wichita, KS 67202 ATTN: Keith Reavis	23-4S-31 Rawlins, KS Gilbert 'A' #1-23 Job Ticket: 56846 DST#: 2 Test Start: 2014.05.30 @ 23:26:00

GENERAL INFORMATION:

Formation: **LKC "F-G"**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 01:48:00
 Time Test Ended: 08:10:30

Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66

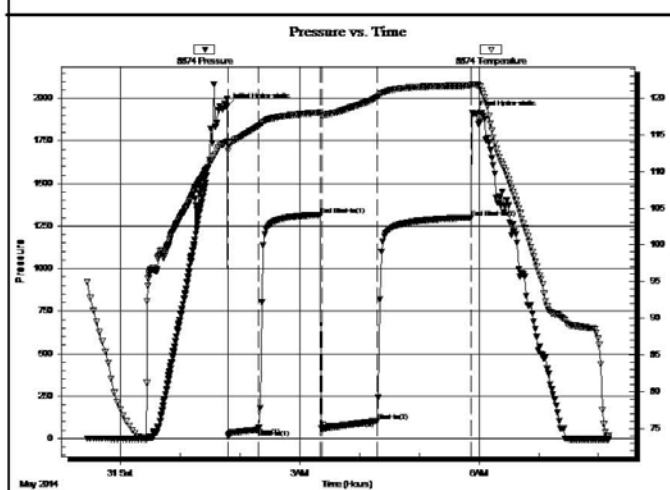
Interval: **3984.00 ft (KB) To 4022.00 ft (KB) (TVD)**
 Total Depth: 4022.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition: Good

Reference Elevations: 2895.00 ft (KB)
 2890.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 103.68 psig @ 3985.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.30 End Date: 2014.05.31 Last Calib.: 2014.05.31
 Start Time: 23:27:00 End Time: 08:10:30 Time On Btm: 2014.05.31 @ 01:47:00
 Time Off Btm: 2014.05.31 @ 05:55:00

TEST COMMENT: 30 - IF- BoB in 8 min
 60 - IS- No Return
 60 - FF- BoB in 9 min.
 90 - FSI- Surface Return started at 3 min. Built to 2 1/2"




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1954.68	114.04	Initial Hydro-static
1	18.08	112.83	Open To Flow (1)
32	53.52	116.17	Shut-In(1)
94	1316.59	118.02	End Shut-In(1)
95	57.07	117.67	Open To Flow (2)
151	103.68	120.07	Shut-In(2)
245	1298.78	121.69	End Shut-In(2)
248	1910.42	121.83	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
61.00	MCO 60o 40M	0.30
189.00	Clean Gassy Oil 20G 80o	2.65
0.00	441 GIP	0.00

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

Drill Stem Test #3

	DRILL STEM TEST REPORT	
	Murfin Drilling Co., Inc. 250 N Water STE#300 Wichita, KS 67202 ATTN: Keith Reavis	23-4S-31 Rawlins, KS Gilbert 'A' #1-23 Job Ticket: 56847 DST#: 3 Test Start: 2014.05.31 @ 19:00:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 22:39:30
 Time Test Ended: 04:11:00

Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66

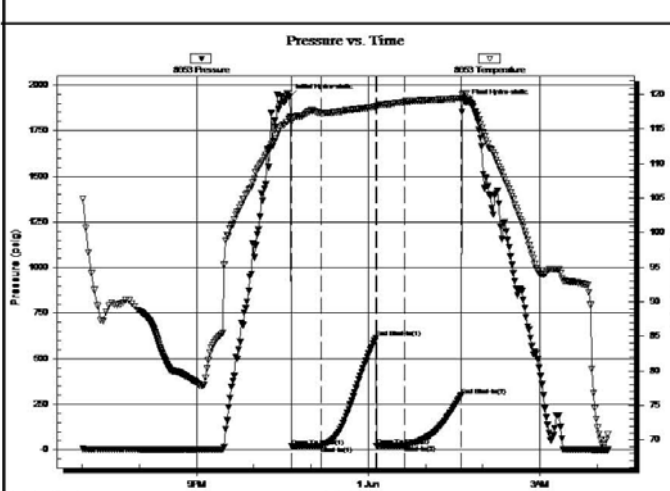
Interval: **4029.00 ft (KB) To 4105.00 ft (KB) (TVD)**
 Total Depth: 4105.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition: Good

Reference Elevations: 2895.00 ft (KB)
 2890.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 24.66 psig @ 4030.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.31 End Date: 2014.06.01 Last Calib.: 2014.06.01
 Start Time: 19:01:00 End Time: 04:11:00 Time On Btm: 2014.05.31 @ 22:37:30
 Time Off Btm: 2014.06.01 @ 01:42:30

TEST COMMENT: 30 - IF- 1/4" Blow died in 20 min.
 60 - IS- No Return
 30 - FF- No Blow
 60 - FSI- No Return




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.59	116.53	Initial Hydro-static
2	18.97	115.96	Open To Flow (1)
33	23.91	117.29	Shut-In(1)
91	614.62	118.23	End Shut-In(1)
91	23.58	118.14	Open To Flow (2)
121	24.66	118.94	Shut-In(2)
180	297.83	119.49	End Shut-In(2)
185	1905.05	120.09	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

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

Drill Stem Test #4

	DRILL STEM TEST REPORT	
	Murfin Drilling Co., Inc. 250 N Water STE#300 Wichita, KS 67202 ATTN: Keith Reavis	23-4S-31 Rawlins, KS Gilbert 'A' #1-23 Job Ticket: 56848 DST#: 4 Test Start: 2014.06.01 @ 13:55:00

GENERAL INFORMATION:

Formation: **Stark - LKC "K-L"**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 16:22:00
 Time Test Ended: 21:54:30

Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66

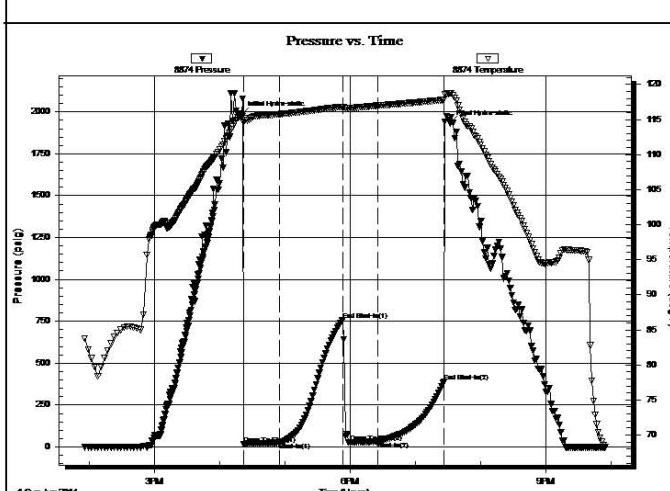
Interval: **4095.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Total Depth: 4160.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition: Good

Reference Elevations: 2895.00 ft (KB)
 2890.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 32.40 psig @ 4096.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.06.01 End Date: 2014.06.01 Last Calib.: 2014.06.01
 Start Time: 13:56:00 End Time: 21:54:30 Time On Btm: 2014.06.01 @ 16:20:30
 Time Off Btm: 2014.06.01 @ 19:32:00

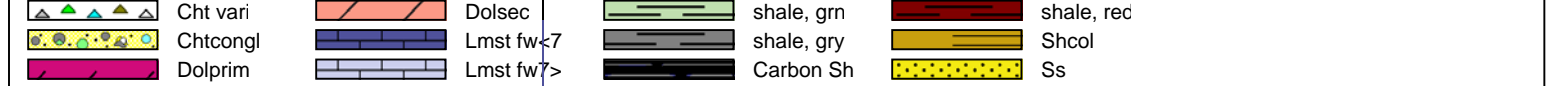
TEST COMMENT: 30 - IF- 1/4" Blow died back to weak surface blow.
 60 - IS- No Return
 30 - FF- No Blow
 60 - FSI- No Return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1985.03	115.46	Initial Hydro-static
2	16.58	114.56	Open To Flow (1)
35	24.87	115.75	Shut-In(1)
93	757.53	116.81	End Shut-In(1)
100	27.43	116.64	Open To Flow (2)
125	32.40	116.96	Shut-In(2)
186	388.82	117.79	End Shut-In(2)
192	1932.85	118.75	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	OCM 70M 30o	0.05

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

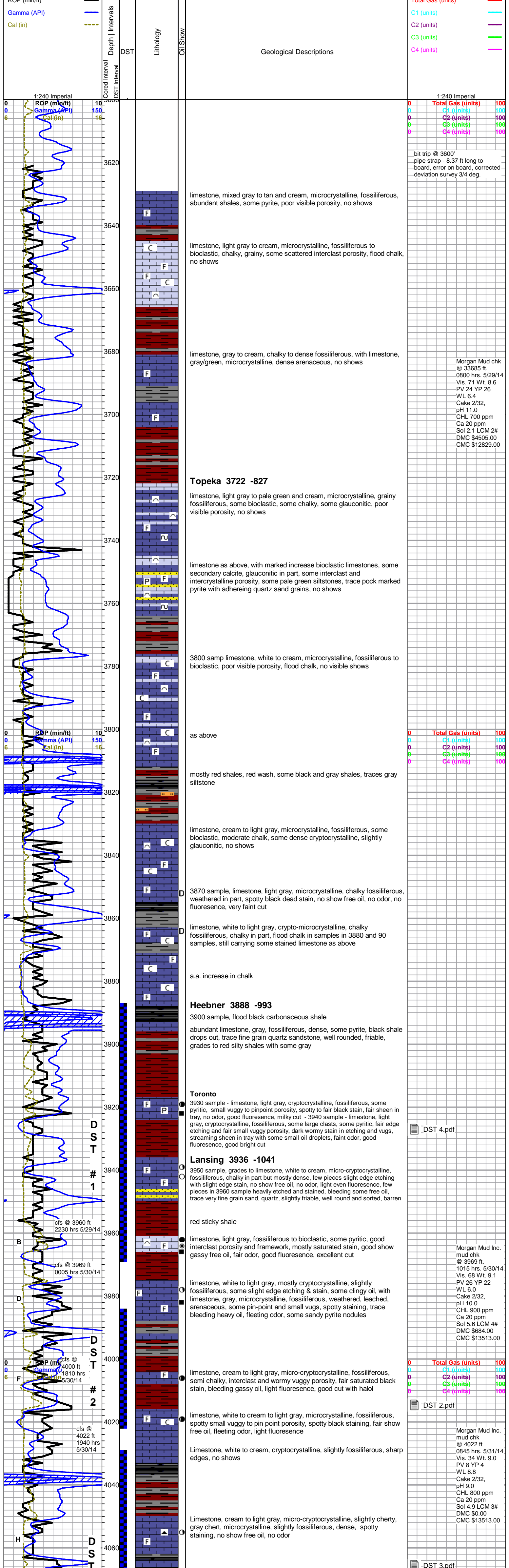


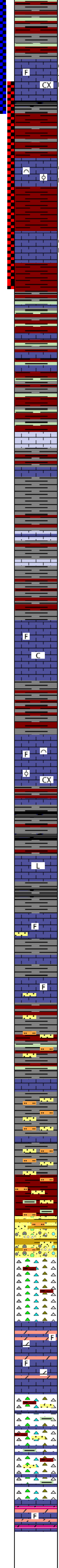
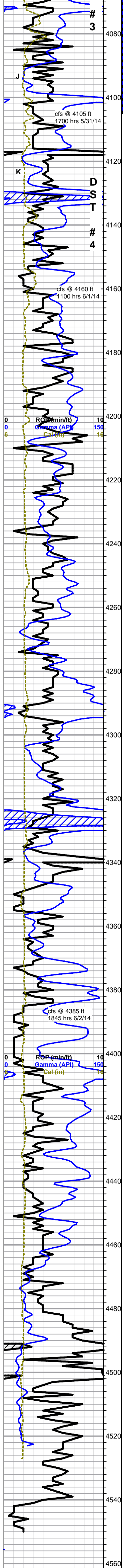
- MINERAL**
- ▲ Chert, dark
 - △ Dolomitic
 - ∩ Glauconite
 - P Pyrite
- FOSSIL**
- ∩ Bioclastic or Fragmental
 - F Fossils < 20%
 - φ Oolite

- ACCESSORIES**
- STRINGER**
- Conglomerate
 - Sandstone
 - Siltstone
 - green shale
 - red shale
- TEXTURE**
- C Chalky
 - CX Cryptocrystalline
 - L Lithogr

- MISC**
- DR Daily Report
 - Digital Photo
 - Document
 - Folder
 - Link
 - Vertical Log File
 - Horizontal Log File
 - Core Log File
 - Drill Cuttings Rpt
- Oil Show**
- Good Show
 - Fair Show
 - Poor Show
 - Spotted or Trace
 - Questionable Stn
 - Dead Oil Stn
 - Fluorescence
 - * Gas

- OTHER SYMBOLS**
- DST**
- DST Int
 - DST alt
 - Core
 - tail pipe





limestone, white light to white, mostly cryptocrystalline, fossiliferous, some fractures, etching & scattered very small vugs, light golden brown spotty to saturated stain, sheen in tray, gassy free oil on break, bleeding some gas, faint odor, good fluorescence and cut

Stark Shale 4101 -1206

Limestone, white to cream to light gray, microcrystalline, bioclastic and micro-oolitic, slight staining, very small vugs, faint odor, slow bleeding, fair fluorescence, poor cut

DST 4.pdf

Limestone, light gray, microcrystalline, bioclastic and micro-oolitic, fair spotty to saturated staining, fair interclast porosity, fleeting odor, sheen in tray, fair fluorescence, fair cut

Base KC 4152 -1257

Limestone, cream to light gray, microcrystalline, fossiliferous, dense no shows, mixed shales

Shale mix, red to gray to green, silty

Limestone, shale mix, poor sample, cream to gray, microcrystalline, soft, chalky, gas bubbles on water, no shows

Limestone, shale mix, poor sample, gray, microcrystalline, fossiliferous, dense

Shale, gray to dark gray, red drops out

Limestone, shale mix, light gray, microcrystalline, fossiliferous,

Limestone, shale mix, cream to light gray, microcrystalline, fossiliferous, small fractures, no shows

Shale, red to gray, silty

Pawnee 4264 -1369

poor samples, mostly shales a.a., some limestone, white to light gray, fossiliferous, some chalky, sparse in samples

Shale, gray to red, silty

Limestone, white to cream to light gray, bioclastic, slightly cryptocrystalline, fossiliferous, some white oolitic, green arenaceous, slightly chalky, dense, fractures, no shows

Shale, black carbonaceous to gray

limestone, gray, mostly cryptocrystalline, slightly fossiliferous to lithographic, some white chalky limestone, no shows

Cherokee 4346 -1451

Limestone, cream to light gray, microcrystalline, fossiliferous, slightly chalky, dense, sandstone, clusters, fine grain, quartz, well rounded, fair to poor sorted, slightly friable, no shows

a.a.

Shale, red to gray to green, silty, some siltstone, scattered sandstone, fine to very fine, grain, rounded to sub-angular, poorly sorted, some glauconitic, well cemented to friable, no shows

Shale, gray wash, siltstone, mixed sandstones as above, some limestones, mixed gray to cream and white, fossiliferous, chalky to dense, no shows

Shale, gray wash, siltstone, mixed sandstone, fine grain

4450 sample flood red shale, siltstones and sandstones as above

a.a., influx yellow shale, orange and pink cherts in 4460 sample grades to cherty conglomerate, yellow shale, mixed orange and pink cherts, some lighter gray to cream cherts, weathered in part

Mississippian 4464 -1569

Chert, white to cream and yellow, mostly sharp and fresh, some slightly weathered, fossiliferous, no shows, some weathered maroon chert and hard brick red ferrous, cherty shale

limestone to dolomitic Limestone, white to slightly pink, microcrystalline, fossiliferous, dense, no shows, still carrying abundant chert a.a.

chert, white to translucent and pale yellow, fossiliferous, some maroon to red and green shale, some mottled, some scattered quartz sandstone, fine grain, poor sorted, no shows - with dolomitic limestones, mostly white, micro-cryptocrystalline, fossiliferous, dense, no shows

dolomitic limestone as above, cherts dropping out, with scattered dolomite, light gray, microcrystalline, sub-sucrosic, some fair small vuggy intercrystalline porosity, no shows

Rotary TD 4550 ft. @ 0800 hrs 6/3/14
Pioneer Log TD 4550 ft.
Complete logging operations 1845 hrs 6/3/14

Morgan Mud Inc.
 mud chk
 @ 4152 ft.
 1030 hrs. 6/1/14
 Vis. 56 Wt. 9.1
 PV 21 YP 19
 WL 6.4
 Cake 2/32,
 pH 10.5
 CHL 900 ppm
 Ca 10 ppm
 Sol 5.6 LCM 3#
 DMC \$4265.00
 CMC \$17778.00

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

Morgan Mud Inc.
 mud chk
 @ 4273 ft.
 1030 hrs. 6/2/14
 Vis. 69 Wt. 9.2
 PV 22 YP 23
 WL 6.4
 Cake 2/32,
 pH 10.0
 CHL 1000 ppm
 Ca 10 ppm
 Sol 6.3 LCM 3#
 DMC \$0.00
 CMC \$17778.00

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 268684

Invoice Date: 06/10/2014 Terms: 10/10/30,n/30

Page 1

MURFIN DRILLING
P.O. BOX 288
RUSSELL KS 67665
() -

GILBERT A 1-23
46982
23-4S-31W
06-04-2014
KS

USED FOR IC 103
APPROVED [Signature]

Part Number	Description	Qty	Unit Price	Total
1104D	CLASS "A" CEMENT CMD	300.00	27.9200	8376.00
1107	FLO-SEAL (25#)	150.00	2.9700	445.50
1110A	KOL SEAL (50# BAG)	1000.00	.5600	560.00
1126	OIL WELL CEMENT	200.00	23.7000	4740.00
1142A	KCL SUB MB6875 CC3107 (1	2.00	41.0000	82.00
1144G	MUD FLUSH (SALE)	500.00	1.0000	500.00
4104	CEMENT BASKET 5 1/2"	3.00	290.0000	870.00
4136	TURBOLIZER 5 1/2"	15.00	75.7500	1136.25
4159	FLOAT SHOE AFU 5 1/2"	1.00	433.7500	433.75
4310	ROTATING HEAD	1.00	200.0000	200.00
4315	ROTATING SCRATCHERS	20.00	94.5000	1890.00
4454	5 1/2" LATCH DOWN PLUG	1.00	567.0000	567.00

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-1980.05
9995-130	CEMENT EQUIPMENT DISCOUNT	-618.97

Description	Hours	Unit Price	Total
399 SINGLE PUMP	1.00	3175.00	3175.00
399 EQUIPMENT MILEAGE (ONE WAY)	65.00	5.25	341.25
530 TON MILEAGE DELIVERY	1.00	2673.45	2673.45

Amount Due 27554.43 if paid after 07/10/2014

Parts:	19800.50	Freight:	.00	Tax:	1407.81	AR	24798.99
Labor:	.00	Misc:	.00	Total:	24798.99		
Sublt:	-2599.02	Supplies:	.00	Change:	.00		

Signed _____ Date _____



CONSOLIDATED
Oil Well Services, LLC

268684

TICKET NUMBER 46982
LOCATION Oakley KS
FOREMAN Dane Retzlaff

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	KS COUNTY
6-4-14	5406	Gilbert A # 1-23	23	4s	31w	Rawlins
CUSTOMER			TRUCK#			
Mailing Address			DRIVER			
CITY			TRUCK#			
STATE			DRIVER			
ZIP CODE						

JOB TYPE Production HOLE SIZE 7 7/8 HOLE DEPTH 4550 CASING SIZE & WEIGHT 5 1/2 15.5
 CASING DEPTH 4540 DRILL PIPE 4.5 TUBING _____ OTHER _____
 SLURRY WEIGHT 10.7/13.8 SLURRY VOL 3.00/1.56 WATER gal/sk 21.00/497 CEMENT LEFT in CASING 20.60
 DISPLACEMENT 107.56 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Setting meeting on Murfin 7. Run float equip. Cents on 1-9, 15, 16, 17, 20, 44, Baskets on 18, 45, 71. Rig up. Circulate and rotate 1 hr. Pump 500 gal mud flush. MIN 250 sks of CMD 1/2 Flo. Tail in with 200 sks of our 5# Kalseal. Shut down. Release plug. Wash pump + lines. Displace with 107 1/2 Bbls of water. Final LIFT 1300 psi. Plug Loaded at 1800 psi. Cement circulate 200 20 Bbls to pit.

20 mouse hole 20 lath hole

Thanks Dane + crew.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3175.00	3175.00
5406	65	MILEAGE	5.25	341.25
5407A	23.5	Ten mileage Delivery	1.75	2673.45
1104D	300 sks	CMD Cement	27.92	8376.00
1107	150	Flo Seal	2.97	445.50
1110A	1000	KOI seal	.56	560.00
1126	200 sks	Our Cement	23.70	4740.00
1142A	2 gal	KCL	41.00	82.00
1144G	500 gal	mud flush	1.00	500.00
4104	3	5 1/2 Baskets	290.00	870.00
4136	15	5 1/2 Turbolizers	75.75	1136.25
4159	1	5 1/2 Abu Float shoe	433.75	433.75
4310	1	Rotating head Charge	200.00	200.00
4315	20	Rotating Washers	94.50	1890.00
4454	1	5 1/2 Latch down Plug Assembly	567.00	567.00
			Sub	25,990.20
			less 10%	23,391.18
			Sub	23,391.18
			SALES TAX	1407.81
			ESTIMATED TOTAL	24798.99

completed

Rawl 3737

AUTHORIZATION [Signature] TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this for



PO Box 93999
Southlake, TX 76092

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

*acct.
Prod-MG*

INVOICE

Invoice Number: 1435 15

Invoice Date: May 26, 2014

Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	63422	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 26, 2014	6/25/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Gilbert A #1-23		
200.00	CEMENT MATERIALS	Class A Common	17.90	3,580.00
4.00	CEMENT MATERIALS	Gel	23.40	93.60
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
216.27	CEMENT SERVICE	Cubic Feet Charge	2.48	536.35
493.50	CEMENT SERVICE	Ton Mileage Charge	2.60	1,283.10
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	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

\$ 2,820.40

ONLY IF PAID ON OR BEFORE

Jun 25, 2014

Subtotal	8,058.30
Sales Tax	294.69
Total Invoice Amount	8,352.99
Payment/Credit Applied	
TOTAL	8,352.99

*OK
SR*

Gilbert 'A' #1-23
 Daily Drilling Report
 Page Two

- 6/1/14 Depth 4105'. Cut 83'. DT: None. CT: 19¼ hrs. Dev.: None. **LKC H:** ls, crm - lt gray, micro-cryptocrystalline, slightly cherty, gray chert, microcrystalline, slightly fossiliferous, dense, sppty stn, no SFO, no odor. **LKC J:** ls, wht lt - wht, mostly cryptocrystalline, fossiliferous, some fractures, etching & scattered very small vugs, lt golden brn sppty – sat stn, sheen in tray, gassy free oil on break, bleeding some gas, faint odor, good fluorescence & cut. **DST #3 4029-4105 (H-J):** 30-60-30-60. IF: ¼" blw died in 20mins. FF: no blw. Rec.: 5'M. HP: 1936-1905. FP: 19/24, 24/25. SIP: 615-298. BHT: 119°.
- 6/2/14 Depth 4230'. Cut 125'. DT: None. CT: 14½ hrs. Dev.: None. **LKC K:** ls, wht - crm - lt gray, mircocrystalline, bioclastic & micro-oolitic, slight staining, very small vugs, faint odor, slow bleeding, fair fluorescence, poor cut. **LKC L:** ls, lt gray, mircocrystalline, bioclastic & micro-oolitic, fr spotty - sat stn, fr interclast por, fleeting odor, sheen in tray, fair fluorescence, fair cut. **DST #4 4095-4160 (LKC K-L):** 30-60-30-60.
- 6/3/14 Depth 4540'. Cut 310'. DT: ¼ hr pump. CT: 1hr. Dev.: None. **DST #4 4095-4160 (LKC K-L):** 30-60-30-60. IF: ¼" blw died back to wk surf blw. FF: no blw. Rec.: 10'OCM (70%M, 30%O). HP: 1985-1933. FP: 17/25, 27/32. SIP: 758-389. BHT: 118°. TD @ 4550'
- 6/4/14 RTD: 4550'. Cut 10'. DT: None. CT: 23hrs. Dev.: 1° @ 4550'. HC @ 8:00AM 6/3. Pioneer logged 2:00PM – 8:00PM 6/3. LTD: 4550'. Ran 108 jts of 5½" prod csg, set @ 4540'. Circ 5½".
- 6/5/14 RTD: 4550'. CT: 9½ hrs. C.O.W.S cmt w/450sxs (250CMC, 200sxs OWC). PD @ 9:30AM 6/4. Held Pressure 3hrs. 30sxs RH, 20sxs MH. Circ 20sxs. RR @ 4:30PM 6/4/14. FINAL REPORT

Gilbert 'A' #1-23 400' FSL 1900' FEL Sec. 23-4S-31W 2895' KB						Gilbert Unit #1-26 200' FNL 1050' FEL Sec. 26-4S-31W 2901' KB		
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2650	+245	+6	2656	+239	Flat	2662	+239
B/Anhydrite	2679	+216	+8	2690	+205	-3	2693	+208
Topeka	3728	-833	-7	3726	-831	-5	3727	-826
Heebner	3888	-993	-1	3889	-994	-2	3893	-992
Lansing	3936	-1041	-1	3938	-1043	-3	3941	-1040
Stark	4101	-1206	Flat	4100	-1205	+1	4107	-1206
BKC	4152	-1257	-3	4149	-1254	Flat	4155	-1254
Pawnee	4264	-1369	-1	4264	-1369	-1	4269	-1368
Cherokee	4346	-1451	+2	4347	-1452	+1	4354	-1453
Mississippi	4464	-1569	-8	4466	-1571	-10	4462	-1561
RTD	4550						4530	
LTD				4550			4529	