KOLAR Document ID: 1660940

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 # 30606
Name: Murfin Drilling Co., Inc.
Address 1: 250 N WATER STE 300
Address 2:
City: WICHITA State: KS Zip: 67202 + 1216
Contact Person: Nick Ahlerich
Phone: (316) 267-3241
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Wes Hansen
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 #:

07/23/2022	07/30/2022	07/31/2022
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-039-21285-00-00
Spot Description:
E2 - W2 - NW - SW Sec. 34 Twp. 5 S. R. 29 ☐ East ☑ West
1980 Feet from ☐ North / ☑ South Line of Section
450 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Decatur
Lease Name: PETER Well #: 1-34
Field Name:
Producing Formation: NA
Elevation: Ground: 2827 Kelly Bushing: 2832
Total Vertical Depth: 4200 Plug Back Total Depth: 4165
Amount of Surface Pipe Set and Cemented at: 308 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2593 Feet
If Alternate II completion, cement circulated from: 2593
feet depth to: 0 w/ 270 sx cmt.

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

Chloride content: 1300 ppm Fluid volume: 700 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☐ **Confidentiality Requested**
Date: 11/16/2022
☐ **Confidential Release Date:** 11/15/2024
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** David Befort **Date:** 11/17/2022

Operator Name: Murfin Drilling Co., Inc. Lease Name: PETER Well #: 1-34

Sec. 34 Twp. 5 S. R. 29 ☐ East ☑ West County: Decatur

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 *(Attach Additional Sheets)*	☑ Yes	☐ No	
Samples Sent to Geological Survey	☑ Yes	☐ No	
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☑ Yes	☐ No	

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☑ Sample

Name	Top	Datum
see attached	see attached	see attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	308	H325	250	
Production	7.875	5.500	15.5	4194	H-LD	190	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	PETER 1-34
Doc ID	1660940

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	PETER 1-34
Doc ID	1660940

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	308	H325	250	
Production	7.875	5.500	15.5	4194	H-LD	190	

WESLEY D. HANSEN Consulting Petroleum Geologist

212 N. Market, Suite 257, Wichita, KS 67202

Cellular 316.772.6188
whansen4651@sbcglobal.net

KGS
AAPG #799479

MURFIN DRILLING COMPANY, INC.
WICHITA, KANSAS

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

Well Name:	Murfin Drilling Company, Inc. #1-34 Peter		
API:	15-039-21285		
Location:	1980' FSL, 450' FWL of Sec. 34-5S-29W		
License Number:	30606	Region:	Decatur County, KS
Spud Date:	7-23-2022	Drilling Completed:	7-30-2022
Surface Coordinates:	1980' FSL, 450' FWL of Sec. 34-5S-29W		
Bottom Hole Coordinates:	Vertical hole		
Ground Elevation (ft):	2827'	K.B. Elevation (ft):	2832'
Logged Interval (ft):	3610' To: RTD	Total Depth (ft):	4200'
Formation:	Marmaton at RTD		
Type of Drilling Fluid:	Chemical - displaced at 3395-3445'		

Printed by MudLog 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
Pusher: Arturo Cabezas

Surface Casing: 8 5/8" set at 305' w/250 sx
Production Casing: 5 1/2" set at 4193' DV at 2593', 190 sx first stage; 270 sx second stage

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

DST's by: Trilobite - Nathan Aneas was the tester

Logs by: Midwest Wireline: DIL, CNL/CDL, MEL, BHCS; Dan Schmidt was the engineer

Deviation Surveys: 1/2 deg. @ 308'; 1/2 deg. @ 1240'; 1 deg. @ 3490'; 3/4 deg. @ 3958';

BIT RECORD

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on Bit
1	12 1/4"	Smith	XRICR	308'	308'	4
2	7 7/8"	Smith	MDi516	3490'	3182'	36 1/4
3	7 7/8"	Smith	F12YVPS	4200'	710'	33

FORMATION TOPS AND STRUCTURAL COMPARISON

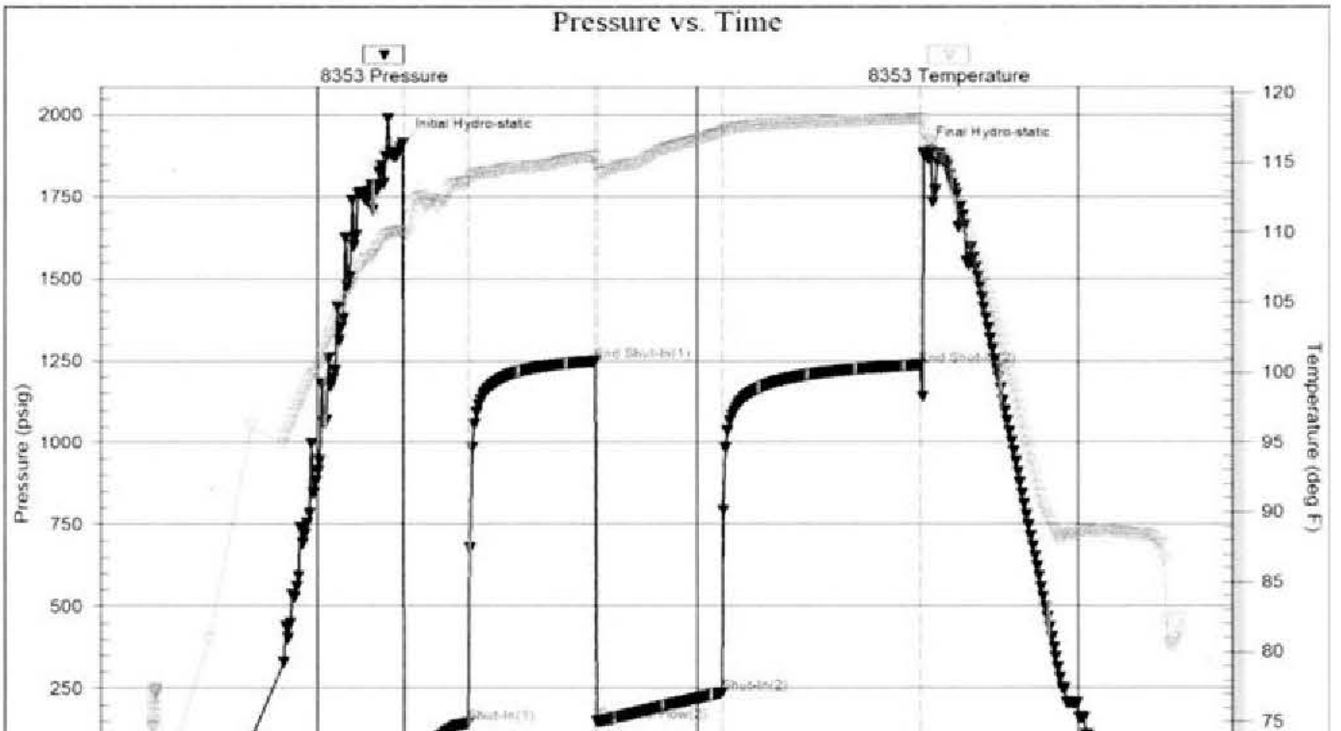
FORMATION	SAMPLE TOPS Depth 2832' KB	Datum	LOG TOPS Depth 2832' KB	Datum	COMPARISON WELL MDCI Trembley "A" 1-33 2310' FSL, 2065' FWL Sec 33-T5S-29W 2752' KB	
Anhydrite	2573'	+259	2571'	+261	2494'	+258
B/Anhydrite	2608'	+224	2606'	+226	2529'	+223
Topeka	3707'	-875	3711'	-879	3626'	-874
Heebner	3892'	-1060	3889'	-1057	3805'	-1053
Lansing	3935'	-1103	3932'	-1100	3850'	-1098
Stark Shale	4091'	-1259	4092'	-1260	4005'	-1253
Mound City	4138'	-1306	4138'	-1306	4053'	-1301
RTD	4200'	-1368				
LTD			4199'	-1367		

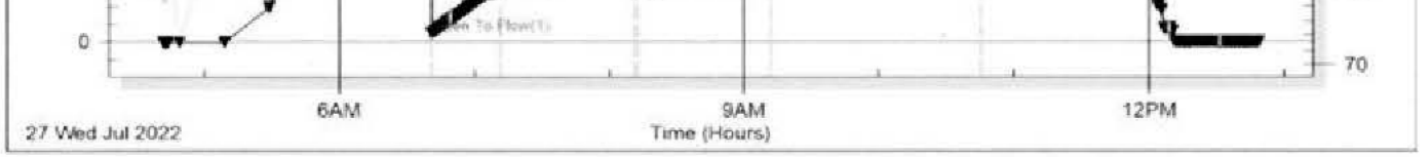
DRILL STEM TESTS

DST No. 1 Toronto - Lansing "A"and "B"
Interval: 3878'-3958'
Times: 30-60-60-90
Recovery: 189' WCM (3w, 97m); 238' WCM (40w, 60m); oil spots in the tool; chl. 26,000
FP: 25-144/148-236 SIP: 1249-1237
HP: 1912-1884 BHT: 118 deg. F

IFP: weak surface blow built to 10 3/4 inches
ISIP: no return blow
FFP: weak surface blow built to 12 3/4 inches
FSIP: no return blow

Serial #: 8353 Inside Murfin Drilling Company Inc Peter #1-34 DST Test Number: 1





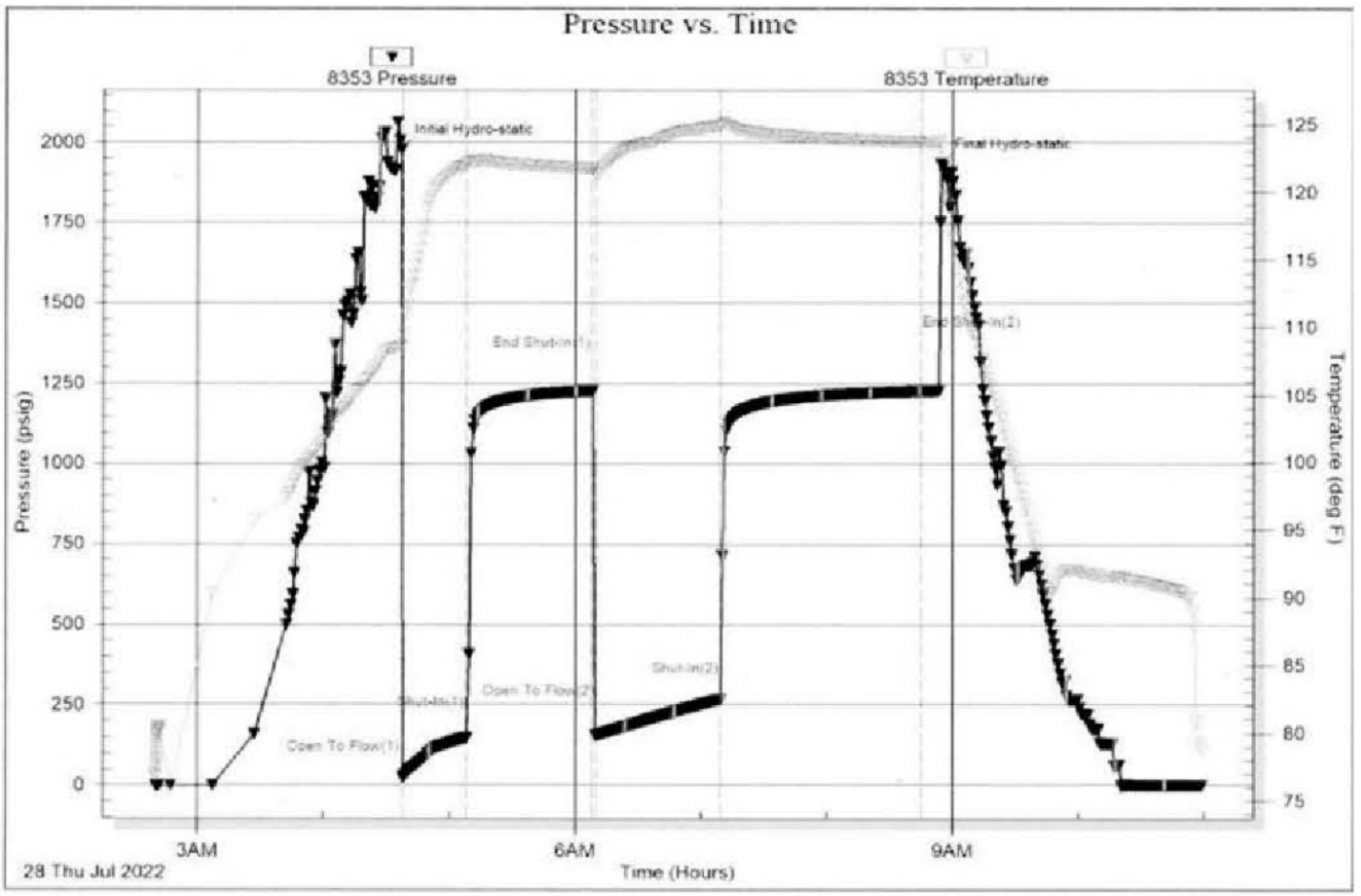
Trilobite Testing, Inc Ref. No: 67274 Printed: 2022 07 27 @ 13 22 53

DRILL STEM TESTS

DST No. 2 Lansing D' - F
Interval: 3972'-4007'
Times: 30-60-60-90
Recovery: 378' SLGM&WCO (2g, 8m, 20w, 70o); 238' SLM&OCW (2g, 2o, 21m, 75w); Chl. 25,000; gravity 29 deg.
FP: 25-147/154-267 SIP: 1227-1226
HP: 1977-1933 BHT: 123 deg. F

IFP: weak surface blow built to 16.5 inches
ISIP: weak surface return built to 1/4 inch, died
FFP: fair surface blow built to 21 inches
FSIP: weak surface return built to 1/2 inch, died back to weak surface blow

Serial #: 8353 Inside Murfin Drilling Company Inc Peter #1-34 DST Test Number: 2



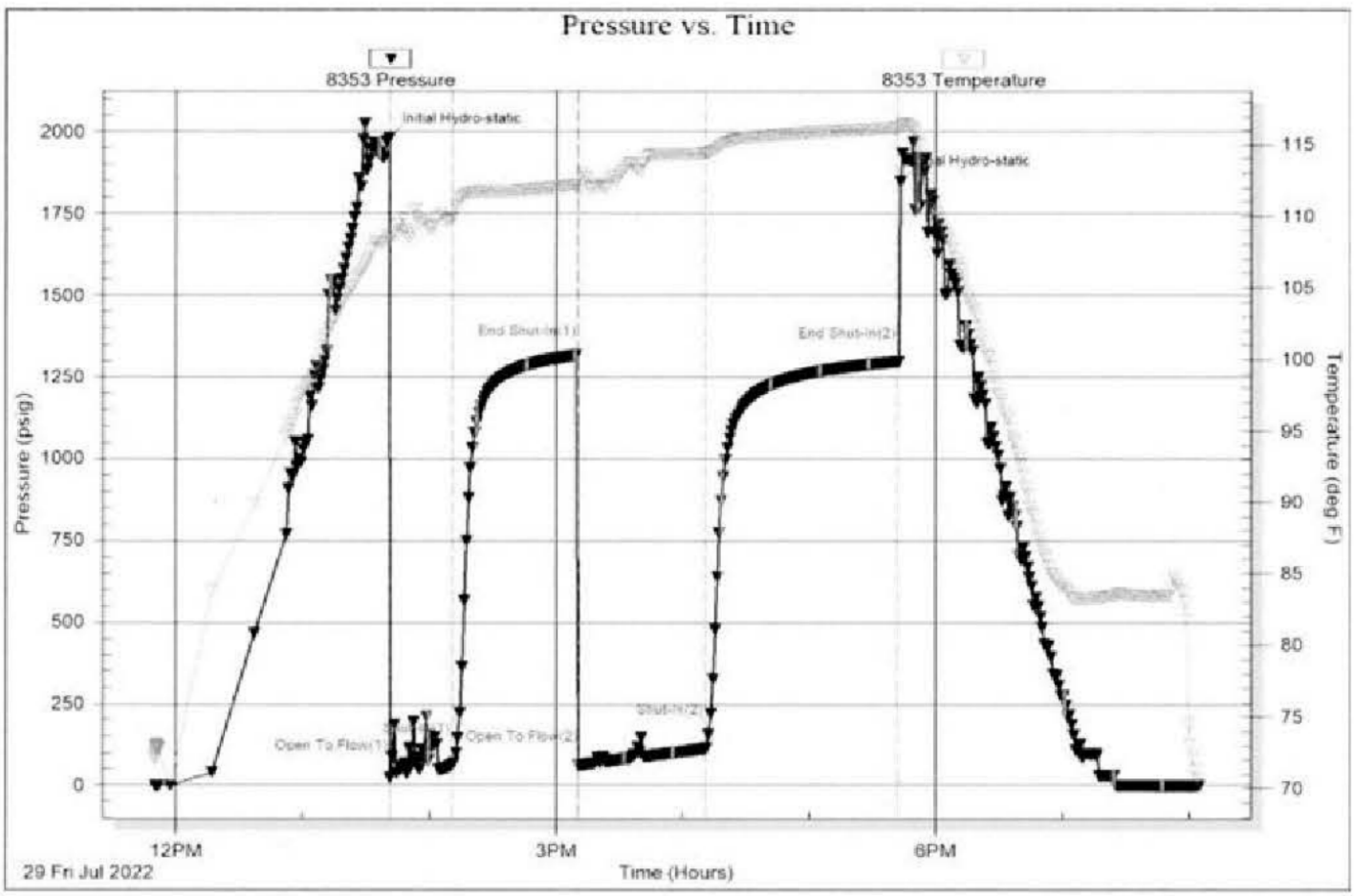
Trilobite Testing, Inc Ref. No: 67275 Printed: 2022 07 28 @ 11 25 06

DRILL STEM TESTS

DST No. 3 Lansing J - K
Interval: 4054-4114'
Times: 30-60-60-90
Recovery: 182' OCM (35o, 65m), gravity 30 degrees
FP: 24-62/64-112 SIP: 1318-1298
HP: 1981-1849 BHT: 118 deg. F

IFP: weak surface blow built to 3.25 inches
ISIP: no return blow
FFP: weak surface blow built to 4.5 inches
FSIP: no return blow

Serial #: 8353 Inside Murfin Drilling Company Inc Peter #1-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64517 Printed: 2022 07 29 @ 20 19 58

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
- Brecfrag
- 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
- Slty

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- red shale
- green shale
- Sltstn

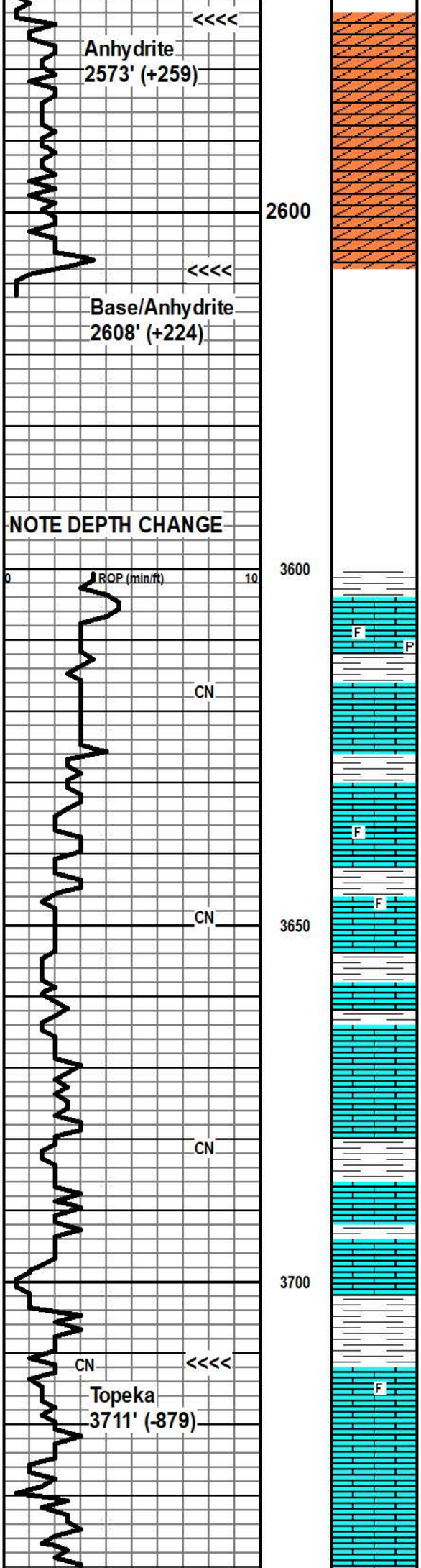
OTHER SYMBOLS

INTERVALS
- Core
- Dst
- Dst

EVENTS
- Rft
- Dst top & bottom

OIL SHOWS
- Even
- Spotted
- Quest.
- Trace
- Dead
- Gas show

Curve Track 1 ROP (min/ft)	MD	Lithology	Oil Shows	Geological Descriptions	Remarks
0 ROP (min/ft) 10	2550				**Report Depth and Activity** 7-19-22 MIRT 7-20 Off 7-21 Off 7-22 Pump water 7-23 Spud at 4:00 A M, set 308' of 8 5/8" casing, drilled out at 8:15 PM 7-24 Drlg. @ 1620' 7-25 Drlg. @ 3078' 7-26 Drlg. @ 3638' 7-27 DST #1 at 3958' 7-28 DST #2 at 4007' 7-29 Short trip for DST #3 at 4114' 7-30 RTD @ 4200', prepare to log 7-31 5 1/2" casing set



Ls: mottled gray/offwhite/tan granular IP; other offwhite micxln, soft chalky; Sh: some dark gray micac.

Ls: tan, lt gray vf-cryptoxln, foss. IP, occ pyritic

Ls: AA, some gray shale

Ls: lt gray, tan vfxln with Sh: influx lt red-brn, soft to firm

Ls: tan, offwhite sl gran. foss. IP; lesser lt gray vfxln , N.S.

Ls: tan fnxln; some offwhite mic-fnxln, subchalky IP, foss. IP

Sh: influx soft lt red and gray

Ls: lt brn, lt gray pred. cryptoxln; other tan fn-vfxln and occ offwhite subchalky to chalky

Ls: mix AA, more tan mic-fnxln with subchalky matrix

Ls: mix AA with sl influx Sh: med to dark red, occ green

Ls: tan, lt gray, offwhite fn-vfxln dense; trace lt gray fn gran. with some inter-particle por., N.S.; fair influx Sh: lt red soft to firm

Ls: tan, lt brn fn gran., foss. IP, some cryptoxln

Ls: various tan, lt brn, gray vfxln dense, gran. IP; some offwhite mic-fnxln subchalky

Ls: pred. tan fnxln with micxln matrix; influx Sh: lt red, soft

Anhydrite 2573' (+259)

Base/Anhydrite 2608' (+224)

NOTE: lost 20 bbls at 1724'

Morgan Mud Check at 3490'
2:30 PM on 7-25-2022
wt vis wl pH chl
8.6 60 6.8 12.0 1200
PV YP GelS lcm solids
18 19 10/31 7# 2.2%

Call depth of 3300' reached at 9:15 AM on 7-25-22
Geologist on location at 3:30 PM

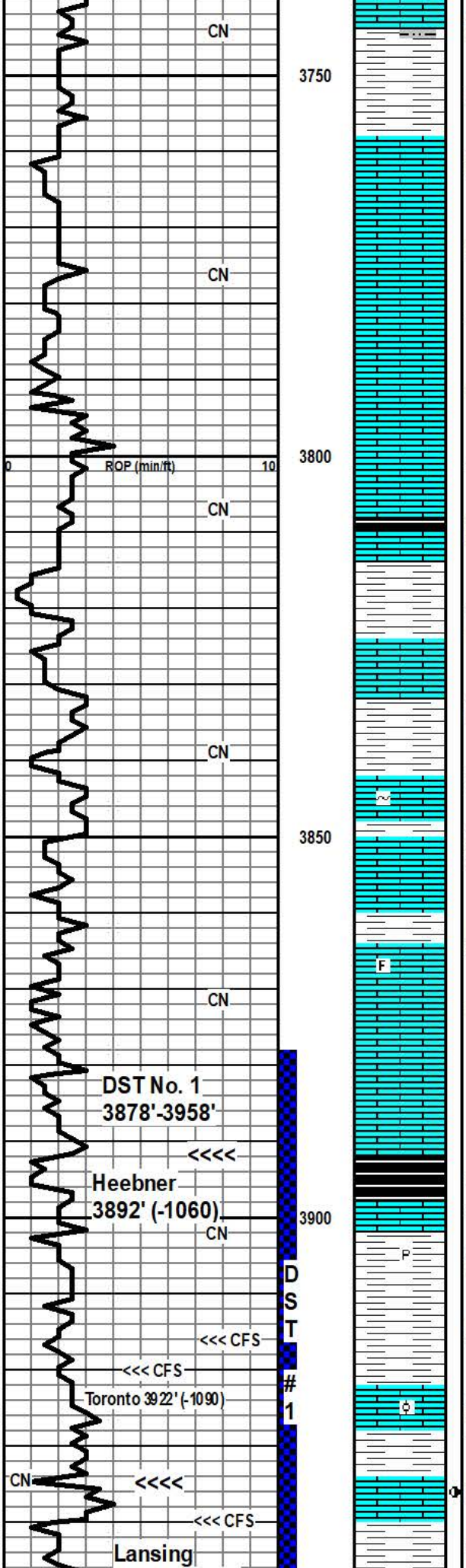
Bit trip at 3490'
Pipe strap at 3490' short 0.39'

7:00 AM at 3638' on 7-26-2022

NOTE: new sample hand on daylights may have mislabeled samples from 3680'-3740'. Made do with what I had.

Topeka 3711' (-879)

Morgan Mud Check at 3718'
9:55 AM on 7-26-2022
wt vis wl pH chl
8.8 60 7.2 11.5 1200
PV YP GelS lcm solids
19 22 10/31 6# 3.6%



Sh: AA, dark red; influx Ls: tan, lt gray vfxln dense; some lt gray, offwhite silty Sst, N.S.

flood Sh: mushy lt to med red, red-brn, dark gray

flood Ls: mix offwhite, tan micxln, subchalky to chalky; common lt brn fn gran. with pnpt and inter-particle por., N.S.

Ls: tan, lt brn vfxln, NVP; common offwhite subchalky to chalky

Ls: mix AA; some gray vf-cryptoxln

Ls: good influx lt gray, tan pred. cryptoxln, NVP

Ls: AA; lesser mottled brn/gray gran.

Ls: tan, brn gran. mottled IP; lesser lt gray vf-cryptoxln; Sh: influx black carbon.

Ls: influx tan, lt brn, lt gray vf-cryptoxln; some white chalky; Sh: mushy pale lt gray

flood Sh: soft lt to med red, mushy to firm; lesser gray-green; Ls: pred. lt gray, tan cryptoxln

Ls: various gray, tan, brn vf-cryptoxln, NVP, N.S.; specks glauc. in tan vfxln

flood Ls: tan fn gran. and mic-vfxln with micxln matrix, some pnpt and inter-particle por., N.S.; white subchalky to chalky; Sh: some dark gray to black

Ls: common offwhite subchalky to chalky and tan fnxln with pnpt and inter-particle por., foss. IP, N.S.; Sh: mushy pale gray/green

Ls: mix AA, some intra-fossil por.

Sh: black carbon.

Ls: some med brn cryptoxln

Sh: red, red-brn mushy to firm; med to dark gray; trace pyrite clusters; Ls: various tan, offwhite, lt gray vfxln dense

Sh: influx soft, mushy pale gray, other med gray, gray-green, black; Ls: offwhite, tan mic-vfxln dense

Sh: mix AA; Ls: mix tan, offwhite mic-vfxln dense, subchalky IP and tan, lt gray vf-cryptoxln; some tan oolitic with spar matrix, NVP, .S.

Ls: pred. tan, offwhite dense AA; scatt. chips tan vf-cryptoxln with patchy pnpt por. with sl odor, patchy stain, fair-good sfo

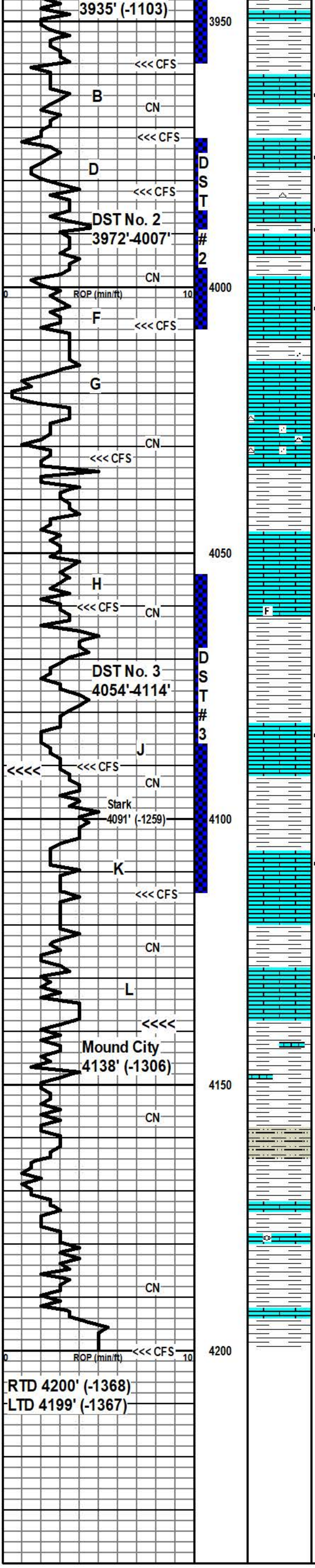
flood Sh: mushy med to dark red, red-brn

DST No. 1 Toronto - Lansing "A" and "B"
Interval: 3878'-3958'
Times: 30-60-60-90
IFP: weak surface blow built to 10 3/4 inches
ISIP: no return blow
FFP: weak surface blow built to 12 3/4 inches
FSIP: no return blow
Recovery: 189' WCM (3w, 97m); 238' WCM (40w, 60m); oil spots in the tool; chl. 26,000
FP: 25-144/148-236 SIP: 1249-1237
HP: 1912-1884 BHT: 118 deg. F

DST No. 2 Lansing D' - F
Interval: 3972'-4007'
Times: 30-60-60-90
IFP: weak surface blow built to 16.5 inches
ISIP: weak surface return built to 1/4 inch, died
FFP: fair surface blow built to 21 inches
FSIP: weak surface return built to 1/2 inch, died back to weak surface blow
Recovery: 378' SLGM&WCO (2g, 8m, 20w, 70o); 238' SLM&OCW (2g, 2o, 21m, 75w); Chl. 25,000; gravity 29 deg.
FP: 25-147/154-267 SIP: 1227-1226
HP: 1977-1933 BHT: 123 deg. F

Toronto 3922' (-1090)

Lansing 3935' (-1103)



Ls: flood tan, offwhite gran. with inter-particle and vuggy por. with brn stain fair odor, fair sfo, subsat. to sat. stain dry, sl sg

Sh: red, red-brn, med to dark gray, gray-green

flood Ls: tan, offwhite vf-cryptoxln, gen. NVP; scatt. chips with stain in small fractures and patchy edge stain, vsl sfo; Sh: red, red-brn, gray, green; Chert: blue-gray, opq

Ls: abund. tan, offwhite, lt gray vfxln dense, N.S.; occ chalky; some tan, lt brn fn gran. with inter-particle and small vuggy por. with spotty lt brn stain, sl show minute brn to black oil droplets, sl sg; some offwhite, tan mic-vfxln with patchy stain; Chert AA;; Sh: influx soft med red, red-brn

Ls: offwhite subchalky, tan, lt gray vf-cryptoxln; several chips tan granular with sfo Looks like "D" zone, slough??)

Sh: flood red, red-brn firm, vc gray, green (20' spl); Ls: influx (30' spl) offwhite, tan fn-vfxln tight; scatt. coarse qtz grains

Ls: AA; some tan, lt gray fn gran.with some inter particle and pnpt por., N.S.; influx Sh: dark red-brn; influx Chert: orange and yellow opq, mottled IP; scatt. coarse qtz grains

cherty Ls mix AA with scatt. coarse to very coarse qtz grains; Sh: incr. % of dark red-maroon, red-brn, gray

mix AA

Ls: influx gray-brn, gray cryptoxln; other tan, gray and offwhite mic-vfxln dense; other mixed lithology as above

Ls: pred. gray, gray-brn cryptoxln AA; Sh: incr. dark red-maroon, dark red-brn, dark gray to black

Ls: decr. brn, gray-brn AA; more tan gran. foss. IP with poor-NVP, N.S.

influx Sh: (80' spl) dark red-maroon, dark red-brn, med-dark gray, black

90' spl - strong influx Sh: mushy red-brn, with dark gray to black, dark red-maroon

CFS 4090' flood Sh: mushy red-brn; Ls: good influx offwhite, lt gray fn gran. with inter-particle por., good sfo on break, sat. stain dry with dark brn to black stain on grain contacts (looks tight)

Sh: red-brn, red-maroon, gray

Sh: mushy red and red-brn

Ls: tan, lt gray gran. to cryptoxln, NVP; tan gran. with inter-particle por., sl sfo, spotty stain

Ls: offwhite, tan vf-cryptoxln; some dark gray cryptoxln

Sh: abund. dark red-brn, dark red-maroon, lesser med to dark gray

Ls: tan, gray gran. poor-NVP; good influx lt gray cryptoxln, N.S.

Sh: dark red-brn, red-maroon, gray; with thin Ls beds AA

Sh: dark red-brn, dark red-maroon with influx soft dark red and mottled gray/red

Sh: mix AA, silty red and red Siltst

Sh: mix AA, silty IP

predom. shales AA with Ls: tan, lt gray cryptoxln, trace fusilinids

Sh: pred. various red, red-brn; interbedded gray dense Ls

After review of the DST results and open hole logs, the decision was made to run 5 1/2" casing for production.

Respectfully submitted,

Wesley D. Hansen
Petroleum Geologist

7:00 AM at 3958' on 7-27-2022

Morgan Mud Check at 3958'
10:30 AM on 7-27-2022
wt vis wl pH chl
9.0 50 7.2 11.0 1500
PV YP GelS lcm solids
18 17 9/25 6# 5.0%

Morgan Mud Check at 4007'
11:00 AM on 7-28-2022
wt vis wl pH chl
9.0 61 6.8 11.5 2600
PV YP GelS lcm solids
22 20 10/30 6# 5.0%

7:00 AM at 4007' on 7-28-2022

NOTE: lost returns TIH at 2571' Raised LCM to 14# to get 3/4 returns (post DST 2)

22# lcm for full returns, lost approx. 300 bbls

Morgan Mud Check at 4007'
5:15 PM on 7-28-2022
wt vis wl pH chl
8.7 86 6.4 11.5 1800
PV YP GelS lcm solids
29 27 12/39 14# 2.9%

DST No. 3 Lansing J - K
Interval: 4054-4114'
Times: 30-60-60-90
IFP: weak surface blow built to 3.25 inches
ISIP: no return blow
FFP: weak surface blow built to 4.5 inches
FSIP: no return blow
Recovery: 182' OCM (35o, 65m), gravity 30 degrees
FP: 24-62/64-112 SIP: 1318-1298
HP: 1981-1849 BHT: 118 deg. F

On trip into the hole for DST #3, a pill was spotted at 4114' with lower amounts of lcm (8#)

7:00 AM at 4114' on 7-29-2022

Morgan Mud Check at 4114'
9:55 AM on 7-29-2022
wt vis wl pH chl
9.0 69 6.0 11.0 1000
PV YP GelS lcm solids
26 23 10/31 15# 5.0%

Mound City 4138' (-1306)

RTD reached at 4:40 AM on 7-30-2022
CFS - short trip - CTCH - drop survey - TOFL

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

Peter #1-34

34-5S-29W Decatur,KS

Start Date: 2022.07.27 @ 04:42:00
End Date: 2022.07.27 @ 12:48:15
Job Ticket #: 67274 DST #: 1

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

Printed: 2022.08.04 @ 11:32:32

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67274 **DST#: 1**

Test Start: 2022.07.27 @ 04:42:00

GENERAL INFORMATION:

Formation: **Toronto - LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:41:00
Time Test Ended: 12:48:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Nathan Aneas
Unit No: 71

Interval: 3878.00 ft (KB) To 3958.00 ft (KB) (TVD)
Total Depth: 3958.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Good

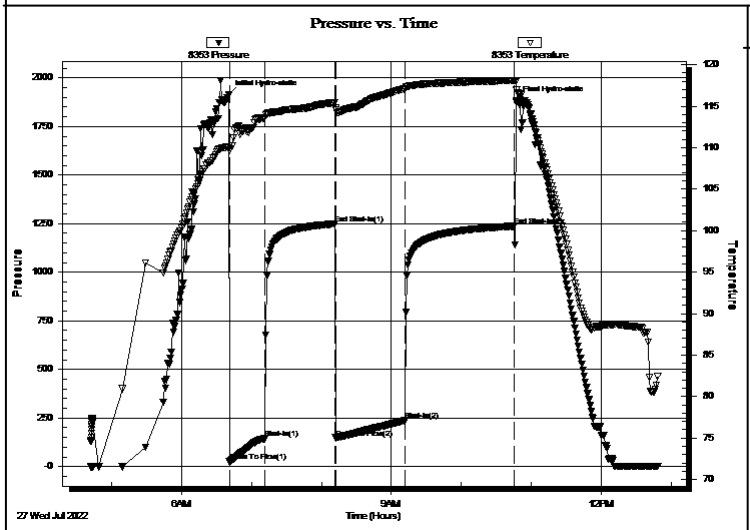
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8353 **Inside**

Press@RunDepth: 236.00 psig @ 3879.00 ft (KB)
Start Date: 2022.07.27 End Date: 2022.07.27
Start Time: 04:42:01 End Time: 12:48:15

Capacity: 8000.00 psig
Last Calib.: 2022.07.27
Time On Btm: 2022.07.27 @ 06:40:15
Time Off Btm: 2022.07.27 @ 10:46:45

TEST COMMENT: 30:IF- Weak surface blow , built to 4 3/4 inches in 10 min, BOB in 27 min, final blow is 10 3/4 inches
60:ISI- No blow back
60:FF- Weak surface blow , built to 2 3/4 inch in 10 min, BOB in 41 min, final blow is 12 3/4 inches
90:FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1911.80	109.99	Initial Hydro-static
1	24.63	109.64	Open To Flow (1)
31	143.64	113.62	Shut-In(1)
91	1248.75	115.45	End Shut-In(1)
92	147.84	114.79	Open To Flow (2)
151	236.00	117.12	Shut-In(2)
245	1237.30	118.11	End Shut-In(2)
247	1883.96	117.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
238.00	WM 60%M 40%W (Spots of oil in tool)	1.17
189.00	WM 97%M 3%W	2.65

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67274 **DST#: 1**

Test Start: 2022.07.27 @ 04:42:00

GENERAL INFORMATION:

Formation: **Toronto - LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:41:00
Time Test Ended: 12:48:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Nathan Aneas
Unit No: 71

Interval: 3878.00 ft (KB) To 3958.00 ft (KB) (TVD)
Total Depth: 3958.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Good

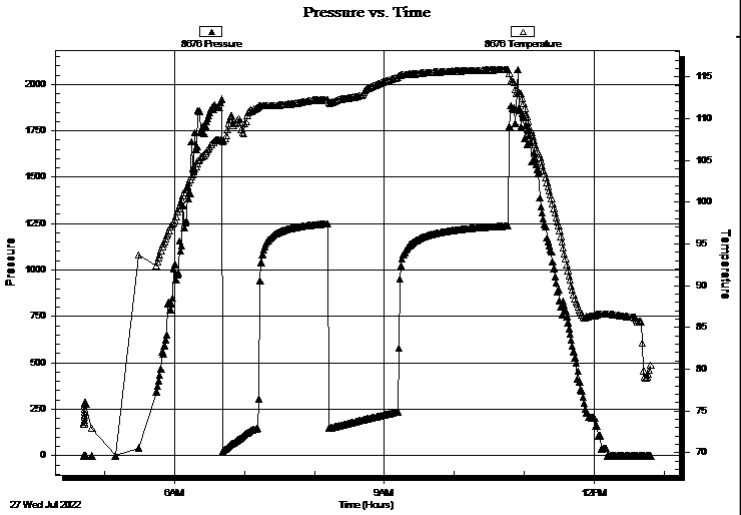
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8676 **Outside**

Press@RunDepth: psig @ 3879.00 ft (KB)
Start Date: 2022.07.27 End Date: 2022.07.27
Start Time: 04:42:01 End Time: 12:48:30

Capacity: 8000.00 psig
Last Calib.: 2022.07.27
Time On Btm:
Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow , built to 4 3/4 inches in 10 min, BOB in 27 min, final blow is 10 3/4 inches
60:ISI- No blow back
60:FF- Weak surface blow , built to 2 3/4 inch in 10 min, BOB in 41 min, final blow is 12 3/4 inches
90:FSI- No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
238.00	WM 60%M 40%W (Spots of oil in tool)	1.17
189.00	WM 97%M 3%W	2.65

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67274 **DST#: 1**

Test Start: 2022.07.27 @ 04:42:00

Tool Information

Drill Pipe:	Length:	3613.00 ft	Diameter:	3.80	inches	Volume:	50.68	bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	
Drill Collar:	Length:	238.00 ft	Diameter:	2.25	inches	Volume:	1.17	bbl	
						Total Volume:	-	bbl	

Drill Pipe Above KB:	5.00 ft
Depth to Top Packer:	3878.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	80.00 ft
Tool Length:	112.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		72000.00 lb
Tool Chased		ft
String Weight:	Initial	68000.00 lb
	Final	68000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3851.00		
Hydraulic tool	5.00			3856.00		
Jars	5.00			3861.00		
EM Tool	4.00			3865.00		
Safety Joint	3.00			3868.00		
Packer	5.00			3873.00	32.00	Bottom Of Top Packer
Packer	5.00			3878.00		
Stubb	1.00			3879.00		
Recorder	0.00	8353	Inside	3879.00		
Recorder	0.00	8676	Outside	3879.00		
Perforations	11.00			3890.00		
Change Over Sub	1.00			3891.00		
Blank Spacing	63.00			3954.00		
Change Over Sub	1.00			3955.00		
Bullnose	3.00			3958.00	80.00	Bottom Packers & Anchor
Total Tool Length:	**112.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67274 **DST#: 1**

Test Start: 2022.07.27 @ 04:42:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	26000 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.25 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1100.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

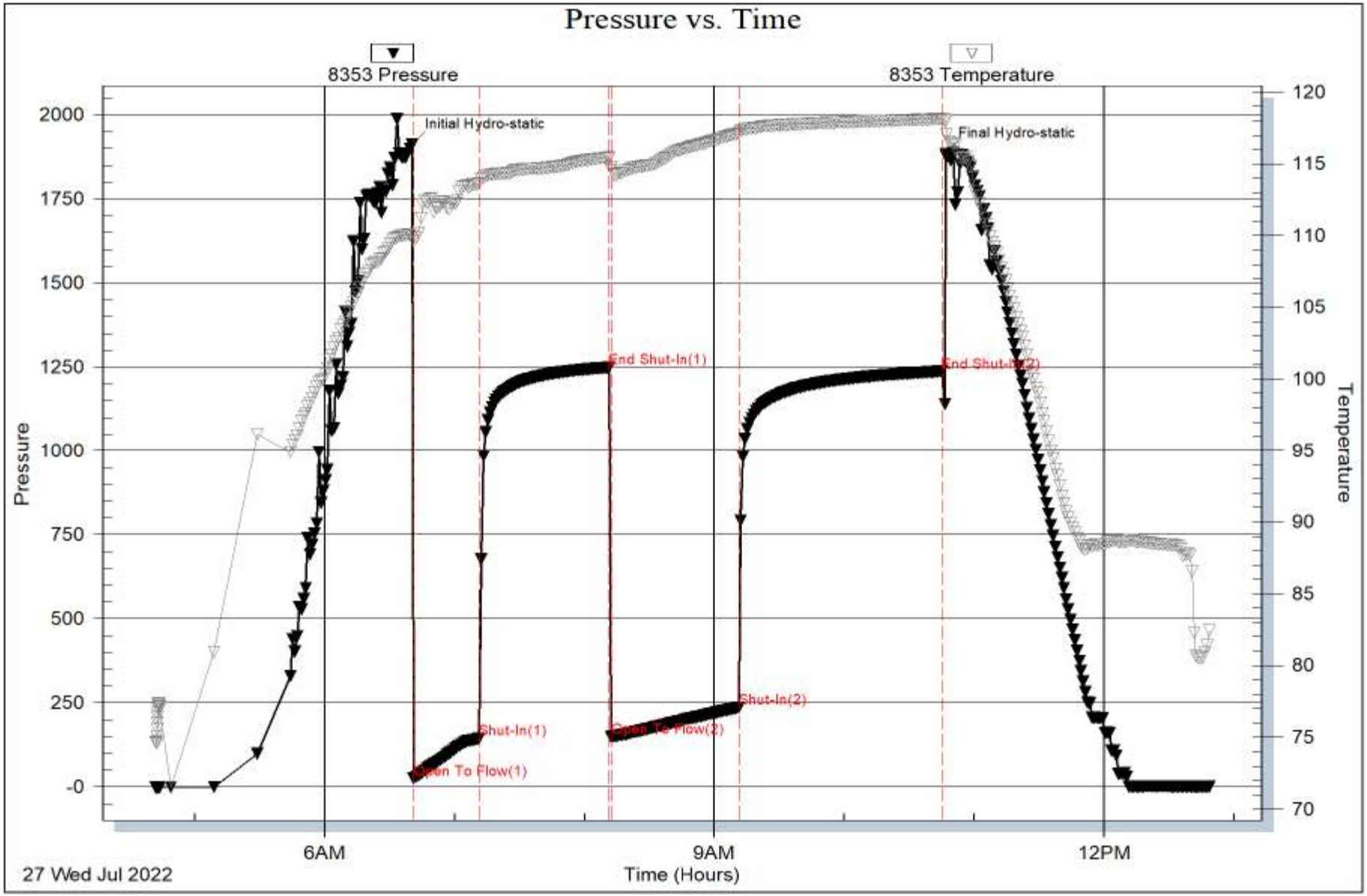
Recovery Table

Length ft	Description	Volume bbl
238.00	WM 60%M 40%W (Spots of oil in tool)	1.170
189.00	WM 97%M 3%W	2.651

Total Length: 427.00 ft Total Volume: 3.821 bbl

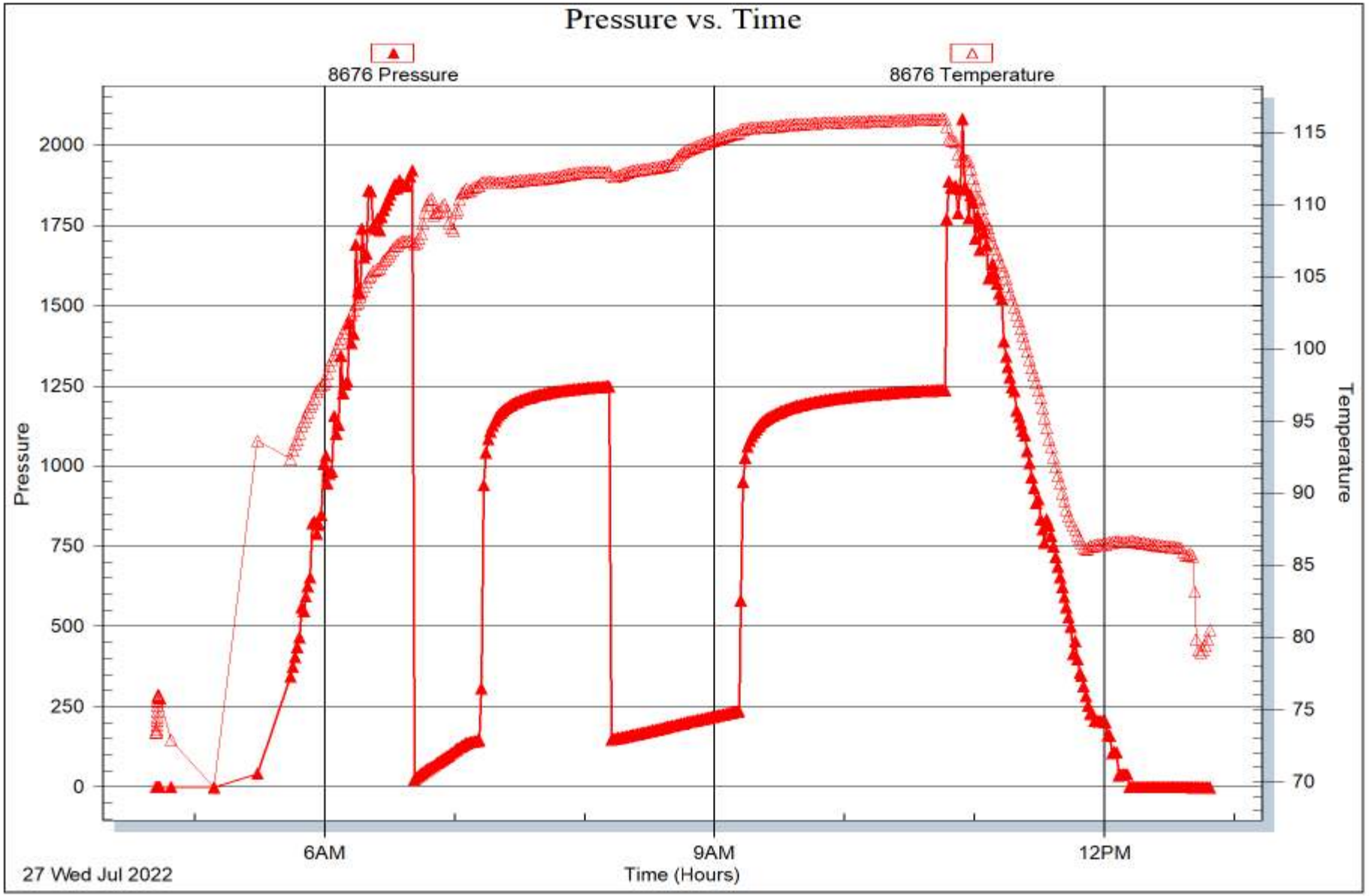
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8353 **Inside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67274 Printed: 2022.08.04 @ 11:32:33

Serial #: 8676 **Outside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67274 Printed: 2022.08.04 @ 11:32:34

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

Peter #1-34

34-5S-29W Decatur,KS

Start Date: 2022.07.28 @ 02:40:00
End Date: 2022.07.28 @ 10:59:00
Job Ticket #: 67275 DST #: 2

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

Printed: 2022.08.04 @ 11:32:05

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67275 **DST#: 2**

Test Start: 2022.07.28 @ 02:40:00

GENERAL INFORMATION:

Formation: **LKC D - F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:37:45
Time Test Ended: 10:59:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Nathan Aneas
Unit No: 71

Interval: 3972.00 ft (KB) To 4007.00 ft (KB) (TVD)
Total Depth: 4007.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Fair

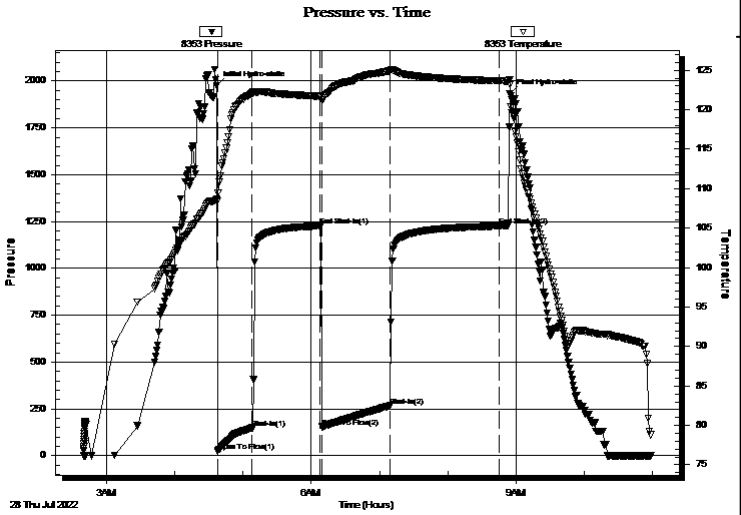
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8353 **Inside**

Press@RunDepth: 266.74 psig @ 3973.00 ft (KB)
Start Date: 2022.07.28 End Date: 2022.07.28
Start Time: 02:40:01 End Time: 10:59:00

Capacity: 8000.00 psig
Last Calib.: 2022.07.28
Time On Btm: 2022.07.28 @ 04:37:00
Time Off Btm: 2022.07.28 @ 08:54:30

TEST COMMENT: 30:IF- Weak surface blow , built to 7 inches in 10 min, BOB in 16 min, final blow is 16 1/2 inches
60:ISI- Weak surface blow in 3 min, built to 1/4 inch then died out
60:FF- Fair surface blow , built to 4 3/4 inches in 10 min, BOB in 20 min, final blow is 21 inches
90:FSI- Weak surface blow , built to 1/2 inch in 10 min, final blow is w eak surface



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1977.03	108.66	Initial Hydro-static
1	24.75	108.47	Open To Flow (1)
31	147.45	122.03	Shut-In(1)
91	1227.42	121.69	End Shut-In(1)
93	154.38	121.25	Open To Flow (2)
153	266.74	124.90	Shut-In(2)
248	1226.48	123.66	End Shut-In(2)
258	1933.29	123.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
238.00	SGMOW 75%W 21%M 2%O 2%G	1.17
378.00	SGMWO 70%O 20%W 8%M 2%G	5.30

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67275 **DST#: 2**

Test Start: 2022.07.28 @ 02:40:00

GENERAL INFORMATION:

Formation: **LKC D - F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:37:45
Time Test Ended: 10:59:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Nathan Aneas
Unit No: 71

Interval: 3972.00 ft (KB) To 4007.00 ft (KB) (TVD)
Total Depth: 4007.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Fair

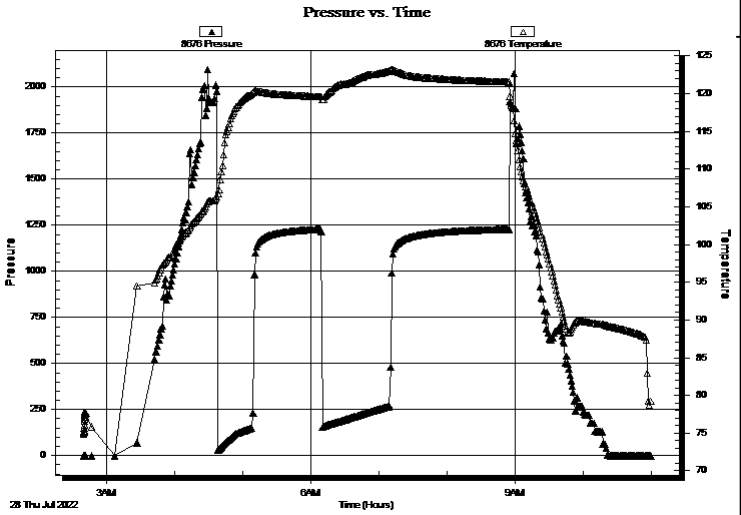
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8676 **Outside**

Press@RunDepth: psig @ 3973.00 ft (KB)
Start Date: 2022.07.28 End Date: 2022.07.28
Start Time: 02:40:01 End Time: 10:59:15

Capacity: 8000.00 psig
Last Calib.: 2022.07.28
Time On Btm:
Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow , built to 7 inches in 10 min, BOB in 16 min, final blow is 16 1/2 inches
60:ISI- Weak surface blow in 3 min, built to 1/4 inch then died out
60:FF- Fair surface blow , built to 4 3/4 inches in 10 min, BOB in 20 min, final blow is 21 inches
90:FSI- Weak surface blow , built to 1/2 inch in 10 min, final blow is w eak surface



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
238.00	SGMOW 75%W 21%M 2%O 2%G	1.17
378.00	SGMWO 70%O 20%W 8%M 2%G	5.30

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67275 **DST#: 2**

Test Start: 2022.07.28 @ 02:40:00

Tool Information

Drill Pipe:	Length:	3709.00 ft	Diameter:	3.80	inches	Volume:	52.03	bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:		inches	Volume:	-	bbl	
Drill Collar:	Length:	238.00 ft	Diameter:	2.25	inches	Volume:	1.17	bbl	
						Total Volume:	-	bbl	

Drill Pipe Above KB:	7.00 ft
Depth to Top Packer:	3972.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	35.00 ft
Tool Length:	67.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		72000.00 lb
Tool Chased		ft
String Weight:	Initial	68000.00 lb
	Final	68000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3945.00		
Hydraulic tool	5.00			3950.00		
Jars	5.00			3955.00		
EM Tool	4.00			3959.00		
Safety Joint	3.00			3962.00		
Packer	5.00			3967.00	32.00	Bottom Of Top Packer
Packer	5.00			3972.00		
Stubb	1.00			3973.00		
Recorder	0.00	8353	Inside	3973.00		
Recorder	0.00	8676	Outside	3973.00		
Perforations	31.00			4004.00		
Bullnose	3.00			4007.00	35.00	Bottom Packers & Anchor
Total Tool Length:	**67.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 67275 **DST#: 2**

Test Start: 2022.07.28 @ 02:40:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	29.6 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	25000 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.28 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

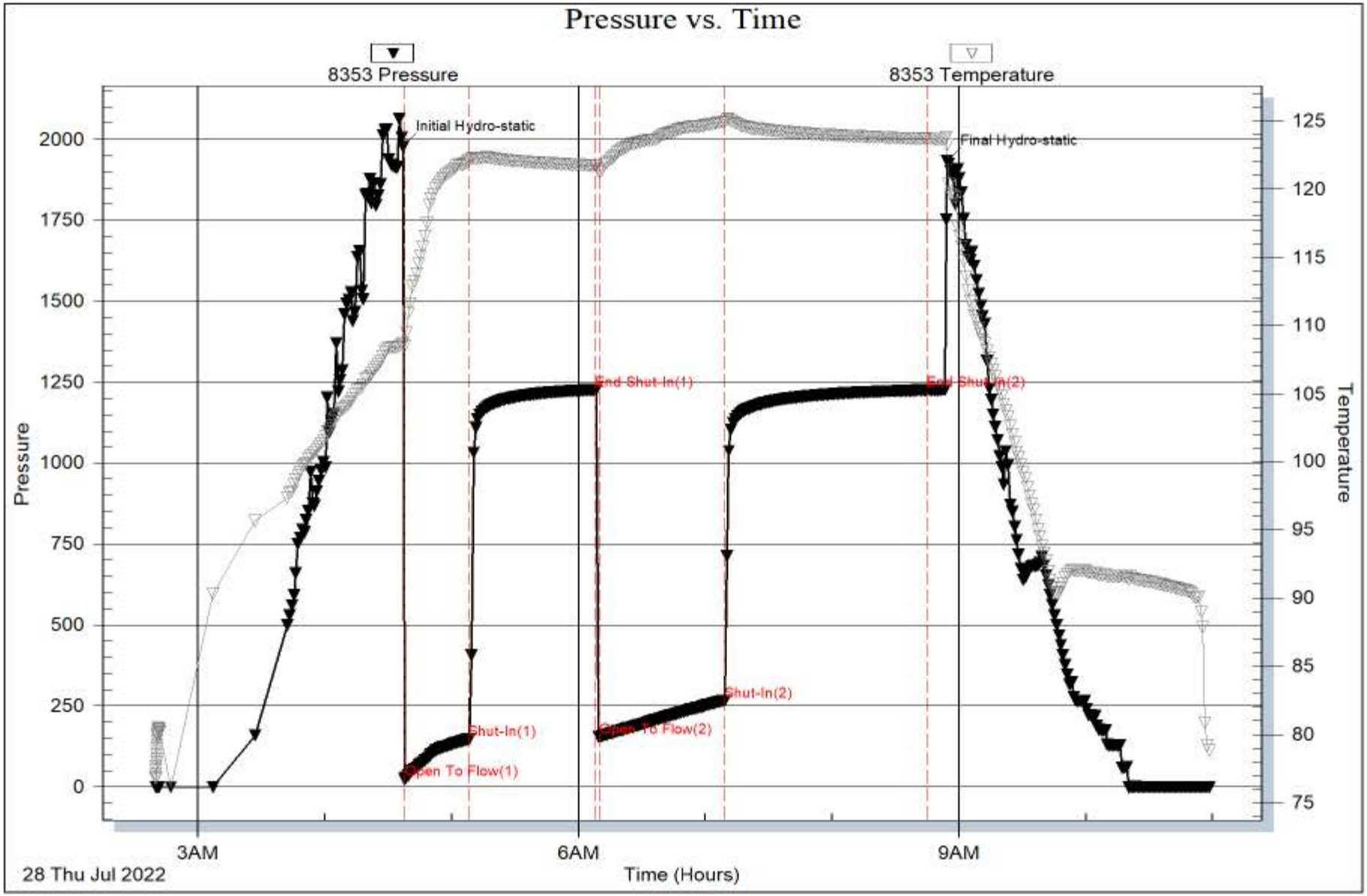
Recovery Table

Length ft	Description	Volume bbl
238.00	SGMOW 75%W 21%M 2%O 2%G	1.170
378.00	SGMWO 70%O 20%W 8%M 2%G	5.302

Total Length: 616.00 ft Total Volume: 6.472 bbl

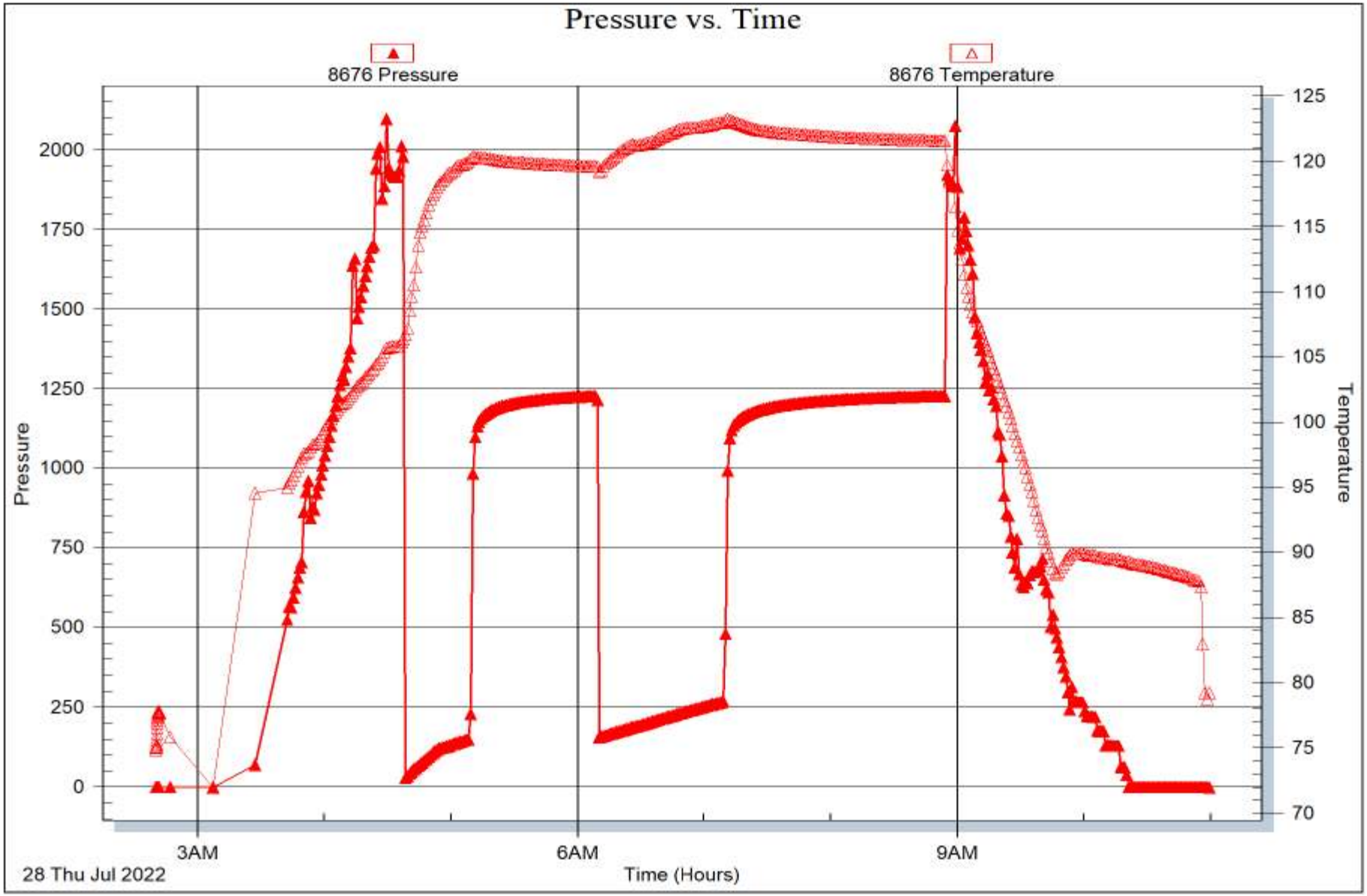
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8353 **Inside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 67275 Printed: 2022.08.04 @ 11:32:05

Serial #: 8676 **Outside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 67275 Printed: 2022.08.04 @ 11:32:06

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

Peter #1-34

34-5S-29W Decatur,KS

Start Date: 2022.07.29 @ 11:50:00
End Date: 2022.07.29 @ 20:04:30
Job Ticket #: 64517 DST #: 3

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

Printed: 2022.08.04 @ 11:31:30

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 64517 **DST#: 3**

Test Start: 2022.07.29 @ 11:50:00

GENERAL INFORMATION:

Formation: **LKC J - K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:41:15
Time Test Ended: 20:04:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Nathan Aneas
Unit No: 71

Interval: 4054.00 ft (KB) To 4114.00 ft (KB) (TVD)
Total Depth: 4114.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Fair

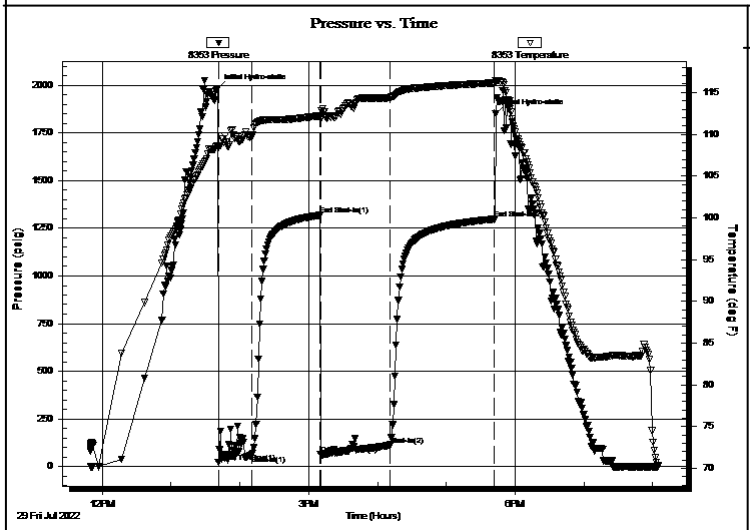
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8353 **Inside**

Press@RunDepth: 111.67 psig @ 4055.00 ft (KB)
Start Date: 2022.07.29 End Date: 2022.07.29
Start Time: 11:50:01 End Time: 20:04:30

Capacity: 8000.00 psig
Last Calib.: 2022.07.29
Time On Btm: 2022.07.29 @ 13:40:30
Time Off Btm: 2022.07.29 @ 17:43:15

TEST COMMENT: 30:IF- Weak surface blow , built to 1 1/2 inches in 10 min, final blow is 3 1/4 inches
60:ISI- No blow back
60:FF- Weak surfaace blow , built to 1 1/2 inches in 10 min, final blow is 4 1/2 inches
90:FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.69	108.63	Initial Hydro-static
1	24.30	108.52	Open To Flow (1)
30	61.96	109.78	Shut-In(1)
90	1317.74	112.21	End Shut-In(1)
90	63.59	111.87	Open To Flow (2)
151	111.67	114.38	Shut-In(2)
241	1297.53	116.14	End Shut-In(2)
243	1849.29	116.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
182.00	OCM 65%M 35%O	0.90

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 64517 **DST#: 3**

Test Start: 2022.07.29 @ 11:50:00

GENERAL INFORMATION:

Formation: **LKC J - K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:41:15
Time Test Ended: 20:04:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Nathan Aneas
Unit No: 71

Interval: 4054.00 ft (KB) To 4114.00 ft (KB) (TVD)
Total Depth: 4114.00 ft (KB) (TVD)
Hole Diameter: 7.87 inches Hole Condition: Fair

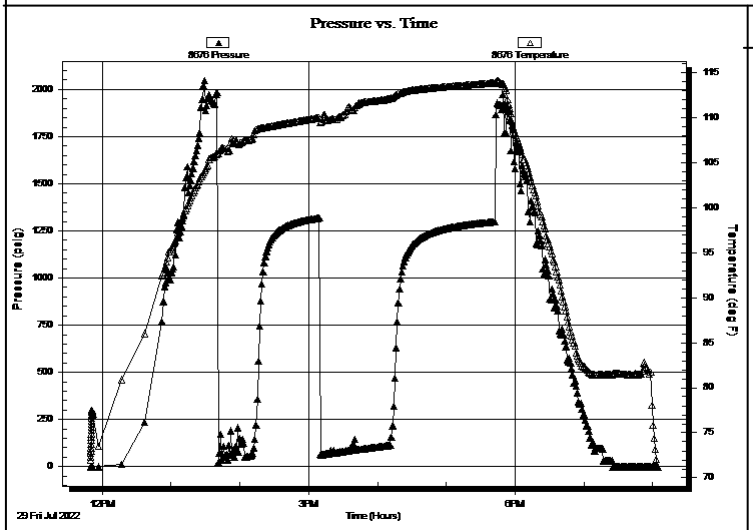
Reference Elevations: 2832.00 ft (KB)
2827.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8676 **Outside**

Press@RunDepth: psig @ 4055.00 ft (KB)
Start Date: 2022.07.29 End Date: 2022.07.29
Start Time: 11:50:01 End Time: 20:04:30

Capacity: 8000.00 psig
Last Calib.: 2022.07.29
Time On Btm:
Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow , built to 1 1/2 inches in 10 min, final blow is 3 1/4 inches
60:ISI- No blow back
60:FF- Weak surfaace blow , built to 1 1/2 inches in 10 min, final blow is 4 1/2 inches
90:FSI- No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
182.00	OCM 65%M 35%O	0.90

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 64517 **DST#: 3**

Test Start: 2022.07.29 @ 11:50:00

Tool Information

Drill Pipe:	Length:	3799.00 ft	Diameter:	3.80 inches	Volume:	53.29 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	238.00 ft	Diameter:	2.25 inches	Volume:	1.17 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	54.46 bbl	Tool Chased		ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	68000.00 lb
Depth to Top Packer:		4054.00 ft						Final	68000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		60.00 ft							
Tool Length:		92.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			4027.00		
Hydraulic tool	5.00			4032.00		
Jars	5.00			4037.00		
EM Tool	4.00			4041.00		
Safety Joint	3.00			4044.00		
Packer	5.00			4049.00	32.00	Bottom Of Top Packer
Packer	5.00			4054.00		
Stubb	1.00			4055.00		
Recorder	0.00	8353	Inside	4055.00		
Recorder	0.00	8676	Outside	4055.00		
Perforations	23.00			4078.00		
Change Over Sub	1.00			4079.00		
Blank Spacing	31.00			4110.00		
Change Over Sub	1.00			4111.00		
Bullnose	3.00			4114.00	60.00	Bottom Packers & Anchor
Total Tool Length:	**92.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

250 N Water Ste 300
Witchita, KS 67202

ATTN: Wes Hansen

34-5S-29W Decatur,KS

Peter #1-34

Job Ticket: 64517 **DST#: 3**

Test Start: 2022.07.29 @ 11:50:00

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:	86.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1800.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
182.00	OCM 65%M 35%O	0.895

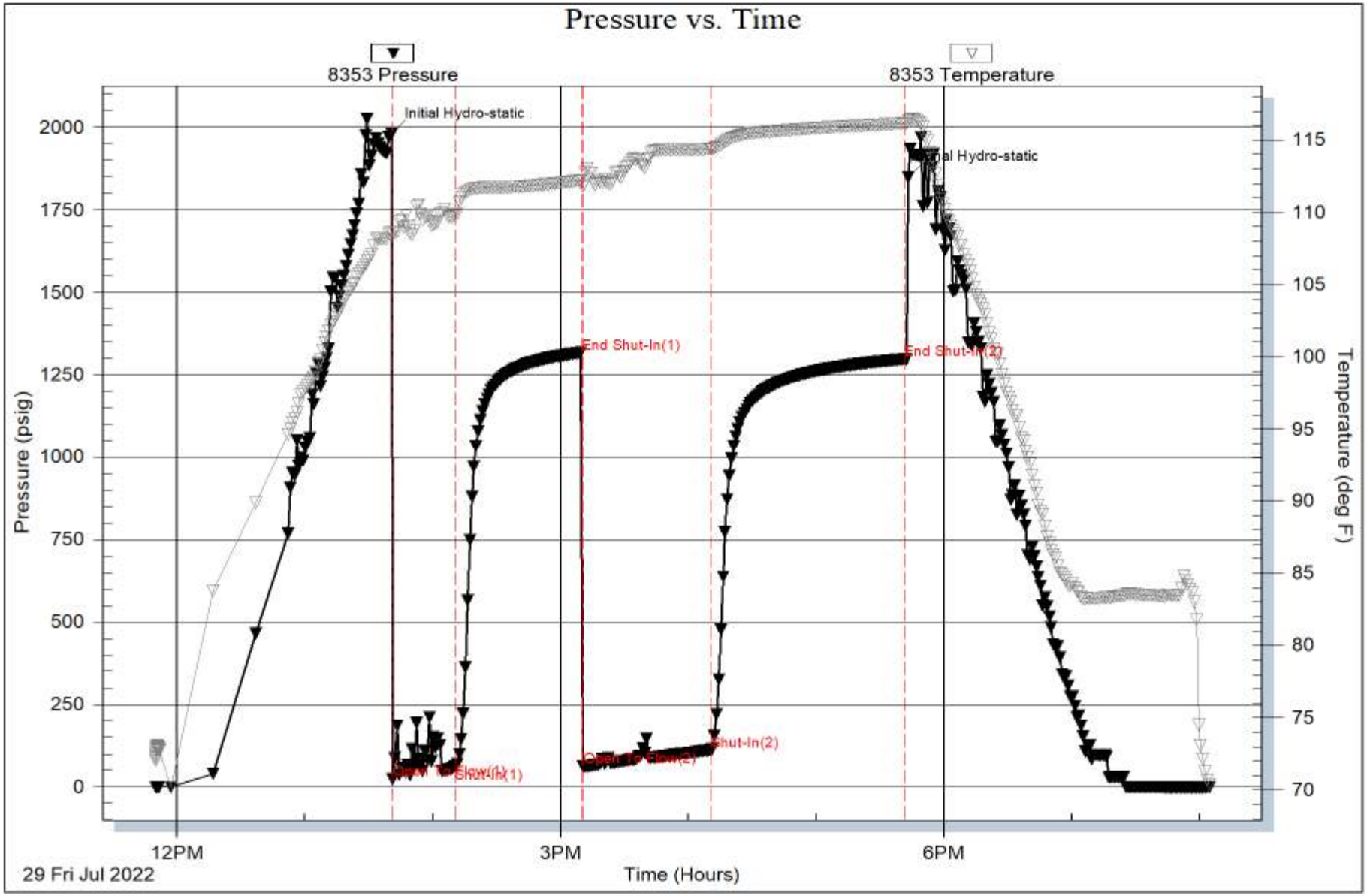
Total Length: 182.00 ft Total Volume: 0.895 bbl

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

Laboratory Name: Laboratory Location:

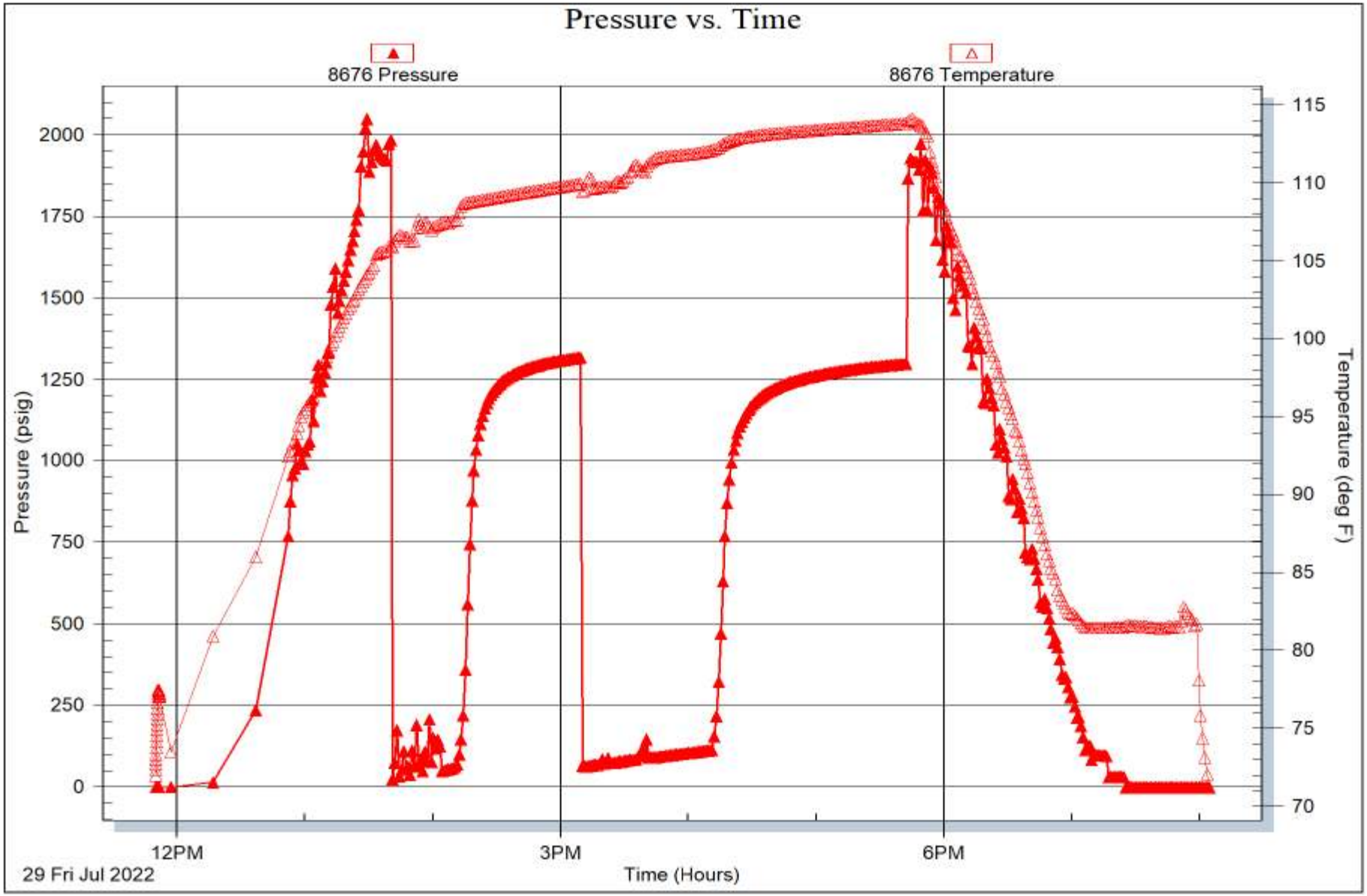
Recovery Comments:

Serial #: 8353 **Inside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64517 Printed: 2022.08.04 @ 11:31:31

Serial #: 8676 **Outside** Murfin Drilling Company Inc Peter #1-34 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 64517 Printed: 2022.08.04 @ 11:31:31

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 67274

Well Name & No. Peter 1-34 Test No. 1 Date 07/27/22

Company Murfin Drilling Company Inc Elevation 2832 KB 2827 GL

Address 250 N Water Ste 300 Witchita, KS 67202

Co. Rep / Geo. Wes Hansen Rig Murfin #17

Location: Sec. 34 Twp 5S Rge. 29W Co. Decatur State KS

Interval Tested 3878 - 3958 Zone Tested Toronto, Lansing A&B

Anchor Length 80' Drill Pipe Run 3613 Mud Wt. 8.8

Top Packer Depth 3873 Drill Collars Run 238 Vis 60

Bottom Packer Depth 3878 Wt. Pipe Run WL 7.2

Total Depth 3958 Chlorides 1100 ppm System LCM 6#

Blow Description IF-Weak surface blow, built to 4¾ inches in 10min, BOB in 27min

ISI-No blow back (Final blow is 10¾ in

FF-Weak surface blow, built to 2¾ inches in 10min, BOB in 41min, final blow is 12¾ inches

FSI-No blow back

Rec 189	Feet of WM	%gas	%oil	3 %water	97 %mud
Rec 238	Feet of WM (Spots of oil in tool)	%gas	%oil	40 %water	60 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 427 BHT 118 Gravity — API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1912	☑ Test 1800	T-On Location 02:30
(B) First Initial Flow 25	☑ Jars 300	T-Started 04:42
(C) First Final Flow 144	☑ Safety Joint	T-Open 06:41
(D) Initial Shut-In 1249	☐ Circ Sub	T-Pulled 10:45
(E) Second Initial Flow 148	☐ Hourly Standby	T-Out 12:42
(F) Second Final Flow 236	☑ Mileage 48RT 72	Comments
(G) Final Shut-In 1237	☐ Sampler	
(H) Final Hydrostatic 1884	☐ Straddle	☑ EM Tool -350
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 30	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 60	☐ Extra Recorder	☐ Extra Copies
Final Flow 60	☐ Day Standby	Sub Total -350
Final Shut-In 90	☐ Accessibility	Total 1822
	Sub Total 2172	MP/DST Disc't

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67275

Well Name & No. Peter #1-34 Test No. 2 Date 07/28/22

Company Murfin Drilling Company Inc Elevation 2832 KB 2827 GL

Address 250 N. Water Ste. 300 Witchita, KS 67202

Co. Rep / Geo. Wes Hansen Rig Murfin #7

Location: Sec. 34 Twp 5s Rge. 29W Co. Decatur State KS

Interval Tested 3972 - 4007 Zone Tested Lansing D-F

Anchor Length 35' Drill Pipe Run 3709 Mud Wt. 9.0

Top Packer Depth 3967 Drill Collars Run 238 Vis 50

Bottom Packer Depth 3972 Wt. Pipe Run WL 7.2

Total Depth 4007 Chlorides 1500 ppm System LCM 6#

Blow Description IF-Weak surface blow, built to 7 inches in 10 min, BOB in 16 min

ISI - Weak surface blow in 3 min, built to 1/4 inch then died (Final blow 16 1/2)

FF-Fair surface blow, built to 4 3/4 inch in 10 min, BOB in 20 min, Final blow is 21 inches

FSI-Weak surface blow, built to 1/2 inch in 10 min, Final blow is weak surface

Rec 378	Feet of SGMOWO	2 %gas	70 %oil	20 %water	8 %mud
Rec 238	Feet of SGMOW	2 %gas	2 %oil	75 %water	21 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 616 BHT 123 Gravity 29@60° API RW .275 @ 73 °F Chlorides 25,000 ppm

(A) Initial Hydrostatic 1977	☑ Test 1950	T-On Location 00:15
(B) First Initial Flow 25	☑ Jars 300	T-Started 02:40
(C) First Final Flow 147	☑ Safety Joint	T-Open 04:37
(D) Initial Shut-In 1227	☐ Circ Sub	T-Pulled 08:32
(E) Second Initial Flow 154	☐ Hourly Standby	T-Out 10:50
(F) Second Final Flow 267	☑ Mileage 48RT 72	Comments
(G) Final Shut-In 1226	☐ Sampler	
(H) Final Hydrostatic 1933	☐ Straddle	☑ EM Tool -350
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 30	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 60	☐ Extra Recorder	☐ Extra Copies
Final Flow 60	☐ Day Standby	Sub Total -350
Final Shut-In 90	☐ Accessibility	Total 1972
	Sub Total 2322	MP/DST Disc't

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 64517

Well Name & No. Peter #1-34 Test No. 3 Date 07/29/22

Company Murfin Drilling Company Inc Elevation 2832 KB 2827 GL

Address 250 N. Water Ste 300 Witchita, Ks 67202

Co. Rep / Geo. Wes Hansen Rig Murfin #7

Location: Sec. 34 Twp 5S Rge. 29W Co. Decatur State KS

Interval Tested 4054-4114 Zone Tested Lansing J-K

Anchor Length 60' Drill Pipe Run 3799 Mud Wt. 8.7

Top Packer Depth 4049 Drill Collars Run 238 Vis 86

Bottom Packer Depth 4054 Wt. Pipe Run _____ WL 6.4

Total Depth 4114 Chlorides 1800 ppm System LCM 1#

Blow Description IF-Weak surface blow, built to 1½ inches in 10min, Final blow is 3¼ inch

ISI-No blow back

FF-Weak surface blow, built to 1½ inch in 10min, Final blow is 4½ inches

FSI-No blow back

Rec 182	Feet of OCM	%gas	35 %oil	%water 65	%mud
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 182 BHT 118 Gravity 30@60° API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1981	☑ Test	EM Tool 1950	T-On Location	09:10
(B) First Initial Flow	24	☑ Jars	300	T-Started	11:50
(C) First Final Flow	62	☑ Safety Joint	/	T-Open	13:41
(D) Initial Shut-In	1318	☐ Circ Sub		T-Pulled	17:45
(E) Second Initial Flow	64	☐ Hourly Standby		T-Out	19:55
(F) Second Final Flow	112	☑ Mileage	48RT 72	Comments	Ran pill for DST with 8# LCM
(G) Final Shut-In	1298	☐ Sampler			EM -350
(H) Final Hydrostatic	1849	☐ Straddle		☐ Ruined Shale Packer	
		☑ Shale Packer	250	☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	60	☐ Extra Recorder		Sub Total	-350
Final Flow	60	☐ Day Standby		Total	2222
Final Shut-In	90	☐ Accessibility		MP/DST Disc't	
		Sub Total	2572		

Approved By _____ Our Representative _____

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.

DRILLING REPORT - LOG TOPS - PETER 1-34

	MDCI Peter #1-34 1980 FSL 450 FWL Sec. 34-T5S-R29W 2832' KB					
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
Anhydrite	2574	+258	-4	2571	261	+3
B/Anhydrite	2608	+224	+1	2606	226	+3
Topeka	3707	-875	-1	3711	-879	-5
Heebner	3881	-1049	+4	3889	-1057	-4
Toronto	3914	-1082	+1	3919	-1087	-4
Lansing	3925	-1093	+5	3932	-1100	-2
Stark	4091	-1259	-6	4092	-1260	-7
Mound City	4138	-1306	-5	4138	-1306	-5
RTD	4200					
LTD				4199		

CEMENT TREATMENT REPORT

Customer:	Murfin Drilling	**Well:**	Peter 1-34	**Ticket:**	WP 3125
City, State:	Oakley KS	**County:**	Decatur KS	**Date:**	7/23/2022
Field Rep:	Arturo	**S-T-R:**	34-5S-29W	**Service:**	Surface

Downhole Information	
Hole Size:	12 1/4 in
Hole Depth:	308 ft
Casing Size:	8 5/8 in
Casing Depth:	305.25 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	18.2 bbls

Calculated Slurry - Lead	
Blend:	H-325
Weight:	14.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.41 ft^3 / sx
Annular Bbls / Ft.:	0.0735 bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	62.8 bbls
Total Sacks:	250 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
930A			-	-	ON LOCATION GET INFO: 8 5/8 CASING 23# RACK VERIFIED, 297' CASING, 8' LANDING JOINT
945A				-	SAFETY MEETING
1000A				-	RIG UP
1116A				-	CASING ON BOTTOM
1125A				-	CIRCULATE WITH RIG PUMP
1135A	3.0	100.0	5.0	5.0	H2O AHEAD
1137A	5.5	160.0	62.8	67.8	CEMENT 14.8 PPG MUD SCALE VERIFIED
1152A	3.0	220.0	18.2	86.0	DISPLACE H2O
1202P				86.0	SHUT IN/PLUG DOWN
1205P				86.0	WASH UP
1210P				86.0	RIG DOWN
1216P					LEFT LOCATION
					CIRCULATED 5 BBLS TO PIT

	CREW	UNIT
Cementer:	Jimmie	242
Pump Operator:	Spencer	528/520
Bulk #1:	Hunter	914
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.8 bpm	160 psi	86 bbls

CEMENT TREATMENT REPORT

Customer:	Murfin Drilling	**Well:**	Peter #1-34	**Ticket:**	WP 3156
City, State:	Seldon KS	**County:**	Decatur KS	**Date:**	7/31/2022
Field Rep:	Troy	**S-T-R:**	34-5S-29W	**Service:**	2 Stage

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4200 ft
Casing Size:	5 1/2 in
Casing Depth:	4193 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	DV tool
Tool Depth:	2593 ft
Displacement:	99.2 bbls

Calculated Slurry - Lead	
Blend:	H-LD
Weight:	14.8 ppg
Water / Sx:	6.5 gal / sx
Yield:	1.51 ft^3 / sx
Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth:	4193 ft
Annular Volume:	129.6 bbls
Excess:	
Total Slurry:	51.0 bbls
Total Sacks:	190 sx

Calculated Slurry - Tail	
Blend:	H-Con
Weight:	12 ppg
Water / Sx:	15.5 gal / sx
Yield:	2.56 ft^3 / sx
Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth:	2593 ft
Annular Volume:	bbls
Excess:	
Total Slurry:	145.9 bbls
Total Sacks:	320 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
8:00 PM			-	-	Arrived on location
8:10 PM				-	Safety meeting
8:20 PM				-	Rigged up
12:00 AM				-	Set DV tool @ 2593'
1:30 AM				-	Casing on bottom
1:45 AM				-	Circulated mud
3:00 AM	3.7	250.0	10.0	10.0	Water ahead
3:03 AM	3.7	250.0	12.0	22.0	Pumped super mud flush
3:06 AM	3.7	250.0	10.0	32.0	Water behind
3:11 AM	3.1	250.0	51.0	83.0	Mixed 190 sacks H-LD cement @ 14.8 ppg
3:27 AM				83.0	Shut down, loaded plug, cleared lines and pump
3:37 AM	6.0	250.0	40.0		Begin 40 bbls water diplacement with KCL
3:40 AM	6.0	250.0	59.2		Begin 59.2 bbls mud displacement
3:54 AM		1,300.0			Plug down with 800 landing psi and 1300 bump psi
3:56 AM					Released pressure plug held with 1/2 bbl back to tank
4:00 AM					Dropped bomb
4:30 AM	2.0	1,000.0	0.3		Opened DV tool @ 1000 psi with 1/4 bbl
4:35 AM					Begin mud circulation
540am	2.5	100.0	7.5		Pumped 30 sks of h- con in rh
546am	2.5	100.0	50.0		pumped 20 sks of h- con in mh
550am	5.0	250.0	10.0		pumped h2o ahead
555am	5.0	250.0	133.0		pumped 270 sks of h- con @ 2593 ft
637am					shut down washed up pump and lines / loaded plug
645am	5.0	750.0	61.7		displaced with h2o
657am		1,500.0			plug down with 750 psi bumped to 1500 psi/ circulated 2bbl to pit
715am					rigged down trucks
730am					off location

	CREW	UNIT
Cementer:	Josh	73
Pump Operator:	John	208
Bulk #1:	Kale	527-235
Bulk #2:	Kale	159-250

SUMMARY		
Average Rate	Average Pressure	Total Fluid
4.0 bpm	482 psi	445 bbls

ftv: 15-2021/01/25
mplv: 309-2022/07/28