

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	FOCKE UNIT 1-22
Doc ID	1356144

All Electric Logs Run

DIL
DUCP
MEL
BHCS

TREATMENT REPORT



HURRICANE SERVICES INC

Customer: Murfin Drilling Company Inc.	Date: 5/23/2017	Ticket No.: 100741
Field Rep: Kelly Wilson		
Address:		
City, State:		
County, Zip:		

Field Order No.: 100741	Open Hole:	Perf Depths (ft)	Perfs
Well Name: Focke Unit # 1-22	Casing Depth: 303'		
Location: Atwood	Casing Size: 8.625 32 Lb		
Formation:	Tubing Depth:		
Type of Service: 8 5/8 Surface	Tubing Size:		
Well Type: Oil	Liner Depth:		
Age of Well: New	Liner Size:		
Packer Type:	Liner Top:		
Packer Depth:	Liner Bottom:		
Treatment Via: Casing	Total Depth: 304'		
		Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbbls)
	FLUID	N2/CO2	STP	ANNULUS				
4:30 PM					Called Out			
8:16 PM					On location with Trucks Hold Safety Meeting			
					Spot & Set Up Trucks			
					TD= 304' TP= 296' SJ=20'			
					Run 7 Jt's 32 Lb Csg Set @ 303' Centralizers Jt 1/2 1 Jt 4			
9:45 PM					Start Casing			
10:45 PM					Casing On Bottom			
10:50 PM					Hook Up To Casing & Break Circulation W/Rtg			
11:00 PM	4.0		175.0		Start Pumping H2O			10.00
	4.0		175.0		Start Mix 225 Sacks Common 2% Gel 3% C.C. @ 16 Lb/Gal			64.50
	4.0		175.0		Start Displacement H2O			17.29
11:30 PM			200.0		Shut Down			
					Good Circulation Thru Job			
					Circulate 5 Bbl's Cement To Pit			
11:45 PM					Off Location			
					Thank You			
					Please Call Again			
					Todd Tony Cody Sheldon			
TOTAL:						-	-	81.79

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
4.0	4.0	200.0	181.3

PRODUCTS USED

225 Sacks Common 2%Gel 3% Calcium Chloride

Treater: Todd Seba Tony P

Customer: Kelly Wilson

TREATMENT REPORT



HURRICANE SERVICES INC

Customer:	Murfin Drilling Company Inc.	Date:	6/1/2017	Ticket No.:	100746
Field Rep:	Juan				
Address:					
City, State:					
County, Zip:					

Field Order No.:	100746
Well Name:	Focke Unit # 1-22
Location:	Alwood
Formation:	
Type of Service:	PTA
Well Type:	Oil
Age of Well:	New
Packer Type:	
Packer Depth:	
Treatment Via:	Casing

Open Hole:	
Casing Depth:	
Casing Size:	
Tubing Depth:	2940' DP
Tubing Size:	4 1/2 16.8 Lb
Liner Depth:	
Liner Size:	
Liner Top:	
Liner Bottom:	
Total Depth:	4770'

Perf Depths (ft)	Perfs
Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
2:00 AM					Called Out			
6:30 AM					On location with Trucks Hold Safety Meeting			
					Spot & Set Up Trucks			
					TD=4770'			
					1 St Plug @ 2940' 50sk 60/40 4%Gel 1/4 Ps			
7:03 AM	3.9		200.0		Start Pumping H2O			15.00
	3.9		200.0		Start Mix & Pump 80 Sk 60/40 4%Gel 1/4 PS @ 13.8 Lb/Gal			12.65
	3.9		200.0		Start Displacement H2O			5.00
	7.0		200.0		Start Displacement Rig Mud			33.00
7:21 AM					Shut Down PDPOOH			
					2 nd Plug @ 1920' 100 Sk 60/40 4% Gel 1/4 PS			
7:56 AM	3.9		175.0		Start Pumping H2O			10.00
	3.9		175.0		Start Mix & Pump 100 Sk 60/40 4%Gel 1/4 PS @ 13.8 Lb/Gal			25.29
	3.9		175.0		Start Displacement H2O			3.00
	7.0		175.0		Start Displacement Rig Mud			18.00
8:15 AM					Shut Down PDPOOH			
					3 Rd Plug @ 360' 60 Sk 60/40 4% Gel 1/4 PS			
9:02 AM	3.5		150.0		Start Pumping H2O			5.00
TOTAL:								155.50

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
7.0	3.9	200.0	151.8

PRODUCTS USED

2155 Sacks 60/40 4% Gel 1/4 Lb/Sk Phenoseal

Treater: Todd Seba

Customer: Juan Tinico

MDCI
 Focke Unit #1-22
 1980' FNL 100'FWL
 Sec. 22-2S-34W
 3115' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	2928	+187	+1	2914	+201	+15
B/Anhydrite	2953	+162	+13	2954	+161	+12
Topeka	3834	-719	+26	3847	-732	+13
Oread	3960	-845	+15	3972	-857	+3
Lansing	4032	-917	+3	4030	-915	+5
Stark	4246	-1131	-3	4244	-1129	-1
Mound City	4293	-1178	-4	4290	-1175	-1
Ft Scott	4410	-1295	-3	4408	-1293	+5
Oakley	4482	-1367	+5	4483	-1368	+4
Mississippi	4668	-1553	-12	4664	-1549	-8
RTD	4770	-1655				
LTD				4770	-1655	



WESLEY D. HANSEN Consulting Petroleum Geologist

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Cellular 316.772.6188
whansen4651@sbcglobal.net

KGS
AAPG #799479
Kansas License #418



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

Well Name: Murfin Drilling Company, Inc. #1-22 Focke Unit

Location: 1980' FNL, 100' FWL of Section 22-2S-34W

License Number: API: 15-153-21188

Region: Rawlins County, KS

Spud Date: 5-23-2017

Drilling Completed: 6-1-2017

Surface Coordinates: 1980' FNL, 100' FWL of Section 22-2S-34W

Bottom Hole Vertical hole

Coordinates:

Ground Elevation (ft): 3110'

K.B. Elevation (ft): 3115'

Logged Interval (ft): 3760'

To: RTD

Total Depth (ft): 4770'

Formation: Mississippian at RTD

Type of Drilling Fluid: Chemical - displaced at 3515'

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

Cellular: 316-772-6188

COMMENTS

Contractor: Murfin Drilling Co., Inc. Rig #7
Pushers: Kelly Wilson/Juan Tinoco

Surface Casing: 8 5/8" set at 304' w/225 sx
Production Casing: P&A

Mud by: Morgan Mud - Cade Lines was the engineer.

DST's by: Trilobite - Martine Salinas was the tester.

Logs by: Pioneer Wireline (DIL, CN-CD, MEL, BHCS) - Dan Schmidt was the engineer

Deviation Surveys: 1 deg. @304'; 1/2 deg. @1519'; 1 deg. @3750'; 1 deg. @ 4150'; 1 deg. @ 4770'

Samples delivered to Kansas Well Sample Library in Wichita

BIT RECORD

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"	HTC	VM-1 rr	304'	304'	3 1/2
2	7 7/8"	HTC	DP 506 rr	3750'	3446'	29 1/4
3	7 7/8"	HTC	GX20C rr	4770'	1020'	45

FORMATION TOPS AND STRUCTURAL COMPARISON

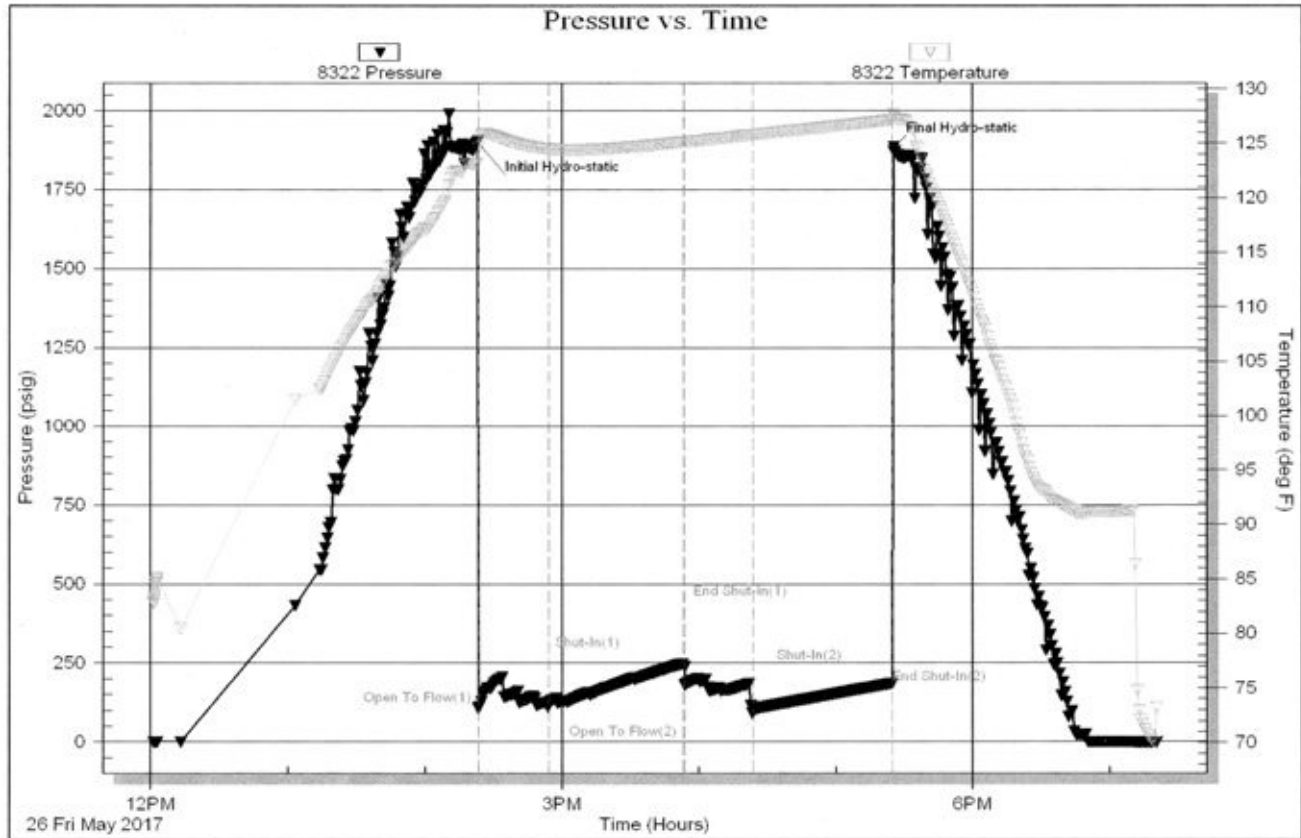
FORMATION	SAMPLE TOPS		LOG TOPS		COMPARISON WELL K&E Focke #1 NWNWSE of 16-2S-34W 3136' KB
	Depth	Datum	Depth	Datum	
Anhydrite	2912'	+203	2914'	+201	+15
B/Anhydrite	2953'	+162	2954'	+161	+12
Topeka	3846'	-731	3847'	-732	+13
Oread	3971'	-856	3972'	-857	+3
Lansing	4032'	-917	4030'	-915	+5
Stark Shale	4246'	-1131	4244'	-1129	-1
Mound City	4293'	-1178	4290'	-1175	-1
Fort Scott	4410'	-1295	4408'	-1293	+5
Oakley	4482'	-1367	4483'	-1368	+4
Mississippian	4668'	-1553	4664'	-1549	-8
RTD	4770'	-1655			
LTD			4770'	-1655	

DRILL STEM TESTS

DST No. 1 Oread
Interval: 3940'-3975'
Times: 30-60-30-60
Recovery: 129' mud
FP: 105-124/180-99 SIP: 248-185
HP: 1902-1884 BHT: 127 deg. F

IFP: bridged off 18' off bottom, opened tool,
broke thru bridge and went to bottom, bled
off; had 1/4" blow that died in 19 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow
definite plugging on chart

Serial #: 8322 Inside Murfin Drilling Co. Inc Focke Unit #1-22 DST Test Number: 1



DRILL STEM TESTS

DST No. 2 Leavenworth-Lansing "A"
Interval: 3994'-4060'
Times: 30-60-60-90
Recovery: 40' G&OCM (5g, 23o, 72m)
FP: 17-25/29-33 SIP: 186-168
HP: 2062-1894 BHT: 126 deg. F

IFP: surface blow built to 1 inch
ISIP: no return blow
FFP: surface blow built to 1/8 inch
FSIP: no return blow
8' of fill

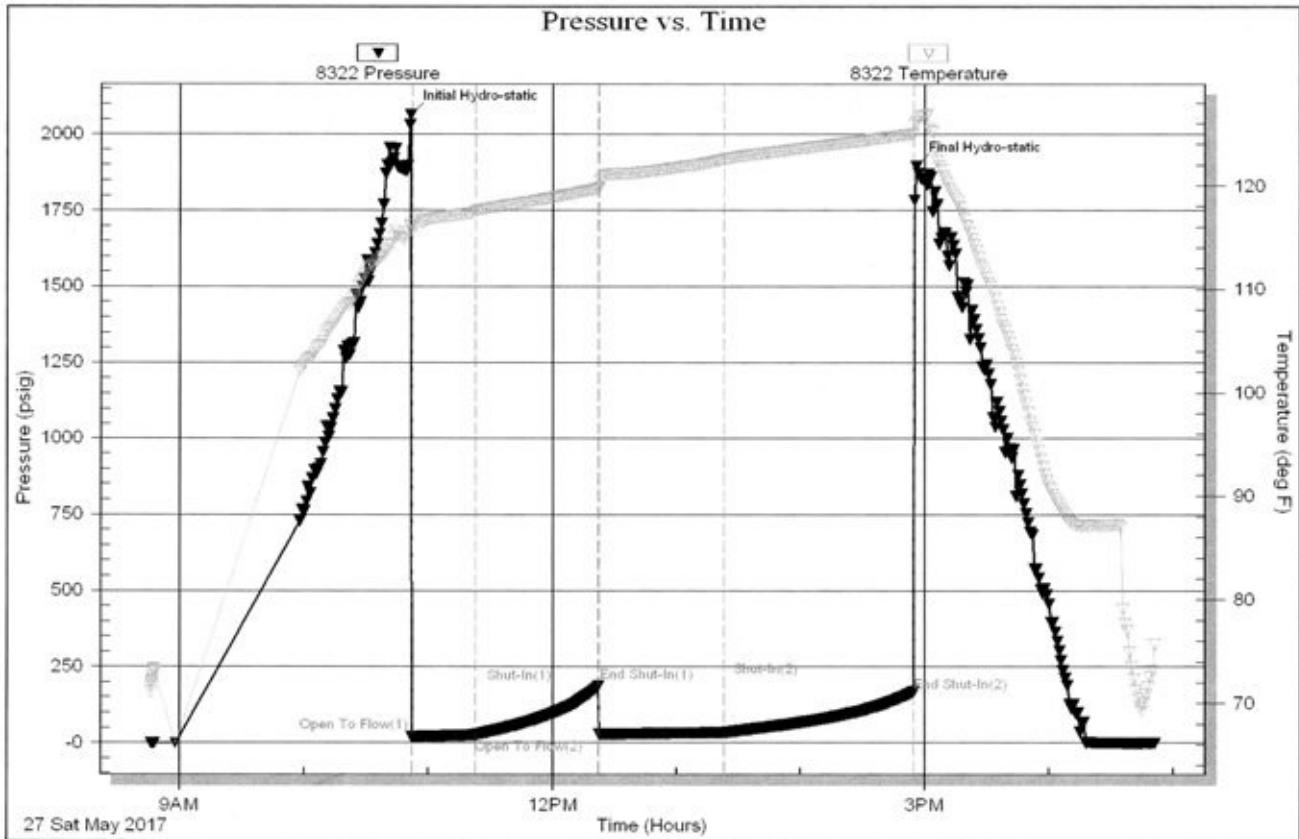
Serial #: 8322

Inside

Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 61238

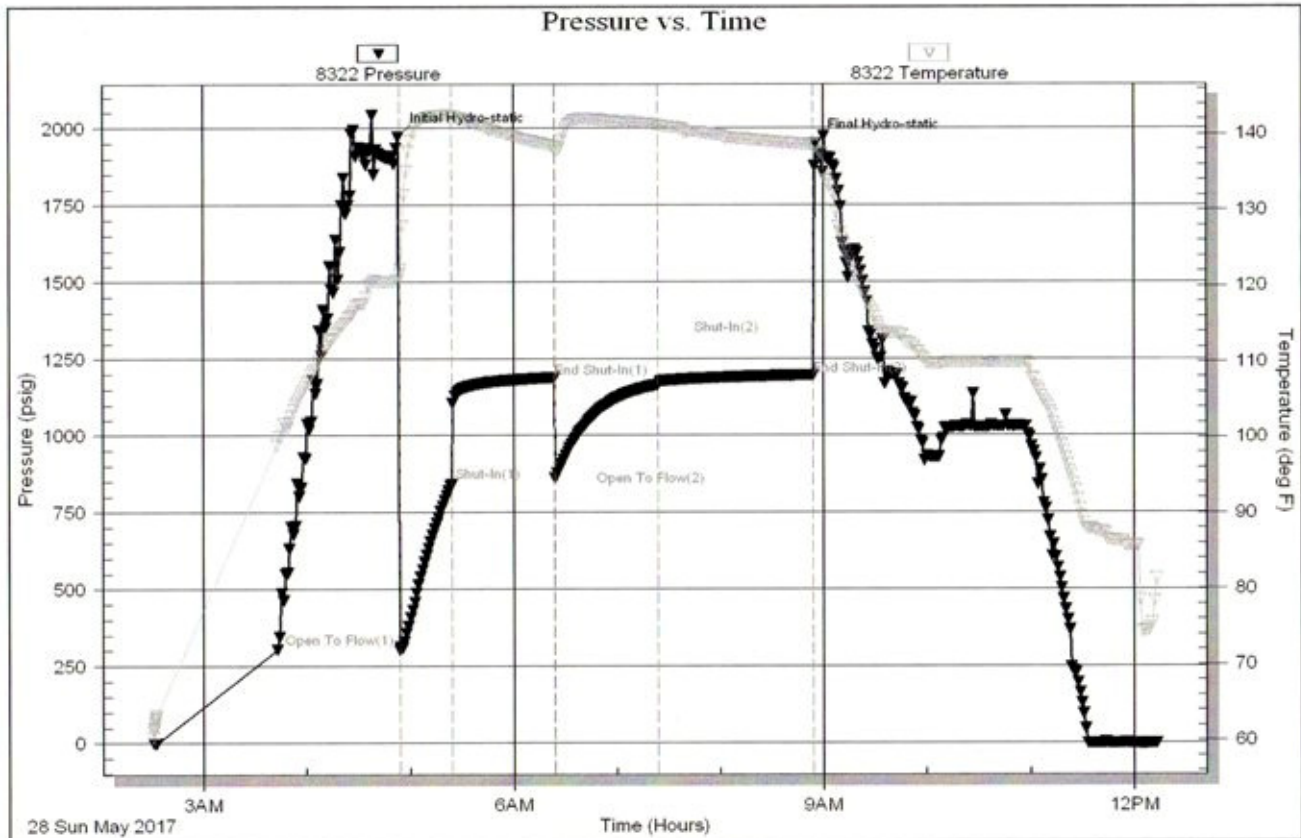
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DRILL STEM TESTS

DST No. 3 Lansing "D"
Interval: 4049'-4110'
Times: 30-60-60-90
Recovery: 396' SO&WCM (10o, 41w, 47m);
reversed out 2124' SO&MCW (avg. 2o, avg. 82w,
avg. 17m); 124' SO&WCM below circ. sub (1o,
22w, 77m); total fluid 2644'
FP: 303-842/860-1165 SIP: 1189-1197
HP: 1970-1948 BHT: 138 deg. F

IFP: strong blow built to B.O.B. in 3
minutes
ISIP: weak surface return, died in 12
minutes
FFP: strong blow built B.O.B. in 3
minutes
FSIP: no return blow

Serial #: 8322 Inside Murfin Drilling Co. Inc Focke Unit #1-22 DST Test Number: 3



DRILL STEM TESTS

DST No. 4 Lansing "G"
Interval: 4118'-4150'
Times: 30-60-60-90
Recovery: 15' CGO (10g, 90o); 58' G&OCM (11g,
41o, 48m)
FP: 14-30/30-49 SIP: 1113-1093
HP: 2021-2019 BHT: 131 deg. F

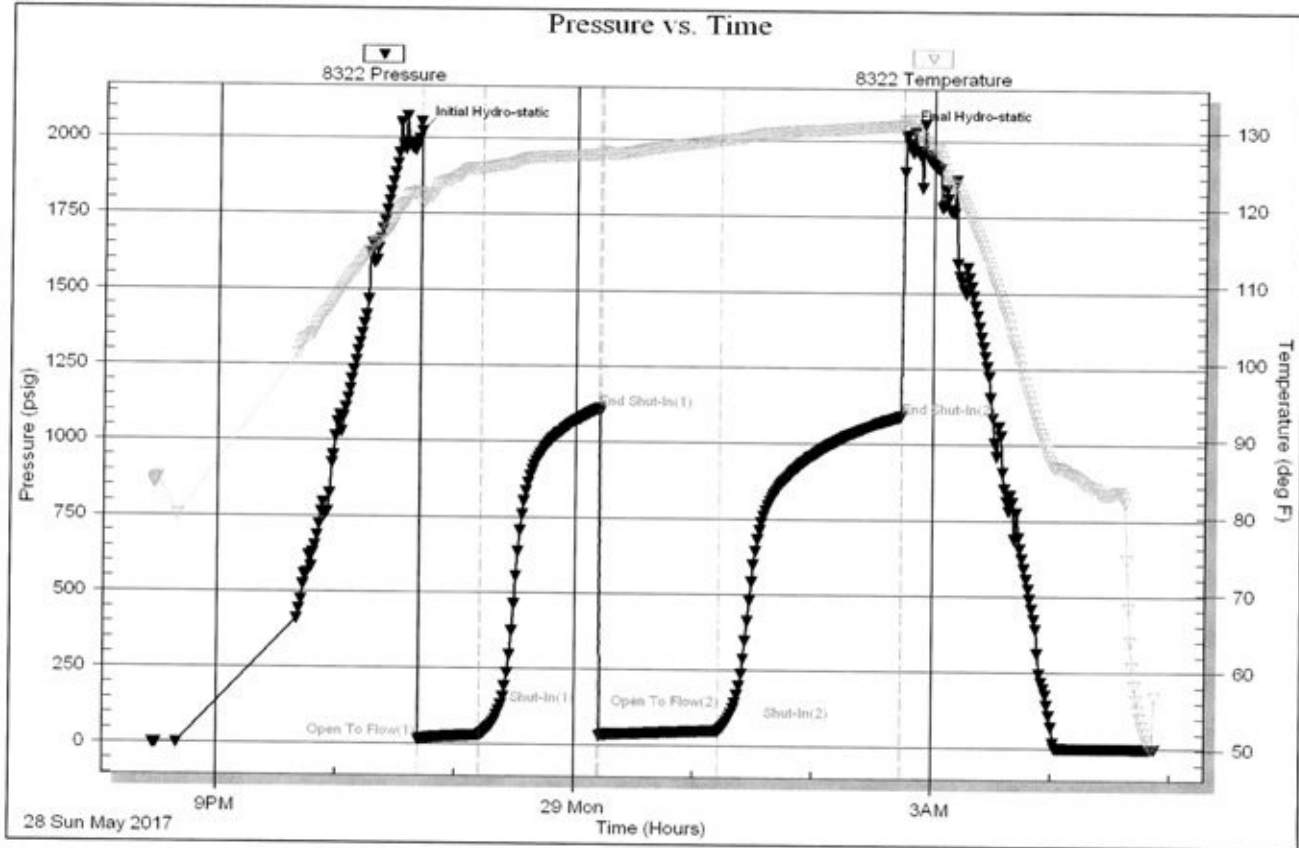
IFP: surface blow built to 2 inches
ISIP: no return blow
FFP: surface blow built to 4 inches
FSIP: no return blow

Serial #: 8322

Inside Murtin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 4



Tribble Testing, Inc.

Ref. No: 61240

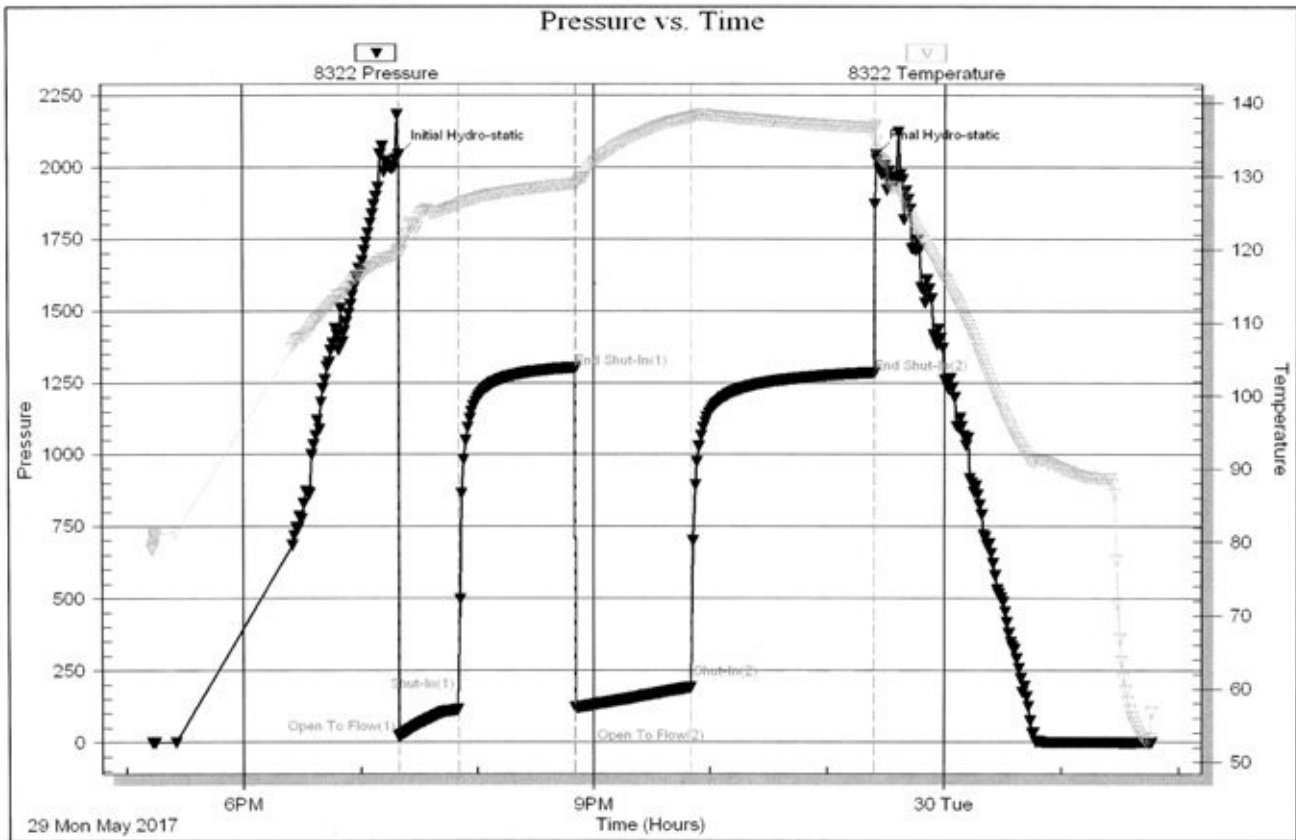
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DRILL STEM TESTS

DST No. 5 Lansing "H" -"J"
 Interval: 4158'-4250'
 Times: 30-60-60-90
 Recovery: 20' HWCM (40w, 60m); 176' MCW
 (23m, 77w); 185' SO&WCM (1o, 44w, 55m);
 total fluid 381'
 FP: 20-113/120-190 SIP: 1302-1285
 HP: 2040-2042 BHT: 135 deg. F

IFP: blow built to 9 inches
 ISIP: no return blow
 FFP: blow built to B.O.B. in 56 minutes
 FSIP: no return blow

Serial #: 8322 Inside Murfin Drilling Co. Inc Focke Unit #1-22 DST Test Number: 5



Triobite Testing, Inc

Ref. No: 61242

Printed: 2017.05.30 @ 02:10:35

ROCK TYPES

Congl	Lmst	Carb sh	Sltstn
Igne	Salt	Dol	Shlyslts
Anhy	Shale	Dtd	Sndy/siltyshale
Cht	Shcol	Grayshale	Silty dolo
Coal	Siltstone	Sandylms	Shy dolo
Congl	red sst	Redshale	Shaly ls
Gyp	Sst	Greenshale	Dolomite

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

- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstgr
- Ssstgr
- Carbsb
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- red shale
- green shale
- Sltstn

STRINGER

- Anhy
- Arg

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

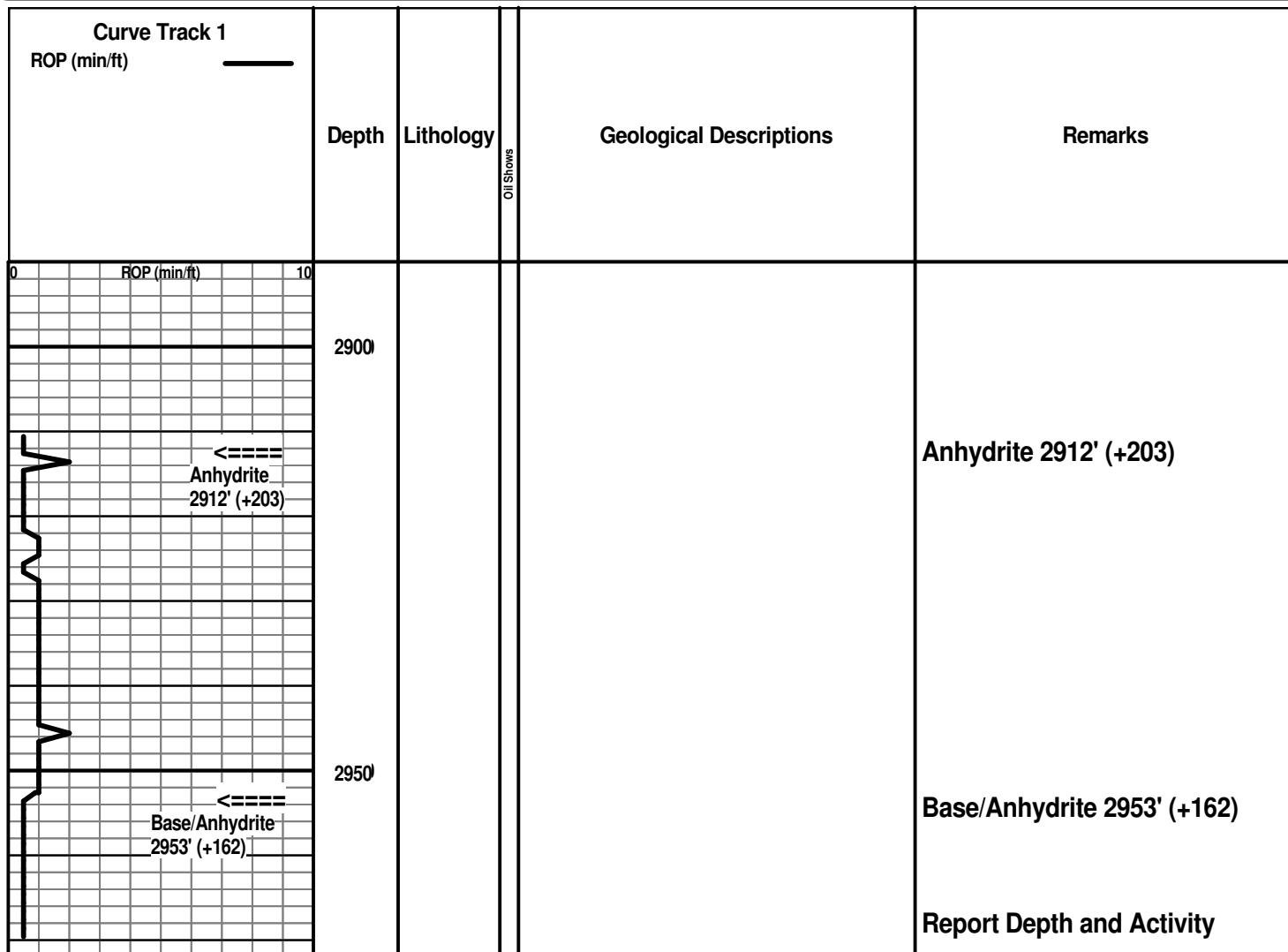
EVENTS

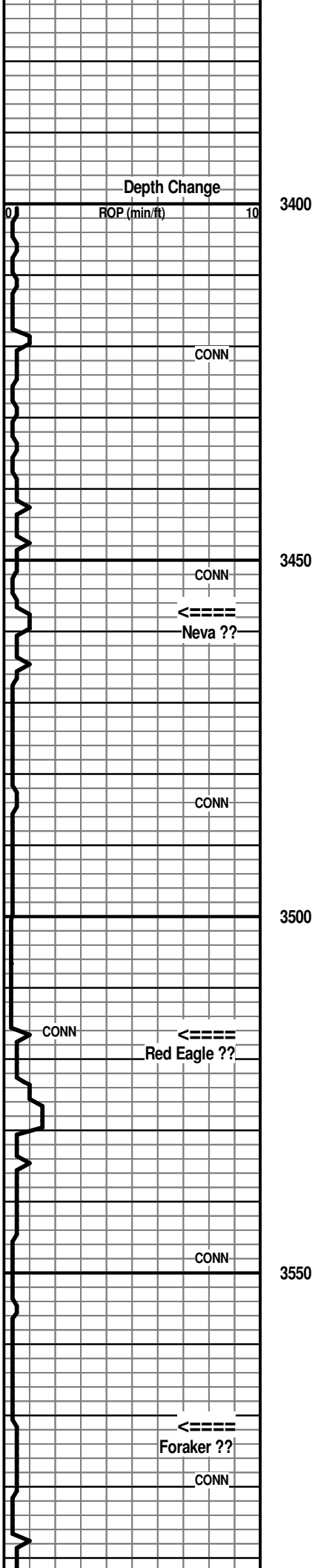
- Rft
- Dst top & bottom

OIL SHOWS

- Even
- Spotted
- Quest.

- Trace
- Dead
- Gas show

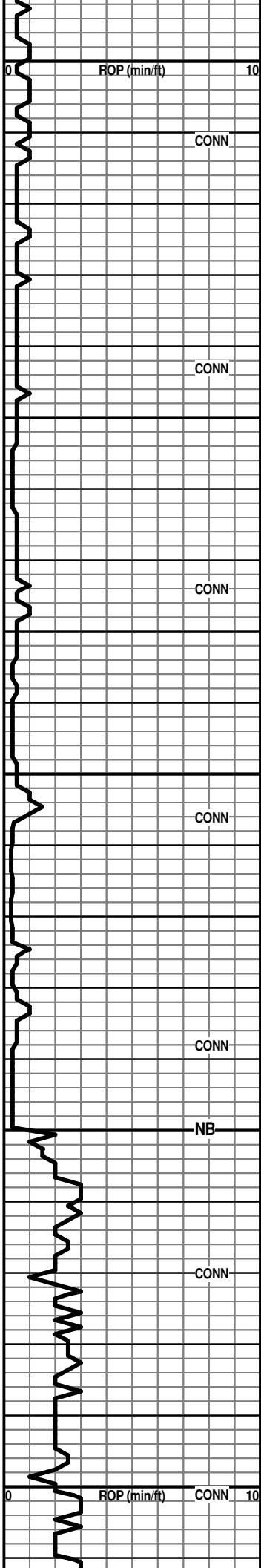




5-15-2017 Drilling water well
 5-16 hauled 6 loads, waiting on weather
 5-17/5-22 waiting on weather, muddy
 5-23 Finish MIRT, Spud at 5:30 PM
 5-24 WOC @ 304'
 5-25 Drlg. @ 3160'
 5-26 Repair rotary chain @ 3965'
 5-27 DST #2 @ 4060'
 5-28 DST #3 @4110'
 5-29 CTCH post DST #4 @ 4150'
 5-30 Drlg. @ 4263' post DST 5
 5-31 Drlg. @ 4570'
 6-1 RTD @ 4770' - logging completed at 1:15 AM - plugging

Drill time from 3400'-3750' from PDF bit courtesy of tool pusher, Kelly Wilson

Call point at 3460'



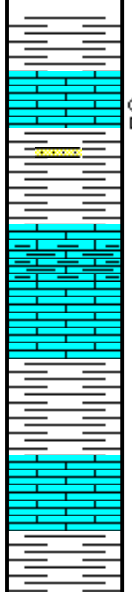
3600

3650

3700

3750

3800



60' spl - Sh: vc gray, lesser red-brn and red silty

70' spl - Ls: strong influx lt to med gray, lt brn granular to vfxln, NVP, mottled IP N.S.

80' spl - Sh: influx red-brn, silty IP; occ lt gray med grnd Sst, sl pyritic IP, N.S.; much decr. Ls AA; trace tan vfxln with patchy dead stain, milky cut, no odor, nfo

90' spl - Ls: several chips with dead stain AA; other lt gray, lt brn cryptoxln, NVP and offwhite mic-vfxln dense, subchalky IP, N.S.

3800' spl - Sh: new soft mushy red-brn; Ls: much decr. %; lt gray cryptoxln AA

10' spl - Ls: offwhite, lt gray fnxln, poor-NVP, some offwhite chalky; Sh: red-brn, lt green

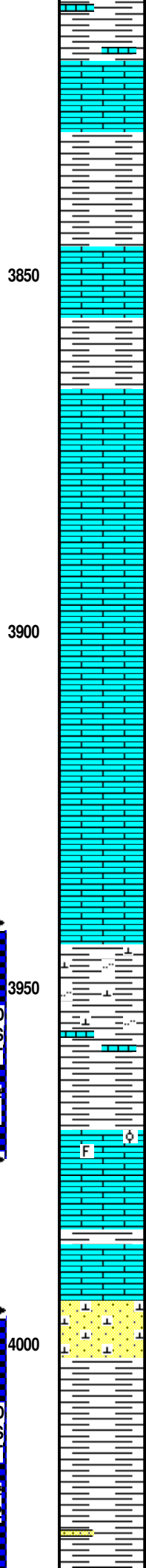
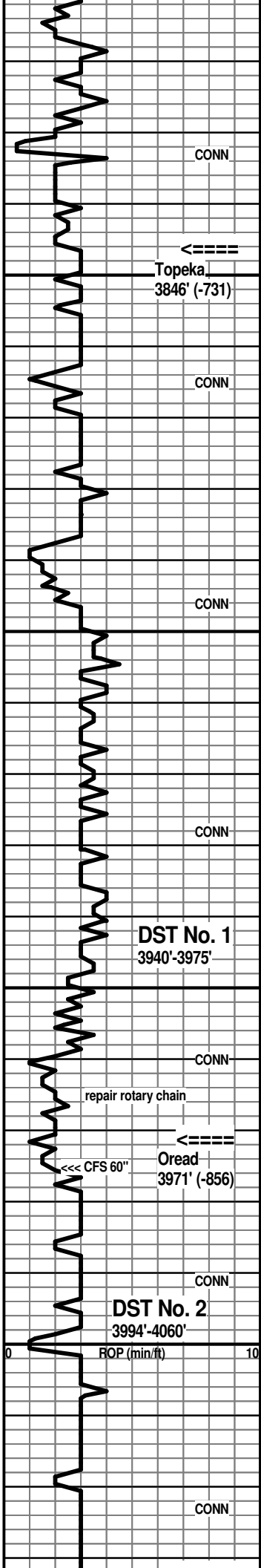
20' spl - Sh: flood red-brn, soft and mushy

Call point reached at 10:45 AM on 5-25-2017

Geologist on location at 3750' at 4:30 PM on 5-25-2017

tripped PDC bit at 3750' pipe strap at 3750' was 1.43' short

Start 10' samples at 3760'



30' spl - Sh: AA; sl incr. Ls: offwhite, lt gray cryptoxln, NVP, N.S.

40' spl - Ls: fair influx offwhite, lt gray, tan cryptoxln to granular IP, NVP, N.S.; Sh: red-brn

50' spl - Sh: incr. % red-brn, soft and mushy; some lt green; decr. Ls %

60' spl - Sh: flood soft, mushy red-brn

70' spl - Sh: AA with some Ls: offwhite, tan fn granular with poor-NVP, N.S.

80' spl - Ls: good influx fn granular dense AA with lt gray cryptoxln, NVP

90' spl - Ls: lt gray cryptoxln and offwhite mic-vfxln dense, N.S.

3900' spl - Ls: pred. mix AA with more offwhite mic-vfxln dense and tan fn granular with poor interxln por., N.S.; scatt. chips offwhite, lt gray with isolated vug. por. with black oily stain; some offwhite with patchy black gilsonitic stain, no odor, nfo

10' spl - Ls: occ chips with shows AA; pred. lt gray, tan cryptoxln and offwhite, tan mic-vfxln dense, subchalky IP

20' spl - Ls: mix lt to med gray cryptoxln and offwhite, lt gray mic-vfxln dense, NVP, N.S.

30' spl - Ls: mix AA with some lt to med gray shale

40' spl - Ls: mix offwhite mic-vfxln dense, lt to med gray cryptoxln, lt gray vfxln silty/shaly

50' spl - Ls: pred. lt to med gray vf-cryptoxln, NVP; lesser offwhite, lt gray dense AA

60' spl - Sh: flood med to dark gray silty and calcar.

70' spl - Sh: AA with sl influx Ls: dark gray, gray-brn cryptoxln

CFS 3975' 20" spl - Ls: influx tan, offwhite foss. and oolitic with some inter-particle por. and some vug. por. with dark brn to black stain, fair sfo, no odor; other offwhite, lt gray vf-cryptoxln, and offwhite, tan mic-vfxln dense, subchalky IP, NVP, N.S.; CFS 40"/60" spls - >>>

90' spl - Ls: mix offwhite, lt gray, tan cryptoxln; lesser offwhite, tan mic-vfxln dense, sl pyritic IP; and lt to med gray, dense, shaly

4000' spl - Ls: mix AA; sl incr. med gray shale

10' spl - Ls: tan, offwhite vf-cryptoxln, some gran. with rare vug. por. with patchy black stain, nfo; med brn cryptoxln; one chip lt brn with imbedded qtz grains with sat. stain; Sh: influx dark gray; Sst: lt gray vfg, soft with calc. cmt with patchy to sat. brn stain, sfo on break, fair odor, some N.S.

20' spl - Sh: influx soft gray and red-brn; Sst: common lt gray vfg, soft AA, some shows AA; some Ls: lt to med brn cryptoxln

30' spl - Sh: strong influx soft, mushy red-brn; lesser med to dark gray and green-gray; minor tan, offwhite cryptoxln Ls

40' spl - Sh: AA; some Sst: lt gray vfg calc.; Ls: tan, lt brn cryptoxln, occ with patchy stain; tan fn oolitic with some poor-fair inter-oolitic por. with patchy to sat. stain, sfo on break, ft odor on break, gas, tightly bound

Topeka 3846' (-731)

DST No. 1 Oread
Interval: 3940'-3975'
Times: 30-60-30-60
IFP: bridged off 18' off bottom, opened tool, broke thru bridge and went to bottom, bled off; had 1/4" blow that died in 19 minutes
ISIP: no return blow
FFP: no blow
FSIP: no return blow
definite plugging on chart
Recovery: 129' mud
FP: 105-124/180-99 SIP: 248-185
HP: 1902-1884 BHT: 127 deg. F

ran 5 stand short trip ahead of DST No. 1

7:00 AM at 3965' on 5-26-2017

Oread 3971' (-856)

CFS 40" spl - Ls: offwhite, lt gray, tan mic-vfxln dense AA; occ chips with shows AA; other lt to med gray cryptoxln, NVP; 60" spl - Ls: mix AA; fairly minor med gray and red-brn shale

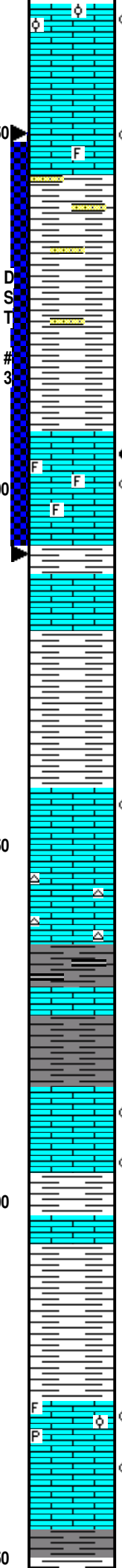
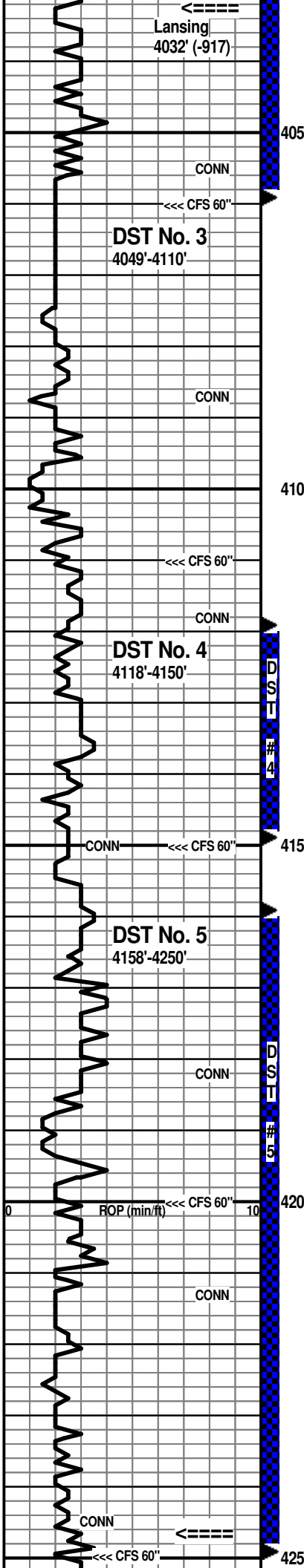
Morgan Mud Check at 3975'

10:40 AM on 5-26-2017
wt vis wl pH chl
8.8 62 6.0 11.0 1000
PV YP Gels lcm solids
21 22 7/28 3# 3.6%

DST No. 2 Leavenworth-Lansing "A"

Interval: 3994'-4060'
Times: 30-60-60-90
IFP: surface blow built to 1 inch
ISIP: no return blow
FFP: surface blow built to 1/8 inch
FSIP: no return blow
Recovery: 40' G&OCM (5g, 23o, 72m)
FP: 17-25/29-33 SIP: 186-168
HP: 2062-1894 BHT: 126 deg. F
8' of fill

Lansing 4032' (-917)



break, n odor on break, gen. tightly bound

50' spl - Ls: flood lt brn smooth cryptoxln, NVP, N.S.

60' spl - Ls: lt brn cryptoln AA, rare spotty stain, NVP

CFS 4060' 20" spl - Sh: influx vc gray, red-brn, gray-green; Sst: lt gray, tan vfg with patchy to sat. stain, nfo; Ls: AA; offwhite mic-vfxln dense; 40" spl - Ls: some lt brn gran/foss with some inter-particle por. with stain, sfo, sl odor; abund. vc gray shale; CFS 60" spl - >>>

70' spl - trashy; 80' spl - Sh: pred. red-brn, red-maroon; lesser lt to med gray; some Sst: lt gray vfg, silty and calcareous, N.S.

90' spl - Sh: very pred. red-brn, red-maroon; occ Sst AA

4100' spl - Sh: various AA; Ls: tan, offwhite vfxln with patchy stain, poor-NVP; several chips tan med to coarse gran. and foss. with vug. and inter-particle por with stain, vs! sfo on break, no odor

10' spl - Ls: shows AA; some offwhite gran. with black stain on xtl contacts, NVP; influx lt gray, some lt brn cryptoxln, NVP with patchy stain

CFS 4110 30" spl - Ls: various cryptoxln AA; influx offwhite subchalky to chalky; 60" spl - low volume, Ls: lt gray cryptoxln and offwhite subchalky to chalky

20' spl - quest. new rocks, Ls: mix AA; common Sh: red-brn, red-maroon, lt gray; 30' spl >>>

40' spl - flood Sh: pred. red-maroon, lesser red-brn

50' spl - Sh: mix AA; Ls: occ lt gray, tan cryptoxln to gran., NVP

CFS 4150' 30" spl - Ls: scatt. tan, lt brn gran. with some inter-particle and vug. por. with subsat-sat stain, no odor, good show bleeding oil, vs! sg; other lt gray, tan cryptoxln, NVP, N.S.; 60" spl - Ls: mix AA, shows AA; Sh: incr. % red-brn, red-maroon, med gray

60' spl - quest. new rocks; Ls: mix AA with influx chert: offwhite, opq; 70' spl - flood Ls: lt gray, some gray-brn cryptoxln, NVP; lt gray dense, shaly IP; Chert: offwhite opq, mottled orange opq

80' spl - Ls: influx dark gray cryptoxln, mottled IP, NVP; influx Sh: dark gray to black

90' spl - Sh: dark gray to black AA; Ls: dark gray, some dark brn cryptoxln

4200' spl - Ls: good influx offwhite vfxln dense, N.S.; several chips offwhite fn gran. with fair inter-particle and vug. por. with patchy black stain, vs! sfo, trace sg on break, no odor

CFS 4200' 30" spl - Ls: flood lt gray, tan pred. cryptoxln, NVP; other offwhite mic-vfxln dense, subchalky IP; occ white chalky; 60" spl - >>>

10' spl - Ls: mix lt to med gray, lt brn sl mottled gran. NVP; offwhite, tan fn gran. with ppt to patchy dead stain, no odor, nfo, gen. poor-NVP

20' spl - Ls: mix AA; good influx Sh: red-maroon, red-brn, med to dark gray

30' spl - Sh: very pred. dark red-brn, red-maroon

40' spl - Sh: AA, decr. %; Ls: several chips offwhite, tan fn gran., sl oolitic and foss. with vug. and fair inter-particle and ppt por. with poss. faint odor, subsat-sat stain in dry spls, fair show dark brn to black oil on break, vs! sg; occ dark brn pyritic, sl gran., N.S.

50' spl - Ls: some patchy stain AA; pred. tan, lt gray, some lt brn cryptoxln and offwhite, tan mic-vfxln subchalky to occ chalky, N.S.; trace tan cryptoxln with lt stain in vug. por.

CFS 4250' 30" spl - Ls: influx sl mottled lt to med brn, more gran., NVP, N.S.; Sh: sl influx lt to med gray, red-brn; 60" spl - >>>

CFS 4060' 60" spl - Ls: mix lt to med brn cryptoxln NVP and offwhite fnxn with spotty stain; Sh: pred. lt to med gray; Sst: lt gray, offwhite vfg, some shows AA

short trip of 10-12 stands prior to DST 2

7:00 AM at 4060' on 5-27-2017

Morgan Mud Check at 4060'

10:30 AM on 5-27-2017

wt vis wl pH chl
 8.6 56 6.4 10.5 1000

PV YP Gels lcm solids
 18 18 6/21 3# 2.2%

DST No. 3 Lansing "D"
 Interval: 4049'-4110'
 Times: 30-60-60-90
 IFP: strong blow built to B.O.B. in 3 minutes
 ISIP: weak surface return, died in 12 minutes
 FFP: strong blow built B.O.B. in 3 minutes
 FSIP: no return blow
 Recovery: 396' SO&WCM (10o, 41w, 47m); reversed out 2124' SO&MCW (avg. 2o, avg. 82w, avg. 17m); 124' SO&WCM below circ. sub (1o, 22w, 77m); total fluid 2644'
 FP: 303-842/860-1165 SIP: 1189-1197
 HP: 1970-1948 BHT: 138 deg. F

7:00 AM at 4110' on 5-28-2017

30' spl - Ls: scatt. chips tan, offwhite gran. with gen. poor inter-particle por. to NVP, with ppt stain, no odor, some listless oily film on break; tan, lt to med gray, lt brn cryptoxln, NVP, N.S.

Morgan Mud Check at 4110'

12:05 PM on 5-28-2017

wt vis wl pH chl
 9.0 45 6.4 10.5 900

PV YP Gels lcm solids
 13 12 5/20 4# 5.0%

7:00 AM at 4150' on 5-29-2017

DST No. 4 Lansing "G"
 Interval: 4118'-4150'
 Times: 30-60-60-90
 IFP: surface blow built to 2 inches
 ISIP: no return blow
 FFP: surface blow built to 4 inches
 FSIP: no return blow
 Recovery: 15' CGO (10g, 90o); 58' G&OCM (11g, 41o, 48m)
 FP: 14-30/30-49 SIP: 1113-1093
 HP: 2021-2019 BHT: 131 deg. F

CFS 4200' 60" spl - Ls: mix offwhite mic-vfxln subchalky with ppt por.; other lt gray cryptoxln to sl mottled gran., NVP, N.S.; Sh: sl influx dark gray to black

DST No. 5 Lansing "H"-"J"
 Interval: 4158'-4250'
 Times: 30-60-60-90
 IFP: blow built to 9 inches
 ISIP: no return blow
 FFP: blow built to B.O.B. in 56 minutes
 FSIP: no return blow
 Recovery: 20' HWCM (40w, 60m); 176' MCW (23m, 77w); 185' SO&WCM (1o, 44w, 55m); total fluid 381'
 FP: 20-113/120-190 SIP: 1302-1285
 HP: 2040-2042 BHT: 135 deg. F

Stark Shale 4246' (-1131)

CFS 4250' 60" spl - Ls: various dense AA; scatt. tan,

Stark Shale
4246' (-1131)

CONN

←=====
Mound City
4293' (-1178)

<<< CFS 60"

CONN

CONN

4300

4350

CONN

4400

ROP (min/ft)

CONN

←=====
Fort Scott
4410' (-1295)

<<< CFS 60"

CONN

<<< rig repairs
change swivel

4450

CONN

60' spl - trashy; 70' spl - Sh: AA, influx brn silty and finely pyritic gray; occ Ls: tan, lt gray cryptoxln

80' spl - flood Ls: lt gray, tan, lt brn pred. cryptoxln, gran. IP, NVP, N.S.; other offwhite, lt gray vfxln dense; much decr. Sh %

90' spl - Ls: mix AA with med brn cryptoxln and mottled gray gran. NVP; Sh: incr. dark red-brn, other med gray, dark gray to balck

4300' spl - Ls: lt to med gray, lt brn sl gran. to cryptoxln, NVP, N.S.; some mottled with maroon shale; Sh: some dark red-maroon, dark gray

CFS 4300' 30" spl - Sh: influx red-maroon, red-brn; Ls: various AA, decr. %; some offwhite mic-vfxln subchalky; 60" spl - >>>

10' spl - Ls/Sh mix AA with influx Sst: lt brn, lt gray vfg, very calcar. with some patchy stain, no odor, nfo, weak cut

20' spl - Ls: good influx pred. lt to med gray, tan cryptoxln; lesser lt brn gran. and lt gray vfxln, sl shaly

30' spl - influx Sh: lt red, lt red-brn; Ls: lt gray, offwhite sl gran., vsl foss., NVP, N.S.

40' spl - Sh: lt red-brn, lt red-maroon; Ls: lt gray, tan cryptoxln; lt to med gray gran. NVP, N.S.

50' spl - influx Ls: lt to med gray, very shaly to very calcar. gray shale, silty IP

60' spl - AA; other Ls: lt gray, tan, lt brn cryptoxln

70' spl - very shaly Ls AA; with incr. lt to med gray, gray-brn vf-cryptoxln Ls; Sh: influx gray, brn, lt red-maroon

80' spl - Sh: influx lt gray very soft and mushy, clayey; other brn, med gray, red-brn

90' spl - Ls: influx lt gray, tan, lt brn cryptoxln; lesser offwhite mic-vfxln dense, subchalky

4400' spl - Ls: mix AA; incr. offwhite mic-vfxln subchalky; Sh: streaks lt to med gray

10' spl - Ls: lt gray, offwhite mic-vfxln dense, shaly IP; lesser lt gray, lt brn cryptoxln; Sh: lt to med gray

20' spl - Sh: influx lt to med gray, red-brn, red-maroon, soft mushy lt red; Ls: much decr. %, some med gray, med brn cryptoxln

CFS 4420' 30" spl - flood Ls: some tan gran., oolitic IP with poor-fair inter-particle por., N.S.; pred. lt to med gray cryptoxln, NVP, N.S.; CFS 60" spl - >>>

30' spl - Ls: lt to med gray, some gray-brn cryptoxln; Sh: lt to med gray

40' spl - Sh: abund, lt to med gray; Ls: pred. various gray AA, decr. %

50' spl - pred. Ls: mix tan, lt gray, some lt brn cryptoxln; lesser tan mic-fxln with ppt por., subchalky matrix; Sh: dark red-brn, dark red, maroon, gray (spl's likely a little trashy from pulling stands for rig repair)

60' spl - Ls: pred. med gray cryptoxln to sl granular, NVP, N.S.; some lt to med gray shale

70' spl - Sh: influx med to dark gray, some black carb., some soft mushy lt gray; Ls: decr. % lt gray, lt brn cryptoxln and lt gray dense, shaly

80' spl - Sh: strong influx lt gray, very soft and mushy; minor cryptoxln Ls

offwhite vfxln with some small vug, por with patchy stain, no odor, nfo; incr. lt to med gray sl gran. to cryptoxln; Sh: incr. % AA

7:00 AM at 4263' on 5-30-2017

Morgan Mud Check at 4250'
2:45 PM on 5-29-2017

wt vis wl pH chl
8.9 74 6.0 11.0 1300
PV YP Gels lcm solids
24 27 8/34 4# 4.3%

Mound City 4293' (-1178)

CFS 4300' 60" spl - Ls: mix tan, lt gray cryptoxln to gran., NVP; Sh: red-maroon, red-brn

Morgan Mud Check at 4305'
10:20 AM on 5-30-2017

wt vis wl pH chl
8.9 88 6.4 11.5 1800
PV YP Gels lcm solids
28 28 11/34 4# 4.3%

Fort Scott 4410' (-1295)

CFS 4420' 60" spl Ls: mix AA, pred. various gray cryptoxln; lesser offwhite, lt gray mic-vfxln dense; scatt. gray opq chert

pulled drill pipe to collars to replace swivel at 4446'

Oakley
4482' (-1367)

CONN

4500

<<< CFS 60"

CONN

4550

CONN

CONN

4600

ROP (min/ft)

CONN

4650

CONN

Mississippian
4668' (-1553)

CONN

90' spl - Sh: pred. med to dark gray, black; Ls: sl incr. % lt gray, med to dark brn cryptoxln, NVP and gray gran. with poor-NVP, N.S.

4500' spl - flood Ls: lt to med brn, lt to med gray cryptoxln and tan, offwhite mic-vfxln dense, subchalky to chalky IP

10' spl - Ls: various cryptoxln AA; Sh: red-brn, some soft; med to dark gray

20' spl - Ls: lt to med gray, some lt to med brn cryptoxln; lesser offwhite subchalky to chalky

CFS 4520' 20" spl - Ls: mix AA; Sh: sl influx soft mushy lt red, occ green, gray; 40" spl - Sh: good influx soft red-brn, lt red; Ls: mix AA; 60" spl - shales AA, some mottled red-maroon/gray; some Sst: sl influx offwhite fg with red shale filled interstices

30' spl - no new rocks; 40' spl - some Sst: offwhite, tan vf-fg with fair-good inter-granular por., N.S.

50' spl - mix red-brn and red-maroon shales with Sst AA; occ very coarse single qtz grains

60' spl - Sst: incr. coarse to very coarse single qtz grains, lt gray, yellow, tan, ang-subrnd; scatt. fn-med grnd clusters, shaly IP, N.S.; Shales AA

70' spl - shales and loose grains AA; influx Sst: red-brn fn-med grnd clusters, shaly; some sandy pyrite

80' spl - Sh: pred. dark red-brn, sandy IP; Sst: dirty red-brn, gray shaly; scatt. single grains

90' spl - flood Sst: coarse to very coarse grains, ang-subrnd, gray, tan, yellow

4600' spl - sands AA; Sh: dark-red-brn, red-maroon, lesser gray, green, yellow, mottled IP

10' spl - pred. shales AA; Sst: influx dirty brn fg, tight, N.S.

20' spl - flood Sst: lt gray, tan, yellow, orange coarse to very coarse loose grains, ang-rnd, N.S.

30' spl - Sst: loose grains AA; some offwhite, lt gray vf-fg clusters, N.S.; influx Sh: pred. red-brn, red-maroon, some dark yellow and gray

40' spl - flood Sh: red-brn, dark red-maroon; Sst: brown fg, shaly, tight, vsl glauc. IP, silica cement

50' spl - still very shaly with Sst: influx offwhite, tan fg, silica cement, vsl glauc., with shale partings; some dark brn/red fg Sst AA; incr. loose grains

60' spl - Sst: very pred. loose grains of coarse to very coarse ang-subrnd; lesser dirty red, tight clusters, shaly, hard

70' spl - flood Chert: tan, lt gray, yellow opq, some offwhite opq, weath. with some ppt por., N.S.; Ls: tan, offwhite gran., dense

80' spl - very cherty AA with influx yellow shale

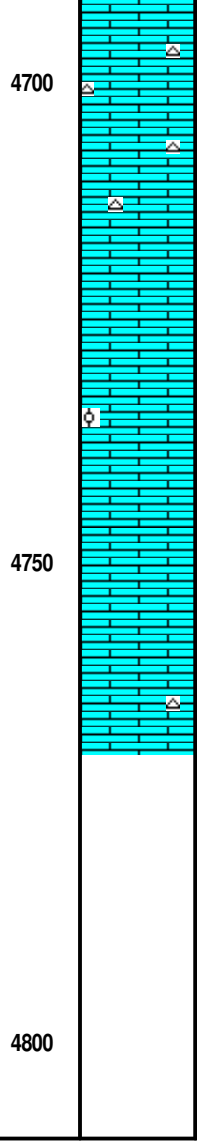
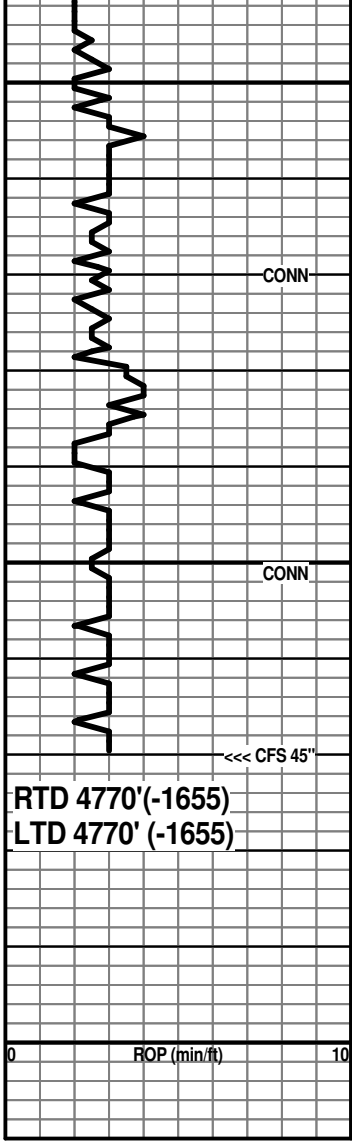
90' spl - flood Ls: offwhite, tan mic-vfxln dense; Dolo: lt gray, offwhite vfxln, poor-NVP, N.S.

4700' spl - Ls/Dolo mix AA with offwhite opq, fresh chert

Oakley 4482' (-1367)

7:00 AM at 4570' on 5-31-2017

Mississippian 4668' (-1553)



10' spl - Ls: offwhite mic-vfxln dense; with lt brn, lt gray cryptoxln; common Chert: tan, lt yellow, opq, fresh

20' Ls: strong influx med brn smooth cryptoxln and offwhite subchalky with Chert: offwhite, tan opq fresh

30' Ls: various lt to med brn, lt gray cryptoxln and offwhite mic-vfxln dense, subchalky, non-cherty

40' Ls: pred. med gray, gray-brn cryptoxln NVP, pred. smooth

50' spl - Ls: influx offwhite, tan gran. to faintly oolitic IP with offwhite micxln matrix

60' spl - Ls: tan gran. AA with influx offwhite subchalky-chalky

70' Ls: pred. offwhite subchalky to chalky

CFS 4770' 20" spl - Ls: pred. subchalky to chalky AA; 45" spl - Ls: AA with occ tan cryptoxln and occ tan chert

After review of samples, DST's and log evaluation, the decision was made to plug the Focke Unit #1-22 as a dry hole.

Respectfully submitted,

Wesley D. Hansen
 Petroleum Geologist
 Kansas Licensed Geologist No. 418

Morgan Mud Check at 4745'
 1:50 PM on 5-31-2017
 wt vis wl pH chl
 9.0 67 6.0 11.0 1600
 PV YP Gels lcm solids
 23 24 9/34 4# 5.0%

RTD was reached at 2:50 PM on 5-31-2017 - CFS 45" - short trip 10+ stands - CTCH 1 1/2 hours - survey - TOFL

RTD 4770' (-1655)
 LTD 4770' (-1655)

ROP (min/ft) 10

4800



DRILL STEM TEST REPORT

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

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

Focke Unit #1-22

22-2S.-34W Rawlins,KS

Start Date: 2017.05.26 @ 12:01:00

End Date: 2017.05.26 @ 19:21:00

Job Ticket #: 61237 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.05.31 @ 16:19:34



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61237

DST#: 1

Test Start: 2017.05.26 @ 12:01:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:23:20

Time Test Ended: 19:21:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 82

Interval: 3940.00 ft (KB) To 3975.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 3975.00 ft (KB) (TVD)

3110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8322

Inside

Press@RunDepth: 98.63 psig @ 3941.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.26

End Date:

2017.05.26

Last Calib.:

2017.05.26

Start Time: 12:01:01

End Time:

19:21:00

Time On Btm:

2017.05.26 @ 14:22:50

Time Off Btm:

2017.05.26 @ 17:25:30

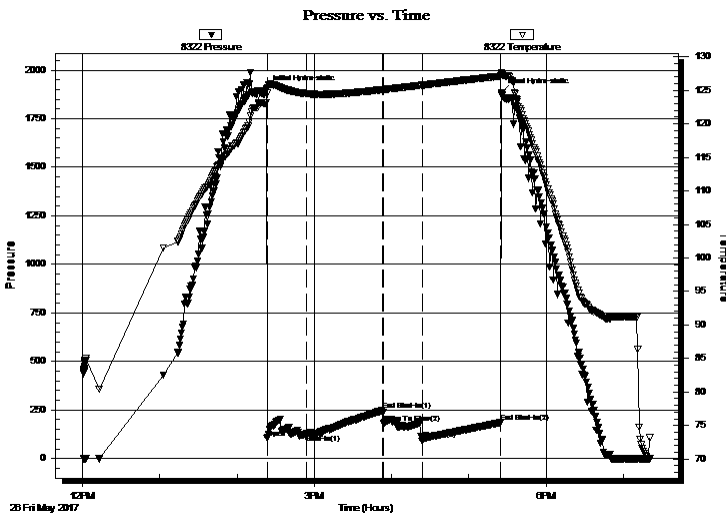
TEST COMMENT: 30-IF-Surface.blow built to 1/4" died @ 19 mins

60-ISI-No blow

30-FF-No blow

60-FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1901.88	123.17	Initial Hydro-static
1	105.26	124.59	Open To Flow (1)
31	123.64	124.49	Shut-In(1)
91	247.92	125.10	End Shut-In(1)
91	179.85	125.08	Open To Flow (2)
122	98.63	125.76	Shut-In(2)
182	184.92	127.12	End Shut-In(2)
183	1883.61	127.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
129.00	100%M	0.63

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61237 **DST#: 1**

Test Start: 2017.05.26 @ 12:01:00

GENERAL INFORMATION:

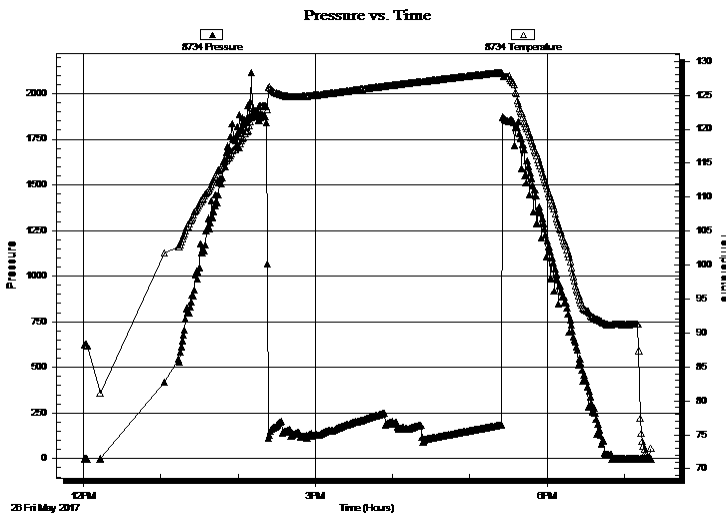
Formation: **Oread**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:23:20
 Time Test Ended: 19:21:00
 Interval: **3940.00 ft (KB) To 3975.00 ft (KB) (TVD)**
 Total Depth: 3975.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Martine Salinas
 Unit No: 82
 Reference Elevations: 3115.00 ft (KB)
 3110.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: psig @ 3941.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2017.05.26	End Date: 2017.05.26	Last Calib.: 2017.05.26
Start Time: 12:01:01	End Time: 19:21:00	Time On Btm:
		Time Off Btm:

TEST COMMENT: 30-IF-Surface.blow built to 1/4" died @ 19 mins
 60-ISI-No blow
 30-FF-No blow
 60-FSI-No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
129.00	100%M	0.63

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61237

DST#: 1

Test Start: 2017.05.26 @ 12:01:00

Tool Information

Drill Pipe:	Length: 3739.00 ft	Diameter: 3.80 inches	Volume: 52.45 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 53.36 bbl</u>	Tool Chased 18.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3940.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Opened tool @ bridge and slid to bottom 18'

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

Shut In Tool	5.00			3917.00	
Hydraulic tool	5.00			3922.00	
Jars	5.00			3927.00	
Safety Joint	3.00			3930.00	
Packer	5.00			3935.00	28.00 Bottom Of Top Packer
Packer	5.00			3940.00	
Stubb	1.00			3941.00	
Recorder	0.00	8322	Inside	3941.00	
Recorder	0.00	8734	Outside	3941.00	
Perforations	29.00			3970.00	
Bullnose	5.00			3975.00	35.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc

22-2S.-34W Rawlins,KS

250 N. Water,STE 300,
Wichita,KS 67202

Focke Unit #1-22

Job Ticket: 61237

DST#: 1

ATTN: Wes Hansen

Test Start: 2017.05.26 @ 12:01:00

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:

bbbl

Water Loss: 5.95 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 bbbl
129.00	100%M	0.634

Total Length: 129.00 ft Total Volume: 0.634 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

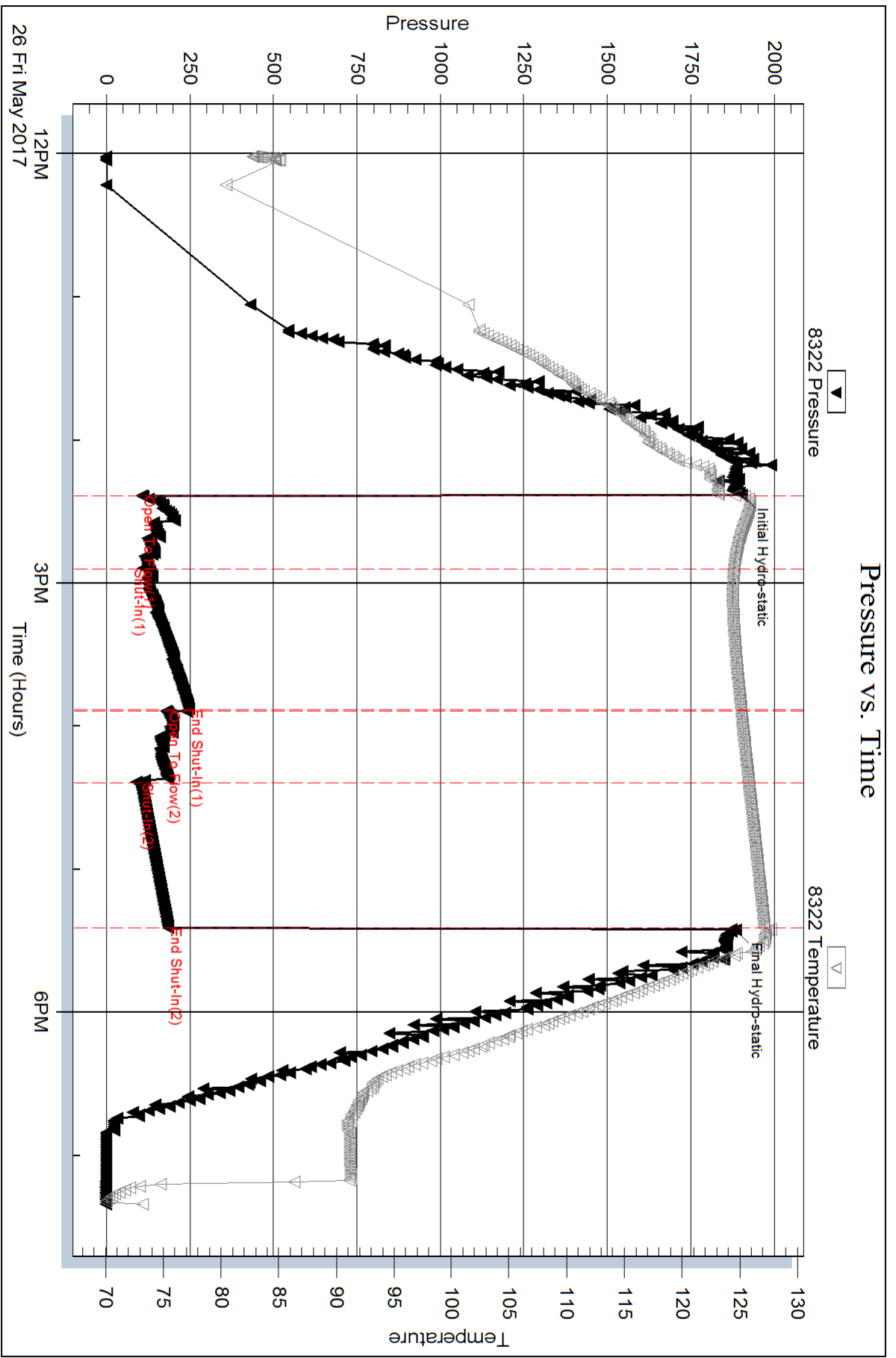
Serial #: 8322

Inside

Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 1

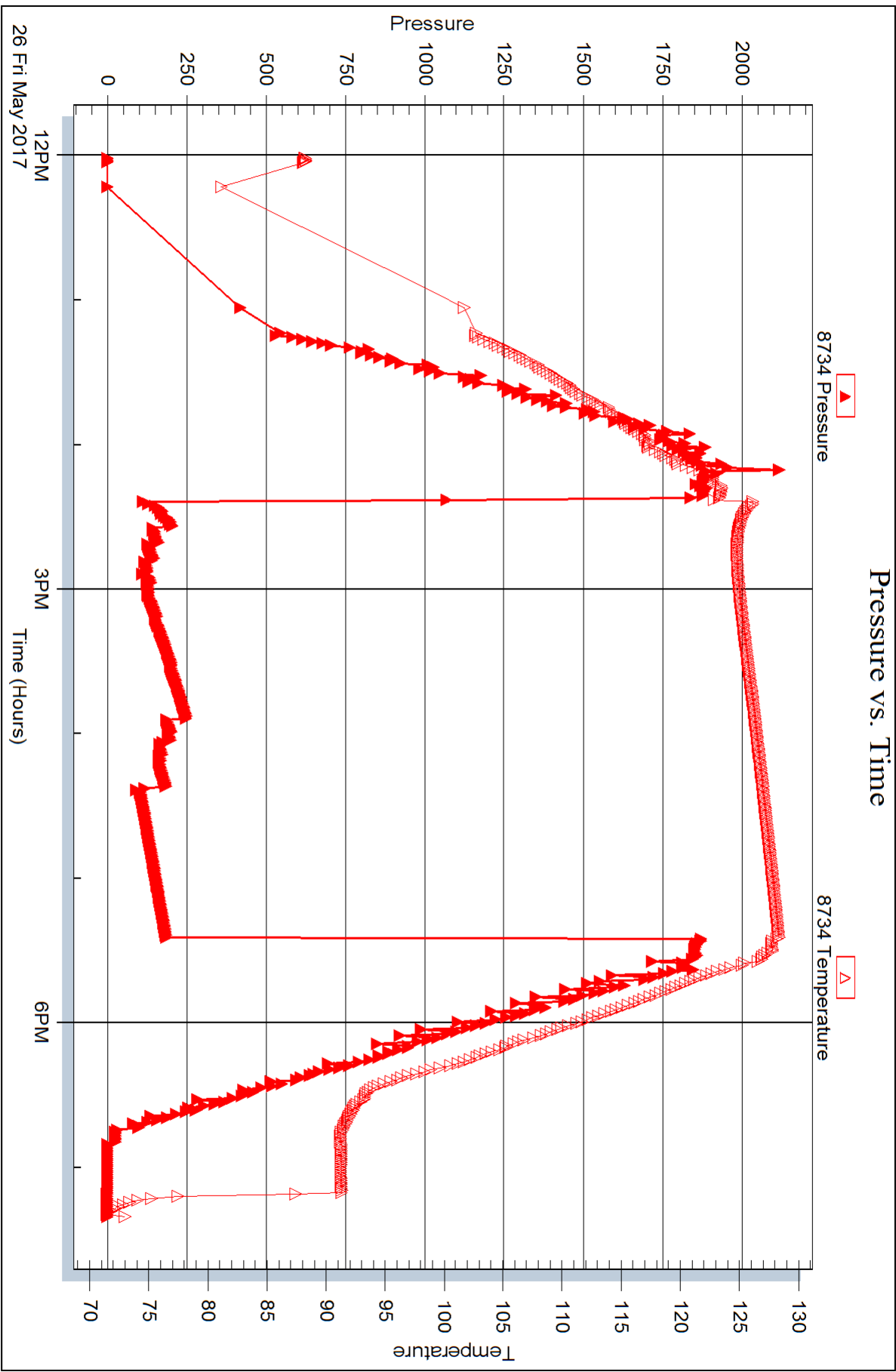


Serial #: 8734

Outside Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61237

Printed: 2017.05.31 @ 16:19:35



DRILL STEM TEST REPORT

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

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

Focke Unit #1-22

22-2S.-34W Rawlins,KS

Start Date: 2017.05.27 @ 08:46:00

End Date: 2017.05.27 @ 16:51:09

Job Ticket #: 61238 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.05.31 @ 16:18:31



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61238 **DST#: 2**
 Test Start: 2017.05.27 @ 08:46:00

GENERAL INFORMATION:

Formation: **Leavenworth - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:50

Time Test Ended: 16:51:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: 3994.00 ft (KB) To 4060.00 ft (KB) (TVD)

Total Depth: 4060.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3115.00 ft (KB)

3110.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8322

Inside

Press@RunDepth: 32.77 psig @ 3995.00 ft (KB)

Start Date: 2017.05.27

Start Time: 08:46:01

End Date: 2017.05.27

End Time: 16:51:10

Capacity: 8000.00 psig

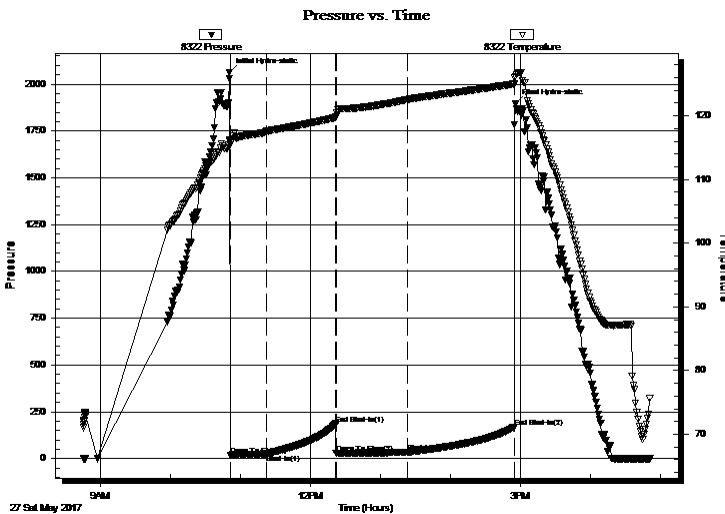
Last Calib.: 2017.05.27

Time On Btm: 2017.05.27 @ 10:51:10

Time Off Btm: 2017.05.27 @ 14:56:00

TEST COMMENT: 30-IF-Surface.blow built to 1" @ 15 mins, maintained 1" @ shut in
 60-ISI-No blow
 60-FF-Surface.blow built to 1/8"
 90-FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.38	116.12	Initial Hydro-static
1	19.17	115.48	Open To Flow (1)
32	25.19	117.50	Shut-In(1)
91	186.01	119.71	End Shut-In(1)
92	28.83	119.84	Open To Flow (2)
152	32.77	122.52	Shut-In(2)
244	167.54	124.97	End Shut-In(2)
245	1893.56	126.17	Final Hydro-static

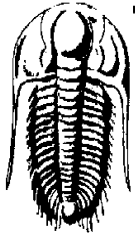
Recovery

Length (ft)	Description	Volume (bbl)
40.00	GOCM	0.20

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61238 **DST#: 2**
 Test Start: 2017.05.27 @ 08:46:00

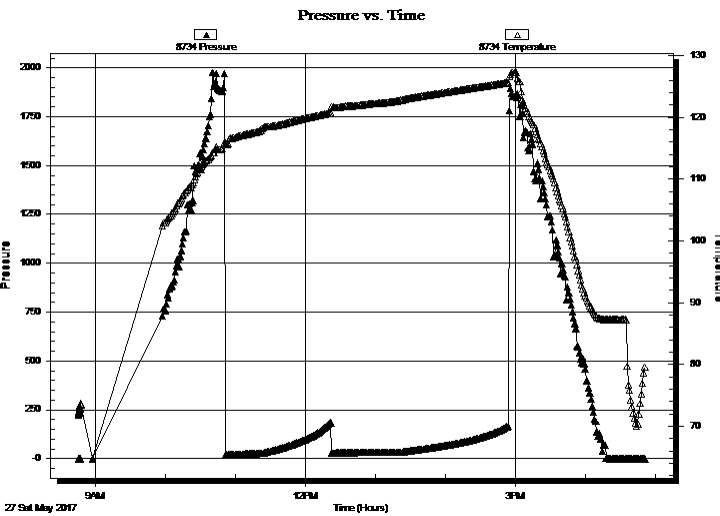
GENERAL INFORMATION:

Formation: **Leavenworth - LKC "A"**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 10:51:50 Tester: Martine Salinas
 Time Test Ended: 16:51:09 Unit No: 82
 Interval: **3994.00 ft (KB) To 4060.00 ft (KB) (TVD)** Reference Elevations: 3115.00 ft (KB)
 Total Depth: 4060.00 ft (KB) (TVD) 3110.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8734 Outside

Press@RunDepth: psig @ 3995.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.27 End Date: 2017.05.27 Last Calib.: 1899.12.30
 Start Time: 08:46:01 End Time: 16:51:10 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface.blow built to 1" @ 15 mins, maintained 1" @ shut in
 60-ISI-No blow
 60-FF-Surface.blow built to 1/8"
 90-FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GOCM	0.20

* 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
250 N. Water, STE 300,
Wichita, KS 67202
ATTN: Wes Hansen

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61238

DST#: 2

Test Start: 2017.05.27 @ 08:46:00

Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 54.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3994.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Push through 8' of fill

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3971.00	
Hydraulic tool	5.00			3976.00	
Jars	5.00			3981.00	
Safety Joint	3.00			3984.00	
Packer	5.00			3989.00	28.00 Bottom Of Top Packer
Packer	5.00			3994.00	
Stubb	1.00			3995.00	
Recorder	0.00	8322	Inside	3995.00	
Recorder	0.00	8734	Outside	3995.00	
Perforations	27.00			4022.00	
Change Over Sub	1.00			4023.00	
Drill Pipe	31.00			4054.00	
Change Over Sub	1.00			4055.00	
Bullnose	5.00			4060.00	66.00 Bottom Packers & Anchor

Total Tool Length: 94.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-2S.-34W Rawlins, KS
Focke Unit #1-22
Job Ticket: 61238 **DST#: 2**
Test Start: 2017.05.27 @ 08:46:00

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.96 in ³	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
40.00	GOCM	0.197

Total Length: 40.00 ft Total Volume: 0.197 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

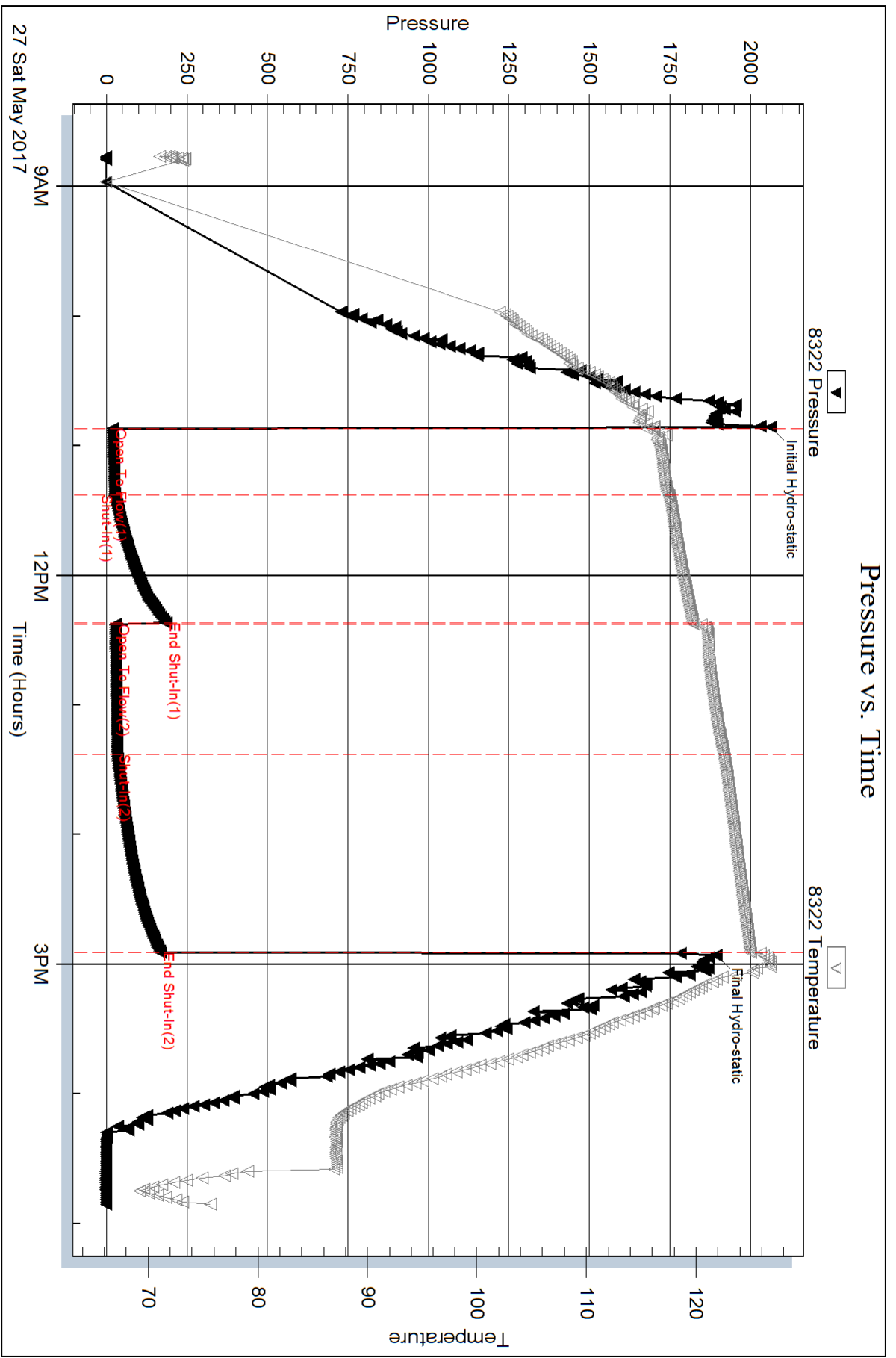
Serial #: 8322

Inside

Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 2

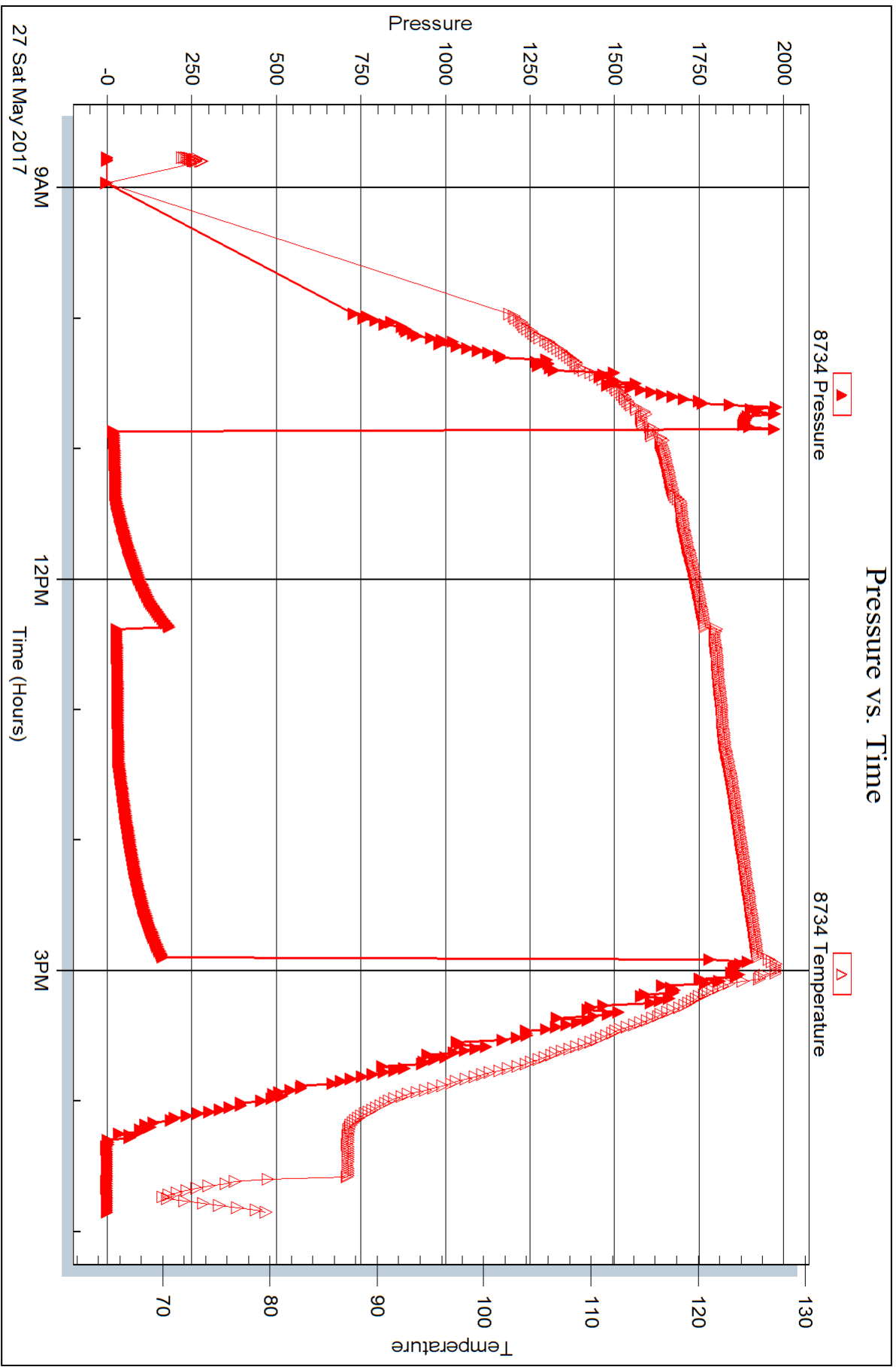


Serial #: 8734

Outside Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61238

Printed: 2017.05.31 @ 16:18:32



DRILL STEM TEST REPORT

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

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

Focke Unit #1-22

22-2S.-34W Rawlins,KS

Start Date: 2017.05.28 @ 02:31:00

End Date: 2017.05.28 @ 12:13:30

Job Ticket #: 61239 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.05.31 @ 16:17:30



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61239

DST#: 3

Test Start: 2017.05.28 @ 02:31:00

GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:53:50
 Tester: Martine Salinas
 Time Test Ended: 12:13:30
 Unit No: 82
 Interval: **4049.00 ft (KB) To 4110.00 ft (KB) (TVD)**
 Reference Elevations: 3115.00 ft (KB)
 Total Depth: 4110.00 ft (KB) (TVD)
 3110.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

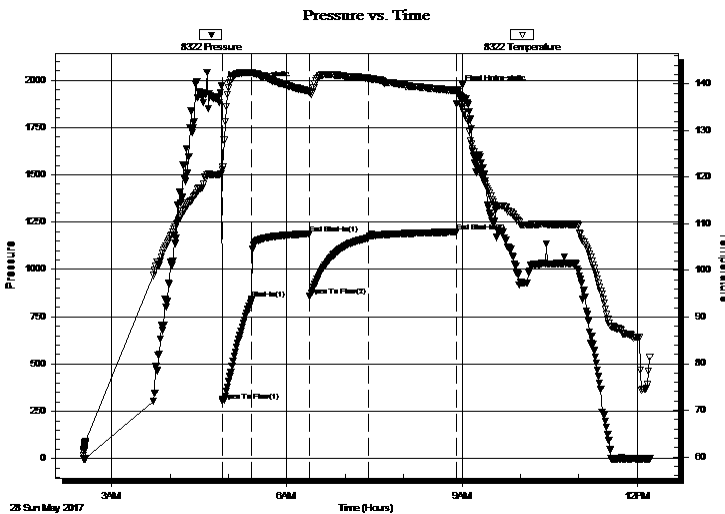
Serial #: 8322

Inside

Press@RunDepth: 1165.38 psig @ 4050.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.28 End Date: 2017.05.28 Last Calib.: 2017.05.28
 Start Time: 02:31:01 End Time: 12:13:30 Time On Btm: 2017.05.28 @ 04:53:00
 Time Off Btm: 2017.05.28 @ 08:55:40

TEST COMMENT: 30-IF- BOB @ 3 mins
 60-ISI-Weak surface.blow diad @ 12 mins
 60-FF- BOB @ 3 mins
 90-FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1969.86	120.73	Initial Hydro-static
1	303.40	121.53	Open To Flow (1)
31	841.53	142.43	Shut-In(1)
91	1189.29	138.41	End Shut-In(1)
91	860.58	138.18	Open To Flow (2)
151	1165.38	141.16	Shut-In(2)
241	1197.30	138.53	End Shut-In(2)
243	1947.96	138.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	SOSWCM 1%O,22%W,77%M	0.61
2124.00	Reversed out	29.23
0.00	SOSMCW 1%O,5%M,94%W @ 10 mins	0.00
0.00	SOSMCW 1%O,10%M,89%W @ 7 1/2 min	0.00
0.00	OSMCW 3%O,35%M,62%W @ 5MINS	0.00
396.00	SOWCM 10%O,41%W,49%M	5.55

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61239 DST#: 3

Test Start: 2017.05.28 @ 02:31:00

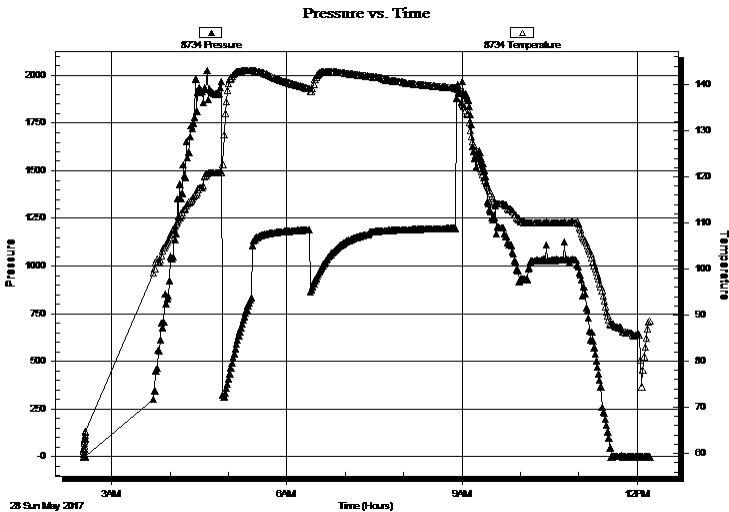
GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:53:50 Tester: Martine Salinas
 Time Test Ended: 12:13:30 Unit No: 82
 Interval: **4049.00 ft (KB) To 4110.00 ft (KB) (TVD)** Reference Elevations: 3115.00 ft (KB)
 Total Depth: 4110.00 ft (KB) (TVD) 3110.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
 Press@RunDepth: psig @ 4050.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.28 End Date: 2017.05.28 Last Calib.: 2017.05.28
 Start Time: 02:31:01 End Time: 12:13:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF- BOB @ 3 mins
 60-ISI-Weak surface.blow diad @ 12 mins
 60-FF- BOB @ 3 mins
 90-FSI-No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	SOSWCM 1%O,22%W,77%M	0.61
2124.00	Reversed out	29.23
0.00	SOSMCW 1%O,5%M,94%W @ 10 mins	0.00
0.00	SOSMCW 1%O,10%M,89%W @ 7 1/2 min	0.00
0.00	OSMCW 3%O,35%M,62%W @ 5MINS	0.00
396.00	SOWCM 10%O,41%W,49%M	5.55

* 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
250 N. Water, STE 300,
Wichita, KS 67202
ATTN: Wes Hansen

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61239

DST#: 3

Test Start: 2017.05.28 @ 02:31:00

Tool Information

Drill Pipe:	Length: 3867.00 ft	Diameter: 3.80 inches	Volume: 54.24 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 55.15 bbl</u>	Tool Chased 6.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4049.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	89.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Opened tool @ bridge and slid to bottom 6'

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

Shut In Tool	5.00			4026.00	
Hydraulic tool	5.00			4031.00	
Jars	5.00			4036.00	
Safety Joint	3.00			4039.00	
Packer	5.00			4044.00	28.00 Bottom Of Top Packer
Packer	5.00			4049.00	
Stubb	1.00			4050.00	
Recorder	0.00	8322	Inside	4050.00	
Recorder	0.00	8734	Outside	4050.00	
Perforations	21.00			4071.00	
Change Over Sub	1.00			4072.00	
Drill Pipe	32.00			4104.00	
Change Over Sub	1.00			4105.00	
Bullnose	5.00			4110.00	61.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-2S.-34W Rawlins, KS
Focke Unit #1-22
Job Ticket: 61239 **DST#: 3**
Test Start: 2017.05.28 @ 02:31:00

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:	19000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.35 in ³	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
124.00	SOSWCM 1%O,22%W,77%M	0.610
2124.00	Reversed out	29.229
0.00	SOSMCW 1%O,5%M,94%W @ 10 mins	0.000
0.00	SOSMCW 1%O,10%M,89%W @ 7 1/2 mins	0.000
0.00	OSMCW 3%O,35%M,62%W @ 5MINS	0.000
396.00	SOWCM 10%O,41%W,49%M	5.555

Total Length: 2644.00 ft Total Volume: 35.394 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 2124'= Total fluid reversed
 RW=.27 @ 97.5 degs

Serial #: 8322

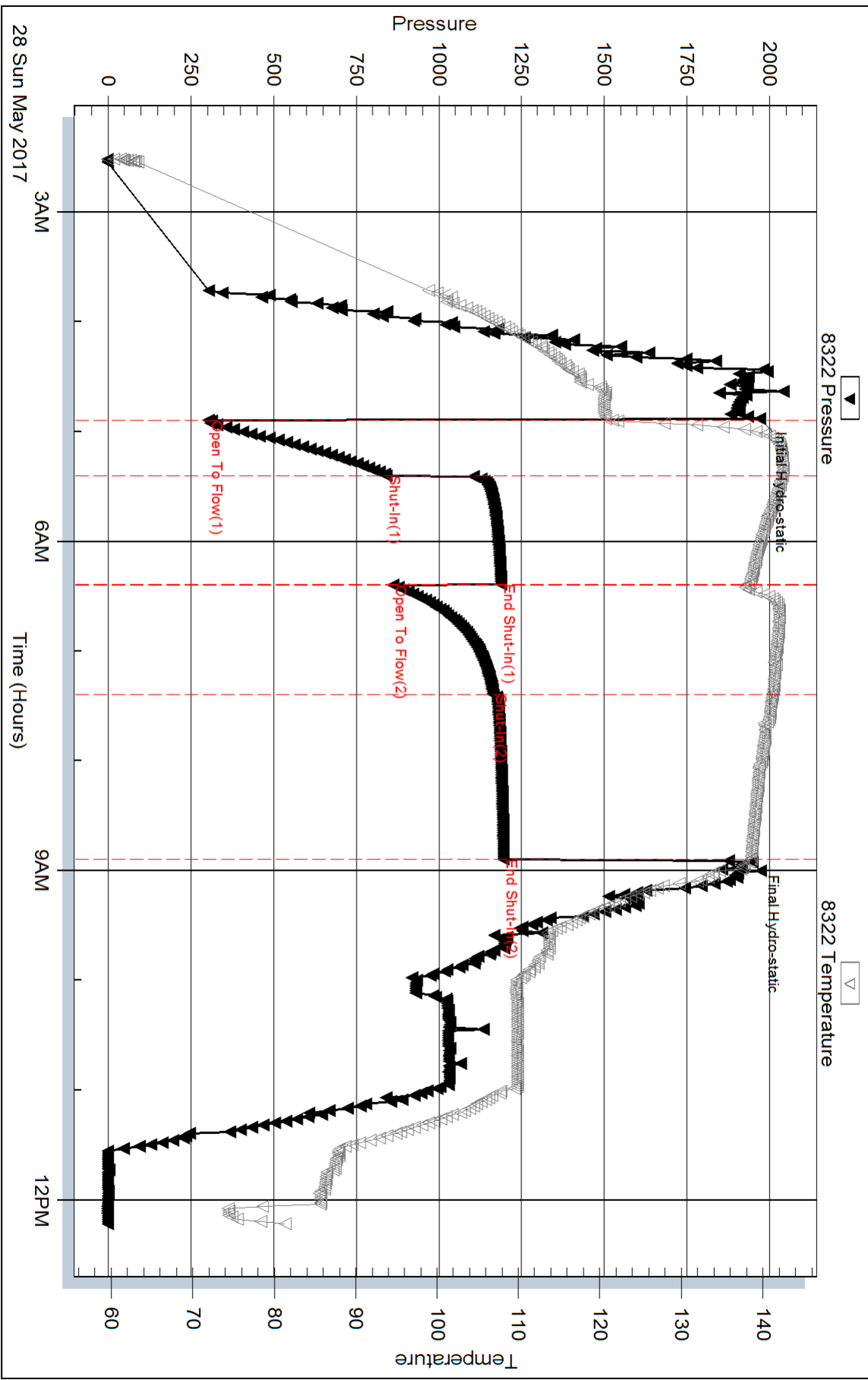
Inside

Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 3

Pressure vs. Time

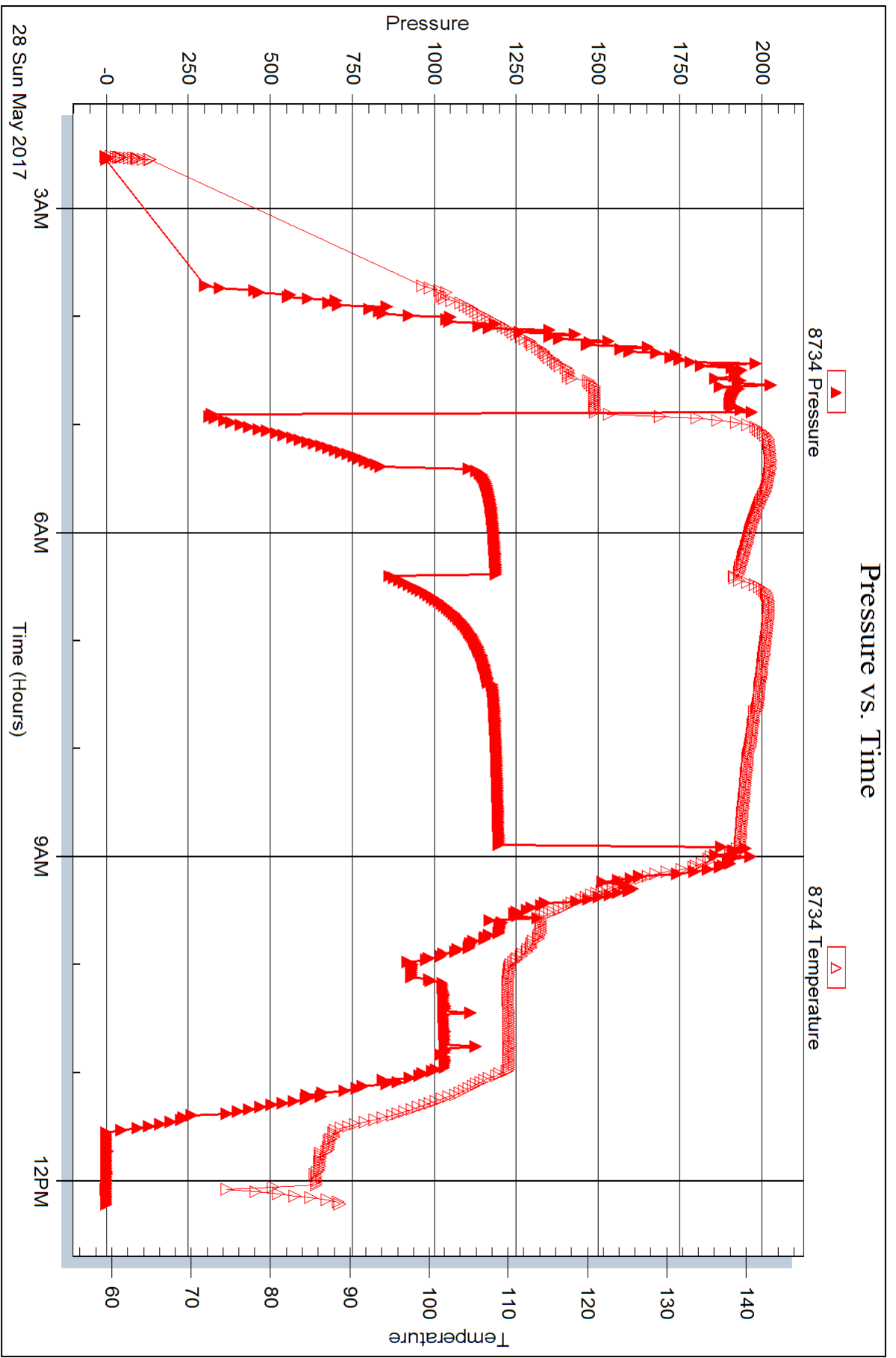


Serial #: 8734

Outside Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 3





DRILL STEM TEST REPORT

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

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

Focke Unit #1-22

22-2S.-34W Rawlins,KS

Start Date: 2017.05.28 @ 20:28:00

End Date: 2017.05.29 @ 04:52:39

Job Ticket #: 61240 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.05.31 @ 16:16:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61240 **DST#: 4**
 Test Start: 2017.05.28 @ 20:28:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:41:30
 Time Test Ended: 04:52:39
 Interval: **4118.00 ft (KB) To 4150.00 ft (KB) (TVD)**
 Total Depth: 4150.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Martine Salinas
 Unit No: 82
 Reference Elevations: 3115.00 ft (KB)
 3110.00 ft (CF)
 KB to GR/CF: 5.00 ft

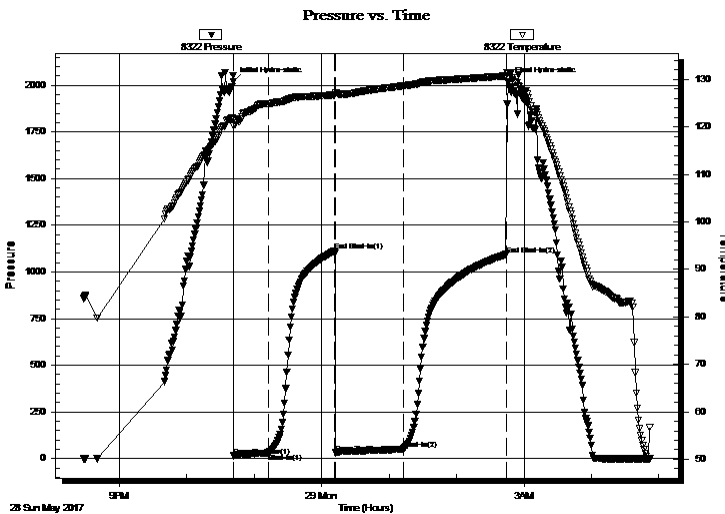
Serial #: 8322

Inside

Press@RunDepth: 49.49 psig @ 4119.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.28 End Date: 2017.05.29 Last Calib.: 2017.05.29
 Start Time: 20:28:01 End Time: 04:52:40 Time On Btm: 2017.05.28 @ 22:41:20
 Time Off Btm: 2017.05.29 @ 02:45:50

TEST COMMENT: 30-IF Surface blow built to 2"
 60-ISI-No blow
 60-FF-Surface.blow built to 4"
 90-FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2020.81	121.45	Initial Hydro-static
1	14.24	120.18	Open To Flow (1)
31	29.99	124.84	Shut-In(1)
91	1112.51	126.76	End Shut-In(1)
92	30.29	127.11	Open To Flow (2)
152	49.49	128.68	Shut-In(2)
243	1093.09	130.75	End Shut-In(2)
245	2019.27	131.44	Final Hydro-static

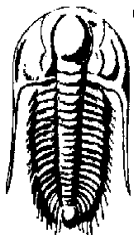
Recovery

Length (ft)	Description	Volume (bbl)
15.00	CGO	0.07

* Recovery from multiple tests

Gas Rates

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



**TRIOLOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

22-2S-.34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61240

DST#: 4

Test Start: 2017.05.28 @ 20:28:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:41:30

Time Test Ended: 04:52:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4118.00 ft (KB) To 4150.00 ft (KB) (TVD)**

Total Depth: 4150.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3115.00 ft (KB)

3110.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734

Outside

Press@RunDepth: psig @ 4119.00 ft (KB)

Start Date: 2017.05.28

End Date:

2017.05.29

Start Time: 20:28:01

End Time:

04:52:40

Capacity: 8000.00 psig

Last Calib.:

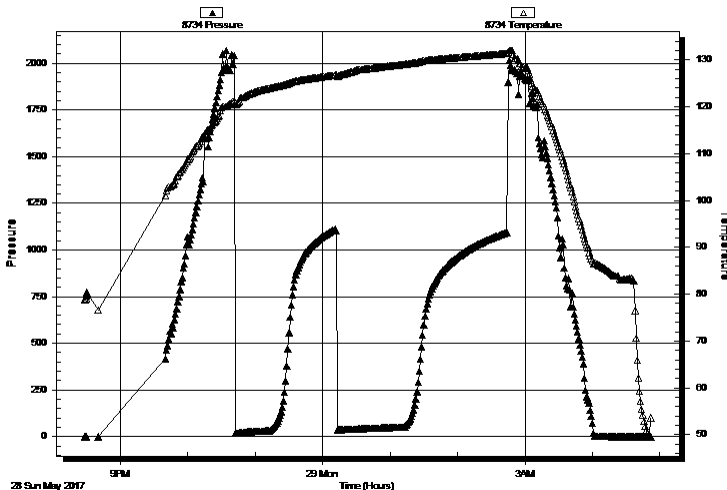
2017.05.29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF Surface blow built to 2"
60-ISI-No blow
60-FF-Surface.blow built to 4"
90-FSI-No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	CGO	0.07

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

22-2S.-34W Rawlins, KS
Focke Unit #1-22
Job Ticket: 61240 **DST#: 4**
Test Start: 2017.05.28 @ 20:28:00

Tool Information

Drill Pipe:	Length: 3930.00 ft	Diameter: 3.80 inches	Volume: 55.13 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4118.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4095.00	
Hydraulic tool	5.00			4100.00	
Jars	5.00			4105.00	
Safety Joint	3.00			4108.00	
Packer	5.00			4113.00	28.00 Bottom Of Top Packer
Packer	5.00			4118.00	
Stubb	1.00			4119.00	
Recorder	0.00	8322	Inside	4119.00	
Recorder	0.00	8734	Outside	4119.00	
Perforations	26.00			4145.00	
Bullnose	5.00			4150.00	32.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-2S.-34W Rawlins, KS
Focke Unit #1-22
Job Ticket: 61240 **DST#: 4**
Test Start: 2017.05.28 @ 20:28:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 34.3 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.37 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 900.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

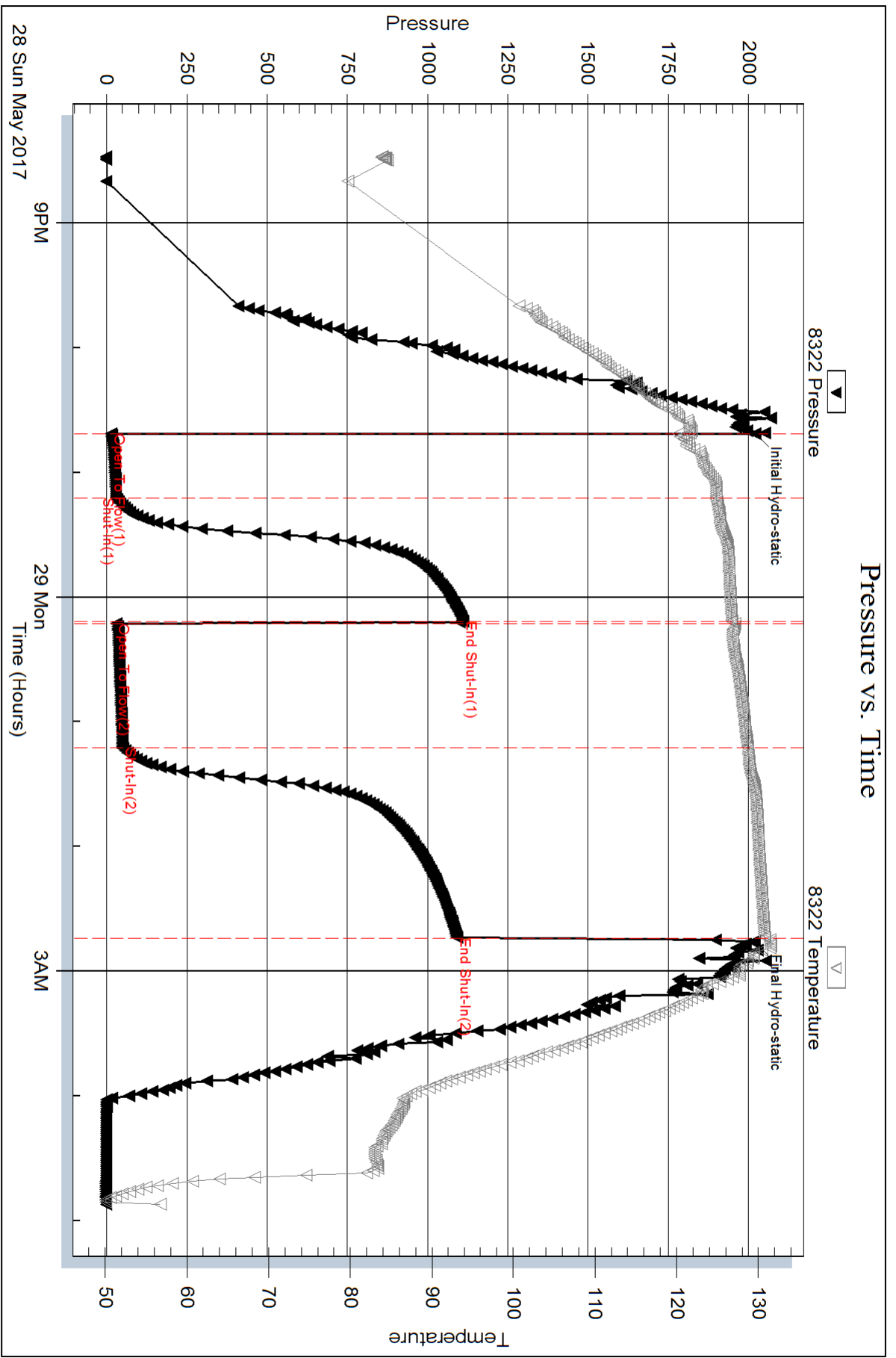
Length ft	Description	Volume bbl
15.00	CGO	0.074

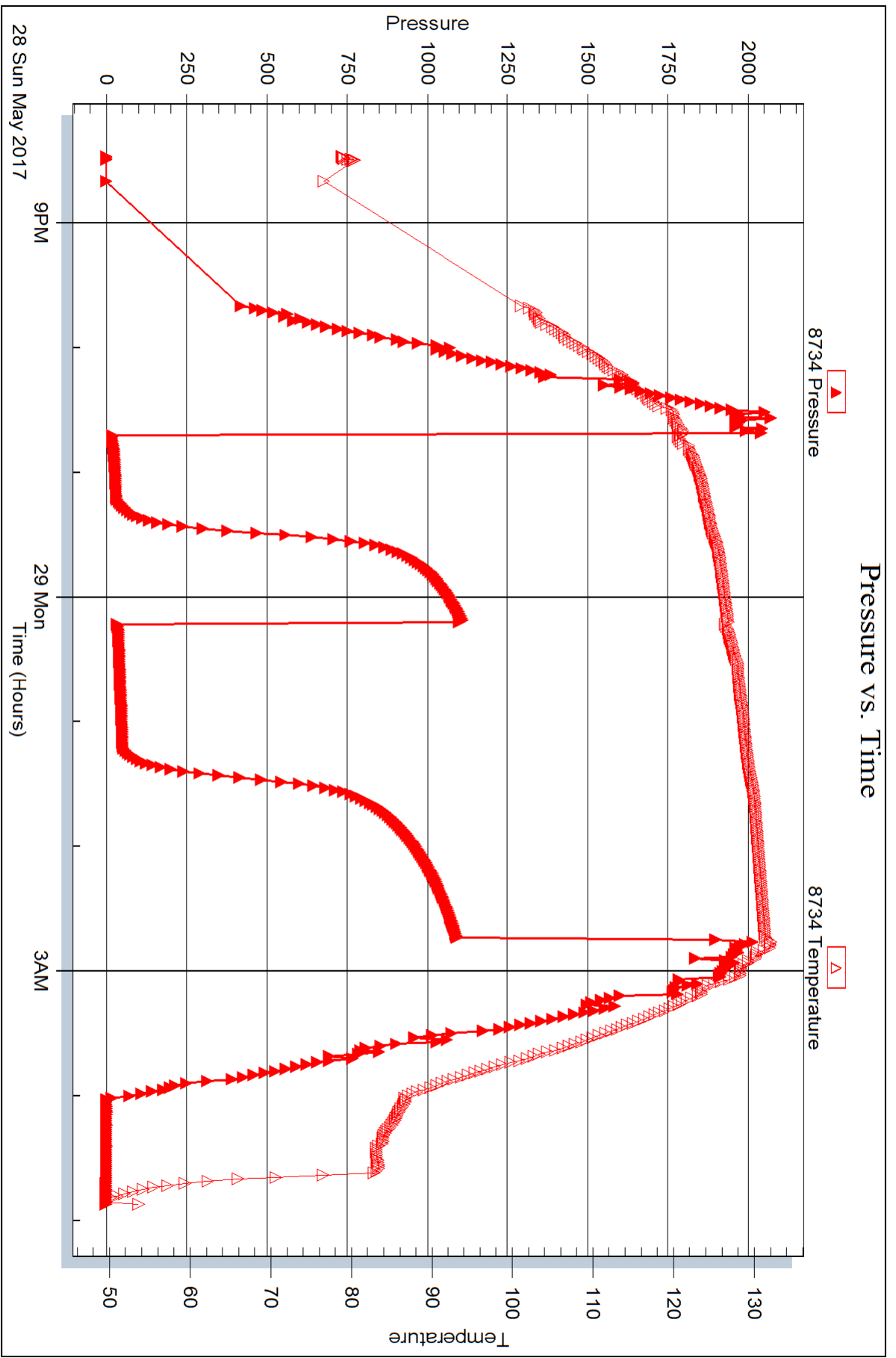
Total Length: ft Total Volume: 0.359 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Oil gravity=34.5 @ 62degs
gravity corrected to 34.3







DRILL STEM TEST REPORT

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

250 N. Water, STE 300,
Wichita, KS 67202

ATTN: Wes Hansen

Focke Unit #1-22

22-2S.-34W Rawlins,KS

Start Date: 2017.05.29 @ 17:13:00

End Date: 2017.05.30 @ 01:46:49

Job Ticket #: 61242 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.05.31 @ 16:14:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61242

DST#: 5

Test Start: 2017.05.29 @ 17:13:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:19:40
 Tester: Martine Salinas
 Time Test Ended: 01:46:49
 Unit No: 82
 Interval: **4158.00 ft (KB) To 4250.00 ft (KB) (TVD)**
 Reference Elevations: 3115.00 ft (KB)
 Total Depth: 4250.00 ft (KB) (TVD)
 3110.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

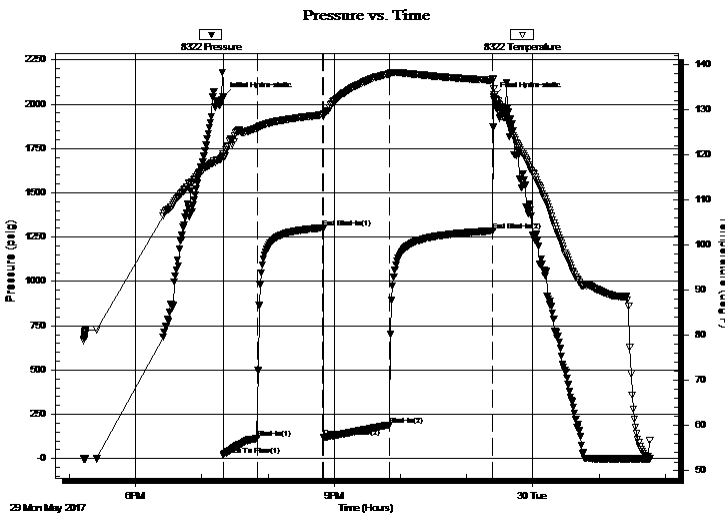
Serial #: 8322

Inside

Press@RunDepth: 189.57 psig @ 4159.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.05.29 End Date: 2017.05.30 Last Calib.: 2017.05.30
 Start Time: 17:13:01 End Time: 01:46:49 Time On Btm: 2017.05.29 @ 19:19:30
 Time Off Btm: 2017.05.29 @ 23:24:39

TEST COMMENT: 30-IF-Surface blow built to 9"
 60-ISI-No blow
 60-FF-Blow built to BOB @ 56 mins
 90-FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2040.28	120.15	Initial Hydro-static
1	19.99	119.52	Open To Flow (1)
31	113.50	125.95	Shut-In(1)
91	1302.44	128.91	End Shut-In(1)
91	119.68	128.62	Open To Flow (2)
151	189.57	137.99	Shut-In(2)
245	1284.60	136.59	End Shut-In(2)
246	2042.26	134.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	HWCM 40%W,60%M	0.10
176.00	MCW 23%M,77%W	0.96
185.00	SOSWCM 1%O,44%W,55%M	2.60

* 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
250 N. Water, STE 300,
Wichita, KS 67202
ATTN: Wes Hansen

22-2S.-34W Rawlins, KS

Focke Unit #1-22

Job Ticket: 61242

DST#: 5

Test Start: 2017.05.29 @ 17:13:00

Tool Information

Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 56.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4158.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	92.00 ft			
Tool Length:	120.00 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			4135.00	
Hydraulic tool	5.00			4140.00	
Jars	5.00			4145.00	
Safety Joint	3.00			4148.00	
Packer	5.00			4153.00	28.00 Bottom Of Top Packer
Packer	5.00			4158.00	
Stubb	1.00			4159.00	
Recorder	0.00	8322	Inside	4159.00	
Recorder	0.00	8734	Outside	4159.00	
Perforations	21.00			4180.00	
Change Over Sub	1.00			4181.00	
Drill Pipe	63.00			4244.00	
Change Over Sub	1.00			4245.00	
Bullnose	5.00			4250.00	92.00 Bottom Packers & Anchor

Total Tool Length: 120.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

22-2S.-34W Rawlins, KS
Focke Unit #1-22
Job Ticket: 61242 **DST#: 5**
Test Start: 2017.05.29 @ 17:13:00

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:	50000 ppm
Viscosity: 65.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1300.00 ppm			
Filter Cake: 2.00 inches			

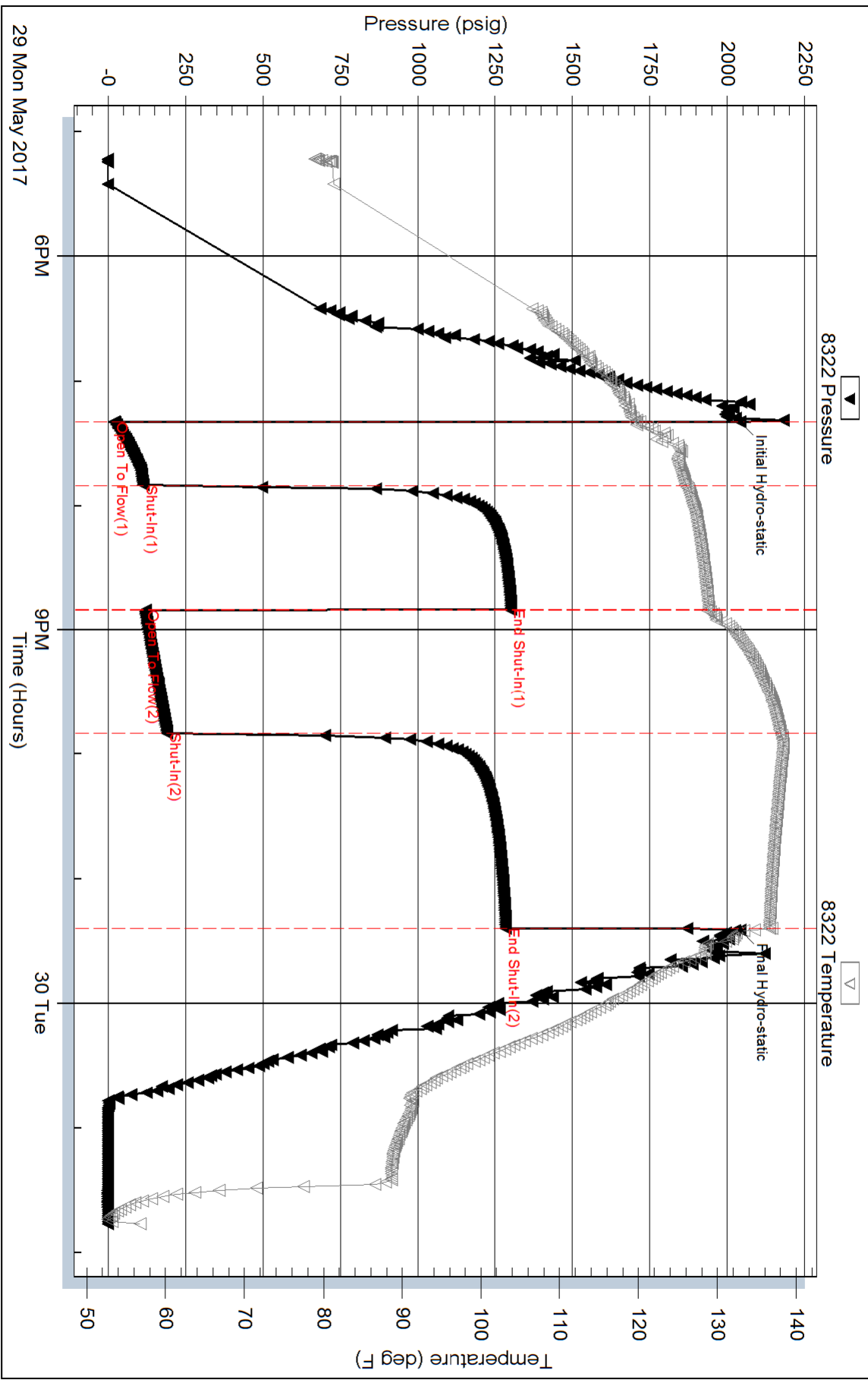
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	HWCM 40%W,60%M	0.098
176.00	MCW 23%M,77%W	0.957
185.00	SOSWCM 1%O,44%W,55%M	2.595

Total Length: 381.00 ft Total Volume: 3.650 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW=.203 @ 55.5degs

Pressure vs. Time

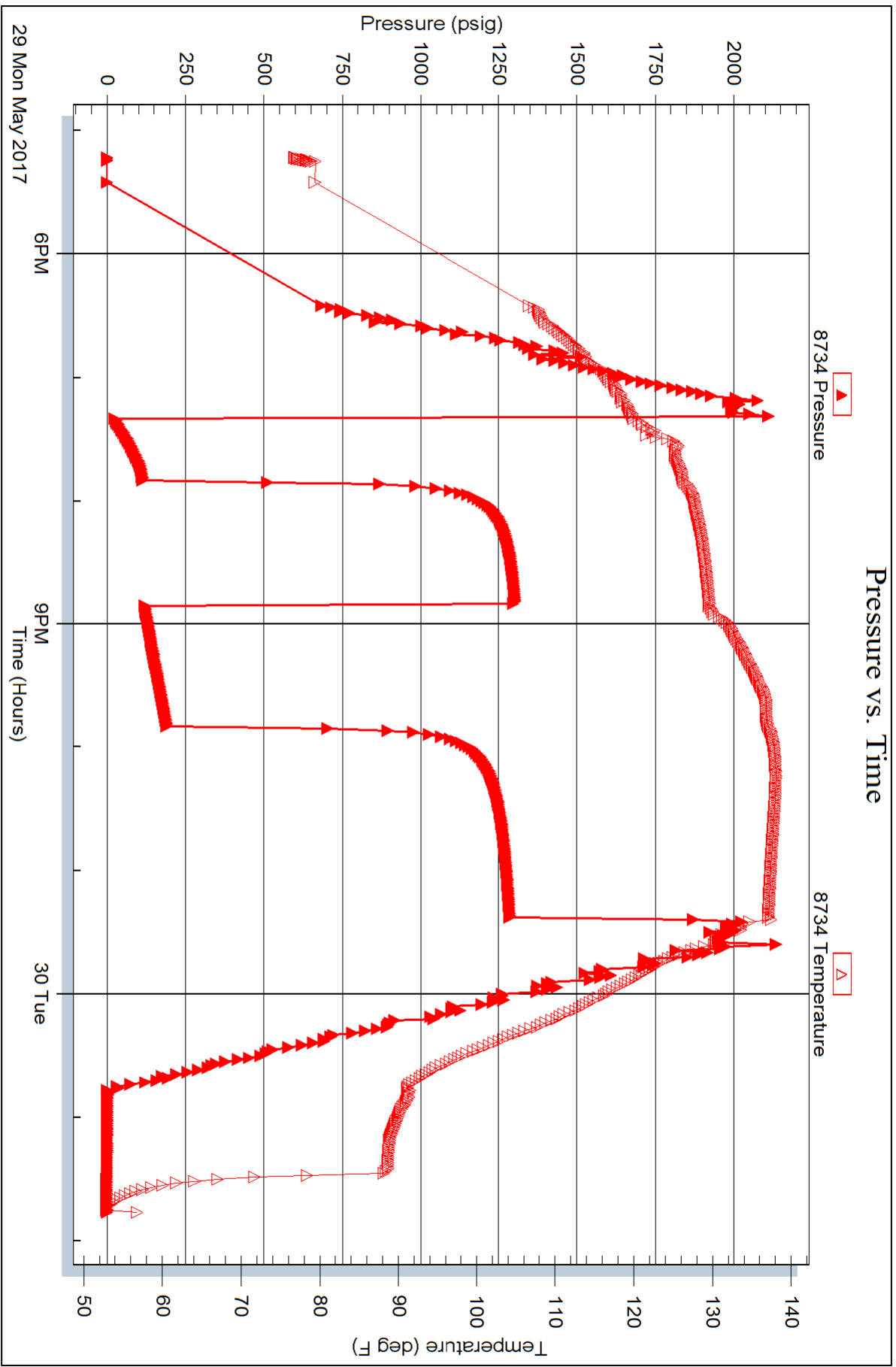


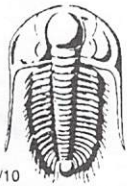
Serial #: 8734

Outside Murfin Drilling Co. Inc

Focke Unit #1-22

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61237

4/10

Well Name & No. Focke Unit #1-22 Test No. 1 Date 5-26-17
 Company Murfin Drilling Co. Inc. Elevation 3115 KB 3110 GL
 Address 250 N. Water, STE 300, Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #7
 Location: Sec. 22 Twp. 2S. Rge. 34W. Co. Rawlins State KS.

Interval Tested 3940 - 3975 Zone Tested Orcad
 Anchor Length 35' Drill Pipe Run 3939 Mud Wt. 8.8
 Top Packer Depth 3935 Drill Collars Run 186 Vis 62
 Bottom Packer Depth 3940 Wt. Pipe Run — WL 6.0
 Total Depth 3975 Chlorides 1000 ppm System LCM 3#
 Blow Description IF. S. blow built to 1/4" & died @ 19 mins.
ISI. No blow
FF. No blow
FSI. No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>129</u>	<u>Mud</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 129 BHT 127 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

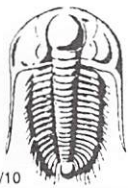
(A) Initial Hydrostatic 1902 Test 1050 T-On Location 11:00
 (B) First Initial Flow 105 Jars 250 T-Started 12:01
 (C) First Final Flow 124 Safety Joint 75 T-Open 14:24
 (D) Initial Shut-In 248 Circ Sub _____ T-Pulled 17:24
 (E) Second Initial Flow 180 Hourly Standby _____ T-Out 19:22
 (F) Second Final Flow 99 Mileage 77 RT 57.75 Comments _____
 (G) Final Shut-In 185 Sampler _____
 (H) Final Hydrostatic 1884 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Sub Total 1432.75

Total 1432.75
 MP/DST Disc't _____

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61238

Well Name & No. Focke unit # 1-22 Test No. 2 Date 5-27-17
 Company Murfin Drilling Co Inc Elevation 3115 KB 3110 GL
 Address 250 N. Water, STE 300, Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #7
 Location: Sec. 22 Twp. 2S. Rge. 34W Co. Rawlins State Ks

Interval Tested 3994-4060 Zone Tested Leavenworth - Lan "A"
 Anchor Length 66' Drill Pipe Run 3863 Mud Wt. 9.0
 Top Packer Depth 3989 Drill Collars Run 186 Vis 48
 Bottom Packer Depth 3994 Wt. Pipe Run — WL 6.0
 Total Depth 4060 Chlorides 1000 ppm System LCM 2#

Blow Description IF - S. blow built to 1" @ 15 mins, maintained 1" @ shut in
ISI - No blow
FF - S. blow built to 1/8"
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>70CM</u>	<u>5</u>	<u>23</u>	<u>72</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 40 BHT 126 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2062 Test 1150 T-On Location 07:15
 (B) First Initial Flow 19 Jars 250 T-Started 08:46
 (C) First Final Flow 25 Safety Joint 75 T-Open 10:52
 (D) Initial Shut-In 186 Circ Sub _____ T-Pulled 2:52
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 16:51
 (F) Second Final Flow 33 Mileage 77RT 57.75 Comments _____
 (G) Final Shut-In 168 Sampler _____
 (H) Final Hydrostatic 1894 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____

Initial Open 30 Extra Packer _____
 Initial Shut-In 60 Extra Recorder _____
 Final Flow 60 Day Standby _____
 Final Shut-In 90 Accessibility _____
 Sub Total 1532.75
 Total 1532.75
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61239**

Well Name & No. Focke Unit #1-22 Test No. 3 Date 5-28-17
 Company Murfin Drilling Co Inc Elevation 3115 KB 3110 GL
 Address 250 N Water, STE 300, Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #7
 Location: Sec. 22 Twp. 25 Rge. 34W Co. Bawlings State K5

Interval Tested 4049 - 4110 Zone Tested Lansing "D"
 Anchor Length 61' Drill Pipe Run 3867 Mud Wt. 9.0
 Top Packer Depth 4044 Drill Collars Run 186 Vis 60
 Bottom Packer Depth 4049 Wt. Pipe Run — WL 6.4
 Total Depth 4110 Chlorides 1000 ppm System LCM 2#
 Blow Description IF: S. blow built to B.O.B (12 inches) @ 3mins.
ISI: Weak S. blow dead @ 12mins.
FF: S. blow built to B.O.B (12 inches) @ 3mins
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%m
<u>124</u>	<u>505WCM 1'</u>	<u>1</u>	<u>22</u>	<u>77</u>	<u>%m</u>
<u>0</u>	<u>505MCW @ 10 mins</u>	<u>1</u>	<u>94</u>	<u>5</u>	<u>%m</u>
<u>0</u>	<u>505MCW @ 7 1/2 mins</u>	<u>1</u>	<u>89</u>	<u>10</u>	<u>%m</u>
<u>0</u>	<u>05MCW @ 5 mins</u>	<u>3</u>	<u>62</u>	<u>35</u>	<u>%m</u>
<u>396</u>	<u>505WCM</u>	<u>10</u>	<u>41</u>	<u>49</u>	<u>%m</u>

Rec Total 2644 BHT 138 Gravity _____ API RW 0.270 @ 92.5 °F Chlorides 19,000 ppm

(A) Initial Hydrostatic 1970 Test 1150 T-On Location 01:54
 (B) First Initial Flow 303 Jars 250 T-Started 02:31
 (C) First Final Flow 842 Safety Joint 75 T-Open 04:53
 (D) Initial Shut-In 1189 Circ Sub 50 T-Pulled 08:53
 (E) Second Initial Flow 860 Hourly Standby _____ T-Out 12:14
 (F) Second Final Flow 1165 Mileage 77 RT 57.75 Comments _____
 (G) Final Shut-In 1197 Sampler _____
 (H) Final Hydrostatic 1948 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 1582.75
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1582.75

Approved By _____ Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of 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. **61240**

4/10

Well Name & No. Focke Unit #1-22 Test No. 4 Date 5-28-17
 Company Murfin Drilling Co Inc Elevation 3115 KB 3110 GL
 Address 250 N. Water, STE 300, Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #7
 Location: Sec. 22 Twp. 25 Rge. 34W Co. Rawlins State KS

Interval Tested 4118 - 4150 Zone Tested Lansing "G"
 Anchor Length 32' Drill Pipe Run 3930 Mud Wt. 9.0
 Top Packer Depth 4113 Drill Collars Run 186 Vis 60
 Bottom Packer Depth 4118 Wt. Pipe Run — WL 6.4
 Total Depth 4150 Chlorides 900 ppm System LCM 4#
 Blow Description IF. S. blow built to 2"
ISI. No blow
FF. S. blow built to 4"
FSI. No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>CGO</u>	<u>10</u>	<u>90</u>		
<u>58'</u>	<u>GHOCM</u>	<u>11</u>	<u>41</u>	<u>48</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 73 BHT 131 Gravity 34.3 API RW @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2021 Test 1150 T-On Location 20:10 5-28-17
 (B) First Initial Flow 14 Jars 250 T-Started 20:28
 (C) First Final Flow 30 Safety Joint 75 T-Open 22:42
 (D) Initial Shut-In 1113 Circ Sub _____ T-Pulled 02:42
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out 04:53 5-29-17
 (F) Second Final Flow 49 Mileage 77RT 57.75 Comments _____
 (G) Final Shut-In 1093 Sampler _____
 (H) Final Hydrostatic 2019 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1532.75
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1532.75

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61242

Well Name & No. Focke Unit #1-22 Test No. 5 Date 5-29-17
 Company Murfin Drilling Co Inc. Elevation 3115 KB 3110 GL
 Address 250 N Water, STE 300, Wichita, KS 67202
 Co. Rep / Geo. Wes Hansen Rig Murfin #7
 Location: Sec. 22 Twp. 25. Rge. 34W Co. Rawlins State KS

Interval Tested 4158 - 4250 Zone Tested Lansing "H-S"
 Anchor Length 92' Drill Pipe Run 3962 Mud Wt. 8.7
 Top Packer Depth 4153 Drill Collars Run 186 Vis 65
 Bottom Packer Depth 4158 Wt. Pipe Run — WL 6.0
 Total Depth 4250 Chlorides 1300 ppm System LCM 3H
 Blow Description IF-S. blow built to 9"
ISI: No blow
IF: blow built to B.S.B. (12 inches) @ 56 mins.
FST: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>#1 WCM</u>		<u>40</u>	<u>60</u>	
<u>126</u>	<u>MCM</u>		<u>77</u>	<u>23</u>	
<u>185</u>	<u>SOSWCM</u>		<u>44</u>	<u>55</u>	

Rec Total 381 BHT 135 Gravity _____ API RW .203 @ 55.5 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic 2040 Test 1150 T-On Location 16:35
 (B) First Initial Flow 20 Jars 250 T-Started 17:13
 (C) First Final Flow 133 Safety Joint 75 T-Open 19:20
 (D) Initial Shut-In 1302 Circ Sub _____ T-Pulled 23:20
 (E) Second Initial Flow 120 Hourly Standby _____ T-Out 01:47
 (F) Second Final Flow 190 Mileage 77RT X2 115.50 Comments _____
 (G) Final Shut-In 1285 Sampler _____ tools loaded 5/31 13:00
 (H) Final Hydrostatic 2042 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1590.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1590.50

Approved By _____ Our Representative [Signature]

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