Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1083071

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 # 30606
Name: Murfin Drilling Co., Inc.
Address 1: 250 N WATER STE 300
Address 2:
City: WICHITA State: KS Zip: 67202 + 1216
Contact Person: Leon Rodak
Phone: (316) 267-3241
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Tom Funk
Purchaser: MV Purchasing, LLC

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 #:

02/25/2012	03/06/2012	03/21/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-193-20841-00-00
Spot Description:
NW SE SW NW Sec. 28 Twp. 10 S. R. 34 ☐ East ☑ West
2077 Feet from ☑ North / ☐ South Line of Section
963 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Thomas
Lease Name: Schertz Well #: 1-28
Field Name:
Producing Formation: Johnson
Elevation: Ground: 3196 Kelly Bushing: 3209
Total Vertical Depth: 4840 Plug Back Total Depth: 4786
Amount of Surface Pipe Set and Cemented at: 235 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2728 Feet
If Alternate II completion, cement circulated from: 2728
feet depth to: 0 w/ 275 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 3000 ppm Fluid volume: 400 bbls
Dewatering method used: Evaporated

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: 06/02/2012
☑ **Confidential Release Date:** 06/02/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 06/04/2012

1083071

Operator Name: Murfin Drilling Co., Inc. Lease Name: Schertz Well #: 1-28

Sec. 28 Twp. 10 S. R. 34 ☐ East ☑ West County: Thomas

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction
Dual Compensated
Microresistivity

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name: See Attachment Top: Datum:

CASING RECORD ☑ New ☐ 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
Surface	12.2500	8.6250	23	235	Common	175	3% cc
Production	7.8750	5.5000	15.5	4820	EA2	175	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
4	4679 - 4684 Johnson	500 gal 15% MCA, 1250 gal 15% NEFE	

TUBING RECORD: Size: 2 3/8 Set At: 4701 Packer At: NA Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 04/12/2012

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	1		19		21

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)* _____

PRODUCTION INTERVAL: 4679 - 4684

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

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

Kansas
Corporation Commission

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

June 01, 2012

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

Re: ACO1
API 15-193-20841-00-00
Schertz 1-28
NW/4 Sec.28-10S-34W
Thomas 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 Schertz #1-28 2077' FNL 963' FWL Sec. 28-T10S-R34W 3209' KB						MDCI Urban #1-28 1700' FSL 2150' FEL Sec. 28-T10S-R34W 3204' KB	
Formation	Sample Top	Datum	Ref	Log Tops	Datum	Ref	Log Top	Datum
Anhydrite	2717	+492	-16	2707	+500	-8	2696	+508
B/Anhydrite	2750	+459	-21	2737	+472	-8	2724	+480
Topeka	3878	-669	-4	3872	-663	+2	3869	-665
Heebner	4096	-887	-3	4088	-879	+5	4088	-884
Lansing	4136	-927	-3	4131	-922	+2	4128	-924
Stark	4361	-1152	-3	4356	-1147	+2	4353	-1149
Pawnee	4558	-1349	-1	4550	-1341	+7	4552	-1348
Lwr Pawn	4596	-1387	-3	4585	-1376	+8	4588	-1384
Fort Scott	4614	-1405	-3	4604	-1395	+7	4606	-1402
Johnson Zn	4684	-1475	-2	4678	-1469	+4	4677	-1473
Mississippi	4776	-1567	-20	4769	-1560	-13	4751	-1547
RTD	4840						4820	
LTD				4832				

Thomas J. Funk
Petroleum Geologist

Geologist's Report
Drilling Time and Sample Log

OPERATOR Murfin Drilling Co., Inc
LEASE Schertz WELL NO #1-28
FIELD Wildcat API 15-193-20841
LOCATION 2077' FNL & 963' FWL
SEC. 28 TWP. 10S RGE. 34W
COUNTY Thomas STATE Kansas
CONTRACTOR Murfin Drlg Co Rig #25
COMM 2/25/2012 COMP 3/7/2012
RTD 4940 LOG TD 4932
SAMPLES SAVED FROM 3800 TO TD
DRILLING TIME KEPT FROM 3800 TO TD
SAMPLES EXAMINED FROM 3800 TO TD
GEOLOGICAL SUPERVISION FROM 3965 TO TD
MUD UP 3500 TYPE MUD Chemical

ELEVATION
KB 3209
DF
GL 3196
Measurements Are All From KB

CASING RECORD
SURFACE
8 5/8" at 235KB w/175sx
PRODUCTION
5 1/2" at 4820KB w/175 sx

ELECTRICAL SURVEYS
Log-Tech
DIL MEL
CNL/CDL BHCS

Daily Progress Date	Depth
2/25/12	Spud
2/26/12	235' WOC
2/27/12	1420'
2/28/12	2718;
2/29/12	3253'
3/1/12	3626'
3/2/12	4007'
3/3/12	4340'
3/4/12	4385'
3/5/12	4601'
3/6/12	4720'

Bit Record

NO	Size	Make	Type	Depth Out	Feet	Hours
1	12 1/4"	GMS	RR	235	235	2 1/2
2	7 7/8"	Smith	MSI616	3626	3391	75 3/4
3	7 7/8"	HTC	GX22s	4840	1214	58 1/2

FORMATION	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM	STRUCT COMP
Anhydrite	2709	(+500)	2717	(+492)	-7
B/Anhydrite	2737	(+472)	2750	(+459)	-8
Topeka	3872	(-663)	3878	(-669)	+2
Heebner Sh	4088	(-879)	4096	(-887)	+5
Lansing	4131	(-922)	4136	(-927)	+2
Muncie Creek	4271	(-1062)	4276	(-1067)	+1
Stark Sh	4356	(-1147)	4361	(-1152)	+2
Marmaton	4442	(-1233)	4450	(-1241)	+7
Pawnee	4550	(-1341)	4558	(-1349)	+7
Cherokee Sh	4634	(-1425)	4643	(-1434)	+5
Johnson Zone	4678	(-1469)	4684	(-1475)	+4
Mississippian	4769	(-1560)	4776	(-1567)	-13

REFERENCE WELL FOR STRUCTURAL COMPARISON: Murfin Drlg Co, #1-28 Urban
1700 FSL & 2150 FEL sec. 28-10S-34W, Thomas Co, KS

Remarks And Recommendations:
Based upon log analysis, DST recovery, and sample examination, it was decided to run production casing in the #1-28 Schertz for further testing.

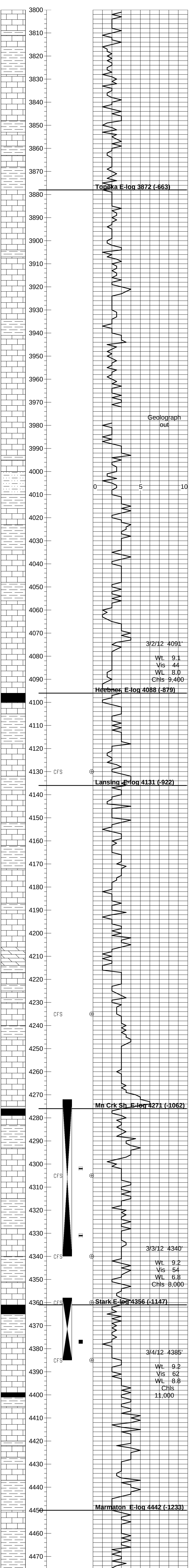
Thomas Funk
Petrolem Geologist

Note: Logs tops are approximately 6-8 feet shallow to sample tops.

LEGEND

Anhydrite, Salt, Sandstone, Shale, Carb Shale, Limestone, Ool Limestone, Chert, Dolomite

Lithology	Depth	DRILLING TIME IN MINUTES PER FOOT	Sample Descriptions	Remarks



Sample Descriptions

LS, crm-lt gry, dns, v f-xln, mott in prt, tr foss, blocky
Sh, gry, md-sft, silty
LS, crm, f-xln, sb-chlky, sft, tr foss
LS, lt tn-crm, dns, v f-xln, foss in prt, sft
Sh, gry & tn, md-sft
Sh, drk gry & brn, sft
Sh, gry & blk, md-hrd
LS, tn, dns, v f-xln, tr foss, hrd, brittle
LS, lt gry, dns, micro-xln, mott in prt, tr foss
Sh, blk, fiss
LS, crm-wht, f-xln, chalky, md-sft, tr foss, no vis por
LS, tn, dns, v f-xln, foss in prt, pr vis por, NS
Sh, gry, silty, pyr
LS, crm, f-xln, ool, sm chlky, sft, sct int-ool por, NS
LS, AA bec wht, v chlky, sft
LS, crm-lt gry, dns, v f-xln, blocky, tr foss, hrd
LS, wht, f-xln, v chalky, sft, tr foss
LS, lt gry, dns, v f-xln, mott, argill
Sh, gry + LS, tn, dns, micro-xln, mott
Sltstn, gry & tn, mica, pyr
Sh, gry & blk, md-hrd
LS, lt tn & crm, f-xln, mott in prt, tr foss
Sh, blk & gry
LS, tn, dns, v f-xln, foss in prt, chty
Sh, drk gry, md-hrd
LS, crm-tn, f-xln, ool, chalky, fr int-ool por, NS
LS, tn, dns, v f-xln, foss, mott, tr ool
LS, tn, dns, v f-xln, tr foss, blocky
LS, lt gry, dns, f-xln, ool in prt, mott, chalky
Sh, blk, carb
Sh, gry, tn, & brn, md-grd
LS, crm-wht, f-xln, ool, sm chalky, sct int-ool & moldic por, NSFO, no odor, sct blk stn
Sh, gry & tn
LS, crm, f-xln, ool, sb-chlky, sct int-ool por, NS
Sh, blk & gry
Sh, rd & tn, sft
LS, gry, dns, v f-xln, mott, argill in prt
Sh, drk gry, md-hrd
LS, crm-tn, f-xln, tr ool, foss, blocky, pr vis moldic por, NS
Dolo, tn & crm, f-xln, suc in prt, dns, tr foss frags, blocky, pr vis por, NS
Sh, blk & gry
LS, tn, dns, v f-xln, tr foss frags, brittle, pr vis por, NS
Sh, gry + LS, tn, dns, f-xln, gran in prt, tr foss, pr vis moldic por, NS
Sh, blk & gry
LS, crm-wht, f-xln, ool, v chalky, pr vis por, NS
LS, AA bec lt gry, dns, blocky, tr foss
LS, gry, dns, micro-xln, mott
Sh, blk, carb
Sh, drk gry & tn, md-sft
LS, crm-lt tn, f-xln, sm foss, ool, chlky, pr vsi int-part por, fw pcs w/SSFO, no odor, pr vis stn
Sh, blk & gry
LS, crm-lt tn, f-xln, micro-ool, sm chalky, sct int-ool por, VSSFO, no odor, pr vis stn
Sh, gry, tn, & rd
LS, tn, dns, v f-xln, tr ool, pr vis por, NS
Sh, blk, carb
LS, crm-lt gry, f-xln, foss, ool in prt, sb-chlky, sft, fr int-part por, FSFO, strg odor, sct sat stn
LS, crm-tn, dns, v f-xln, tr foss, hrd
Sh, blk, carb
LS, tn, f-xln, gran in prt, dolo, tr foss, pr vis por, NS
Sh, lt gry, calc
LS, crm-tn, v f-xln, ool in prt, brittle, no vis por, NS
Sh, gry, tn, & rd, md-hrd
LS, tn, dns, micro-xln, ool in prt, hrd, no vis por.
Sh, gry, tn, & rd, mica in prt
LS, lt gry & tn, dns, micro-xln, tr foss, brittle
LS, tn, micro-xln, hrd, tr foss, chty in prt
Sh, gry, silty, sft
LS, tn-gry, dns, micro-xln, tr foss, mott, argill
Sh, gry & tn
LS, gry-tn, dns, micro-xln, tr ool, hrd, blocky
LS, gry, dns, micro-xln, bec mott, argill
Sh, drk gry
LS, tn, dns, v f-xln, gran in prt, foss, tr cht, brittle, no vis por, NS
LS, tn-gry, dns, micro-xln, blocky, tr foss frags
Sh, blk, carb
Sh, drk gry & blk
LS, crm-lt tn, f to md-xln, foss in prt, sb-chlky, sm brittle, pr vis int-part por, NSFO, no odor, no vis stn
Sh, blk, carb
LS, tn, dns, micro-xln, ool in prt, chty, pr vis por, NS
LS, tn & gry, dns, micro-xln, mott
Sh, blk, carb
Sh, lt gry, calc, sft
LS, drk gry, crypto-xln, chty in prt, mott
LS, AA + Sh, blk
LS, tn, f-xln, foss, blocky, w/ fr fossmold por, slt to FSFO, fr odor, sct sat stn
LS, tn, dns, micro-xln, foss in prt, sm gry-mott
LS, tn & lt gry, dns, v f-xln, blocky, tr foss, + Cht, tn, opq
LS, crm-gry, dns, v f-xln, tr foss, blocky, pr vis por, NS
Sh, vari-color, + SS, wht, v f-grn, calc, tite
SS, wht, f to md-grn, sb-rd, well-srtd, glauc, prly fria, tite, NS
SS, AA + Sh, vari-color, sdy in prt
Sh & SS AA
SS, wht-lt gry, v f-grn, sb-rd, well-srtd, glauc, tite, NS
LS, crm-wht, v f-xln, tr ool, sm chalky, sct sd grns
LS, wht, f-xln, gran/dolo in prt, tr ool & sd grns, blocky
LS, crm-lt tn, f-xln, tr ool, sm sdy, chalky
LS, tn, dns, f-xln, gran in prt, sm sdy, sft, chalky
LS, crm-tn, f-xln, gran, dolo in prt, tr ool & sd, blocky
LS, crm-tn & gry, f to md-xln, foss in prt, tr ool, blocky

Remarks

Deviation Surveys:
1.0 deg @ 235'
0.6 deg @ 1006'
1.1 deg @ 2025'
2.7 deg @ 3001'
1.1 deg @ 3626'
1.2 deg @ 4620'
0.3 deg @ 4840' TD

DST #1 4272-4340
30"-60"-60"-90"
Blow built to 5 inches on IFP
Blow built to BOB in 32" on FFP
REC:
60' MCW (90%w, 10% m)
380' SW (50,000 ppm chls)
440' Total Fluid
IFP 22-91 ISIP 1288
FFP 93-219 FSIP 1281
IHP 2136 FHP 1962
Temp: 123 deg F

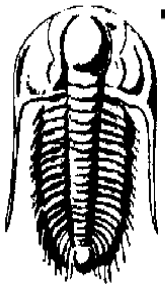
DST #2 4358-4385
30"-60"-60"-90"
Blow built to BOB in 26" on IFP
Blow built to BOB in 33" on FFP
REC:
93' WCM (40%w, 60%m)
287' MCW (70%w, 30%m)
380' Total Fluid
IFP 21-95 ISIP 1343
FFP 90-205 FSIP 1295
IHP 2226 FHP 2165
Temp: 125 deg F
Chls: 50,000 ppm

DST #3 4580-4620
30"-60"-30"-60"
Blow built to 1 inch on IFP
No blow on FFP
REC:
30' Mud
IFP 20-23 ISIP 1086
FFP 24-26 FSIP 1067
IHP 2301 FHP 2174
Temp: 119 deg F

DST #4 4662-4720
30"-60"-60"-90"
Blow built to 2 1/2 inches on IFP
Blow built to 2 1/2 inches on FFP
Rec:
80' OCM (10%o, 90%m)
IFP 18-33 ISIP 883
FFP 35-53 FSIP 868
IHP 2315 FHP 2242
Temp: 123 deg F

Lithology	Depth	DRILLING TIME IN MINUTES PER FOOT	Sample Descriptions	Remarks

COMPANY Murfin Drilling Co., Inc ELEVATION 3209 KB
LEASE #1-28 Schertz
LOCATION 2077' FNL & 963' FWL Sec 28 TWP 10S RGE 34W
COUNTY Thomas STATE Kansas



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

Schertz #1-28

28-10s-34w Thomas,KS

Start Date: 2012.03.03 @ 10:00:00

End Date: 2012.03.03 @ 19:48:30

Job Ticket #: 45074 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.08 @ 15:53:18

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45074 **DST#: 1**

Test Start: 2012.03.03 @ 10:00:00

GENERAL INFORMATION:

Formation: **Kansas City " H-I "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:21:15
Time Test Ended: 19:48:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Jace McKinney
Unit No: 46

Interval: 4272.00 ft (KB) To 4340.00 ft (KB) (TVD)
Total Depth: 4340.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

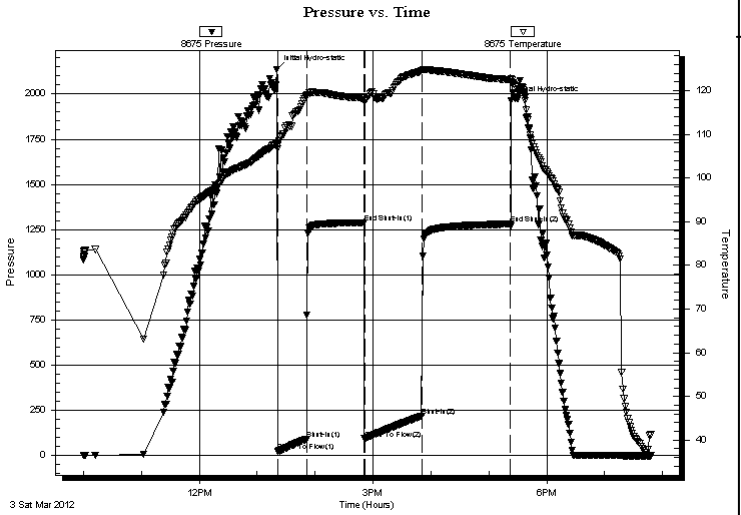
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8675 **Inside**

Press@RunDepth: 219.37 psig @ 4273.00 ft (KB)
Start Date: 2012.03.03 End Date: 2012.03.03
Start Time: 10:00:01 End Time: 19:48:30

Capacity: 8000.00 psig
Last Calib.: 2012.03.03
Time On Btm: 2012.03.03 @ 13:20:15
Time Off Btm: 2012.03.03 @ 17:23:00

TEST COMMENT: Built to 5" blow
No return blow
B.O.B. in 32 min.
Bled off for 5 min. No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2136.12	107.90	Initial Hydro-static
1	21.83	106.67	Open To Flow (1)
31	90.82	118.72	Shut-In(1)
91	1287.60	118.29	End Shut-In(1)
91	92.65	117.78	Open To Flow (2)
151	219.37	124.54	Shut-In(2)
243	1280.57	122.54	End Shut-In(2)
243	1962.10	122.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mcw 10%M 90%W	0.84
380.00	w 100%W	5.33

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45074 **DST#: 1**

Test Start: 2012.03.03 @ 10:00:00

GENERAL INFORMATION:

Formation: **Kansas City " H-I "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:21:15
Time Test Ended: 19:48:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Jace McKinney
Unit No: 46

Interval: 4272.00 ft (KB) To 4340.00 ft (KB) (TVD)
Total Depth: 4340.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

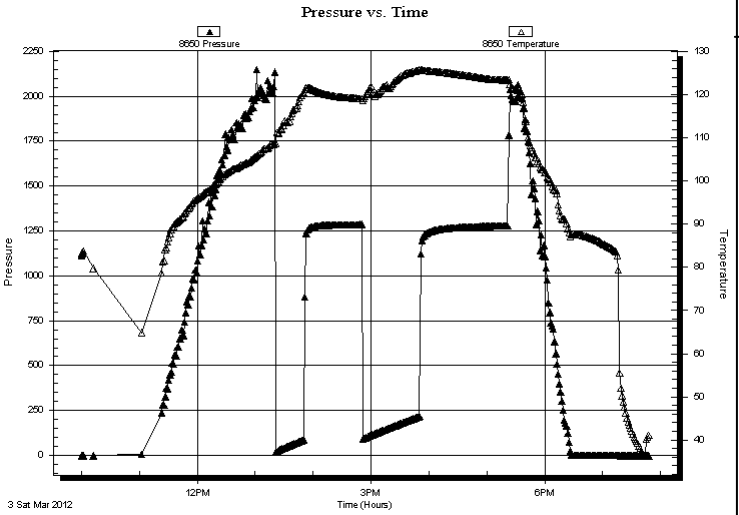
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8650 **Outside**

Press@RunDepth: psig @ 4273.00 ft (KB)
Start Date: 2012.03.03 End Date: 2012.03.03
Start Time: 10:00:01 End Time: 19:48:30

Capacity: 8000.00 psig
Last Calib.: 2012.03.03
Time On Btm:
Time Off Btm:

TEST COMMENT: Built to 5" blow
No return blow
B.O.B. in 32 min.
Bled off for 5 min. No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mcw 10%M 90%W	0.84
380.00	w 100%W	5.33

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45074 **DST#: 1**

Test Start: 2012.03.03 @ 10:00:00

Tool Information

Drill Pipe:	Length:	4260.90 ft	Diameter:	3.80 inches	Volume:	59.77 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	59.77 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		8.90 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		4272.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		68.00 ft						
Tool Length:		88.00 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			4253.00		
Shut In Tool	5.00			4258.00		
Hydraulic tool	5.00			4263.00		
Packer	5.00			4268.00	20.00	Bottom Of Top Packer
Packer	4.00			4272.00		
Stubb	1.00			4273.00		
Recorder	0.00	8675	Inside	4273.00		
Recorder	0.00	8650	Outside	4273.00		
Perforations	30.00			4303.00		
Change Over Sub	1.00			4304.00		
Drill Pipe	32.00			4336.00		
Change Over Sub	1.00			4337.00		
Bullnose	3.00			4340.00	68.00	Bottom Packers & Anchor
Total Tool Length:	**88.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45074 **DST#: 1**

Test Start: 2012.03.03 @ 10:00:00

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:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9400.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

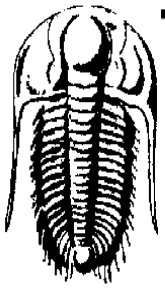
Length ft	Description	Volume bbl
60.00	mcw 10%M 90%W	0.842
380.00	w 100%W	5.330

Total Length: 440.00 ft Total Volume: 6.172 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW: .20 @ 50 F = 50,000



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

Schertz #1-28

28-10s-34w Thomas,KS

Start Date: 2012.03.04 @ 05:45:00

End Date: 2012.03.04 @ 14:11:30

Job Ticket #: 45075 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.08 @ 15:52:25

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45075 **DST#: 2**

Test Start: 2012.03.04 @ 05:45:00

GENERAL INFORMATION:

Formation: **Kansas City " K "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:58:30
Time Test Ended: 14:11:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4358.00 ft (KB) To 4385.00 ft (KB) (TVD)
Total Depth: 4385.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

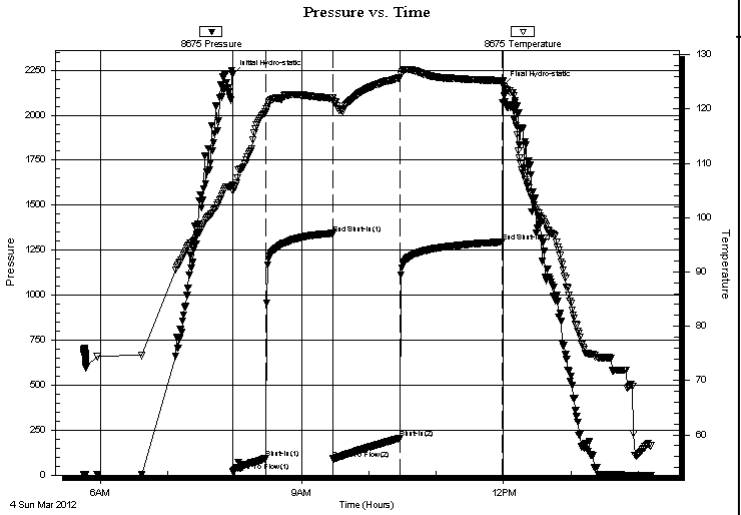
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8675 **Inside**

Press@RunDepth: 205.03 psig @ 4359.00 ft (KB)
Start Date: 2012.03.04 End Date: 2012.03.04
Start Time: 05:45:01 End Time: 14:11:30

Capacity: 8000.00 psig
Last Calib.: 2012.03.04
Time On Btm: 2012.03.04 @ 07:58:15
Time Off Btm: 2012.03.04 @ 11:59:30

TEST COMMENT: B.O.B. in 26 min.
Bled off for 5 min. No return blow
B.O.B. in 33 min.
Bled off for 5 min. No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.65	105.93	Initial Hydro-static
1	21.42	104.93	Open To Flow (1)
30	95.25	119.43	Shut-In(1)
89	1343.21	121.96	End Shut-In(1)
90	90.18	121.46	Open To Flow (2)
149	205.03	125.74	Shut-In(2)
241	1295.19	125.22	End Shut-In(2)
242	2164.81	124.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
93.00	w cm 40%W 60%M	1.30
287.00	mcw 30%M 70%W	4.03

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45075 **DST#: 2**

Test Start: 2012.03.04 @ 05:45:00

GENERAL INFORMATION:

Formation: **Kansas City " K "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:58:30
Time Test Ended: 14:11:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4358.00 ft (KB) To 4385.00 ft (KB) (TVD)
Total Depth: 4385.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

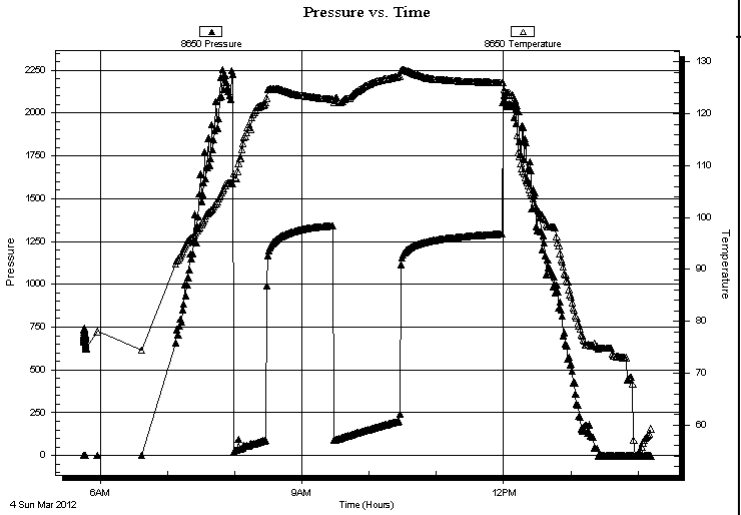
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8650 **Outside**

Press@RunDepth: psig @ 4359.00 ft (KB)
Start Date: 2012.03.04 End Date: 2012.03.04
Start Time: 05:45:01 End Time: 14:11:30

Capacity: 8000.00 psig
Last Calib.: 2012.03.04
Time On Btm:
Time Off Btm:

TEST COMMENT: B.O.B. in 26 min.
Bled off for 5 min. No return blow
B.O.B. in 33 min.
Bled off for 5 min. No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
93.00	w cm 40%W 60%M	1.30
287.00	mcw 30%M 70%W	4.03

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45075 **DST#: 2**

Test Start: 2012.03.04 @ 05:45:00

Tool Information

Drill Pipe:	Length:	4354.95 ft	Diameter:	3.80 inches	Volume:	61.09 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		62000.00 lb
					Total Volume:	61.09 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		16.95 ft					String Weight:	Initial	52000.00 lb
Depth to Top Packer:		4358.00 ft						Final	55000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		27.00 ft							
Tool Length:		47.00 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			4339.00		
Shut In Tool	5.00			4344.00		
Hydraulic tool	5.00			4349.00		
Packer	5.00			4354.00	20.00	Bottom Of Top Packer
Packer	4.00			4358.00		
Stubb	1.00			4359.00		
Recorder	0.00	8675	Inside	4359.00		
Recorder	0.00	8650	Outside	4359.00		
Perforations	23.00			4382.00		
Change Over Sub	0.00			4382.00		
Drill Pipe	0.00			4382.00		
Change Over Sub	0.00			4382.00		
Bullnose	3.00			4385.00	27.00	Bottom Packers & Anchor
Total Tool Length:	**47.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45075 **DST#: 2**

Test Start: 2012.03.04 @ 05:45:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
93.00	w cm 40%W 60%M	1.305
287.00	mcw 30%M 70%W	4.026

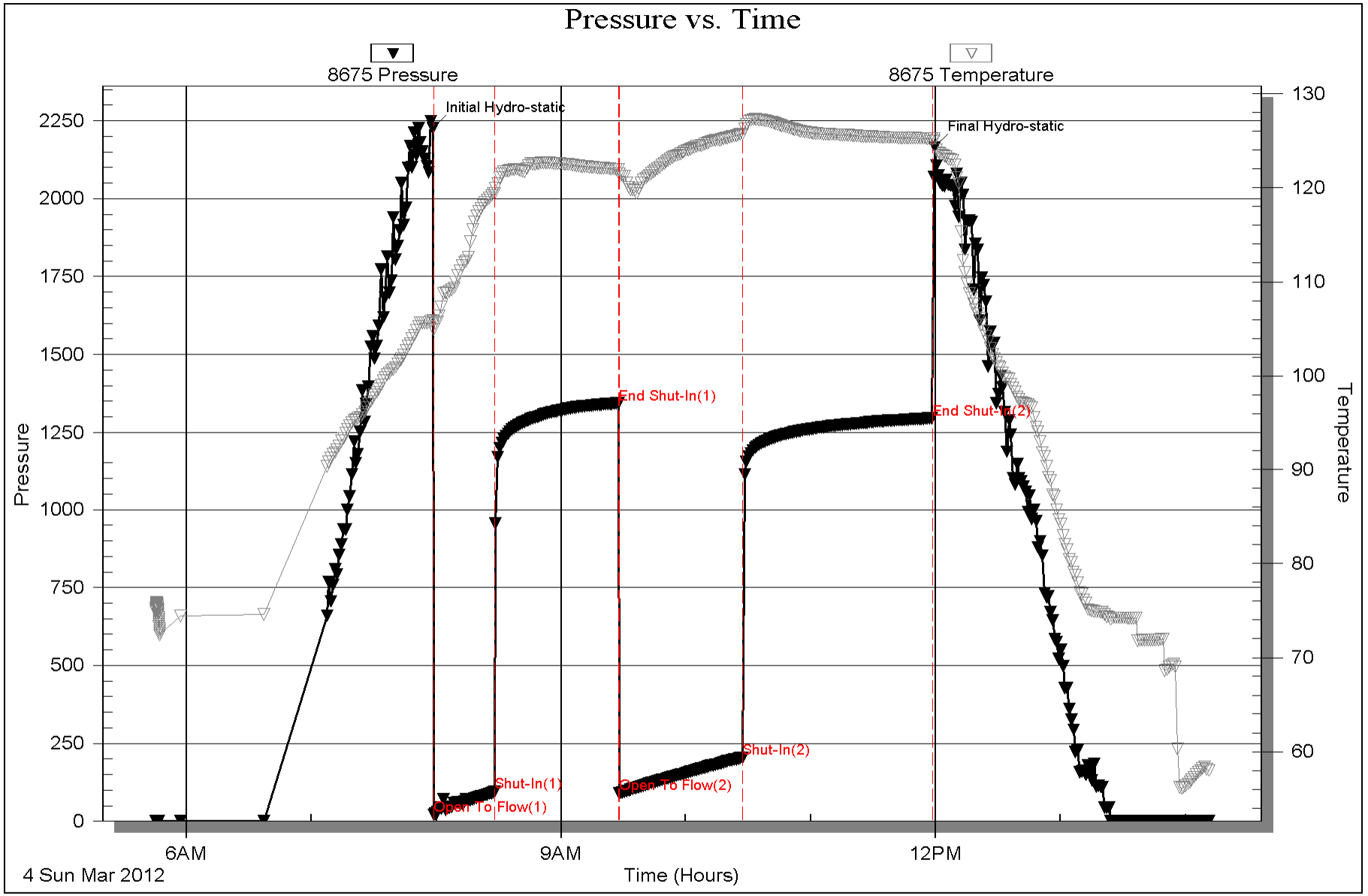
Total Length: 380.00 ft Total Volume: 5.331 bbl

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

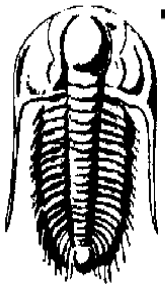
Laboratory Name: Laboratory Location:

Recovery Comments: RW: .15 @ 65 F = 50,000

Serial #: 8675 **Inside** Murfin Drilling Company Schertz #1-28 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 45075 Printed: 2012.03.08 @ 15:52:29



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

Schertz #1-28

28-10s-34w Thomas,KS

Start Date: 2012.03.05 @ 11:10:00

End Date: 2012.03.05 @ 18:10:15

Job Ticket #: 45926 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.08 @ 15:50:54

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45926 **DST#: 3**

Test Start: 2012.03.05 @ 11:10:00

GENERAL INFORMATION:

Formation: **Myric Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:10:30
Time Test Ended: 18:10:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4580.00 ft (KB) To 4620.00 ft (KB) (TVD)
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

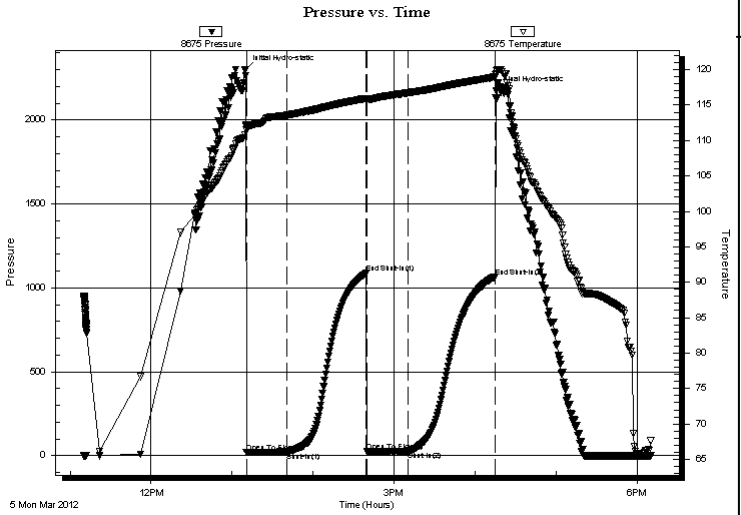
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8675 **Inside**

Press@RunDepth: 25.56 psig @ 4581.00 ft (KB)
Start Date: 2012.03.05 End Date: 2012.03.05
Start Time: 11:10:01 End Time: 18:10:15

Capacity: 8000.00 psig
Last Calib.: 2012.03.05
Time On Btm: 2012.03.05 @ 13:10:15
Time Off Btm: 2012.03.05 @ 16:15:30

TEST COMMENT: Built to 1" blow
No return blow
No blow
No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2301.06	112.19	Initial Hydro-static
1	19.75	111.55	Open To Flow (1)
30	23.36	113.57	Shut-In(1)
89	1086.32	115.94	End Shut-In(1)
90	24.39	115.66	Open To Flow (2)
120	25.56	116.71	Shut-In(2)
185	1067.30	118.96	End Shut-In(2)
186	2173.68	119.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100%M	0.42

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45926 **DST#: 3**

Test Start: 2012.03.05 @ 11:10:00

GENERAL INFORMATION:

Formation: **Myric Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:10:30
Time Test Ended: 18:10:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4580.00 ft (KB) To 4620.00 ft (KB) (TVD)
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

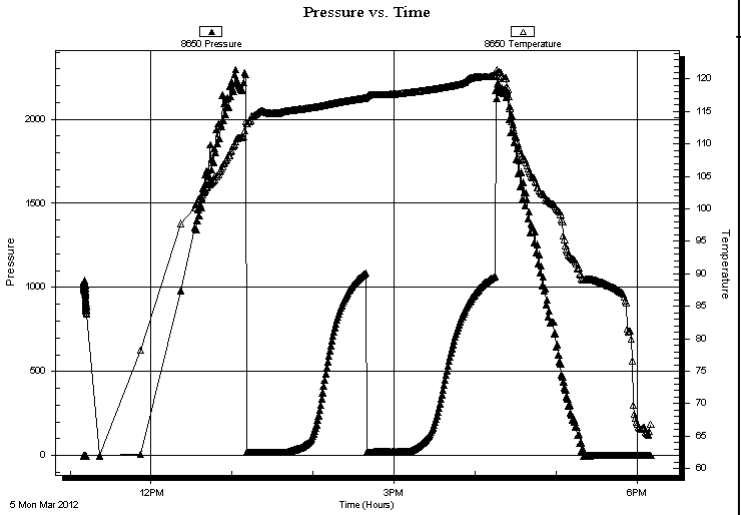
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8650 **Outside**

Press@RunDepth: psig @ 4581.00 ft (KB)
Start Date: 2012.03.05 End Date: 2012.03.05
Start Time: 11:10:01 End Time: 18:10:00

Capacity: 8000.00 psig
Last Calib.: 2012.03.05
Time On Btm:
Time Off Btm:

TEST COMMENT: Built to 1" blow
No return blow
No blow
No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100%M	0.42

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45926 **DST#: 3**

Test Start: 2012.03.05 @ 11:10:00

Tool Information

Drill Pipe:	Length:	4575.77 ft	Diameter:	3.80 inches	Volume:	64.19 bbl	Tool Weight:	1500.00 lb	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb	
					Total Volume:	64.19 bbl	Tool Chased	0.00 ft	
Drill Pipe Above KB:		15.77 ft					String Weight: Initial	56000.00 lb	
Depth to Top Packer:		4580.00 ft					Final	56000.00 lb	
Depth to Bottom Packer:		ft							
Interval between Packers:		40.00 ft							
Tool Length:		60.00 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			4561.00		
Shut In Tool	5.00			4566.00		
Hydraulic tool	5.00			4571.00		
Packer	5.00			4576.00	20.00	Bottom Of Top Packer
Packer	4.00			4580.00		
Stubb	1.00			4581.00		
Recorder	0.00	8675	Inside	4581.00		
Recorder	0.00	8650	Outside	4581.00		
Perforations	36.00			4617.00		
Change Over Sub	0.00			4617.00		
Drill Pipe	0.00			4617.00		
Change Over Sub	0.00			4617.00		
Bullnose	3.00			4620.00	40.00	Bottom Packers & Anchor
Total Tool Length:	**60.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45926 **DST#: 3**

Test Start: 2012.03.05 @ 11:10:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8800.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

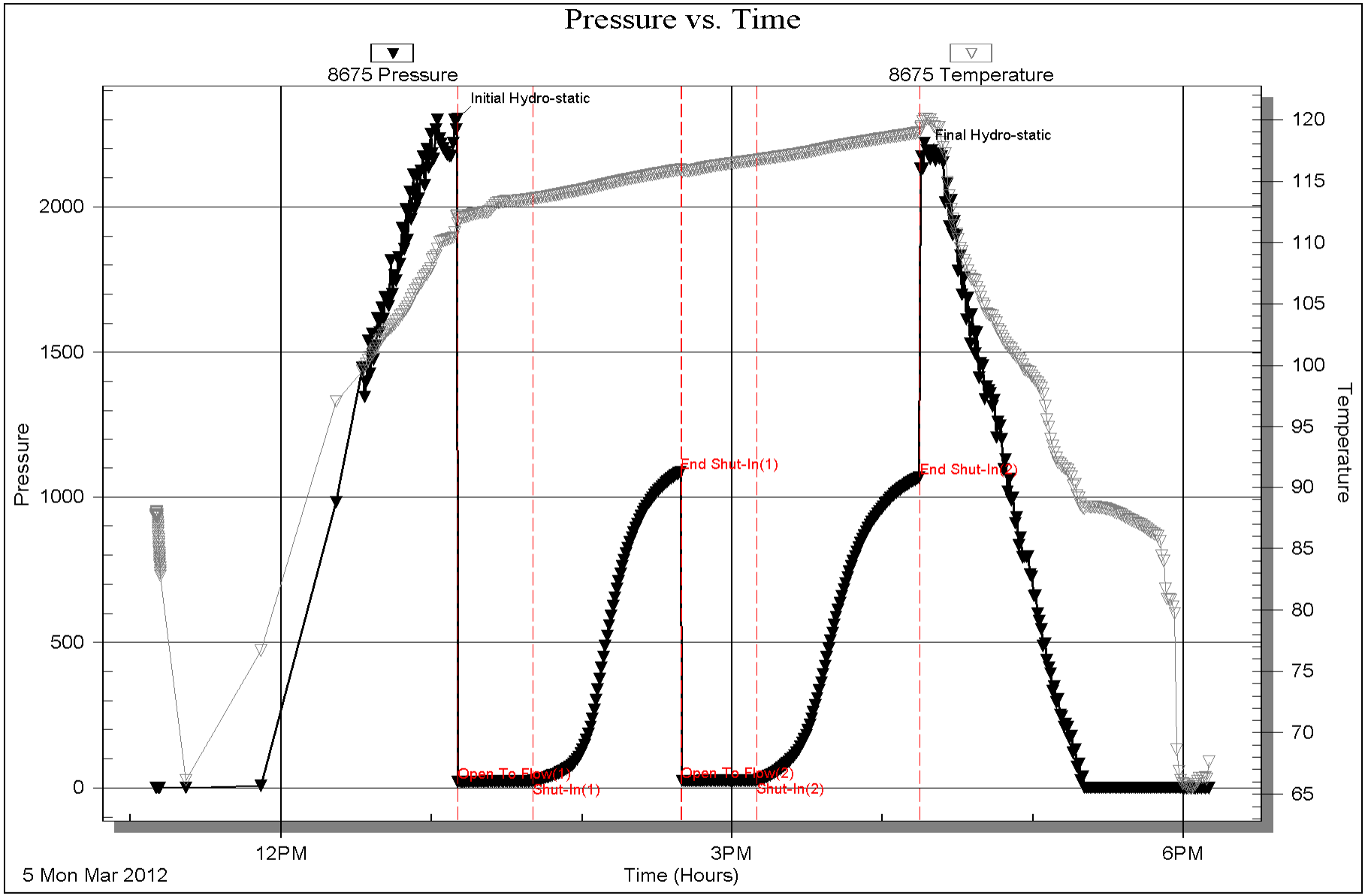
Recovery Table

Length ft	Description	Volume bbl
30.00	100%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

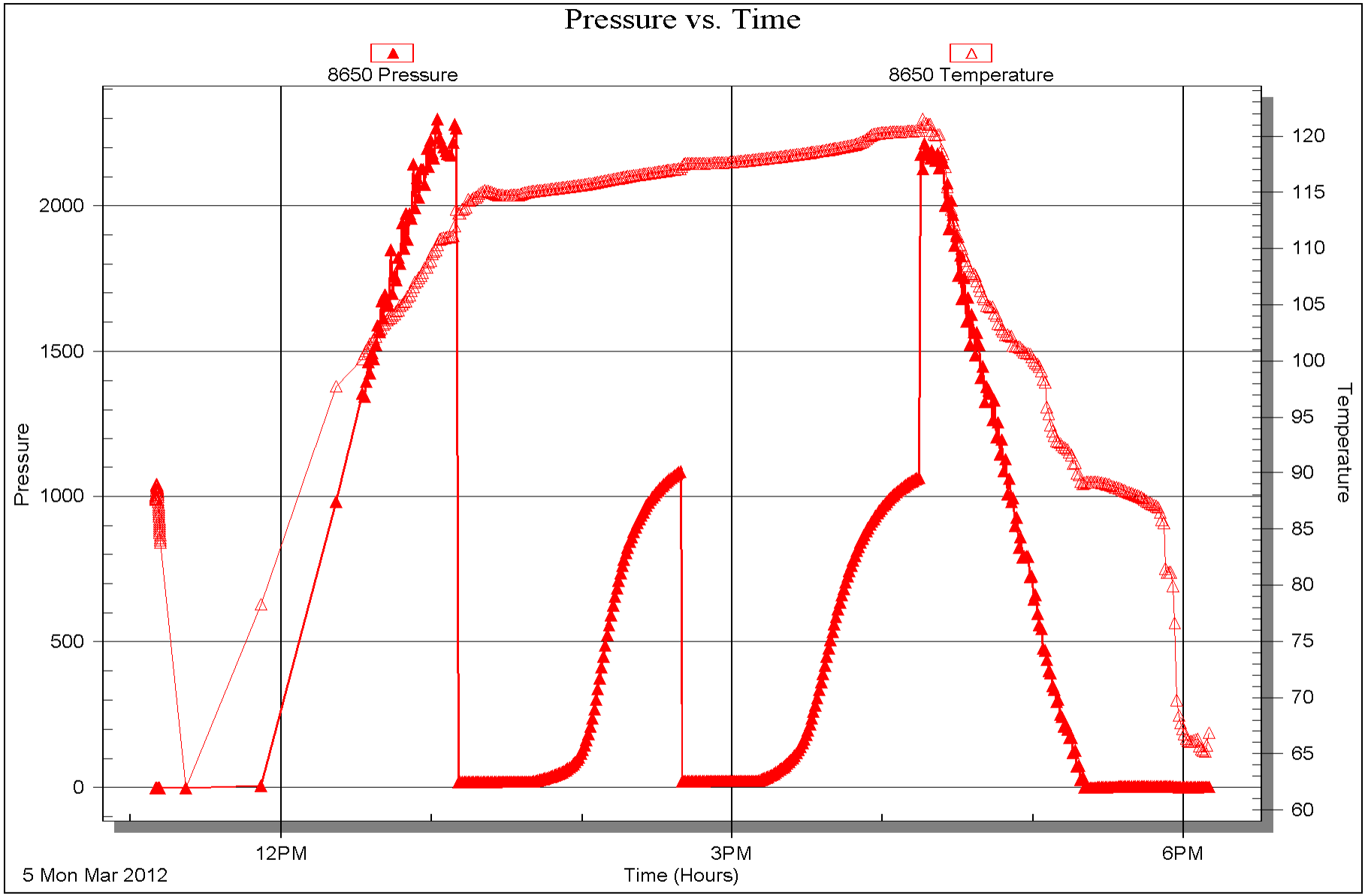
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8675 **Inside** Murfin Drilling Company Schertz #1-28 DST Test Number: 3

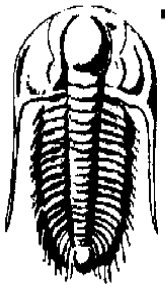


Trilobite Testing, Inc Ref. No: 45926 Printed: 2012.03.08 @ 15:50:59

Serial #: 8650 **Outside** Murfin Drilling Company Schertz #1-28 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 45926 Printed: 2012.03.08 @ 15:51:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

Schertz #1-28

28-10s-34w Thomas,KS

Start Date: 2012.03.06 @ 05:15:00

End Date: 2012.03.06 @ 13:29:58

Job Ticket #: 45927 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.08 @ 15:40:20

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45927 **DST#: 4**

Test Start: 2012.03.06 @ 05:15:00

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:46:43
Time Test Ended: 13:29:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4662.00 ft (KB) To 4720.00 ft (KB) (TVD)
Total Depth: 4720.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

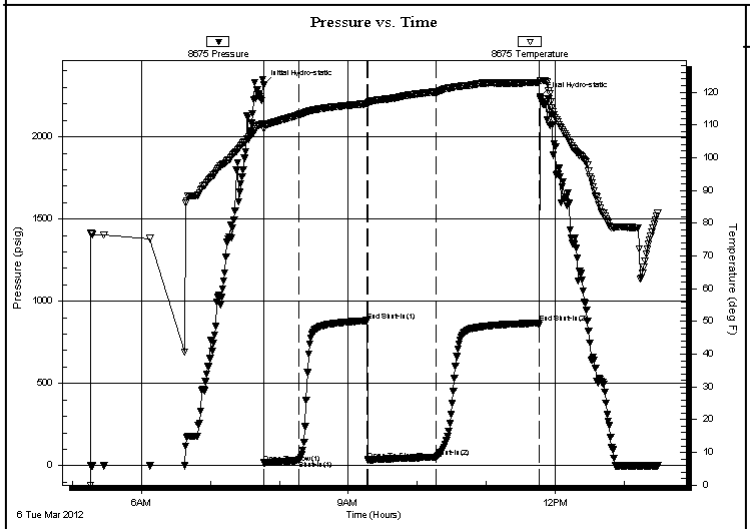
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8675 **Inside**

Press@RunDepth: 52.53 psig @ 4663.00 ft (KB)
Start Date: 2012.03.06 End Date: 2012.03.06
Start Time: 05:15:34 End Time: 13:29:58

Capacity: 8000.00 psig
Last Calib.: 2012.03.06
Time On Btm: 2012.03.06 @ 07:46:28
Time Off Btm: 2012.03.06 @ 11:47:13

TEST COMMENT: Built to 2 1/2" blow
No return blow
Built to 2 1/2" blow
No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.51	110.32	Initial Hydro-static
1	18.05	108.75	Open To Flow (1)
31	32.56	113.05	Shut-In(1)
90	882.55	116.48	End Shut-In(1)
91	35.42	116.30	Open To Flow (2)
151	52.53	119.91	Shut-In(2)
240	867.97	122.93	End Shut-In(2)
241	2241.53	123.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	ocm 10%O 90%M	1.12

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45927 **DST#: 4**

Test Start: 2012.03.06 @ 05:15:00

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:46:43
Time Test Ended: 13:29:58

Test Type: Conventional Bottom Hole (Reset)
Tester: Jace McKinney
Unit No: 46

Interval: 4662.00 ft (KB) To 4720.00 ft (KB) (TVD)
Total Depth: 4720.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

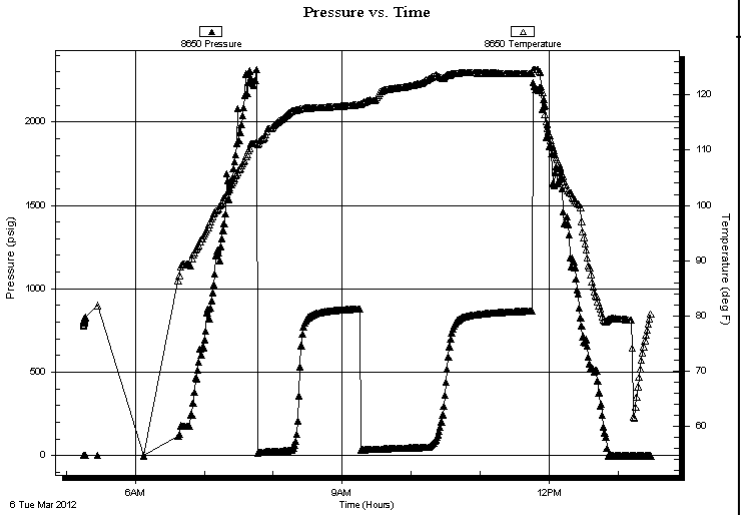
Reference Elevations: 3209.00 ft (KB)
3196.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8650 **Outside**

Press@RunDepth: psig @ 4663.00 ft (KB)
Start Date: 2012.03.06 End Date: 2012.03.06
Start Time: 05:15:01 End Time: 13:28:45

Capacity: 8000.00 psig
Last Calib.: 2012.03.06
Time On Btm:
Time Off Btm:

TEST COMMENT: Built to 2 1/2" blow
No return blow
Built to 2 1/2" blow
No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
80.00	ocm 10%O 90%M	1.12

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45927 **DST#: 4**

Test Start: 2012.03.06 @ 05:15:00

Tool Information

Drill Pipe:	Length:	4669.24 ft	Diameter:	3.80 inches	Volume:	65.50 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	65.50 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		27.24 ft					String Weight:	Initial	56000.00 lb
Depth to Top Packer:		4662.00 ft						Final	56000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		58.00 ft							
Tool Length:		78.00 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			4643.00		
Shut In Tool	5.00			4648.00		
Hydraulic tool	5.00			4653.00		
Packer	5.00			4658.00	20.00	Bottom Of Top Packer
Packer	4.00			4662.00		
Stubb	1.00			4663.00		
Recorder	0.00	8675	Inside	4663.00		
Recorder	0.00	8650	Outside	4663.00		
Perforations	20.00			4683.00		
Change Over Sub	1.00			4684.00		
Drill Pipe	32.00			4716.00		
Change Over Sub	1.00			4717.00		
Bullnose	3.00			4720.00	58.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Water STE 300
Wichita KS 67202-1216

ATTN: Tom Funk

28-10s-34w Thomas,KS

Schertz #1-28

Job Ticket: 45927 **DST#: 4**

Test Start: 2012.03.06 @ 05:15:00

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:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8800.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

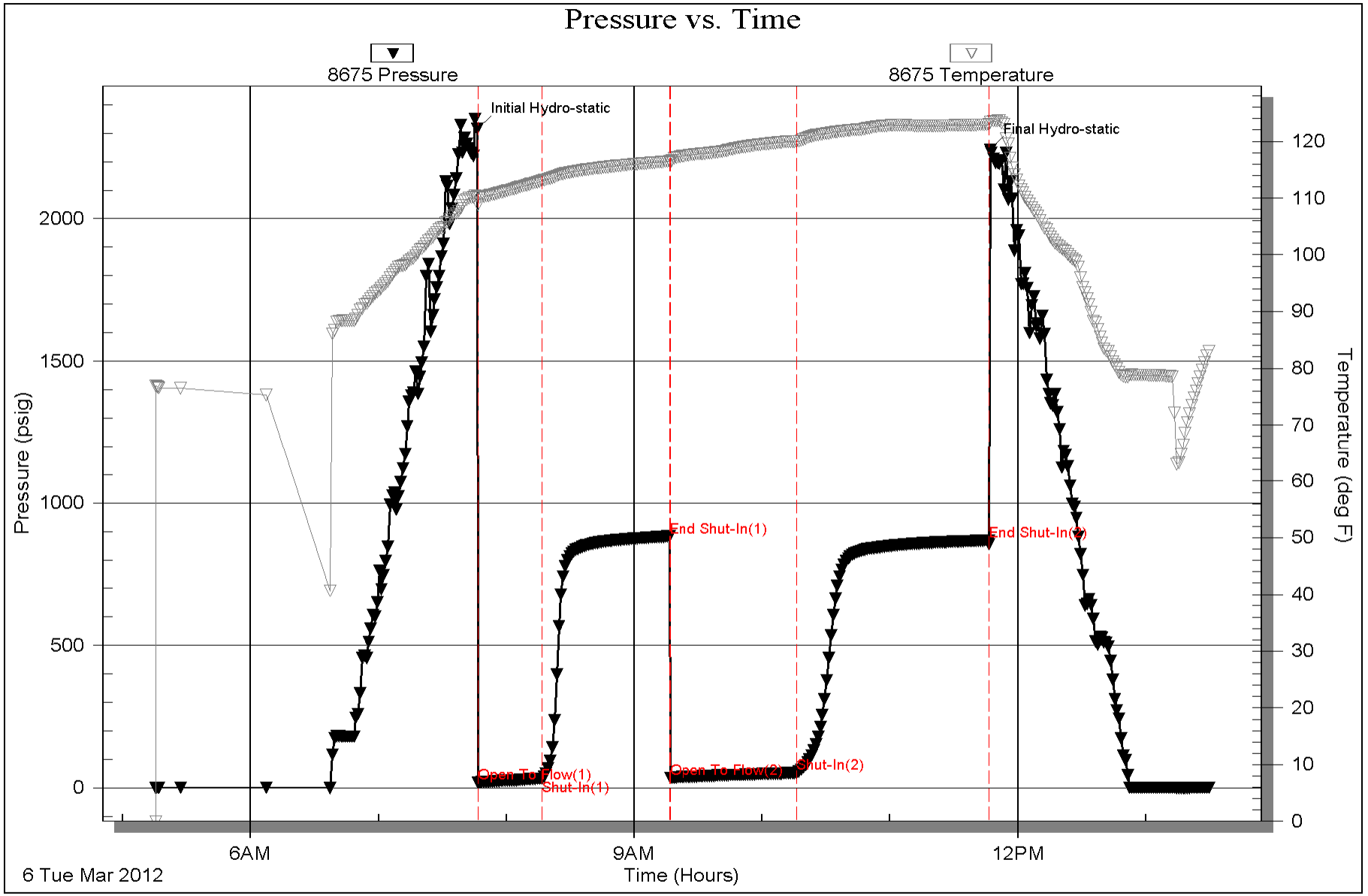
Recovery Table

Length ft	Description	Volume bbl
80.00	ocm 10%O 90%M	1.122

Total Length: 80.00 ft Total Volume: 1.122 bbl

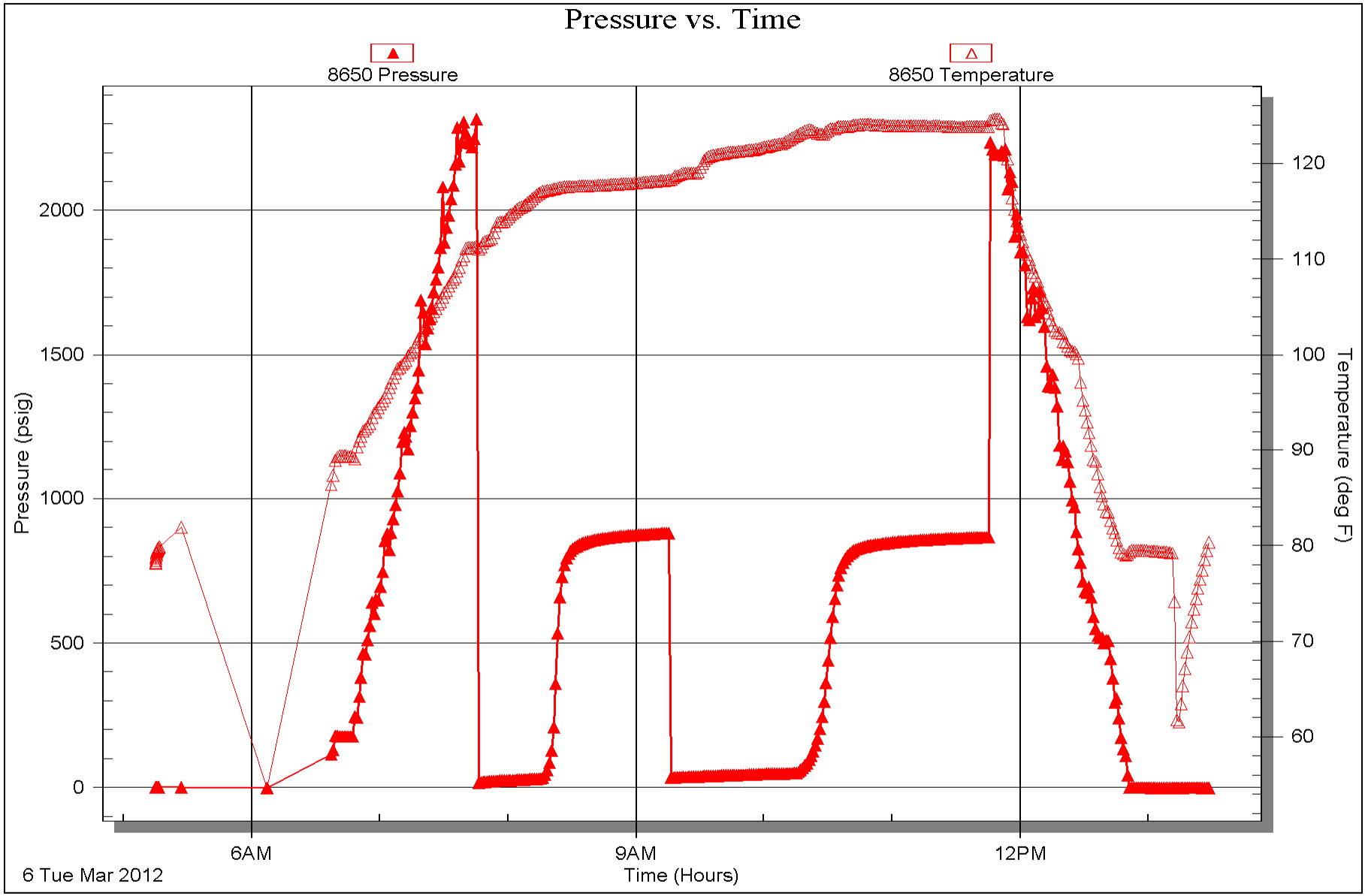
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8675 **Inside** Murfin Drilling Company Schertz #1-28 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 45927 Printed: 2012.03.08 @ 15:40:22

Serial #: 8650 **Outside** Murfin Drilling Company Schertz #1-28 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 45927 Printed: 2012.03.08 @ 15:40:23

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

RECEIVED
MAR 07 2012
BY:

Test Ticket

NO. 45074

Well Name & No. Schertz 1-28 Test No. 1 Date 3/3/12

Company Murfin Drilling Company Inc Elevation 3209 KB 3196 GL

Address 250 N Water STE 300 Wichita KS 67202-1216

Co. Rep / Geo. Tom Funk Rig Murfin 25

Location: Sec. 28 Twp. 10S Rge. 34W Co. Thomas State KS

Interval Tested 4272 - 4340 Zone Tested Kansas City "H-I"

Anchor Length 68 Drill Pipe Run 4260 Mud Wt. 9.1

Top Packer Depth 4268 Drill Collars Run 0 Vis 44

Bottom Packer Depth 4272 Wt. Pipe Run 0 WL 8.0

Total Depth 4340 Chlorides 9,400 ppm System LCM 8#

Blow Description Built to 5" below
No return below
B.O.B. in 32 min.
Bled off for 5 min. No return below

Rec 60	Feet of MCW	%gas	%oil 90	%water 10	%mud
Rec 380	Feet of W	%gas	%oil 100	%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 440 BHT 123 Gravity — API RW .28 @ 50 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic	2,136	☑ Test 1225	T-On Location 7:00
(B) First Initial Flow	22	☐ Jars	T-Started 10:00
(C) First Final Flow	91	☑ Safety Joint W/C Wrong thing	T-Open 13:51
(D) Initial Shut-In	1,188	☑ Circ Sub W/C	T-Pulled 17:21
(E) Second Initial Flow	93	☑ Hourly Standby 2 3/4 hrs 275	T-Out 19:49
(F) Second Final Flow	219	☑ Mileage 132 RT 184.80	Comments
(G) Final Shut-In	1,281	☐ Sampler	
(H) Final Hydrostatic	1,962	☐ Straddle	☐ Ruined Shale Packer
		☐ Shale Packer	☐ Ruined Packer
Initial Open 30		☐ Extra Packer	☐ Extra Copies
Initial Shut-In 60		☐ Extra Recorder	Sub Total Ø
Final Flow 60		☐ Day Standby	Total 1684.80
Final Shut-In 90		☐ Accessibility	MP/DST Disc't
		Sub Total 1684.80	

Approved By _____ Our Representative _____

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.

P.O. Box 1733 • Hays, Kansas 67601

4/10

RECEIVED
MAR 07 2012
BY:

Test Ticket NO. 45075

Well Name & No. Schertz 1-28 Test No. 2 Date 3/4/12

Company Murfin Drilling Company Inc Elevation 3209 KB 3196 GL

Address 250 N Water STE 300 Wichita KS 67202 - 1216

Co. Rep / Geo. Tom Funk Rig Murfin 25

Location: Sec. 28 Twp. 10s Rge. 34w Co. Thomas State KS

Interval Tested 4358 - 4385 Zone Tested Kansas City "K"

Anchor Length 27 Drill Pipe Run 4354 Mud Wt. 9.2

Top Packer Depth 4354 Drill Collars Run 0 Vis 54

Bottom Packer Depth 4358 Wt. Pipe Run 0 WL 6.8

Total Depth 4385 Chlorides 8,000 ppm System LCM 6#

Blow Description B.O.B. in 2 min.
Bled off for 5 min. No return below
B.O.B. in 33 min.
Bled off for 5 min. No return below

Rec 93	Feet of WCM	%gas	%oil 40	%water 60	%mud	
Rec 287	Feet of MCW	%gas	%oil 70	%water 30	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 380 BHT 125 Gravity — API RW .15 @ 65 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic	2,226	☑ Test 1225	T-On Location 4:40
(B) First Initial Flow	21	☐ Jars	T-Started 5:45
(C) First Final Flow	95	☐ Safety Joint	T-Open 7:58
(D) Initial Shut-In	1,343	☑ Circ Sub N/C	T-Pulled 11:58
(E) Second Initial Flow	90	☐ Hourly Standby	T-Out 14:11
(F) Second Final Flow	205	☑ Mileage 132 RT 184.80	Comments
(G) Final Shut-In	1,295	☐ Sampler	
(H) Final Hydrostatic	2,165	☐ Straddle	☐ Ruined Shale Packer
		☐ Shale Packer	☑ Ruined Packer 320
Initial Open	30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In	60	☐ Extra Recorder	Sub Total 320
Final Flow	60	☐ Day Standby	Total 1729.80
Final Shut-In	90	☐ Accessibility	MP/DST Disc't
		Sub Total 1409.80	

Approved By _____ Our Representative _____

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

RECEIVED
MAR 07 2012
BY:

Test Ticket

NO. 45926

Well Name & No. Schertz 1-28 Test No. 3 Date 3/5/12

Company Murfin Drilling Company Inc Elevation 3209 KB 3196 GL

Address 250 N Water STE 300 Wichita KS 67202 - 1216

Co. Rep / Geo. Tom Funk Rig Murfin 25

Location: Sec. 28 Twp. 10S Rge. 34W Co. Thomas State KS

Interval Tested 4580 - 4620 Zone Tested Myric Station

Anchor Length 40 Drill Pipe Run 4575 Mud Wt. 9.2

Top Packer Depth 4576 Drill Collars Run 0 Vis 46

Bottom Packer Depth 4580 Wt. Pipe Run 0 WL 7.2

Total Depth 4620 Chlorides 8,800 ppm System LCM 7

Blow Description Built to 1" below
No return below
No below
No return below

Rec 30	Feet of Mud	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 119 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2,301	☑ Test 1225	T-On Location 10:00
(B) First Initial Flow 20	☐ Jars	T-Started 11:10
(C) First Final Flow 23	☐ Safety Joint	T-Open 13:10
(D) Initial Shut-In 1,086	☑ Circ Sub N/C	T-Pulled 16:15
(E) Second Initial Flow 24	☐ Hourly Standby	T-Out 18:10
(F) Second Final Flow 26	☑ Mileage 132 RT 184.80	Comments
(G) Final Shut-In 1,067	☐ Sampler	
(H) Final Hydrostatic 2,174	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 60	☐ Extra Recorder	Sub Total 0
Final Flow 30	☐ Day Standby	Total 1409.80
Final Shut-In 60	☐ Accessibility	MP/DST Disc't
	Sub Total 1409.80	

Approved By _____ Our Representative _____

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

RECEIVED
MAR 07 2012
BY:

Test Ticket

NO. 45927

Well Name & No. Schertz 1-28 Test No. 4 Date 3/6/12

Company Murfin Drilling Company Elevation 3209 KB 3196 GL

Address 250 N Water STE 300 Wichita KS 67202-1216

Co. Rep / Geo. Tom Funk Rig Murfin 25

Location: Sec. 28 Twp. 10S Rge. 34W Co. Thomas State KS

Interval Tested 4662 - 4720 Zone Tested Johnson

Anchor Length 58 Drill Pipe Run 4659 Mud Wt. 9.2

Top Packer Depth 4658 Drill Collars Run 0 Vis 46

Bottom Packer Depth 4662 Wt. Pipe Run 0 WL 7.2

Total Depth 4720 Chlorides 8,800 ppm System LCM 7#

Blow Description Built to 2½" 1/8low
No return 1/8low
Built to 2½" 1/8low
No return 1/8low

Rec 80	Feet of OCM	%gas 10	%oil	%water 90	%mud	
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 80 BHT 123 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic 2,315	☑ Test 1225	T-On Location 4:45	
(B) First Initial Flow 18	☐ Jars	T-Started 5:15	
(C) First Final Flow 33	☐ Safety Joint	T-Open 7:46	
(D) Initial Shut-In 883	☑ Circ Sub N/C	T-Pulled 11:46	
(E) Second Initial Flow 35	☐ Hourly Standby	T-Out 13:30	
(F) Second Final Flow 53	☑ Mileage 132 RT 184.80	Comments	
(G) Final Shut-In 868	☐ Sampler		
(H) Final Hydrostatic 2,242	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 60	☐ Extra Recorder	Sub Total Ø	
Final Flow 60	☐ Day Standby	Total 1409.80	
Final Shut-In 90	☐ Accessibility	MP/DST Disc't	
	Sub Total 1409.80		

Approved By [signature] Our Representative [signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

ALLIED
OIL & GAS SERVICES, LLC

PO Box 93999
Southlake, TX 76092

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

INVOICE

PROD COPY

Invoice Number: 130278
Invoice Date: Feb 24, 2012
Page: 1

Bill To:

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

Federal Tax I.D.#: 20-8651475

OPERATOR PAY MDC
LEASE: ___ØM___

Customer ID	Well Name/# ~~or Customer~~ P.O.	Payment Terms	
Murfin	Schertz #1-28	Net 30 Days	
Job Location	**~~Camp Location~~**	**Service Date**	**Due Date**
KS1-01	Oakley	Feb 25, 2012	3/25/12

Quantity	Item	Description	Unit Price	Amount
175.00	MAT	Class A Common	16.25	2,843.75
6.00	MAT	Chloride	58.20	349.20
181.00	SER	Handling	2.25	407.25
20.00	SER	Mileage	19.91	398.20
1.00	SER	Surface	1,125.00	1,125.00
20.00	SER	Heavy Vehicle Mileage	7.00	140.00
1.00	SER	Manifold Head Rental	200.00	200.00
20.00	SER	Light Vehicle Mileage	4.00	80.00
1.00	CEMENTER	Andrew Forslund		
1.00	EQUIP OPER	Jerry Yates		
1.00	OPER ASSIST	Ethan Glassman		

Account
ID203 3871.30 Cement S. Csg. #1-28
3. 7463.0001

Subtotal	5,543.40
Sales Tax	233.09
Total Invoice Amount	5,776.49
Payment/Credit Applied	
TOTAL	**5,776.49**

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

$ 1905.19

ONLY IF PAID ON OR BEFORE
Mar 20, 2012

→ 1905.19
3871.30

ALLIED CEMENTING CO., LLC. 035240

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Oakley

DATE 2-25-12	SEC. 28	TWP. 10s	RANGE 34W	CALLED OUT	ON LOCATION	JOB START 2:30 Am	JOB FINISH 3:00 Am
LEASE Schertz	WELL # 1-28		LOCATION Monument 2W 2N 4W			COUNTY Thomas	STATE KS
OLD OR NEW (Circle one)			1½N E into				

CONTRACTOR Murfin 25
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 235
CASING SIZE 8⅝ DEPTH 234.66
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 13.99 BBL

OWNER same

CEMENT
AMOUNT ORDERED 125 sks com 3%cc

COMMON	175 sks	@ 16.25	2843.25
POZMIX		@	
GEL		@ ~~20.00~~	
CHLORIDE	6 sks	@ 58.20	349.20
ASC		@	
HANDLING	181 sks	@ 2.25	407.25
MILEAGE	11¢ sk/mile		398.20
		TOTAL	3997.90

EQUIPMENT

PUMP TRUCK # 423-281 CEMENTER Andrew
HELPER Jerry
BULK TRUCK # 347 DRIVER Ethan
BULK TRUCK # DRIVER

REMARKS:

Cement Did circulate

thank you

SERVICE

DEPTH OF JOB	234.66		
PUMP TRUCK CHARGE			1125.00
EXTRA FOOTAGE		@	
MILEAGE	20 miles	@ 7.00	140.00
MANIFOLD	head	@	200.00
	Light vehicle	@ 4.00	80.00
		@	
		TOTAL	1545.00

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
	TOTAL	

CHARGE TO: Murfin
STREET
CITY STATE ZIP

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

To Allied Cementing Co., 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 Raymond Black

SIGNATURE Raymond Black

Liz

SWIFT Services, Inc.
P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
3/14/2012	21322

BILL TO

Murfin Drilling Co Inc
PO Box 661
Colby, KS 67701-0661

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-28	Schertz	Thomas	Company Rig	Oil	Development	Cement Port Collar	Dave

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	100	Miles	6.00	600.00
576D-D	Pump Charge - Port Collar	1	Job	1,250.00	1,250.00
290	D-Air	2	Gallon(s)	35.00	70.00T
330	Swift Multi-Density Standard (MIDCON II)	275	Sacks	16.50	4,537.50T
276	Flocele	100	Lb(s)	2.00	200.00T
581D	Service Charge Cement	350	Sacks	2.00	700.00
583D	Drayage	1,748	Ton Miles	1.00	1,748.00
	Subtotal				9,105.50
	Sales Tax Thomas County			7.30%	350.95

USED FOR 1 c 104

APPROVED JT

We Appreciate Your Business!

Total $9,456.45

SWIFT Services, Inc.

CHARGE TO: MURFIN DRLG
ADDRESS
CITY, STATE, ZIP CODE

TICKET
Nº 21322

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. HAYS	1-28	SCHERTZ	THOMAS	KS		03-14-12	
2. NESS	TICKET TYPE ☒ SERVICE ☐ SALES	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.	
3.			CO RIG	CT.	PAGE CITY		
4.	WELL TYPE	WELL CATEGORY	JOB PURPOSE		WELL PERMIT NO.	WELL LOCATION	
REFERRAL LOCATION	OIL	DEVELOP	CMT: PORT COLLAR				
	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE #112	100	MI			6 00	600 00
576-D		1			PUMP SERVICE	1	EA			1250 00	1250 00
290		1			D-AIR	2	GAL			35 00	70 00
330		2			SMD CMT	275	SK			16 50	4537 50
276		2			FLOCELE	100	LB			2 00	200 00
581		2			SERVICE CHG CMT	350	SK			2 00	700 00
583		2			DRAYAGE	1748.0	TM			1 00	1748 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X

DATE SIGNED 03-14-12 | TIME SIGNED 1000 ☒ A.M. ☐ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	9105 50
Thomas TAX 7.3%	350 95
TOTAL	9456 45

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR DAVE ASH | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 03-14-12 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
MURFIN DRLG	1-28	SCHERTZ	CMT: PORT COLLAR	21322

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (~~GAL~~)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1000							ON LOCATION
								CMT: 350 SKS SMD W/ 1/4# FLO
								3 3/8 X 5 1/2
								PORT COLLAR @ 2708
	1045			✓	✓	1100	1100	PRESSURE TEST
								OPEN P.C.
	1055	3.0	3.0	✓		400		INJ. RATE - GOOD BLOW
	1100	3.5	0	✓		450		START CMT @ 11.2#/GAL
			4.0	✓		500		START TO CIRC MUD!
			142.0	✓		800		CIRC CMT TO PIT!
			148.0	✓		800		20 SKS @ 14#/GAL, END CMT
	1145		9.5	✓		900		DISP.
								CLOSE P.C.
	1150			✓	✓	1200	1200	PRESSURE TEST
								RUN IN 6 JOINTS
	1200	3.0	0		✓		200	REV OUT
			10		✓			1ST FLAG
			15		✓			2ND FLAG
	1210		30		✓			ALL CLEAN
								TOTAL CMT 275 SKS
								20 SKS TO PIT!
								WASHUP
	1300							JOB COMPLETE
								THANK YOU!
								DAVE, JOSH B, DOUG

Acctg

rc WP
cc pl
Schertz

SWIFT Services, Inc.

P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
3/7/2012	21424

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661

USED FOR 1C 103

APPROVED JK

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-28	Schertz	Thomas	Murfin Drilling #25	Oil	Development	LongString	Nick

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	90	Miles	6.00	540.00
578D-L	Pump Charge - Long String - 4840 Feet	1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)	4	Gallon(s)	25.00	100.00T
280	Flocheck 21	500	Gallon(s)	2.50	1,250.00T
290	D-Air	2	Gallon(s)	35.00	70.00T
403-5	5 1/2" Cement Basket	2	Each	250.00	500.00T
404-5	5 1/2" Port Collar	1	Each	2,400.00	2,400.00T
406-5	5 1/2" Latch Down Plug & Baffle	1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	350.00	350.00T
409-5	5 1/2" Turbolizer	15	Each	90.00	1,350.00T
413-5	5 1/2" Roto Wall Scratcher	10	Each	40.00	400.00T
419-5	5 1/2" Rotating Head Rental	1	Each	200.00	200.00T
325	Standard Cement	225	Sacks	13.50	3,037.50T
276	Flocele	50	Lb(s)	2.00	100.00T
283	Salt	1,150	Lb(s)	0.20	230.00T
284	Calseal	11	Sack(s)	35.00	385.00T
285	CFR-1	100	Lb(s)	4.00	400.00T
581D	Service Charge Cement	225	Sacks	2.00	450.00
583D	Drayage	1,059.5	Ton Miles	1.00	1,059.50
	Subtotal				14,572.00
	Sales Tax Thomas County			7.30%	804.64

We Appreciate Your Business!

Total $15,376.64

SWIFT Services, Inc.

CHARGE TO: Murfin Drlg Co. Inc
ADDRESS
CITY, STATE, ZIP CODE

TICKET
Nº 21424

PAGE 1 OF 2

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Hays, Ks,	#1-28	schatz	Thomas	Ks		3-7-12	Same
2. Ness City, Ks.							
3.	TICKET TYPE ☑ SERVICE ☐ SALES	CONTRACTOR Murfin Drlg #25	RIG NAME/NO.	SHIPPED VIA C/T	DELIVERED TO Location	ORDER NO.	
4.	WELL TYPE oil	WELL CATEGORY Development	JOB PURPOSE Longstring		WELL PERMIT NO.	WELL LOCATION	
REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE #111	90	mi			6 00	540 00
578		1			Pump Charge (Longstring)	1	ea	4840'		1500 00	1500 00
221		1			KCL	4	gal			25 00	100 00
280		1			Flocheck-21	500	gal			2 50	1250 00
290		1			D-Air	2	gal			35 00	70 00
403		1			Baskets	2	ea			250 00	500 00
404		1			Port Collar	1	Ea			2400 00	2400 00
406		1			LD Plug & Baffle	1	ea			250 00	250 00
407		1			Insert Float Shoe w/fill	1	ea			350 00	350 00
409		1			Turbolizers	15	ea			90 00	1350 00
413		1			Rotating Scratchers	10	ea			40 00	400 00
419		1			Rotating Head	1	ea			200 00	200 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X Burt Sales

DATE SIGNED 3-7-12 TIME SIGNED 2359 ☐ A.M. ☑ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL page 2	8910 00
	5662 00
subtotal	14572 00
Thomas TAX 7.3%	804 64
TOTAL	15,376 64

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR Mark Kaler APPROVAL

Thank You!

SWIFT Services, Inc.

PO Box 466.
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 21424

CUSTOMER: Murfin Drlg Co Inc | WELL: #1-28 Schertz | DATE: 3-7-12 | PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	TIME	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
325		2				Standard Cement	225	sks			13 50	3037 50
276		2				Flocele	50	#	1/4	#/sk	2 00	100 00
283		2				Salt	1150	#	10	%	20	230 00
284		2				Calseal	11	sks	5	%	35 00	385 00
285		2				CFR-1	100	#	1/2	%	4 00	400 00
581		2				SERVICE CHARGE	225	CUBIC FEET			2 00	450 00
583		2				MILEAGE CHARGE / TOTAL WEIGHT 23550 / LOADED MILES 90		TON MILES	1059.50		1 00	1059 50

CONTINUATION TOTAL 5662 00

JOB LOG

SWIFT Services, Inc.

DATE 5-7-12 | PAGE NO. 1

CUSTOMER Martin Dilg Co Inc | WELL NO. #1-28 | LEASE Schertz | JOB TYPE Longstring | TICKET NO. 21424

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1730							on loc w/ FE
								RTD 4840
								5½" x 15.5# x 4823' x 21'
								Turbo. 1-14, 49
								Bask 49, 50
								P.C. 50 @ 2735'
	1815							Start F.E.
	1930							55 jts Break Circ. 1hr
	2200							Btm Break Circ
	2300	5	0				200	start KCL
		5	15/0				200	start Flocheck
		5	12/0				200	start KCL
	2310	6	5/0				250	Start Cement 175 sks EA-2
	2320		42					End Cement
								Wash Pmp
								Drop L.D. Plug
	2325	6	0				200	Start Displacement
	2340	5					250	Catch Cement
	2345		114				850/1500	Land Plug
								Release Pressure
								Float Held
	2350		7/5					Plug RH + MH 30/20 EA-2
								Thank you
								Nick, Josh F + Doug