

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

|  |   |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used  |                   |                           |                   |               |                |              |                            |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. |                   |                           |                   |               |                |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

| ADDITIONAL CEMENTING / SQUEEZE RECORD  |                  |                |              |                            |
|--|------------------|----------------|--------------|----------------------------|
| Purpose:   | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><input type="checkbox"/> Plug Off Zone |                  |                |              |                            |
|  |                  |                |              |                            |

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

|   |  |         |             |               |         |
|---|--|---------|-------------|---------------|---------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method:<br><input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ |         |             |               |         |
| Estimated Production Per 24 Hours                                   | Oil Bbls.  | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |

|   |   |                                    |
|---|---|------------------------------------|
| DISPOSITION OF GAS:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL:<br>Top Bottom |
|---|---|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record<br><i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |

|                |       |         |            |  |
|----------------|-------|---------|------------|--|
| TUBING RECORD: | Size: | Set At: | Packer At: |  |
|----------------|-------|---------|------------|--|

|           |                           |
|-----------|---------------------------|
| Form      | ACO1 - Well Completion    |
| Operator  | Murfin Drilling Co., Inc. |
| Well Name | KELLER A 1-31             |
| Doc ID    | 1660938                   |

All Electric Logs Run

|      |
|------|
|      |
| DIL  |
| DUCP |
| MEL  |
| BHCS |





# FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269  
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0653  
 LOCATION Saints Francis  
 FOREMAN Jack

## FIELD TICKET & TREATMENT REPORT CEMENT

| DATE                                 | CUSTOMER # | WELL NAME & NUMBER | SECTION | TOWNSHIP | RANGE  | COUNTY   |
|--------------------------------------|------------|--------------------|---------|----------|--------|----------|
| 7-17-22                              | 20666      | Keller A 1-31      | 31      | #2       | 39W    | Cherokee |
| CUSTOMER<br>Morton Drilling Co., Inc |            |                    | TRUCK # |          | DRIVER |          |
| MAILING ADDRESS                      |            |                    | 101     |          | Jack   |          |
| CITY                                 |            |                    | 103     |          | KAIN   |          |
| STATE                                |            |                    |         |          |        |          |
| ZIP CODE                             |            |                    |         |          |        |          |

JOB TYPE PTA HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE 4.5 TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 11.5 SLURRY VOL 2.3 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Set up plugged as ordered

5208' 50 SL  
2200' 100 SL  
350' 50 SL  
120' 50 SL

| ACCOUNT CODE | QUANTITY or UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE           | TOTAL                |
|--------------|-------------------|------------------------------------|----------------------|----------------------|
| PC005        | <del>1</del> PTA  | PUMP CHARGE 1                      | \$1500 <sup>00</sup> | \$1500 <sup>00</sup> |
| M001         | 97                | MILEAGE                            | \$1.50               | \$147 <sup>50</sup>  |
| M002         | 10.44             | Tow mileage delivery               | \$1519 <sup>02</sup> | \$1519 <sup>02</sup> |
| CB010        | 240 SX            | 60/40 4% gel 1/4 lbs flow seal     | \$16 <sup>75</sup>   | \$4020 <sup>00</sup> |
|              |                   |                                    | sub total            | \$7119 <sup>52</sup> |
|              |                   |                                    | less 10% discn.      | \$711 <sup>95</sup>  |
|              |                   |                                    | sub total            | \$1902 <sup>57</sup> |
|              |                   |                                    | SALES TAX            | 307.53               |
|              |                   |                                    | ESTIMATED TOTAL      | 7210.10              |

AUTHORIZATION \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

## DRILLING REPORT - LOG TOPS - KELLER A 1-31

MDCI  
 Keller 'A' #1-31  
 990' FSL 2140' FWL  
 Sec. 29-T2S-R39W  
 3324' KB

| Formation   | Sample top | Datum | Ref | Log Top | Datum | Ref |
|-------------|------------|-------|-----|---------|-------|-----|
| Anhydrite   | 3191       | +133  | +20 | 3190    | 134   | +21 |
| B/Anhydrite | 3227       | +97   | +19 | 3225    | 99    | +21 |
| Topeka      | 4016       | -692  | +10 | 4010    | -686  | +16 |
| Oread       | 4144       | -820  | +13 | 4142    | -818  | +15 |
| Lansing     | 4216       | -892  | +17 | 4218    | -894  | +15 |
| Stark       | 4450       | -1126 | +17 | 4450    | -1126 | +17 |
| Mound City  | 4508       | -1184 | +22 | 4517    | -1193 | +13 |
| Ft Scott    | 4642       | -1318 | +12 | 4644    | -1320 | +10 |
| Oakley      | 4727       | -1403 | +11 | 4730    | -1406 | +8  |
| Mississippi | 5000       | -1676 | +24 | 5010    | -1686 | +14 |
| RTD         | 5094       |       |     |         |       |     |
| LTD         |            |       |     | 5093    |       |     |

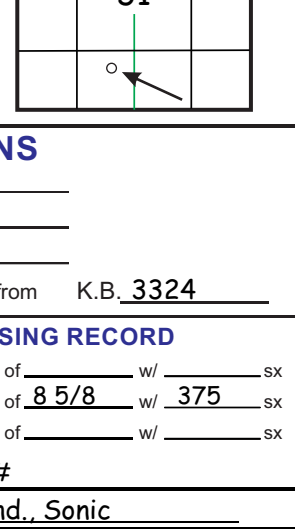
# GEOLOGICAL REPORT

## Marc R. Summerville

39.831556  
-101.740405  
NAD 27 KS N  
JC949769  
V-567372

COMPANY & WELL: **Murfin Drilling Company, Inc.**  
LOCATION: **990 FSL 2140 FWL W2 NE SE SW**  
SEC: **31** TWP: **25** RGE: **39W**  
COUNTY: **Cheyenne** STATE: **KS**

COMPANY: **Murfin Drilling Company, Inc.**  
API #: **15-023-21973** FIELD: **W/C**  
LEASE: **Keller 'A'** WELL #: **#1-31**  
LOCATION: **W2 NE SE SW**  
SURVEY: **990 FSL 2140 FWL**  
SECTION: **31** TWP: **25** RGE: **39W**  
COUNTY: **Cheyenne** STATE: **Kansas**



CONTRACTOR: **Murfin Drilling** Rig # **110**  
SPUD: **06-30-22** COM.P: **07-17-22**  
RTD: **5094** LTD: **5093**  
MUD UP AT: **3839**  
MUD TYPE: **Chemical Morgan Mud Dove Lines**

**ELEVATIONS**  
K.B. **3324**  
D.F. \_\_\_\_\_  
G.L. **3319**  
All measurements from **K.B. 3324**

SAMPLES SAVED: FROM **3320** TO **RTD**  
DRILLING TIME: FROM **3320** TO **RTD** Conductor \_\_\_\_\_  
SURVEY EXAMINED: FROM **3320** TO **RTD** Surface **305** wt \_\_\_\_\_  
GEOLOGICAL SUPERVISION: FROM **3320** TO **RTD** Production of \_\_\_\_\_  
WELL SITE GEOLOGIST: **Marc R. Summerville** 8 5/8 8 its 23#

ELECTRICAL SURVEYS: **Midwest Wireline; Neu\_Den\_Micro\_Dual\_Ind\_Sonic**

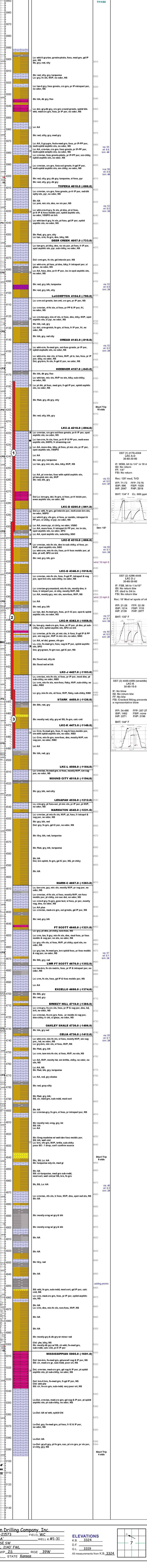
| Sample     | MURFIN DRILL CO<br>990 FSL 2140 FWL<br>Sec. 31-25-39W | MURFIN DRILL CO<br>990 FSL 2140 FWL<br>Sec. 31-25-39W | MURFIN DRILL CO<br>990 FSL 2140 FWL<br>Sec. 31-25-39W | JOHN FARMER<br>990 FSL 2140 FWL<br>Sec. 31-25-39W |
|------------|---|---|---|---|
| KB #       | 3324  | 3324  | 3317  | 3321  |
| Depth      | 3324  | 3324  | 3317  | 3321  |
| Anticline  | 3324  | 3324  | 3317  | 3321  |
| Base Anhyd | 3324  | 3324  | 3317  | 3321  |
| Topoka     | 3324  | 3324  | 3317  | 3321  |
| LeCompt    | 3324  | 3324  | 3317  | 3321  |
| Shad       | 3324  | 3324  | 3317  | 3321  |
| LKC-A      | 3324  | 3324  | 3317  | 3321  |
| LKC-B      | 3324  | 3324  | 3317  | 3321  |
| LKC-C      | 3324  | 3324  | 3317  | 3321  |
| LKC-D      | 3324  | 3324  | 3317  | 3321  |
| LKC-E      | 3324  | 3324  | 3317  | 3321  |
| LKC-F      | 3324  | 3324  | 3317  | 3321  |
| LKC-G      | 3324  | 3324  | 3317  | 3321  |
| LKC-H      | 3324  | 3324  | 3317  | 3321  |
| LKC-I      | 3324  | 3324  | 3317  | 3321  |
| LKC-J      | 3324  | 3324  | 3317  | 3321  |
| LKC-K      | 3324  | 3324  | 3317  | 3321  |
| LKC-L      | 3324  | 3324  | 3317  | 3321  |
| LKC-M      | 3324  | 3324  | 3317  | 3321  |
| LKC-N      | 3324  | 3324  | 3317  | 3321  |
| LKC-O      | 3324  | 3324  | 3317  | 3321  |
| LKC-P      | 3324  | 3324  | 3317  | 3321  |
| LKC-Q      | 3324  | 3324  | 3317  | 3321  |
| LKC-R      | 3324  | 3324  | 3317  | 3321  |
| LKC-S      | 3324  | 3324  | 3317  | 3321  |
| LKC-T      | 3324  | 3324  | 3317  | 3321  |
| LKC-U      | 3324  | 3324  | 3317  | 3321  |
| LKC-V      | 3324  | 3324  | 3317  | 3321  |
| LKC-W      | 3324  | 3324  | 3317  | 3321  |
| LKC-X      | 3324  | 3324  | 3317  | 3321  |
| LKC-Y      | 3324  | 3324  | 3317  | 3321  |
| LKC-Z      | 3324  | 3324  | 3317  | 3321  |

REMARKS & RECOMMENDATIONS:

ROCK TYPES: Dolprim, Dolose, Lmslt fw>, Misticalc, Shgy, Shchlk, Shool, Slist, Arg/Shale, Dol Lime, Col grnat, Lsbrec, Lscong'

MINERAL: Argillaceous, Calcareous, Chert, Dolomitic, Obscuronite, Pyrite  
FOSSIL: Bioclastic or Fragments, Crinoids, Oolite  
STRINGER: Limestone  
DUNHAM: ds Granst  
OIL SHOWS: Even Stn, Spotted Stn 50-75%, Spotted Stn 25-50%, Spotted Stn <25%, Questionable Stn, Dead Oil Stn, Fluorescence  
INTERVALS: Core, DST

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.gstri.com)



RTD @ 5094' 6:19 am 7/17/2022

COMPANY: **Murfin Drilling Company, Inc.**  
API #: **15-023-21573** FIELD: **W/C**  
LEASE: **Keller 'A'** WELL #: **#1-31**  
LOCATION: **W2 NE SE SW**  
SURVEY: **990 FSL 2140 FWL**  
SECTION: **31** TWP: **25** RGE: **39W**  
COUNTY: **Cheyenne** STATE: **Kansas**



**ELEVATIONS**  
K.B. **3324**  
D.F. \_\_\_\_\_  
G.L. **3319**  
All measurements from **K.B. 3324**

















## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste 300  
Wichita, KS 67202

ATTN: Marc Summervill

### **Keller 'A' #1-31**

#### **31-2S-39W Cheyenne,KS**

Start Date: 2022.07.13 @ 07:30:00

End Date: 2022.07.13 @ 14:41:15

Job Ticket #: 67269                      DST #: 1

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

Printed: 2022.07.22 @ 10:30:59



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67269

**DST#: 1**

ATTN: Marc Summervill

Test Start: 2022.07.13 @ 07:30:00

## GENERAL INFORMATION:

Formation: **LKC A - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:36:45

Time Test Ended: 14:41:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Nathan Aneas

Unit No: 71

**Interval: 4176.00 ft (KB) To 4304.00 ft (KB) (TVD)**

Reference Elevations: 3324.00 ft (KB)

Total Depth: 4304.00 ft (KB) (TVD)

3319.00 ft (CF)

Hole Diameter: 7.87 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8353**

**Inside**

Press@RunDepth: 76.39 psig @ 4177.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.07.13

End Date:

2022.07.13

Last Calib.:

2022.07.13

Start Time: 07:30:01

End Time:

14:41:15

Time On Btm:

2022.07.13 @ 09:36:00

Time Off Btm:

2022.07.13 @ 13:09:45

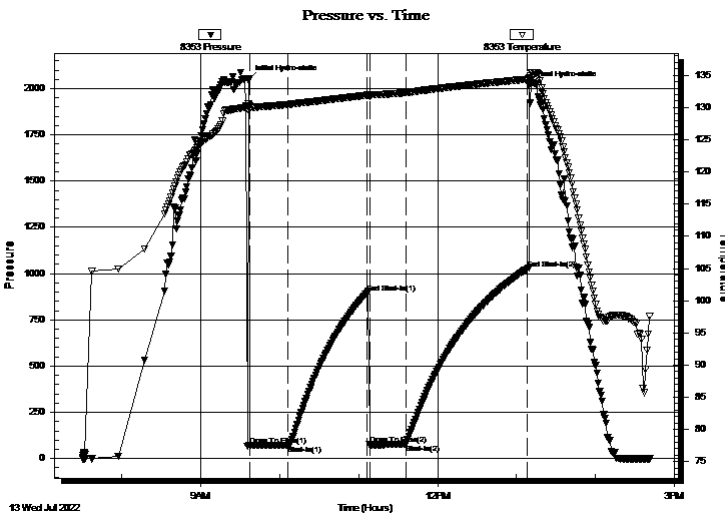
**TEST COMMENT:** 30:IF- Weak surface blow , built to 1/4 inch in 10 min, final blow is 1/4 inch

60:IS- No blow back

30:FF- No blow

90:FS- No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2047.17         | 130.51       | Initial Hydro-static |
| 1           | 71.17           | 130.20       | Open To Flow (1)     |
| 30          | 72.88           | 130.46       | Shut-In(1)           |
| 91          | 896.07          | 131.91       | End Shut-In(1)       |
| 93          | 74.82           | 131.89       | Open To Flow (2)     |
| 120         | 76.39           | 132.30       | Shut-In(2)           |
| 213         | 1025.84         | 134.39       | End Shut-In(2)       |
| 214         | 2015.54         | 134.69       | Final Hydro-static   |

## Recovery

| Length (ft) | Description              | Volume (bbl) |
|-------------|--------------------------|--------------|
| 120.00      | Mud 100%M (Trace of oil) | 0.59         |
|             |                          |              |
|             |                          |              |
|             |                          |              |
|             |                          |              |

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67269

**DST#: 1**

ATTN: Marc Summervill

Test Start: 2022.07.13 @ 07:30:00

## Tool Information

|                           |                    |                       |                            |                                    |
|---------------------------|--------------------|-----------------------|----------------------------|------------------------------------|
| Drill Pipe:               | Length: 3984.00 ft | Diameter: 3.80 inches | Volume: 55.89 bbl          | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: inches      | Volume: - bbl              | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 180.00 ft  | Diameter: 2.25 inches | Volume: 0.89 bbl           | Weight to Pull Loose: 80000.00 lb  |
|                           |                    |                       | <u>Total Volume: - bbl</u> | Tool Chased 15.00 ft               |
| Drill Pipe Above KB:      | 20.00 ft           |                       |                            | String Weight: Initial 70000.00 lb |
| Depth to Top Packer:      | 4176.00 ft         |                       |                            | Final 71000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                            |                                    |
| Interval between Packers: | 128.00 ft          |                       |                            |                                    |
| Tool Length:              | 160.00 ft          |                       |                            |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                            |                                    |

Tool Comments:

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                 |
|------------------|-------------|------------|----------|------------|--------------------------------|
| Shut In Tool     | 5.00        |            |          | 4149.00    |                                |
| Hydraulic tool   | 5.00        |            |          | 4154.00    |                                |
| Jars             | 5.00        |            |          | 4159.00    |                                |
| EM Tool          | 4.00        |            |          | 4163.00    |                                |
| Safety Joint     | 3.00        |            |          | 4166.00    |                                |
| Packer           | 5.00        |            |          | 4171.00    | 32.00 Bottom Of Top Packer     |
| Packer           | 5.00        |            |          | 4176.00    |                                |
| Stubb            | 1.00        |            |          | 4177.00    |                                |
| Recorder         | 0.00        | 8353       | Inside   | 4177.00    |                                |
| Recorder         | 0.00        | 8676       | Outside  | 4177.00    |                                |
| Perforations     | 28.00       |            |          | 4205.00    |                                |
| Change Over Sub  | 1.00        |            |          | 4206.00    |                                |
| Blank Spacing    | 94.00       |            |          | 4300.00    |                                |
| Change Over Sub  | 1.00        |            |          | 4301.00    |                                |
| Bullnose         | 3.00        |            |          | 4304.00    | 128.00 Bottom Packers & Anchor |

**Total Tool Length: 160.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67269

**DST#: 1**

ATTN: Marc Summervill

Test Start: 2022.07.13 @ 07:30:00

## 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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description              | Volume<br>bbl |
|--------------|--------------------------|---------------|
| 120.00       | Mud 100%M (Trace of oil) | 0.590         |

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

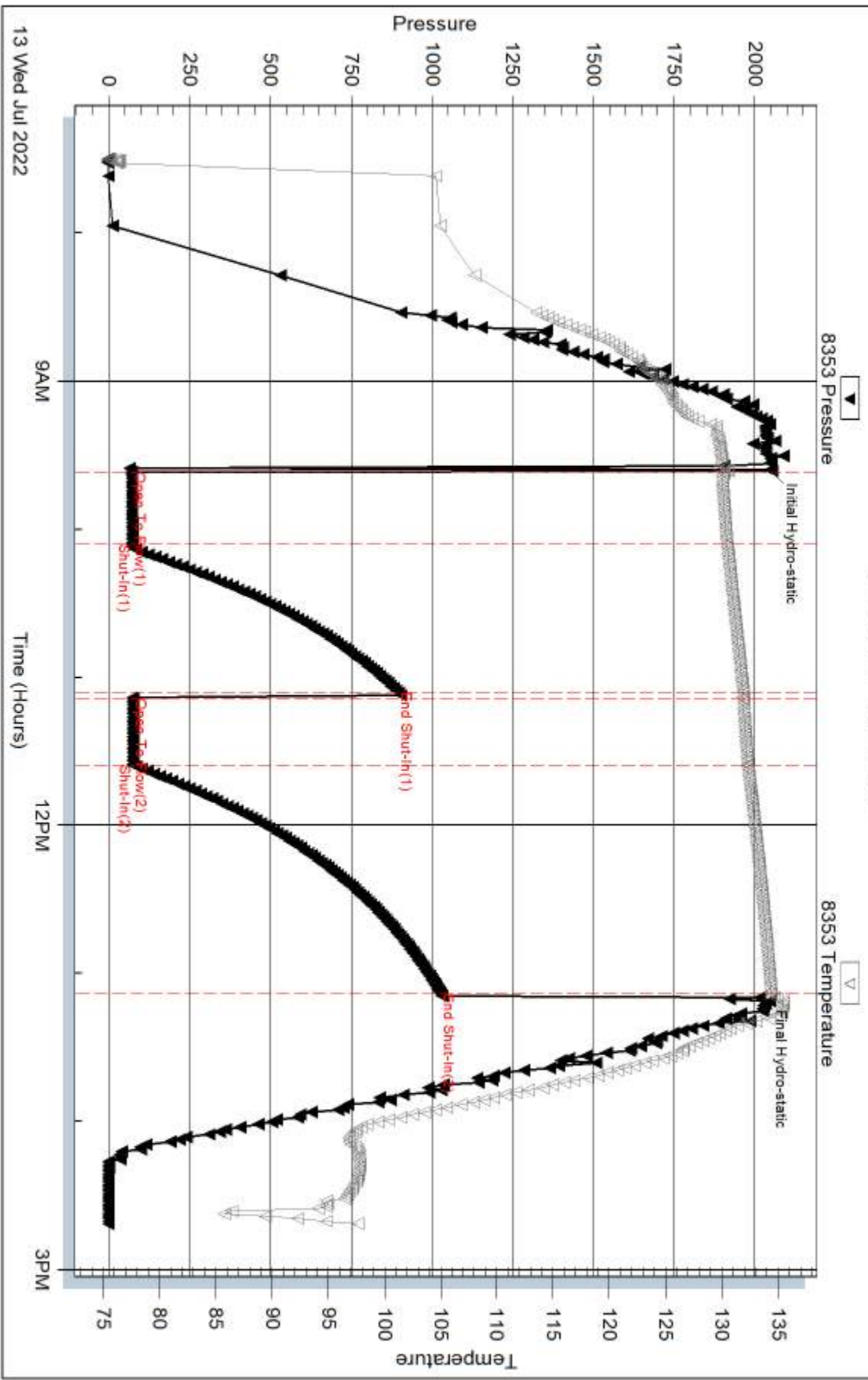
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



13 Wed Jul 2022

9AM

Time (Hours)

12PM

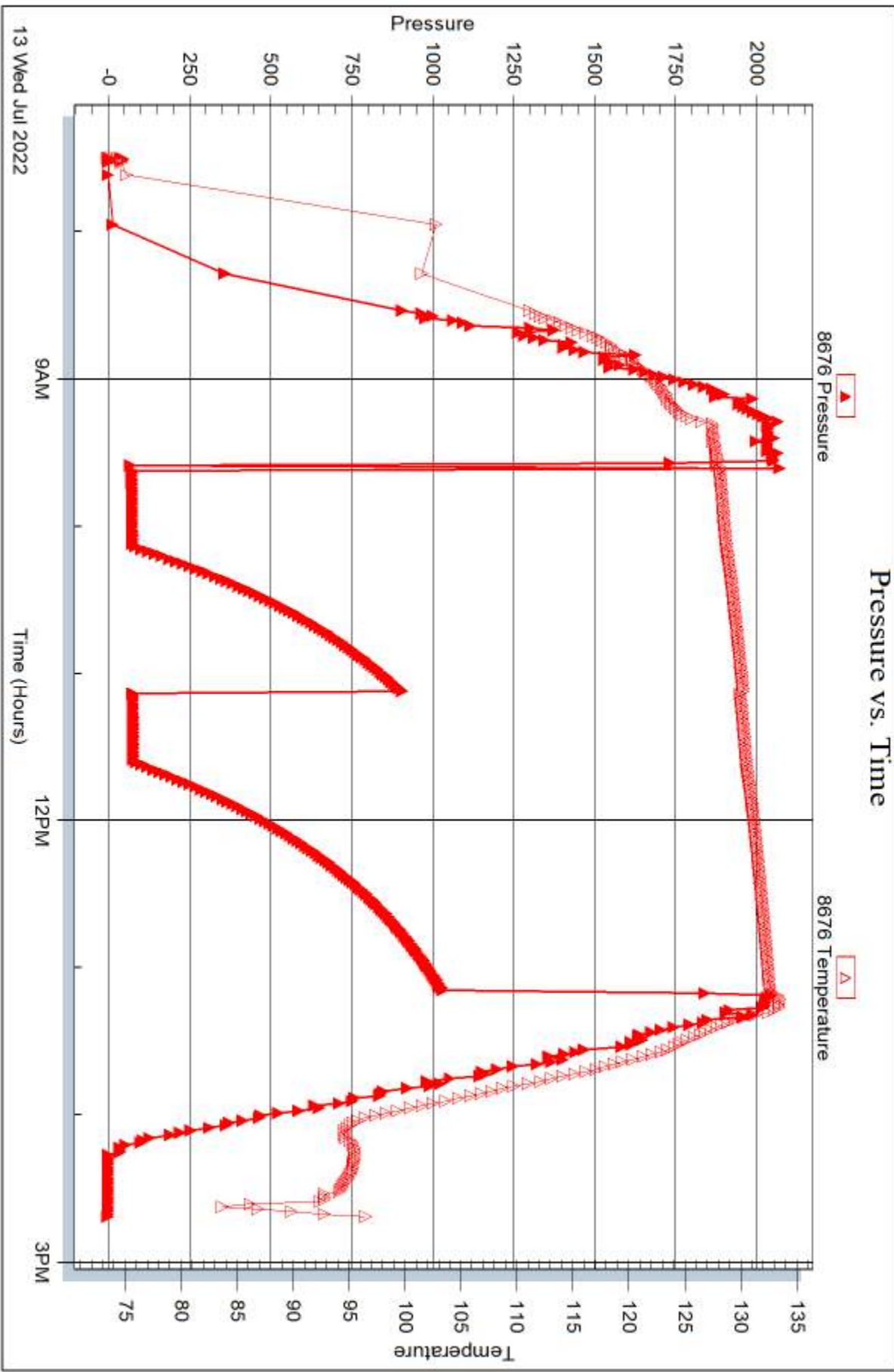
3PM

Serial #: 8676

Outside Murfin Drilling Company Inc

Keller 'A' #1-31

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67269

Printed: 2022.07.22 @ 10:31:01



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste 300  
Wichita, KS 67202

ATTN: Marc Summervill

### **Keller 'A' #1-31**

### **31-2S-39W Cheyenne,KS**

Start Date: 2022.07.14 @ 14:50:00

End Date: 2022.07.14 @ 22:05:00

Job Ticket #: 67270                      DST #: 2

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

Printed: 2022.07.22 @ 10:28:58



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67270

**DST#: 2**

ATTN: Marc Summervill

Test Start: 2022.07.14 @ 14:50:00

## GENERAL INFORMATION:

Formation: **LKC D - J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:01:30

Time Test Ended: 22:05:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Nathan Aneas

Unit No: 71

**Interval: 4296.00 ft (KB) To 4448.00 ft (KB) (TVD)**

Reference Elevations: 3324.00 ft (KB)

Total Depth: 4448.00 ft (KB) (TVD)

3319.00 ft (CF)

Hole Diameter: 7.87 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8353**

**Inside**

Press@RunDepth: 39.48 psig @ 4297.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.07.14

End Date:

2022.07.14

Last Calib.:

2022.07.14

Start Time:

14:50:01

End Time:

22:05:00

Time On Btm:

2022.07.14 @ 17:00:45

Time Off Btm:

2022.07.14 @ 20:06:00

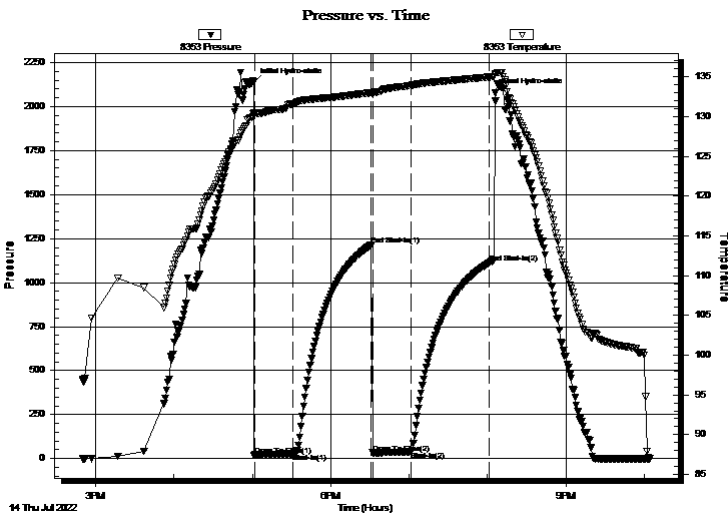
**TEST COMMENT:** 30:IF- Fair surface blow , built to 1 inch in 10 min, final blow died to 3/4 inch

60:IS- No blow back

30:FF- No blow

60:FS- No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2138.62         | 130.31       | Initial Hydro-static |
| 1           | 20.80           | 130.50       | Open To Flow (1)     |
| 31          | 28.02           | 131.55       | Shut-In(1)           |
| 91          | 1214.45         | 133.01       | End Shut-In(1)       |
| 92          | 32.34           | 132.82       | Open To Flow (2)     |
| 121         | 39.48           | 133.94       | Shut-In(2)           |
| 181         | 1110.36         | 134.98       | End Shut-In(2)       |
| 186         | 2077.12         | 135.29       | Final Hydro-static   |

## Recovery

| Length (ft) | Description              | Volume (bbl) |
|-------------|--------------------------|--------------|
| 10.00       | Mud 100%M (Spots of oil) | 0.05         |
|             |                          |              |
|             |                          |              |
|             |                          |              |
|             |                          |              |

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67270

**DST#: 2**

ATTN: Marc Summervill

Test Start: 2022.07.14 @ 14:50:00

## Tool Information

|                           |                    |                       |                            |                                    |
|---------------------------|--------------------|-----------------------|----------------------------|------------------------------------|
| Drill Pipe:               | Length: 4104.00 ft | Diameter: 3.80 inches | Volume: 57.57 bbl          | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: inches      | Volume: - bbl              | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 180.00 ft  | Diameter: 2.25 inches | Volume: 0.89 bbl           | Weight to Pull Loose: 84000.00 lb  |
|                           |                    |                       | <u>Total Volume: - bbl</u> | Tool Chased ft                     |
| Drill Pipe Above KB:      | 20.00 ft           |                       |                            | String Weight: Initial 79000.00 lb |
| Depth to Top Packer:      | 4296.00 ft         |                       |                            | Final 79000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                            |                                    |
| Interval between Packers: | 152.00 ft          |                       |                            |                                    |
| Tool Length:              | 184.00 ft          |                       |                            |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                            |                                    |

Tool Comments:

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                 |
|------------------|-------------|------------|----------|------------|--------------------------------|
| Shut In Tool     | 5.00        |            |          | 4269.00    |                                |
| Hydraulic tool   | 5.00        |            |          | 4274.00    |                                |
| Jars             | 5.00        |            |          | 4279.00    |                                |
| EM Tool          | 4.00        |            |          | 4283.00    |                                |
| Safety Joint     | 3.00        |            |          | 4286.00    |                                |
| Packer           | 5.00        |            |          | 4291.00    | 32.00 Bottom Of Top Packer     |
| Packer           | 5.00        |            |          | 4296.00    |                                |
| Stubb            | 1.00        |            |          | 4297.00    |                                |
| Recorder         | 0.00        | 8353       | Inside   | 4297.00    |                                |
| Recorder         | 0.00        | 8676       | Outside  | 4297.00    |                                |
| Perforations     | 20.00       |            |          | 4317.00    |                                |
| Change Over Sub  | 1.00        |            |          | 4318.00    |                                |
| Blank Spacing    | 126.00      |            |          | 4444.00    |                                |
| Change Over Sub  | 1.00        |            |          | 4445.00    |                                |
| Bullnose         | 3.00        |            |          | 4448.00    | 152.00 Bottom Packers & Anchor |

**Total Tool Length: 184.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 67270

**DST#: 2**

ATTN: Marc Summervill

Test Start: 2022.07.14 @ 14:50:00

### 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

#### Recovery Table

| Length<br>ft | Description              | Volume<br>bbl |
|--------------|--------------------------|---------------|
| 10.00        | Mud 100%M (Spots of oil) | 0.049         |

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

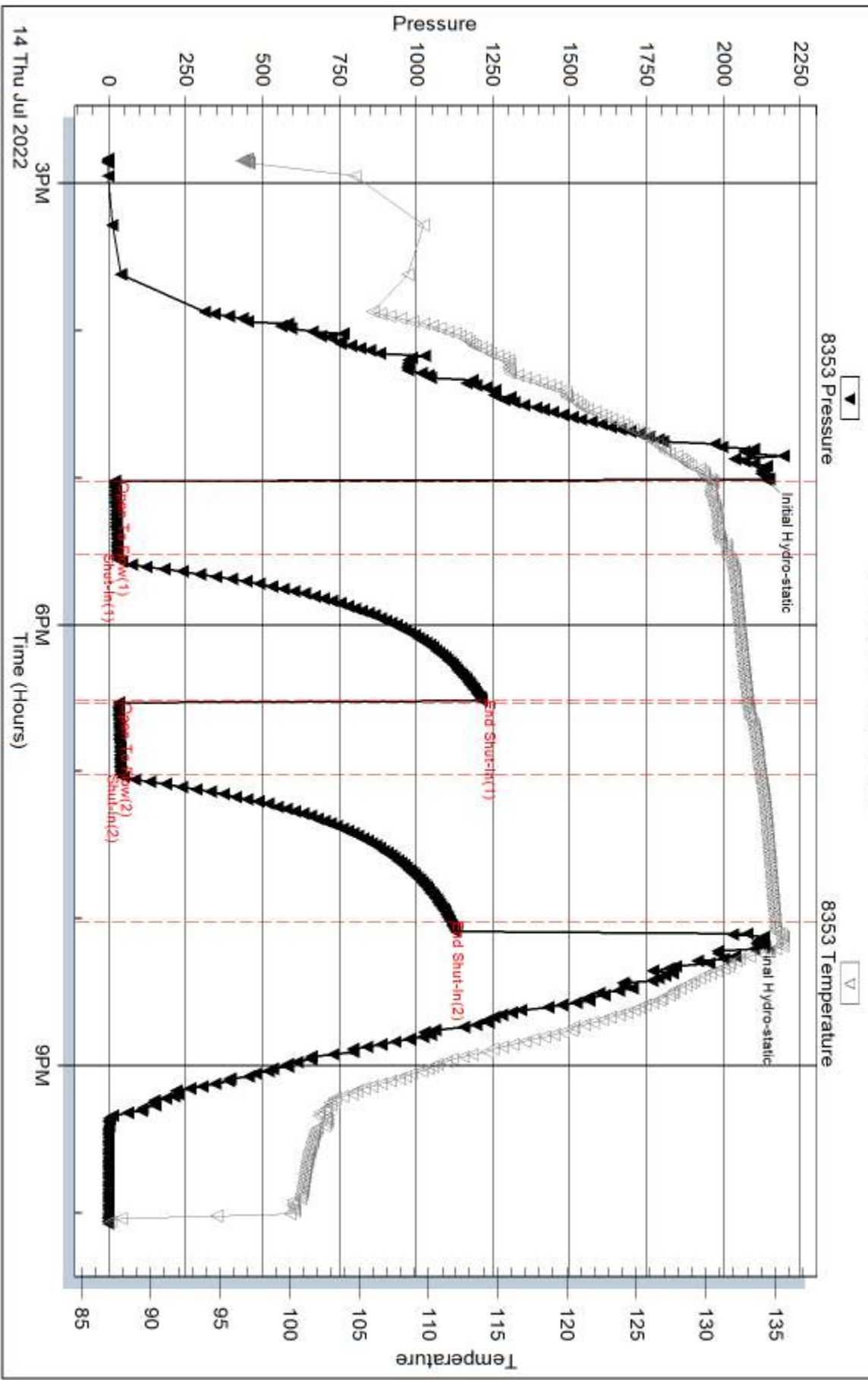
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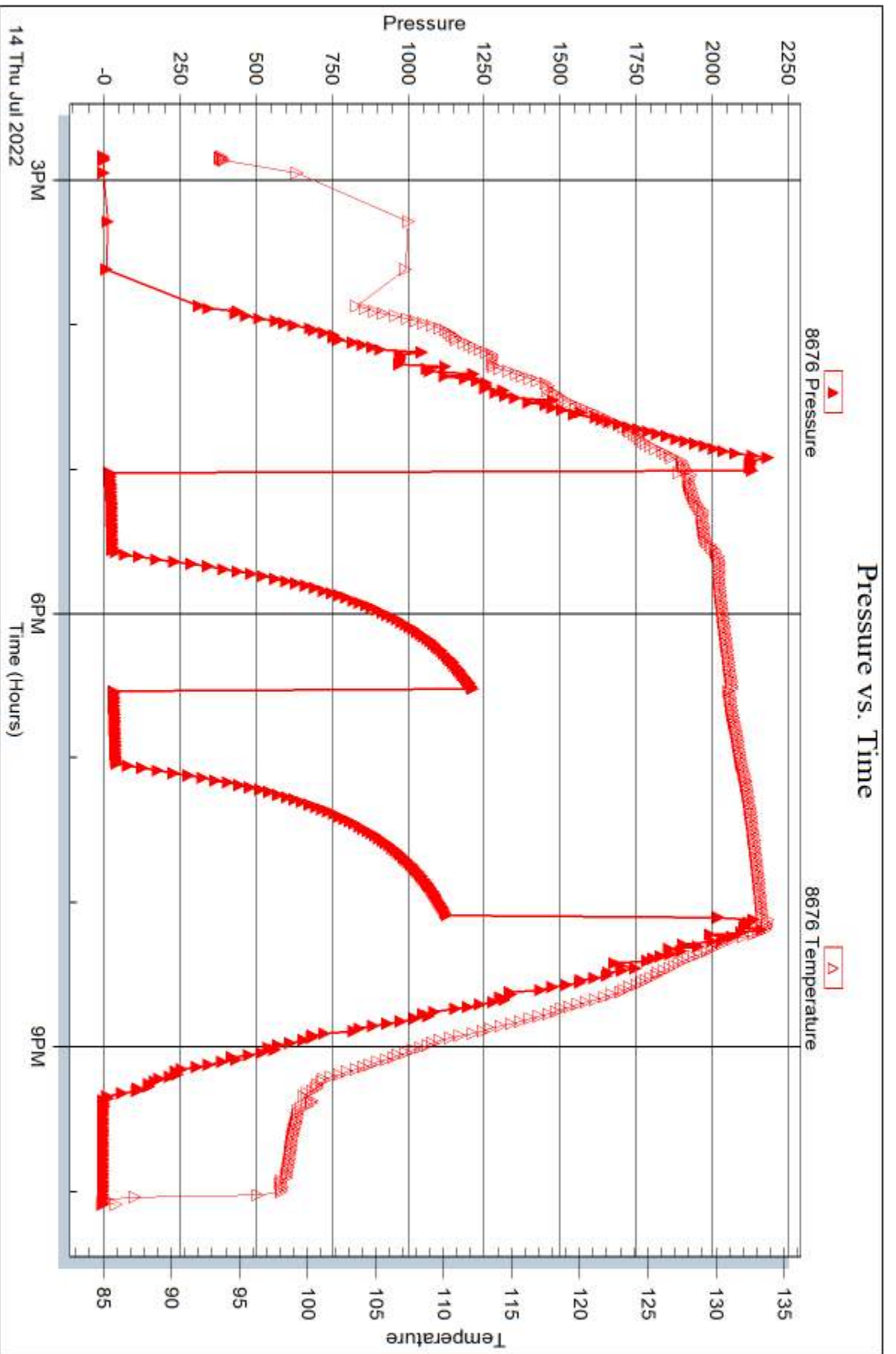
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N. Water Ste 300  
Wichita, KS 67202

ATTN: Marc Summervill

**Keller 'A' #1-31**

**31-2S-39W Cheyenne,KS**

Start Date: 2022.07.18 @ 13:30:00

End Date: 2022.07.18 @ 21:11:15

Job Ticket #: 69751                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.07.22 @ 10:19:57

Murfin Drilling Company Inc

31-2S-39W Cheyenne,KS

Keller 'A' #1-31

DST # 3

LKC K

2022.07.18



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company Inc  
 250 N. Water Ste 300  
 Wichita, KS 67202  
 ATTN: Marc Summervill

**31-2S-39W Cheyenne,KS**

**Keller 'A' #1-31**

Job Ticket: 69751

**DST#: 3**

Test Start: 2022.07.18 @ 13:30:00

## GENERAL INFORMATION:

Formation: **LKC K**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:45:00  
 Time Test Ended: 21:11:15  
 Interval: **4440.00 ft (KB) To 4490.00 ft (KB) (TVD)**  
 Total Depth: 4304.00 ft (KB) (TVD)  
 Hole Diameter: 7.87 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Terrance Wickham  
 Unit No: 66  
 Reference Elevations: 3324.00 ft (KB)  
 3319.00 ft (CF)  
 KB to GR/CF: 5.00 ft

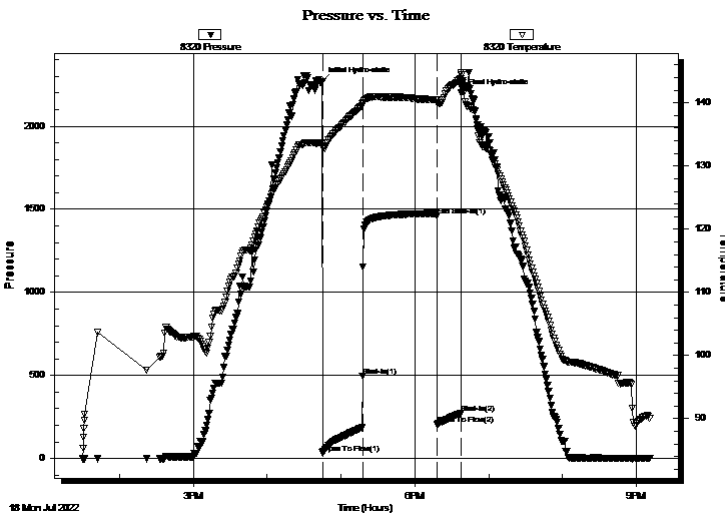
## Serial #: 8320

Inside

Press@RunDepth: 497.62 psig @ 4448.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2022.07.18 End Date: 2022.07.18 Last Calib.: 1899.12.30  
 Start Time: 13:30:05 End Time: 21:11:14 Time On Btm: 2022.07.18 @ 16:44:45  
 Time Off Btm: 2022.07.18 @ 18:37:30

TEST COMMENT: IF-30-No blow  
 IS-60-No return  
 FF-15-No blow  
 Cracked fitting prevented a representative blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2270.50         | 133.73       | Initial Hydro-static |
| 1           | 34.17           | 132.98       | Open To Flow (1)     |
| 33          | 497.62          | 139.78       | Shut-In(1)           |
| 93          | 1461.77         | 140.52       | End Shut-In(1)       |
| 94          | 206.62          | 140.06       | Open To Flow (2)     |
| 113         | 274.18          | 143.89       | Shut-In(2)           |
| 113         | 2198.36         | 144.82       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 630.00      | MW          | 7.20         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

\* Recovery from multiple tests

## Gas Rates

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









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 69751

**DST#: 3**

ATTN: Marc Summervill

Test Start: 2022.07.18 @ 13:30:00

## Tool Information

|                           |                    |                       |                            |                                    |
|---------------------------|--------------------|-----------------------|----------------------------|------------------------------------|
| Drill Pipe:               | Length: 4882.00 ft | Diameter: 3.80 inches | Volume: 68.48 bbl          | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: ft         | Diameter: inches      | Volume: - bbl              | Weight set on Packer: 25000.00 lb  |
| Drill Collar:             | Length: 180.00 ft  | Diameter: 2.25 inches | Volume: 0.89 bbl           | Weight to Pull Loose: 92000.00 lb  |
|                           |                    |                       | <u>Total Volume: - bbl</u> | Tool Chased ft                     |
| Drill Pipe Above KB:      | 654.00 ft          |                       |                            | String Weight: Initial 82000.00 lb |
| Depth to Top Packer:      | 4440.00 ft         |                       |                            | Final 82000.00 lb                  |
| Depth to Bottom Packer:   | 5095.00 ft         |                       |                            |                                    |
| Interval between Packers: | 655.00 ft          |                       |                            |                                    |
| Tool Length:              | 687.00 ft          |                       |                            |                                    |
| Number of Packers:        | 3                  | Diameter: 6.75 inches |                            |                                    |

Tool Comments:

## Tool Description

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

|                 |        |      |         |         |                                |
|-----------------|--------|------|---------|---------|--------------------------------|
| Shut In Tool    | 5.00   |      |         | 4413.00 |                                |
| Hydraulic tool  | 5.00   |      |         | 4418.00 |                                |
| Jars            | 5.00   |      |         | 4423.00 |                                |
| EM Tool         | 4.00   |      |         | 4427.00 |                                |
| Safety Joint    | 3.00   |      |         | 4430.00 |                                |
| Packer          | 5.00   |      |         | 4435.00 | 32.00 Bottom Of Top Packer     |
| Packer          | 5.00   |      |         | 4440.00 |                                |
| Stubb           | 1.00   |      |         | 4441.00 |                                |
| Perforations    | 6.00   |      |         | 4447.00 |                                |
| Change Over Sub | 1.00   |      |         | 4448.00 |                                |
| Recorder        | 0.00   | 8320 | Inside  | 4448.00 |                                |
| Recorder        | 0.00   | 8368 | Outside | 4448.00 |                                |
| Drill Pipe      | 31.00  |      |         | 4479.00 |                                |
| Change Over Sub | 1.00   |      |         | 4480.00 |                                |
| Change Over Sub | 1.00   |      |         | 4481.00 |                                |
| Perforations    | 5.00   |      |         | 4486.00 |                                |
| Blank Spacing   | 1.00   |      |         | 4487.00 |                                |
| Packer - Shale  | 4.00   |      |         | 4491.00 |                                |
| Stubb           | 1.00   |      |         | 4492.00 |                                |
| Perforations    | 4.00   |      |         | 4496.00 |                                |
| Change Over Sub | 1.00   |      |         | 4497.00 |                                |
| Recorder        | 0.00   | 8957 | Below   | 4497.00 |                                |
| Drill Pipe      | 594.00 |      |         | 5091.00 |                                |
| Change Over Sub | 1.00   |      |         | 5092.00 |                                |
| Bullnose        | 3.00   |      |         | 5095.00 | 655.00 Bottom Packers & Anchor |

**Total Tool Length: 687.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company Inc

**31-2S-39W Cheyenne,KS**

250 N. Water Ste 300  
Wichita, KS 67202

**Keller 'A' #1-31**

Job Ticket: 69751

**DST#: 3**

ATTN: Marc Summervill

Test Start: 2022.07.18 @ 13:30:00

### 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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

#### Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 630.00       | MW          | 7.198         |

Total Length: 630.00 ft

Total Volume: 7.198 bbl

Num Fluid Samples: 0

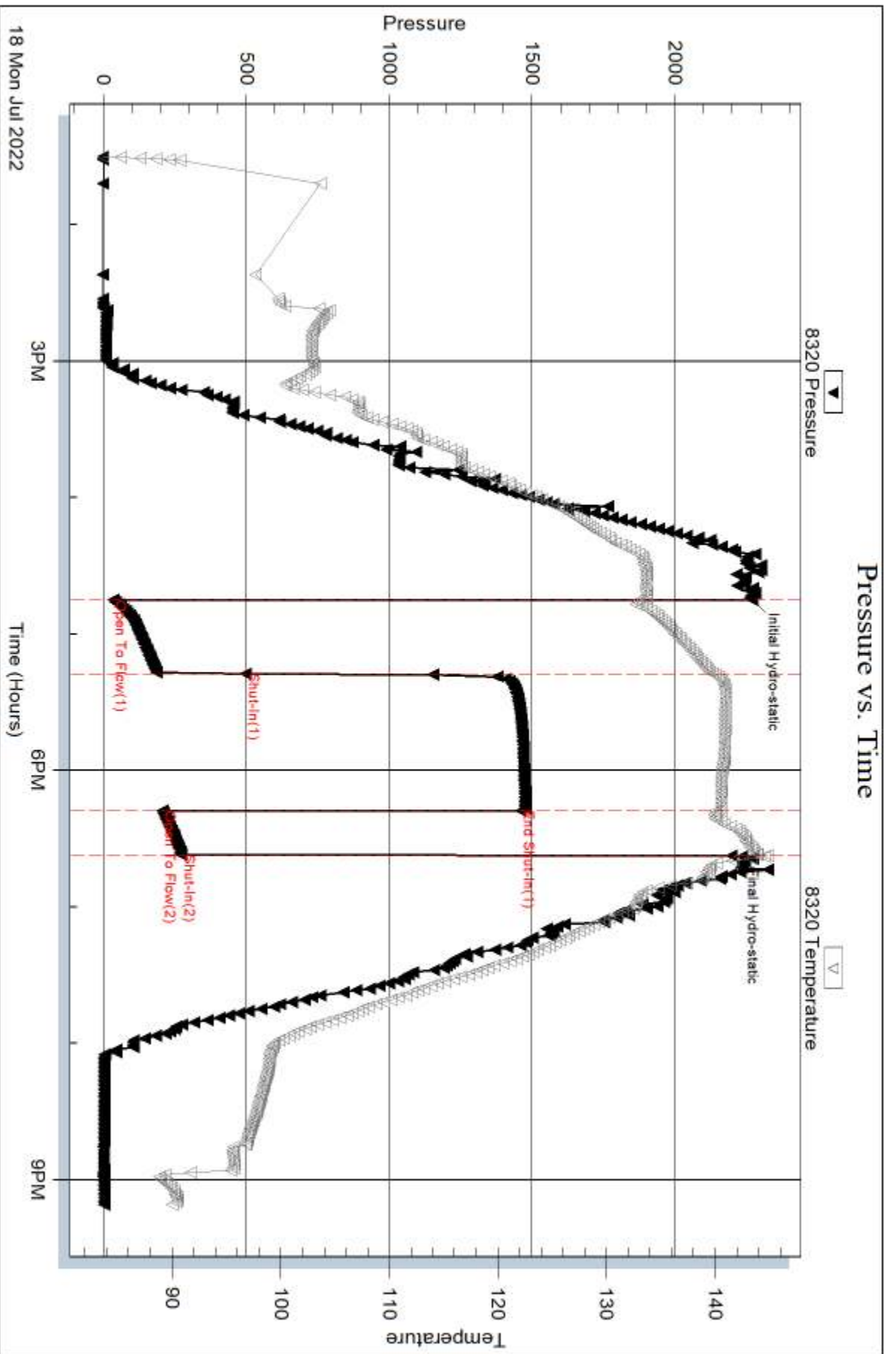
Num Gas Bombs: 0

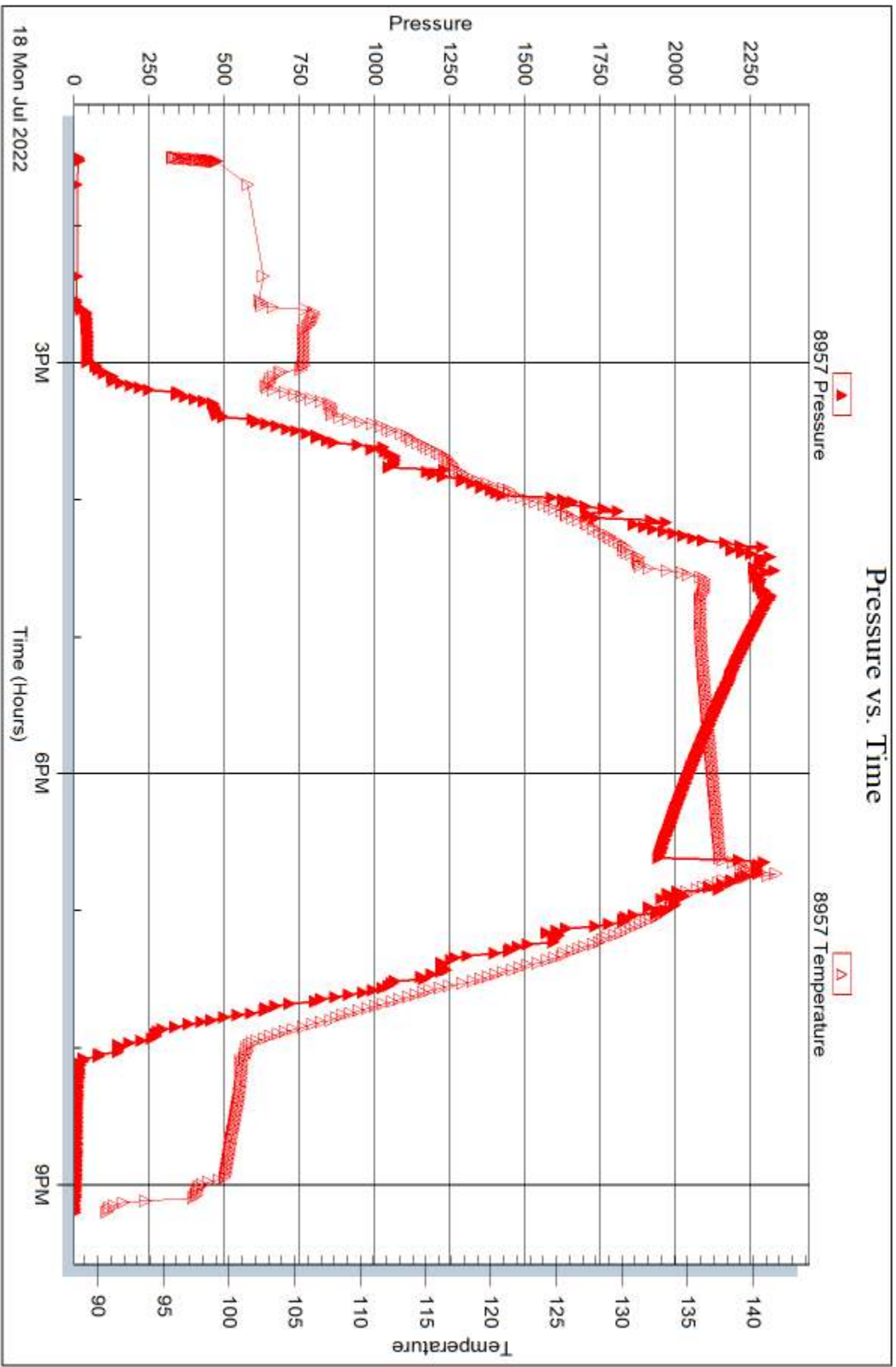
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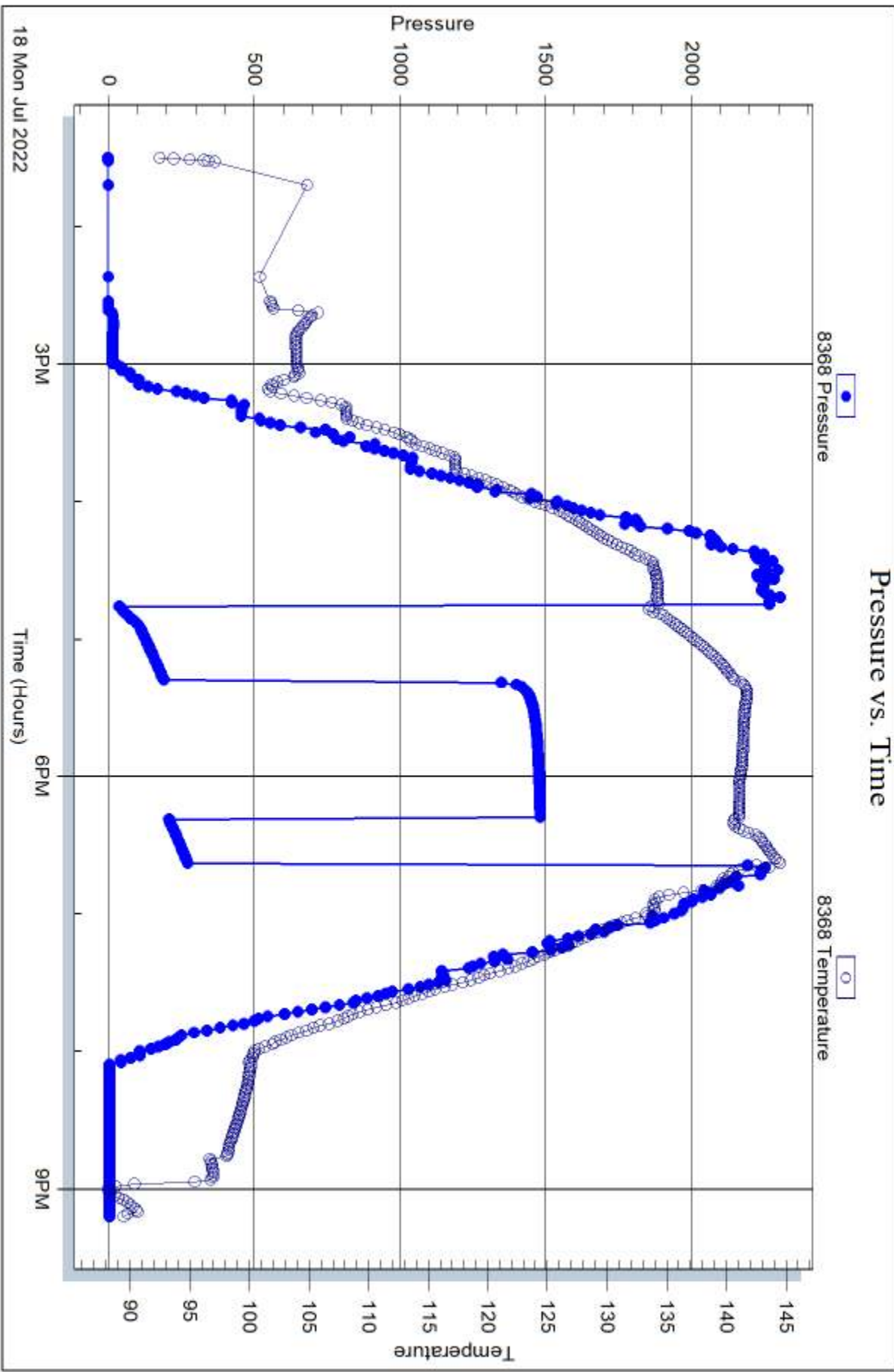
Laboratory Name:

Laboratory Location:

Recovery Comments:









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 67269

Well Name & No. Keller "A" #1-31 Test No. 1 Date 07/13/22  
 Company Martin Drilling Company Inc Elevation 3324 KB 3319 GL  
 Address 250 N. Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Marc Summerill Rig Martin #110  
 Location: Sec. 31 Twp 2S Rge. 39W Co. Cheyenne State KS

Interval Tested 4176-4304 Zone Tested LKC A-D  
 Anchor Length 128' Drill Pipe Run 3984 Mud Wt. 9.1  
 Top Packer Depth 4171 Drill Collars Run 180 Vis 49  
 Bottom Packer Depth 4176 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4304 Chlorides 600 ppm System LCM 2#

Blow Description IF - Weak surface blow, built to 1/4 inch in 10 min, Final blow 1/4 inch  
ISF - No blow back  
FF - NO blow  
Est - No blow back

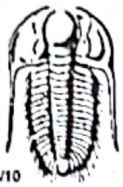
| Rec        | Feet of                   | %gas       | %oil       | %water       | %mud       |
|------------|---------------------------|------------|------------|--------------|------------|
| <u>120</u> | <u>Mud (Trace of oil)</u> |            |            | <u>100</u>   |            |
| Rec _____  | Feet of _____             | %gas _____ | %oil _____ | %water _____ | %mud _____ |
| Rec _____  | Feet of _____             | %gas _____ | %oil _____ | %water _____ | %mud _____ |
| Rec _____  | Feet of _____             | %gas _____ | %oil _____ | %water _____ | %mud _____ |
| Rec _____  | Feet of _____             | %gas _____ | %oil _____ | %water _____ | %mud _____ |

Rec Total 120 BHT 134 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2047  Test 1950 T-On Location 06:45  
 (B) First Initial Flow 71  Jars 300 T-Started 07:30  
 (C) First Final Flow 73  Safety Joint \_\_\_\_\_ T-Open 09:36  
 (D) Initial Shut-In 896  Circ Sub \_\_\_\_\_ T-Pulled 13:05  
 (E) Second Initial Flow 75  Hourly Standby \_\_\_\_\_ T-Out 14:32  
 (F) Second Final Flow 76  Mileage 140RT 210 Comments \_\_\_\_\_  
 (G) Final Shut-In 1026  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2016  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 90  
 Sub Total 2460 MP/DST Disc't \_\_\_\_\_  
 Total 2460

Approved By \_\_\_\_\_ Our Representative [Signature]

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 67270

Well Name & No. Keller "A" #1-31 Test No. 2 Date 07/14/22  
 Company Murfin Drilling Company Inc Elevation 3324 KB 3319 GL  
 Address 250 N. Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Marc Summerville Rig Murfin #110  
 Location: Sec. 31 Twp 25 Rge. 39W Co. Cheyenne State KS

Interval Tested 4296-4448 Zone Tested LKC D-J  
 Anchor Length 152' Drill Pipe Run 4104 Mud Wt. 9.1  
 Top Packer Depth 4291 Drill Collars Run 180 Vls 51  
 Bottom Packer Depth 4296 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 4448 Chlorides 600 ppm System LCM 1#

Blow Description IF-Fair Surface blow, built to 1 inch in 10 min, Final blow died to 3/4 inch

ISI-No blow back

FF-No blow

FSE-No blow back

| Rec       | Feet of | Mud (Spots of oil) | %gas | %oil | %water     | %mud |
|-----------|---------|--------------------|------|------|------------|------|
| <u>10</u> |         |                    |      |      | <u>100</u> |      |
| Rec       | Feet of |                    | %gas | %oil | %water     | %mud |
| Rec       | Feet of |                    | %gas | %oil | %water     | %mud |
| Rec       | Feet of |                    | %gas | %oil | %water     | %mud |
| Rec       | Feet of |                    | %gas | %oil | %water     | %mud |

Rec Total 10 BHT 135 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

- (A) Initial Hydrostatic 2139
- (B) First Initial Flow 21
- (C) First Final Flow 28
- (D) Initial Shut-In 1214
- (E) Second Initial Flow 32
- (F) Second Final Flow 39
- (G) Final Shut-In 1110
- (H) Final Hydrostatic 2077

- Test 1950
- Jars 300
- Safety Joint \_\_\_\_\_
- Circ Sub \_\_\_\_\_
- Hourly Standby \_\_\_\_\_
- Mileage 140 RT 210
- Sampler \_\_\_\_\_ 210
- Straddle \_\_\_\_\_
- Shale Packer \_\_\_\_\_
- Extra Packer \_\_\_\_\_
- Extra Recorder \_\_\_\_\_
- Day Standby 1d 16h
- Accessibility \_\_\_\_\_
- Sub Total 2670

- T-On Location 12:40
- T-Started ~~12:40~~ 14:50
- T-Open 17:01
- T-Pulled 19:55
- T-Out 21:53

Comments Picked up tools @ 12:00pm on 7/16/22

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

- EM Tool -350
- Ruined Shale Packer \_\_\_\_\_
- Ruined Packer \_\_\_\_\_
- Extra Copies \_\_\_\_\_
- Sub Total 533.33 - 350
- Total 2853.33

Approved By \_\_\_\_\_

Our Representative [Signature]

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **69751**

Well Name & No. Keller A # 1-31 Test No. 3 Date 7/18/22  
 Company Murfin Elevation 3324 KB 3319 GL  
 Address 250 N Water St 300 Wichita KS 67202  
 Co. Rep / Geo. Marc Summerhill Rig Murfin #110  
 Location: Sec. 31 Twp 25 Rge. 39W Co. Cheyenne State KS

Interval Tested 4440 - 4490 Zone Tested ~~4882~~ Lansing K  
 Anchor Length 50' 604' Tail Drill Pipe Run 4882 Mud Wt. \_\_\_\_\_  
 Top Packer Depth 4435 Drill Collars Run 180 Vls \_\_\_\_\_  
 Bottom Packer Depth 4440 Wt. Pipe Run \_\_\_\_\_ WL \_\_\_\_\_  
 Total Depth 5094 Chlorides \_\_\_\_\_ ppm System LCM \_\_\_\_\_  
 Blow Description IF-45 - No Blow  
ISF-60 - No Return  
FST-15 - No Blow

Cracked fitting on Bucket was Reason for blow

| Rec        | Feet of            | %gas | %oil | %water | %mud |
|------------|--------------------|------|------|--------|------|
| <u>630</u> | <u>Muddy Water</u> |      |      |        |      |
| Rec        | Feet of            | %gas | %oil | %water | %mud |
| Rec        | Feet of            | %gas | %oil | %water | %mud |
| Rec        | Feet of            | %gas | %oil | %water | %mud |
| Rec        | Feet of            | %gas | %oil | %water | %mud |

Rec Total 630 BHT 144 Gravity \_\_\_\_\_ API RW 1 @ 70° F Chlorides 7000 ppm  
 (A) Initial Hydrostatic 2271  Test 2150 T-On Location 11:00  
 (B) First Initial Flow 34  Jars 300 T-Started 13:30  
 (C) First Final Flow 498  Safety Joint T-Open 16:38  
 (D) Initial Shut-In 1461  Circ Sub T-Pulled 18:08  
 (E) Second Initial Flow 207  Hourly Standby T-Out 21:10  
 (F) Second Final Flow 274  Mileage 124 x 2 210 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2198  Straddle 600  EM Tool -350  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder 200  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total -350  
 Accessibility \_\_\_\_\_ Total 3360  
 Sub Total 3710 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Terrance Wickham

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