



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1166469
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1166469

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



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

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

Sam Brownback, Governor

November 01, 2013

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

Re: ACO1
API 15-153-20943-00-00
Erickson 'B' 1-1
NE/4 Sec.01-05S-31W
Rawlins 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

Erickson 'B' #1-1 725' FNL 1650' FEL Sec. 1-5S-31W 2823' KB							Zola Unit #1-1 1400' FNL 1200' FEL Sec. 1-5S-31W 2871' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2555	+268	+3	2558	+265	Flat	2606	+265
B/Anhydrite	2598	+225	-5	2593	+230	Flat	2641	+230
Topeka	3641	-818	-1	3644	-821	-4	3688	-817
Heebner	3812	-989	-2	3814	-991	-4	3858	-987
Lansing	3858	-1035	Flat	3862	-1039	-4	3906	-1035
Stark	4025	-1202	-3	4026	-1203	-4	4070	-1199
BKC	4078	-1255	-4	4076	-1253	-2	4122	-1251
Pawnee	4190	-1367	-5	4192	-1369	-7	4233	-1362
Ft Scott	4259	-1436	-2	4263	-1440	-6	4305	-1434
Cherokee	4272	-1449	-3	4274	-1451	-5	4317	-1446
Mississippi	4380	-1557	+2	4384	-1561	-2	4430	-1559
RTD	4447						4490	
LTD				4450			4492	



WESLEY D. HANSEN Consulting Petroleum Geologist

212 N. Market, Suite 257, Wichita, KS 67202
Office: 316-267-7313 Cellular ; 316-772-6188

**KGS
AAPG
Kansas License #418**



**Scale 1:240 (5"=100') Imperial
Measured Depth Log**

Well Name: Murfin Drilling Co., Inc. #1-1 Erickson "B"
Location: 725' FNL, 1650' FEL of Section 1-5S-31W
License Number: API: 15-153-20943
Spud Date: 8-27-2013
Surface Coordinates: 725' FNL, 1650' FEL of Section 1-5S-31W
Region: Rawlins County, KS
Drilling Completed: 9-4-2013

**Bottom Hole Vertical hole
Coordinates:**
Ground Elevation (ft): 2812' **K.B. Elevation (ft):** 2823'
Logged Interval (ft): 3540' **To:** RTD **Total Depth (ft):** 4447'
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical - Displaced at 3308'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Murfin Drilling Co., Inc.
Address: 250 N. Water
Suite 300
Wichita, KS 67202

GEOLOGIST

Name: Wesley D. Hansen
Company: Wesley D. Hansen - Consulting Petroleum Geologist
Address: 212 N. Market, Suite 257
Wichita, KS 67202
Office: 316-263-7313 **Cellular:** 316-772-6188

COMMENTS

Contractor: Murfin Drilling Co., Inc. Rig #2
 Pusher: Arturo Cabezas

Surface Casing: 8 5/8" set at 225' w/190sx
 Production Casing: P&A

Mud by: Morgan Mud - Dave Lines was the engineer

DST's by: Trilobite - Chuck Kreutzer was the tester

Logs by: Pioneer Wireline (DIL, CN-CD, MEL, BHCS)

Deviation Surveys: 1/4 deg. @ 225'; 3/4 deg. @ 2518'; 1/4 deg. @ 3530'; 1/2 deg. @ 3890'; 1 deg. @4447'

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"	HTC		225'	225'	
2	7 7/8"	HTC	DP506	3530'	3305'	29 1/4
3	7 7/8"	HTC	GX22S	4447'	1142'	54 3/4

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	SAMPLE TOPS		LOG TOPS		COMPARISON WELL MDCI Zola Unit 1-1 1-5S-31W 2871' KB
	Depth	Datum	Depth	Datum	
Anhydrite	2555'	+268	2558'	+265	flat
B/Anhydrite	2598'	+225	2593'	+230	flat
Topeka	3641'	-818	3644'	-821	-4
Heebner	3812'	-989	3814'	-991	-4
Lansing	3858'	-1035	3862'	-1039	-4
Stark Shale	4025'	-1202	4026'	-1203	-4
BKC	4077'	-1254	4076'	-1253	-2
Pawnee	4190'	-1367	4192'	-1369	-7
Fort Scott	4259'	-1436	4263'	-1440	-6
Cherokee Shale	4272'	-1449	4274'	-1451	-5
Mississippian	4380'	-1557	4384'	-1561	-2
RTD	4447'	-1624			
LTD			4450'	-1627	

DRILL STEM TESTS

DST No. 1 Toronto-Lansing "A" and "B"
Interval: 3812'-3890'
Times: 30-60-60-90
Recovery: 62' M; 62' WCM (20w, 80m); 62'
MCW (40m, 60w); 176' MCW (10m, 90w),
chl. 20,000
FP: 23-114/118-185 SIP: 1261-1252
HP: 1936-1842 BHT: 120 deg. F

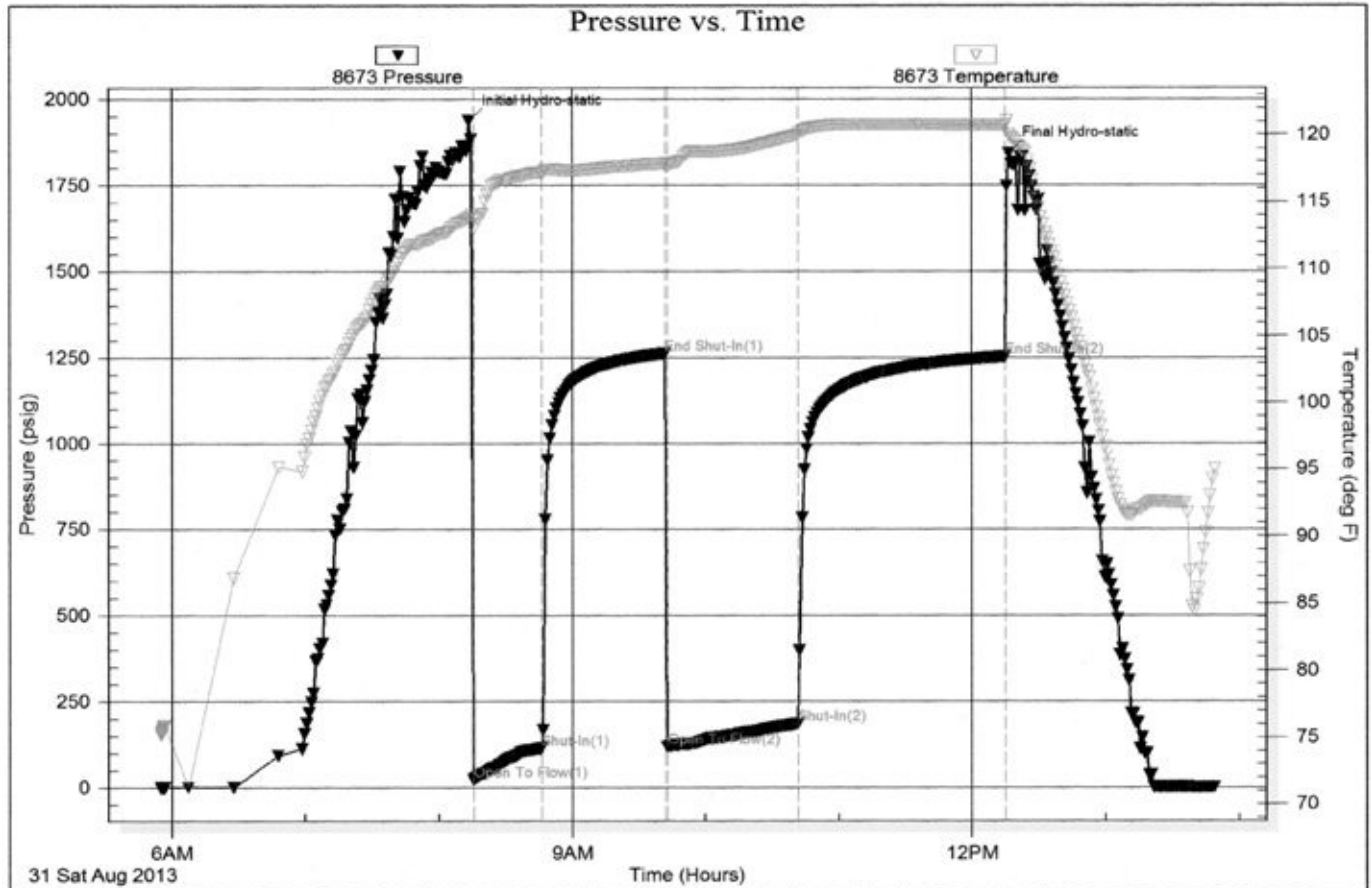
IFP: weak blow bldg. to 6 inches
ISIP: no return blow
FFP: weak blow at 5" mark, bldg. to 4 inches
FSIP: no return blow

Serial #: 8673

Inside Murfin Drilling company Inc

Erickson 'B' 1-1

DST Test Number: 1



DRILL STEM TESTS

DST No. 2 Lansing "F"
Interval: 3914'-3940'
Times: 30-60-60-90
Recovery: 5' M with oil specks
FP: 19-19/19-19 SIP: 35-31
HP: 1932-1842 BHT: 118 deg. F

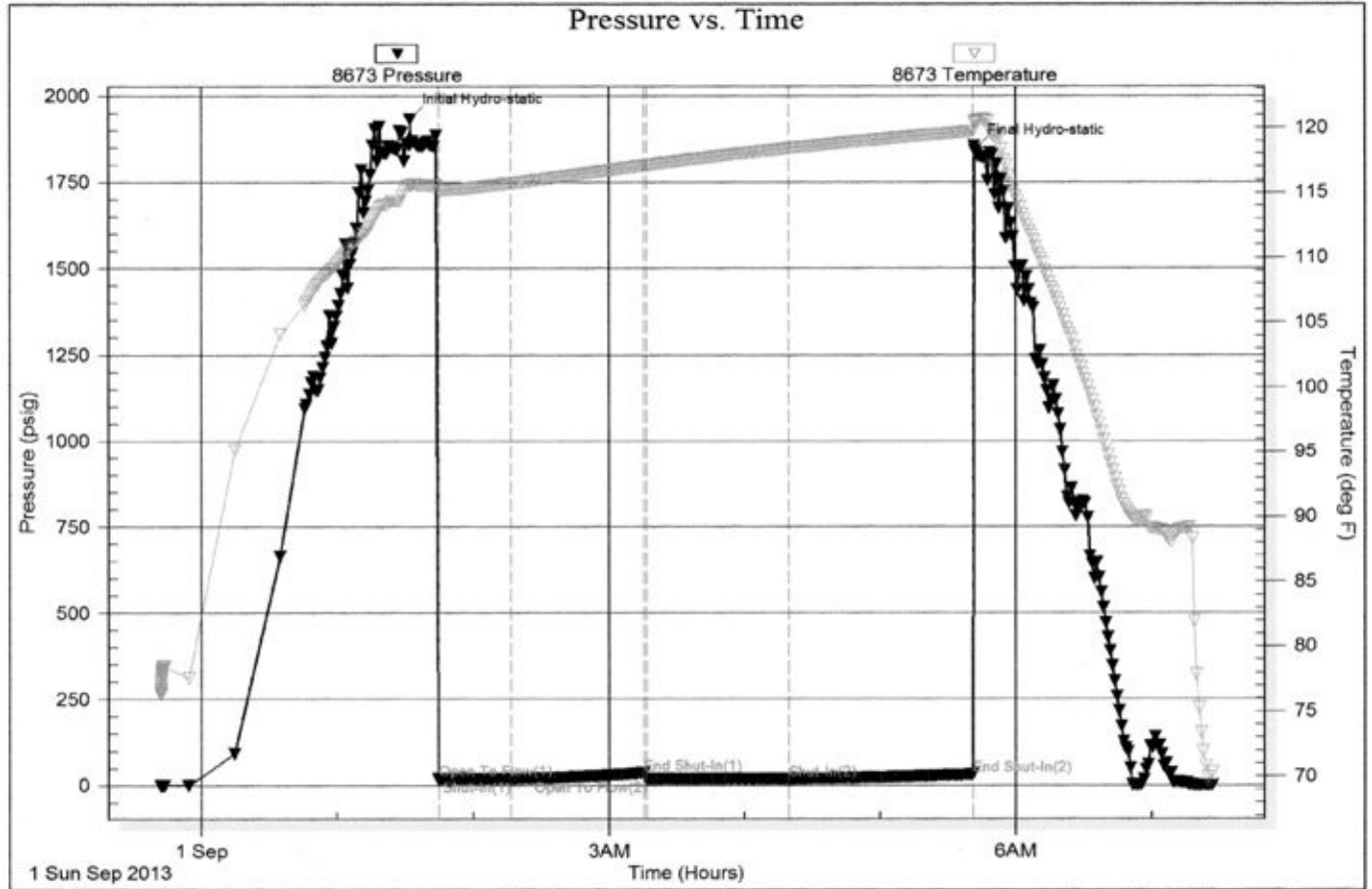
IFP: weak surface blow, died in 3 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow

Serial #: 8673

Inside Murfin Drilling company Inc

Brickson 'B' 1-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52737

Printed: 2013.09.01 @ 23:38:49

DRILL STEM TESTS

DST No. 3 Lansing "H" and "J"
Interval: 3960'-4030'
Times: 30-60-30-60
Recovery: 20' M w/oil specks
FP: 21-28/31-37 SIP: 1021-966
HP: 2004-1825 BHT: 117 deg. F

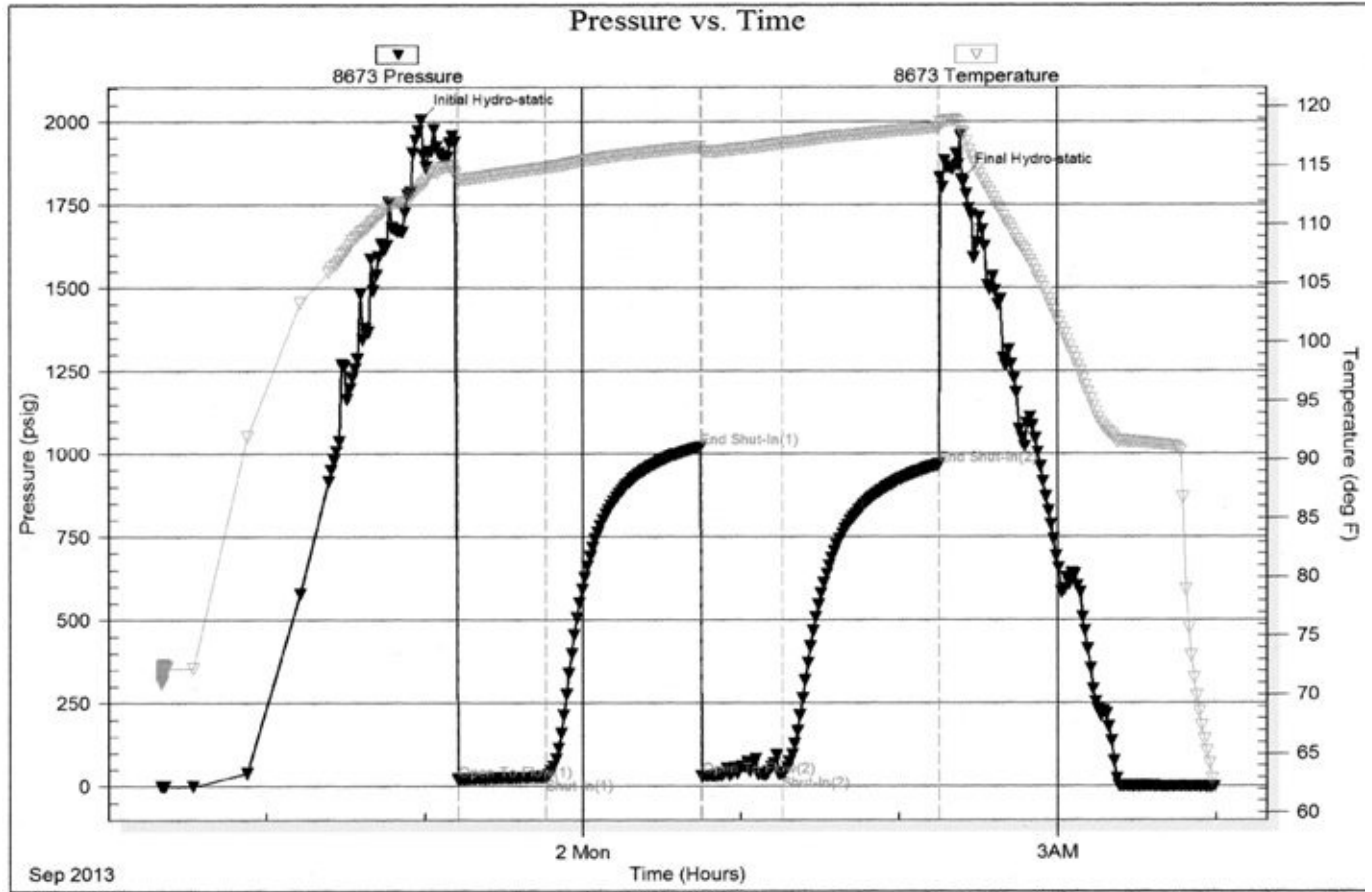
IFP: weak blow, died in 20 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow

Serial #: 8673

Inside Murfin Drilling company Inc

Erickson 'B' 1-1

DST Test Number: 3



DRILL STEM TESTS

DST No. 4 Cherokee
 Interval: 4260'-4310'
 Times: 30-60-30-60
 Recovery: 5' M
 FP: 25-25/28-40 SIP: 60-53
 HP: 2285-2106 BHT: 119 deg. F

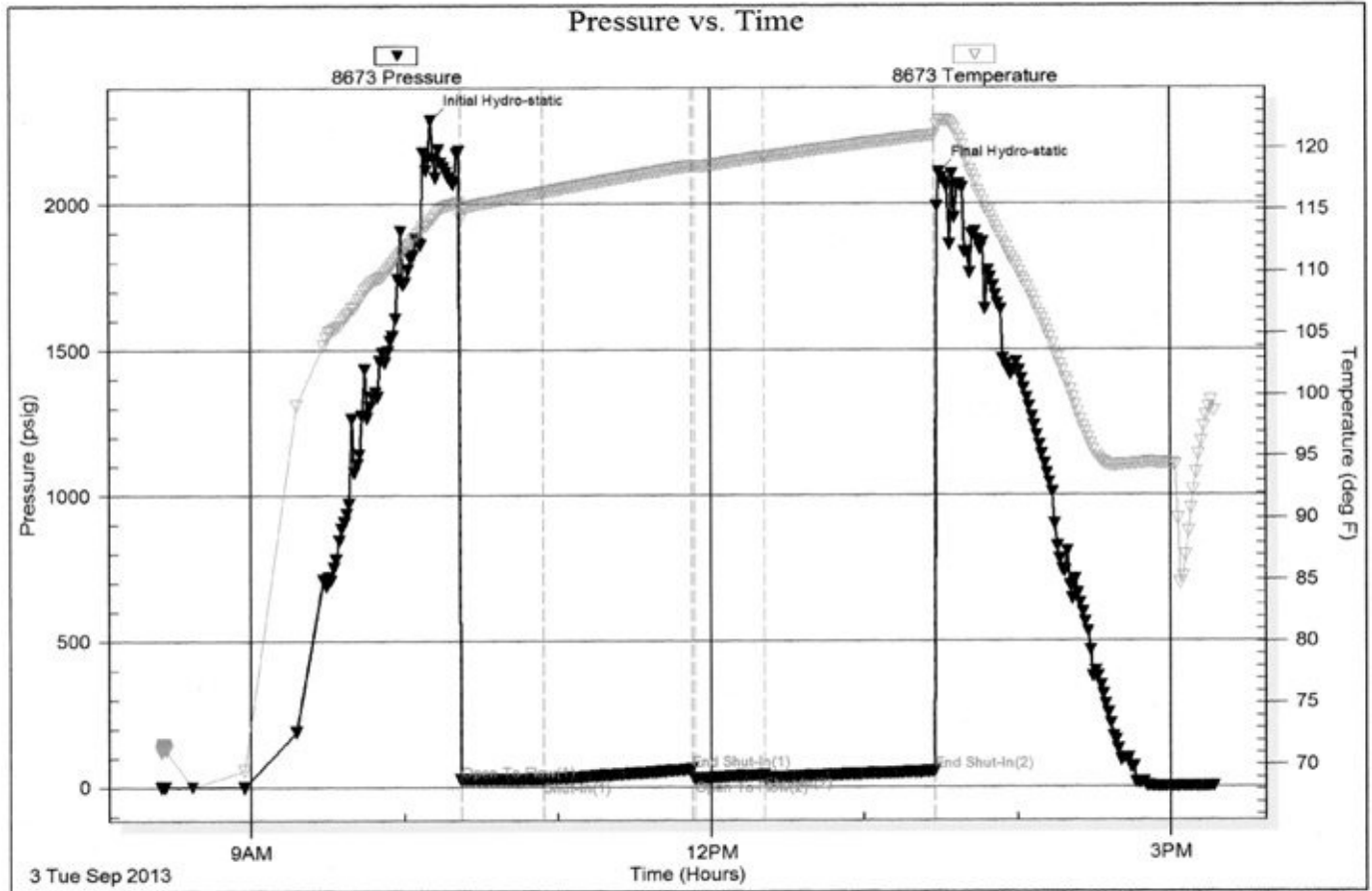
IFP: weak blow, died in 20 minutes
 ISIP: no return blow
 FFP: no blow
 FSIP: no return blow

Serial #: 8673

Inside Murfin Drilling company inc

Brickson 'B' 1-1

DST Test Number: 4






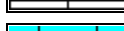
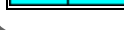



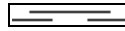
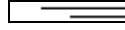
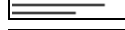



Trilobite Testing, Inc






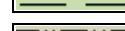

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Printed: 2013.09.03 @ 15:56:14

ROCK TYPES

 Anhy
 Cht
 Coal
 Congl
 Gyp
 Ls colorless
 Lmst

 Salt
 Shale
 Shcol
 Shgy
 Sltst
 Ss
 Carb sh

 Dol
 Dtd
 Gry sh
 Sandylms
 redshale
 Shale
 Sltstn

 Shlyslts
 Sltysch
 Sdy dolo
 Silty dolo
 Shy dolo
 Shaly ls

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite

- Plant
- Strom
- Fuss
- Oomold

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr

- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbstn
- Clystn
- Dol
- Grysh
- Grystl
- Lms
- Sandylms
- Sh
- Sltstn

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

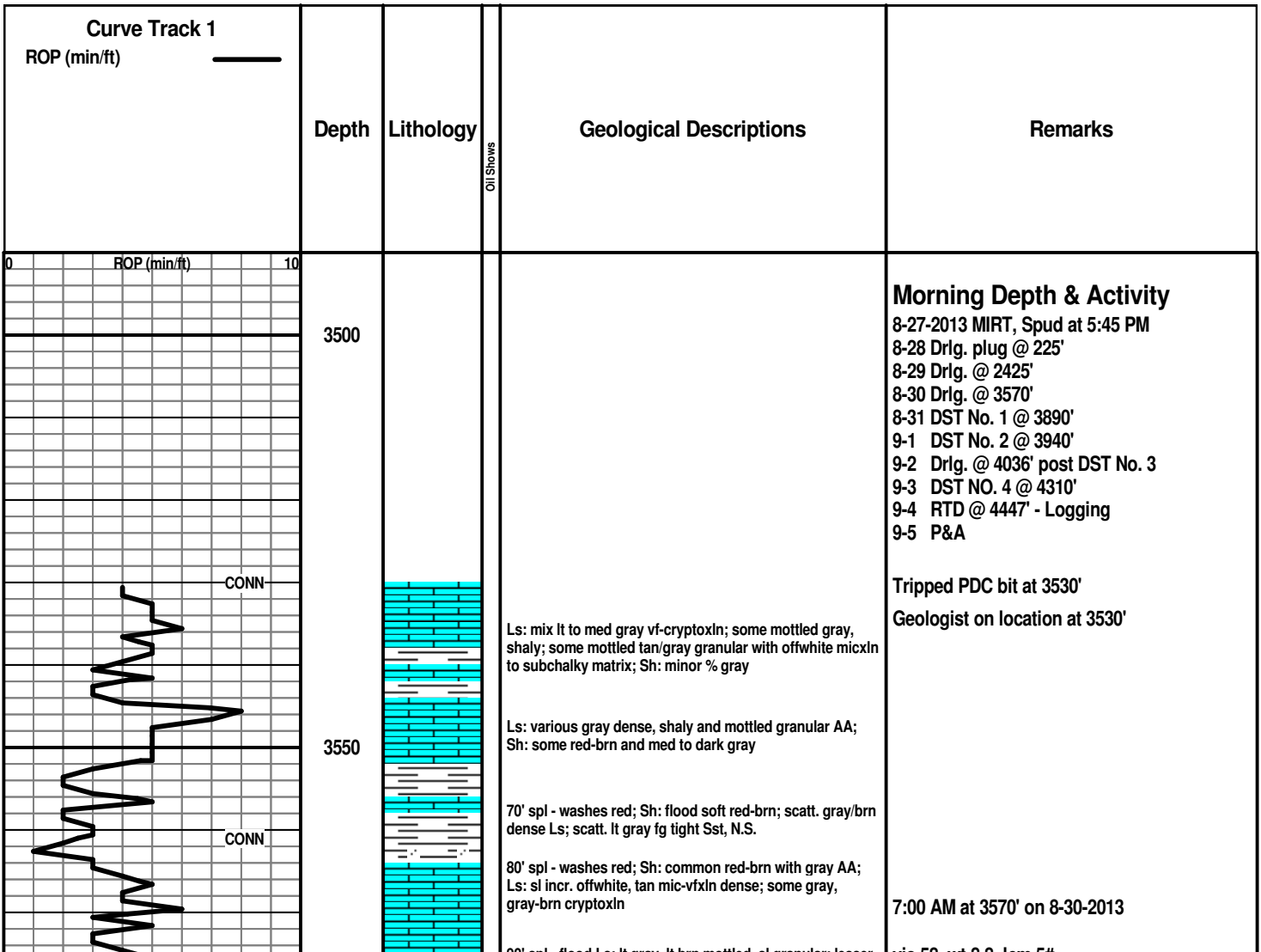
EVENTS

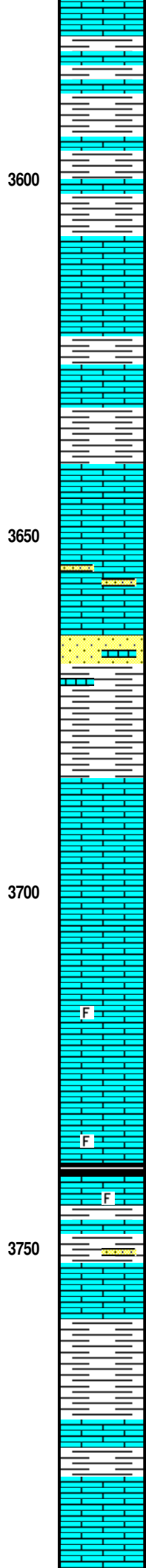
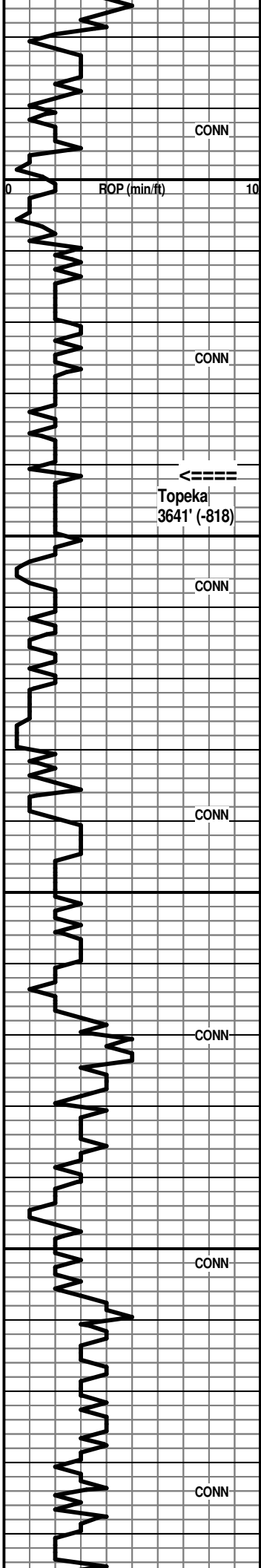
- Rft
- Dst top/base

OIL SHOWS

- Even
- Spotted
- Quest.

- Trace
- Dead
- Gas show





50' spl - flood Ls: lt gray, lt brn mottled, sl granular; lesser offwhite subchalky to chalky; rare shale

3600' washes red; Sh: strong influx soft red-brn; Ls: lesser various dense, AA

10' spl - washes red; flood Sh: soft red-brn; with lesser Ls: lt to med gray, lt gray-brn vf-cryptoxln

20' spl - washes red; Sh: red-brn AA with some med gray; Ls: some gray dense, shaly

30' spl - flood Ls: predom. lt to med gray, tinted with yellow IP; lesser gray-brn all cryptoxln; some offwhite chalky

40' spl - Ls: various AA with influx gray granular with offwhite micxn matrix; Sh: influx med to dark gray and black calcar.

50' spl - Ls: predom. lt to med gray, some purplish gray vf-cryptoxln; lesser offwhite, lt gray micxn, subchalky to chalky; Sh: vsi influx brick red, red-brn

60' spl - washes red; Sh: strong influx soft red-brn; Ls: mix offwhite, lt gray mic-vfxln, subchalky to chalky; some lt brn granular, NVP, N.S.

70' spl - washes red; Sh: common red-brn AA; Ls: incr. % of various AA

80' spl - Ls: influx offwhite, lt gray mic-vfxln dense and offwhite mic-fnxln subchalky to chalky; lesser lt gray cryptoxln; scatt. offwhite, tan fg dolomitic Sst, N.S.

90' spl - Sh: red-brn, silty IP, washes red; very common Ls: offwhite, lt gray mic-vfxln dense; white chalky and tan, lt brn fn granular, N.S.; more Sst: offwhite, tan fg, N.S.

3700' spl - flood Sh: red-brn, soft, gummy

10' spl - flood Ls: mix of tan, offwhite micxn, chalky and tan, offwhite mic-vfxln, dense, subchalky IP, N.S.

20' spl - Ls: very predom. chalky to subchalky AA; some tan fn granular with some inter-particle por., with micxn matrix

30' spl - Ls: predom. AA with sl influx lt gray vf-cryptoxln, NVP; occ foss. with intra-particle por., N.S.

40' spl - Ls: decr. various AA; influx lt to med gray, med brn cryptoxln, NVP, N.S.; tan granular NVP, N.S.

50' spl - Ls: various tan, lt gray, lt brn predom. cryptoxln; some tan, lt gray granular, poor-NVP and offwhite subchalky to chalky

60' spl - Ls: flood lt to med brn, some gray gran. and foss. IP with poor-NVP; lesser mottled tan, brn mic-fnxln, N.S.; Sh: sl influx black carbon.

70' spl - sl influx Sh: vc gray to black, gray-green, red-brn; some Sst: lt gray vf-fg, N.S.; Ls: influx various tan, lt gray, lt brn sl granular with some inter-particle por. and various cryptoxln, N.S.

80' spl - washes red; Sh: influx soft red-brn; Ls: mix AA with influx lt to med gray cryptoxln

90' spl - Ls: tan, lt brn vf-cryptoxln, some sl granular, NVP, N.S.; Sh: influx med to dark gray and lt gray soft, mushy

3800' spl - Ls: tan, lt brn fn granular with some inter-particle and small vug. por., N.S.; other tan, offwhite mic-vfxln dense

10' spl - Ls: tan, lt brn fn gran. AA; tan, offwhite mic-fnxln with poor subchalky; influx offwhite subchalky to

Topeka 3641' (-818)

Morgan Mud Check at 3695'
 12:00 PM on 8-30-2013
 wt vis wl pH chl
 8.6 57 5.6 11.0 900
 PV YP GeIS lcm solids
 18 18 11/26 4# 2.2%

with pp por., subchalky, inflx onwhite mica to chalky, N.S.

20' spl - Ls: mix AA with some inter-particle and occ vug. por.

30' spl - Ls: mix AA with scatt. offwhite opq chert; Sh: some black carbon.

40' spl - incr. black carbon. shale; Ls: influx med to dark brn, gray, gray-brn cryptoxln; inflx lt to med gray shale and med gray silty shale

50'/52' spls - flood Siltst: lt brn, red-brn sl dolomitic, vf sandy IP; Ls: tan, lt brn vf-cryptoxln, granular IP with spotty vug. por. and inter-particle por. with dark brn to black oily stain, sfo, no odor; occ tan vfxln dolomite with patchy stain

CFS 3852' 20" spl - Ls: some shows AA with other tan, offwhite dense, NVP, N.S.; Sh: very soft lt gray, dark gray to black, red-brn; 45" Ls: various tan, offwhite mic-vfxln dense and gran. AA; Sh: AA

60' spl - flood Sh: lt to med red-brn, soft, gummy

70' spl - decr. Shale % AA; Ls: tan, cream mic-vfxln dense with poor pp por. with dark brn to black stain, gilsonitic IP, nfo, no odor

CFS 3870' 20" spl - Ls: flood tan, lt brn mic-vfxln and fn gran. with pp por., subchalky IP, N.S.; scatt. chips with shows AA; 45" spl >>>

80' spl - Ls: various cryptoxln and offwhite, tan dense AA; scatt. tan granular with inter-particle por. with dark brn pp stain, sfo, no odor

90' spl - Ls: mix AA, more gray, lt brn cryptoxln; trace tan gran. with dark brn to black stain; inflx Sh: red-brn, dark red-maroon

CFS 3890' spls >>>

3900' spl - trashy, multi-colored shales; 10' spl - very shaly AA; Ls: influx lt gray, tan gran., some spotty vug. por. with dark brn to black goeey oil stain and oil; some tan, offwhite mic-vfxln with patchy stain

CFS 3910' 20" spl - flood Ls: mix of tan, lt gray vf-cryptoxln; abund. offwhite, tan mic-vfxln dense, subchalky IP; some white chalky, N.S.; 45" spl - Ls: predom. var. AA; trace tan cryptoxln with vug. por., black stain, vsf sfo; trace offwhite micxln with spotty stain; Sh: lt to med gray, brick red

20'/30' spls - Ls: predom. various cryptoxln and dense subchalky AA; some offwhite micxln with patchy to sat. stain in dry spls; Sh: red-brn, dark red-maroon, med to dark gray

40' spl - Ls: several chips tan, lt brn gran. and foss. with vug. and inter-particle por., with vsf odor, fair-good sfo, sl gassy, patchy to sat. brn stain; occ gray gran. with inter-particle and black pp stain; CFS 3940' spls - >>>

CFS 3950' 30" spl - flood Ls: offwhite, tan mic-vfxln, subchalky to chalky; tan, lt gray vf-cryptoxln, some sl granular, N.S.; 60" spl - Ls: various AA; sl incr. dark red-brn shale

60' spl - Ls: sl influx tan cryptoxln with isolated vug. por. with dark stain; some offwhite mic-vfxln with poor pp por. with dead black stain; inflx Chert: lt gray, blue gray, tan opq sharp; 70' spl - Ls: influx lt to med gray, med brn cryptoxln and offwhite mic-vfxln dense, subchalky; Sh: sl influx dark gray to black carbon.

80' spl - washes red; Sh: soft red and gray-green; Ls: good influx mottled med to dark gray and med to dark brn cryptoxln, NVP, N.S.

86' spl - Ls: fair influx tan vf-cryptoxln with scatt. vug., pp, and edge por. with sl odor, lt brn stain, sl show dark brn oil, sl sg; lesser offwhite mic-vfxln dense, subchalky, some pp por. with patchy brn to black stain

CFS 3986' spls - >>>

4000' spl - Ls: mix AA with influx lt gray, lt to med brn mottled gran. NVP, N.S.; Sh: influx lt to med gray, some very soft lt gray

10' spl - washes red; Sh: flood red-brn, soft, gummy; Ls: mottled gran. AA with offwhite mic-vfxln dense, subchalky, N.S.

20' spl - Sh: red-brn soft, gummy

30' spl - Ls: sl influx tan fn gran. with pp and inter-particle por., some small vug. por. with ft-vsl odor, pp brn stain, good shows lt brn oil on break, sl sg; scatt. tan cryptoxln

Heebner Shale 3812' (-989)

DST No. 1 Toronto-Lansing "A" and "B"
Interval: 3812'-3890'
Times: 30-60-60-90
IFP: weak blow bldg. to 6 inches
ISIP: no return blow
FFP: weak blow at 5" mark, bldg. to 4 inches
FSIP: no return blow
Recovery: 62' M; 62' WCM (20w, 80m); 62' MCW (40m, 60w); 176' MCW (10m, 90w), chl. 20,000
FP: 23-114/118-185 SIP: 1261-1252
HP: 1936-1842 BHT: 120 deg. F

Lansing 3858' (-1035)

CFS 3870' 45" - Ls: flood tan, lt gray cryptoxln, NVP and offwhite, tan mic-vfxln dense, NVP, N.S.

CFS 3890' 30" spl - Ls: scatt. chips tan vf-cryptoxln, sl pelletic, with small vug. por., dark brn to black pp stain, sl sfo, no odor; some gray granular with good vug. and inter-particle por. with stain; other tan, gray cryptoxln and offwhite dense, N.S.; Sh: influx soft red-brn, mushy pale gray; 60" spl - Ls: more gray gran. with shows AA; tan, lt brn cryptoxln, occ sl pyritic, N.S.; decr. shale %

7:00 AM at 3890' on 8-31-2013
pipe strap was 1.04' short to the board

Morgan Mud Check at 3890'

11:00 AM on 8-31-2013
wt vis wl pH chl
9.3 62 6.4 10.5 1100
PV YP GeIS lcm solids
19 21 15/35 4# 7.1%

CFS 3940' 30" spl - Ls: flood offwhite, tan, lt gray mic-vfxln dense; lesser micxln-fn gran. with some pp por., N.S.; rare chips with shows AA; 60" spl - Ls: offwhite, lt gray mic-vfxln subchalky to chalky; lesser lt gray, lt brn cryptoxln, NVP, N.S.

7:00 AM at 3940' on 9-1-2013

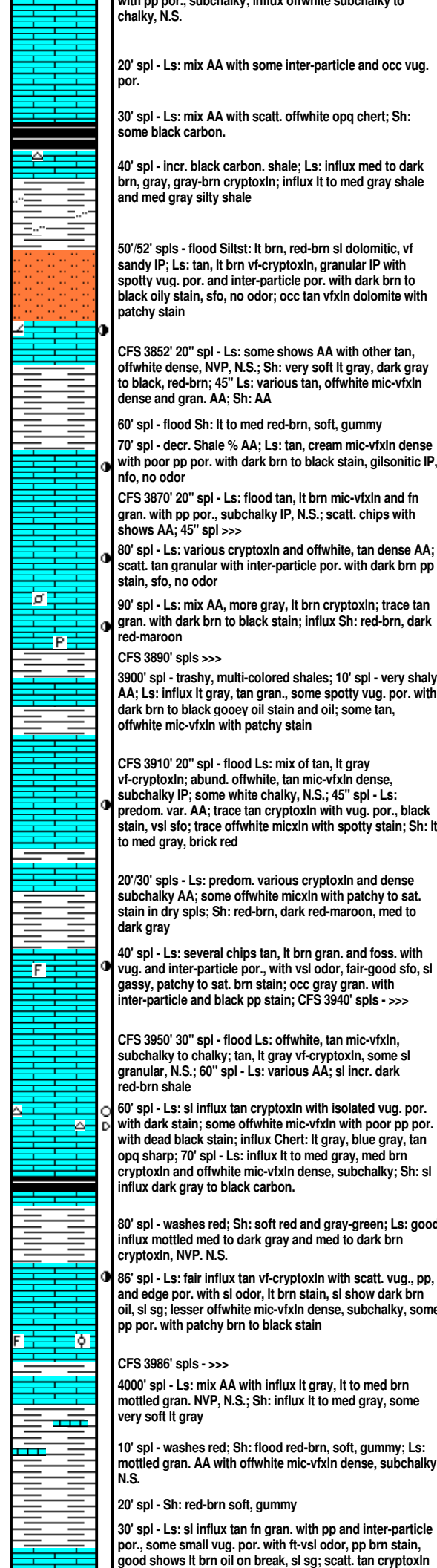
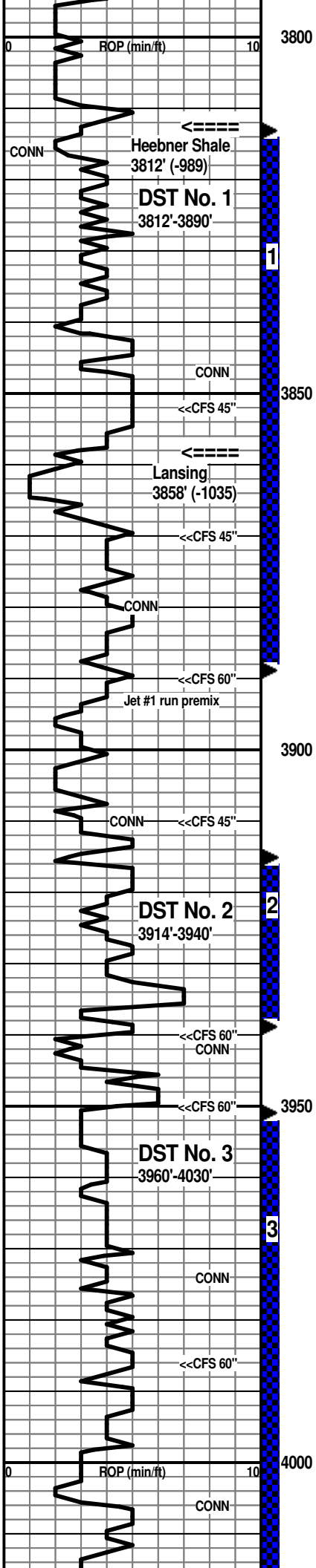
DST No. 2 Lansing "F"
Interval: 3914'-3940'
Times: 30-60-60-90
IFP: weak surface blow, died in 3 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow
Recovery: 5' M with oil specks
FP: 19-19/19-19 SIP: 35-31
HP: 1932-1842 BHT: 118 deg. F

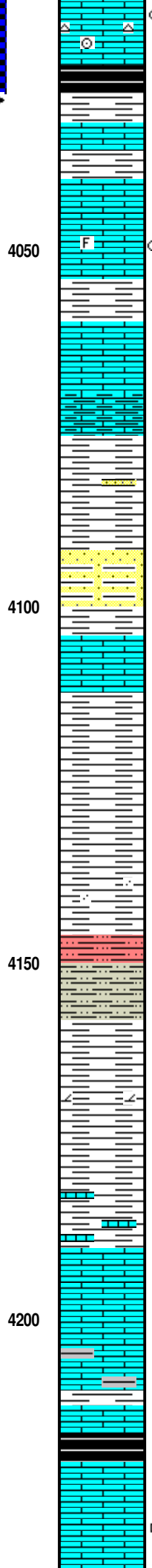
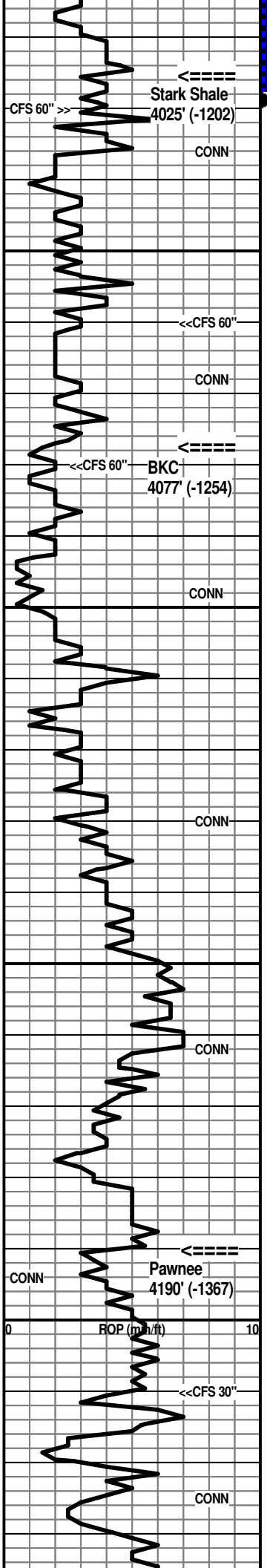
CFS 3986' 30" spl - Ls: scatt. shows AA, vsf odor; predom. mix tan, lt gray cryptoxln and offwhite mic-vfxln dense, subchalky, occ chalky, N.S.; some brn fn oolitic and foss. with inter-particle por., N.S.; 60" spl - Ls very predom. tan cryptoxln, NVP and offwhite mic-vfxln dense, subchalky to chalky

Morgan Mud Check at 3986'

2:30 PM on 9-1-2013
wt vis wl pH chl
9.0 65 5.6 11.5 1000
PV YP GeIS lcm solids
20 22 11/26 4# 5.0%

CFS 4030' 30" spl - Ls: predom. lt to med brn, lt gray cryptoxln; common offwhite dense; scatt. shows AA;





with irreg. vug. por. with lt brn stain, sfo; spls are predom. offwhite, tan mic-vfxln dense, subchalky and lesser lt gray, tan cryptoxln, NVP; sl influx orange chert

CFS 4030' spls - >>>

50' spl - Sh: red-brn, med to dark gray, gray-green; minor Ls: lt gray granular, NVP and offwhite mic-vfxln dense

60' spl - flood Ls: tan, offwhite mic-vfxln dense and tan, lt gray vf-cryptoxln, NVP, N.S.

CFS 4060' 30" spl - Ls: mix AA, more lt to med gray cryptoxln; one chip tan gran. sl foss. with pp stain, vsl sfo, no odor; 60" spl - Ls: tan, lt to med gray vf-cryptoxln and offwhite, tan mic-vfxln dense, subchalky to occ chalky; persistant med to dark red-brn, lt to med gray and brick red shales

80' spl - Ls: predom. tan, lt gray vf-cryptoxln, NVP; influx lt to med gray shaly Ls and calcar. shale

CFS 4080' 30" spl - common var. dense Ls's AA; Sh: good influx soft lt red and soft lt gray; spls wash red/gray; 60' spl - Sh: lt to med red-brn, lt to med gray, soft, mushy

90'/4100' spls - Sh: vc gray, black, red-brn; some lt gray soft vvfq Sst, N.S.; some tan, gray cryptoxln Ls

10' spl - very predom. Sh: AA; influx red-brn finely sandy shale and red-brn vfg Sst, N.S.

20' spl - abund. shales and red-brn vvfq Sst AA; influx Ls: offwhite, lt gray mic-vfxln dense and lt gray-brn granular, NVP, N.S.

30' spl - Sh: lt to med red-brn and lt to med gray, soft, mushy

40' spl - shales AA

50' spl - Sh: very predom. soft red-brn; lesser lt red speckled and vf sandy shale

60' spl - Sh: red-brn, vc gray with influx gray, silty; Siltst: influx red-brn and gray; Ls: fairly minor mottled tan, lt brn granular and tan mic-vfxln dense

70' spl - Sh: abund. red-brn, lt to med gray, silty IP; very minor Ls %

80' spl - flood very soft lt gray, mushy shales and lt gray, firm dolomitic shale

90' spl - Sh: lt to med gray and greenish gray; lesser red-brn and occ yellow-green

4200' spl - Ls: strong influx tan, lt brn cryptoxln and tan sl granular to occ oolitic with micxln matrix, poor to NVP

10' spl - Ls: becoming predom. tan, lt brn, lt gray cryptoxln; Sh: lt to med gray

CFS 4210' 30" spl - flood lt to med gray shaly Ls to calcar. shale

20' spl - very predom. Sh: lt to med gray; Ls: tan, lt to med gray vf-cryptoxln, dense, shaly IP

30' spl - Sh: flood dark gray to black carbon.; Ls: sl influx med to dark brn and gray cryptoxln

40' spl - flood Ls: new tan fn granular with pp and inter-particle por., N.S.; tan, lt to med brn cryptoxln and some offwhite chalky, N.S.; one chip tan dense with scatt. black gilsonite flecks

Sh: influx med to dark gray; 60" spl - Sh: good influx med to dark gray, some black; Ls: var. dense AA; trace crinoids

Stark Shale 4025' (-1202)

7:00 AM at 4036' on 9-2-2013

DST No. 3 Lansing "H" and "J"
Interval: 3960'-4030'
Times: 30-60-30-60
IFP: weak blow, died in 20 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow
Recovery: 20' M w/oil specks
FP: 21-28/31-37 SIP: 1021-966
HP: 2004-1825 BHT: 117 deg. F

BKC 4077' (-1254)

Morgan Mud Check at 4111'
11:55 AM on 9-2-2013
wt vis wl pH chl
8.9 74 5.6 11.0 900
PV YP GelS lcm solids
21 27 14/34 4# 4.3%

Pawnee 4190' (-1367)

DST No. 4 Cherokee
Interval: 4260'-4310'
Times: 30-60-30-60

DST NO. 4
4260'-4310'

CONN
Fort Scott
4259' (-1436)

Cherokee Sh.
4272' (-1449)

CONN

CONN

<<CFS 60"

CONN

CONN

CONN

CONN

CONN

CONN

CONN
Mississippian
4380' (-1557)

CONN

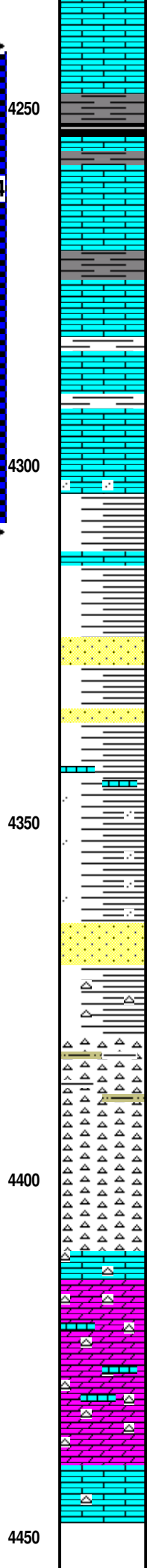
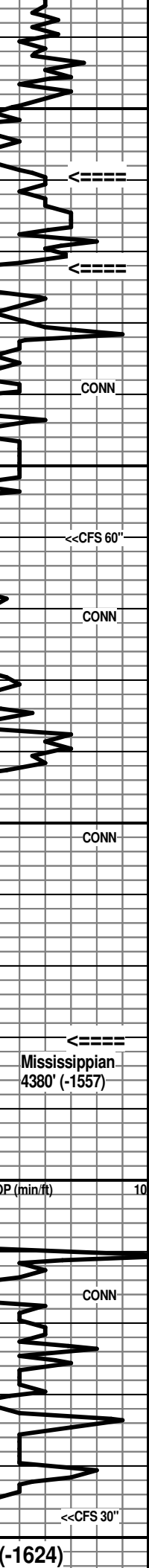
CONN

CONN

CONN

<<CFS 30"

RTD 4447' (-1624)



50' spl - Ls: flood lt to med gray vf-cryptoxln; Sh: med gray very calcar.

60' spl - Ls: some med brn cryptoxln and gray dense AA; one chip tan fnxln with pp brn stain, good sfo on break, poor inter-particle por., no odor; Sh: lt to med gray with sl influx dark gray to black carbon.

70' spl - Sh: abund. dark gray to black; Ls: influx med to dark brn, dark gray cryptoxln; lesser offwhite mic-vfxln dense, subchalky, N.S.

80' spl - flood Ls: lt to med brn sl mottled cryptoxln; lesser offwhite dense, subchalky AA; trace to occ dark gray granular with offwhite micxln matrix, N.S.

90' spl - Sh: dark gray to black; Ls: lt to med brn cryptoxln, scatt. lt brn cryptoxln with spotty stain, trace minute oil droplets, no odor; lesser tan fn granular, sandy IP and offwhite dense, subchalky, N.S.

4300' spl - Ls: predom. lt to med brn cryptoxln, some mottled, sl granular, NVP, N.S.; occ tan, lt brn vf-cryptoxln with scatt. poor vug. and pp por. with dark brn to black stain, sl show dark brn to black listless oil; Sh: dark gray to black

10' spl - Ls: tan, lt brn cryptoxln and tan, offwhite mic-vfxln dense; scatt. offwhite subchalky to chalky; trace lt gray, offwhite vf-fg Sst, shaly IP, N.S.

CFS 4310' spls - >>>

20' spl - Sh: lt to dark red-brn, lt to med gray, purple; only scatt. Ls

30' spl - Sh: multi-colored AA, some mottled yellow/purple; Ls: influx lt to med brn cryptoxln, yellow tinted IP

40' spl - Sh: mc AA with influx Sst: orange and red tinted fn-med clusters and common med to very coarse single grains, some dark red-brn fg, shaly, N.S.

50' spl - predom. mc shales AA, new dark yellow; scatt. tan, lt brn cryptoxln Ls; much decr. Sst %

60' spl - Sh: mc AA, some sandy; influx Sst: tan, red-brn fn-med grnd, shaly, N.S.; fairly common Ls: tan, lt brn, lt gray cryptoxln and offwhite micxln dense

70' spl - flood Sh: strong influx dark yellow with various red, purple, commonly mottled and sandy

80' spl - Sh: multi-colored, mottled and sandy AA; Sst: good influx offwhite, lt gray vf-fg calcar.; some tan and red tinted; some med to very coarse single grains, N.S.

90' spl - Sh: multi-colored AA, decr. %; Chert: good influx offwhite, tan weath. IP and tan, offwhite, orange opq, sharp, N.S.

4400' spl - Chert: offwhite, tan opq, sharp; some offwhite weath. with pp por., N.S.; Sh: influx dark yellow and dark orange Siltst, N.S.

10' spl - Chert: mix various fresh, sharp to weath. AA; occ vug. por. in mottled yellow chert, N.S.

20' spl - Chert: various AA; sl influx offwhite, sl dolomitic Ls and trace-occ tan sucrosic Dolomite, N.S.

30' spl - Ls and dolomite AA, very cherty, N.S.

40' spl - Dolomite tan, offwhite fn-vfxln, some good interxln and small vug. por.; tan, offwhite vfxln dolomitic Ls; common cherts AA

47' spl - Dolo: tan, offwhite mic-vfxln dense and some tan cryptoxln, limy; minor chert

CFS 4447' 30" spl - flood Ls: tan, offwhite mic-vfxln dense and tan sl granular to cryptoxln, NVP, N.S.; scatt. chert

IFP: weak blow, died in 20 minutes
 ISIP: no return blow
 FFP: no blow
 FSIP: no return blow
 Recovery: 5' M
 FP: 25-25/28-40 SIP: 60-53
 HP: 2285-2106 BHT: 119 deg. F

Fort Scott 4259' (-1436)

Cherokee Sh. 4272' (-1449)

CFS 4310' 30" spl - Ls: common various cryptoxln and dense AA; influx Sh: red-brn, med to dark gray, occ lt green and yellow/green; 60" spl - Sh: various AA, occ purple; common L's AA

7:00 AM at 4310' on 9-3-2013

Morgan Mud Check at 4310'
 11:30 AM on 9-3-2013
 wt vis wl pH chl
 9.3 72 6.4 10.5 900
 PV YP GelS lcm solids
 21 27 13/35 4# 7.1%

Mississippian 4380' (-1557)

7:00 AM at 4447' on 9-4-2013

RTD reached at 2:30 AM on 9-4-2013



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Wes Hansen

Erickson 'B' #1-1

1 5s 31w Rawlins KS

Start Date: 2013.08.31 @ 05:55:00

End Date: 2013.08.31 @ 13:48:30

Job Ticket #: 52736 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.05 @ 16:27:47



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52736

DST#: 1

ATTN: Wes Hansen

Test Start: 2013.08.31 @ 05:55:00

GENERAL INFORMATION:

Formation: **Toronto-LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:15:30

Time Test Ended: 13:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3812.00 ft (KB) To 3890.00 ft (KB) (TVD)

Reference Elevations: 2823.00 ft (KB)

Total Depth: 3890.00 ft (KB) (TVD)

2813.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 185.36 psig @ 3813.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.08.31

End Date:

2013.08.31

Last Calib.:

2013.08.31

Start Time: 05:55:01

End Time:

13:48:30

Time On Btm:

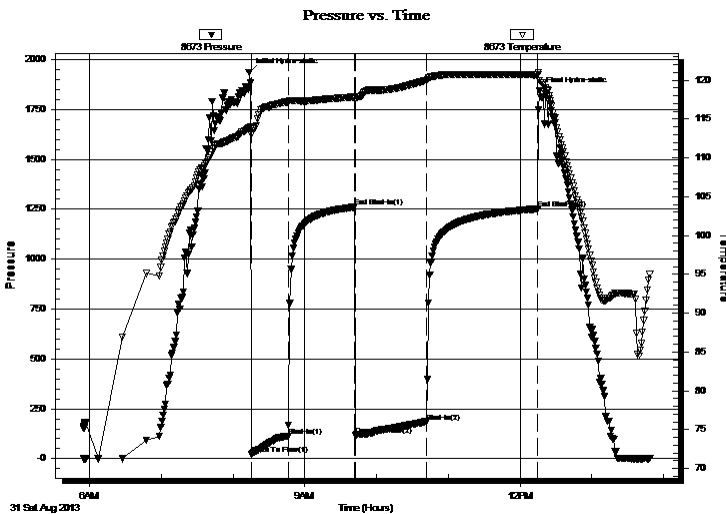
2013.08.31 @ 08:13:30

Time Off Btm:

2013.08.31 @ 12:16:30

TEST COMMENT: IF: Weak blow, Built to 6 in. Over 30 mins.
IS: No blow back.
FF: Weak blow after 5 mins. Built to 4 in. over 60 mins.
FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.02	113.84	Initial Hydro-static
2	22.82	112.97	Open To Flow (1)
33	114.02	117.20	Shut-In(1)
88	1261.12	117.84	End Shut-In(1)
89	118.26	117.68	Open To Flow (2)
148	185.36	119.98	Shut-In(2)
242	1252.33	120.69	End Shut-In(2)
243	1841.81	119.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
176.00	mcw -10%m90%w	0.87
62.00	mcw -40%m60%w	0.87
62.00	w cm-20%w 80%m	0.87
62.00	mud-100%m	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52736

DST#: 1

ATTN: Wes Hansen

Test Start: 2013.08.31 @ 05:55:00

Tool Information

Drill Pipe:	Length: 3626.00 ft	Diameter: 3.80 inches	Volume: 50.86 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 176.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 51.73 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3812.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	78.00 ft				
Tool Length:	106.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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

Shut In Tool	5.00			3789.00	
Hydraulic tool	5.00			3794.00	
Jars	5.00			3799.00	
Safety Joint	3.00			3802.00	
Packer	5.00			3807.00	28.00 Bottom Of Top Packer
Packer	5.00			3812.00	
Stubb	1.00			3813.00	
Recorder	0.00	8673	Inside	3813.00	
Recorder	0.00	8651	Outside	3813.00	
Perforations	8.00			3821.00	
change Over Sub	1.00			3822.00	
Drill Pipe	64.00			3886.00	
Change Over Sub	1.00			3887.00	
Bullnose	3.00			3890.00	78.00 Bottom Packers & Anchor

Total Tool Length: 106.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52736

DST#: 1

ATTN: Wes Hansen

Test Start: 2013.08.31 @ 05:55:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
176.00	mcw -10%m90%w	0.866
62.00	mcw -40%m60%w	0.870
62.00	w cm-20%w 80%m	0.870
62.00	mud-100%m	0.870

Total Length: 362.00 ft

Total Volume: 3.476 bbl

Num Fluid Samples: 0

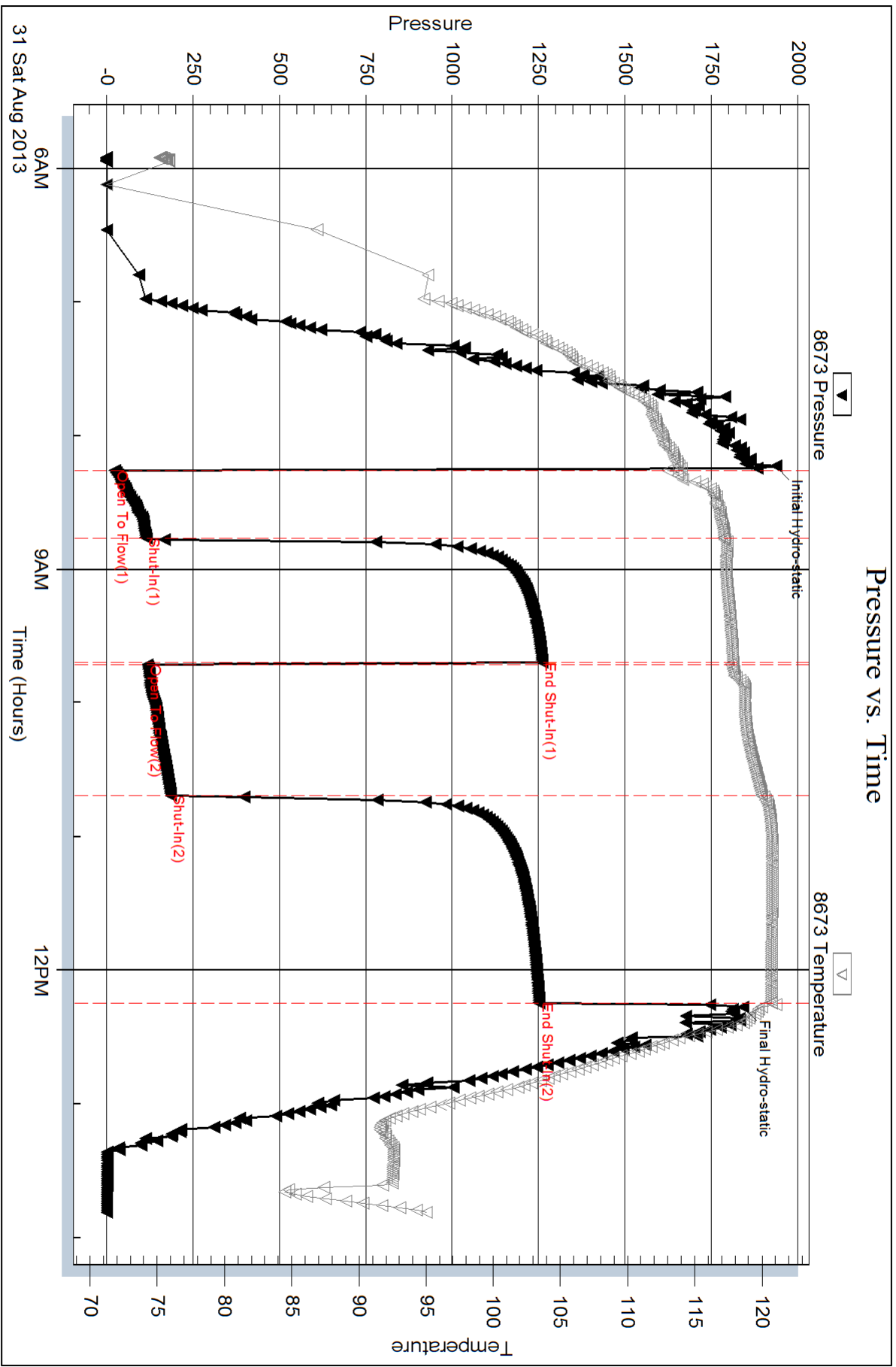
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

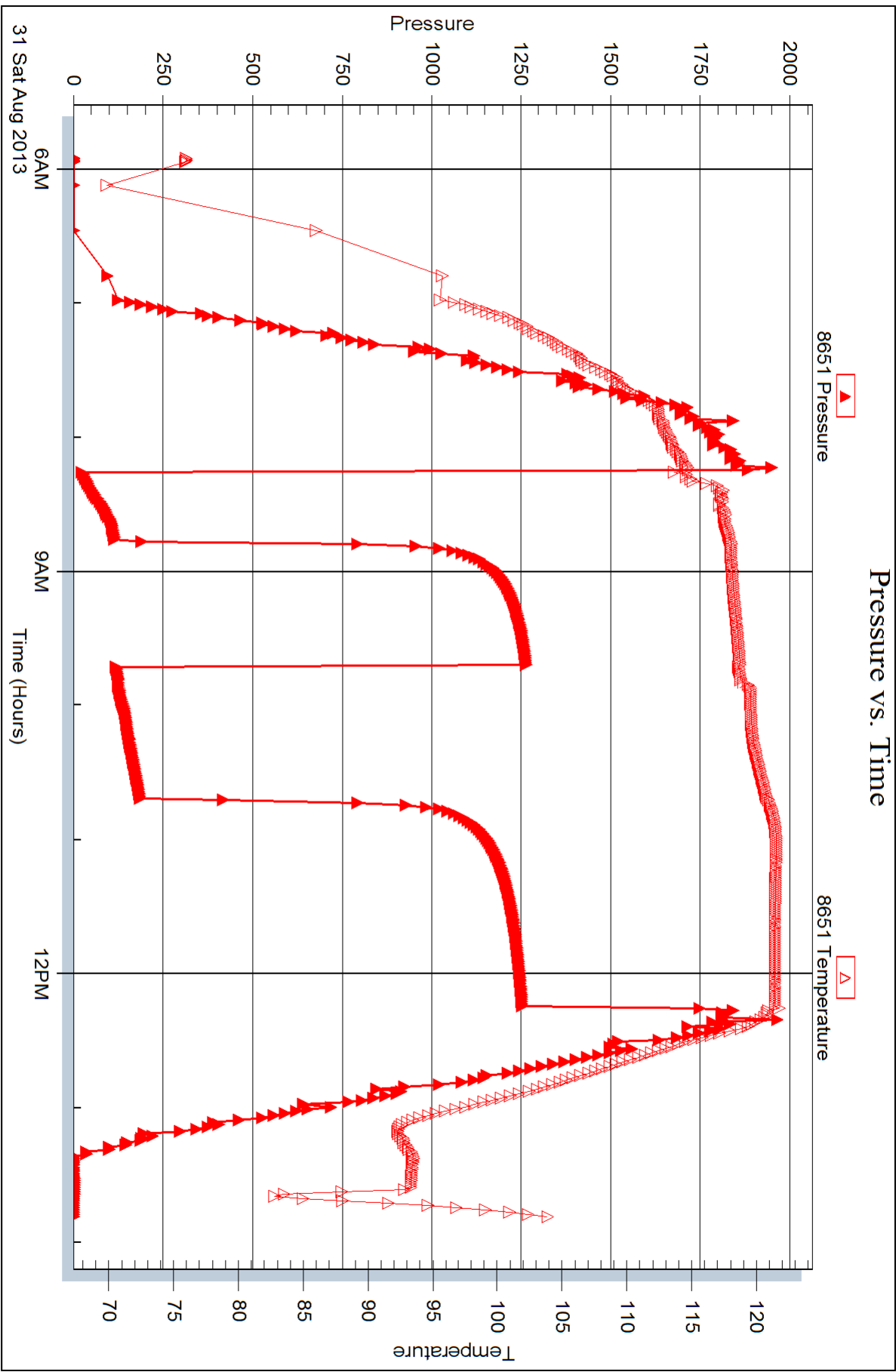


Serial #: 8651

Outside Murfin Drilling Company Inc

Erickson 'B' #1-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Wes Hansen

Erickson 'B' #1-1

1 5s 31w Rawlins KS

Start Date: 2013.08.31 @ 23:42:00

End Date: 2013.09.01 @ 07:26:30

Job Ticket #: 52737 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.09.05 @ 16:27:21

Murfin Drilling Company Inc
1 5s 31w Rawlins KS
Erickson 'B' #1-1
DST # 2
LKC-F
2013.08.31



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52737

DST#: 2

ATTN: Wes Hansen

Test Start: 2013.08.31 @ 23:42:00

GENERAL INFORMATION:

Formation: **LKC-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:44:30

Time Test Ended: 07:26:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3914.00 ft (KB) To 3940.00 ft (KB) (TVD)

Reference Elevations: 2823.00 ft (KB)

Total Depth: 3890.00 ft (KB) (TVD)

2813.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 18.72 psig @ 3915.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.08.31

End Date:

2013.09.01

Last Calib.:

2013.09.01

Start Time: 23:42:01

End Time:

07:26:30

Time On Btm:

2013.09.01 @ 01:32:00

Time Off Btm:

2013.09.01 @ 05:42:00

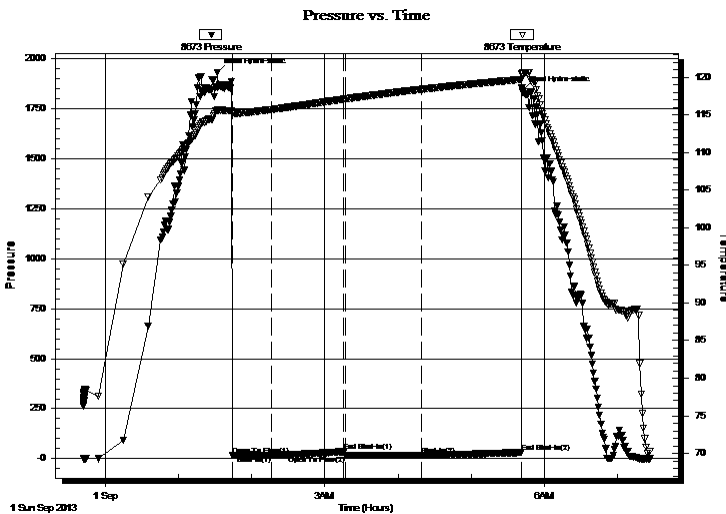
TEST COMMENT: IF: Weak surface blow, Started and stopped over 3 mins.

IS: No blow back

FF: No blow

FS: No bLow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1931.79	115.60	Initial Hydro-static
13	18.94	115.16	Open To Flow (1)
45	18.90	115.71	Shut-In(1)
104	35.49	117.07	End Shut-In(1)
105	18.52	117.09	Open To Flow (2)
168	18.72	118.39	Shut-In(2)
249	31.27	119.70	End Shut-In(2)
250	1841.96	120.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w ith oil specs	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52737

DST#: 2

ATTN: Wes Hansen

Test Start: 2013.08.31 @ 23:42:00

Tool Information

Drill Pipe:	Length: 3684.00 ft	Diameter: 3.80 inches	Volume: 51.68 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 233.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 52.83 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	66000.00 lb
Depth to Top Packer:	3914.00 ft			Final	66000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	54.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Shut In Tool	5.00			3891.00	
Hydraulic tool	5.00			3896.00	
Jars	5.00			3901.00	
Safety Joint	3.00			3904.00	
Packer	5.00			3909.00	28.00 Bottom Of Top Packer
Packer	5.00			3914.00	
Stubb	1.00			3915.00	
Recorder	0.00	8673	Inside	3915.00	
Recorder	0.00	8651	Outside	3915.00	
Perforations	22.00			3937.00	
Bullnose	3.00			3940.00	26.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Wes Hansen

1 5s 31w Rawlins KS
Erickson 'B' #1-1
Job Ticket: 52737 **DST#: 2**
Test Start: 2013.08.31 @ 23:42:00

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: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1100.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud w ith oil specs	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:

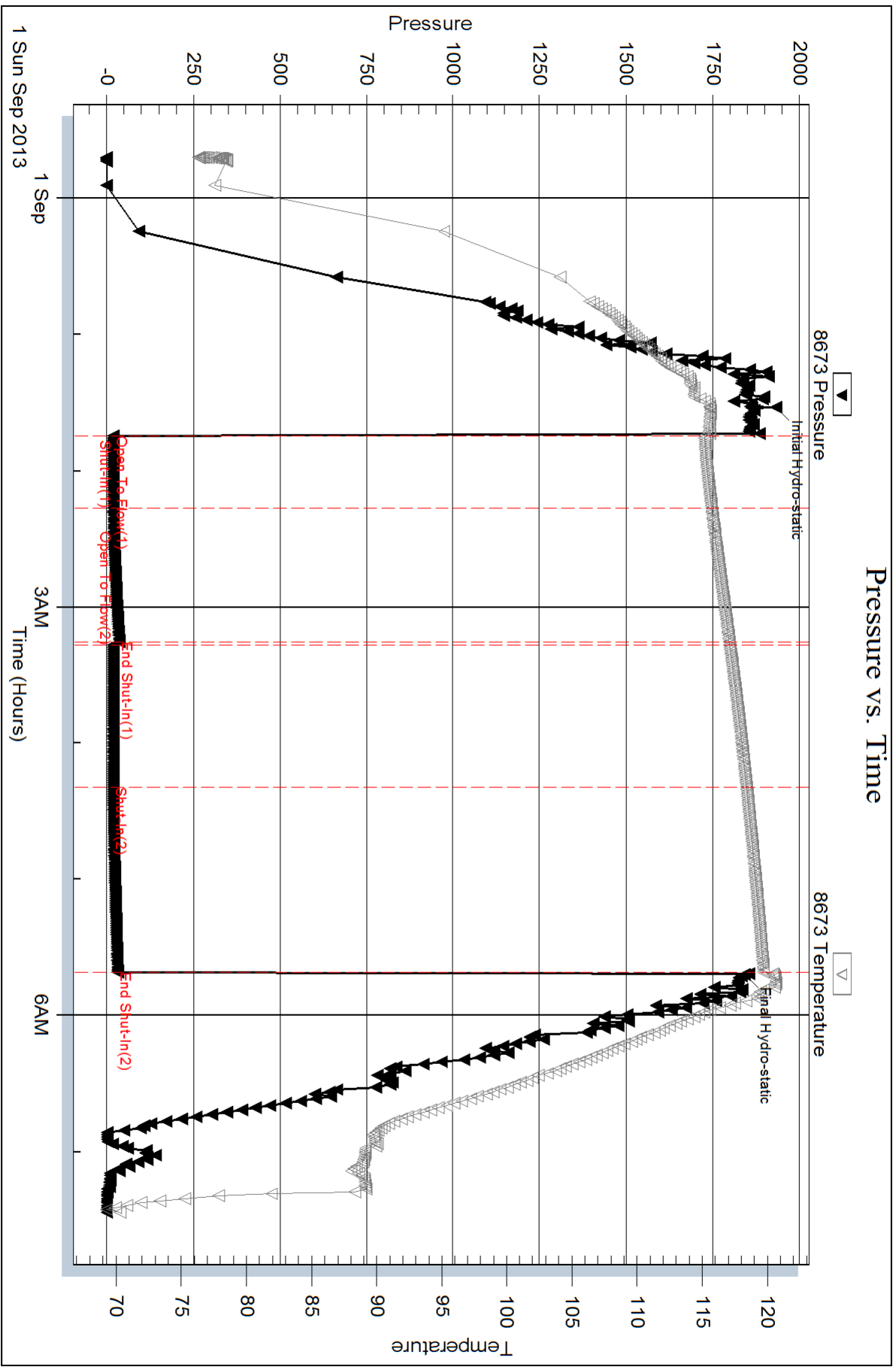
Serial #: 8673

Inside

Murfin Drilling Company Inc

Erickson 'B' #1-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52737

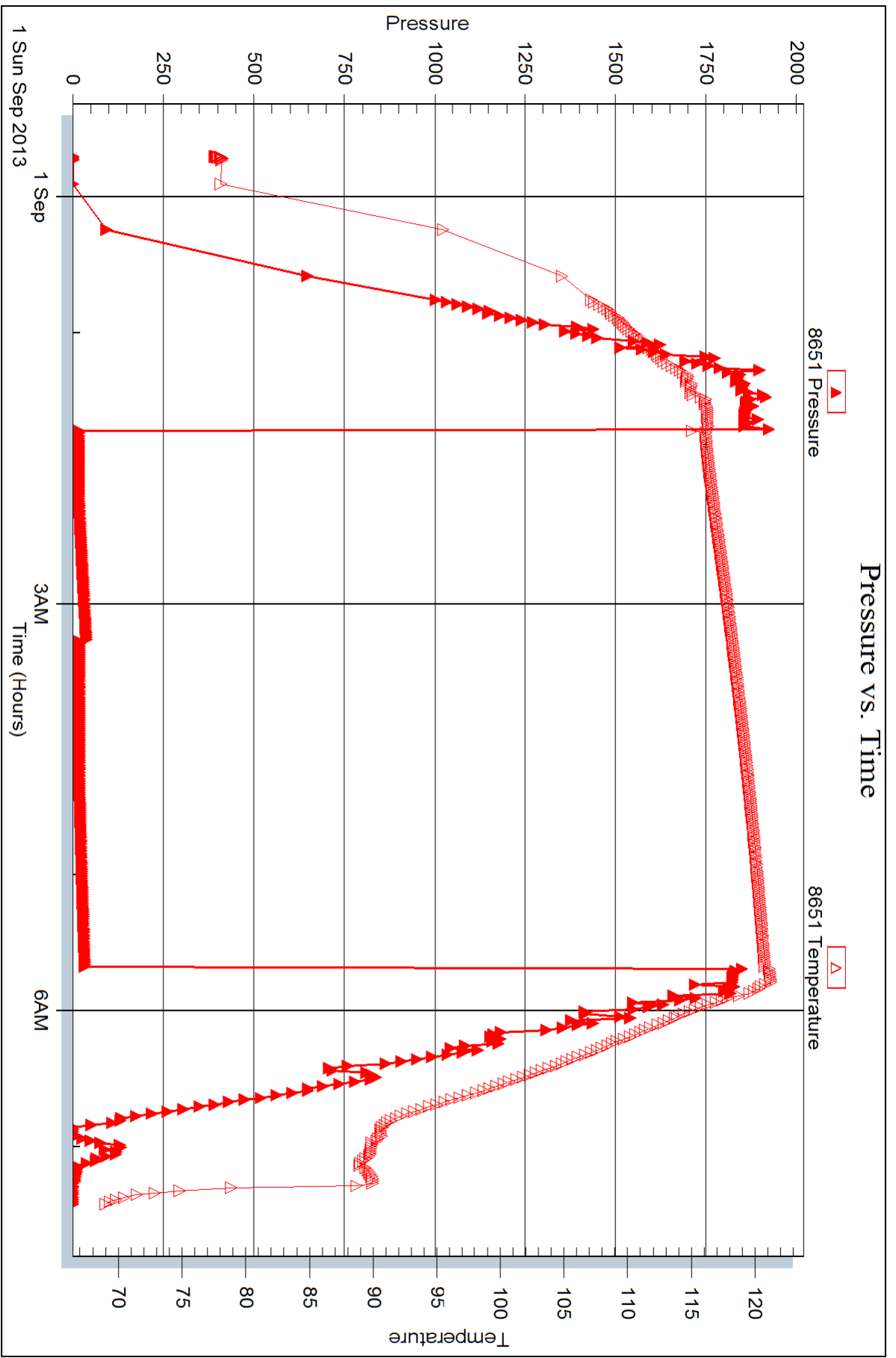
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Serial #: 8651

Outside Murfin Drilling Company Inc

Erickson 'B' #1-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Wes Hansen

Erickson 'B' #1-1

1 5s 31w Rawlins KS

Start Date: 2013.09.01 @ 21:20:00

End Date: 2013.09.02 @ 03:59:30

Job Ticket #: 52738 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.09.05 @ 16:26:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

ATTN: Wes Hansen

Job Ticket: 52738

DST#: 3

Test Start: 2013.09.01 @ 21:20:00

GENERAL INFORMATION:

Formation: **LKC-H,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:12:30

Time Test Ended: 03:59:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3960.00 ft (KB) To 4030.00 ft (KB) (TVD)

Reference Elevations: 2823.00 ft (KB)

Total Depth: 4030.00 ft (KB) (TVD)

2813.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 36.50 psig @ 3961.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.01

End Date:

2013.09.02

Last Calib.: 2013.09.02

Start Time: 21:20:01

End Time:

03:59:30

Time On Btm: 2013.09.01 @ 22:58:30

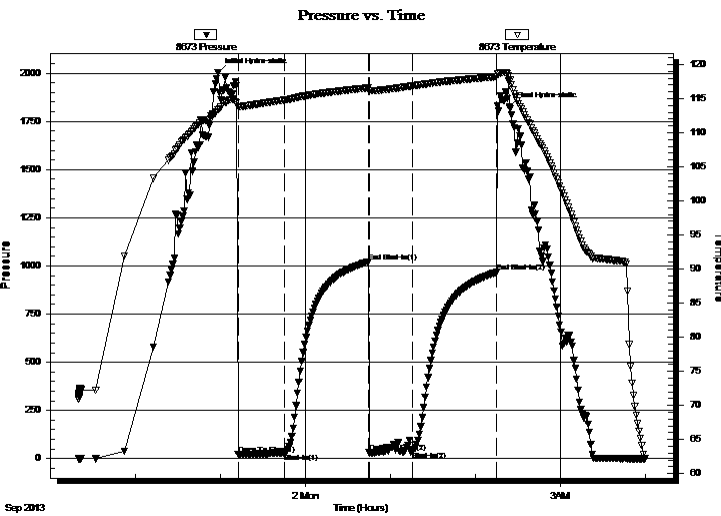
Time Off Btm: 2013.09.02 @ 02:24:00

TEST COMMENT: IF: Weak blow, Dead in 20 mns.

IS: No blow back.

FF: No blow.

FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.07	113.36	Initial Hydro-static
14	21.03	113.78	Open To Flow (1)
47	28.37	114.79	Shut-In(1)
106	1021.25	116.57	End Shut-In(1)
107	30.63	116.17	Open To Flow (2)
137	36.50	116.86	Shut-In(2)
197	966.46	118.22	End Shut-In(2)
206	1824.83	117.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud w ith oil specs	0.10

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52738

DST#: 3

ATTN: Wes Hansen

Test Start: 2013.09.01 @ 21:20:00

Tool Information

Drill Pipe:	Length: 3774.00 ft	Diameter: 3.80 inches	Volume: 52.94 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 176.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 53.81 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	66000.00 lb
Depth to Top Packer:	3960.00 ft			Final	66000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	98.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

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

Shut In Tool	5.00			3937.00	
Hydraulic tool	5.00			3942.00	
Jars	5.00			3947.00	
Safety Joint	3.00			3950.00	
Packer	5.00			3955.00	28.00 Bottom Of Top Packer
Packer	5.00			3960.00	
Stubb	1.00			3961.00	
Recorder	0.00	8673	Inside	3961.00	
Recorder	0.00	8651	Outside	3961.00	
Perforations	2.00			3963.00	
change Over Sub	1.00			3964.00	
Drill Pipe	32.00			3996.00	
Change Over Sub	1.00			3997.00	
Perforations	30.00			4027.00	
Bullnose	3.00			4030.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52738

DST#: 3

ATTN: Wes Hansen

Test Start: 2013.09.01 @ 21:20:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 55.89 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud w ith oil specs	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

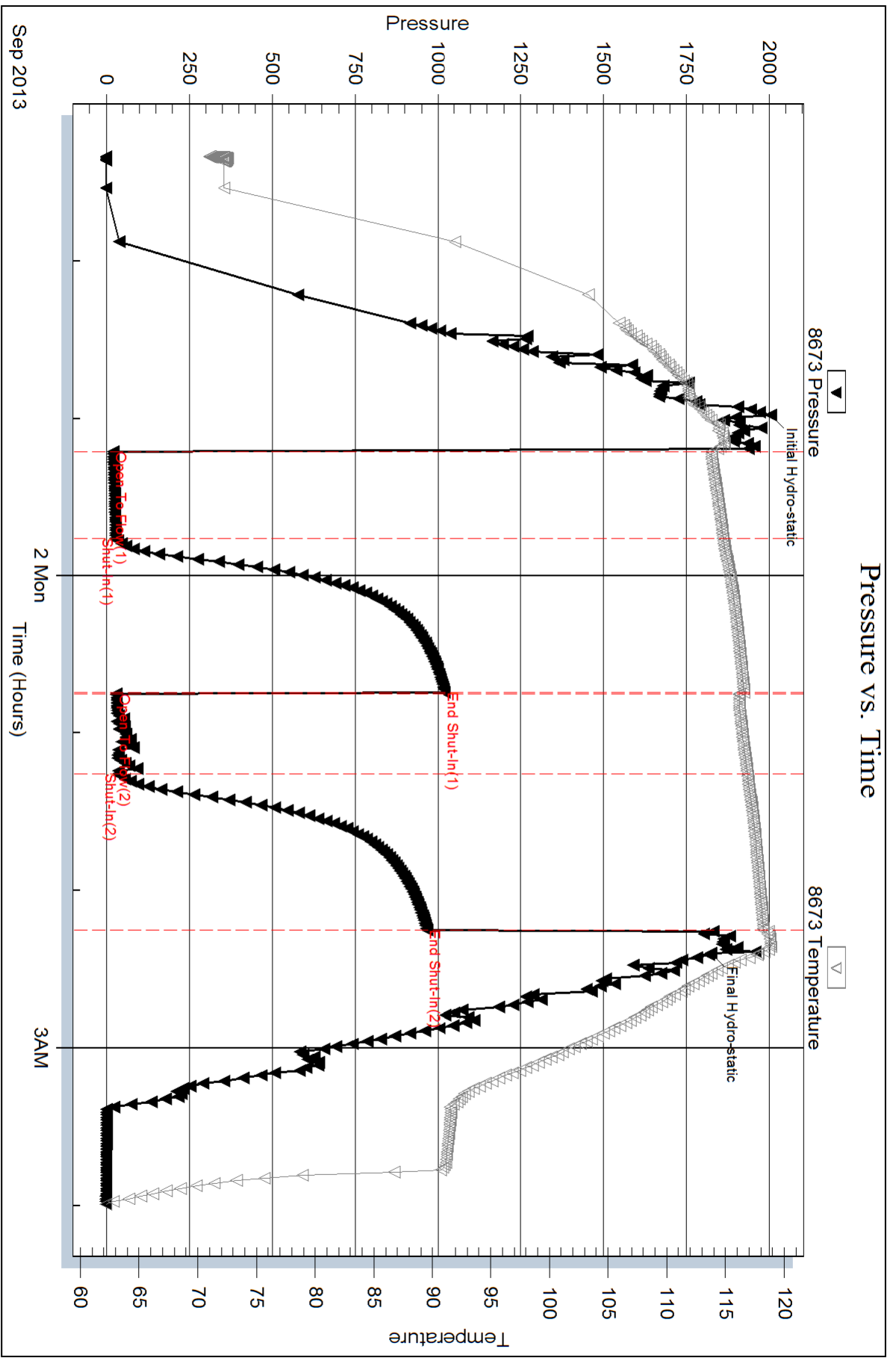
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Inside

Murfin Drilling Company Inc

Erickson 'B' #1-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 52738

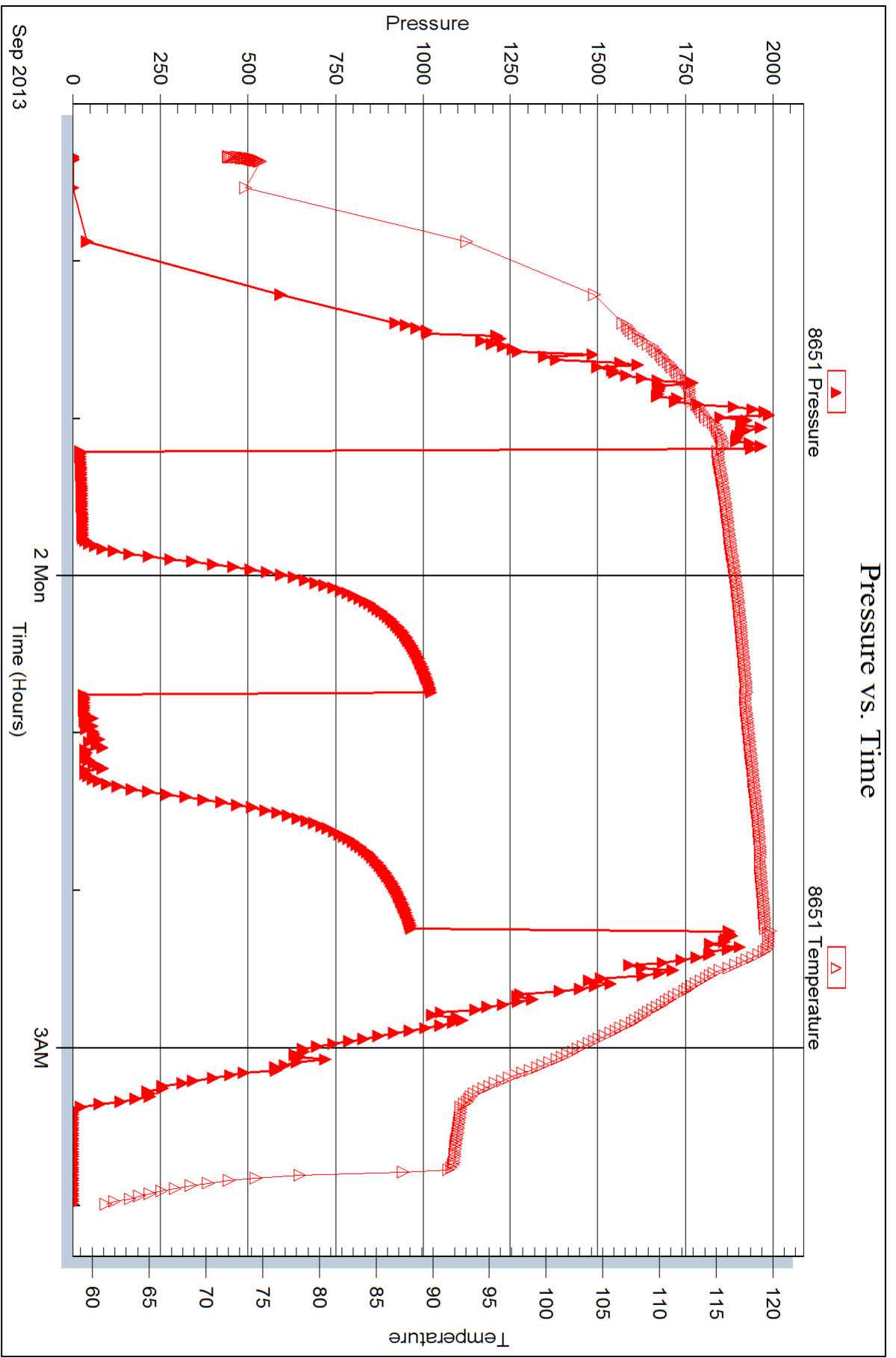
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Serial #: 8651

Outside Murfin Drilling Company Inc

Erickson 'B' #1-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 52738

Printed: 2013.09.05 @ 16:26:56



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Wes Hansen

Erickson 'B' #1-1

1 5s 31w Rawlins KS

Start Date: 2013.09.03 @ 08:25:00

End Date: 2013.09.03 @ 15:16:30

Job Ticket #: 52739 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.05 @ 16:26:27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc
 250 N. Water Ste. 300
 Wichita KS 67202
 ATTN: Wes Hansen

1 5s 31w Rawlins KS
Erickson 'B' #1-1
 Job Ticket: 52739 **DST#: 4**
 Test Start: 2013.09.03 @ 08:25:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 10:22:00
 Tester: Chuck Kreuzer Jr.
 Time Test Ended: 15:16:30
 Unit No: 61
 Interval: **4240.00 ft (KB) To 4310.00 ft (KB) (TVD)**
 Reference Elevations: 2823.00 ft (KB)
 Total Depth: 4310.00 ft (KB) (TVD)
 2813.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 10.00 ft

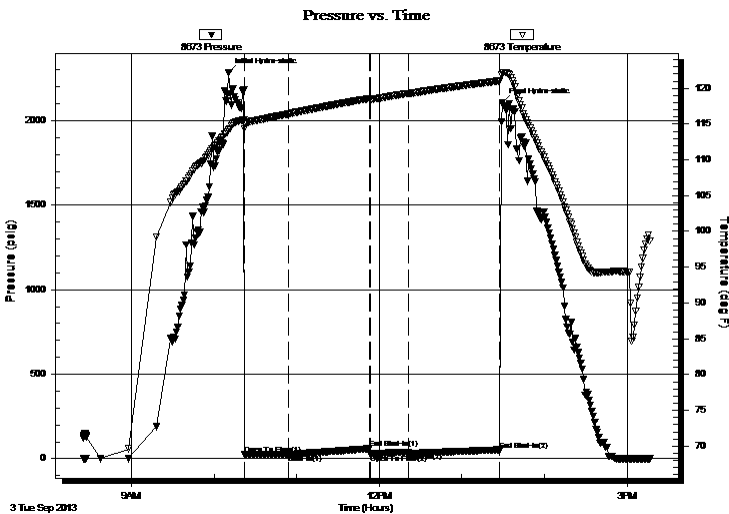
Serial #: 8673

Inside

Press @ Run Depth: 39.81 psig @ 4241.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.03 End Date: 2013.09.03 Last Calib.: 2013.09.03
 Start Time: 08:25:01 End Time: 15:16:30 Time On Btm: 2013.09.03 @ 10:10:30
 Time Off Btm: 2013.09.03 @ 13:29:30

TEST COMMENT: IF: Weak blow, Died in 20 mins.
 IS: No blow back over 60 mins.
 FF: No blow over 30 mins.
 FS: No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2285.07	114.20	Initial Hydro-static
12	24.50	114.36	Open To Flow (1)
44	25.42	116.43	Shut-In(1)
102	60.42	118.56	End Shut-In(1)
103	28.03	118.53	Open To Flow (2)
131	39.81	119.30	Shut-In(2)
197	53.38	121.03	End Shut-In(2)
199	2105.77	122.18	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52739

DST#: 4

ATTN: Wes Hansen

Test Start: 2013.09.03 @ 08:25:00

Tool Information

Drill Pipe:	Length: 4050.00 ft	Diameter: 3.80 inches	Volume: 56.81 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 176.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 57.68 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4240.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	98.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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

Shut In Tool	5.00			4217.00	
Hydraulic tool	5.00			4222.00	
Jars	5.00			4227.00	
Safety Joint	3.00			4230.00	
Packer	5.00			4235.00	28.00 Bottom Of Top Packer
Packer	5.00			4240.00	
Stubb	1.00			4241.00	
Recorder	0.00	8673	Inside	4241.00	
Recorder	0.00	8651	Outside	4241.00	
Perforations	2.00			4243.00	
change Over Sub	1.00			4244.00	
Drill Pipe	32.00			4276.00	
Change Over Sub	1.00			4277.00	
Perforations	30.00			4307.00	
Bullnose	3.00			4310.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

1 5s 31w Rawlins KS

250 N. Water Ste. 300
Wichita KS 67202

Erickson 'B' #1-1

Job Ticket: 52739

DST#: 4

ATTN: Wes Hansen

Test Start: 2013.09.03 @ 08:25:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud-100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

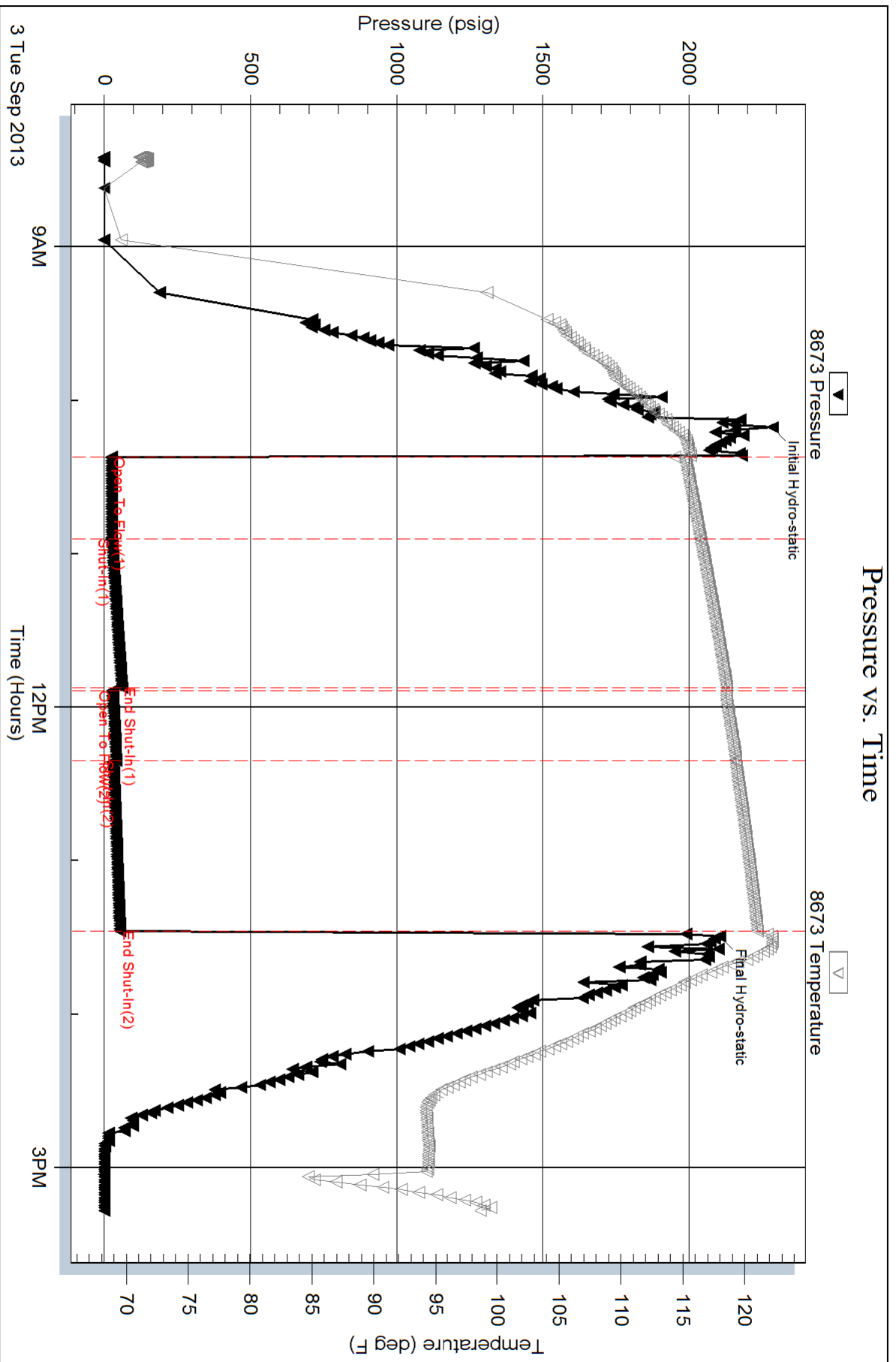
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

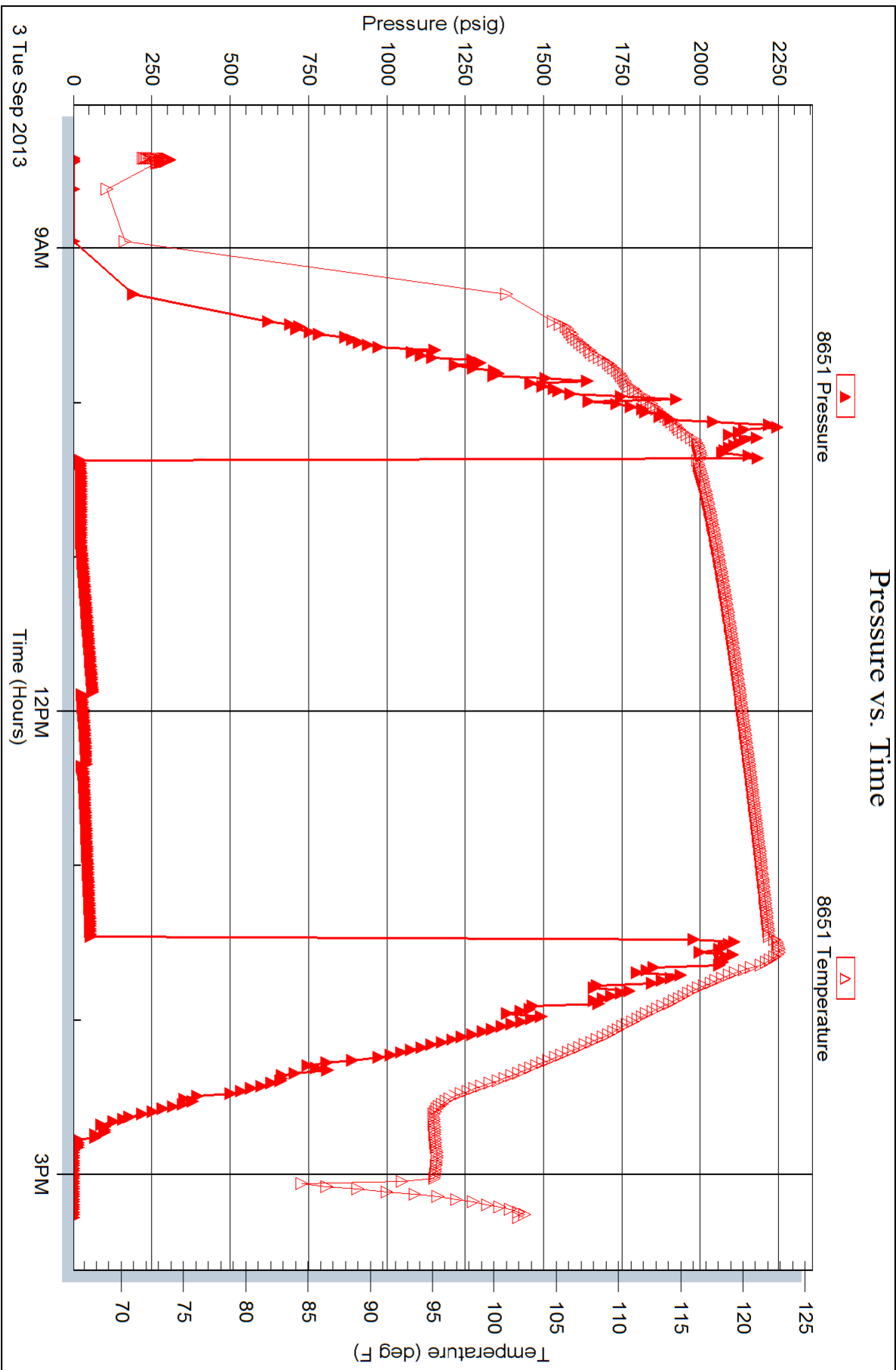


Serial #: 8651

Outside Murfin Drilling Company Inc

Erickson B' #1-1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52736

4/10

Well Name & No. Erickson 'B' 1-1 Test No. 1 Date 8-31-2013
 Company Murfin Drilling Comp. Inc. Elevation 2823 KB 2813 GL
 Address 250 N. Water Ste 300 Wichita KS 67203
 Co. Rep / Geo. Wes Hansen Rig Murfin #2
 Location: Sec. 1 Twp. 5S Rge. 31w Co. Rawlins State Ks.

Interval Tested 3812 3890 Zone Tested Toronto - LKC-B
 Anchor Length 78 Drill Pipe Run 3626 Mud Wt. 8.6
 Top Packer Depth 3807 Drill Collars Run 178 Vis 57
 Bottom Packer Depth 3812 Wt. Pipe Run -0- WL 5.6
 Total Depth 3890 Chlorides 900 ppm System LCM 4#

Blow Description IF: Weak blow built to 6in. over 30mins.
ISEI No blow back

FF: Weak blow after 5mins. built to 4in. over 60mins.

FSE: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>mud</u>				<u>100</u>
<u>62</u>	<u>wcm</u>			<u>20</u>	<u>80</u>
<u>62</u>	<u>mcw</u>			<u>60</u>	<u>40</u>
<u>176</u>	<u>mcw</u>			<u>90</u>	<u>10</u>
<u> </u>	<u> </u>				

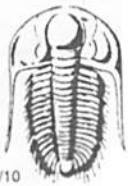
Rec Total 362 BHT 120 Gravity API RW .22 @ 100 °F Chlorides 20,000 ppm

(A) Initial Hydrostatic 1936 Test 1150 T-On Location 5:10
 (B) First Initial Flow 23 Jars 250 T-Started 5:55
 (C) First Final Flow 114 Safety Joint 75 T-Open 8:15
 (D) Initial Shut-In 1261 Circ Sub T-Pulled 12:15
 (E) Second Initial Flow 118 Hourly Standby T-Out 13:48
 (F) Second Final Flow 185 Mileage 23x2 = 46x1.50 71.30 Comments
 (G) Final Shut-In 1252 Sampler
 (H) Final Hydrostatic 1842 Straddle
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 30 Extra Packer
 Initial Shut-In 60 Extra Recorder
 Final Flow 60 Day Standby Sub Total 0
 Final Shut-In 90 Accessibility Total 1546.30
 MP/DST Disc't
 Sub Total 1546.30

Approved By Our Representative Chuck Pepp

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.

785-254-3188



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52737

4/10

Well Name & No. Erickson 'B' 1-1 Test No. 2 Date 8-31-13
 Company Murfin Drilling Co Elevation 2823 KB 2813 GL
 Address 250 N Water Ste 300 Wichita Ks. 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #2
 Location: Sec. 1 Twp. 5S Rge. 31W Co. Rawlins State KS

Interval Tested 3914 3940 Zone Tested LKC-F
 Anchor Length 26 Drill Pipe Run 3684 Mud Wt. 9.3
 Top Packer Depth 3909 Drill Collars Run 233 Vis 62
 Bottom Packer Depth 3914 Wt. Pipe Run 0 WL 6.4
 Total Depth 3940 Chlorides 1,100 ppm System LCM 4#

Blow Description IF: Weak surface blow, off and on for 3mins.

ISI: No blow back

FF: No blow

FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud with oil specs</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 118.4 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

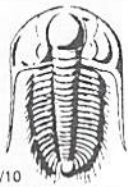
(A) Initial Hydrostatic 1932 Test 1150 T-On Location 23:10
 (B) First Initial Flow 19 Jars 250 T-Started 23:40
 (C) First Final Flow 19 Safety Joint 75 T-Open 1:44
 (D) Initial Shut-In 35 Circ Sub _____ T-Pulled 5:45
 (E) Second Initial Flow 19 Hourly Standby _____ T-Out 7:26
 (F) Second Final Flow 19 Mileage 23 x 2 = 46 x 1.50 = 71.30 Comments _____
 (G) Final Shut-In 31 Sampler _____
 (H) Final Hydrostatic 1842 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Extra Packer _____ Ruined Packer _____
 Final Flow 60 Extra Recorder _____ Extra Copies _____
 Final Shut-In 90 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1546.30
 Sub Total 1546.30 MP/DST Disc't _____

Approved By _____ Our Representative Chuck Wagner

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.

785-259-3188



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52738

Well Name & No. Erickson 'B' 1-1 Test No. 3 Date 9-1-2013
 Company Murfin Drilling Co Elevation 2823 KB 2813 GL
 Address 250 N. water ste. 300 wichita ks . 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #2
 Location: Sec. 1 Twp. 55 Rge. 31w Co. Rawlins State Ks

Interval Tested 3960 4030 Zone Tested LKC-H&J
 Anchor Length 70 Drill Pipe Run 3774 Mud Wt. 9.0
 Top Packer Depth 3955 Drill Collars Run 233 Vis 65
 Bottom Packer Depth 3960 Wt. Pipe Run 0 WL 5.6
 Total Depth 4030 Chlorides 1000 ppm System LCM 4#

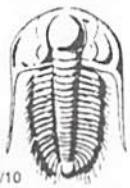
Blow Description IF: Weak blow, Died in 20 mins.
ISI: No blow back
FF: No blow
FST: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud w. oil specks</u>				

Rec Total 20 BHT 117 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2004 Test 1250 T-On Location 20:50
 (B) First Initial Flow 21 Jars 250 T-Started 21:20
 (C) First Final Flow 28 Safety Joint 75 T-Open 23:12
 (D) Initial Shut-In 1021 Circ Sub _____ T-Pulled 2:15
 (E) Second Initial Flow 31 Hourly Standby _____ T-Out 3:54
 (F) Second Final Flow 37 Mileage 23x2 = 46 x 1.50 71.30 Comments _____
 (G) Final Shut-In 966 Sampler _____
 (H) Final Hydrostatic 1825 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1646.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1646.30

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52739

Well Name & No. Erickson 'B' 1-1 Test No. 4 Date 9-3-13
 Company Murfin Drilling Co. Elevation 2823 KB 2813 GL
 Address 250 N. Water Ste 300 Wichita Ks. 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #2
 Location: Sec. 1 Twp. SS Rge. 3/W Co. Rawlins State Ks.

Interval Tested 4240 4310 Zone Tested Lherokce
 Anchor Length 70 Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 4235 Drill Collars Run 233 Vis 65
 Bottom Packer Depth 4240 Wt. Pipe Run -0- WL 5.6
 Total Depth 4310 Chlorides 1000 ppm System LCM 4#

Blow Description IF: Weak blow, Diced in 20 mins.
ISI: No blow back
FF: No blow
FSS: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</u>	
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 5 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2285</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>8:00</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>8:25</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>10:22</u>
(D) Initial Shut-In <u>60</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>13:25</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>15:16</u>
(F) Second Final Flow <u>40</u>	<input checked="" type="checkbox"/> Mileage <u>23x2 = 46x1.50</u> 142.60	Comments _____
(G) Final Shut-In <u>53</u>	<input type="checkbox"/> Sampler _____	<u>loaded tools 8/4 14:00</u>
(H) Final Hydrostatic <u>2106</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>133.33</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1 DAY 4 hrs</u>	Total <u>1850.93</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1717.60</u>	

Approved By _____ Our Representative Chuck [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.



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 1383 00
Invoice Date: Aug 27, 2013
Page: 1

Acct
LT

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

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Murfin	61311	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Aug 27, 2013	9/26/13

Quantity	Item	Description	Unit Price	Amount
190.00	CEMENT MATERIALS	Erickson B #1-1		
		Class A Common	17.90	3,401.00
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
199.50	CEMENT SERVICE	Cubic Feet	2.48	494.76
413.90	CEMENT SERVICE	Ton Mileage	2.60	1,076.16
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	EQUIPMENT OPERATOR	Tyler Flipse		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		

Subtotal	7,751.67
Sales Tax	304.07
Total Invoice Amount	8,055.74
Payment/Credit Applied	
TOTAL	8,055.74

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

\$ 2,713.08

ONLY IF PAID ON OR BEFORE

Sep 21, 2013



PO Box 93999
Southlake, TX 76092

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

*Acct.
Prod-LH*

INVOICE

Invoice Number: 138446

Invoice Date: Sep 4, 2013

Page: 1

Bill To:

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

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Murfin	60747	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Great Bend	Sep 4, 2013	10/4/13

Quantity	Item	Description	Unit Price	Amount
		Erickson B #1-1		
132.00	CEMENT MATERIALS	Class A Common	17.90	2,362.80
88.00	CEMENT MATERIALS	Pozmix	9.35	822.80
8.00	CEMENT MATERIALS	Gel	23.40	187.20
55.00	CEMENT MATERIALS	Flo Seal	2.97	163.35
236.28	CEMENT SERVICE	Cubic Feet	2.48	585.97
1.00	CEMENT SERVICE	Ton Mileage Charge	380.00	380.00
1.00	CEMENT SERVICE	Plug to Abandon	2,485.59	2,485.59
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	Kelly Gabel		
1.00	EQUIPMENT OPERATOR	Mike Scothorn		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		

[Handwritten signature]

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

\$ 2,636.27

ONLY IF PAID ON OR BEFORE

Sep 29, 2013

Subtotal	7,532.21
Sales Tax	595.04
Total Invoice Amount	8,127.25
Payment/Credit Applied	
TOTAL	8,127.25

ALLIED OIL & GAS SERVICES, LLC 060747

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, KS

DATE <i>4-14-13</i>	SEC. <i>1</i>	TWP. <i>5</i>	RANGE <i>31</i>	CALLED OUT <i>11:30 AM</i>	ON LOCATION <i>4:30 PM</i>	JOB START <i>6:30 PM</i>	JOB FINISH <i>7:00</i>
LEASE <i>Enckson B</i>	WELL # <i>1-</i>	LOCATION <i>1 1/4 1/4 S W 1/4</i>		<i>Record 7 W 12 6 W</i>		COUNTY <i>Rawlins</i>	STATE <i>KS</i>
OLD OR NEW (Circle one) <input checked="" type="checkbox"/> NEW							

CONTRACTOR *Murphy 2*

TYPE OF JOB *DTA*

HOLE SIZE <i>2 7/8</i>	T.D. <i>4447</i>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

EQUIPMENT

PUMP TRUCK CEMENTER *Kelly & Crew*

366 HELPER *Mike Scottom*

BULK TRUCK

347 DRIVER *Brandon Wilkinson*

BULK TRUCK

DRIVER

OWNER *Same*

CEMENT

AMOUNT ORDERED *2.20 444 60/40 P02*

4920 gal 4 1/2" Flo-seal

COMMON	<i>132</i>	@	<i>17.30</i>	<i>2262.60</i>
POZMIX	<i>88</i>	@	<i>9.33</i>	<i>822.84</i>
GEL	<i>8</i>	@	<i>25.40</i>	<i>157.20</i>
CHLORIDE		@		
ASC		@		
<i>Flo-seal 50#</i>		@	<i>2.87</i>	<i>163.38</i>
HANDLING	<i>236.2876 F</i>	@	<i>2.45</i>	<i>585.84</i>
MILEAGE	<i>22.000 Tribbon 2 ton</i>	@	<i>3.92</i>	<i>392.00</i>

TOTAL *57507.04*

REMARKS:

Safety meeting, rigged up on Murphy #2
placed cement plug & displaced down
25 @ 2575
100 @ 1275
40 @ 275
10 @ 40
30 @ 15 M H mixed with pumpatives
rigged down
Kelly & Crew

SERVICE

DEPTH OF JOB	
PUMP TRUCK CHARGE	<i>2488.32</i>
EXTRA FOOTAGE	@
MILEAGE	<i>4.5 @ 7.70 346.50</i>
MANIFOLD	@
<i>Use Vehicle 2 @ 45</i>	@ <i>4.40 88.00</i>

TOTAL *14145.84*

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	

TOTAL _____

CHARGE TO: *Murphy*

STREET _____

CITY _____ STATE _____ ZIP _____

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

PRINTED NAME *Arno C. Colwell*

SIGNATURE *Arno C. Colwell*

SALES TAX (if Any) _____

TOTAL CHARGES *10,650.68*

DISCOUNT *3,727.73* IF PAID IN 30 DAYS

6,922.94 Net