

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	DW COMM 1-27
Doc ID	1711878

All Electric Logs Run

Neutron/Density
Dual Induction
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	DW COMM 1-27
Doc ID	1711878

Tops

Name	Top	Datum
Base Anhydrite	2441	+492
Heebner	3930	-997
Lansing	3958	-1025
Muncie Creek	4102	-1169
Stark Shale	4187	-1254
Hushpuckney	4222	-1289
Pawnee	4380	-1447
Johnson	4523	-1590
Mississippian	4554	-1621



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



Invoice

DATE	INVOICE #
4/3/2023	35948

BILL TO
Shakespeare Oil Company, Inc 202 West Main Street Salem, IL 62881

RECEIVED
APR 11 2023

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-27	DW COMM	Gove	Duke Drlg	Oil	Development	Surface	David E
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				75	Miles	8.00	600.00
576D-S	Pump Charge - <u>Shallow Surface (< 500 Ft.)</u>				1	Job	1,200.00	1,200.00
290	D-Air				2	Gallon(s)	42.00	84.00T
325	Standard Cement				175	Sacks	16.00	2,800.00T
279	Bentonite Gel				3	Sack(s)	50.00	150.00T
278	Calcium Chloride				8	Sack(s)	55.00	440.00T
276	Flocele				50	Lb(s)	4.00	200.00T
581D	Service Charge Cement				175	Sacks	2.00	350.00
583D	Drayage				645	Ton Miles	1.00	645.00
	Subtotal							6,469.00
	Sales Tax Gove County						8.50%	312.29
We Appreciate Your Business!							Total	\$6,781.29

502-5

DW



TICKET
35948

CHARGE TO: Shawnee Oil & Gas
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF

1. SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
<u>Hay</u>	<u>1-27</u>	<u>Dw Comm</u>	<u>Gore</u>	<u>KS</u>		<u>4/3/25</u>	
2. <u>Mess City</u>	TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR	RIG NAME/NO.	SHIPPED	DELIVERED TO	ORDER NO.	
	<u>Oil</u>	<u>Duke</u>		<u>Yes</u>	<u>Location</u>		
3. WELL TYPE	WELL CATEGORY	JOB PURPOSE	WELL PERMIT NO.	WELL LOCATION			
	<u>Oil</u>	<u>development</u>					
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.			UNIT PRICE	AMOUNT
		LOC	ACCT	DF			UM	UM	UM		
575					STANDARDS Cement	175	5x			16.00	2800.00
576					Bentonite Gel	3	5x			50.00	150.00
290					Calcium Chloride	8	5x			55.00	440.00
					Flocke	50	lbs			4.00	200.00
581					Service Charge Car	175	5x			2.00	350.00
583					Drayage	645	ym			1.00	645.00
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.					REMIT PAYMENT TO:						
MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.					SWIFT SERVICES, INC. P.O. BOX 466 NESS CITY, KS 67560 785-798-2300						
DATE SIGNED					SURVEY					PAGE TOTAL	
TIME SIGNED					OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?					6469.00	
<input type="checkbox"/> A.M. <input type="checkbox"/> P.M.					WE UNDERSTOOD AND MET YOUR NEEDS?						
					OUR SERVICE WAS PERFORMED WITHOUT DELAY?						
					WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?						
					ARE YOU SATISFIED WITH OUR SERVICE?					TOTAL	
					<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					6781.00	

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

SWIFT OPERATOR David Edgeborn APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 4/3/23 PAGE NO.

CUSTOMER Shakespeare WELL NO. 1-27 LEASE DW Comm JOB TYPE Surface TICKET NO. 35948

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							On location
								8 5/8 csg
								RTD
								TOTAL Pipe
	2000	4	5			300		Break Circ on Bottom
		4	46			300		pump wtr spacer
		4	13			300		pump cmt 175 sx @ 14.7 PPH
								Disp
								Circ 20 sx cmt 10 pit
	2100							JOB Complete
								Thanks
								DAVID, SEYM & JOHN



DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co, Inc.**

202 W main St
Salem, IL 62881

ATTN: Kent Matson

DW Comm #1-27

27 11s 31w Gove,KS

Start Date: 2023.04.07 @ 07:50:00

End Date: 2023.04.07 @ 13:34:45

Job Ticket #: 70264 DST #: 1

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

Printed: 2023.04.13 @ 14:20:26



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

ATTN: Kent Matson

Job Ticket: 70264

DST#: 1

Test Start: 2023.04.07 @ 07:50:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:02:30

Time Test Ended: 13:34:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3926.00 ft (KB) To 3950.00 ft (KB) (TVD)

Reference Elevations: 2933.00 ft (KB)

Total Depth: 3950.00 ft (KB) (TVD)

2924.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8845 Outside

Press@RunDepth: 18.98 psig @ 3927.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.04.07 End Date: 2023.04.07

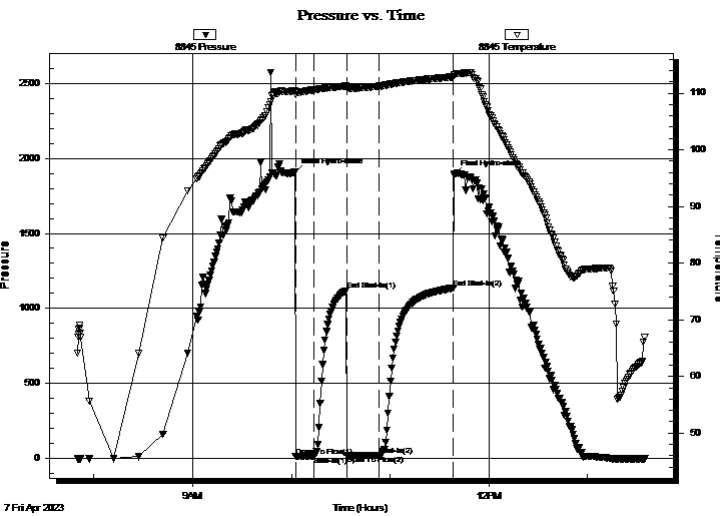
Last Calib.: 2023.04.07

Start Time: 07:50:05 End Time: 13:34:44

Time On Btm: 2023.04.07 @ 10:02:15

Time Off Btm: 2023.04.07 @ 11:38:45

TEST COMMENT: IF: 3/4" blow .
IS: No return.
FF: surface blow .
FS: No return, 10-20-20-40



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1907.22	110.46	Initial Hydro-static
1	14.59	109.70	Open To Flow (1)
12	17.28	110.55	Shut-In(1)
32	1119.64	111.25	End Shut-In(1)
32	17.80	110.88	Open To Flow (2)
51	18.98	111.23	Shut-In(2)
97	1135.08	112.87	End Shut-In(2)
97	1889.99	113.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100m (oil spots in tool)	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70264

DST#: 1

ATTN: Kent Matson

Test Start: 2023.04.07 @ 07:50:00

Tool Information

Drill Pipe:	Length: 3928.00 ft	Diameter: 3.80 inches	Volume: 55.10 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 55.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3926.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	54.00 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			3897.00	
Shut In Tool	5.00			3902.00	
Hydraulic tool	5.00			3907.00	
Jars	5.00			3912.00	
EM Tool	3.00			3915.00	
Safety Joint	2.00			3917.00	
Packer	5.00			3922.00	30.00 Bottom Of Top Packer
Packer	4.00			3926.00	
Stubb	1.00			3927.00	
Recorder	0.00	8319	Inside	3927.00	
Recorder	0.00	8845	Outside	3927.00	
Perforations	20.00			3947.00	
Bullnose	3.00			3950.00	24.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70264

DST#: 1

ATTN: Kent Matson

Test Start: 2023.04.07 @ 07:50:00

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: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.18 in³

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 bbf
15.00	Mud 100m (oil spots in tool)	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbf

Num Fluid Samples: 0

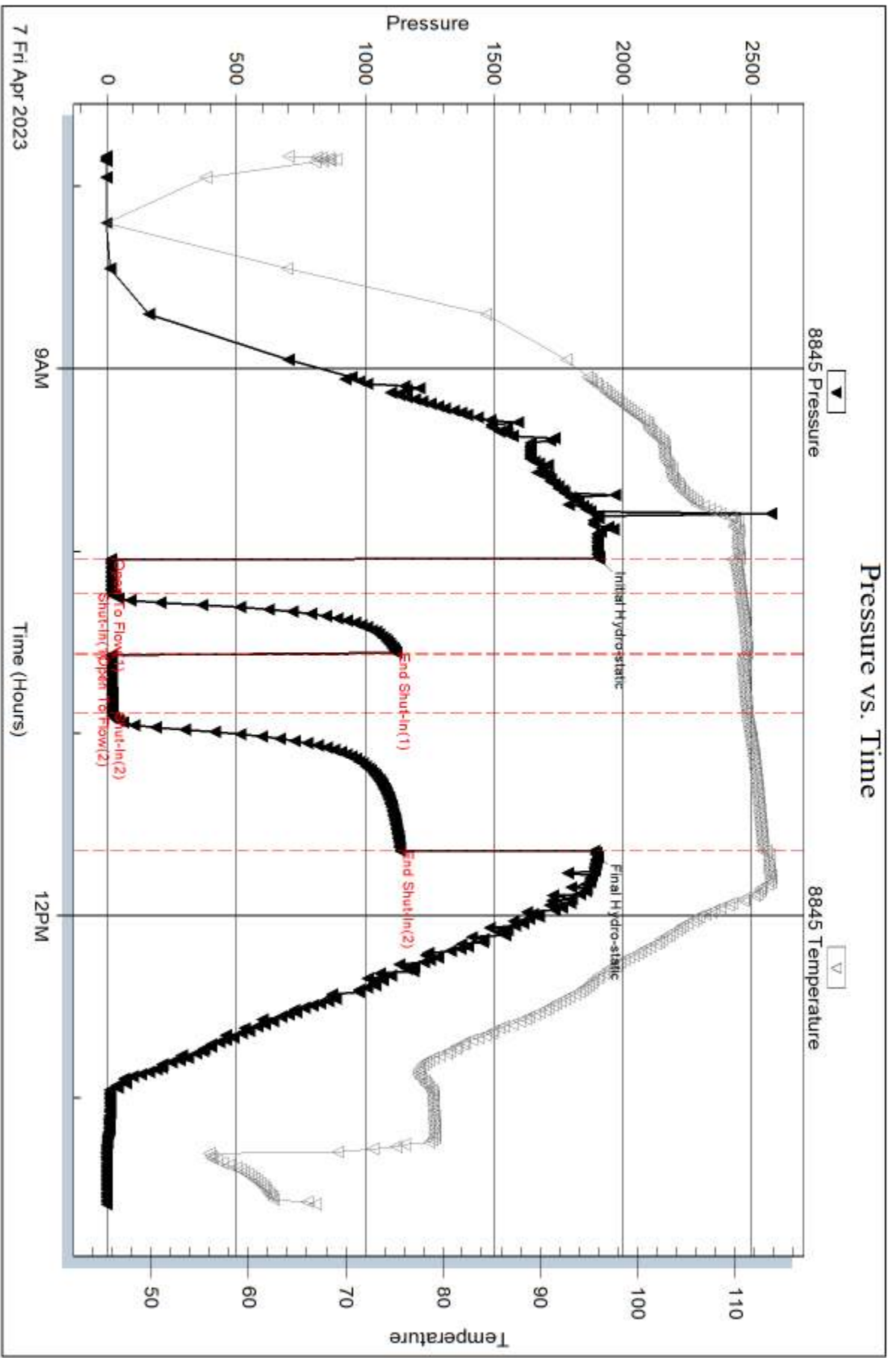
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



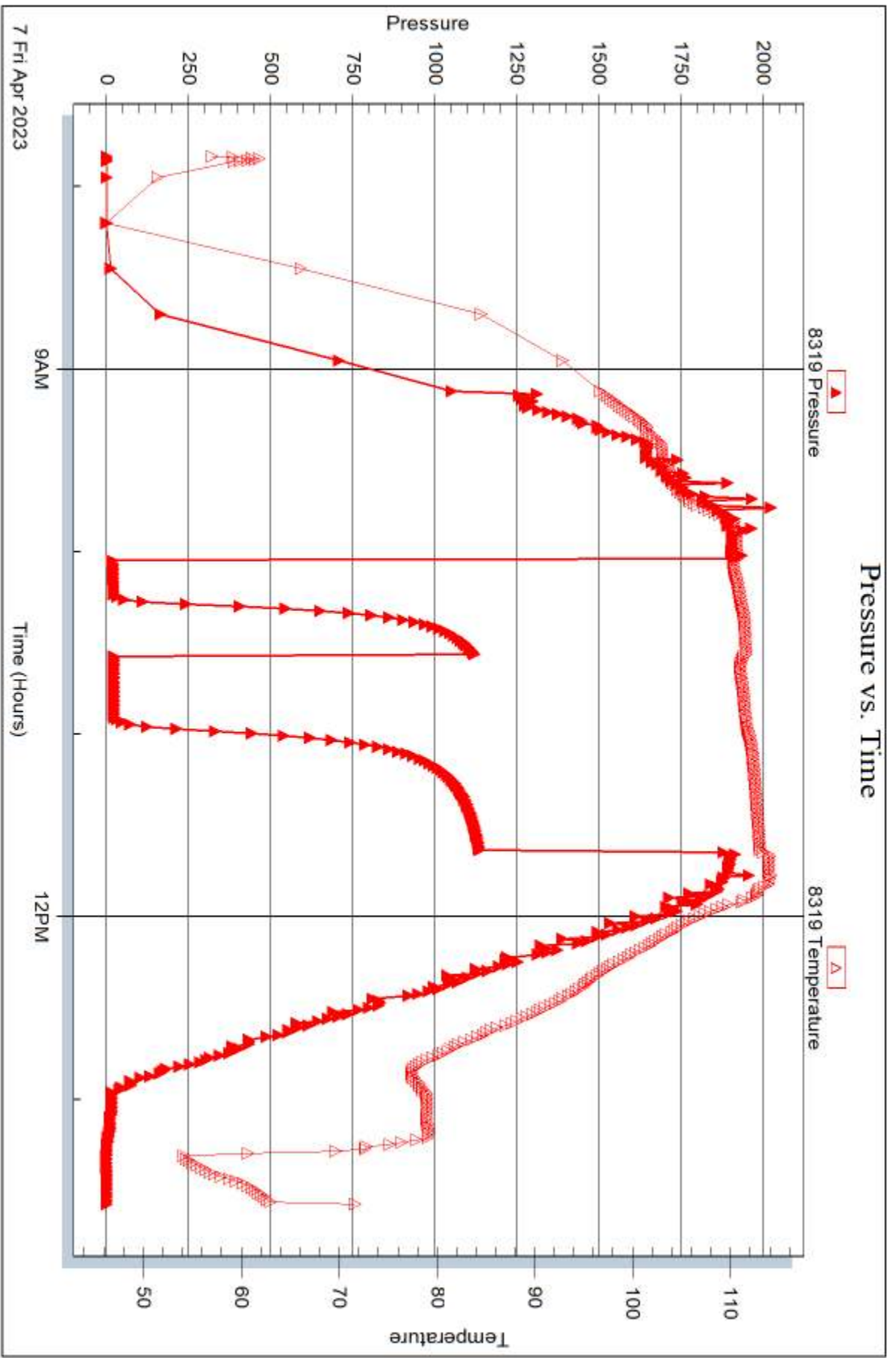
Serial #: 8319

Inside

Shakespeare Oil Co. Inc.

DW Comm #1-27

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 70264

Printed: 2023.04.13 @ 14:20:27



DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co, Inc.**

202 W main St
Salem, IL 62881

ATTN: Kent Matson

DW Comm #1-27

27 11s 31w Gove,KS

Start Date: 2023.04.07 @ 21:37:00

End Date: 2023.04.08 @ 02:58:45

Job Ticket #: 70265 DST #: 2

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

Printed: 2023.04.13 @ 14:19:50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

ATTN: Kent Matson

Job Ticket: 70265

DST#: 2

Test Start: 2023.04.07 @ 21:37:00

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:36:30

Time Test Ended: 02:58:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3948.00 ft (KB) To 3970.00 ft (KB) (TVD)

Reference Elevations: 2933.00 ft (KB)

Total Depth: 3970.00 ft (KB) (TVD)

2924.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8845 Outside

Press@RunDepth: 27.29 psig @ 3949.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.04.07 End Date: 2023.04.08

Last Calib.: 2023.04.08

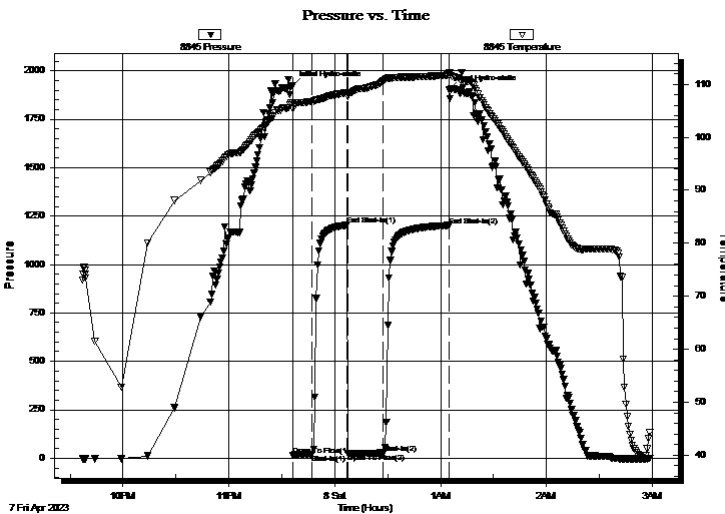
Start Time: 21:37:05 End Time: 02:58:44

Time On Btm: 2023.04.07 @ 23:36:15

Time Off Btm: 2023.04.08 @ 01:05:00

TEST COMMENT: IF: 1" blow.
IS: No return.
FF: 3/4" blow.
FS: No return. 10-20-20-40

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1922.26	106.50	Initial Hydro-static
1	16.44	105.33	Open To Flow (1)
11	21.23	106.77	Shut-In(1)
31	1203.12	108.43	End Shut-In(1)
31	23.53	107.69	Open To Flow (2)
52	27.29	110.63	Shut-In(2)
89	1201.44	111.72	End Shut-In(2)
89	1903.07	112.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100m (oil spots)	0.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70265

DST#: 2

ATTN: Kent Matson

Test Start: 2023.04.07 @ 21:37:00

Tool Information

Drill Pipe:	Length: 3928.00 ft	Diameter: 3.80 inches	Volume: 55.10 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 55.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3948.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	52.00 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			3919.00	
Shut In Tool	5.00			3924.00	
Hydraulic tool	5.00			3929.00	
Jars	5.00			3934.00	
EM Tool	3.00			3937.00	
Safety Joint	2.00			3939.00	
Packer	5.00			3944.00	30.00 Bottom Of Top Packer
Packer	4.00			3948.00	
Stubb	1.00			3949.00	
Recorder	0.00	8319	Inside	3949.00	
Recorder	0.00	8845	Outside	3949.00	
Perforations	18.00			3967.00	
Bullnose	3.00			3970.00	22.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70265

DST#: 2

ATTN: Kent Matson

Test Start: 2023.04.07 @ 21:37:00

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: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 71.84 in³

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
30.00	Mud 100m (oil spots)	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

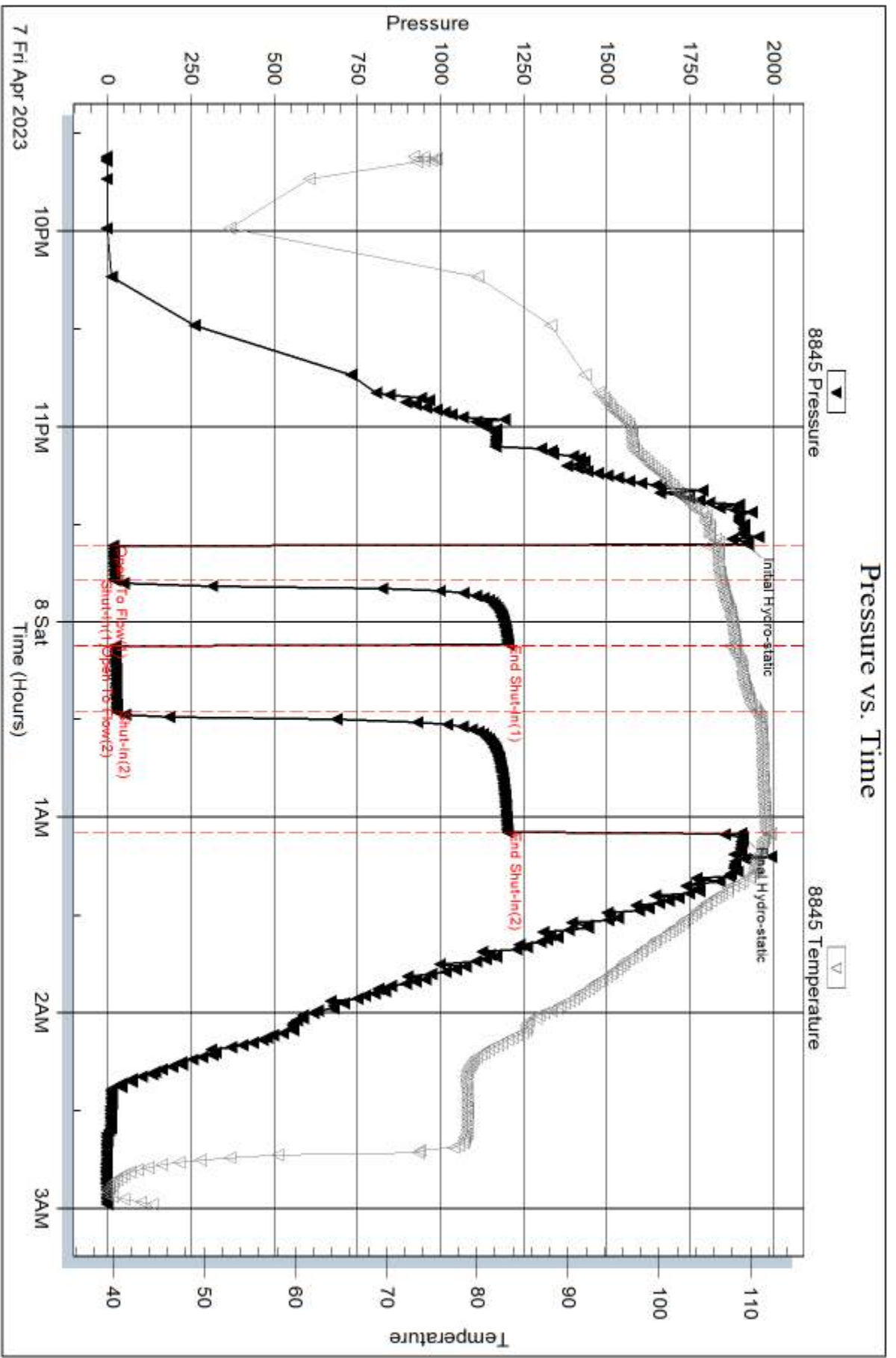
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



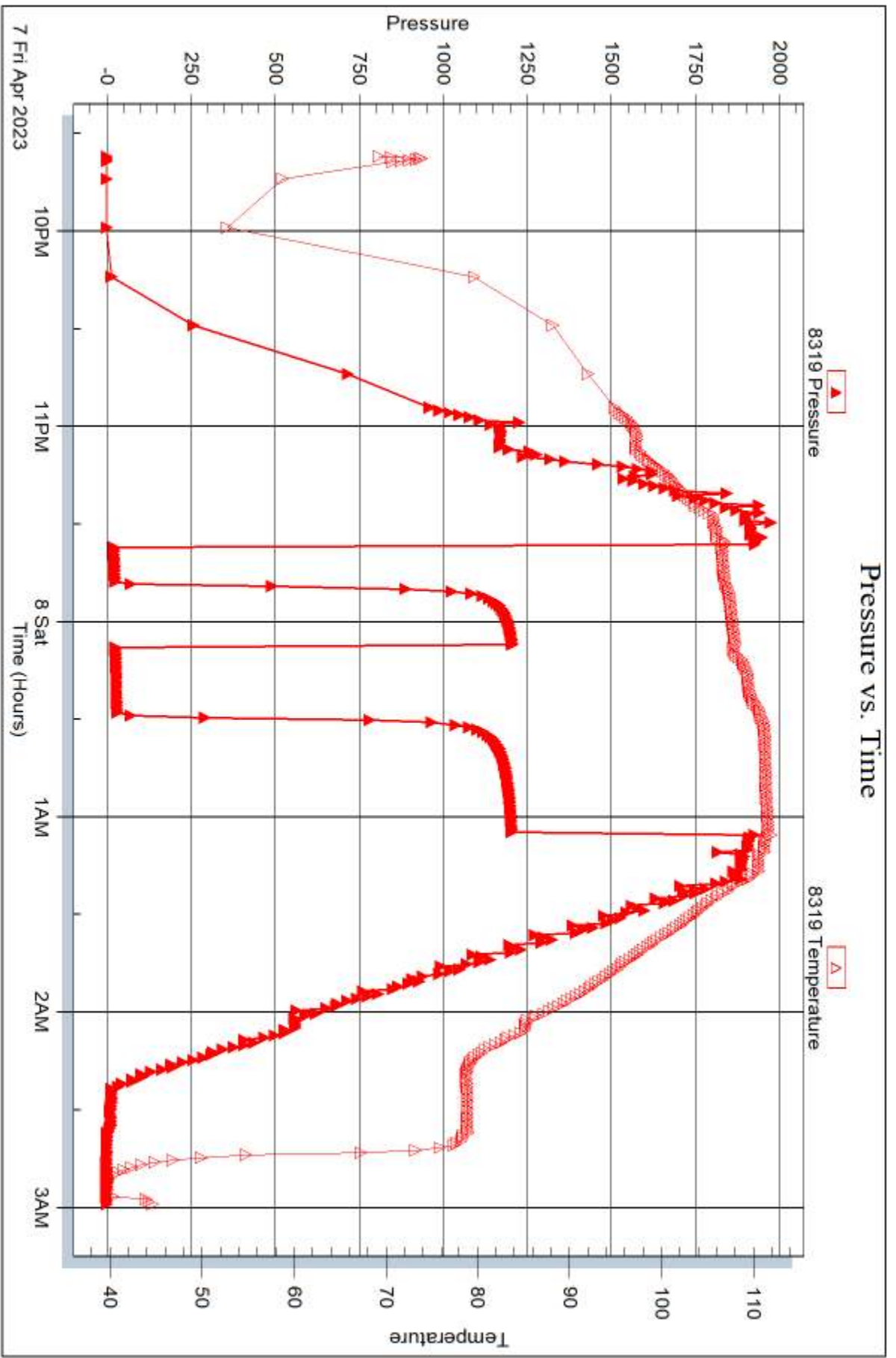
Serial #: 8319

Inside

Shakespeare Oil Co. Inc.

DW Comm #1-27

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 70265

Printed: 2023.04.13 @ 14:19:51



DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co, Inc.**

202 W main St
Salem, IL 62881

ATTN: Kent Matson

DW Comm #1-27

27 11s 31w Gove,KS

Start Date: 2023.04.08 @ 16:53:00

End Date: 2023.04.08 @ 22:20:30

Job Ticket #: 70266 DST #: 3

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

Printed: 2023.04.13 @ 14:17:49



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70266

DST#: 3

ATTN: Kent Matson

Test Start: 2023.04.08 @ 16:53:00

GENERAL INFORMATION:

Formation: **LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:55:15

Time Test Ended: 22:20:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4032.00 ft (KB) To 4045.00 ft (KB) (TVD)

Reference Elevations: 2933.00 ft (KB)

Total Depth: 4045.00 ft (KB) (TVD)

2924.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8845 Outside

Press@RunDepth: 24.42 psig @ 4033.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.04.08

End Date:

2023.04.08

Last Calib.:

2023.04.08

Start Time:

16:53:05

End Time:

22:20:29

Time On Btm:

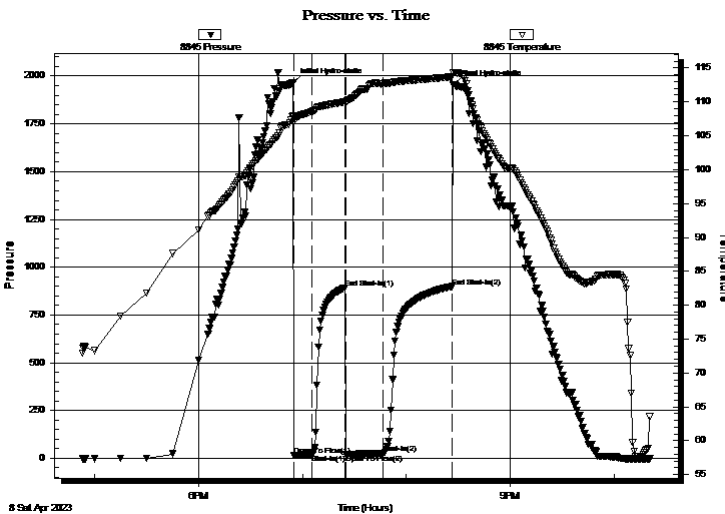
2023.04.08 @ 18:54:45

Time Off Btm:

2023.04.08 @ 20:27:15

TEST COMMENT: IF: 1" blow.
IS: No return.
FF: 1" blow.
FS: No return. 10-20-20-40

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1964.35	107.89	Initial Hydro-static
1	16.44	107.05	Open To Flow (1)
11	18.64	108.59	Shut-In(1)
30	892.92	110.01	End Shut-In(1)
31	20.26	109.69	Open To Flow (2)
52	24.42	112.71	Shut-In(2)
92	899.06	113.69	End Shut-In(2)
93	1956.95	114.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m (oil spots)	0.28

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70266

DST#: 3

ATTN: Kent Matson

Test Start: 2023.04.08 @ 16:53:00

Tool Information

Drill Pipe:	Length: 4022.00 ft	Diameter: 3.80 inches	Volume: 56.42 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4032.00 ft			Final 58000.00 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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4003.00	
Shut In Tool	5.00			4008.00	
Hydraulic tool	5.00			4013.00	
Jars	5.00			4018.00	
EM Tool	3.00			4021.00	
Safety Joint	2.00			4023.00	
Packer	5.00			4028.00	30.00 Bottom Of Top Packer
Packer	4.00			4032.00	
Stubb	1.00			4033.00	
Recorder	0.00	8319	Inside	4033.00	
Recorder	0.00	8845	Outside	4033.00	
Perforations	9.00			4042.00	
Bullnose	3.00			4045.00	13.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70266

DST#: 3

ATTN: Kent Matson

Test Start: 2023.04.08 @ 16:53:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

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 (oil spots)	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

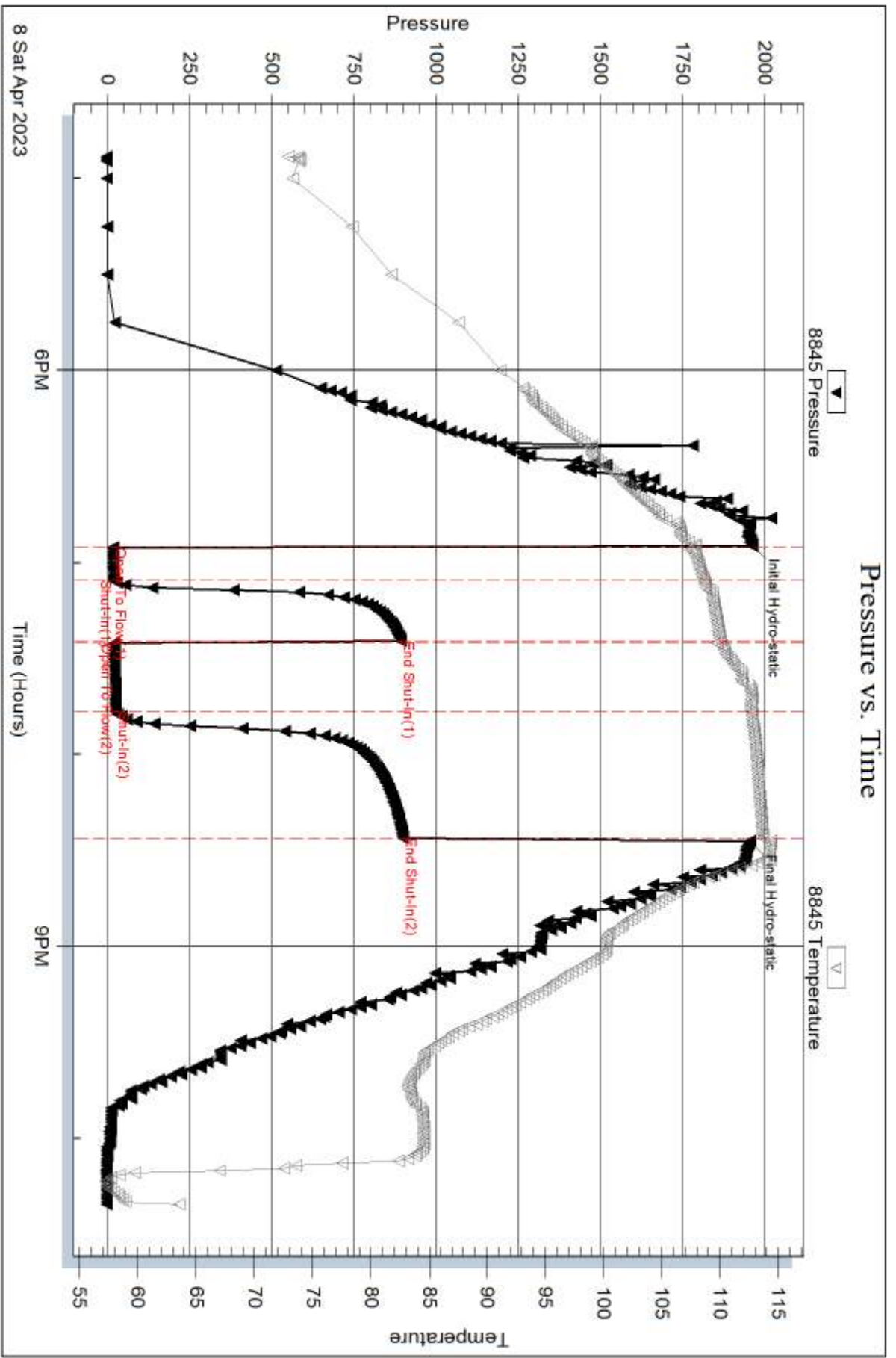
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



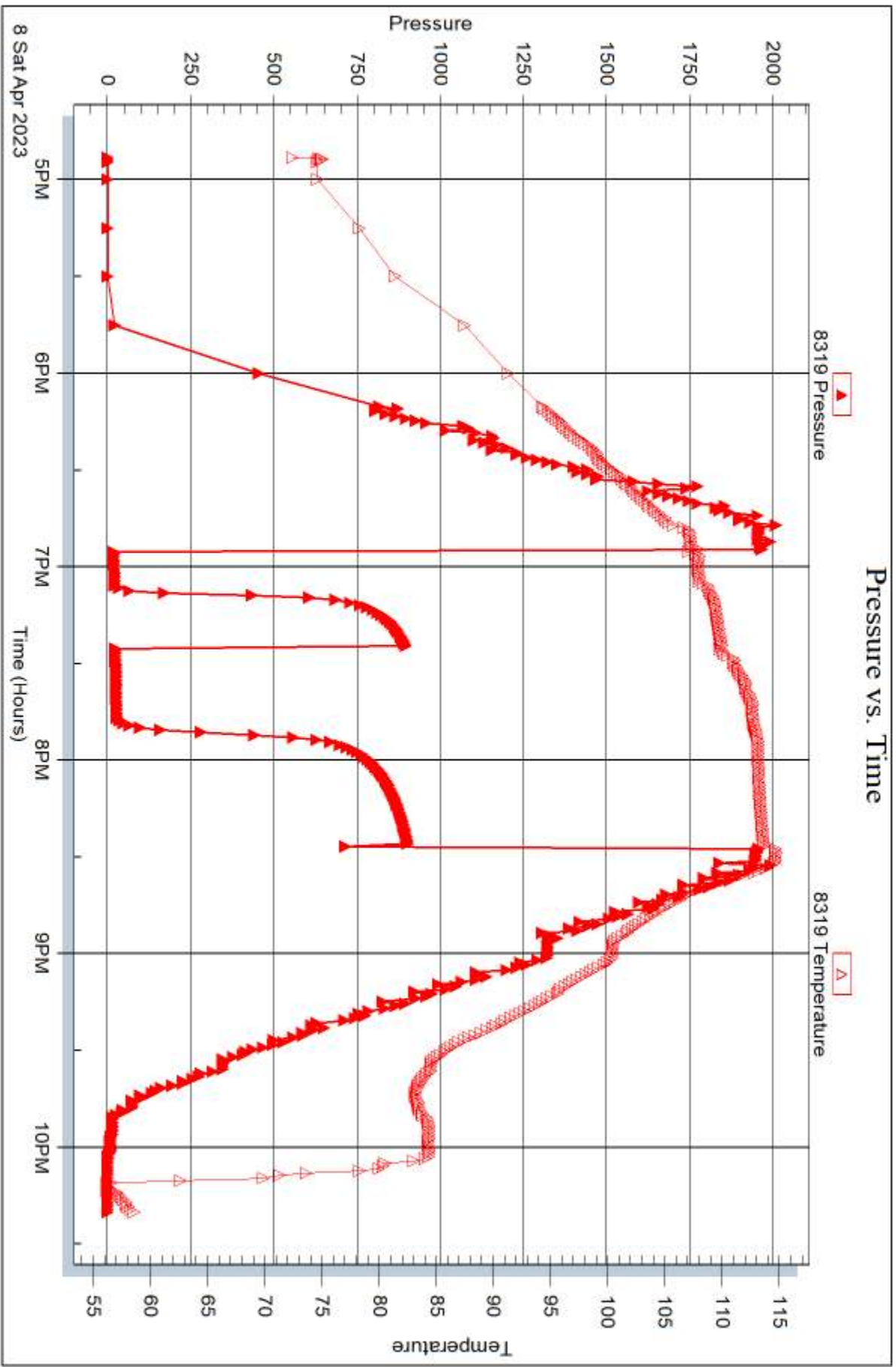
Serial #: 8319

Inside

Shakespeare Oil Co., Inc.

DW Comm #1-27

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 70266

Printed: 2023.04.13 @ 14:17:50



DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co, Inc.**

202 W main St
Salem, IL 62881

ATTN: Kent Matson

DW Comm #1-27

27 11s 31w Gove,KS

Start Date: 2023.04.09 @ 16:45:00

End Date: 2023.04.09 @ 22:12:45

Job Ticket #: 70267 DST #: 4

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

Printed: 2023.04.13 @ 14:16:45

Shakespeare Oil Co, Inc.
27 11s 31w Gove,KS
DW Comm #1-27
DST # 4
LKC G-J
2023.04.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

ATTN: Kent Matson

Job Ticket: 70267

DST#: 4

Test Start: 2023.04.09 @ 16:45:00

GENERAL INFORMATION:

Formation: **LKC G-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:48:30

Time Test Ended: 22:12:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4098.00 ft (KB) To 4191.00 ft (KB) (TVD)

Reference Elevations: 2933.00 ft (KB)

Total Depth: 4191.00 ft (KB) (TVD)

2924.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8845 Outside

Press@RunDepth: 41.30 psig @ 4099.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.04.09

End Date:

2023.04.09

Last Calib.:

2023.04.09

Start Time: 16:45:05

End Time:

22:12:44

Time On Btm:

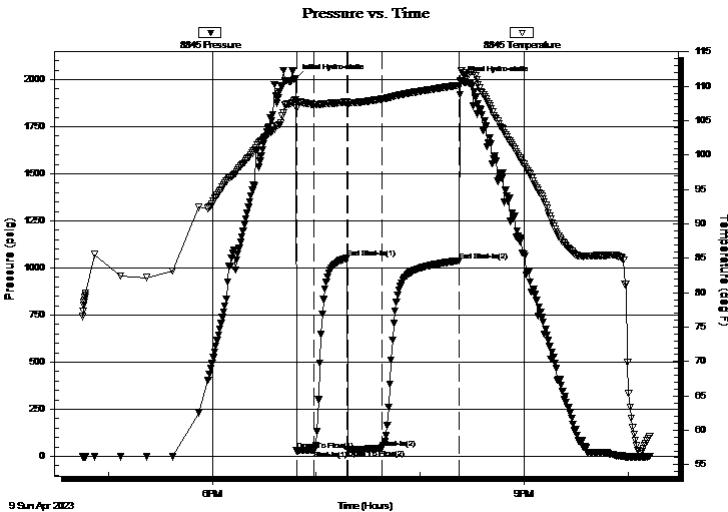
2023.04.09 @ 18:48:15

Time Off Btm:

2023.04.09 @ 20:23:30

TEST COMMENT: IF: 1" blow .
IS: No return.
FF: 3/4" blow .
FS: No return, 10-20-20-40

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.59	108.06	Initial Hydro-static
1	29.53	106.83	Open To Flow (1)
11	34.17	107.38	Shut-In(1)
30	1051.81	107.73	End Shut-In(1)
30	35.20	107.16	Open To Flow (2)
50	41.30	108.14	Shut-In(2)
95	1038.07	110.16	End Shut-In(2)
96	1995.67	112.24	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
30.00	Mud 100m	0.42

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70267

DST#: 4

ATTN: Kent Matson

Test Start: 2023.04.09 @ 16:45:00

Tool Information

Drill Pipe:	Length: 4085.00 ft	Diameter: 3.80 inches	Volume: 57.30 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 57.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4098.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	123.00 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			4069.00	
Shut In Tool	5.00			4074.00	
Hydraulic tool	5.00			4079.00	
Jars	5.00			4084.00	
EM Tool	3.00			4087.00	
Safety Joint	2.00			4089.00	
Packer	5.00			4094.00	30.00 Bottom Of Top Packer
Packer	4.00			4098.00	
Stubb	1.00			4099.00	
Recorder	0.00	8319	Inside	4099.00	
Recorder	0.00	8845	Outside	4099.00	
Perforations	24.00			4123.00	
Change Over Sub	1.00			4124.00	
Drill Pipe	63.00			4187.00	
Change Over Sub	1.00			4188.00	
Bullnose	3.00			4191.00	93.00 Bottom Packers & Anchor
Total Tool Length:	123.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co, Inc.

27 11s 31w Gove,KS

202 W main St
Salem, IL 62881

DW Comm #1-27

Job Ticket: 70267

DST#: 4

ATTN: Kent Matson

Test Start: 2023.04.09 @ 16:45:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud 100m	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

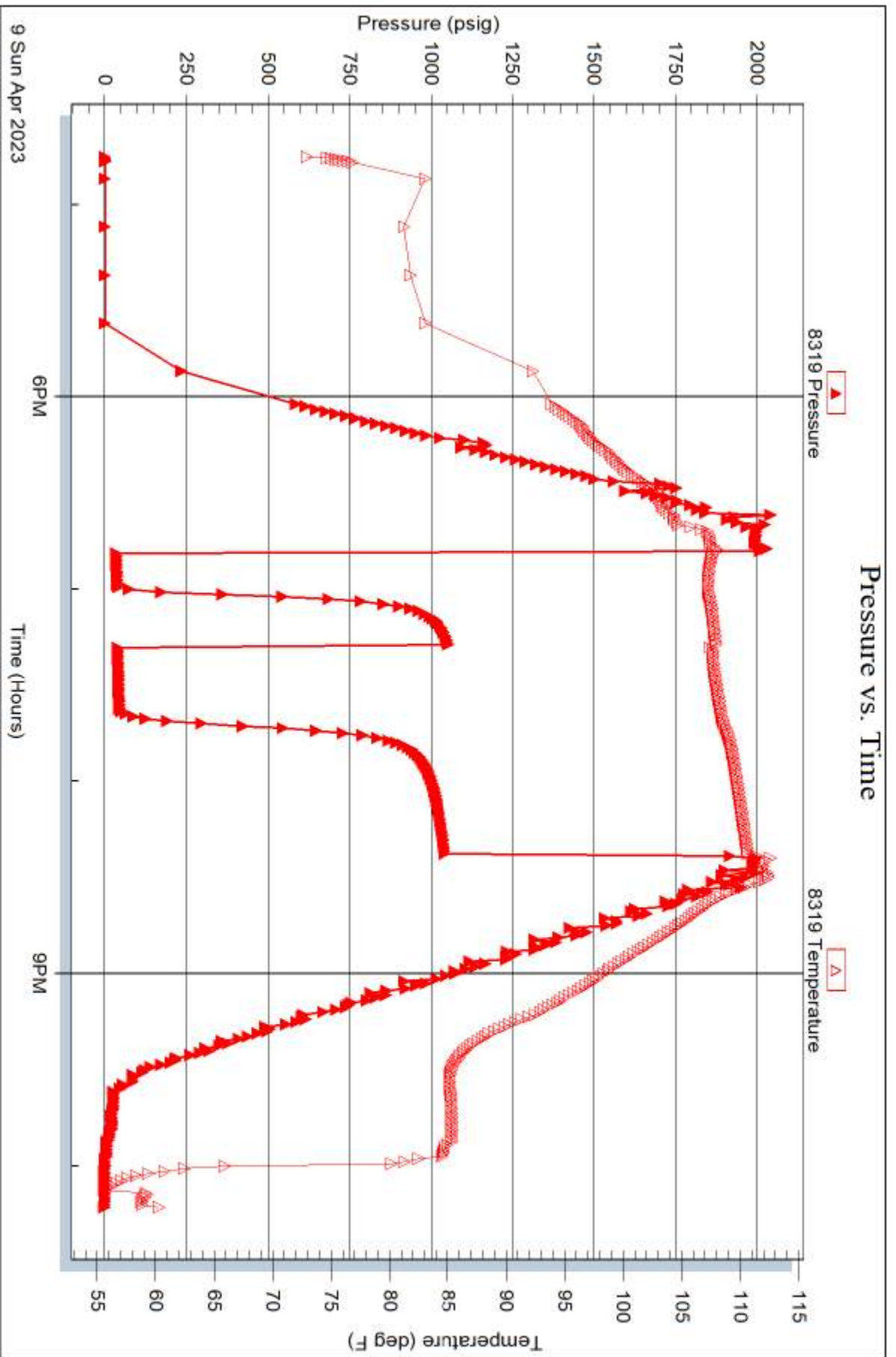
Serial #: 8319

Inside

Shakespeare Oil Co., Inc.

DW Comm #1-27

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 70267

Printed: 2023.04.13 @ 14:16:46



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 70264

Well Name & No. DW Comm #1-27 Test No. 1 Date 04/07/2023
 Company Shakespeare Oil Co, Inc Elevation 2933 KB 2924 GL
 Address 202 W Main St Salem, IL 62881
 Co. Rep / Geo Kent Matson Rig Duke #4
 Location: Sec. 27 Twp 11s Rge. 3W Co. Gore State Ks

Interval Tested 3926 - 3950 Zone Tested Toronto
 Anchor Length 24' Drill Pipe Run 2928 Mud Wt. 9.0
 Top Packer Depth 3921 Drill Collars Run — Vis 7.2 52
 Bottom Packer Depth 3926 Wt. Pipe Run — WL 7.2
 Total Depth 3950 Chlorides 2700 ppm System LCM 4#

Blow Description IF 3/4" blow
ISI No return.
FFI Surface blow
FST No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud</u>			<u>100</u>	
	<u>oil spots in 100</u>				

Rec Total 15 BHT 113 Gravity — API RW — @ — *F Chlorides — ppm
 Initial Hydrostatic 1907 Test 1800 Ruined Shale Packer
 Initial Flow 14 to 17 Jars 300 Ruined Packer
 Initial Shut-In 1119 Circ Sub Hotel
 Final Flow 17 to 18 Hourly Standby EM Tool Successful
 Final Shut-In 1135 Mileage 114.2 199.50 Accessibility
 Final Hydrostatic 1889 Sampler Gas Sample
 T- On Location 0700 Straddle Sub Total 0
 Initial Flow 10 T-Started 0750 Shale Packer Total 2299.50
 Initial Shut-In 20 T-Open 1004 Extra Packer Tool Loaded @
 Final Flow 20 T-Pulled 1134 Extra Recorder MP/DST Disc't
 Final Shut-In 40 T-Out 1334 Day Standby

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 70265

Well Name & No. DW Comm #1-27 Test No. 2 Date 04/08/2023
 Company Shakespeare Oil Co, Inc Elevation 2933 KB 2924 GL
 Address Salem, IL
 Co. Rep / Geo Kent Matson Rig Duke #4
 Location: Sec. 27 Twp 11S Rge. 31W Co. Gov0 State Ks

Interval Tested 3946-3970 Zone Tested Lansing A
 Anchor Length 22' Drill Pipe Run 3928 Mud Wt. 9.1
 Top Packer Depth 3943 Drill Collars Run — Vis 53
 Bottom Packer Depth 3948 Wt. Pipe Run — WL 7.2
 Total Depth 3970 Chlorides 2500 ppm System LCM 2#
 Blow Description IF 1" blow
ISI No return
FF 3/4" blow
FSI No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>mud</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 30 BHT 112 Gravity — API RW — @ — *F Chlorides — ppm
 Initial Hydrostatic 1922 Test 1800 Ruined Shale Packer
 Initial Flow 16 to 21 Jars 300 Ruined Packer
 Initial Shut-In 12 03 Circ Sub Hotel
 Final Flow 23 to 27 Hourly Standby EM Tool Successful
 Final Shut-In 12 01 Mileage 114 RT 199.50 Accessibility
 Final Hydrostatic 1903 Sampler Gas Sample
 T- On Location 2100 Straddle Sub Total 0
 Initial Flow 10 T-Started 2137 Shale Packer Total 2299.50
 Initial Shut-In 20 T-Open 2337 Extra Packer Tool Loaded @
 Final Flow 20 T-Pulled 01 07 04/08 Extra Recorder MP/DST Disc't
 Final Shut-In 40 T-Out 02 59 Day Standby

Comments _____

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 70266

Well Name & No. DW Comm #1-27 Test No. 3 Date 04/08/2023
 Company Shakespeare Oil Co, Inc Elevation 2933 KB 2924 GL
 Address Salem, IL
 Co. Rep / Geo Kent Matson Rig Dobe 4
 Location: Sec. 27 Twp 11S Rge. 3W Co. Gove State Ks

Interval Tested 4032-4045 Zone Tested Lansing P
 Anchor Length 13' Drill Pipe Run 4022 Mud Wt. 9.2
 Top Packer Depth 4027 Drill Collars Run = Vis 52
 Bottom Packer Depth 4032 Wt. Pipe Run _____ WL 8.0
 Total Depth 4045 Chlorides 2500 ppm System LCM 2#

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

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mod</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 20 BHT 114 Gravity - API RW - @ - *F Chlorides _____ ppm
 Initial Hydrostatic 1964 Test 1950 Ruined Shale Packer _____
 Initial Flow 16 to 18 Jars 300 Ruined Packer _____
 Initial Shut-In 892 Circ Sub _____ Hotel _____
 Final Flow 20 to 24 Hourly Standby _____ EM Tool Successful _____
 Final Shut-In 899 Mileage 11427 199.50 Accessibility _____
 Final Hydrostatic 1956 Sampler _____ Gas Sample _____
 T- On Location 1630 Straddle _____ Sub Total 0
 Initial Flow 10 T-Started 1653 Shale Packer _____ Total 2449.50
 Initial Shut-In 20 T-Open 1808 Extra Packer _____ Tool Loaded _____ @ _____
 Final Flow 20 T-Pulled 2038 Extra Recorder _____ MP/DST Disc't _____
 Final Shut-In 40 T-Out 2220 Day Standby _____

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 70267

Well Name & No. DW Comm 1-27 Test No. 4 Date 04/09/2023
 Company Shakespeare Oil Co, Inc Elevation 2933 KB 2924 GL
 Address Salem IL
 Co. Rep / Geo Kent Matson Rig Duke #4
 Location: Sec. 27 Twp 11s Rge. 31W Co. Gore State KS


Interval Tested 4098-4191 Zone Tested 2KC B-J
 Anchor Length 93' Drill Pipe Run 4087 Mud Wt. 9.2
 Top Packer Depth 4093 Drill Collars Run — Vis 54
 Bottom Packer Depth 4098 Wt. Pipe Run — WL C.O
 Total Depth 4191 Chlorides 3000 ppm System LCM 2#

Blow Description IF 1" blow
TSI No return,
FF 34' blow
TSI No return,

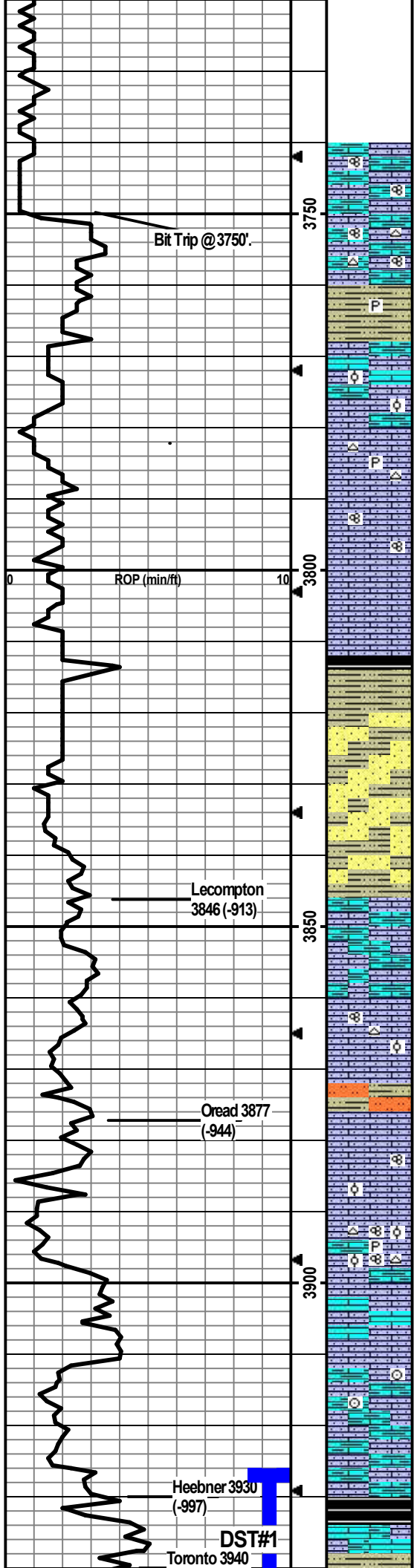
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm
 Initial Hydrostatic 2004 Test 1950 Ruined Shale Packer
 Initial Flow 29 to 34-29 Jars 300 Ruined Packer
 Initial Shut-In 1051 Circ Sub Hotel
 Final Flow 35 to 41 Hourly Standby EM Tool Successful
 Final Shut-In 1038 Mileage 199.50 Accessibility
 Final Hydrostatic 1995 Sampler Gas Sample
 T- On Location 1600 Straddle Sub Total 1600
 Initial Flow 10 T-Started 1645 Shale Packer Total 4049.50
 Initial Shut-In 20 T-Open 1849 Extra Packer Tool Loaded 04/12 @ 1600
 Final Flow 20 T-Pulled 2119 Extra Recorder MP/DST Disc't
 Final Shut-In 40 T-Out 2213 Day Standby 2 2d 17.75h

Comments _____

Approved By _____ Our Representative 

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Drill cutting samples at 10' intervals start at 3750'.

LS: cm/lt gry/lt bm, micro-m xtal, silty/sndy/arg, chalky, foss frags/fusln, vf-m in-xtal/fusln por, no odor, ns. (Smpl flood of SH.)

LS: cm/lt-m bm/lt-m gry-bm, vf-m xtal, silty/sndy/arg, chalky, lt gry chert, foss frags/fusln, some ppt-vf in-xtal por, no odor, ns. (Cont flood of SH.)

SH: lt-m gry/bm/red bm/gry-green, vry silty/sndy, pyritic, soft-firm.

LS: cm/lt-m bm/lt gry/min lt yel, micro-m xtal, some vry silty/sndy/arg, chalky, foss frags/min ool/grainy, ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry, vf-m xtal, chalky, silty/sndy, min pyritic, cm chert, foss frags, ppt-f in-xtal por, no odor, ns.

LS: cm/lt-m bm/lt gry, micro-m xtal, silty/sndy, chalky, foss frags/fusln, ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm, vf-m xtal, chalky, silty/sndy, foss frags, some vf-m in-xtal por, no odor, ns.

SH: lt-dk gry/blk/red-bm, some vry silty/sndy, carb, soft-firm.

SH: as above. SS: lt gry, vf-f, pred qtz, carb, friable, no odor, ns.

Min SH: as above. SS: as above, no odor, ns.

SS: lt gry/lt gry-bm, vf-f, pred qtz, carb, arg, friable, no odor, ns.

LS: cm/lt bm/lt-m gry, micro-m xtal, some vry silty/sndy/arg, chalky, foss frags/ool, min ppt-f in-xtal por, no odor, ns.

LS: cm/lt-m bm/lt gry, vf-m xtal, some vry silty/sndy/arg, chalky, foss frags, some vf-f in-xtal por, no odor, ns

LS: cm/lt-m bm/lt gry, vf-m xtal, silty/sndy, chalky, min gry chert, foss frags/min ool/fusln, 6 pcs w/sfo, ppt-m in-xtal/in-ool por, no fluor, no odor, sfo.

SH: lt-dk gry, vry silty/sndy, carb, soft-firm. Slstn: lt gry, arg, carb, friable.

LS: cm/lt bm/lt gry, micro-m xtal, some silty/sndy, chalky, foss frags, 34 pcs w/sfo w/vf-m in-xtal por, dul yel fluor, no odor, sfo.

LS: cm/lt bm/lt gry, vf-m xtal, silty/sndy, chalky, foss frags/fusln/ool, 17 pcs w/sfo w/vf-m in-xtal por, dul yel fluor, no odor, sfo.

LS: cm/lt bm/lt gry, vf-m xtal, some silty/sndy/arg, some chalky, min pyritic, wht/cm chert, foss frags/fusln/ool, vf-m in-xtal por/med oo-castic por, no odor, ns.

LS: cm/lt gry, vf-m xtal, some silty/sndy, some chalky, foss frags/grainy, min ppt-vf in-xtal por, no odor, ns.

LS: cm/lt gry, vf-m xtal, some silty/sndy/arg, some chalky, foss frags/crin/grainy, min ppt-m in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry, vf-m xtal, silty/sndy/arg, chalky, foss frags, no vis por, no odor, ns.

SH: m gry/blk, some silty, slt carb, firm.

LS: cm/lt-m bm/lt gry, micro-m xtal, some silty/sndy/arg, foss frags/min ool, 14 pcs w/sfo w/vf-m in-xtal por, dul yel fluor, gd odor, sfo.

Bit Trip @ 3750' conn; replaced PDC bit with Tricone Button bit.

Pipe strap TOH for Bit Trip @ 3750' was 0.24' long to board.

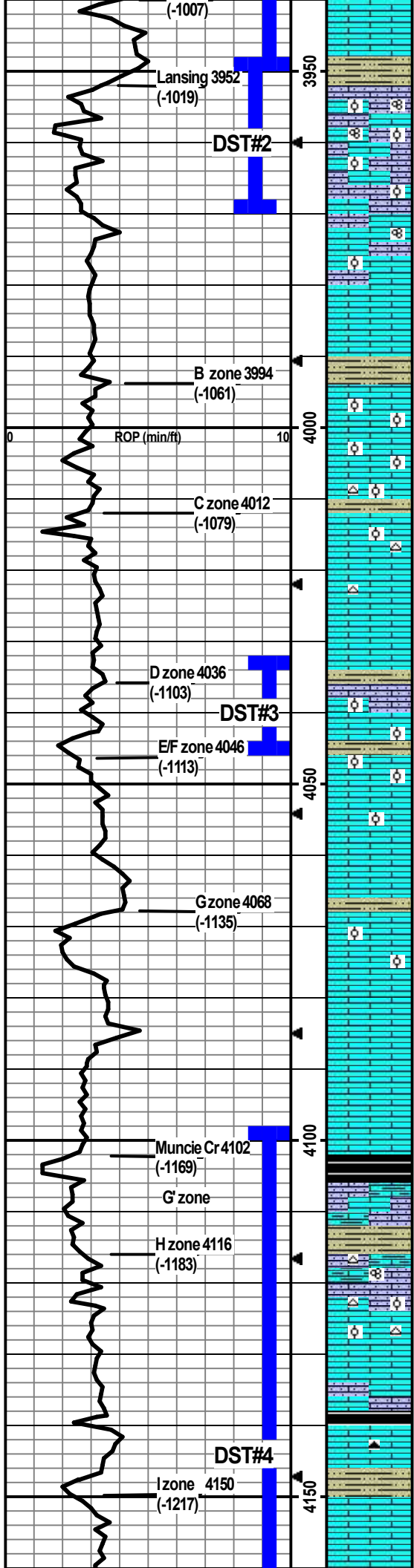
Survey Record
Deg @ Ft
0.5 @ 224'
0.5 @ 1964'
0.? @ ?????'

CFS @ 3900'
Stop/30"60"

DST1) 3926-3950
Toronto

10/20/20/40
1st Blow built to 3/4"; No BB.
2nd) No blow; No BB.
IFP 15-17#
ISIP 1120#
FFP 18-19#
FSIP 1135#
HP 1907-1890#
Recvd: 15' Mud w/oil spots.

DST#1
Toronto 3940



LS: cm/lt-m bm/lt gry, micro-m xtal, some chalky, foss frags, 34 pcs w/staining and sfo, ppt-m in-xtal, brite yel fluor, stg odor, sfo.

CFS @ 3950'
Stop/30"/60"

LS: cm/lt-m gry, vf-m xtal, some silty/sndy, min chalky, foss frags/fusln/ool/grainy, 5-10% of smpl w/sfo, vf-crs in-xtal/in-ool por, dul-brite yel fluor, stg odor, gd sfo.

CFS @ 3970'
Stop/30"/60"

LS: cm/lt-m gry, micro-m xtal, some silty/sndy, min chalky, foss frags/ool/grainy, 10-15% of smpl w/sfo, f-crs in-xtal/in-ool por, dul-brite yel fluor, gd odor, gd sfo.

**DST2) 3948-3970
Lansing A-zone**
10/20/20/40
1st) Blow built to 1"; No BB.
2nd) Blow built to 3/4"; No BB.

LS: wht/cm/lt gry, micro-m xtal, some silty/sndy, chalky, foss frags/min ool/fusln, no vis por, no odor, ns.

LS: wht/cm/min lt gry, micro-m xtal, chalky, foss frags, no vis por, no odor, ns.

SH: m-dk gry/m-dk red-brn, silty, slit carb, soft-firm.

LS: wht/cm/min lt gry, micro-m xtal, chalky, min foss frags w/gd amt ool, 19 pcs w/sfo (30min) wf-crs in-xtal/in-ool por, min med oo-castic por, no fluor, no odor, sfo. 8 pcs w/sfo in 60min.

IFP 16-21#
ISIP 1203#
FFP 24-27#
FSIP 1201#
HP 1922-1903#
Recvd: 30' Mud w/oil spots.

LS: wht/cm, micro-m xtal, chalky, min wht/cm chert, min foss frags w/ool, no vis por, no odor, ns.

CFS @ 4005'
Stop/30"/60"

LS: wht/cm/lt bm/lt gry, micro-m xtal, chalky, min wht/cm chert, min foss frags/ool, no vis por, no odor, ns.
1 pce w/sfo assume from above.

CFS @ 4025'
Stop/30"/60"

LS: cm/lt gry, micro-f, chalky, min foss frags, no vis por, no odor, ns.

LS: cm/lt gry, micro-m, some chalky, some silty, foss frags/ool, 24 pcs w/sfo, f-crs in-xtal/in-ool por, min med oo-castic por, dul yel fluor, stg odor, sfo.

CFS @ 4045'
Stop/30"/60"

LS: cm/lt bm, micro-m xtal, smpl vry chalky, foss frags/ool, 34 pcs w/sfo, f-crs in-xtal/in-ool por, dul yel fluor, gd odor, gd sfo.

LS: wht/cm/lt bm/min lt gry, micro-f xtal, vry chalky, min foss frags/min dense ool, 7 pcs w/sfo, vf-m in-xtal/in-ool por, dul yel fluor, no odor, sfo.

CFS @ 4060'
Stop/30"/60"

LS: cm/lt bm/min lt gry, micro-m xtal, chalky, foss frags/grainy, no vis por, no odor, ns.

**DST3) 4032-4045
Lansing D-zone**
10/20/20/40
1st) Blow built to 1"; No BB.
2nd) Blow built to 1"; No BB.

LS: wht/cm, micro-m xtal, vry chalky, min foss frags/min fn ool, no vis por, no odor, ns.

IFP 16-19#
ISIP 893#
FFP 20-24#
FSIP 899#
HP 1964-1957#
Recvd: 20' Mud w/oil spots.

LS: wht/cm/lt gry, micro-m xtal, vry chalky, min foss frags, no vis por, no odor, ns.

LS: cm/lt gry, micro-m xtal, chalky, min foss frags, no vis por, no odor, ns.

SH: blk, slit silty, carb, firm, fissile.

LS: cm/lt-m bm/lt gry, micro-m xtal, some silty/sndy/arg, some chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/blk/min green-gry, some vry silty/sndy, slit carb, soft-firm.

LS: cm/lt-m brn/m-dk gry mottling/streaks, micro-m xtal, some vry chalky, some silty/sndy/arg, wht/cm/lt bm/lt gry ool chert, foss frags/fusln, 4 pcs w/sfo, ppt-m in-xtal por, dul yel fluor, slit odor, sfo.

LS: cm/lt-m bm/lt-m gry, micro-m xtal, some silty/sndy, chalky, bm/gry/cm chert, foss frags/ool, 16 pcs w/sfo, ppt-crs in-xtal/in-ool por, dul yel fluor, no odor, sfo.

CFS @ 4130'
Stop/30"/60"

LS: cm/lt gry, micro-m xtal, chalky, min silty/sndy, no vis foss, 3 pcs w/sfo w/ppt-crs in-xtal por, no fluor, no odor, ns.

SH: m-dk gry/dk maroon, silty, carb, soft-firm.

LS: cm/lt-m bm/lt gry, micro-m xtal, some chalky, min dk bm chert, foss frags, 8 pcs w/staining/sfo, ppt-m in-xtal por, no fluor, slit odor, sfo.

SH: m-dk gry/dk maroon-brn, silty, slit carb, soft.

LS: cm/lt bm/lt gry, micro-m xtal, some chalky, min foss frags, 18 pcs w/staining/sfo, mostly ppt-f w/min med in-xtal por, dul yel fluor, no odor, sfo.

CFS @ 4160'
Stop/30"/60"

DST4) 4122-4124

Lansing G' thru J-zones

10/20/20/40
1st Blow built to 1"; No BB.
2nd Blow built to 3/4"; No BB.
IFP 30-34#
ISIP 1052#
FFP 35-41#
FSIP 1038#
HP 2005-1996#
Recvd: 30' Mud.

CFS @ 4191'
Stop/30"/60"

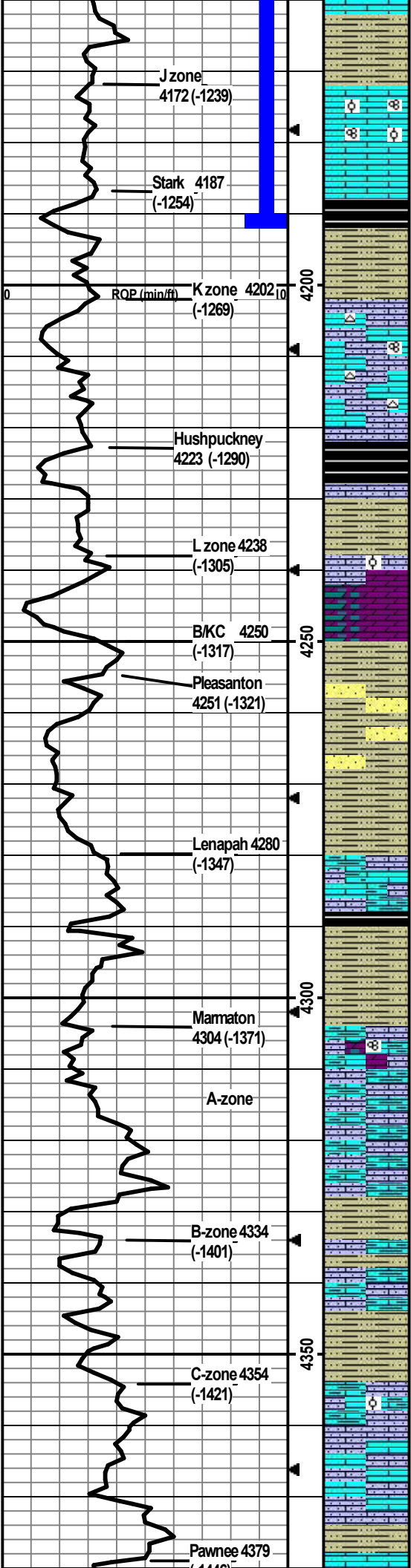
CFS @ 4220'
Stop/30"/60"

CFS @ 4250'
Stop/30"/60"

CFS @ 4320'
Stop/30"/60"

CFS @ 4350'
Stop/30"/60"

CFS @ 4370'
Stop/30"/60"



SH: lt-dk gry/maroon/red-bm, some vry silty/sndy, carb, soft-firm.

LS: cm/lt bm, micro-m xtal, chalky, foss frags/fusln/ool, 23 pcs w/sfo, ppt-m in-xtal/in-ool por, dul yel fluor, no odor, sfo.

LS: cm/lt bm/lt gry, micro-m xtal, some chalky, foss frags, 6 pcs w/sfo, vf-crs in-xtal por, dul yel fluor, no odor, sfo.

SH: dk gry/blk, silty, carb, soft-firm, fissile.

SH: lt-dk gry/blk/maroon/red-bm/gry-green, some vry silty/sndy, slit carb, soft-firm.

LS: wht/cm/lt-m bm/lt gry, micro-m xtal, chalky, some silty/sndy, min wht chert, foss frags/fusln, 4 pcs w/staining w/fo on break, mostly ppt-vf w/min f-med in-xtal por, dul yel fluor, no odor, sfo.

LS: wht/cm/lt bm/lt gry w/dk gry mottling, micro-m xtal, some chalky, some silty/sndy, wht/cm/lt gry chert, foss frags, no vis por, no odor, ns.

SH: dk gry/blk, slit silty, slit carb, soft-firm.

SH: lt-dk gry/blk/red-bm/gry-green, some vry silty/sndy, slit carb, soft-firm.

LS: cm/lt bm/lt gry, micro-m xtal, chalky, silty/sndy, foss frags/min ool, no vis por. Dolo: lt bm, vf-f xtal, sucrosic, 5 pcs w/sfo, ppt-vf in-xtal por, no fluor, no odor, sfo.

SH: lt-dk gry/dk bm/blk/red-bm/dk maroon, some vry silty/sndy, slit carb, soft-firm. SS: lt gry/lt red-bm, vf-f, sr-wr, pred qtz, arg, slit carb, no odor, ns.

SH: lt-dk gry/blk/bm/lt gry-green/maroon, some vry silty/sndy, carb, soft-firm. SS: as above, no odor, ns.

SH: m-dk gry/blk/red-bm, some vry silty, slit carb, soft-firm.

LS: wht/cm/lt gry/lt bm, micro-m xtal, some vry silty/sndy/arg, some chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/blk/dk bm/red-bm/dk maroon, some vry silty/sndy, carb, soft-firm.

LS: cm/lt bm, micro-m xtal, chalky, some silty/sndy/arg, some dolomitic, foss frags/fusln, some ppt-vf in-xtal por, no odor, ns. (Smpl is flood of SH.)

LS: cm/lt-m bm/lt gry/lt yel mottling/red-bm mottling, micro-m xtal, chalky, some silty/sndy/arg, foss frags, no vis por, no odor, ns.

LS: cm/lt gry/lt bm/some red-bm streaks, micro-m xtal, some vry silty/arg, some chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/dk bm/red-brn, some vry silty/sndy, slit carb, soft-firm.

LS: cm/lt bm/lt gry, micro-m xtal, some vry silty/sndy/arg, chalky, foss frags, no vis por, no odor, ns.

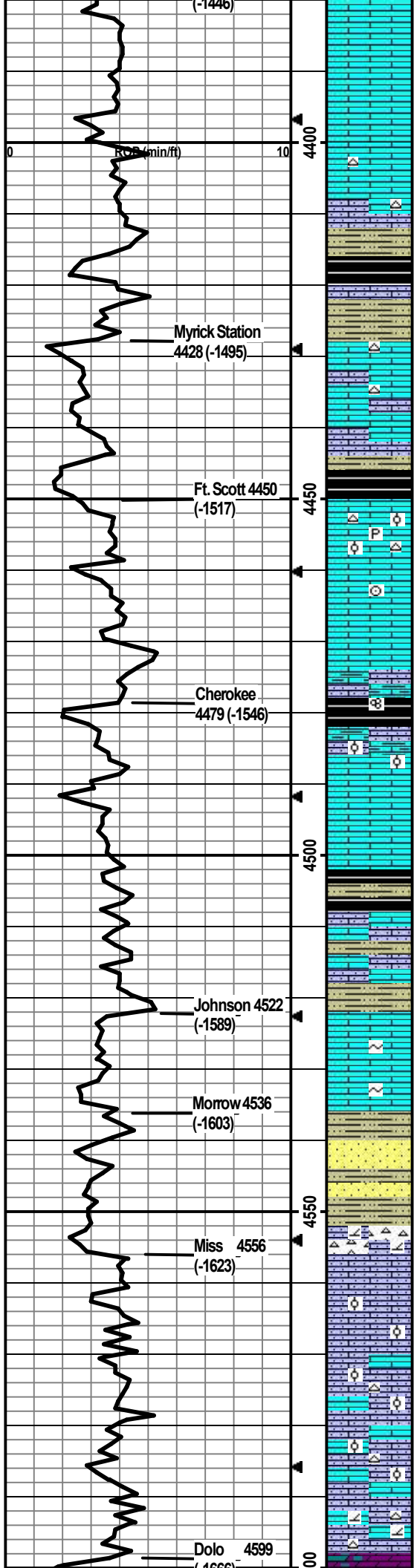
LS: cm/lt bm/lt gry, micro-m xtal, some vry silty/sndy/arg, chalky, foss frags/fusln, min ppt-vf in-xtal por, no odor, ns.

SH: m-dk gry/maroon/red-bm/mustard yel, some vry silty/sndy, carb, soft-firm.

LS: cm/lt bm/lt gry, micro-m xtal, some chalky, some silty/sndy/arg, foss frags/min dense ool, no vis por, no odor, ns.

LS: wht/cm/lt bm/min lt gry, micro-m xtal, chalky, some silty/sndy, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/gry-bm, silty, carb, soft-firm.



LS: cm/lt lt bm/min lt gry, micro-m xtal, some chalky, min foss frags, no vis por, no odor, ns. (Wet smpl was not collected, description from dry smpl; no staining.)

LS: cm/lt bm/min lt gry, micro-m xtal, some chalky, min foss frags, no vis por, no odor, ns.

LS: cm/lt bm, micro-m xtal, some chalky, some silty, some cm/lt bm chert, foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk, silty, slit carb, soft-firm.

SH: m gry/blk/brn/red-bm, some vry silty/sndy, slit carb, soft-firm.

LS: wht/cm/lt-dk bm, micro-m xtal, chalky, wht/cm/lt gry chert, foss frags/min fusin, no vis por, no odor, ns.

LS: wht/cm/lt bm/min lt gry, micro-m xtal, some silty, smpl vry chalky, min wht chert, foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk, some silty, carb, soft-firm.

LS: cm/lt-m bm/gry, micro-m xtal, some chalky, wht/cm/lt bm chert, min pyrite, foss frags/dense dk ool, no vis por, no odor, ns.

LS: cm/lt bm, micro-m xtal, some chalky, foss frags/min crin, no vis por, no odor.

LS: cm/lt-m bm/lt gry, micro-m xtal, chalky, some silty/arg, foss frags, no vis por, no odor, ns.

SH: dk gry/blk/some bm speckled, silty, fusin, carb, soft-firm, fissile.

LS: cm/lt-dk bm, micro-m xtal, some chalky, some silty/arg, foss frags/min ool, no vis por, no odor, ns.

LS: cm/lt-m bm/lt gry, micro-m xtal, smpl vry chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/blk, some vry silty, carb, soft-firm.

LS: cm/lt-m bm/lt-m gry, micro-m xtal, chalky, some silty/sndy/arg, foss frags, no vis por, no odor, sfo.

SH: m-dk gry/blk/blk w/brn specks/lt green-gry/maroon/mustard yel, vry silty, slit carb, soft-firm.

LS: cm/lt bm/lt-m bm-gry, micro-m xtal, some chalky, some silty, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/dk brn/lt-m gry-green, some vry silty/sndy, carb, soft-firm.

LS: cm/lt-m bm, micro-m xtal, chalky, min glauc, foss frags, no vis por, no odor, ns.

LS: wht/cm/lt-m bm/lt gry, micro-m xtal w/some 2ndry, some chalky, min glauc, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/red-brn/lt gry-green, vry silty, carb, firm.

SS: lt gry/lt gry-brn, fcrs grained, sr-wr, pred qtz, carb matrix, some hard non-friable, some friable, no odor, ns.

SH: m-dk gry/red-brn/mustard yel, some vry silty, carb, soft-firm.

SS: wht/lt gry/lt green/mustard yel, vf-crs, sr-wr, pred qtz, arg, slit carb, some hard non-friable, mostly friable, no odor, ns.

LS: cm/lt-m brn/lt gry, micro-m xtal, some chalky, silty/sndy, some dolomitic, wht tripolitic chert/orange chert, no vis por, no odor, ns.

LS: wht/cm/lt brn/lt gry, vf-m xtal, chalky, sandy, no vis por, no odor, ns. SH flood, multicolor.

LS: cm/lt yel/red specks, vf-m xtal, chalky, sndy, ool, no vis por, no odor, ns.

LS: wht/cm/min lt gry, vf-m xtal, chalky, some sandy, min opaque chert, ool, no vis por, no odor, ns.

LS: wht/cm/lt bm, vf-m xtal, chalky, some sndy, min wht chert, some ool, no vis por, no odor, ns.

LS: wht/cm/lt bm/lt yel, vf-m xtal, chalky, some sndy, some dolomitic, wht/cm chert, some ool, no vis por, no odor, ns.

CFS @ 4400'
Stop/30"/60"

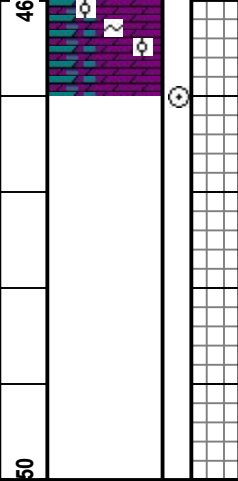
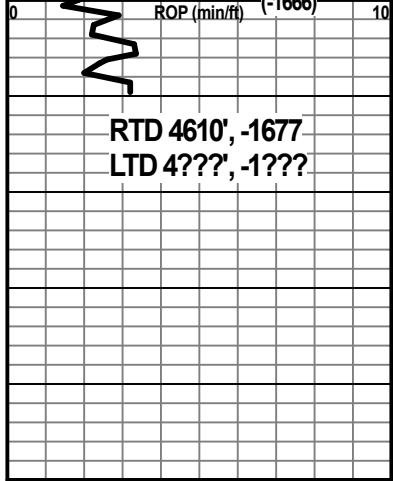
CFS @ 4440'
Stop/30"/60"

CFS @ 4470'
Stop/30"/60"

CFS @ 4500'
Stop/30"/60"

CFS @ 4537'
Stop/30"/60"

CFS @ 4554'
Stop/30"/60"



Dolo: lt-m bm, vf-f xtal, sucrosic, sndy, some ool, min glauc, ppt-m in-xtal por, no odor, ns.

TD @4610'

CFS @ 4610'
Stop/30"/60"
Conducted 10 std short trip,
CTCH 1.5 Hrs, then TOH for
logging.

Quasar Energy Services, Inc.
 3288 FM 51
 Gainesville, TX 76240

RECEIVED
 MAY 01 2023

Invoice

Date	Invoice #
4/26/2023	151111

Bill To
Shakespeare Oil Company Inc 202 West Main Street Salem, IL 62881

As of 09/22/2015 any invoice with a discount must be paid within 60 days of the invoice date. After 60 days the discount will be removed and the invoice will reflect the full price.

Well

DW Comm 1-27

Description	Quantity	Rate	Amount
Mileage-Pickup	150	5.58	837.00
Mileage-Equipment Mileage	300	8.72	2,616.00
Pumping Service Charge -2	1	3,307.50	3,307.50
Cement-Class A (LB)	240	21.54	5,169.60
C-41L Defoamer Liquid	3	48.63	145.89

Total	\$12,075.99
Payments/Credits	\$0.00
Balance Due	\$12,075.99

All accounts are past due net 30 days following the date of invoice. A finance charge of 1.5% per month or 18% annual percentage rate will be charged on all past due accounts.



QUASAR ENERGY SERVICES, INC.

3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com



FRACTURING | ACID | CEMENT | NITROGEN

BID #: 7138	AFE#/PO#: 0	
TYPE / PURPOSE OF JOB: PLUG/PTA		SERVICE POINT: Liberal, KS
CUSTOMER: Shakespeare Oil Company Inc.		WELL NAME: DW Comm 1-27
ADDRESS: 202 West Main Street		LOCATION: Oakley, Ks.
CITY: Salem	STATE: Illinois	ZIP: 62881
	COUNTY: Gove	STATE: KS

DATE OF SALE		4/13/2023					
QTY.	CODE	YD	UNIT	PUMPING AND EQUIPMENT USED	UNIT PRICE	AMOUNT	
150	1000	L	Mile	Mileage - Pickup - Per Mile	\$5.58	\$ 837.00	
300	1010	L	Mile	Mileage - Equipment Mileage - Per Mile	\$8.72	\$ 2,616.00	
1	5623	L	Per Well	Pumping Service Charge -2	\$3,307.50	\$ 3,307.50	
Subtotal for Pumping & Equipment Charges						\$ 6,760.50	

QTY.	CODE	YD	UNIT	MATERIALS	UNIT PRICE	AMOUNT	
240	5635	L	Per Sack	Cement - Class A (LB)	\$21.54	\$ 5,169.60	
3	5751	L	Per Gal.	C-41L Defoamer Liquid	\$48.63	\$ 145.89	
Subtotal for Material Charges						\$ 5,315.49	

MANHOURS: 12	# WORKERS: 3			TOTAL	\$	12,075.99
WORKERS				DISCOUNT:	0%	DISCOUNT
Daniel Beck				DISCOUNTED TOTAL		
Danny McLane				\$ 12,075.99		
Miguel Mercado						

STAMPS & NOTES:

As of 9/22/15 any invoice with a discount must be paid within 60 days of the invoice date. After 60 days the discount will be removed and the invoice will reflect full price.

CUSTOMER SIGNATURE & DATE

Signature: *X Heeta Jaw* Date: _____

**All accounts are past due net 30 days following the date of invoice. A finance charge of 1 1/2% per month or 18% annual percentage rate will be charged on all past due accounts.

Print Name: *X Heeta Jaw*



QUASAR ENERGY SERVICES, INC.

3288 FM 51
 Gainesville, Texas 76240
 Office: 940-612-3336
 Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2N.2

4/13/23
 CEMENTING JOB LOG

CEMENTING JOB LOG

Company: Shakespeare Oil Company Inc.			Well Name: DW Comm 1-27			
Type Job: PLUG/PTA			AFE #:			
CASING DATA						
Size:	8 5/8	Grade:		Weight:		
Casing Depths	Top:	Bottom:				
Drill Pipe:	Size: 4 1/2	Weight:		Plugs:	2475, 1525, 275, 40, Rat	
Open Hole:	Size: 7 7/8	T.D. (ft):		Hole:		
CEMENT DATA						
Spacer Type:						
Amt.		Sks Yield	0	ft³/sk	Density (PPG)	
LEAD:					Excess	
Amt.		Sks Yield	0	ft³/sk	Density (PPG)	
TAIL:	Class A: 60/40/4				Excess	
Amt.	240	Sks Yield	360	ft³/sk	1.5	
					Density (PPG) 13.5	
WATER:						
Lead:		gals/sk:		Tail: 240	gals/sk: 7.5	
				Total (bbls):	42.9	
Pump Trucks Used:	04, DP03					
Bulk Equipment:	227, 660-25					
Disp. Fluid Type:	Mud	Amt. (Bbls.)	31.7, 15.1	Weight (PPG):	9.3	
COMPANY REPRESENTATIVE:			CEMENTER: Daniel Beck			
TIME AM/PM	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
	Casing	Tubing	ANNULUS	TOTAL	RATE	
20:00						ON LOCATION & SAFETY MEETING RIG UP
21:17		250		13.3slurry	4.2	PUMP 50SX TAIL @ 13.5# / 2475'
21:21				31.7		DISPLACE W/ 31.7BBL
21:24						SHUTDOWN
21:58		100		26.7slurry	4.2	PUMP 100SX TAIL @ 13.5# / 1525'
				15.1		DISPLACE W/ 15.1BBL
22:09						SHUTDOWN
22:52		200		13.3slurry	4.2	PUMP 50SX TAIL @ 13.5# / 275'
22:57						SHUTDOWN
23:48				2.6slurry		PUMP 10SX TAIL @ 13.5# / 40'
23:50						SHUTDOWN / CEMENT TO SURFACE
23:52				5.3slurry		PLUG RAT HOLE W/ 30SX
						JOB COMPLETE
Company:	Shakespeare Oil Company Inc.			Well Name:	DW Comm 1-27	
Type Job:	PLUG/PTA			AFE #:		
Date:	4/13/2023	CEMENTING JOB LOG		QUASAR ENERGY SERVICES, INC. 185-2		