



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1209572
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: _____

1209572

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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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Culwell 'JT' 1-11
Doc ID	1209572

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



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. #1-11 Culwell JT
Location: 1980' FNL, 660' FWL of Section 11-1S-37W
License Number: API: 15-023-21383
Spud Date: 2-27-2014
Surface Coordinates: 1980' FNL, 660' FWL of Section 11-1S-37W
Region: Cheyenne County, KS
Drilling Completed: 3-08-2014

Bottom Hole Vertical hole
Coordinates:
Ground Elevation (ft): 3121' **K.B. Elevation (ft):** 3134'
Logged Interval (ft): 3420' **To:** RTD **Total Depth (ft):** 4660'
Formation: Cherokee at RTD
Type of Drilling Fluid: Chemical - Displaced at 3440'

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 #25
Pusher: Ray Bland

Surface Casing: 8 5/8" set at 231' w/200sx
Production Casing: 5 1/2" set at 4655' w/400 sx

Mud by: Morgan Mud - Dave Korte was the engineer

DST's by: Trilobite - James Winder was the tester

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

Deviation Surveys: 1/2 deg. @ 233'; 0.2 deg. @ 715'; 0.2 deg. @ 1823'; 1.2 deg. @ 2330'; 0.2 deg. @ 2838'; 0.4 deg. @ 3504'; 6.4 deg. @ 4160'; 6 1/2 deg. @ 4210'; 6.1 deg. @ 4500'; 4.7 deg. @ 4660'

BIT RECORD

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"		GMS	233'	233'	3 3/4
2	7 7/8"	HTC	DP506F	3504'	3271'	49 3/4
3	7 7/8"	HTC	GX20Crr	4660'	1156'	60

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	SAMPLE TOPS		LOG TOPS		COMPARISON WELLS MDCI Culwell B 1-11 11-1S-37W 3146' KB
	Depth	Datum	Depth	Datum	
Anhydrite	3073'	+61	3074'	+60	-4
B/Anhydrite	3109'	+25	3106'	+28	-3
Neva	3531'	-397	3530'	-396	-3
Red Eagle	3593'	-459	3594'	-460	flat
Foraker	3642'	-508	3638'	-504	+1
Topeka	3867'	-733	3864'	-730	-3
Oread	4000'	-866	3998'	-864	-4
Lansing	4082'	-948	4080'	-946	-4
Stark Shale	4300'	-1166	4296'	-1162	-4
BKC	4358'	-1224	4351'	-1217	-7
Pawnee	4476'	-1342	4473'	-1339	-6
Cherokee Shale	4565'	-1431	4559'	-1425	-3
RTD	4660'	-1526			
LTD			4639'	-1505	

DRILL STEM TESTS

DST No. 1 Lansing "D"
Interval: 4100'-4160'
Times: 30-60-60-90
Recovery: 475' GIP; 230' CGO (21g, 77o, 2m);
45' O&GCM (16g, 18o, 66m); 190' OG&WCM
(13g, 3o, 27w, 57m); Gravity 26 deg.
FP: 33-112/118-212 SIP: 959-952
HP: 2053-2041 BHT: 137 deg. F

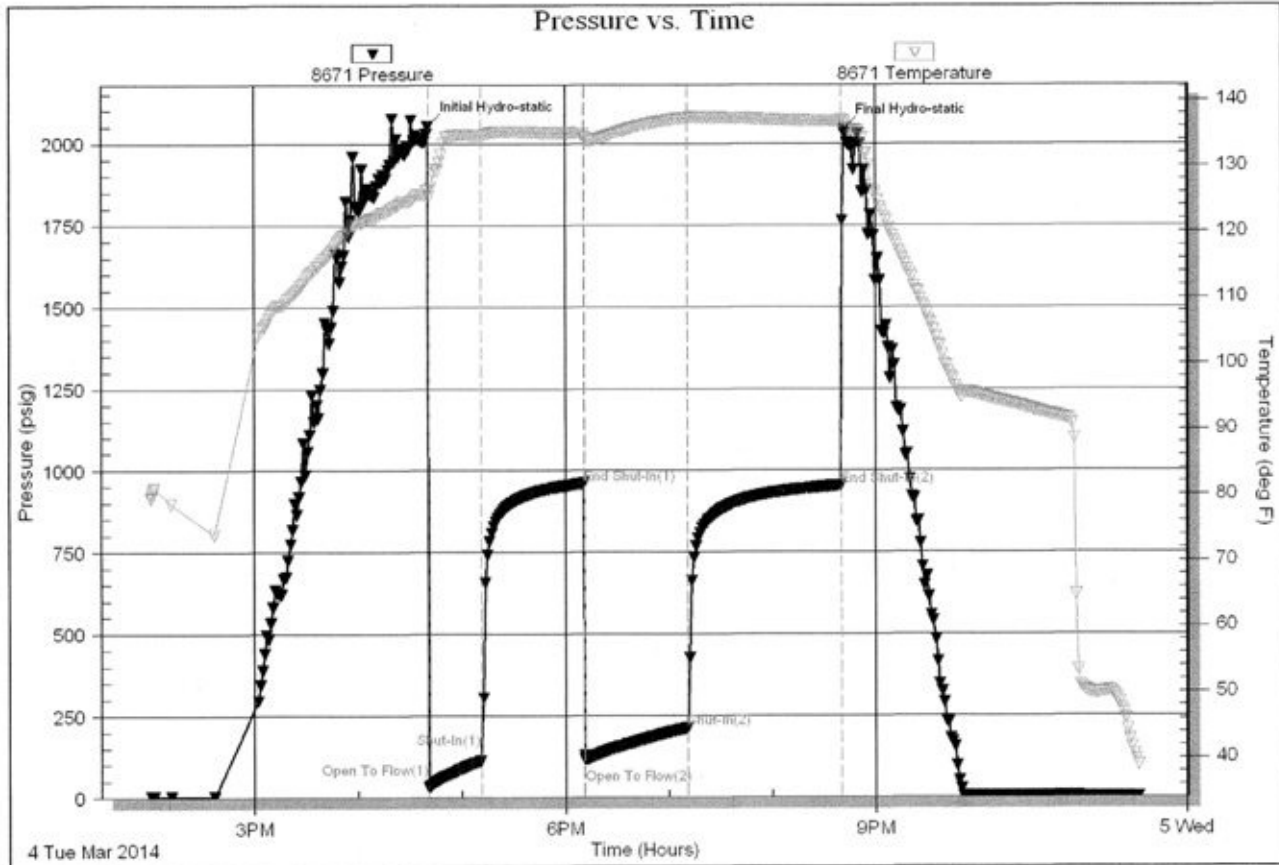
IFP: good blow, B.O.B. in 9 1/2 minutes
ISIP: 1 inch return blow
FFP: good blow, B.O.B. in 12 minutes
FSIP: 4 inch return blow

Serial #: 8671

Inside Marfin Drilling Co., Inc.

Core # JT #1-11

DST Test Number: 1

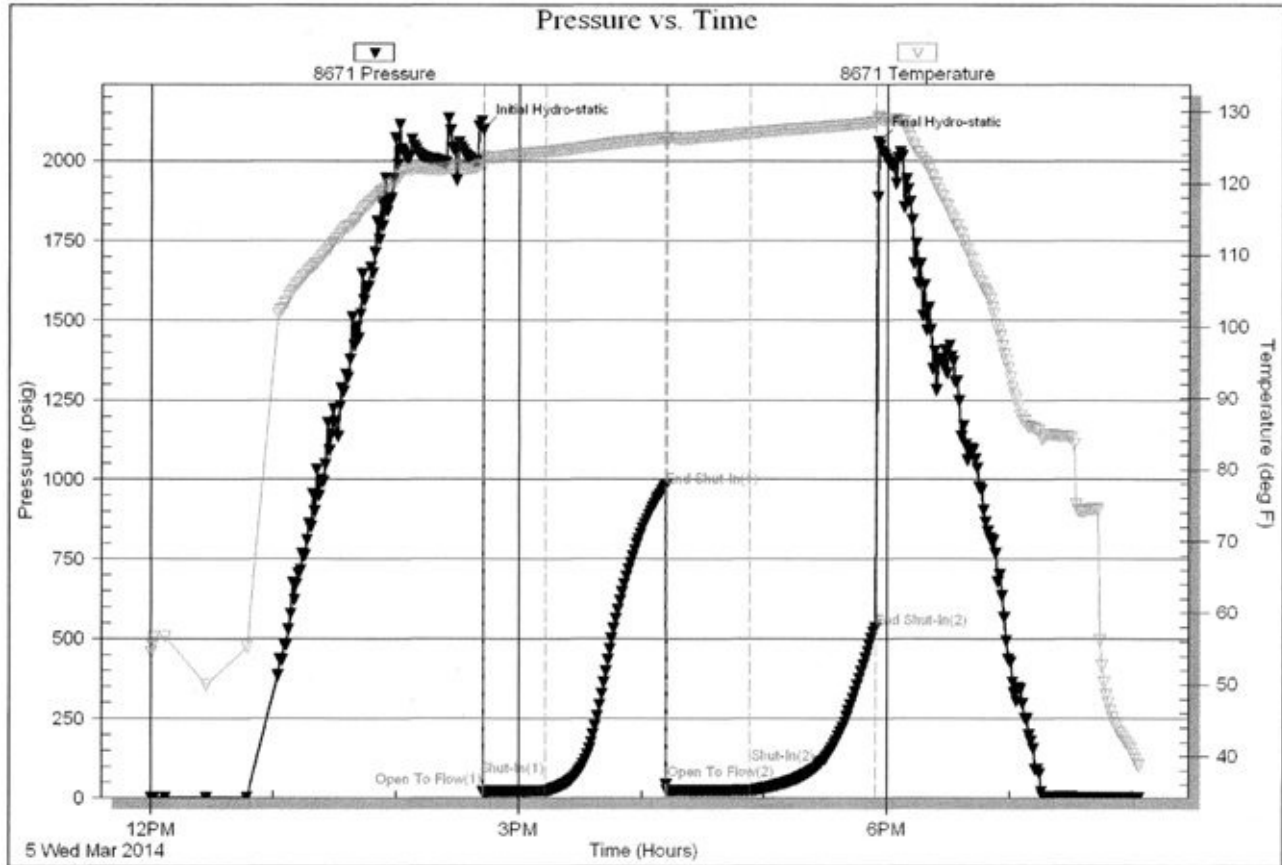


DRILL STEM TESTS

DST No. 2 Lansing "G" Zone
Interval: 4169'-4210'
Times: 30-60-30-60
Recovery: 10' VSL O&GCM (2g, 4o, 94m)
FP: 19-22/23-24 SIP: 979-534
HP: 2098-2058 BHT: 129 deg. F

IFP: weak 1/4" blow, died in 20 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow

Serial #: 8671 Inside Murfin Drilling Co., Inc. C/well JT #1-11 DST Test Number: 2

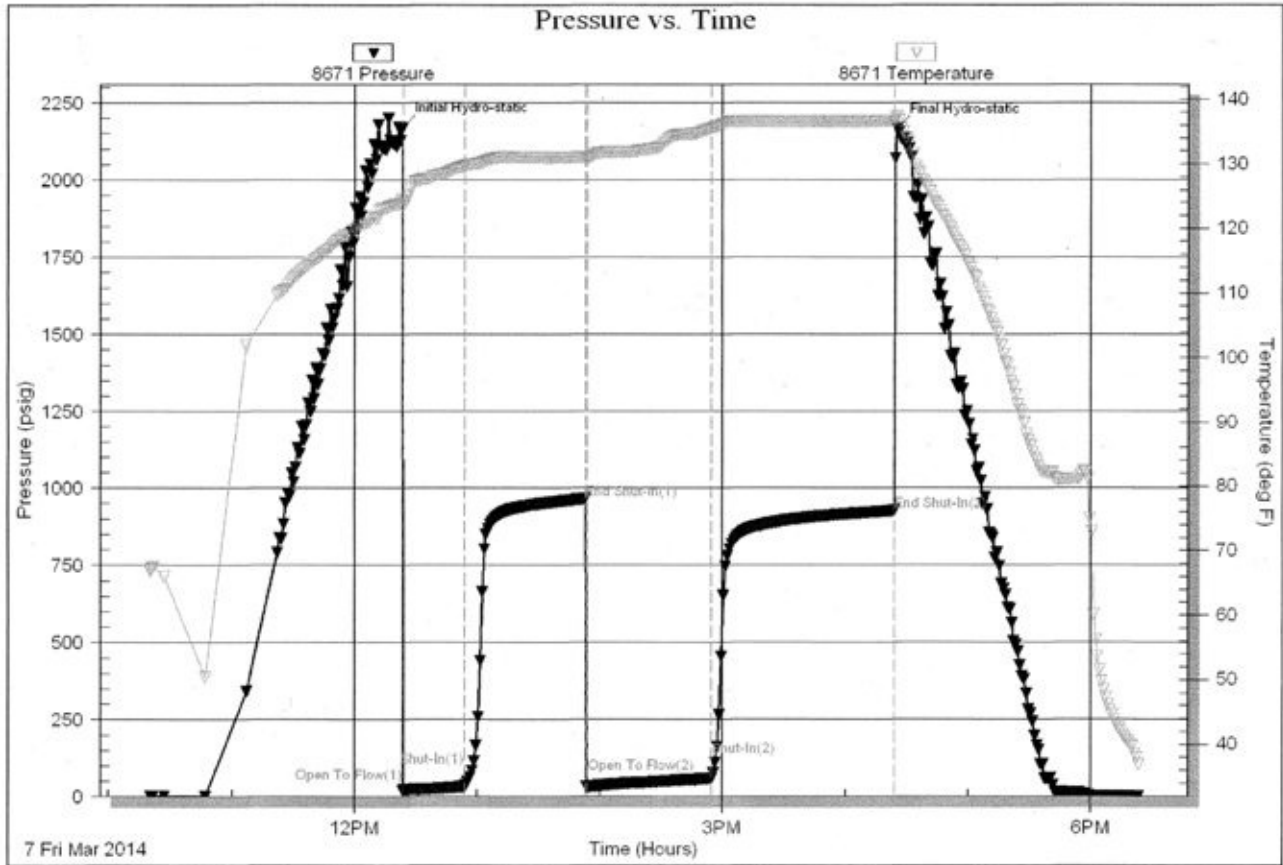


DRILL STEM TESTS

DST No. 3 Pawnee
 Interval: 4450'-4500'
 Times: 30-60-60-90
 Recovery: 380' GIP; 85' CO (2g, 2m, 96o); 20'
 G&OCM (7g, 23o, 70m), Gravity 36.2
 FP: 20-32/29-59 SIP: 965-927
 HP: 2168-2165 BHT: 137 deg. F

IFP: fair blow bldg. to 9 1/4 inches
 ISIP: no return blow
 FFP: fair to good blow bldg. to B.O.B. in 25 minutes
 FSIP: no return blow

Serial #: 8671 Inside Murfin Drilling Co., Inc. Cuiwell JT #1-11 DST Test Number: 3



ROCK TYPES

- Anhy
- Cht
- Coal
- Congl
- Dol
- Gyp
- Lmst

- Salt
- Shale
- Shcol
- Shgy
- Siltst
- Ss
- Carb sh

- Dol
- Dtd
- Gry sh
- Sandylms
- redshale
- Shale
- Siltstn

- Shlyslts
- Sltysl
- 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
- Breclrag
- 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
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

EVENTS

- Rft
- Dst top/base

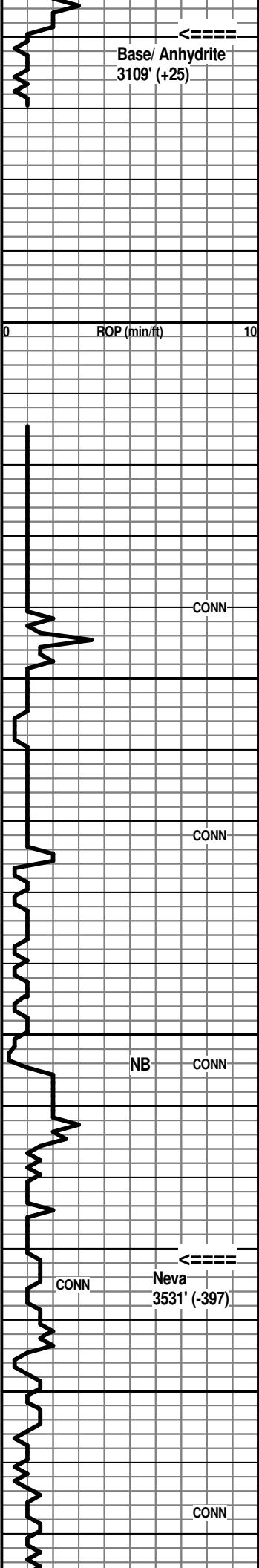
OIL SHOWS

- Even
- Spotted
- Quest.

- Trace
- Dead
- Gas show

Curve Track 1 ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
	3050			<p>Report Depth and Activity</p> <p>2-27-2014 MIRT, Spud at 8:15 PM</p> <p>2-28 WOC at 233'</p> <p>3-1 Drlg. @ 1096'</p> <p>3-2 Drlg. @ 2695' - lost returns at 1155' approx. 100 bbl</p> <p>3-3 Bit trip @ 3504'</p> <p>3-4 Drlg. @ 4120'</p> <p>3-5 CFS @ 4210'</p> <p>3-6 Drlg. @ 4296'</p> <p>3-7 Short trip/CTCH for DST No. 3 @ 4500'</p> <p>3-8 Drlg. @ 4630'</p> <p>3-9 RTD @ 4660'; logging complete, run casing</p> <p>Anhydrite 3073' (+61)</p>
	3100			

Base/ Anhydrite 3109' (+25)



Samples of no value

Samples of no value

7:00 AM at 3504' on 3-3-2014
Tripped PDC bit at 3504'
Strap was 1.92' long to board

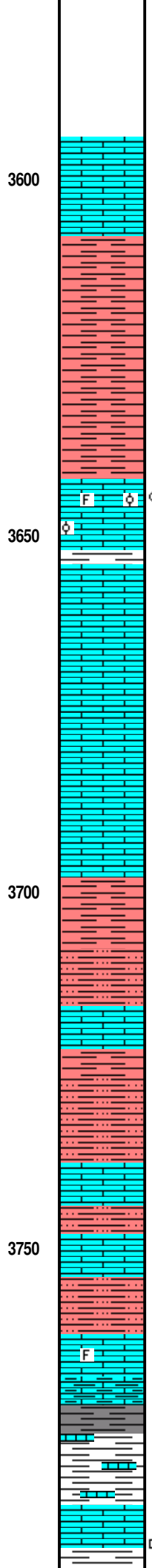
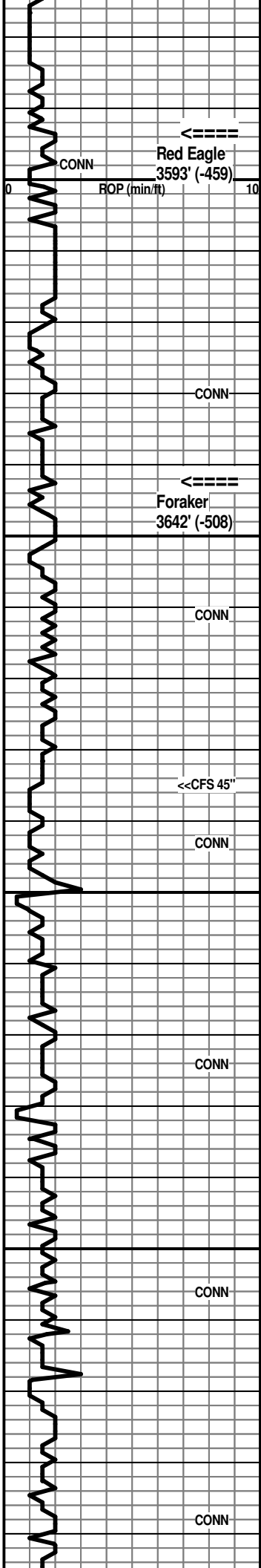
Neva 3531' (-397)

Morgan Mud Check at 3597'
 10:00 AM on 3-3-2014
 wt vis wl pH chl
 9.0 90 4.8 10.5 700
 PV YP GelS lcm solids
 34 28 30/42 2# 5.0%

Red Eagle 3593' (-459)

Geologist on location at 3611'

Foraker 3642' (-508)



Ls: lt gray, offwhite mic-vfxln dense, sl shaly and silty; lesser lt brn, tan cryptoxln

Ls: offwhite, lt gray dense AA; more lt brn vf-cryptoxln; Sh: sl influx red-brn silty to soft

40' spl - flood Sh: red-brn predom. silty; lesser soft mushy

Sh: mix AA

60' spl - Ls: flood lt gray, offwhite vfxln dense, silty IP, poor-NVP, N.S.; several chips tan, brn granular, foss. and oolitic IP with inter-particle por., with subsat. to sat. dark brn to black stain, fair-good shows dark brn gen. listless oil, no odor

70' spl - Ls: mix AA with good influx Sh: gray, purplish gray, silty and red-brn silty shale and siltst

80' spl - flood Ls: med gray fn-vfxln sl mottled, shaly IP; med gray and gray-brn vfxln dense, poor-NVP; lesser offwhite, lt gray mic-vfxln dense, N.S.

CFS 3685' 20" spl - Ls: influx offwhite mic-vfxln dense and lt gray, gray-brn vf-cryptoxln, occ yellow tinted; sl influx offwhite subchalky;

45" spl - Ls: lt gray, some gray-brn vf-cryptoxln and offwhite mic-vfxln dense, subchalky, N.S.

3700' spl - Ls: flood white chalky; other lt gray, tan, lt brn mic-vfxln dense

Ls: mottled med to dark gray, sl granular and shaly IP; tan, lt brn predom. vfxln dense; some fn-vfxln with pp por., N.S.

20' spl - flood Sh: med to dark red-brn; lesser mushy lt red

Sh: AA decr. %; more silty to red-brn siltst; Ls: mix tan, lt brn, lt gray vfxln dense; lesser offwhite, tan mic-fnxln with some pp por., N.S.

Ls: tan, lt gray, lt brn mic-vfxln dense; Sh: med to dark red-brn, silty with red Siltst

50' spl - predom. red-brn shales and Siltst AA; Ls: tan, lt gray vfxln dense

60' spl - Ls/Sh/Siltst mix AA; with good influx pinkish-tan fn-vfxln Ls

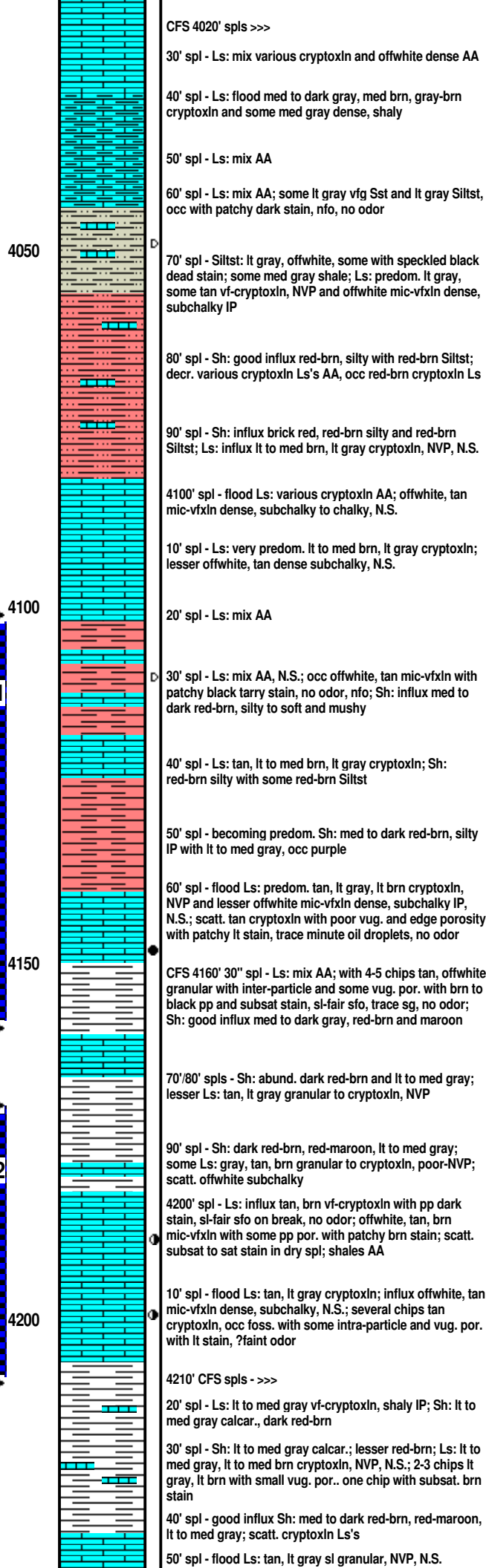
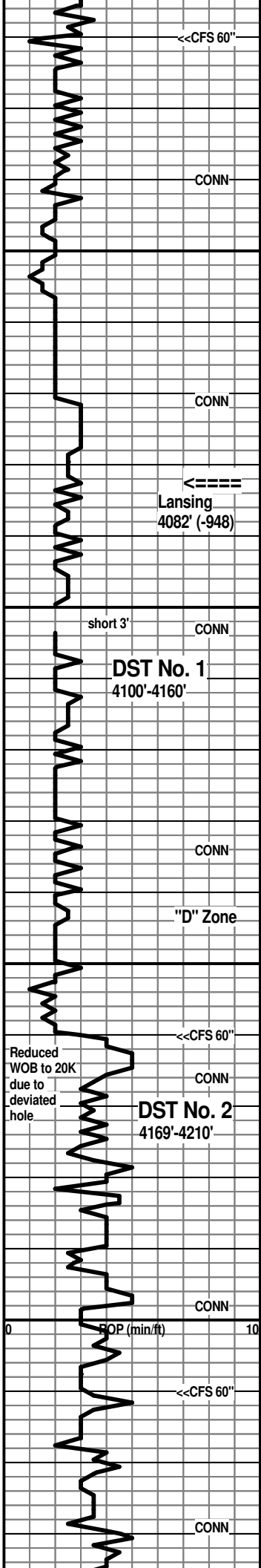
70' spl - Ls: pinkish-tan AA; some tan, lt brn cryptoxln; Sh: med to dark red-brn, silty to soft

80' spl - flood Ls: mottled lt to med brn granular, sl foss., poor-NVP, N.S.; Sh: some lt maroon

90' spl - Ls: AA with good influx med to dark gray silty and shaly; Sh: dark gray calcar.; some red-brn Siltst

3800' spl - Ls: mix tan, lt gray, lt brn granular, poor-NVP, foss. IP, N.S.; Sh: med to dark red-brn silty, maroon, med gray

10' spl - Ls: various granular AA; some gray granular with black gilsonite stain, nfo, no odor; Sh: red-brn, brick red, maroon, med gray and gray-green



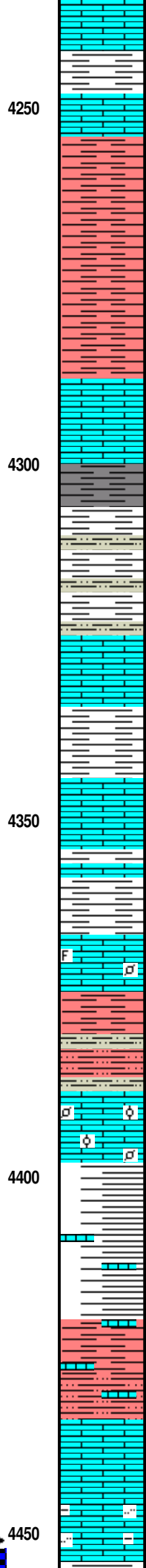
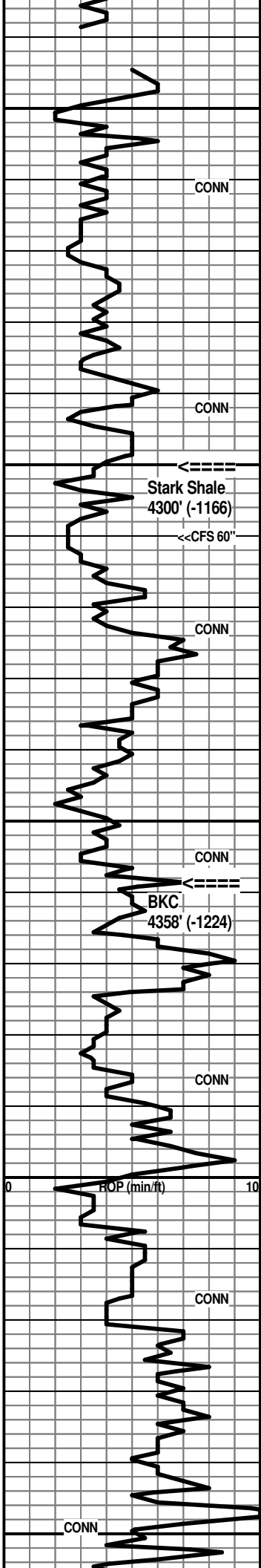
med gray and red-brn

CFS 4020' spls >>>
 30' spl - Ls: mix various cryptoxln and offwhite dense AA
 40' spl - Ls: flood med to dark gray, med brn, gray-brn cryptoxln and some med gray dense, shaly
 50' spl - Ls: mix AA
 60' spl - Ls: mix AA; some lt gray vfg Sst and lt gray Siltst, occ with patchy dark stain, nfo, no odor
 70' spl - Siltst: lt gray, offwhite, some with speckled black dead stain; some med gray shale; Ls: predom. lt gray, some tan vf-cryptoxln, NVP and offwhite mic-vfxln dense, subchalky IP
 80' spl - Sh: good influx red-brn, silty with red-brn Siltst; decr. various cryptoxln Ls's AA, occ red-brn cryptoxln Ls
 90' spl - Sh: influx brick red, red-brn silty and red-brn Siltst; Ls: influx lt to med brn, lt gray cryptoxln, NVP, N.S.
 4100' spl - flood Ls: various cryptoxln AA; offwhite, tan mic-vfxln dense, subchalky to chalky, N.S.
 10' spl - Ls: very predom. lt to med brn, lt gray cryptoxln; lesser offwhite, tan dense subchalky, N.S.
 20' spl - Ls: mix AA
 30' spl - Ls: mix AA, N.S.; occ offwhite, tan mic-vfxln with patchy black tarry stain, no odor, nfo; Sh: influx med to dark red-brn, silty to soft and mushy
 40' spl - Ls: tan, lt to med brn, lt gray cryptoxln; Sh: red-brn silty with some red-brn Siltst
 50' spl - becoming predom. Sh: med to dark red-brn, silty IP with lt to med gray, occ purple
 60' spl - flood Ls: predom. tan, lt gray, lt brn cryptoxln, NVP and lesser offwhite mic-vfxln dense, subchalky IP, N.S.; scatt. tan cryptoxln with poor vug. and edge porosity with patchy lt stain, trace minute oil droplets, no odor
 CFS 4160' 30' spl - Ls: mix AA; with 4-5 chips tan, offwhite granular with inter-particle and some vug. por. with brn to black pp and subsat stain, sl-fair sfo, trace sg, no odor; Sh: good influx med to dark gray, red-brn and maroon
 70'/80' spls - Sh: abund. dark red-brn and lt to med gray; lesser Ls: tan, lt gray granular to cryptoxln, NVP
 90' spl - Sh: dark red-brn, red-maroon, lt to med gray; some Ls: gray, tan, brn granular to cryptoxln, poor-NVP; scatt. offwhite subchalky
 4200' spl - Ls: influx tan, brn vf-cryptoxln with pp dark stain, sl-fair sfo on break, no odor; offwhite, tan, brn mic-vfxln with some pp por. with patchy brn stain; scatt. subsat to sat stain in dry spl; shales AA
 10' spl - flood Ls: tan, lt gray cryptoxln; influx offwhite, tan mic-vfxln dense, subchalky, N.S.; several chips tan cryptoxln, occ foss. with some intra-particle and vug. por. with lt stain, ?faint odor
 4210' CFS spls - >>>
 20' spl - Ls: lt to med gray vf-cryptoxln, shaly IP; Sh: lt to med gray calcar., dark red-brn
 30' spl - Sh: lt to med gray calcar.; lesser red-brn; Ls: lt to med gray, lt to med brn cryptoxln, NVP, N.S.; 2-3 chips lt gray, lt brn with small vug. por.. one chip with subsat. brn stain
 40' spl - good influx Sh: med to dark red-brn, red-maroon, lt to med gray; scatt. cryptoxln Ls's
 50' spl - flood Ls: tan, lt gray sl granular, NVP, N.S.

Lansing 4082' (-948)
 DST No. 1 Lansing "D"
 Interval: 4100'-4160'
 Times: 30-60-60-90
 IFP: good blow, B.O.B. in 9 1/2 minutes
 ISIP: 1 inch return blow
 FFP: good blow, B.O.B. in 12 minutes
 FSIP: 4 inch return blow
 Recovery: 475' GIP; 230' CGO (21g, 77o, 2m); 45' O&GCM (16g, 18o, 66m); 190' OG&WCM (13g, 3o, 27w, 57m); Gravity 26 deg.
 FP: 33-112/118-212 SIP: 959-952
 HP: 2053-2041 BHT: 137 deg. F
 7:00 AM at 4120' on 3-4-2014

Morgan Mud Check at 4133'
 7:30 AM on 3-4-2014
 wt vis wl pH chl
 9.5 65 6.0 9.5 700
 PV YP GelS lcm solids
 30 24 24/36 4# 8.6%
 CFS 4160' 60" spl - Ls: mix lt to med brn, lt gray cryptoxln and offwhite, lt gray mic-vfxln dense; Sh: mix AA
 DST No. 2 Lansing "G" Zone
 Interval: 4169'-4210'
 Times: 30-60-30-60
 IFP: weak 1/4" blow, died in 20 minutes
 ISIP: no return blow
 FFP: no blow
 FSIP: no return blow
 Recovery: 10' VSL G&OCM (2g, 4o, 94m)
 FP: 19-22/23-24 SIP: 979-534
 HP: 2098-2058 BHT: 129 deg. F
 CFS 4210' 30" spl - Ls: several chips with por. AA with fair-good sfo on break, trace sg, pp to spotty brn stain; predom. various cryptoxln and dense AA, NVP, N.S.; 60" spl - dense Ls's AA with decr. shows; Sh: incr. med gray, dark red-brn
 7:00 AM at 4210' on 3-5-2014

Morgan Mud Check at 4210'
 7:30 AM on 3-5-2014
 wt vis wl pH chl
 9.4 58 6.2 10.0 800
 PV YP GelS lcm solids
 26 16 24/38 4# 7.9%



offwhite, tan mic-vfxln dense, N.S.; trace offwhite fn granular with poor inter-particle por. with black pp stain, nfo, no odor

60' spl - predom. Sh: lt to med gray, lesser red-brn and lt green; Ls: offwhite, lt gray mic-vfxln dense, N.S.; 3-4 chips offwhite fn-vfxln with pp dark stain AA

70' spl - very shaly mix AA, with more red-brn, maroon and red-maroon; Ls: various dense AA with some med to dark brn cryptoxln; scatt. chips AA with black tarry stain

80' spl - Sh: predom. dark red-brn; much decr. Ls %, tan, lt gray granular to cryptoxln, N.S.

90' spl - Sh: very predom. dark red-brn; more soft and mushy; Ls: minor tan, lt gray cryptoxln, NVP; trace offwhite mic-vfxln with spotty black stain, nfo, no odor

4300' spl - flood Ls: tan, lt gray cryptoxln, predom. NVP; lesser offwhite mic-vfxln dense, N.S.; scatt. offwhite, tan vf-cryptoxln with spotty vug. por. with black tarry stain, nfo, no odor

10' spl - Ls: mix AA with scatt. offwhite cryptoxln with spotty vug. por. with black stain, slow bleeding gas on brkn surface, nfo, no odor; Sh: dark red-brn, some lt gray

CFS 4310' spls - >>>

20' spl - more shaly than above with lt red calcar. Siltst; various dense Ls's

30' spl - Sh: med to dark red-brn, lesser silty lt gray; Siltst: lt to med red; minor tan, lt gray cryptoxln Ls

40' spl - flood Ls: mix lt gray, tan cryptoxln and offwhite, lt gray mic-vfxln dense, NVP, N.S.; much decr. shale %

50' spl - Ls: various AA, some sl granular; incr. % of Sh: med to dark red-brn, red-maroon, some brick red and med gray

60' spl - flood Ls: mix lt gray, lt to med brn cryptoxln, sl granular, NVP, N.S.

70' spl - Ls: mix AA with incr. Sh: dark red-brn, dark red-maroon, soft red

80' spl - flood Ls: lt gray, tan, lt brn cryptoxln with lesser lt brn, lt gray granular, sl foss. to pelletic, NVP, N.S.; very minor shale

90' spl - strong influx Sh: lt to med red-brn, silty with red and gray Siltst

4400' spl - flood Ls: lt to med brn granular, NVP; lt gray vf-cryptoxln, some gray granular and shaly; sl influx tan, lt brn fn oolitic/pelletic with spar matrix, NVP, N.S.; much decr. shale and siltst

10' spl - flood Sh: lt to med purple and purplish-gray, some mottled; med to dark red-brn; much decr. various Ls's AA

20' spl - Sh: various AA; Ls: minor mottled tan/brn granular and lt brn, lt gray cryptoxln

30' spl - Sh: med to dark red-brn silty and red-brn Siltst; some mottled red-brn shaly Ls, NVP, N.S.

40' spl - shales and red-brn Siltst AA; minor tan, lt brn granular Ls

50' spl - flood Ls: tan, lt brn, offwhite granular with poor-NVP, N.S.; lesser lt to med brn cryptoxln; much decr. red-brn shale

60' spl - flood Ls: lt to med gray dense, shaly and silty, NVP, N.S.

7:00 AM at 4296' on 3-6-2014

Stark Shale 4300' (-1166)

CFS 4310' 30" spl - mix AA with incr. Sh: red-brn, lt red silty and more med gray; 60" spl - Sh: med to dark gray; Ls: tan, lt gray, lt brn cryptoxln, sl granular IP, NVP; other offwhite, tan mic-vfxln dense, N.S.

Morgan Mud Check at 4300'

7:15 AM on 3-6-2014

wt	vis	wl	pH	chl
9.3	57	6.0	9.5	700
PV	YP	GelS	lcm	solids
26	14	22/38	4#	7.4%

BKC 4358' (-1224)

DST No. 3 Pawnee
Interval: 4450'-4500'
Times: 30-60-60-90
IFP: fair blow bldg. to 9 1/4 inches

DST No. 3
4450'-4500'

Pawnee
4476' (-1342)

CONN

3

4500

CONN

CONN

4550

Cherokee Shale
4565' (-1431)

CONN

4600

ROP (min/ft)

CONN

4650

CONN

<<CFS 60"

RTD 4660' (-1526)

LTD 4639' (-1505)**

** Due to the deviation of the hole, the tool was probably

70' spl - Ls: sl predom. gray AA; occ med brn cryptoxln; Sh: some lt to med gray

80' spl - Ls: sl influx med brn, gray granular; other lt to med brn cryptoxln; Sh: good influx med to dark red-brn, red-maroon, maroon

90' spl - Sh: mix AA with influx med to dark gray; Ls: lt to med brn, lt gray cryptoxln to granular, NVP, N.S.; several chips tan granular, oolitic IP with poor-fair inter-particle por. with pp brn stain, patchy to subsat stain in dry spl, fair sfo on break, some listless, no sg, no odor

4500' spl - Ls: flood lt to med gray, predom. cryptoxln, NVP; other lt to med gray mic-vfxln dense, N.S.

CFS 4500' spls - >>>

10' spl - trashy; predom. vc gray shales, more dark gray

20' spl - Sh: abund. med gray, some dark gray, lesser red-brn; Ls: lt to med gray, lt brn vf-cryptoxln

30' spl - Ls: lt to med gray vf-cryptoxln, shaly IP, NVP, N.S.

40' spl - Ls's AA; with med to dark gray to black shales

50' spl - Ls AA with sl influx med brn cryptoxln; Sh: influx dark gray, some black carbon.

60' spl - Ls: influx tan, lt gray granular NVP; lesser offwhite, tan mic-vfxln dense; Sh: predom. med gray

70' spl - Ls: tan, lt gray, lt brn cryptoxln to sl granular, NVP, N.S.

80' spl - Ls: various AA with sl influx dark brn, dark gray cryptoxln; Sh: good influx lt to med gray

90' spl - Sh: decr. % with new dark gray to black; Ls: various lt to med brn granular to cryptoxln, NVP, N.S.; influx tan, lt gray, offwhite finely sandy, N.S.

4600' spl - Ls: predom. lt to med brn granular to cryptoxln AA; incr. offwhite, lt gray mic-vfxln dense, subchalky; Sh: vc gray, some dark red-brn, trace mottled dark yellow/maroon

10' spl - Ls: lt to med brn, lt gray cryptoxln to some granular, NVP, N.S.; decr. offwhite, lt gray mic-vfxln dense; Sh: predom. lt to med gray, occ dark red-brn, red-maroon

20' spl - strong influx Sh: lt to med gray, dark red-maroon, med to dark red, mottled red/green and yellow/gray, purple

30' spl - Ls: various cryptoxln and granular; Sh: predom. lt to med gray and lt gray fissile

40' spl - flood Sh: mix lt to med gray, gray-green, with influx multi-colored (dark yellow, common purple, maroon, dark red-maroon); Sst: scatt. lt gray, offwhite, fg and shaly; scatt. very coarse loose grains, N.S.

50' spl - Sh: multi-colored AA, common purple; incr. Sst: lt red, lt brn, lt yellow, fg, calcar. and shaly, N.S.

60' spl - multi-colored shales and tight shaly Sst

CFS 4660' 30" spl - multi-colored shales AA; Sst: offwhite, lt gray mostly fg poor-NVP, N.S.; some fn-coarse grnd, N.S.; influx dark red-brn shaly Sst and sandy shale; trace orange chert

Because of the positive results of DST's 1 and 3, 5 1/2" casing was set for production testing.

Respectfully submitted,

ISIP: no return blow
FFP: fair to good blow bldg. to B.O.B. in 25 minutes
FSIP: no return blow
Recovery: 380' GIP; 85' CO (2g, 2m, 96o); 20' G&OCM (7g, 23o, 70m), Gravity 36.2
FP: 20-32/29-59 SIP: 965-927
HP: 2168-2165 BHT: 137 deg. F

Pawnee 4476' (-1342)

CFS 4500' 30" spl - Ls: lt to med gray cryptoxln; some gray-brn cryptoxln and gray dense, shaly, N.S.; 60" spl - Ls: mix various gray AA; scatt. lt brn granular with shows AA; Sh: trace dark gray to black

7:00 AM at 4500' on 3-7-2014

Morgan Mud Check at 4500'

7:15 AM on 3-7-2014

wt vis wl pH chl
8.9 65 6.2 10.0 600
PV YP GeIS lcm solids
24 20 18/34 4# 5.0%

Cherokee Shale 4565' (-1431)

7:00 AM at 4630' on 3-8-2014

Morgan Mud Check at 4648'

9:50 AM on 3-8-2014

wt vis wl pH chl
9.2 75 5.6 10.0 1000
PV YP GeIS lcm solids
28 28 22/36 4# 6.4%

CFS 4660' 60" spl - multi-colored shales AA with dark red-brn shaly Sst and sandy shale; some offwhite fg tight Sst, N.S.

RTD reached at 9:30 AM on 3-8-2014

CFS/CTCH 90" - Drop survey - TOFL

hole, the tool was probably
dragging the side of the
wellbore making LTD difficult to
determine.

Wesley D. Hansen
Petroleum Geologist
Kansas License No. 418



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Culwell 'JT' #1-11

11-1s-37w Cheyenne KS

Start Date: 2014.03.04 @ 14:00:00

End Date: 2014.03.04 @ 23:32:30

Job Ticket #: 53491 DST #: 1

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

Printed: 2014.03.11 @ 10:48:56

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

Culwell 'JT' #1-11

DST # 1

LKC "D"

2014.03.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 67202
ATTN: Wes Hansen

11-1s-37w Cheyenne KS

Culwell 'JT' #1-11

Job Ticket: 53491 **DST#: 1**
Test Start: 2014.03.04 @ 14:00:00

GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:40:45
 Tester: James Winder
 Time Test Ended: 23:32:30
 Unit No: 57
 Interval: **4100.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Reference Elevations: 3134.00 ft (KB)
 Total Depth: 4160.00 ft (KB) (TVD) 3121.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

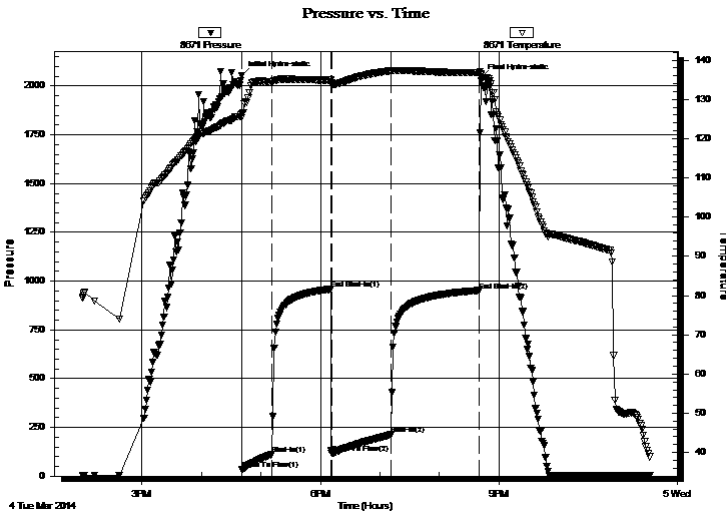
Serial #: 8671

Inside

Press@RunDepth: 212.27 psig @ 4101.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.04 End Date: 2014.03.04 Last Calib.: 2014.03.05
 Start Time: 14:00:05 End Time: 23:32:30 Time On Btm: 2014.03.04 @ 16:40:30
 Time Off Btm: 2014.03.04 @ 20:41:45

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 9 1/2 min.
 60 - IS: Blow back built to 1"
 60 - FF: Blow built to BOB at 12 min.
 90 - FS: Blow back built to 4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2052.52	126.24	Initial Hydro-static
1	32.61	125.42	Open To Flow (1)
31	111.78	134.57	Shut-In(1)
90	958.95	134.92	End Shut-In(1)
91	117.55	134.19	Open To Flow (2)
151	212.27	137.27	Shut-In(2)
240	952.16	136.76	End Shut-In(2)
242	2040.99	136.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	GWCM w/Oil spots 57% _m , 27% _w , 13% _g	2.67
45.00	GOCM 66% _m , 18% _o , 16% _g	0.63
230.00	CGO 77% _o , 21% _g , 2% _m	3.23
0.00	GIP = 475'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53491

DST#: 1

ATTN: Wes Hansen

Test Start: 2014.03.04 @ 14:00:00

Tool Information

Drill Pipe:	Length: 4081.00 ft	Diameter: 3.80 inches	Volume: 57.25 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 57.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4100.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4077.00	
Hydraulic tool	5.00			4082.00	
Jars	5.00			4087.00	
Safety Joint	3.00			4090.00	
Packer	5.00			4095.00	28.00 Bottom Of Top Packer
Packer	5.00			4100.00	
Stubb	1.00			4101.00	
Recorder	0.00	8671	Inside	4101.00	
Recorder	0.00	8320	Outside	4101.00	
Perforations	22.00			4123.00	
Blank Spacing	33.00			4156.00	
Perforations	1.00			4157.00	
Bullnose	3.00			4160.00	60.00 Bottom Packers & Anchor

Total Tool Length: 88.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53491

DST#: 1

ATTN: Wes Hansen

Test Start: 2014.03.04 @ 14:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
190.00	GWCM w /Oil spots 57%m, 27%w , 13%g, 3%	2.665
45.00	GOCM 66%m, 18%o, 16%g	0.631
230.00	CGO 77%o, 21%g, 2%m	3.226
0.00	GIP = 475'	0.000

Total Length: 465.00 ft

Total Volume: 6.522 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

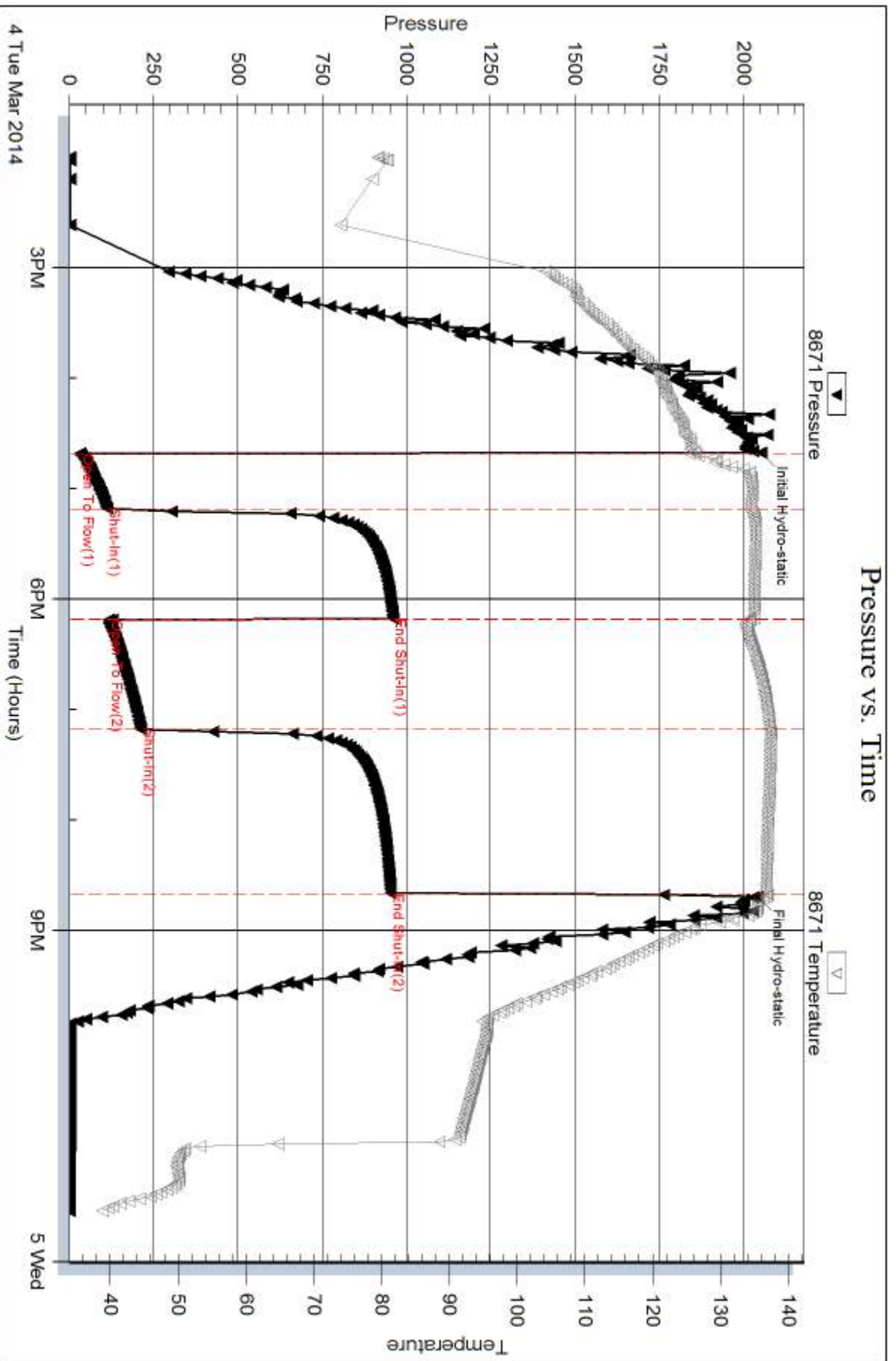
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 24 api @ 40 deg F Corrected Gravity = 26 api

RW = .248 ohms @ 45 deg F Chlorides = 48,000 ppm

Pressure vs. Time

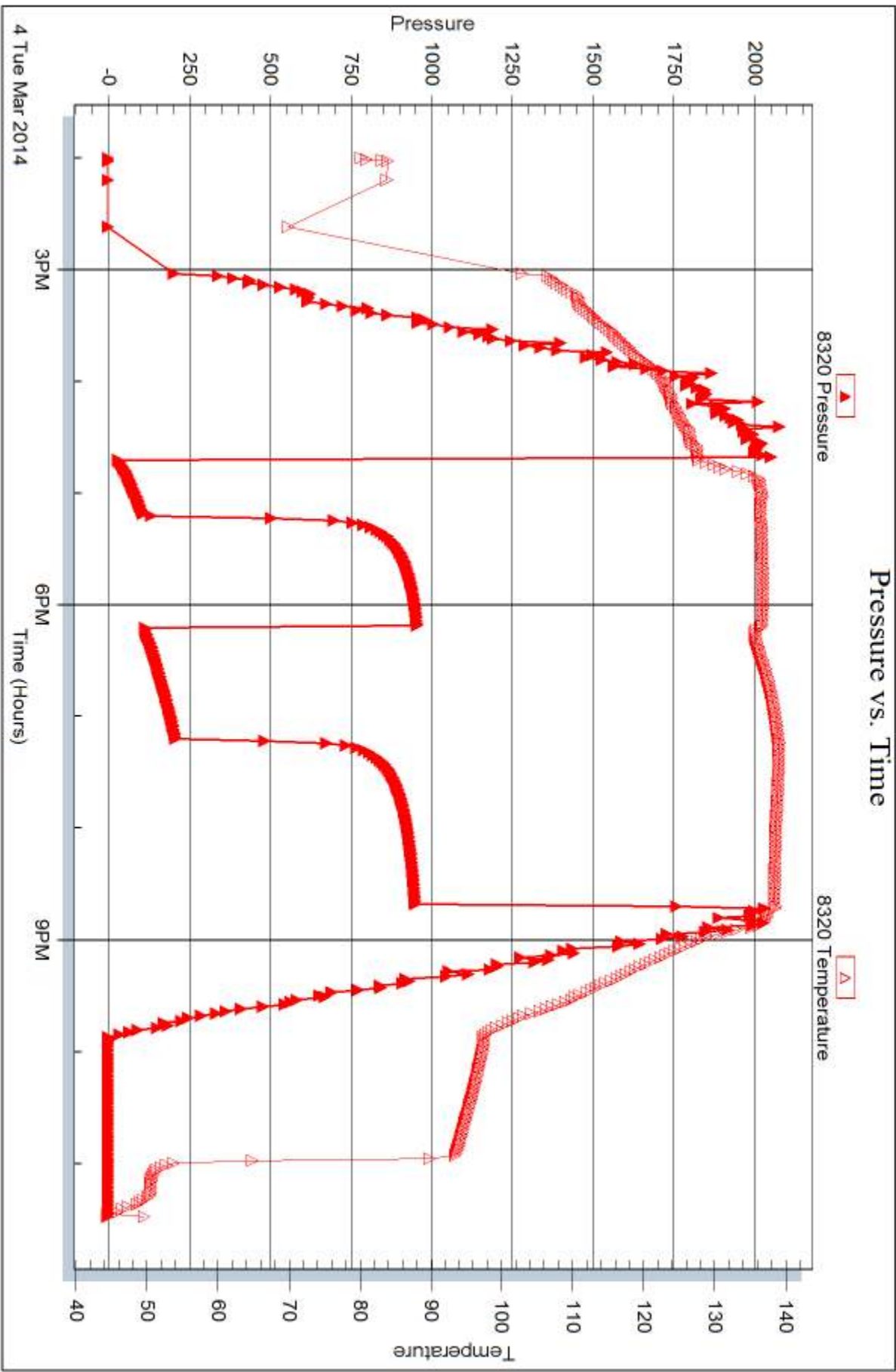


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Oilwell UT #1-11

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Culwell 'JT' #1-11

11-1s-37w Cheyenne KS

Start Date: 2014.03.05 @ 12:00:00

End Date: 2014.03.05 @ 20:04:00

Job Ticket #: 53492 DST #: 2

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

Printed: 2014.03.11 @ 10:47:30

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

Culwell 'JT' #1-11

DST # 2

LKC "G"

2014.03.05



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 67202
ATTN: Wes Hansen

11-1s-37w Cheyenne KS
Culwell 'JT' #1-11
Job Ticket: 53492 **DST#: 2**
Test Start: 2014.03.05 @ 12:00:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:42:30
Time Test Ended: 20:04:00
Interval: **4169.00 ft (KB) To 4210.00 ft (KB) (TVD)**
Total Depth: 4210.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 57
Reference Elevations: 3134.00 ft (KB)
3121.00 ft (CF)
KB to GR/CF: 13.00 ft

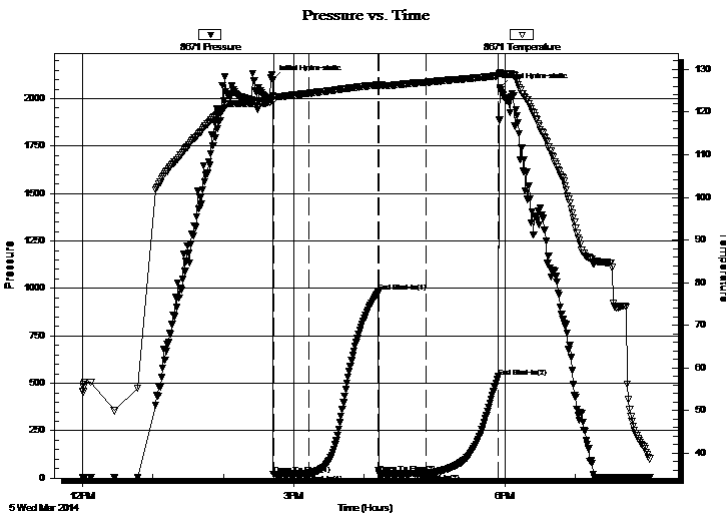
Serial #: 8671

Inside

Press@RunDepth: 23.61 psig @ 4170.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.03.05 End Date: 2014.03.05 Last Calib.: 2014.03.05
Start Time: 12:00:05 End Time: 20:03:59 Time On Btm: 2014.03.05 @ 14:42:15
Time Off Btm: 2014.03.05 @ 17:55:45

TEST COMMENT: 30 - IF: Blow built to 1/4", died back, dead at 20 min.
60 - IS!: No blow back
30 - FF: No blow
60 - FS!: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2098.36	123.79	Initial Hydro-static
1	18.71	122.42	Open To Flow (1)
31	22.27	124.34	Shut-In(1)
90	978.75	126.31	End Shut-In(1)
91	23.26	126.14	Open To Flow (2)
131	23.61	126.96	Shut-In(2)
192	534.25	128.50	End Shut-In(2)
194	2058.02	129.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w /Oil spots 94%m, 4%o, 2%g	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53492

DST#: 2

ATTN: Wes Hansen

Test Start: 2014.03.05 @ 12:00:00

Tool Information

Drill Pipe:	Length: 4148.00 ft	Diameter: 3.80 inches	Volume: 58.19 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4169.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4146.00	
Hydraulic tool	5.00			4151.00	
Jars	5.00			4156.00	
Safety Joint	3.00			4159.00	
Packer	5.00			4164.00	28.00 Bottom Of Top Packer
Packer	5.00			4169.00	
Stubb	1.00			4170.00	
Recorder	0.00	8671	Inside	4170.00	
Recorder	0.00	8320	Outside	4170.00	
Perforations	37.00			4207.00	
Bullnose	3.00			4210.00	41.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53492

DST#: 2

ATTN: Wes Hansen

Test Start: 2014.03.05 @ 12:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	Mud w /Oil spots 94%m, 4%o, 2%g	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8671

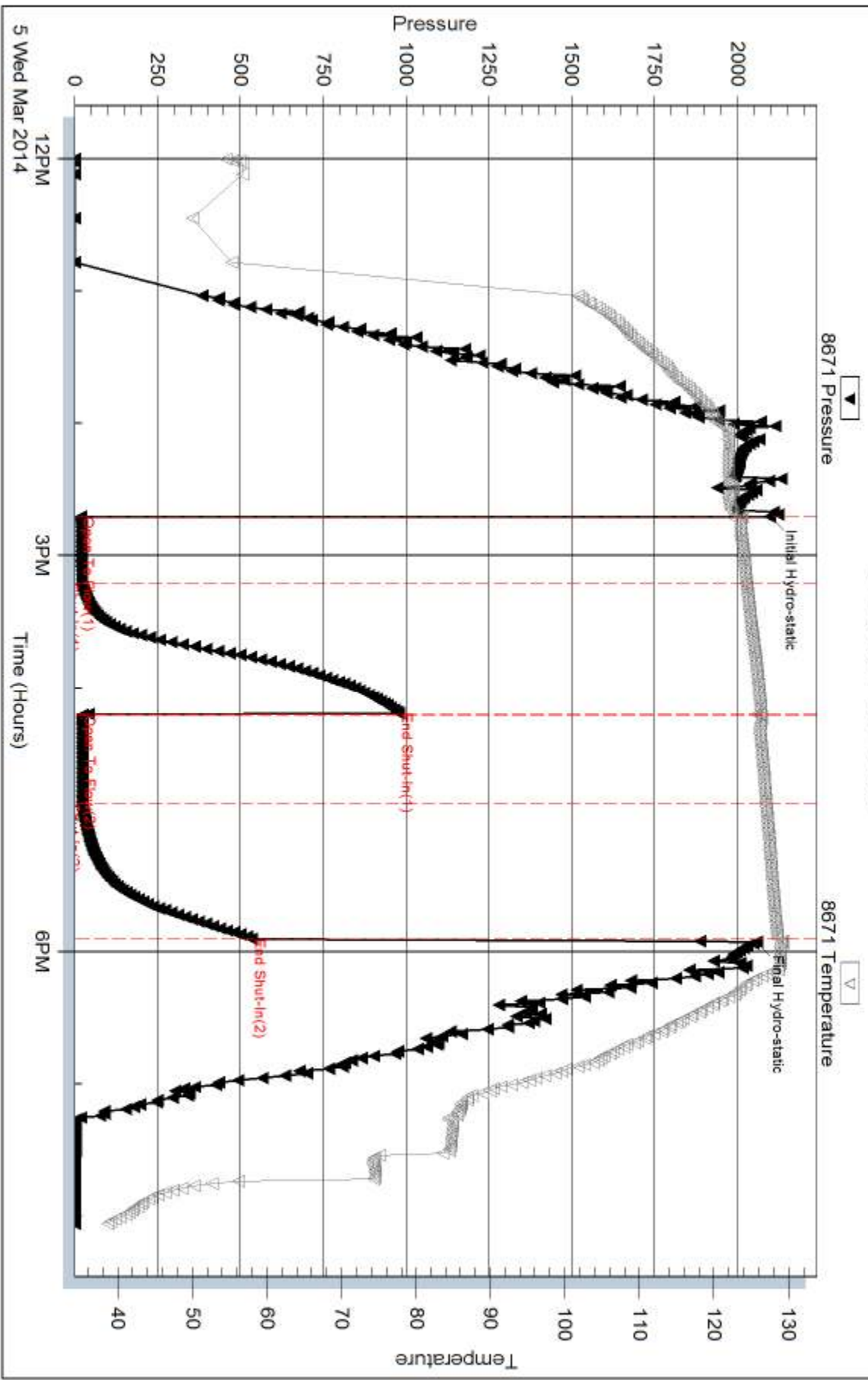
Inside

Murfin Drilling Co., Inc.

Oilwell UT #1-11

DST Test Number: 2

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 53492

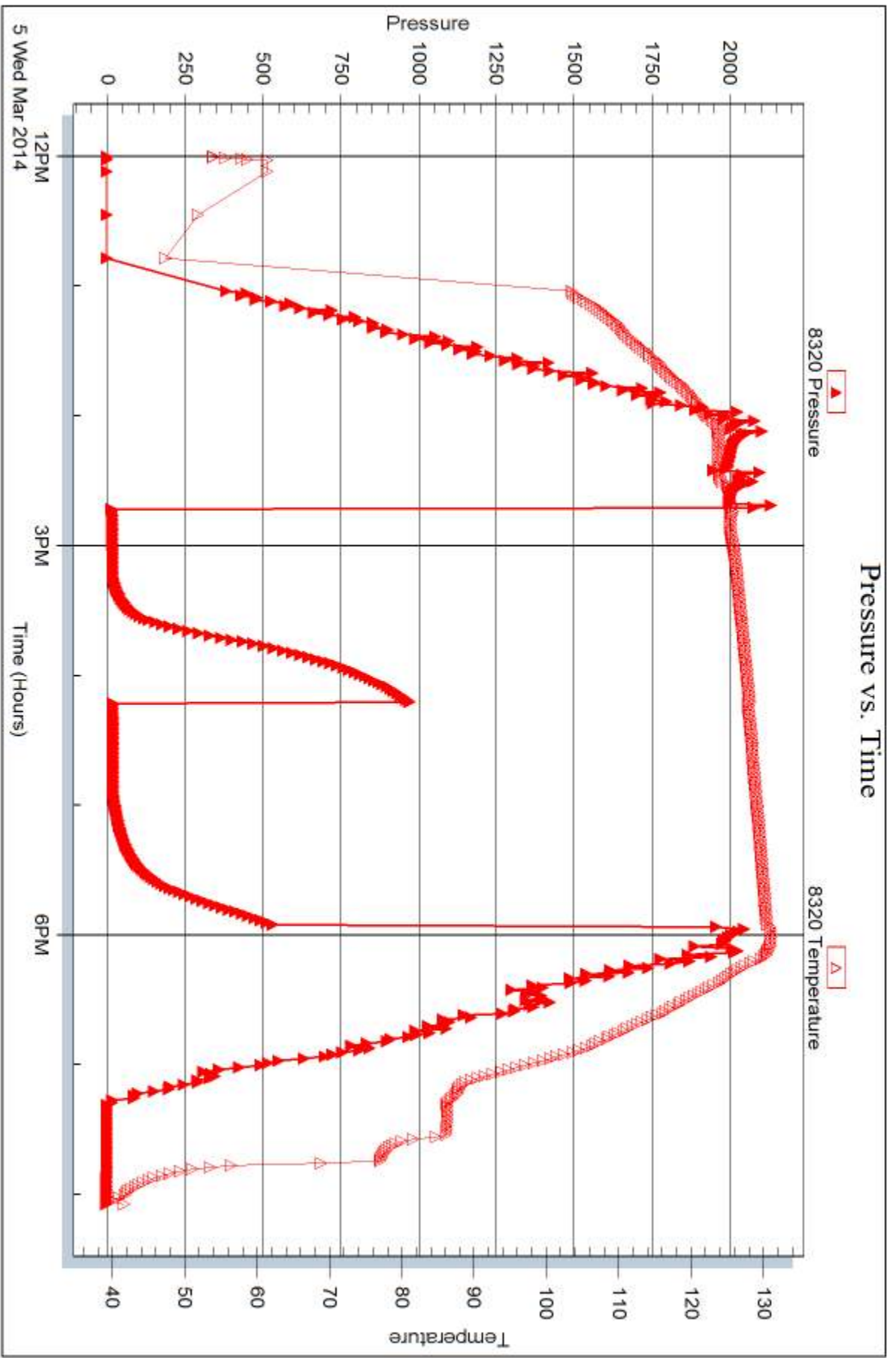
Printed: 2014.03.11 @ 10:47:32

Serial #: 8320

Outside Murfin Drilling Co., Inc.

Oilwell UT #1-11

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 53492

Printed: 2014.03.11 @ 10:47:32



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300
Wichita, KS 67202

ATTN: Wes Hansen

Culwell 'JT' #1-11

11-1s-37w Cheyenne KS

Start Date: 2014.03.07 @ 10:20:00

End Date: 2014.03.07 @ 18:23:45

Job Ticket #: 53493 DST #: 3

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

Printed: 2014.03.11 @ 10:46:43

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

Culwell 'JT' #1-11

DST # 3

Pawnee

2014.03.07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Wes Hansen

11-1s-37w Cheyenne KS
Culwell 'JT' #1-11
 Job Ticket: 53493 **DST#: 3**
 Test Start: 2014.03.07 @ 10:20:00

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:23:30
 Time Test Ended: 18:23:45
 Interval: **4450.00 ft (KB) To 4500.00 ft (KB) (TVD)**
 Total Depth: 4500.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 3134.00 ft (KB)
 3121.00 ft (CF)
 KB to GR/CF: 13.00 ft

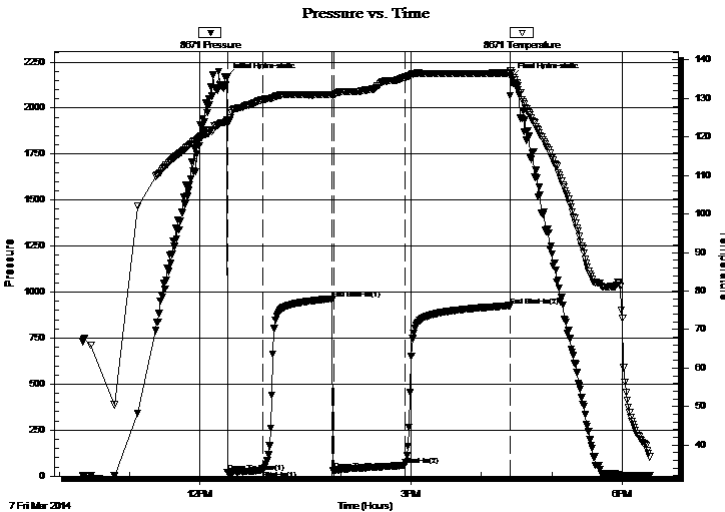
Serial #: 8671

Inside

Press@RunDepth: 58.63 psig @ 4451.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.07 End Date: 2014.03.07 Last Calib.: 2014.03.07
 Start Time: 10:20:05 End Time: 18:23:44 Time On Btm: 2014.03.07 @ 12:23:15
 Time Off Btm: 2014.03.07 @ 16:25:15

TEST COMMENT: 30 - IF: Blow built to 9 1/4"
 60 - IS: No blow back
 60 - FF: Blow built to BOB (11") at 25 min.
 90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2168.43	124.49	Initial Hydro-static
1	19.64	123.46	Open To Flow (1)
31	31.70	129.70	Shut-In(1)
90	964.51	131.03	End Shut-In(1)
91	29.28	130.94	Open To Flow (2)
152	58.63	135.50	Shut-In(2)
241	927.14	136.62	End Shut-In(2)
242	2165.06	137.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 70% m, 23% o, 7% g	0.28
85.00	CO 96% o, 2% g, 2% m	1.19
0.00	GIP = 380'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53493

DST#: 3

ATTN: Wes Hansen

Test Start: 2014.03.07 @ 10:20:00

Tool Information

Drill Pipe:	Length: 4427.00 ft	Diameter: 3.80 inches	Volume: 62.10 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 62.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4450.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4427.00	
Hydraulic tool	5.00			4432.00	
Jars	5.00			4437.00	
Safety Joint	3.00			4440.00	
Packer	5.00			4445.00	28.00 Bottom Of Top Packer
Packer	5.00			4450.00	
Stubb	1.00			4451.00	
Recorder	0.00	8671	Inside	4451.00	
Recorder	0.00	8320	Outside	4451.00	
Perforations	13.00			4464.00	
Blank Spacing	33.00			4497.00	
Bullnose	3.00			4500.00	50.00 Bottom Packers & Anchor

Total Tool Length: 78.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

11-1s-37w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Culwell 'JT' #1-11

Job Ticket: 53493

DST#: 3

ATTN: Wes Hansen

Test Start: 2014.03.07 @ 10:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 70% <i>m</i> , 23% <i>o</i> , 7% <i>g</i>	0.281
85.00	CO 96% <i>o</i> , 2% <i>g</i> , 2% <i>m</i>	1.192
0.00	GIP = 380'	0.000

Total Length: 105.00 ft Total Volume: 1.473 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

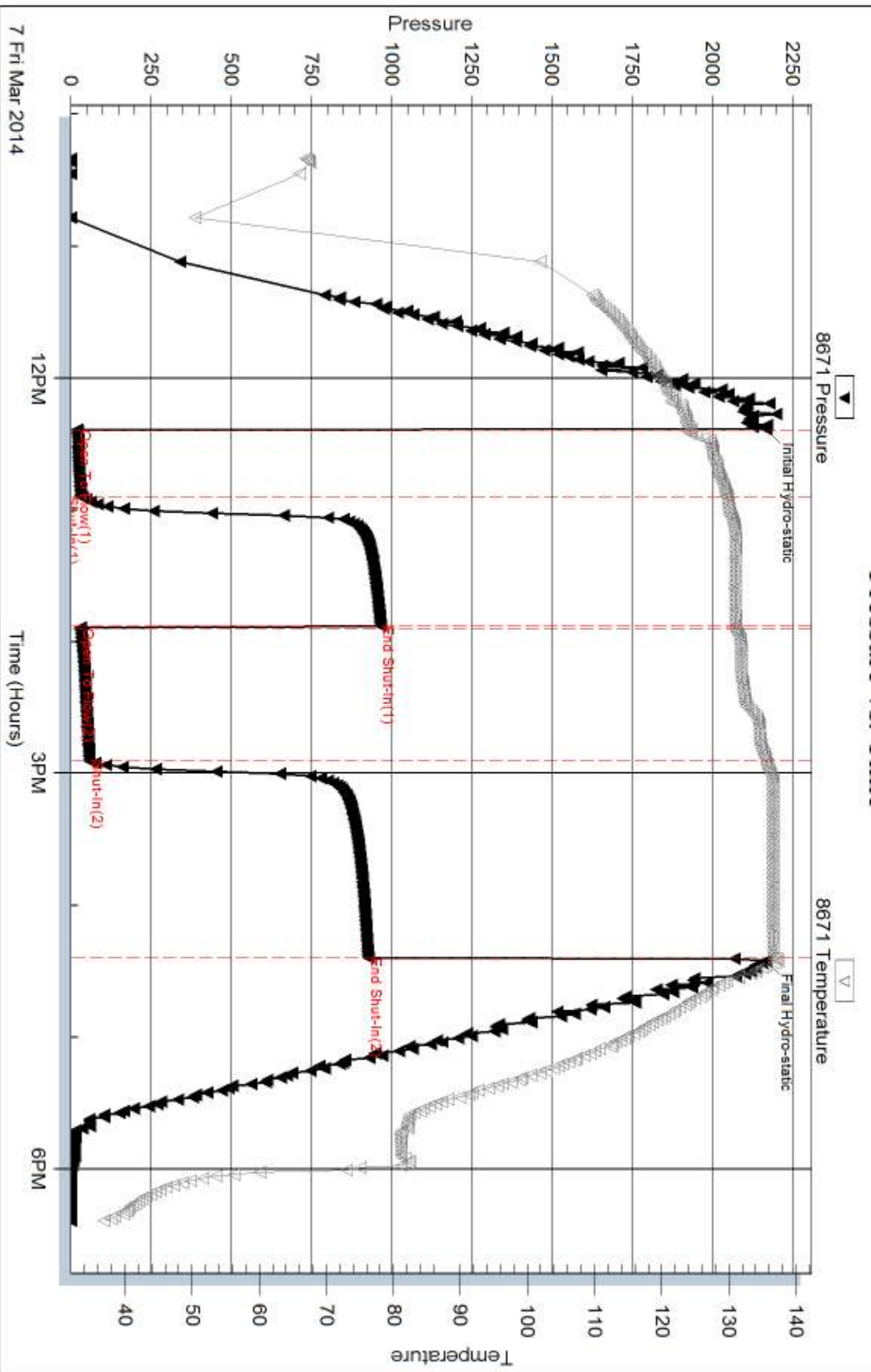
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 33.8 api @ 36 deg F

Corrected Gravity = 36.2 api

Pressure vs. Time

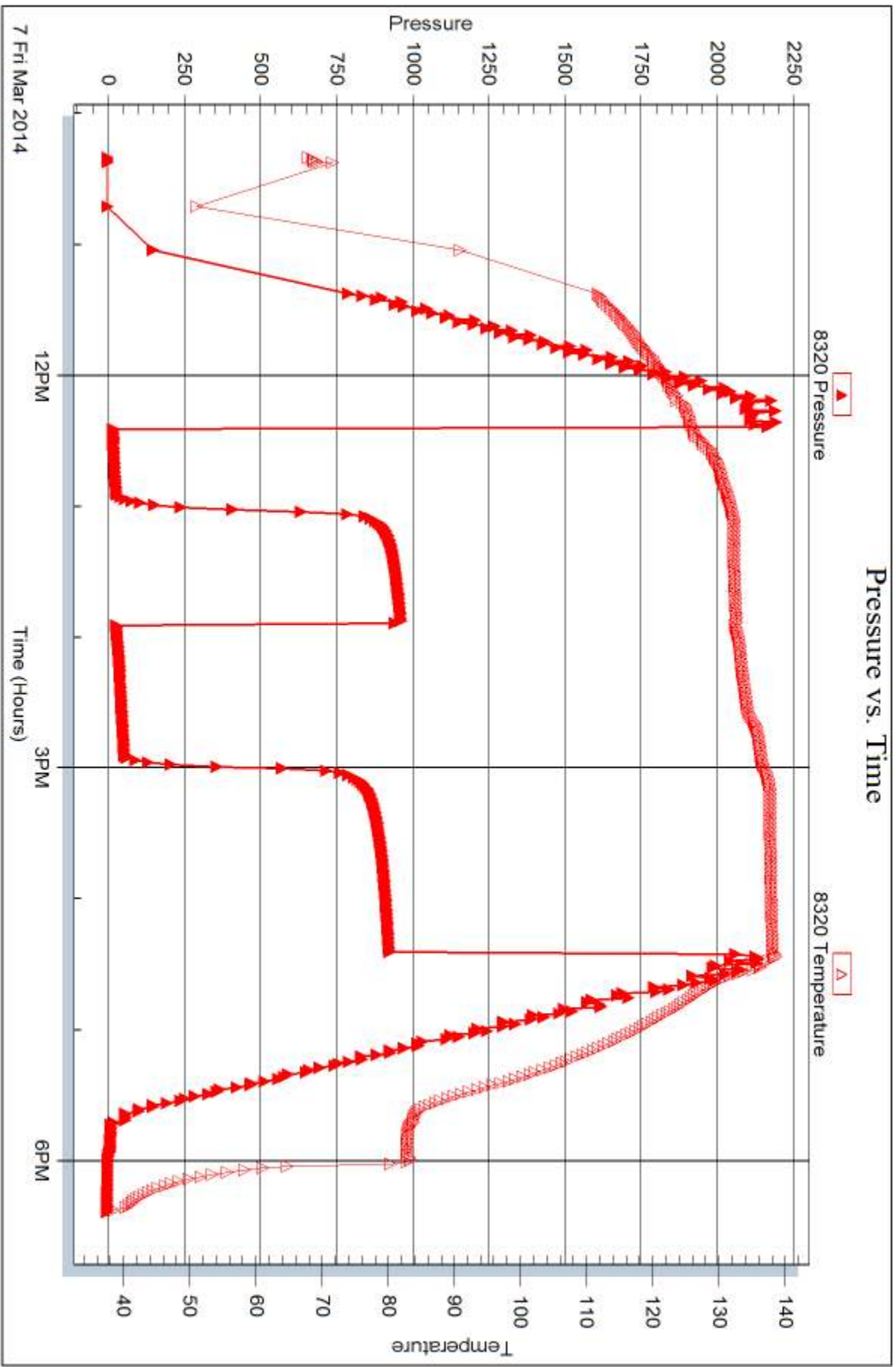


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Oilwell UT #1-11

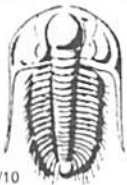
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 53493

Printed: 2014.03.11 @ 10:46:45



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53491

Well Name & No. Culwell "JT" #1-11 Test No. 1 Date 3-4-14
 Company Murfin Drilling Co., Inc. Elevation 3134 KB 3121 GL
 Address 250 N. Water Suite 300 Wichita KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #25
 Location: Sec. 11 Twp. 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4100 - 4160 Zone Tested Lans. "D"
 Anchor Length 60 Drill Pipe Run 4081 Mud Wt. 9.5
 Top Packer Depth 4095 Drill Collars Run 0 Vis 65
 Bottom Packer Depth 4100 Wt. Pipe Run - WL 6.0
 Total Depth 4160 Chlorides 700 ppm System LCM 4

Blow Description IF: Blow built to BOB (11") at 9 1/2 min.
ISI: Blowback built to 1"
FF: Blow built to BOB at 12 min.
FSI: Blowback built to 4"

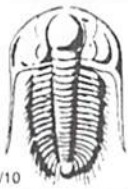
Rec	Feet of	%gas	%oil	%water	%mud
230	C60	21	77	-	2
45	60cm	16	18	-	66
190	6Wcm w/oil spots	13	3	27	57
	6IP=475'				

Rec Total 465 BHT 137 Gravity 26 API RW .248 @ 45 ° F Chlorides 48,000 ppm

(A) Initial Hydrostatic 2053 Test * 1250 T-On Location 12:30
 (B) First Initial Flow 33 Jars * 250 T-Started 14:00
 (C) First Final Flow 112 Safety Joint * 75 T-Open 16:40
 (D) Initial Shut-In 959 Circ Sub T-Pulled 20:40
 (E) Second Initial Flow 118 Hourly Standby T-Out ~~20:40~~ 23:15
 (F) Second Final Flow 212 Mileage 126 RT 195.30 Comments Told On Bank at
 (G) Final Shut-In 952 Sampler 1:30
 (H) Final Hydrostatic 2041 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1770.30
 Accessibility MP/DST Disc't
 Sub Total 1770.30

Approved By Wesley Hansen Our Representative James Winder

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. 53492

Well Name & No. Culwell 'JT' #1-11 Test No. 2 Date 3-5-14
 Company Murfin Drilling Co., Inc. Elevation 3134 KB 3121 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #25
 Location: Sec. 11 Twp. 1s Rge. 37W Co. Cheyenne State KS

Interval Tested 4169 - 4210 Zone Tested Lans. "6"
 Anchor Length 41 Drill Pipe Run 4148 Mud Wt. 9.4
 Top Packer Depth 4164 Drill Collars Run - Vis 58
 Bottom Packer Depth 4169 Wt. Pipe Run - WL 6.2
 Total Depth 4210 Chlorides 800 ppm System LCM 4

Blow Description IF: Blow built to 1/4", died back, dead at 20 min.
ISI: No blowback
FF: No blow
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud w/oil spot</u>	<u>2</u>	<u>4</u>	<u>-</u>	<u>94</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 129 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2098 Test * 1250 T-On Location 11:15
 (B) First Initial Flow 19 Jars * 250 T-Started 12:00
 (C) First Final Flow 22 Safety Joint * 75 T-Open ~~14:42~~
 (D) Initial Shut-In 979 Circ Sub _____ T-Pulled 17:54
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out ~~20:00~~
 (F) Second Final Flow 24 Mileage 126 RT 195.30 Comments _____
 (G) Final Shut-In 534 Sampler _____
 (H) Final Hydrostatic 2058 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1770.30
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1770.30

Approved By Wes Hansen Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53493

Well Name & No. Culwell 'JT' #1-11 Test No. 3 Date 3-7-14
 Company Murfin Drilling Co., Inc. Elevation 3134 KB 3121 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #25
 Location: Sec. 11 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4450 - 4500 Zone Tested Pawnee
 Anchor Length 40 50 Drill Pipe Run 4427 Mud Wt. 8.9
 Top Packer Depth 4445 Drill Collars Run - Vis 65
 Bottom Packer Depth 4450 Wt. Pipe Run - WL 6.2
 Total Depth 4500 Chlorides 600 ppm System LCM 4

Blow Description IF: Blow built to 9 1/4"
ISI: No blowback
FF: Blow built to BOB^(11") at 25 min.
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>CO</u>	<u>2</u>	<u>96</u>	<u>2</u>	<u>2</u>
<u>20</u>	<u>OCM</u>	<u>7</u>	<u>23</u>	<u>-</u>	<u>70</u>
<u> </u>	<u>GIP=380'</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 105 BHT 137 Gravity 36.2 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2168</u>	<input type="checkbox"/> Test <u>★</u> 1250	T-On Location <u>9:30</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars <u>★</u> 250	T-Started <u>10:20</u>
(C) First Final Flow <u>32</u>	<input type="checkbox"/> Safety Joint <u>★</u> 75	T-Open <u>12:23</u>
(D) Initial Shut-In <u>965</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>16:24</u>
(E) Second Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>18:20</u>
(F) Second Final Flow <u>59</u>	<input type="checkbox"/> Mileage <u>126RT</u> 195.30	Comments _____
(G) Final Shut-In <u>927</u>	<input checked="" type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2165</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>450</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Day Standby <u>★</u> 1d 13.5h	Total <u>2220.30</u>
	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1770.30</u>	

Approved By Wesley Hansen Our Representative James Winder

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Acct
LH/Prod

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 1416 16

Invoice Date: Feb 27, 2014

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

Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	62488	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Feb 27, 2014	3/29/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Culwell JT #1-11		
200.00	CEMENT MATERIALS	Class A Common	17.90	3,580.00
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
210.00	CEMENT SERVICE	Cubic Feet Charge	2.48	520.80
968.00	CEMENT SERVICE	Ton Mileage Charge	2.60	2,516.80
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
100.00	CEMENT SERVICE	Pump Truck Mileage	7.70	770.00
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
100.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	440.00
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		
1.00	OPERATOR ASSISTANT	Adam Flipse		

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

\$ 3,521.99

ONLY IF PAID ON OR BEFORE
Mar 24, 2014

Subtotal	10,062.85
Sales Tax	328.28
Total Invoice Amount	10,391.13
Payment/Credit Applied	
TOTAL	10,391.13

OK
JR

ALLIED OIL & GAS SERVICES, LLC 062488

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Dakley

DATE <u>2-27-14</u>	SEC. <u>11</u>	TWR. <u>1</u>	RANGE <u>37</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30 Am</u>	JOB FINISH <u>8:00 Am</u>
LEASE <u>Culwell JT</u>	WELL# <u>1-11</u>	LOCATION <u>Bird city N to state line</u>			COUNTY <u>Cheyenne</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)			<u>2 1/2 1 1/2 E 3/4 S E into</u>				

CONTRACTOR Murfin 25 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 233.08' CEMENT AMOUNT ORDERED 200 sks com 3 1/2 cu

CASING SIZE 8 5/8 DEPTH 2.38

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15

PERFS.

DISPLACEMENT 13.88 BBL

EQUIPMENT

PUMP TRUCK # <u>423-281</u>	CEMENTER <u>Andrew Fogstark</u>	
BULK TRUCK # <u>818</u>	HELPER <u>Kevin Ryan</u>	
BULK TRUCK #	DRIVER <u>Adam Flipse</u>	
BULK TRUCK #	DRIVER	

COMMON 200 sks @ 17.90 3580.00

POZMIX @

GEL @

CHLORIDE 7 sks @ 64.00 448.00

ASC @

@

@

@

HANDLING 2100 FT @ 2.48 520.80

MILEAGE 2.60 70/mile @ 9.18 70m 2516.80

TOTAL 7065.60

REMARKS:

Cement did circulate

Thank you

SERVICE

DEPTH OF JOB 233'

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @

MILEAGE 100 miles @ 2.20 220.00

MANIFOLD head @ 275.00

Light vehicle @ 440.00

TOTAL 2997.25

CHARGE TO: Murfin

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____

TOTAL _____

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.

SALES TAX (if Any) _____

TOTAL CHARGES 10,062.85

DISCOUNT 3,521.99 IF PAID IN 30 DAYS

6,540.85 Net.

PRINTED NAME Raymond Blund

SIGNATURE [Signature]



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



Invoice

DATE	INVOICE #
3/9/2014	25346

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661
USED FOR <u>KG 103</u>
APPROVED <u>J & K</u>

- Acidizing
- Cement
- Tool Rental

FH

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-11	Culwell JT	Cheyenne	Company Tools	Oil	Development	Top To Bottom ...	Nick
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				185	Miles	6.00	1,110.00
579D	Pump Charge - Top To Bottom LongString - 4660 Feet				1	Job	2,000.00	2,000.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
281	Mud Flush				500	Gallon(s)	1.25	625.00T
290	D-Air				5	Gallon(s)	42.00	210.00T
403-5	5 1/2" Cement Basket				3	Each	300.00	900.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer				15	Each	90.00	1,350.00T
413-5	5 1/2" Roto Wall Scratcher				10	Each	40.00	400.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
325	Standard Cement				200	Sacks	14.50	2,900.00T
330	Swift Multi-Density Standard (MIDCON II)				300	Sacks	18.50	5,550.00T
276	Flocele				125	Lb(s)	2.50	312.50T
283	Salt				1,000	Lb(s)	0.20	200.00T
284	Calseal				9	Sack(s)	35.00	315.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
581D	Service Charge Cement				500	Sacks	2.00	1,000.00
583D	Drayage				4,653	Ton Miles	1.00	4,653.00
	Subtotal							23,150.50
	Sales Tax Cheyenne County						8.15%	1,172.58
We Appreciate Your Business!						Total		\$24,323.08



CHARGE TO: Murphy Dly C. Fae
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

TICKET 25346

PAGE 1 OF 2

SERVICE LOCATIONS
 1. Hays KS
 2. Ness City, KS
 3. _____
 4. _____

WELL/PROJECT NO. #1-11
 LEASE Culwell 115T
 COUNTY/PARISH Cheyenne
 STATE KS
 CITY location

TICKET TYPE SERVICE SALES
 CONTRACTOR C Teals #25
 RIG NAME NO. _____
 SHIPPED VIA CT
 DELIVERED TO location

WELL TYPE oil
 WELL CATEGORY Development
 JOB PURPOSE Top to Bottom Logging
 WELL PERMIT NO. _____

INVOICE INSTRUCTIONS _____

DATE 3-9-14
 ORDER NO. _____
 OWNER same
 WELL LOCATION _____

PRICE REFERENCE	SECONDARY REFERENCE PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #111	185	mi			6.00	1110.00
579					Pump Charge (Top to Bottom)	1	ea	4000		2000.00	2000.00
221					KEL	4	gal			25.00	100.00
281					Mud Flush	320	gal			1.95	625.00
290					D-Air	5	gal			42.00	210.00
403					Baskets	3	ea	5.5	11	300.00	900.00
406					LD Plug + Bottle	1	ea			275.00	275.00
407					Insert + Float Shoe w/ B11	1	ea			375.00	375.00
409					Tu-boc liners	15	ea			90.00	1350.00
413					Retainer / Seng Filter	10	ea			40.00	400.00
419					Retaining Head	1	ea			200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 3-9-14 TIME SIGNED _____
 A.M. P.M.

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

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL 1	7545.00
WE UNDERSTOOD AND MET YOUR NEEDS?				Page 2	1500.00
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Subtotal	23150.00
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Cheyenne TAX	1172.58
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO		TOTAL	24,323.08
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

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

SWIFT OPERATOR Michelle APPROVAL Ray
 Thank You!



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

TICKET CONTINUATION

TICKET No. 25396

CUSTOMER
Morgan Delg Car Inc

WELL #11 Caldwell's A

DATE 3-9-14

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		TIME	DESCRIPTION	WELL		DATE		UNIT PRICE	AMOUNT
		LOC	ACCT			DE	QTY	UM	QTY		
325		2			Standard Cement	200	skts			14.50	2900.00
330		2			SMD Cement	200	skts			28.50	5700.00
276		2			Flux	125	#			2.50	312.50
283		2			Salt	1000	#			20.00	20000.00
284		2			Calsea 1	9	skts			35.00	315.00
285		2			C.P.R-1	150	#			4.50	675.00
587		2			Service Charge					2.00	2.00
588		2			Mileage Charge					1.00	1.00
TOTAL											15685.50

CONTINUATION TOTAL 15685.50

JOB LOG

SWIFT Services, Inc.

DATE 3-8-14 PAGE NO. 1
 TICKET NO. 25346

CUSTOMER Martin Doly Co Inc

WELL NO. # 1-11

LEASE Calwell "JT"

JOB TYPE Top To Bottom

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0220							on loc w/FE
								RTP 4660'
								5 1/2" x 15.5 # x 4655' x 21'
								Turbos 1,2,3,4,6,7,8,10,12,14,16,18, 20, 38, 58
								Busk 11, 38, 58
	0530							start FE
	0715							60jts Break Circ.
	0850							Bottom Break Circ.
	1010	5	0				200	start Mud flush 500 gal
	1012	5	12/0				200	start KCL flush 20 bbl
	1016	5	20/0				200	start 255 sks SMD
	1044	5	148/0				200	start 200 sks EA-2
	1054		0/8					End Cement
								wash PTH
								Drop L.D. Plug
	1100	6	0				200	start Displacement
	1125	5	109				750/1500	Circ Cement
	1125		110					Land Plug
								Release Pressure
								Float Held
	1130		7/4					Plug R/H MH 30/15 sks SMD
								circ cement in collar
								Thank you
								Nick, David E., Tarrad & Craig

Culwell 'JT' #1-11
 Daily Drilling Report
 Page Two

- 3/6/14 Depth 4296'. Cut 86'. DT: None. CT: 16¾ hrs. Dev.: 6½° @ 4210'. **DST #2 4169-4210 (LKC G)**: 30-60-30-60. IF: blw built to ¼", died back, dead @ 20mins. FF: no blw. Rec.: 10'M w/oil spts (94%M, 4%O, 2%G). HP: 2098-2058. FP: 19/22, 23/24. SIP: 979-534. BHT: 129°.
- 3/7/14 Depth 4500'. Cut 204'. DT: None. CT: 4½ hrs. Dev.: None. **Pawnee**: influx tan gran - oolitic w/ generally pr-fr interparticle por w/ pp brn stn, fair sfo on brk but some listless, no odor NS of gas. **DST#3 4450-4500 (Pawnee)**:
- 3/8/14 Depth 4630'. Cut 130'. DT: None. CT: 14½ hrs. Dev.: 6° @ 4500'. **DST#3 4450-4500 (Pawnee)**: 30-60-60-90. IF: blw built to 9/4". FF: blw built to BOB (11") @ 25mins. Rec.: 380'GIP, 85'CO (96%O, 2%G, 2%M), 20'OCM (70%M, 23%O, 7%G). HP: 2168-2165. FP: 20/32, 29/59. SIP: 965-927. BHT: 137°. Plan to RTD at 4660'
- 3/9/14 RTD 4660'. Cut 30'. DT: 1hr time change. CT: 20½ hrs. Dev.: 4.7° @ 3934. HC @ 9:30AM 3/8. 1:15-2:00PM 3/8 Bridge @ 1070'. TIH to 1500' & TOOH w/bit. Pioneer logged 2:45PM -7:30PM 3/8. LTD: 4639'.
- 3/10/14 RTD: 4660'. CT: 9½ hrs. Ran 111 jts of 5½" prod csg @ 4655'. Swift cmt w/ 200 sxs EA2 & 200 sxs SMD. 30sxs @ RH & 20sxs @ MH. PD @ 12:30PM 3/9. Circ to cellar. RR @ 4:30PM 3/9/14. FINAL REPORT

MDCI Culwell 'JT' #1-11 1980' FNL 660' FWL Sec. 11-T1S-R37W 3134' KB							MDCI Culwell 'B' #1-11 850' FSL 700' FWL Sec. 11-T1S-R37W 3146' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	3073	+61	-3	3074	+60	-4	3082	+64
B/Anhydrite	3109	+25	-6	3106	+28	-3	3115	+31
Neva	3531	-397	-4	3530	-396	-3	3539	-393
Red Eagle	3593	-459	+1	3594	-460	Flat	3606	-460
Foraker	3647	-513	-8	3638	-504	+1	3651	-505
Topeka	3867	-733	-6	3864	-730	-3	3873	-727
Oread	4000	-866	-6	3998	-864	-4	4006	-860
Lansing	4082	-948	-6	4080	-946	-4	4088	-942
Stark	4300	-1166	-8	4296	-1162	-4	4304	-1158
BKC	4358	-1224	-14	4351	-1217	-7	4356	-1210
Pawnee	4476	-1342	-9	4473	-1339	-6	4479	-1333
Cherokee	4565	-1431	-9	4559	-1425	-3	4568	-1422
RTD	4660						4900	-1754
LTD				4639	-1505		4902	-1756