KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1057896

Form ACO-1
June 2009
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:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

03/24/2011	04/01/2011	04/02/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-193-20790-00-00
Spot Description:
NE - NW - SE - SW Sec. 18 Twp. 10 S. R. 34 [ ] East [x] West
1240 Feet from [ ] North / [x] South Line of Section
1900 Feet from [ ] East / [x] West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- [ ] NE
- [ ] NW
- [ ] SE
- [x] SW

County: Thomas
Lease Name: Frahm 'A' Well #: 1-18
Field Name:
Producing Formation: None
Elevation: Ground: 3242 Kelly Bushing: 3247
Total Depth: 4890 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 241 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

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

Chloride content: 32000 ppm Fluid volume: 920 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

- [x] **Letter of Confidentiality Received**
  Date: 06/17/2011
- [x] **Confidential Release Date:** 06/16/2013
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** NAOMI JAMES **Date:** 06/20/2011

Side Two

1057896

Operator Name: Murfin Drilling Co., Inc. Lease Name: Frahm 'A' Well #: 1-18

Sec. 18 Twp. 10 S. R. 34 ☐ East ☑ West County: Thomas

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

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	8.625	23	241	Common	195	3% cc

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	-			
	-			

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

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

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

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

DISPOSITION OF GAS: ☐ 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:

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 17, 2011

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

Re: ACO1
API 15-193-20790-00-00
Frahm 'A' 1-18
SW/4 Sec.18-10S-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

MURFIN DRILLING COMPANY, INC.
WICHITA, KANSAS

GEOLOGIST'S REPORT

OPERATOR **MURFIN DRILLING COMPANY, INC.**

LEASE **FRAHM 'A' #1-18**

LOCATION **1240 FSL & 1900 FWL**

SEC. **18** TWSP **10S** RGE **34W**

COUNTY **THOMAS** STATE **KANSAS**

FIELD **WILDCAT**

ELEVATIONS

KB **3247 Ft.**

GL **3242 Ft.**

ALL MEASUREMENTS FROM K.B.

CONTRACTOR Murfin Drilling Company RIG NO. 8

COMMENCED 24 March 2011 COMPLETED 2 April 2011

MUD DISPLACED 3334 MUD TYPE Chemical

DRILLING TIME KEPT FROM 3800 TO 4890

SAMPLES SAVED FROM 3800 TO 4890

SAMPLES EXAMINED FROM 3800 TO 4890

GEOLOGICAL SUPERVISION FROM 3650 TO 4890

GEOLOGIST ON WELL Paul Gunzelman

CASING RECORD

Conductor None

Surface 8 5/8" @ 241'

Production None

ELECTRICAL SURVEYS:

Log-Tech, Inc.

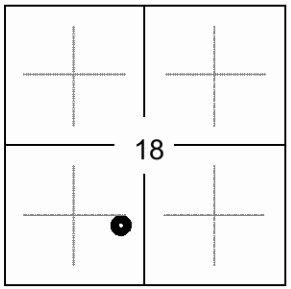
Comp. Neutron Density

Dual Induction

Micro-resistivity

Comp. Sonic

FORMATION NAME	LOG TOP	LOG DATUM	SAMPLE TOP	SAMPLE DATUM
Stone Corral	2756	+491	2754	+493
Base/Anhydrite	2785	+462	2782	+465
Topeka	3910	-663	3908	-661
Heebner Shale	4128	-881	4125	-878
Lansing	4170	-923	4168	-921
Stark Shale	4395	-1148	4396	-1149
Marmaton	4484	-1237	4482	-1235
Cherokee	4680	-1433	4675	-1428
Mississippian	4826	-1579	4824	-1577
Total Depth	4892	-1645	4890	-1643



REMARKS

API 15-193-20790-00-00

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

Drill Stem Testing: Trilobite Testing, Inc. (Mike Roberts, tester)

Gas Trailer: No Gas Trailer

Reserve Pit Chlorides: 32,000 PPM

REMARKS

SAMPLE DESCRIPTIONS

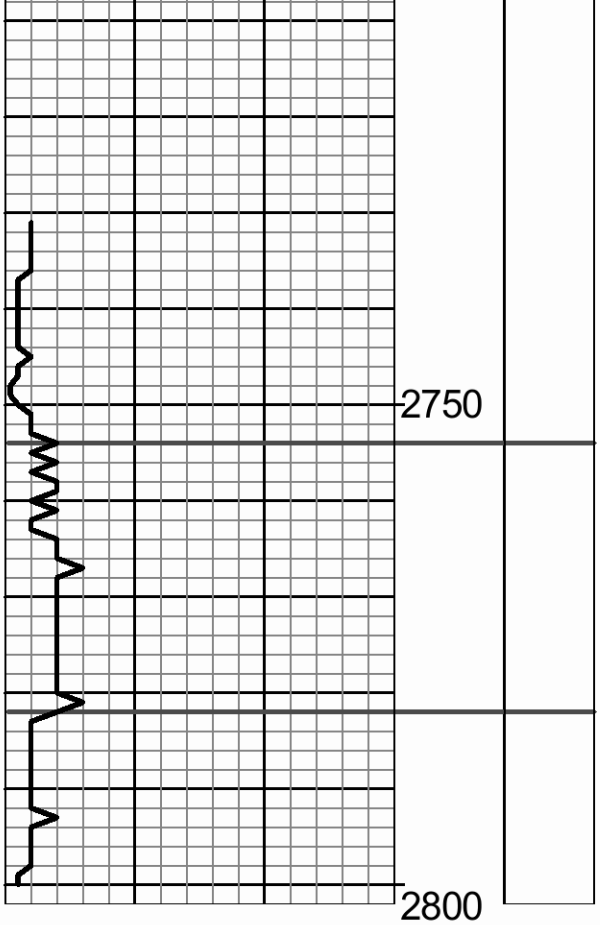
SHOWS

LITHOLOGY

DEPTH

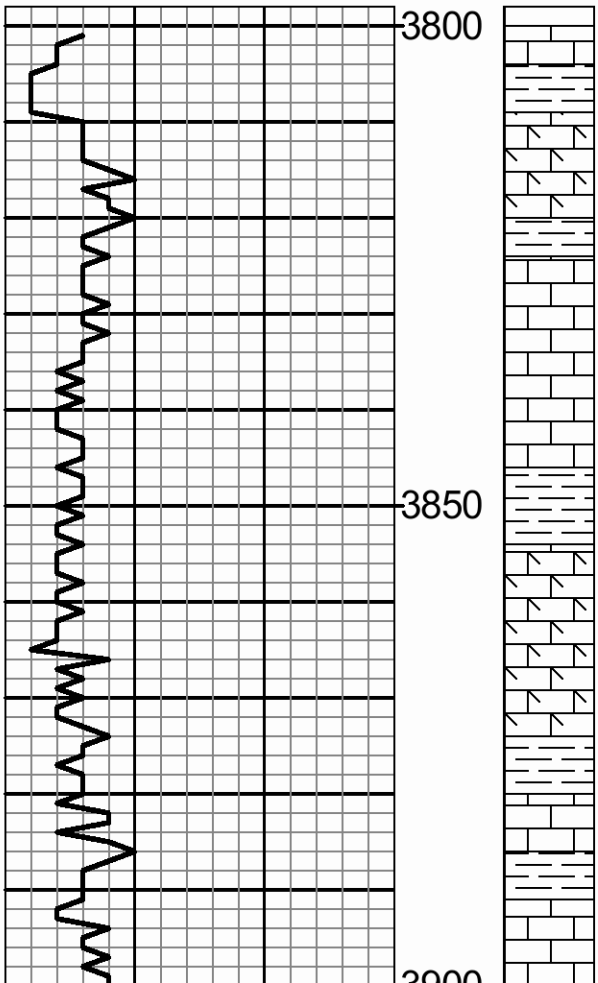
DRILL TIME (MIN/FT)

2700

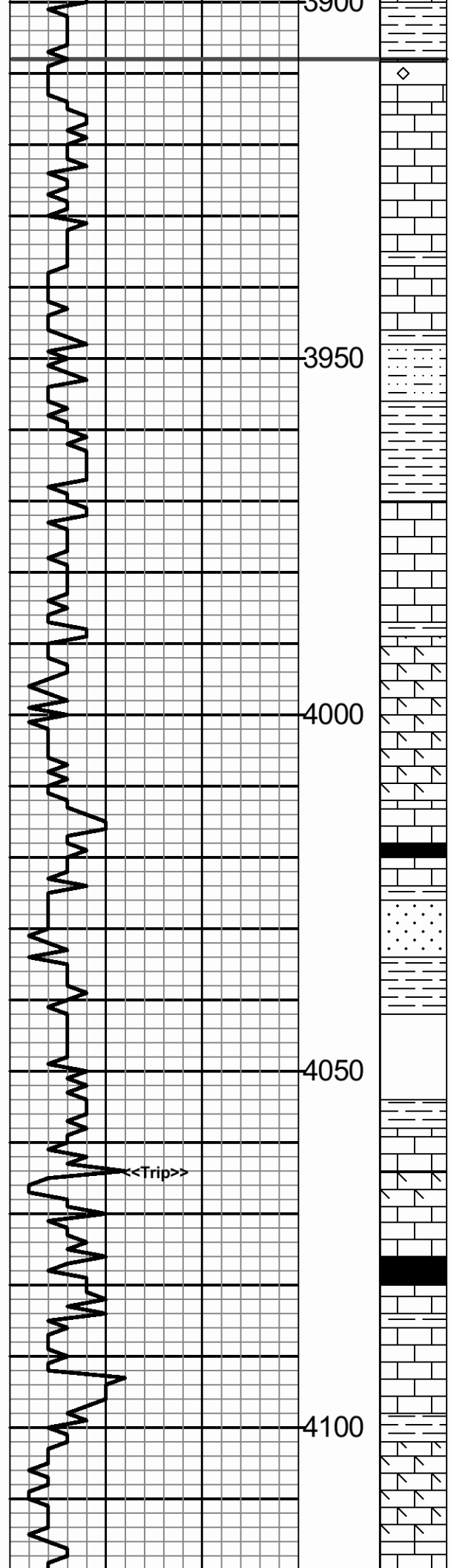


STONE CORRAL
2754 (+493)

BASE/ANHYDRITE
2782 (+465)



Ls: Crm, fnly gran, dol, chky, bcm frag & ool, n/s.	9:59 PM, 03/27/2011
Sh: Blk & v.dk gy, thn fis, slty, some carb.	
Ls: Crm-gy, fxln-gran, some dol, tr org rem, occ arg-shly, n/s.	
Sh: Lt gn-gy, fis, mica, calc, v.foss.	
Ls: Crm-tn, fxln, sli foss, some chk, occ arg, n/s.	
Ls: Crm-tn, fxln, tr med xln, sli ool, tr org rem, some chk, occ arg, tr amor calc, n.v.p.	
Sh: Gy-gn, fis, occ calc, tr org rem.	
Ls: Crm, fxln, sli foss (Fus) some chk, n.v.p.	
Ls: Crm-tn, fxln-frag, dol, sli foss (Fus) chky, some arg-shly, cons sec calc, n/s.	
Ls: Crm-gy, fxln, chky-sbchky, tr org rem, occ arg, intbd gy & dk gy fis sh, n/s.	
Ls: Crm-tn, fxln, chky, tr org rem, some amor calc, dol in pt, fr intgran por, n/s.	
Sh: Gy-gn, fis, some calc.	
Ls: Crm, fxln, chky-sbchky, tr amor calc & org rem,n/s.	



TOPEKA
3908 (-661)

Ls: Crm, tr yel, fxln, ool, bcm crm fxln-gran sli foss (Brach) sli dol, tr arg, n/s.

Ls: Crm, fxln, ool, recem, tr chk & org rem, bcm gran, n.v.p, n/s.

Ls: Crm, fxln, tr medxln, sbchky, tr org rem, occ dol, pr-fr pp por, n/s.

Ls: Crm-lt gy, fxln, tr gran, sli chky, tr org rem, occ spr calc, n/s.

Sh: V. dk gy, fis, tr pyr.

Sltst: Lt gy, calc, sli arg, tr pyr, some sdy, gd intgran por, n/s.

Sh: Rd-brn brn & rd-or, blky, ea, cons rd-brn & brn v.arg sltst, tr gy fis sh.

Ls: Crm, fxln, tr gran, sbchky, tr org rem, some dol, fr pp por, n/s.

Ls: Crm, tr lt gy, fxln, occ medxln, some sbchky, tr org rem, occ spr calc, fr pp & intxln por, n/s.

Sh: Lt gy & gy-gn, tr dk olv gn, fis.

Ls: Crm, fxln-gran, sbchky, dol in pt, r.org rem, fr intgran por, n/s.

Morgan Mud check @ 3999'
Vis: 65, Wt: 8.9, WL: 6.8
Chlor: 5,000 ppm, LCM: 2#

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

Ls: Crm, fxln, tr vfxln, sbchky, r.org rem, n.v.p.

Sh: Blk, thn fis, carb.

Ls: Tn, fxln, mott w/dk gy sh, sli pyr, r.org rem.

Sd: Lt gy & gy-gn, tr crm-gy, vvfn, wl srt, sbfri-fri, sli pyr, gn & rd-brn sh inc, some slty, n/s.

Sh: Gy dk gy & dk gn, fis, bcm rd-brn v.slty.

NO SAMPLE

Sh: Dk gy,fis, tr pyr.

Ls: Crm, fxln, tr org rem, cons spr calc, tr lt gn sh inc, n.v.p.

Loss of pump pressure, trip out @ 4064'. Hole in drill collars.

Ls: Wh-crm, gran, dol, sbchky, gd intgran por, n/s.

Ls: Crm-tn, fxln, foss, occ spr calc, n.v.p.

Sh: Blk, thn fis, carb.

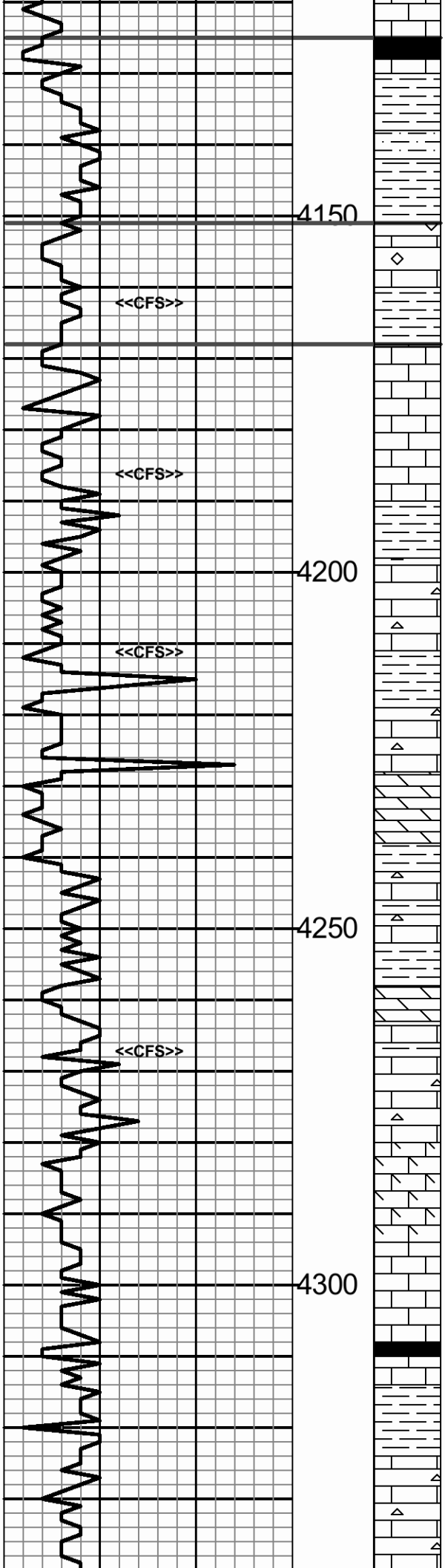
Ls: Lt gy-gn & lt gn, fn-vfxln, arg, dns, some intbd gn fis sh, n/s.

Ls: Wh-crm, fxln-gran, sbchky, sli dol, fr-gd pp & intgran por, n/s.

Ls: Crm-lt gy, fn-vfxln, some sbchky, bcm lt gy-gn & arg, n/s.

Ls: Wh-crm, fxln, sbchky, tr amor calc, tr dol, fr pp por, n/s.

Ls: Crm, fxln, tr gran, sbchky, occ amor calc, some dol, fr-gd pp & intgran por, n/s.



Ls: Crm-gy, fxln, smwt arg, n.v.p.

Sh: Blk, thn fis, carb, some tn vfxln dns Ls.

Sh: Rd-brn, tr brn & rd-or, blky, ea, some slty.

Sh: Gy-gn, fis, slty, some lmy, intbd gn & lt gy-gn arg calc sltst.

Sh: Rd-brn & rd-or, some mar & brn, fis-blky.

Ls: Wh-v.lt gy, fxln, ool, rexlzd, foss, some sbchky, n.v.p, n/s.

Sh: Rd-brn, tr brn, ea, some gy-gn fis sh.

Ls: Crm, fxln, foss (Fus) sli chky, occ spr calc, pr intxln por, n/s.

Ls: Crm-tn, fxln, tr frag ool, cons spr calc, some sbchky, n.v.p, n/s.

Ls: Crm, frag, ool, sbchky, intbd dk gy fis occ slty sh, n/s.

Sh: Gy & gn-gy, fis, some slty, tr mica.

Ls: Wh, fxln, v.chky, tr org rem, some wh op-trnsl vit cht, r.pyr, n.v.p, n/s.

Ls: Wh, fxln, sbchky, tr org rem, some wh & v.lt or op-trnsl vit cht, n/s.

Sh: Gy-gn, fis, tr calc, some slty.

Ls: Wh-crm, fxln, some chk, tr org rem, wh-v.lt gy trnsl cht, n.v.p, n/s.

Dol: Crm, fxln-gran, foss (Fus) sli chky, tr amor calc, n/s.

Dol: Crm-tn, fxln, chky, tr wh op vit cht, some amor calc, fr pp & vug por, n/s.

Ls: Crm-tn, fn-vfxln, tr org rem, sbchky, some tn trnsl frs cht, lt gy-gn & olv gn fis sh, n/s.

Dol: Crm-tn, fxln, sbchky, occ spr calc, wh & lt gy op vit cht, fr-gd intxln & pp por, n/s.

Ls: Crm-tn, fxln, sbchky, sli dol, lt gy crm & tn op-trnsl cht, n.v.p, n/s.

Sh: Olv gn & olv brn fis, some calc.

Ls: Crm, tr v.lt gy, fxln, sli dol, some spr calc, lt gy crm & lt or op vit cht, n/s.

Ls: Tn, fxln, foss, some cht, dns, n/s.

Ls: Crm, fnly gran, dol, some spr calc, tr tn op vit cht, fr intgran por, n/s.

Ls: Crm-lt gy, fxln, sli ool, mott, dns, soem chk, n/s.

Sh: Blk, thn fis, carb, some dk gy slty sli pyr sh & tn-lt brn fxln dns Ls.

Sh: Lt gy & lt gn-gy, fis, some slty, sli pyr, v.gum.

Ls: Crm-tn, fxln, occ gran dol, tr org rem, wh & crm trnsl vit cht, pr intgran por, n/s.

Ls: Crm-lt gy, fxln, tr vfxln, some chk, tr pyr, lt gy & crm op vit cht, n.v.p.

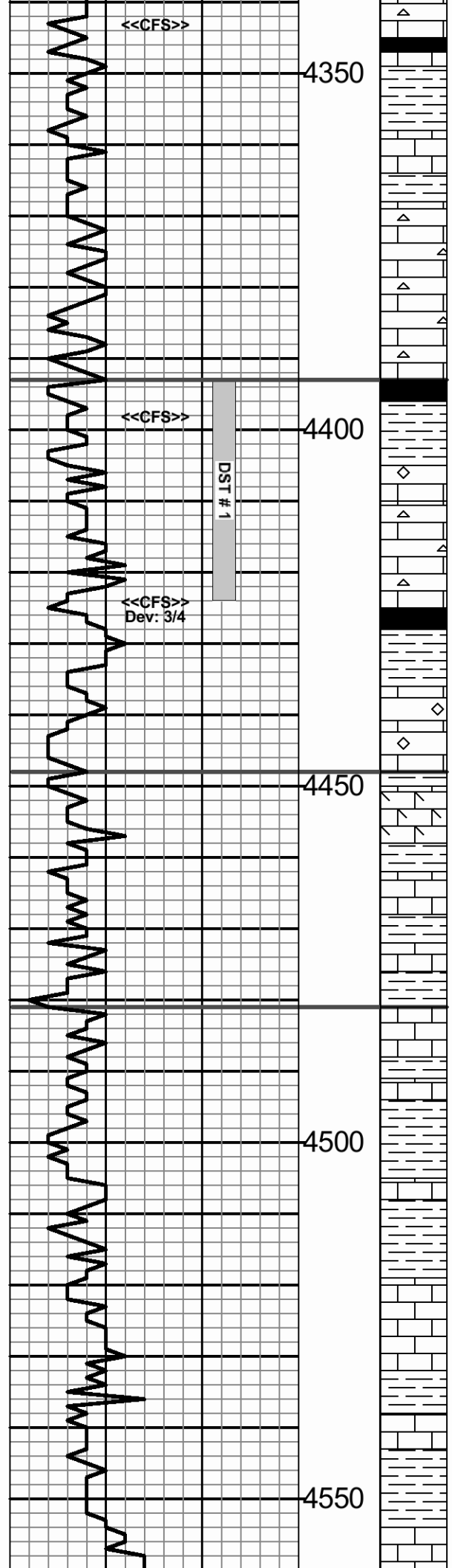
HEEBNER SHALE
4125 (-878)

TORONTO
4151 (-904)

LANSING
4168 (-921)

Morgan Mud check @ 4253'
Vis: 64, Wt: 9.2, WL: 6.4
Chlor: 4,800 ppm, LCM: 2#

DST # 1 4394 - 4424
30"-60"-30"-30"
IF: V. Weak blow throughout
FF: No blow



Ls: Crm, occ lt gy, fxln, sbchky, tr org rem, wh-crm op cht, n.v.p.

Sh: Blk & v.dk gy, fis, some carb, intbd tn-brn vfxln dns Ls.

Sh: Gy-gn, fis, occ calc, tr slty.

Ls: Crm & v.lt gy, fxln, tr org rem, sbchky, dns, occ arg, n/s.

Sh: Rd-brn brn rd-or & purp, blky, tr slty, some gy-gn & lt gy fis sh.

Ls: Wh-crm, fxln, sbchky, r.org rem, tr wh op cht, n.v.p.

Ls: Crm, fxln, sbchky, some wh & lt gy trnsl vit cht, r.pyr & org rem, n/s.

Sh: Blk, thn fis, carb, bcm gy-gn & lt gn fis some calc-lmy.

Ls: Wh lt gy tn & crm, fxln, tr frag ool, sbchky, occ arg & mott, fr pp por, v.sli shw FO sli odor, lt spty stn.

Ls: Crm, fxln, sbchky, r.org rem, wh & lt gy trnsl vit cht, n.v.p, n/s.

Sh: Blk, thn fis, carb.

Sh: Dk gy, gn-gy & olv gn, fis, bcm rd-brn & mar.

Ls: Crm-lt gy, fxln, tr ool, sbchky, some arg, dns, n/s.

Ls: Tn, fxln, sli ool, tr org rem, dns, some sbchky, n/s.

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

Ls: Crm-tn, fxln, w/crm fnly gran dol Ls, sbchky, fr por, n/s.

Sh: Dk gy olv gn & gy-gn, pyr, some tn fn-vfxln dns Ls.

Ls: Crm, fxln, tr vfxln, some org rem, amor calc, n.v.p, n/s.

Ls: Tn-lt gy, fn-vfxln, sli pyr, sbchky, n/s.

Sh: V.dk gy, fis.

Sh: Rd-brn brn mar & gy-gn, blky-splin, ea, some mott

Ls: Crm-gy, fxln, tr org rem, some arg-shly, intbd gy-gn & gy-brn sh.

Sh: V.lt gy, fis, some gy-gn & dk gy.

Ls: Crm-v.lt gy, tr yel, vfxln-crpxln, frac, some mott w/mar & rd-brn sh, dns, n/s.

Sh: Gy, dk gy, fis.

Ls: Crm-gy, fxln, sbchky, tr ool, r.spr calc, pr pp por, no odor, tr dk brn FO, r.dk stn.

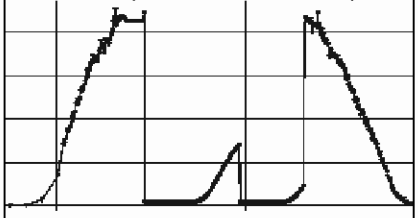
Sh: Gy, dk gy, & gy-gn fis, some calc-lmy.

Ls: Crm, tr crm-tn, fn-vfxln, tr microxln, occ spr calc, some sbchky, r.org rem, dns,

FT: No Blow

RECOVERY:
5 Ft. Mud

IHP: 2225 psi. FHP: 2173 psi.
IFP: 30-30 psi. ISIP: 700 psi.
FFP: 29-28 psi. FSIP: 223 psi.

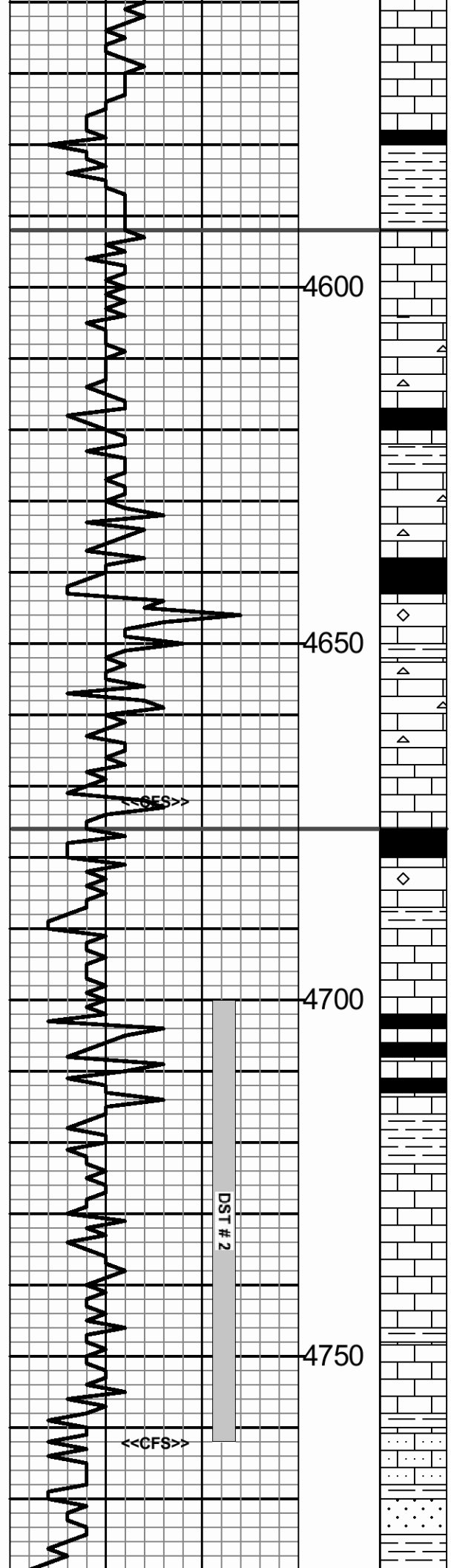


STARK SHALE
4393 (-1146)

Morgan Mud check @ 4424'
Vis: 53, Wt: 9.3, WL: 7.2
Chlor: 6,900 ppm, LCM: 2#

BASE/KANSAS CITY
4448 (-1201)

MARMATON
4481 (-1234)



n/s.

Ls: Tn, some lt brn, fxln, dns, r.org rem, some sbchky, n/s.

Sh: Blk, thn fis, carb, bcm gy-gn & dk gy fis some vgt.

PAWNEE
4592 (-1345)

Ls: Crm, fxln, sbchky, dns, frac, tr arg, n/s.

Ls: Wh-crm, fxln, tr vfxln, wthd-sbchky, dns, n/s.

Ls: Crm-tn, fxln, tr vfxln, some wthd, occ blu-gy lt gy tn & dk brn trnsl vit cht, tr pr pp por, no odor, no FO, spty v.dk stn.

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

Ls: Wh-crm, fxln, foss (Fus) some sbchky, tr spr calc, occ lt gy & crm trnsl vit cht, n.v.p, n/s,

Ls: Wh-crm, fxln, tr vfxln, sbchky, tr org rem, r.pyr, lt gy & tn trnsl cht, n/s.

Sh: Blk, thn fis, carb.

Ls: Crm-tn mott w/dk gy & brn ool, fxln, some wthd-sbchky, cons sec calc, tr pyr, n.v.p, n/s.

Ls: Crm, fxln, some lt gy & tn trnsl cht, intbd lt gn fis sh, n/s.

Morgan Mud check @ 4667'
Vis: 69, Wt: 9.4, WL: 8.0
Chlor: 6,000 ppm, LCM: 1.5 #

Ls: Crm, occ crm-tn, fxln, some sbchky, sli pyr, tr ool, v.lt gy trnsl cht, n.v.p, n/s.

Ls: Tn-lt brn, vfxln, pyr, tr org rem, dns.

CHEROKEE
4676 (-1429)

Sh: Blk, thn fis, carb.

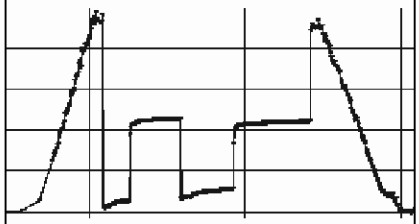
Ls: Wh-crm, frag, dk gy & crm ool, cons spr calc, n.v.p, n/s.

Sh: V.dk gy, fis, tr pyr, some carb mat.

Ls: Tn, fxln, rexlzd, tr ool, some arg, dns, n/s.

DST # 2 4700 - 4762
30"-60"-60"-90"
IF: Fair blow, incr to 8 inches.
FF: Fair blow, incr to 8 inches.
RECOVERY:
124 Ft. Mud
477 Ft. Muddy Water
IHP: 2425 psi. FHP: 2332 psi.
IFP: 52-141 psi. ISIP: 1142 psi.
FFP: 167-286 psi. FSIP: 1111 psi.
BHT: 132 deg. F.

Sh: Blk, thn fis, carb, intbd w/crm-gy fn-vfxln, dns Ls, tr org rem & spr calc, n/s.



Sh: Dk gy & dk gy-brn fis, some carb, tr pyr.

Ls: Tn-lt brn, fn-vfxln, tr spr calc, gen dns, tr pr intxln por, no odor, v.dk spty stn, no FO.

Ls: Tn, vfxln, tr org rem, n.v.p, n/s.

Ls: Crm-tn, vfxln, tr pyr, r.org rem, some v.dk gy-blk intbd sh, n.v.p, n/s.

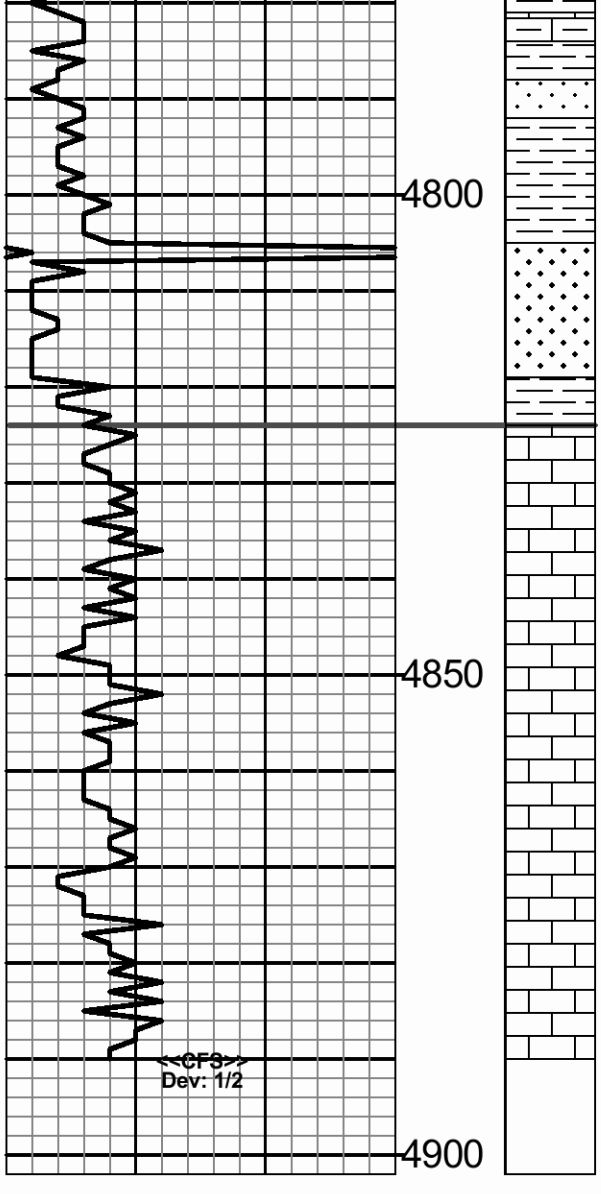
Ls: Crm, tr crm-tn, fxln, some gran & sbchky, tr org rem, pr-fr intgran por, n/s.

Ls: Crm, gran, sbchky, cons vfn ang-sbrnd qtz sd, fr intgran por, n/s.

Morgan Mud check @ 4763'
Vis: 46, Wt: 8.9, WL: 8.4
Chlor: 8,000 ppm, LCM: 4#

Sh: Blu-gn, some yel & mar, blky, sli pyr, occ sbwxy.

Sd: Wh-v.lt gy, vvfn-fn, sbrnd, sbfri-wl cmt, fr-gd intgran por, n/s.



Ls: Crm-tn, fxln, sbchky, tr org rem, some spr calc, n.v.p, intbd gy dk gy & gy-gn fis sh.

Sh: Gy-gn blu-gn yel purp mar & dk gy, some wxy, tr pyr, tr blk carb sh, some lt gy fn sbrnd fri arg sd, n/s.

Sh: Gy purp gn yel & blu-gn, sbwxy, some sdy, intbd tn crpxln dns Ls, some fn sd clus, n/s.

Sd: Wh & lt gy, vvfn-med, ang-sbrnd, pr srt, sbfri-wl cmt, occ calc, some glauc & arg, r.pyr, gd intgran por, n/s.

MISSISSIPPIAN
4824 (-1577)

Ls: Crm, tr tn, fxln, ool. tr org rem, occ sbchky, tr aren, intbd gn & yel sh, n.v.p, n/s.

Ls: Crm, fxln, some vfxln-microxln, occ sbchky, tr sdy, n.v.p.

Ls: Crm, gran-frag, ool, aren, sbchky, tr vfxln & dns, n/s.

Ls: Crm, some wh-crm, fxln-frag, ool, sbchky, occ vfxln, n/s.

Ls: Crm, tr crm-tn, fxln-frag, ool, tr org rem, sbchky in pt, occ sdy, n.v.p, n/s.

TOTAL DEPTH
4890 (-1643)

5:35 PM, 1 April 2011

Operator: MURFIN DRILLING COMPANY, INC.

Lease: FRAHM 'A' #1-18

Location: 1240 FSL & 1900 FWL **SEC.** 18 **TWSP** 10S **RGE** 34W

County: THOMAS **State:** KANSAS

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Waterfront
Ste. 300
Wichita Ks 67202
ATTN: Paul Gunzelman

Frahm A 1-18

18/10s/34w TregoKS

Job Ticket: 042166 **DST#: 1**

Test Start: 2011.03.30 @ 05:04:15

GENERAL INFORMATION:

Formation: **LKC "K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:24:00
Time Test Ended: 11:56:00

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4394.00 ft (KB) To 4424.00 ft (KB) (TVD)
Total Depth: 4424.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

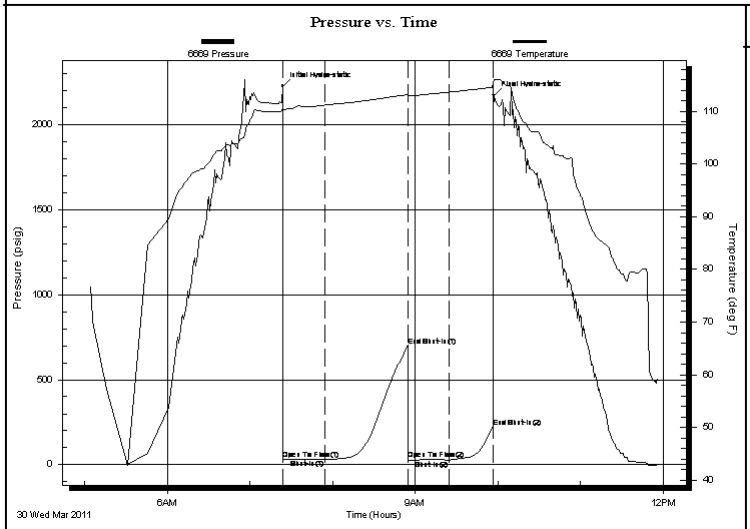
Reference Elevations: 3248.00 ft (KB)
3243.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 28.87 psig @ 4419.00 ft (KB)
Start Date: 2011.03.30 End Date: 2011.03.30
Start Time: 05:04:15 End Time: 11:56:00

Capacity: 8000.00 psig
Last Calib.: 2011.03.30
Time On Btm: 2011.03.30 @ 07:23:45
Time Off Btm: 2011.03.30 @ 09:57:15

TEST COMMENT: IF:Built to 1/8" blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.20	110.64	Initial Hydro-static
1	30.95	110.37	Open To Flow (1)
31	30.64	111.18	Shut-In(1)
91	700.59	113.15	End Shut-In(1)
91	29.30	112.96	Open To Flow (2)
121	28.87	113.66	Shut-In(2)
153	223.51	114.60	End Shut-In(2)
154	2173.08	115.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100%	0.02

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Waterfront
Ste. 300
Wichita Ks 67202

ATTN: Paul Gunzelman

Frahm A 1-18

18/10s/34w TregoKS

Job Ticket: 042166 **DST#: 1**

Test Start: 2011.03.30 @ 05:04:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	64.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4800.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

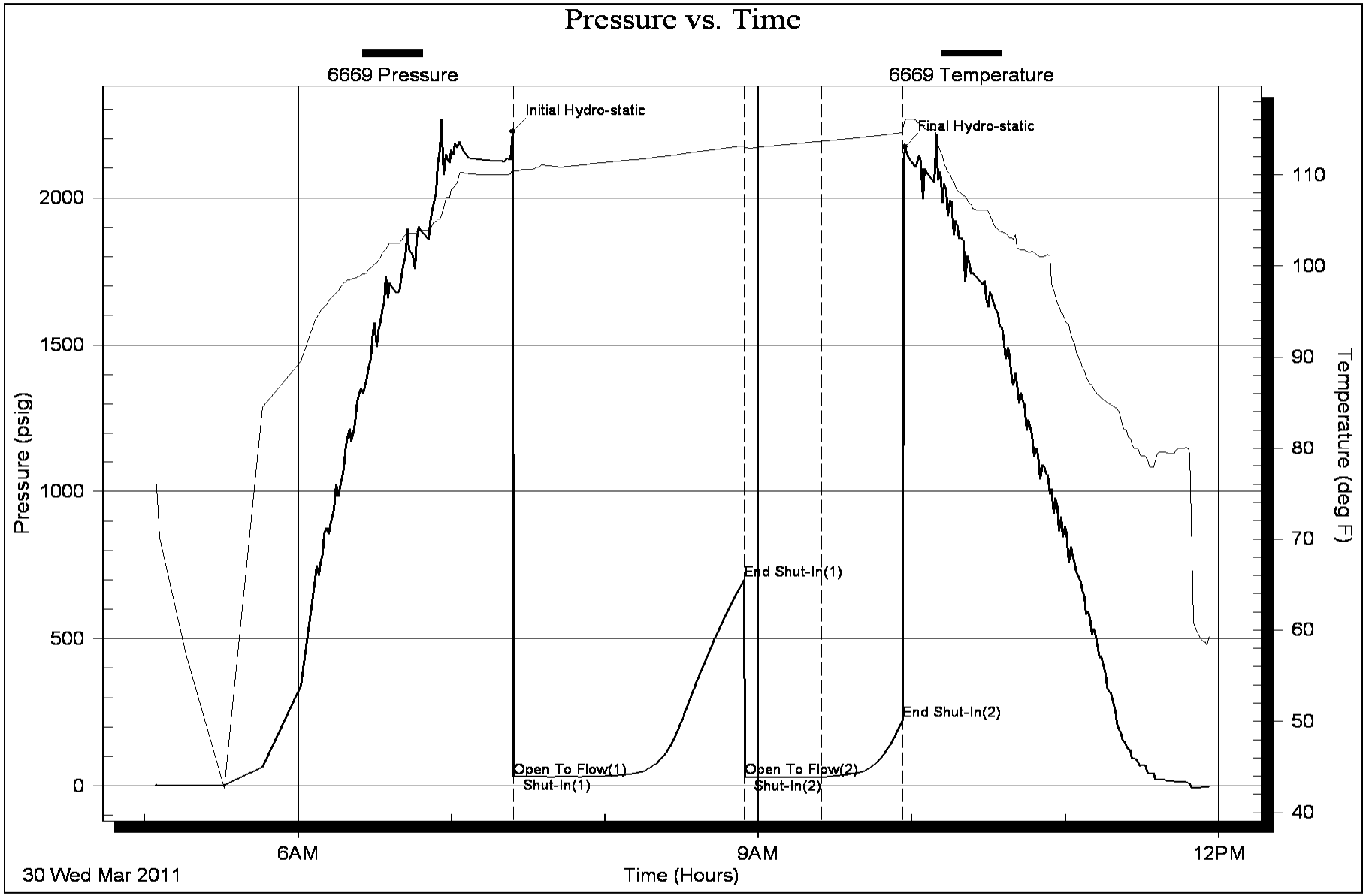
Length ft	Description	Volume bbl
5.00	m 100%	0.025

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:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2000
1500
1000
500
0
110
100
90
80
70
60
50
40
6AM
9AM
12PM
30 Wed Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Waterfront
Ste. 300
Wichita Ks 67202
ATTN: Paul Gunzelman

Frahm A 1-18

18/10s/34w TregoKS

Job Ticket: 042167 **DST#: 2**

Test Start: 2011.03.31 @ 22:15:15

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:16:15
Time Test Ended: 06:41:15

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4700.00 ft (KB) To 4762.00 ft (KB) (TVD)
Total Depth: 4762.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

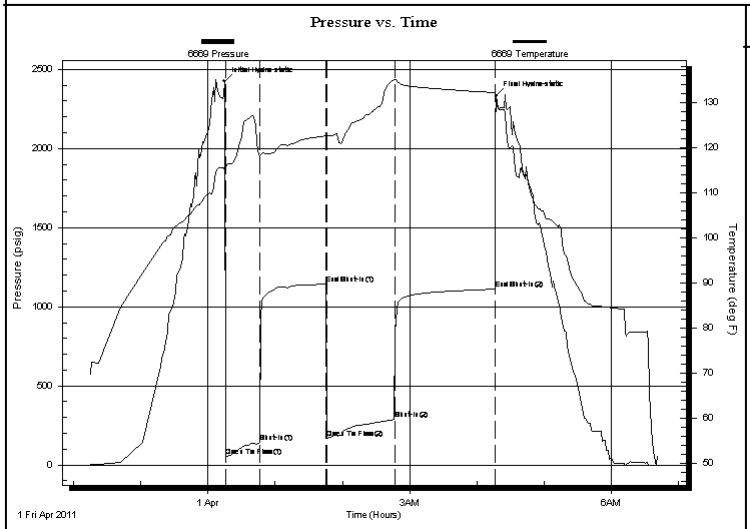
Reference Elevations: 3248.00 ft (KB)
3243.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 286.15 psig @ 4757.00 ft (KB)
Start Date: 2011.03.31 End Date: 2011.04.01
Start Time: 22:15:15 End Time: 06:41:15

Capacity: 8000.00 psig
Last Calib.: 2011.04.01
Time On Btm: 2011.04.01 @ 00:14:45
Time Off Btm: 2011.04.01 @ 04:17:30

TEST COMMENT: IF:Built to 8" blow
IS:No return blow
FF:Built to 8" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2425.05	115.74	Initial Hydro-static
2	52.53	115.87	Open To Flow (1)
32	141.24	118.16	Shut-In(1)
91	1142.09	122.67	End Shut-In(1)
92	167.11	122.53	Open To Flow (2)
152	286.15	135.14	Shut-In(2)
242	1111.18	132.30	End Shut-In(2)
243	2332.44	129.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
477.00	mcw 10%m 90%w	2.35
124.00	m 100%m	1.74

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

250 N Waterfront
Ste. 300
Wichita Ks 67202

ATTN: Paul Gunzelman

Frahm A 1-18

18/10s/34w TregoKS

Job Ticket: 042167 **DST#: 2**

Test Start: 2011.03.31 @ 22:15:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	7500 ppm
Viscosity:	69.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

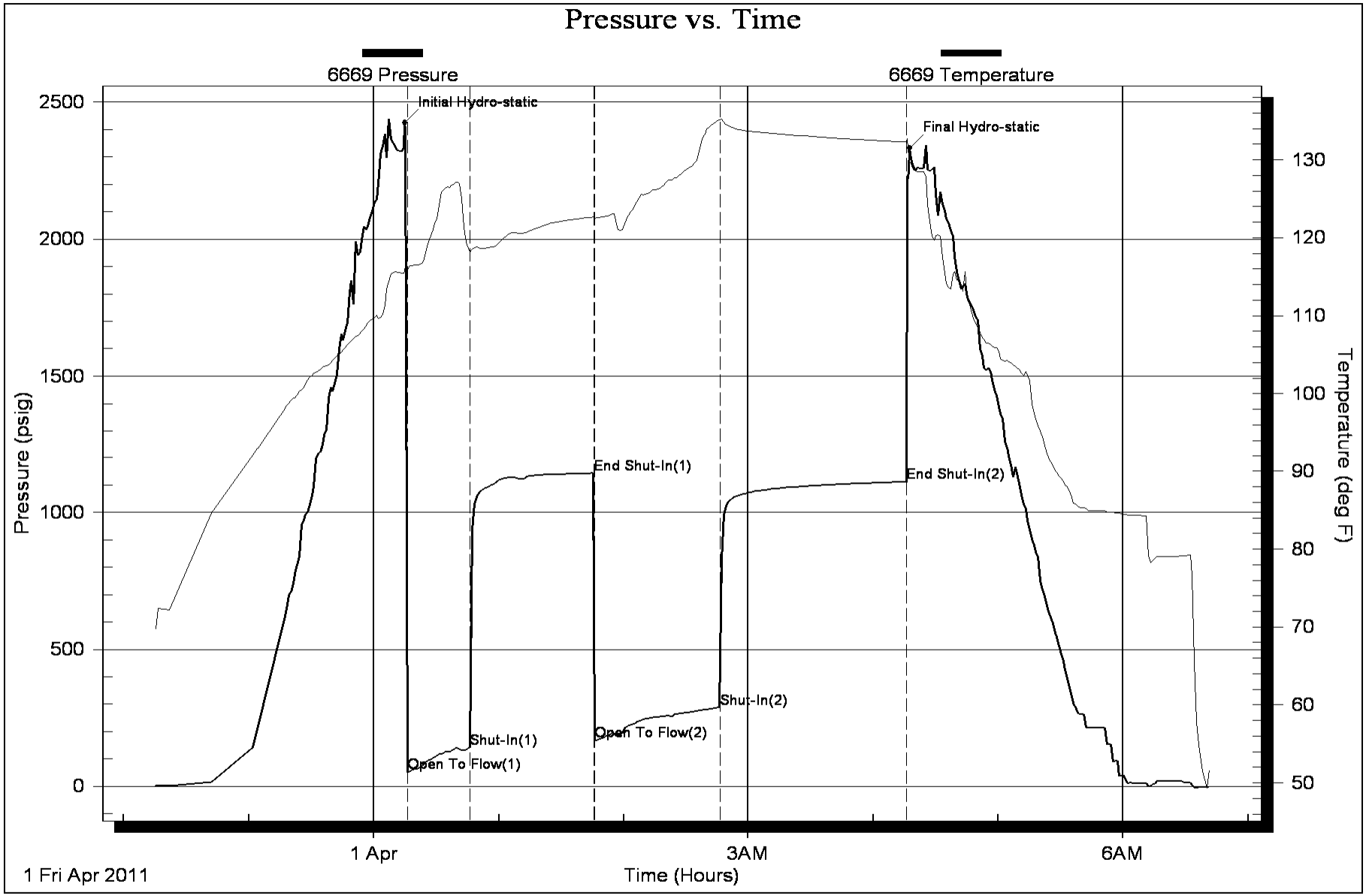
Length ft	Description	Volume bbl
477.00	mcw 10%m 90%w	2.346
124.00	m 100%m	1.739

Total Length: 601.00 ft Total Volume: 4.085 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW=.480@49.5*=7500 ppm


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2500
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
1 Apr
3AM
6AM
1 Fri Apr 2011
Time (Hours)

ALLIED
CEMENTING CO., LLC
Cementing & Acidizing Services
PO BOX 31 Russell, KS 67665

Voice: (785) 483-3887
Fax: (785) 483-5566

INVOICE

Invoice Number: 126643
Invoice Date: Mar 24, 2011
Page: 1

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

Federal Tax I.D.#: 20-5975804

MPC/on

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Frahm A #1-18	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-01	Oakley	Mar 24, 2011	4/23/11

Quantity	Item	Description	Unit Price	Amount
195.00	MAT	Class A Common	16.25	3,168.75
7.00	MAT	Chloride	58.20	407.40
202.00	SER	Handling	2.25	454.50
27.00	SER	Mileage 202 sx @.11 per sk per mi	22.22	599.94
1.00	SER	Surface	1,125.00	1,125.00
54.00	SER	Pump truck Mileage	7.00	378.00
54.00	SER	Light Vehicle Mileage	4.00	216.00
1.00	CEMENTER	Alan Ryan		
1.00	CEMENTER	Terry Heinrich		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	OPER ASSIST	Jerry Yates		

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

$ 190.487

ONLY IF PAID ON OR BEFORE
Apr 18, 2011

Subtotal	6,349.59
Sales Tax	261.06
Total Invoice Amount	6,610.65
Payment/Credit Applied	
TOTAL	**6,610.65**

Per Judy
35%

OTTD

222236
WN $ 4388.29

ALLIED CEMENTING CO., LLC. 039896

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Oakley KS

DATE 3/24/11	SEC. 18	TWP. 10	RANGE 34	CALLED OUT	ON LOCATION	JOB START 5:00pm	JOB FINISH 5:30pm
LEASE Graham A	WELL # 1-18	LOCATION Monument W to 25-40 Jct N TO Thomas Co. Rd F W to Rd 13 13/4S E into				COUNTY Thomas	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR Murfin 8
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 242'
CASING SIZE 8 5/8 DEPTH
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15'
PERFS.
DISPLACEMENT 14.4599

OWNER Same

CEMENT

AMOUNT ORDERED 195 Com 3% CC

EQUIPMENT

PUMP TRUCK # 422 CEMENTER Alan - Terry
HELPER Wayne
BULK TRUCK # 484 DRIVER Terry
BULK TRUCK # DRIVER

COMMON	195	@ 16.25	3168.75
POZMIX		@	
GEL		@	
CHLORIDE	7	@ 58.00	407.40
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	202	@ 2.25	454.50
MILEAGE	1/4 SK/mile		539.94
		TOTAL	4630.59

REMARKS:

Ran 8 5/8 Csg, Circulate, Mix Cement
Displace Cement, wash Out
Cellar
Cement Did Circulate
Thank You
Alan, Wayne, Terry
Tom

SERVICE

DEPTH OF JOB			11
PUMP TRUCK CHARGE			1125.00
EXTRA FOOTAGE		@	
MILEAGE	27 x 2	@ 7.00	378.00
MANIFOLD		@	
		@	
Lite vehicle Mileage 27 x 2		@ 4.00	216.00
		TOTAL	1719.00

CHARGE TO: Murfin Drilling
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	

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 Bernard Meyer

SIGNATURE Bernard Meyer

ALLIED
CEMENTING CO., LLC
Cementing & Acidizing Services
PO BOX 31 Russell, KS 67665

Voice: (785) 483-3887
Fax: (785) 483-5566

INVOICE

Invoice Number: 126763
Invoice Date: Apr 2, 2011
Page: 1

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

Federal Tax I.D.#: 20-5975804

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Frahm A #1-18	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-03	Oakley	Apr 2, 2011	5/2/11

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Class A Common	16.25	2,145.00
88.00	MAT	Pozmix	8.50	748.00
7.00	MAT	Gel	21.25	148.75
52.00	MAT	Flo Seal	2.70	140.40
229.00	SER	Handling	2.25	515.25
27.00	SER	Mileage 229 sx @.11 per sk per mi	25.19	680.13
1.00	SER	Plug to Abandon	1,250.00	1,250.00
54.00	SER	Pump Truck Mileage	7.00	378.00
54.00	SER	Light Vehicle Mileage	4.00	216.00
1.00	EQP	8.5/8 Dry Hole Plug	82.00	82.00
1.00	CEMENTER	Andrew Forslund		
1.00	EQUIP OPER	Larene Wentz		
1.00	OPER ASSIST	Earl Rebarchek		

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

$ 2206.23

ONLY IF PAID ON OR BEFORE

Apr 27, 2011

Subtotal	6,303.53
Sales Tax	460.16
Total Invoice Amount	6,763.69
Payment/Credit Applied	
TOTAL	**6,763.69**

- 2206.23

ALLIED CEMENTING CO., LLC. 043284

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Oakley

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
4-2-11	18	10	34			3:00 Am	9:00 Am
LEASE Frahm A	WELL # 1-18		LOCATION monument 2w 7N 6w 1 3/4S E into			COUNTY Thomas	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Murfin Drilling Rig 8
TYPE OF JOB PTA
HOLE SIZE 7 7/8 T.D. 4890'
CASING SIZE DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH 2768'
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER same

CEMENT

AMOUNT ORDERED 220 sks 60/40 4%gel ¼# Flo-seal

COMMON	132 sks	@ 16.25	2145.00
POZMIX	88 sks	@ 8.50	748.00
GEL	7 sks	@ 21.25	148.75
CHLORIDE		@	
ASC		@	
		@	
		@	
Flo-seal	52#	@ 2.70	140.40
		@	
		@	
		@	
		@	
		@	
HANDLING	229 sks	@ 2.25	515.25
MILEAGE	11¢ sk/mile		460.13
		TOTAL	4397.53

EQUIPMENT

PUMP TRUCK CEMENTER Andrew
423-281 HELPER Larene
BULK TRUCK
396 DRIVER Earl
BULK TRUCK
DRIVER

REMARKS:

25 sks @ 2768'
100 sks @ 1742'
40 sks @ 291'
15 sks mouse hole
30 sks Rat hole
10 sks 40'

thank you

SERVICE

DEPTH OF JOB 2768'

PUMP TRUCK CHARGE			1250.00
EXTRA FOOTAGE		@	
MILEAGE	27 miles x2	@ 7.00	378.00
MANIFOLD		@	
Light vehicle		@ 4.00	216.00
		@	
		TOTAL	1844.00

CHARGE TO: Murfin
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

8 5/8

1 Dry hole plug		@	82.00
		@	
		@	
		@	
		@	
		TOTAL	82.00

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.

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

PRINTED NAME Rodney Farr
SIGNATURE Rodney Farr

	MDCI Frahm 'A' #1-18 1240' FSL 1900' FWL Sec. 18-T10S-R34W 3247' KB						MDCI SS #1-16 1750 FSL 1750 FWL Sec. 16-T10S-R34W 3252' KB	
Formation	Sample Top	Datum	Ref	Log Tops	Datum	Ref	Log Top	Datum
Anhydrite	2754	+493	+6	2756	+491	+4	2765	+487
B/Anhydrite	2782	+465	+5	2785	+462	+2	2792	+460
Topeka	3908	-661	+11	3910	-663	+9	3924	-672
Heebner	4125	-878	+9	4128	-881	+6	4139	-887
Lansing	4168	-921	+9	4170	-923	+7	4182	-930
Stark	4396	-1149	+7	4395	-1148	+8	4408	-1156
Up Pawnee	4586	-1339	+8	4595	-1348	-1	4599	-1347
Cherokee	4673	-1426	+2	4680	-1433	-5	4680	-1428
Johnson Zn	4723	-1476	-3	4724	-1477	-4	4725	-1473
Mississippi	4824	-1577	+25	4826	-1579	+23	4854	-1602
RTD	4890						4900	
LTD				4892			4904	