



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1159880
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
-----------------------------------	-----------------	---

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: _____



1159880

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

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

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

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

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

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 26, 2013

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

Re: ACO1
API 15-065-23943-00-00
Ruder Unit 3-36
SE/4 Sec.36-10S-24W
Graham 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

Ruder Unit #3-36 1220' FSL 775' FEL Sec. 36-T10S-R24W 2357' KB							Ruder Unit #1-36 1430' FSL 2600' FEL Sec. 36-T10S-R24W 2360' KB	
Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref	Log Tops	Datum
Anhydrite	1957	+400	-5	1957	+400	+5	1955	+405
B/Anhydrite	2000	+357	-5	1999	+358	-4	1998	+362
Topeka	3456	-1099	-5	3457	-1100	-6	3454	-1094
Heebner	3679	-1322	-10	3679	-1322	-10	3672	-1312
Toronto	3699	-1342	-9	3701	-1344	-11	3693	-1333
Lansing	3716	-1359	-9	3714	-1357	-7	3710	-1350
BKC	3948	-1591	-9	3944	-1587	-5	3942	-1582
Cherokee	NR			NR			4140	-1780
Mississippi	NR			NR			4232	-1872
RTD	4000	-1643					4325	
LTD				4001	-1644		4327	-1967

Robert L. Milford

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR Murfin Drilling Company, Inc.
 LEASE Ruder Unit #3-36
 LOC. SPOT 100'S & 115' W of C E2 SE
 LOC. FOOTAGE 1,220' FSL 775' FEL
 SEC. 36 TWPSP 10S RANG 24W
 COUNTY Graham STATE KANSAS
 API 15-065-23943-00-00

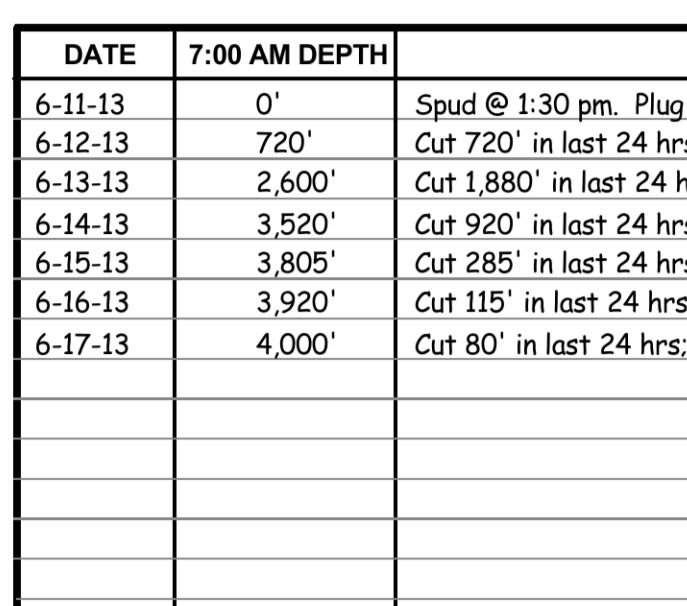
CONTRACTOR Murfin Drilling Co., Inc. RIG NO. 16
 DRILLING STARTED 6-11-2013 COMPLETED 6-16-2013
 MUD DISPLACED 3,017' MUD TYPE Chemical
 DRILLING TIME KEPT FROM 3,350' TO RTD
 SAMPLES SAVED FROM 3,350' TO RTD
 SAMPLES EXAMINED FROM 3,350' TO RTD
 GEOLOGICAL SUPERVISION FROM 3,178' TO RTD

FORMATION NAME	LOG TOP DATUM	SAMPLE TOP DATUM
Stone Corral	1,957'	+400'
Base Stone Corral	2,000'	+357'
Topeka	3,457'	-1100'
Heebner	3,679'	-1322'
Toronto	3,701'	-1344'
Lansing	3,714'	-1357'
Stark	3,903'	-1546'
B/KC	3,944'	-1587'
Total Depth	4,001'	-1644'

ELEVATIONS
 KB 2,357'
 GL 2,352'

MESS/SENS/PROKKA
 CASING RECORD
 Conductor _____
 Surface 8-5/8" @ 219'
 w/ 150 sacks cement
 Production none

ELECTRICAL SURVEYS:
 Pioneer Wireline:
 Dual Induction Log
 Dual Compensated -
 Porosity Log
 Microresistivity Log
 Sonic Log
 Borehole Compensated-



DATE	7:00 AM DEPTH	REMARKS
6-11-13	0'	Spud @ 1:30 pm. Plug down @ 5:15 pm. Drilled out plug @ 1:15 am on 6-12-13
6-12-13	720'	Cut 720' in last 24 hrs. Dev. 0.5° @ 2543'
6-13-13	2,600'	Cut 1,880' in last 24 hrs; 22 hrs drlg. Dev. 0.5° @ 2643'
6-14-13	3,520'	Cut 920' in last 24 hrs; 20 hrs drlg. DST #1 @ 3805'
6-15-13	3,805'	Cut 285' in last 24 hrs; 9.5 hrs drlg. DST #2 @ 3905'
6-16-13	3,920'	Cut 115' in last 24 hrs; 5.75 hrs drlg. RTD 4000' @ 11:13 am. P&A
6-17-13	4,000'	Cut 80' in last 24 hrs; 3 hrs drlg.

Remarks

The electric log measurements correlate from even to 1' lower to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

Robert L. Milford



LITH.	0	DRILL TIME (MIN/FT)	10	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
				1950		Stone Corral 1957' (+400) EL
				2000		B/Stone Corral 2000' (+357) EL

				3350	LS: wh-crm, fxln, fos in prt, some granular, vry chky-prtly dns, pr por, NS Sh: gry, some red-brn & grn LS: crm-gry, fos in prt, sub chky-prtly dns, pr por, NS Sh: mstly gry LS: crm-gry, fxln, fos in prt, sub chky, pr por, NS	Morgan Mud check @ 3041': 73 Vis, 8.7 Wt, 8.0 WL, 1,000 ppm Chl, 0# LCM Call depth 3050' @ 5:10 pm on 6-13-13 Samples start 3350' @ 1:43 am on 6-14-13
				3400	Sh: gry, some red-brn LS: crm-gry, fxln, fos in prt, some sli shly, sub chky-prtly dns, pr por, NS LS: crm-drk gry, fxln, fos in prt, some shly, some mottled, sub chky-prtly dns, pr por, NS Sh: gry, some red-brn & grn Sh: gry, some soft & gummy, some red-brn & grn	Topeka 3457' (-1100) EL
				3500	LS: crm-tan, fxln, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A. w/ LS: gry, fxln, sli shly, pr por, NS Sh: gry, some grn LS: wh-tan, fxln, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: wh-tan, fxln, fos-ool, vry chky-prtly dns, pr por, NS LS: A.A.	Heebner 3679' (-1322) EL
				3600	LS: wh-tan, fxln, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A., incrs chky-vry chky, pr-fr intrprtcl por, NS LS: crm-lt brn, fxln, sli fos, sli chty (tan), sub chky-prtly dns, pr por, NS Sh: Black Carb LS: wh-tan, fxln, fos-ool in prt, some granular, chty (wh-tan), vry chky-prtly dns, pr por, NS LS: crm-tan, fxln, fos-ool in prt, some granular, chty (tan), sub chky-prtly dns w/ some chky-vry chky, pr-fr intrprtcl por, NS LS: wh-tan, fxln, fos-ool in prt, chty (lt gry-tan), vry chky-prtly dns, some pr-fr intrprtcl por, NS LS: A.A., dcrs amnt chky-vry chky, pr por, NS Sh: Black Carb LS: tan-brn, fxln, fos in prt, sub chky-prtly dns, pr por, NS Sh: gry & grn	Toronto 3701' (-1344) EL Lansing 3714' (-1357) EL
				3750	LS: wh-tan, fxln, ool-fos in prt, chty (wh-tan), sub chky-dns w/ some chky, pr w/ tr fr intrprtcl por, NS LS: crm, fxln, sli fos, chty (wh), sub chky-dns w/ some chky, pr por, NS Sh: gry, some grn & red-brn LS: crm, fxln, ool-fos, chty (crm-org), sli pyr, sub chk-prt dns, pr-fr intrprt & 1 pc ooc por, scat mstly lt brn spdt-sat stn, SSFO, no odor LS: wh-crm, fxln, sli fos, chty (crm), sub chky-prtly dns w/ some chky, pr w/ tr fr intrprtcl por, tr brn spdt-patchy stn, 1 pc w/ VSSFO, no odor LS: A.A., pr por, rare stn, NSFO, no odor	Morgan Mud check @ 3748': 55 Vis, 9.1 Wt, 8.0 WL, 1,700 ppm Chl, 0# LCM DST #1 3677'-3805' Toronto-LKC 'F' zn IF: blow built to 3" IS: no blow back FF: blow built to 1.25" FSL: no blow back Rec: 190 SOCM (2% O, 98% M) IFP: 24-59#/30" ISIP: 946#/60" FFP: 69-113#/60" FSIP: 907#/90"
				3800	LS: wh-crm, fxln, fos-ool, chky-prt dns, pr-fr w/ some gd intrprt por, scat lt brn sub sat-sat stn, S-FSFO (mstly pin-point beads), sli odor LS: wh-crm, fxln, fos-ool, chky-prt dns, pr-fr intrprt por, scat lt brn sub sat-sat stn, SSFO (pin point beads), fnt odor LS: wh-crm, fxln, fos-ool in prt, some granular, chty (wh-crm), vry chky-prtly dns, pr-fr intrprtcl por, NS LS: crm-lt gry, fxln, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A., w/ some lt-med gry & tan, pr por, NS Sh: Black Carb LS: tan-brn, fxln, fos, prtly dns, pr por, NS Sh: gry-grn LS: wh-lt tan, fxln, fos-ool in prt, vry chky-prtly dns, pr por, vry scat brn-blk spdt-patchy stn, 1 pc w/ SSFO, no odor LS: tan, fxln, fos (fusl), prtly dns, pr por, NS	Ran 20 stand short trip prior to DST #1 IF: blow built to 0.25" IS: no blow back FF: blow built to 1.25" FSL: no blow back Rec: 40' OCM (10% O, 90% M) IFP: 19-27#/30" ISIP: 951#/60" FFP: 21-32#/30" FSIP: 831#/60" Ran another bit (re-run) @ 3805' Morgan Mud check @ 3809': 58 Vis, 9.1 Wt, 8.0 WL, 2,000 ppm Chl, 0.5# LCM
				3900	LS: wh-crm, fxln, ool-fos in prt, sli chty (wh), vry chky-dns, pr intrprt w/ some fr-gd vug por, scat lt brn-blk spdt-patchy w/ tr sub sat-sat stn, S-FSFO, no odor Sh: mstly gry, w/ red-brn, some soft & gummy, some sdy LS: crm, fxln, ool (med) in prt, sub chky-prtly dns w/ some chky-vry chky, pr w/ tr fr intrprt por, tr brn-blk spdt-patchy stn, some live stn, NSFO, no odor LS: wh-tan, fxln, fos in prt, vry chky-prtly dns, pr por, NS	Stark 3903' (-1546) EL
				3950	Sh: gry-grn, some red-brn Sh: gry & red-brn, some grn LS: crm-lt gry, fxln, fos in prt, sli chty, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn, some soft & gummy, & gry LS: crm-gry, fxln, fos in prt, some sdy, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS	B/KC 3944' (-1587) EL R.T.D. 4000' (-1643) L.T.D. 4001' (-1644)



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Ste 300
Wichita KS 67202-1216

ATTN: Scott Robinson

Ruder Unit #3-36

36-10s-24w Graham,KS

Start Date: 2013.06.15 @ 01:15:26

End Date: 2013.06.15 @ 08:58:50

Job Ticket #: 52092 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.18 @ 09:56:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS

Ruder Unit #3-36

Job Ticket: 52092 **DST#: 1**

Test Start: 2013.06.15 @ 01:15:26

GENERAL INFORMATION:

Formation: **Toronto-LKC F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:25:36
 Time Test Ended: 08:58:50
 Interval: **3677.00 ft (KB) To 3805.00 ft (KB) (TVD)**
 Total Depth: 3805.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 2357.00 ft (KB)
 2352.00 ft (CF)
 KB to GR/CF: 5.00 ft

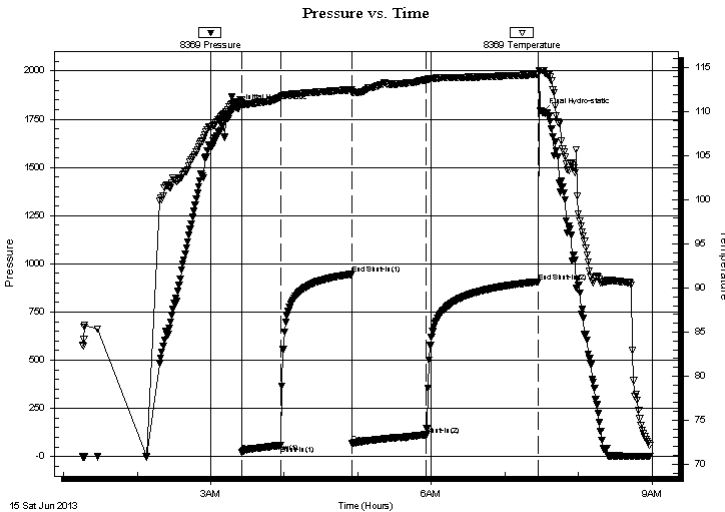
Serial #: 8369

Inside

Press @ Run Depth: 113.13 psig @ 3777.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.15 End Date: 2013.06.15 Last Calib.: 2013.06.15
 Start Time: 01:15:26 End Time: 08:58:50 Time On Btm: 2013.06.15 @ 03:22:36
 Time Off Btm: 2013.06.15 @ 07:30:35

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 3" bl
 60-ISIP-no bl
 60-FFP-w k bl thru-out surface to 1 1/4" bl
 90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1806.24	111.17	Initial Hydro-static
3	24.07	110.75	Open To Flow (1)
35	59.78	111.70	Shut-In(1)
93	946.12	112.50	End Shut-In(1)
93	69.06	112.17	Open To Flow (2)
154	113.13	113.60	Shut-In(2)
245	907.15	114.23	End Shut-In(2)
248	1786.21	114.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	SOCM 2%O98%M	2.39

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS
Ruder Unit #3-36
Job Ticket: 52092 **DST#: 1**
Test Start: 2013.06.15 @ 01:15:26

Tool Information

Drill Pipe:	Length: 3642.00 ft	Diameter: 3.80 inches	Volume: 51.09 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 51.24 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3677.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	128.00 ft			
Tool Length:	149.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3657.00	
Shut In Tool	5.00			3662.00	
Hydraulic tool	5.00			3667.00	
Packer	5.00			3672.00	21.00 Bottom Of Top Packer
Packer	5.00			3677.00	
Stubb	1.00			3678.00	
Perforations	3.00			3681.00	
Blank Spacing	96.00			3777.00	
Recorder	0.00	8369	Inside	3777.00	
Recorder	0.00	8700	Outside	3777.00	
Perforations	25.00			3802.00	
Bullnose	3.00			3805.00	128.00 Bottom Packers & Anchor

Total Tool Length: 149.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS
Ruder Unit #3-36
Job Ticket: 52092 **DST#: 1**
Test Start: 2013.06.15 @ 01:15:26

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1700.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

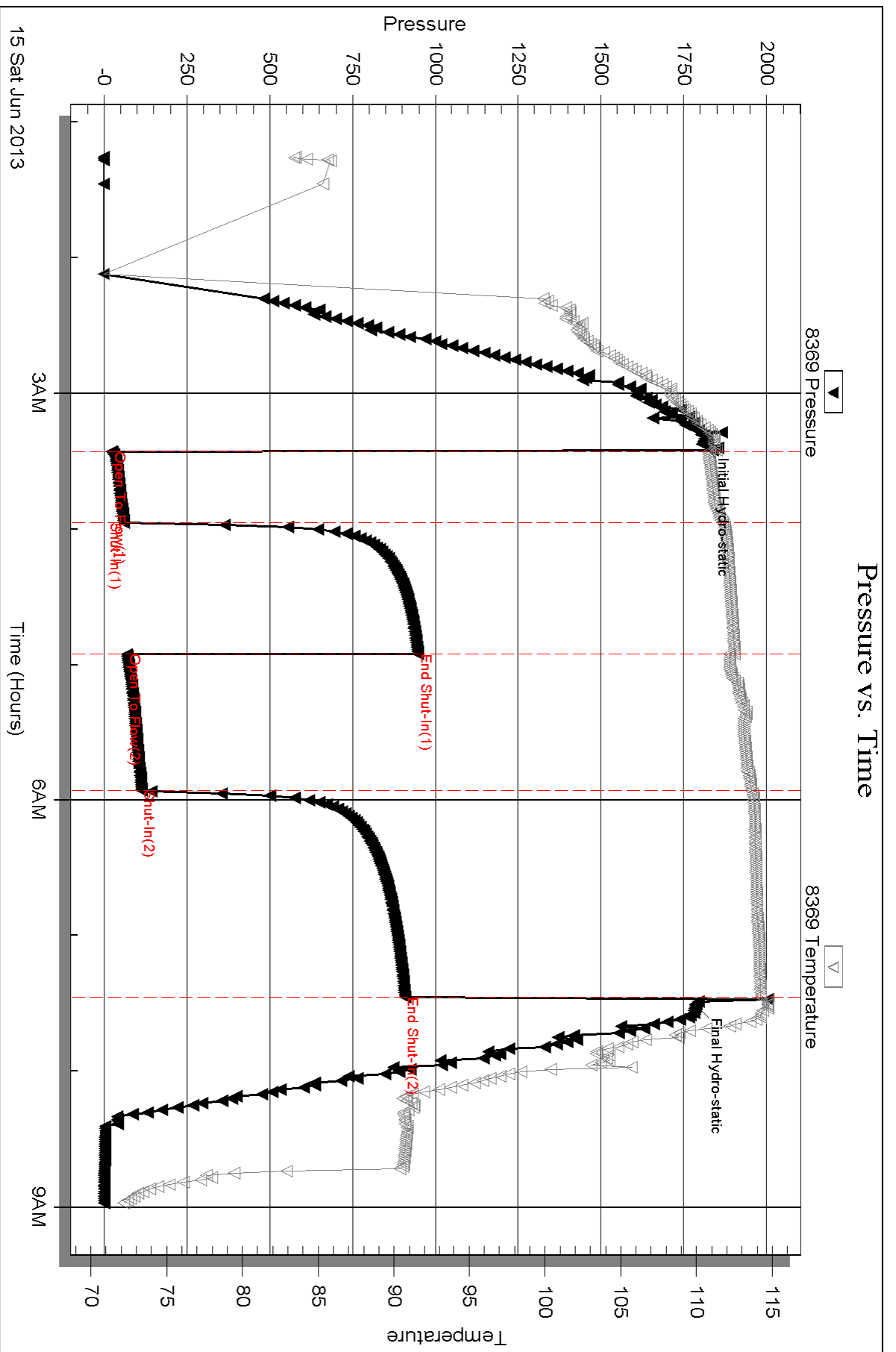
Length ft	Description	Volume bbl
190.00	SOCM 2%O98%M	2.392

Total Length: 190.00 ft Total Volume: 2.392 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

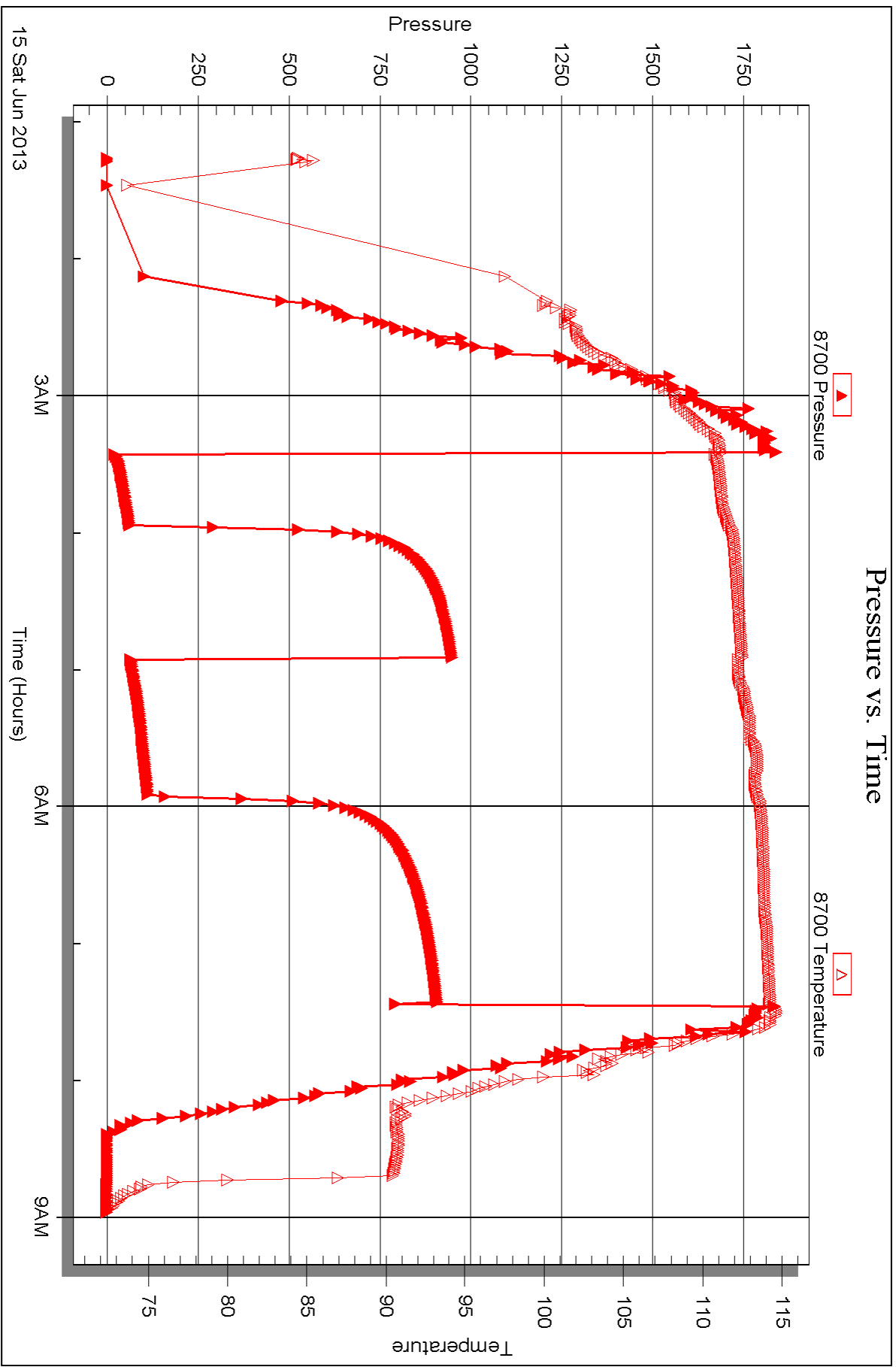


Serial #: 8700

Outside Murfin Drilling Co Inc

Ruder Unit #3-36

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water Ste 300
Wichita KS 67202-1216

ATTN: Scott Robinson

Ruder Unit #3-36

36-10s-24w Graham,KS

Start Date: 2013.06.15 @ 20:15:22

End Date: 2013.06.16 @ 03:19:16

Job Ticket #: 52093 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.18 @ 09:56:20

Murfin Drilling Co Inc

36-10s-24w Graham,KS

Ruder Unit #3-36

DST # 2

LKC H-J

2013.06.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS

Ruder Unit #3-36

Job Ticket: 52093

DST#: 2

Test Start: 2013.06.15 @ 20:15:22

GENERAL INFORMATION:

Formation: **LKC H-J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 21:51:47
 Tester: Ray Schwager
 Time Test Ended: 03:19:16
 Unit No: 42
 Interval: **3835.00 ft (KB) To 3905.00 ft (KB) (TVD)**
 Reference Elevations: 2357.00 ft (KB)
 Total Depth: 3805.00 ft (KB) (TVD)
 2352.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

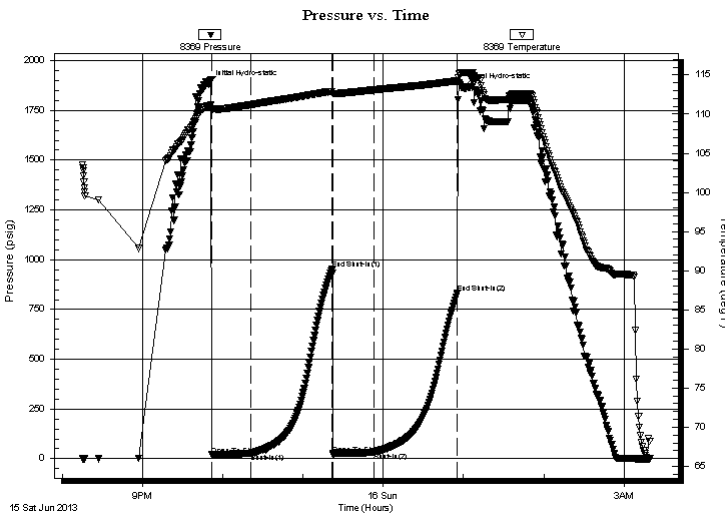
Serial #: 8369

Inside

Press @ Run Depth: 32.53 psig @ 3902.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.15 End Date: 2013.06.16 Last Calib.: 2013.06.16
 Start Time: 20:15:22 End Time: 03:19:16 Time On Btm: 2013.06.15 @ 21:49:47
 Time Off Btm: 2013.06.16 @ 00:59:31

TEST COMMENT: 30-IFP-w k bl thru-out 1/4" bl
 60-ISIP-no bl
 30-FFP-w k bl thru-out 1/4" bl
 60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.42	111.02	Initial Hydro-static
2	19.21	110.38	Open To Flow (1)
32	27.06	111.21	Shut-In(1)
92	951.12	112.91	End Shut-In(1)
93	21.84	112.63	Open To Flow (2)
123	32.53	113.09	Shut-In(2)
186	831.83	114.25	End Shut-In(2)
190	1863.64	115.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	OCM 10%O90%M	0.29

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS
Ruder Unit #3-36
Job Ticket: 52093 **DST#: 2**
Test Start: 2013.06.15 @ 20:15:22

Tool Information

Drill Pipe:	Length: 3805.00 ft	Diameter: 3.80 inches	Volume: 53.37 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 53.52 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3835.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	91.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3815.00	
Shut In Tool	5.00			3820.00	
Hydraulic tool	5.00			3825.00	
Packer	5.00			3830.00	21.00 Bottom Of Top Packer
Packer	5.00			3835.00	
Stubb	1.00			3836.00	
Perforations	3.00			3839.00	
Blank Spacing	63.00			3902.00	
Recorder	0.00	8369	Inside	3902.00	
Recorder	0.00	8700	Outside	3902.00	
Bullnose	3.00			3905.00	70.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N. Water Ste 300
Wichita KS 67202-1216
ATTN: Scott Robinson

36-10s-24w Graham,KS
Ruder Unit #3-36
Job Ticket: 52093 **DST#: 2**
Test Start: 2013.06.15 @ 20:15:22

Mud and Cushion Information

Mud Type: KCl	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	OCM 10%O90%M	0.288

Total Length: 40.00 ft Total Volume: 0.288 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369

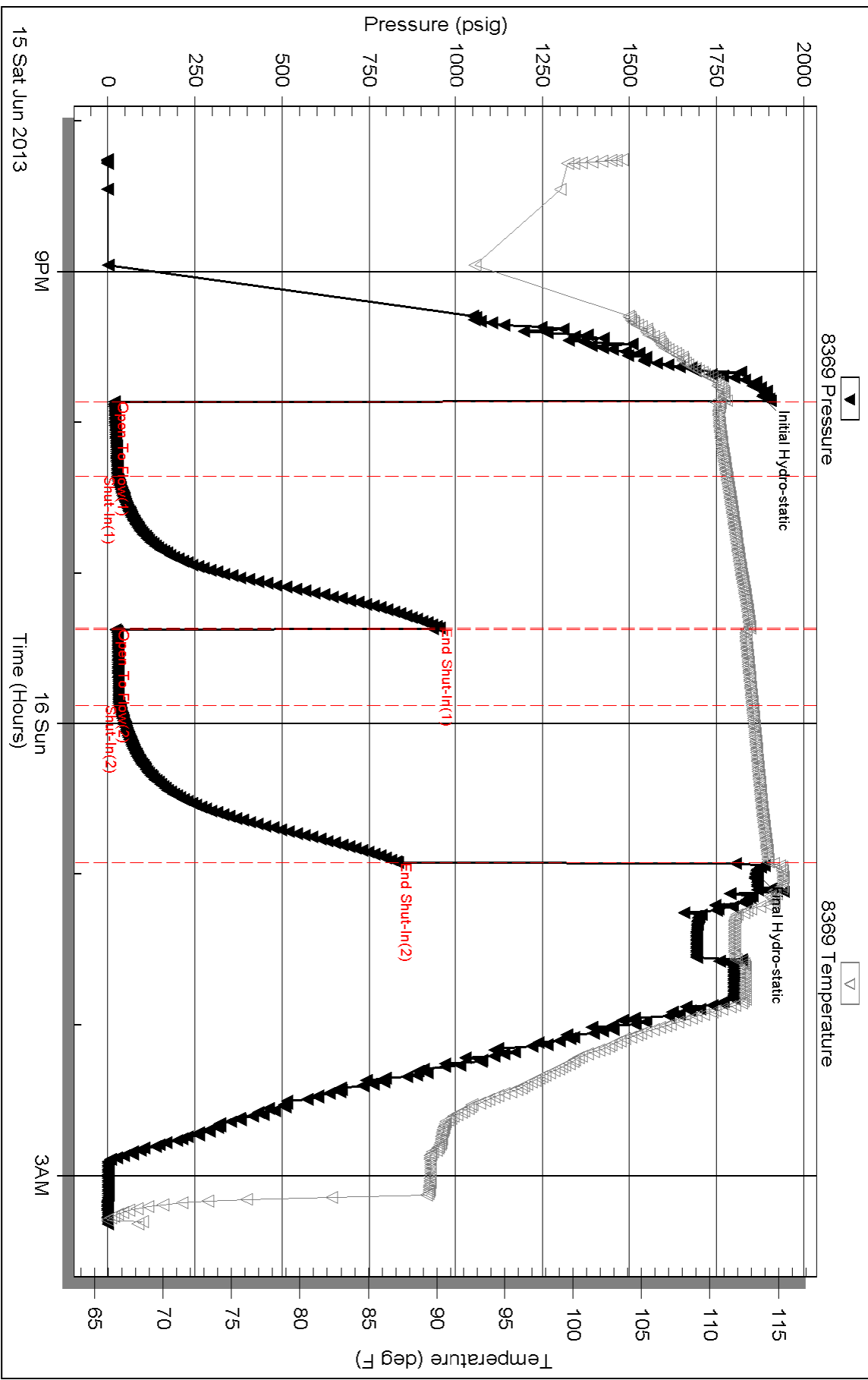
Inside

Murfin Drilling Co Inc

Ruder Unit #3-36

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 52093

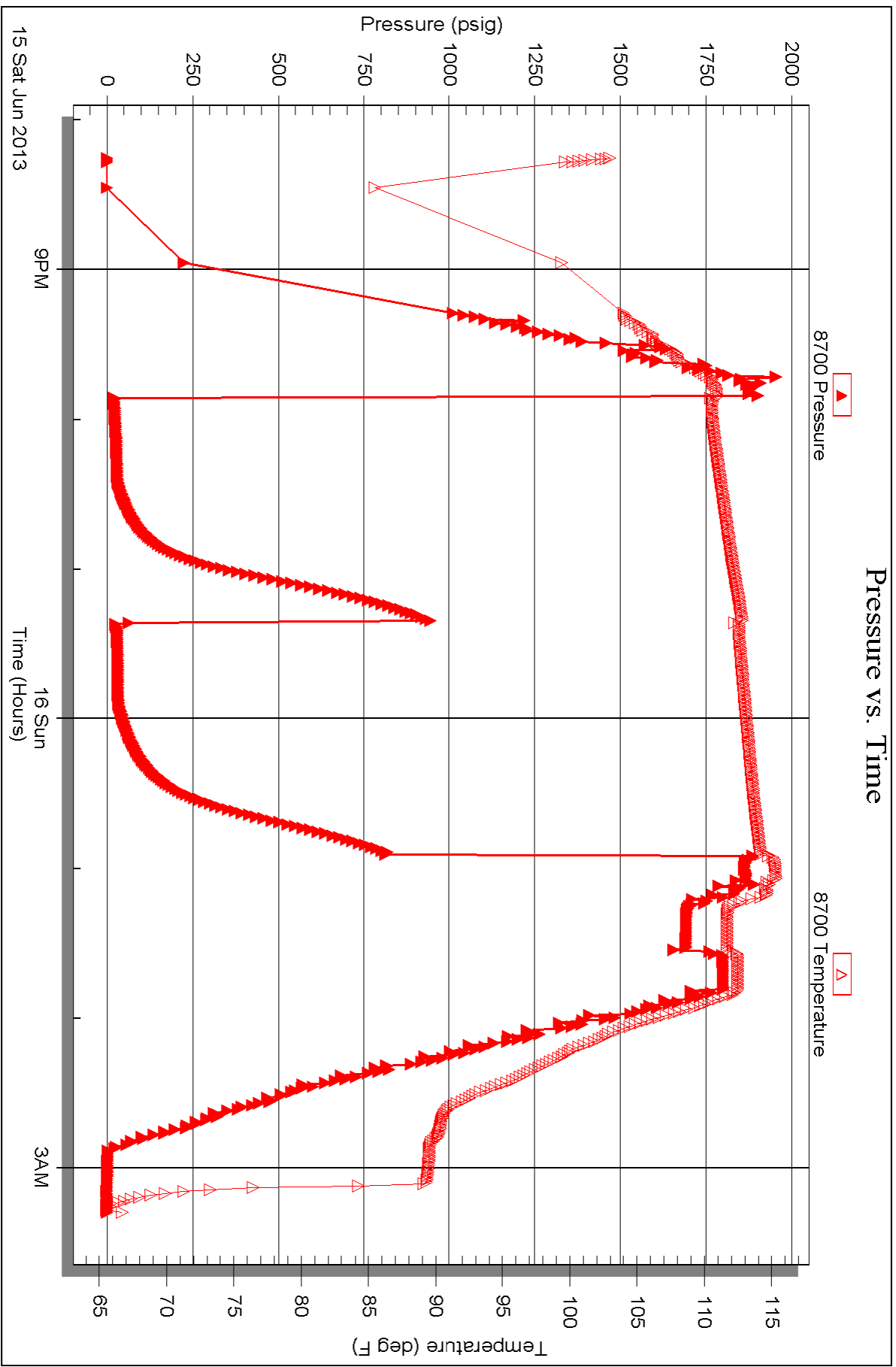
Printed: 2013.06.18 @ 09:56:23

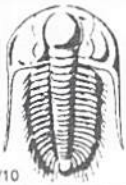
Serial #: 8700

Outside Murfin Drilling Co Inc

Ruder Unit #3-36

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52092

Well Name & No. Ruder Unit #3-36 Test No. 1 Date 6-15-13
 Company Murfin Drilling Co Inc Elevation 2357 KB 2352 GL
 Address 250 N. WATER, STE 300 WICHITA, K0 67202-1216
 Co. Rep / Geo. Rocky Milford Rig Murfin 16
 Location: Sec. 36 Twp. 10^s Rge. 24^w Co. GRAHAM State K0

Interval Tested 3677-3805 Zone Tested TORONTO - LKC F
 Anchor Length 128 Drill Pipe Run 3642 Mud Wt. 9.1
 Top Packer Depth 3672 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3677 Wt. Pipe Run - WL 8
 Total Depth 3805 Chlorides 1700 ppm System LCM -

Blow Description IFP - WEAK Blow thru-out 1/2" to 3" Blow
ISIP - NO BLOW
FFP - WEAK BLOW thru-out
FBIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>50CM</u>		<u>2</u>		<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 190 BHT 114 Gravity - API RW - @ - ° F Chlorides - ppm
 (A) Initial Hydrostatic 1806 Test 1150 T-On Location 0030
 (B) First Initial Flow 24 Jars - T-Started 0115
 (C) First Final Flow 59 Safety Joint - T-Open 0325
 (D) Initial Shut-In 946 Circ Sub - T-Pulled 0725
 (E) Second Initial Flow 69 Hourly Standby - T-Out 0858
 (F) Second Final Flow 113 Mileage 100 RT 155 Comments -
 (G) Final Shut-In 907 Sampler -
 (H) Final Hydrostatic 1786 Straddle -
 Shale Packer -
 Shale Packer -
 Extra Packer -
 Extra Recorder -
 Day Standby -
 Accessibility -

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 1305
 MP/DST Disc't -
 Sub Total 1305

Approved By Rocky Milford Our Representative Ray Schunger Thank you
 Trilobite Testing Inc. shall not be liable for damages 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. 52093

Well Name & No. Rudee Unit #3-36 Test No. 2 Date 6-15-13
 Company Murfin Drilling Co Inc Elevation 2357 KB 2352 GL
 Address 250 N. WATER, STE 300 WICHITA, KS 67202-1216
 Co. Rep / Geo. Rocky Milford Rig Murfin 16
 Location: Sec. 36 Twp. 10^S Rge. 24^W Co. GRAHAM State Ks

Interval Tested 3835-3905 Zone Tested LKC H-J
 Anchor Length 70 Drill Pipe Run 3805 Mud Wt. 9.1
 Top Packer Depth 3830 Drill Collars Run 30 Vis 67
 Bottom Packer Depth 3835 Wt. Pipe Run - WL 8
 Total Depth 3905 Chlorides 2000 ppm System LCM 1/2#

Blow Description IFP - WEAK Blow thru-out 1/4" Blow
ISIP - NO Blow
FFP - WEAK Blow thru-out 1/4" Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>0 CM</u>	<u>10</u>		<u>90</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 40 BHT 114 - Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1882 Test 1150 T-On Location 1955
 (B) First Initial Flow 19 Jars - T-Started 2015
 (C) First Final Flow 27 Safety Joint - T-Open 2150
 (D) Initial Shut-In 951 Circ Sub - T-Pulled 0050
 (E) Second Initial Flow 21 Hourly Standby - T-Out 0319
 (F) Second Final Flow 32 Mileage 155 Comments -
 (G) Final Shut-In 831 Sampler -
 (H) Final Hydrostatic 1863 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Extra Recorder -
 Day Standby -
 Accessibility -

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

Sub Total 1305
 Total 1305
 MP/DST Disc't -

Approved By Rocky Milford Our Representative Ray Schwagn *Thank you*

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.



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 6/11/2013
 Invoice # 7913

acct.
Prod-LH

P.O.#:

Due Date: 7/11/2013
 Division: Russell

Invoice

Contact:
 Murfin Drilling Company
Address/Job Location:
 Murfin Drilling Company
 P.O. Box 288
 Russell Ks 67665

USED FOR _____

OPERATOR PAY MDC

APPROVED _____

LEASE: Ruder Unit 3-36
/00

Reference:
 RUDER UNIT 3-36

Description of Work:
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	150	\$ 2,102.29	Yes				
Pump Truck Mileage-Job to Nearest Camp	52	\$ 580.01	No				
Bulk Truck Matl-Material Service Charge	158	\$ 353.18	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	52	\$ 339.41	No				
Calcium Chloride	5	\$ 266.34	Yes				
Premium Gel (Bentonite)	3	\$ 54.59	Yes				

Invoice Terms:

Net 30

SubTotal: \$ 4,716.36
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (707.45)

SubTotal for Taxable Items: \$ 2,059.73
 SubTotal for Non-Taxable Items: \$ 1,949.17
 Total: \$ 4,008.91
 Tax: \$ 155.51

7.55% Graham County Sales Tax

Thank You For Your Business!

Amount Due: \$ 4,164.42
 Applied Payments:
 Balance Due: \$ 4,164.42

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

Wm
OK
MR
Cement S. Co. 3-36

IDA03 3. 6431. 0003 4164.42

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7913

Date	6-11-13	Sec.	36	Twp.	10	Range	24	County	Graham	State	Ks	On Location		Finish	5:15 PM
Lease	Ruder unit		Well No.	336		Owner	IN, J.E. / Into								
Contractor	Murfin		16		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.										
Type Job	Surface														
Hole Size	12 1/4"		T.D.	219'		Charge To	Murfin Dr/g								
Csg.	8 5/8"		Depth	219'		Street									
Tbg. Size			Depth			City	State								
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.									
Cement Left in Csg.			Shoe Joint			Cement Amount Ordered	150 Sx Common 30% CC								
Meas Line			Displace	13 BLS		Label									
EQUIPMENT						Common	150								
Pumptrk	16	No.	Cementer	Lonnie W		Poz. Mix									
			Helper												
Bulktrk	1	No.	Driver	Billy		Gel.	3								
			Driver												
Bulktrk	p.u.	No.	Driver	Rick		Calcium	5								
			Driver												
JOB SERVICES & REMARKS						Hulls									
Remarks:	Cement did Circulate.					Salt									
Rat Hole						Flowseat									
Mouse Hole						Kol-Seal									
Centralizers						Mud CLR 48									
Baskets						CFL-117 or CD110 CAF 38									
D/V or Port Collar						Sand									
						Handling	158								
						Mileage									
FLOAT EQUIPMENT						Guide Shoe									
						Centralizer									
						Baskets									
						AFU Inserts									
						Float Shoe									
						Latch Down									
						(Pumptrk Charge)	Surface								
						Mileage	52								
QUALITY OILWELL CEMENTING						Tax									
Signature						Discount									
<i>Az [Signature]</i>						Total Charge									



CONSOLIDATED
Oil Well Services, LLC

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

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

INVOICE

Invoice # 259667

Invoice Date: 06/17/2013

Terms: 10/10/30, n/30

Page 1

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

OPERATOR PAY MDC
LEASE: BM

RUDER UNIT 3-36
40027
36-10-24
06-16-2013
KS

USED FOR _____
APPROVED _____

Part Number	Description	Qty	Unit Price	Total
1131	60/40 POZ MIX	225.00	15.8600	3568.50
1118B	PREMIUM GEL / BENTONITE	774.00	.2700	208.98
1107	FLO-SEAL (25#)	56.00	2.9700	166.32
4432	8 5/8" WOODEN PLUG	1.00	100.7500	100.75

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-404.46
9995-130	CEMENT EQUIPMENT DISCOUNT	-250.36

Description	Hours	Unit Price	Total
397 TON MILEAGE DELIVERY	1.00	846.12	846.12
405 P & A NEW WELL	1.00	1395.00	1395.00
405 EQUIPMENT MILEAGE (ONE WAY)	50.00	5.25	262.50

Account	Qty	Unit Price	Amount	Description
FD203	3	645.0003	6168.18	PTA 3-36

Amount Due 6853.54 if paid after 07/17/2013

Parts:	4044.55	Freight:	.00	Tax:	274.83	AR	6168.18
Labor:	.00	Misc:	.00	Total:	6168.18		
Sublt:	-654.82	Supplies:	.00	Change:	.00		

Signed _____

Date _____

BARTLESVILLE, OK 918/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-8822 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914 CUSHING, OK 918/225-2650



CONSOLIDATED
Oil Well Services, LLC

259667

TICKET NUMBER 40027

LOCATION Co #1 of US

FOREMAN Miles Shaw

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8678

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-16-13	5406	Ryder unit 3-36	36	105	24W	Graham
CUSTOMER		Murfin Drilling	KS			
MAILING ADDRESS		Wakennville Northwell Lordsburg IN Eastlake	TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			405	Jerry Y		
STATE			397	Jack J		
ZIP CODE						

JOB TYPE PTA HOLE SIZE _____ HOLE DEPTH 4000' CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 138 SLURRY VOL 1.4 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety Man rig and rig up on Murfin drilling #16 plug as ordered
1st 25 SWS @ 1975'
2nd 16 SWS @ 1100'
3rd 40 SWS @ 275'
4th 12 SWS @ 40' with slip or plug
RH 30 SWS / MH 20 SWS 225 SWS 60/40 per 48 gal 14" flaseal

Thanks Miles Shaw

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405N	1	PUMP CHARGE	1395.00	1395.00
5406	50	MILEAGE	5.25	262.50
5407A	9.67 Tons	Ten Mileage delivery	1.75	846.12
1131	225 SWS	60/40 per mix cement	15.86	3568.50
1118B	774 #	Bentons 94	.27	208.98
1107	52 #	Flaseal	2.97	166.32
4432	1	8 5/8" wood chisel	100.75	100.75
			Subtotal	6549.17
			less 10% discount	654.82
			Subtotal	5893.35

completed

Ravin 3797 SALES TAX 274.83
 ESTIMATED TOTAL 6168.18
 AUTHORIZATION Ty Law TITLE RTP DATE 6-16

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 form.