

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. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Ritchie Exploration, Inc.
Well Name	PITTMAN 12A 2
Doc ID	1749544

All Electric Logs Run

Compensated Density
Dual Induction
Micro Resistivity
Sonic

Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: Ritchie Exploration

LEASE: #2 Pittman 12A

FIELD: Logan Township

LOCATION: 657 FNL, 849 FEL

SEC: 12 TWP: 9 RGE: 20W

COUNTY: Rooks STATE: KS

CONTRACTOR: Duke Rig #2

SPUD: 10-14-2023 COMP: 10-25-23

RTD: 3672 LTD: 3674

MUD UP: 2851 TYPE: MUD Chem

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION

ANHYDRITE

BASE ANHYDRITE

STOTLER

TOPEKA

HEEBNER

TORONTO

LANISING

MUNCIE

STARK

HUSHPOCKNER

BKC

ARBUCKLE

TRILLOBITE

ELI: COLE

MUD-CD: GARY SCHMIDTBERGER

TRILLOBITE: STARR: SPENCER

ELEVATIONS

KB 2121

DF 2113

Measurements are All From KB

QASING

Surface @ 221'

Product @ 372'

Electrical Surveys Done (W/D, Seismic)

Micro Comp (W/D)

STRUCTURAL POSITION

A B C

50 547 514 518

518 1603 519 518

1570 1606 518 518

1573 1603 518 518

2929 2920 518 518

3094 3094 518 518

3287 3287 518 518

3292 3292 518 518

3338 3338 518 518

3459 3459 518 518

3559 3559 518 518

3576 3576 518 518

1455 1455 518 518

1468 1468 518 518

1478 1478 518 518

1487 1487 518 518

1494 1494 518 518

1501 1501 518 518

1508 1508 518 518

REMARKS

REFERENCE WELLS FOR STRUCTURE

A Ritchie #1 Pittman-12A 1575 FNL 435 FEL 12-9-20W

B Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

C Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

D Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

E Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

F Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

G Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

H Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

I Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

J Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

K Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

L Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

M Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

N Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

O Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

P Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

Q Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

R Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

S Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

T Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

U Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

V Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

W Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

X Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

Y Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

Z Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AA Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AB Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AC Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AD Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AE Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AF Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AG Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AH Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AI Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AJ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AK Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AL Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AM Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AN Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AO Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AP Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AQ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

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AT Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

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AV Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AW Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AX Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AY Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

AZ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BA Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BB Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BC Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BD Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BE Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BF Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BG Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BH Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BI Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BJ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BK Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BL Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BM Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BN Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BO Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BP Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BQ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BR Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BS Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BT Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BU Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BV Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BW Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BX Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BY Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

BZ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CA Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CB Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CC Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CD Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CE Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CF Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CG Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CH Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CI Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CJ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CK Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CL Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CM Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CN Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CO Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CP Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CQ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CR Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CS Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CT Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CU Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CV Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CW Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CX Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CY Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

CZ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DA Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DB Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DC Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DD Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DE Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DF Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DG Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DH Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DI Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DJ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DK Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DL Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DM Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DN Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DO Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DP Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DQ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DR Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DS Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DT Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DU Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DV Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DW Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DX Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DY Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

DZ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EA Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EB Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EC Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

ED Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EE Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EF Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EG Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EH Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EI Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EJ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EK Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EL Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EM Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EN Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EO Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EP Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

EQ Ritchie #1 Pittman-12A 1606 FNL 435 FEL 12-9-20W

ER Ritch



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.20 @ 02:36:00

End Date: 2023.10.20 @ 09:53:07

Job Ticket #: 71160 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:08:45



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

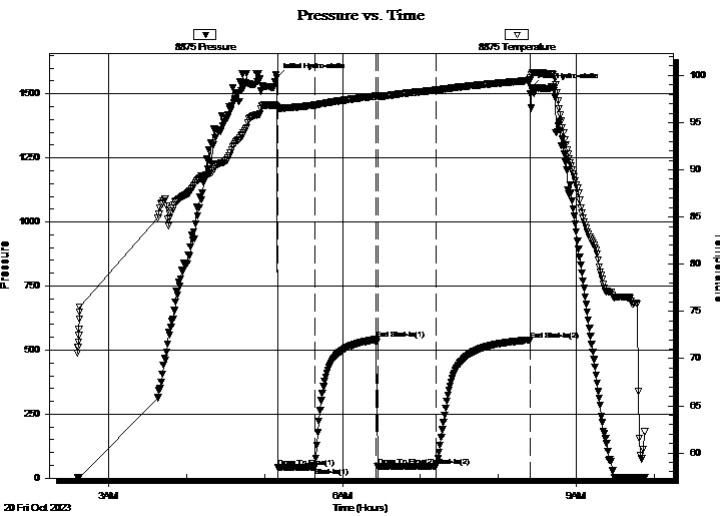
12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71160 **DST#: 1**
 Test Start: 2023.10.20 @ 02:36:00

GENERAL INFORMATION:

Formation: **Lower Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:10:02
 Time Test Ended: 09:53:07
 Interval: **3228.00 ft (KB) To 3265.00 ft (KB) (TVD)**
 Total Depth: 3265.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 47.74 psig @ 3233.00 ft (KB) Capacity: psig
 Start Date: 2023.10.20 End Date: 2023.10.20 Last Calib.: 2023.10.20
 Start Time: 02:36:01 End Time: 09:53:07 Time On Btm: 2023.10.20 @ 05:09:32
 Time Off Btm: 2023.10.20 @ 08:25:27

TEST COMMENT: 30-IF-Surface to 1.5"
 45-ISI-No Return
 45-FF-Surface to 1"
 60-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1564.64	96.64	Initial Hydro-static
1	42.99	96.44	Open To Flow (1)
30	43.65	96.86	Shut-In(1)
77	541.35	97.81	End Shut-In(1)
78	45.91	97.75	Open To Flow (2)
123	47.74	98.44	Shut-In(2)
195	539.80	99.50	End Shut-In(2)
196	1523.68	100.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM 10%W 90%M	0.85

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71160 **DST#: 1**
Test Start: 2023.10.20 @ 02:36:00

Tool Information

Drill Pipe:	Length: 3230.00 ft	Diameter: 3.82 inches	Volume: 45.79 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 daN
			<u>Total Volume:</u> - bbl	Tool Chased	ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial	42000.00 daN
Depth to Top Packer:	3228.00 ft			Final	42000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	69.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3197.00	
Shut In Tool	5.00			3202.00	
Hydraulic tool	5.00			3207.00	
Jars	5.00			3212.00	
Gap Sub	4.00			3216.00	
Safety Joint	3.00			3219.00	
Packer	5.00			3224.00	32.00 Bottom Of Top Packer
Packer	4.00			3228.00	
Stubb	1.00			3229.00	
Perforations	3.00			3232.00	
Change Over Sub	1.00			3233.00	
Recorder	0.00	6838	Inside	3233.00	
Recorder	0.00	8875	Inside	3233.00	
Drill Pipe	32.00			3265.00	37.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71160 **DST#: 1**
Test Start: 2023.10.20 @ 02:36:00

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:	81000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.38 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1900.00 ppm			
Filter Cake: inches			

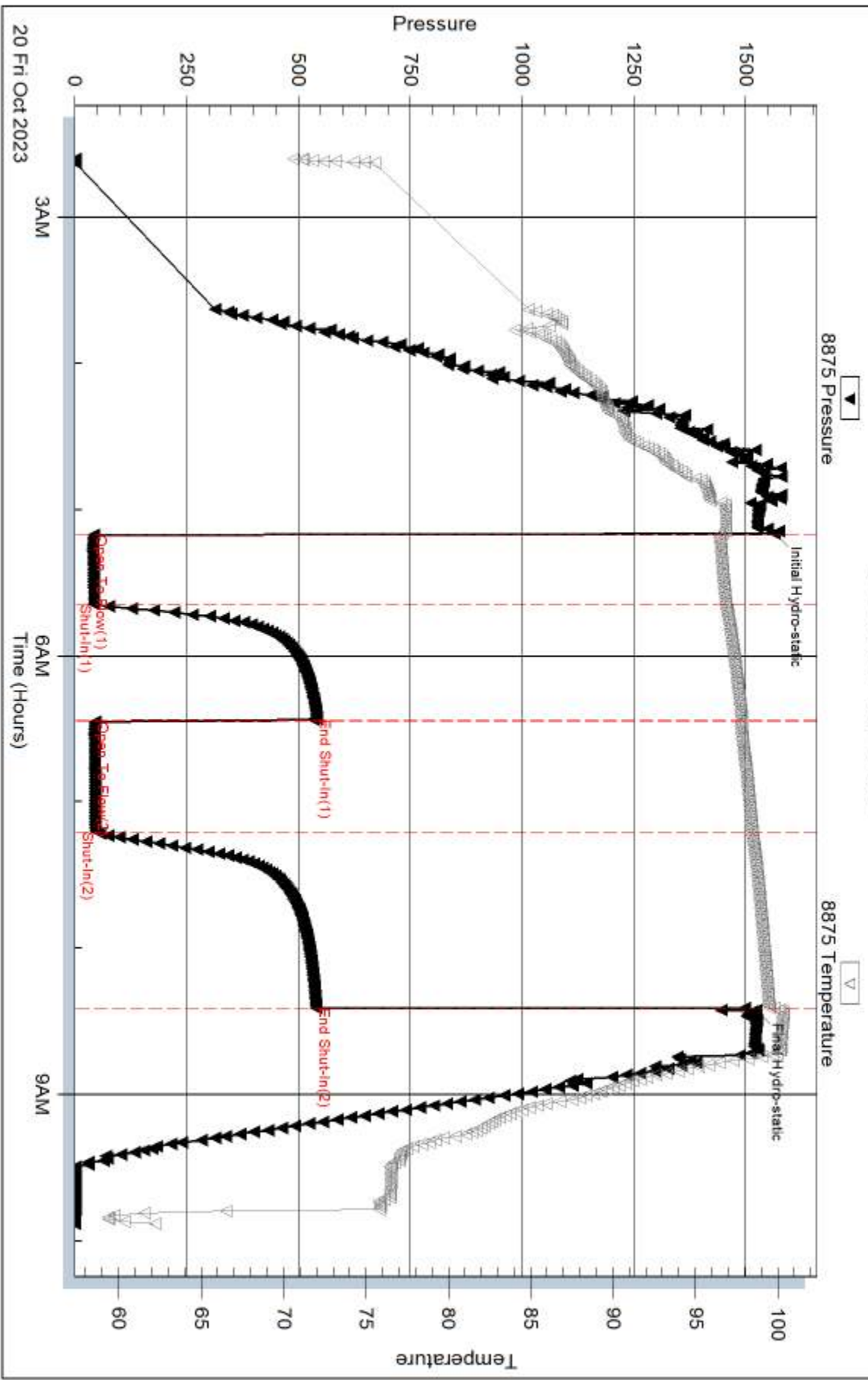
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WCM 10%W 90%M	0.851

Total Length: 60.00 ft Total Volume: 0.851 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM
RW=.138@50F

Pressure vs. Time



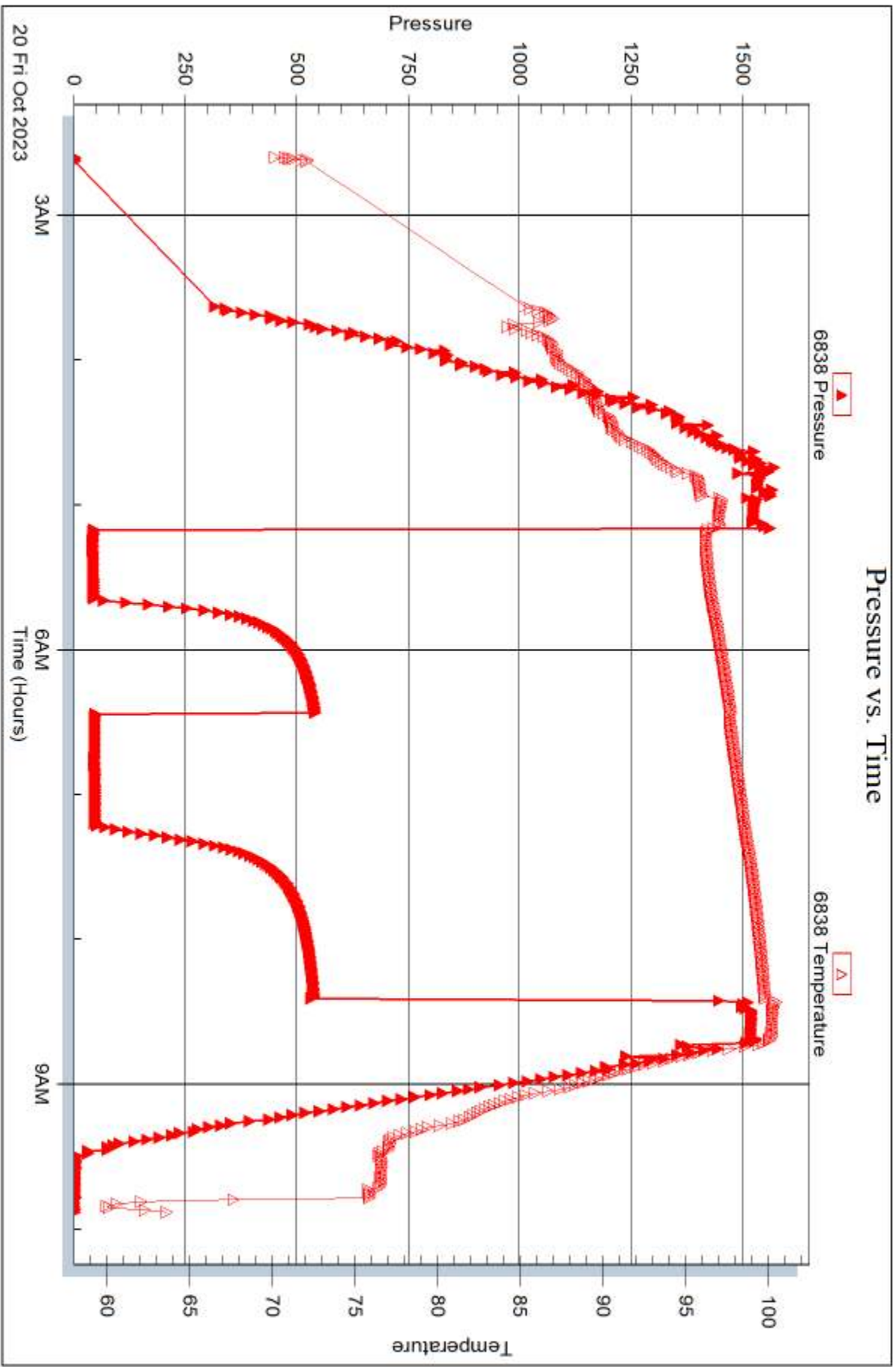
Serial #: 6838

Inside

Ritchie Exploration Inc

Pitman 12A #2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 71160

Printed: 2023.10.26 @ 12:08:46



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.21 @ 01:03:00

End Date: 2023.10.21 @ 08:13:27

Job Ticket #: 71161 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:08:19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71161 **DST#: 2**
 Test Start: 2023.10.21 @ 01:03:00

GENERAL INFORMATION:

Formation: **LKC A-C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:02:47
 Time Test Ended: 08:13:27
 Interval: **3329.00 ft (KB) To 3389.00 ft (KB) (TVD)**
 Total Depth: 3389.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

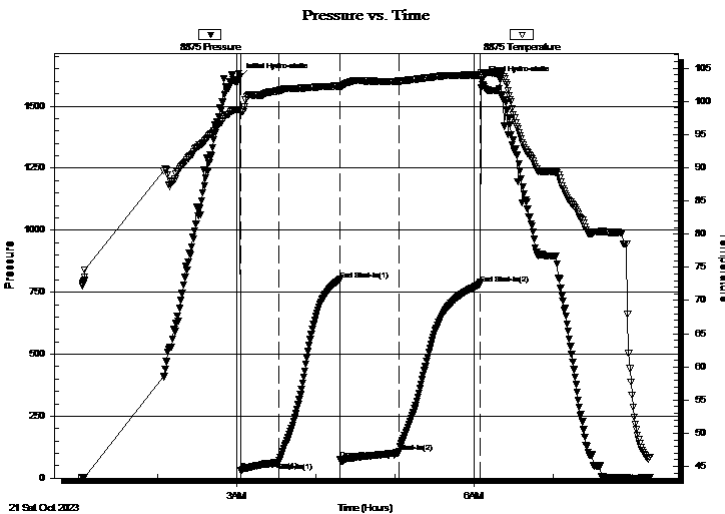
Serial #: 8875

Inside

Press@RunDepth: 103.43 psig @ 3334.00 ft (KB) Capacity: psig
 Start Date: 2023.10.21 End Date: 2023.10.21 Last Calib.: 2023.10.21
 Start Time: 01:03:01 End Time: 08:13:26 Time On Btm: 2023.10.21 @ 03:02:22
 Time Off Btm: 2023.10.21 @ 06:05:57

TEST COMMENT: 30-IF-BOB 14.5 mins Built to 23"
 45-ISI-Surface to 1" Died back to 0.75"
 45-FF-BOB 5 mins Built to 43"
 60-FSI-Surface to 0.5" Died @ 45 mins

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1617.34	98.78	Initial Hydro-static
1	31.60	98.49	Open To Flow (1)
30	63.88	101.56	Shut-In(1)
76	800.69	102.28	End Shut-In(1)
77	77.40	102.18	Open To Flow (2)
121	103.43	103.04	Shut-In(2)
182	781.37	103.99	End Shut-In(2)
184	1604.84	104.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	GMCO 20%G 15%M 65%O	1.42
100.00	GMO 10%G 40%M 50%O	1.42
20.00	GO 10%G 90%O	0.28
0.00	300 GIP 100%G	0.00
0.00	Corrected Gravity=34	0.00

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71161 **DST#: 2**
Test Start: 2023.10.21 @ 01:03:00

Tool Information

Drill Pipe:	Length: 3325.00 ft	Diameter: 3.82 inches	Volume: 47.13 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 daN
			<u>Total Volume:</u> - bbl	Tool Chased	ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	43000.00 daN
Depth to Top Packer:	3329.00 ft			Final	45000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	92.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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

Change Over Sub	1.00			3298.00	
Shut In Tool	5.00			3303.00	
Hydraulic tool	5.00			3308.00	
Jars	5.00			3313.00	
Gap Sub	4.00			3317.00	
Safety Joint	3.00			3320.00	
Packer	5.00			3325.00	32.00 Bottom Of Top Packer
Packer	4.00			3329.00	
Stubb	1.00			3330.00	
Perforations	3.00			3333.00	
Change Over Sub	1.00			3334.00	
Recorder	0.00	6838	Inside	3334.00	
Recorder	0.00	8875	Inside	3334.00	
Drill Pipe	32.00			3366.00	
Change Over Sub	1.00			3367.00	
Perforations	19.00			3386.00	
Bullnose	3.00			3389.00	60.00 Bottom Packers & Anchor
Total Tool Length:	92.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

12-9s-20w Rooks,KS

PO Box 783185
Wichita KS 67278+3188

Pittman 12A #2

Job Ticket: 71161

DST#: 2

ATTN: Max Lovely

Test Start: 2023.10.21 @ 01:03:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	GMCO 20%G 15%M 65%O	1.418
100.00	GMO 10%G 40%M 50%O	1.418
20.00	GO 10%G 90%O	0.284
0.00	300 GIP 100%G	0.000
0.00	Corrected Gravity=34	0.000

Total Length: 220.00 ft

Total Volume: 3.120 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

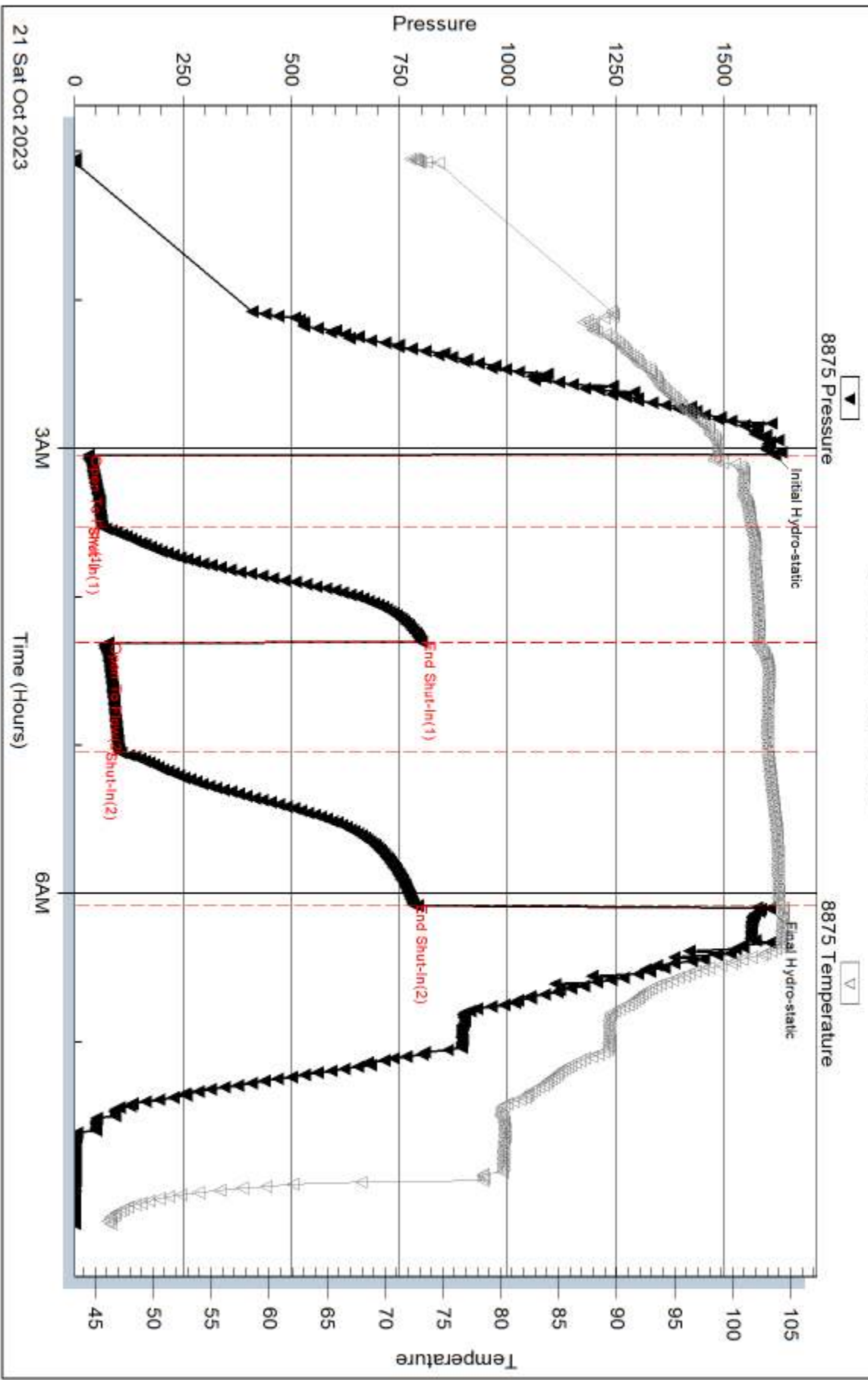
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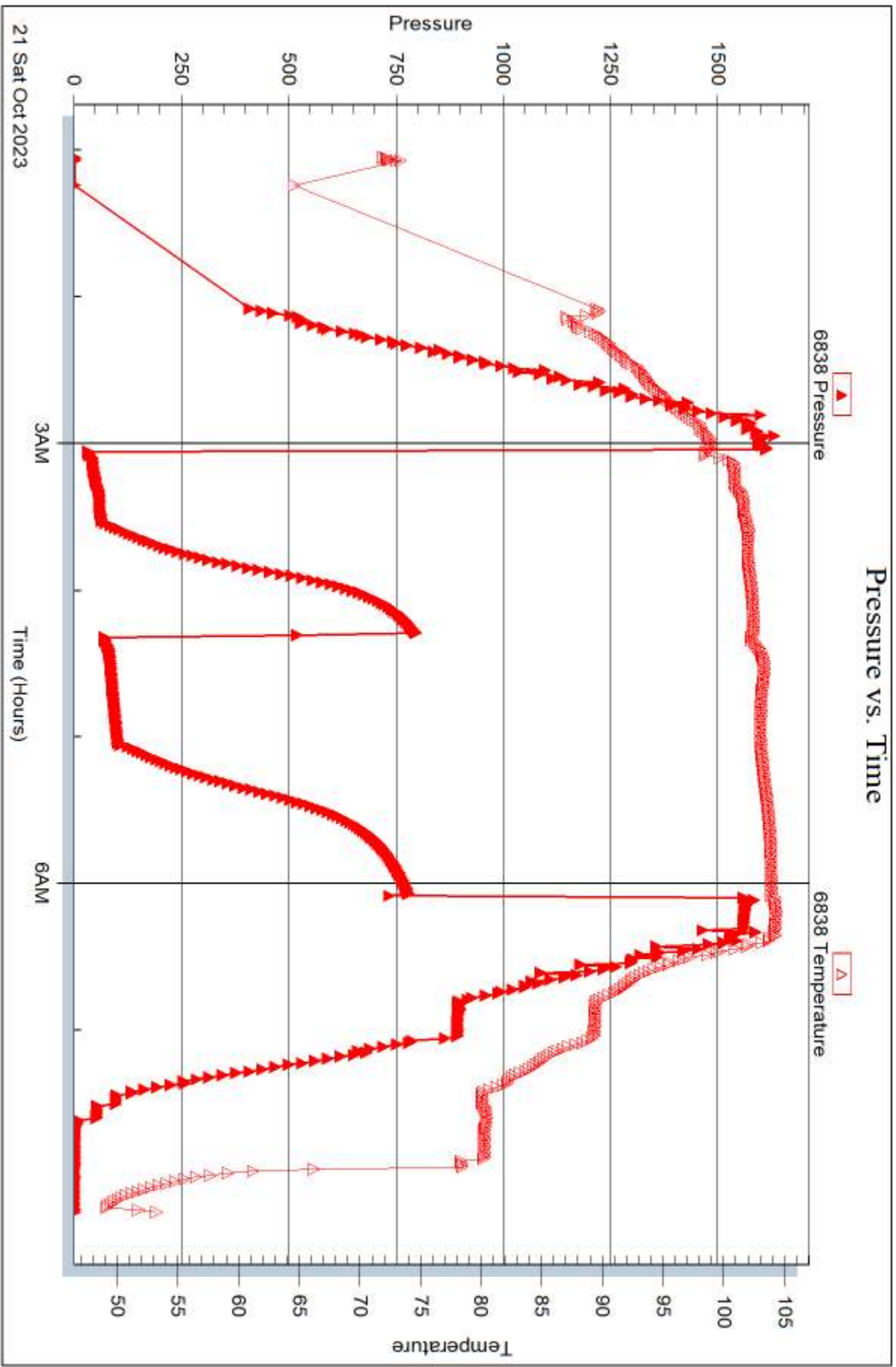
Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.21 @ 14:08:00

End Date: 2023.10.21 @ 19:24:32

Job Ticket #: 71162 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:07:53



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71162 **DST#: 3**
 Test Start: 2023.10.21 @ 14:08:00

GENERAL INFORMATION:

Formation: **LKC D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:57:17
 Time Test Ended: 19:24:32
 Interval: **3386.00 ft (KB) To 3404.00 ft (KB) (TVD)**
 Total Depth: 3404.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

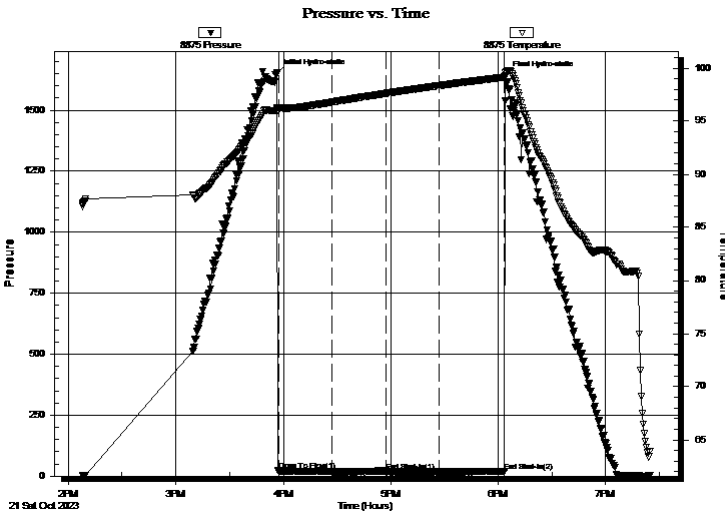
Serial #: 8875

Outside

Press@RunDepth: 18.28 psig @ 3387.00 ft (KB) Capacity: psig
 Start Date: 2023.10.21 End Date: 2023.10.21 Last Calib.: 2023.10.21
 Start Time: 14:08:01 End Time: 19:24:32 Time On Btm: 2023.10.21 @ 15:56:37
 Time Off Btm: 2023.10.21 @ 18:04:07

TEST COMMENT: 30-IF-Surface Blow Died @ 5 mins
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1651.96	96.23	Initial Hydro-static
1	22.98	96.17	Open To Flow (1)
31	18.65	96.80	Shut-In(1)
61	20.75	97.61	End Shut-In(1)
61	20.08	97.61	Open To Flow (2)
91	18.28	98.35	Shut-In(2)
127	20.63	99.16	End Shut-In(2)
128	1640.59	99.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	MCO 10%M 90%O	0.01

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

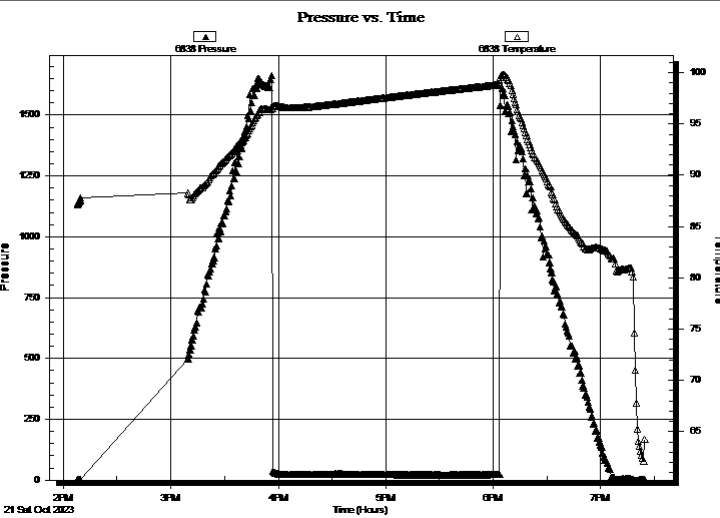
12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71162 **DST#: 3**
 Test Start: 2023.10.21 @ 14:08:00

GENERAL INFORMATION:

Formation: **LKC D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:57:17
 Time Test Ended: 19:24:32
 Interval: **3386.00 ft (KB) To 3404.00 ft (KB) (TVD)**
 Total Depth: 3404.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6838 **Inside**
 Press@RunDepth: psig @ 3387.00 ft (KB) Capacity: psig
 Start Date: 2023.10.21 End Date: 2023.10.21 Last Calib.: 2023.10.21
 Start Time: 14:08:01 End Time: 19:24:32 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface Blow Died @ 5 mins
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
1.00	MCO 10%M 90%O	0.01

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

12-9s-20w Rooks,KS

PO Box 783185
Wichita KS 67278+3188

Pittman 12A #2

Job Ticket: 71162

DST#: 3

ATTN: Max Lovely

Test Start: 2023.10.21 @ 14:08:00

Tool Information

Drill Pipe:	Length: 3386.00 ft	Diameter: 3.82 inches	Volume: 48.00 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	48000.00 daN
Drill Pipe Above KB:	32.00 ft			Final	48000.00 daN
Depth to Top Packer:	3386.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	50.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3355.00	
Shut In Tool	5.00			3360.00	
Hydraulic tool	5.00			3365.00	
Jars	5.00			3370.00	
Gap Sub	4.00			3374.00	
Safety Joint	3.00			3377.00	
Packer	5.00			3382.00	32.00 Bottom Of Top Packer
Packer	4.00			3386.00	
Stubb	1.00			3387.00	
Recorder	0.00	6838	Inside	3387.00	
Recorder	0.00	8875	Outside	3387.00	
Perforations	14.00			3401.00	
Bullnose	3.00			3404.00	18.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71162 **DST#: 3**
Test Start: 2023.10.21 @ 14:08:00

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.38 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

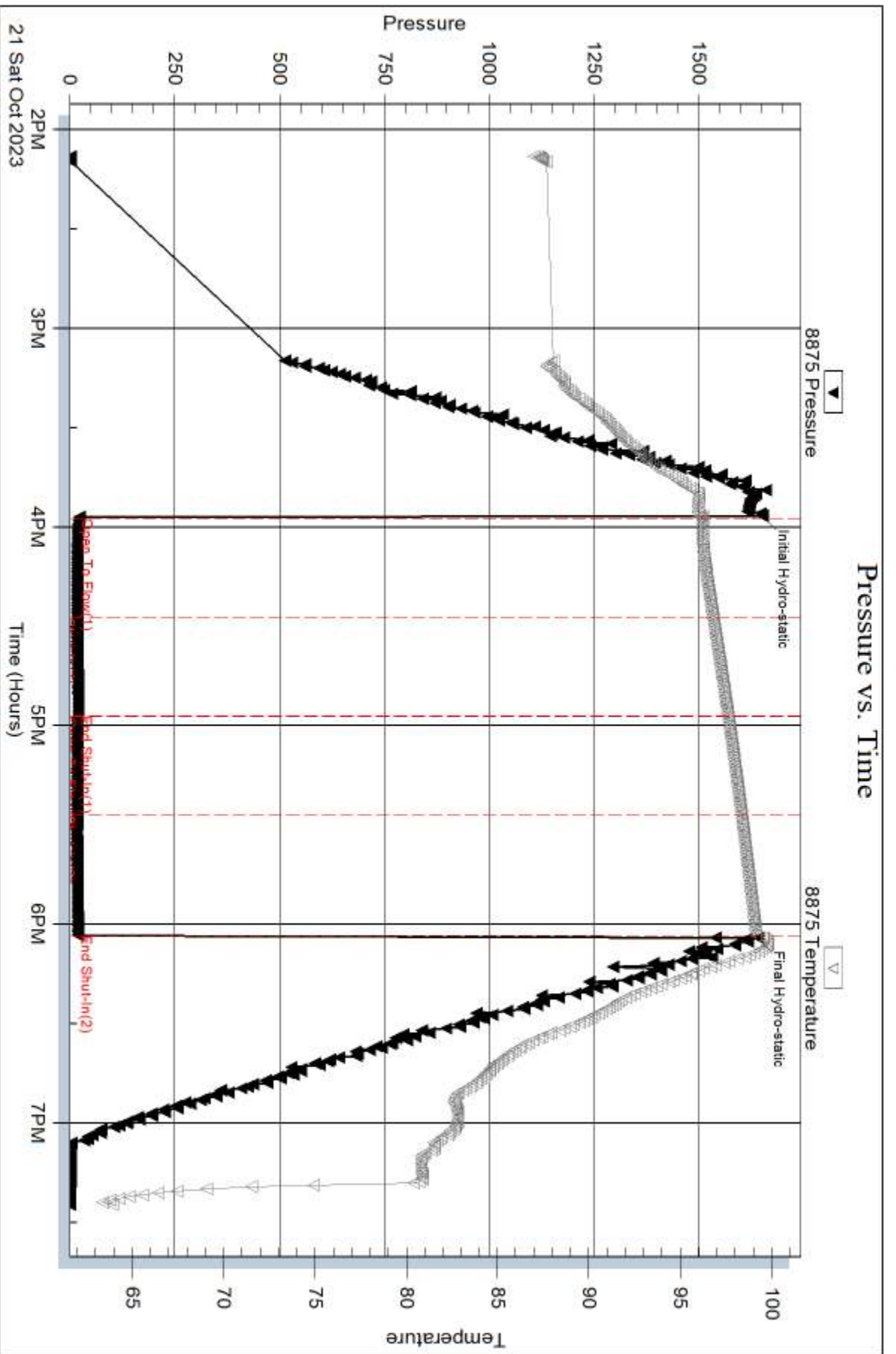
Length ft	Description	Volume bbl
1.00	MCO 10%M 90%O	0.014

Total Length: 1.00 ft Total Volume: 0.014 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 2#LCM



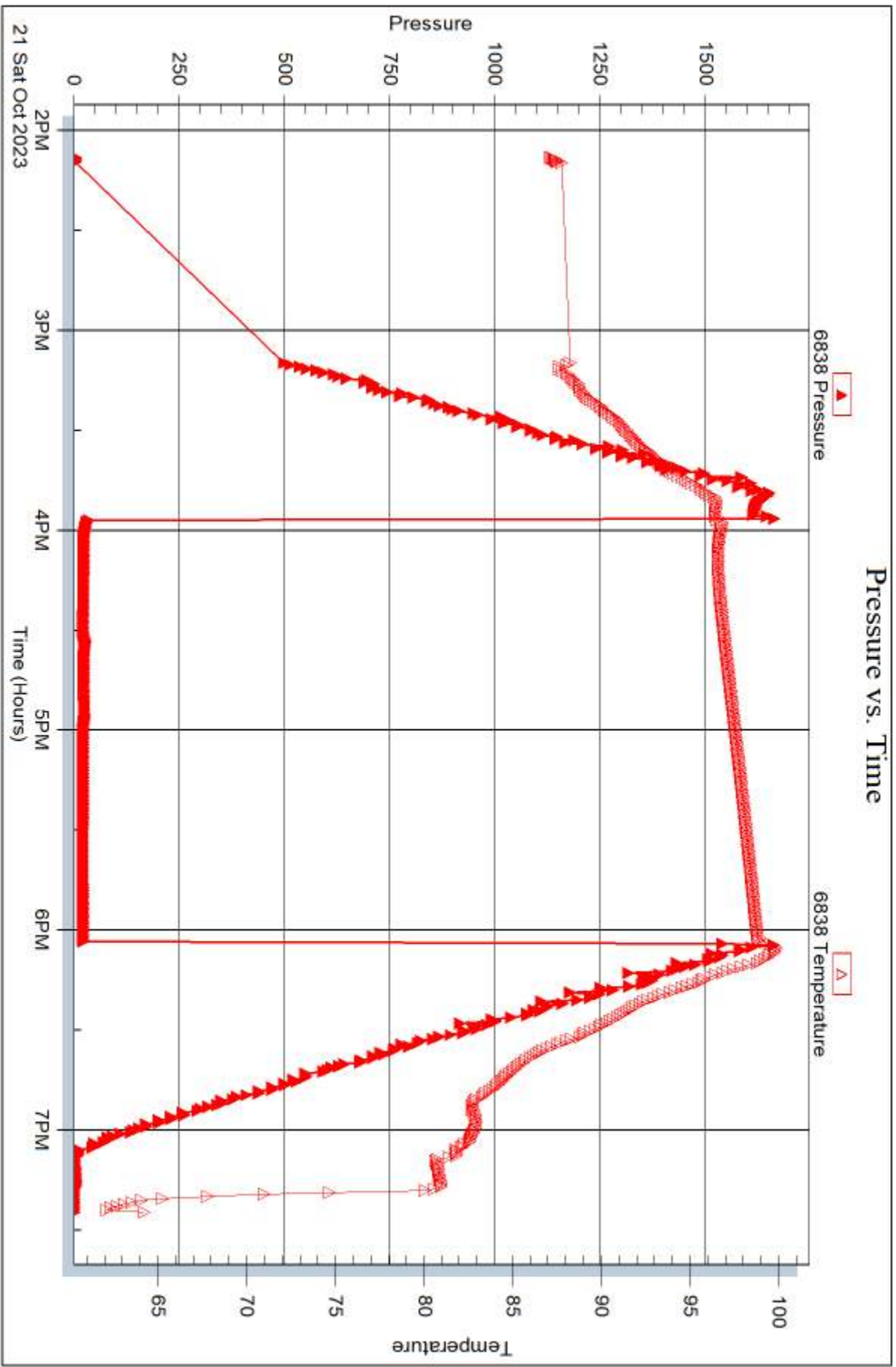
Serial #: 6838

Inside

Ritchie Exploration Inc

Pitman 12A #2

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 71162

Printed: 2023.10.26 @ 12:07:54



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.22 @ 04:02:00

End Date: 2023.10.22 @ 11:02:27

Job Ticket #: 71163 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:07:15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71163 **DST#: 4**
Test Start: 2023.10.22 @ 04:02:00

GENERAL INFORMATION:

Formation: **LKC E-G**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:07:32
Time Test Ended: 11:02:27
Interval: **3403.00 ft (KB) To 3436.00 ft (KB) (TVD)**
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2121.00 ft (KB)
2113.00 ft (CF)
KB to GR/CF: 8.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84

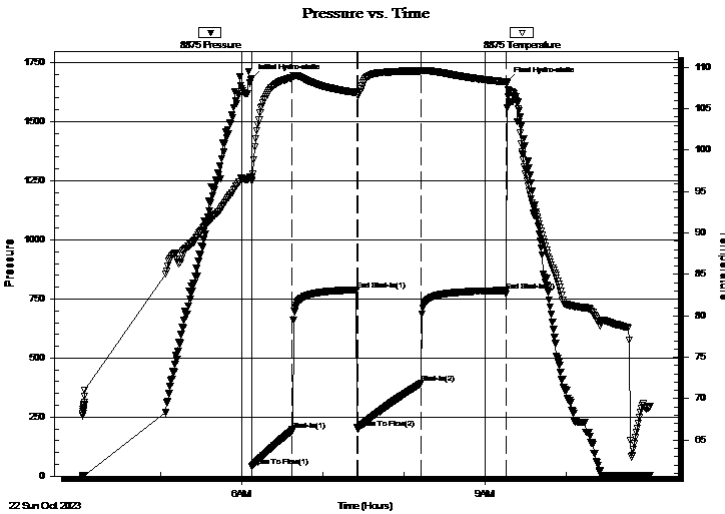
Serial #: 8875

Outside

Press@RunDepth: 392.74 psig @ 3404.00 ft (KB) Capacity: psig
Start Date: 2023.10.22 End Date: 2023.10.22 Last Calib.: 2023.10.22
Start Time: 04:02:01 End Time: 11:02:26 Time On Btm: 2023.10.22 @ 06:07:17
Time Off Btm: 2023.10.22 @ 09:16:32

TEST COMMENT: 30-IF-BOB 7 mins Built to 45.25"
45-ISI-Surface to 0.25"
45-FF-BOB 7.5 mins Built to 61.25"
60-FSI-Surface to 0.5"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1681.23	96.71	Initial Hydro-static
1	40.41	96.40	Open To Flow (1)
31	193.00	108.81	Shut-In(1)
78	788.22	106.93	End Shut-In(1)
79	200.96	106.67	Open To Flow (2)
126	392.74	109.60	Shut-In(2)
189	785.26	108.25	End Shut-In(2)
190	1669.22	108.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
590.00	GV/SOCW 10%G 2%O 88%W	8.36
200.00	GSOCMW 10%G 5%O 20%M 65%W	2.84
90.00	GSOCMW 10%G 5%O 40%M 45%W	1.28
20.00	GO 5%G 95%O	0.28
0.00	90 GIP 100%G	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

12-9s-20w Rooks,KS

PO Box 783185
Wichita KS 67278+3188

Pittman 12A #2

Job Ticket: 71163

DST#: 4

ATTN: Max Lovely

Test Start: 2023.10.22 @ 04:02:00

Tool Information

Drill Pipe:	Length: 3387.00 ft	Diameter: 3.82 inches	Volume: 48.01 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	51000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	46000.00 daN
Depth to Top Packer:	3403.00 ft			Final	49000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3372.00	
Shut In Tool	5.00			3377.00	
Hydraulic tool	5.00			3382.00	
Jars	5.00			3387.00	
Gap Sub	4.00			3391.00	
Safety Joint	3.00			3394.00	
Packer	5.00			3399.00	32.00 Bottom Of Top Packer
Packer	4.00			3403.00	
Stubb	1.00			3404.00	
Recorder	0.00	6838	Inside	3404.00	
Recorder	0.00	8875	Outside	3404.00	
Perforations	29.00			3433.00	
Bullnose	3.00			3436.00	33.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71163 **DST#: 4**
Test Start: 2023.10.22 @ 04:02:00

Mud and Cushion Information

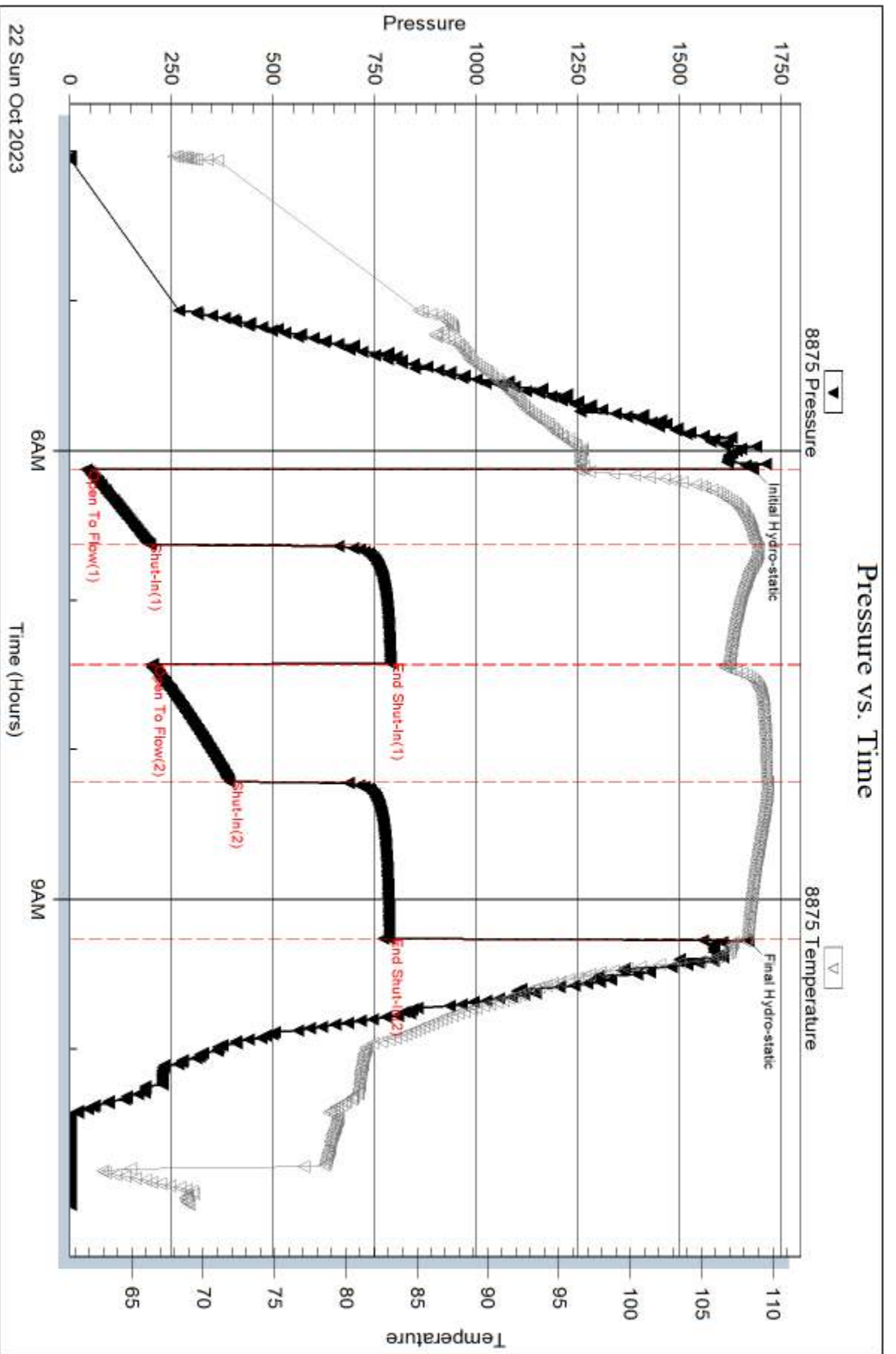
Mud Type: Gel Chem	Cushion Type:	Oil API: 28 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 58000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.39 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2800.00 ppm		
Filter Cake: inches		

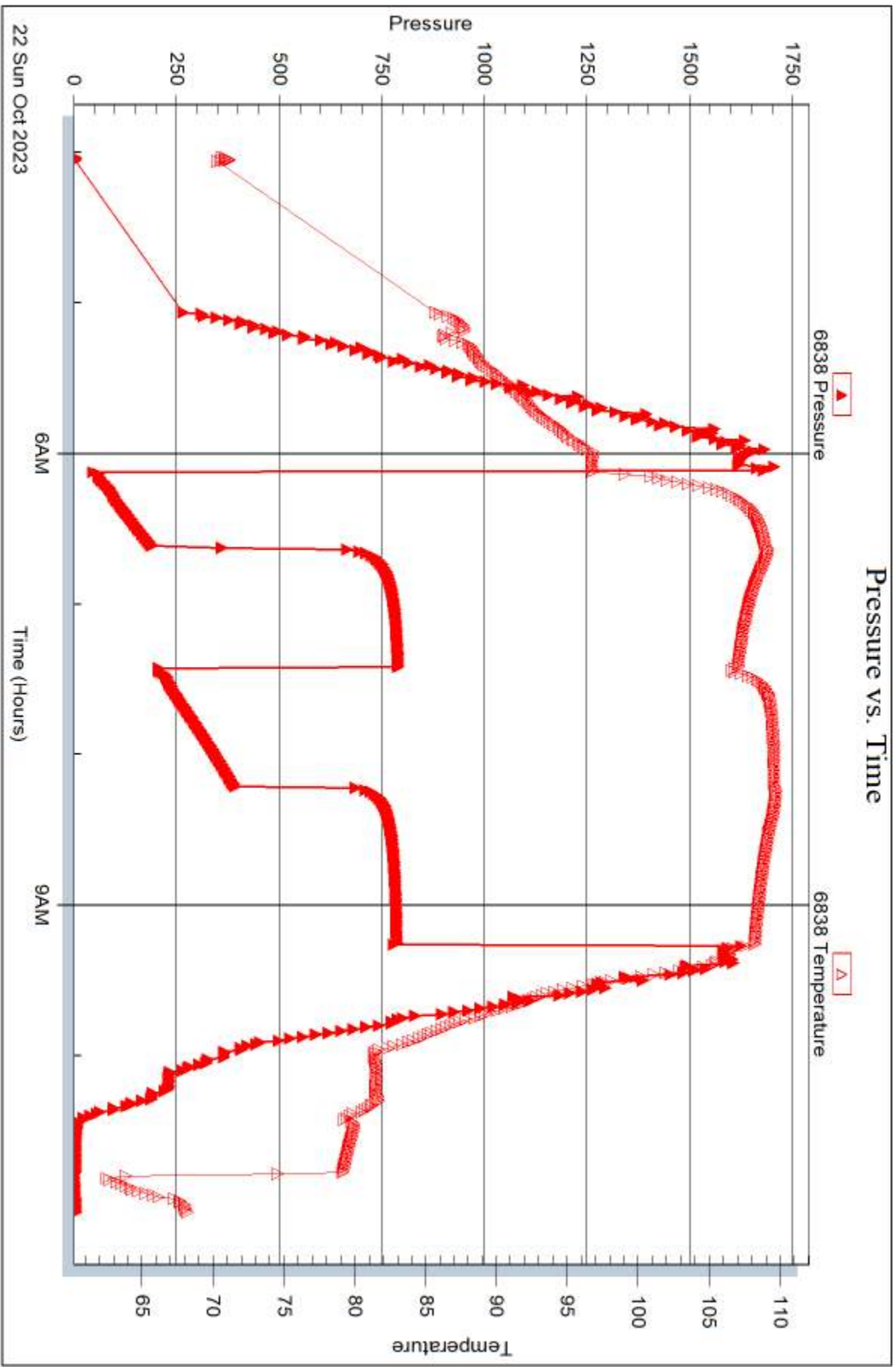
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
590.00	GVSOCW 10%G 2%O 88%W	8.363
200.00	GSOCMW 10%G 5%O 20%M 65%W	2.835
90.00	GSOCMW 10%G 5%O 40%M 45%W	1.276
20.00	GO 5%G 95%O	0.284
0.00	90 GIP 100%G	0.000

Total Length: 900.00 ft Total Volume: 12.758 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM
RW=.158@59F







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.22 @ 22:55:00

End Date: 2023.10.23 @ 05:58:47

Job Ticket #: 71164 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:06:39



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71164 **DST#: 5**
 Test Start: 2023.10.22 @ 22:55:00

GENERAL INFORMATION:

Formation: **LKC H-I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:49:17
 Time Test Ended: 05:58:47
 Interval: **3454.00 ft (KB) To 3502.00 ft (KB) (TVD)**
 Total Depth: 3502.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

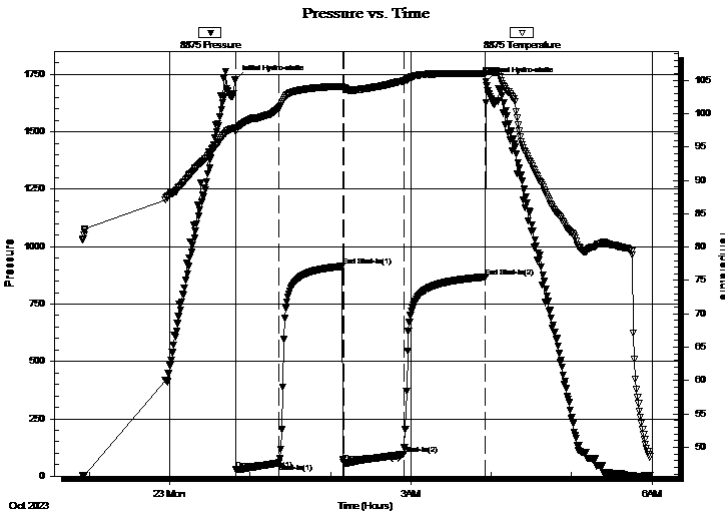
Serial #: 8875

Inside

Press@RunDepth: 95.17 psig @ 3457.00 ft (KB) Capacity: psig
 Start Date: 2023.10.22 End Date: 2023.10.23 Last Calib.: 2023.10.23
 Start Time: 22:55:01 End Time: 05:58:47 Time On Btm: 2023.10.23 @ 00:49:12
 Time Off Btm: 2023.10.23 @ 03:56:12

TEST COMMENT: 30-IF-BOB 12 mins Built to 30.75"
 45-ISI-No Return
 45-FF-BOB 10 mins Built to 46"
 60-FSI-Surface to 0.25

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.09	97.79	Initial Hydro-static
1	28.47	97.26	Open To Flow (1)
33	57.66	100.85	Shut-In(1)
80	914.04	104.08	End Shut-In(1)
81	59.43	103.90	Open To Flow (2)
126	95.17	104.85	Shut-In(2)
187	868.33	106.01	End Shut-In(2)
188	1717.87	106.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 30%G 15%M 55%O	0.85
150.00	GO 20%G 80%O	2.13
0.00	550 GIP 100%G	0.00
0.00	Corrected Gravity=35	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

12-9s-20w Rooks,KS

PO Box 783185
Wichita KS 67278+3188

Pittman 12A #2

Job Ticket: 71164

DST#: 5

ATTN: Max Lovely

Test Start: 2023.10.22 @ 22:55:00

Tool Information

Drill Pipe:	Length: 3451.00 ft	Diameter: 3.82 inches	Volume: 48.92 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	43000.00 daN
Depth to Top Packer:	3454.00 ft			Final	45000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	48.00 ft				
Tool Length:	80.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3423.00	
Shut In Tool	5.00			3428.00	
Hydraulic tool	5.00			3433.00	
Jars	5.00			3438.00	
Gap Sub	4.00			3442.00	
Safety Joint	3.00			3445.00	
Packer	5.00			3450.00	32.00 Bottom Of Top Packer
Packer	4.00			3454.00	
Stubb	1.00			3455.00	
Perforations	1.00			3456.00	
Change Over Sub	1.00			3457.00	
Recorder	0.00	6838	Inside	3457.00	
Recorder	0.00	8875	Inside	3457.00	
Drill Pipe	32.00			3489.00	
Change Over Sub	1.00			3490.00	
Perforations	9.00			3499.00	
Bullnose	3.00			3502.00	48.00 Bottom Packers & Anchor
Total Tool Length:	80.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71164 **DST#: 5**
Test Start: 2023.10.22 @ 22:55:00

Mud and Cushion Information

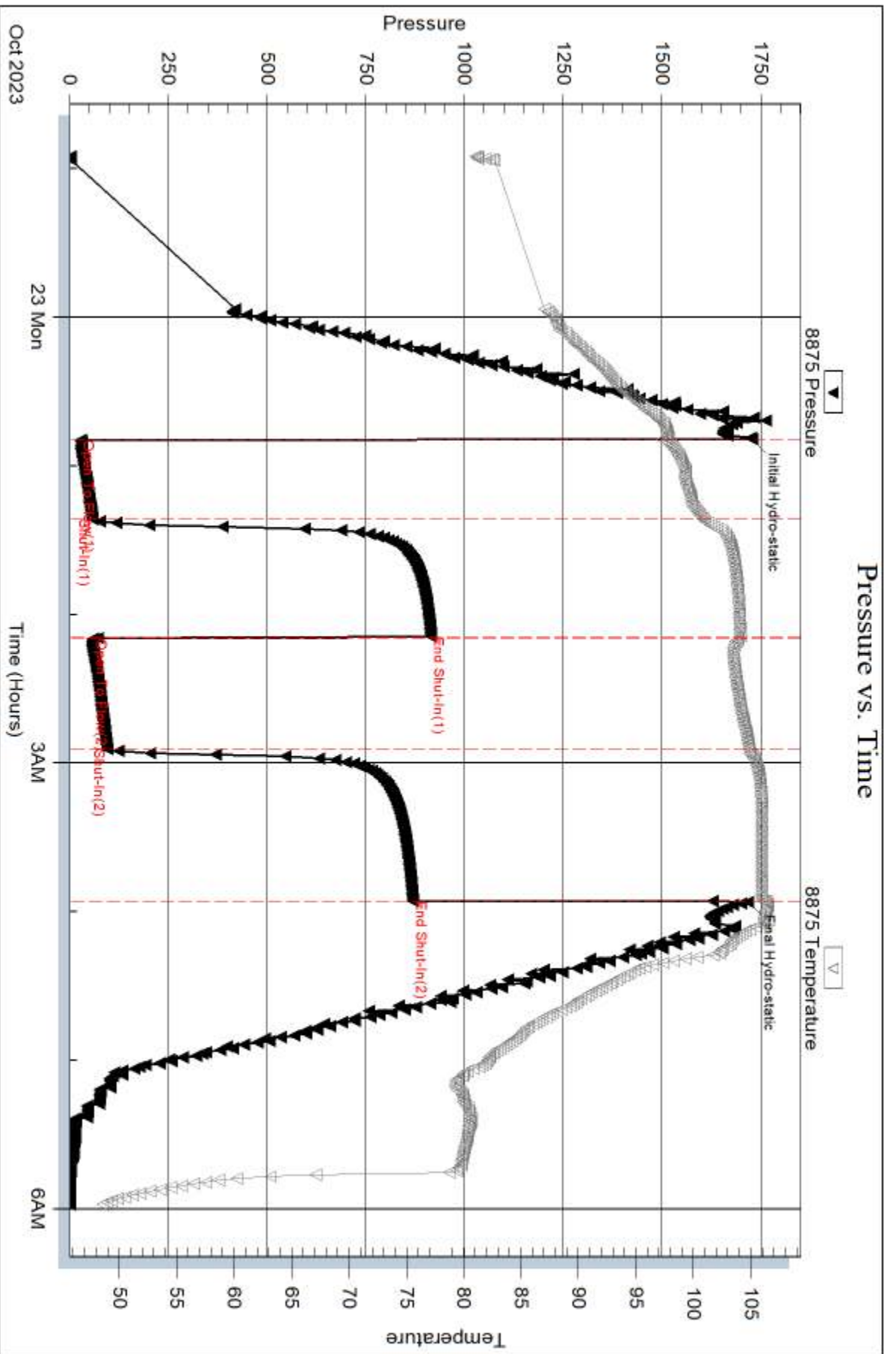
Mud Type: Gel Chem	Cushion Type:	Oil API: 35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.39 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2700.00 ppm		
Filter Cake: inches		

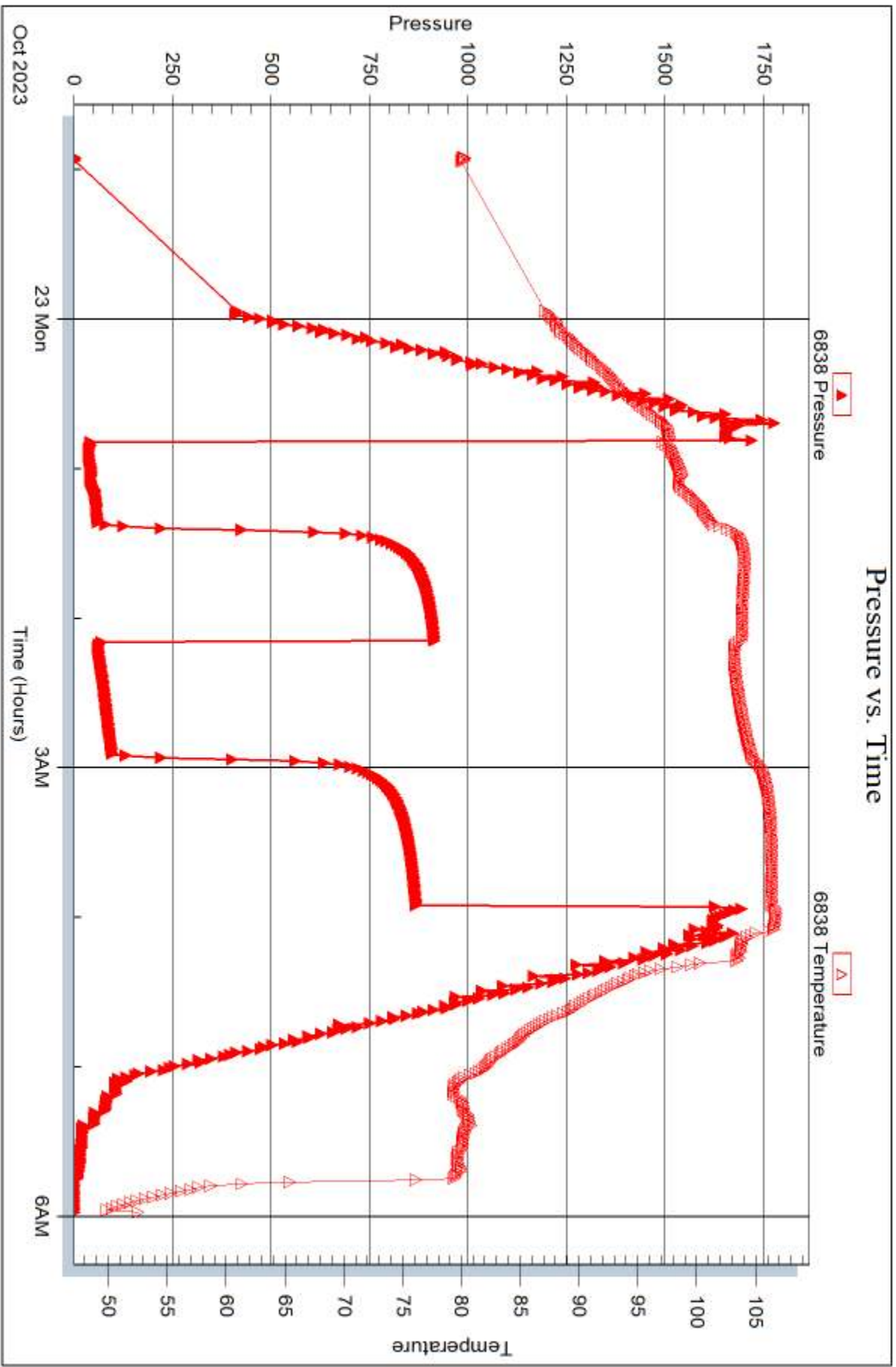
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 30%G 15%M 55%O	0.851
150.00	GO 20%G 80%O	2.126
0.00	550 GIP 100%G	0.000
0.00	Corrected Gravity=35	0.000

Total Length: 210.00 ft Total Volume: 2.977 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 3#LCM







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.23 @ 12:46:00

End Date: 2023.10.23 @ 19:05:12

Job Ticket #: 71165 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:03:22



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71165 **DST#: 6**
Test Start: 2023.10.23 @ 12:46:00

GENERAL INFORMATION:

Formation: **LKC J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:22:52
Time Test Ended: 19:05:12
Interval: **3501.00 ft (KB) To 3518.00 ft (KB) (TVD)**
Total Depth: 3518.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2121.00 ft (KB)
2113.00 ft (CF)
KB to GR/CF: 8.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84

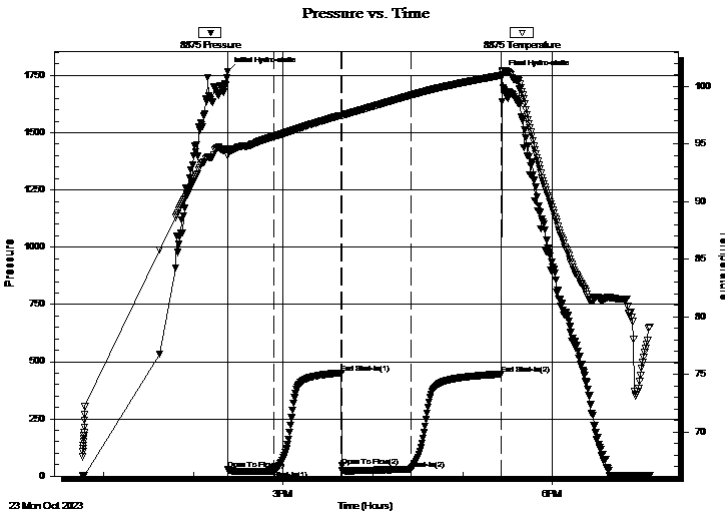
Serial #: 8875

Outside

Press@RunDepth: 31.58 psig @ 3502.00 ft (KB) Capacity: psig
Start Date: 2023.10.23 End Date: 2023.10.23 Last Calib.: 2023.10.23
Start Time: 12:46:01 End Time: 19:05:11 Time On Btm: 2023.10.23 @ 14:22:47
Time Off Btm: 2023.10.23 @ 17:26:27

TEST COMMENT: 30-IF-Surface to 7"
45-ISI-No Return
45-FF-BOB 43.5 mins Built to 12.25
60-FSI-Surface Blow Died @ 5 mins

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.87	94.56	Initial Hydro-static
1	30.85	94.00	Open To Flow (1)
31	23.59	95.67	Shut-In(1)
77	450.74	97.49	End Shut-In(1)
77	44.70	97.47	Open To Flow (2)
123	31.58	99.24	Shut-In(2)
183	445.94	101.01	End Shut-In(2)
184	1752.06	101.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	GMO 15%G 40%M 45%O	0.35
20.00	GO 15%G 85%O	0.28
0.00	150 GIP 100%G	0.00
0.00	Corrected Gravity=39	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

12-9s-20w Rooks,KS

PO Box 783185
Wichita KS 67278+3188

Pittman 12A #2

Job Ticket: 71165

DST#: 6

ATTN: Max Lovely

Test Start: 2023.10.23 @ 12:46:00

Tool Information

Drill Pipe:	Length: 3485.00 ft	Diameter: 3.82 inches	Volume: 49.40 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	48000.00 daN
Drill Pipe Above KB:	16.00 ft			Final	49000.00 daN
Depth to Top Packer:	3501.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	49.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3470.00	
Shut In Tool	5.00			3475.00	
Hydraulic tool	5.00			3480.00	
Jars	5.00			3485.00	
Gap Sub	4.00			3489.00	
Safety Joint	3.00			3492.00	
Packer	5.00			3497.00	32.00 Bottom Of Top Packer
Packer	4.00			3501.00	
Stubb	1.00			3502.00	
Recorder	0.00	6838	Inside	3502.00	
Recorder	0.00	8875	Outside	3502.00	
Perforations	13.00			3515.00	
Bullnose	3.00			3518.00	17.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71165 **DST#: 6**
Test Start: 2023.10.23 @ 12:46:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 39 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.59 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2700.00 ppm		
Filter Cake: inches		

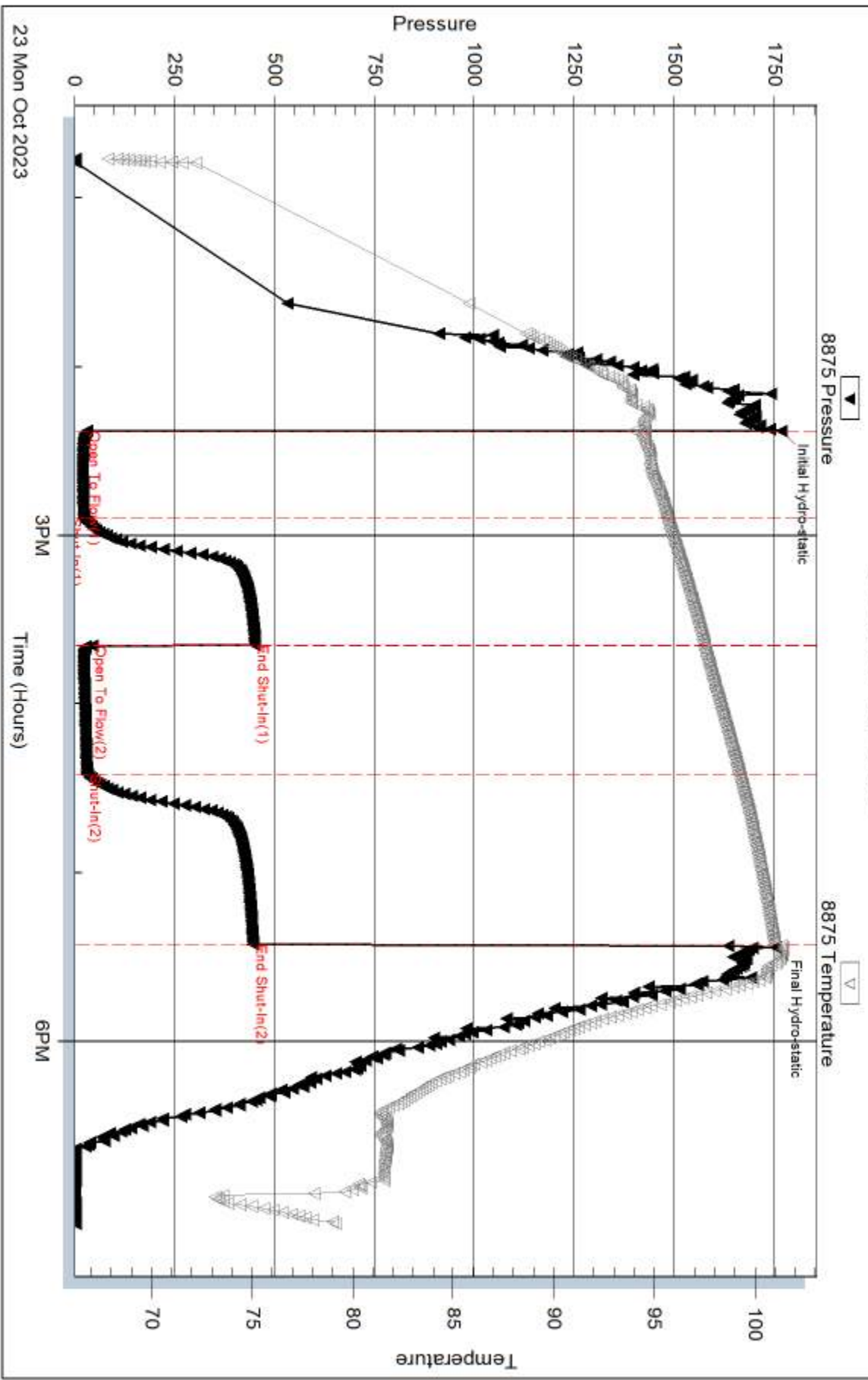
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	GMO 15%G 40%M 45%O	0.354
20.00	GO 15%G 85%O	0.284
0.00	150 GIP 100%G	0.000
0.00	Corrected Gravity=39	0.000

Total Length: 45.00 ft Total Volume: 0.638 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 4#LCM

Pressure vs. Time



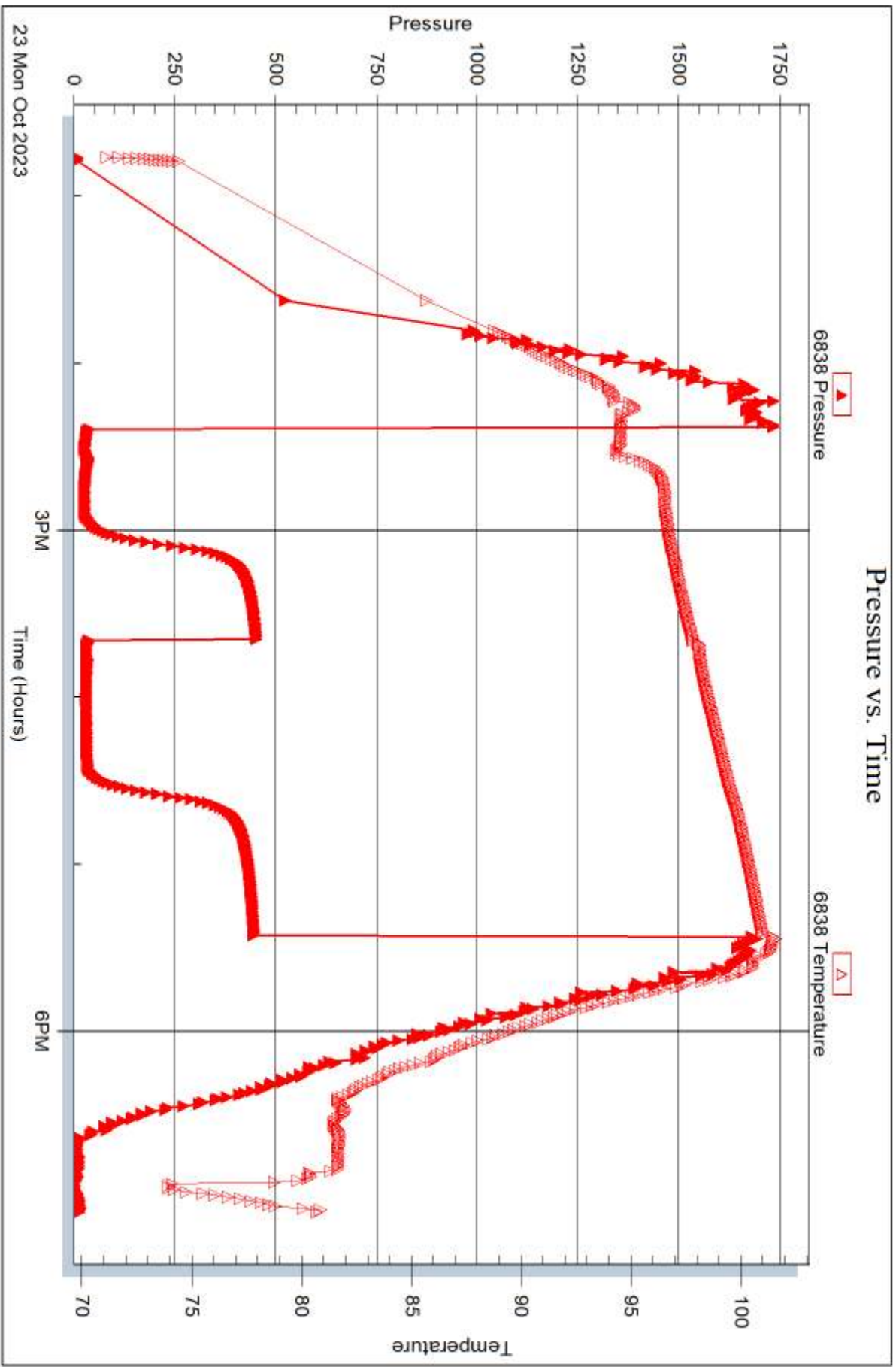
Serial #: 6838

Inside

Ritchie Exploration Inc

Pitman 12A #2

DST Test Number: 6



Tribble Testing, Inc

Ref. No: 71165

Printed: 2023.10.26 @ 12:03:23



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.24 @ 05:08:00

End Date: 2023.10.24 @ 11:41:52

Job Ticket #: 71166 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:02:59



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783185
 Wichita KS 67278+3188
 ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
 Job Ticket: 71166 **DST#: 7**
 Test Start: 2023.10.24 @ 05:08:00

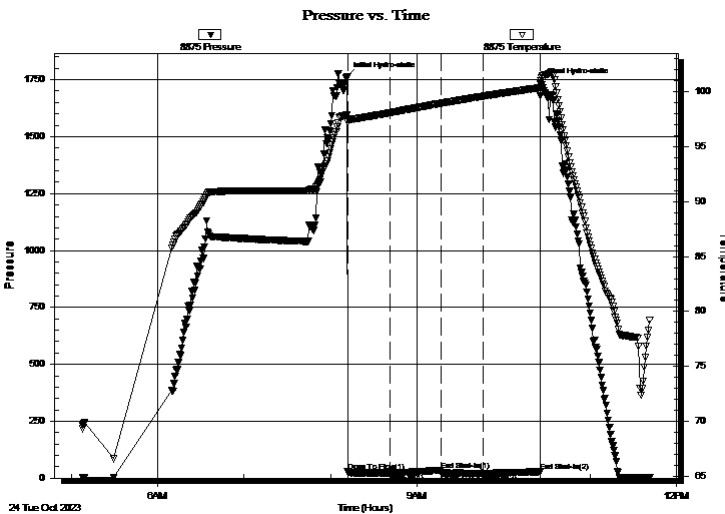
GENERAL INFORMATION:

Formation: **LKC K-L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:11:42
 Time Test Ended: 11:41:52
 Interval: **3517.00 ft (KB) To 3558.00 ft (KB) (TVD)**
 Total Depth: 3558.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2121.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 21.69 psig @ 3520.00 ft (KB) Capacity: psig
 Start Date: 2023.10.24 End Date: 2023.10.24 Last Calib.: 2023.10.24
 Start Time: 05:08:01 End Time: 11:41:52 Time On Btm: 2023.10.24 @ 08:11:37
 Time Off Btm: 2023.10.24 @ 10:25:57

TEST COMMENT: 30-IF-Surface Blow
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.04	97.85	Initial Hydro-static
1	29.14	97.22	Open To Flow (1)
30	23.22	98.08	Shut-In(1)
66	34.18	98.95	End Shut-In(1)
66	24.94	98.95	Open To Flow (2)
95	21.69	99.59	Shut-In(2)
134	28.17	100.39	End Shut-In(2)
135	1738.83	101.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	MO 50%M 50%O	0.03
1.00	Free Oil 100%O	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71166 **DST#: 7**
Test Start: 2023.10.24 @ 05:08:00

Tool Information

Drill Pipe:	Length: 3513.00 ft	Diameter: 3.82 inches	Volume: 49.80 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	52000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	49000.00 daN
Drill Pipe Above KB:	28.00 ft			Final	49000.00 daN
Depth to Top Packer:	3517.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	41.00 ft				
Tool Length:	73.00 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			3486.00	
Shut In Tool	5.00			3491.00	
Hydraulic tool	5.00			3496.00	
Jars	5.00			3501.00	
Gap Sub	4.00			3505.00	
Safety Joint	3.00			3508.00	
Packer	5.00			3513.00	32.00 Bottom Of Top Packer
Packer	4.00			3517.00	
Stubb	1.00			3518.00	
Perforations	1.00			3519.00	
Change Over Sub	1.00			3520.00	
Recorder	0.00	6838	Inside	3520.00	
Recorder	0.00	8875	Inside	3520.00	
Drill Pipe	32.00			3552.00	
Change Over Sub	1.00			3553.00	
Perforations	2.00			3555.00	
Bullnose	3.00			3558.00	41.00 Bottom Packers & Anchor
Total Tool Length:	73.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71166 **DST#: 7**
Test Start: 2023.10.24 @ 05:08:00

Mud and Cushion Information

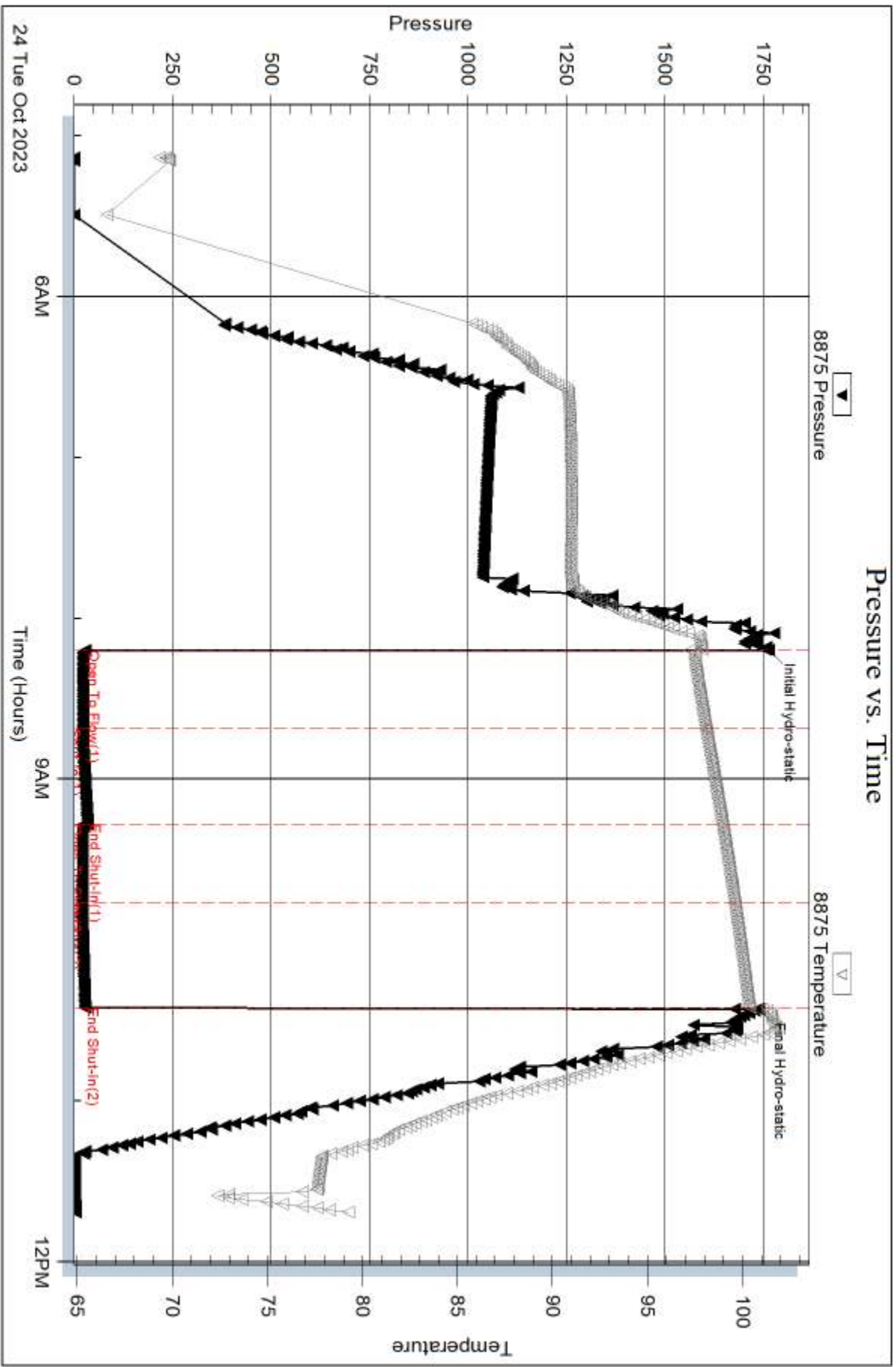
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: inches			

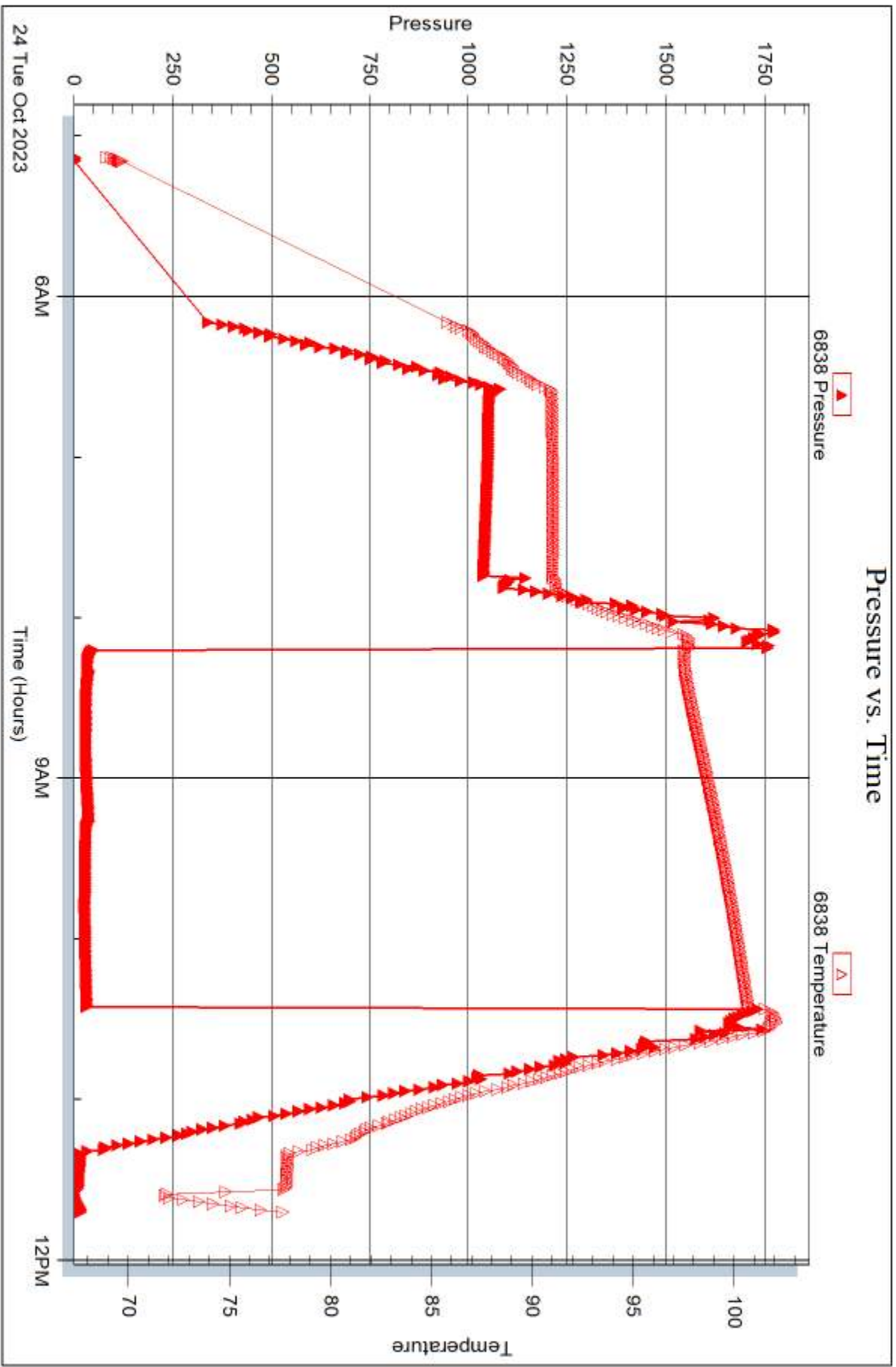
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	MO 50%M 50%O	0.028
1.00	Free Oil 100%O	0.014

Total Length: 3.00 ft Total Volume: 0.042 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 3#LCM







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783185
Wichita KS 67278+3188

ATTN: Max Lovely

Pittman 12A #2

12-9s-20w Rooks,KS

Start Date: 2023.10.24 @ 21:52:00

End Date: 2023.10.25 @ 04:15:12

Job Ticket #: 71167 DST #: 8

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.10.26 @ 12:02:10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

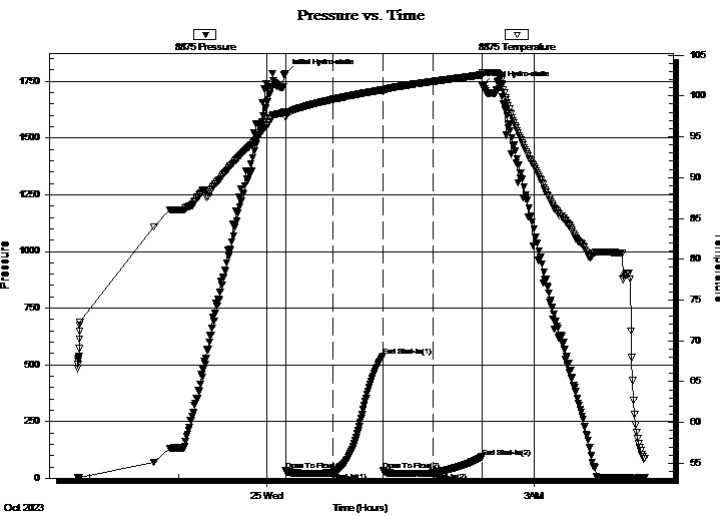
12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71167 **DST#: 8**
Test Start: 2023.10.24 @ 21:52:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:12:22
Time Test Ended: 04:15:12
Interval: **3580.00 ft (KB) To 3608.00 ft (KB) (TVD)**
Total Depth: 3608.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2121.00 ft (KB)
2113.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875 **Inside**
Press@RunDepth: 23.55 psig @ 3581.00 ft (KB) Capacity: psig
Start Date: 2023.10.24 End Date: 2023.10.25 Last Calib.: 2023.10.25
Start Time: 21:52:01 End Time: 04:15:11 Time On Btm: 2023.10.25 @ 00:12:17
Time Off Btm: 2023.10.25 @ 02:25:22

TEST COMMENT: 30-IF-Surface to 0.5"
30-ISI-No Return
30-FF-No Blow
30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1783.95	98.02	Initial Hydro-static
1	33.69	97.31	Open To Flow (1)
32	23.90	99.57	Shut-In(1)
66	538.87	100.73	End Shut-In(1)
66	34.35	100.68	Open To Flow (2)
100	23.55	101.77	Shut-In(2)
133	94.15	102.60	End Shut-In(2)
134	1729.78	102.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	GHMCO 10%G 25%M 65%O	0.07
10.00	GO 5%G 95%O	0.14
0.00	Corrected Gravity=27	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71167 **DST#: 8**
Test Start: 2023.10.24 @ 21:52:00

Tool Information

Drill Pipe:	Length: 3577.00 ft	Diameter: 3.82 inches	Volume: 50.71 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	42000.00 daN
Depth to Top Packer:	3580.00 ft			Final	42000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	60.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3549.00	
Shut In Tool	5.00			3554.00	
Hydraulic tool	5.00			3559.00	
Jars	5.00			3564.00	
Gap Sub	4.00			3568.00	
Safety Joint	3.00			3571.00	
Packer	5.00			3576.00	32.00 Bottom Of Top Packer
Packer	4.00			3580.00	
Stubb	1.00			3581.00	
Recorder	0.00	6838	Inside	3581.00	
Recorder	0.00	8875	Inside	3581.00	
Perforations	24.00			3605.00	
Bullnose	3.00			3608.00	28.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
PO Box 783185
Wichita KS 67278+3188
ATTN: Max Lovely

12-9s-20w Rooks,KS
Pittman 12A #2
Job Ticket: 71167 **DST#: 8**
Test Start: 2023.10.24 @ 21:52:00

Mud and Cushion Information

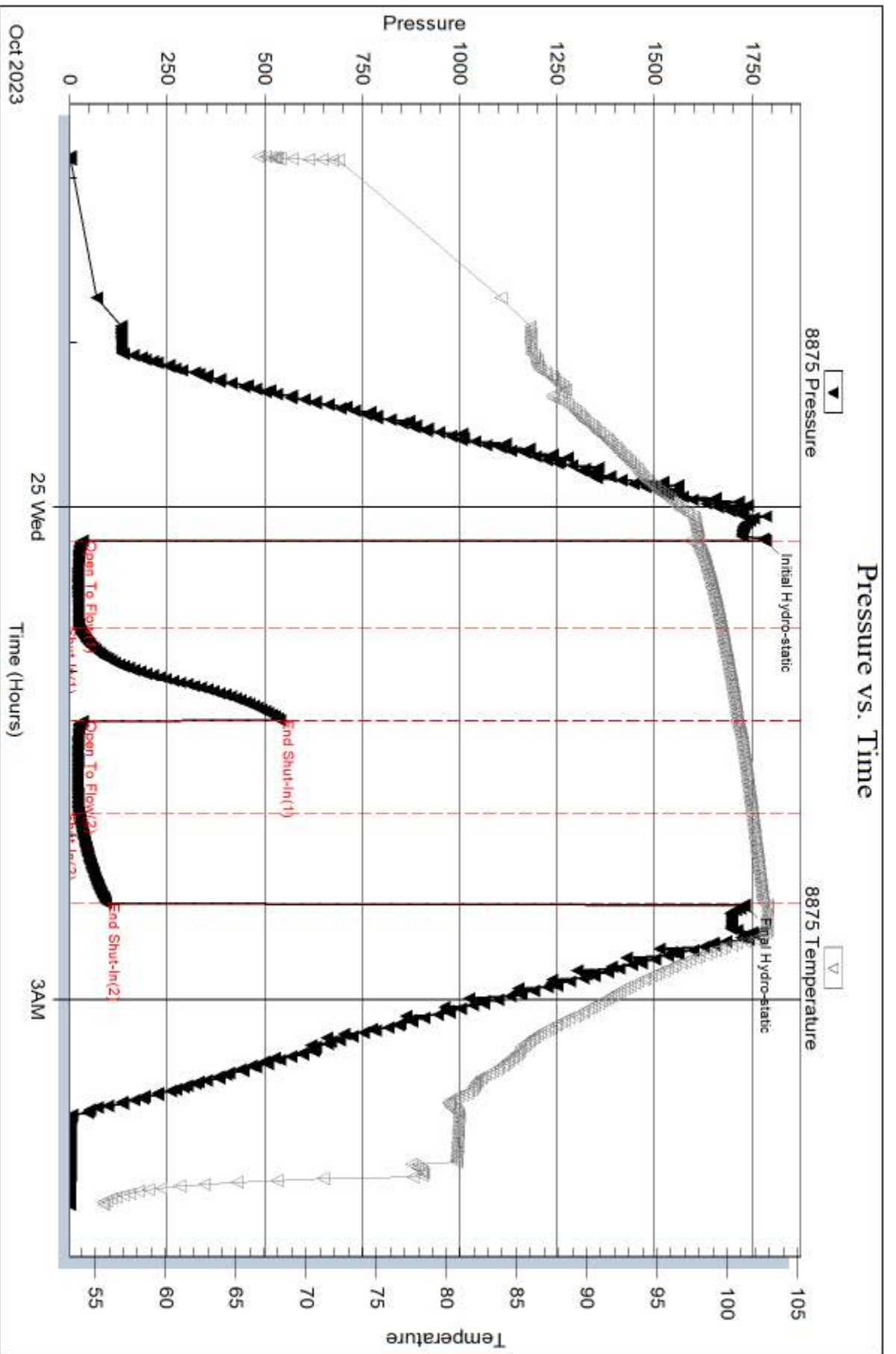
Mud Type: Gel Chem	Cushion Type:	Oil API: 27 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.59 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2800.00 ppm		
Filter Cake: inches		

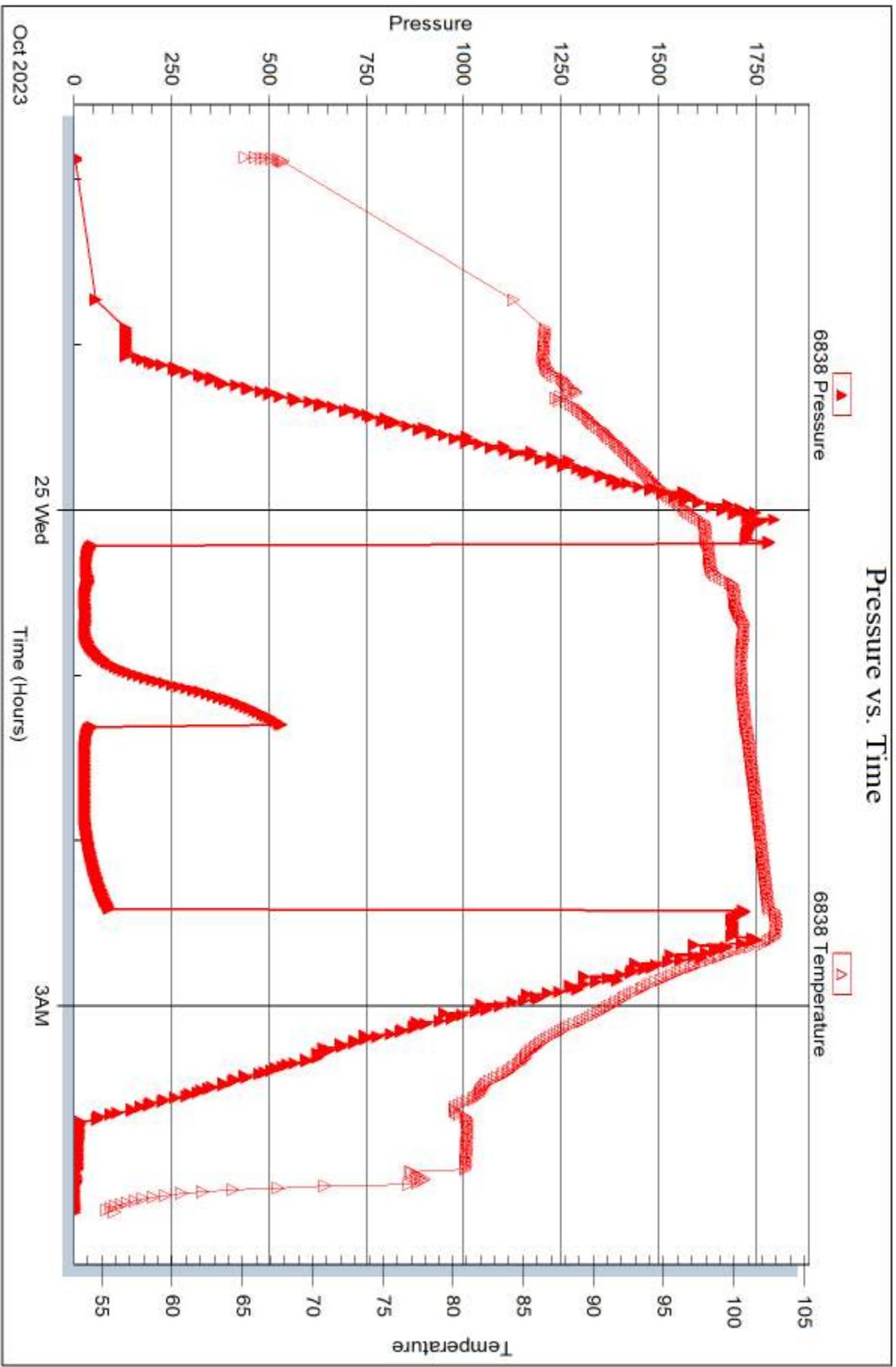
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	GHMCO 10%G 25%M 65%O	0.071
10.00	GO 5%G 95%O	0.142
0.00	Corrected Gravity=27	0.000

Total Length: 15.00 ft Total Volume: 0.213 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 3#LCM







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71160

Well Name & No. Pittman 12A #2 Test No. 1 Date 10/19/2023
 Company Ritchie Exploration Inc Elevation 2121' KB 2113' GL
 Address 8100 E 22nd St N #700 PO BOX 783185 Wichita KS 67278
 Co. Rep / Geo Max Lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Hooks State KS

Interval Tested 3228' - 3265' Zone Tested Lower Topeka
 Anchor Length 37' Drill Pipe Run 3230' Mud Wt. 8.7
 Top Packer Depth 3223' Drill Collars Run - Vis 60
 Bottom Packer Depth 3228' Wt. Pipe Run - WL 5.4
 Total Depth 3265' Chlorides 1900 ppm System LCM 2#

Blow Description 77 - Surface to 1.5"
7SD - No Return
77 - Surface to 1"
7SD - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>WCM</u>			<u>10</u>	<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60' BHT 99° Gravity - API RW .138 @ 50 °F Chlorides 81,000 ppm
 Initial Hydrostatic 1564 Test 1800 Ruined Shale Packer
 Initial Flow 42 to 43 Jars 300 Ruined Packer
 Initial Shut-In 541 Circ Sub Hotel
 Final Flow 45 to 47 Hourly Standby EM Tool Successful -175
 Final Shut-In 539 Mileage 8627 150.50 Accessibility
 Final Hydrostatic 1523 Sampler Gas Sample
 T- On Location 23:49 Straddle Oversized Hole
 Initial Flow 30 T-Started 02:36 Shale Packer Sub Total -175
 Initial Shut-In 45 T-Open 05:08 Extra Packer Total 2075.50
 Final Flow 45 T-Pulled 08:08 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damage of any kind of property or person... 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. **71161**

Well Name & No. Pittman 12A #2 Test No. 2 Date 10/21/2023
 Company Ritchie Exploration Inc Elevation 2121 KB 2113 GL
 Address 8100 E 22nd St #700 PO BOX 783185 Wichita KS 67278-3185
 Co. Rep / Geo Max lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Hooks State KS

Interval Tested 3329' - 3389' Zone Tested LKC a-c
 Anchor Length 60' Drill Pipe Run 3325' Mud Wt. 9.0
 Top Packer Depth 3324' Drill Collars Run — Vis 57
 Bottom Packer Depth 3329' Wt. Pipe Run — WL 5.4
 Total Depth 3389' Chlorides 2600 ppm System LCM 2#

Blow Description 77-BOB 14.5 mins; Built to 23"
DSJ-Surface to 1"; Dried back to 3/4"
74-BOB 5 mins; Built to 43"
78J-Surface to 1/2"; Dried @ 45 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>100'</u>	<u>G.MCO</u>	<u>20</u>	<u>65</u>	<u>15</u>	
<u>100'</u>	<u>G.MO</u>	<u>10</u>	<u>50</u>	<u>40</u>	
<u>20'</u>	<u>G.O</u>	<u>10</u>	<u>90</u>		
	<u>300' GTP</u>	<u>100</u>			

Rec Total 220' BHT 104° Gravity 34° API RW — @ — °F Chlorides — ppm

Initial Hydrostatic 1617 Test 1800 Ruined Shale Packer
 Initial Flow 31 to 63 Jars 300 Ruined Packer
 Initial Shut-In 800 Circ Sub Hotel
 Final Flow 77 to 103 Hourly Standby EM Tool Successful
 Final Shut-In 781 Mileage 8627 150.50 Accessibility
 Final Hydrostatic 1604 Sampler Gas Sample
 T-On Location 00:21 Straddle Oversized Hole
 Initial Flow 30 T-Started 01:03 Shale Packer Sub Total 0
 Initial Shut-In 45 T-Open 03:02 Extra Packer Total 2250.50
 Final Flow 45 T-Pulled 06:02 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out 08:14 Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71162

Well Name & No. Pittman 12A #2 Test No. 3 Date 10/21/2023
 Company Ritchie Exploration Inc Elevation 2121 KB 2113 GL
 Address 8100 E 22nd ST N # 700 PO BOX 783185 Wichita KS 67278-3185
 Co. Rep / Geo Max lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Rooks State KS

Interval Tested 3386' - 3404' Zone Tested LNC 2
 Anchor Length 18' Drill Pipe Run 3386' Mud Wt. 9.0
 Top Packer Depth 3381' Drill Collars Run - Vis 50
 Bottom Packer Depth 3386' Wt. Pipe Run - WL 5.4
 Total Depth 3404' Chlorides 2800 ppm System LCM 2#

Blow Description 17 - Surface Blow; Died in 5 mins
JSB - No Return
77 - No Blow
7SD - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>1'</u>	<u>MCO</u>	<u>90</u>		<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1' BHT 99° Gravity - API RW - @ - °F Chlorides - ppm
 Initial Hydrostatic 1651 Test 1800 Ruined Shale Packer
 Initial Flow 22 to 18 Jars 300 Ruined Packer
 Initial Shut-In 20 Circ Sub Hotel
 Final Flow 20 to 18 Hourly Standby EM Tool Successful -350
 Final Shut-In 20 Mileage 4627 150.50 Accessibility
 Final Hydrostatic 1640 Sampler Gas Sample
 T- On Location 13:43 Straddle Oversized Hole
 Initial Flow 30 T-Started 14:08 Shale Packer Sub Total -350
 Initial Shut-In 30 T-Open 15:58 Extra Packer Total 1900.50
 Final Flow 30 T-Pulled Extra Recorder Tool Loaded @
 Final Shut-In 30 T-Out Day Standby MP/DST Disc't

Comments mileage from HC house

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **71163**

Well Name & No. Pittman 12 A #2 Test No. 4 Date 10/22/2023
 Company Ritchie Exploration Inc Elevation 2121 KB 2113 GL
 Address 8100 E 22nd St N #700 PO BOX 783185 Wichita, KS 67278+318
 Co. Rep / Geo Max lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Hooker State KS

Interval Tested 3403' - 3436' Zone Tested LNC E-9
 Anchor Length 33' Drill Pipe Run 3387' Mud Wt. 9.0
 Top Packer Depth 3398' Drill Collars Run - Vis 50
 Bottom Packer Depth 3403' Wt. Pipe Run - WL 5.4
 Total Depth 3436' Chlorides 2800 ppm System LCM 2#

Blow Description 7-BOB 7 mins; Built to 45.25"
DSJ - ~~Retention~~ Surface to 1/4"
77-BOB 7.5 mins; Built to 61.25"
75 - Surface to 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>590'</u>	<u>GVSOCW</u>	<u>10</u>	<u>2</u>	<u>88</u>	
<u>200'</u>	<u>GSOCMW</u>	<u>10</u>	<u>5</u>	<u>65</u>	<u>20</u>
<u>90'</u>	<u>GSOCMW</u>	<u>10</u>	<u>5</u>	<u>45</u>	<u>40</u>
<u>20'</u>	<u>GO</u>	<u>5</u>	<u>95</u>		
	<u>90' GTP</u>	<u>100</u>			

Rec Total 900' BHT 105° Gravity 28° API RW .158 @ 59° F Chlorides 58,000 ppm

Initial Hydrostatic 1681 Test 1800 Ruined Shale Packer
 Initial Flow 40 to 193 Jars 300 Ruined Packer
 Initial Shut-In 788 Circ Sub Hotel
 Final Flow 200 to 392 Hourly Standby EM Tool Successful -350
 Final Shut-In 785 Mileage 4627 150.50 Accessibility
 Final Hydrostatic 1669 Sampler Gas Sample
 T-On Location 03:23 Straddle Oversized Hole
 Initial Flow 30 T-Started 04:02 Shale Packer Sub Total -350
 Initial Shut-In 45 T-Open 06:07 Extra Packer Total 1900.50
 Final Flow 45 T-Pulled 09:07 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out 11:02 Day Standby MP/DST Disc't

Comments mileage from HC House

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71164

Well Name & No. Pittman 12A #2 Test No. 5 Date 10/22/2023
 Company Ritchie Exploration Inc Elevation 2121 KB 2113 GL
 Address 8100 E 22nd St N #700 PO BOX 783185 Wichita, KS 67278+3188
 Co. Rep / Geo Mar lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Rooks State KS

Interval Tested 3454' - 3502' Zone Tested LKC #2
 Anchor Length 48' Drill Pipe Run 3451' Mud Wt. 9.1
 Top Packer Depth 3449' Drill Collars Run - Vis 56
 Bottom Packer Depth 3454' Wt. Pipe Run - WL 5.4
 Total Depth 3502' Chlorides 2700 ppm System LCM 3#

Blow Description 77-BOB 12 mins; Built to 30.75"
JSJ - No Return
77-BOB 10 mins; Built to 46"
7SA - Surface to 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
60'	GMCO	30	55	15	
150'	GO	20	80		
	550' GIP	100			

Rec Total 210' BHT 106° Gravity 35° API RW - @ - °F Chlorides - ppm
 Initial Hydrostatic 1729 Test 1800 Ruined Shale Packer
 Initial Flow 28 to 57 Jars 300 Ruined Packer
 Initial Shut-In 914 Circ Sub Hotel
 Final Flow 59 to 95 Hourly Standby EM Tool Successful
 Final Shut-In 868 Mileage 8627 150.50 Accessibility
 Final Hydrostatic 1717 Sampler Gas Sample
 T-On Location 21:55 Straddle Oversized Hole
 Initial Flow 30 T-Started 22:55 Shale Packer Sub Total 0
 Initial Shut-In 45 T-Open 00:50 Extra Packer Total 2250.50
 Final Flow 45 T-Pulled 03:50 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out 05:58 Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **71165**

Well Name & No. Pittman DA #2 Test No. 6 Date 10/23/2023
 Company Ritchie Exploration Inc Elevation 2121' KB 2113' GL
 Address 8100 E 22nd St, N # 700 PO BOX 783185 Wichita KS 67278+3185
 Co. Rep / Geo Max Lovely Rig Duke #2
 Location: Sec. 12 Twp 9S Rge. 20W Co. Rooks State KS

Interval Tested 3501' - 3518' Zone Tested LKC J
 Anchor Length 17' Drill Pipe Run 3485' Mud Wt. 9.3
 Top Packer Depth 3496' Drill Collars Run - Vis 50
 Bottom Packer Depth 3501' Wt. Pipe Run - WL 5.6
 Total Depth 3518 Chlorides 2700 ppm System LCM 4#

Blow Description D7 - Surface to 7"
DSD - No Return
77 - BOB in 43.5 mins, Built to 12.25"
75 - Surface Blow; Died @ 5 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>GMO</u>	<u>15</u>	<u>45</u>	<u>40</u>	
<u>20</u>	<u>GIO</u>	<u>15</u>	<u>85</u>		
	<u>150' GIP</u>	<u>100</u>			

Rec Total 45' BHT 101° Gravity 39° API RW - @ - °F Chlorides - ppm
 Initial Hydrostatic 1767 Test 1800 Ruined Shale Packer
 Initial Flow 30 to 23 Jars 300 Ruined Packer
 Initial Shut-In 450 Circ Sub Hotel
 Final Flow 44 to 31 Hourly Standby EM Tool Successful -350
 Final Shut-In 445 Mileage 8627 150.50 Accessibility
 Final Hydrostatic 1752 Sampler Gas Sample
 T- On Location 12:34 Straddle Oversized Hole
 Initial Flow 30 T-Started 12:46 Shale Packer Sub Total -350
 Initial Shut-In 45 T-Open 14:23 Extra Packer Total 1900.50
 Final Flow 45 T-Pulled 17:23 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out 19:05 Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71167

Well Name & No. Pittman 12A #2 Test No. 8 Date 10/24/2023
 Company Ritchie Exploration Inc Elevation 2121 KB 2113 GL
 Address 8100 E 22nd ST N #700 PO BOX 781385, Wichita KS 67278-1385
 Co. Rep / Geo Max Lovely Rig Duke #2
 Location: Sec. 12 Twp 9s Rge. 20w Co. Rooks State KS

Interval Tested 3580' - 3608' Zone Tested Arbuckle
 Anchor Length 28' Drill Pipe Run 3577' Mud Wt. 9.2
 Top Packer Depth 3575' Drill Collars Run — Vis 51
 Bottom Packer Depth 3580' Wt. Pipe Run — WL 5.6
 Total Depth 3608' Chlorides 2800 ppm System LCM 3#

Blow Description 17- Surface to 1/2"
13D- No Return
17- No Blow
7SD- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>GHMCO</u>	<u>10</u>	<u>6.5</u>	<u>25</u>	
<u>10'</u>	<u>GI</u>	<u>5</u>	<u>95</u>		

Rec Total 15' BHT 102° Gravity 27° API RW — @ — *F Chlorides — ppm
 Initial Hydrostatic 1783 Test 1800 Ruined Shale Packer
 Initial Flow 33 to 23 Jars 300 Ruined Packer
 Initial Shut-In 538 Circ Sub Hotel
 Final Flow 34 to 23 Hourly Standby EM Tool Successful -350
 Final Shut-In 94 Mileage 86R7x2 15050 + 150.50 Accessibility
 Final Hydrostatic 1729 Sampler Gas Sample
 T- On Location 21:13 Straddle Oversized Hole
 Initial Flow 30 T-Started 21:52 Shale Packer Sub Total -*350
 Initial Shut-In 30 T-Open 00:13 Extra Packer Total 2051
 Final Flow 30 T-Pulled 02:13 Extra Recorder Tool Loaded 10/25 @ 13:00
 Final Shut-In 30 T-Out 04:15 Day Standby MP/DST Disc't

Comments _____
 Approved By _____ Our Representative [Signature]

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PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 316407

CUSTOMER
Ritchie Exploration

WELL
Pittman 12A #2

DATE
10/26/23

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M	QTY	U/M		
325		2				Standard Cement	200	SKS			16.00	3200.00
279		2				Bestonite Gel	8	515			50.00	400.00
283		2				Sell	1100	lbs			2.25	275.00
277		2				Coal Seal (Gishonite)	1000	lbs			1.50	1500.00
292		2				Halad 322	100	lbs			9.00	900.00
581		2				Cement	200	SKS			2.00	400.00
583		2				MILEAGE CHARGE	21400				1.00	428.00
SERVICE CHARGE LOADED MILES NON MILES							40		428			
CONTINUATION TOTAL												7103.00

JOB LOG

SWIFT Services, Inc.

DATE 10/26/23 PAGE NO. 1

CUSTOMER Ritchie Exploration WELL NO. #2 LEASE Pittman 12A JOB TYPE Long String TICKET NO. 36407

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0005							On location w/ Float Equipment Rig Running Drill Collars
								RTD - 3672' LTD - 3674' Total Pipe Run - 3668' of 5 1/2" x 14# Shoe IT - 21' Baffle Plate - 3647' Part collar - 1539' on top of 51 Turbo - shoe, 1, 2, 89, 4, 5, 4, 7, 8, 9, 50, 52 Baskets - 51, 63, 77 - Bit of Its 3 at 10 out
	0300							Start Pipe w/ Float Equip.
	0445							Break Circulation on Bottom
	0800							Hook up to Swift
		2	8					Plug Rat hole w/ 30 SKS
		2	5					Plug Mousehole w/ 15 SKS
		5	12			300		Pump Mud Flush
		5	20			300		Pump KCL Spacer
		5				300		Start Cement
		5	45			Var		Finish Cement, shut Down
								Washout Pump Lines, Drop Plug
		8						Start Displacement
		7	65			700		Catch Pressure
		6	87			900		LIFT PSI
	0905	6	89			1500		Land Plug
								Release Truck, Dry
								Wash up truck
								Back up
	0930							Job Complete

Thanks
Jan, Seth, Brett

