

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1158920

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 |
| ☐ Gas | ☐ D&A | ☐ ENHR |
| ☐ 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

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: _____

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

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



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

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

Sam Brownback, Governor

September 18, 2013

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

Re: ACO1
API 15-039-21181-00-00
Ryser 1-24
SE/4 Sec.24-05S-26W
Decatur County, Kansas

Dear Production Department:

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

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

Respectfully,
Leon Rodak

MDCI Ryser #1-24 760' FSL 1010' FEL Sec. 24-T5S-R26W 2468' KB							MDCI SKRM #1-23 1930' FSL 390' FWL Sec. 23-T5S-R26W 2534' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2071	+397	-4	2071	+397	-4	2133	+401
B/Anhydrite	2105	+363	-5	2104	+364	-4	2166	+368
Topeka	3302	-833	-18	3299	-830	-14	3350	-816
Heebner	3505	-1037	-17	3502	-1034	-14	3554	-1020
Toronto	3528	-1060	-16	3527	-1059	-15	3578	-1044
Lansing	3547	-1079	-17	3541	-1073	-11	3596	-1062
BKC	3731	-1263	-17	3730	-1262	-16	3780	-1246
RTD	3835						4065	
LTD				3834			4056	

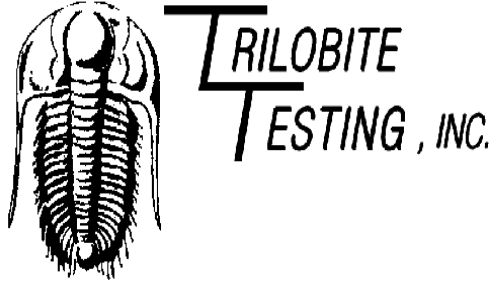
GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

[illegible]

EM

	TOY17-6C0-
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DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.26 @ 19:58:00

End Date: 2013.05.27 @ 02:23:15

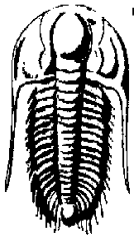
Job Ticket #: 52613 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:07:36



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52613

DST#: 1

Test Start: 2013.05.26 @ 19:58:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:38:30

Time Test Ended: 02:23:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3503.00 ft (KB) To 3577.00 ft (KB) (TVD)

Total Depth: 3577.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 32.36 psig @ 3504.00 ft (KB)

Start Date: 2013.05.26

End Date:

2013.05.27

Start Time: 19:58:05

End Time:

02:23:14

Capacity: 8000.00 psig

Last Calib.: 2013.05.27

Time On Btm: 2013.05.26 @ 21:38:00

Time Off Btm: 2013.05.27 @ 00:38:00

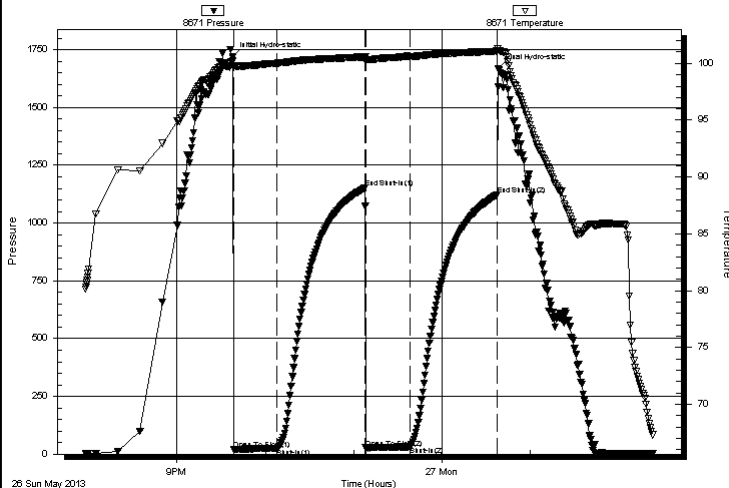
TEST COMMENT: 30 - IF: Blow built to 1/2" then died back, dead at 23 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

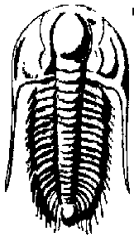
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.96	100.23	Initial Hydro-static
1	20.00	99.62	Open To Flow (1)
30	25.38	100.01	Shut-In(1)
90	1151.40	100.58	End Shut-In(1)
90	27.19	100.17	Open To Flow (2)
121	32.36	100.61	Shut-In(2)
180	1121.80	101.08	End Shut-In(2)
180	1669.20	101.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100% m	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52613

DST#: 1

Test Start: 2013.05.26 @ 19:58:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:38:30

Time Test Ended: 02:23:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3503.00 ft (KB) To 3577.00 ft (KB) (TVD)

Total Depth: 3577.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3504.00 ft (KB)

Start Date: 2013.05.26

End Date:

2013.05.27

Start Time: 19:58:05

End Time:

02:23:59

Capacity: 8000.00 psig

Last Calib.:

2013.05.27

Time On Btm:

Time Off Btm:

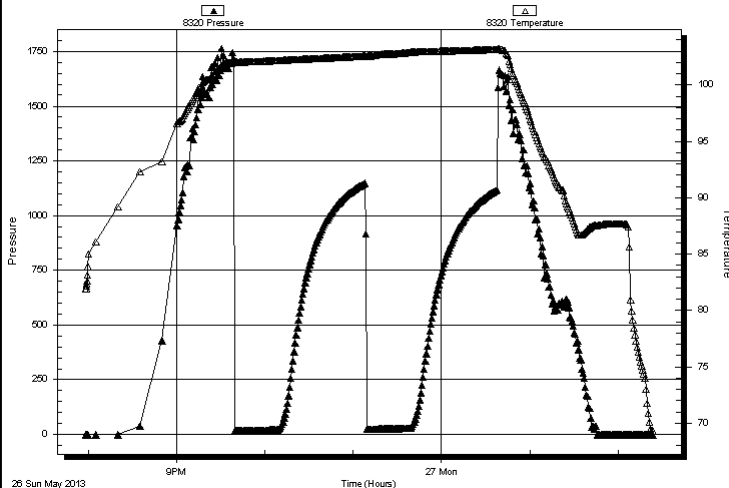
TEST COMMENT: 30 - IF: Blow built to 1/2" then died back, dead at 23 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

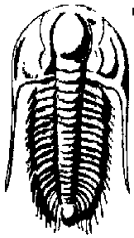
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /trace oil 100% m	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52613

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.05.26 @ 19:58:00

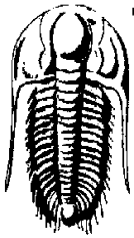
Tool Information

Drill Pipe:	Length:	3248.00 ft	Diameter:	3.80 inches	Volume:	45.56 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	78000.00 lb
					Total Volume:	46.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		7.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3503.00 ft					Final	60000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		74.00 ft						
Tool Length:		102.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3480.00	
Hydraulic tool	5.00			3485.00	
Jars	5.00			3490.00	
Safety Joint	3.00			3493.00	
Packer	5.00			3498.00	28.00 Bottom Of Top Packer
Packer	5.00			3503.00	
Stubb	1.00			3504.00	
Recorder	0.00	8671	Inside	3504.00	
Recorder	0.00	8320	Outside	3504.00	
Perforations	5.00			3509.00	
Blank Spacing	64.00			3573.00	
Perforations	1.00			3574.00	
Bullnose	3.00			3577.00	74.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52613

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.05.26 @ 19:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.17 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud w /trace oil 100%m	0.098

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

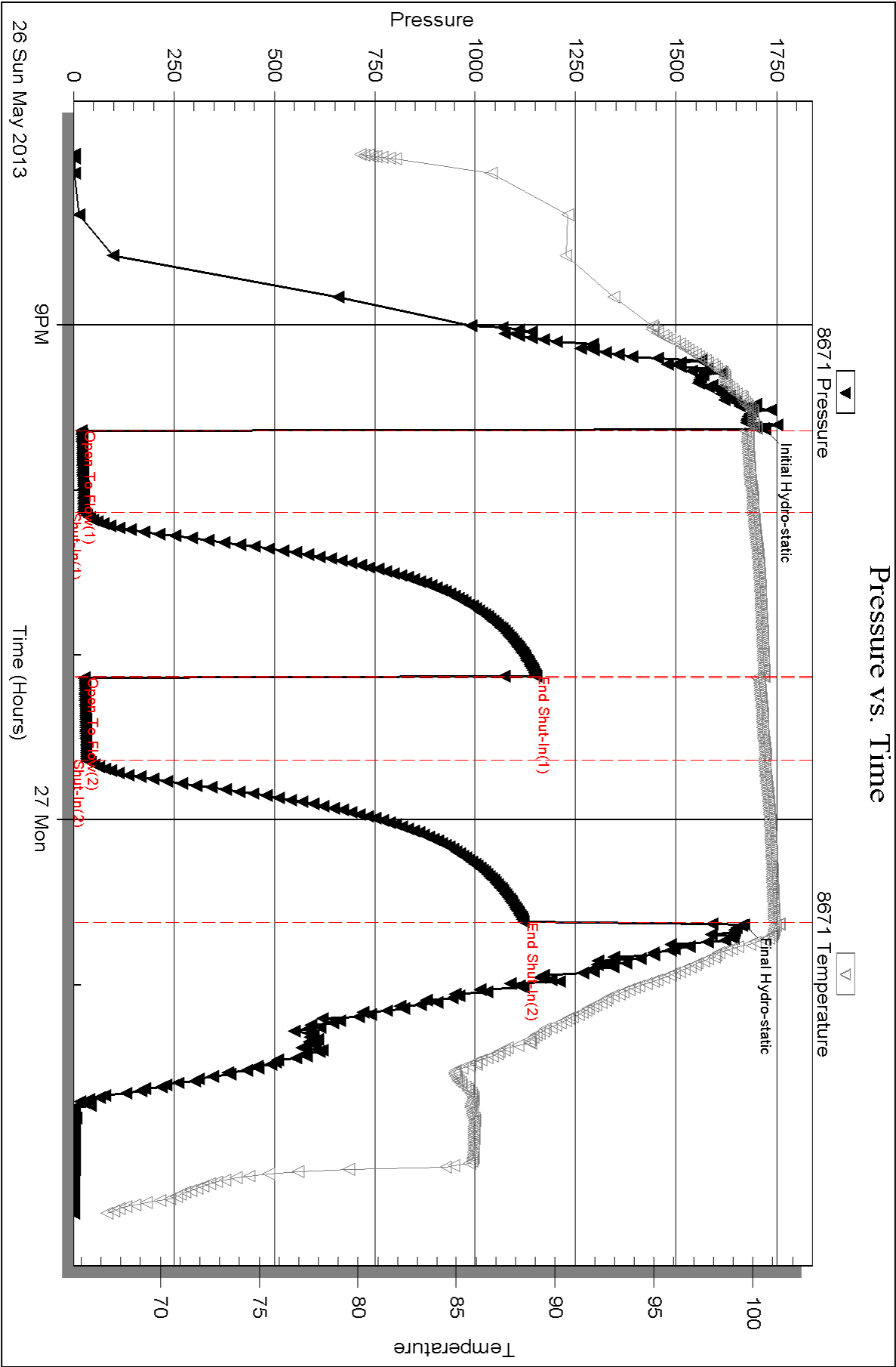
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 1

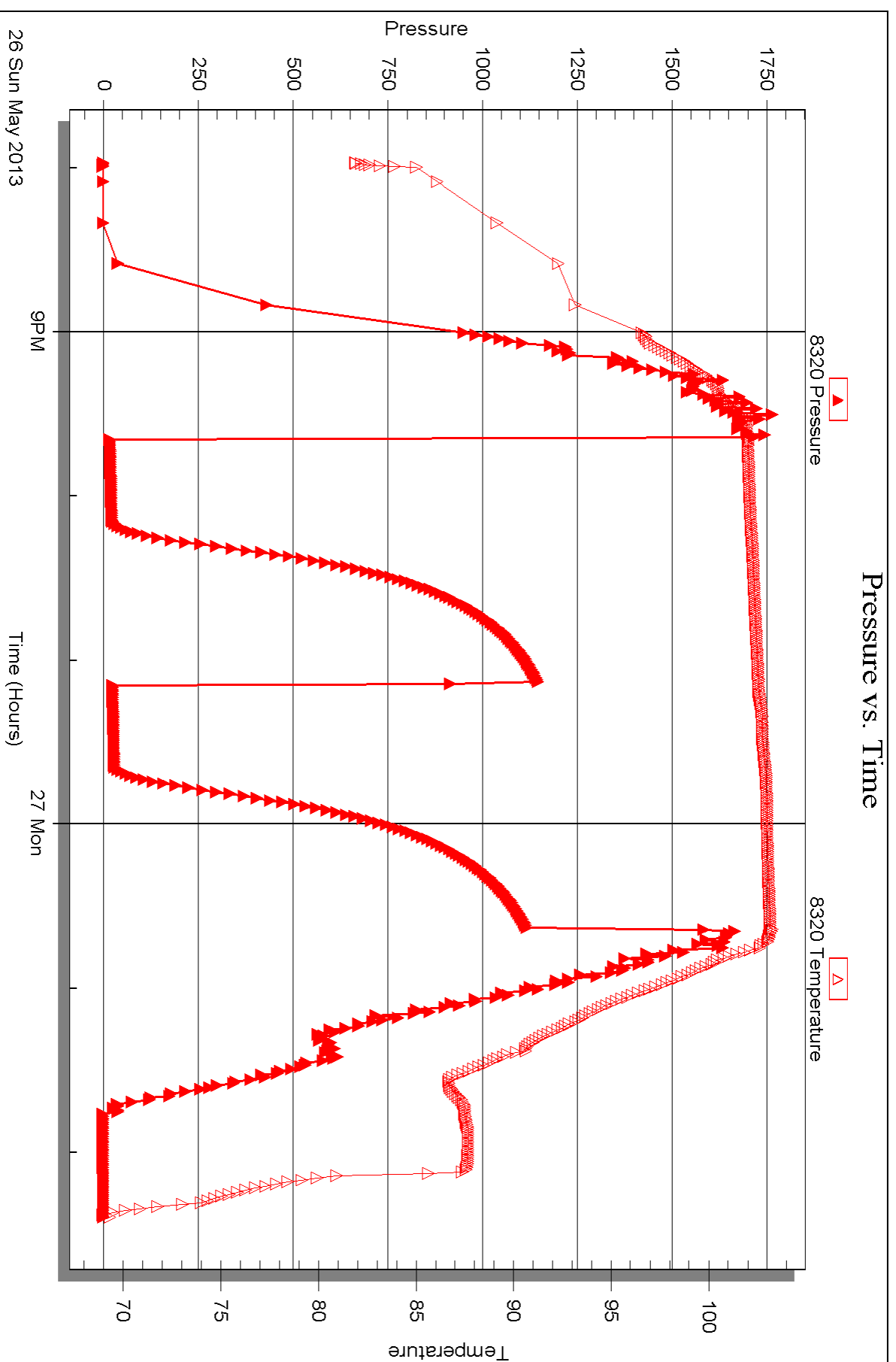


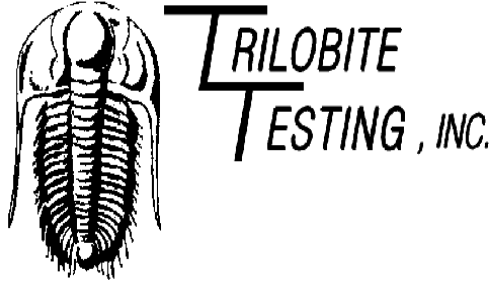
Serial #: 8320

Outside **Murfin Drilling Co., Inc.**

Ryser #1-24

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.27 @ 10:55:00

End Date: 2013.05.27 @ 17:07:00

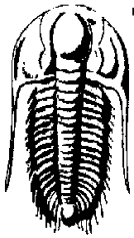
Job Ticket #: 52614 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:07:01



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52614

DST#: 2

Test Start: 2013.05.27 @ 10:55:00

GENERAL INFORMATION:

Formation: **Lans. "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:42:15

Time Test Ended: 17:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3592.00 ft (KB) To 3616.00 ft (KB) (TVD)

Total Depth: 3616.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 22.67 psig @ 3593.00 ft (KB)

Start Date: 2013.05.27

End Date:

2013.05.27

Start Time: 10:55:05

End Time:

17:06:59

Capacity: 8000.00 psig

Last Calib.: 2013.05.27

Time On Btm: 2013.05.27 @ 12:42:00

Time Off Btm: 2013.05.27 @ 15:44:30

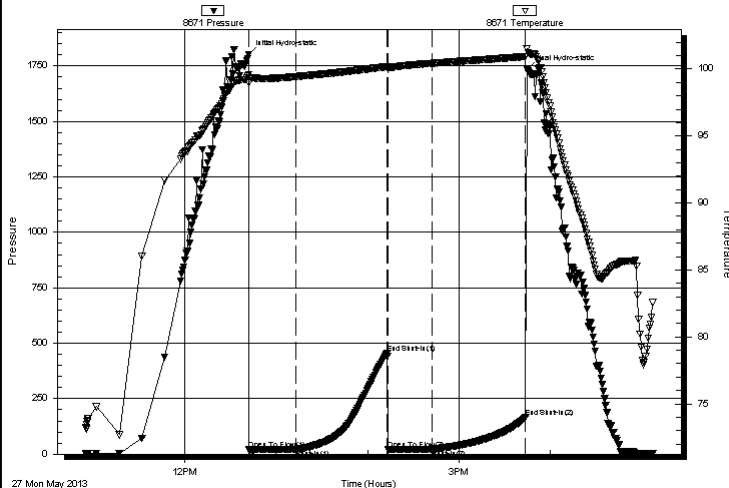
TEST COMMENT: 30 - IF: Weak surface blow, dead in 10 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1800.51	99.60	Initial Hydro-static
1	19.63	98.98	Open To Flow (1)
31	21.20	99.44	Shut-In(1)
91	456.20	100.18	End Shut-In(1)
92	22.08	100.01	Open To Flow (2)
120	22.67	100.44	Shut-In(2)
182	166.98	100.94	End Shut-In(2)
183	1735.42	101.55	Final Hydro-static

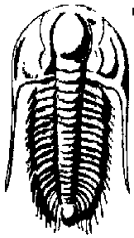
Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w /trace oil 100% m	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52614

DST#: 2

Test Start: 2013.05.27 @ 10:55:00

GENERAL INFORMATION:

Formation: **Lans. "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:42:15

Time Test Ended: 17:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3592.00 ft (KB) To 3616.00 ft (KB) (TVD)

Reference Elevations: 2468.00 ft (KB)

Total Depth: 3616.00 ft (KB) (TVD)

2457.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3593.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.27

End Date:

2013.05.27

Last Calib.:

2013.05.27

Start Time: 10:55:05

End Time:

17:07:29

Time On Btm:

Time Off Btm:

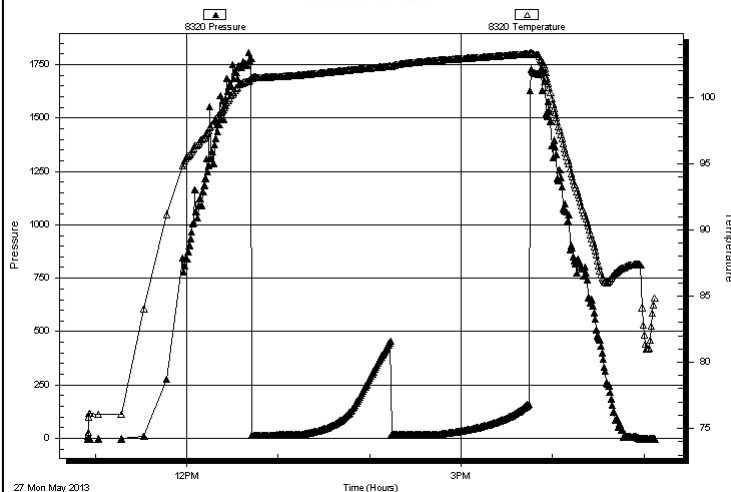
TEST COMMENT: 30 - IF: Weak surface blow, dead in 10 min.

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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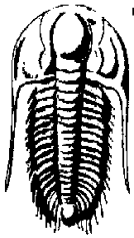
Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w /trace oil 100% m	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52614

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.05.27 @ 10:55:00

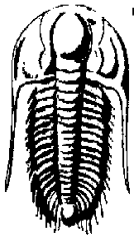
Tool Information

Drill Pipe:	Length:	3343.00 ft	Diameter:	3.80 inches	Volume:	46.89 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	48.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3592.00 ft					Final	60000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		24.00 ft						
Tool Length:		52.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3569.00	
Hydraulic tool	5.00			3574.00	
Jars	5.00			3579.00	
Safety Joint	3.00			3582.00	
Packer	5.00			3587.00	28.00 Bottom Of Top Packer
Packer	5.00			3592.00	
Stubb	1.00			3593.00	
Recorder	0.00	8671	Inside	3593.00	
Recorder	0.00	8320	Outside	3593.00	
Perforations	20.00			3613.00	
Bullnose	3.00			3616.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52614

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.05.27 @ 10:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 72.00 sec/qt

Water Loss: 5.57 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w /trace oil 100%m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

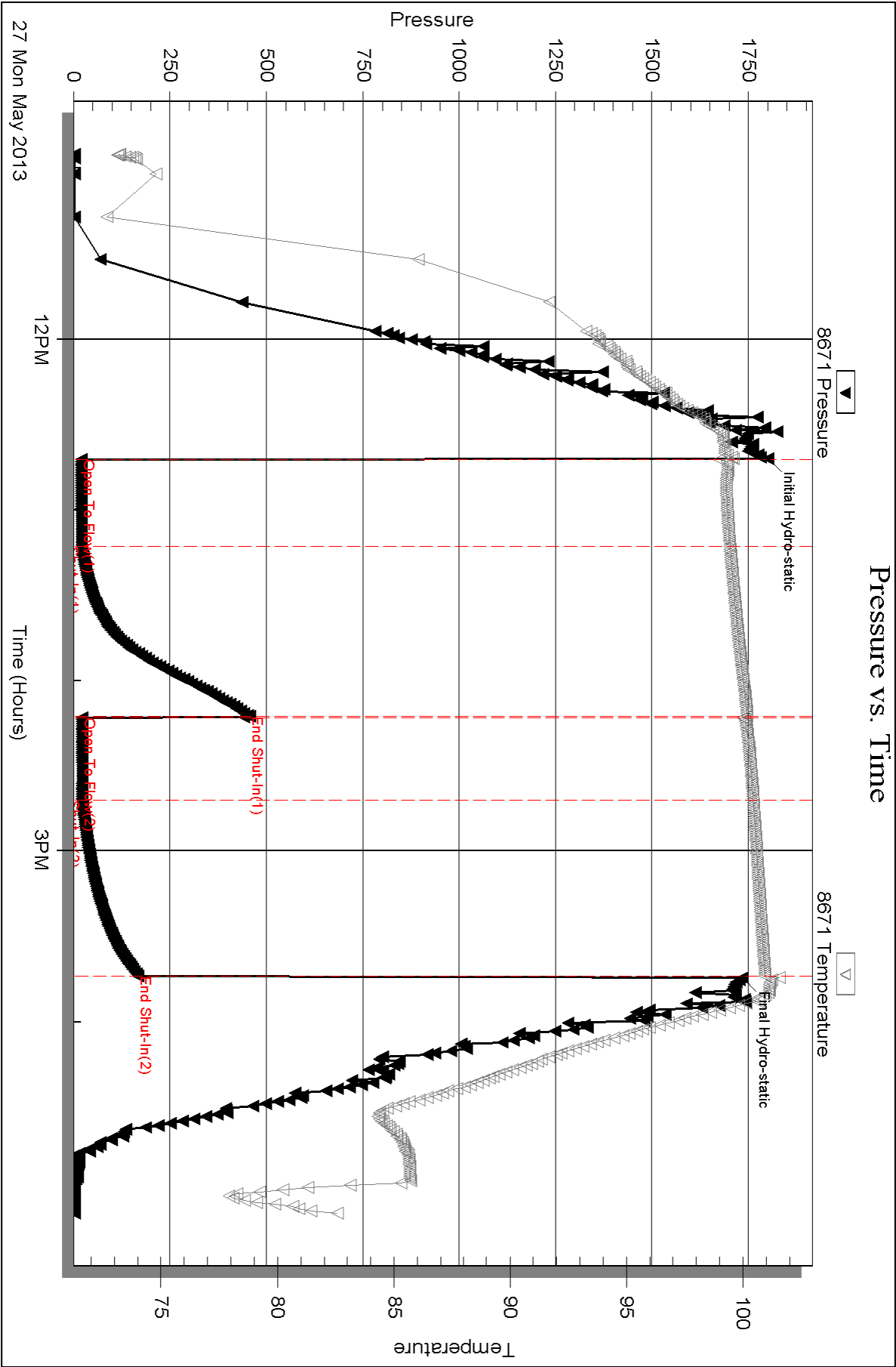
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 2

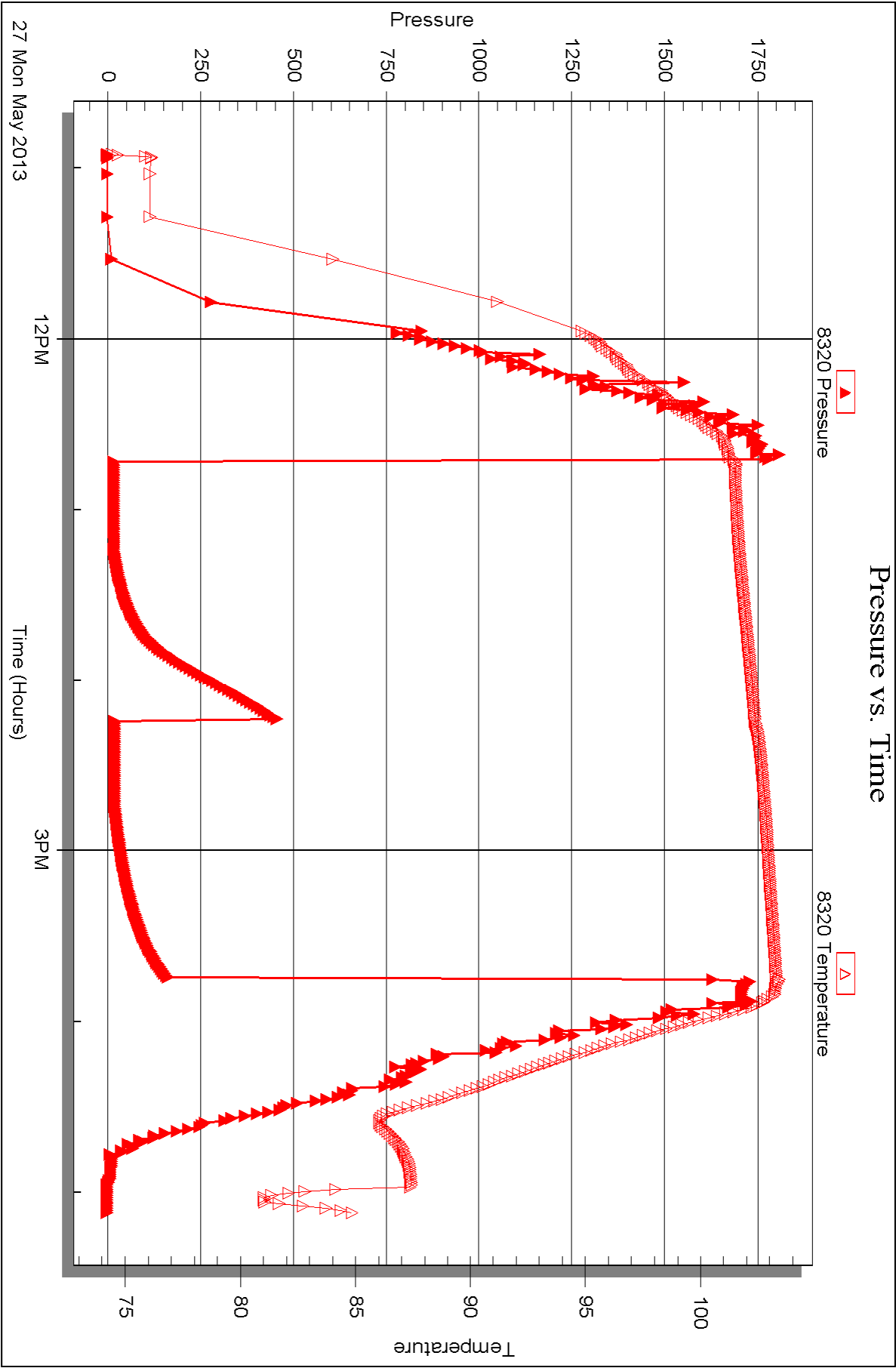


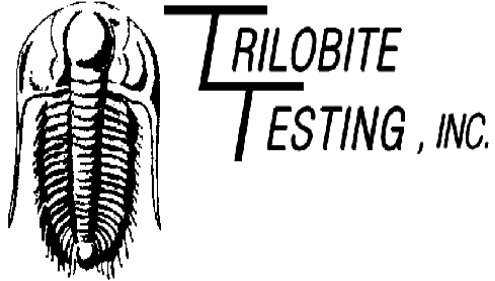
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Ryser #1-24

24-5s-29w Decatur KS

Start Date: 2013.05.28 @ 08:55:00

End Date: 2013.05.28 @ 16:40:30

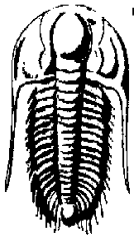
Job Ticket #: 52615 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.05 @ 11:06:19



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52615

DST#: 3

Test Start: 2013.05.28 @ 08:55:00

GENERAL INFORMATION:

Formation: **Lans. "H - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:00

Time Test Ended: 16:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3640.00 ft (KB) To 3714.00 ft (KB) (TVD)

Total Depth: 3714.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8671 Inside

Press@RunDepth: 125.90 psig @ 3641.00 ft (KB)

Start Date: 2013.05.28

End Date:

2013.05.28

Start Time: 08:55:05

End Time:

16:40:29

Capacity: 8000.00 psig

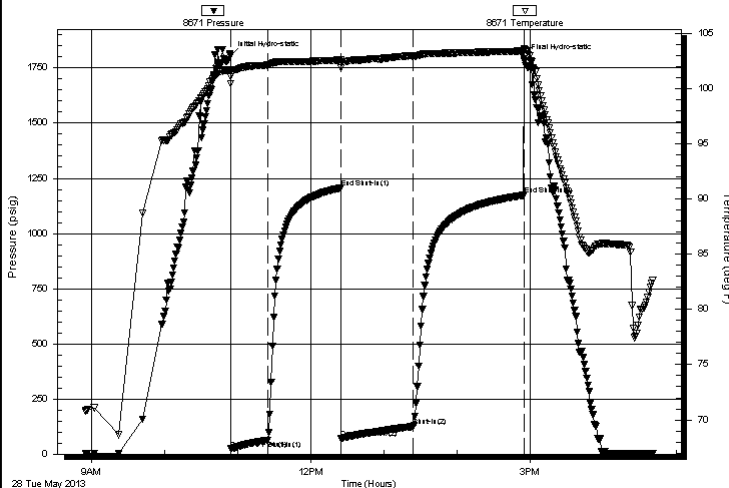
Last Calib.: 2013.05.28

Time On Btm: 2013.05.28 @ 10:53:45

Time Off Btm: 2013.05.28 @ 14:55:00

TEST COMMENT: 30 - IF: Blow built to 5"
60 - IS: No blow back
60 - FF: Blow built to 6"
90 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1807.80	101.71	Initial Hydro-static
1	23.74	100.49	Open To Flow (1)
31	64.28	102.15	Shut-In(1)
91	1206.08	102.61	End Shut-In(1)
91	70.52	101.86	Open To Flow (2)
151	125.90	102.95	Shut-In(2)
241	1173.39	103.43	End Shut-In(2)
242	1793.54	103.67	Final Hydro-static

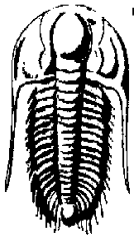
Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOWCM 82% _m , 10% _g , 6% _w , 2% _o	0.30
145.00	OCM 81% _m , 12% _o , 7% _g	0.71
0.00	GIP = 30'	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

24-5s-29w Decatur KS

Ryser #1-24

Job Ticket: 52615

DST#: 3

Test Start: 2013.05.28 @ 08:55:00

GENERAL INFORMATION:

Formation: **Lans. "H - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:00

Time Test Ended: 16:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3640.00 ft (KB) To 3714.00 ft (KB) (TVD)

Total Depth: 3714.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2468.00 ft (KB)

2457.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3641.00 ft (KB)

Start Date: 2013.05.28

End Date:

2013.05.28

Start Time: 08:55:05

End Time:

16:41:29

Capacity: 8000.00 psig

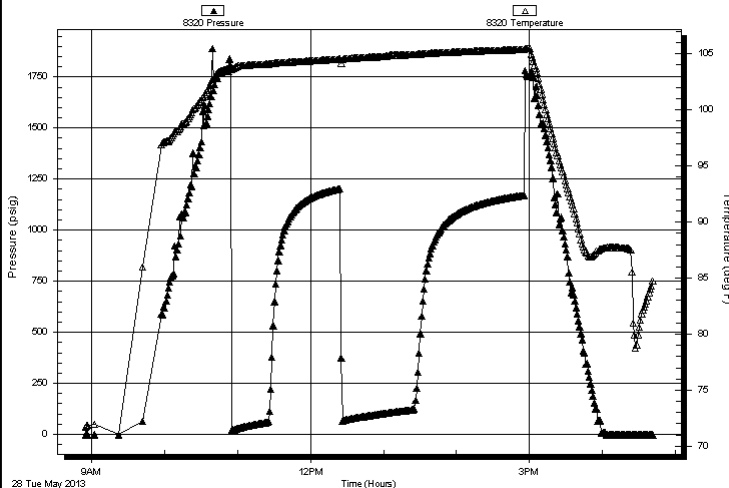
Last Calib.: 2013.05.28

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 5"
60 - IS: No blow back
60 - FF: Blow built to 6"
90 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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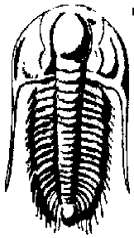
Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOWCM 82% _m , 10% _g , 6% _w , 2% _o	0.30
145.00	OCM 81% _m , 12% _o , 7% _g	0.71
0.00	GIP = 30'	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52615

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.05.28 @ 08:55:00

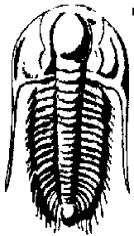
Tool Information

Drill Pipe:	Length:	3406.00 ft	Diameter:	3.80 inches	Volume:	47.78 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:	234.00 ft	Diameter:	2.25 inches	Volume:	1.15 bbl	Weight to Pull Loose:	66000.00 lb
					Total Volume:	48.93 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight: Initial	60000.00 lb
Depth to Top Packer:		3640.00 ft					Final	61000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		74.00 ft						
Tool Length:		102.00 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			3617.00	
Hydraulic tool	5.00			3622.00	
Jars	5.00			3627.00	
Safety Joint	3.00			3630.00	
Packer	5.00			3635.00	28.00 Bottom Of Top Packer
Packer	5.00			3640.00	
Stubb	1.00			3641.00	
Recorder	0.00	8671	Inside	3641.00	
Recorder	0.00	8320	Outside	3641.00	
Perforations	5.00			3646.00	
Blank Spacing	64.00			3710.00	
Perforations	1.00			3711.00	
Bullnose	3.00			3714.00	74.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

24-5s-29w Decatur KS

250 N. Water Suite 300
Wichita, KS 67202

Ryser #1-24

Job Ticket: 52615

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.05.28 @ 08:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.59 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOWCM 82%m, 10%g, 6%w , 2%o	0.295
145.00	OCM 81%m, 12%o, 7%g	0.713
0.00	GIP = 30'	0.000

Total Length: 205.00 ft

Total Volume: 1.008 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

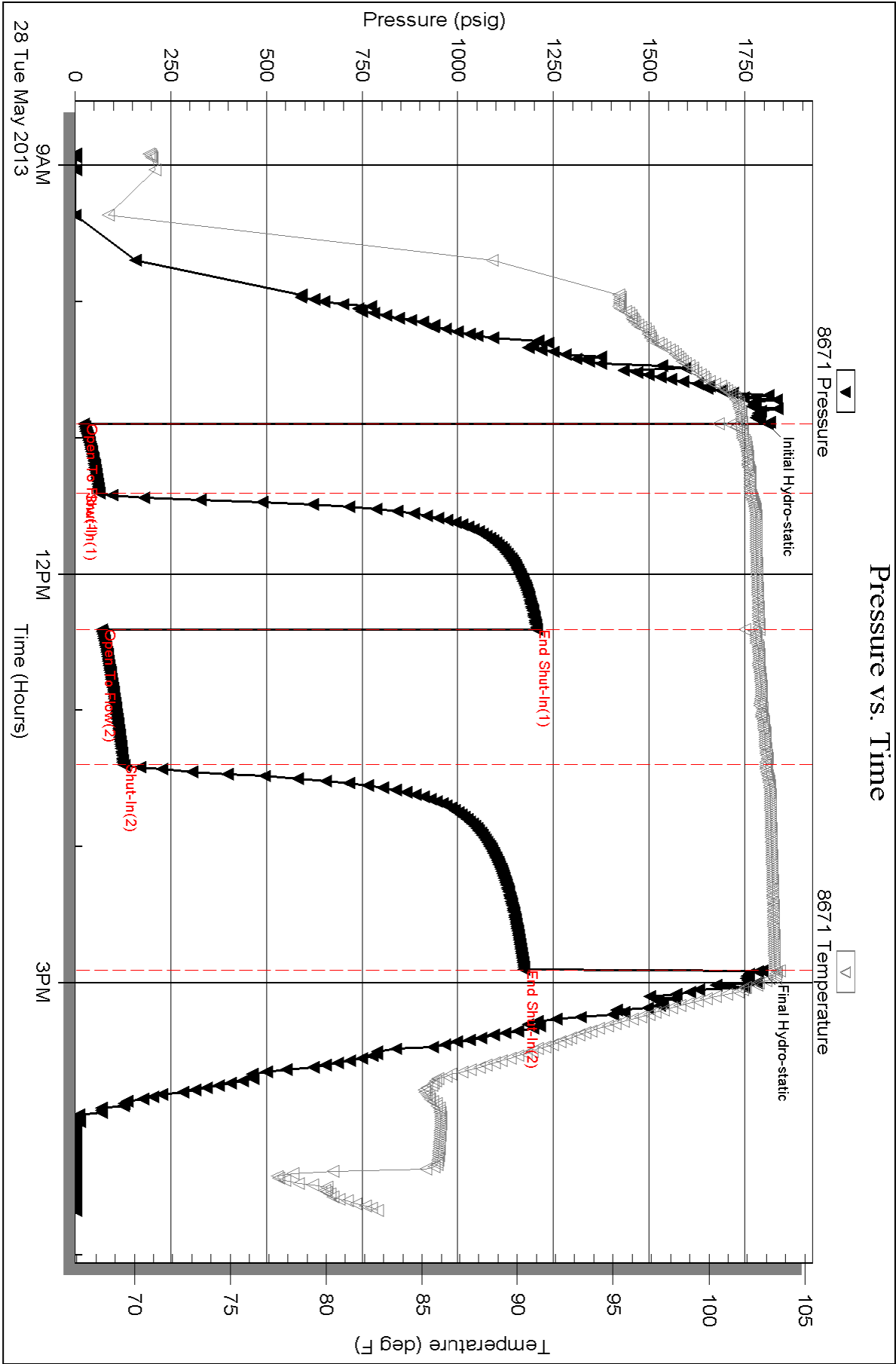
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 3

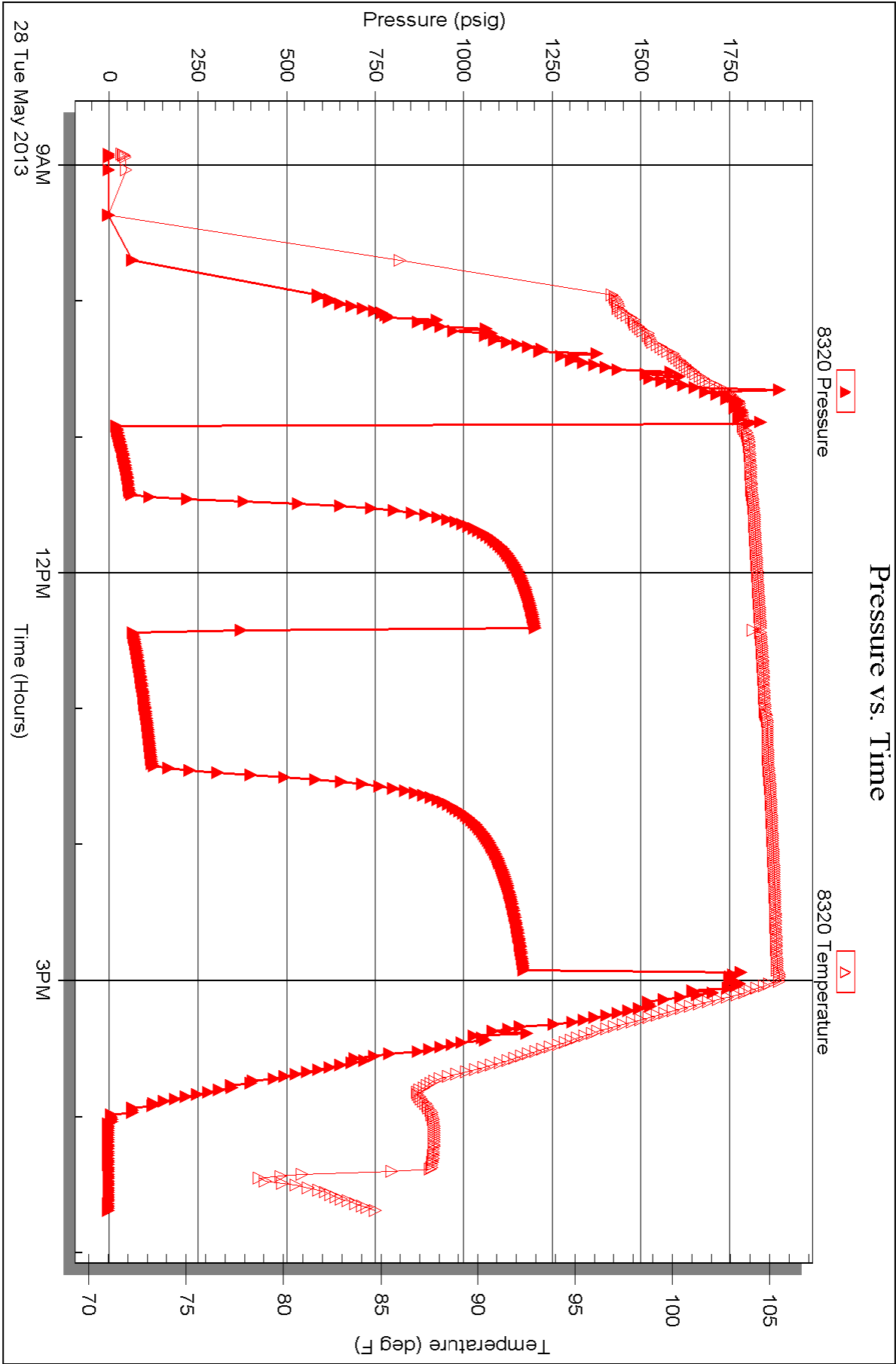


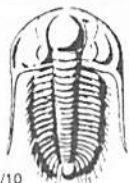
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Ryser #1-24

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52613

Well Name & No. Ryser #1-24 Test No. 1 Date 5-26-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3503 - 3577 Zone Tested Toronto - LKC "B"
 Anchor Length 74 Drill Pipe Run 3248 Mud Wt. 8.9
 Top Packer Depth 3498 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 3503 Wt. Pipe Run - WL 5.2
 Total Depth 3577 Chlorides 1000 ppm System LCM 3

Blow Description IF: Blow built to 1/2" then died back, dead at 23 min.

ISI: No blowback

FF: No blow

FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud w/trace of oil</u>	<u>trace</u>	<u>-</u>	<u>100</u>	<u>-</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 101 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic	<u>1721</u>	☐ Test <u>1150</u>	T-On Location	<u>19:00 5/26</u>
(B) First Initial Flow	<u>20</u>	☐ Jars <u>250</u>	T-Started	<u>19:58</u>
(C) First Final Flow	<u>25</u>	☐ Safety Joint <u>75</u>	T-Open	<u>21:38</u>
(D) Initial Shut-In	<u>1151</u>	☒ Circ Sub <u>NA</u>	T-Pulled	<u>00:37</u>
(E) Second Initial Flow	<u>27</u>	☒ Hourly Standby	T-Out	<u>2:15 5/27</u>
(F) Second Final Flow	<u>32</u>	☐ Mileage <u>80RT</u> <u>124</u>	Comments	
(G) Final Shut-In	<u>1122</u>	☒ Sampler		
(H) Final Hydrostatic	<u>1669</u>	☒ Straddle	☒ Ruined Shale Packer	

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

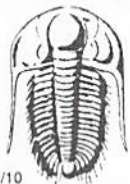
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility
 Sub Total 1599

☒ Ruined Packer
☒ Extra Copies
 Sub Total 0
 Total 1599
 MP/DST Disc't

Approved By ADL

Our Representative James Windes

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. 52614

Well Name & No. Ryser #1-24 Test No. 2 Date 5-27-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3592 - 3616 Zone Tested Lans. "F"
 Anchor Length 24 Drill Pipe Run 3343 Mud Wt. 9.1
 Top Packer Depth 3587 Drill Collars Run 234 Vis 72
 Bottom Packer Depth 3592 Wt. Pipe Run - WL 5.6
 Total Depth 3616 Chlorides 1000 ppm System LCM 4

Blow Description IF: Weak surface blow, dead in 10 min.

ISI: No blowback

FF: No blow

FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>mud w/trace of oil</u>	<u>trace</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 2 BHT 101 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1801
 (B) First Initial Flow 20
 (C) First Final Flow 21
 (D) Initial Shut-In 456
 (E) Second Initial Flow 22
 (F) Second Final Flow 23
 (G) Final Shut-In 167
 (H) Final Hydrostatic 1735

☐ Test 1150
☐ Jars 250
☐ Safety Joint 75
☒ Circ Sub *NA
☒ Hourly Standby
☐ Mileage 80RT 124
☒ Sampler
☒ Straddle
☒ Shale Packer
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility

T-On Location 10:45
 T-Started 10:55
 T-Open 12:42
 T-Pulled 15:43
 T-Out 17:05

Comments

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

☒ Ruined Shale Packer
☒ Ruined Packer
☒ Extra Copies
 Sub Total 0
 Total 1599
 MP/DST Disc't

Sub Total 1599

Approved By [Signature]

Our Representative James Winder

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. 52615

Well Name & No. Ryser # 1-24 Test No. 3 Date 5-28-13
 Company Murfin Drilling Co. Inc Elevation 2468 KB 2457 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 24 Twp. 5s Rge. 29w Co. Decatur State KS

Interval Tested 3640 - 3714 Zone Tested Lans. "H-K"
 Anchor Length 74 Drill Pipe Run 3406 Mud Wt. 9.1
 Top Packer Depth 3635 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 3640 Wt. Pipe Run - WL 5.6
 Total Depth 3714 Chlorides 1000 ppm System LCM 4

Blow Description IF: Blow built to 5"
ISI: No blowback
FF: Blow built to 6"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>OCM</u>	<u>7</u>	<u>12</u>	<u>-</u>	<u>81</u>
<u>60</u>	<u>5000 GOWCM</u>	<u>10</u>	<u>2</u>	<u>6</u>	<u>82</u>
	<u>GIP = 30'</u>				

Rec Total 205 BHT 103 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1808</u>	☐ Test <u>1150</u>	T-On Location <u>8:45</u>
(B) First Initial Flow <u>24</u>	☐ Jars <u>250</u>	T-Started <u>8:55</u>
(C) First Final Flow <u>64</u>	☐ Safety Joint <u>75</u>	T-Open <u>10:54</u>
(D) Initial Shut-In <u>1206</u>	☒ Circ Sub <u>NA</u>	T-Pulled <u>14:54</u>
(E) Second Initial Flow <u>71</u>	☒ Hourly Standby <u>NA</u>	T-Out <u>16:30</u>
(F) Second Final Flow <u>126</u>	☐ Mileage <u>80RTX2</u> 248	Comments <u>loaded tools 11:30 5/29</u>
(G) Final Shut-In <u>1173</u>	☒ Sampler	
(H) Final Hydrostatic <u>1794</u>	☒ Straddle	☒ Ruined Shale Packer

Initial Open <u>30</u>	☒ Extra Packer	☒ Extra Copies
Initial Shut-In <u>60</u>	☒ Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	☒ Day Standby	Total <u>1723</u>
Final Shut-In <u>90</u>	☒ Accessibility	MP/DST Disc't
	Sub Total <u>1723</u>	

Approved By [Signature] Our Representative James Winder
 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.



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 136424
Invoice Date: May 23, 2013
Page: 1

Now Includes:



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

Customer ID	Field Ticket #	Payment Terms	
Murfin	60265	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 23, 2013	6/22/13

Quantity	Item	Description	Unit Price	Amount
165.00	MAT	Ryser #1-24	17.90	2,953.50
6.00	MAT	Class A Common	64.00	384.00
173.25	SER	Chloride	2.48	429.66
479.40	SER	Cubic Feet	2.60	1,246.44
1.00	SER	Ton Mileage	1,512.25	1,512.25
60.00	SER	Surface	7.70	462.00
1.00	SER	Pump Truck Mileage	275.00	275.00
60.00	SER	Swedge Manifold Rental	4.40	264.00
1.00	CEMENTER	LaRene Wentz		
1.00	EQUIP OPER	Dane Retzloff		
1.00	OPER ASSIST	Brandon Wilkinson		

OK

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

\$ 2,634.39

ONLY IF PAID ON OR BEFORE
Jun 17, 2013

Subtotal	7,526.85
Sales Tax	243.64
Total Invoice Amount	7,770.49
Payment/Credit Applied	
TOTAL	7,770.49

2634.39
5136.10

060265

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

SERVICE POINT: Oakley, KS

TOTAL _____

SIGNATURE Amro C. Lopez



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 136521

Invoice Date: May 29, 2013

Page: 1

PROD COPY

Bill To:

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

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Murfin	60270	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	May 29, 2013	6/28/13

Quantity	Item	Description	Unit Price	Amount
		<u>Ryser #1-24</u>		
132.00	MAT	Class A Common	17.90	2,362.80
88.00	MAT	Pozmix	9.35	822.80
8.00	MAT	Gel	23.40	187.20
55.00	MAT	Flo Seal	2.97	163.35
236.28	SER	Cubic Feet	2.48	585.97
592.20	SER	Ton Mileage	2.60	1,539.72
1.00	SER	Plug to Abandon	2,483.59	2,483.59
60.00	SER	Pump Truck Mileage	7.70	462.00
60.00	SER	Light Vehicle Mileage	4.40	264.00
1.00	EQP	8.5/8 Wooden Plug	107.64	107.64
1.00	CEMENTER	LaRene Wentz		
1.00	EQUIP OPER	Paul Beaver		
1.00	OPER ASSIST	Kevin Ryan		

Account	Qty	Unit	No.	Amount	Description
10203	3		64469.0001	6491.70	DTA #1-24
					OK/R

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

\$ 3,142.84

ONLY IF PAID ON OR BEFORE

Jun 23, 2013

Subtotal	8,979.07
Sales Tax	655.47
Total Invoice Amount	9,634.54
Payment/Credit Applied	
TOTAL	9,634.54

(3142.84)

6491.70

ALLIED OIL & GAS SERVICES, LLC 060270

Federal Tax I.D. # 20-8661475

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

SERVICE POINT:
Da Klay, KS

DATE <u>5-27-13</u>	SEC. <u>24</u>	TWP. <u>5</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION <u>4:00 PM</u>	JOB START <u>5:00 PM</u>	JOB FINISH <u>6:00 PM</u>
LEASE <u>Ryser</u>	WELL # <u>1-24</u>	LOCATION <u>Allison, KS SE, Winto</u>			COUNTY <u>Decatur</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Murfin 2

TYPE OF JOB PTA

TOLE SIZE 7/8 T.D. 3835'

CASING SIZE DEPTH

UBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH 2100'

COL DEPTH

RES. MAX MINIMUM

MEAS. LINE SHOE JOINT

EMENT LEFT IN CSG.

ERFS.

ISPLACEMENT 26.3 661

OWNER same

CEMENT
AMOUNT ORDERED 220 SK 64/40 42 gal
1/4" 7/8" seal

COMMON	<u>132 SK @ 17.70</u>	<u>2362.80</u>
POZMIX	<u>88 SK @ 2.35</u>	<u>2068.00</u>
GEL	<u>8 SK @ 23.40</u>	<u>187.20</u>
CHLORIDE	@	
ASC	@	

<u>Flo seal</u>	<u>55 SK @ 2.77</u>	<u>1532.85</u>
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HANDLING	<u>236.28 SK @ 2.48</u>	<u>585.97</u>
MILEAGE	<u>287 mi x 60 x 2.60</u>	<u>4532.72</u>

TOTAL 5662.34

REMARKS:

4 1/2 25 SK 2100'
4 1/2 100 SK 1275'
4 1/2 40 SK 225'
4 1/2 10 SK 40' w/ pay
Aug 46. 15 SK
Aug 24 30 SK

Thank you

CHARGE TO: Murfin Drilling

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB	<u>2100'</u>
PUMP TRUCK CHARGE	<u>2488.59</u>
EXTRA FOOTAGE	@
MILEAGE <u>MIHU</u>	<u>60 @ 7.70</u> <u>462.00</u>
MANIFOLD	@
<u>MIHU</u>	<u>60 @ 4.80</u> <u>288.00</u>

TOTAL 3209.59

PLUG & FLOAT EQUIPMENT

<u>Wooden plug</u>	@	<u>187.64</u>
	@	
	@	
	@	
	@	<u>100.64</u>

TOTAL 107.64

To: Allied Oil & Gas Services, LLC.

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

PRINTED NAME Arno E. Ceballos

SIGNATURE Arno E. Ceballos

SALES TAX (If Any)

TOTAL CHARGES 8,979.57

DISCOUNT 3,142.84 IF PAID IN 30 DAYS

5,836.73 Net.