KOLAR Document ID: 1660941

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: Robert Hendrix
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 #:

08/04/2022 Spud Date or Recompletion Date
08/10/2022 Date Reached TD
08/11/2022 Completion Date or Recompletion Date

API No.: 15-039-21287-00-00
Spot Description:
S2 - SW - SW - SE Sec. 35 Twp. 5 S. R. 29 ☐ East ☑ West
200 Feet from ☐ North / ☑ South Line of Section
2310 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: P & P UNIT Well #: 1-35
Field Name:
Producing Formation: NA
Elevation: Ground: 2821 Kelly Bushing: 2826
Total Vertical Depth: 4200 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 308 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 1600 ppm Fluid volume: 400 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: 10/11/2022
☐ **Confidential Release Date:** 10/10/2024
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** David Befort **Date:** 10/13/2022

Operator Name: Murfin Drilling Co., Inc. Lease Name: P & P UNIT Well #: 1-35

Sec. 35 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	12.250	8.625	23	308	H-325	200	3% CC, 2% gel

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	P & P UNIT 1-35
Doc ID	1660941

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	P & P UNIT 1-35
Doc ID	1660941

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	23	308	H-325	200	3% CC, 2% gel

Robert D. Hendrix
Petroleum Geologist

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY: Murfin Drilling Company, Inc.
LEASE: P & P Unit #1-35
FIELD: Wildcat
LOCATION: 200' fsl & 2310' fel
SEC. 35 TWSP. 5s RGE. 29w
COUNTY: Decatur STATE Kansas
CONTRACTOR: Murfin Drilling Company, Inc. Rig #7
SPUD: 8/4/2022 COMP: 8/11/2022
RTD: 4200' LTD: 4200'
MUD UP: 3386 TYPE MUD: Chemical

ELEVATIONS
KB 2826'
DF
GL 2821'
Measurements Are All From Kelly Bushing

CASING
CONDUCTOR:
SURFACE: 8-5/8" at 308'
PRODUCTION:

SAMPLES SAVED FROM 3550 TO 4200'
DRILLING TIME KEPT FROM 3550 TO 4200'
SAMPLES EXAMINED FROM 3550 TO 4200'
GEOLOGICAL SUPERVISION FROM 3554
GEOLOGIST ON WELL: Robert D. Hendrix

ELECTRICAL SURVEYS
Dual Induction, Dual Compensated Porosity, Microresistivity, Sonic Log, Cement Bond Log

FORMATION TOPS / ELECTRIC LOG / SAMPLE

Formation	Electric Log	Sample
Anhydrite	3748 (-922)	3750 (-924)
Topeka	3748 (-922)	3750 (-924)
Heebner Shale	3892 (-1066)	3890 (-1064)
Toronto	3911 (-1085)	3909 (-1083)
Stark Shale	4086 (-1260)	4090 (-1264)
Mound City	4142 (-1316)	4145 (-1319)



API# 15-039-21287

REMARKS:

Due to negative results on 3 drill stem test's that covered all shows, the decision was made to plug and abandon this test.

LEGEND

Anhydrite | Sandstone | Limestone | Shale | Carb Sh | Cherty LS | Chert | Dolomite

DRILLING TIME IN MINUTES PER FOOT
Rate of Penetration Decreases →
5 10 15

DEPTH | LITHOLOGY | Drill Stem Tests | Oil Shows | SAMPLE DESCRIPTION | REMARKS

4x-Fh

2550

Anhydrite
2569 (+252)

2600

Base Anhydrite
2606 (+220)

3600

Shale: gray

Limestone: tan to white, fxln, sl chalky, fossiliferous, no vis por

Limestone: tan to white, fxln, sl chalky, fossiliferous, trace amt of chert, no vis por

Shale: gray, green

Limestone: tan, f-xln, oolitic, foss, no vis por

Limestone: tan to white, f-mxln, v-fossiliferous, pr intersln por, ns

Shale: gray, red

Limestone: tan to gray, m-xln, v-fossiliferous, pr intersln por

Shale: dark to lt gray, green

Limestone: white to tan, f-mxln, chalky, fossiliferous, sl glauconitic, no vis por

Shale: gray, green, red

Limestone: tan to gray, m-xln, chalky, fossiliferous, no vis por

Shale: gray, red

3700

Limestone: tan to gray, m-xln, chalky, fossiliferous, no vis por

Shale: black, gray, red

wt x9.8, vis. 69, tcm 10#
Morgan Mud, Dave Lines

Topeka
3720 (-894)

Shale: black, gray, red

Limestone: white to tan, f-mxln, chalky, v-oolitic, no vis p, ns

Limestone: white to tan, f-mxln, chalky, v-oolitic, no vis por, na

8:00am, 8/7/2022

Shale: gray, red

Sandstone: gray, f-vf grn, mrd, well sorted, calcareous, well cemented, no vis por

Shale: gray, red

Shale: gray, red, green

Limestone: tan, m-xln, oolitic, fossiliferous, no vis por

Limestone: tan to white, m-xln, chalky, oolitic, fossiliferous, pr intersln to oolicastic por

Shale: red, gray, green

Shale: gray, brown

3800

Limestone: tan, f-mxln, v-chalky, fossiliferous, no vis por

Shale: black carbonaceous, gray
Limestone: tan to gray, f-xln, chalky, dense, fossiliferous, no vis por

Shale: gray, green, silty, sandy

Limestone: gray, f-xln, dense, fossiliferous, no vis por

Limestone: white to tan, fxln, chalky, dense, oolitic, fossiliferous, no vis por

Shale: dark to lt gray

DST #1
3883-3974
30-60-60-90
1st open: blow built to 8 1/2"
2nd open: blow built to 4 3/4"
no returns
Rec:
115' mud
185' slg&wm 7/46/47
239' mcw 18/82
hydro: 1946-1863 psi
ip: 29-157 psi
ff: 157-263 psi
sip: 1238-1218 psi
bht: 119° F
chl: 28,000 ppm

Limestone: tan to white, f-xln, chalky, v-fossiliferous, no vis por
Shale: gray, green, red, blocky, silty
Limestone: white to tan, f-xln, v-chalky, oolitic, granular, no vis por
Shale: gray, green, red
Limestone: tan, m-xln, v-oolitic, fossiliferous, no vis por

DST #2
3975 - 4002
30-60-60-90
1st open: blow built to 9"
2nd open: blow built to 10 1/2"
no returns
Rec:
108' mcw 38/62
366' mcw 14/86
hydro: 1975-1951 psi
ff: 22-139 psi
ff: 139-234 psi
sip: 1251-1247 psi
bht: 123° F
chl: 32,000 ppm

Limestone: white to tan, f-mxln, v-chalky, oolitic, no vis por

Limestone: tan to gray, f-mxln, v-chalky, oolitic, no vis por, ns

Heebner
3899 (-1073)

Shale: black carbonaceous
Limestone: tan to brown, f-xln, dense, fossiliferous, no vis por, na

Shale: gray, green, red, black

Shale: gray, green, red

Toronto
3928 (-1102)

Limestone: tan to white, f-mxln, chalky, fossiliferous, no vis por, ns

Shale: gray, green, red

Lansing
3942 (-1116)

CFS

Limestone: white, f-xln, v-chalky, oolitic, fossiliferous, no vis por, na

Limestone: tan to lt gray, f-mxln, chalky, oolitic, fossiliferous, lt pp por, ns

Shale: gray, black

CFS

Shale: red, gray, muddy

Limestone: tan to gray, f-mxln, chalky, oolitic in part, fossiliferous, 3% sample lt pp to intersln por, dark spotty to sat stain, frstv mor on break, faint odor

Shale: red, gray, green, red

Limestone: tan, fxln, chalky, fossiliferous, no vis por, ns

CFS

Limestone: white to tan, f-xln, v-chalky, cherty, fossiliferous, 1% sample, pr pp to vug por, black spotty stain, prstn, faint odor

8:00am, 8/8/2022
wt 9, vis. 67, tcm 11#
Morgan Mud, Dave Lines

Shale: red, gray

CFS

Limestone: tan, fxln, chalky, dense, fossiliferous, no vis por, ns

4000

Shale: gray, green, red, silty

CFS

Limestone: tan to gray, chalky, dense, oolitic, fossiliferous, no vis por

8:00am, 8/9/2022
wt 9.2, vis. 56, tcm 10#
Morgan Mud, Dave Lines

Limestone: tan to white, f-xln, chalky, granular, oolitic in part, no vis por, na

Shale: gray, red, black

CFS

Limestone: tan to white, f-xln, chalky, oolitic in part, dense, no vis por, na

Limestone: tan to white, f-xln, v-chalky, oolitic in part, cherty, fossiliferous, no vis por

Limestone: tan to white, f-xln, sl chalky, cherty (orange & white), v-fossiliferous, oolitic in part, dense, no vis por

CFS

Shale: red, gray, green, argillaceous

50

Limestone: white to tan, f-xln, chalky, oolitic, granular, sl cherty, fossiliferous, pr pp por

Limestone: tan to brown, f-xln, sl chalky, oolitic, dense, no vis por, na

Shale: red, gray, green, silty

CFS

Shale: dark to lt gray, green

DST #3
4060- 4130
30-60-30-60
1st open: wk blow built to 1/4"
then died back to surface
2nd open: no blow
no returns
Rec:
30' mud
hydro: 2046-2044 psi
ff: 19-23 psi
ff: 26-27 psi
sip: 1180-1117 psi
bht: 117° F

Limestone: tan/white to lt gray, f-xln, chalky, fossiliferous, no vis por

Limestone: tan to gray, f-xln, chalky, dense, fossiliferous, 2 pieces, lt vug por

dark sat stain, mlt, faint (sour) odor

4100

CFS

Shale: dark to lt gray, green

Stark
4100 (-1274)

Shale: red, gray, argillaceous

Limestone: white to tan, f-xln, chalky, oolitic in part, fossiliferous, mostly dense,, 2 pieces pr intersln por, dark sat stain, stalo more on break, faint odor

Shale: gray, red

Shale: gray, red, green, silty, sandy

8:00am, 8/10/2022
wt 9.2, vis. 69, tcm 10#
Morgan Mud, Dave Lines

CFS

Limestone: tan to gray, f-xln, dense, sl fossiliferous, no vis por

Limestone: white to tan, f-mxln, chalky, v-fossiliferous, no vis por

Shale: red, gray, green/waxy

50

Limestone: tan, m-bln, sl chalky, v-oolitic, pr oolicastic por, ns

Shale: dark to bright red, gray, green

Limestone: tan, m-bln, sl chalky, oolitic in part, no vis por, na

Shale: red, gray, green

Shale: red, gray, argillaceous

4200

Limestone: tan to white, f-mxln, sl chalky, v-fossiliferous, no vis por

BKC
4200 (-1374)

Geologist off location at 6:45 am, 8/11/2022

Murfin Drilling Co Inc
P & P Unit #1-35
200'fsl & 2310'fel
35-5-29w, Decatur County, Kansas
KB=2821', GL=2826'
API: 15-039-21287



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

P&P Unit #1-35

35-5s-29w Decatur KS

Start Date: 2022.08.08 @ 05:04:00

End Date: 2022.08.08 @ 14:24:20

Job Ticket #: 68976 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.08.11 @ 10:34:32

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68976 **DST#: 1**

Test Start: 2022.08.08 @ 05:04:00

GENERAL INFORMATION:

Formation: **Toronto - LKC"B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:53:51
Time Test Ended: 14:24:20

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 73

Interval: 3883.00 ft (KB) To 3974.00 ft (KB) (TVD)
Total Depth: 3974.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

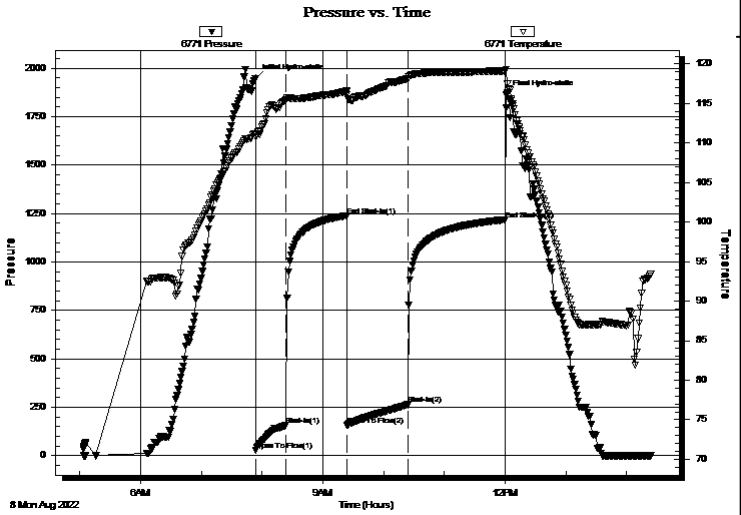
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: 262.84 psig @ 3884.00 ft (KB)
Start Date: 2022.08.08 End Date: 2022.08.08
Start Time: 05:04:01 End Time: 14:24:20

Capacity: 8000.00 psig
Last Calib.: 2022.08.08
Time On Btm: 2022.08.08 @ 07:53:36
Time Off Btm: 2022.08.08 @ 12:00:51

TEST COMMENT: 30 - IF: Blow built to 8 1/2"
60 - ISI: No blow
60 - FF: Blow built to 4 3/4"
90 - FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1946.31	111.19	Initial Hydro-static
1	28.51	110.81	Open To Flow (1)
31	156.52	115.53	Shut-In(1)
90	1237.77	116.56	End Shut-In(1)
90	157.06	116.12	Open To Flow (2)
151	262.84	118.12	Shut-In(2)
247	1217.59	119.12	End Shut-In(2)
248	1863.28	119.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
239.00	MCW 82%w , 18%m	1.18
185.00	WM 47%m, 46%w , 7%g	2.60
115.00	Mud 100%	1.61

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68976 **DST#: 1**

Test Start: 2022.08.08 @ 05:04:00

GENERAL INFORMATION:

Formation: **Toronto - LKC"B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:53:51
Time Test Ended: 14:24:20

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 73

Interval: 3883.00 ft (KB) To 3974.00 ft (KB) (TVD)
Total Depth: 3974.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

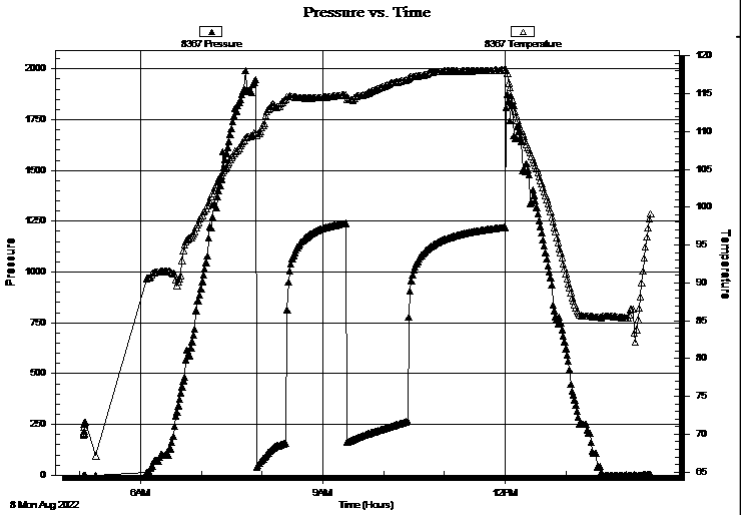
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8367 **Outside**

Press@RunDepth: psig @ 3884.00 ft (KB)
Start Date: 2022.08.08 End Date: 2022.08.08
Start Time: 05:04:01 End Time: 14:24:20

Capacity: 8000.00 psig
Last Calib.: 2022.08.08
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 8 1/2"
60 - ISI: No blow
60 - FF: Blow built to 4 3/4"
90 - FSI: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
239.00	MCW 82%w , 18%m	1.18
185.00	WM 47%m, 46%w , 7%g	2.60
115.00	Mud 100%	1.61

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68976 **DST#: 1**

Test Start: 2022.08.08 @ 05:04:00

Tool Information

Drill Pipe:	Length:	3645.00 ft	Diameter:	3.80 inches	Volume:	51.13 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	239.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	52.31 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		34.00 ft					String Weight:	Initial	70000.00 lb
Depth to Top Packer:		3883.00 ft						Final	75000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		91.00 ft							
Tool Length:		124.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3851.00		
Shut In Tool	5.00			3856.00		
Hydraulic tool	5.00			3861.00		
Jars	5.00			3866.00		
EM Tool	4.00			3870.00		
Safety Joint	3.00			3873.00		
Packer	5.00			3878.00	33.00	Bottom Of Top Packer
Packer	5.00			3883.00		
Stubb	1.00			3884.00		
Recorder	0.00	6771	Inside	3884.00		
Recorder	0.00	8367	Outside	3884.00		
Perforations	20.00			3904.00		
Blank Spacing	65.00			3969.00		
Perforations	2.00			3971.00		
Bullnose	3.00			3974.00	91.00	Bottom Packers & Anchor
Total Tool Length:	**124.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68976 **DST#: 1**

Test Start: 2022.08.08 @ 05:04:00

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:	28000 ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1200.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
239.00	MCW 82%w , 18%m	1.175
185.00	WM 47%m, 46%w , 7%g	2.595
115.00	Mud 100%	1.613

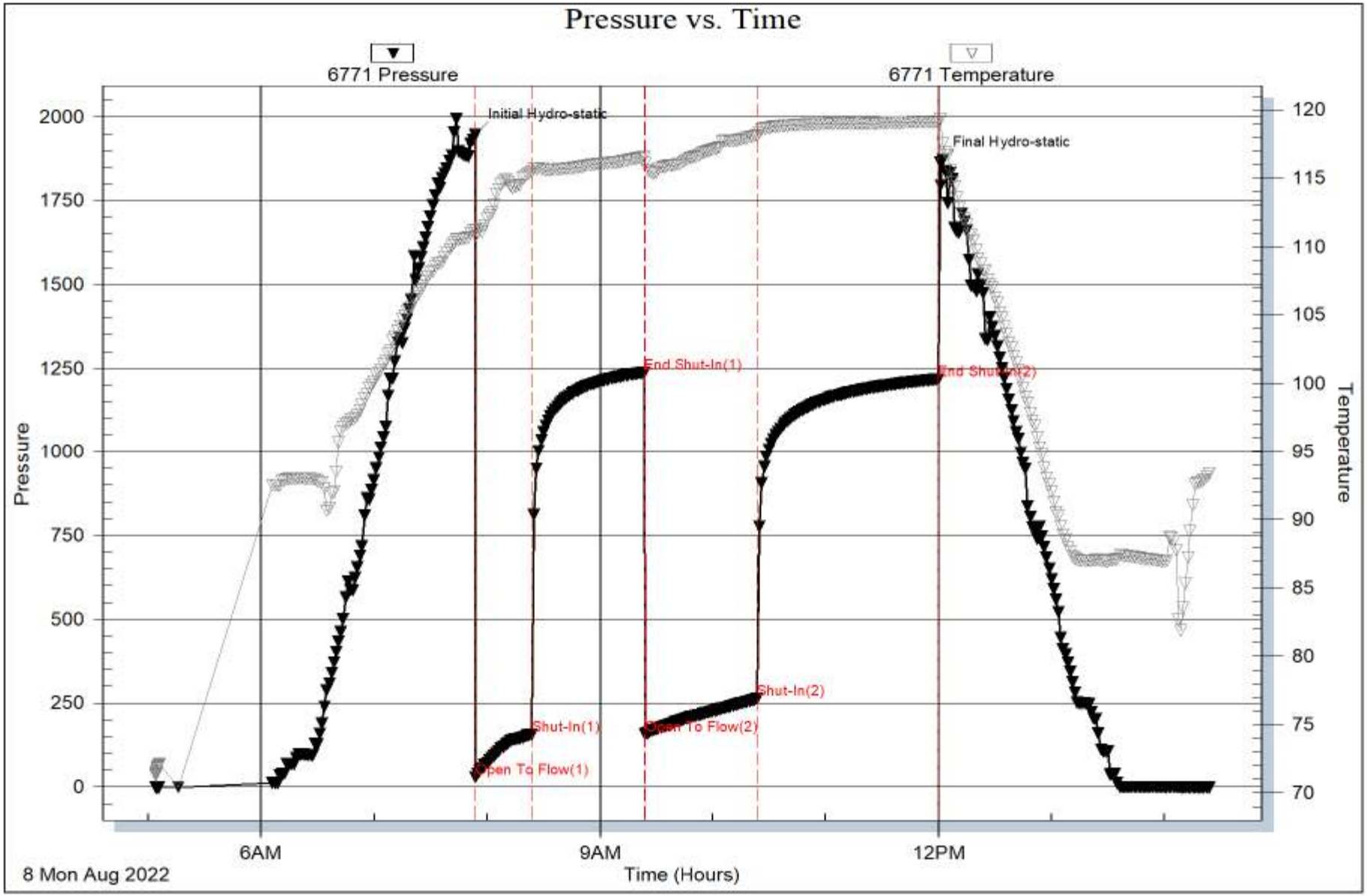
Total Length: 539.00 ft Total Volume: 5.383 bbl

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

Laboratory Name: Laboratory Location:

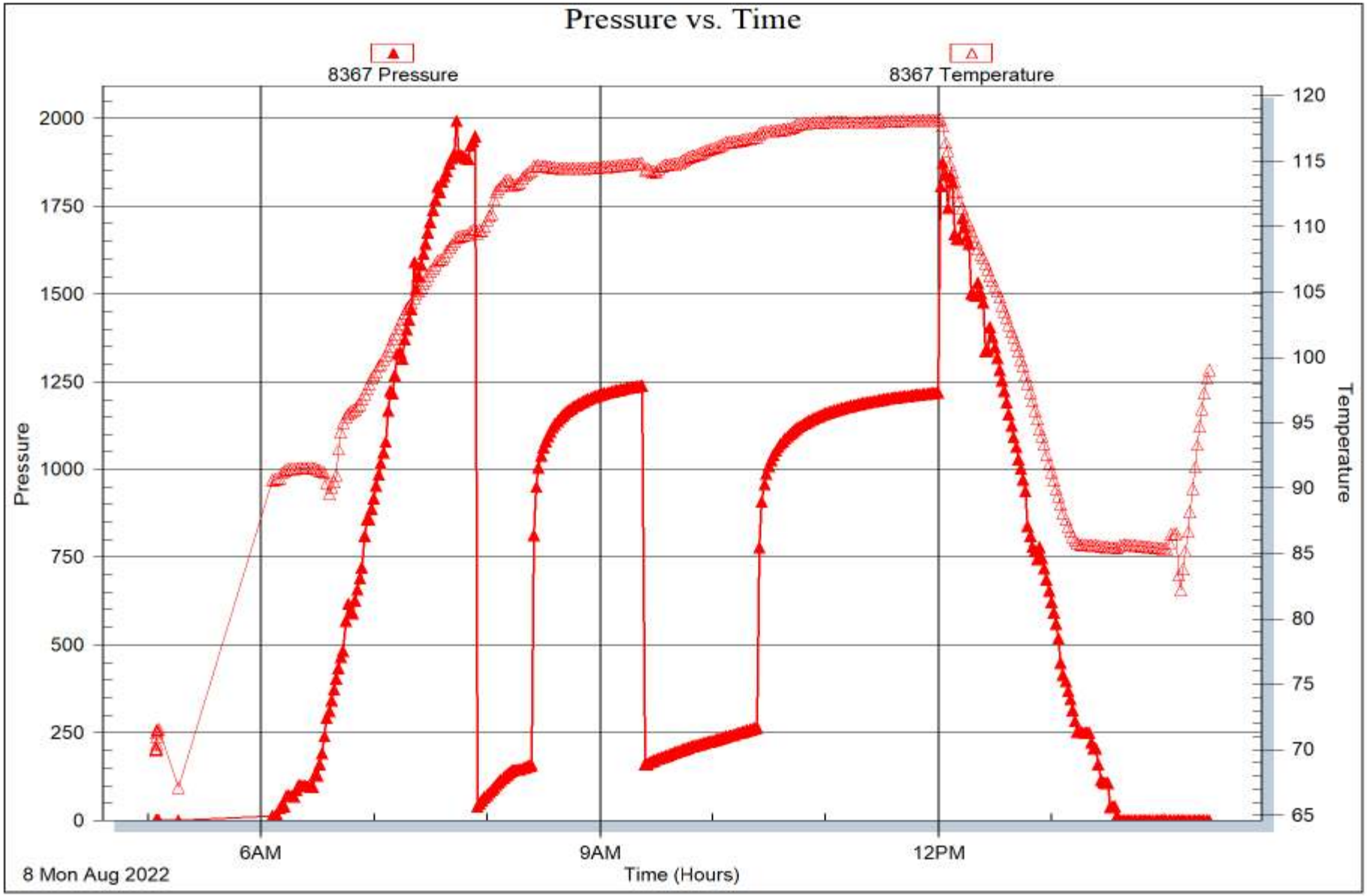
Recovery Comments: RW = .211 ohms @ 84.1 deg F Chlorides = 28,000 ppm

Serial #: 6771 **Inside** Murfin Drilling Co., Inc. P&P Unit #1-35 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 68976 Printed: 2022.08.11 @ 10:34:33

Serial #: 8367 **Outside** Murfin Drilling Co., Inc. P&P Unit #1-35 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 68976 Printed: 2022.08.11 @ 10:34:33

DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

P&P Unit #1-35

35-5s-29w Decatur KS

Start Date: 2022.08.08 @ 23:26:00
End Date: 2022.08.09 @ 08:06:20
Job Ticket #: 68977 DST #: 2

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

Printed: 2022.08.11 @ 10:30:10

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68977 **DST#: 2**

Test Start: 2022.08.08 @ 23:26:00

GENERAL INFORMATION:

Formation: **LKC. D - D'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:55:21
Time Test Ended: 08:06:20

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 73

Interval: 3975.00 ft (KB) To 4002.00 ft (KB) (TVD)
Total Depth: 4002.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

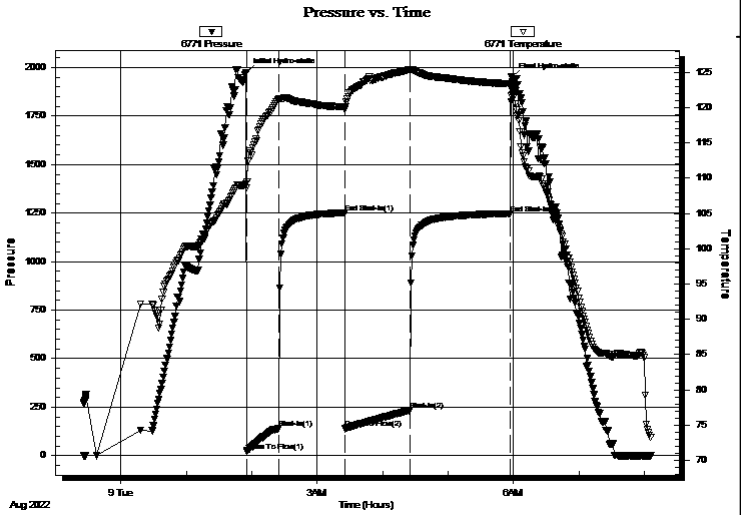
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: 233.86 psig @ 3976.00 ft (KB)
Start Date: 2022.08.08 End Date: 2022.08.09
Start Time: 23:26:01 End Time: 08:06:20

Capacity: 8000.00 psig
Last Calib.: 2022.08.09
Time On Btm: 2022.08.09 @ 01:55:06
Time Off Btm: 2022.08.09 @ 05:58:21

TEST COMMENT: 30 - IF: Blow built to 9"
60 - ISI: No blow
60 - FF: Blow built to 10 1/2"
90 - FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1975.37	109.17	Initial Hydro-static
1	21.90	108.63	Open To Flow (1)
30	139.40	121.22	Shut-In(1)
91	1250.79	120.14	End Shut-In(1)
91	138.79	119.75	Open To Flow (2)
150	233.86	125.27	Shut-In(2)
243	1247.03	123.36	End Shut-In(2)
244	1950.68	121.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
366.00	MCW 86%w , 14%m	2.96
108.00	MCW 62%w , 38%m	1.51

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68977 **DST#: 2**

Test Start: 2022.08.08 @ 23:26:00

GENERAL INFORMATION:

Formation: **LKC. D - D'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:55:21
Time Test Ended: 08:06:20

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 73

Interval: 3975.00 ft (KB) To 4002.00 ft (KB) (TVD)
Total Depth: 4002.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

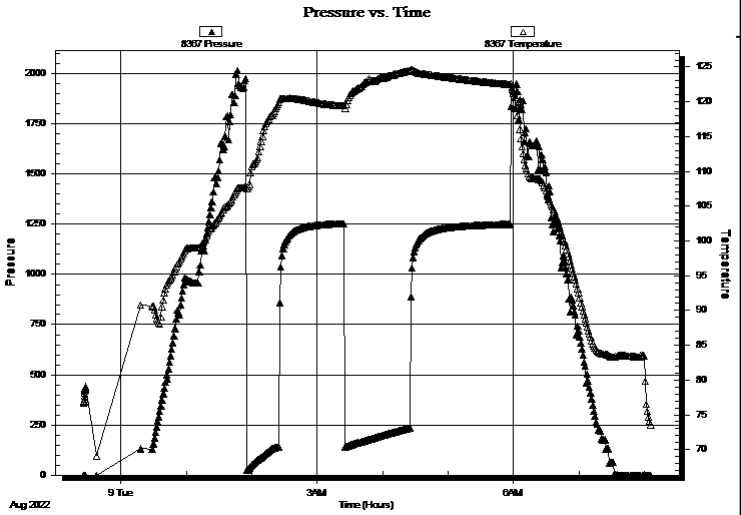
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8367 **Outside**

Press@RunDepth: psig @ 3976.00 ft (KB)
Start Date: 2022.08.08 End Date: 2022.08.09
Start Time: 23:26:01 End Time: 08:06:20

Capacity: 8000.00 psig
Last Calib.: 2022.08.09
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 9"
60 - ISI: No blow
60 - FF: Blow built to 10 1/2"
90 - FSI: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
366.00	MCW 86%w , 14%m	2.96
108.00	MCW 62%w , 38%m	1.51

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68977 **DST#: 2**

Test Start: 2022.08.08 @ 23:26:00

Tool Information

Drill Pipe:	Length:	3707.00 ft	Diameter:	3.80 inches	Volume:	52.00 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	239.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:		72000.00 lb
					Total Volume:	53.18 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		4.00 ft					String Weight:	Initial	72000.00 lb
Depth to Top Packer:		3975.00 ft						Final	72000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		27.00 ft							
Tool Length:		60.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3943.00		
Shut In Tool	5.00			3948.00		
Hydraulic tool	5.00			3953.00		
Jars	5.00			3958.00		
EM Tool	4.00			3962.00		
Safety Joint	3.00			3965.00		
Packer	5.00			3970.00	33.00	Bottom Of Top Packer
Packer	5.00			3975.00		
Stubb	1.00			3976.00		
Recorder	0.00	6771	Inside	3976.00		
Recorder	0.00	8367	Outside	3976.00		
Perforations	23.00			3999.00		
Bullnose	3.00			4002.00	27.00	Bottom Packers & Anchor
Total Tool Length:	**60.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68977 **DST#: 2**

Test Start: 2022.08.08 @ 23:26:00

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:	32000 ppm
Viscosity:	67.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.77 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1200.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

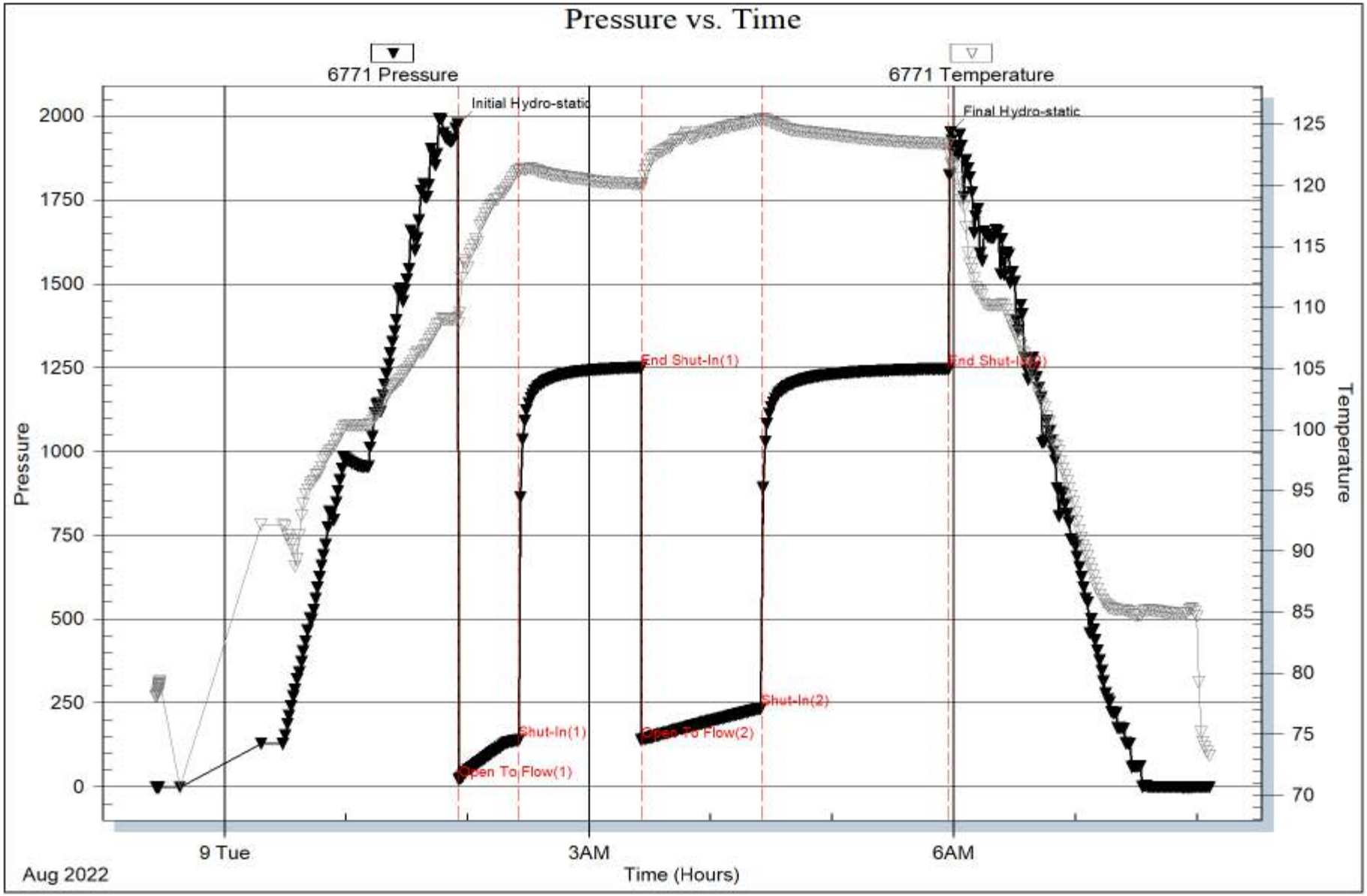
Length ft	Description	Volume bbl
366.00	MCW 86%w , 14%m	2.957
108.00	MCW 62%w , 38%m	1.515

Total Length: 474.00 ft Total Volume: 4.472 bbl

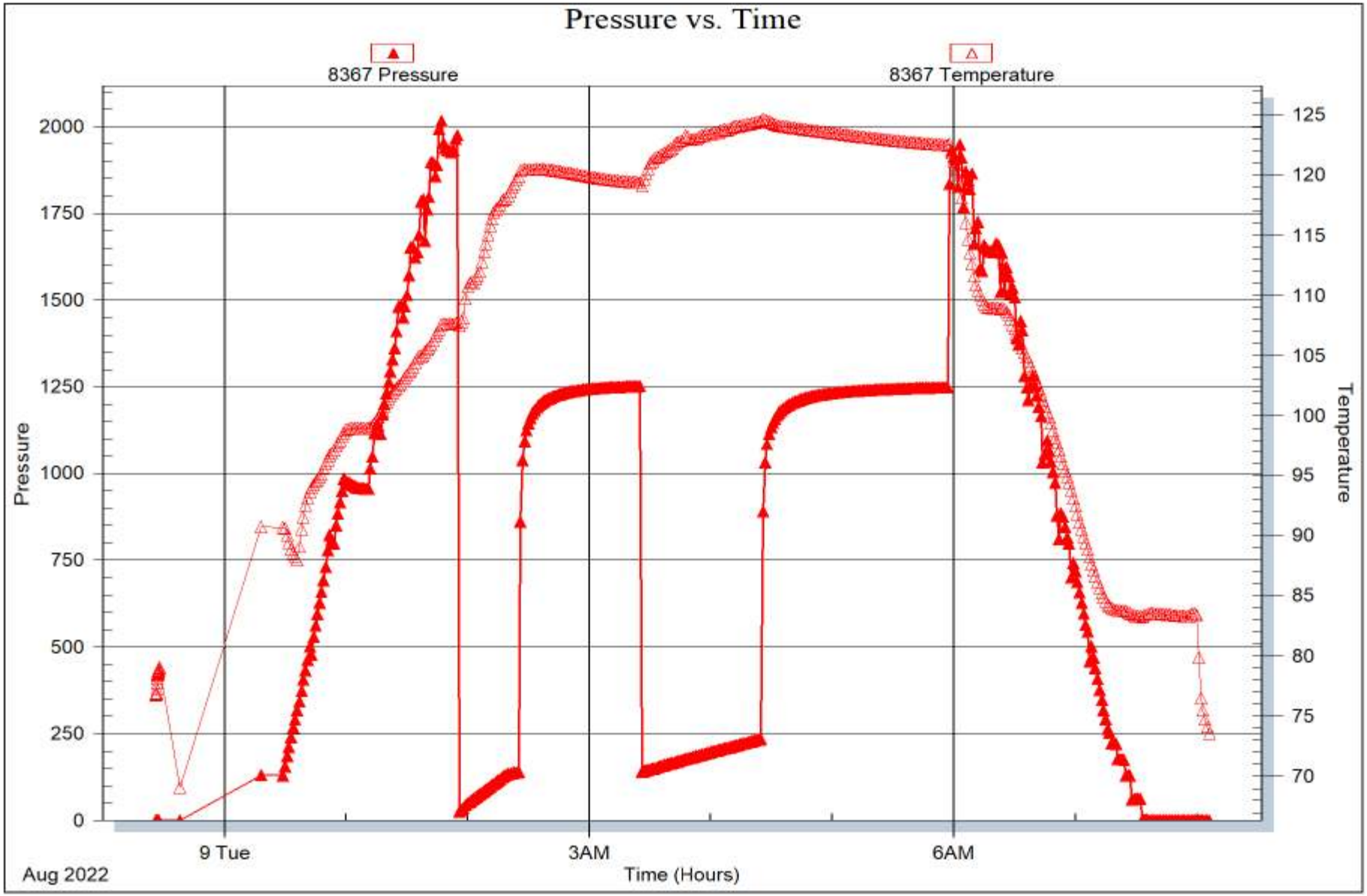
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW = .235 ohms @ 65.7 deg F Chlorides = 32,000 ppm


Pressure vs. Time
6771 Pressure
6771 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Shut-In(1)
Open To Flow(1)
Shut-In(2)
Open To Flow(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
125
120
115
110
105
100
95
90
85
80
75
70
9 Tue
3AM
6AM
Aug 2022
Time (Hours)

Serial #: 8367 **Outside** Murfin Drilling Co., Inc. P&P Unit #1-35 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 68977 Printed: 2022.08.11 @ 10:31:27

DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

P&P Unit #1-35

35-5s-29w Decatur KS

Start Date: 2022.08.10 @ 03:33:00
End Date: 2022.08.10 @ 10:42:06
Job Ticket #: 68978 DST #: 3

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

Printed: 2022.08.11 @ 10:27:40

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68978 **DST#: 3**

Test Start: 2022.08.10 @ 03:33:00

GENERAL INFORMATION:

Formation: **LKC. "J - K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:48:06
Time Test Ended: 10:42:06

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 73

Interval: 4060.00 ft (KB) To 4130.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

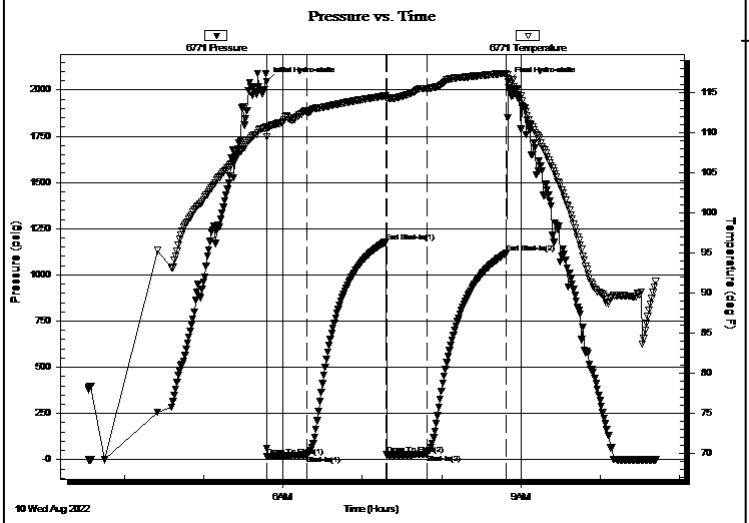
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: 27.35 psig @ 4061.00 ft (KB)
Start Date: 2022.08.10 End Date: 2022.08.10
Start Time: 03:33:01 End Time: 10:42:06

Capacity: 8000.00 psig
Last Calib.: 2022.08.10
Time On Btm: 2022.08.10 @ 05:47:36
Time Off Btm: 2022.08.10 @ 08:50:21

TEST COMMENT: 30 - IF: Blow built to 1/4" then died back to surface blow
60 - ISI: No blow
30 - FF: No blow
60 - FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2045.70	110.70	Initial Hydro-static
1	19.16	110.49	Open To Flow (1)
31	23.23	112.58	Shut-In(1)
91	1180.04	114.57	End Shut-In(1)
91	26.19	114.19	Open To Flow (2)
121	27.35	115.44	Shut-In(2)
182	1117.09	117.37	End Shut-In(2)
183	2044.28	116.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.15

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68978 **DST#: 3**

Test Start: 2022.08.10 @ 03:33:00

GENERAL INFORMATION:

Formation: **LKC. "J - K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:48:06
Time Test Ended: 10:42:06

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 73

Interval: 4060.00 ft (KB) To 4130.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

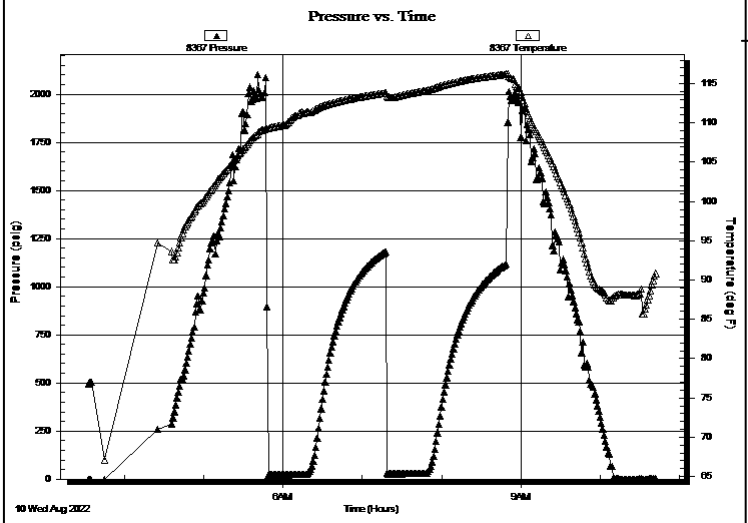
Reference Elevations: 2826.00 ft (KB)
2821.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8367 **Outside**

Press@RunDepth: psig @ 4061.00 ft (KB)
Start Date: 2022.08.10 End Date: 2022.08.10
Start Time: 03:33:01 End Time: 10:41:51

Capacity: 8000.00 psig
Last Calib.: 2022.08.10
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1/4" then died back to surface blow
60 - ISI: No blow
30 - FF: No blow
60 - FSI: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.15

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68978 **DST#: 3**

Test Start: 2022.08.10 @ 03:33:00

Tool Information

Drill Pipe:	Length:	3803.00 ft	Diameter:	3.80 inches	Volume:	53.35 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	239.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	54.53 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	76000.00 lb
Depth to Top Packer:		4060.00 ft						Final	76000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		70.00 ft							
Tool Length:		103.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4028.00		
Shut In Tool	5.00			4033.00		
Hydraulic tool	5.00			4038.00		
Jars	5.00			4043.00		
EM Tool	4.00			4047.00		
Safety Joint	3.00			4050.00		
Packer	5.00			4055.00	33.00	Bottom Of Top Packer
Packer	5.00			4060.00		
Stubb	1.00			4061.00		
Recorder	0.00	6771	Inside	4061.00		
Recorder	0.00	8367	Outside	4061.00		
Perforations	30.00			4091.00		
Blank Spacing	33.00			4124.00		
Perforations	3.00			4127.00		
Bullnose	3.00			4130.00	70.00	Bottom Packers & Anchor
Total Tool Length:	**103.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

35-5s-29w Decatur KS

P&P Unit #1-35

Job Ticket: 68978 **DST#: 3**

Test Start: 2022.08.10 @ 03:33:00

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:	69.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1800.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

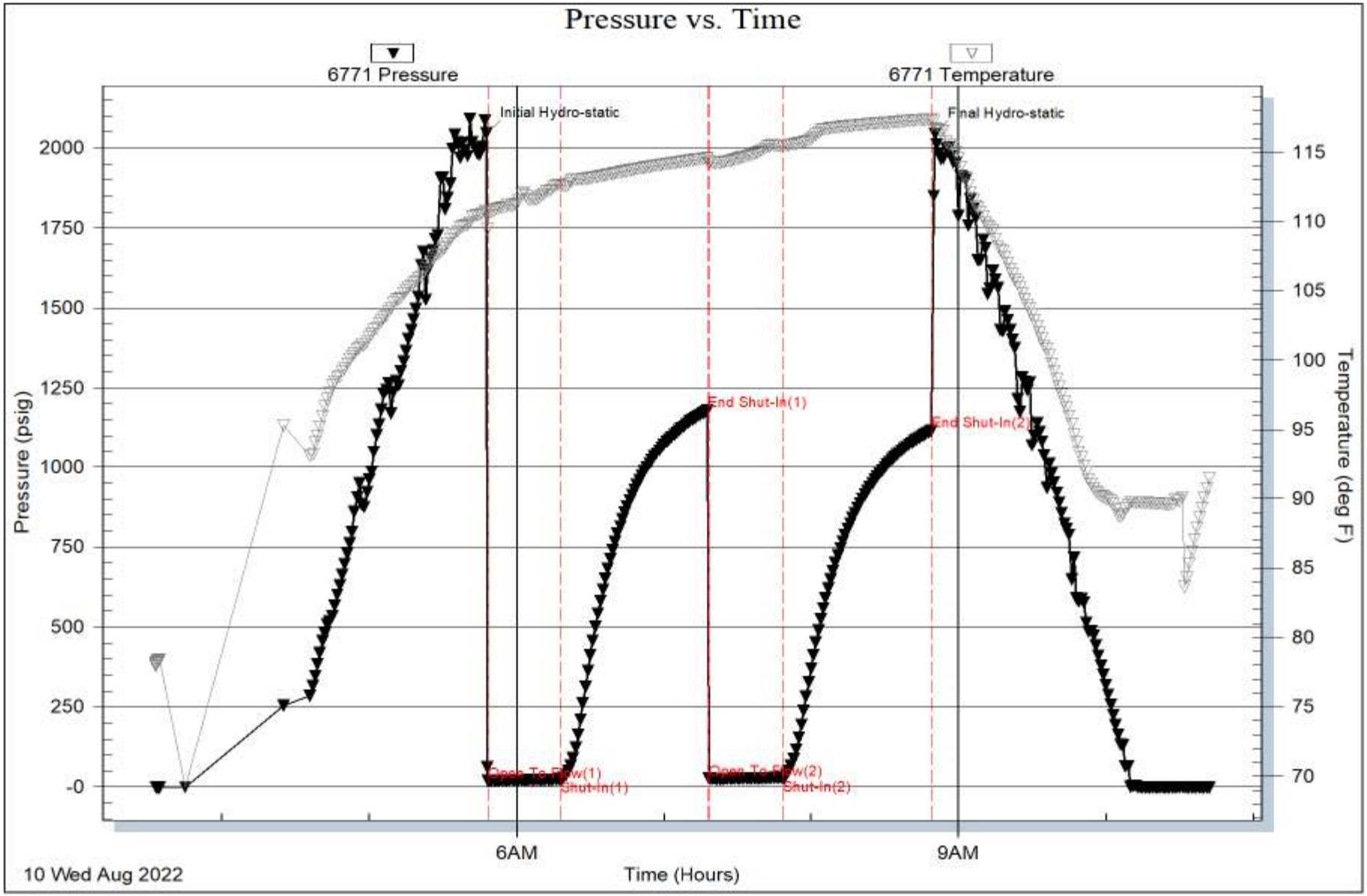
Recovery Table

Length ft	Description	Volume bbl
30.00	Mud 100%	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

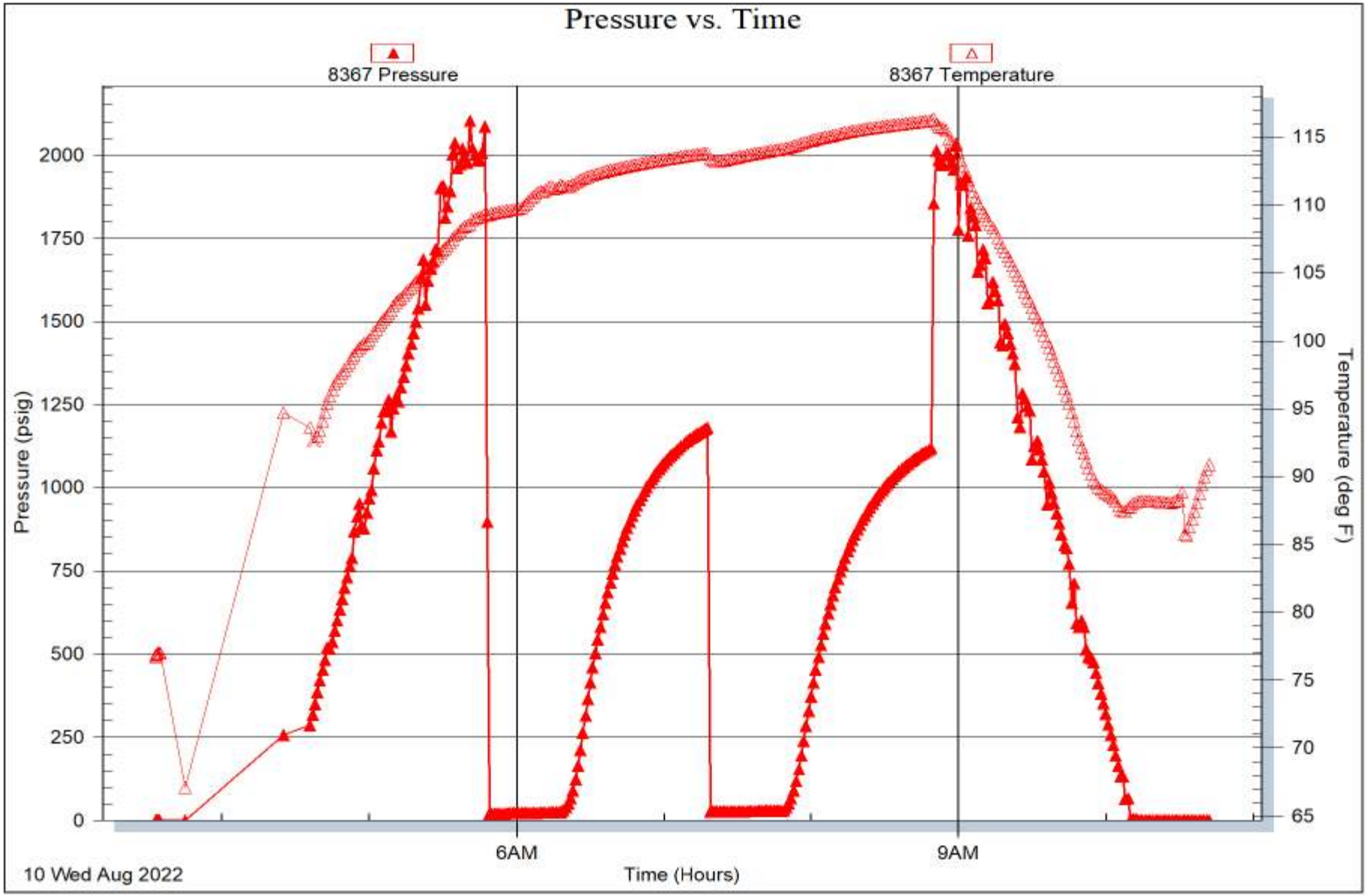
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6771 **Inside** Murfin Drilling Co., Inc. P&P Unit #1-35 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 68978 Printed: 2022.08.11 @ 10:27:42

Serial #: 8367 **Outside** Murfin Drilling Co., Inc. P&P Unit #1-35 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 68978 Printed: 2022.08.11 @ 10:27:42

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68976

Well Name & No. P+P Unit #1-35 Test No. 1 Date 8-8-22

Company Murfin Drilling Co. Inc Elevation 2826 KB 2821 GL

Address 250 N. Water STE 300 Wichita, KS 67202

Co. Rep / Geo. Robert Hendrix Rig Murfin #7

Location: Sec. 35 Twp 5s Rge. 29w Co. Decatur State KS

Interval Tested 3883 - 3974 Zone Tested Toronto - Lans "B"

Anchor Length 91 Drill Pipe Run 3645 Mud Wt. 9.0

Top Packer Depth 3878 Drill Collars Run 239 Vis 67

Bottom Packer Depth 3883 Wt. Pipe Run - WL 6.8

Total Depth 3974 Chlorides 1200 ppm System LCM 11

Blow Description IF: Blow built to 8½"

ISI: No blow

FF: Blow built to 4¾"

FSI: No blow

Rec 115	Feet of Mud	%gas	%oil	%water	100	%mud
Rec 185	Feet of WM	7 %gas	%oil	46 %water	47	%mud
Rec 239	Feet of MCW	%gas	%oil	82 %water	18	%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 539 BHT 119 Gravity ____ API RW .211 @ 84.1 °F Chlorides 28,000 ppm

(A) Initial Hydrostatic 1946

(B) First Initial Flow 29

(C) First Final Flow 157

(D) Initial Shut-In 1238

(E) Second Initial Flow 157

(F) Second Final Flow 263

(G) Final Shut-In 1218

(H) Final Hydrostatic 1863

Initial Open 30

Initial Shut-In 60

Final Flow 60

Final Shut-In 90

- ☑ Test 1800
- ☑ Jars 300
- ☑ Safety Joint
- ☐ Circ Sub
- ☐ Hourly Standby
- ☑ Mileage 38 RT 57
- ☐ Sampler
- ☐ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility
- Sub Total 2157

T-On Location 3:25

T-Started 5:04

T-Open 7:53

T-Pulled 11:59

T-Out 14:15

Comments

- ☑ EM Tool
- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies
- Sub Total 0
- Total 2157
- MP/DST Disc't

Approved By [signature] Our Representative James Winkler

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

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68977

Well Name & No. P+P Unit #1-35 Test No. 2 Date 8-8-22

Company Murfin Drilling Co. Inc Elevation 2826 KB 2821 GL

Address 250 N. Water STE 300 Wichita, KS 67202

Co. Rep / Geo. Robert Hendrix Rig Murfin #7

Location: Sec. 35 Twp 5s Rge. 29w Co. Decatur State KS

Interval Tested 3975-4002 Zone Tested Lans "D-DD'"

Anchor Length 27 Drill Pipe Run 3707 Mud Wt. 9.0

Top Packer Depth 3970 Drill Collars Run 239 Vis 67

Bottom Packer Depth 3975 Wt. Pipe Run - WL 6.8

Total Depth 4002 Chlorides 1200 ppm System LCM 11

Blow Description IF: Blow built to 9"

ISI: No blow

FF: Blow built to 10½"

FSI: No blow

Rec 108	Feet of MCW	%gas	%oil 62	%water 38	%mud	
Rec 366	Feet of MCW	%gas	%oil 86	%water 14	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 474 BHT 123 Gravity ____ API RW .235 @ 65.7 F Chlorides 32,000 ppm

(A) Initial Hydrostatic 1975	☑ Test 1950	T-On Location 21:50 8/8	
(B) First Initial Flow 22	☑ Jars 300	T-Started 23:26	
(C) First Final Flow 139	☑ Safety Joint	T-Open 1:55	
(D) Initial Shut-In 1251	☐ Circ Sub	T-Pulled 5:57	
(E) Second Initial Flow 139	☐ Hourly Standby	T-Out 8:05 8/9	
(F) Second Final Flow 234	☑ Mileage 38RT 57	Comments	
(G) Final Shut-In 1247	☐ Sampler		
(H) Final Hydrostatic 1951	☐ Straddle	☑ EM Tool	
	☐ 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 0	
Final Shut-In 90	☐ Accessibility	Total 2307	
	Sub Total 2307	MP/DST Disc't	

Approved By _____ Our Representative _____

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

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68978

Well Name & No. P&P Unit # 1-35 Test No. 3 Date 8-10-22

Company Murfin Drilling Co. Inc Elevation 2826 KB 2821 GL

Address 250 N. Water STE 300 Wichita, KS 67202

Co. Rep / Geo. Robert Hendrix Rig Murfin #7

Location: Sec. 35 Twp 5s Rge. 29w Co. Decatur State KS

Interval Tested 4060 - 4130 Zone Tested Lans "J-K"

Anchor Length 70 Drill Pipe Run 3803 Mud Wt. 9.2

Top Packer Depth 4055 Drill Collars Run 239 Vis 69

Bottom Packer Depth 4060 Wt. Pipe Run - WL 6.8

Total Depth 4130 Chlorides 1800 ppm System LCM 10

Blow Description IF: Blow built to 1/4" then died back to surface blow

ISI: No blow

FF: No blow

FSI: No blow

Rec 30	Feet of Mud	%gas	%oil	%water	100 %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 30 BHT 117 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	2046	☑ Test 1950	T-On Location 2:40
(B) First Initial Flow	19	☑ Jars 300	T-Started 3:33
(C) First Final Flow	23	☑ Safety Joint	T-Open 5:48
(D) Initial Shut-In	1180	☐ Circ Sub	T-Pulled 8:49
(E) Second Initial Flow	26	☐ Hourly Standby	T-Out 10:40
(F) Second Final Flow	27	☑ Mileage 38RT 57	Comments
(G) Final Shut-In	1117	☐ Sampler	
(H) Final Hydrostatic	2044	☐ Straddle	☑ EM Tool
		☐ Shale Packer	☐ Ruined Shale Packer
Initial Open	30	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In	60	☐ Extra Recorder	☐ Extra Copies
Final Flow	30	☐ Day Standby	Sub Total 0
Final Shut-In	60	☐ Accessibility	Total 2307
		Sub Total 2307	MP/DST Disc't

Approved By ____ Our Representative ____

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CEMENT TREATMENT REPORT

Customer:	Murfin Drilling	**Well:**	P & P Unit #1-35	**Ticket:**	WP 3181
City, State:	Selden KS	**County:**	Decatur KS	**Date:**	8/4/2022
Field Rep:	Arturo	**S-T-R:**	35-5S-29W	**Service:**	Surface

Downhole Information	
Hole Size:	12 1/4 in
Hole Depth:	308 ft
Casing Size:	8 5/8 in
Casing Depth:	296 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	17.5 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:	296 ft
Annular Volume:	21.8 bbls
Excess:	
Total Slurry:	50.2 bbls
Total Sacks:	200 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
11:18 AM			-	-	Arrived on locaton
11:28 AM				-	Safety meeting
11:38 AM				-	Rigged up
1:09 PM				-	Casing on bottom
1:14 PM				-	Circulated mud
1:21 PM	3.1	100.0	5.0	5.0	Water ahead
1:22 PM	5.0	200.0	50.2	55.2	Mixed 200 sacks H-325 cement @ 14.8 ppg
1:36 PM	4.0	150.0	17.5	72.7	Begin displacement
1:41 PM		100.0		72.7	Plug down and shut in with 5 bbls cement circulated to pit
1:43 PM				72.7	Wash up and rigged down
2:10 PM				72.7	Left location

	CREW	UNIT
Cementer:	John	73
Pump Operator:	Jose V	208
Bulk #1:	Kale	194-254
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
4.0 bpm	138 psi	73 bbls

ftv: 13-2021/01/19
mplv: 87-2021/01/11

CEMENT TREATMENT REPORT

Customer:	Murfin Drilling	**Well:**	P & P Unit #1-35	**Ticket:**	WP 3216
City, State:	Selden KS	**County:**	Decatur KS	**Date:**	8/11/2022
Field Rep:	Arturo	**S-T-R:**	35-16S-40W	**Service:**	PTA

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4619 ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	bbls

Calculated Slurry - Lead	
Blend:	H-Plug
Weight:	13.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.42 ft^3 / sx
Annular Bbls / Ft.:	0.0406 bbs / ft.
Depth:	2990 ft
Annular Volume:	121.4 bbls
Excess:	
Total Slurry:	64.4 bbls
Total Sacks:	255 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
9:00 AM			-	-	Arrived on location
9:10 AM				-	Safety meeting
9:20 AM				-	Rigged up
9:29 AM	3.0	250.0	5.0	5.0	Water ahead
9:31 AM	5.0	300.0	12.6	17.6	Mixed 50 sacks H-Plug cement 13.8 ppg @ 2990'
9:35 AM	3.3	100.0	5.0	22.6	Begin displacement
9:39 AM				22.6	Pumped mud with rig mud pump for 2:15 minutes
10:19 AM	3.0	200.0	5.0	27.6	Water ahead
10:21 AM	5.3	300.0	25.2	52.8	Mixed 100 sacks H-Plug cement 13.8 ppg 1820'
10:27 AM	3.7	100.0	16.2	69.0	Begin displacement
11:20 AM	3.6	150.0	5.0	74.0	Water ahead
11:22 AM	5.8	250.0	12.6		Mixed 50 sacks H-Plug cement 13.8 ppg @ 360'
11:25 AM	2.5	50.0	0.7		Begin displacement
12:07 PM	2.0	50.0	2.5		Mixed 10 sacks H-Plug cement 13.8 ppg with wooden plug for top 40'
12:11 PM	2.0	50.0	3.7		Mixed 15 sacks H-Plug cement 13.8 ppg for mouse hole plug
12:15 PM	2.0	50.0	7.5		Mixed 30 sacks H-Plug cement 13.8 ppg for rat hole plug
12:17 PM					Plug down
12:19 PM					Washed up and rigged down
12:35 PM					Left location

CREW		UNIT
Cementer:	John	73
Pump Operator:	Jose V	208
Bulk #1:	Kale	205
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.4 bpm	154 psi	101 bbls

flv: 13-2021/01/19
mplv: 87-2021/01/11

DRILLING REPORT - LOG TOPS - P & P Unit 1-35

	MDCI P & P Unit #1-35 200 FSL 2310 FEL Sec. 35-T5S-R29W 2826' KB					
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
Anhydrite	2569	+257	+13	2570	256	+12
B/Anhydrite	2606	+220	+11	2605	221	+12
Topeka	3720	-894	+13	3715	-889	+18
Heebner	3899	-1073	+13	3897	-1071	+15
Toronto	3928	-1102	+14	3926	-1100	+16
Lansing	3942	-1116	+16	3941	-1115	+17
Stark	4100	-1274	+13	4096	-1270	+17
Mound City	4143	-1317	+16	4142	-1316	+17
RTD	4200			4200		
LTD				4199		