Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1074596

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: Paul Gunzelman
Purchaser: MV Purchasing

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 #:

11/14/2011	11/22/2011	12/16/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26205-00-00
Spot Description:
SW SE NE SE Sec. 3 Twp. 14 S. R. 19 ☐ East ☑ West
1520 Feet from ☐ North / ☑ South Line of Section
500 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: Ellis
Lease Name: Dorzweiler Well #: 1-3
Field Name:
Producing Formation: LKC
Elevation: Ground: 2186 Kelly Bushing: 2191
Total Vertical Depth: 3905 Plug Back Total Depth: 3868
Amount of Surface Pipe Set and Cemented at: 220 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1514 Feet
If Alternate II completion, cement circulated from: 1514
feet depth to: 0 w/ 200 sx cmt.

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

Chloride content: 32800 ppm Fluid volume: 1000 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: 02/20/2012
☑ **Confidential Release Date:** 02/19/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 02/21/2012

[redacted] 1074596

Operator Name: Murfin Drilling Co., Inc. Lease Name: Dorzweiler Well #: 1-3

Sec. 3 Twp. 14 S. R. 19 ☐ East ☑ West County: Ellis

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 Top Datum

See Attachment

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	220	Common	150	3% cc
Production	7.8750	5.5000	15.5	3897	AA-2	165	

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	3645-3650 LKC "I"	250 gal 15% MCA, 750 gal 20% NEFE	
4	3674-3686 LKC "J", CIBP 3820'	250 gal 15% MCA	
4	3830-3834 Cong Sand & 3838-3848 Arb	250 gal 15% MCA	

TUBING RECORD: Size: 2 3/8 Set At: 3745 Packer At: N/A

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/06/2012

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	1		5		33

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:
3645 - 3686

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/

February 20, 2012

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

Re: ACO1
API 15-051-26205-00-00
Dorzweiler 1-3
SE/4 Sec.03-14S-19W
Ellis 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 Dorzweiler #1-3 1520' FSL 500' FEL Sec. 3-T14S-R19W Ellis County, KS 2191' KB						MDCI Stadelman #1-3 950 FSL 2145 FEL Sec. 3-T14S-R19W Ellis County, KS 2177' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	1479	+712	-4	1478	+713	-3	1461	+716
B/Anhydrite	1520	+671	-4	1518	+673	-2	1502	+675
Topeka	3198	-1007	+4	3198	-1007	+4	3188	-1011
Heebner	3444	-1253	Flat	3443	-1252	+1	3430	-1253
Toronto	3467	-1276	+1	3466	-1275	+2	3454	-1277
Lansing	3493	-1302	-1	3496	-1305	-4	3478	-1301
BKC	3746	-1555	-10	3736	-1545	Flat	3722	-1545
Arbuckle	3833	-1642	-19	3842	-1651	-28	3800	-1623
RTD	3905	-1714					3935	
LTD				3906			1461	

MURFIN DRILLING COMPANY, INC.
WICHITA, KANSAS

GEOLOGIST'S REPORT

OPERATOR **MURFIN DRILLING COMPANY, INC.**

LEASE **DORZWEILER # 1-3**

LOCATION **1520 FSL & 500 FEL**

SEC. **3** TWSP **14S** RGE **19W**

COUNTY **ELLIS** STATE **KANSAS**

FIELD **STADELMAN**

CONTRACTOR Murfin Drilling Company RIG NO. 8

COMMENCED 14 Nov. 2011 COMPLETED 22 Nov. 2011

MUD DISPLACED 3012 MUD TYPE Chemical

DRILLING TIME KEPT FROM 3100 TO 3905

SAMPLES SAVED FROM 3100 TO 3905

SAMPLES EXAMINED FROM 3100 TO 3905

GEOLOGICAL SUPERVISION FROM 3059 TO 3905

GEOLOGIST ON WELL Paul Gunzelman

FORMATION NAME	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM
Stone Corral	1478	+713	1479	+712
Base/Anhydrite	1519	+672	1520	+671
Topeka	3199	-1008	3198	-1007
Heebner Shale	3444	-1253	3444	-1253
Toronto	3466	-1275	3467	-1276
Lansing	3495	-1304	3493	-1302
Base/Kansas City	3737	-1546	3735	-1544
Arbuckle	3847	-1656	3833	-1642
Total Depth	3906	-1715	3905	-1714

ELEVATIONS

KB **2191 Ft.**

GL **2186 Ft.**

ALL MEASUREMENTS FROM K.B.

CASING RECORD

Conductor None

Surface 8 5/8" @ 220'

Production 5 1/2" @ 3897'

ELECTRICAL SURVEYS:

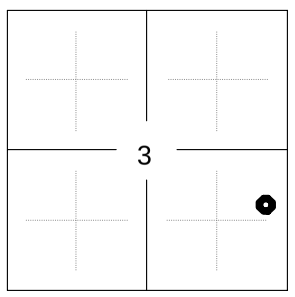
Log-Tech, Inc.

Comp. Neutron Density

Dual Induction

Micro-resistivity

Comp. Sonic



REMARKS

API 15-051-26205-00-00

Drilling Fluids: Morgan Mud, Inc. (David Lines, engineer)

Drill Stem Testing: Trilobite Testing, Inc. (Brett Dickinson, tester)

Gas Trailer: No Gas Trailer

Reserve Pit Chlorides: 32,800 ppm

REMARKS

SAMPLE DESCRIPTIONS

SHOWS

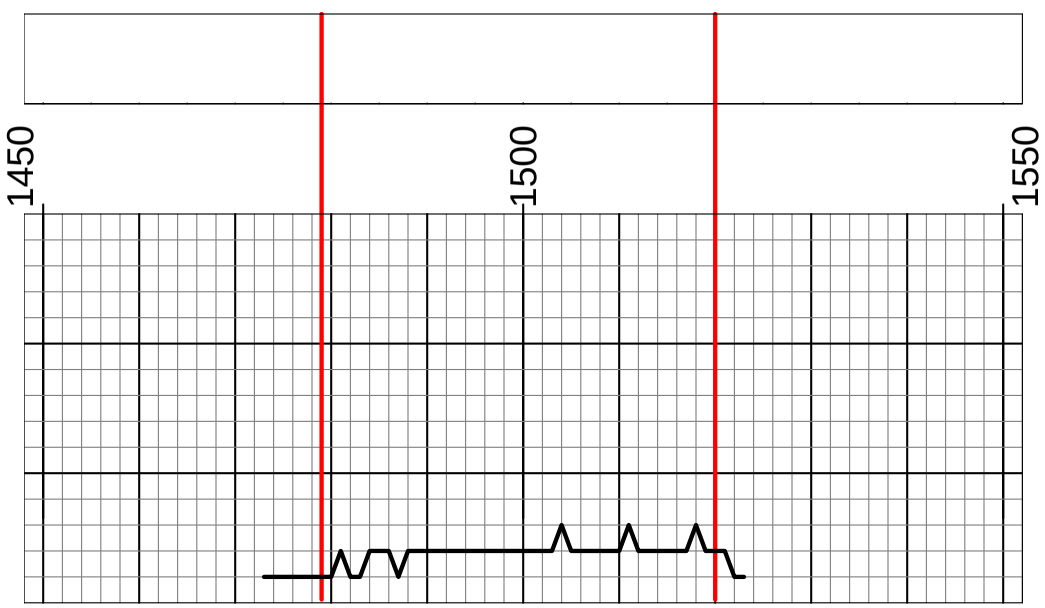
LITHOLOGY

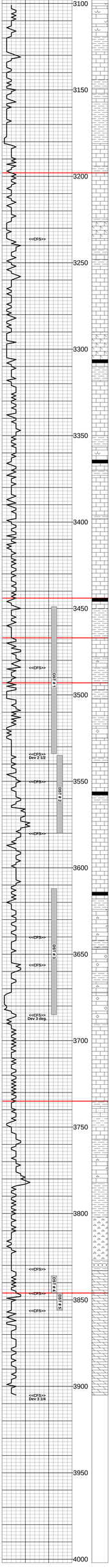
DEPTH

DRILL TIME (MIN/FT)

STONE CORRAL 1479 (+712)

BASE/ANHYDRITE 1520 (+671)





2:00 pm, 17 November 2011

Ls: Crm-tn, fxln, sli chky, foss (Fus) some intbd gy sh, n/s.

Ls: Gy-brn, fn-vfxln, arg, some dk gy sh inc, tr amor calc.

Sh: Gy & dk gy, fis, occ sty, tr gum.

Ls: Crm, mott wldk gy sh fxln, sbchky, n.v.p.

Ls: Crm-lt gy, fxln, sli arg, bcm tn mott wldk gy sh, fxln, foss, intbd gy & dk gy fis sty sh, some lt gy sli calc, slist.

Ls: Crm-tn, fxln, occ sbchky, sli foss, some arg, intbd dk gy fis sli pyr sh. n.v.p.

Sh: Gy & dk gy, fis, sli pyr, tr carb mat, some sity.

Sh: Gy dk gy & gy-brn, fis, occ carb, sli pyr, tr sity, some gy arg slist.

Slst: Dk gy, sli pyr, tr carb mat.

Ls: Crm-tn, fxln, some dk gy sh inc, sli foss, n.v.p.

Ls: Crm-tn, fxln, tr org rem, some arg, n/s.

Sh: Lt gn & gy-gn, fis, sty, gum in pt.

TOPEKA
3198 (-1007)

Ls: Crm, fxln, chky-sbchky, tr org rem some spr calc, n.v.p.

Ls: Crm-tn, fxln, sli foss (Bracht) some dk gy sh inc, occ spr calc, n.v.p.

Ls: Tn-brn & dk gy-brn, fn-vfxln, smwt arg, r.org rem, n.v.p.

Sh: V.lt gn, blky, slty, calc, some gum.

Ls: Crm, tr crm-lt gy, gran sli dol, chky, some spr calc, fr-gd intgran por, n/s.

Ls: Crm-lt gy, fxln, chky, sli foss, smwt arg, n.v.p.

Sh: Lt gy & gy-gn, blky, slty, some gum.

Ls: Gy-brn & tn, mott wldk gy sh, intbd gy fis sh, n.v.p.

Ls: Crm, tr crm-lt gy, fxln, chky, sli pyr, tr org rem, n.v.p.

Ls: Crm-gy, fn-vfxln, sbchky, tr pyr & gy op-trmsl cht, some intbd lt gn-gy sh, n.v.p.

Ls: Tn, friy gran, rexlzd, dol, gd v.fn oom por, fr intgran por, n/s.

Ls: Crm-tn, some gy-brn, fxln, smwt arg, tr gy & brn op vt cht, n/s.

Ls: Crm, some crm-tn, gran, dol, chky, gd intgran & gp por, n/s.

Ls: Tn, gran, chky, sli foss (Fus) wh crm & gy op cht, gd intgran por, n/s.

Sh: Blk, thn fis, carb, bcm gy & gy-brn fis sty, sli mica, tr gy-brn mott arg Ls, n/s.

Ls: Crm-tn, fxln-gran, sli chky, smwt dol, tr pyr, wh crm & gy op vt cht, fr-gd intgran por, n/s.

Ls: Wh-crm, vfxln, some sbchky, tr frac, dns, n/s.

Ls: Wh-crm, vfxln, tr sbchky, crm op vt cht, n.v.p.

Sh: Gy & gy-gn, fis, some sty.

Ls: Crm, fxln, foss (Fus) sbchky in pt, tr crm op vt cht & amor calc, n/s.

Sh: Blk, thn fis, carb.

Sh: Dk gy & gy-brn, fis, pyr, some lmy.

Ls: V.lt gy, fxln-gran, rexlzd, pyr, fr intgran & pp por, no odor, v.sli shw FO, tr lt spty stn, some barren por.

Ls: Crm, fxln, ool, sli wthd, coms dk gy ool & sh inc, crm-brn mott foss cht, tr or rem, n/s.

Ls: Tn gy-brn, fn-vfxln, arg, tr org rem, some silic, intbd gy-grn lt gn & dk gn fis, sh, n/s.

Ls: Crm, tn-vfxln, sli chky, mott wldk gy ool, tr org rem, pr gp por, tr gd intxln por, sli odor (crush), no FO, tr lt spty stn.

Ls: Crm-lt gy, fxln, tr gran, sbchky, occ arg, fr intgran por, n/s.

Ls: Crm, fxln, chky-sbchky, tr wh op vt cht, some spr calc, pr intxln por, sli odor, v.sli shw FO, tr lt stn.

Ls: Crm, fxln, sbchky, occ arg, tr lt gy-crm trmsl cht, n.v.p.

Ls: Crm, mott wldk gy & brn inc, sli foss (Bracht) tr amor calc, n.v.p.

Sh: Blk, thn fis, carb.

Sh: Gy-gn lt gy & lt gn, fis-blky, occ slty, some calc-lmy.

Sh: Lt gn & gy-gn, fis, occ gy-gn & lt gy v.slty sh, tr pyr.

Ls: Wh, fxln, ool, tr lt gn sh some spr calc, pr pp & intfrag por, v.sli odor, v.sli shw FO, lt brn spty stn-stnsat.

Ls: Wh-crm, fn-vfxln, some sbchky, occ dk gy sh & frac, tr wh-crm op cht, n.v.p, n/s.

Sh: Gy-gn & lt gn, fis, sli pyr, occ slty, tr gum.

HEEBNER SHALE
3444 (-1253)

Ls: Crm-tn, fxln, sli pyr, occ arg, some sbchky, n.v.p.

Sh: Gn, fis, sli pyr, some lt rd-brn ea gum sh.

Ls: Wh-crm, fxln, occ sbchky, tr org rem, cons spr calc, pr intxln por, no odor, v.sli shw FO, tr lt spty stn.

Sh: Rd-brn, ea, occ gum intbd rd-brn & mar fxln v.arg Ls.

Ls: Wh, fxln, ool, cons sec calc, pr intool & pp por, sli odor, sli shw FO, lt stn-stsat.

Ls: Crm, tr crm-lt gy, fn-vfxln, ir microxln, sli chky, some arg, n.v.p.

Sh: Gy-gn & med gy, fis, some calc, occ slty, tr pyr, r.org rem.

Ls: Crm-v.lt gy, fxln, occ wthd-sbchky, tr org rem & spr calc, r.pyr, pr pp por, no odor, no FO, tr spty stn.

Ls: Lt gy, fxln, tr ool, occ lt gn-gy & arg, pr intxln por, fr pp por, fr odor, v.sli shw lt FO, ti spty stn, tr sbsat stn.

Sh: Blk, fis, carb, bcm gy & gy-gn.

Ls: V.lt gy, fxln, tr vfxln, some gy & tn trmsl cht, occ arg, pr intxln por, sli odor, v.sli shw lt flm O, spty tr stn.

Ls: Crm, lt gy, fxln-frag, tr arg & pyr, some spr calc, fr pp & intfrag por, pr intxln por, gd odor, sli shw v.lt bleed O, sli shw G, lt brn spty stn, tr sbsat stn.

Ls: Crm, fxln, tr medixln, ool, sbchky, tr org rem, pr oom por, no odor, no FO, spty lt stn.

Ls: Crm, tr v.lt gy, fxln-gran, rexlzd, sli ool, gd oom por, fr intgran por, n/s.

Ls: Crm, fxln, sbchky, cons crm-tn vfxln-microxln dns frac Ls, n/s.

Ls: Crm-tn, fn-vfxln, sbchky, some crm-gy microxln dns frac Ls, n/s.

Sh: Dk gy & blk, thn fis-v.thn fis, some carb, bcm rd-brn & brn ea occ slty sh.

Ls: Crm, fn-vfxln, sbchky, tr spr calc, lt gy & tn trmsl vt cht, r.pr pp por, sli odor (crush), no FO, tr lt stn.

Ls: Crm, occ crm-tn, fxln sbchky, tr amor calc, some lt gy trmsl cht, occ lt gn-gy & arg-slty, n.v.p.

Sh: Lt gn & lt gn-gy, fis, sli pyr, occ calc-lmy.

Ls: Crm, frag, col, tr org rem, some dru calc, fr intool por, v.sli odor, sli shw FO, v.lt shw G, spty dk stn, tr sat stn.

Ls: Crm, fn-vfxln, sbchky, sli foss (Bracht), n.v.p.

Ls: Lt gn, fis, calc, bcm rd-brn ea occ gum.

Ls: Crm-tn, fxln, some vfxln, sbchky, lt gy & tn trmsl cht, pr intxln por, tr shw dk brn bleed O/G, no odor, some dd blk O nes.

Ls: Crm, fxln, tr gran, ool, tr org rem, occ spr calc, r.pyr, gd oom por, fr odor, tr shw FO, some bleed O, sli shw G, lt brn sbsat stn, cons barren por.

Ls: Crm-tn, fxln, sli ool, rexlzd, v.chky, sli pyr, cons spr calc, fr oom por, n/s.

Sh: Dk gy, fis, fr pyr, some carb mat.

Ls: Crm-tn, fxln, sli ool, sbchky, occ sec calc, n.v.p.

Ls: Crm, tr wh-crm, fxln, tr vfxln, ool in pt, v.chky & sbchky, n.v.p, n/s.

Ls: Crm, fxln, sbchky, sli ool, tr spr calc, some lt gy vfxln sli arg Ls, n/s.

Ls: Crm, tr crm-tn, fxln, sbchky, occ spr calc, tr org rem, some dk gy fn sh, n.v.p.

Ls: Crm, some crm-tn, vfxln-microxln, tr org rem, occ sbchky, n/s.

BASE/KANSAS CITY
3735 (-1544)

Ls: Crm, fn-vfxln, sbchky, occ crm-v.lt gy arg sli sdy Ls, some amor calc, n/s.

Ls: Lt gn, fis, occ calc, tr slty, & rd-brn ea occ slty sh, some rd-brn v.arg Ls.

Ls: Crm-tn, microxln, dns, frac.

Sh: Gy-gn lt gn & dk gn, fis, sli pyr, some slty, tr calc, intbd rd-brn bky ea occ gum sh.

Ls: Crm-lt gy, fn-vfxln, some silic, occ wthd-sbchky, pr arg, n.v.p.

Sh: Rd-brn brn tr yel w/gn & gy-gn sli pyr sh, cons rd-or gy-brn tn & lt gy op-trmsl frac cht, n/s.

Sh: Gy-gn lt gn brn rd-brn purp & mar, intbd or rd-or & crm op-trmsl cht, some gy-tn fxln arg Ls, tr blk dd O nes.

Sh: Lt gn gy-gn rd-brn & purp, tr yel, fis-blky, some gum, cons rd-or & amb trmsl vt cht, some dk mar v.arg slst.

Chc: Rd-or crm & tn op-trmsl vt & devit, abd lt gn & rd-brn gum sh, some v.lt gn-crm chky sli glauc Ls, n/s.

Chc: Rd-or tn mar amb lt gy & wh, vlt op-trmsl, some ool abd rd-brn sh, tr lt gy vfrl-fn ang wl-cmt gyz sd, tr Gil.

Sd: Lt gy vfn-med sbrnd fros, calc, sbrl, pr intgran por, no odor, fr shw FO, v.dk stn, some dd O nes.

Dol: Lt gy, vfxln dns, bcm gy fn-medixln, tr pyr & lt gn sh, fr gy ool op-trmsl cht, pr intxln por, v.sli odor (crush) sli shw v.dk FO, spty dk stn, some blk dd O nes.

Dol: Lt gy & crm, fn-medixln, tr coxln, some chk & lt gn sh inc, tr pyr, fr-gd intxln por, sli odor, gd shw FO, dk sat-dsat stn, some barren por, tr blk dd O nes.

Dol: V.lt gy, tr pnk, fn-medixln, sli pyr, tr wh op cht, fr-gd intxln por, occ gd vug por, n/s.

Dol: Crm-v.lt gy, fxln, tr vfxln, some tn trmsl frs cht, tr pyr, fr intxln por, cons bk asph res.

Dol: Crm, some lt gy & pnk, fn-medixln, tr arg, gd intxln & vug por, n/s.

Dol: V.lt gy, tr crm, medixln, some coxln, tr lt gn sh & pyr, sli chky, gd intxln & vug por, n/s.

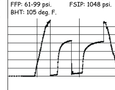
Dol: Crm-pnk, med-coxln, some fn ang-sbrnd qtz sd, gd intxln & vug por, n/s.

ARBUCKLE
3846 (-1655)
Corrected to log

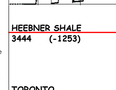
Morgan Mud check @ 3846'
Vis: 69, WT: 9.2, WL: 5.6
Chlor: 7,200 ppm, LCM: 2#

TOTAL DEPTH
3905 (-1714)
3:15 AM, 22 November 2011

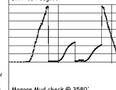
DST # 5 3846 - 3856
30"-60"-60"-90"
IF: Strong blow, BOB in 11 min.
FF: Strong blow, BOB in 31 min.
RECOVERY:
40 Ft. Oil Spotted Muddy Water
640 Ft. Water
(Chlor: 70,000 ppm)
IHP: 1921 psi. FHP: 1832 psi.
IFP: 21-160 psi. ISIP: 1217 psi.
FFP: 167-344 psi. FSIP: 1220 psi.
BHT: 123 deg. F.



DST # 1 3449 - 3534
30"-60"-45"-90"
IF: Weak blow, incr to 3 1/2 inches
FF: Weak blow, incr to 2 1/4 inches
RECOVERY:
30 Ft. Water Cut Mud
(35%Wtr, 65%Mud)
120 Ft. Water
(Chlor: 90,000 ppm.)
IHP: 1643 psi. FHP: 1644 psi.
IFP: 18-53 psi. ISIP: 1073 psi.
FFP: 61-99 psi. FSIP: 1048 psi.
BHT: 105 deg. F.



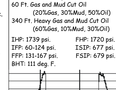
DST # 2 3535 - 3580
30"-60"-30"-60"
IF: Weak 3/4 inch blow
FF: No blow
RECOVERY:
5 Ft. Oil Spotted Mud
IHP: 1694 psi. FHP: 1666 psi.
IFP: 18-20 psi. ISIP: 598 psi.
FFP: 21-23 psi. FSIP: 515 psi.
BHT: 104 deg. F.



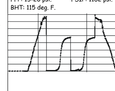
Morgan Mud check @ 3580'
Vis: 69, WT: 8.9, WL: 5.6
Chlor: 7,900 ppm, LCM: 1.5#

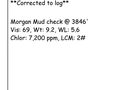
Morgan Mud check @ 3685'
Vis: 60, WT: 9.1, WL: 5.6
Chlor: 7,800 ppm, LCM: 1#

DST # 3 3612 - 3685
30"-60"-60"-90"
IF: Strong blow, BOB in 3 min.
ISI: 1 inch return blow
FF: Strong blow, BOB in 5 1/2 min.
FSI: 3 inch return blow
RECOVERY:
1030 Ft. Gas In Pipe
60 Ft. Gas and Mud Cut Oil
(20%Gas, 30%Mud, 50%Oil)
340 Ft. Heavy Gas and Mud Cut Oil
(60%Gas, 10%Mud, 30%Oil)
IHP: 1739 psi. FHP: 1720 psi.
IFP: 60-124 psi. ISIP: 677 psi.
FFP: 131-167 psi. FSIP: 679 psi.
BHT: 111 deg. F.



DST # 4 3836 - 3846
30"-60"-30"-60"
IF: Weak 1 inch blow
FF: Surface blow, died in 18 min.
RECOVERY:
1 Ft. Mud
2 Ft. Clean Oil
(27 grav. API)
IHP: 1923 psi. FHP: 1873 psi.
IFP: 14-15 psi. ISIP: 1189 psi.
FFP: 15-20 psi. FSIP: 1182 psi.
BHT: 115 deg. F.





Operator: MURFIN DRILLING COMPANY, INC.
Lease: DORZWEILER # 1-3
Location: 1520 FSL & 500 FEL SEC. 3 TWSP 14S RGE 19W
County: ELLIS **State:** KANSAS

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44846 **DST#: 1**

Test Start: 2011.11.18 @ 12:45:48

GENERAL INFORMATION:

Formation: **Toronto LKC "A,B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:55:48
Time Test Ended: 21:22:18

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 47

Interval: 3449.00 ft (KB) To 3534.00 ft (KB) (TVD)
Total Depth: 3534.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

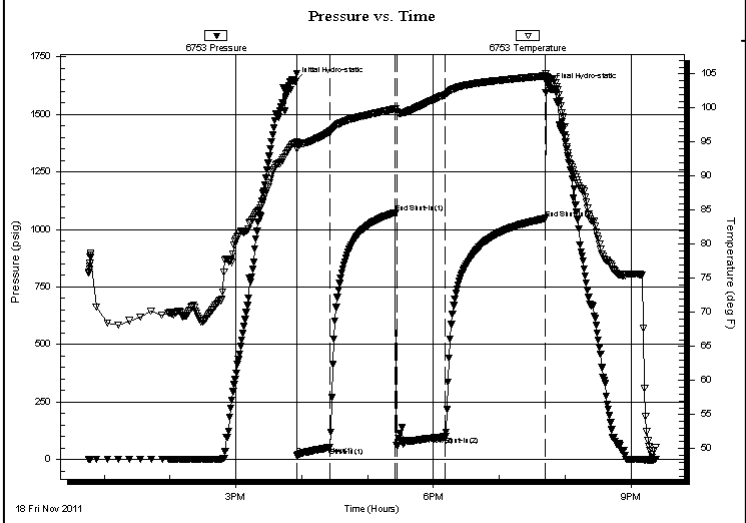
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 98.80 psig @ 3450.00 ft (KB)
Start Date: 2011.11.18 End Date: 2011.11.18
Start Time: 12:45:53 End Time: 21:22:18

Capacity: 8000.00 psig
Last Calib.: 2011.11.18
Time On Btm: 2011.11.18 @ 15:53:18
Time Off Btm: 2011.11.18 @ 19:45:18

TEST COMMENT: IF-3.5in blow
ISI-No blow
FF-2.25in blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.56	94.81	Initial Hydro-static
3	18.48	94.03	Open To Flow (1)
32	52.75	96.49	Shut-In(1)
92	1073.05	99.92	End Shut-In(1)
93	60.98	99.43	Open To Flow (2)
138	98.80	101.97	Shut-In(2)
229	1047.69	104.72	End Shut-In(2)
232	1614.48	104.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	WCM 35%W 65%m	0.15
120.00	Water	0.59

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44846 **DST#: 1**

Test Start: 2011.11.18 @ 12:45:48

GENERAL INFORMATION:

Formation: **Toronto LKC "A,B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:55:48
Time Test Ended: 21:22:18

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 47

Interval: 3449.00 ft (KB) To 3534.00 ft (KB) (TVD)
Total Depth: 3534.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

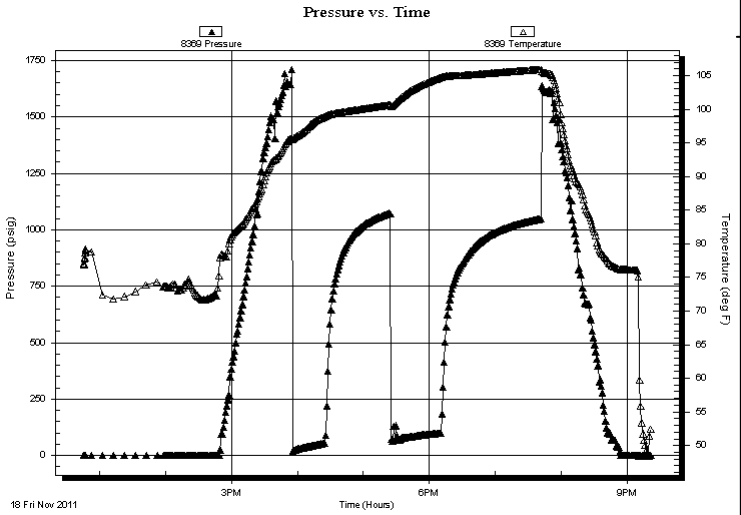
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: psig @ 3450.00 ft (KB)
Start Date: 2011.11.18 End Date: 2011.11.18
Start Time: 12:45:14 End Time: 21:22:09

Capacity: 8000.00 psig
Last Calib.: 2011.11.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-3.5in blow
ISI-No blow
FF-2.25in blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	WCM 35%W 65%m	0.15
120.00	Water	0.59

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44846 **DST#: 1**

Test Start: 2011.11.18 @ 12:45:48

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:	90000 ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.00 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4200.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	WCM 35%W 65%m	0.148
120.00	Water	0.590

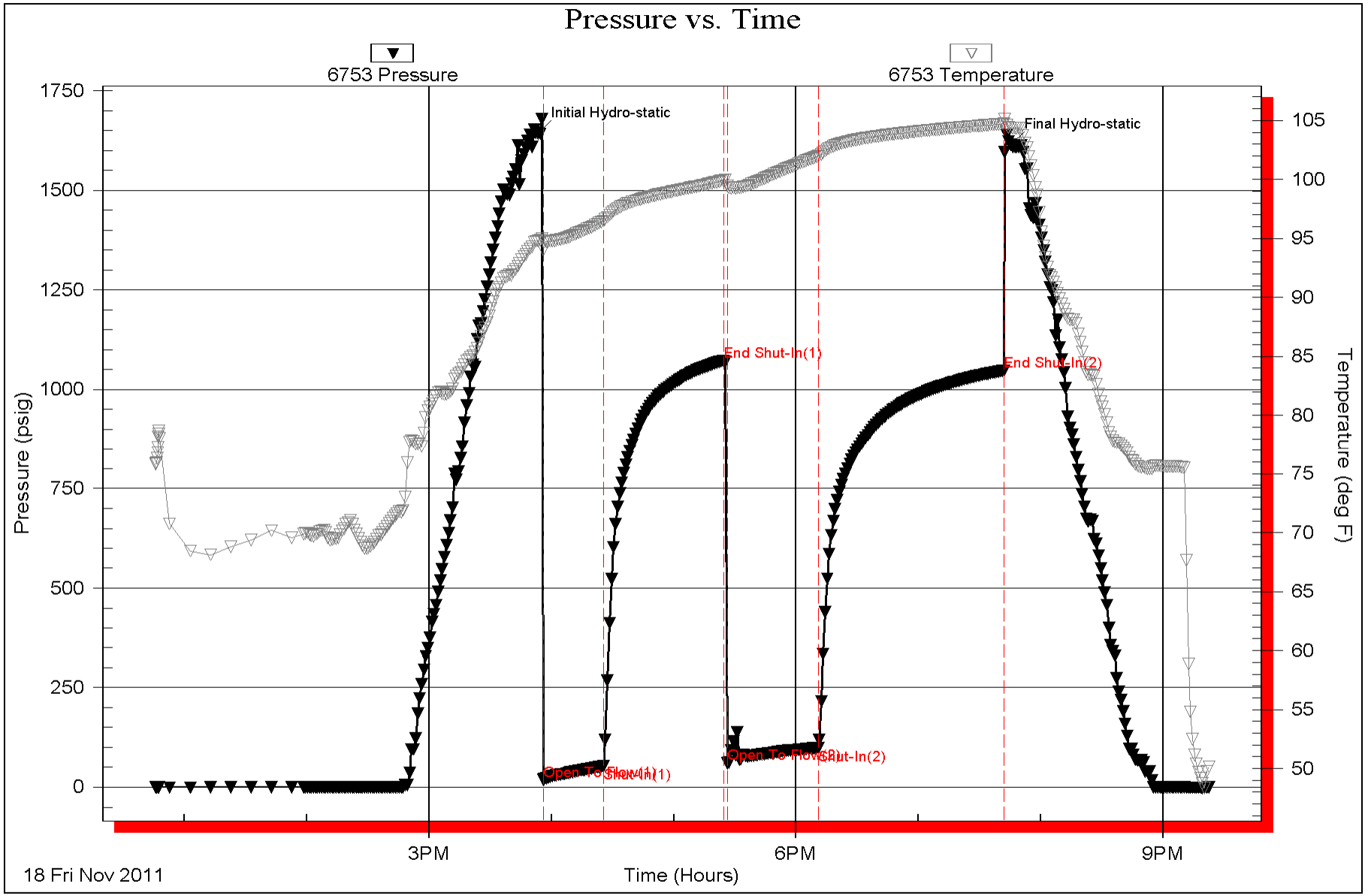
Total Length: 150.00 ft Total Volume: 0.738 bbl

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

Laboratory Name: Laboratory Location:

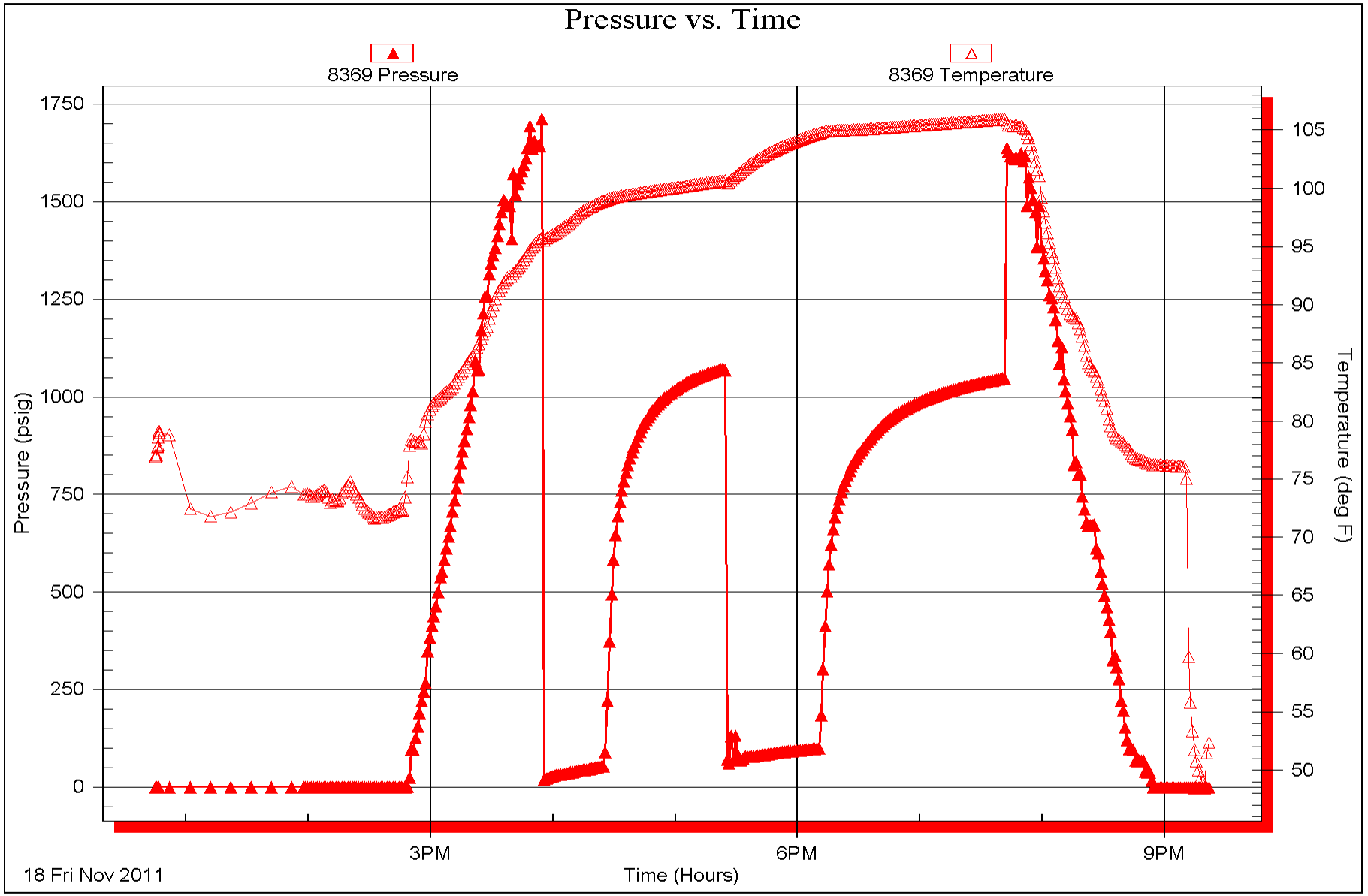
Recovery Comments: RW .14 @ 45

Serial #: 6753 **Inside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 44846 Printed: 2011.11.19 @ 10:57:30

Serial #: 8369 **Outside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 44846 Printed: 2011.11.19 @ 10:57:30

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44847 **DST#: 2**

Test Start: 2011.11.19 @ 06:05:25

GENERAL INFORMATION:

Formation: **KC"D-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:26:55
Time Test Ended: 12:56:25

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3535.00 ft (KB) To 3580.00 ft (KB) (TVD)
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

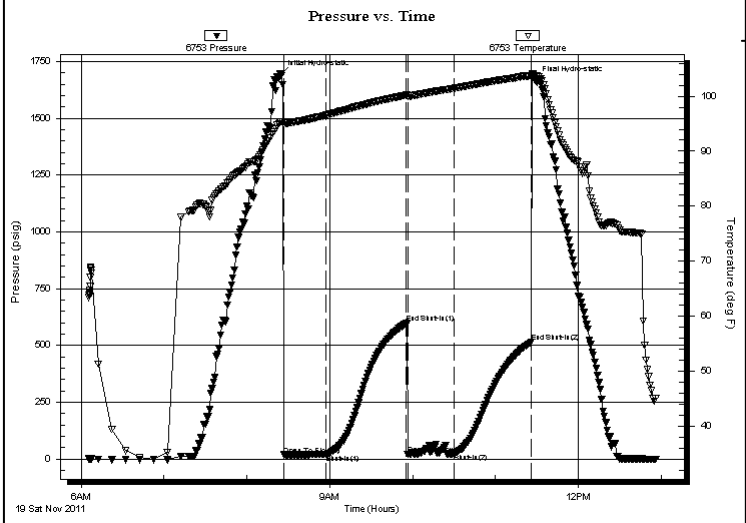
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 23.30 psig @ 3536.00 ft (KB)
Start Date: 2011.11.19 End Date: 2011.11.19
Start Time: 06:05:30 End Time: 12:56:24

Capacity: 8000.00 psig
Last Calib.: 2011.11.19
Time On Btm: 2011.11.19 @ 08:24:25
Time Off Btm: 2011.11.19 @ 11:28:55

TEST COMMENT: IF-3/4in blow
ISI-No blow
FF-No blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.87	95.38	Initial Hydro-static
3	18.06	94.85	Open To Flow (1)
33	20.07	96.55	Shut-In(1)
91	597.53	100.18	End Shut-In(1)
92	20.60	100.00	Open To Flow (2)
126	23.30	101.43	Shut-In(2)
182	515.11	103.73	End Shut-In(2)
185	1666.46	103.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oilspotted Mud	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44847 **DST#: 2**

Test Start: 2011.11.19 @ 06:05:25

GENERAL INFORMATION:

Formation: **KC"D-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:26:55
Time Test Ended: 12:56:25

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3535.00 ft (KB) To 3580.00 ft (KB) (TVD)
Total Depth: 3580.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

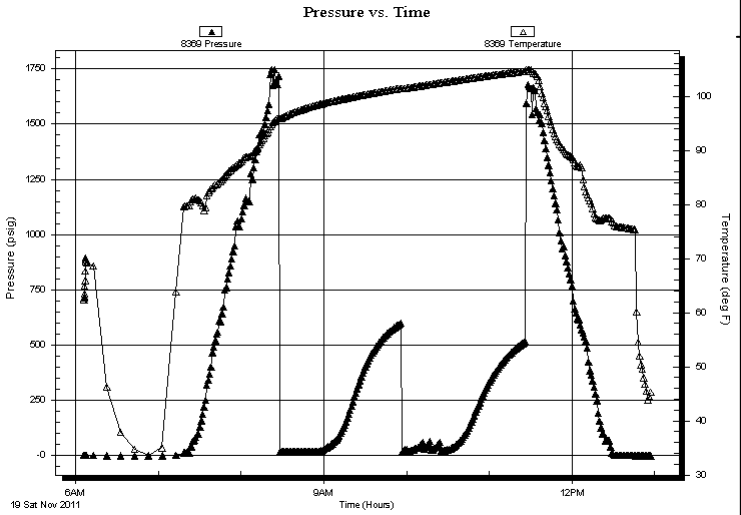
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: psig @ 3536.00 ft (KB)
Start Date: 2011.11.19 End Date: 2011.11.19
Start Time: 06:05:41 End Time: 12:57:05

Capacity: 8000.00 psig
Last Calib.: 2011.11.19
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-3/4in blow
ISI-No blow
FF-No blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oilspotted Mud	0.02

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44847 **DST#: 2**

Test Start: 2011.11.19 @ 06:05:25

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:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4200.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Oilspotted Mud	0.025

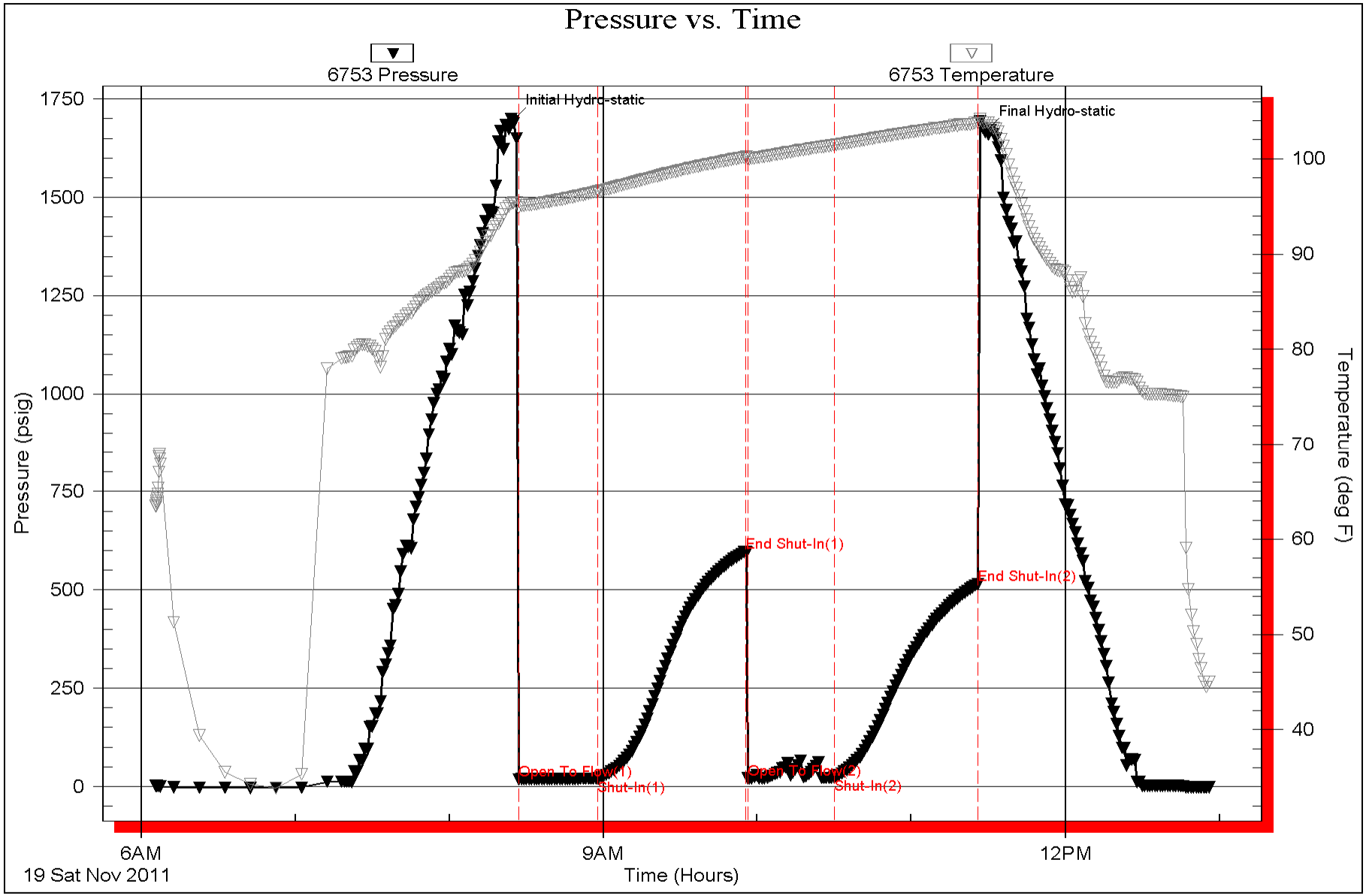
Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

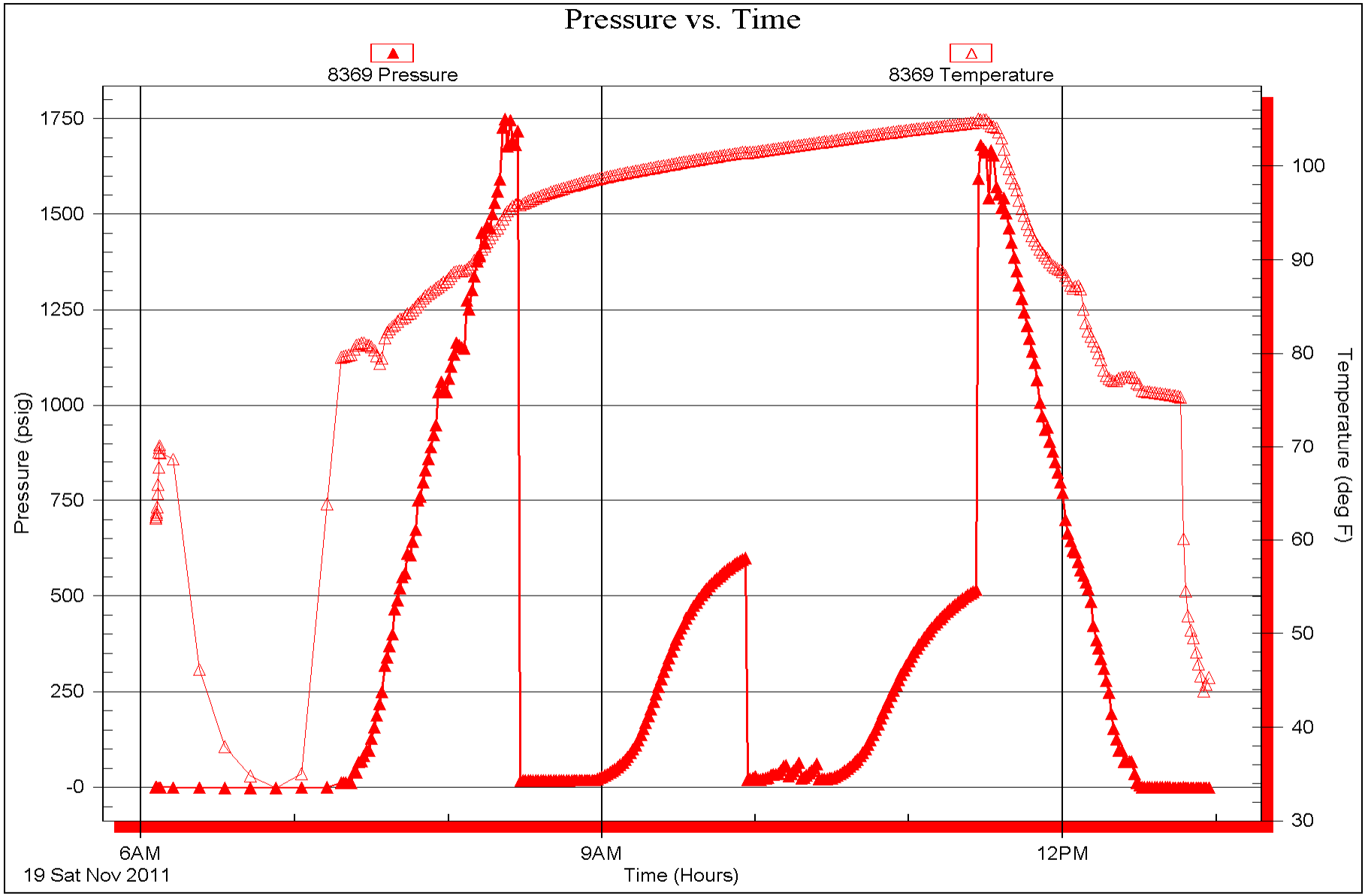
Recovery Comments:

Serial #: 6753 **Inside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 44847 Printed: 2011.11.19 @ 19:14:27

Serial #: 8369 **Outside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 44847 Printed: 2011.11.19 @ 19:14:28

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44848 **DST#: 3**

Test Start: 2011.11.20 @ 00:25:20

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:26:20
Time Test Ended: 09:41:20

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3612.00 ft (KB) To 3685.00 ft (KB) (TVD)
Total Depth: 3685.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

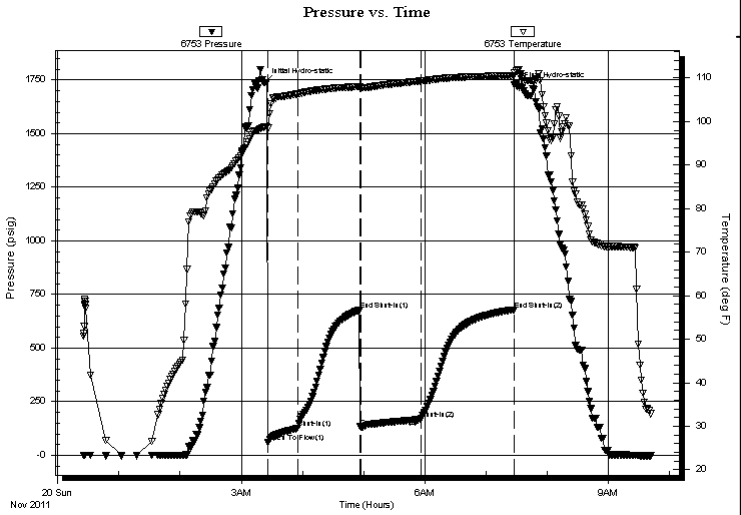
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 166.66 psig @ 3613.00 ft (KB)
Start Date: 2011.11.20 End Date: 2011.11.20
Start Time: 00:25:25 End Time: 09:41:20

Capacity: 8000.00 psig
Last Calib.: 2011.11.20
Time On Btm: 2011.11.20 @ 03:23:20
Time Off Btm: 2011.11.20 @ 07:30:50

TEST COMMENT: IF-BOB in 3min
ISI-1in blow died back to 1/4in
FF-BOB in 5 1/2min
FSI-3in blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.50	98.79	Initial Hydro-static
3	59.95	98.51	Open To Flow (1)
32	123.97	106.36	Shut-In(1)
93	676.74	108.04	End Shut-In(1)
94	131.32	107.81	Open To Flow (2)
153	166.66	109.30	Shut-In(2)
244	678.93	110.60	End Shut-In(2)
248	1719.71	111.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VGSMCO 60%G 35%O 5%M	0.59
60.00	GMCO 20%G 50%O 30%M	0.30
220.00	VGMCO 60%G 30%O 10%M	3.09
0.00	1030ft GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44848 **DST#: 3**

Test Start: 2011.11.20 @ 00:25:20

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:26:20
Time Test Ended: 09:41:20

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3612.00 ft (KB) To 3685.00 ft (KB) (TVD)
Total Depth: 3685.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

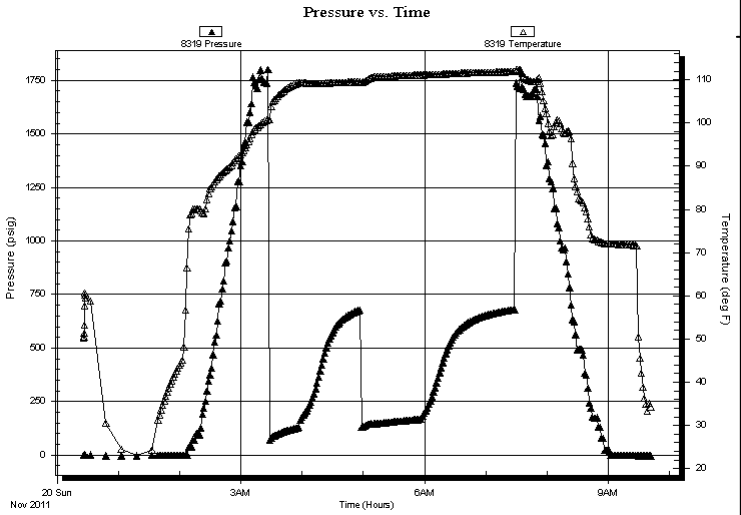
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 3613.00 ft (KB)
Start Date: 2011.11.20 End Date: 2011.11.20
Start Time: 00:25:41 End Time: 09:42:06

Capacity: 8000.00 psig
Last Calib.: 2011.11.20
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 3min
ISI-1in blow died back to 1/4in
FF-BOB in 5 1/2min
FSI-3in blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VGSMCO 60%G 35%O 5%M	0.59
60.00	GMCO 20%G 50%O 30%M	0.30
220.00	VGMCO 60%G 30%O 10%M	3.09
0.00	1030ft GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44848 **DST#: 3**

Test Start: 2011.11.20 @ 00:25:20

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:	69.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7900.00 ppm				
Filter Cake:	inches				

Recovery Information

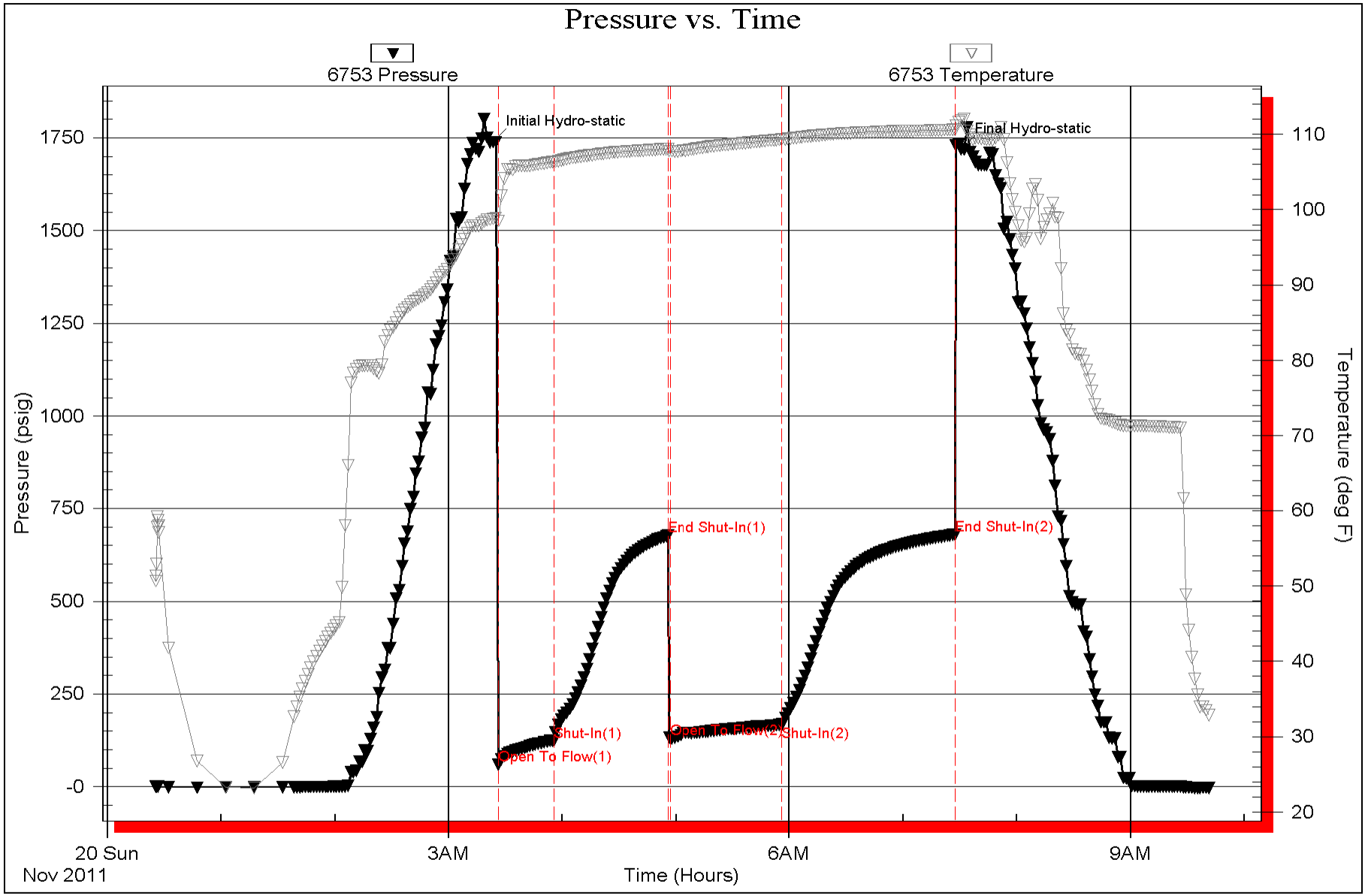
Recovery Table

Length ft	Description	Volume bbl
120.00	VGSMCO 60%G 35%O 5%M	0.590
60.00	GMCO 20%G 50%O 30%M	0.295
220.00	VGMCO 60%G 30%O 10%M	3.086
0.00	1030ft GIP	0.000

Total Length: 400.00 ft Total Volume: 3.971 bbl

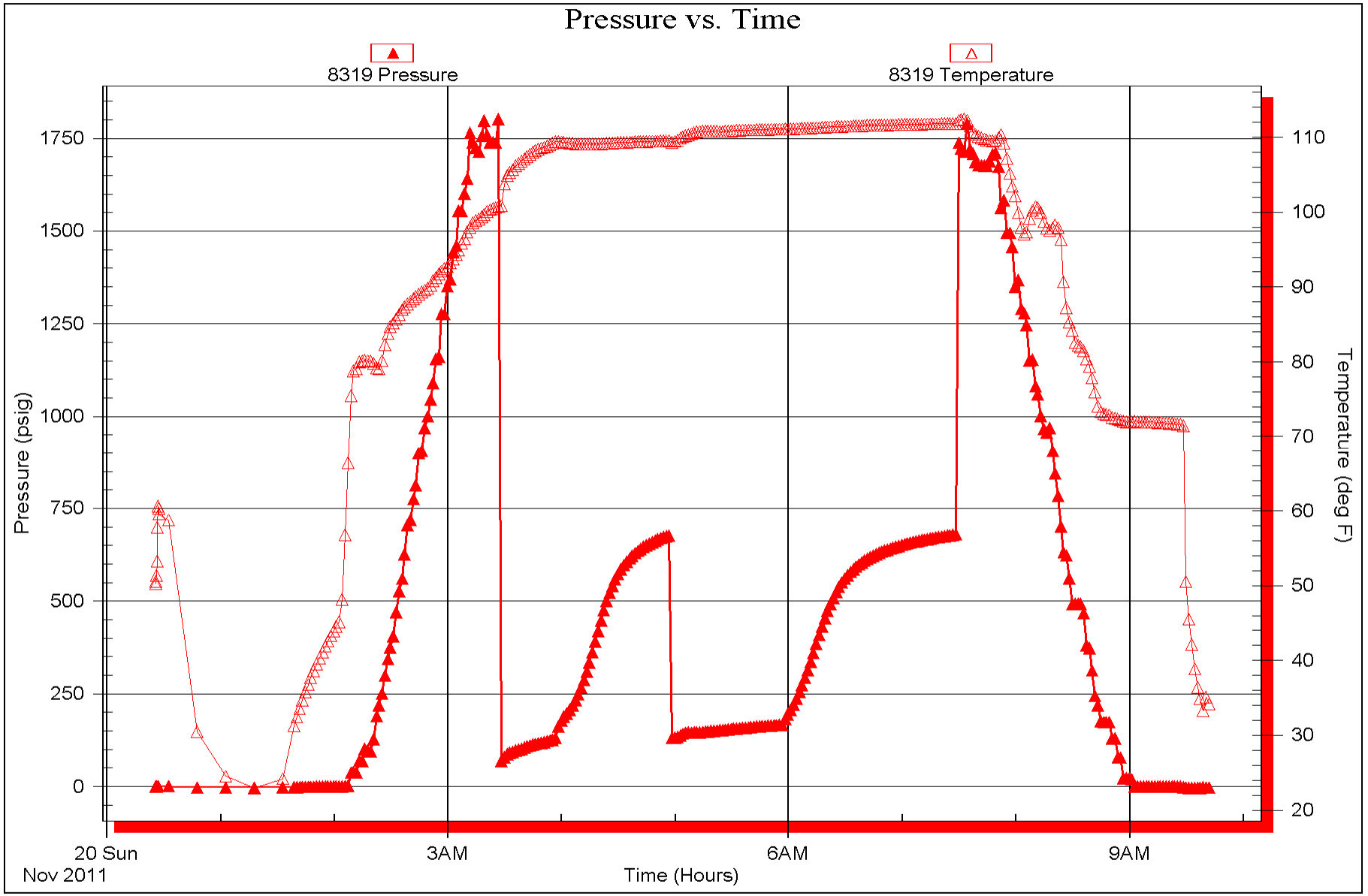
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6753 **Inside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 44848 Printed: 2011.11.20 @ 12:21:49

Serial #: 8319 **Outside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 44848 Printed: 2011.11.20 @ 12:21:49

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44849 **DST#: 4**

Test Start: 2011.11.21 @ 00:55:43

GENERAL INFORMATION:

Formation: **Arb.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:29:43
Time Test Ended: 08:26:43

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3836.00 ft (KB) To 3846.00 ft (KB) (TVD)
Total Depth: 3846.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

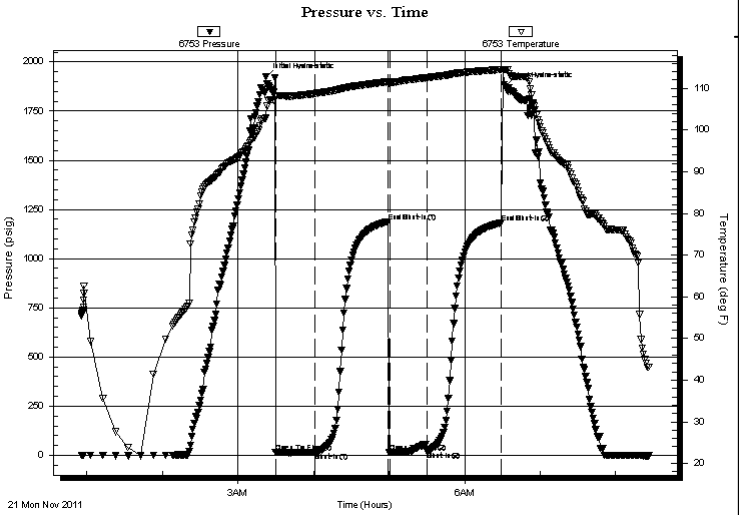
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 20.11 psig @ 3837.00 ft (KB)
Start Date: 2011.11.21 End Date: 2011.11.21
Start Time: 00:55:48 End Time: 08:26:42

Capacity: 8000.00 psig
Last Calib.: 2011.11.21
Time On Btm: 2011.11.21 @ 03:22:13
Time Off Btm: 2011.11.21 @ 06:32:13

TEST COMMENT: IF-1in blow
ISI-No blow
FF-weak surface blow died in 18min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1922.52	102.89	Initial Hydro-static
8	14.43	107.92	Open To Flow (1)
39	14.99	108.74	Shut-In(1)
97	1188.62	111.60	End Shut-In(1)
99	15.19	111.42	Open To Flow (2)
128	20.11	112.59	Shut-In(2)
187	1182.02	114.55	End Shut-In(2)
190	1872.60	114.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OIL	0.01
1.00	Mud	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44849 **DST#: 4**

Test Start: 2011.11.21 @ 00:55:43

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	27 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7900.00 ppm				
Filter Cake:	inches				

Recovery Information

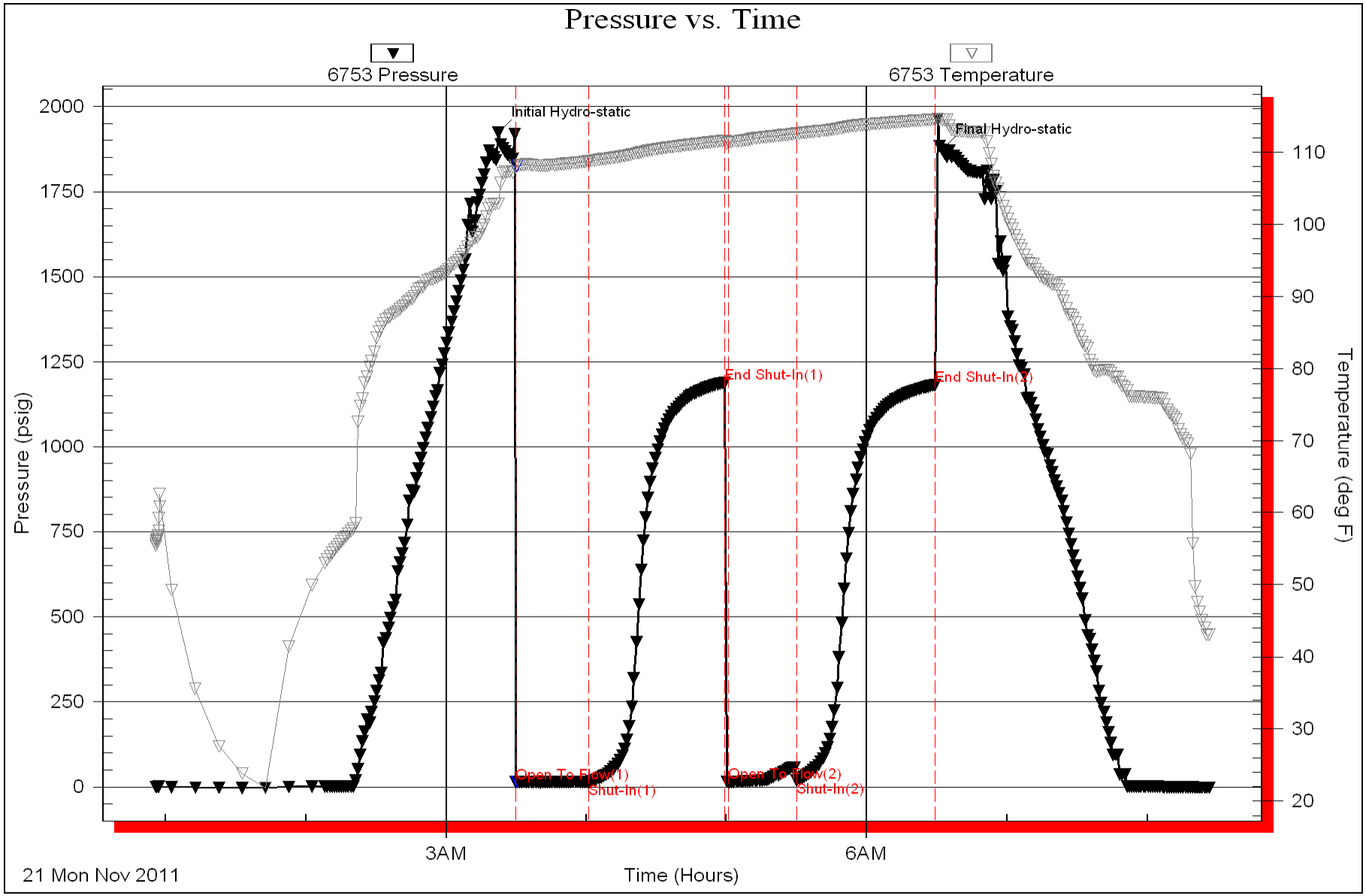
Recovery Table

Length ft	Description	Volume bbl
2.00	OIL	0.010
1.00	Mud	0.005

Total Length: 3.00 ft Total Volume: 0.015 bbl

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

Serial #: 6753 **Inside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 44849 Printed: 2011.11.21 @ 10:19:50

DRILL STEM TEST REPORT

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44850 **DST#: 5**

Test Start: 2011.11.21 @ 13:30:41

GENERAL INFORMATION:

Formation: **Arb.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:44:11
Time Test Ended: 22:17:11

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 47

Interval: 3846.00 ft (KB) To 3856.00 ft (KB) (TVD)
Total Depth: 3856.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

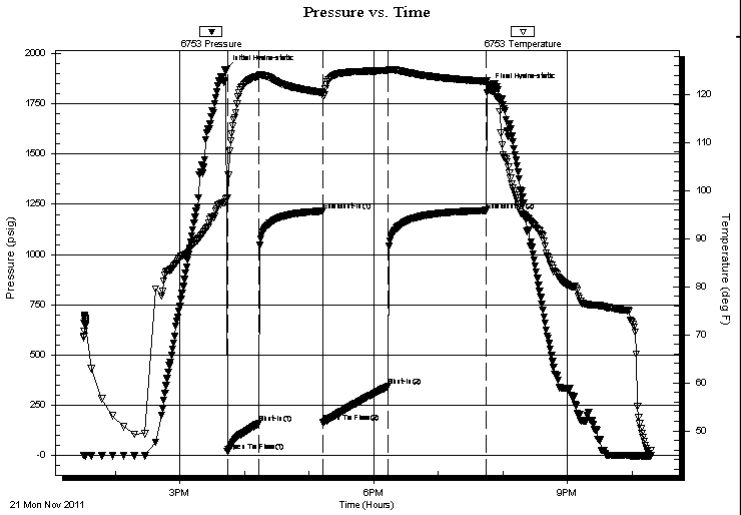
Reference Elevations: 2191.00 ft (KB)
2186.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 344.27 psig @ 3847.00 ft (KB)
Start Date: 2011.11.21 End Date: 2011.11.21
Start Time: 13:30:46 End Time: 22:17:11

Capacity: 8000.00 psig
Last Calib.: 2011.11.21
Time On Btm: 2011.11.21 @ 15:42:11
Time Off Btm: 2011.11.21 @ 19:46:41

TEST COMMENT: IF-BOB in 11min
ISI-1/4in blow
FF-BOB in 11min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1920.85	97.60	Initial Hydro-static
2	21.31	98.58	Open To Flow (1)
31	159.61	123.82	Shut-In(1)
91	1216.82	120.44	End Shut-In(1)
91	166.64	119.69	Open To Flow (2)
151	344.27	124.96	Shut-In(2)
242	1219.54	122.76	End Shut-In(2)
245	1832.12	121.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
640.00	w ater	7.34
40.00	Oilspotted VSMCW 10%M 90%W	0.56

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO. Inc.

250 N Water STE 300
Wichita Ks 67202

ATTN: Paul Gunzelman

3-14-19,Ellis,KS

Dorzweiler #1-3

Job Ticket: 44850 **DST#: 5**

Test Start: 2011.11.21 @ 13:30:41

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:	70000 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7900.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
640.00	water	7.338
40.00	Oilspotted VSMCW 10%M 90%W	0.561

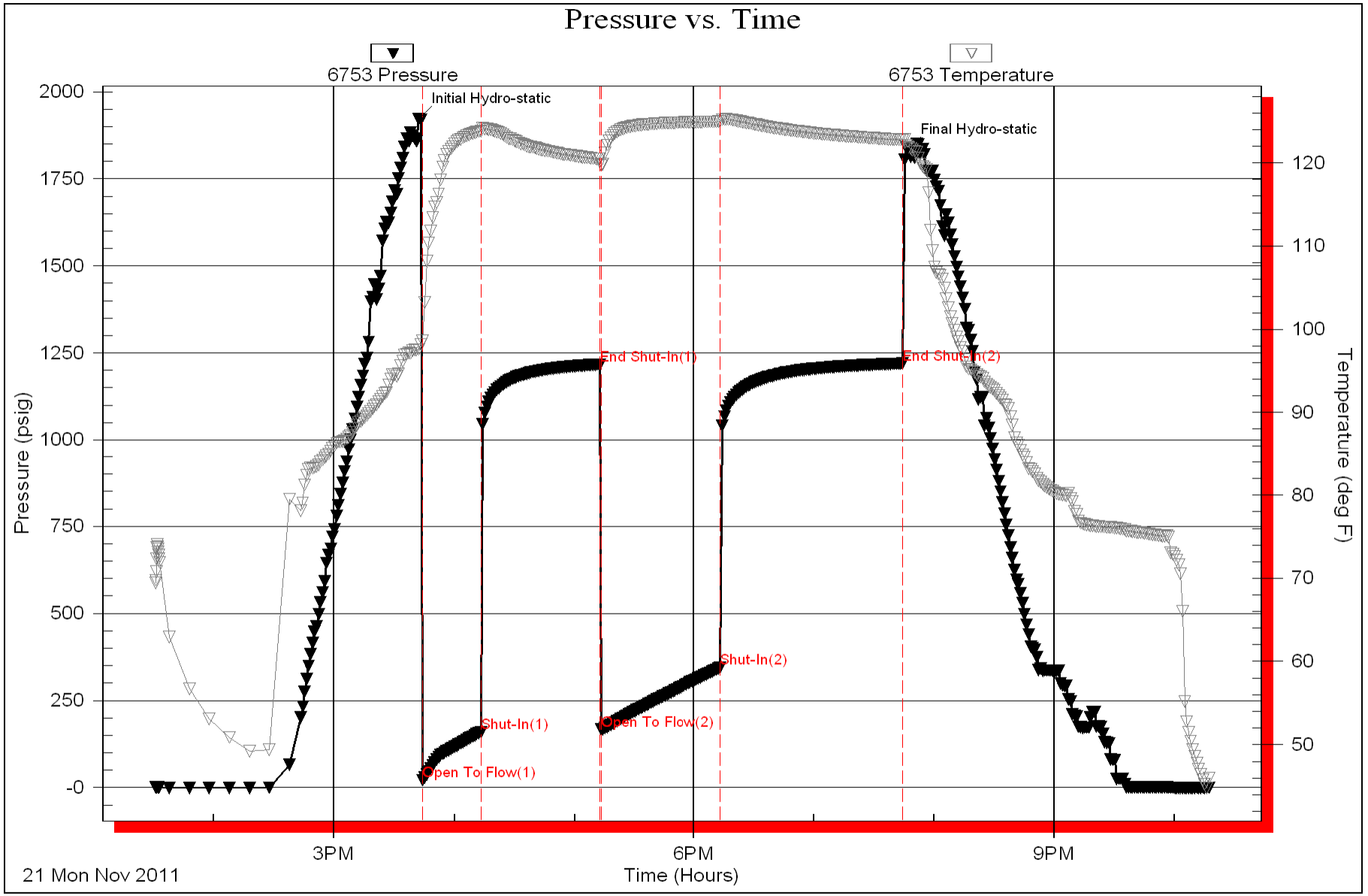
Total Length: 680.00 ft Total Volume: 7.899 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .26 @ 30

Serial #: 6753 **Inside** Murfin Drilling CO. Inc. Dorzweiler #1-3 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 44850 Printed: 2011.11.22 @ 08:12:00

Date: 11/18/2011
Invoice # 64

P.O.#:

Due Date: 12/18/2011
Division: *Russell*

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

PROD COPY

Invoice

ID 203
USED FOR ~~IC 103~~
APPROVED

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

Reference:
DORZWEILER 1-3

Description of Work:
SURFACE JOB

Account	Unit Mg	W L	No.	Amount	Description
ID203				332038	Cement S.C's # 1-3
	3. 1810. 0001				

Services / Items Included:

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		$ 1,020.55	No				
Common-Class A	150	$ 2,045.29	Yes				
Bulk Truck Matl-Material Service Charge	155	$ 346.47	No				
Calcium Chloride	5	$ 210.45	Yes				
Pump Truck Mileage-Job to Nearest Camp	8	$ 89.23	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	8	$ 52.22	No				

Invoice Terms:
Net 30

SubTotal:	$	*3,764.21*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(564.63)
SubTotal for Taxable Items:	$	1,917.39
SubTotal for Non-Taxable Items:	$	1,282.20
Total:	$	3,199.58
6.30% Ellis County Sales Tax Tax:	$	120.80
Amount Due:	**$**	**3,320.38**
Applied Payments:		
Balance Due:	**$**	**3,320.38**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.

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. 064

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-14-11	3	14	19	Ellis	KS		9:30p.m.

Lease Brzobohaty Well No. 1-3 Location Hays S on Golf Course Rd 4W 1/2N into

Contractor Murfin #8

Type Job Surface

Hole Size 12 1/4 T.D. 220

Csg. 8 5/8 Depth 220

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 15' Shoe Joint

Meas Line Displace 13 BBL

EQUIPMENT

Pumptrk 89	No.	Cementer	Craig
		Helper	
Bulktrk 1	No.	Driver	Chad
		Driver	
Bulktrk 14	No.	Driver	Brett
		Driver	

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

8 5/8 on bottom. Est Circulation. Mix 150SC & Displace. Cement Circulated

Owner

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.

Charge To Murfin Drilling

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 150 com 3% CC

Common	150
Poz. Mix	
Gel.	
Calcium	5
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	155
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	Surface
Mileage	8
Tax	
Discount	
Total Charge	

X
Signature

L12

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: 12/10/2011
Invoice # 192

P.O.#:

Due Date: 1/9/2012
Division: *Russell*

Invoice

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

USED FOR TC 103
APPROVED

Reference:
DORZWEILER 1-3

Description of Work:
PORT COLLAR JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		$ 963.85	No				
non, MetsoBeads, Plater, Gel, FloSeal, Calcium)	200	$ 4,036.44	Yes				
Bulk Truck Matl-Material Service Charge	250	$ 527.78	No				
Flo Seal	50	$ 105.56	Yes				
Pump Truck Mileage-Job to Nearest Camp	8	$ 84.28	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	8	$ 49.32	No				

Invoice Terms:
Net 30

SubTotal:	$	*5,767.22*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(865.08)
SubTotal for Taxable Items:	$	3,520.70
SubTotal for Non-Taxable Items:	$	1,381.44
Total:	$	4,902.14
6.30% Ellis County Sales Tax Tax:	$	221.80
Amount Due:	$	**5,123.94**
Applied Payments:		
Balance Due:	$	**5,123.94**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 192

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-8-11	3	14	19	Ellis	Ks		12:00 PM

Lease Dorzweiler Well No. 1-3 Location Yocemento Rd + Golf Course Rd, 1E, 1/4 N, W/S

Contractor Murfin Drilling

Type Job Port Collar

Hole Size 5 1/2"

Csg. 5 1/2"

Tbg. Size 2"

Tool Port Collar

Cement Left in Csg.

Meas Line

T.D.

Depth 3897'

Depth 1514'

Depth 1514'

Shoe Joint

Displace H20 58 BBLS

Owner

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.

Charge To Murfin Drilling

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 250 SX QMDC 1/4# Flo Seal

EQUIPMENT

Pumptrk 1	No.	Cementer	Cisco
		Helper	
Bulktrk 10	No.	Driver	Mike
		Driver	
~~Bulktrk~~ P.U.	No.	Driver	Rick
		Driver	

JOB SERVICES & REMARKS

Remarks: Cement did Circulate

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or ~~Port Collar~~ 1514'

Tool closed @ 1000#, open tool establish blow, mix 250 SX QMDC 1/4# F/S - seal + Displaced with 5 Bbls of H2O, Closed tool 1000#, Run 5 Jts + wash clean, Rigged down.

X Signature Mark Pollum

Common	200
Poz. Mix	
Gel.	
Calcium	
Hulls	
Salt	
Flowseal	50#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	250
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Port Collar
Mileage	8
Tax	
Discount	
Total Charge	

Attch — cc: w1 cc: p1 Scan Lin

BASIC ENERGY SERVICES

PAGE	CUST NO	INVOICE DATE
1 of 1	1002852	11/28/2011

INVOICE NUMBER
1718 - 90761729

Pratt (620) 672-1201

BILL TO
MURFIN DRILLING
PO Box: 288
RUSSELL
KS US 67665
ATTN: ACCOUNTS PAYABLE

JOB SITE
LEASE NAME: Dorzweiler 1-3
LOCATION:
COUNTY: Ellis
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40400099	27463		Net - 30 days	12/28/2011

For Service Dates: 11/22/2011 to 11/22/2011

0040400099

171805274A Cement-New Well Casing/Pi 11/22/2011
5 1/2" Longstring w/ P.C.

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
AA2 Cement	165.00	EA	11.90	1,963.50 T
60/40 POZ	30.00	EA	8.40	252.00 T
Salt (Fine)	926.00	EA	0.35	324.10 T
Cement Friction Reducer	47.00	EA	4.20	197.40 T
Cement Gel	312.00	EA	0.18	54.60 T
Mud Flush	500.00	EA	0.60	301.00 T
5 1/2" Port Collar	1.00	EA	2,450.00	2,450.00
Latch Down Plug & Baffle 5 1/2" (Blue)	1.00	EA	280.00	280.00
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	252.00	252.00
Turbolizer 5 1/2" (Blue)	10.00	EA	77.00	770.00
5 1/2" Basket (Blue)	1.00	EA	203.00	203.00
Cement Scratchers Cable Type 5 1/2"	12.00	EA	52.50	630.00
Unit Mileage Charge-Pickups, Vans & Cars	100.00	HR	2.98	297.50
Heavy Equipment Mileage	200.00	MI	4.90	980.00
Proppant and Bulk Delivery Charges	910.00	MI	1.12	1,019.20
Depth Charge; 3001-4000'	1.00	HR	1,512.00	1,512.00
Blending & Mixing Service Charge	195.00	MI	0.98	191.10
Plug Container Utilization Charge	1.00	EA	175.00	175.00
Supervisor	1.00	HR	122.50	122.50

USED FOR IC 103
APPROVED

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
PO BOX 10460
MIDLAND,TX 79702

SUB TOTAL	11,974.90
TAX	194.83
INVOICE TOTAL	12,169.73

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 05274 A

DATE TICKET NO.

DATE OF JOB 11-22-11 DISTRICT KANSAS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Murfin Drilling Co. LLC	LEASE Dorzweiler #1-3 WELL NO.
ADDRESS	COUNTY Ellis KANS. STATE KANSAS
CITY STATE	SERVICE CREW Allen, Brad, Steve
AUTHORIZED BY	JOB TYPE: 5 1/2" Long String w/P.C. CNW

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
18443 PU	2 1/2				
27463 Pt.	2 1/2				
19826-19860	2 1/2				

	DATE	AM/PM	TIME
TRUCK CALLED	11-22-11	AM	900
ARRIVED AT JOB	11-22-11	AM	330
START OPERATION	11-22-11	AM	400
FINISH OPERATION	11-22-11	AM	930
RELEASED	11-22-11	AM	1000
MILES FROM STATION TO WELL	100-mile		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED:
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP105	AA2 cement	SK	165		2806.00
CP103	60/40 Poz	SK	30		360.00
CC111	SALT Fine	lb	926		463.00
CC112	Cement Friction Reducer	lb	47		282.00
CC200	Cement Gel	lb	312		78.00
CF451	5 1/2" Port Collar	EA	1		3500.00
CF607	Latch Down Plug & Baffle 5 1/2" Blue	EA	1		400.00
CF1251	Auto Fill Float Shoe 5 1/2" Blue	EA	1		360.00
CF1651	Turbolizer 5 1/2" Blue	EA	10		1100.00
CF1901	5 1/2" Basket Blue	EA	1		290.00
CF2001	Cement Scratchers Cable Type 5 1/2	EA	12		900.00
CF151	MUD Flush	gal	500		430.00
E100	Unit mileage Charge Pickup	mi	100		425.00
E101	Heavy Eqtip mileage	mi	200		1400.00
CE204	Depth Charge 3001-4000	4-h	1		2160.00
E113	Bulk Delivery Charge	TM	910		1456.00
CE240	Blending & mixing Service chg	SK	195		273.00
CE504	Plug container Utilization chg	Job	1		250.00
S003	Service Supervisor first 8hrs on Loc	EA	1		175.00

SUB TOTAL

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	11,974 70

DLS

SERVICE REPRESENTATIVE Allen F Ward

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Mark Rolfson
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET

1718 05274 A

DATE TICKET NO.

DATE OF JOB 11-22-11 DISTRICT Kansas	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Murfin Drilling Co LLC	LEASE Rogers Unit #1-3 WELL NO.
ADDRESS	COUNTY Ellis STATE Kansas
CITY STATE	SERVICE CREW Allen, Brad, Steve
AUTHORIZED BY	JOB TYPE: 5½ Long String w/P.C. cmt

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
7x445 Pickup	2½				
7x442 Pickup	2½				
7x221 Transport	2½				

	DATE	AM/PM	TIME
TRUCK CALLED	11-22-11	AM	1100
ARRIVED AT JOB	11-22-11	AM	1330
START OPERATION	11-22-11	AM/PM	1400
FINISH OPERATION	11-22-11	AM/PM	1900
RELEASED	11-22-11	AM/PM	2000
MILES FROM STATION TO WELL	100 miles		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP105	AA2 cement	SK	116	—	$ 2806.00
CP103	60/40 Poz	SK	30	—	$ 360.00
CC111	Salt Fine	lb	926	—	$ 463.00
CC112	Cement Friction Reducer	lb	47	—	$ 282.00
CC200	Cement Gel	lb	312	—	$ 78.00
CE401	5½ Basket Collar	EA	1	—	$ 3500.00
CE1001	Turbo Disp. Plug + Baffle 5½ Blue	EA	1	—	$ 400.00
CE1251	Aut. Fill Float Shoe 5½ Blue	EA	1	—	$ 260.00
CE1451	Turbolizer 5½ Blue	EA	10	—	$ 1100.00
CE1900	5½ Rubber Packer Plug	EA	1	—	$ 290.00
CE2001	Conductor Centralizer Cable Type 5½	EA	12	—	$ 900.00
CF151	Mud Flush	gal	500	—	$ 430.00
E100	Unit mileage Charge Pickup	mi	100		$ 425.00
E101	Heavy Equip. mileage	mi	200		$ 1400.00
E107	Cement Charge 2 Bulk Trucks	4-h	1		$ 2160.00
E116	Bulk Del. Chg.	TM	260		$ 1456.00
CE240	Blending & Mixing Service Chg.	SK	195		$ 273.00
CE504	Plug Container Utilization Chg.	JOB	1		$ 250.00
C003	Service Supervisor, 1st Man on Job	EA	1		$ 175.00

SUB TOTAL $ 11,774.00

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	11,774.00

DUS

SERVICE REPRESENTATIVE Allen Fuson	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer: Murfin Drilling Co. Inc	Lease No.			Date: 11-22-11	
Lease: Dortweiler	Well #: 1-3				
Field Order #: 05274A	Station: Pratt KS	Casing: 5 1/2"	Depth: 3897	County: Ellis	State: Kans.
Type Job: 5 1/2" Long String w/P.C. CMW		Formation: TA 3905		Legal Description: 5-14-19	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 5 1/2"	Tubing Size	Shots/Ft		Acid: 12-BBl mud Flush	RATE	PRESS	ISIP
Depth: 3897	Depth	From	To	Pre Pad: 165 sks AA2 cmt @ 15# gal	Max		5 Min.
Volume: 92 BBl	Volume	From	To	Pad: 30 sks 60/40 Poz. R H	Min		10 Min.
Max Press: 1500#	Max Press	From	To	Frac	Avg		15 Min.
Well Connection: P.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth: 3886	Packer Depth	From	To	Flush: Disp H20	Gas Volume		Total Load

Customer Representative: MARK Robbins | Station Manager: Scotty | Treater: Allen

Service Units	28443	27463	19826	19860
Driver Names	Allen	Brad	Steve	Youngs

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log: murfin #8
330 PM					on loc. Discuss Safety Setup. Plan Job.
					Laying down D.P. + Rigup To Run 5 1/2"
					csg. @ 5.5# Shoe Joint 21.43'
					w/ Float Shoe & L.D. Baffle in collar
					Start 5 1/2" casing - w/ Recip. 12-CA. Scratchers
					cent - 1-3-5-7-9-11-13-15-17-56
					Basket 57 DV end. PC. 57 collar
					Port collar @ 1514'
715					Tag Bottom 3905' Pickup 3897', circ w/ Rig
820	200#		5	5	Pump 5 BBl H20 (Recip. csg.)
			12	5	Pump 12 BBl mud flush
			5	5	Pump 5 BBl H20
				5	mix + pump 165 sks AA2 cmt @ 15#
			42 1/2		Finish mix, washout Pump + Line
837				5	Drop L.D. Plug, Start Disp.
	300#		62		Caught Lift.
900	1500#		92		Plug down
					Release PSI - ok.
915			7		Plug Rat hole w/ 30 sks 60/40 Poz
					Washup + Rackup Equip.
1000					Job complete.
					Thanks Allen, Brad, Steve

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