

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)</i> <i>(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	Jaspar Co.
Well Name	SHIRLEY 1
Doc ID	1642527

All Electric Logs Run

Dual Induction
Compensated Density/Neutron
Micro
Dual Receiver Cement Bond Log

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2704

Date	2-10-22	Sec.	11	Twp.	B	Range	29	County	Rooks	State	KS	On Location		Finish	11:00pm
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Lease Shirley D.G. Hansen Location Webster 1E 25N

Well No. 1 Owner To Quality Oilwell Cementing, Inc.

Contractor STP You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job SURFACE Charge To JASPER Co

Hole Size 12 1/4 T.D. 222 Street

Csg. 8 5/8 Depth

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 15 Shoe Joint Cement Amount Ordered 180 89/20 3-2

Meas Line Displace 13 bbls 100.0cm 4% CL

EQUIPMENT

Pumptrk 17 No. Cementer Bill Common 220

Bulktrk 1 No. Helper Chris Dug Poz. Mix 35

Bulktrk 14 No. Driver Jordan Gel. 13

Calcium 10

JOB SERVICES & REMARKS

Remarks: Hulls

Rat Hole Salt

Mouse Hole Flowseal

Centralizers Kol-Seal

Baskets Mud CLR 48

D/V or Port Collar CFL-117 or CD110 CAF 38

Sand

Handling 280

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Used 265 lb 255

180 89/20 3-20

7.54 Com 4% CL

Finish 1" @ 3:30 AM

Pumptrk Charge Surface

Mileage 45

Signature [Signature] Thanks

Tax

Discount

Total Charge

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

– **TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

– **ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.

– **PRICES AND TAXES:** All merchandise listed in "QUALITY'S" current price schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

– **TOWING CHARGES:** QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

– **PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

– **DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

– **SERVICE CONDITIONS AND LIABILITIES:** 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. **2709**
2-18-22

Date 2-17-22	Sec. 11	Twp. 6	Range 20	County ROOKS	State Ks	On Location	Finish 3:50 Am
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Location **Webster I E 2 N**

Lease Shirley	Well No. 1	Owner
Contractor STD		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job Long String		
Hole Size 7 7/8	T.D. 3570	Charge To JASPAR CO.
Csg. 55	Depth 3567	Street
Tbg. Size	Depth	City State
Tool Port Collar	Depth 1945	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 38.19	Shoe Joint 38.19	Cement Amount Ordered 150 SKS Com
Meas Line	Displace 83.98	500 gal Flush 10% Salt Stail

EQUIPMENT

Pumptrk 17	No.	Cementer	B:11	Common 150
		Helper		Poz. Mix
Bulktrk	No.	Driver	CRAIG	Gel.
Bulktrk 14	No.	Driver	DOUG	Calcium

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt 13
Mouse Hole 30	Flowseal
Centralizers	Kol-Seal 750#
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
pipe set c 3566.84	Sand
Shoe jt 38.19	Handling 170
INSERT 3528.65	Mileage

FLOAT EQUIPMENT

Cement w/ 120 SKS	Guide Shoe
pump plug w/ 83.98	Centralizer 6
Land plug e 1300 #	Baskets 5
Float did hold	AFU Inserts
	Float Shoe 1
	Latch Down 1
	PORT collar

Pumptrk Charge prod String	Tax
Mileage 45	Discount

X Signature *[Signature]*

Thanks

Total Charge

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

TERMS: Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and attorney's fees.

PRICES AND TAXES: All merchandise listed in "QUALITY'S" current price schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

TOWING CHARGES: QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

PREPARATION CHARGES: If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

DEADHAUL CHARGES: Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

SERVICE CONDITIONS AND LIABILITIES: 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. **2724**

Date	3-8-22	Sec.	14	Twp.	7	Range	19	County	Rooks	State	Ks	On Location		Finish	12:00pm
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Location **Webster Lake 1E2N**

Lease	Shirley	Well No.	1	Owner	✓
Contractor		To Quality Oilwell Cementing, Inc.			
Type Job	Port collar	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size		T.D.		Charge To	JASPER
Csg.	5 1/2	Depth		Street	
Tbg. Size		Depth		City	
Tool		Depth		State	
Cement Left in Csg.		Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line		Displace		Cement Amount Ordered	400M Qm DC

EQUIPMENT

Pumptrk	No.	Cementer	Bill	Common	230 5% 100 Qm bc
		Helper		Poz. Mix	
Bulktrk	No.	Driver	Jordan	Gel.	
Bulktrk	No.	Driver	David	Calcium	

JOB SERVICES & REMARKS

Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	100#
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	400
		Mileage	

P.C e 938 test 500 #
pump 500# mud
Cemt w/ 230#
Cemt did circ.
close tool PRESS TO 500 #
Run 5 Jts Wash clean

FLOAT EQUIPMENT

	Guide Shoe	
	Centralizer	
	Baskets	
	AFU Inserts	
	Float Shoe	
	Latch Down	

Pumptrk Charge **Port Collar Job**
Mileage **45**

X Signature Shane Vahzy	Tax	
	Discount	
	Total Charge	

Thanks

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(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing, for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

JASPAR COMPANY INC.

Scale 1:240 Imperial

Well Name: SHIRLEY #1
Surface Location: SW NE SE SW Sec. 11 - 7S - 19W
Bottom Location:
API: 15-163-24436
License Number: 34903
Spud Date: 2/10/2022 Time: 5:00 PM
Region: ROOKS COUNTY
Drilling Completed: 2/17/2022 Time: 7:06 AM
Surface Coordinates: 870' FSL & 2015' FWL
Bottom Hole Coordinates:
Ground Elevation: 1968.00ft
K.B. Elevation: 1975.00ft
Logged Interval: 2800.00ft To: 3550.00ft
Total Depth: 3570.00ft
Formation: TORONTO; LANSING-KANSAS CITY; ARBUCKLE
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: JASPAR CO.
Address: P.O. BOX 1120
HAYS, KS 67601
Contact Geologist: SHANE VEHIGE
Contact Phone Nbr: (785) 623-6982
Well Name: SHIRLEY #1
Location: SW NE SE SW Sec. 11 - 7S - 19W
API: 15-163-24436
Pool:
State: KANSAS
Field: UNNAMED
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.408918
Latitude: 39.454418
N/S Co-ord: 870' FSL
E/W Co-ord: 2015' FWL

LOGGED BY



Company: BIG CREEK CONSULTING, INC.
Address: 3504 DUNCAN ST
ST. JOE, MO 64507

Phone Nbr: (785) 259-3737
 Logged By: GEOLOGIST

Name: JEFF LAWLER

CONTRACTOR

Contractor: STP DRILLING
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 2/10/2022
 TD Date: 2/17/2022
 Rig Release: 2/18/2022

Time: 5:00 PM
 Time: 7:06 AM
 Time: 7:45 AM

ELEVATIONS

K.B. Elevation: 1975.00ft
 K.B. to Ground: 7.00ft

Ground Elevation: 1968.00ft

NOTES

****AFTER LOG WELL DEEPENED 20' TO 3570** **~5' UPHOLE CORRECTION TO CORRELATE DRILL TIME TO POROSITY LOG****


AFTER LOG ANALYSIS DECISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING TO FURTHER EVALUATE ZONES OF INTEREST UPON COMPLETION.

RESPECTFULLY SUBMITTED
 JEFF LAWLER

WELL COMPARISON SHEET

FORMATION	SHIRLEY #1				OWWO P&A 12-03				SWD				JASPAR CO.											
	3DR UNIT #1				REED OWWO #1				JACKSON #4				JACKSON OWWO #1											
	SW SW SW 11-7-19				SE NW NW 14-7-19				SE SE SE 10-7-19				NW SE SE 10-7-19											
	KB	1975	GL	1968	KB	1956	KB	1953	KB	1956	KB	1966	KB	1966										
	LOG TOPS		SAMPLE TOPS		LOG		CORR.		SMPL.		COMP. CARD		LOG		SMPL.		COMP. CARD		LOG		SMPL.			
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	
ANHYDRITE TOP	1494	481	1496	479	1463	493	- 12	- 14	1471	482	- 1	- 3	1460	496	- 15	- 17	1483	483	- 2	- 4				
BASE	1525	450	1526	449	1497	459	- 9	- 10	1498	455	- 5	- 6	1492	464	- 14	- 15	1516	450	+ 0	- 1				
TOPEKA	2927	-952	2930	-955	2911	-955	+ 3	+ 0	2913	-960	+ 8	+ 5	2910	-954	+ 2	- 1	2919	-953	+ 1	- 2				
HEEBNER SHALE	3126	-1151	3131	-1156	3111	-1155	+ 4	- 1	3113	-1160	+ 9	+ 4	3111	-1155	+ 4	- 1	3120	-1154	+ 3	- 2				
TORONTO	3150	-1175	3152	-1177	3133	-1177	+ 2	+ 0	3136	-1183	+ 8	+ 6	3135	-1179	+ 4	+ 2	3143	-1177	+ 2	+ 0				
LKC	3166	-1191	3170	-1195	3153	-1197	+ 6	+ 2	3153	-1200	+ 9	+ 5	3153	-1197	+ 6	+ 2	3162	-1196	+ 5	+ 1				
BKC	3386	-1411	3389	-1414	3374	-1418	+ 7	+ 4	3373	-1420	+ 9	+ 6	3373	-1417	+ 6	+ 3	3383	-1417	+ 6	+ 3				
ARBUCKLE	3452	-1477	3451	-1476	3469	-1513	+ 36	+ 37	3424	-1471	- 6	- 5	3458	-1502	+ 25	+ 26	3433	-1467	- 10	- 9				
TOTAL DEPTH	3550	-1575	3570	-1595	3552	-1596	+ 21	+ 1	3471	-1518	- 57	- 77	3745	-1789	+ 214	+ 194	3495	-1529	- 46	- 66				

DST #1 TORONTO -- LKC C 3125' - 3220'

	<p>DRILL STEM TEST REPORT</p>	
	<p>Jaspar Co PO BOX 1120 Hays KS 67601+1120 ATTN: Jeff Lawler</p>	<p>11-7S-19W Rooks KS Shirley #1 Job Ticket: 68201 DST#: 1 Test Start: 2022.02.14 @ 10:15:00</p>

GENERAL INFORMATION:

Formation: **Tor-LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:00:27
 Time Test Ended: 15:45:32

Interval: **3125.00 ft (KB) To 3220.00 ft (KB) (TVD)**
 Total Depth: 3220.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

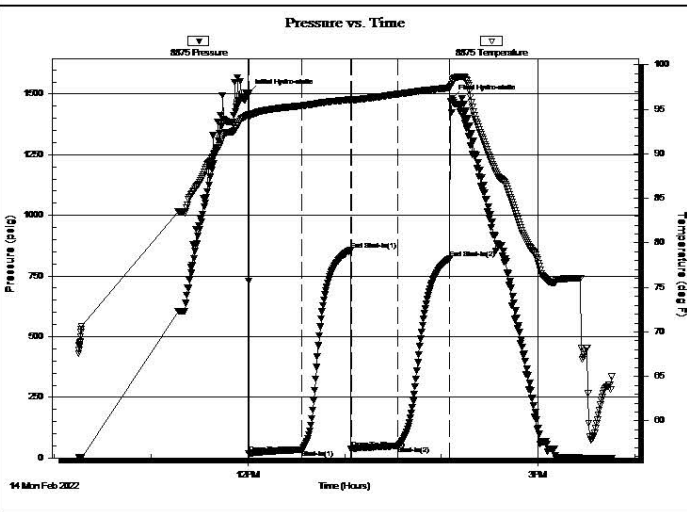
Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J Staab
 Unit No: 84

Reference Elevations: 1975.00 ft (KB)
 1968.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 48.71 psig @ 3129.00 ft (KB) Capacity: psig

Start Date: 2022.02.14 End Date: 2022.02.14 Last Calib.: 2022.02.14
 Start Time: 10:15:00 End Time: 15:45:32 Time On Btm: 2022.02.14 @ 12:00:17
 Time Off Btm: 2022.02.14 @ 14:06:37

TEST COMMENT: 30-IF-Surface to 1/2" Died back to 1/4"
 30-ISI-No Return
 30-FF-Surface to 1/4" Died back to Surface
 30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1503.57	94.39	Initial Hydro-static
1	18.01	94.00	Open To Flow (1)
33	35.04	95.41	Shut-In(1)
64	855.36	96.08	End Shut-In(1)
64	38.01	96.02	Open To Flow (2)
93	48.71	96.72	Shut-In(2)
125	822.03	97.44	End Shut-In(2)
127	1480.95	98.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	HOCM 30%O 70%M	0.34
5.00	CO 100%O	0.02

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 68201

Printed: 2022.02.14 @ 15:52:19

DST #2 LKC D - G 3220' - 3271'



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jaspar Co
 PO BOX 1120
 Hays KS 67601+1120
 ATTN: Jeff Lawler

11-7S-19W Rooks KS
Shirley #1
 Job Ticket: 68202 **DST#: 2**
 Test Start: 2022.02.15 @ 01:05:00

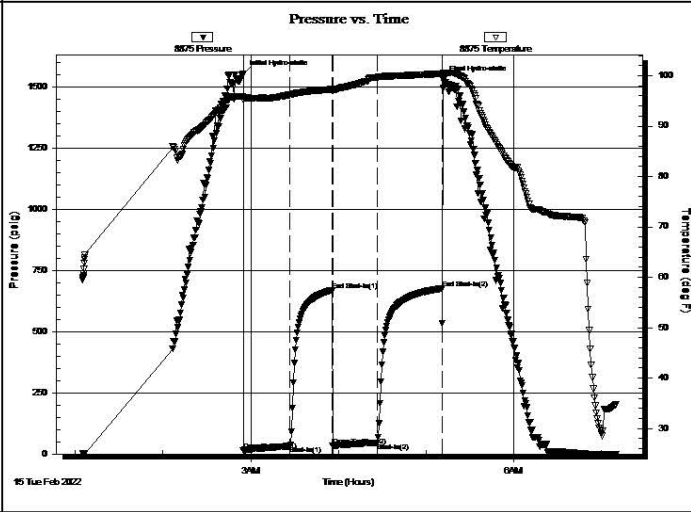
GENERAL INFORMATION:

Formation: **LKC D-G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:54:57
 Time Test Ended: 07:10:11
 Interval: **3220.00 ft (KB) To 3271.00 ft (KB) (TVD)**
 Total Depth: 3271.00 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: 1975.00 ft (KB)
 1968.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 45.96 psig @ 3224.00 ft (KB) Capacity: psig
 Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15

Start Time: 01:05:01 End Time: 07:10:12 Time On Btm: 2022.02.15 @ 02:54:52
 Time Off Btm: 2022.02.15 @ 05:12:02

TEST COMMENT: 30-IF-Surface to 3/4" Died back to 1/2"
 30-ISI-No Return
 30-FF-Surface to 1/4"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.03	95.91	Initial Hydro-static
1	15.51	95.24	Open To Flow (1)
33	32.89	96.23	Shut-In(1)
61	670.37	97.27	End Shut-In(1)
62	34.10	97.18	Open To Flow (2)
92	45.96	99.70	Shut-In(2)
137	676.98	100.39	End Shut-In(2)
138	1532.05	100.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSM 100%M	0.30

* Recovery from multiple tests

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 68202

Printed: 2022.02.15 @ 08:02:13

DST #3 LKC H - J 3288' - 3350'

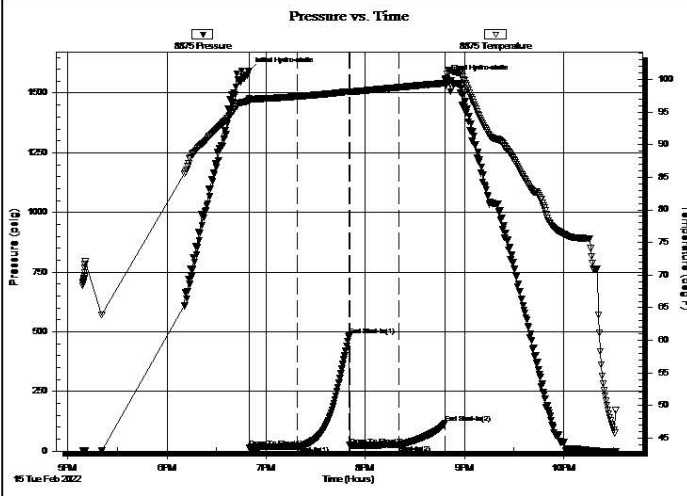
<p>TRILOBITE TESTING, INC</p>	DRILL STEM TEST REPORT	
	Jaspar Co PO BOX 1120 Hays KS 67601+1120 ATTN: Jeff Lawler	11-7S-19W Rooks KS Shirley #1 Job Ticket: 68203 DST#: 3 Test Start: 2022.02.15 @ 17:09:00

GENERAL INFORMATION:

Formation: **LKC H-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:49:42
 Time Test Ended: 22:31:32
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Interval: **3288.00 ft (KB) To 3350.00 ft (KB) (TVD)**
 Total Depth: 3350.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 1975.00 ft (KB)
 1968.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8875 **Inside**
 Press@RunDepth: 27.16 psig @ 3292.00 ft (KB) Capacity: psig
 Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15
 Start Time: 17:09:00 End Time: 22:31:32 Time On Btm: 2022.02.15 @ 18:49:37

TEST COMMENT: 30-IF-Surface to 1.25"
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1591.55	97.04	Initial Hydro-static
1	15.59	96.56	Open To Flow (1)
30	21.15	97.40	Shut-In(1)
61	485.84	98.14	End Shut-In(1)
62	23.62	98.11	Open To Flow (2)
91	27.16	98.81	Shut-In(2)
119	116.33	99.48	End Shut-In(2)
119	1562.69	100.04	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	OCM 20%O 80%M	0.10

* Recovery from multiple tests

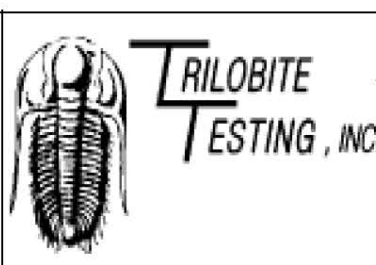
Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)

Trilobite Testing, Inc

Ref. No: 68203

Printed: 2022.02.15 @ 22:37:57

DST #4 MARMATON - ARBUCKLE 3436' - 3457'

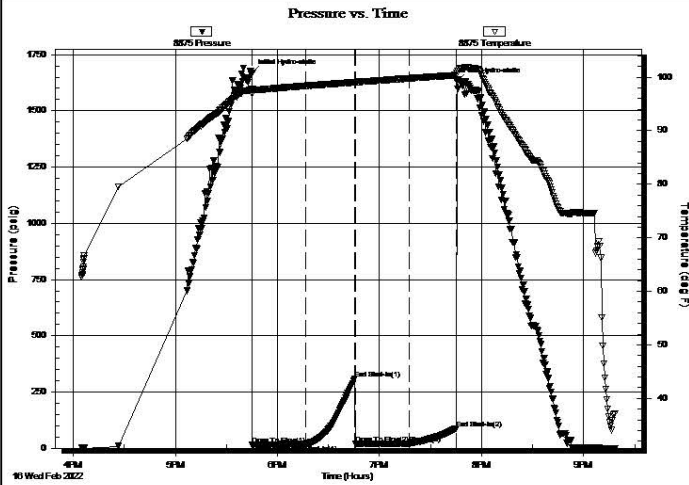


DRILL STEM TEST REPORT	
Jaspar Co	11-7S-19W Rooks KS
PO BOX 1120 Hays KS 67601+1120	Shirley #1
ATTN: Jeff Lawler	Job Ticket: 68204 DST#: 4
	Test Start: 2022.02.16 @ 16:05:00

GENERAL INFORMATION:			
Formation: Marm/Arb			
Deviated: No Whipstock:		ft (KB)	
Time Tool Opened: 17:45:17			
Time Test Ended: 21:18:11			

Serial #: 8875	Outside		
Press@RunDepth: 20.89 psig @	3437.00 ft (KB)	Capacity:	psig
Start Date: 2022.02.16	End Date: 2022.02.16	Last Calib.: 2022.02.16	
Start Time: 16:05:01	End Time: 21:18:12	Time On Btm: 2022.02.16 @ 17:45:12	
		Time Off Btm: 2022.02.16 @ 19:45:27	

TEST COMMENT: 30-IF-Surface to 1/2" Died in 20 mins
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.72	97.74	Initial Hydro-static
1	15.01	96.91	Open To Flow (1)
32	17.32	98.40	Shut-In(1)
61	310.55	99.02	End Shut-In(1)
61	18.60	99.02	Open To Flow (2)
93	20.89	99.78	Shut-In(2)
120	88.32	100.39	End Shut-In(2)
121	1630.55	100.74	Final Hydro-static

Recovery

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

Gas Rates

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

* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 68204

Printed: 2022.02.16 @ 21:30:13

ROCK TYPES

Cht	Lmst fw7>	Shblk	Arg/Shale
Dolprim	shale, gry	shale, red	Ss
Dolsec	Carbon Sh	Shcol	

ACCESSORIES

STRINGER

Chert
Dolomite

OTHER SYMBOLS

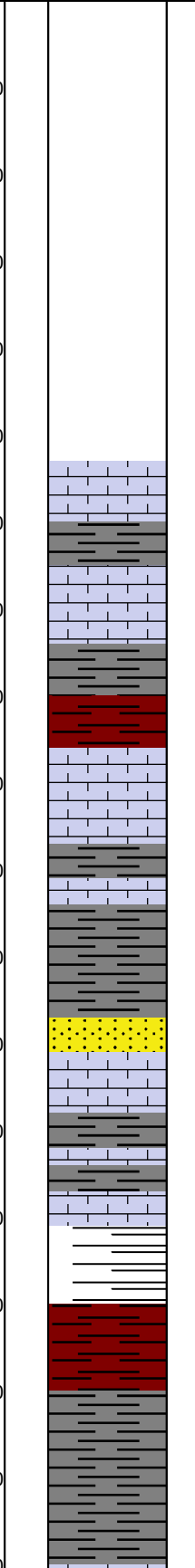
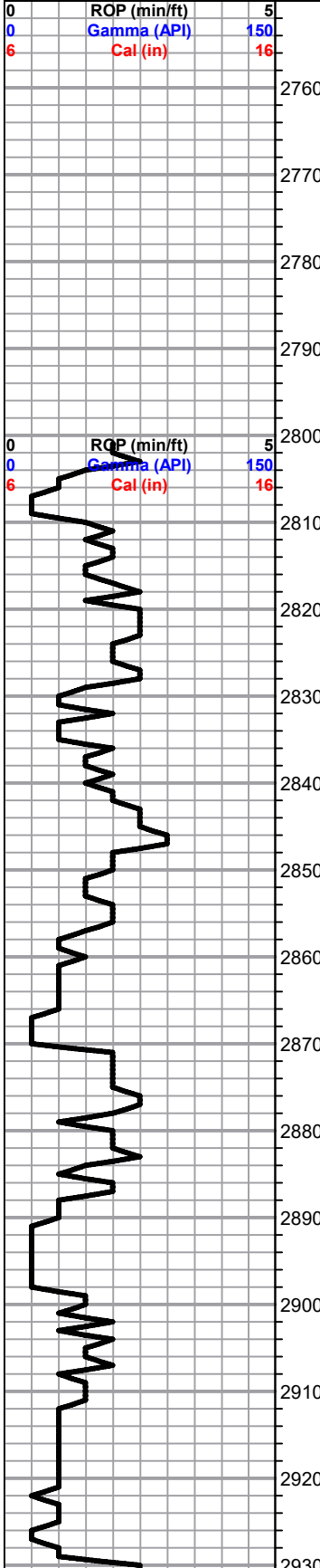
MISC

- Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

DST

- DST Int
- DST alt

Curve Track #1		Depth Intervals	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3
ROP (min/ft)	Gamma (API)						Cal (in)



1' DRILL TIME THROUGH ANHYDRITE FROM 1460' - 1530'
1' DRILL TIME FROM 2800' - RTD
10' WET/DRY SAMPLES FROM 2850' - RTD

GEOLOGICAL SUPERVISION BY JEFF LAWLER FROM 2800' - RTD

8 5/8" SURFACE PIPE SET @ 223'

ANHYDRITE TOP 1496' (+479) E-LOG 1495' (+480)
ANHYDRITE BASE 1526' (+449) E-LOG 1525' (+450)

****LOST CIRCULATION AT 30', DRY DRILLED TO 223'****

Sh- Gray Maroon, abundant argillaceous wash, some soft white chalk

Lm- Cream Lt Gray, FXLN, Vf Grn, mix of sl fsl, chalky in part, loosely cemented w/ sctrd XLN porosity & chalky mud supported matrix w/o vis. porosity, much soft white chalk

Lm- Lt Gray, FXLN, high-energy, fsl w/ fragments, dense XLN porosity, trashy

Sh/Ss- Lt Gray, abundant argillaceous clumps, some sl sandy, hvy micaceous, Ss- Vf Grn, loosely cemented, calcareous, micaceous, consolidated & well sorted, barren

Lm- Buff, FXLN, well cemented, sl calstic high-energy w/ fsl fragments, dense XLN porosity, barren, several pcs of cream mudstone & some wackstone

Lm- Gray, FXLN, high-energy, trashy w/ fsl fragments, dense XLN porosity, vry well cemented

Sh- Gray, abundant argillaceous wash/clumps

Sh- Maroon Gray, abundant argillaceous clumps

Sh- Maroon Gray Green, abundant argillaceous clumps, some sandy shale, micaceous, fn grn, consolidated & well sorted, barren

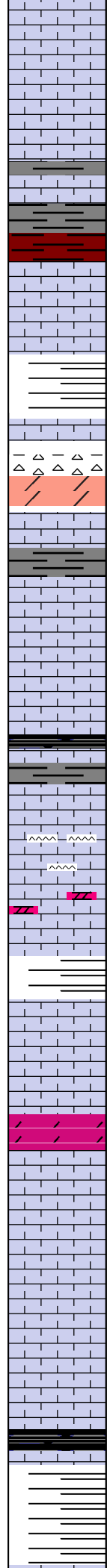
TOPEKA 2930' (-955) E-LOG 2927' (-952) Lm- Cream VEXLN massive

Curve Track #3

TORONTO 2936' (-1156) E-LOG 2927' (-1152) Lm- Cream, VF XLN, massive, dense, well cemented, densely packed oolites, poor vis. porosity, barren

2940
2950
2960
2970
2980
2990
3000
3010
3020
3030
3040
3050
3060
3070
3080
3090
3100
3110
3120
3130
3140
3150

ROP (min/ft) 5
Gamma (API) 150
Ca (ppm) 16
0
0
6



Lm- Tan Buff, VFXLN, vry well cemented, tight w/o vis. porosity

Lm- Gray Cream, VFXLN, sl fsl, well cemented & tight w/ tr XLN porosity, sl chalky in part

Lm- Cream, VFXLN, loosely cemented dolomitic Ls w/ consistent microXLN porosity, chalky

Lm- Lt Gray, VFXLN, dense, well cemented & tight, sl trashy w/ fsl fragments, sctrd XLN porosity, some sandy

Sh- abundant argillaceous gray clumps

Lm- Cream, FXLN, hvy fsl, massive, well cemented, sctrd XLN porosity & dense clear replacement cementation, TR of fsl vitreous fresh bedded cryptoXLN chert

Lm- Cream, VFXLN, well cemented dolomitic Ls, poor vis. porosity, much soft white chalk, barren

Lm- Buff Cream, FXLN, hvy fsl, sl dolomitic Ls, dense XLN porosity, mottled, barren

Lm- Cream, FXLN, fsl, massive, sl sandy, loosely cemented & chalky in part, sctrd XLN porosity, much soft white chalk

Sh- Black Lt & Drk Gray, fissile & carbonaceous, abundant argillaceous clumps, some calcareous

Lm- Cream, FXLN, fsl, loosely cemented & chalky, poor vis. porosity, much soft white chalk, hvy mottled

Lm- Cream, mix of VFXLN dolomitic Ls w/ dense microXLN porosity & tight cherty Ls w/ sctrd XLN porosity & clear replacement cementation, all clean & barren

Sh- Lt Gray Maroon Lt Green, abundant argillaceous clumps, some sl sandy, TR of calcareous

Lm- Cream, FXLN, fsl, sctrd XLN porosity, barren

Dol- Cream, VF-FXLN, consistent microXLN porosity throughout, , few pcs of sl oolitic dolomitic Ls & Tr of oolitic vitreous fresh bedded cryptoXLN chert, all barren, possibly fractured??

Lm- Off White, FXLN, heavily fsl w/ dark fsl, dense XLN porosity, some chalky in part, several pcs of VFXLN Ls w/o vis. porosity

A/A, abundant soft white chalk

Lm- Off White, FXLN, dense, mostly well cemented, poorly dev. w/ sctrd XLN & secondary reXLN porosity, some clear replacement cementation, much soft white chalk, barren, TR creamy white oolitic fresh bedded vitreous chert

HEEBNER 3131' (-1156) E-LOG 3126' (-1151) Sh- Black Gray Maroon, fissile & carbonaceous, argillaceous clumps

TORONTO 3152' (-1177) E-LOG 3150' (-1175) Lm- Cream Off White

SHORT TRIP
SURVEY 1 deg.
STRAP -0.71'

DST #1
TORONTO - LKC C
3125' - 3220'
30-30-30-30

75' TOTAL FLUID
5' OIL Gr: 37
70' HOCM
(30% O. 70% M0

LKC 3170' (-1195) E-LOG 3166' (-1191) Lm- Cream Off White, FXLN, sl fsl, sctrd to dense XLN porosity, some cherty Ls w/ sctrd XLN porosity & clear replacement cementation, 1 PC W/ TR EDGE STN, TR ODR

IFP: 18-35#
FFP: 38-48#
SIP: 855-8223

Sh- Maroon Green, abundant argillaceous clumps & wash

LKC 3170' (-1195) E-LOG 3166' (-1191) Lm- Lm- Off White, VF-FXLN, mix of oolitic w/ sctrd clear replacement cementation, sctrd XLN porosity, TR LT STN, NSFO, WK ODR, & sl fsl, poor vis. porosity, cherty Ls, some soft white chalk

3175'.jpg

Lm- Off White, VFXLN, dense, well cemented cherty Ls w/ sctrd XLN porosity, clean & barren

Lm- Cream Lt Gray, FXLN, sl fsl, poorly dev. w/ sctrd XLN porosity, chalky in part, barren

Sh- Black Gray Maroon, fissile & dense, argillaceous, earthy

3210.jpg

Lm- Cream, FXLN, sl fsl, sctrd XLN porosity, some reXLN w/in porosity, SCTRD LT STN, NSFO, NO ODR, some soft white chalk

Sh- abundant maroon & gray argillaceous clumps

Lm- Cream, FXLN, hvy fsl, massive, mod. dev. w/ sctrd XLN & sctrd vry fn to fn ppt porosity, SCTRD DRK STN, NSFO, FR ODR, & loosely cemented, grainy gray dolomitic Ls, barren

3232.jpg

Lm- Off White, VF-FXLN, mix of tight cherty Ls w/ rare sctrd XLN & fn ppt porosity & massive, sl fsl, dense XLN & sctrd vry fn ppt porosity, ALL W/ SCTRD LT STN, NSFO, NODR

3245.jpg

Lm- Cream, FXLN, massive, well cemented, well dev. w/ vry hvy fn ppt porosity throughout, LT STN, NSFO, GD ODR

3260.jpg

Lm- Cream, FXLN, oolitic TR oomoldic, dense XLN & sctrd vry fn vugs, SCTRD TO SUB-SAT STN, NSFO, STRNG ODR

3270.jpg

Lm- Cream Off White, FXLN, fsl, loosely cemented, sctrd XLN porosity, FEW PCS W/ BLK DO STN, NSFO, FR ODR, some soft white chalk

DST #2 LKC D-F
3230' - 3271'
30-30-30-45

Lm- Lt Gray, FXLN, sl fsl, sctrd XLN porosity, hvy mottled, barren

60' OSPM

Sh- Black Gray, fissile & carbonaceous, argillaceous clumps, calcareous

IFP: 15-32#
FFP: 34-45
SIP: 670-676#
BHT: 100 deg.

Lm- Off White, VF-FXLN, sl fsl, most loosely cemented & chalky in part, sctrd-dense XLN porosity, some sctrd secondary reXLN porosity, FEW PCS W/ SCTRD STN, NSFO, FNT ODR, several pcs of milky white vitreous fresh bedded crptoXLN chert

3310.jpg

Sh- Gray Maroon Brown, argillaceous, calcareous & sandy, earthy

Lm- Cream Tan, VF-MedXLN, fsl & oolitic, fairly well dev. w/ sctrd XLN & dense fn ppt porosity, DRK STN, 1-2 PCS W/ GSY FO SHW, FR ODR, grading into VFXLN, tight cherty Ls w/ min. vis. to sctrd XLN porosity, barren

3326.jpg

Sh- Maroon Brown Gray, earthy, semi-waxy, argillaceous

Lm- Cream, VF-FXLN, fsl & sl oolitic, dense, XLN & sctrd fn ppt porosity, SCTRD DRK STN, SOME W/ GILSONITE STN, NSFO, WK ODR

3342.jpg

Lm- Cream, FXLN, sl fsl, sctrd XLN porosity, barren

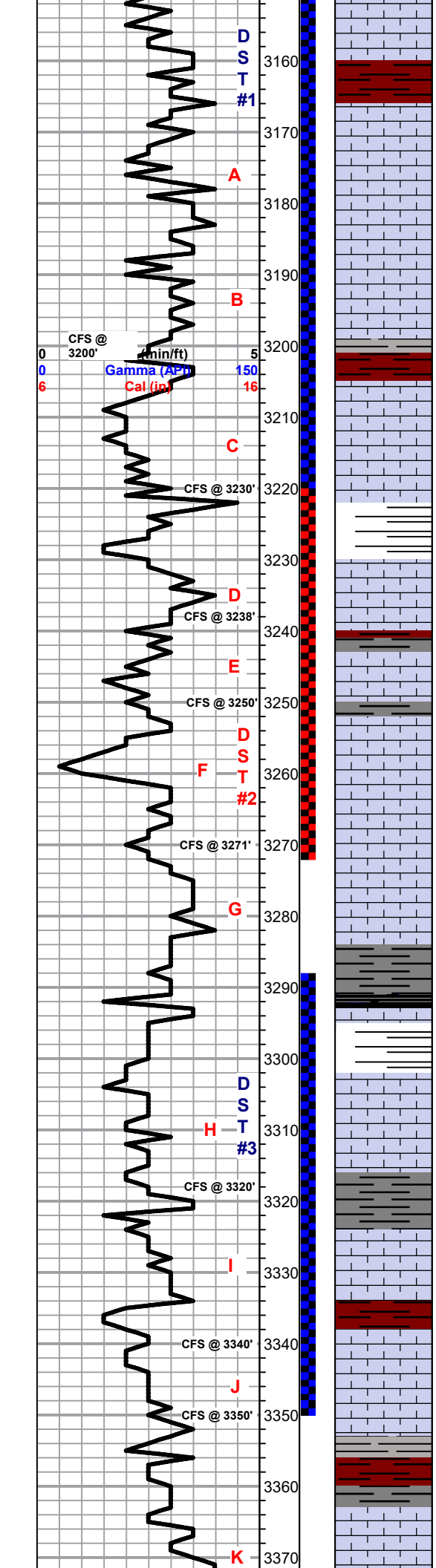
DST #3 LKC H-J
3288' - 3350'
30-30-30-30

Sh- Black Maroon Gray, gummy wash, earthy & waxy, calcareous

20' OCM
(20% O, 80% M)

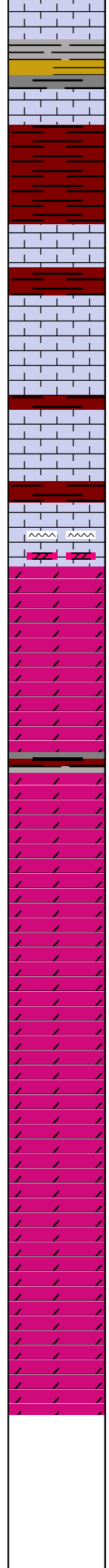
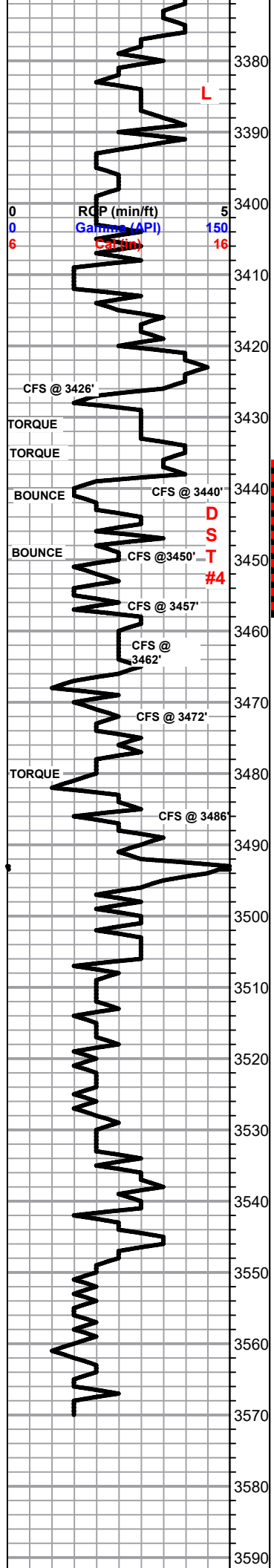
Lm- Cream Off White Tan, VF-FXLN, dense well cemented mix, sctrd XLN porosity, chalky in part & tight cherty Ls w/o vis. porosity, some soft white chalk, all vry clean &

IFP: 15-21#
FFP: 23-27#
SIP: 485-116#
BHT: 99 deg.



Vertical column of lithological descriptions and well logs corresponding to the depth scale on the left.

Right margin containing well identification numbers (IFP, FFP, SIP), photographs (e.g., 3175'.jpg, 3210.jpg), and DST logs.



barren

Sh- Black wash

Lm- Cream Buff, FXLN, fsl & sl oolitic, dense XLN porosity, mottled, micro glauconite inclusions, barren

BKC 3389' (-1414) E-LOG 3386' (-1411) Sh- Maroon Gray, earthy & waxy, argillaceous
A/A, sandy shale/shaley sandstone

Lm- Off White, FXLN, loosely cemented, densely packed oolites, dense XLN porosity, much soft white chalk, vry clean & barren

Sh/Ss- argillaceous maroon clumps Off White Maroon sandy Ls/calcareous Ss

Lm- Cream, VF-FXLN, mix of loosely cemented, oolitic w/ dense XLN porosity & VFXLN tight cherty Ls w/ no to min vis. porosity, all barren

Lm- White Off White, VF-FXLN, mix of loosely cemented & crumbley, poorly dev. & sl fsl w/ dense XLN porosity, BLK DO STN, NSFO, NO ODR, cherty Ls w/ sctrd XLN & ppt porosity, BLK DO STN, some soft white chak

Lm- Off White w/ Maroon hue, conglomerate, loosely cemented, crumbley, dense XLN porosity, chalky, barren

3450'-Lm- White Off White, FXLN, fsl & oolitic, mostly well cemented, dns XLN & sctrd-dns ppt porosity, possible fracturing, HVY BLK TARRY STN, NSFO, NO ODR, tr of fresh bedded chert, tr or FXLN cream well dev. dolomite w/ consistent microXLN porosity throughout, barren

ARBUCKLE 3451' (-1476) E-LOG 3452' (-1475)

3457' 20"- Dol- Cream Off White, F-MedXLN, well dev. w/ consistent XLN & sctrd vry fn ppt porosity throughout, DRK TARRY STN, NSFO, NO ODR, few pcs of Green semi-waxy shale

40"- Dol- Off White Cream, VF-FXLN, dense, well cemented, dense micro XLN porosity throughout, sucrosic, barren, few pcs of soft limey dolomite w/ rounded fn grn qtz inclusions

3462'- Dol- Maroon Maroon tint, VF-FXLN, dense, well cemented, w/ consistent micro XLN porosity, barren

3472'- Dol- Cream Maroon, F-MedXLN, sucrosic consistent XLN porosity, barren, well cemented maroon FXLN dolomite w/ consistent microXLN porosity, barren

3486'- Dol- Cream, VF-Crs XLN, mix of well cemented, sl cherty dol w/ sctrd micro XLN-XLN porosity to sucrosic F-Crs XLN, sucrosic, some w/ vis. rhombs, consistent XLN to fn ppt porosity throughout, few speckled w/ glauconite, all clean & barren

Dol- Buff, CrsXLN, massive, most loosely cemented, ppt interXLN porosity, sub-rounded med grn qtz & glauconite inclusions, rhombic, barren

A/A w/ maroon tint, some VFXLN, well cemented, w/ sub-rounded qtz inclusions

Dol- Maroon Maroon Tint, F-MedXLN, well cemented, consistent XLN porosity, sucrosic, barren

Dol- A/A w/ Purple Green w/ tints, VF-FXLN, well cemented, consistent XLN porosity, barren

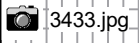
A/A coarse XLN, massive, sctrd ppt porosity

LTD 3550' (-1575) @ 07:07 2/17/2022
AFTER LOG DEEPENED 20'

Dol- Maroon Maroon Tint, F-MedXLN, mix of well cemented to semi-brittle, mostly all w/ sub-rounded med grn qtz & glauconite/chlorite inclusions, dense XLN to sctrd XLN & fn ppt porosity

A/A w/ tr VFXLN maroon dol w/ dense microXLN porosity

RTD 3570' (-1595)



SHORT TRIP SURVEY 1 deg.

DST #4 MARMATON - ARBUCKLE 3436' - 3457' 30-30-30-30

5' MUD

**IFP: 15-17#
FFP: 18-28#
SIP: 310-88#
BHT: 100 deg.**

SURVEY 1 1/4 deg

3175'.jpg

A003 1280x1024 2022/02/14 04:10:20



3175'





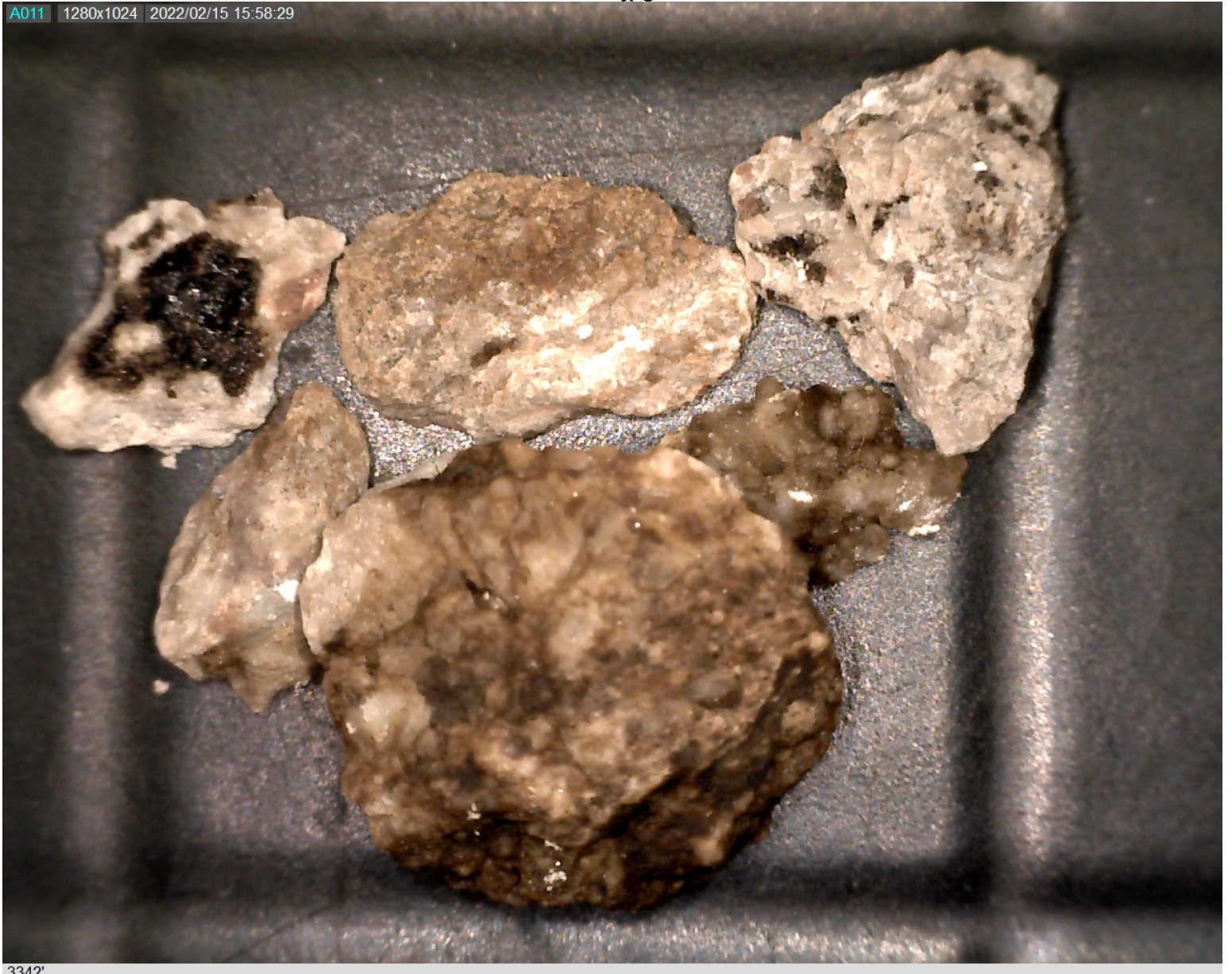


















DRILL STEM TEST REPORT

Prepared For: **Jaspar Co**

PO Box 1120
Hays KS 67601+1120

ATTN: Jeff Lawler

Shirley #1

11-7S-19W Rooks,KS

Start Date: 2022.02.14 @ 10:15:00

End Date: 2022.02.14 @ 15:45:32

Job Ticket #: 68201 DST #: 1

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

Printed: 2022.02.18 @ 11:31:13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

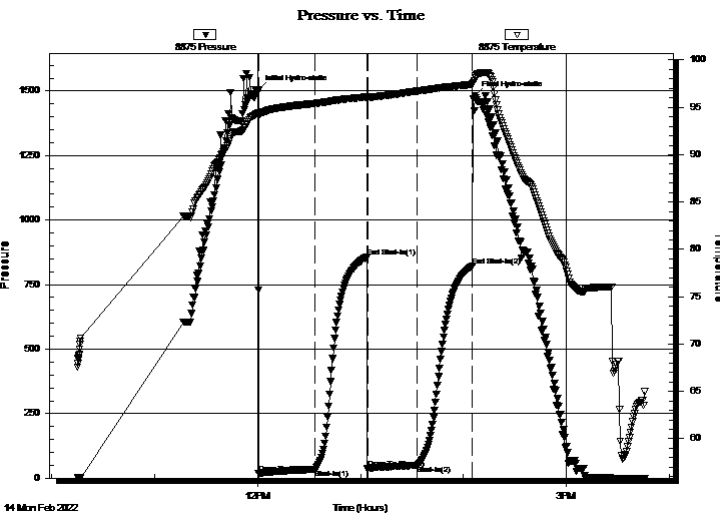
11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68201 **DST#: 1**
Test Start: 2022.02.14 @ 10:15:00

GENERAL INFORMATION:

Formation: **Toronto - LKC A**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:00:27
Time Test Ended: 15:45:32
Interval: **3125.00 ft (KB) To 3220.00 ft (KB) (TVD)**
Total Depth: 3220.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1975.00 ft (KB)
1968.00 ft (CF)
KB to GR/CF: 7.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84

Serial #: 8875 Inside
Press@RunDepth: 48.71 psig @ 3129.00 ft (KB) Capacity: psig
Start Date: 2022.02.14 End Date: 2022.02.14 Last Calib.: 2022.02.14
Start Time: 10:15:01 End Time: 15:45:32 Time On Btm: 2022.02.14 @ 12:00:17
Time Off Btm: 2022.02.14 @ 14:06:37

TEST COMMENT: 30-IF-Surface to 1/2" Died back to 1/4"
30-ISI-No Return
30-FF-Surface to 1/4" Died back to Surface
30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1503.57	94.39	Initial Hydro-static
1	18.01	94.00	Open To Flow (1)
33	35.04	95.41	Shut-In(1)
64	855.36	96.08	End Shut-In(1)
64	38.01	96.02	Open To Flow (2)
93	48.71	96.72	Shut-In(2)
125	822.03	97.44	End Shut-In(2)
127	1480.95	98.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	HOCM 30%O 70%M	0.34
5.00	CO 100%O	0.02

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jaspar Co
 PO Box 1120
 Hays KS 67601+1120
 ATTN: Jeff Lawler

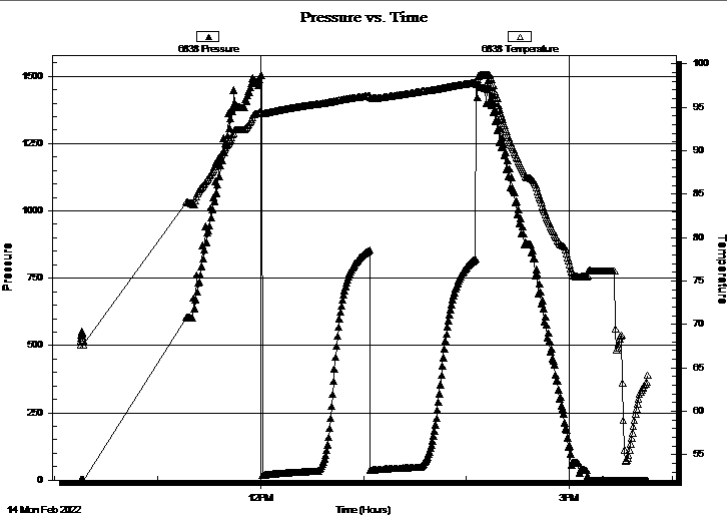
11-7S-19W Rooks,KS
Shirley #1
 Job Ticket: 68201 **DST#: 1**
 Test Start: 2022.02.14 @ 10:15:00

GENERAL INFORMATION:

Formation:	Toronto - LKC A		
Deviated:	No	Whipstock:	ft (KB)
Time Tool Opened:	12:00:27		
Time Test Ended:	15:45:32		
Interval:	3125.00 ft (KB) To 3220.00 ft (KB) (TVD)		
Total Depth:	3220.00 ft (KB) (TVD)		
Hole Diameter:	7.88 inches	Hole Condition:	Fair
		Reference Elevations:	1975.00 ft (KB) 1968.00 ft (CF)
		KB to GR/CF:	7.00 ft

Serial #: 6838	Inside				
Press@RunDepth:	psig @	3129.00 ft (KB)	Capacity:		psig
Start Date:	2022.02.14	End Date:	2022.02.14	Last Calib.:	2022.02.14
Start Time:	10:15:01	End Time:	15:45:32	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 30-IF-Surface to 1/2" Died back to 1/4"
 30-ISI-No Return
 30-FF-Surface to 1/4" Died back to Surface
 30-FSI-No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
70.00	HOCM 30%O 70%M	0.34
5.00	CO 100%O	0.02

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68201 **DST#: 1**
Test Start: 2022.02.14 @ 10:15:00

Tool Information

Drill Pipe:	Length: 2997.00 ft	Diameter: 3.82 inches	Volume: 42.48 bbl	Tool Weight:	2200.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	70000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	49000.00 daN
Drill Pipe Above KB:	20.00 ft			Final	49000.00 daN
Depth to Top Packer:	3125.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	95.00 ft				
Tool Length:	122.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3099.00	
Shut In Tool	5.00			3104.00	
Hydraulic tool	5.00			3109.00	
Gap Sub	4.00			3113.00	
Safety Joint	3.00			3116.00	
Packer	5.00			3121.00	27.00 Bottom Of Top Packer
Packer	4.00			3125.00	
Stubb	1.00			3126.00	
Perforations	2.00			3128.00	
Change Over Sub	1.00			3129.00	
Recorder	0.00	6838	Inside	3129.00	
Recorder	0.00	8875	Inside	3129.00	
Drill Pipe	63.00			3192.00	
Change Over Sub	1.00			3193.00	
Perforations	24.00			3217.00	
Bullnose	3.00			3220.00	95.00 Bottom Packers & Anchor
Total Tool Length:	122.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68201 **DST#: 1**
Test Start: 2022.02.14 @ 10:15:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 73.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 800.00 ppm		
Filter Cake: inches		

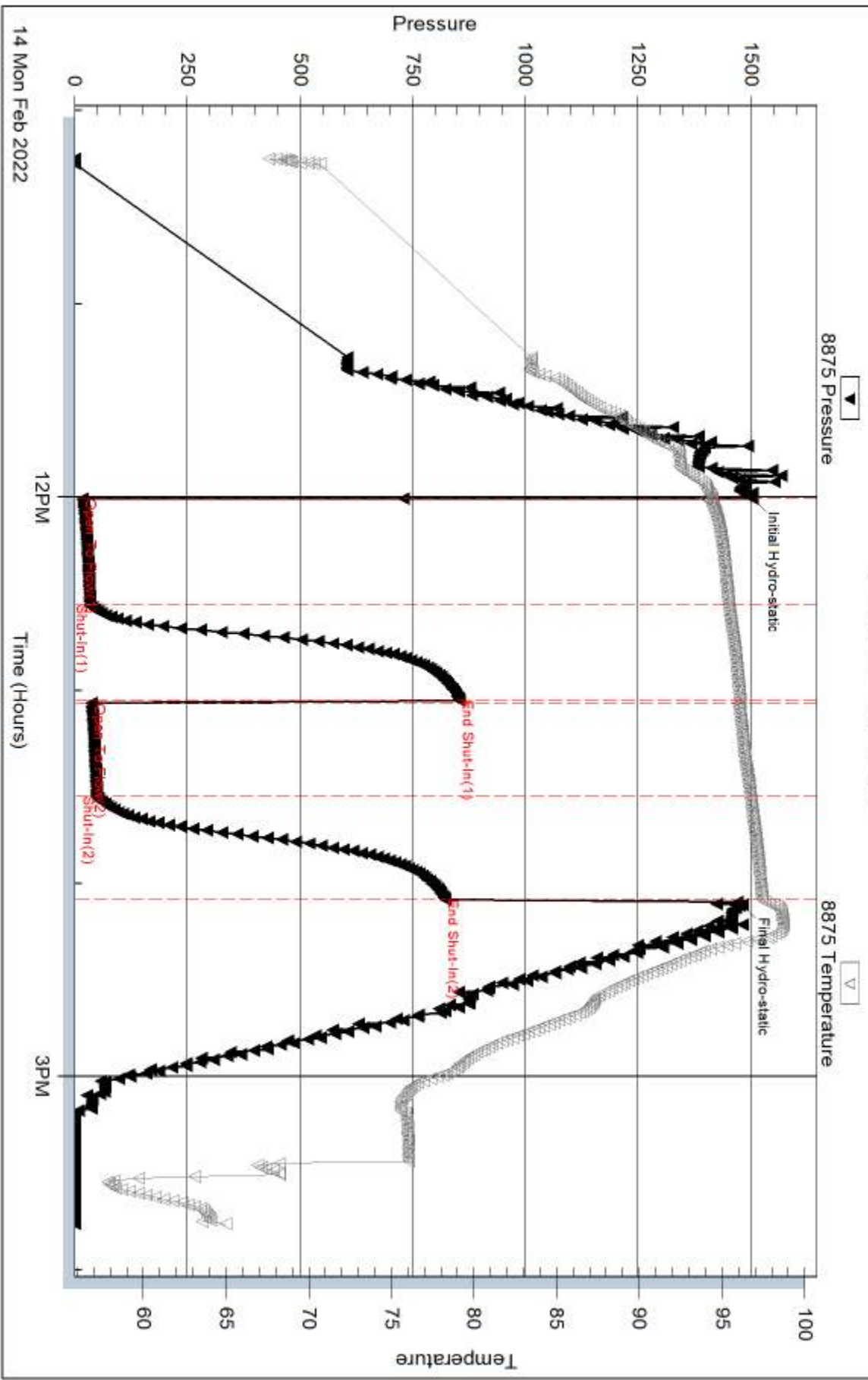
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	HOCM 30%O 70%M	0.344
5.00	CO 100%O	0.025

Total Length: 75.00 ft Total Volume: 0.369 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 2#LCM

Pressure vs. Time



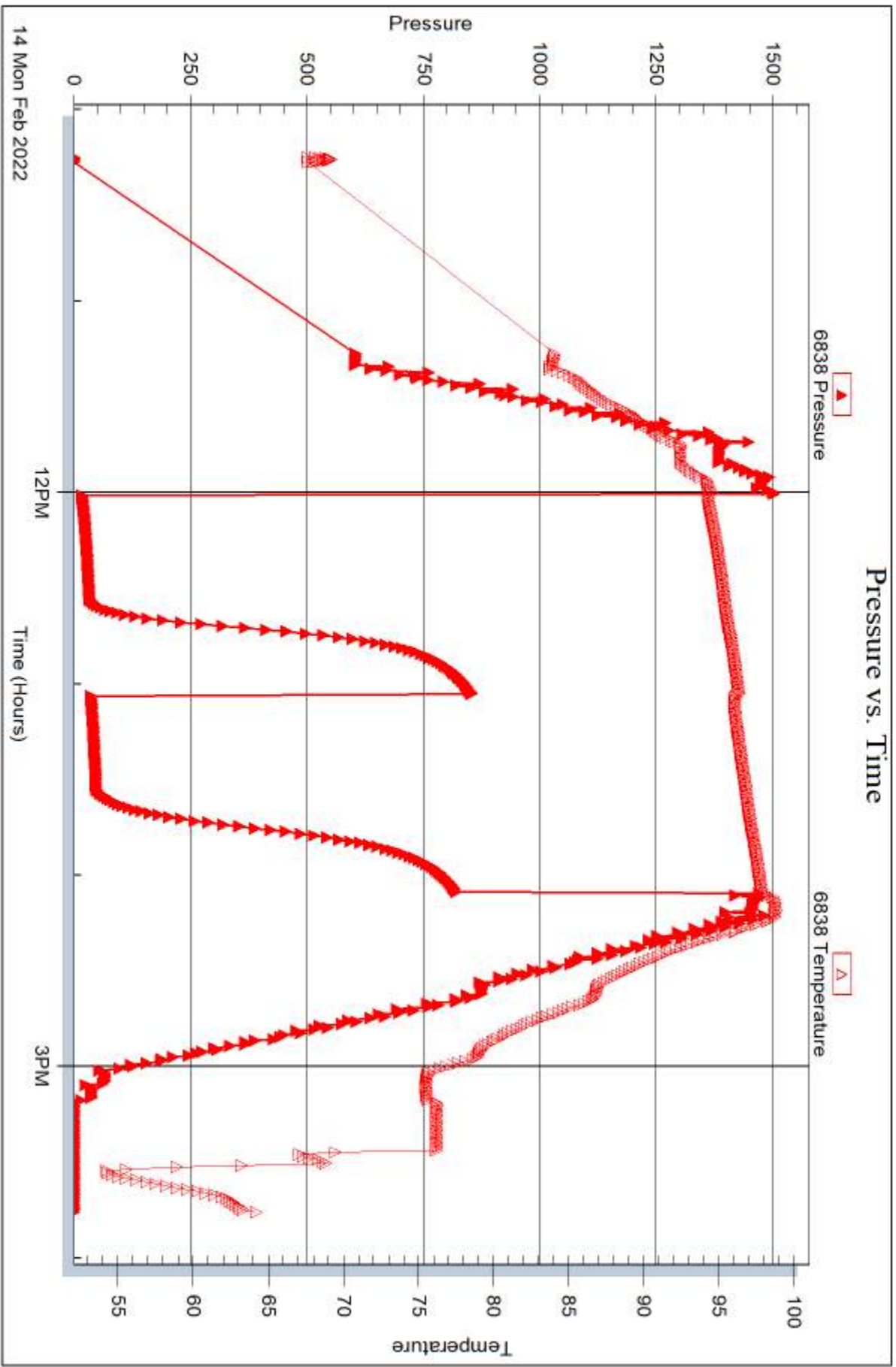
14 Mon Feb 2022

Serial #: 6838

Inside Jasper Co

Shirley #1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 68201

Printed: 2022.02.18 @ 11:31:13



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co**

PO Box 1120
Hays KS 67601+1120

ATTN: Jeff Lawler

Shirley #1

11-7S-19W Rooks,KS

Start Date: 2022.02.15 @ 01:05:00

End Date: 2022.02.15 @ 07:10:11

Job Ticket #: 68202 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.02.18 @ 11:30:38

Jaspar Co
11-7S-19W Rooks,KS
Shirley #1
DST # 2
LKC D - G
2022.02.15



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co
 PO Box 1120
 Hays KS 67601+1120
 ATTN: Jeff Lawler

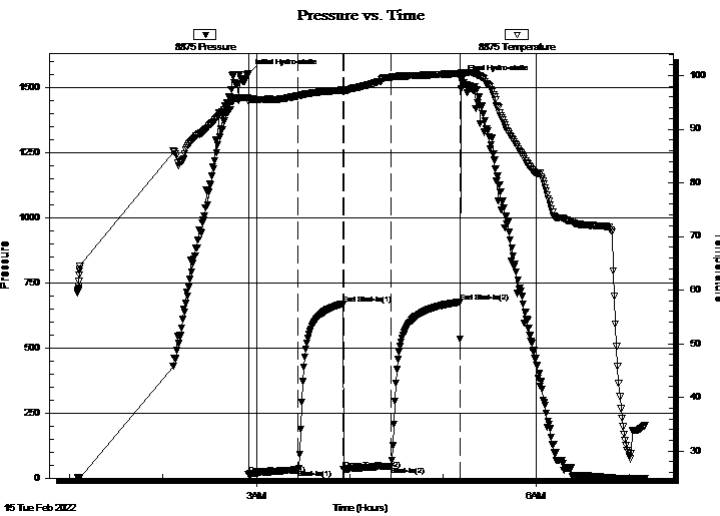
11-7S-19W Rooks,KS
Shirley #1
 Job Ticket: 68202 **DST#: 2**
 Test Start: 2022.02.15 @ 01:05:00

GENERAL INFORMATION:

Formation: **LKC D - G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:54:57
 Time Test Ended: 07:10:11
 Interval: **3220.00 ft (KB) To 3271.00 ft (KB) (TVD)**
 Total Depth: 3271.00 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: 1975.00 ft (KB)
 1968.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8875 **Inside**
 Press@RunDepth: 45.96 psig @ 3224.00 ft (KB) Capacity: psig
 Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15
 Start Time: 01:05:01 End Time: 07:10:11 Time On Btm: 2022.02.15 @ 02:54:52
 Time Off Btm: 2022.02.15 @ 05:12:02

TEST COMMENT: 30-IF-Surface to 3/4" Died back to 1/2"
 30-ISI-No Return
 30-FF-Surface to 1/4"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.03	95.91	Initial Hydro-static
1	15.51	95.24	Open To Flow (1)
33	32.89	96.23	Shut-In(1)
61	670.37	97.27	End Shut-In(1)
62	34.10	97.18	Open To Flow (2)
92	45.96	99.70	Shut-In(2)
137	676.98	100.39	End Shut-In(2)
138	1532.05	100.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSM 100%M	0.30

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co
 PO Box 1120
 Hays KS 67601+1120
 ATTN: Jeff Lawler

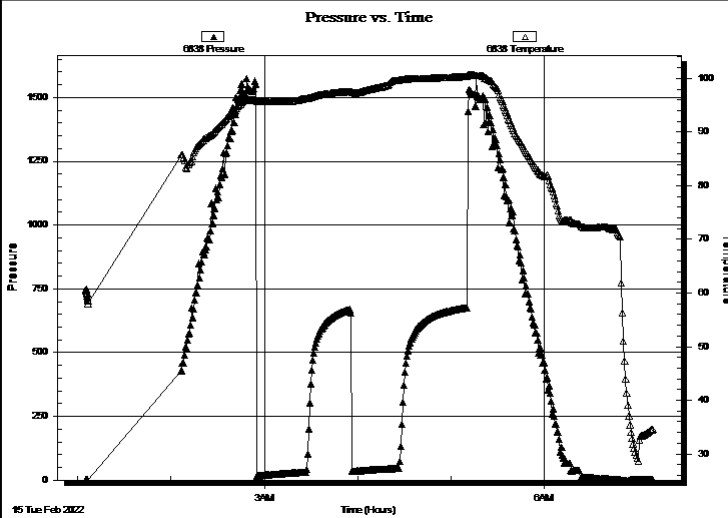
11-7S-19W Rooks, KS
Shirley #1
 Job Ticket: 68202 **DST#: 2**
 Test Start: 2022.02.15 @ 01:05:00

GENERAL INFORMATION:

Formation: **LKC D - G**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:54:57
 Tester: Spencer J Staab
 Time Test Ended: 07:10:11
 Unit No: 84
 Interval: **3220.00 ft (KB) To 3271.00 ft (KB) (TVD)**
 Reference Elevations: 1975.00 ft (KB)
 Total Depth: 3271.00 ft (KB) (TVD)
 1968.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

Serial #: 6838 **Inside**
 Press@RunDepth: psig @ 3224.00 ft (KB) Capacity: psig
 Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15
 Start Time: 01:05:01 End Time: 07:10:11 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 3/4" Died back to 1/2"
 30-ISI-No Return
 30-FF-Surface to 1/4"
 45-FSI-No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	OSM 100%M	0.30

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68202 **DST#: 2**
Test Start: 2022.02.15 @ 01:05:00

Tool Information

Drill Pipe:	Length: 3092.00 ft	Diameter: 3.82 inches	Volume: 43.83 bbl	Tool Weight:	2200.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	51000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	48000.00 daN
Drill Pipe Above KB:	20.00 ft			Final	49000.00 daN
Depth to Top Packer:	3220.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	51.00 ft				
Tool Length:	78.00 ft				
Number of Packers:	1	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			3194.00	
Shut In Tool	5.00			3199.00	
Hydraulic tool	5.00			3204.00	
Gap Sub	4.00			3208.00	
Safety Joint	3.00			3211.00	
Packer	5.00			3216.00	27.00 Bottom Of Top Packer
Packer	4.00			3220.00	
Stubb	1.00			3221.00	
Perforations	2.00			3223.00	
Change Over Sub	1.00			3224.00	
Recorder	0.00	6838	Inside	3224.00	
Recorder	0.00	8875	Inside	3224.00	
Drill Pipe	32.00			3256.00	
Change Over Sub	1.00			3257.00	
Perforations	11.00			3268.00	
Bullnose	3.00			3271.00	51.00 Bottom Packers & Anchor
Total Tool Length:	78.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68202 **DST#: 2**
Test Start: 2022.02.15 @ 01:05:00

Mud and Cushion Information

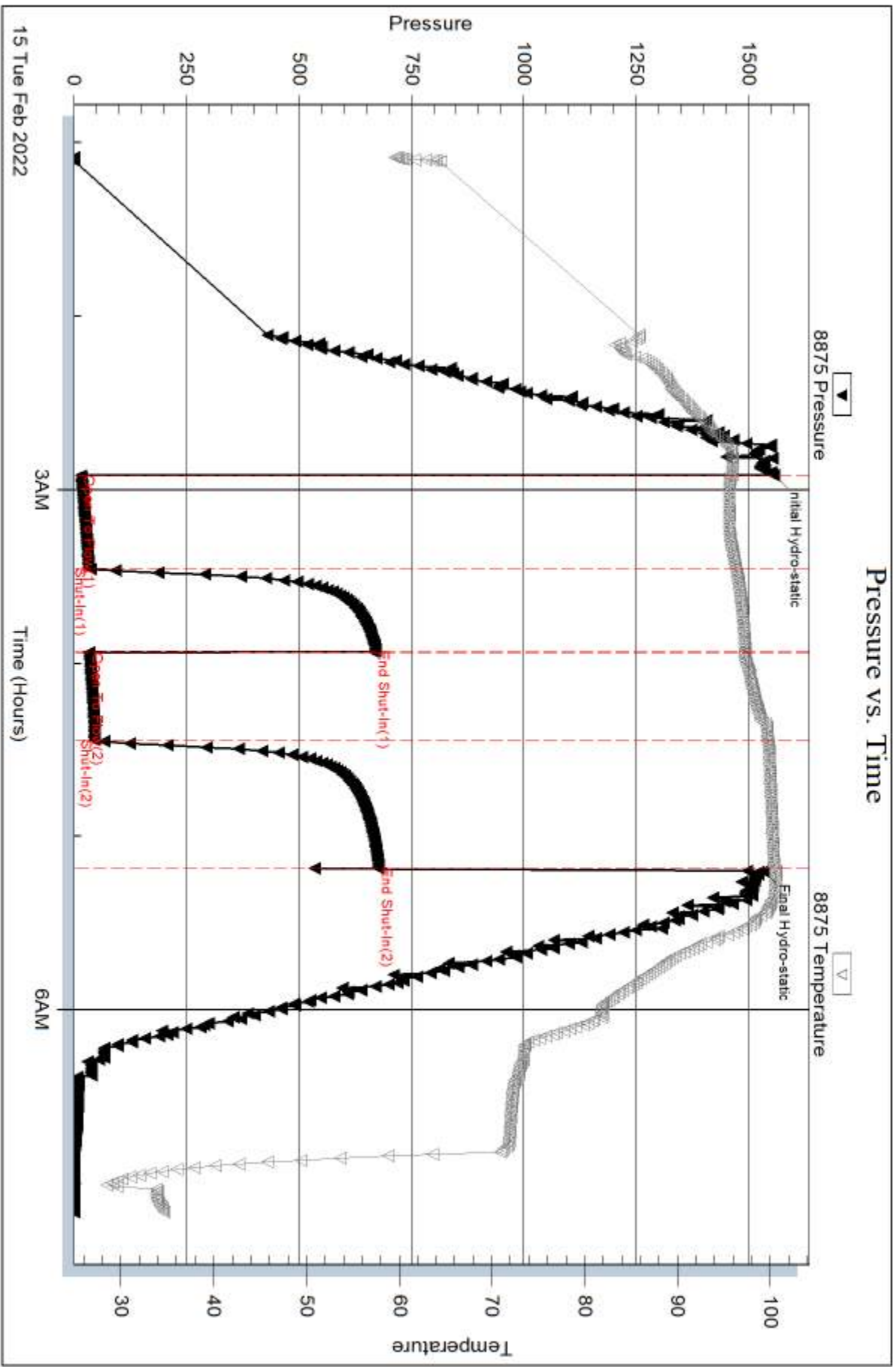
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 73.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OSM 100%M	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM

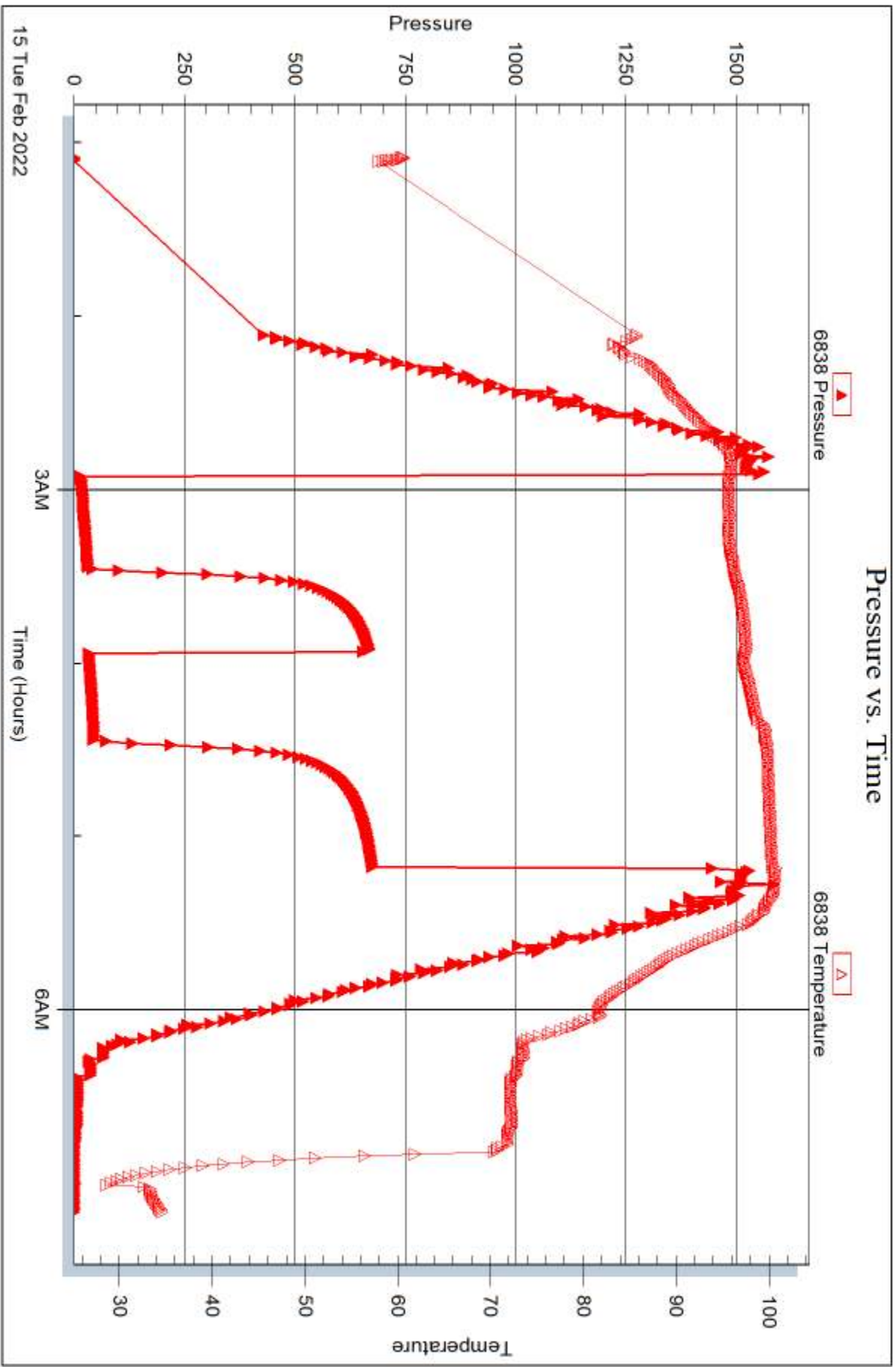


Serial #: 6838

Inside Jasper Co

Shirley #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 68202

Printed: 2022.02.18 @ 11:30:41



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co**
PO Box 1120
Hays KS 67601+1120

ATTN: Jeff Lawler

Shirley #1

11-7S-19W Rooks,KS

Start Date: 2022.02.15 @ 17:09:00
End Date: 2022.02.15 @ 22:31:32
Job Ticket #: 68203 DST #: 3

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

Printed: 2022.02.18 @ 11:30:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68203 **DST#: 3**
Test Start: 2022.02.15 @ 17:09:00

GENERAL INFORMATION:

Formation: **LKC H - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:49:42
Time Test Ended: 22:31:32
Interval: **3288.00 ft (KB) To 3350.00 ft (KB) (TVD)**
Total Depth: 3350.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1975.00 ft (KB)
1968.00 ft (CF)
KB to GR/CF: 7.00 ft

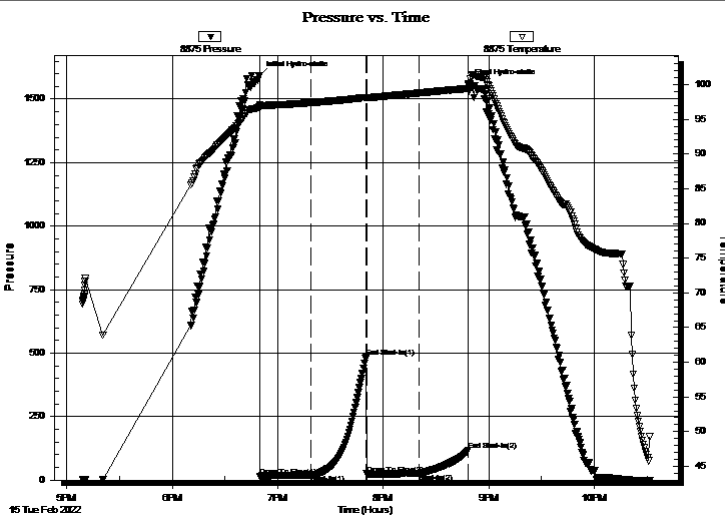
Serial #: 8875

Inside

Press@RunDepth: 27.16 psig @ 3292.00 ft (KB) Capacity: psig
Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15
Start Time: 17:09:01 End Time: 22:31:32 Time On Btm: 2022.02.15 @ 18:49:37
Time Off Btm: 2022.02.15 @ 20:48:21

TEST COMMENT: 30-IF-Surface to 1.25"
30-ISI-No Return
30-FF-No Blow
30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1591.55	97.04	Initial Hydro-static
1	15.59	96.56	Open To Flow (1)
30	21.15	97.40	Shut-In(1)
61	485.84	98.14	End Shut-In(1)
62	23.62	98.11	Open To Flow (2)
91	27.16	98.81	Shut-In(2)
119	116.33	99.48	End Shut-In(2)
119	1562.69	100.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 20% O 80% M	0.10

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co
 PO Box 1120
 Hays KS 67601+1120
 ATTN: Jeff Lawler

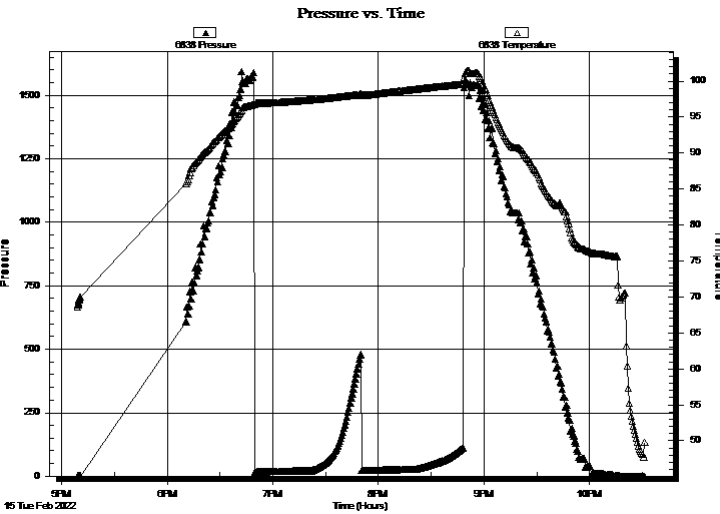
11-7S-19W Rooks, KS
Shirley #1
 Job Ticket: 68203 **DST#: 3**
 Test Start: 2022.02.15 @ 17:09:00

GENERAL INFORMATION:

Formation: **LKC H - J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:49:42
 Time Test Ended: 22:31:32
 Interval: **3288.00 ft (KB) To 3350.00 ft (KB) (TVD)**
 Total Depth: 3350.00 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: 1975.00 ft (KB)
 1968.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 6838 **Inside**
 Press@RunDepth: psig @ 3292.00 ft (KB) Capacity: psig
 Start Date: 2022.02.15 End Date: 2022.02.15 Last Calib.: 2022.02.15
 Start Time: 17:09:01 End Time: 22:31:32 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 1.25"
 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)
20.00	OCM 20% O 80% M	0.10

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68203 **DST#: 3**
Test Start: 2022.02.15 @ 17:09:00

Tool Information

Drill Pipe:	Length: 3155.00 ft	Diameter: 3.82 inches	Volume: 44.72 bbl	Tool Weight:	2200.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	52000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	50000.00 daN
Drill Pipe Above KB:	15.00 ft			Final	50000.00 daN
Depth to Top Packer:	3288.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	62.00 ft				
Tool Length:	89.00 ft				
Number of Packers:	1	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			3262.00	
Shut In Tool	5.00			3267.00	
Hydraulic tool	5.00			3272.00	
Gap Sub	4.00			3276.00	
Safety Joint	3.00			3279.00	
Packer	5.00			3284.00	27.00 Bottom Of Top Packer
Packer	4.00			3288.00	
Stubb	1.00			3289.00	
Perforations	2.00			3291.00	
Change Over Sub	1.00			3292.00	
Recorder	0.00	6838	Inside	3292.00	
Recorder	0.00	8875	Inside	3292.00	
Drill Pipe	32.00			3324.00	
Change Over Sub	1.00			3325.00	
Perforations	22.00			3347.00	
Bullnose	3.00			3350.00	62.00 Bottom Packers & Anchor
Total Tool Length:	89.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68203 **DST#: 3**
Test Start: 2022.02.15 @ 17:09:00

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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: inches			

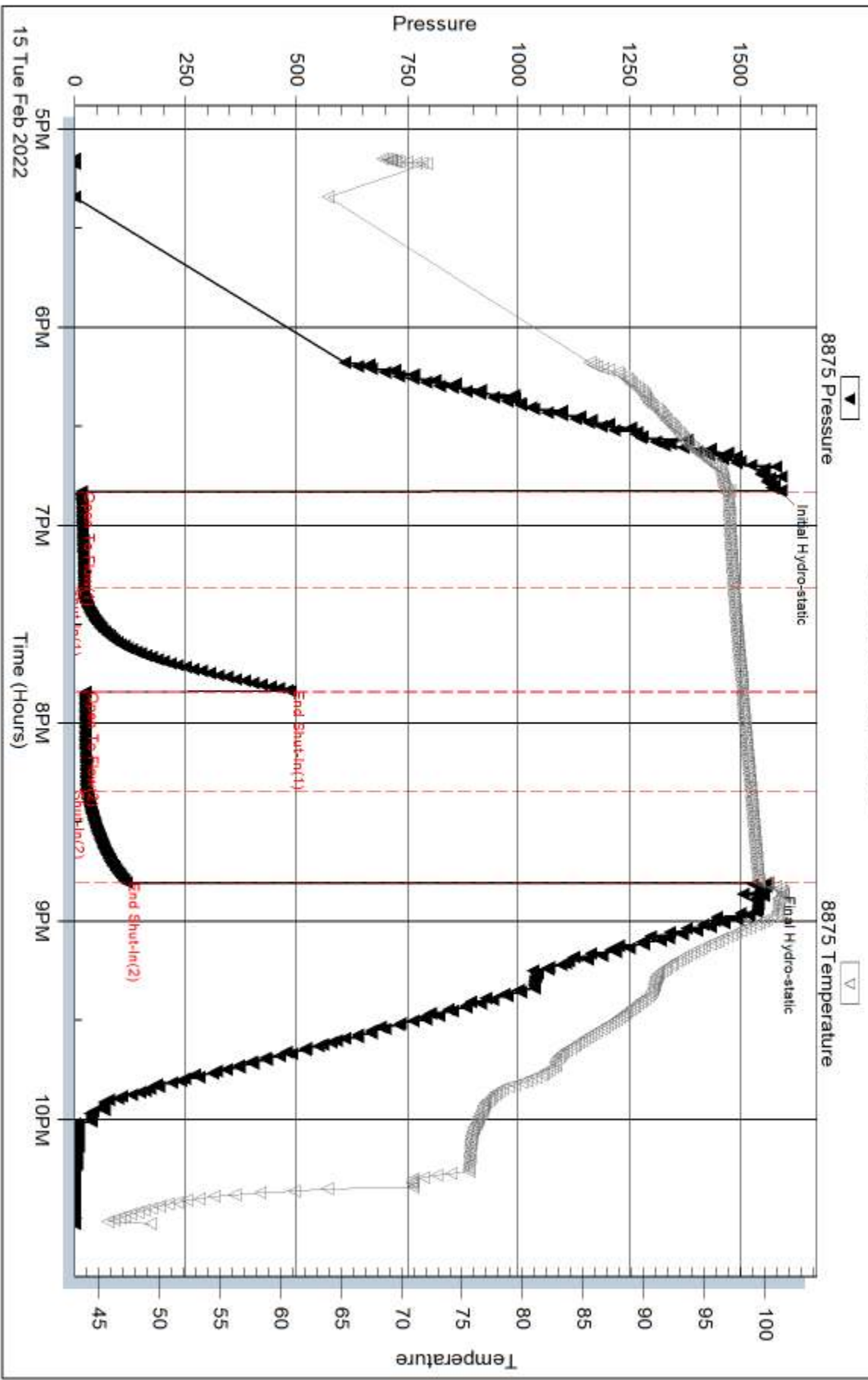
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 20%O 80%M	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM

Pressure vs. Time

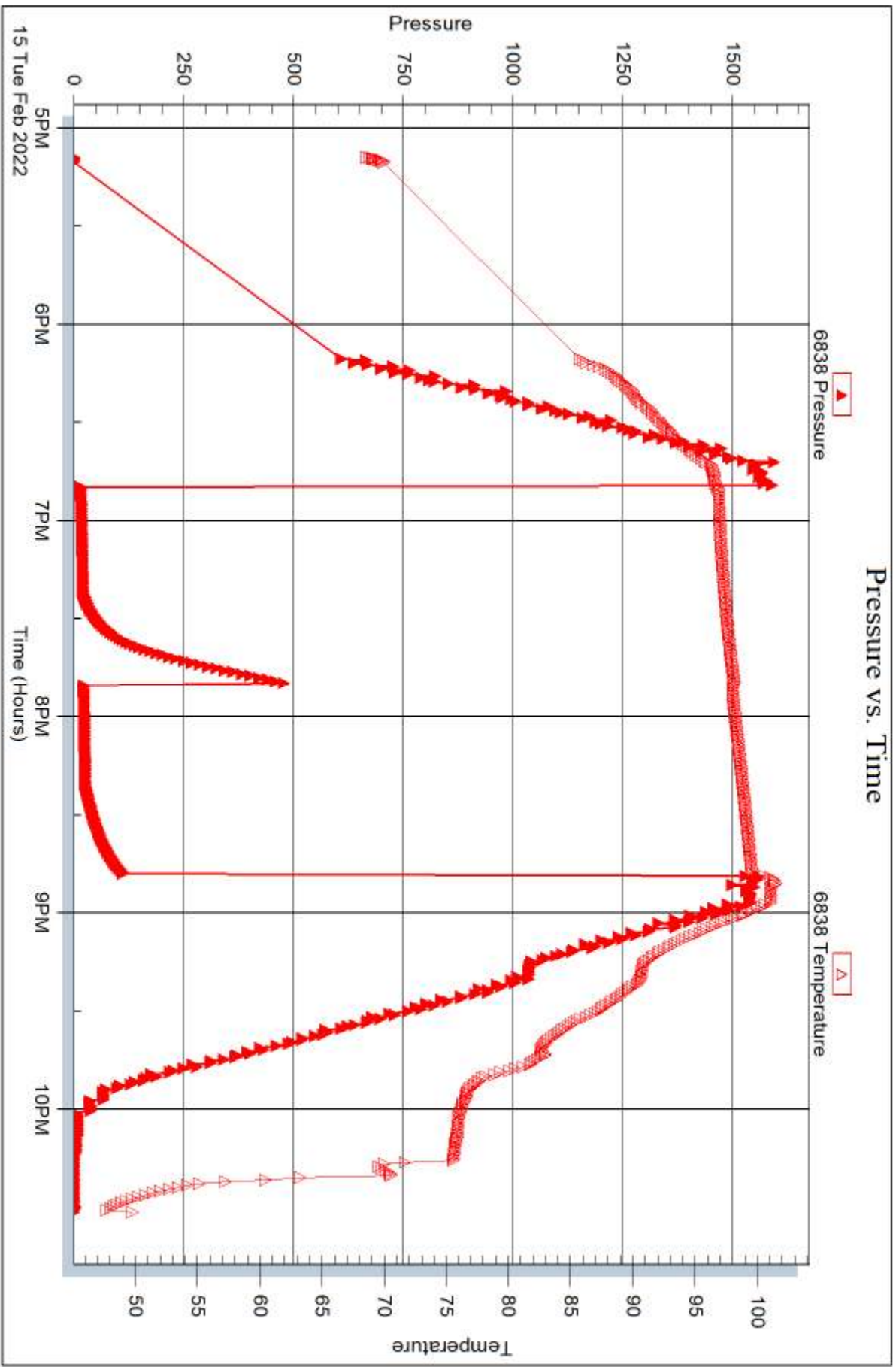


Serial #: 6838

Inside Jasper Co

Shirley #1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Jaspar Co**

PO Box 1120
Hays KS 67601+1120

ATTN: Jeff Lawler

Shirley #1

11-7S-19W Rooks,KS

Start Date: 2022.02.16 @ 16:05:00

End Date: 2022.02.16 @ 21:18:11

Job Ticket #: 68204 DST #: 4

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

Printed: 2022.02.18 @ 11:29:31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68204 **DST#: 4**
Test Start: 2022.02.16 @ 16:05:00

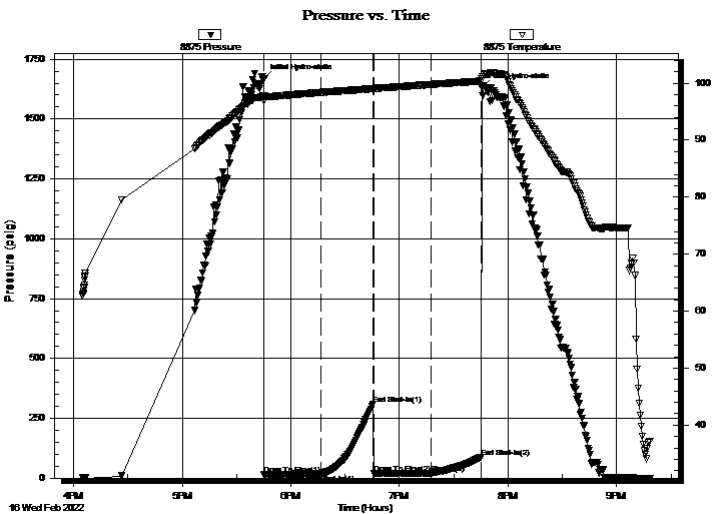
GENERAL INFORMATION:

Formation: **Marmaton - Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:45:17
Time Test Ended: 21:18:11
Interval: **3436.00 ft (KB) To 3457.00 ft (KB) (TVD)**
Total Depth: 3457.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1975.00 ft (KB)
1968.00 ft (CF)
KB to GR/CF: 7.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84

Serial #: 8875 Outside
Press@RunDepth: 20.89 psig @ 3437.00 ft (KB) Capacity: psig
Start Date: 2022.02.16 End Date: 2022.02.16 Last Calib.: 2022.02.16
Start Time: 16:05:01 End Time: 21:18:11 Time On Btm: 2022.02.16 @ 17:45:12
Time Off Btm: 2022.02.16 @ 19:45:27

TEST COMMENT: 30-IF-Surface to 1/2" Died in 20 mins
30-ISI-No Return
30-FF-No Blow
30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.72	97.74	Initial Hydro-static
1	15.01	96.91	Open To Flow (1)
32	17.32	98.40	Shut-In(1)
61	310.55	99.02	End Shut-In(1)
61	18.60	99.02	Open To Flow (2)
93	20.89	99.78	Shut-In(2)
120	88.32	100.39	End Shut-In(2)
121	1630.55	100.74	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks, KS
Shirley #1
Job Ticket: 68204 **DST#: 4**
Test Start: 2022.02.16 @ 16:05:00

GENERAL INFORMATION:

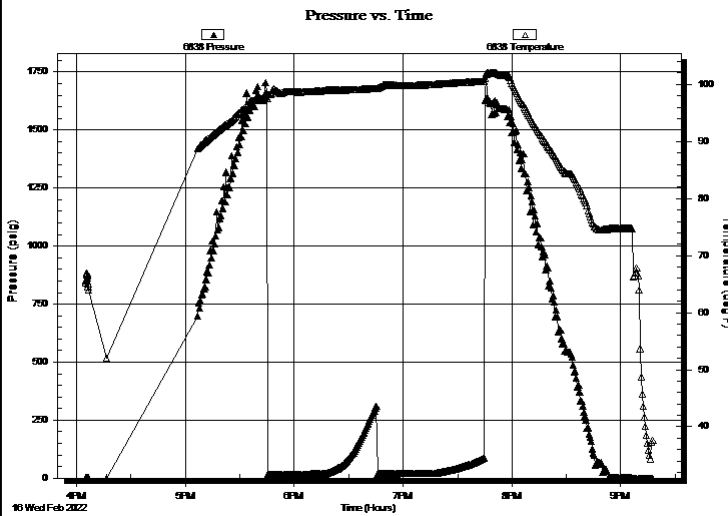
Formation: **Marmaton - Arbuckle**

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 17:45:17 Tester: Spencer J Staab
Time Test Ended: 21:18:11 Unit No: 84

Interval: 3436.00 ft (KB) To 3457.00 ft (KB) (TVD) Reference Elevations: 1975.00 ft (KB)
Total Depth: 3457.00 ft (KB) (TVD) 1968.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

Serial #: 6838 Inside
Press@RunDepth: psig @ 3437.00 ft (KB) Capacity: psig
Start Date: 2022.02.16 End Date: 2022.02.16 Last Calib.: 2022.02.16
Start Time: 16:05:01 End Time: 21:17:32 Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF-Surface to 1/2" Died in 20 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)
5.00	Mud 100%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68204 **DST#: 4**
Test Start: 2022.02.16 @ 16:05:00

Tool Information

Drill Pipe:	Length: 3313.00 ft	Diameter: 3.82 inches	Volume: 46.96 bbl	Tool Weight:	2200.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	70000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	50000.00 daN
Drill Pipe Above KB:	25.00 ft			Final	50000.00 daN
Depth to Top Packer:	3436.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	21.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

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

Change Over Sub	1.00			3410.00	
Shut In Tool	5.00			3415.00	
Hydraulic tool	5.00			3420.00	
Gap Sub	4.00			3424.00	
Safety Joint	3.00			3427.00	
Packer	5.00			3432.00	27.00 Bottom Of Top Packer
Packer	4.00			3436.00	
Stubb	1.00			3437.00	
Recorder	0.00	6838	Inside	3437.00	
Recorder	0.00	8875	Outside	3437.00	
Perforations	17.00			3454.00	
Bullnose	3.00			3457.00	21.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co
PO Box 1120
Hays KS 67601+1120
ATTN: Jeff Lawler

11-7S-19W Rooks,KS
Shirley #1
Job Ticket: 68204 **DST#: 4**
Test Start: 2022.02.16 @ 16:05:00

Mud and Cushion Information

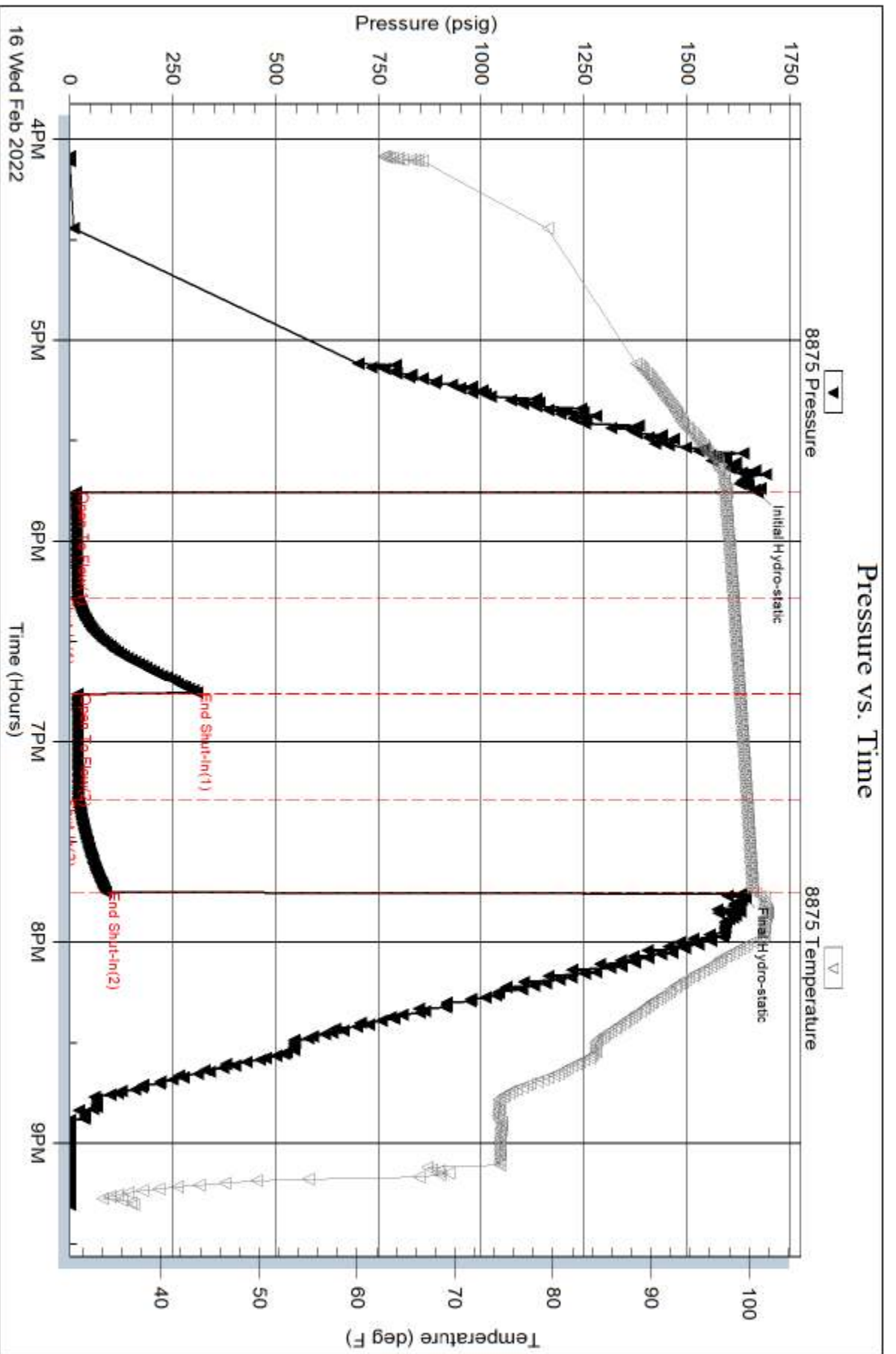
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

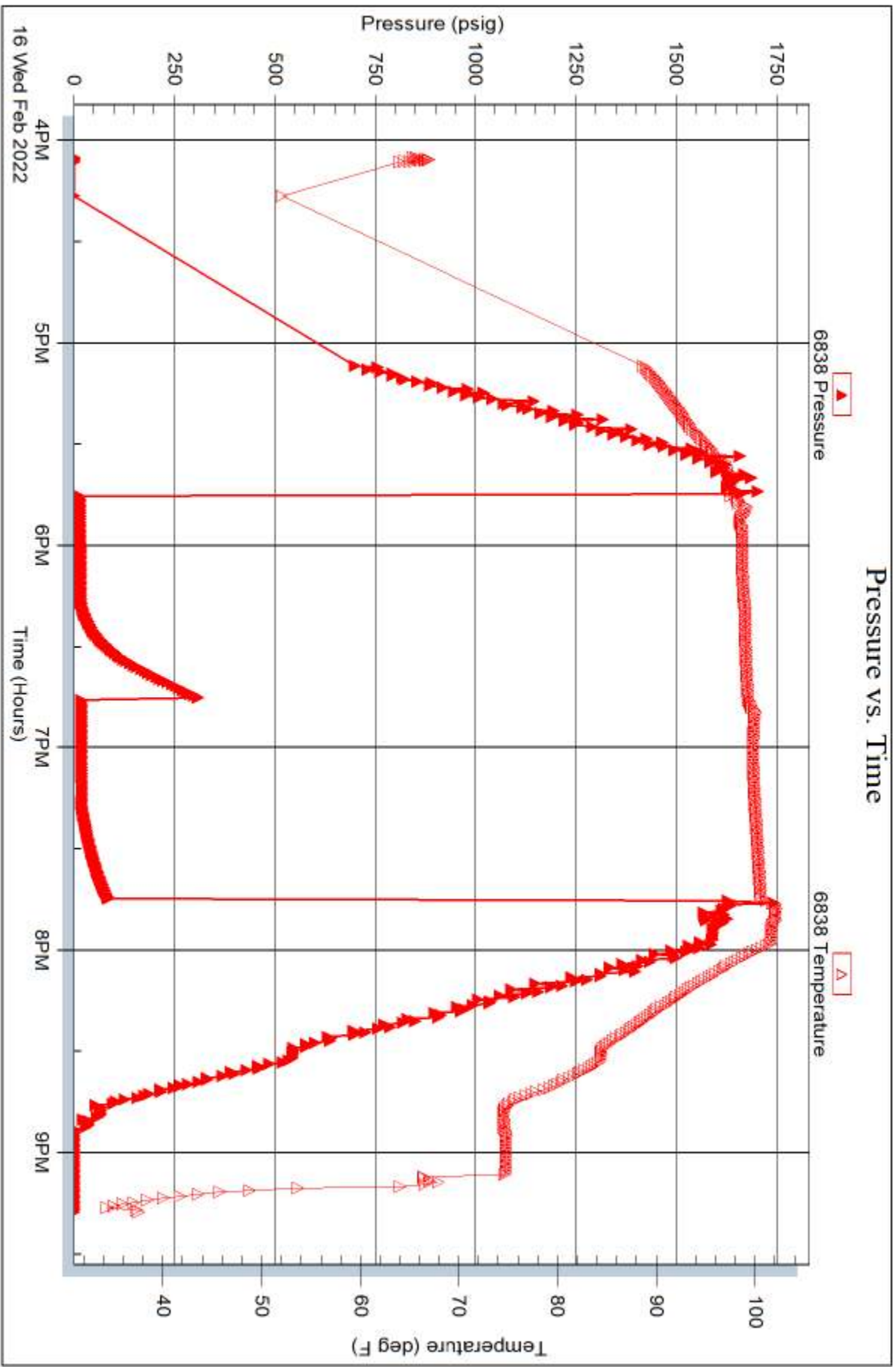
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68201

Well Name & No. Shirley #1 Test No. 1 Date 02/14/2022
 Company Jasper Co Elevation 1975 KB 1968 GL
 Address PO BOX 1120 Hays KS 67601 + 1120
 Co. Rep / Geo. Jeff Lawler Rig 57P
 Location: Sec. 11 Twp 7A Rge. 19W Co. Rooks State KS

Interval Tested 3125' - 3220' Zone Tested Toronto - LKC C
 Anchor Length 95' Drill Pipe Run 2997' Mud Wt. 9.0
 Top Packer Depth 3120' Drill Collars Run 121' Vis 73
 Bottom Packer Depth 3125' Wt. Pipe Run - WL 8.0
 Total Depth 3220' Chlorides 800 ppm System LCM 2#

Blow Description 77- Surface to 1/2"; Died back to 1/4"
78- No Return
77- Surface to 1/4; Died Back to Surface
78- No Return

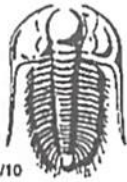
Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>HOCM</u>	<u>30</u>	<u>70</u>	<u>70</u>	<u>70</u>
<u>5</u>	<u>CO</u>	<u>100</u>	<u>100</u>		

Rec Total 75' BHT 97° Gravity 37° API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic <u>1503</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>09:11</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars	T-Started <u>10:15</u>
(C) First Final Flow <u>35</u>	<input type="checkbox"/> Safety Joint	T-Open <u>12:00</u>
(D) Initial Shut-In <u>855</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>14:00</u>
(E) Second Initial Flow <u>38</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:45</u>
(F) Second Final Flow <u>48</u>	<input checked="" type="checkbox"/> Mileage <u>104R7</u> 130	Comments
(G) Final Shut-In <u>822</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1480</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>350</u>
	<input type="checkbox"/> Accessibility	Total <u>1780</u>
	Sub Total <u>1430</u>	MP/DST Disc't

Approved By _____ Our Representative Jeff Lawler Thanks!
 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.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68202

Well Name & No. Shirley #1 Test No. 2 Date 02/15/2022
 Company Jasper Co Elevation 1975 KB 1968 GL
 Address PO BOX 1120 Hays KS 67601 + 1120
 Co. Rep / Geo. Jeff Lawler Rig S7P
 Location: Sec. 11 Twp 7S Rge. 19W Co. Hooker State KS

Interval Tested 3220' - 3271' Zone Tested LAC 2-11
 Anchor Length 51' Drill Pipe Run 3092' Mud Wt. 9.0
 Top Packer Depth 3215' Drill Collars Run 121' Vis 73
 Bottom Packer Depth 3220' Wt. Pipe Run - WL 8
 Total Depth 3271' Chlorides 800 ppm System LCM 2#

Blow Description 27- Surface to 3/4" ; Died to 1/2"
258- No Return
77- Surface to 1/4"
758- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>OSM</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

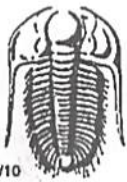
Rec Total 60' BHT 100° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1556 Test 1300 T-On Location 00:21
 (B) First Initial Flow 15 Jars _____ T-Started 01:05
 (C) First Final Flow 32 Safety Joint _____ T-Open 02:49
 (D) Initial Shut-In 670 Circ Sub _____ T-Pulled 05:04
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 07:04
 (F) Second Final Flow 45 Mileage 104 RT 130 Comments _____
 (G) Final Shut-In 676 Sampler _____
 (H) Final Hydrostatic 1532 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Sub Total 350
 Total 1780

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 45
 Sub Total 1430 MP/DST Disc't _____

Approved By _____ Our Representative Jeff Lawler Thanks!
 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.

785-259-0036



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **68203**

Well Name & No. Shirley #1 Test No. 3 Date 02/15/2022
 Company Jasper Co Elevation 1975 KB 1968 GL
 Address PO BOX 1120 Hays KS 67601 + 1120
 Co. Rep / Geo. Jeff Lawler Rig S7P
 Location: Sec. 11 Twp 7S Rge. 19W Co. Rocks State KS

Interval Tested 3288' - 3350' Zone Tested LHC H-J
 Anchor Length 62' Drill Pipe Run 3155' Mud Wt. 9.1
 Top Packer Depth 3283' Drill Collars Run 121' Vis 52
 Bottom Packer Depth 3288' Wt. Pipe Run - WL 8.0
 Total Depth 3350' Chlorides 2000 ppm System LCM 2#

Blow Description 77- Surface to 1 1/4
78- No Return
79- No Blow
80- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20'</u>	<u>OCM</u>	<u>20</u>		<u>80</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 20 BHT 99° Gravity - API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 1591 Test 1300 T-On Location 16:45
 (B) First Initial Flow 15 Jars _____ T-Started 17:09
 (C) First Final Flow 21 Safety Joint _____ T-Open 18:49
 (D) Initial Shut-In 485 Circ Sub _____ T-Pulled 20:49
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 22:31
 (F) Second Final Flow 27 Mileage 10427 130 Comments _____
 (G) Final Shut-In 116 Sampler _____
 (H) Final Hydrostatic 1562 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Initial Open 30 Day Standby _____ Sub Total 350
 Initial Shut-In 30 Accessibility _____ Total 1780
 Final Flow 30 Sub Total 1430 MP/DST Disc't _____
 Final Shut-In 30

Approved By _____ Our Representative _____

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68204

Well Name & No. Shirley #1 Test No. 4 Date 02/16/2022
 Company Jaspar Co Elevation 1975 KB 1968 GL
 Address PO BOX 1120 Hays KS 67601 +1120
 Co. Rep / Geo. Jeff Lawler Rig STP
 Location: Sec. 11 Twp 7s Rge. 19w Co. Rooks State KS

Interval Tested 3436' - 3457' Zone Tested Marmaton + Arbuckle
 Anchor Length 21' Drill Pipe Run 3313' Mud Wt. 9.2
 Top Packer Depth 3431' Drill Collars Run 621' Vis 47
 Bottom Packer Depth 3436' Wt. Pipe Run - WL 8.0
 Total Depth 3457' Chlorides 1000 ppm System LCM 2H

Blow Description 17 Surface to 1/2"; Died in 20 mins
52- No Return
77 No Blow
752- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>Mud</u>			<u>100%</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 100° Gravity - API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 1669 Test 1300 T-On Location 15:11
 (B) First Initial Flow 15 Jars _____ T-Started 16:05
 (C) First Final Flow 17 Safety Joint _____ T-Open 17:43
 (D) Initial Shut-In 310 Circ Sub _____ T-Pulled 19:43
 (E) Second Initial Flow 18 Hourly Standby _____ T-Out 21:16
 (F) Second Final Flow 20 Mileage 10427 130+130 Comments loaded 02/17/2022
 (G) Final Shut-In 88 Sampler _____ @ 13:30
 (H) Final Hydrostatic 1630 Straddle _____ EM Tool 350

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Extra Copies _____
 Final Shut-In 30 Day Standby _____ Sub Total 350
 Accessibility _____ Total 1910
 Sub Total 1560 MP/DST Disc't _____

Approved By _____ Our Representative Jeff Lawler Thanks!
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