

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	Carmen Schmitt, Inc.
Well Name	SCHWARZ 1
Doc ID	1537713

Tops

Name	Top	Datum
Anhydrite	2578	383
Topeka	3752	-791
Oread	3920	-959
Heebner Sh	3962	-1001
Toronto	3984	-1023
Lansing	4000	-1039
Muncie Creek Sh	4123	-1162
Stark Sh.	4203	-1242
B/KC	4262	-1301
Marmaton	4270	-1309
Pawnee	4380	-1419
Ft. Scott	4418	-1457
Cherokee Sh	4443	-1482
Cherokee Sd	4558	-1597
Miss	4635	-1674



P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300



Invoice

DATE	INVOICE #
11/22/2020	33451

BILL TO
Carmen Schmitt, Inc. P. O. Box 47 915 Harrison Great Bend, KS 67530-0047

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-36	Schwarz	Thomas	WW Rig #110	Oil	Development	Top/Btm Longstr...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	5.00	400.00
579D	Pump Charge - Two-Stage & Top To Bottom LongString				1	Job	1,900.00	1,900.00
403-5	5 1/2" Cement Basket				4	Each	275.00	1,100.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	325.00	325.00T
409-5	5 1/2" Turbolizer				10	Each	90.00	900.00T
330	Swift Multi-Density Standard (MIDCON II)				470	Sacks	17.00	7,990.00T
276	Flocele				150	Lb(s)	3.00	450.00T
281	Mud Flush				500	Gallon(s)	1.50	750.00T
221	Liquid KCL (Clayfix)				2	Gallon(s)	25.00	50.00T
290	D-Air				3	Gallon(s)	42.00	126.00T
581D	Service Charge Cement				470	Sacks	1.85	869.50
583D	Drayage				1,870.79	Ton Miles	0.95	1,777.25
	Subtotal							16,887.75
Customer Disc...	Customer Discount Per Ted						-10.00%	-1,688.78
	Subtotal							15,198.97
	Sales Tax Thomas County						8.25%	886.62

710/43
19820.0136
Well Rte
Cement Long String

We Appreciate Your Business!

Total

\$16,085.59



CHARGE TO: Carmen Schmidt
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 033451

PAGE 1 OF 2

1. SERVICE LOCATIONS <u>New York KS</u>	WELL/PROJECT NO. <u>1-36</u>	LEASE <u>Schwarz</u>	COUNTY/PARISH <u>Thomas</u>	STATE <u>KS</u>	CITY <u>Meno</u>	DATE <u>22 Nov 20</u>	OWNER
2. <u>Hays KS</u>	TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>WOW</u>	RIG NAME/NO. <u>110</u>	SHIPPED VIA <u>ET</u>	DELIVERED TO <u>location</u>	ORDER NO.	
3.	WELL TYPE <u>oil</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>top to bottom long string</u>	WELL PERMIT NO.	WELL LOCATION <u>36-8-31</u>		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		UNIT PRICE		AMOUNT
		LOC	ACCT	DF		U/M	U/M			
575		2			MILEAGE TRK	80	mi		5.00	400.00
577		2			Pump Charge top to bottom	1	ea		1900.00	1900.00
403		1			Cement Basket	5 1/2	in	4	ea	275.00 1100.00
406		1			Load down plug & baffle	5 1/2	in	1	ea	250.00 250.00
407		1			Insulation sleeve for auto fill	5 1/2	in	1	ea	325.00 325.00
409		1			Turbolizer	5 1/2	in	10	ea	90.00 900.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

X

DATE SIGNED: _____ TIME SIGNED: 5:10 A.M. P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY			AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	4875.00 12012.75
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?						10% Disc 20%	16887.75
WE UNDERSTOOD AND MET YOUR NEEDS?							-1688.78
OUR SERVICE WAS PERFORMED WITHOUT DELAY?						TAX	15198.97
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?						THOMAS	88062
ARE YOU SATISFIED WITH OUR SERVICE?			<input type="checkbox"/> YES	<input type="checkbox"/> NO		TOTAL	116085.59
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND							

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: Boyer

APPROVAL: Mark Smith

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 22 NOV 20 PAGE NO. 2

CUSTOMER Carson Schmidt WELL NO. 1-36 LEASE Schwarz JOB TYPE Hydraulic Fracturing TICKET NO. 33451

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								470 sk SMD cement w/ 1/4# floater 5 1/2" 14# casing 106 joints 4345' Shoe it 42' TD = 4680' Casing 3.5 9, 11, 13, 15 17 43 48 49 Packer 66, 41, 72
	0130							on loc TRK
	0205							start 5 1/2" x 14# casing in well
	0355							Drop ball - circulates
	0520		7					Plug BH 30sk
		6	12				300	Pump mid flush
		6	20				300	Pump KCL flush
	0530	7	205				500	Mix SMD cement 340sk @ 11.2 ppg
		6	29				900	Mix SMD cements 1000sk @ 14 ppq
	0610							Drop latch down plug wash out pump & line
	0610	7					500	Displace plug
		7					500	→ cement to surface ←
		6 1/2	75				900	
		6 1/2					1100	Land plug Release pressure to track - dried up
	0630						1600	
	0635							wash track
	0710							Back up job complete Thanks
								Austin Blaine, Austin D & Assoc

470 sk mixed
30sk top 1/2

COPELAND

Acid & Cement

BURRTON, KS ♦ GREAT BEND, KS
 (620) 463-5161 (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

POST OFFICE BOX 438
 HAYSVILLE, KS 67060
 (316) 524-1225
 (316) 524-1027 FAX

Invoice

Page: 1

INVOICE NUMBER:
C60211-IN

BILL TO:
CARMEN SCHMITT, INC.
PO BOX 47
GREAT BEND, KS 67530

LEASE: SCHWARZ #1

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
11/19/2020	60211		11/11/2020	SCHWARZ #1	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
40.00	MI	MILEAGE CEMENT PUMP TRUCK		23.00	4.00	123.20
1.00	EA	PUMP CHARGE SURFACE		23.00	1,100.00	847.00
225.00	SK	60/40 POZ MIX 2% GEL		23.00	11.25	1,949.06
12.00	SK	CALCIUM CHLORIDE		23.00	40.00	369.60
237.00	EA	BULK CHARGE		23.00	1.25	228.11
417.12	MI	BULK TRUCK - TON MILES		23.00	1.10	353.30
<p><i>710/43</i> <i>19820, C136</i> <i>BCP Well Ale</i> <i>Surface Cement</i></p>						
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice: 3,870.27		
RECEIVED BY _____		NET 30 DAYS		THOMCO Sales Tax: 319.30		
				Invoice Total: <u><u>4,189.57</u></u>		
<p>FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.</p>						

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code.



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.15 @ 01:51:00

End Date: 2020.11.15 @ 09:47:30

Job Ticket #: 66589 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:57:22



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

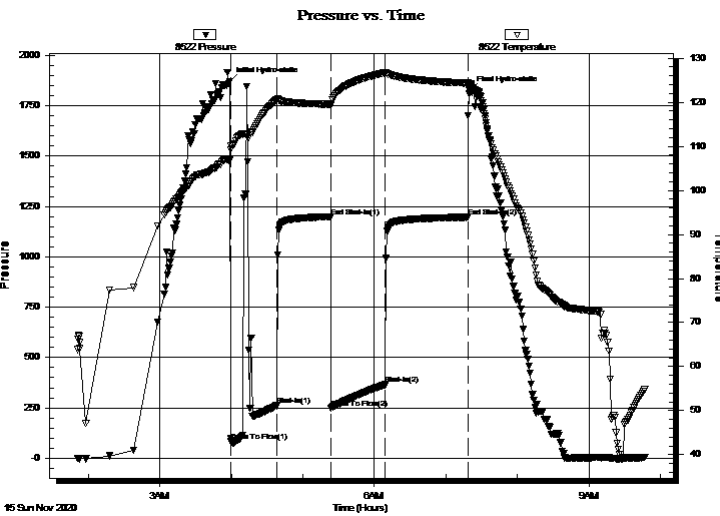
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66589 **DST#: 1**
 Test Start: 2020.11.15 @ 01:51:00

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:59:30
 Time Test Ended: 09:47:30
 Interval: **3820.00 ft (KB) To 3831.00 ft (KB) (TVD)**
 Total Depth: 3831.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 365.45 psig @ 3821.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.15 End Date: 2020.11.15 Last Calib.: 2020.11.15
 Start Time: 01:51:05 End Time: 09:47:29 Time On Btm: 2020.11.15 @ 03:59:00
 Time Off Btm: 2020.11.15 @ 07:20:00

TEST COMMENT: 40- IF: Slid 12' at open. slid 2' 10 minutes into open. took on mud both times. built to 26" max 11" after bleed off
 45- ISI No return.
 45- BOB @ 15 min, built to 28.7".
 60- No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1870.11	106.93	Initial Hydro-static
1	83.81	109.22	Open To Flow (1)
40	261.10	120.65	Shut-In(1)
85	1198.98	119.59	End Shut-In(1)
85	249.94	119.23	Open To Flow (2)
131	365.45	126.69	Shut-In(2)
200	1196.84	124.35	End Shut-In(2)
201	1826.66	123.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
700.00	mcw 15m 85w	8.16

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS

Schwarz #1-36

Job Ticket: 66589

DST#: 1

Test Start: 2020.11.15 @ 01:51:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:59:30

Time Test Ended: 09:47:30

Interval: 3820.00 ft (KB) To 3831.00 ft (KB) (TVD)

Total Depth: 3831.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 2961.00 ft (KB)

2956.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8319 Outside

Press@RunDepth: psig @ 3821.00 ft (KB)

Start Date: 2020.11.15

End Date: 2020.11.15

Start Time: 01:52:05

End Time: 09:48:14

Capacity: 8000.00 psig

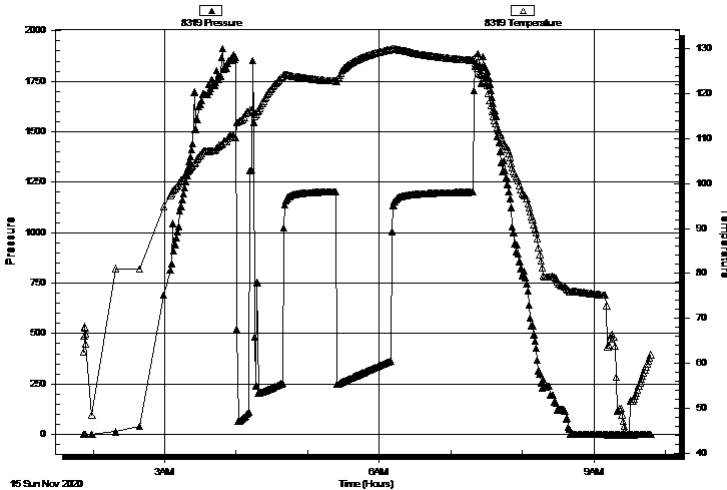
Last Calib.: 2020.11.15

Time On Btm:

Time Off Btm:

TEST COMMENT: 40- IF: Slid 12' at open. slid 2' 10 minutes into open. took on mud both times. built to 26" max 11" after bleed off
45- ISI No return.
45- BOB @ 15 min, built to 28.7".
60- No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
700.00	mcw 15m 85w	8.16

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66589 **DST#: 1**
Test Start: 2020.11.15 @ 01:51:00

Tool Information

Drill Pipe:	Length: 3617.00 ft	Diameter: 3.80 inches	Volume: 50.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 51.64 bbl</u>	Tool Chased 15.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3820.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	41.00 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			3791.00	
Shut In Tool	5.00		Fluid	3796.00	
Hydraulic tool	5.00			3801.00	
Em Tool	3.00			3804.00	
Jars	5.00			3809.00	
Safety Joint	2.00			3811.00	
Packer	5.00		Inside	3816.00	30.00 Bottom Of Top Packer
Packer	4.00			3820.00	
Stubb	1.00			3821.00	
Recorder	0.00	8522	Inside	3821.00	
Recorder	0.00	8319	Outside	3821.00	
Perforations	7.00			3828.00	
Bullnose	3.00			3831.00	11.00 Bottom Packers & Anchor

Total Tool Length: 41.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66589 **DST#: 1**
 Test Start: 2020.11.15 @ 01:51:00

Mud and Cushion Information

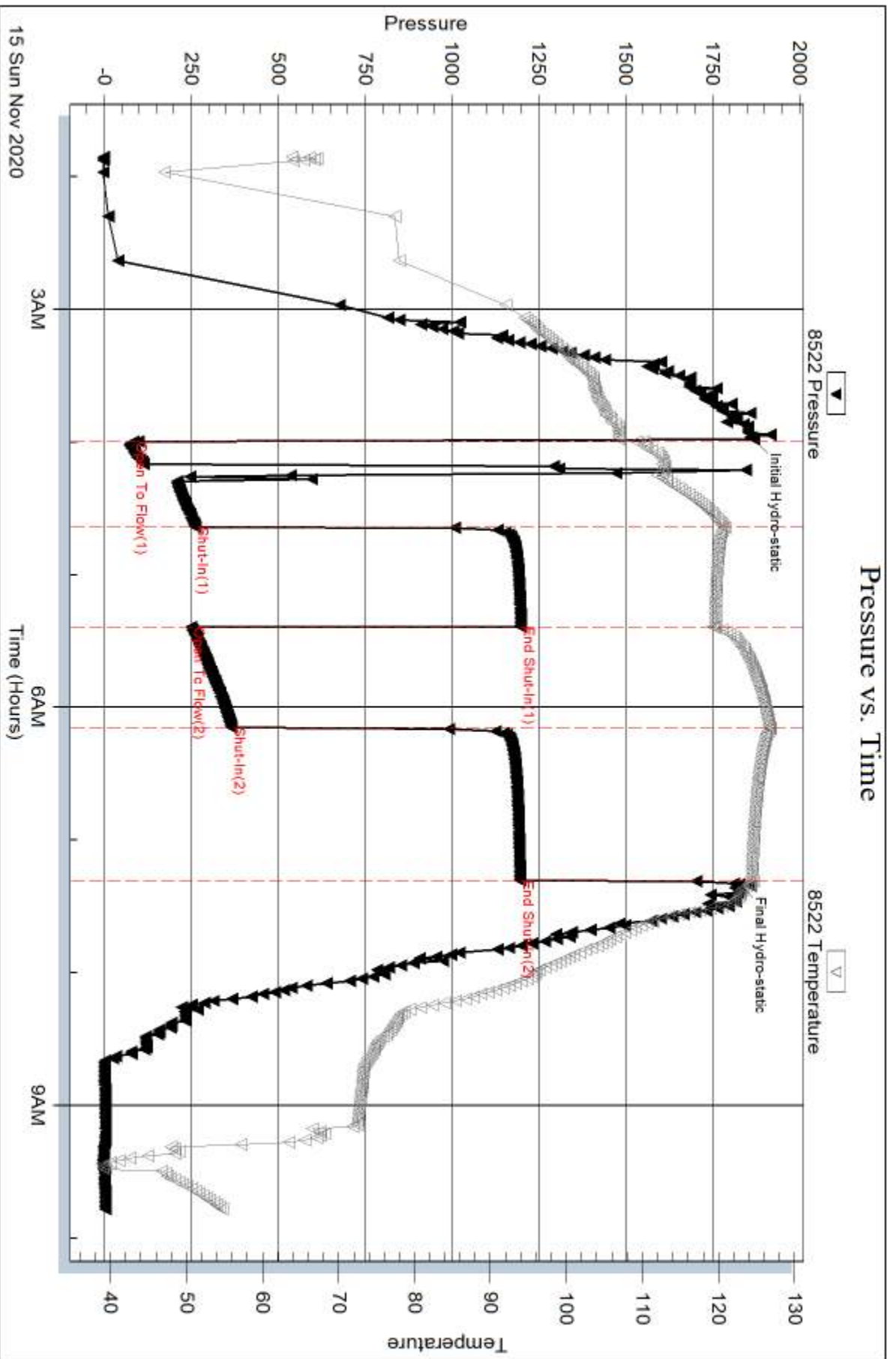
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 27000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.37 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
700.00	mcw 15m 85w	8.161

Total Length: 700.00 ft Total Volume: 8.161 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .340 @ 50F= 27000ppm

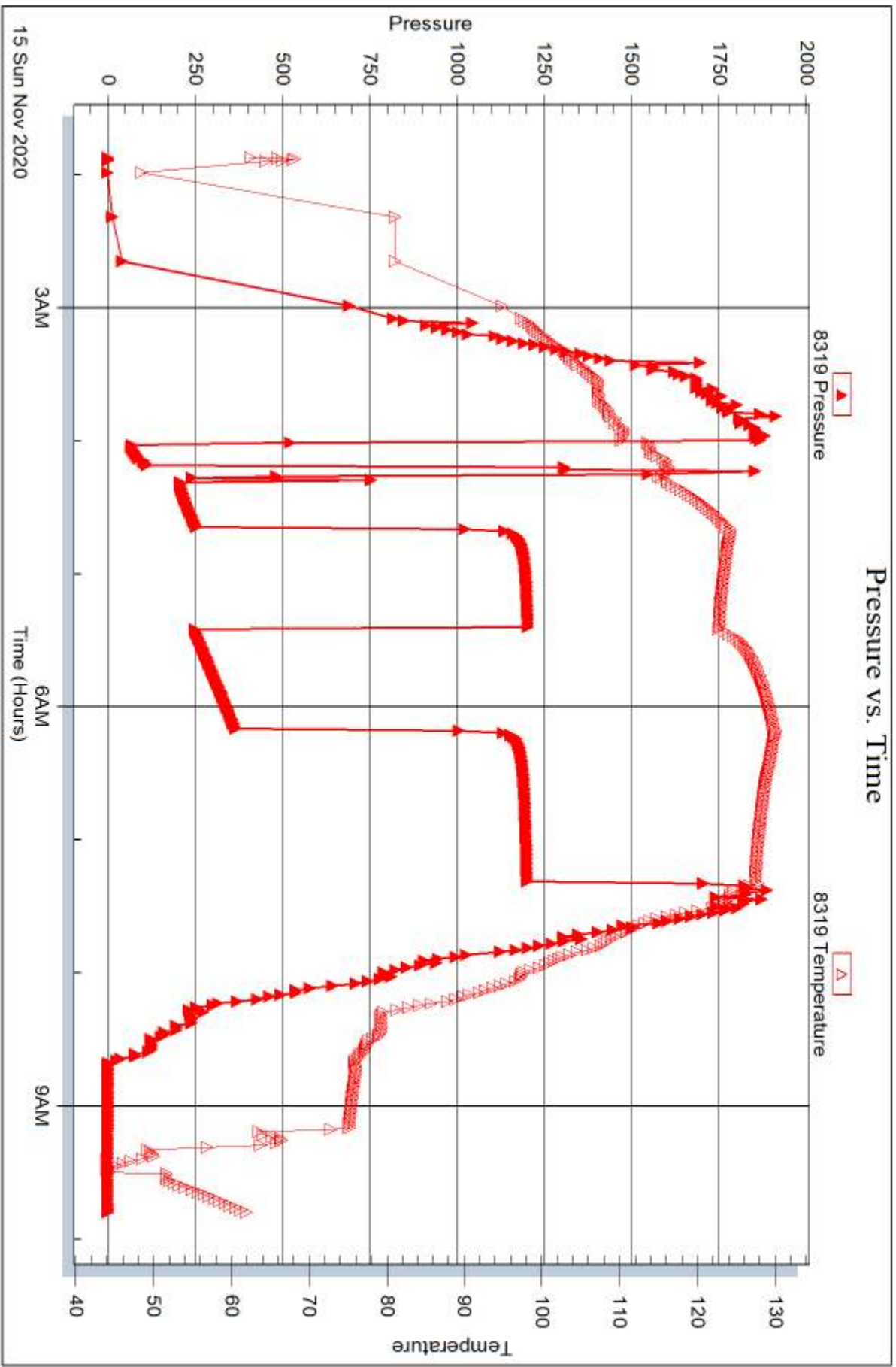


Serial #: 8319

Outside Carmen Schmitt, Inc

Schw arz #1-36

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.16 @ 00:10:00

End Date: 2020.11.16 @ 06:12:15

Job Ticket #: 66590 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:56:36



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66590 **DST#: 2**
 Test Start: 2020.11.16 @ 00:10:00

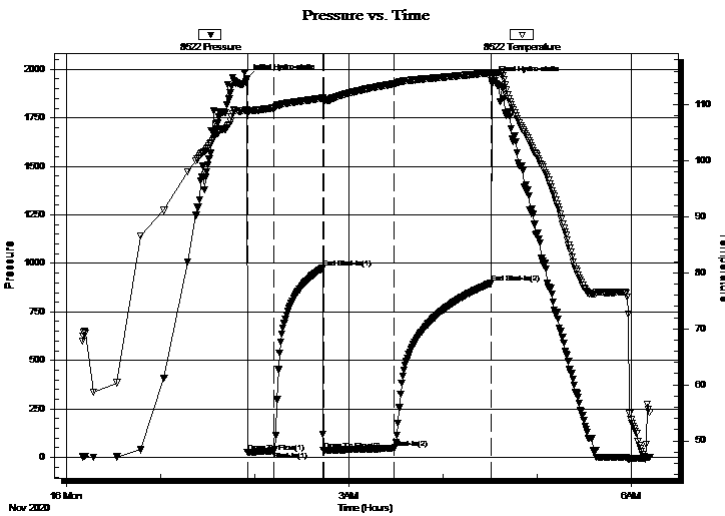
GENERAL INFORMATION:

Formation: **Toronto**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:55:15
 Time Test Ended: 06:12:15
 Interval: **3965.00 ft (KB) To 3997.00 ft (KB) (TVD)**
 Total Depth: 3997.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 47.16 psig @ 3966.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.16 End Date: 2020.11.16 Last Calib.: 2020.11.16
 Start Time: 00:10:05 End Time: 06:12:14 Time On Btm: 2020.11.16 @ 01:55:00
 Time Off Btm: 2020.11.16 @ 04:31:15

TEST COMMENT: 15- IF: 1.8" blow .
 30- IS: No return.
 45- FF: 1.1" blow .
 60- FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1950.29	109.07	Initial Hydro-static
1	25.40	108.48	Open To Flow (1)
17	34.15	109.42	Shut-In(1)
49	976.27	111.18	End Shut-In(1)
49	34.90	110.77	Open To Flow (2)
94	47.16	113.73	Shut-In(2)
156	897.85	115.69	End Shut-In(2)
157	1939.84	115.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	mud 100m	0.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66590 **DST#: 2**
 Test Start: 2020.11.16 @ 00:10:00

Tool Information

Drill Pipe:	Length: 3775.00 ft	Diameter: 3.80 inches	Volume: 52.95 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 53.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3965.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	62.00 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			3936.00	
Shut In Tool	5.00		Fluid	3941.00	
Hydraulic tool	5.00			3946.00	
Em Tool	3.00			3949.00	
Jars	5.00			3954.00	
Safety Joint	2.00			3956.00	
Packer	5.00		Inside	3961.00	30.00 Bottom Of Top Packer
Packer	4.00			3965.00	
Stubb	1.00			3966.00	
Recorder	0.00	8522	Inside	3966.00	
Recorder	0.00	8319	Outside	3966.00	
Perforations	28.00			3994.00	
Bullnose	3.00			3997.00	32.00 Bottom Packers & Anchor

Total Tool Length: 62.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66590 **DST#: 2**
Test Start: 2020.11.16 @ 00:10:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	mud 100m	0.221

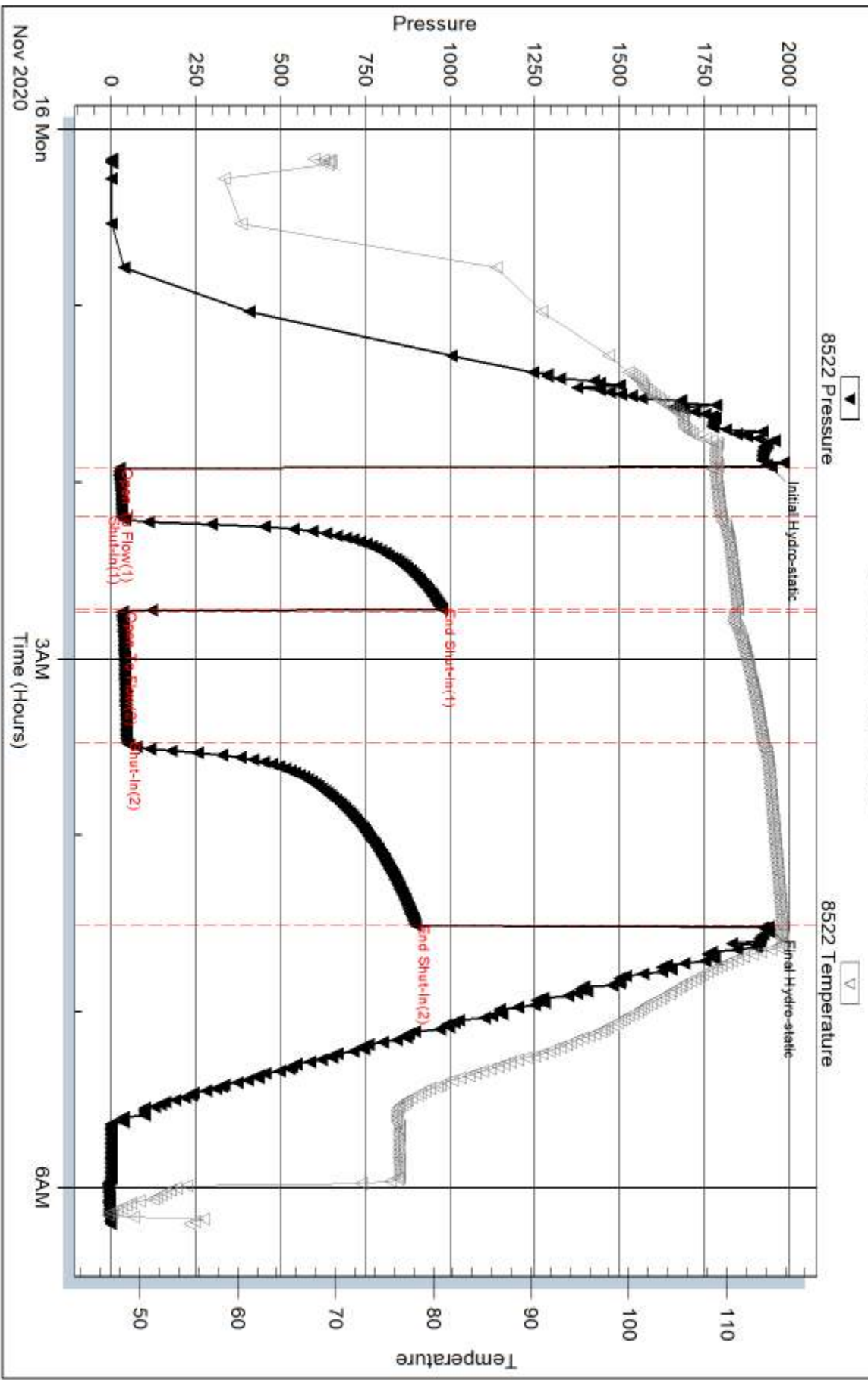
Total Length: 45.00 ft Total Volume: 0.221 bbl

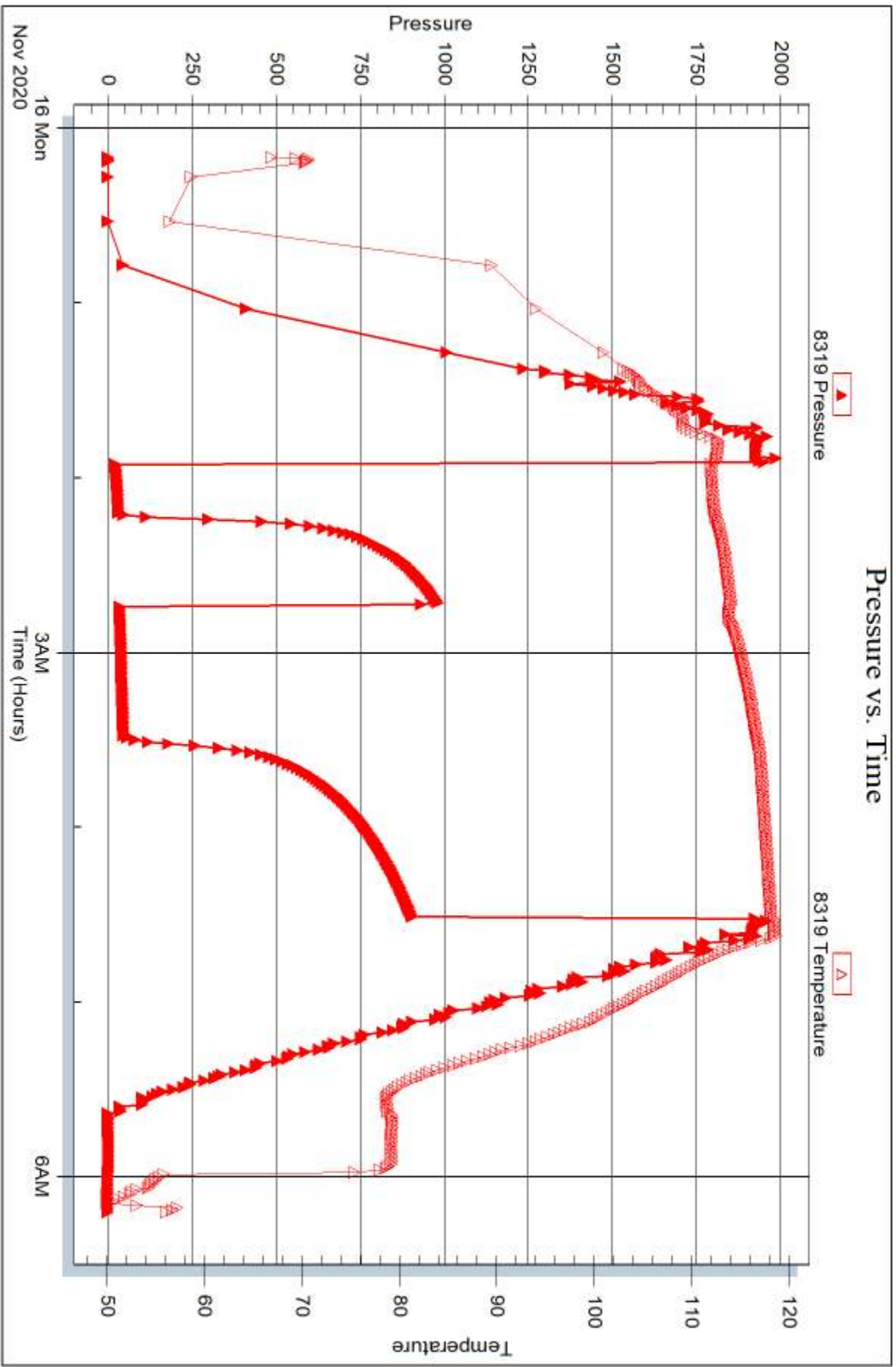
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.16 @ 12:06:00

End Date: 2020.11.16 @ 16:55:00

Job Ticket #: 66591 DST #: 3

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

Printed: 2020.11.24 @ 08:55:26



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS

Schwarz #1-36

Job Ticket: 66591

DST#: 3

Test Start: 2020.11.16 @ 12:06:00

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:55:00

Time Test Ended: 16:55:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3998.00 ft (KB) To 4015.00 ft (KB) (TVD)

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4015.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522 Inside

Press@RunDepth: 29.14 psig @ 3999.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.11.16

End Date:

2020.11.16

Last Calib.: 2020.11.16

Start Time: 12:06:05

End Time:

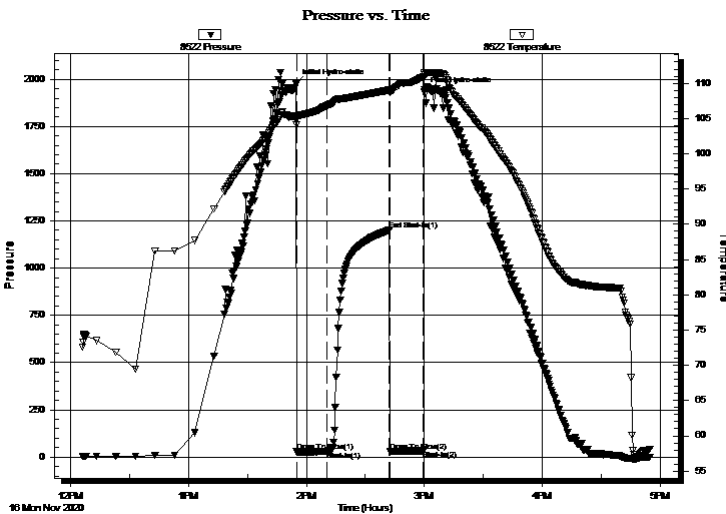
16:54:59

Time On Btm: 2020.11.16 @ 13:54:45

Time Off Btm: 2020.11.16 @ 15:00:00

TEST COMMENT: 15 IF: 1.25" blow .
 30- IS: No return.
 15- FF: .3" blow , receding.
 Pulled Test

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1974.51	105.12	Initial Hydro-static
1	28.00	104.07	Open To Flow (1)
16	29.14	106.76	Shut-In(1)
48	1200.88	109.04	End Shut-In(1)
48	29.64	108.68	Open To Flow (2)
65	33.12	110.82	Shut-In(2)
66	1932.77	111.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

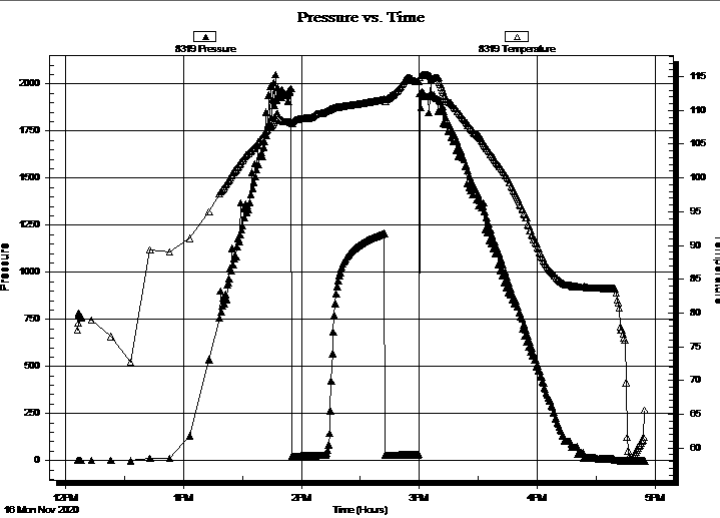
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66591 **DST#: 3**
 Test Start: 2020.11.16 @ 12:06:00

GENERAL INFORMATION:

Formation: **LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:55:00
 Time Test Ended: 16:55:00
 Interval: **3998.00 ft (KB) To 4015.00 ft (KB) (TVD)**
 Total Depth: 4015.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
 Press@RunDepth: psig @ 3999.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.16 End Date: 2020.11.16 Last Calib.: 2020.11.16
 Start Time: 12:06:05 End Time: 16:54:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15 IF: 1.25" blow .
 30- IS: No return.
 15- FF: .3" blow , receding.
 Pulled Test



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

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	Mud 100m	0.10

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66591 **DST#: 3**
Test Start: 2020.11.16 @ 12:06:00

Tool Information

Drill Pipe:	Length: 3807.00 ft	Diameter: 3.80 inches	Volume: 53.40 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 54.30 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	57000.00 lb
Depth to Top Packer:	3998.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	47.00 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			3969.00	
Shut In Tool	5.00		Fluid	3974.00	
Hydraulic tool	5.00			3979.00	
Em Tool	3.00			3982.00	
Jars	5.00			3987.00	
Safety Joint	2.00			3989.00	
Packer	5.00		Inside	3994.00	30.00 Bottom Of Top Packer
Packer	4.00			3998.00	
Stubb	1.00			3999.00	
Recorder	0.00	8522	Inside	3999.00	
Recorder	0.00	8319	Outside	3999.00	
Perforations	13.00			4012.00	
Bullnose	3.00			4015.00	17.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66591 **DST#: 3**
Test Start: 2020.11.16 @ 12:06:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

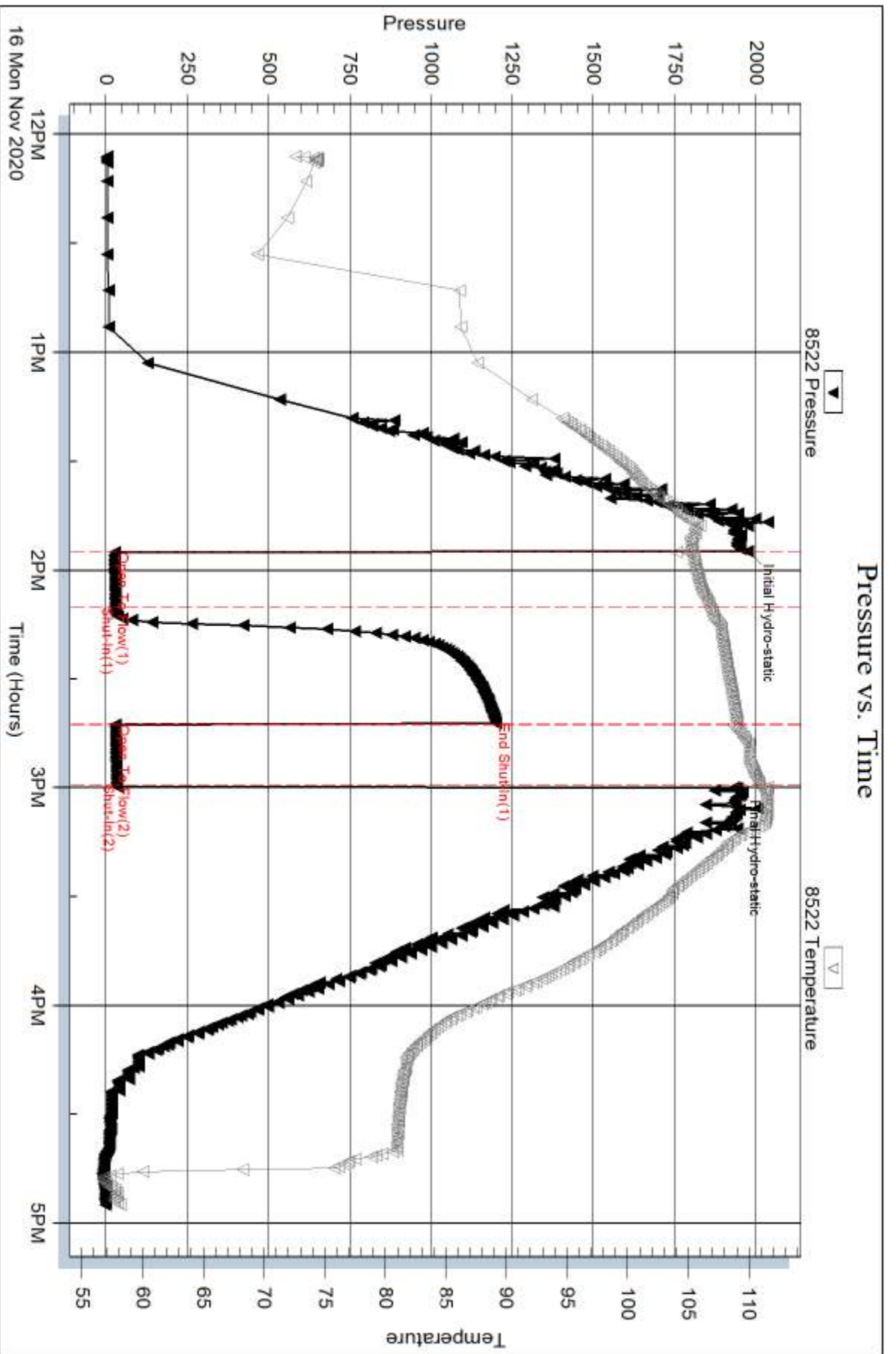
Length ft	Description	Volume bbl
20.00	Mud 100m	0.098

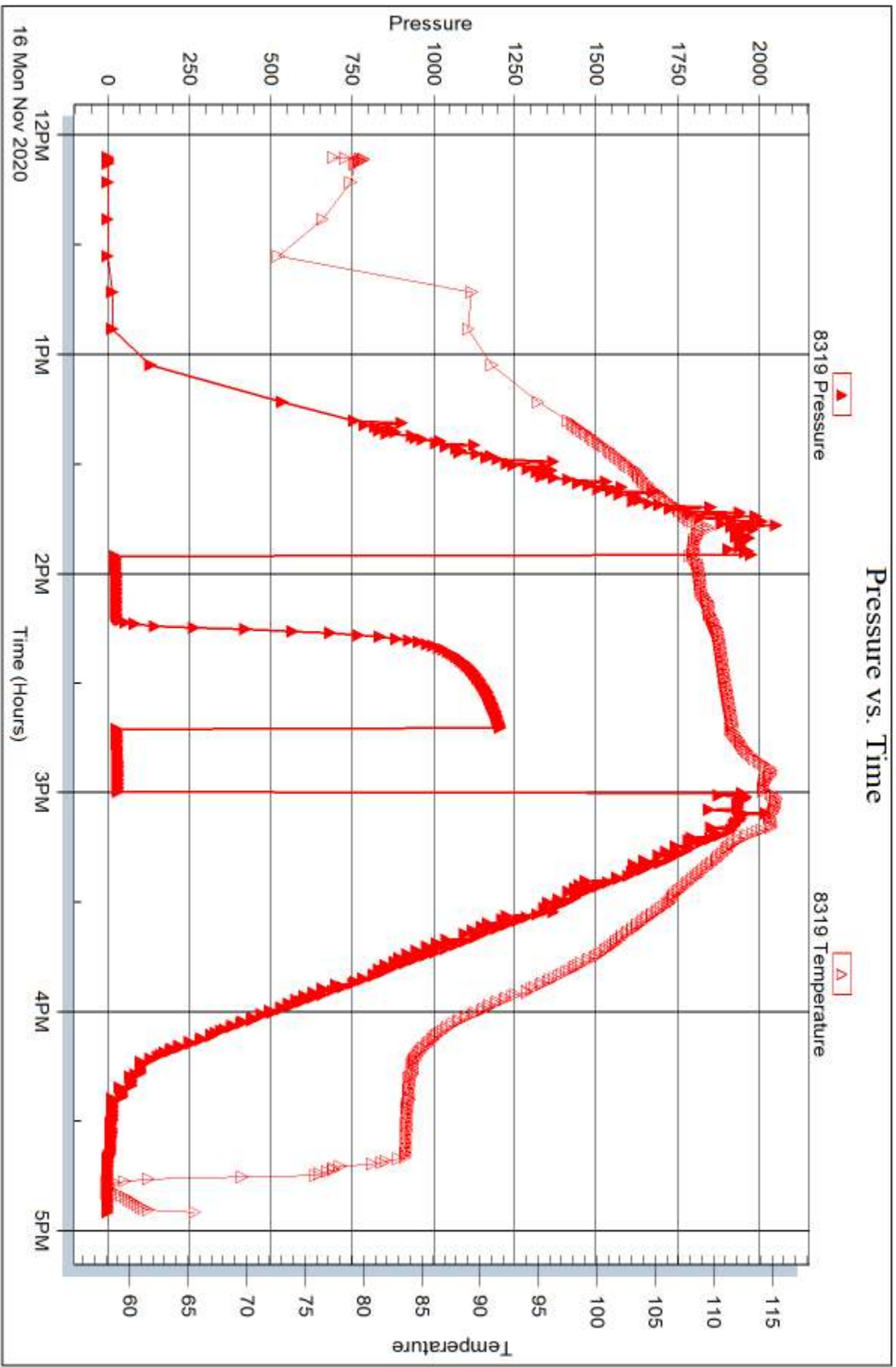
Total Length: 20.00 ft Total Volume: 0.098 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.17 @ 00:20:00

End Date: 2020.11.17 @ 06:57:45

Job Ticket #: 66592 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:54:58



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

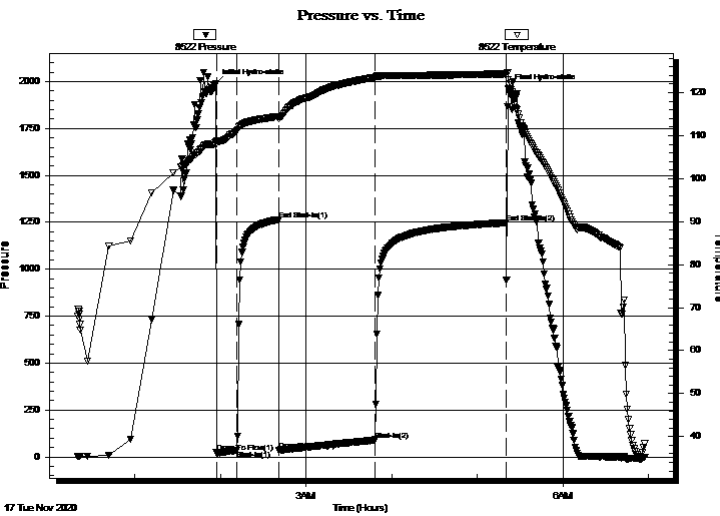
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66592 **DST#: 4**
 Test Start: 2020.11.17 @ 00:20:00

GENERAL INFORMATION:

Formation: **LKC C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:57:15
 Time Test Ended: 06:57:45
 Interval: **4013.00 ft (KB) To 4042.00 ft (KB) (TVD)**
 Total Depth: 4042.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 88.88 psig @ 4014.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.17 End Date: 2020.11.17 Last Calib.: 2020.11.17
 Start Time: 00:20:05 End Time: 06:57:44 Time On Btm: 2020.11.17 @ 01:57:00
 Time Off Btm: 2020.11.17 @ 05:21:45

TEST COMMENT: 15- IF: 2 1/2" blow .
 30- IS: No return.
 60- FF: 5 1/2" blow .
 90- FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1990.58	108.61	Initial Hydro-static
1	22.46	108.14	Open To Flow (1)
15	34.87	111.07	Shut-In(1)
44	1264.52	114.46	End Shut-In(1)
45	36.91	113.92	Open To Flow (2)
111	88.88	123.51	Shut-In(2)
204	1247.39	124.35	End Shut-In(2)
205	1961.42	122.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	mcw 30m 70w Oil Specks in tool	0.74

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66592 **DST#: 4**
 Test Start: 2020.11.17 @ 00:20:00

Tool Information

Drill Pipe:	Length: 3808.00 ft	Diameter: 3.80 inches	Volume: 53.42 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4013.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	59.00 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			3984.00	
Shut In Tool	5.00		Fluid	3989.00	
Hydraulic tool	5.00			3994.00	
Em Tool	3.00			3997.00	
Jars	5.00			4002.00	
Safety Joint	2.00			4004.00	
Packer	5.00		Inside	4009.00	30.00 Bottom Of Top Packer
Packer	4.00			4013.00	
Stubb	1.00			4014.00	
Recorder	0.00	8522	Inside	4014.00	
Recorder	0.00	8319	Outside	4014.00	
Perforations	25.00			4039.00	
Bullnose	3.00			4042.00	29.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66592 **DST#: 4**
Test Start: 2020.11.17 @ 00:20:00

Mud and Cushion Information

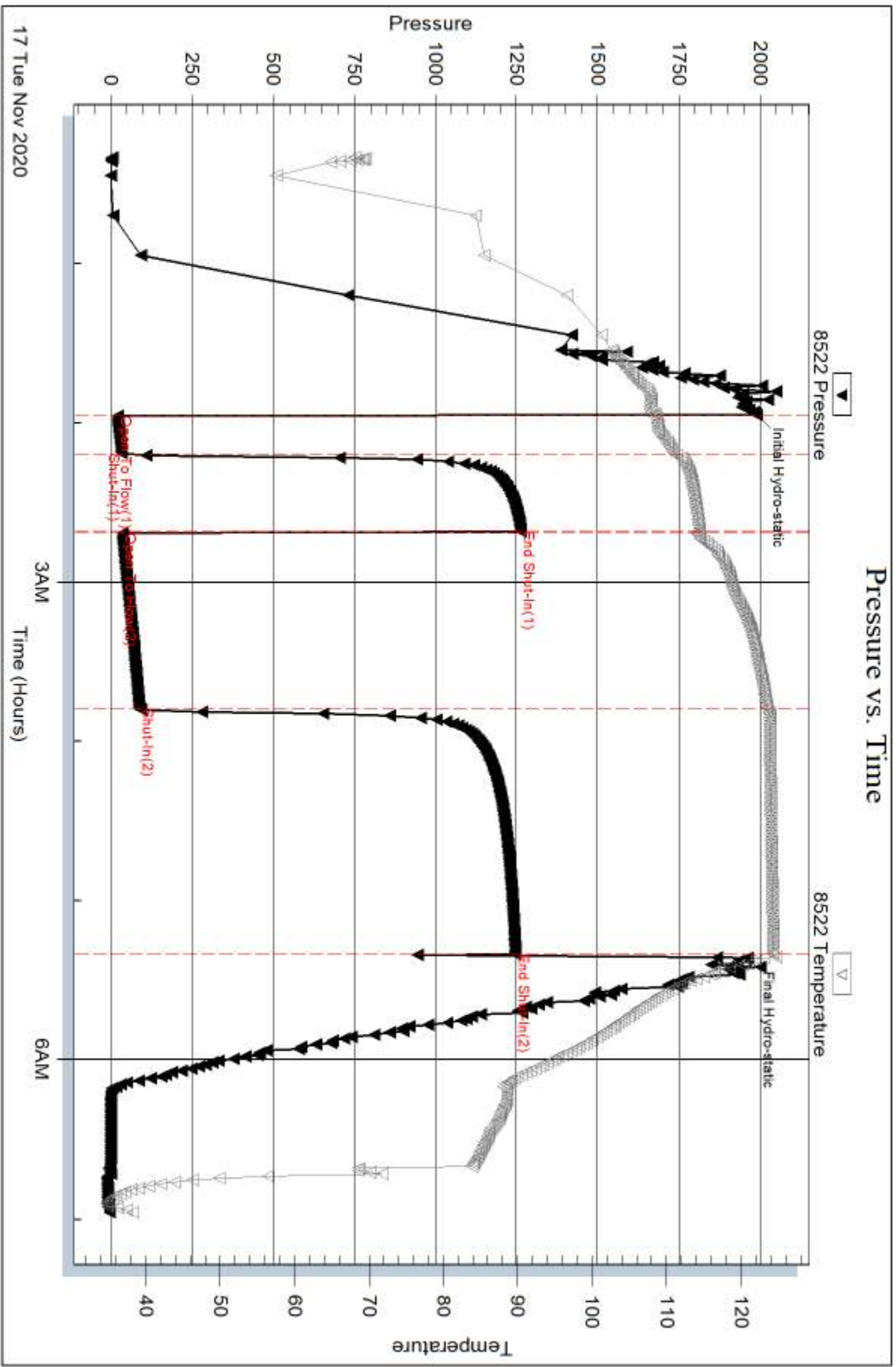
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 18000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.17 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 1.00 inches		

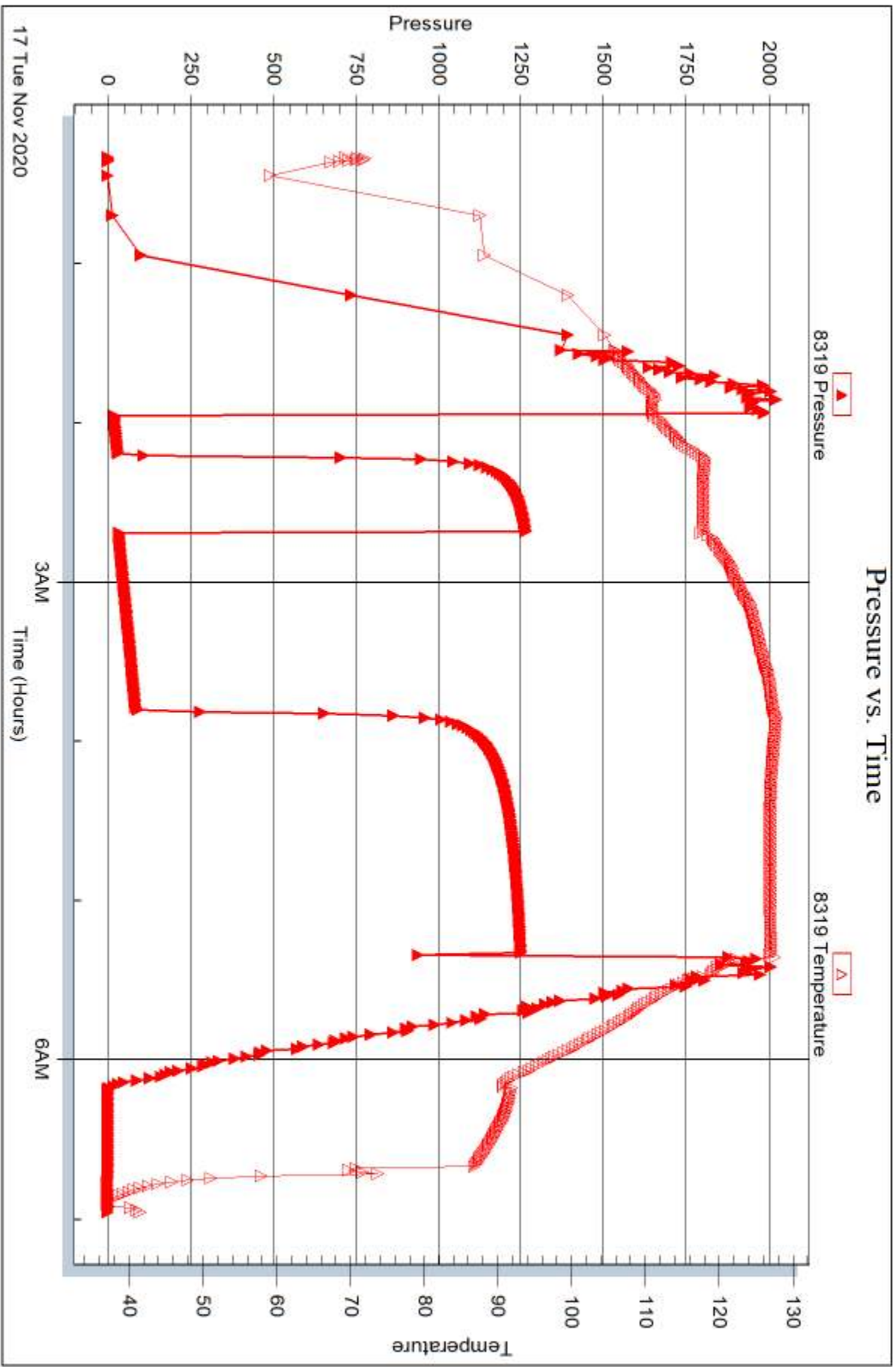
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	mcw 30m 70w Oil Specks in tool	0.738

Total Length: 150.00 ft Total Volume: 0.738 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: rw is .505 @ 51f = 18000ppm







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.17 @ 12:24:00

End Date: 2020.11.17 @ 16:49:45

Job Ticket #: 66593 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:54:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

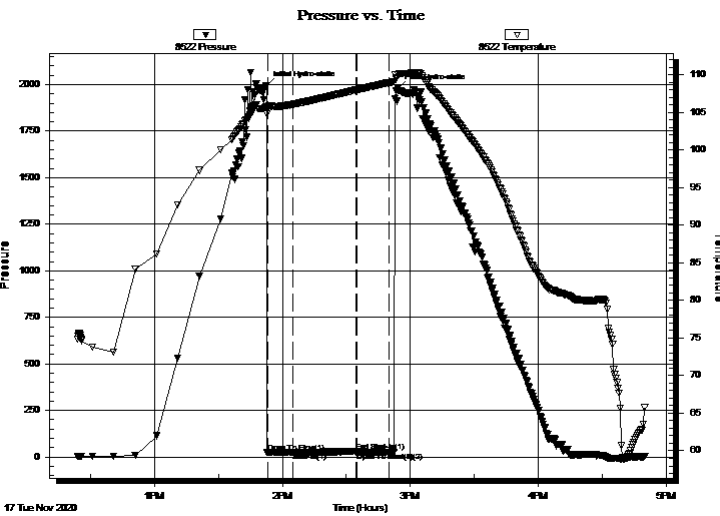
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66593 **DST#: 5**
 Test Start: 2020.11.17 @ 12:24:00

GENERAL INFORMATION:

Formation: **LKC D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:53:00
 Time Test Ended: 16:49:45
 Interval: **4042.00 ft (KB) To 4057.00 ft (KB) (TVD)**
 Total Depth: 4057.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 24.17 psig @ 4043.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.17 End Date: 2020.11.17 Last Calib.: 2020.11.17
 Start Time: 12:24:05 End Time: 16:49:44 Time On Btm: 2020.11.17 @ 13:52:30
 Time Off Btm: 2020.11.17 @ 14:54:15

TEST COMMENT: 15- IF: 1/2" blow .
 30- IS: No return.
 10- FF: No blow .
 Pulled test



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.19	105.82	Initial Hydro-static
1	23.49	105.54	Open To Flow (1)
13	24.17	106.10	Shut-In(1)
42	30.11	107.98	End Shut-In(1)
43	23.79	108.00	Open To Flow (2)
58	24.04	108.96	Shut-In(2)
62	1979.56	110.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100m	0.01

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

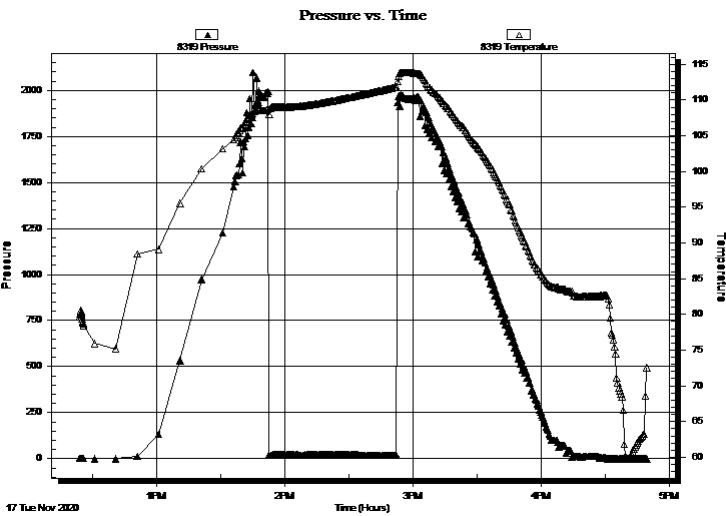
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66593 **DST#: 5**
 Test Start: 2020.11.17 @ 12:24:00

GENERAL INFORMATION:

Formation: **LKC D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:53:00
 Time Test Ended: 16:49:45
 Interval: **4042.00 ft (KB) To 4057.00 ft (KB) (TVD)**
 Total Depth: 4057.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
 Press@RunDepth: psig @ 4043.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.17 End Date: 2020.11.17 Last Calib.: 1899.12.30
 Start Time: 12:24:05 End Time: 16:49:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15- IF: 1/2" blow.
 30- IS: No return.
 10- FF: No blow.
 Pulled test



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100m	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66593 **DST#: 5**
 Test Start: 2020.11.17 @ 12:24:00

Tool Information

Drill Pipe:	Length: 3839.00 ft	Diameter: 3.80 inches	Volume: 53.85 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 54.75 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4042.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	45.00 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			4013.00	
Shut In Tool	5.00		Fluid	4018.00	
Hydraulic tool	5.00			4023.00	
Em Tool	3.00			4026.00	
Jars	5.00			4031.00	
Safety Joint	2.00			4033.00	
Packer	5.00		Inside	4038.00	30.00 Bottom Of Top Packer
Packer	4.00			4042.00	
Stubb	1.00			4043.00	
Recorder	0.00	8522	Inside	4043.00	
Recorder	0.00	8319	Outside	4043.00	
Perforations	11.00			4054.00	
Bullnose	3.00			4057.00	15.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66593 **DST#: 5**
 Test Start: 2020.11.17 @ 12:24:00

Mud and Cushion Information

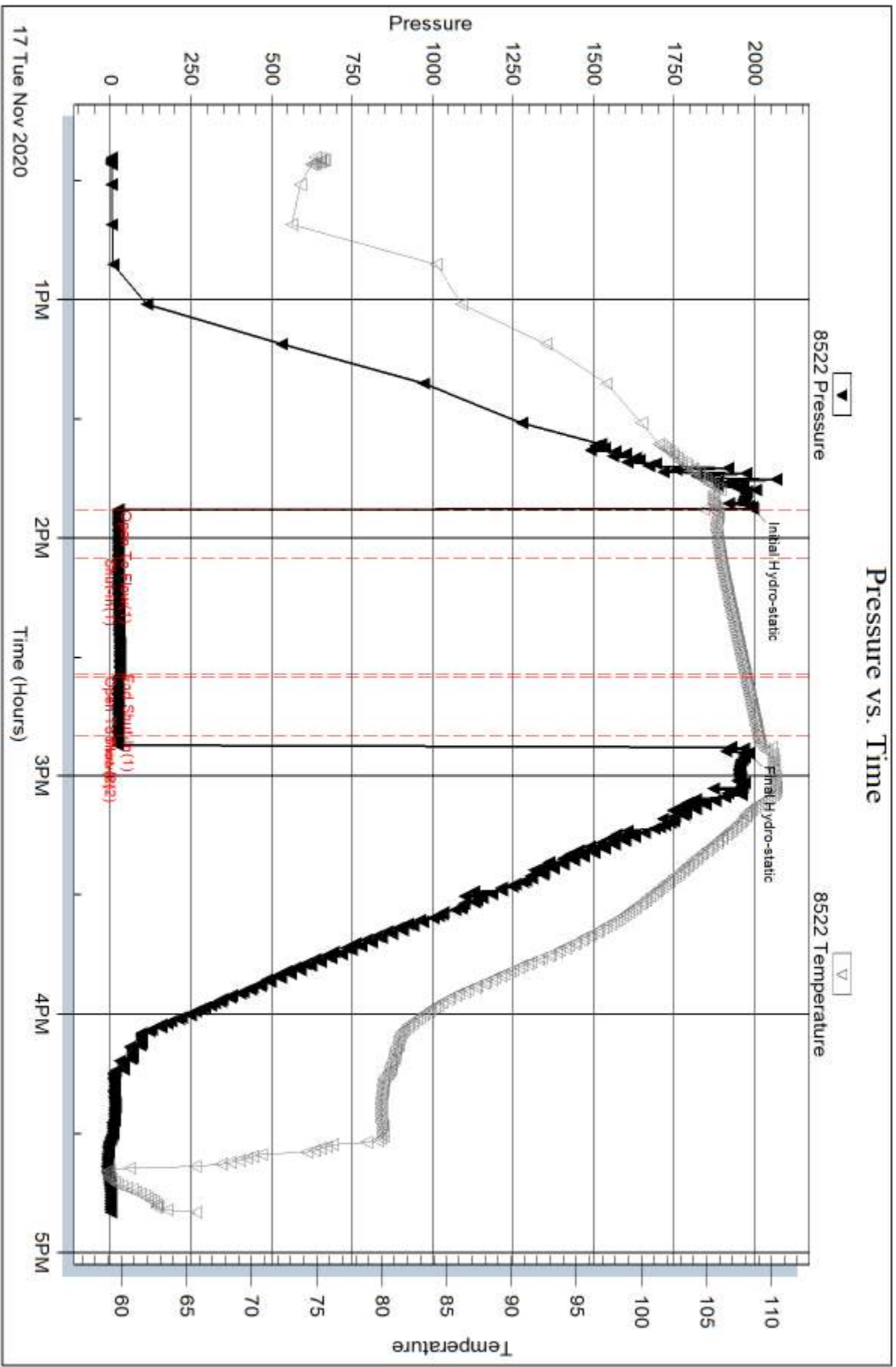
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 100m	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

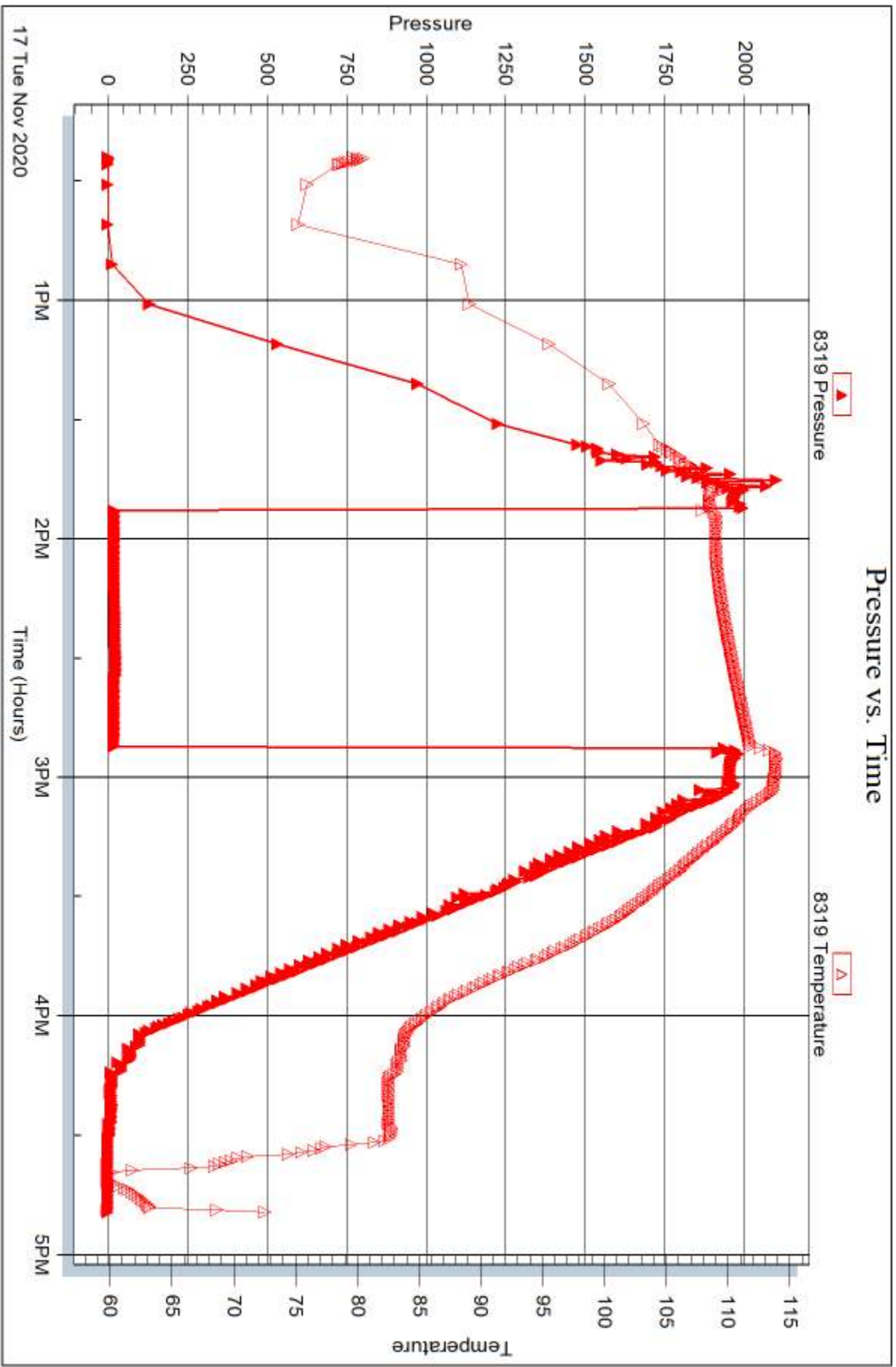


Serial #: 8319

Outside Carmen Schmitt, Inc

Schwartz #1-36

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 66593

Printed: 2020.11.24 @ 08:54:21



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.18 @ 00:24:00

End Date: 2020.11.18 @ 07:10:00

Job Ticket #: 66594 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:52:18

Carmen Schmitt, Inc

36-8s-31w Thomas,KS

Schwarz #1-36

DST # 6

LKG E - F

2020.11.18



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66594 **DST#: 6**
 Test Start: 2020.11.18 @ 00:24:00

GENERAL INFORMATION:

Formation: **LKC E - F**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:06:00
 Tester: Bradley Walter
 Time Test Ended: 07:10:00
 Unit No: 78
Interval: 4056.00 ft (KB) To 4082.00 ft (KB) (TVD)
 Reference Elevations: 2961.00 ft (KB)
 Total Depth: 4082.00 ft (KB) (TVD) 2956.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

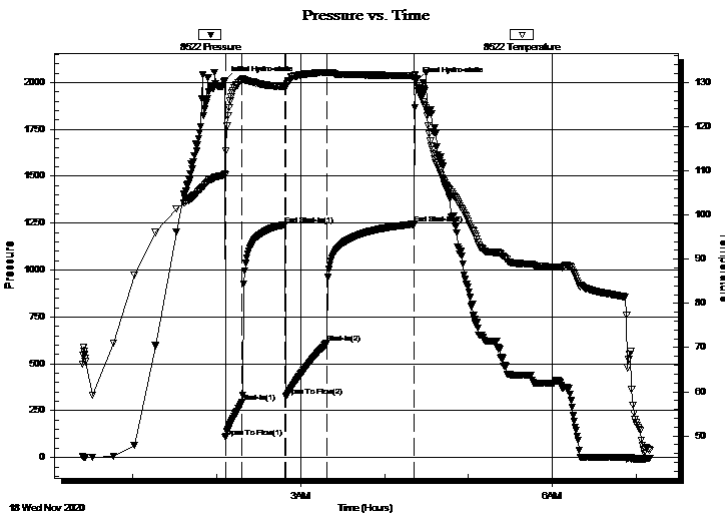
Serial #: 8522

Inside

Press@RunDepth: 608.33 psig @ 4057.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.18 End Date: 2020.11.18 Last Calib.: 2020.11.18
 Start Time: 00:24:05 End Time: 07:09:59 Time On Btm: 2020.11.18 @ 02:05:30
 Time Off Btm: 2020.11.18 @ 04:22:15

TEST COMMENT: 15- IF: BOB @ 2.5 min, built to 50".
 30- IS: 1/2" return.
 30- FF: BOB @ 2 min. built to 88.5"
 60- FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2007.55	109.35	Initial Hydro-static
1	108.66	109.11	Open To Flow (1)
13	293.90	130.60	Shut-In(1)
44	1242.51	128.97	End Shut-In(1)
44	327.10	128.82	Open To Flow (2)
73	608.33	132.28	Shut-In(2)
136	1244.54	131.48	End Shut-In(2)
137	2004.56	130.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1300.00	mcw 3m 97w	16.58

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

36-8s-31w Thomas,KS

Schwarz #1-36
Job Ticket: 66594 **DST#: 6**
Test Start: 2020.11.18 @ 00:24:00

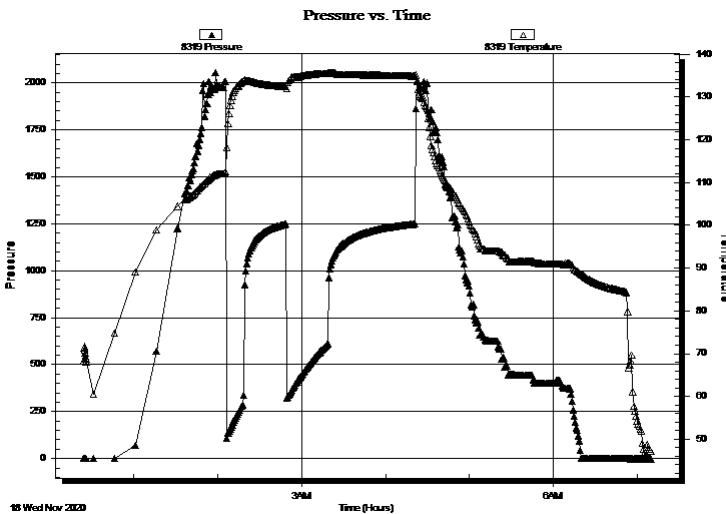
GENERAL INFORMATION:

Formation: **LKC E - F**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 02:06:00 Tester: Bradley Walter
Time Test Ended: 07:10:00 Unit No: 78

Interval: **4056.00 ft (KB) To 4082.00 ft (KB) (TVD)** Reference Elevations: 2961.00 ft (KB)
Total Depth: 4082.00 ft (KB) (TVD) 2956.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
Press@RunDepth: psig @ 4057.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2020.11.18 End Date: 2020.11.18 Last Calib.: 2020.11.18
Start Time: 00:24:05 End Time: 07:09:59 Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF: BOB @ 2.5 min, built to 50".
30- IS: 1/2" return.
30- FF: BOB @ 2 min. built to 88.5"
60- FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1300.00	mcw 3m 97w	16.58

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66594 **DST#: 6**
 Test Start: 2020.11.18 @ 00:24:00

Tool Information

Drill Pipe:	Length: 3870.00 ft	Diameter: 3.80 inches	Volume: 54.29 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 55.19 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	57000.00 lb
Depth to Top Packer:	4056.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	56.00 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			4027.00	
Shut In Tool	5.00		Fluid	4032.00	
Hydraulic tool	5.00			4037.00	
Em Tool	3.00			4040.00	
Jars	5.00			4045.00	
Safety Joint	2.00			4047.00	
Packer	5.00		Inside	4052.00	30.00 Bottom Of Top Packer
Packer	4.00			4056.00	
Stubb	1.00			4057.00	
Recorder	0.00	8522	Inside	4057.00	
Recorder	0.00	8319	Outside	4057.00	
Perforations	22.00			4079.00	
Bullnose	3.00			4082.00	26.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66594 **DST#: 6**
Test Start: 2020.11.18 @ 00:24:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 57000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.97 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1300.00	mcw 3m 97w	16.578

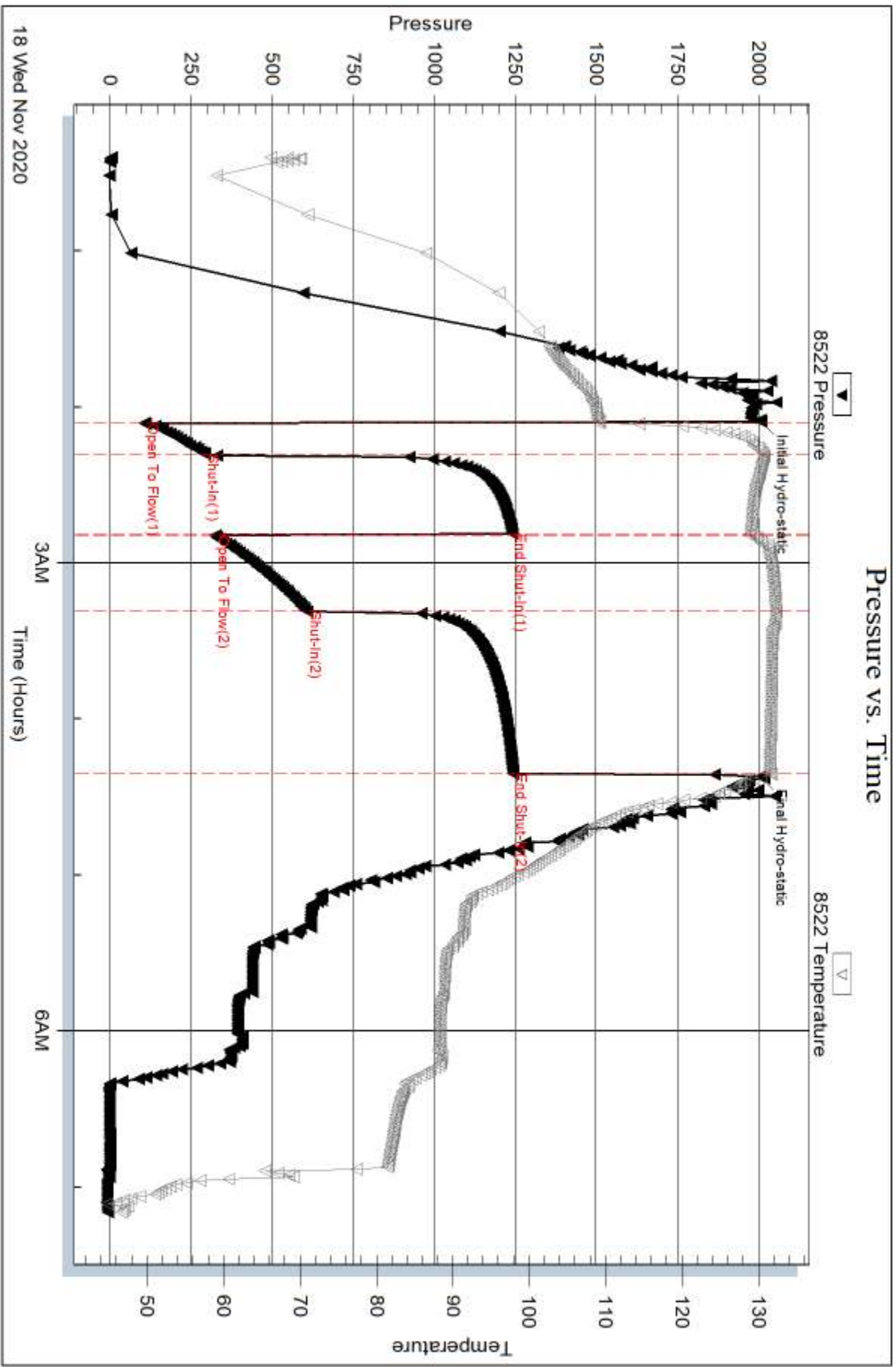
Total Length: 1300.00 ft Total Volume: 16.578 bbl

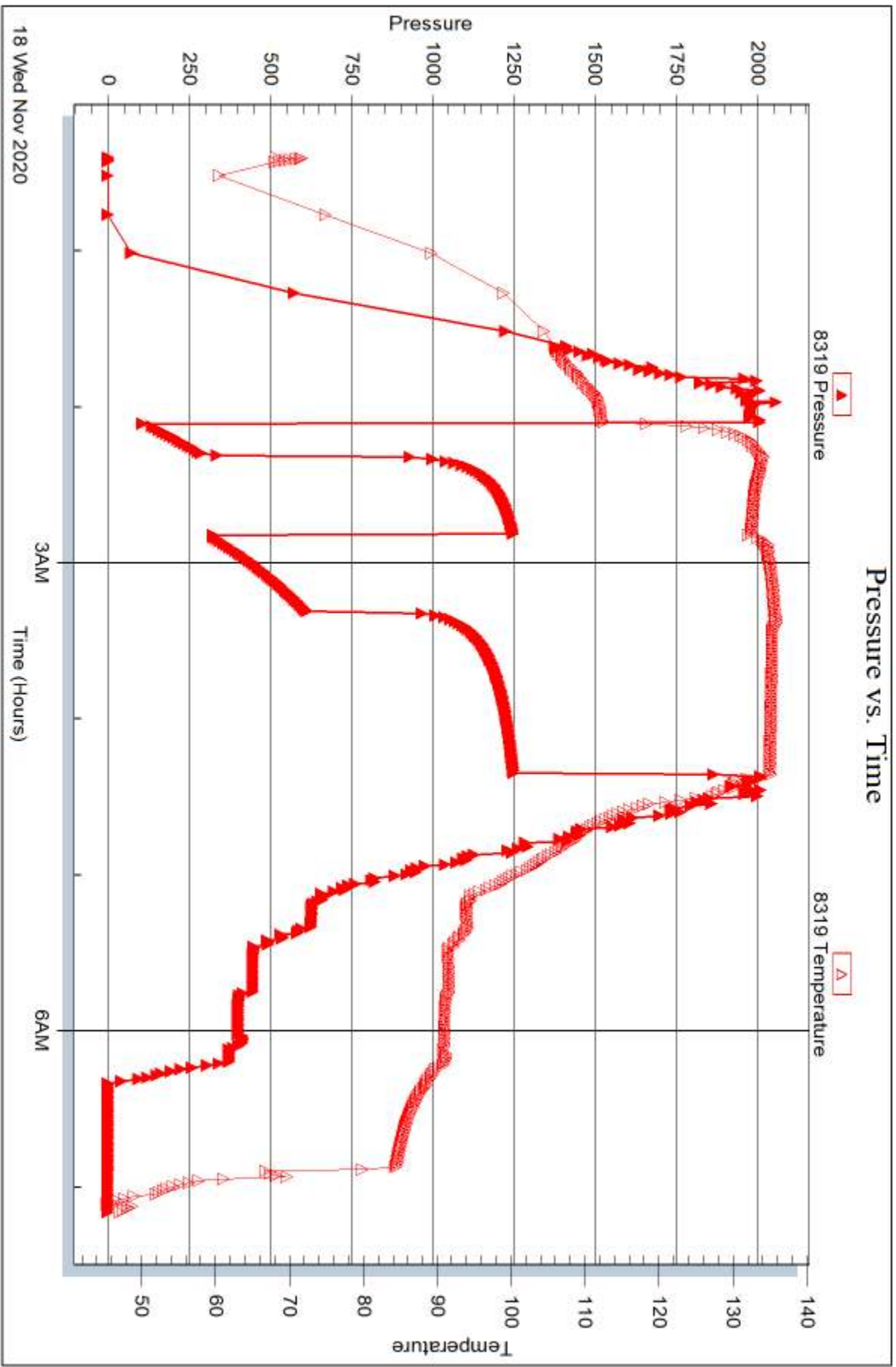
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: rw is .180 @ 50F = 57,000ppm

H2S detected 10- 56ppm







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.18 @ 12:44:00

End Date: 2020.11.18 @ 19:00:15

Job Ticket #: 66595 DST #: 7

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

Printed: 2020.11.24 @ 08:51:44



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66595 **DST#: 7**
 Test Start: 2020.11.18 @ 12:44:00

GENERAL INFORMATION:

Formation: **LKC G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:28:30
 Time Test Ended: 19:00:15
Interval: 4082.00 ft (KB) To 4095.00 ft (KB) (TVD)
 Total Depth: 4095.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

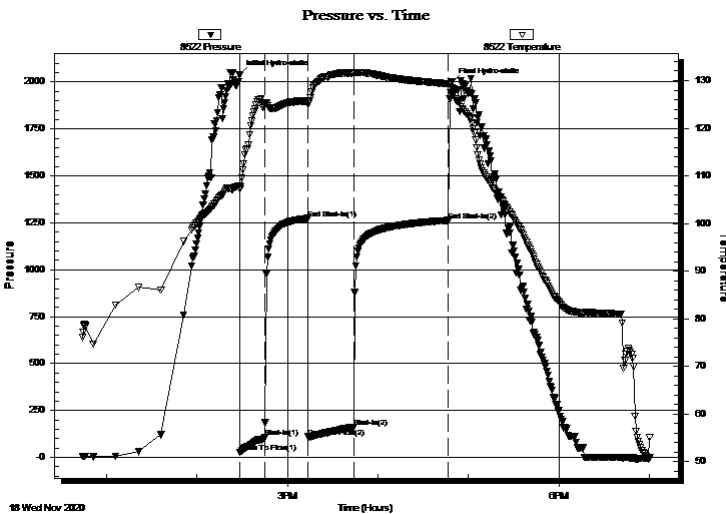
Serial #: 8522

Inside

Press@RunDepth: 160.14 psig @ 4083.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.18 End Date: 2020.11.18 Last Calib.: 2020.11.18
 Start Time: 12:44:05 End Time: 19:00:14 Time On Btm: 2020.11.18 @ 14:28:15
 Time Off Btm: 2020.11.18 @ 16:49:00

TEST COMMENT: 15- IF: 8 1/2" blow .
 30- IS: No return.
 30- FF: BOB @ 26 min, built to 11 1/2".
 60- FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2038.69	107.98	Initial Hydro-static
1	27.59	107.33	Open To Flow (1)
17	105.50	124.93	Shut-In(1)
46	1273.41	125.61	End Shut-In(1)
46	109.32	125.05	Open To Flow (2)
76	160.14	131.48	Shut-In(2)
139	1262.96	129.27	End Shut-In(2)
141	1999.36	128.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
345.00	mcw 5m 95w Oil spots on top	3.18

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

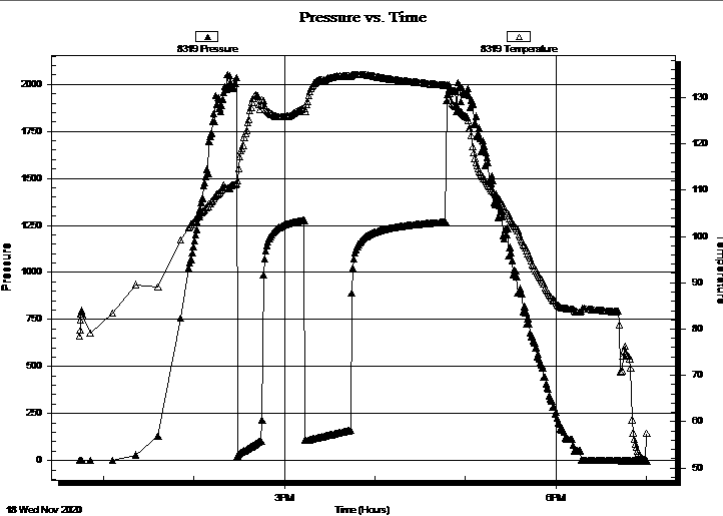
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66595 **DST#: 7**
 Test Start: 2020.11.18 @ 12:44:00

GENERAL INFORMATION:

Formation: **LKC G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:28:30
 Time Test Ended: 19:00:15
 Interval: **4082.00 ft (KB) To 4095.00 ft (KB) (TVD)**
 Total Depth: 4095.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 **Outside**
 Press@RunDepth: psig @ 4083.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.18 End Date: 2020.11.18 Last Calib.: 2020.11.18
 Start Time: 12:44:05 End Time: 19:00:14 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15- IF: 8 1/2" blow .
 30- IS: No return.
 30- FF: BOB @ 26 min, built to 11 1/2".
 60- FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
345.00	mcw 5m 95w Oil spots on top	3.18

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66595 **DST#: 7**
 Test Start: 2020.11.18 @ 12:44:00

Tool Information

Drill Pipe:	Length: 3900.00 ft	Diameter: 3.80 inches	Volume: 54.71 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 55.61 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4082.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	43.00 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			4053.00	
Shut In Tool	5.00		Fluid	4058.00	
Hydraulic tool	5.00			4063.00	
Em Tool	3.00			4066.00	
Jars	5.00			4071.00	
Safety Joint	2.00			4073.00	
Packer	5.00		Inside	4078.00	30.00 Bottom Of Top Packer
Packer	4.00			4082.00	
Stubb	1.00			4083.00	
Recorder	0.00	8522	Inside	4083.00	
Recorder	0.00	8319	Outside	4083.00	
Perforations	9.00			4092.00	
Bullnose	3.00			4095.00	13.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66595 **DST#: 7**
 Test Start: 2020.11.18 @ 12:44:00

Mud and Cushion Information

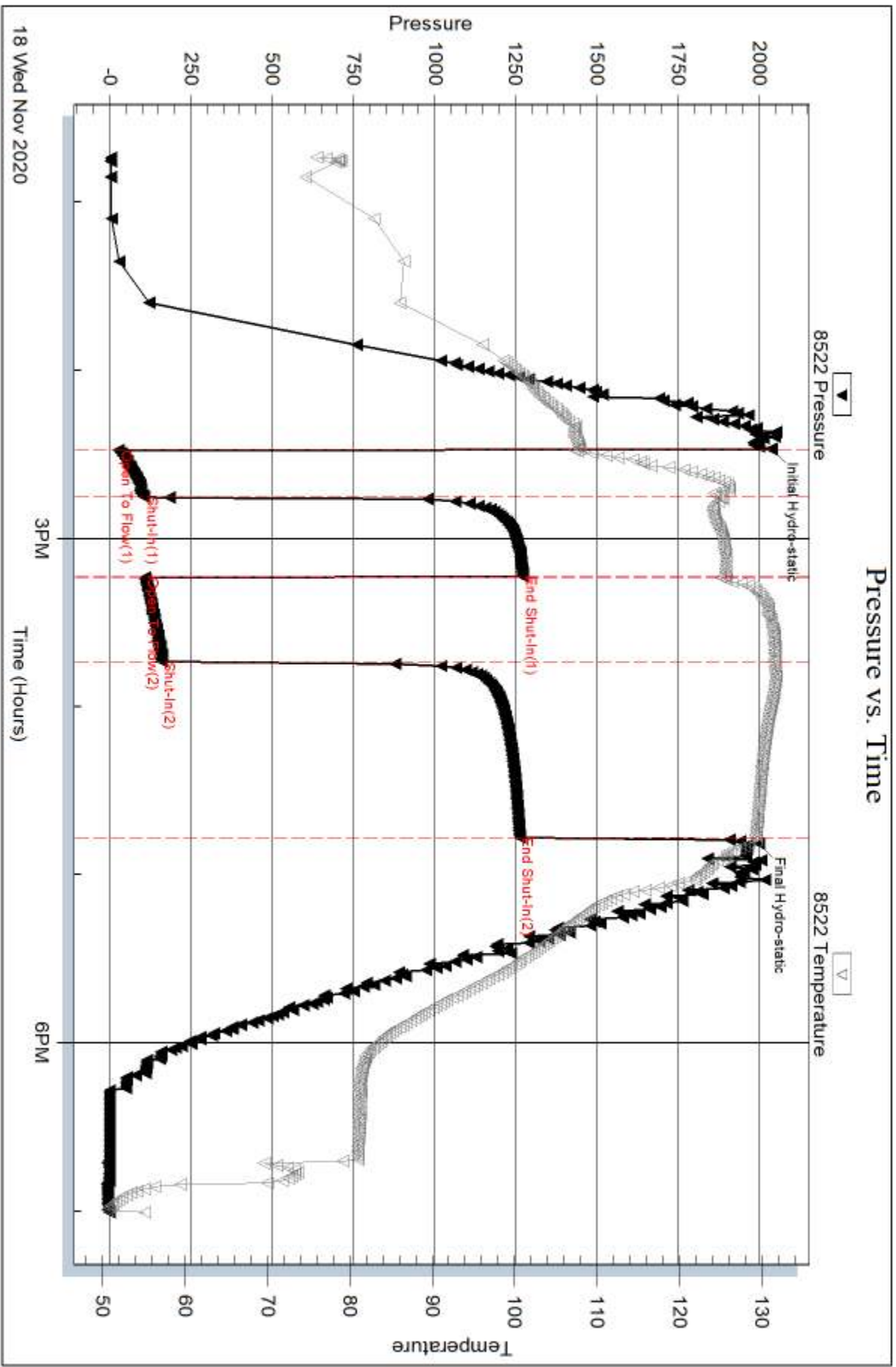
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 76000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.78 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2800.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
345.00	mcw 5m 95w Oil spots on top	3.182

Total Length: 345.00 ft Total Volume: 3.182 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .113 @ 63f = 76000ppm

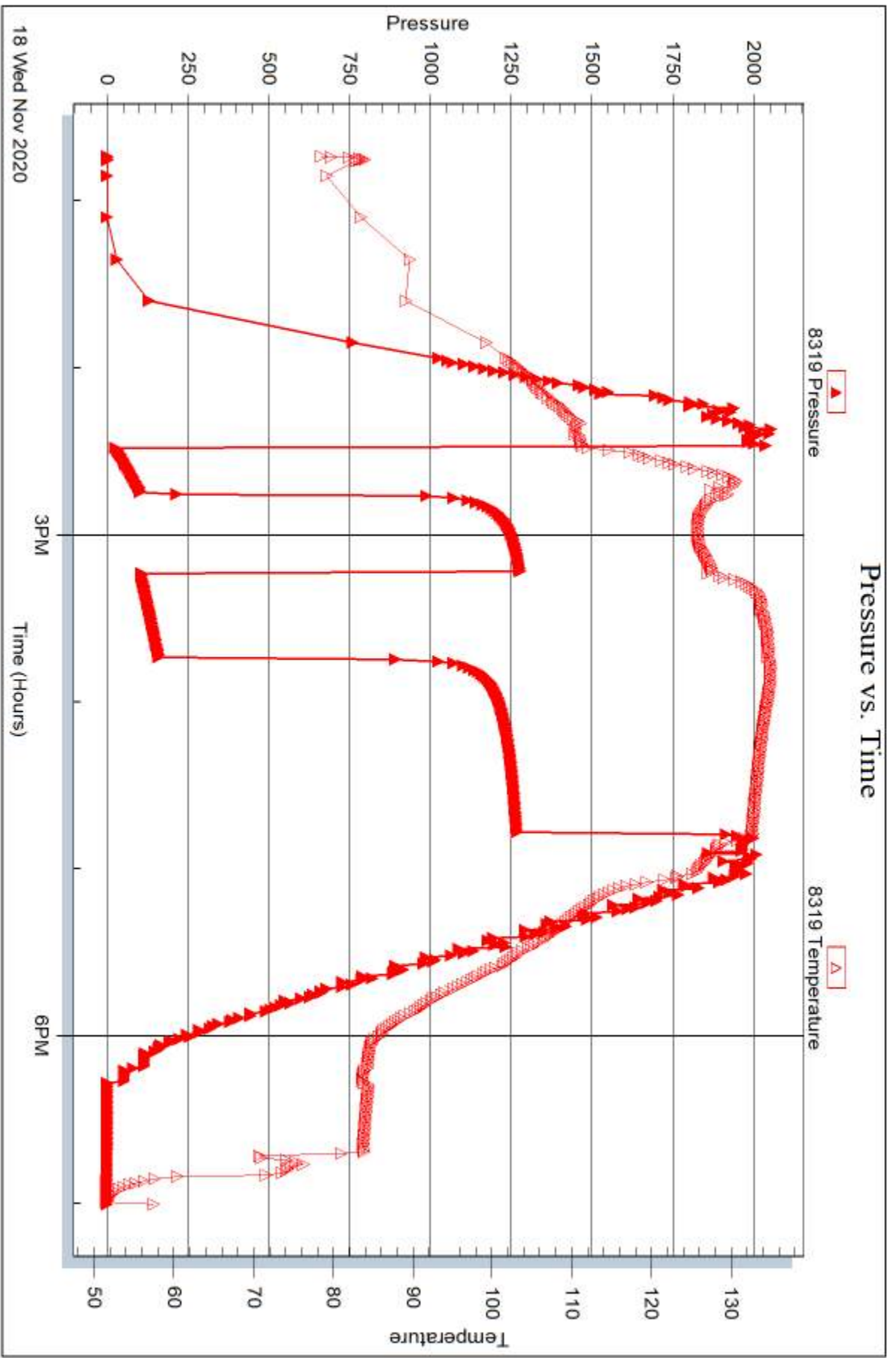


Serial #: 8319

Outside Carmen Schmitt, Inc

Schw arz #1-36

DST Test Number: 7



18 Wed Nov 2020

Triobite Testing, Inc

Ref. No: 66595

Printed: 2020.11.24 @ 08:51:49



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.19 @ 06:24:00

End Date: 2020.11.19 @ 10:46:30

Job Ticket #: 66596 DST #: 8

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:51:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66596 **DST#: 8**
 Test Start: 2020.11.19 @ 06:24:00

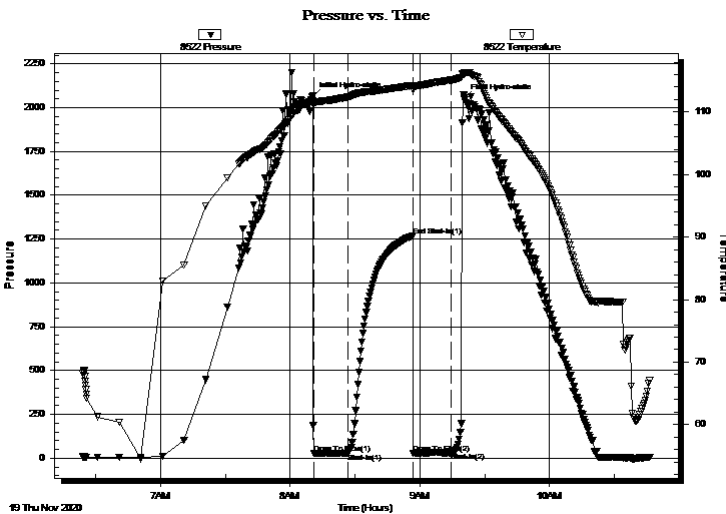
GENERAL INFORMATION:

Formation: **LKC G - H**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 08:11:00 Tester: Bradley Walter
 Time Test Ended: 10:46:30 Unit No: 78
 Interval: **4125.00 ft (KB) To 4162.00 ft (KB) (TVD)** Reference Elevations: 2961.00 ft (KB)
 Total Depth: 4162.00 ft (KB) (TVD) 2956.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 28.21 psig @ 4126.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.19 End Date: 2020.11.19 Last Calib.: 2020.11.19
 Start Time: 06:24:05 End Time: 10:46:29 Time On Btm: 2020.11.19 @ 08:10:30
 Time Off Btm: 2020.11.19 @ 09:20:30

TEST COMMENT: 15- IF: 1" blow .
 30- IS: No return.
 15- FF: Surface blow .
 Pulled test.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.22	111.78	Initial Hydro-static
1	26.25	111.27	Open To Flow (1)
16	28.21	112.39	Shut-In(1)
47	1268.82	114.28	End Shut-In(1)
47	28.27	113.64	Open To Flow (2)
64	30.73	115.12	Shut-In(2)
70	2053.44	116.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m (oil spots in tool)	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66596 **DST#: 8**
 Test Start: 2020.11.19 @ 06:24:00

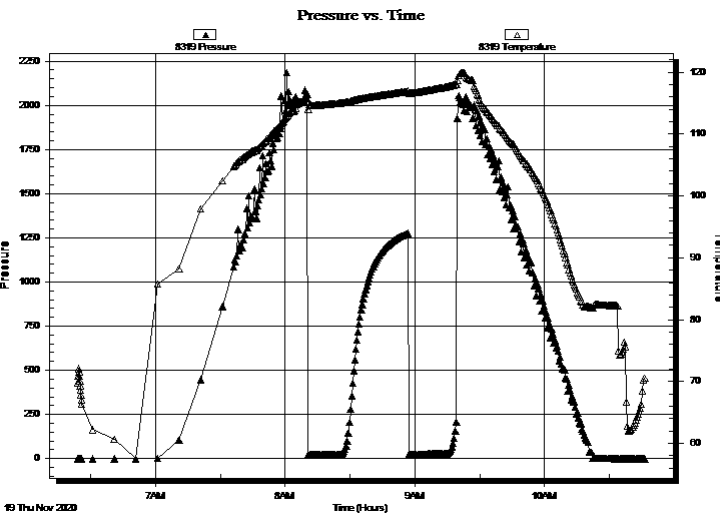
GENERAL INFORMATION:

Formation: LKC G - H		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 08:11:00		Tester: Bradley Walter
Time Test Ended: 10:46:30		Unit No: 78
Interval: 4125.00 ft (KB) To 4162.00 ft (KB) (TVD)		Reference Elevations: 2961.00 ft (KB)
Total Depth: 4162.00 ft (KB) (TVD)		2956.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 5.00 ft

Serial #: 8319 Outside

Press@RunDepth: psig @ 4126.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2020.11.19	End Date: 2020.11.19
Start Time: 06:24:05	End Time: 10:46:14
	Last Calib.: 2020.11.19
	Time On Btm:
	Time Off Btm:

TEST COMMENT: 15- IF: 1" blow.
 30- IS: No return.
 15- FF: Surface blow.
 Pulled test.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m (oil spots in tool)	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66596 **DST#: 8**
 Test Start: 2020.11.19 @ 06:24:00

Tool Information

Drill Pipe:	Length: 3934.00 ft	Diameter: 3.80 inches	Volume: 55.18 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4125.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	67.00 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			4096.00	
Shut In Tool	5.00		Fluid	4101.00	
Hydraulic tool	5.00			4106.00	
Em Tool	3.00			4109.00	
Jars	5.00			4114.00	
Safety Joint	2.00			4116.00	
Packer	5.00		Inside	4121.00	30.00 Bottom Of Top Packer
Packer	4.00			4125.00	
Stubb	1.00			4126.00	
Recorder	0.00	8522	Inside	4126.00	
Recorder	0.00	8319	Outside	4126.00	
Perforations	33.00			4159.00	
Bullnose	3.00			4162.00	37.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66596 **DST#: 8**
Test Start: 2020.11.19 @ 06:24:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

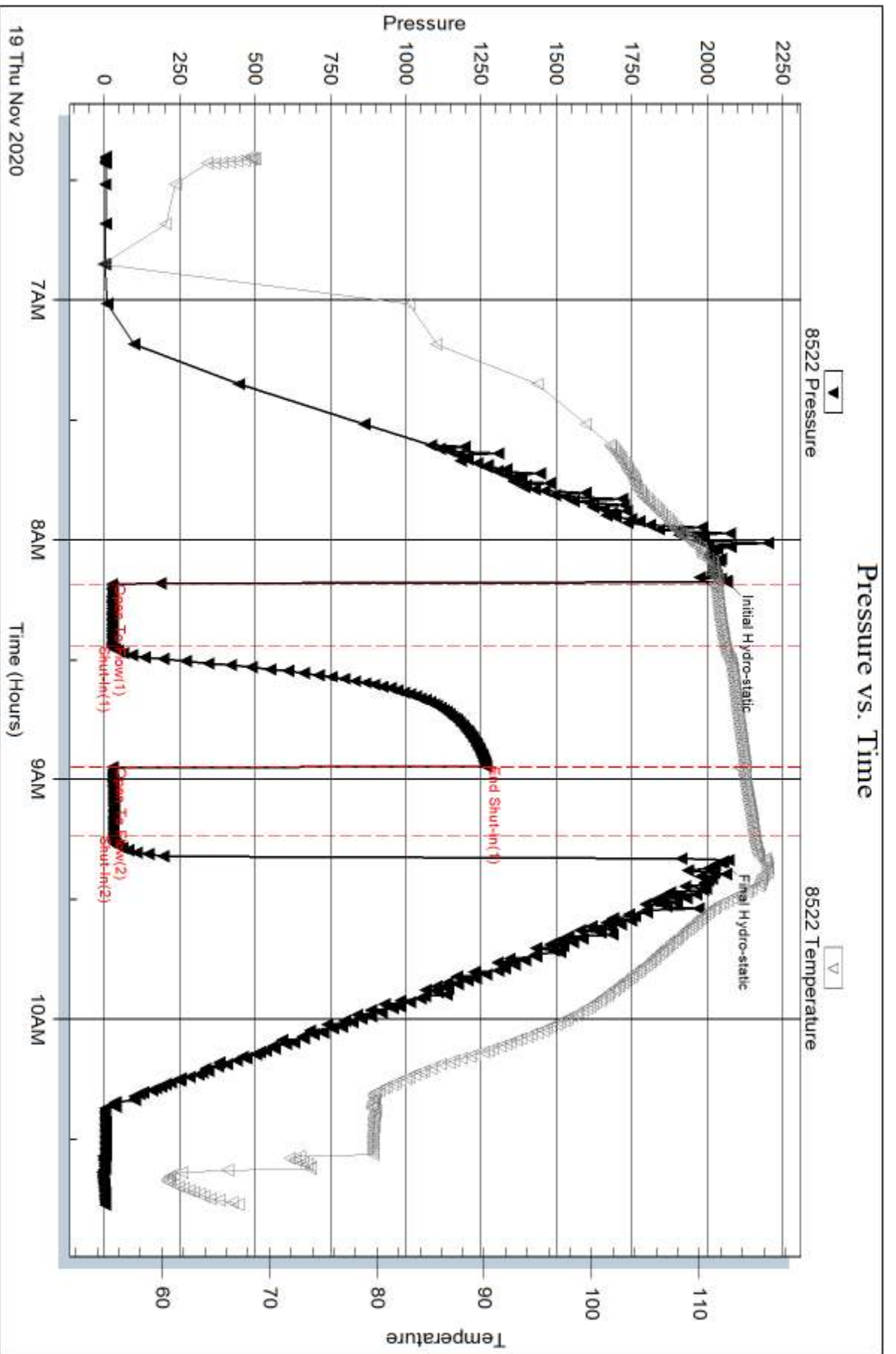
Length ft	Description	Volume bbl
10.00	Mud 100m (oil spots in tool)	0.049

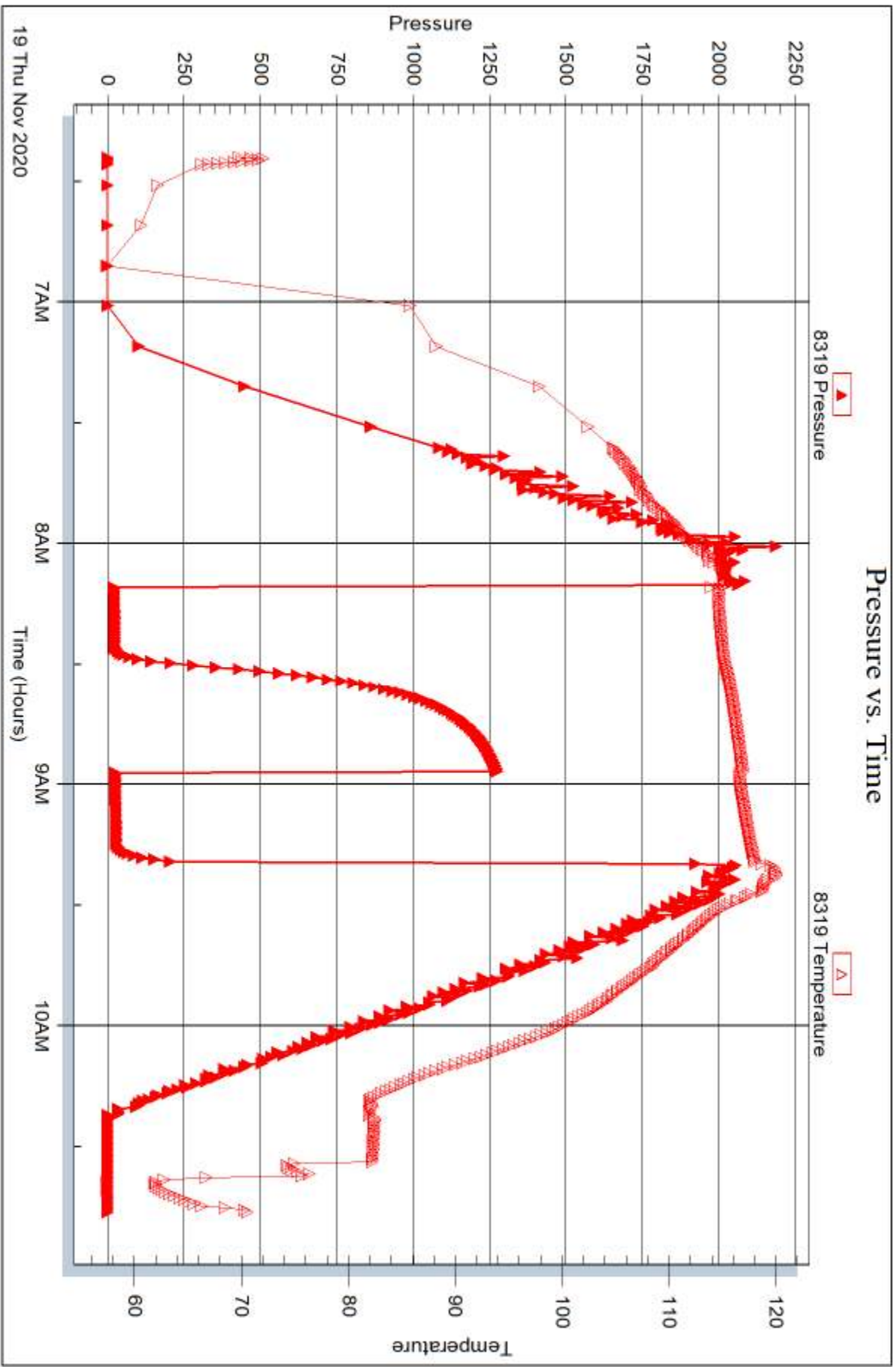
Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.19 @ 23:06:00

End Date: 2020.11.20 @ 03:29:45

Job Ticket #: 66597 DST #: 9

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.11.24 @ 08:49:06

Carmen Schmitt, Inc
36-8s-31w Thomas,KS
Schwarz #1-36
DST # 9
LKC I - K
2020.11.19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

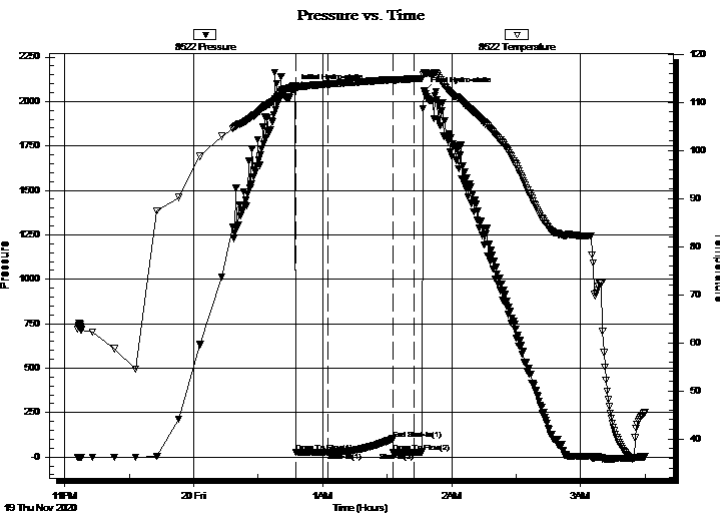
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66597 **DST#: 9**
 Test Start: 2020.11.19 @ 23:06:00

GENERAL INFORMATION:

Formation: **LKC I - K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:47:30
 Time Test Ended: 03:29:45
 Interval: **4154.00 ft (KB) To 4240.00 ft (KB) (TVD)**
 Total Depth: 4240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 27.18 psig @ 4155.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.19 End Date: 2020.11.20 Last Calib.: 2020.11.20
 Start Time: 23:06:05 End Time: 03:29:44 Time On Btm: 2020.11.20 @ 00:47:15
 Time Off Btm: 2020.11.20 @ 01:47:15

TEST COMMENT: 15- IF: 1" blow .
 30- IS: No return.
 10- FF: No blow .
 Pulled test.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2070.16	113.39	Initial Hydro-static
1	25.98	112.75	Open To Flow (1)
15	27.18	113.76	Shut-In(1)
46	102.17	114.72	End Shut-In(1)
46	28.11	114.60	Open To Flow (2)
56	27.55	114.88	Shut-In(2)
60	2058.37	116.06	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

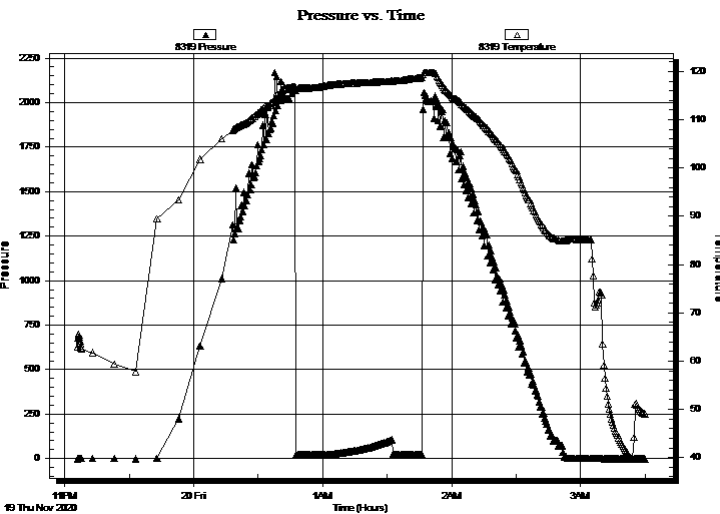
36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66597 **DST#: 9**
 Test Start: 2020.11.19 @ 23:06:00

GENERAL INFORMATION:

Formation: **LKC I - K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:47:30
 Time Test Ended: 03:29:45
 Interval: **4154.00 ft (KB) To 4240.00 ft (KB) (TVD)**
 Total Depth: 4240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
 Press@RunDepth: psig @ 4155.00 ft (KB)
 Start Date: 2020.11.19 End Date: 2020.11.20
 Start Time: 23:06:05 End Time: 03:29:44
 Capacity: 8000.00 psig
 Last Calib.: 2020.11.20
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15- IF: 1" blow .
 30- IS: No return.
 10- FF: No blow .
 Pulled test.



PRESSURE SUMMARY

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

Recovery

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

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66597 **DST#: 9**
Test Start: 2020.11.19 @ 23:06:00

Tool Information

Drill Pipe:	Length: 3965.00 ft	Diameter: 3.80 inches	Volume: 55.62 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4154.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	86.00 ft			
Tool Length:	116.00 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			4125.00	
Shut In Tool	5.00		Fluid	4130.00	
Hydraulic tool	5.00			4135.00	
Em Tool	3.00			4138.00	
Jars	5.00			4143.00	
Safety Joint	2.00			4145.00	
Packer	5.00		Inside	4150.00	30.00 Bottom Of Top Packer
Packer	4.00			4154.00	
Stubb	1.00			4155.00	
Recorder	0.00	8522	Inside	4155.00	
Recorder	0.00	8319	Outside	4155.00	
Perforations	17.00			4172.00	
Change Over Sub	1.00			4173.00	
Drill Pipe	63.00			4236.00	
Change Over Sub	1.00			4237.00	
Bullnose	3.00			4240.00	86.00 Bottom Packers & Anchor
Total Tool Length:	116.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66597 **DST#: 9**
Test Start: 2020.11.19 @ 23:06:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

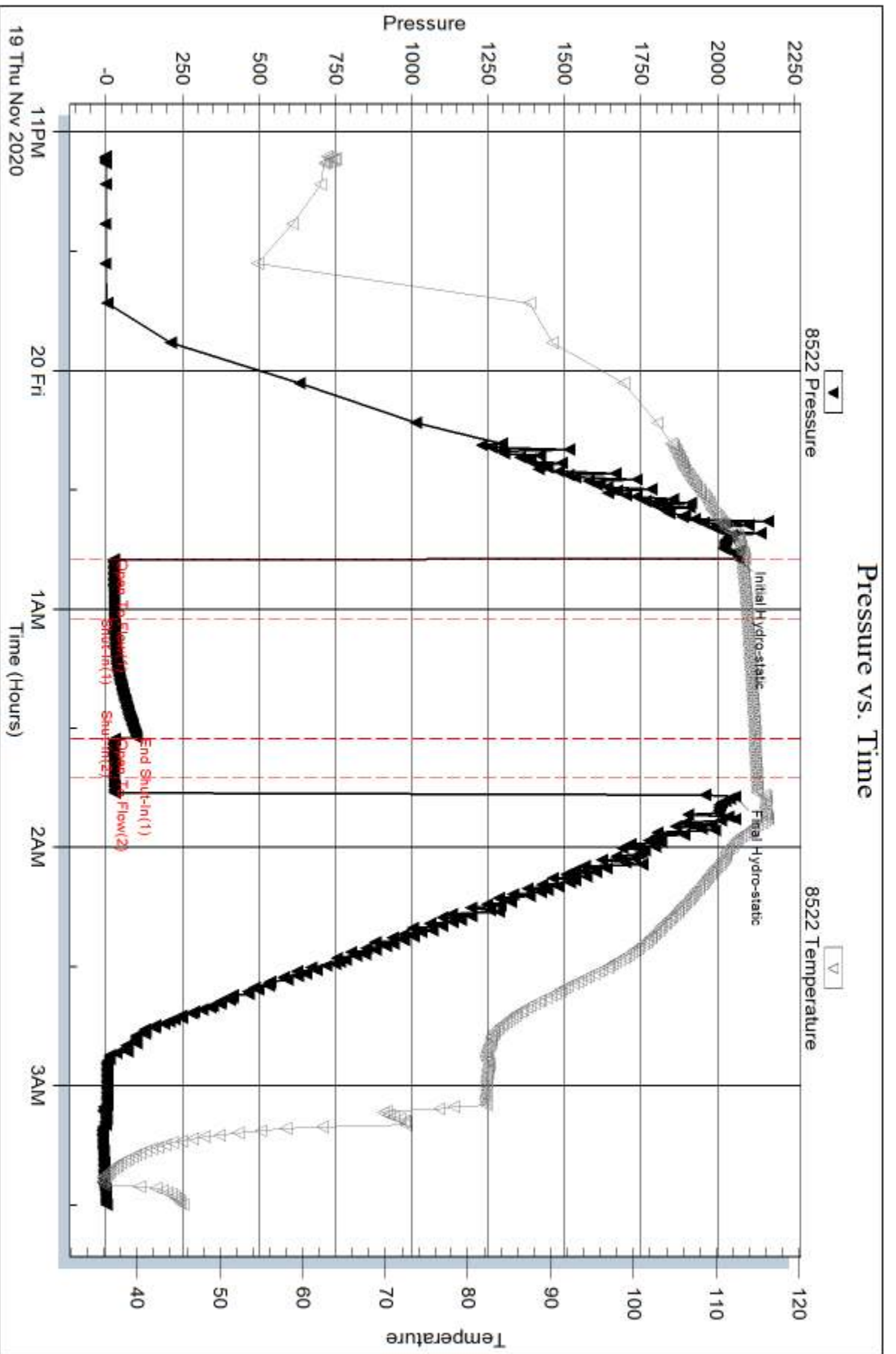
Length ft	Description	Volume bbl
5.00	Mud 100m	0.025

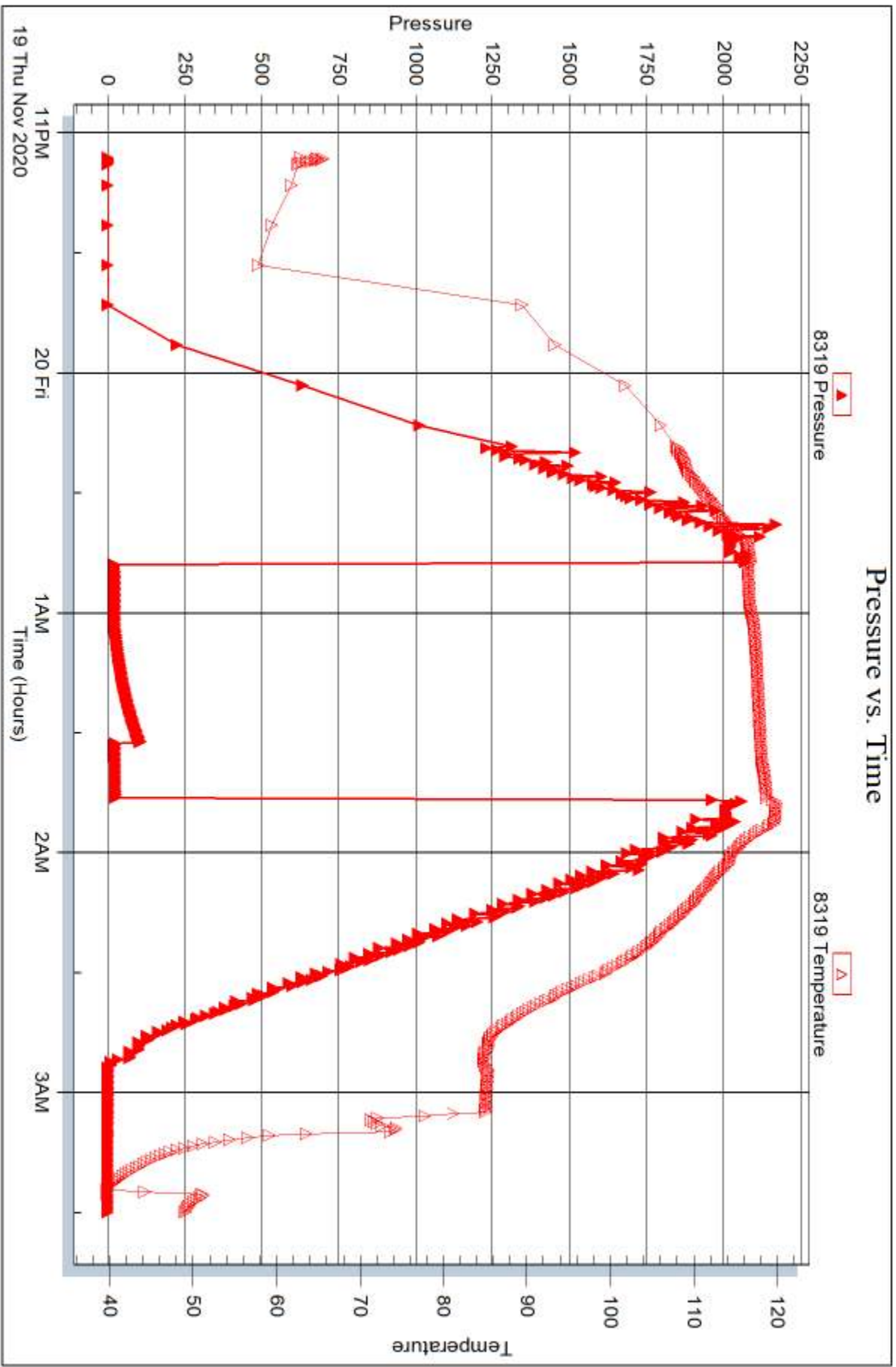
Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.20 @ 10:22:00

End Date: 2020.11.20 @ 14:45:53

Job Ticket #: 66598 DST #: 10

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

Printed: 2020.11.24 @ 08:30:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66598 **DST#: 10**
 Test Start: 2020.11.20 @ 10:22:00

GENERAL INFORMATION:

Formation: **LKC L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:13:23
 Time Test Ended: 14:45:53
 Interval: **4257.00 ft (KB) To 4270.00 ft (KB) (TVD)**
 Total Depth: 4270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

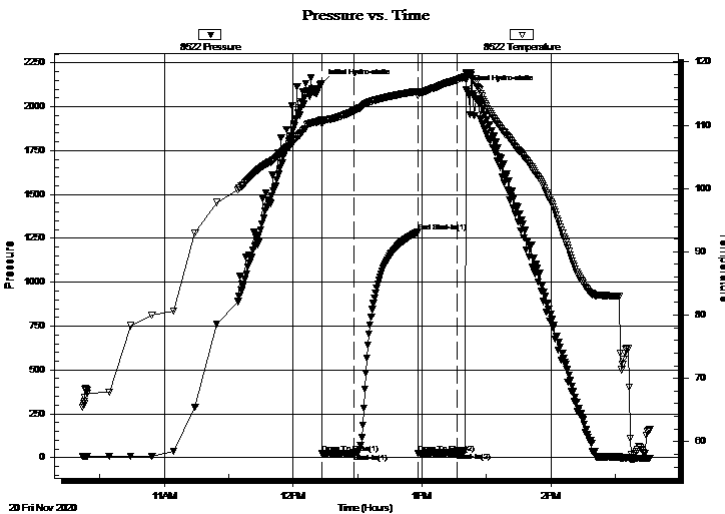
Serial #: 8522

Inside

Press@RunDepth: 26.41 psig @ 4258.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.20 End Date: 2020.11.20 Last Calib.: 2020.11.20
 Start Time: 10:22:05 End Time: 14:45:52 Time On Btm: 2020.11.20 @ 12:13:08
 Time Off Btm: 2020.11.20 @ 13:20:38

TEST COMMENT: 15- IF: 1" blow.
 30- IS: No return.
 15- FF: Surface blow.
 Pulled Test tool.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.50	110.78	Initial Hydro-static
1	23.86	110.16	Open To Flow (1)
15	26.41	112.22	Shut-In(1)
45	1285.28	115.36	End Shut-In(1)
45	24.61	114.69	Open To Flow (2)
64	28.06	117.18	Shut-In(2)
68	2095.29	118.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100m (oil spots)	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66598 **DST#: 10**
Test Start: 2020.11.20 @ 10:22:00

GENERAL INFORMATION:

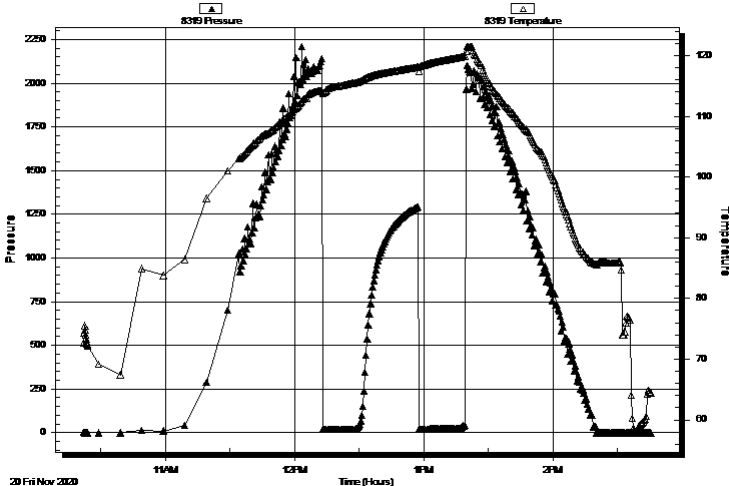
Formation: **LKC L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:13:23
 Time Test Ended: 14:45:53
 Interval: **4257.00 ft (KB) To 4270.00 ft (KB) (TVD)**
 Total Depth: 4270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2961.00 ft (KB)
 2956.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 **Outside**
 Press@RunDepth: psig @ 4258.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.11.20 End Date: 2020.11.20 Last Calib.: 2020.11.20
 Start Time: 10:22:05 End Time: 14:45:14 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15- IF: 1" blow.
30- IS: No return.
15- FF: Surface blow.
Pulled Test tool.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100m (oil spots)	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66598 **DST#: 10**
Test Start: 2020.11.20 @ 10:22:00

Tool Information

Drill Pipe:	Length: 4061.00 ft	Diameter: 3.80 inches	Volume: 56.97 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 57.87 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	4257.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	43.00 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			4228.00	
Shut In Tool	5.00		Fluid	4233.00	
Hydraulic tool	5.00			4238.00	
Em Tool	3.00			4241.00	
Jars	5.00			4246.00	
Safety Joint	2.00			4248.00	
Packer	5.00		Inside	4253.00	30.00 Bottom Of Top Packer
Packer	4.00			4257.00	
Stubb	1.00			4258.00	
Recorder	0.00	8522	Inside	4258.00	
Recorder	0.00	8319	Outside	4258.00	
Perforations	9.00			4267.00	
Bullnose	3.00			4270.00	13.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66598 **DST#: 10**
 Test Start: 2020.11.20 @ 10:22:00

Mud and Cushion Information

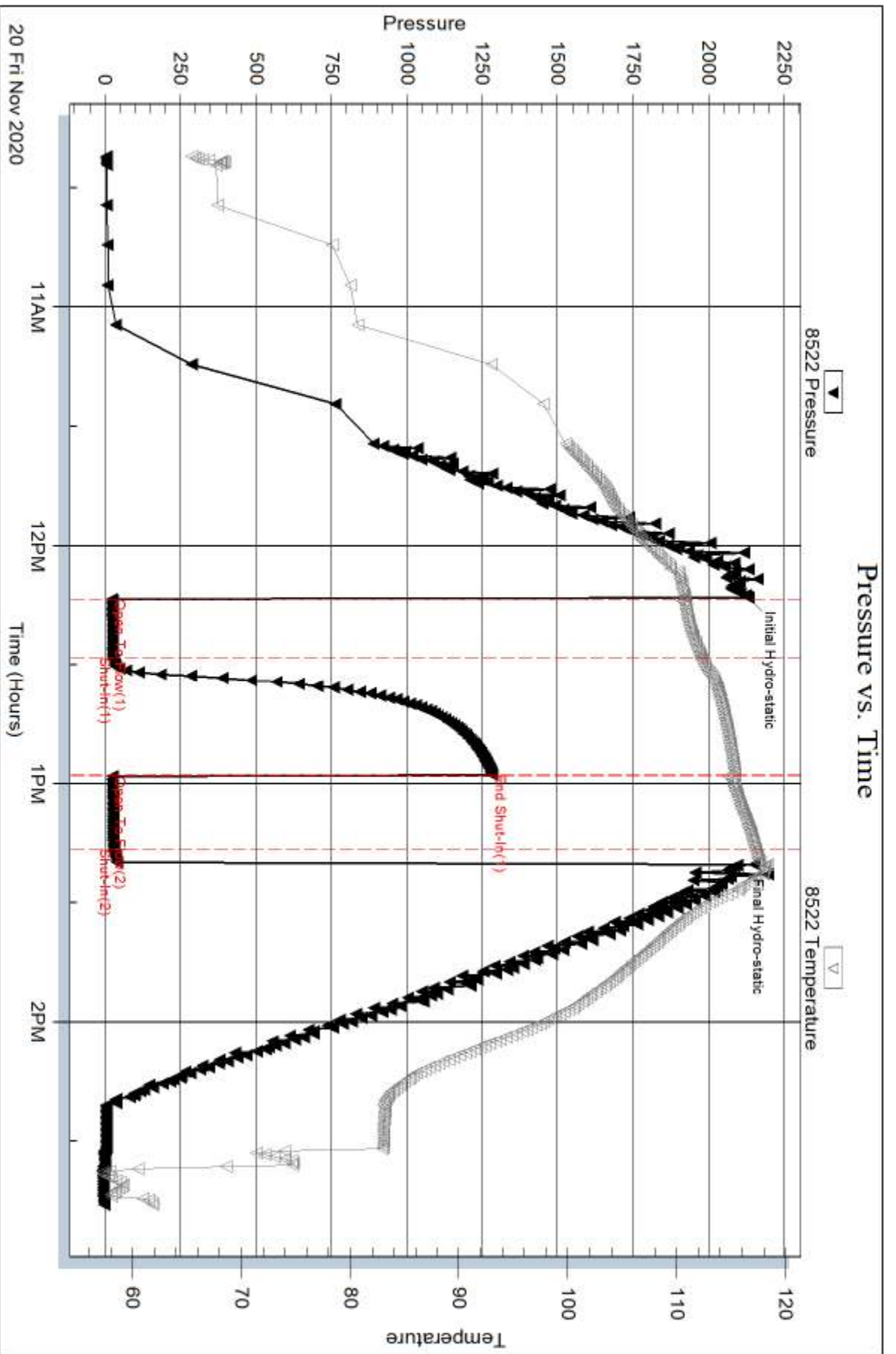
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

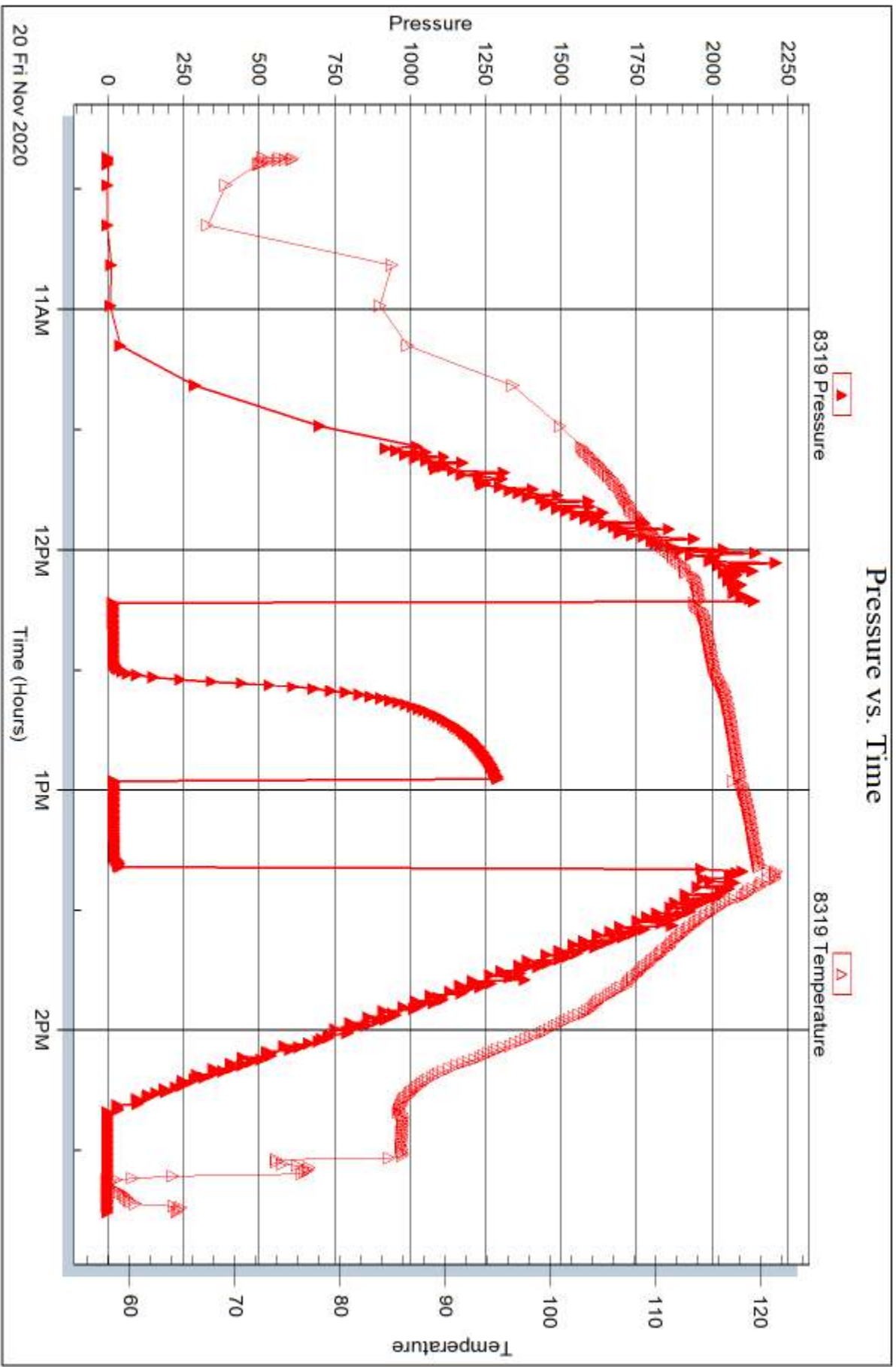
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100m (oil spots)	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc**

PO Box 47
Great Bend, KS 67530

ATTN: Brad Rine

Schwarz #1-36

36-8s-31w Thomas,KS

Start Date: 2020.11.21 @ 06:55:00

End Date: 2020.11.21 @ 12:19:00

Job Ticket #: 66599 DST #: 11

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

Printed: 2020.11.24 @ 08:16:58



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS

Schwarz #1-36

Job Ticket: 66599

DST#: 11

Test Start: 2020.11.21 @ 06:55:00

GENERAL INFORMATION:

Formation: **Altamont- Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:43:45

Time Test Ended: 12:19:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4305.00 ft (KB) To 4400.00 ft (KB) (TVD)**

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4400.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522

Inside

Press@RunDepth: 40.42 psig @ 4306.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.11.21

End Date:

2020.11.21

Last Calib.: 2020.11.21

Start Time: 06:55:05

End Time:

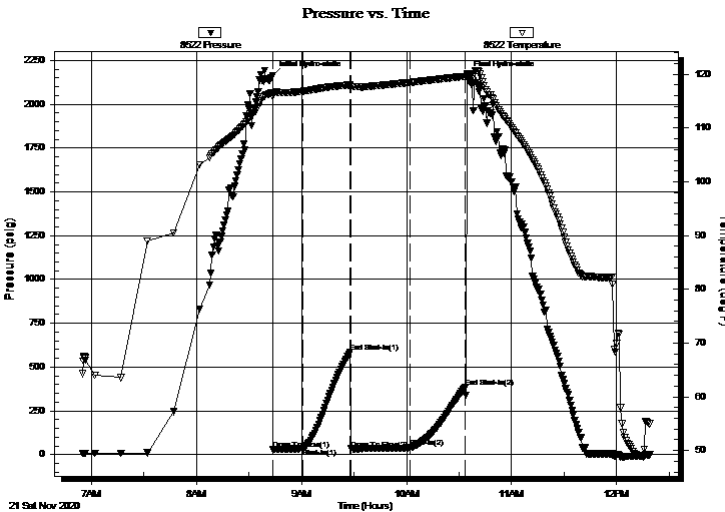
12:18:59

Time On Btm: 2020.11.21 @ 08:43:30

Time Off Btm: 2020.11.21 @ 10:34:45

TEST COMMENT: 15- IF: 1 1/4" blow .
 30- IS: No return.
 30- FF: 1/4" blow .
 30- FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2164.95	116.63	Initial Hydro-static
1	28.87	115.88	Open To Flow (1)
18	37.90	116.84	Shut-In(1)
45	584.48	118.02	End Shut-In(1)
45	32.71	117.59	Open To Flow (2)
79	40.42	118.47	Shut-In(2)
110	384.46	119.61	End Shut-In(2)
112	2162.23	120.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS

Schwarz #1-36

Job Ticket: 66599 **DST#: 11**

Test Start: 2020.11.21 @ 06:55:00

GENERAL INFORMATION:

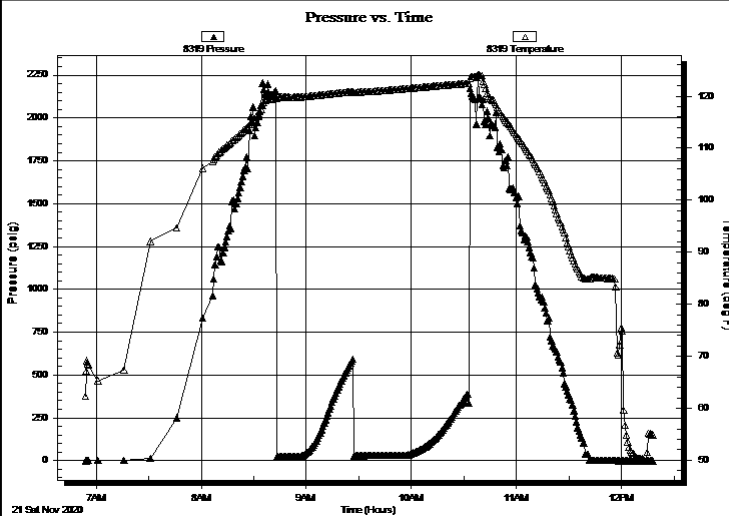
Formation: **Altamont- Pawnee**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 08:43:45 Tester: Bradley Walter
Time Test Ended: 12:19:00 Unit No: 78
Interval: 4305.00 ft (KB) To 4400.00 ft (KB) (TVD) Reference Elevations: 2961.00 ft (KB)
Total Depth: 4400.00 ft (KB) (TVD) 2956.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8319

Outside

Press@RunDepth: psig @ 4306.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2020.11.21 End Date: 2020.11.21 Last Calib.: 2020.11.21
Start Time: 06:54:05 End Time: 12:17:59 Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF: 1 1/4" blow .
30- IS: No return.
30- FF: 1/4" blow .
30- FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc
PO Box 47
Great Bend, KS 67530
ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
Job Ticket: 66599 **DST#: 11**
Test Start: 2020.11.21 @ 06:55:00

Tool Information

Drill Pipe:	Length: 4124.00 ft	Diameter: 3.80 inches	Volume: 57.85 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 58.75 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4305.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	95.00 ft				
Tool Length:	125.00 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			4276.00	
Shut In Tool	5.00		Fluid	4281.00	
Hydraulic tool	5.00			4286.00	
Em Tool	3.00			4289.00	
Jars	5.00			4294.00	
Safety Joint	2.00			4296.00	
Packer	5.00		Inside	4301.00	30.00 Bottom Of Top Packer
Packer	4.00			4305.00	
Stubb	1.00			4306.00	
Recorder	0.00	8522	Inside	4306.00	
Recorder	0.00	8319	Outside	4306.00	
Perforations	26.00			4332.00	
Change Over Sub	1.00			4333.00	
Drill Pipe	63.00			4396.00	
Change Over Sub	1.00			4397.00	
Bullnose	3.00			4400.00	95.00 Bottom Packers & Anchor
Total Tool Length:	125.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc
 PO Box 47
 Great Bend, KS 67530
 ATTN: Brad Rine

36-8s-31w Thomas,KS
Schwarz #1-36
 Job Ticket: 66599 **DST#: 11**
 Test Start: 2020.11.21 @ 06:55:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

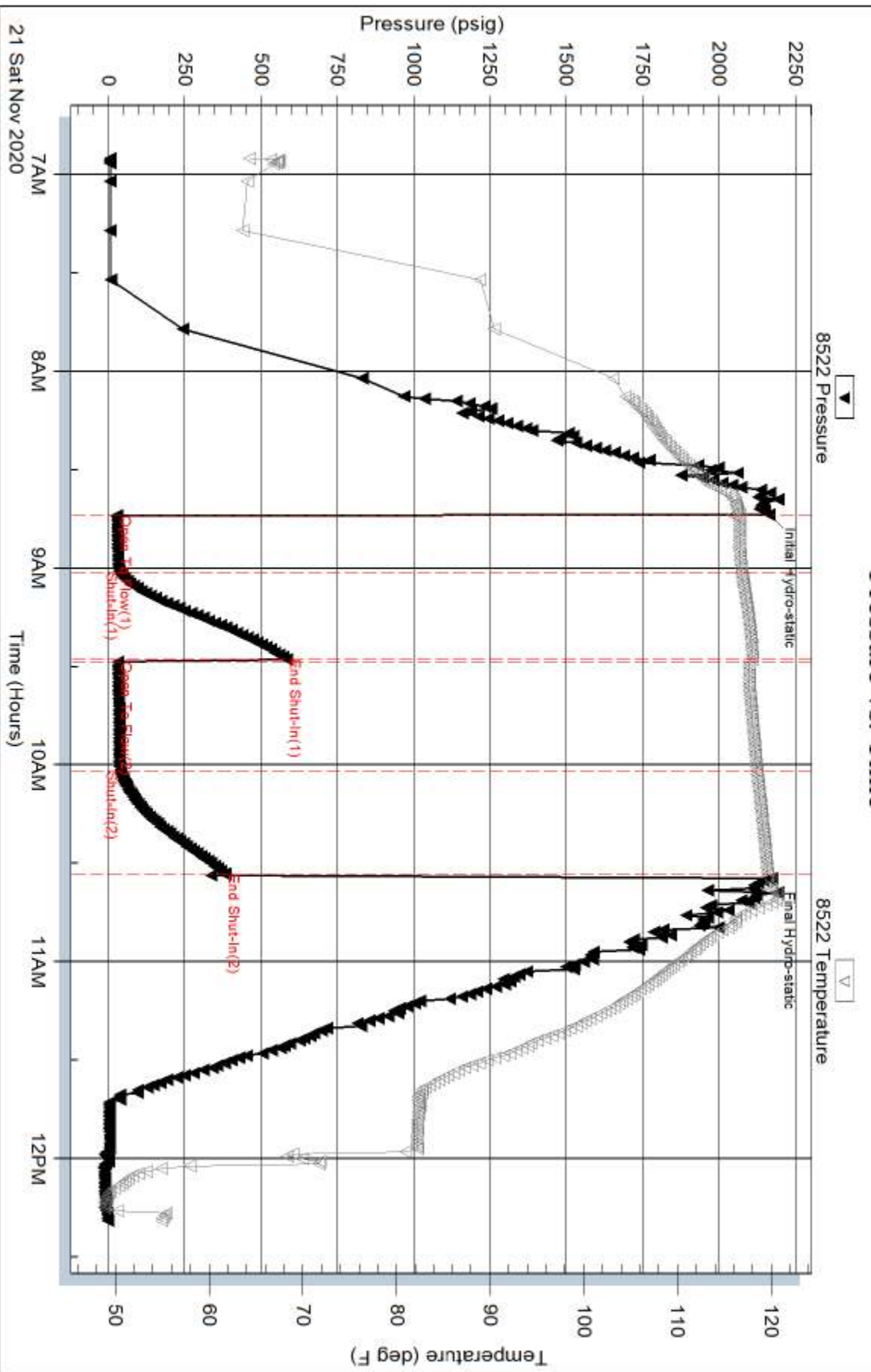
Recovery Information

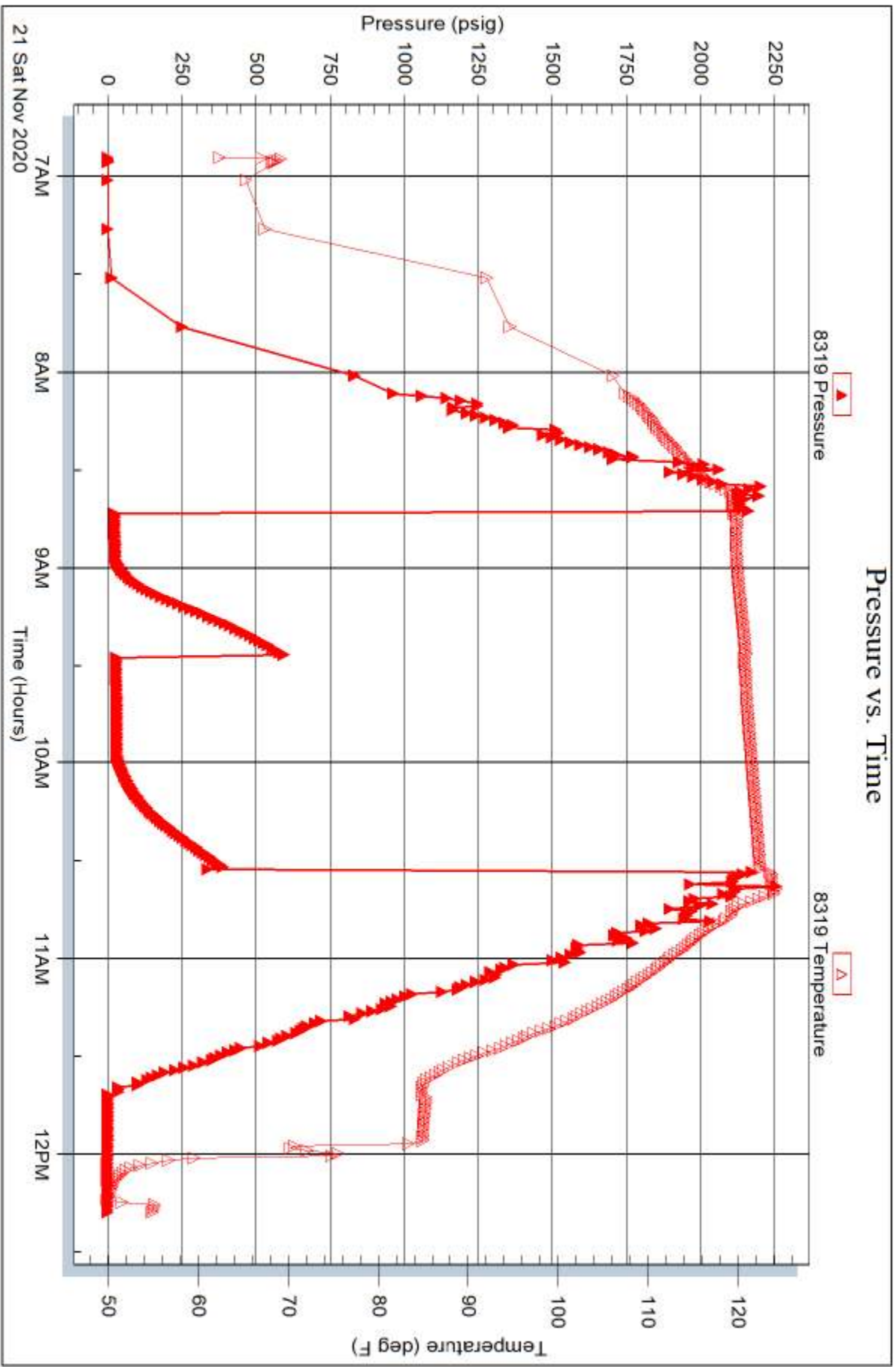
Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100m	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:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66589

NO.

Well Name & No. Schwarz 1-36 Test No. 1 Date 11/15/2020
 Company Carmen Schmitt, Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig McAus 110
 Location: Sec. 36 Twp 8S Rge. 31W Co. Thomas State Ks

Interval Tested 3820-3831 Zone Tested Topeka
 Anchor Length 11' Drill Pipe Run 3617 Mud Wt. 9.2
 Top Packer Depth 3815 Drill Collars Run 182 Vis 54
 Bottom Packer Depth 3820 Wt. Pipe Run 0 WL 6.4
 Total Depth 3831 Chlorides 1500 ppm System LCM 2#

Blow Description IF! Slid 12' on open - Slid 2' @ 10 min in built to 11" after 1st shot
FSI No return
FF BOD @ 15 min built to 28.7"
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>700</u>	<u>mcw</u>			<u>85</u>	<u>15</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 700 BHT 124 Gravity — API RW 1340 @ 50 °F Chlorides 27F ppm

(A) Initial Hydrostatic 1870 Test 1200 T-On Location 0050
 (B) First Initial Flow 83 Jars 250 T-Started 0151
 (C) First Final Flow 261 Safety Joint 75 T-Open 0402
 (D) Initial Shut-In 1199 Circ Sub W/C T-Pulled 0710
 (E) Second Initial Flow 249 Hourly Standby _____ T-Out 0948
 (F) Second Final Flow 365 Mileage 84 Comments _____
 (G) Final Shut-In 1196 Sampler _____ Hit bridge, Stacked out
 (H) Final Hydrostatic 1824 Straddle _____ tool on trip in.
 EM Tool 350

Initial Open 40 Ruined Shale Packer _____
 Initial Shut-In 43 Ruined Packer x2 640
 Final Flow 45 Extra Copies _____
 Final Shut-In 60 Day Standby _____ Sub Total 640
 Accessibility _____ Total 2249
 Sub Total 1609 MP/DST Disc't _____

Approved By _____ Our Representative _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66590

NO.

Well Name & No. Schwarz 1-36 Test No. 2 Date 11/16/2020
 Company Carmen Schmitt, Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Brad Rine Rig Nutan 110
 Location: Sec. 36 Twp 8S Rge. 31W Co. Thomas State KS

Interval Tested 3965-3997 Zone Tested Toronto
 Anchor Length 32' Drill Pipe Run 3775 Mud Wt. 9.0
 Top Packer Depth 3960 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 3965 Wt. Pipe Run 0 WL 6.8
 Total Depth 3997 Chlorides 2,000 ppm System LCM 1#

Blow Description IF 1.8" blow
ISI No return
FF 1.1" blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Mud</u>			<u>100</u>	

Rec Total 45 BHT 115 Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1450</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>2330</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0010</u>
(C) First Final Flow <u>34</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0155</u>
(D) Initial Shut-In <u>976</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0430</u>
(E) Second Initial Flow <u>34</u>	<input type="checkbox"/> Hourly Standby <u> </u>	T-Out <u>0612</u>
(F) Second Final Flow <u>47</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments <u> </u>
(G) Final Shut-In <u>897</u>	<input type="checkbox"/> Sampler <u> </u>	
(H) Final Hydrostatic <u>1939</u>	<input type="checkbox"/> Straddle <u> </u>	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer <u> </u>	<input type="checkbox"/> Ruined Shale Packer <u> </u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u> </u>	<input type="checkbox"/> Ruined Packer <u> </u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder <u> </u>	<input type="checkbox"/> Extra Copies <u> </u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby <u> </u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u> </u>	Total <u>1609</u>
	Sub Total <u>1609</u>	MP/DST Disc't <u> </u>

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66591

NO.

Well Name & No. Schwarz 1-36 Test No. 3 Date 11/16/2020
 Company Carmen Schmitt Elevation 2961 KB 2986 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Martin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 3998 - 4015 Zone Tested LKE "A"
 Anchor Length 17' Drill Pipe Run 3807 Mud Wt. 9.1
 Top Packer Depth 3993 Drill Collars Run 183 Vls 57
 Bottom Packer Depth 3998 Wt. Pipe Run Ø WL 7.2
 Total Depth 4015 Chlorides 1500 ppm System LCM 2#

Blow Description IF 1.4" blow.
ISI No return.
FP 3" blow - receding
FSI Rolled Test

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mod 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 20 BHT 111 Gravity — API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 1974 Test 1300 T-On Location 1145
 (B) First Initial Flow 28 Jars 250 T-Started 1210
 (C) First Final Flow 29 Safety Joint 75 T-Open 1353
 (D) Initial Shut-In 1200 Circ Sub _____ T-Pulled 1457
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 1655
 (F) Second Final Flow 33 Mileage 84 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1932 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Initial Open 15 Day Standby _____ Sub Total 0
 Initial Shut-In 30 Accessibility _____ Total 1709
 Final Flow 15 Sub Total 1709 MP/DST Disc't _____
 Final Shut-In Roll

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66592

NO.

Well Name & No. Schwarz #1-36 Test No. 4 Date 11/17/2020
 Company Carmen Schmitt Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Kc 67530
 Co. Rep / Geo. Brad Rine Rig MudIn 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 4013 - 4042 Zone Tested LKC G
 Anchor Length 29 Drill Pipe Run 3808 Mud Wt. 9.2
 Top Packer Depth 4008 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 4013 Wt. Pipe Run 1 WL 6.4
 Total Depth 4042 Chlorides 1500 ppm System LCM 2#
 Blow Description IF: 2 1/2" blow
ISF: No return.
FF: 5 1/2" blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>mcw</u>			<u>70</u>	<u>30</u>
	<u>oil specks in tool</u>				

Rec Total 150 BHT 124 Gravity — API RW .505 @ 51 °F Chlorides 18,000 ppm

(A) Initial Hydrostatic <u>1990</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>2330</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0020</u>
(C) First Final Flow <u>34</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0137</u>
(D) Initial Shut-In <u>1264</u>	<input checked="" type="checkbox"/> Circ Sub <u>HL</u>	T-Pulled <u>0526</u>
(E) Second Initial Flow <u>36</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0658</u>
(F) Second Final Flow <u>88</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>1247</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1961</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>35</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>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66593

NO.

Well Name & No. Schwarz # 1-36 Test No. 5 Date 11/17/2020
 Company Carmen Schmitt Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Martin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 4042-4057 Zone Tested LKC D
 Anchor Length 15' Drill Pipe Run 3839 Mud Wt. 9.2
 Top Packer Depth 4037 Drill Collars Run 182 Vis 50
 Bottom Packer Depth 4042 Wt. Pipe Run Ø WL 8.0
 Total Depth 4057 Chlorides 1500 ppm System LCM 2#
 Blow Description IF 1/2" blow
IS1 No return.
FF No blow
pull test

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</u>	

Rec Total 3 BHT 109 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1993</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>1200</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1224</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1401</u>
(D) Initial Shut-In <u>30</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1500</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby	T-Out
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1979</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Flow <u>10</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>Pull</u>	<input type="checkbox"/> Accessibility	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66594

NO.

Well Name & No. Schwarz #1-36 Test No. 6 Date 11/18/2020
 Company Carmen Schmitt Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Mudlin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

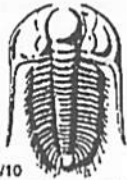
Interval Tested 4056-4082 Zone Tested LKC E-F
 Anchor Length 26' Drill Pipe Run 3870 Mud Wt. 9.1
 Top Packer Depth 4051 Drill Collars Run 182 Vis 55
 Bottom Packer Depth 4056 Wt. Pipe Run Ø WL 8.0
 Total Depth 4082 Chlorides 1500 ppm System LCM 2#
 Blow Description IF! BOB@ 2.5 min built to 50"
ISI 1/2" return.
FF BOB@ 2 min. built to 88.5"
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1300</u>	<u>mcw</u>		<u>97</u>	<u>3</u>	
	<u>H2S 10-56 ppm</u>				

Rec Total 1300 BHT 132 Gravity - API RW 180 @ 50 °F Chlorides 57,000 ppm

(A) Initial Hydrostatic <u>2007</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>0010</u>
(B) First Initial Flow <u>108</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0024</u>
(C) First Final Flow <u>293</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0203</u>
(D) Initial Shut-In <u>1242</u>	<input checked="" type="checkbox"/> Circ Sub <u>used 50</u>	T-Pulled <u>0418</u>
(E) Second Initial Flow <u>327</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0710</u>
(F) Second Final Flow <u>608</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>1244</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2004</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1759</u>
	Sub Total <u>1759</u>	MP/DST Disc't

Approved By _____ Our Representative Brad Rine
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66595

NO.

Well Name & No. Schwarz 1-36 Test No. 7 Date 11/18/2020
 Company Carmen Schmitt, Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Martin 110
 Location: Sec. 36 Twp 8S Rge. 3W Co. Thomas State Ks

Interval Tested 4082 - 4095 Zone Tested LRC G
 Anchor Length 13 Drill Pipe Run 3900 Mud Wt. 9.1
 Top Packer Depth 4077 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 4082 Wt. Pipe Run 0 WL 8.8
 Total Depth 4095 Chlorides 2500 ppm System LCM 2#

Blow Description IF 8 1/2" blow.
ISI No return.
FF BOB @ 26 min built to 1 1/2"
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>345</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	
	<u>oil spots on top</u>				

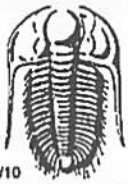
Rec Total 345 BHT 120 Gravity — API RW 112 @ 63 °F Chlorides 26000 ppm

(A) Initial Hydrostatic <u>2038</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>1145</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1245</u>
(C) First Final Flow <u>105</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1429</u>
(D) Initial Shut-In <u>1273</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1645</u>
(E) Second Initial Flow <u>109</u>	<input type="checkbox"/> Hourly Standby	T-Out
(F) Second Final Flow <u>160</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>1263</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1999</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open <u>15</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>160</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66596

NO.

4/10

Well Name & No. Schwarz #1-36 Test No. 8 Date 11/14/2020
 Company Carmen Schmitt, Inc Elevation 2961 KB 2936 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Mudwin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 4125 - 4162 Zone Tested LKC G-H
 Anchor Length 37 Drill Pipe Run 3734 Mud Wt. 9.4
 Top Packer Depth 4120 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 4125 Wt. Pipe Run Ø WL 7.2
 Total Depth 4162 Chlorides 2500 ppm System LCM 2#
 Blow Description IF 1" blow
ISI No return.
FF Weak surface blow.
Pulled Test.

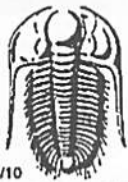
Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud</u>			<u>100</u>	

Rec Total 10 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2065</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>0530</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0624</u>
(C) First Final Flow <u>28</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0812</u>
(D) Initial Shut-In <u>1268</u>	<input checked="" type="checkbox"/> Circ Sub <u>M/C</u>	T-Pulled <u>0920</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1046</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2053</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66597

NO.

Well Name & No. Schwarz #1-36 Test No. 9 Date 11/20/2019
 Company Carmen Schmitt, Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Mulin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 4154 - 4240 Zone Tested LKC I, J, K
 Anchor Length 86' Drill Pipe Run 3965 Mud Wt. 9.2
 Top Packer Depth 4149 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 4154 Wt. Pipe Run Ø WL 7.2
 Total Depth 4240 Chlorides 2500 ppm System LCM 2#

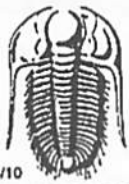
Blow Description IF 1' blow
ISI No return
FF No blow
FSI Pulled Test

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 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2070</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>2230</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2326</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0048</u>
(D) Initial Shut-In <u>102</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0148</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0329</u>
(F) Second Final Flow <u>27</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2058</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>15</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>10</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>Poil</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66598

NO.

Well Name & No. Schwarz #1-36 Test No. 10 Date 11/20/2020
 Company Carmen Schmitt, Inc Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, KS 67530
 Co. Rep / Geo. Brad Rine Rig Mudon 110
 Location: Sec. 36 Twp 8s Rge. 3W Co. Thomas State Ks

Interval Tested 4257 - 4270 Zone Tested LKC L
 Anchor Length 13' Drill Pipe Run 4061 Mud Wt. 9.4
 Top Packer Depth 4252 Drill Collars Run 182 Vis 52
 Bottom Packer Depth 4257 Wt. Pipe Run 0 WL 7.2
 Total Depth 4270 Chlorides 2500 ppm System LCM 2#

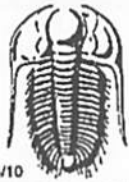
Blow Description IF: 1" blow
ISI: No return
FF: Surface blow
FSI: Pulled Test

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 10 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2133</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>—</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1222</u>
(C) First Final Flow <u>26</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1212</u>
(D) Initial Shut-In <u>1285</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1320</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>1445</u>
(F) Second Final Flow <u>28</u>	<input checked="" type="checkbox"/> Mileage <u>84</u>	Comments <u>—</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>2095</u>	<input type="checkbox"/> Straddle <u>—</u>	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Shut-In <u>Pull</u>	<input type="checkbox"/> Day Standby <u>—</u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u>—</u>	Total <u>1709</u>
	Sub Total <u>1709</u>	MP/DST Disc <u>—</u>

Approved By — Our Representative WALT
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66599

NO.

Well Name & No. Schwarz #1-36 Test No. 11 Date 11/20/2020
 Company Carmen Schmitt, Inc 2961 Elevation 2961 KB 2956 GL
 Address PO Box 47 Great Bend, Ks 67530
 Co. Rep / Geo. Brad Rine Rig Martin 110
 Location: Sec. 36 Twp 8s Rge. 31w Co. Thomas State Ks

Interval Tested 4305 - 4400 Zone Tested Altamont - Pawnee
 Anchor Length 95' Drill Pipe Run 3126 Mud Wt. 9.3
 Top Packer Depth 4300 Drill Collars Run 182 Vis 57
 Bottom Packer Depth 4305 Wt. Pipe Run 0 WL 9.6
 Total Depth 4400 Chlorides 2500 ppm System LCM 2#

Blow Description IF 1 1/4" blow.
ISI No return.
FF 1/4" blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</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 20 BHT 119 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2164</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>0630</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0655</u>
(C) First Final Flow <u>37</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0846</u>
(D) Initial Shut-In <u>584</u>	<input checked="" type="checkbox"/> Circ Sub <u>M/c</u>	T-Pulled <u>1038</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1218</u>
(F) Second Final Flow <u>40</u>	<input checked="" type="checkbox"/> Mileage <u>x2</u> <u>168</u>	Comments <u>APU Tool @</u>
(G) Final Shut-In <u>384</u>	<input type="checkbox"/> Sampler	<u>1800 11/22</u>
(H) Final Hydrostatic <u>2162</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open <u>15</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>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1793</u>
	Sub Total <u>1793</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

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

Well Name: Schwarz #1-36 - Carmen Schmitt, Inc.
API: 15-193-21079-00-00
Location: SW-SE-NE-NW, Section 36-08S-31W
License Number: KCC #6569
Spud Date: November 11, 2020
Surface Coordinates: 1150' FNL & 2200' FWL,
of Section
Bottom Hole Vertical Wellbore
Coordinates:
Ground Elevation (ft): 2956 Ft. K.B. Elevation (ft): 2961 Ft.
Logged Interval (ft): 3560 Ft. To: 4680 Ft. Total Depth (ft): RTD 4680 Ft. LTD 4678 Ft.
Formation: Mississippian at Total Depth
Type of Drilling Fluid: Chemical

Region: Thomas County, Kansas
Drilling Completed: November 22, 2020
Results: Csg Set for SWDW
Field: NA

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

Operator

Company: Carmen Schmitt, Inc.
Address: PO Box 47
Great Bend, Kansas 67530 + 0047

Geologist

Name: M. Bradford Rine
Company: Consulting Geologist, Kansas Lic. #204, Wyo #189, AAPG Cert. #2647
Address: 100 South Main, Suite #320A
Wichita, Kansas 67202

Remarks

Based on sample observations, drill stem test results, and electric log evaluation, it was the decision of the Operator, to set production casing on the "Schwarz #1-36" for a future Salt Water Disposal Well.

M. Bradford Rine
Geologist

Drilling Information

Rig: Murfin Drlg Rig #110
Pump: Emsco D375 6 x 14
Drawworks: National T32
Collars: 539' 2-1/4 x 6-1/4
Drillpipe: 4-1/2" 16.6# XH
Toolpusher: Rick Hilgers

Mud: Mudco (Reid Atkins)
Gas Detector: None
Drill Stem Tests: Trilobite (Walt Walter)
Logs: Midwest (Tim Martin)
Water: Nearby Irrigation Well (Midwest Waterline)
Company Representatives:
Office: Carmen Schmitt
Field: Matt Suchy

Daily Drilling Status

Date:	Operations/Depth/Comments
11-10-20	MIRT @ 0'
11-11-20	Finish RU and Spud at 9:00 am @ 0'
11-12-20	Drilling @ 1114'
11-13-20	Drilling @ 2625'
11-14-20	Drilling @ 3530'
11-15-20	On Bottom with DST #1 @ 3831'
11-16-20	Trip in Hole After DST #2 @ 3997'
11-17-20	Trip in Hole After DST #4 @ 4042'
11-18-20	Trip in Hole After DST #6 @ 4082'
11-19-20	Make up Test Tool for DST #8 @ 4162'
11-20-20	Drilling @ 4258'
11-21-20	Trip Out of Hole for DST #11 @ 4400'
11-22-20	Drilling @ 4652'
11-23-20	Finish Running and Cementing Casing @ 6:30 AM

Casing Record, Bit Record, Deviation Surveys, Pipe Straps, Mudup

CASING:

Conductor: None

Surface: Ran 6 jts-253' 8-5/8" 20# Csg. Set @ 260 ft. (Copeland) Cement with 225 sx Common, 2% gel, 3% CC. Plug down at 1:30 pm, 11-11-20. Cement did circulate.

Production: Ran 104 Jts 5.5" 14#, set @ 4389'. Baskets on Jts 2,6,42,73. Centralizers on 3,5,9,11,13,15,17,43,48,49. Broke circulation, was circulating for 10 min before it stopped and was pressuring up. Slowly kept kicking mud pump in and hitting 800#. Finally broke through and circulated for 1 hr and 15 min. (Swift Services) mixed cement, plugged rat hole w/30 sks. Hooked up to casing and pumped 12 bbl mud flush and 20 bbl KCL flush. Followed with 340 sks of 11.2 ppg and 100 sks @ 14 ppg. Dropped plug, displaced w/ 106 bbl, cement to surface and circulated 50 sks to pit. Landed plug @ 6:30 AM w/ 1600#. Held. Job complete.

BITS:

No.	Size	Make	Model	Depth In	Depth Out	Hours
1	12-1/4	Smith	Tooth	0	260	2.25
2	7-7/8	Smith	F27	260	4680	110.00

DEVIATION SURVEYS:

Deviation:	Depth:	Deviation:	Depth:
0.25*	260'	0.75*	4162'
0.75*	3831'	0.75*	4400'
0.75*	3997'	0.75*	4680'

PIPE STRAPS:

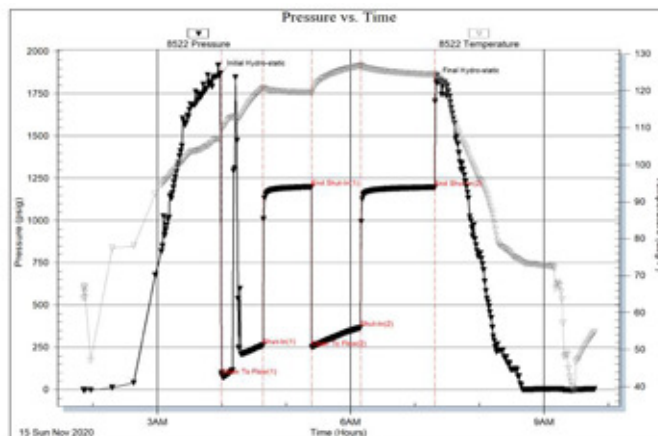
Difference:	Depth:
None	3997'

DISPLACEMENT and MUDUP:

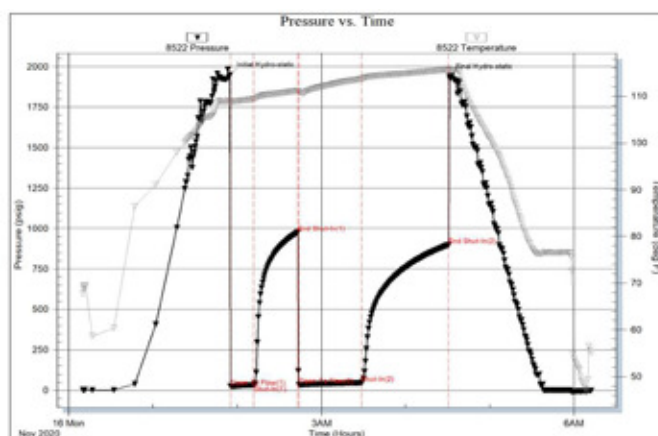
Begin: 3369'
Complete: 3429'

	Results:		SWDW	(Well A)	Oil	(Well B)	D & A		
	Carmen Schmitt, Inc.			Carmen Schmitt, Inc.		Murfin Drlg Co, Inc.			
	Schwarz #1-36			Steiger Unit #1-35		Steiger #1-35			
	1150' FNL & 2200' FEL			600'FNL & 1250'FEL		330' FWL & 1650' FNL			
	Sec. 36-08S-31W			Sec. 35-08S-31W		Sec. 35-08S-31W			
	KB 2961			KB 2973		KB 2985		Well A	Well B
Formations	Sample	E-Log	Datum	E-Log	Datum	E-Log	Datum	Comparison(s)	
Anhydrite	2580	2578	383	2594	379	2610	375	4	8
B/Anhydrite	2613	2610	351	2626	347	2641	344	4	7
Tarkio	3622	3625	-664	3638	-665	3660	-675	1	11
Topeka	3752	3752	-791	3764	-791	3786	-801	0	10
Oread	3922	3920	-959	3927	-954	3950	-965	-5	6
Heebner Sh	3968	3962	-1001	3969	-996	3989	-1004	-5	3
Toronto	3988	3984	-1023	3991	-1018	4014	-1029	-5	6
Lansing	4001	4000	-1039	4003	-1030	4030	-1045	-9	6
Muncie Creek Sh	4127	4123	-1162	4125	-1152	4150	-1165	-10	3
Stark Sh.	4205	4203	-1242	4210	-1237	4235	-1250	-5	8
B/Kansas City	4268	4262	-1301	4264	-1291	4294	-1309	-10	8
Marmaton	4275	4270	-1309	4276	-1303	4308	-1323	-6	14
Pawnee	4386	4380	-1419	4372	-1399	4410	-1425	-20	6
Ft. Scott	4422	4418	-1457	4413	-1440	4445	-1460	-17	3
Cherokee Sh	4447	4443	-1482	4445	-1472	4475	-1490	-10	8
Cherokee Sd	4564	4558	-1597	NP	NA	NC	NA	NA	NA
Mississippi	4636	4635	-1674	4566	-1593	4602	-1617	-81	-57
Total Depth	4680	4678	-1717	4666	-1693	4662	-1677	-24	-40

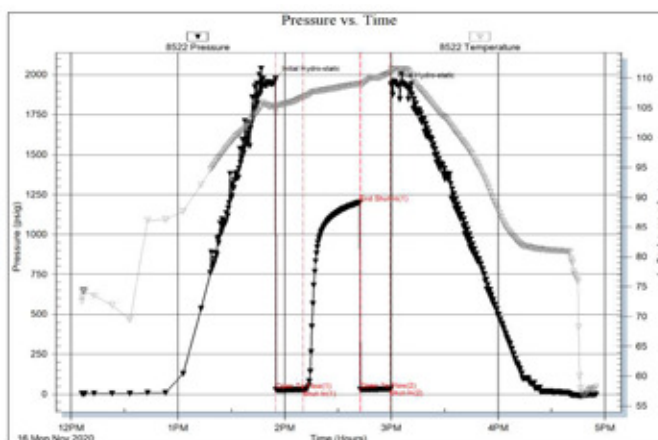
DST #1: 3820-3831 (Topeka)
Times: 40-45-45-60
Initial Open: * Stg Blow, b.o.b. 15 min, built to 11", No Return Blow
Final Open: Stg Blow, b.o.b. 15 min, built to 28.7", No Return Blow
Rec: 700' MCW: 85%w 15%m
IHP: 1870 FHP: 1826
IFP: 83-261 FFP: 249-365
ISIP: 1199 FSIP: 1196
BHT: 124°F
*** (Tool slid 14' to bottom! Tool opened.)**



DST #2: 3965-3997 (Toronto)
Times: 15-30-45-60
Initial Open: Wk Blow, built to 1.8"
Final Open: Wk Blow, built to 1.1"
Rec: 45' mud
IHP: 1950 FHP: 1939
IFP: 25-34 FFP: 34-47
ISIP: 976 FSIP: 897
BHT: 115°F



DST #3: 3998-4015 (Lansing A)
Times: 15-30-15-out
Initial Open: Wk Blow, built to 1.5"
Final Open: Wk Blow, built to .33", died back to .25"
Rec: 20' mud
IHP: 1974 FHP: 1932
IFP: 28-29 FFP: 29-33
ISIP: 1200 FSIP: NA
BHT: 111°F



DST #4: 4013-4042 (Lansing C)

Times: 15-30-60-90

Initial Open: Wk Blow, built to 2.5"

Final Open: Fr Blow, Built to 5.5"

Rec: 150' MCW/oil specks in tool:

70%w 30%m

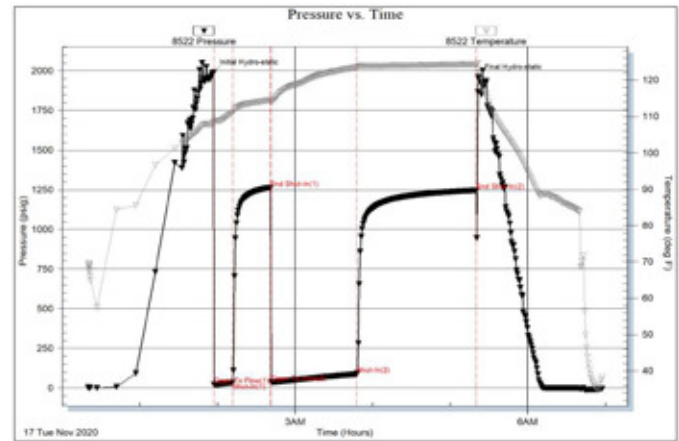
(Chl/wtr: 18000 ppm, Chl/mud 1500 ppm)

IHP: 1990 FHP: 1961

IFP: 22-34 FFP: 36-88

ISIP: 1264 FSIP: 1247

BHT: 124°F



DST #5: 4042-4057 (Lansing D)

Times: 15-30-10-out

Initial Open: Wk Blow, built to .5"

Final Open: No Blow

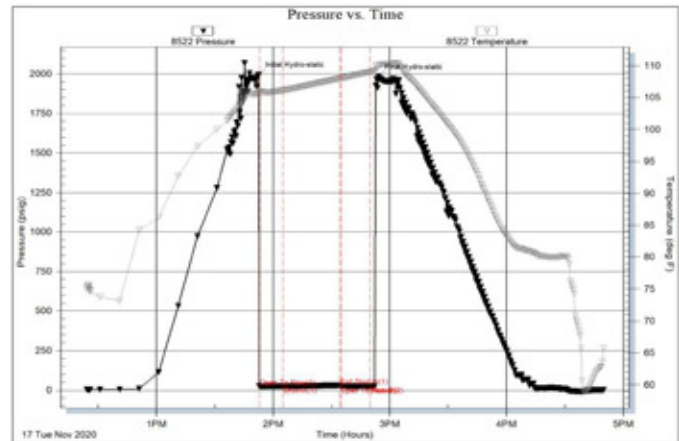
Rec: 3' mud

IHP: 1993 FHP: 1979

IFP: 23-24 FFP: 23-24

ISIP: 30 FSIP: NA

BHT: 109°F



DST #6: 4056-4082 (Lansing E,F)

Times: 15-30-30-60

Initial Open: Stg Blow, b.o.b. 2.5 min,

built to 50", Return Blow built to .5"

Final Open: Stg Blow, b.o.b. 2 min,

built to 88.5"

Rec: 1300' SMCW: 97%w 03%m

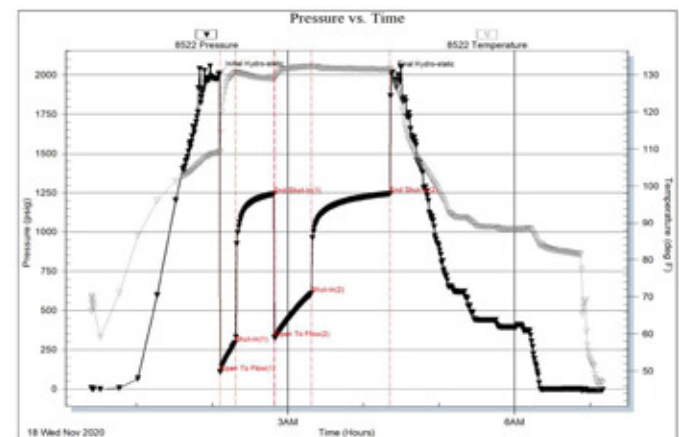
(H2S 10-56 ppm, Chl 57000 ppm)

IHP: 2007 FHP: 2004

IFP: 108-293 FFP: 327-608

ISIP: 1242 FSIP: 1244

BHT: 132°F



DST #7: 4082-4095 (Lansing G)

Times: 15-30-30-60

Initial Open: Fr blow, built to 8.5"

Final Open: Stg Blow. b.o.b. 26 min,

Max 11.5", No Return Blow

Rec: 345' SMCW/oil spots on top:

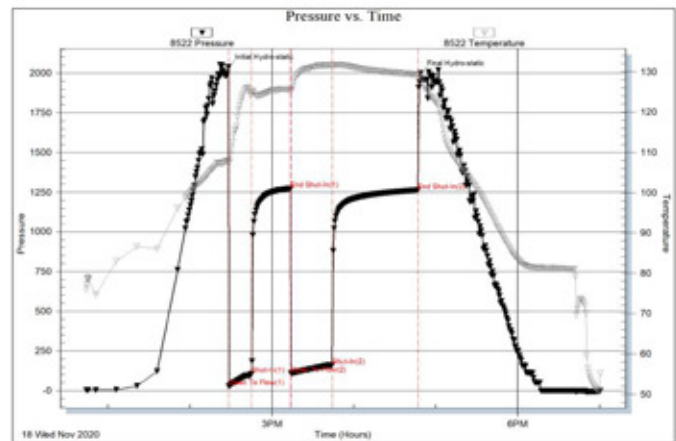
95%w 05%m (Chl/wtr: 76000 ppm)

IHP: 2038 FHP: 1999

IFP: 27-105 FFP: 109-160

ISIP: 1273 FSIP: 1263

BHT: 120°F



DST #8: 4125-4162 (LKC G',H)

Times: 15-30-15-out

Initial Open: Wk Blow, built to 1"

Final Open: V Wk Surf Blow

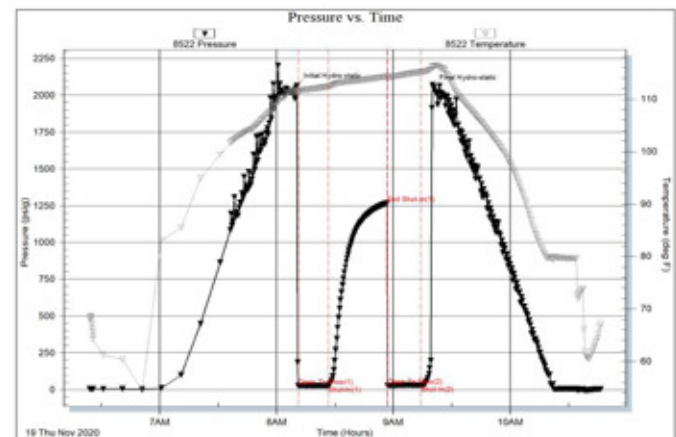
Rec: 10' mud with oil spots in tool

IHP: 2065 FHP: 2053

IFP: 26-28 FFP: 28-30

ISIP: 1268 FSIP: NA

BHT: 115°F



DST #9: 4154-4240 (LKC I,J,K)

Times: 15-30-10-out

Initial Open: Wk Blow, built to 1"

Final Open: No Blow

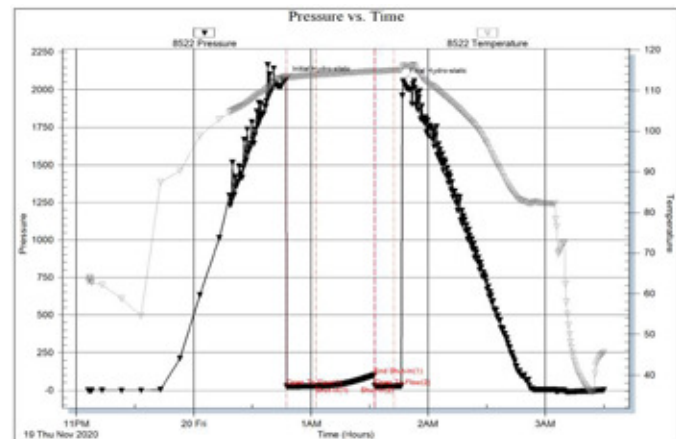
Rec: 5' mud

IHP: 2070 FHP: 2058

IFP: 25-27 FFP: 28-27

ISIP: 102 FSIP: NA

BHT: 115°F



DST #9: 4257-4270 (LKC L)

Times: 15-30-15-out

Initial Open: Wk Blow, built to 1.25"

Final Open: Wk Surface Blow

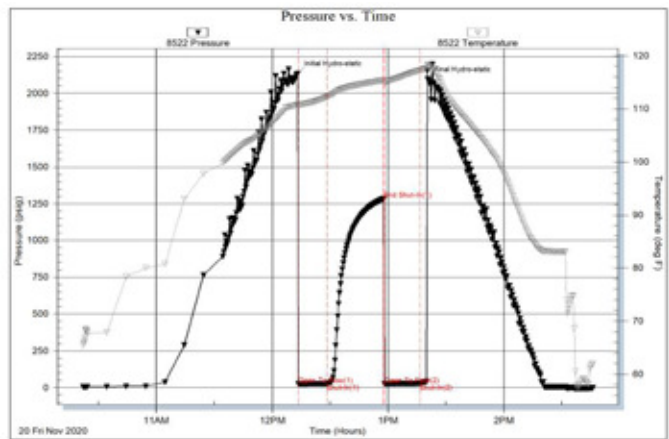
Rec: 10' mud with oil spots

IHP: 2133 FHP: 2095

IFP: 23-26 FFP: 24-28

ISIP: 1285 FSIP: NA

BHT: 117°F



DST #11: 4305-4400 (Altamont, Pawnee)

Times: 15-30-30-30

Initial Open: Wk Blow, built to 1.5"

Final Open: Wk Blow, built to 0.25"

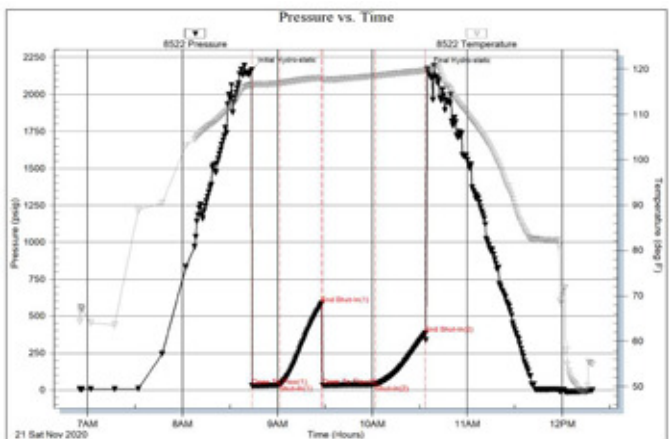
Rec: 20' mud

IHP: 2164 FHP: 2162

IFP: 29-37 FFP: 32-40

ISIP: 584 FSIP: 384

BHT: 119°F



Rock Types

	Cgl/gran wash		Bent		Dol		Salt		Till
	Dol ls/lmy dol		Brec		Gyp		Shale		Siltysh
	New symbol		Cht		Igne		Shcol		Shlysiltst
	Dol ls/lmy dol		Clyst		Lmst		Shgy		Siltst
	New symbol		Blk sh/coal		Meta		Ss		Sandyls
	Anhy		Congl		Mrlst				

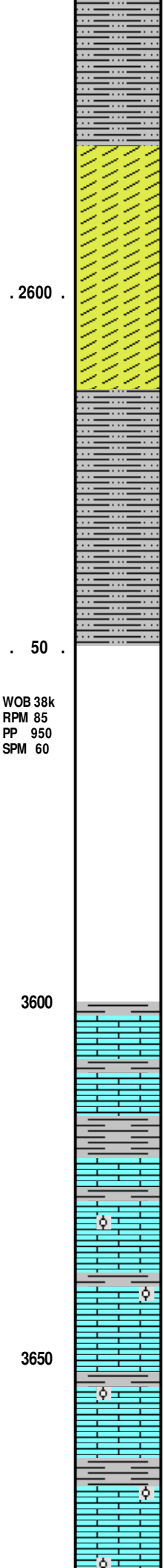
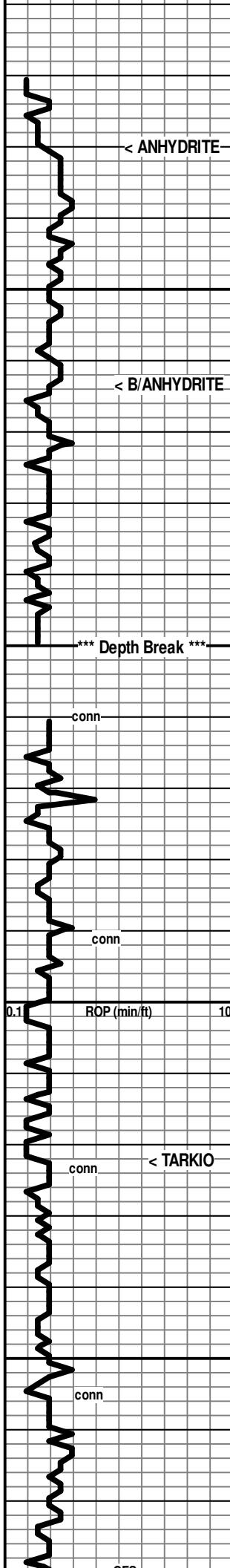
Accessories

MINERAL		Gyp	FOSSIL		Ostra		Siltstrg
	Anhy		Hvymin		Pelec		Ssstrg
	Arggrn		Kaol		Pellet	TEXTURE	
	Arg		Marl		Pisolite		Boundst
	Bent		Minxl		Plant		Chalky
	Bit		Nodule		Strom		Cryxln
	Brecfrag		Phos	STRINGER			Earthy
	Calc		Pyr		Anhy		Finexln
	Carb		Salt		Shale		Grainst
	Chtdk		Sandy		Bent		Lithogr
	Chtlt		Silt		Coal		Microxln
	Dol		Sil		Dol		Mudst
	Feldspar		Sulphur		Gyp		Packst
	Ferrpel		Tuff		Ls		Wackest
	Ferr				Mrst		
	Glau						

Other Symbols

OIL SHOW		Even		Dead	INTERVAL		
	Oil & gas show		Spotted		Gas		Core
	Gas show		Trace or questionable				Dst

ROP (min/ft)		MD	Lithology	Geological Descriptions	Remarks
ROP (min/ft)	ROP (min/ft)				
0.1	10	. 2500 .			
		. 50 .			



← 2580 (+381)

Anhydrite Interval: Based on Drill Time Only!

← 2613 (+348)

*** Depth Break ***

WOB 38k
RPM 85
PP 950
SPM 60

Mud Check: Drig @ 3536':

Vis	Wt	WL	PV	YP
64	8.6	6.4	19	16
Chl	Hd	pH	LCM	Solids
1500	20	11.5	2	2.0

80% Ls wh-cr-gy, fn xln, pr xln por in pt, dns in pt, chalky in pt, foss-abund foss-some weath'd to gy; 20% Shale gy, subsilty text in pt

90% Ls wh-cr-gy, fn xln, mostly dns, some pr xln por, some subsilty text, foss in pt; 10% Sh gy

35% Shaley Siltstone to silty shale, gy-gmish-sh; 35% Ls wh-cr, dns of pr xln por, foss; 30% Sh gy

← 3622 (-661)

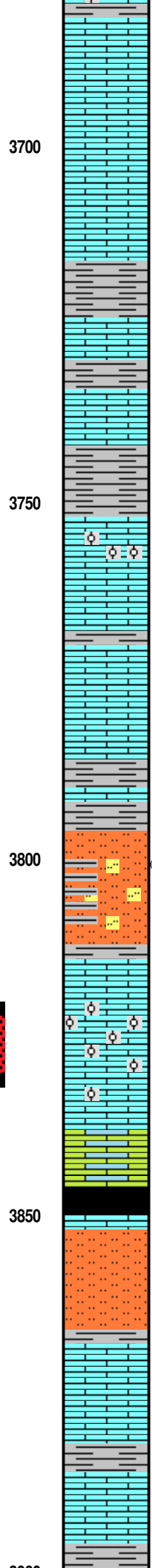
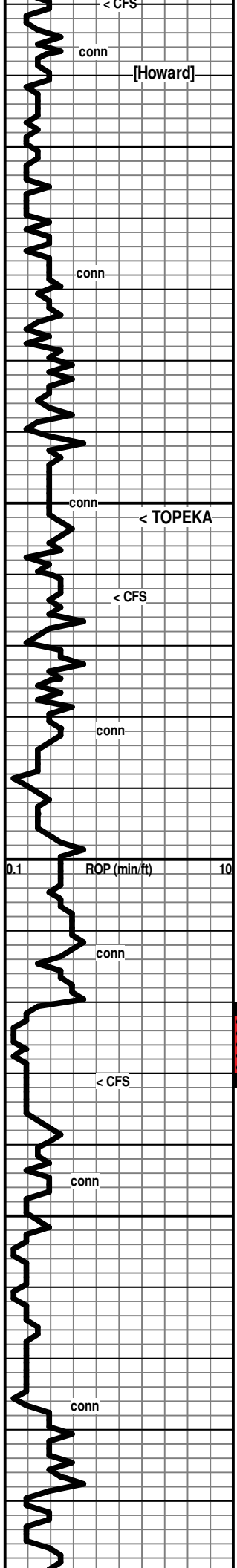
80% Ls wh-cr-gy, fn xln, pr vis xln por, subchalky in pt, abund foss in pt; 20% Shale gy-dk gy, subsilty in pt

3660', 3670', 3680' spls: Ls wh-cr-gy, fn xln, chalky in pt, scatt pr xln por, Rr scatt pp pores, foss ool in pt, some weth'd to gy, some gy shale

[3660', 3670' spls: No Odor, Rr dull spots of fluor, low% pcs with scatt spotty dk brn-blk stn, gilson-dead spots, V Rr, widely scatt micro-drops of dk NVL oil]

Ls wh-cr-gy, fn xln, chalky in pt, scatt pr xln por, Rr scatt pp pores, foss ool in pt, some weth'd to gy

[No Odor, Rr dull spots of fluor, low% pcs with scatt spotty brn-dk brn-blk stn, gilson-dead spots, with widelv scatt & scant micro-drops of dk NVL oil & dk



FO]

Ls wh-cr, fn xln, dns-pr xln por, soft & chalky in pt, foss, (washes whitish)

Ls wh-cr, fn xln, pr-fr xln por in pt, chalky & soft in pt, foss and Foss moldic in pt

Ls wh-cr-gy, fn xln, dns to pr xln por, some chalky; Shale gy-red (washes pl red)

Sh gy-red-grnish gy, silty in pt to shaley siltstone

← 3752 (-791)

Ls wh-cr, fn xln, pr-fr xln por in pt, chalky in pt, foss, ool in pt, scatt interool pp pores
 [No Odor, No fluor, abund pcs with dk brn-blk spotty & patchy stn of gilson & dead oil, NSFO]

Ls wh-cr, fn xln, dns to pr xln por, chalky to subchalky in pt, foss

Ls mostly cr, fn xln, dns to pr xln por in pt, some chalky, foss in pt

Ls wh-cr, fn xln, silty in pt, pr vis xln & grmlr por in pt, dns in pt, sli foss in pt
 [No Odor, No fluor, low % pcs with dk spotty stn, Mostly dead with trace show in a few pcs of v dk microdrops NVL oil on crush]

Ls wh-cr, fn xln, chalky & soft in pt, abund ool with pcs with scatt interool moderate am't of interool pores, cemented in pt
 [V Fnt Odor, low % pcs with spotty to patchy to some even dk brn Stn in pores, with fr-gd shows of hvy deadish to NVL oil on crush, some pcs with sli shows of dk brn FO on crush]

Abund red-gy-grn shales in spls, likely from trip; Ls wh-cr, fn xln, dns to pr xln por, foss in pt; Dol Ls to Limey Dol, pl gy, fn xln, subsucr, dns to pr xln por
 Sh black, carb
 Ls wh, fn xln, pr xln por, foss
 [No Odor, No fluor, Rr tr of spotty brn stn, NSFO]

Siltst pl gy-pl grnish gy, vfn grn, fr-gd crush, calc in pt

Ls wh-cr, fn xln, fr xln por in pt, chalky & soft in pt, foss to abund foss; 15% various colored shales

Ls wh-cr, fn xln, pr-fr xln por in pt, chalky in pt, soft to mushy, foss in pt
 [No Odor, No fluor, Rr spots of asphaltic stn and dk brn dead stn, NSFO]

Sh gy

Ls cr, fn xln, pr-fr xln por, foss to abund foss
 [No Odor, No fluor, Rr spots of blk asphaltic stn, NSFO, mostly barren por]

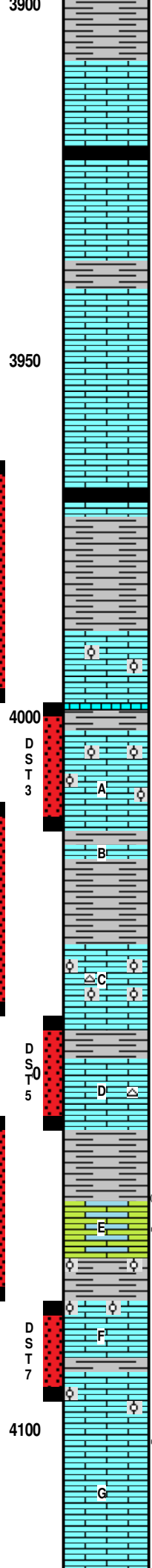
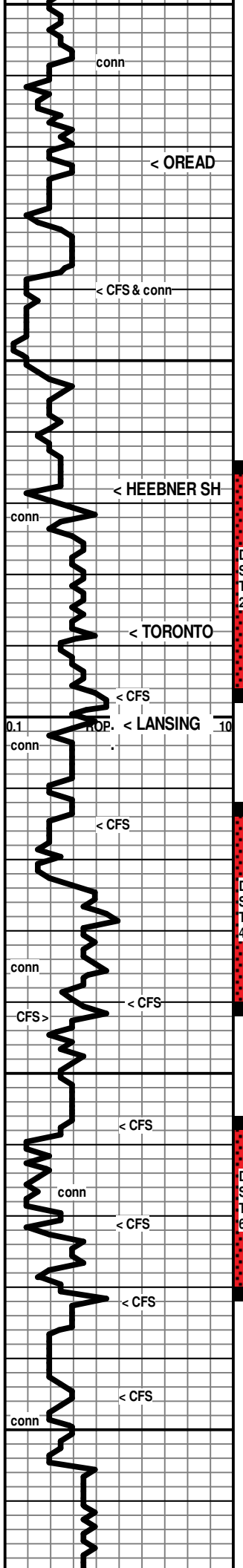
DST #1: 3820-3831 (Topeka)
 Times: 40-45-45-60
 Initial Open: * Stg Blow, b.o.b. 15 min, built to 11", No Return Blow
 Final Open: Stg Blow, b.o.b. 15 min, built to 28.7", No Return Blow
 Rec: 700' MCW: 85%w 15%m (wtr 27000 ppm)
 IHP: 1870 FHP: 1826
 IFP: 83-261 FFP: 249-365
 ISIP: 1199 FSIP: 1196
 BHT: 124°F
 *(Tool slid 14' to bottom! Tool opened.)

*Ran 25-Std Short Trip Prior to DST #1 at 3831 Ft!

Mud Check: TOOH/DST1 @ 3831':

Vis	Wt	WL	PV	YP
53	9.1	6.8	16	14
Chl	Hd	pH	LCM	Solids
2000	60	11.5	2	5.6

7:00 AM, November 15, 2020



Sh gy-red
Ls wh-cr, fn xln, dns in pt, pr xln por in pt, abund foss in pt

Sh black, carb
← 3922 (-961)
Ls wh-cr, fn xln, dns in pt, chalky in pt, pr xln por in pt, Rr pcs with fr vis xln por, foss in pt-some in abund
[No Odor, No fluor, few pcs total with spots of thick asph stn, NSFO]
Sh pl gy-gy
Ls wh-cr, fn xln, pr-fr xln por in pt, dns in pt, chalky in pt, foss to abund foss

Ls wh-cr-tan, fn xln, dns in pt, pr xln por in pt, some chalky, foss
← 3968 (-1007)
Sh black, carb, (first arrival in 3980' spl, well repres.)
Sh gy-grnish, subsilty-silty in pt, tr of pyrite
Sh gy-grnish, subsilty-silty in pt, mushy to soft

← 3988 (-1027)
Ls wh-cr, fn xln, pr xln por, abund foss to foss-packed, some ool, scatt interfoss pp-vuggy pores, chalky in pt, becoming dns with depth
Show Descr. →
Sh gy-grn-red (some likely trip slough)
← 4001 (-1040)
Ls wh, fn xln, subchalky in pt, dns to some pr xln por, scatt sm interool vugs & pp pores, foss, ool in pt (tiny-md, well-cem in pt), becoming more dns with depth
[A zn: Mild Odor, scatt dull-mod fluor, lower % pcs with spots or patches of brn to dk stn in interool pores, mostly sli shows of FO on crush-some fr show FO, v sli gassy in pt]
abund shale red-gy-grn
Ls wh-cr-pl gy, fn xln, abund dns, scatt pr xln por, some ool (fn-md) cem in pt, scatt interool pores and sm vugs, some fresh chert
[C zn: Mild Odor, scatt spots & patches of dull-mod fluor, low % of pcs with spotty to patchy brn to dk brn stn, with mix of sli-fr shows of NVL dk oil and brn FO on crush, some blk dead stn; ?abund pcs with shows as above and vsli gassy from lower break?]
4050' spl: Mostly red-gy-grn shales; some wh Ls as above
4057': Ls wh-cr, fn xln, dns to some pr xln por, scatt vugs & abund pp pores in pt, foss in pt, fresh chert
Show Descr. →
Ls wh-cr, fn xln, subchalky to chalky in pt, pr xln por in pt, possible vuggy [possible stn'd vugs & pores or from above]
←4071' 20-min-4080' spl: 95% Dol Ls-Limey Dol, cr, fn xln, subsucr-sucrosic text, pr-fr xln por with some scatt pp pores
Ls wh-cr, fn xln, pr vis xln por, scatt pp pores, ool in pt scatt interool pp pores, cem in pt
7:00 AM, November 18, 2020
Ls wh-cr, fn xln, pr vis xln por, scatt pp pores & vugs in pt, ool in pt (fn) mostly cem with scatt interool pores, some subchalky pcs
Show Descr. →
Ls wh-cr, fn xln, abund chalky, some pr xln por, foss in pt
[V Fnt Odor, Rr spotty dull fluor, scatt scant spotty stn, few pcs with microdrops on crush]
Ls wh-cr, fnxln, abund chalky to subchalky, scatt pr xln por, abund dns, sli foss in pt [barren]
4130' spl: 99% Ls wh-cr, fnxln, dns in pt, chalky in pt

* Add Premix!

DST #2: 3965-3997 (Toronto)
Times: 15-30-45-60
Initial Open: Wk Blow, built to 1.8"
Final Open: Wk Blow, built to 1.1"
Rec: 45' mud
IHP: 1950 FHP: 1939
IFP: 25-34 FFP: 34-47
ISIP: 976 FSIP: 897
BHT: 115°F

Pipe Strap @ 3997':
No Difference!

[Toronto: Mild Odor, Scatt dull-mod fluor, where porous: brn-dk brn stn, sli-fr shows of dk brn NVL oil and brn FO, some oily film on crush]

7:00 AM, November 16, 2020
Mud Check: TiH/bit after DST2 @ 3997':
Vis Wt WL PV YP
57 9.1 7.2 17 15
Chl Hd pH LCM Solids
1500 30 11.0 2 5.7

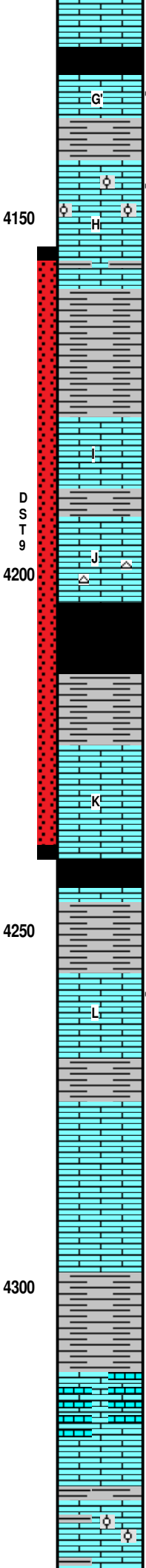
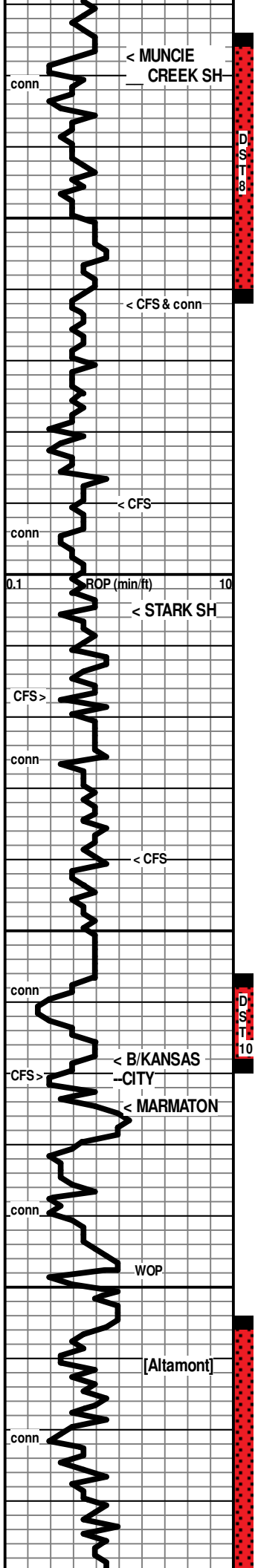
DST #3: 3998-4015 (Lansing A)
Times: 15-30-15-out
Initial Open: Wk Blow, built to 1.5"
Final Open: Wk Blow, built to .33",
died back to .25"
Rec: 20' mud
IHP: 1974 FHP: 1932
IFP: 28-29 FFP: 29-33
ISIP: 1200 FSIP: NA
BHT: 111°F

7:00 AM, November 17, 2020
[D zn: Mild Odor, scatt spots dull fluor, mod % pcs with pp pores & vugs, with brn to dk hvy stn in vugs, sli-fr shows of dk thick NVL oil and brn FO, v gassy in pt]

[E zn?: No odor, no fluor, few pcs with brn stn, scatt blk gils dead stn, NSFO]
[F zn?, 4082' cfs: Stg Odor-sli sour, Abund dull fluor, some mod fluor, abund spotty brn stn, some stn even in pores of pcs, abund trace-sli shows of brn FO, gassy in pt, some NVL thicker oil]

[G zn: Mild Sour Odor, scatt dull-mod fluor, Mod am't of pcs with spotty-patchy brn-dk brn-blk stn, with a mix of slight shows of brn gassy FO, dk brn NVL oil, and blk gilson stn, show dimishing with depth?]

DST #4: 4013-4042 (Lansing C)
Times: 15-30-60-90
Initial Open: Wk Blow, built to 2.5"
Final Open: Fr Blow, Built to 5.5"
Rec: 150' MCW/oil specks in tool:
70%w 30%w



4127 (-1166)
 Sh black,carb
 Ls wh-cr-tan, fn xln, subchalky in pt, scatt pr xln por, foss

[G' zn: V Fnt Odor, Rr spots of dull fluor, few pcs with scant brn spotty stn, tr microdrops FO on crush]

Ls cr-tan, fn xln, abund dns, with scatt patches of pr xln por and widely scatt pp pores, ool in pt (well cem) foss

[H zn: V Fnt Odor, Rr dull patchy fluor, V low% of pcs with spotty to patchy brn stn, with Tr-sli shows of lt brn-brn FO on crush, v sli gassy]

Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, foss

Sh gy-grnish gy-red

Sh gy-grnish gy-red

Ls wh-cr-tan, fn xln, subchalky in pt, mostly dns, some pr xln por, sli foss, tr of embedded pyrite

[No Odor, No fluor, mod % with blk spotty resid stn, v low% pcs with spotty brn stn, few pcs total with tr of microdrops of dk FO on crush]

Sh gy-grnish-red, some loose pyr

4210' spl: 99% Ls wh-cr, fn xln, mostly dns, Rr patches pr xln por, chalky in pt, foss, chert: fresh, wh, opa, foss

[4210' spl: No Odor, Rr spots of dull fluor, few pcs per tray with patches of spotty brn stn, with trace show microdrops FO on crush]

4205 (-1244)
 4217' CFS: Ls wh-cr, fn xln, pr xln por, mod % pcs with scatt pp pores & sm vugs, foss *No blk shale? spl catching problem?

Show Descr. →

Sh black, carb, some dk gy subcarb (none in 4217' CFS, first in 4230' spl)

Ls wh-cr, fn xln, mod am't of pp pores, pr xln por, some subchalky to chalky, foss to abund foss, becomes more dns with depth

[V Fnt Odor, mod am't mod-brt spotty-even spotty-patchy fluor, mod am't of spotty brn stn with sli shows of brn gassy FO and dk brn NVL oil on crush]

Sh black, carb

Ls cr-tan-gy, vfn xln, dns; Sh gy-grnish

Ls wh-cr, fn xln, grainy text in pt, pr-fr sln por in pt with scatt pp pore & interfoss pores, chalky-subchalky in pt, foss to abund & packed foss, becomes more dns/depth

[No Odor, V Rr pcs with patches of dull spotty fluor, a few pcs with Tr-vsli shows of tan-brn FO & NVL oil]

4268 (-1307)
 Sh red-gy-grn

4275 (-1314)
 Ls wh-cr-gy, fn xln, dns, grainy in pt, chalky in pt, abund shales as above

4300' spl: 85% Ls wh-cr, fn xln, dns to chalky, with scatt pr xln por, foss in pt; 15% Sh gy

4310' spl: 85% Ls wh-cr, fn xln, dns to chalky, with scatt pr xln por, foss in pt; 15% Sh gy-grn

4320' spl: Mostly mushy-soft shale and sitly shale, red-gy-grn

Shaley Ls Ls wh, chalky, foss with abund marbling of red adn yellowish shale

Sh gy-dk gy-red

Ls wh, fn xln, abund ool cem with red shale/clay, some chalky to dns

Chl/wtr: 18000 ppm, Chl/mud: 1500 ppm)
 IHP: 1990 FHP: 1961
 IFP: 22-34 FFP: 36-88
 ISIP: 1264 FSIP: 1247
 BHT: 124°F

Mud Check: CTCH after DST4 @ 4042':
 Vis Wt WL PV YP
 52 9.2 8.0 15 18
 Chl Hd pH LCM Solids
 1500 80 11.0 2 6.3

DST #5: 4042-4057 (Lansing D)
 Times: 15-30-10-out
 Initial Open: Wk Blow, built to .5"
 Final Open: No Blow
 Rec: 3' mud
 IHP: 1993 FHP: 1979
 IFP: 23-24 FFP: 23-24
 ISIP: 30 FSIP: NA
 BHT: 109°F

Mud Check: TIH after DST6 @ 4082':
 Vis Wt WL PV YP
 57 9.1 8.8 19 18
 Chl Hd pH LCM Solids
 2800 100 11.0 2 5.8

Mud Check: OB/DST8 @ 4162':
 Vis Wt WL PV YP
 57 9.4 7.2 17 19
 Chl Hd pH LCM Solids
 2500 60 11.0 2 7.7

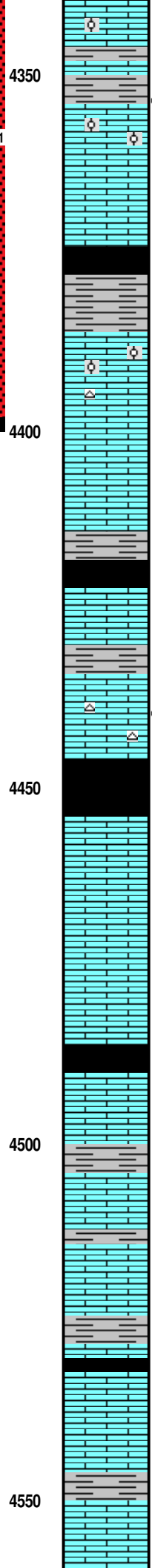
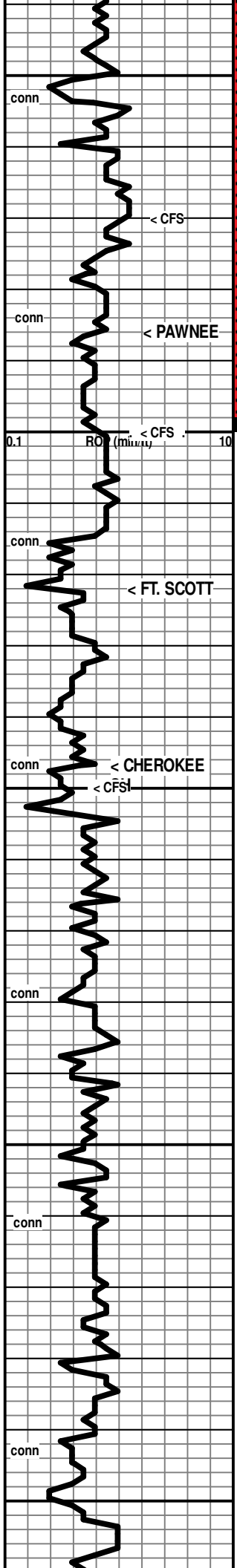
[4217' CFS: Fnt Odor, abund mod-brt fluor, where porous mostly sli shows of lt brn gassy FO, few pcs with Fr shows FO]

DST #6: 4056-4082 (Lansing E,F)
 Times: 15-30-30-60
 Initial Open: Stg Blow, b.o.b. 2.5 min, built to 50", Return Blow built to .5"
 Final Open: Stg Blow, b.o.b. 2 min, built to 88.5"
 Rec: 1300' SMCW: 97%w 03%
 (H2S 10-56 ppm, Chl 57000 ppm)
 IHP: 2007 FHP: 2004
 IFP: 108-293 FFP: 327-608
 ISIP: 1242 FSIP: 1244
 BHT: 132°F

Mud Check: CFS @ 4270':
 Vis Wt WL PV YP
 67 9.2 8.8 17 21
 Chl Hd pH LCM Solids
 2100 80 11.0 2 5.9

DST #7: 4082-4095 (Lansing G)
 Times: 15-30-30-60
 Initial Open: Fr blow, built to 8.5"
 Final Open: Stg Blow. b.o.b. 26 min, Max 11.5", No Return Blow
 Rec: 345' SMCW/oil spots on top: 95%w 05%
 (Chl/wtr: 76000 ppm)
 IHP: 2038 FHP: 1999
 IFP: 27-105 FFP: 109-160
 ISIP: 1273 FSIP: 1263
 BHT: 120°F

DST #8: 4125-4162 (LKC G',H)
 Times: 15-30-15-out
 Initial Open: Wk Blow, built to 1"
 Final Open: V Wk Surf Blow
 Rec: 10' mud with oil spots in tool
 IHP: 2065 FHP: 2053
 IFP: 26-28 FFP: 28-30
 ISIP: 1268 FSIP: NA
 BHT: 115°F



Sh gy
 <----- Shale or Ls ?????
 4360' spl: Ls wh-cr, fn xln, dns to pr xln por, scatt pores, subchalky in pt, foss, ool in pt
 Show Descr. ----->
 Ls wh-cr-gy, fn xln, dns, some grainy/silty text pcs
 Sh mostly gy-grn, some black, subcarb
 <----- 4386 (-1425)
 Ls wh-cr-tan, fn xln, silty text in pt, pr vis xln por to dns with scatt pp pores, foss, ool in pt, scatt interool pores, some fresh foss chert
 [Fnt Odor, Scatt dull fluor, low % pcs with spotty brn stn, with mix of tr-sli-fr shows of brn FO and dk brn NVL oil, gassy in pt]
 Ls wh-cr, fn xln, dns in pt, chalky in pt, sli foss
 Ls wh-gy, vfn-fn xln, dns in pt, chalky in pt, foss
 Sh gy-dk gy-black, carb in pt
 <----- 4422 (-1461)
 Ls wh-cr-tan-brn, vfn-fn xln, dns & firm in pt, softer & chalky in pt, foss
 Sh gy-dk gy, some shaley ls to limey shale
 Ls wh-cr-tan-gy, vfn-fn xln, pr vis xln por in pt, dns in pt, chalky in pt, foss, chert: fresh, pl gy, subtransl, spic.
 Show Descr. ----->
 <----- 4447 (-1486)
 Sh mostly black, carb, some dk gy
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, foss to abund foss
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, foss to abund foss
 Sh black, carb
 Ls wh-cr-tan-dk gy, vfn-fn xln, mostly dns, some chalky, foss to abund foss
 Sh gy-dk gy
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, foss to abund foss
 Sh gy-grn
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, foss
 Sh black, carb
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, scatt pp pores & sm vugs, foss to abund foss
 Ls as above with shale gy-pl grnish gy
 Ls wh-cr-tan, vfn-fn xln, mostly dns, some chalky, with shale gy-grn
 4570' spl: Abund Shale red-gy-grn-yellow, subwaxy to silty to argil

[4360' spl: No Odor, Abund mod spotty fluor, mod am't of pcs with spotty lt brn stn, Trace shows of microdrops of colorless-lt brn FO on crush-best observed under blk light]

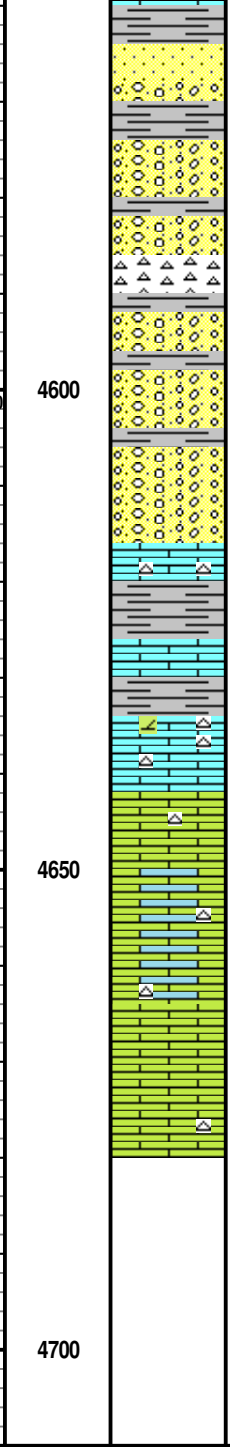
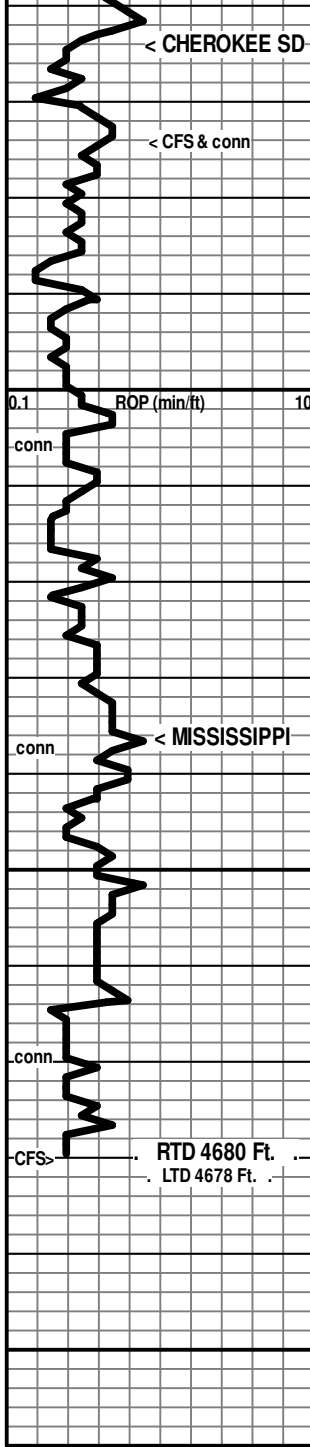
DST #9: 4154-4240 (LKC I,J,K)
 Times: 15-30-10-out
 Initial Open: Wk Blow, built to 1"
 Final Open: No Blow
 Rec: 5' mud
 IHP: 2070 FHP: 2058
 IFP: 25-27 FFP: 28-27
 ISIP: 102 FSIP: NA
 BHT: 115°F

7:00 AM, November 21, 2020
 Mud Check: TOH for DST11 @ 4400':
 Vis Wt WL PV YP
 57 9.3 9.6 18 17
 Chl Hd pH LCM Solids
 2500 100 10.8 2 7.0

DST #10: 4257-4270 (LKC L)
 Times: 15-30-15-out
 Initial Open: Wk Blow, built to 1.25"
 Final Open: Wk Surface Blow
 Rec: 10' mud with oil spots
 IHP: 2133 FHP: 2095
 IFP: 23-26 FFP: 24-28
 ISIP: 1285 FSIP: NA
 BHT: 117°F

[L Ft Scott: No Odor, No fluor, Found a few total with scant brn stn, one pc with a couple of microdrops of dk brn oil on crush]

DST #11: 4305-4400 (Altamont, Pawnee)
 Times: 15-30-30-30
 Initial Open: Wk Blow, built to 1.5"
 Final Open: Wk Blow, built to 0.25"
 Rec: 20' mud
 IHP: 2164 FHP: 2162
 IFP: 29-37 FFP: 32-40
 ISIP: 584 FSIP: 384
 BHT: 119°F



4564 (-1603)
 Sd glassy-wh, fn gm, subrd, rd clusters, gd sort, fr-gd fri, fr-gd intergrmlr por, some calc cem, few clusters Cgl Sd with md grns & embedded fresh chert

4580' spl: Sd as above; abund shale yell-red-grn; some dns Ls

4590' & 4600' spls: 80% Shales Red-gy-grn-yellow, subwaxy to silty to earthy; 10% Chert: orange, fresh, transl; 10% Sd silty Sd, Calc Sd, wh-red, vfn-fn gm; Some dns Ls, wh-cr-gy, fn xln

4610' spl: Abund Chert: fresh, wh-cr-tan-yell, transl-subtr-opaq; some shales as above; Tr of Ls, Rr Sd clusters

4620' spl: Incr in Ls wh-cr, fn xln, dns & firm to soft & chalky; Abund chert as above; some shales

4630' spl: 70% Ls wh-cr-pl gy, fn xln, dns to pr xln por, foss-abund foss, abund chert: fresh, wh-cr-tan, foss, transl-opaq

4636 (-1675)

Ls wh-cr-tan-pl gy, fn xln, mostly dns, some pr xln por, Rr pp pores, dolom in pt, foss-abund foss

Dolom Ls/Limey Dol, cr-pl gy, fn xln, pr-fr xln por, sucrosic to subsuc., foss in pt, cherty

Limey Dol/Dolom Ls, cr-gy, fn-md xln, pr vis xln por, some dns, foss (some weath'd to gy), cherty

Dolom Ls/Limey Dol, cr-pl gy, fn xln, pr-fr xln por, sucrosic to subsuc. foss (some weath'd to gy), cherty

7:00 AM, November 22, 2020

Mud Check: CFS @ RTD 4680':

Vis	Wt	WL	PV	YP
59	9.4	7.2	16	20
Chl	Hd	pH	LCM	Solids
3000	40	10.5	3	7.5

RTD 4680 Ft. Reached at 8:15 AM, November 22, 2020!