

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	MARGARET 2-29
Doc ID	1726135

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Form	ACO1 - Well Completion
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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	12.250	8.625	24	57	H-325	55	



The Well Watchers

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

Well Name: MARGARET #2-29
Location: Section 29 - Township 28S - Range 9 East
Licence Number: 15-049-22634 -00-00 Region: Elk County, KS.
Spud Date: 29 June 2023 Drilling Completed: 16 July 2023
Surface Coordinates: 1,500' FNL & 100' FWL
(about NW NW SW NW)
Bottom Hole
Coordinates:
Ground Elevation (ft): 1,347' K.B. Elevation (ft): 1,359'
Logged Interval (ft): 1,500' To: 2,950' Total Depth (ft): 2,950'
Formation: Kansas City -----> Arbuckle
Type of Drilling Fluid: Displace @ 1,047' - Chemical, Low Solids/Non-Dispersed
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: MURFIN DRILLING COMPANY, INC.
Address: 250 North Water, Suite 300 POC: Bo Beins
Wichita, Kansas 67202
(316) 267-3241

GEOLOGIST

Name: Curtis E. Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776-0367 Cell: (316) 217-4679

KB: 1,359'

FORMATION TOPS

GL: 1,347'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Kansas City (PDC Bit)	1,753' (- 394')	1,756' (- 397')
Mound City	1,938' (- 579')	1,934' (- 575')
Altamont	2,091' (- 732')	2,094' (- 725')
Pawnee	2,179' (- 820')	2,180' (- 821')
Ft. Scott	2,216' (- 857')	2,214' (- 855')
Excello SH	2,248' (- 889')	2,248' (- 889')
Oakley	2,320' (- 961')	2,320' (- 961')
Mississippi	2,535' (- 1,176')	2,538' (- 1,179')
Arbuckle	2,875' (- 1,516')	2,876' (- 1,517')

RTD: 2,950' LTD: 2,950' ATD: 2,952'

Float:
Rotary Sample Depth is 0' - 2' low to E-log Depth
for the logged interval: 1,500' - 2,950' (RTD).

E-Loggers:
Midwest Wireline ... Hays, KS.

DST #1 - KINDERHOOK LIME

Rotary Depth: 2,751' - 2,760'
Logger's Depth: 2,753' - 2,762'

Recovery: 60' Watery Mud (10%Water, 90%Mud)

Recovery Water: (7,000 ppm)
System Water: (750 ppm)

IFP: 112# - 61# / 30"
ISIP: 930# / 60"
FFP: 119# - 72# / 60"
FSIP: 924# / 60"
116 deg F
MH: 1,261# - 1,229#

IF: Weak building blow,
built to 1 inch.
ISI: No Blow back.
FF: Weak building blow,
built to 1 inch.
FSI: No Blow back.

Reported Rw Tester:
0.884 ohms @ 70 deg F
Recovery Water Mud Engineer:
NA

Trilobite Testing, Inc.
Pratt, KS.

DST #2 - ARBUCKLE

Rotary Depth: 2,876' - 2,885'
Logger's Depth: 2,878' - 2,887'

Recovery: 5' Mud

Recovery Water:
System Water: (750 ppm)

IFP: 122# - 60# / 30"
ISIP: 897# / 60"
FFP: 116# - 56# / 60"
FSIP: 871# / 60"
118 deg F
MH: 1,371# - 1,352#

IF: Weak surface blow,
built to 0.25 inch, died in 10".
ISI: No Blow back.
FF: No blow.
FSI: No Blow back.

Reported Rw Tester: NA
Recovery Water Mud Engineer:
NA

Trilobite Testing, Inc.
Pratt, KS.

DST #3 - ARBUCKLE

Rotary Depth: 2,879' - 2,895'
Logger's Depth: 2,881' - 2,897'

Recovery: 1,770' Water

Recovery Water: (6,200 ppm)
System Water: (750 ppm)

IFP: 39# - 354# / 30"
ISIP: 1,019# / 60"
FFP: 361# - 543# / 60"
FSIP: 1,019# / 60"
119 deg F
MH: 1,412# - 1,356#

IF: BOB in 5'.
ISI: No Blow back.
FF: BOB in 4".
FSI: No Blow back.

Reported Rw Tester:
0.9970 ohms @ 70 deg F
Recovery Water Mud Engineer:
(7,700 ppm)

Trilobite Testing, Inc.
Pratt, KS.

12-1/4" Hole (Surface)

30 June --- Spud @ 12:30pm.
 Drill to 67'.
 Ran 8-5/8" (23#) casing.
 Set @ 57'. 55 sx H-325
 (2%CC + 3% Gel).
 [Hurricane Services]
 Plug Down @ 3:30pm.
 Cement did circ. (5 Bbls)
 WOC.

7-7/8" Hole (Vertical)

1 - 10 July --- No drilling activity.
 11 --- U / S @ 9:30am.
 Bit Trip @ 1,803'.
 12 --- Resumed Drilling @ 5:18am.
 7am @ 1,866'.
 13 --- 7am @ 2,399'.
 14 --- Start and
 7am @ 2,760'. Finish DST #1 -
 Kinderhook Lime (2,751' -
 2,760'). Resumed Drilling
 @ 9:30pm.

7-7/8" Hole (Vertical)

15 July --- Start and
 7am @ 2,885'. Finish
 DST #2 - Arbuckle
 (2,876' - 2,885').
 Resume Drilling @ 8:55pm.
 Start and
 16 --- 7am @ 2,895'. Finish
 DST #3 - Arbuckle
 (2,879' - 2,895').
 Resume Drilling @ 4:25pm.
 RTD (2,950') @ 6:30pm.
 Start and
 17 --- Finish E-LOG.
 [Midwest Wireline]

HOLE DEVIATION (67' - 2,950' MD)

12-1/4" Surface Hole

DEPTH / TVD	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
67' /	0.25						(Surface Casing)

7-7/8" Vertical Hole

Strap @ NA. Murfin 116 is a top
 drive, 'single' drilling rig.

500' /	0.25	
1,522' /	0.50	
1,803' /	0.50	(Bit Trip)
2,560' /	1.00	
2,760' /	0.75	(DST #1)
2,950' /	0.50	(RTD)

Strap:
 Board:
 Diff:

Inclination Surveys provided by Murfin Drilling - Rig #116

CONTRACTOR

Murfin Drilling Co, Inc. --- Rig #116

250 North Water, Suite 300
 Wichita, Kansas 67202
 Office: (316) 267-3241

Toolpusher: Paco Gonzalez - (620) 309-1818

Pump: IDECO 550
 6" x 15" @ 60 SPM.
 800 PSI @ Standpipe. *

Drill Pipe: 4.5" XH. (16.4# / ft -used)

Drill Collars: 6" x 2.25" --- 521'. (83#/ft)
 Dry Collar Weight: 43,243#
 Bouyancy Collar Weight: 37,016#
 (@ 9.4 ppg / Buoyancy Factor 0.8645)
 Design Factor: 15% held back to keep
 drill string straight, therefore:
 available calculated WOB is 31,464#

Check Weight Indicator @ 2,744'.
 Calculated String Weight (92,449#) -vs- Observed WI (90,000#).
 WI is weighing LIGHT by 2.6%
 Therefore: Calculated WOB of 31,464# will show 32,282# on WI.

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
SURFACE ---		(IADC)					(ft/hr)
30 June 2023	12-1/4"	SMITH	15 - 15 -15	0' / 67'	67'	0.50	137.0
VERTICAL ---							
11 July 2023	7-7/8"	SMITH M-616 (PDC)	15 - 15 -15	67' / 1,803'	1,736'	11.00	157.8
12 July 2023	7-7/8"	SMITH F-271Y	15 - 15 -15	1,803' / 2,950'	1,147'	48.00	23.9

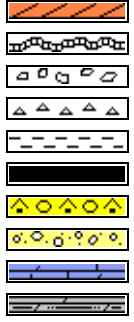
ROCK TYPES

POROSITY

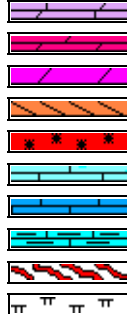


Earthly
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

LITHOLOGY



Anhy
Bent
Brec
Cht
Clyst
Coal
Granite wash
Congl
Dol lmst
Silty dol



Calc dol
Dol 2
Dol
Gyp
Igne
Lmst 2
Lmst
Silty ls
Meta
Mrst
Salt
Shale 3
Shale 3
Shale 3
Shcol
Shgy
Sltst
Ss
Till
Ss 2

MINERAL



Mica
Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl

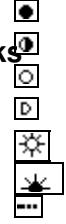


Minxl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff
Copper
Ooliticastic
Ooloid
Oolite
Sucrosic
Dark specks



Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Calc dol
Sltstgr
Ssstrg
Chalk
New symbol

SHOW



Oil
Spotted
Ques
Dead
Gas
Oil/gas
Bed contact

STRINGER



Dol ls
Silty dol
Anhy

ACCESSORIES

FOSSIL



Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Spore
Crin
Echin
Fish
Foram
Fossil
Gastro



Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom

MINERAL



Mica
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
Copper
Ooliticastic
Ooloid
Oolite
Sucrosic
Dark specks

STRINGER



Dol ls



Silty dol
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Calc dol
Sltstgr
Ssstrg
Chalk
New symbol

OTHER SYMBOLS

ACTIVITY



Lost circluation
Circulate for sam



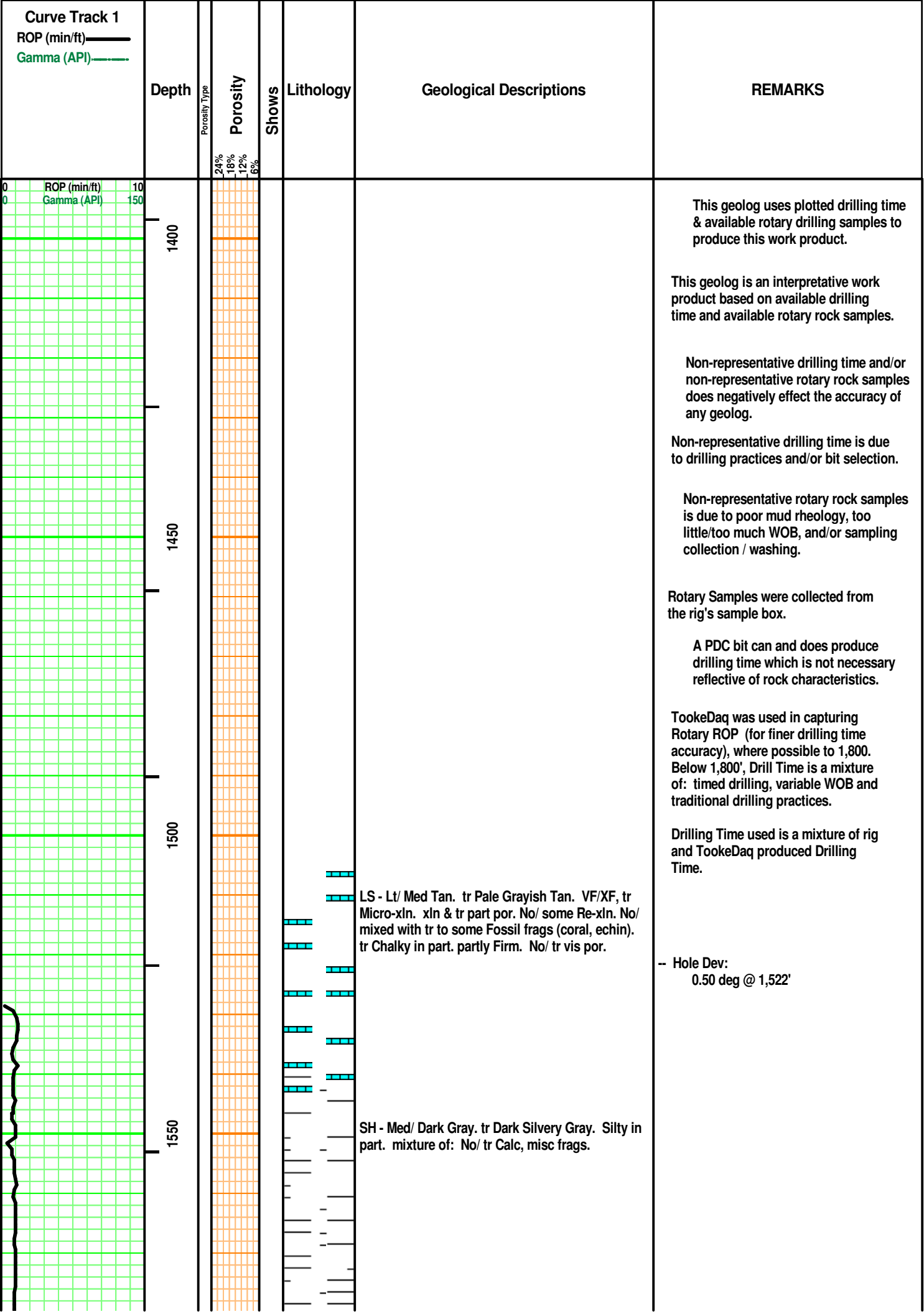
Circulate for sam
Rtd
Trip

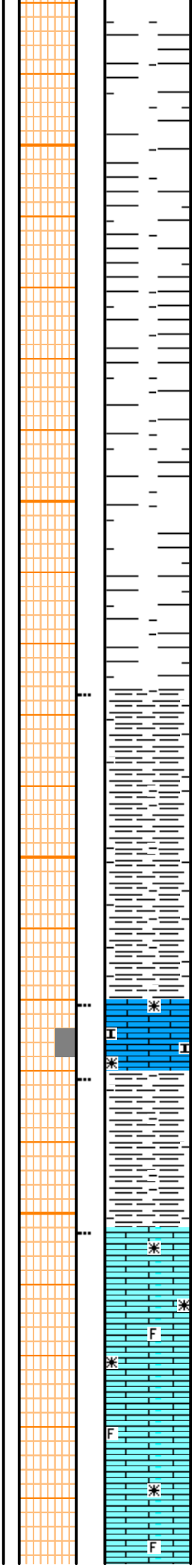
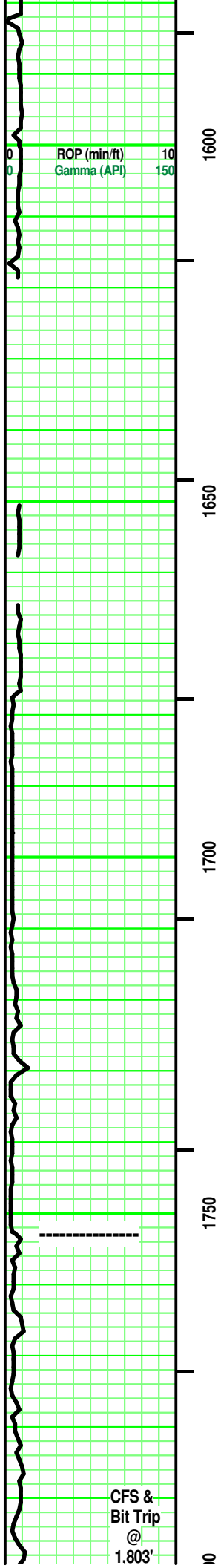


Connection
Rft



Sidewall





SH - Med/ Dark Gray. tr Dark Silvery Gray. Silty in part. mixture of: No/ tr Calc, misc frags.

SH - Med/ Dark Gray. tr Dark Silvery Gray. Silty in part. mixture of: No/ tr Calc, misc frags.

SH - Med/ Dark Gray. tr Dark Silvery Gray. Silty in part. mixture of: No/ tr Calc, misc frags.

LS - Lt Grayish Tan. Sing. XF-xln. xln por. tr chalky. mostly No/ tr argil. partly Firm. No/ tr vis por.

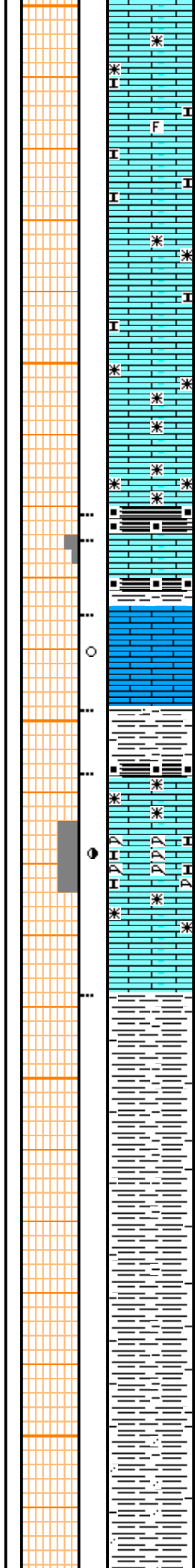
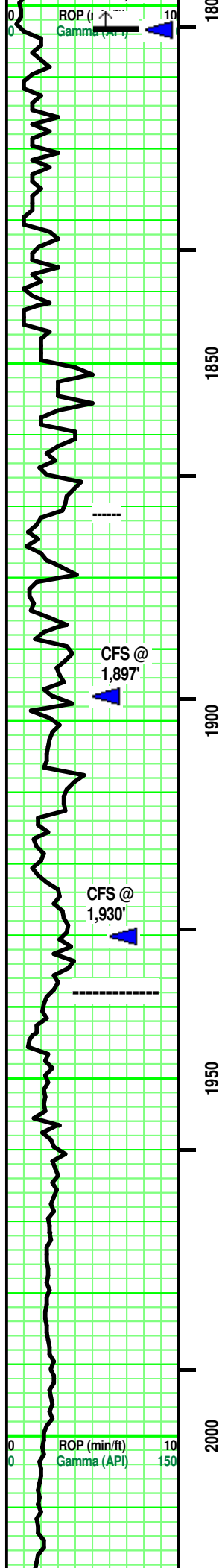
SH - Med/ Dark Gray. Sing. Massive. tr Calc.

LS - Lt/Med Tan. some Lt Brownish Tan or Lt Grayish Tan. Sing/ Mot/ Mixed. tr XF-/ mostly Xf or Micro-xln. xln por. mixture of No/ some Re-xln. mixture of fossil frags, chaly in part. mixture of mostly Friable, some Firm/ Dense. mixture of: tr or some vis por.

-- KANSAS CITY
1,753' (- 394')

Vis: 45
Wt: 9.2
LCM: 3#

67' - 1,803': PCD Bit.
1,804' - RTD: Tri-Cone Bit.



xxxx BIT TRIP @ 1,803' xxxx

^--- CHC @ 1,803'.

^--- Hole Dev:

0.50 deg @ 1,803'.

^--- Bit Trip @ 1,803'

Vis: 47

Wt: 9.3

LCM: 3#

Vis: 48

Wt: 9.2

LCM: 3#

--- STARK SH
1,871' (- 512')

Vis: 46

Wt: 9.3

LCM: 3#

--- CFS @ 1,897': 30"

^--- 1,897' -

Vis: 62 Wt: 9.2+ Wtr Loss: 7.2

PV: 16 YP: 17 Gels: 8/22

pH: 10.0 Cl (1,000) Ca (50)

Solids: 6.7% LCM: 2#

--- CFS @ 1,930': 30"

Vis: 50

Wt: 9.2

LCM: 2#

--- MOUND CITY
1,938' (- 579')

Vis: 50

Wt: 9.2

LCM: 2#

Vis: 50

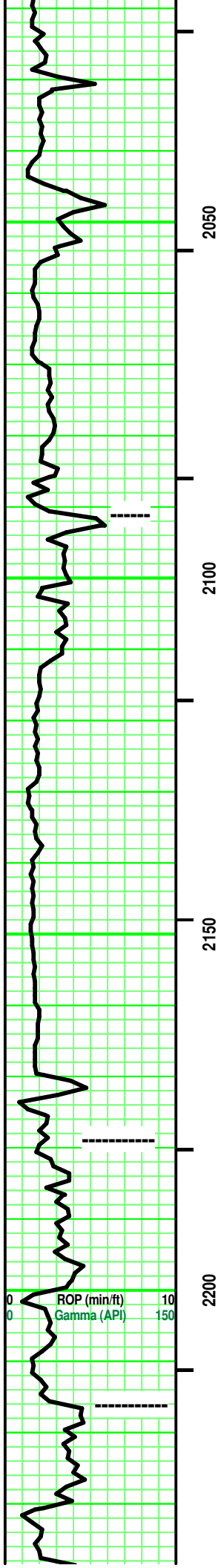
Wt: 9.2

LCM: 2#

Vis: 49

Wt: 9.2

LCM: 2#



2050

2100

2150

2200

ROP (min/ft)
Gamma (API)

LS - Tannish Gray. Sing. Micro-xln. xln por. Firm. No/ tr vis por.

SH - some Med/ Dark Gray. Blackish Gray. Sing/ tr Mixed. tr limy at top. Blocky.

LS - Grays. Mot/Mixed. Micro-xln. xln por. argil. Dense. No/ tr vis por.

SH - Med/ Dark Gray. Black intermixed. No/ tr limy streaks (intermixed).

LS (1) - Med / Dark Tan / Lt Gray. Sing. XF-xln. xln por. tr Re-xln. tr misc frags. argil at top. No/ tr vis por.

SH - Black. Sing. carb. soft.

LS - similiar to (1) above.

SH (2) - Med/ Dark Gray. Black intermixed. No/ tr highly silty streaks (intermixed/ interbedded).

Add: SS - Clear/ Pale Lt Gray. Mot. Silt sized qtz grains. SA/SR. Hi sort. Mod sph. Vitreouse/ some frosted luster. Sutured/ point grain contact. misc inclusions. Dense. No/ tr vis por.

SH - similiar to (2) above.

LS - similiar to LS (1) above.

LS - Lt/ Med Brown. some Brownish Tan. Sing. XF-/ Micro-xln. xln por. tr Re-xln. No/ some fossil frags. No/ some chalky. partly Friable. No/ tr vis por.

SH - Black. Sing. carb. soft.

SH - Med Gray. Sing. limy stringers in part.

LS - Med Tan, Grayish Tan. Sing/ tr Mixed. XF-/ Micro-xln. xln por. mixture of: No/ tr Re-xln. [No/ tr Chert: Pale Lt Gray. Opaque. No Inclusions. No trip.]

SH - Black. Sing. carb. soft.

SH - Med Gray. Sing. tr calc.

Vis: 54
Wt: 9.1
LCM: 3#

Vis: 50
Wt: 9.2
LCM: 3#

-- ALTAMONT
2,091' (- 732')

Vis: 52
Wt: 9.2
LCM: 2#

Vis: 60
Wt: 9.1
LCM: 3#

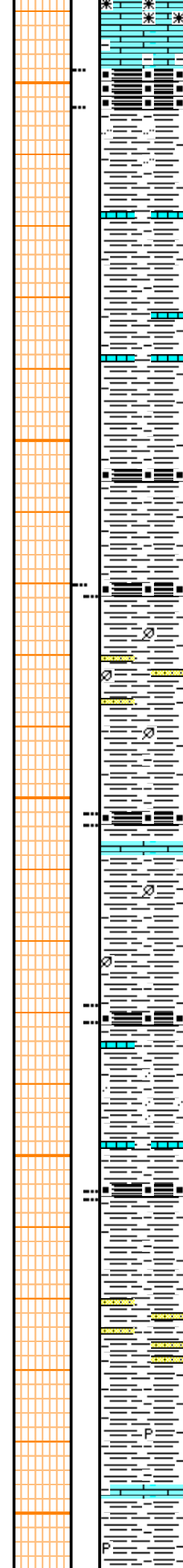
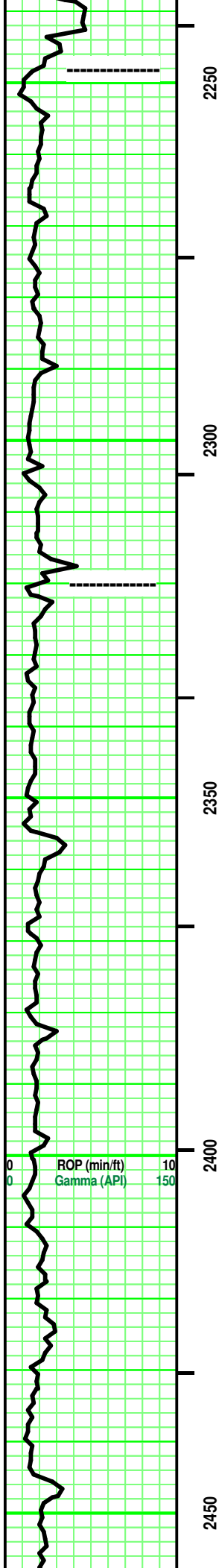
Vis: 50
Wt: 9.1
LCM: 3#

-- PAWNEE
2,179' (- 820')

Vis: 50
Wt: 9.1
LCM: 3#

-- FT. SCOTT
2,216' (- 857')

Vis: 55
Wt: 9.1
LCM: 3#



LS - Lt Brownish Tan/ Dark Tan. Sing/ tr Mixed. XF-/ Micro-xln. xln por. No/rare Re-xln. argil at depth. partly Firm. No/ tr vis por.

SH - Black. Sing. carb. soft.

SH - some Med/ mostly Dark Gray, Blackish Gray and Black. Silty near top. Interbedded LS with depth. mostly Friable. tr blocky.

Interbedded SH, SS & LS

SH - Black. Sing. carb. soft.

SH - tr Med/ mostly Dark Gray, Blackish Gray. Sing. Mot, Mixed. No/ some Silty or sandy in part. misc inclusions (mica, minute fossil frags, plant frags).

SS - Lt/ Med, tr Dark Gray, Clear. tr XF-/ silt sized qtz grains. SA/SR. highly sorted, mod sph. Vitreous, some frosted luster, mixture of Point/sutured grain contact. Sil / tr calc cement. misc inclusions. argil/shaly. No/ tr/ some fair vis por.

LS - Lt/Med Gray. Sing. Micro-xln. xln por. argil in part. partly Firm. No/ tr vis por.

Interbedded SH & tr LS

SH - Black. Sing. carb. soft. minute pyritic xtals in part.

SH - tr Med/ mostly Dark Gray, Blackish Gray. Sing. Mot, Mixed. No/ some Silty or sandy in part. misc inclusions (mica, minute fossil frags, plant frags).

LS - Lt/Med Gray. Sing. Micro-xln. xln por. argil in part. partly Firm. No/ tr vis por.

-- EXCELLO SH
2,248' (- 889')

Vis: 55
Wt: 9.1
LCM: 3#

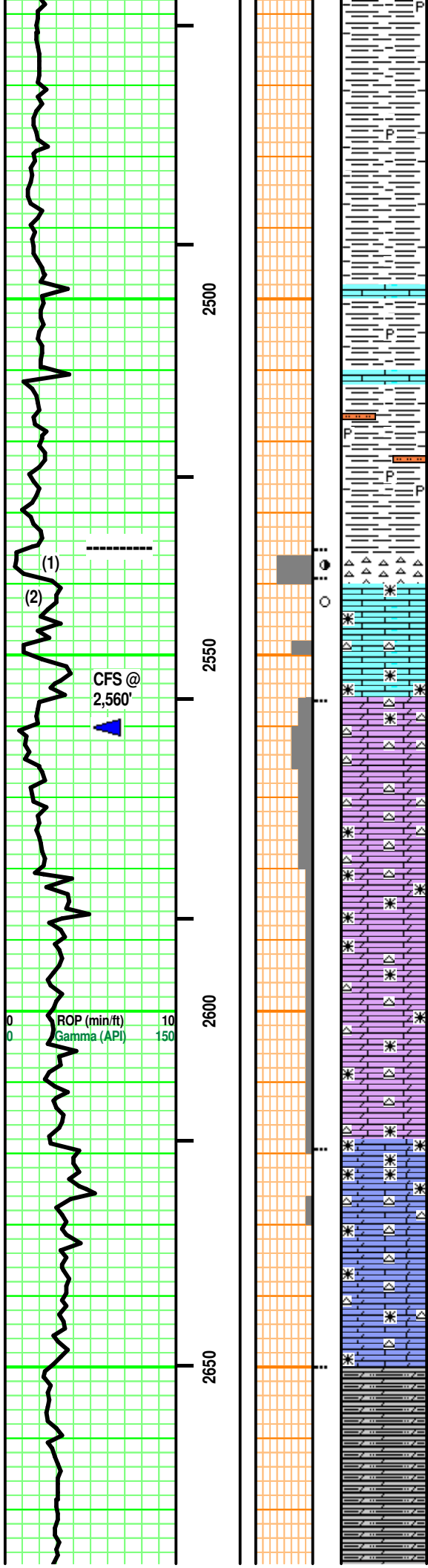
-- OAKLEY SH
2,320' (- 961')

Vis: 55
Wt: 9.1
LCM: 3#

Vis: 55
Wt: 9.1
LCM: 3#

Vis: 54
Wt: 9.1
LCM: 3#

Vis: 55
Wt: 9.3
LCM: 3#



Interbedded SH & Siltstone

SH - Dark Gray, Blackish Gray, Black. Pyritic in part. mixture of carb and silty. Med/ mottled Lt Gray at depth. misc Dark Gray argil & Off Grayish Tan calc frags/ silicaeous (minute) Dark Brownish nodules at depth. tr sandy in part.

Siltstone - Silvery Lt Gray. Mot. Platty. misc inclusions. Calc in part.

CHERT (1) - Off White/ Lt Tan/ Grays/ tr Brown. Mot / Mixed. Opaque. partly ----->

LS (2) - Tans, some Off White / Lt Gray / rare Pale Lt Brown. Mixed/Mot. tr F-/XF-xln. xln & part por. some Re-xln. misc inclusions. tr glauc. Firm. No/ tr vis por. Weak odor. No free oil or gas. Spotted, irregular Lt Brown stain. No/? acid & residual. No/? acid & residual.

DOL (Hi Calc) - Lt/ Med Brown, Brownish Gray. Tans. Sing/ some Mot or Mixed. XF-/ Micro-xln. mostly xln por/ tr sucrosic. some Re-xln. Hi cherty. (similar to 1 above. Add: Lt Gray. mostly No show / few pcs: Black, asphaltic infill.) mostly Friable. tr vis por.

LS (Dol) - Lt Brownish Gray, Grayish Tan. Sing. XF-/ some F- & Micro-xln. xln por. No/ tr chalky in part. [some CHERT - Lt Gray, Tan, some Off White. Opaque, No/ some misc inclusions. No trip.] partly Friable. some No/ mostly tr to Fair vis por.

DOL - Brownish Gray, Blackish Brown. Sing. Micro-xln. xln por. Silty. No/ some minute dark inclusions. mostly soft. Massive.

Petroliferous Odor.

Vis: 56
Wt: 9.2
LCM: 4#

Vis: 59
Wt: 9.2
LCM: 3#

2,516' -
Vis: 63 Wt: 9.1 Wtr Loss: 7.2
PV: 20 YP: 22 Gels: 8 / 22
pH: 11.0 Cl (900) Ca (40)
Solids: 5.7% LCM: 3#

-- MISS

2,535' (-1,176')

CHERT (1) - weathered mottled with fresh. Oolitic / fossil frags. Weak odor. No free oil or gas. Spotted Pale Lt Brown stain. No/? cut & residual. No/? acid & residual.

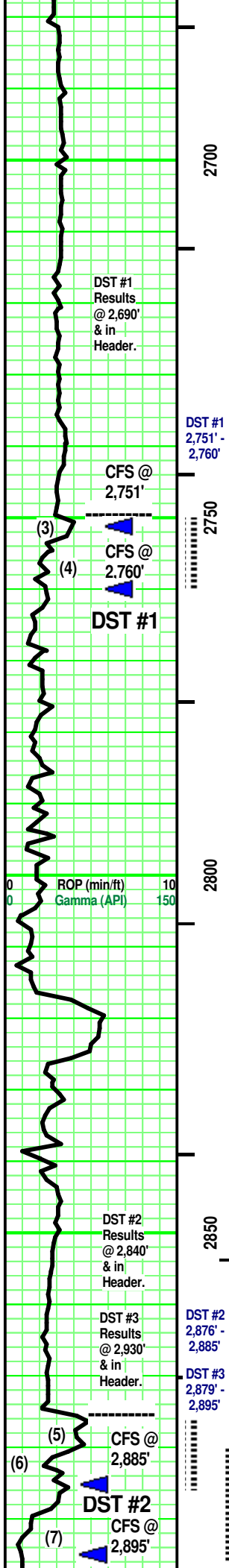
-- CFS @ 2,560': 30"

^----- Hole Dev:
0.50 deg @ 2,650'

Vis: 45
Wt: 9.1
LCM: 3#

Vis: 50
Wt: 9.1
LCM: 3#

Vis: 50
Wt: 9.1
LCM: 3#



DST #1
Results
@ 2,690'
& in
Header.

DST #1
2,751' -
2,760'

CFS @
2,751'

CFS @
2,760'

DST #1

ROP (min/ft) 10
Gamma (API) 150

DST #2
Results
@ 2,840'
& in
Header.

DST #2
2,876' -
2,885'

DST #3
Results
@ 2,930'
& in
Header.

DST #3
2,879' -
2,895'

CFS @
2,885'

DST #2
CFS @
2,895'

Add: DOL - Dark Brownish. Sing. Micro-xln. xln
por. some Re-xln. tr minute, Dark Green glauc
frags. Firm. No/ tr vis por.

Petroliferous Odor.

few pcs: SS - Off White/ Pale Lt Gray/Clear. Mixed. SR/ SA
quartz grains. XF sized. Hi sort. Hi sph. Vitreous/ Frost luster
mot. Sutured grains contact. misc inclusion. No/ tr vis pos.
??

LS (3) - tr Lt/ mostly Med Tan, tr Drusy Grayish Tan. tr Sing,
mostly Mixed, rare Mot. tr XF- ---->
CHERT (4) - Off White/tr Lt Gray. Mot/Mixed. Opaque. No/ tr
inclusions. tr trip. Fair odor. rare minute free Black oil / no free
gas. some spotted, tr uniform Med Brown stain. Weak Pos
cut/ residual. Weak Pos acid/ residual.

Interbedded / Intermixed --
DOL / DOL (Calc) & CHERT

DOL / Dol (Calc) - some Lt/ mostly Med Tan. some pcs: Pale
Grayish Tan. Sing/ some Mixed. Micro- Re-xln
(micro-subehedral xtals). mixture of: xln and some sucrosic
por. partly Firm. No/ tr vis por.

CHERT - Off White, Lt Gray, Silvery Gray, Drusy Gray, and
Tans. Mot in part -or- Mixed. Opaque. Misc minute Inclusions.
mostly No trip, tr part por.

LS - tr Blue Green, mostly Tans. Sing. tr XF/
mostly Micro-xln. xln por. No/ tr Re-xln. tr chert
as above. Firm/ Dense in part. No/ tr vis por.

SH - Blackish Gray, Black. Sing. Massive. No/ tr v
minute pyrite.

DOL(5) - Med Tan, some Pale Lt Tannish Gray. Sing/ tr Mixed.
mixture of: Mirco-Re-xln and F/XF subehedral xtals. xln &
some vuggy por. ---->

DOL (6) - Tan. Sing. tr M/F & XF subehedral xtals. tr minute
pyrite xtals. Friable. Fair to Good vis por. Faint/Fair odor. No
free oil or gas. tr Asphaltic infill. Weak Pos cut & residual.
Weak Pos acid & residual.

xx CFS @ 2,895': 30" & DST #3 xx

DST #1

KINDERHOOK LIME 2,751' - 2,760'

Recovery: 60' Watery Mud
(10%W, 90% M)

IFP: 112# - 61# / 30"
ISIP: 930# / 60"
FFP: 119# - 72# / 60"
FSIP: 924# / 60"
116 deg F
MH: 1,261# - 1,229#

IF: Weak blow,
built to 1 inch.
ISI: No Blow back.
FF: Weak blow,
built to 1 inch.
FSI: No Blow back.

Vis: 53
Wt: 9.1
LCM: 4#

Work on Pump.

LS (3) - Micro-xln. xln por. No/ tr sucrosic por in part. tr
Cherty (as below). Firm. No/ tr vis por. Fair odor. rare
minute free Black oil / No free gas. tr spotted / tr
uniform Med Brown stain. Weak Pos cut/residual. Weak
Pos acid/ residual.

-- B / COWLEY

2,750' (- 1,391')

^----- CFS @ 2,751': 30" xxxxxx

xxxx CFS @ 2,760': 30" xxxxxx

^--- S/T past 1,803'.

^--- CHC: Work Kelly (15').
Check sample box for
Volume & Type of Fill.

^--- Hole Dev:
0.75 deg @ 2,760'

^--- DST #1 (2,751' - 2,760')

^--- 2,760' (DST #1) --
Vis: 59 Wt: 9.2 Wtr Loss: 8.8
PV: 18 YP: 19 Gels: 6/19
pH: 9.0 Cl (750) Ca (30)
Solids: 6.4% LCM: 4#

Vis: 57
Wt: 9.1
LCM: 4#

Vis: 53
Wt: 9.1
LCM: 4#

DST #2

Arbuckle ----- 2,876' - 2,885'

Recovery: 5' Mud

IFP: 122# - 60# / 30"
ISIP: 897# / 60"
FFP: 116# - 56# / 60"
FSIP: 871# / 60"
118 deg F
MH: 1,371# - 1,352#

IF: Weak 1/4" blow,
Died 10".
ISI: No Blow back.
FF: No Blow.
FSI: No Blow back.

Vis: 53
Wt: 9.1
LCM: 4#

DOL (5) - No/ tr vis por. Fair odor. No free oil. Spotted/
tr uniform Med Brown stain. tr asphaltic infill. No/ tr
cut & residual. No/ tr acid & residual.

-- ARBUCKLE

2,875' (- 1,513')

xxxxx CFS @ 2,885': 30" xxxxxx

^--- CHC: 30"
Work Kelly (15').
Check sample box for
Volume & Type of Fill.



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Curtis Covey

Margaret #2-29

29-28s-9e Elk,KS

Start Date: 2023.07.14 @ 07:57:01

End Date: 2023.07.14 @ 18:08:47

Job Ticket #: 71026 DST #: 1

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

Printed: 2023.07.18 @ 16:17:42



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71026

DST#: 1

ATTN: Curtis Covey

Test Start: 2023.07.14 @ 07:57:01

GENERAL INFORMATION:

Formation: **Kinderhook**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 11:43:02

Time Test Ended: 18:08:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2751.00 ft (KB) To 2760.00 ft (KB) (TVD)

Total Depth: 2760.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1359.00 ft (KB)

1347.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6751 Outside

Press@RunDepth: 37.56 psig @ 2752.00 ft (KB)

Start Date: 2023.07.14

End Date:

2023.07.14

Start Time: 07:57:01

End Time:

18:08:47

Capacity: psig

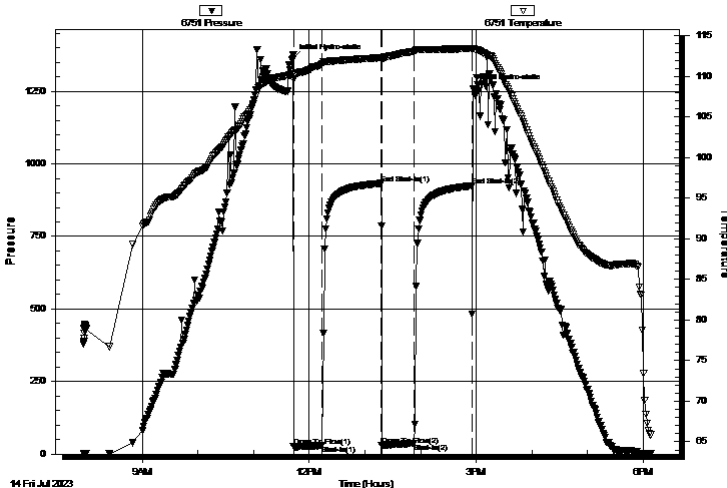
Last Calib.: 1899.12.30

Time On Btm: 2023.07.14 @ 11:42:32

Time Off Btm: 2023.07.14 @ 14:56:32

TEST COMMENT: IF: 30 min., weak building blow, 1 inch
IS: 60 min., no blow back
FF: 30 min., weak building blow, 1 inch
FS: 60 min., no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1362.19	110.27	Initial Hydro-static
1	25.88	109.64	Open To Flow (1)
32	30.66	111.51	Shut-In(1)
95	932.05	112.28	End Shut-In(1)
96	31.34	112.10	Open To Flow (2)
131	37.56	113.11	Shut-In(2)
193	924.15	113.44	End Shut-In(2)
194	1259.11	113.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	watery mud 10%W,90%M	0.30

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: Curtis Covey

29-28s-9e Elk,KS

Margaret #2-29

Job Ticket: 71026

DST#: 1

Test Start: 2023.07.14 @ 07:57:01

GENERAL INFORMATION:

Formation: **Kinderhook**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 11:43:02

Time Test Ended: 18:08:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2751.00 ft (KB) To 2760.00 ft (KB) (TVD)

Total Depth: 2760.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1359.00 ft (KB)

1347.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6752 Inside

Press@RunDepth: 923.95 psig @ 2752.00 ft (KB)

Start Date: 2023.07.14

End Date:

2023.07.14

Start Time: 07:57:01

End Time:

18:08:47

Capacity: psig

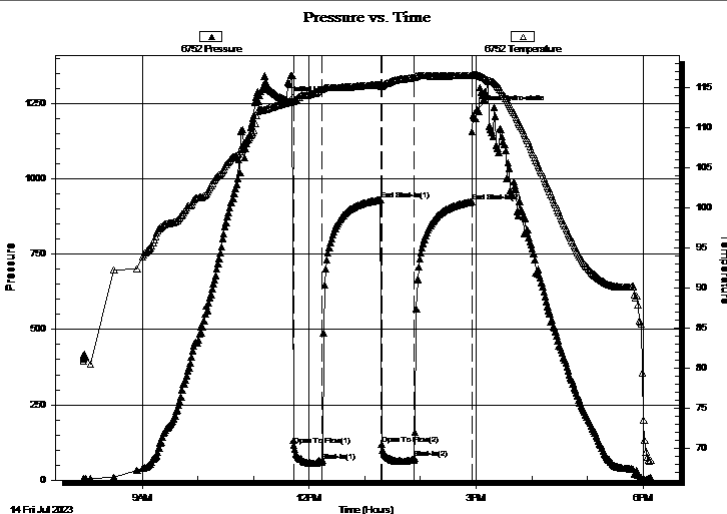
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Time On Btm: 2023.07.14 @ 11:36:02

Time Off Btm: 2023.07.14 @ 15:00:32

TEST COMMENT: IF: 30 min., weak building blow, 1 inch
IS: 60 min., no blow back
FF: 30 min., weak building blow, 1 inch
FS: 60 min., no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1261.35	113.07	Initial Hydro-static
8	116.23	113.36	Open To Flow (1)
38	61.38	114.74	Shut-In(1)
101	930.34	115.33	End Shut-In(1)
102	119.52	115.16	Open To Flow (2)
138	71.89	116.25	Shut-In(2)
199	923.95	116.52	End Shut-In(2)
205	1229.24	116.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	watery mud 10%W,90%M	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71026

DST#: 1

ATTN: Curtis Covey

Test Start: 2023.07.14 @ 07:57:01

Tool Information

Drill Pipe:	Length:	2224.00 ft	Diameter:	3.80 inches	Volume:	31.20 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:	520.00 ft	Diameter:	2.25 inches	Volume:	2.56 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	33.76 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight: Initial	75000.00 lb
Depth to Top Packer:		2751.00 ft					Final	75000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		9.00 ft						
Tool Length:		39.00 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			2726.00	
Hydraulic tool	5.00			2731.00	
Isolator Sub	3.00			2734.00	
Jars	5.00			2739.00	
Safety Joint	3.00			2742.00	
Packer	5.00			2747.00	30.00 Bottom Of Top Packer
Packer	4.00			2751.00	
Stubb	1.00			2752.00	
Recorder	0.00	6752	Inside	2752.00	
Recorder	0.00	6751	Outside	2752.00	
Pickup sub perf	5.00			2757.00	
Bullnose	3.00			2760.00	9.00 Bottom Packers & Anchor

Total Tool Length: 39.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71026

DST#: 1

ATTN: Curtis Covey

Test Start: 2023.07.14 @ 07:57:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 7.18 in³

Resistivity: ohm.m

Salinity: 900.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 7000 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	watery mud 10%W,90%M	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

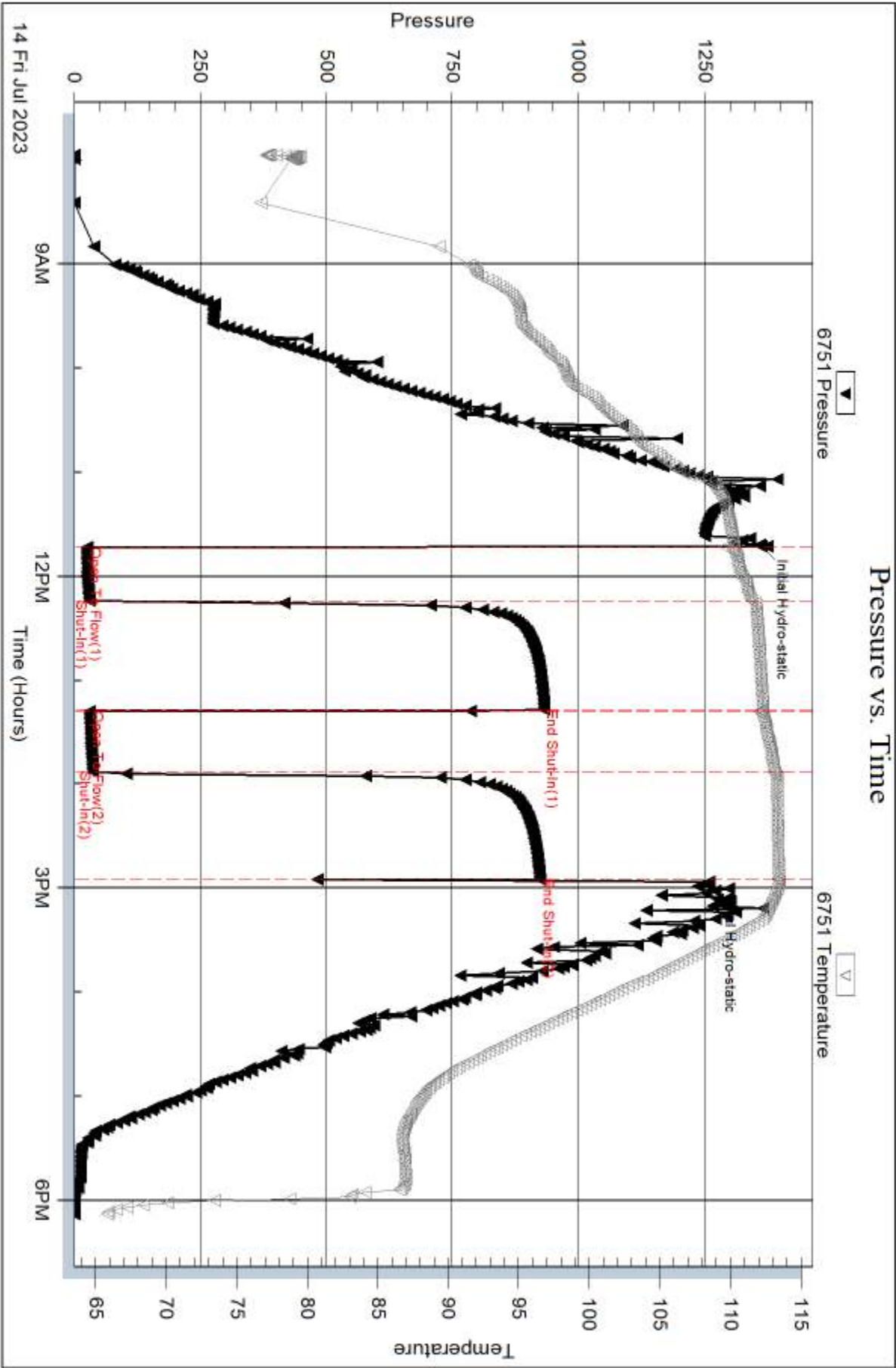
Recovery Comments: RW=.884@70=7000ppm

Serial #: 6751

Outside Marfin Drilling Co, Inc.

Margaret #2-29

DST Test Number: 1



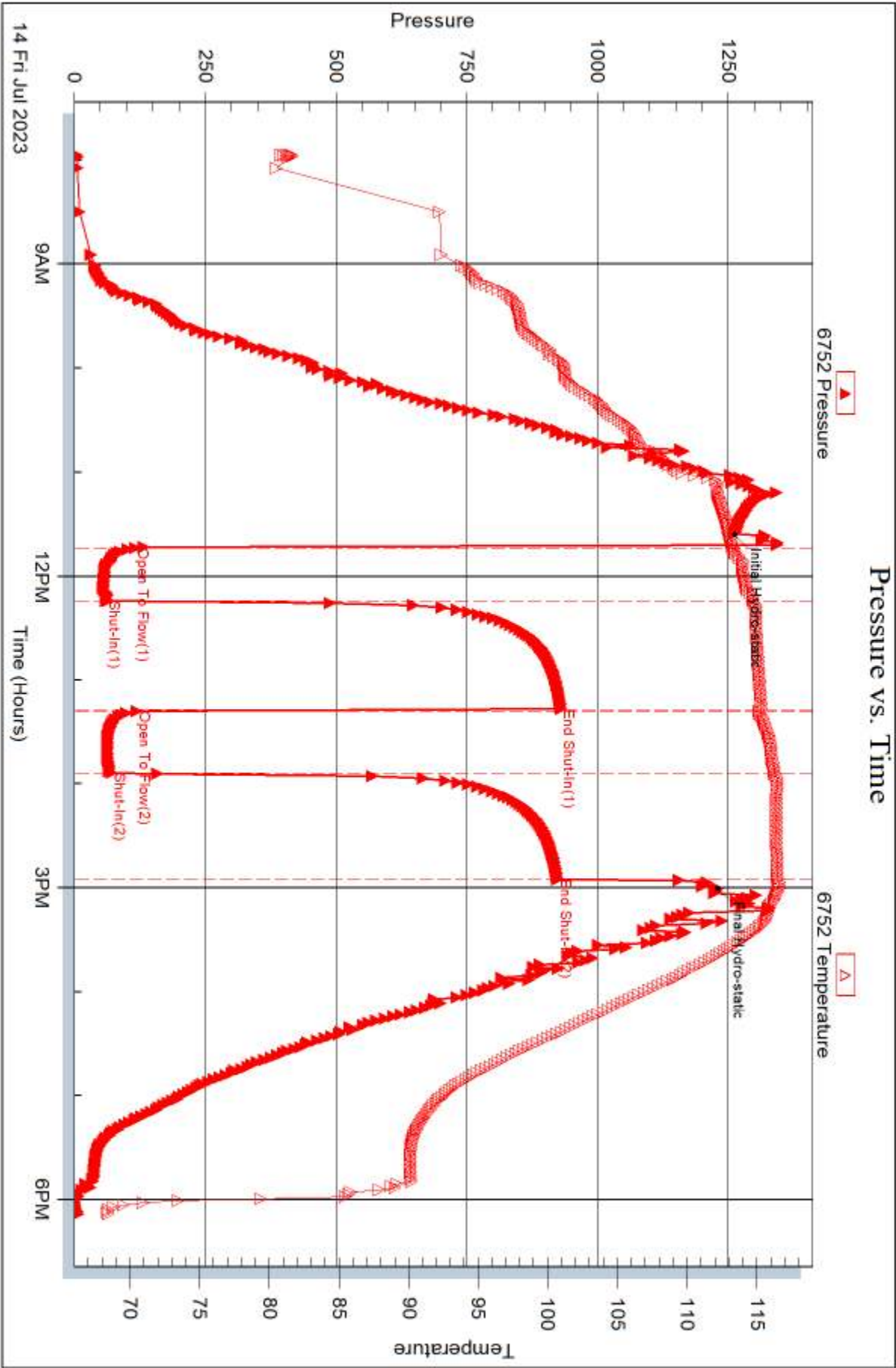
Serial #: 6752

Inside

Murfin Drilling Co., Inc.

Margaret #2-29

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Curtis Covey

Margaret #2-29

29-28s-9e Elk,KS

Start Date: 2023.07.15 @ 07:30:01

End Date: 2023.07.15 @ 17:55:47

Job Ticket #: 71027 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.07.18 @ 16:15:46



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71027

DST#: 2

ATTN: Curtis Covey

Test Start: 2023.07.15 @ 07:30:01

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 11:37:17

Time Test Ended: 17:55:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2876.00 ft (KB) To 2885.00 ft (KB) (TVD)

Reference Elevations: 1359.00 ft (KB)

Total Depth: 2885.00 ft (KB) (TVD)

1347.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

Serial #: 6751 Outside

Press@RunDepth: 22.87 psig @ 2877.00 ft (KB)

Capacity: psig

Start Date: 2023.07.15

End Date:

2023.07.15

Last Calib.: 1899.12.30

Start Time: 07:30:01

End Time:

17:55:47

Time On Btm: 2023.07.15 @ 11:36:47

Time Off Btm: 2023.07.15 @ 14:57:02

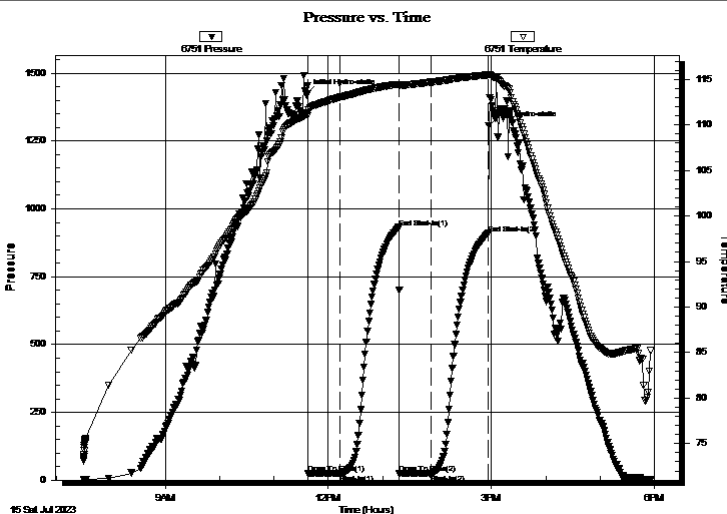
TEST COMMENT: IF: 30 min., weak surface blow, .25 inches, died 10 min.

IS: 60 min., no blow back

FF: 30 min., no blow

FS: 60 min., no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1426.17	111.29	Initial Hydro-static
1	24.27	111.04	Open To Flow (1)
37	23.09	113.04	Shut-In(1)
101	931.84	114.44	End Shut-In(1)
102	24.60	114.27	Open To Flow (2)
137	22.87	114.68	Shut-In(2)
200	909.09	115.47	End Shut-In(2)
201	1305.99	115.54	Final Hydro-static

Recovery

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

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Curtis Covey

29-28s-9e Elk,KS

Margaret #2-29

Job Ticket: 71027

DST#: 2

Test Start: 2023.07.15 @ 07:30:01

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 11:37:17

Time Test Ended: 17:55:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2876.00 ft (KB) To 2885.00 ft (KB) (TVD)

Total Depth: 2885.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1359.00 ft (KB)

1347.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6752 Inside

Press@RunDepth: 871.10 psig @ 2877.00 ft (KB)

Start Date: 2023.07.15

End Date:

2023.07.15

Start Time: 07:30:01

End Time:

17:55:47

Capacity: psig

Last Calib.: 1899.12.30

Time On Btm: 2023.07.15 @ 11:31:02

Time Off Btm: 2023.07.15 @ 14:59:02

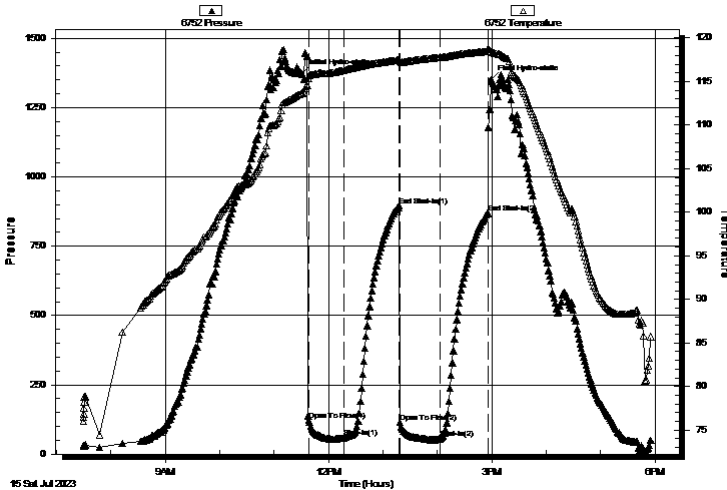
TEST COMMENT: IF: 30 min., weak surface blow, .25 inches, died 10 min.

IS: 60 min., no blow back

FF: 30 min., no blow

FS: 60 min., no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1370.97	113.68	Initial Hydro-static
8	122.06	115.66	Open To Flow (1)
47	59.90	116.30	Shut-In(1)
107	897.09	117.46	End Shut-In(1)
108	115.53	117.26	Open To Flow (2)
152	56.02	117.77	Shut-In(2)
205	871.10	118.50	End Shut-In(2)
209	1351.90	118.44	Final Hydro-static

Recovery

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

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71027

DST#: 2

ATTN: Curtis Covey

Test Start: 2023.07.15 @ 07:30:01

Tool Information

Drill Pipe:	Length: 2348.00 ft	Diameter: 3.80 inches	Volume: 32.94 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: 520.00 ft	Diameter: 2.25 inches	Volume: 2.56 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume:	35.50 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	2876.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	39.00 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			2851.00	
Hydraulic tool	5.00			2856.00	
Isolator Sub	3.00			2859.00	
Jars	5.00			2864.00	
Safety Joint	3.00			2867.00	
Packer	5.00			2872.00	30.00 Bottom Of Top Packer
Packer	4.00			2876.00	
Stubb	1.00			2877.00	
Recorder	0.00	6752	Inside	2877.00	
Recorder	0.00	6751	Outside	2877.00	
Pickup sub perf	5.00			2882.00	
Bullnose	3.00			2885.00	9.00 Bottom Packers & Anchor

Total Tool Length: 39.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71027

DST#: 2

ATTN: Curtis Covey

Test Start: 2023.07.15 @ 07:30:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 8.78 in³

Resistivity: ohm.m

Salinity: 750.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

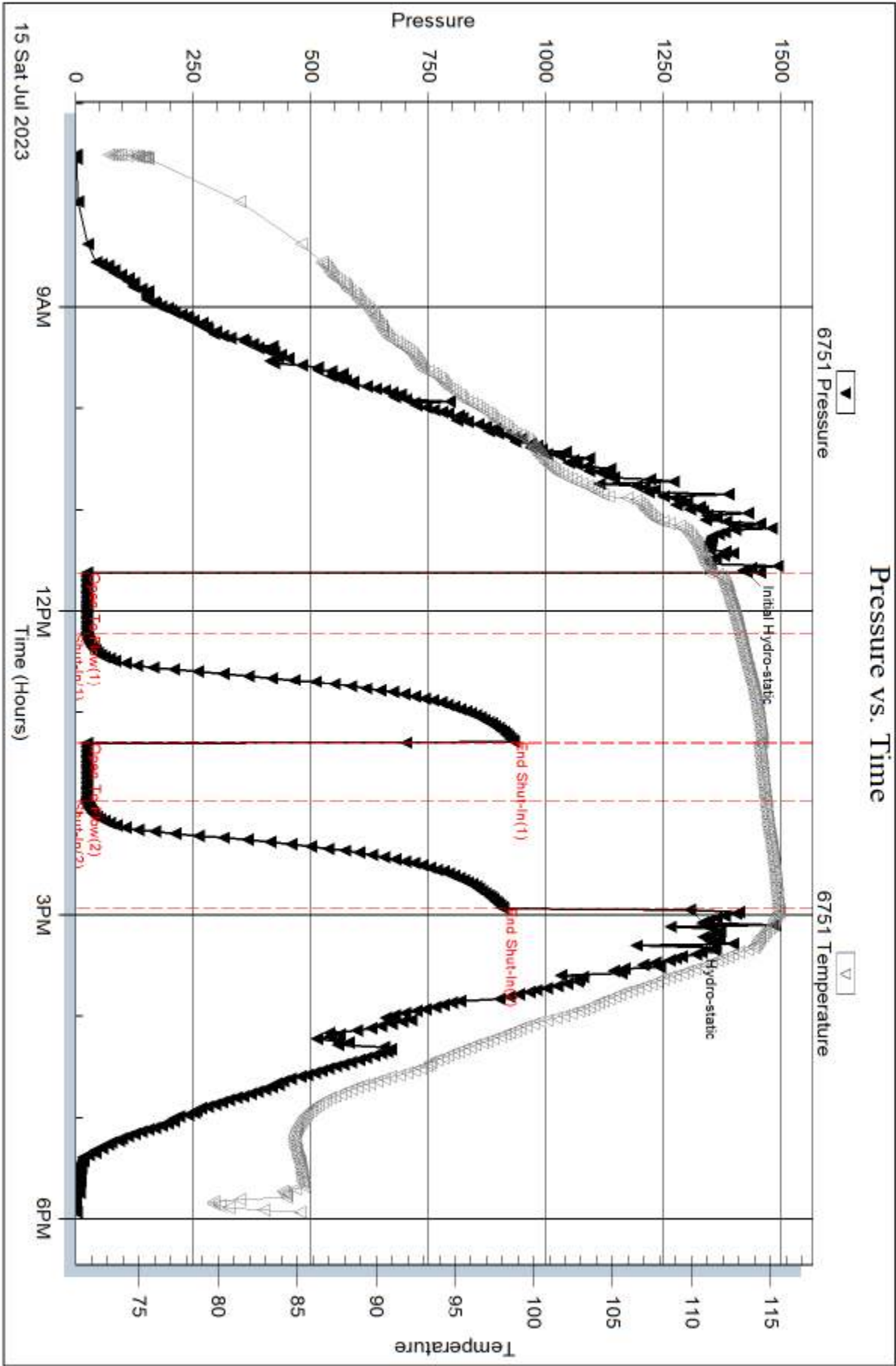
Recovery Comments:

Serial #: 6751

Outside Murfin Drilling Co., Inc.

Margaret #2-29

DST Test Number: 2



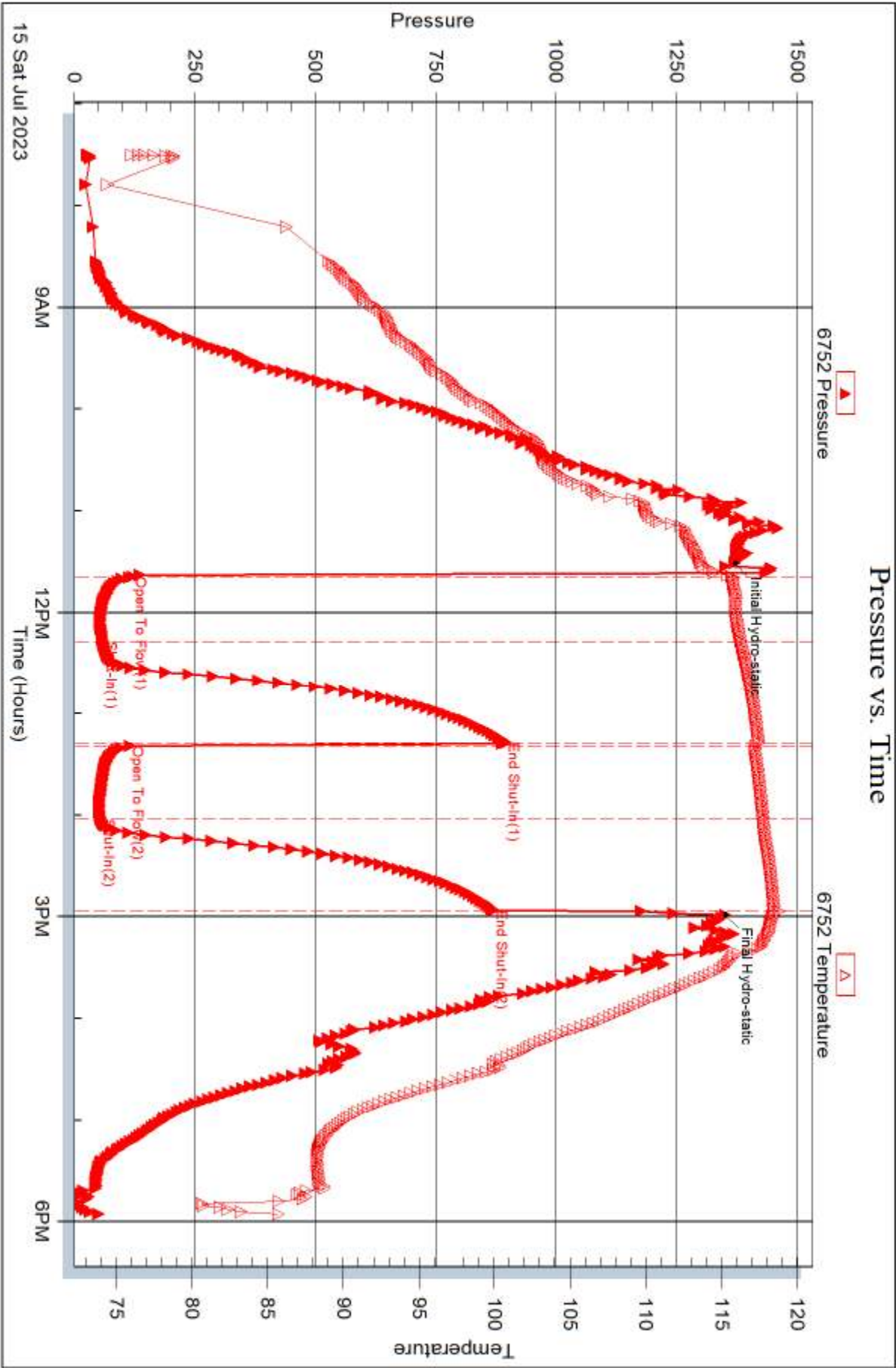
Serial #: 6752

Inside

Murfin Drilling Co., Inc.

Margaret #2-29

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Curtis Covey

Margaret #2-29

29-28s-9e Elk,KS

Start Date: 2023.07.16 @ 01:30:00

End Date: 2023.07.16 @ 12:23:47

Job Ticket #: 71028 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.07.18 @ 16:15:12



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71028

DST#: 3

ATTN: Curtis Covey

Test Start: 2023.07.16 @ 01:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 05:09:17

Time Test Ended: 12:23:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2879.00 ft (KB) To 2895.00 ft (KB) (TVD)

Reference Elevations: 1359.00 ft (KB)

Total Depth: 2895.00 ft (KB) (TVD)

1347.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

Serial #: 6751 Outside

Press@RunDepth: 543.16 psig @ 2881.00 ft (KB)

Capacity: psig

Start Date: 2023.07.16

End Date: 2023.07.16

Last Calib.: 1899.12.30

Start Time: 01:30:01

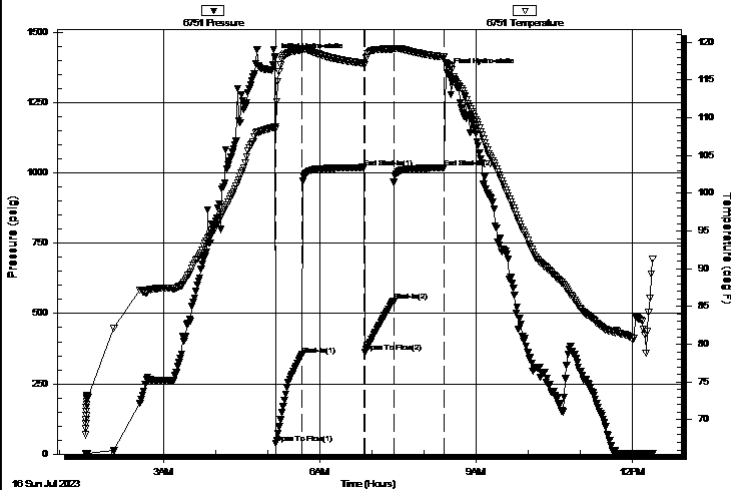
End Time: 12:23:47

Time On Btm: 2023.07.16 @ 05:07:47

Time Off Btm: 2023.07.16 @ 08:26:47

TEST COMMENT: IF: 30 min., BOB 5 min., strong building blow , 77 inches
IS: 60 min., no blow back
FF: 30 min., BOB 4 min., strong building blow , 84 inches
FS: 60 min., no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1411.56	108.77	Initial Hydro-static
2	38.67	108.50	Open To Flow (1)
32	353.58	119.02	Shut-In(1)
103	1019.44	117.19	End Shut-In(1)
105	360.94	117.07	Open To Flow (2)
137	543.16	119.13	Shut-In(2)
196	1018.82	118.01	End Shut-In(2)
199	1356.44	117.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1770.00	100%W	19.91

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Curtis Covey

29-28s-9e Elk,KS

Margaret #2-29

Job Ticket: 71028

DST#: 3

Test Start: 2023.07.16 @ 01:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 1347.00 ft (KB)

Time Tool Opened: 05:09:17

Time Test Ended: 12:23:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 2879.00 ft (KB) To 2895.00 ft (KB) (TVD)

Total Depth: 2895.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1359.00 ft (KB)

1347.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6752 Inside

Press@RunDepth: psig @ 2881.00 ft (KB)

Start Date: 2023.07.16

End Date:

2023.07.16

Start Time: 01:30:01

End Time:

12:23:47

Capacity: psig

Last Calib.:

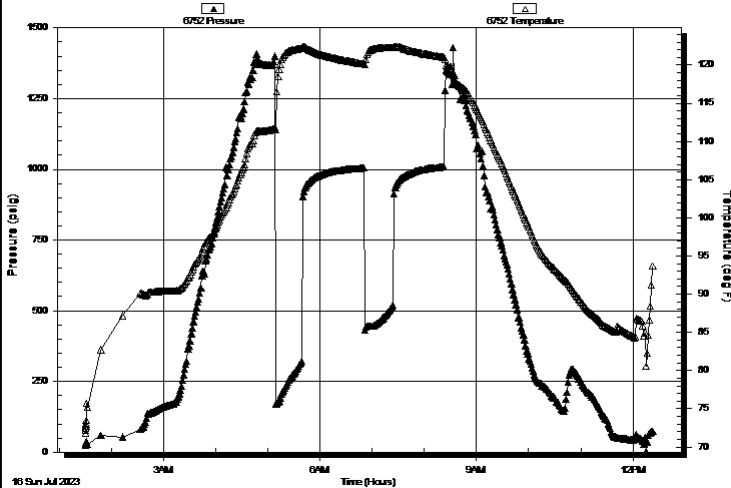
1899.12.30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 30 min., BOB 5 min., strong building blow , 77 inches
IS: 60 min., no blow back
FF: 30 min., BOB 4 min., strong building blow , 84 inches
FS: 60 min., no blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
1770.00	100%W	19.91

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71028

DST#: 3

ATTN: Curtis Covey

Test Start: 2023.07.16 @ 01:30:00

Tool Information

Drill Pipe:	Length: 2331.00 ft	Diameter: 3.80 inches	Volume: 32.70 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	80000.00 lb
		Total Volume:	35.36 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	78000.00 lb
Depth to Top Packer:	2879.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	46.00 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			2854.00	
Hydraulic tool	5.00			2859.00	
Isolator Sub	3.00			2862.00	
Jars	5.00			2867.00	
Safety Joint	3.00			2870.00	
Packer	5.00			2875.00	30.00 Bottom Of Top Packer
Packer	4.00			2879.00	
Stubb	1.00			2880.00	
Perforations	1.00			2881.00	
Recorder	0.00	6752	Inside	2881.00	
Recorder	0.00	6751	Outside	2881.00	
Pickup sub perf	5.00			2886.00	
Perforations	6.00			2892.00	
Bullnose	3.00			2895.00	16.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, Inc.

29-28s-9e Elk,KS

250 N Water STE 300
Wichita, KS 67202

Margaret #2-29

Job Ticket: 71028

DST#: 3

ATTN: Curtis Covey

Test Start: 2023.07.16 @ 01:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 750.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

6200 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1770.00	100%W	19.909

Total Length: 1770.00 ft Total Volume: 19.909 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

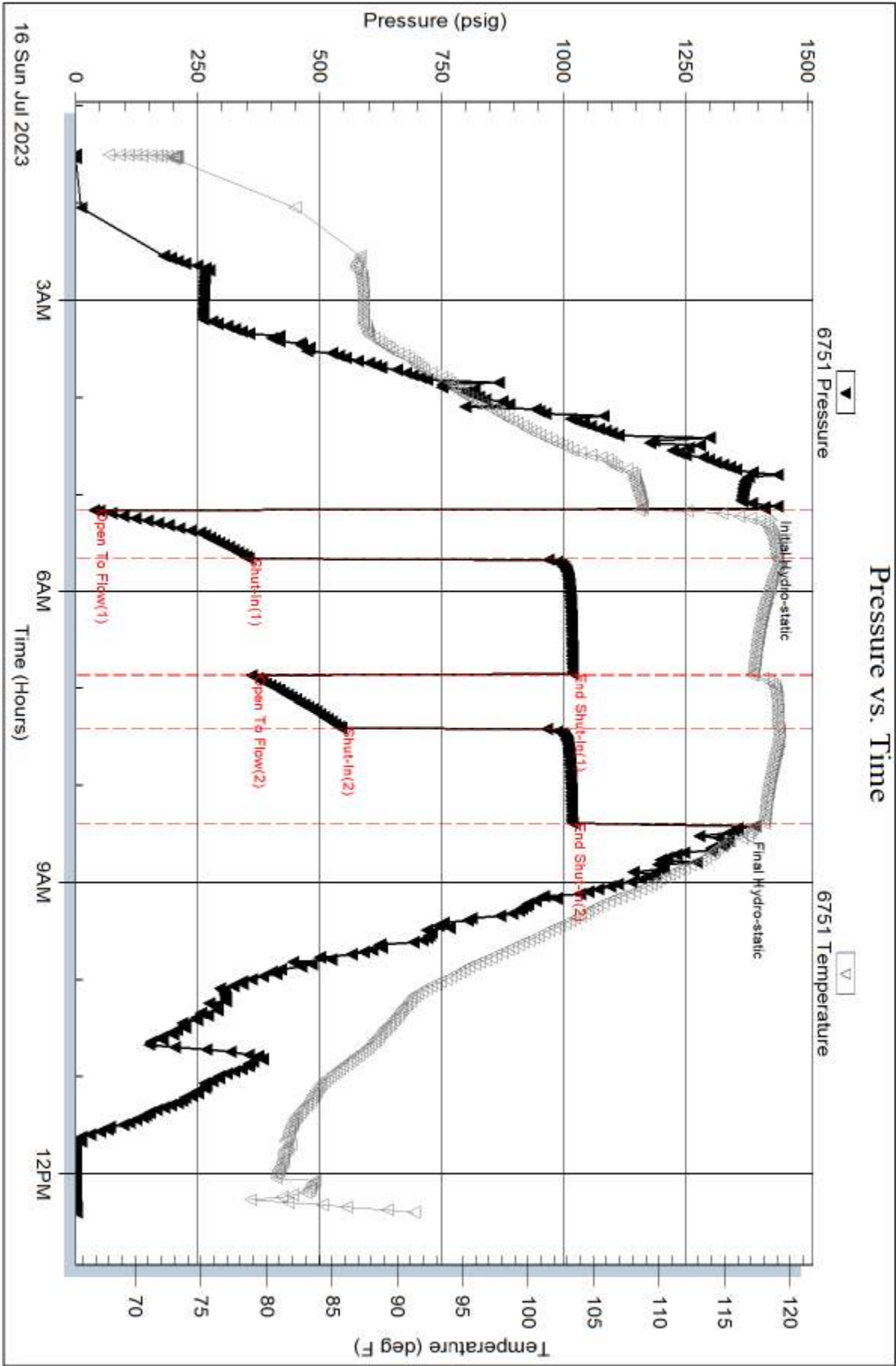
Recovery Comments: RW=.970@74F=6200ppm

Serial #: 6751

Outside Murfin Drilling Co, Inc.

Margaret #2-29

DST Test Number: 3



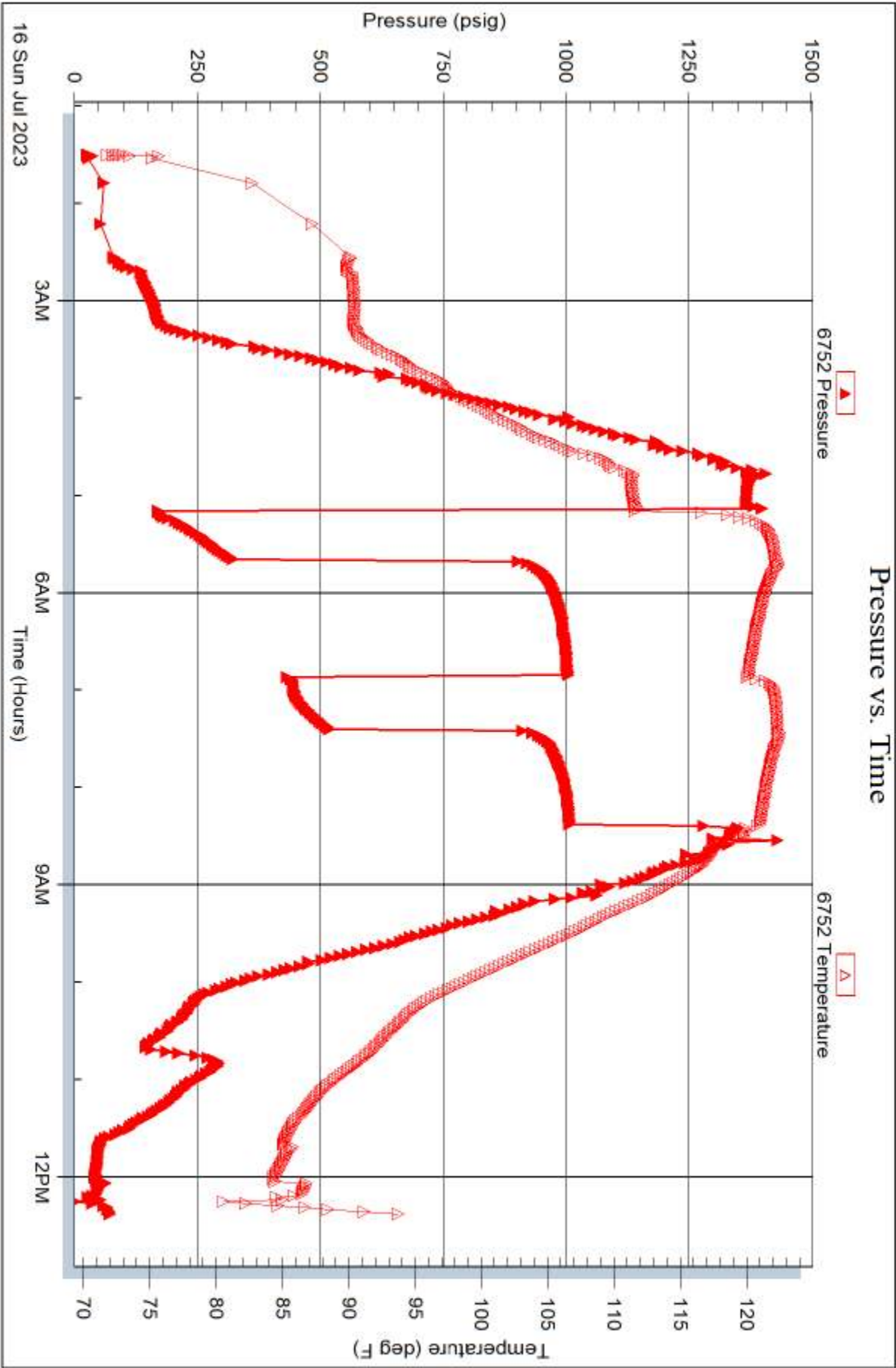
Serial #: 6752

Inside

Murfin Drilling Co., Inc.

Margaret #2-29

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71026

Well Name & No.	Margaret 2-29	Test No.	1	Date	7-14-23				
Company	Murphy Drilling Co., Inc.	Elevation	1359	KB	1347	GL			
Address	250 N Water St. 300 Wichita, KS 67202								
Co. Rep / Geo	Curtis Covey	Rig	Murphy 116						
Location: Sec.	29	Twp	28	Rge.	9	Co.	Ellis	State	KS

Interval Tested	2751-2760	Zone Tested	Kindershook			
Anchor Length	9'	Drill Pipe Run	2224	Mud Wt.	9.1	
Top Packer Depth	2746	Drill Collars Run	520	Vis	63	
Bottom Packer Depth	2751	Wt. Pipe Run	N/A	WL	7.2	
Total Depth	2760	Chlorides	900	ppm System	LCM	3#

Blow Description: IF: 30 min., weak building blow, 1 inch
IST: 60 min., no blow back
PF: 30 min., weak building blow, 1 inch
FST: 60 min., no blow back

Rec	60	Feet of	water mud	%gas	%oil	10	%water	90	%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		Feet of		%gas	%oil		%water		%mud
Rec		Feet of		%gas	%oil		%water		%mud

Rec Total	60	BHT	116	Gravity		API RW	884 @ 70	*F Chlorides	7000	ppm
Initial Hydrostatic	1261	☒ Test	CON.	2800	☐ Ruined Shale Packer					
Initial Flow	116 to 61	☒ Jars	300		☐ Ruined Packer					
Initial Shut-In	930	☐ Circ Sub			☒ Hotel					
Final Flow	119 to 72	☐ Hourly Standby			☒ EM Tool Successful					
Final Shut-In	924	☒ Mileage	145mi 253.75 40mi 70		☒ Accessibility	150				
Final Hydrostatic	1229	☐ Sampler			☐ Gas Sample					

T- On Location	0630	☐ Straddle		☐ Oversized Hole	
Initial Flow	30	T-Started	0800	☐ Shale Packer	
Initial Shut-In	60	T-Open	1150	☐ Sub Total	150
Final Flow	30	T-Pulled	1450	☐ Extra Packer	
Final Shut-In	60	T-Out	1800	☐ Total	3573.75
Comments	0757	☐ Extra Recorder		☐ Tool Loaded	@
		☐ Day Standby		☐ MP/DST Disc't	

Approved By _____ Our Representative Chris Hegman

Triobite Testing Inc. shall not be liable for damage of any kind of 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. 71027

Well Name & No. <u>Margaret 229</u>	Test No. <u>2</u>	Date <u>7-15-23</u>
Company <u>Murfin Drilling CO, Inc.</u>	Elevation <u>1359</u>	KB <u>1347</u> GL
Address <u>250 N Water STE 300 Wichita, KS 67202</u>		
Co. Rep / Geo <u>Curtis Covey</u>	Rig <u>Murfin 116</u>	
Location: Sec. <u>29</u> Twp <u>28</u> Rge. <u>9</u>	Co. <u>Elk</u>	State <u>KS</u>

Interval Tested <u>2876-2885</u>	Zone Tested <u>Arbuckle</u>
Anchor Length <u>9'</u>	Drill Pipe Run <u>2348</u> Mud Wt. <u>9.2</u>
Top Packer Depth <u>2871</u>	Drill Collars Run <u>520</u> Vis <u>59</u>
Bottom Packer Depth <u>2876</u>	Wt. Pipe Run <u>N.A.</u> WL <u>8.8</u>
Total Depth <u>2885</u>	Chlorides <u>750</u> ppm System LCM <u>4 #</u>

Blow Description TF: 30 min, weak surface blow, 25 inches, died 10 min.
TSB: 60 min, no blow back
FE: 30 min, no blow
FST: 60 min, no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>S</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	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total <u>S</u>	BHT <u>118</u>	Gravity	API RW	@	*F Chlorides	ppm
Initial Hydrostatic <u>1371</u>	☒ Test <u>conv.</u>	2800	☐ Ruined Shale Packer			
Initial Flow <u>122</u> to <u>60</u>	☒ Jars <u>300</u>		☐ Ruined Packer			
Initial Shut-In <u>897</u>	☐ Circ Sub		☒ Hotel <u>El Dorado</u>			
Final Flow <u>116</u> to <u>56</u>	☐ Hourly Standby		☒ EEM Tool Successful			
Final Shut-In <u>871</u>	☒ Mileage <u>X 80 El Dorado</u>		☒ Accessibility <u>150</u>			
Final Hydrostatic <u>1352</u>	☐ Sampler <u>140</u>		☐ Gas Sample			

T- On Location <u>0730</u>	☐ Straddle	☐ Oversized Hole
Initial Flow <u>30</u> T-Started <u>0730</u>	☐ Shale Packer	☐ Sub Total <u>150</u>
Initial Shut-In <u>60</u> T-Open <u>1145</u>	☐ Extra Packer	☐ Total <u>3390</u>
Final Flow <u>30</u> T-Pulled <u>1445</u>	☐ Extra Recorder	☐ Tool Loaded @
Final Shut-In <u>60</u> T-Out <u>1800</u>	☐ Day Standby	☐ MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71028

Well Name & No.	Margaret 229	Test No.	3	Date	7-16-23				
Company	Murfin Drilling CO, Inc.	Elevation	1359	KB	1347	GL			
Address	250 N Water STE 300 Wichita, KS 67202								
Co. Rep / Geo	Curtis Covey	Rig	Murfin 116						
Location: Sec.	29	Twp	28	Rge.	9	Co.	Elk	State	KS

Interval Tested	2879-2895	Zone Tested	Arbuckle			
Anchor Length	16'	Drill Pipe Run	2331	Mud Wt.	9.2	
Top Packer Depth	2874	Drill Collars Run	520	Vis	59	
Bottom Packer Depth	2879	Wt. Pipe Run	N.A.	WL	8.8	
Total Depth	2895	Chlorides	750	ppm System	LCM	4#

Blow Description IF: 30 min., BOB 5 min. Strong building blow, 77 inches
TSL: 60 min., no blow back
FEI: 30 min., BOB 4 min. Strong building blow, 84 inches
PSI: 60 min., no blow back

Rec	Feet of	%gas	%oil	%water	%mud
1770	water			100%	
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec Total 1770' BHT 119 Gravity API RW .970 @ 74 °F Chlorides 6200 ppm

Initial Hydrostatic 1412 ☒ Test conv. 2800 ☐ Ruined Shale Packer

Initial Flow 39 to 354 ☒ Jars 300 ☐ Ruined Packer

Initial Shut-In 1019 ☐ Circ Sub ☒ Hotel

Final Flow 361 to 543 ☐ Hourly Standby ☒ EM Tool Successful

Final Shut-In 1019 ☒ Mileage 80 El Dorado ☒ Accessibility 150

Final Hydrostatic 1356 ☐ Sampler 40mi 70 145mi 253.75 ☐ Gas Sample

T- On Location 0100 ☐ Straddle ☐ Oversized Hole

Initial Flow 30 T-Started 0130 ☐ Shale Packer ☐ Sub Total 150

Initial Shut-In 60 T-Open 0520 ☐ Extra Packer ☐ Total 3573.75

Final Flow 30 T-Pulled 0820 ☐ Extra Recorder ☒ Tool Loaded 716 @ 1300

Final Shut-In 60 T-Out ☐ Day Standby ☐ MP/DST Disc't

Comments

Approved By Our Representative

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CEMENT TREATMENT REPORT

DRILLING REPORT - LOG TOPS - MARGARET 2-29

MDCI Margaret 2-29 1500'FNL 100'FWL Sec. 29-T28S-R9E KB: 1359						
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
Heebner				1030	+329	Flat
Lansing				1407	-48	-6
Kansas City	1753	-394	-1	1756	-397	-4
Stark	1871	-512	-9	1873	-514	-11
Mound City	1938	-579	-16	1934	-575	-12
Altamont	2091	-732	-13	2093	-734	-15
Pawnee	2179	-820	-12	2181	-822	-14
Ft. Scott.	2216	-857	-14	2214	-855	-12
Excello	2248	-889	-11	2248	-889	-11
Oakley	2320	-961	-11	2320	-961	-11
Mississippi	2535	-1176	-7	2538	-1179	-10
B Cowley	2750	-1391	-23	2753	-1394	-26
Kinderhook	2826	-1467	-19	2829	-1470	-22
Arbuckle	2875	-1516	-19	2876	-1517	-20
RTD				2950		
LTD	2950					