

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

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

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

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

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

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

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

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

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

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

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

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

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

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

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

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

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

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

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

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

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

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

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

Spud Date or Date Reached TD Completion Date or Recompletion Date

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

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

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

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

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

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

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

Datum:  NAD27  NAD83  WGS84

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

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

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

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

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

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

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

Multiple Stage Cementing Collar Used?  Yes  No

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

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

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

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

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

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

Location of fluid disposal if hauled offsite:

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

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

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

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

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

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

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

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

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

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 4-10
Doc ID	1718813

All Electric Logs Run

Neutron/Density
Dual Induction
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 4-10
Doc ID	1718813

Tops

Name	Top	Datum
Anhydrite	2240	+537
Heebner	3764	-987
Lansing	3802	-1025
Muncie Creek	3972	-1198
Stark Shale	4066	-1289
Hushpuckney	4100	-1323
Pawnee	4276	-1499
Johnson	4402	-1625
Mississippian	4497	-1720
Arbuckle	4978	-2201



# SWIFT



Services, Inc.

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



## Invoice

DATE	INVOICE #
5/23/2023	36206

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

RECEIVED

MAY 30 2023

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#4-10	Ottley	Logan	Duke Drlg Rig #4	Oil	Development	Cement Surface	Jonathan
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	8.00	640.00
576D-S	Pump Charge - Shallow Surface (< 500 Ft.)				1	Job	1,200.00	1,200.00
290	D-Air				2	Gallon(s)	42.00	84.00T
325	Standard Cement				170	Sacks	16.00	2,720.00T
278	Calcium Chloride				8	Sack(s)	55.00	440.00T
279	Bentonite Gel				6	Sack(s)	50.00	300.00T
276	Flocele				42	Lb(s)	4.00	168.00T
581D	Service Charge Cement				170	Sacks	2.00	340.00
583D	Drayage				667.2	Ton Miles	1.00	667.20
	Subtotal							6,559.20
	Sales Tax Logan County						8.00%	296.96
<b>We Appreciate Your Business!</b>							<b>Total</b>	\$6,856.16

502-5 9



CHARGE TO: Shakespeare Oil Co  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET 36206  
 PAGE 1 OF 1

SERVICE LOCATIONS  
 1. Hays, KS  
 2. Ness City, KS  
 3.  
 4.

WELL/PROJECT NO. 4-10  
 LEASE Ottley  
 COUNTY/PARISH Laurel  
 STATE KS  
 CITY Laurel  
 DATE 05/23/23  
 ORDER NO. Same  
 OWNER

TICKET TYPE  
 SERVICE  
 SALES

CONTRACTOR Duke Drilling  
 RIG NAME/NO. Rig 4  
 SHIPPED VIA CT  
 DELIVERED TO Laurel  
 WELL PERMIT NO.

WELL TYPE Oil  
 WELL CATEGORY Development  
 JOB PURPOSE Cement Surface  
 WELL LOCATION

INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE #110	81	mi			8.00	648.00
576.5		1			Pump Charge	1	EA			1200.00	1200.00
298		1			D-Air	2	gal			42.00	84.00
325		2			Standard Cement	178	SKS			16.00	2728.00
270.8		2			Calcium Chloride	8	SKS			55.00	440.00
279		2			Bentonite Gel	6	SKS			50.00	300.00
276		2			Flasche	42	lbs			4.00	168.00
581		2			Service Charge Cement	178	SKS			2.00	340.00
583		2			Drillage	1667.2	FM			1.00	1667.20

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 \_\_\_\_\_  A.M.  P.M.

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

SURVEY  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 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?  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 6,559.00  
 TOTAL 6856.16

Signature: Hogan 291696

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

SWIFT OPERATOR [Signature] APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE: 05/23/23 PAGE NO. 1

CUSTOMER: Shakespeare Oil WELL NO.: 4-10 LEASE: Ottley JOB TYPE: Surface TICKET NO.: 36205

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							On location, set tight location, wait for welder to move
								256' of 8 5/8" x 23# 11' Landing Joint Set at 2166'
	2015							Break Circulation Hook up to Swift Pump Water ahead Pump Cement
	2045	3 1/2	5					Pump Cement Start Displacement
		3 1/2	42					Cement Circulating to Surface
		3 1/2	10					Finish Displacement, Shut Down
	2100	3 1/2	15 3/4					Shut in, Release truck
	2105							Wash up
	2120							Rack up
	2130							Job Complete
								Thanks Jon, Joe + Brett





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



# Invoice

DATE	INVOICE #
6/1/2023	36071

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

**RECEIVED**  
Acidizing  
Cement  
Tool Rental

JUN 09 2023

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#4-10	Ottley	Logan	Duke Drlg	SWD	Development	5/1/2 Longstring	Preston
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	8.00	640.00
578D-L	Pump Charge - Long String				1	Job	1,700.00	1,700.00
325	Standard Cement				235	Sacks	16.00	3,760.00T
279	Bentonite Gel				4	Sack(s)	50.00	200.00T
283	Salt				1,300	Lb(s)	0.25	325.00T
292	Halad 322				100	Lb(s)	9.00	900.00T
276	Flocele				50	Lb(s)	4.00	200.00T
290	D-Air				5	Gallon(s)	42.00	210.00T
281	Mud Flush				500	Gallon(s)	2.50	1,250.00T
221	Liquid KCL (Clayfix)				2	Gallon(s)	25.00	50.00
581D	Service Charge Cement				235	Sacks	2.00	470.00
583D	Drayage				958	Ton Miles	1.00	958.00
	Subtotal							10,663.00
	SWD &/Or InJection Well, Exempt From Sales Tax						0.00%	0.00

502-5 9

**We Appreciate Your Business!**

**Total** \$10,663.00

DW



TICKET 36071

CHARGE TO: Shakespear  
 ADDRESS  
 CITY, STATE, ZIP CODE

PAGE 1 OF 1

SERVICE LOCATIONS  
 1. Ness City  
 2.  
 3.  
 4.

WELL/PROJECT NO. 4-10  
 LEASE Ohley  
 COUNTY/PARISH Logan  
 STATE KS  
 CITY Logan  
 DATE 6-1-23  
 OWNER

TICKET TYPE  SERVICE  SALES  
 CONTRACTOR Duke  
 RIG NAME/NO.  
 SHIPPED VIA ST  
 DELIVERED TO location  
 ORDER NO.

WELL TYPE SWD  
 WELL CATEGORY Development  
 JOB PURPOSE long strike 5 1/2"  
 WELL PERMIT NO.  
 WELL LOCATION Ohley 19-5

REFERRAL LOCATION  
 INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	LOC	ACCOUNTING		DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
			ACCT	DF							
575		1			MILEAGE Truck 112	80	mi.			8.00	640.00
578		1			Pump charge (long strike)	1	DBL			1700.00	1700.00
325		1			STD cement	235	SSK			16.00	3760.00
279		1			Anchorite Gel	4	SSK			50.00	200.00
283		1			Salt	1300	lbs			0.25	325.00
292		1			Halad 322	100	lbs			9.00	900.00
276		1			Flocore	50	lbs			4.00	200.00
290		1			D-Air	5	gal			42.00	210.00
281		1			MudFlush	500	gal			2.50	1250.00
221		1			Liquid KCL	2	gal			250.00	500.00
581		1			CMT Service charge	235	SSK			2.00	470.00
583		1			Drayage	235	gal			1.00	235.00

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MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.  
**X**  
 DATE SIGNED \_\_\_\_\_ TIME SIGNED \_\_\_\_\_  
 A.M.  P.M.

**REMIT PAYMENT TO:**  
**SWIFT SERVICES, INC.**  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

**SURVEY**  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  YES  NO  
 WE UNDERSTOOD AND MET YOUR NEEDS?  YES  NO  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?  YES  NO  
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  YES  NO  
 ARE YOU SATISFIED WITH OUR SERVICE?  YES  NO  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 10663.00  
 TOTAL 11163.00

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 SWIFT OPERATOR Robert Allee APPROVAL \_\_\_\_\_  
 Thank You!

# SWIFT Services, Inc.

DATE 6-1-23	PAGE NO. 1
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**JOB LOG**

CUSTOMER <i>Shakespeare</i>		WELL NO. <i>4-10</i>		LEASE <i>Ottley</i>		JOB TYPE <i>long string test</i>		TICKET NO. <i>36071</i>	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
<i>6-1</i>	<i>22:00</i>								<i>ON location</i> <i>5 1/2" 15.5#</i> <i>PC 2212' shoe 42.53'</i> <i>TD 5030' set @ 4968.71'</i>
	<i>23:10</i>								<i>circulate</i>
<i>6-2</i>	<i>00:15</i>								<i>drop brass ball</i>
	<i>00:30</i>						<i>1000</i>		<i>set packer shoe</i>
	<i>00:35</i>	<i>4 1/2</i>	<i>12</i>				<i>300</i>		<i>mud flush</i>
		<i>4 1/2</i>	<i>20</i>				<i>300</i>		<i>liquid KCL spacer</i>
	<i>00:45</i>	<i>7</i>	<i>7</i>						<i>plug RH 305KS,</i>
	<i>00:50</i>		<i>50</i>						<i>mix 205KS @ 14.8ppg</i>
	<i>01:10</i>								<i>w/o pump lines + Release plug</i>
	<i>01:15</i>	<i>6 1/2</i>	<i>-0-</i>				<i>200</i>		<i>start displacement</i>
			<i>80</i>				<i>400</i>		<i>lift pressure</i>
		<i>4 1/2</i>	<i>116</i>				<i>1000</i>		<i>max lift</i>
	<i>01:35</i>		<i>117</i>				<i>1750</i>		<i>load plug hold &amp; and Release psi</i>
	<i>01:45</i>								<i>Wash pump truck</i>
	<i>02:15</i>								<i>Job complete</i> <i>Thanks!</i> <i>Preston, Kirby, John</i>



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co INC

**10-14S.-32W. Logan,KS**

202 W Main St  
Salem, IL 62881

**Ottley #4-10**

Job Ticket: 70225

**DST#: 1**

ATTN: Kent Matson

Test Start: 2023.05.29 @ 01:00:00

## GENERAL INFORMATION:

Formation: **Marmaton B & C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:08:00

Time Test Ended: 07:25:50

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 82

**Interval: 4210.00 ft (KB) To 4260.00 ft (KB) (TVD)**

Reference Elevations: 2777.00 ft (KB)

Total Depth: 4260.00 ft (KB) (TVD)

2766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8734 Outside**

Press@RunDepth: 30.25 psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.05.29

End Date:

2023.05.29

Last Calib.:

2023.05.29

Start Time: 01:00:01

End Time:

07:25:50

Time On Btm:

2023.05.29 @ 03:07:50

Time Off Btm:

2023.05.29 @ 04:08:40

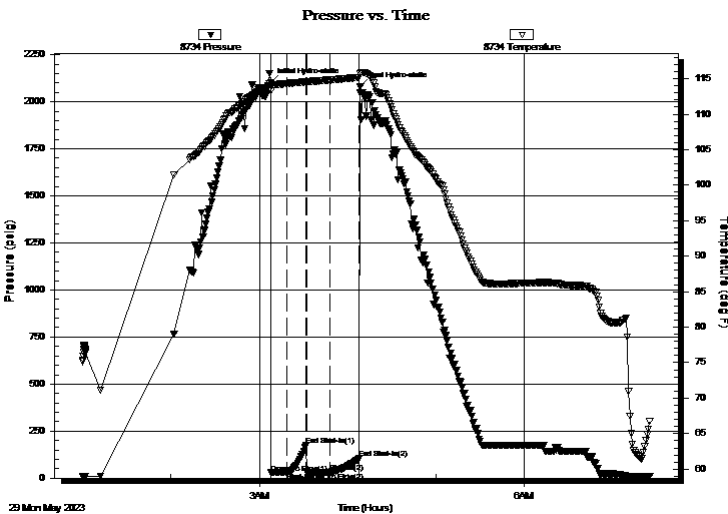
TEST COMMENT: 10-IF-Blow built to 3/4"

15-ISI-No return

15-FF-No blow

15-FSI-No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2099.23	114.42	Initial Hydro-static
1	28.15	113.35	Open To Flow (1)
12	29.39	114.33	Shut-In(1)
24	176.03	114.56	End Shut-In(1)
25	29.81	114.53	Open To Flow (2)
40	30.25	114.81	Shut-In(2)
60	103.93	115.18	End Shut-In(2)
61	2081.88	115.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co INC

**10-14S.-32W. Logan,KS**

202 W Main St  
Salem, IL 62881

**Ottley #4-10**

Job Ticket: 70225

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Total Depth: 4260.00 ft (KB) (TVD)

2766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8959 Inside**

Press@RunDepth: psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.05.29

End Date:

2023.05.29

Last Calib.:

2023.05.29

Start Time: 01:00:01

End Time:

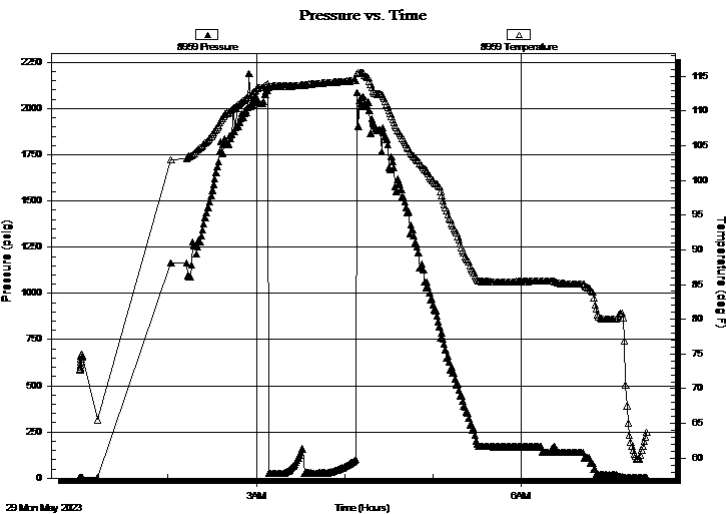
07:25:50

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 10-IF-Blow built to 3/4"  
15-ISI-No return  
15-FF-No blow  
15-FSI-No return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Shakespeare Oil Co INC

**10-14S.-32W. Logan,KS**

202 W Main St  
Salem, IL 62881

**Ottley #4-10**

Job Ticket: 70225

**DST#: 1**

ATTN: Kent Matson

Test Start: 2023.05.29 @ 01:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

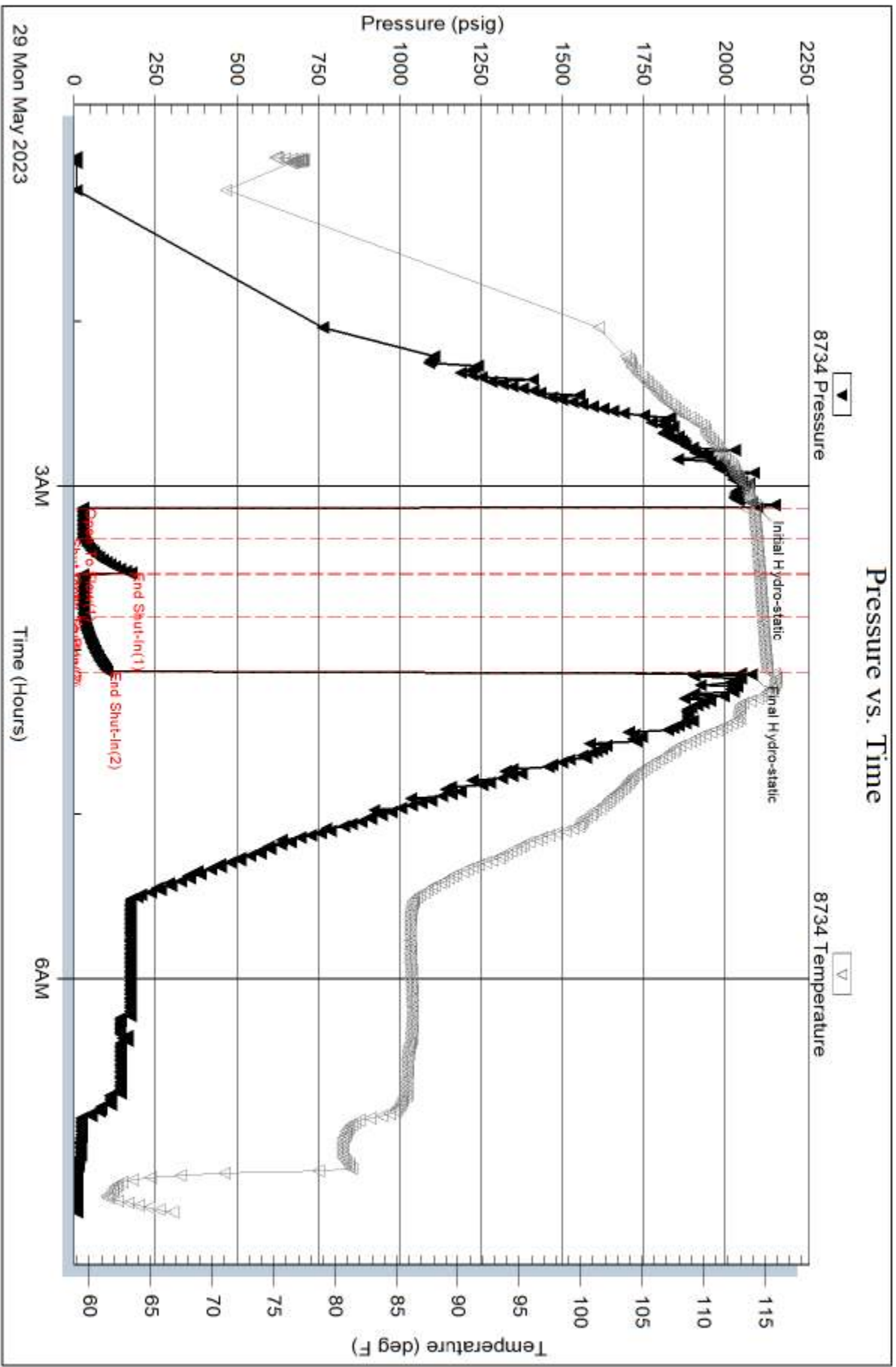
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



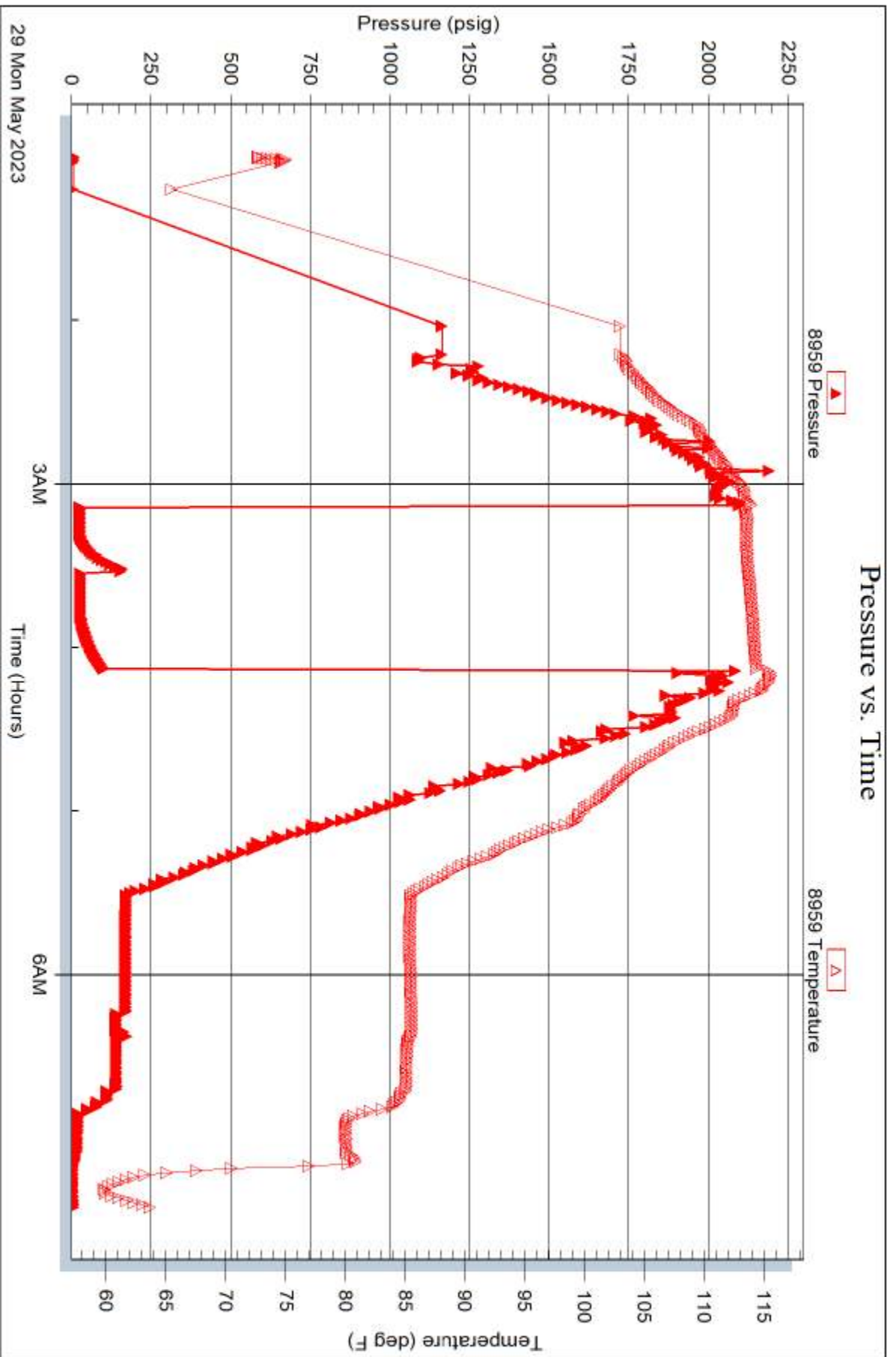
Serial #: 8959

Inside

Shakespeare Oil Co INC

Otley #4-10

DST Test Number: 1







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

**Well Name:** OTTLEY  
**Well Id:** #4-10  
**Location:** 513' FSL, 1612' FEL, SE/4 Sec 10-T14S-R32W, Logan County, Kansas  
**License Number:** API: 15-109-216667 **Region:** Logan County  
**Spud Date:** 05/23/2023 **Drilling Completed:** 05/31/2023  
**Surface Coordinates:** NAD83  
**Lat:** 38.8455312, **Long:** -100.8596687  
**Bottom Hole Coordinates:** Vertical hole  
**Ground Elevation (ft):** 2768' **K.B. Elevation (ft):** 2777'  
**Logged Interval (ft):** 3600' **To:** RTD **Total Depth (ft):** 5030'  
**Formation:** Arbuckle at RTD  
**Type of Drilling Fluid:** Chemical

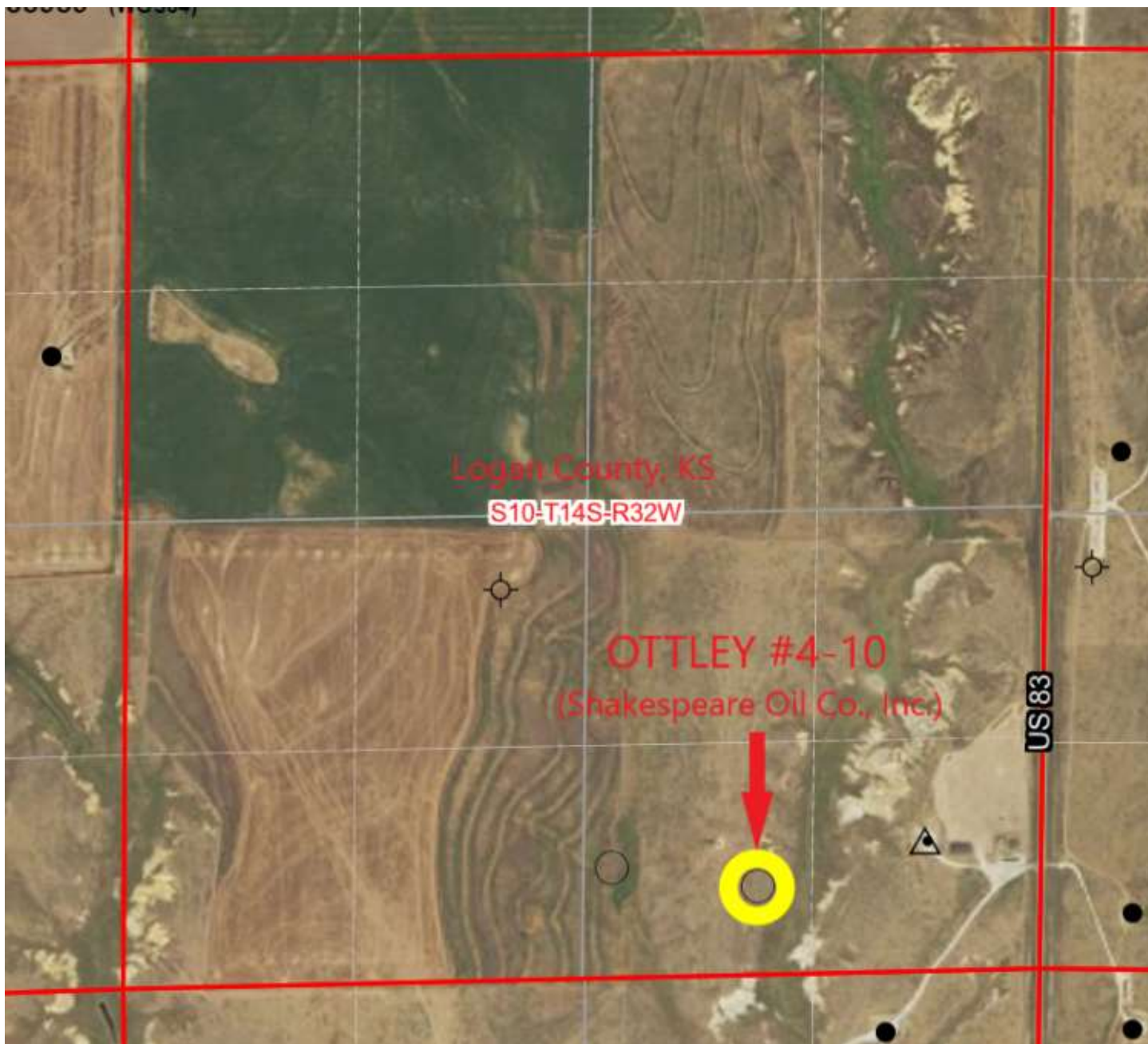
Printed by MudLog from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

**OPERATOR**

**Company:** SHAKESPEARE OIL COMPANY, INC.  
**Address:** 202 West Main Street  
Salem, IL 62881  
618-548-1585

**WELLSITE GEOLOGIST**

**Name:** Kent R. Matson  
**Company:** Matson Geological Services, LLC  
**Address:** 33300 W. 15th Street S.  
Garden Plain, Kansas 67050  
316-644-1975; [kent4m@hotmail.com](mailto:kent4m@hotmail.com)



#### COMMENTS

Shakespeare Oil Company, Inc., Geologist: Toby Eck, 316-305-0572 (cell).

Contractor: Duke Drilling Company, Inc.: Rig #4.

Tool Pusher: Hector Torres, 620-682-3927 (cell).

Surface Casing: 8 5/8" set at 266' (KB) w/170sx cement.

Production Casing: Based on field observations of drill cuttings, DST results and electric log evaluation, 5.5" production casing was installed and the well was completed as a salt water disposal (SWD) well in the Arbuckle formation.

Mud by: Mud-Co/Service Mud, Inc., Reid Atkins, 785-694-3741 (cell).

DST's by: Trilobite Testing, Martine Salinas, 785-639-2040 (cell).

Logs by: ELI Wireline (DI w/GR, CND, Micro, Sonic), Jeff Luebbbers, 785-625-3858 (office).

RTD= 5030'

LTD= 5030'

## FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Heebner Shale	3764'	-987	3763'	-986
Lansing	3802'	-1025	3802'	-1025
Muncie Creek Shale	3972'	-1195	3970'	-1193
Stark Shale	4066'	-1289	4063'	-1286
Hushpuckney Shale	4100'	-1323	4096'	-1319
Base of KC	4130'	-1353	4130'	-1353
Marmaton	4182'	-1405	4184'	-1407
Pawnee	4276'	-1499	4274'	-1497
Myrick Station	4310'	-1533	4308'	-1531
Fort Scott	4333'	-1556	4330'	-1553
Cherokee Shale	4361'	-1584	4359'	-1582
Johnson	4402'	-1625	4404'	-1627
Morrow	4434'	-1657	4434'	-1657
Mississippian	4552'	-1775	4552'	-1775
Spergen	4576'	-1799	4574'	-1797
Arbuckle	4978'	-2201	4974'	-2197
RTD	5030'	-2253		
LTD			5030'	-2253

## ROCK TYPES

### LITHOLOGY

	Anhy
	Cht
	Coal
	Congl
	Dol
	Gyp
	Lmst
	Salt
	Shale
	Shcol
	Shgy
	Sltst
	Ss
	Carb sh
	Dol
	Dtd
	Gry sh
	Sandy lms
	Shale
	Sltstn
	Shlyslts

	Sitysh
	Sdy dolo
	Silty dolo
	Shy dolo
	Shaly ls

### FOSSIL

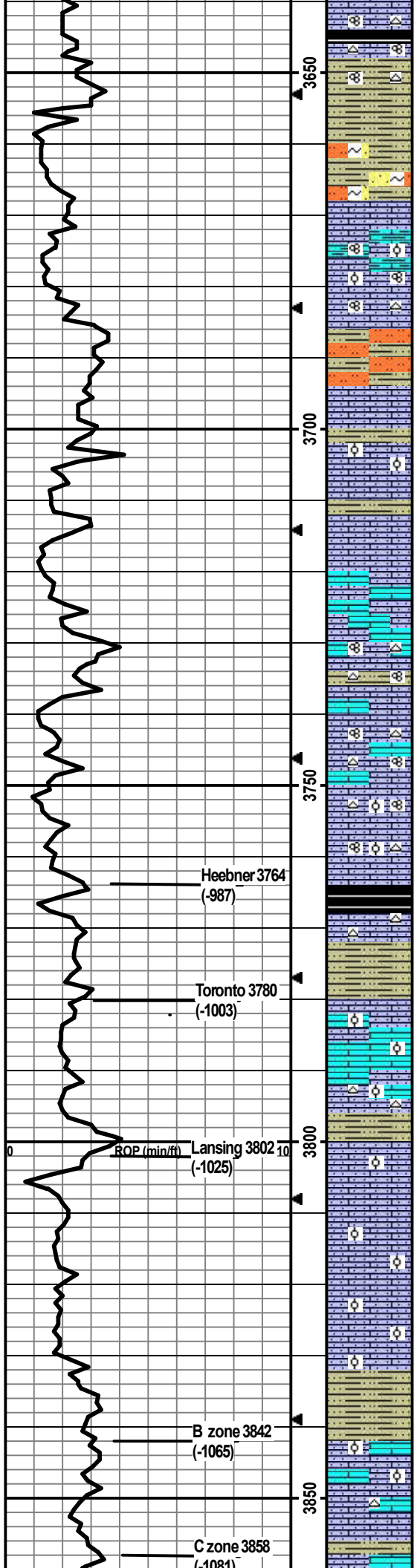
	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite

### MINERAL

	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom
	Fuss
	Oomold
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar

	Ferrpel
	Ferr
	Glau
	Gyp
	Hvymn
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Chlorite
	Dol
	Sand
	Silty

Rate of Penetration (ROP) ROP (min/ft)	DEPTH	Lithology	CFS Point	Oil Shows	Geological Descriptions	Remarks
	<p>0</p> <p>10</p> <p>34</p> <p>3500</p> <p>3550</p> <p>3600</p>				<p><b>Morning Report Depth/Activity (7:00 am)</b></p> <p>05/23/2023: MIRU, Spud; set surface casing @ 266'KB.</p> <p>05/24: Drilling @ 500'.</p> <p>05/25: Drilling @ 2400'.</p> <p>05/26: Drilling @ 3520'.</p> <p>05/27: Drilling @ 3875'.</p> <p>05/28: Short Trip @ 4120'.</p> <p>05/29: TOH w/tool for DST #1 @ 4260'.</p> <p>05/30: Drilling @ 4435'.</p> <p>05/31: TOH for Wiper Trip @ 4760'. TD 11:52pm @ 5030'.</p> <p>06/01: Electric logging.</p> <p><b>Anhydrite:</b>  <b>Drill Time (ROP) Top @ 2237' (+540), Base @ 2262' (+515).</b>  <b>E-log Top @ 2241' (+536), Base @ 2262' (+515).</b></p> <p>Geologist on location @ 3621', 05/26/2023.</p> <p>ROP Data begins @ 3550' on 05/26/2023. Recorded from drillers geograph record, and geologist's auto-reader switch on geograph.</p> <p>←←←←← Oil Shows indicator: Left Block 0-10 tray pcs w/show, Middle Block 10-20 tray pcs w/show, Right Block 20+ tray pcs w/show</p> <p><b>NOTE: RED TEXT INDICATES THE PRESENCE OF OIL.</b></p> <p>Formation tops and lithologies have been adjusted to correlate to the electric log.</p> <p>Drill cutting samples at 10' intervals start at 3600'.</p> <p>SH: lt-m gry/red-bm/orange-bm/lt gry-green, some vry silty, carb, soft-firm.</p> <p>LS: cm/lt-m bm/lt-m gry, vf-m xtal, silty/sndy, chalky, foss frags, no vis por, no odor, ns.</p> <p>LS: cm/lt-m bm/min lt gry, vf-m xtal, silty/sndy, chalky, foss frags/grainy, ppt-vf in-xtal por, no odor, ns.</p> <p>LS: cm, vf-m xtal, silty/sndy, chalky, wht/crm chert, foss frags/grainy, some ppt-vf in-xtal por, no odor, ns.</p> <p>LS: cm/lt bm/lt gry mottling, micro-m xtal, vry silty/sndy, some chalky, wht/crm chert, foss frags/min ool, no vis por, no odor, ns.</p>	<p>Mud-Co/Service Mud Inc. Check #1 @ 0' 05/23/23, predrilling instructions.</p> <p>Mud-Co/Service Mud Inc. Check #2 @ 1979' 05/25/23 02:30am wt vis pH chl 9.1 28 7.5 130 Filt LCM n/c 0</p> <p><b>Displaced drilling mud @ 3419'.</b></p> <p>Mud-Co/Service Mud Inc. Check #3 @ 3426' 05/26/23 04:20am wt vis pH chl 8.6 48 11.5 1200 Filt LCM 6.4 2</p> <p><b>Bit Trip @ 3621' connection:</b>  <b>Replaced PDC bit w/tricone bit.</b></p> <p><b>Pipe strap TOH for bit trip at 3621' was 1.01' short to the board.</b></p> <p>Mud-Co/Service Mud Inc. Check #4 @ 3879' 05/27/23 07:00am wt vis pH chl 9.1 57 11.0 1500 Filt LCM 6.8 2</p> <p>Mud-Co/Service Mud Inc. Check #5 @ 4120' 05/28/23 08:00am wt vis pH chl 9.1 52 11.5 1600 Filt LCM 7.2 2</p> <p>Mud-Co/Service Mud Inc. Check #6 @ 4260' 05/29/23 07:30am wt vis pH chl 9.3 54 10.5 2500 Filt LCM 8.0 2</p> <p>Mud-Co/Service Mud Inc. Check #7 @ 4440' 05/30/23 08:00am wt vis pH chl 9.1 52 11.0 2200 Filt LCM 6.4 3</p> <p>Mud-Co/Service Mud Inc. Check #8 @ 4760' 05/31/23 08:00am wt vis pH chl 9.2 63 10.0 2500 Filt LCM 7.2 6</p> <p>Mud-Co/Service Mud Inc. Check #9 @ 5030' 06/01/23 07:30am wt vis pH chl 9.4 59 10.0 3000 Filt LCM 7.6 7</p>



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

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

SH: lt-dk gry, vry silty/sndy, carb, soft-firm. Slstn/SS: lt-m gry, vf-f, qtz, arg, carb, glauc, hard, friable, no odor, ns.

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

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

SH: lt-m gry/lt-m bm, vry silty/sndy, carb, firm. Slstn: lt bm, vf, arg, carb, firm, friable.

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

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

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

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

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

LS: cm/lt-m bm/gry mottling, vf-m xtal, vry silty/sndy, chalky, wht/cm chert, foss frags/grainy/fusln/ool, vf-m in-xtal/fusln por, no odor, ns.

SH: dk gry/blk, slt carb, firm, no odor, ns.

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

SH: lt-m gry/lt bm, vry silty/sndy, slt carb, soft.

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

LS: cm, micro-m xtal, some silty/sndy, vry chalky, wht/cm chert, foss frags/ool, no vis por, no odor, ns.

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

LS: cm/min lt gry, vf-f xtal, silty/sndy, chalky, foss frags/min ool, min vf-f in-xtal por, no odor, ns.

LS: cm/lt bm, vf-m xtal, silty/sndy, vry chalky, foss frags/ool, some m-crs oo-castic por, no odor, ns.

LS: cm, vf-m xtal, silty/sndy, vry chalky, foss frags/dense ool, no vis por, no odor, ns.

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

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

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

LS: cm, micro-m xtal, some silty/sndy, chalky, min cm chert, foss frags, min vf-f in-xtal por, no odor, ns.

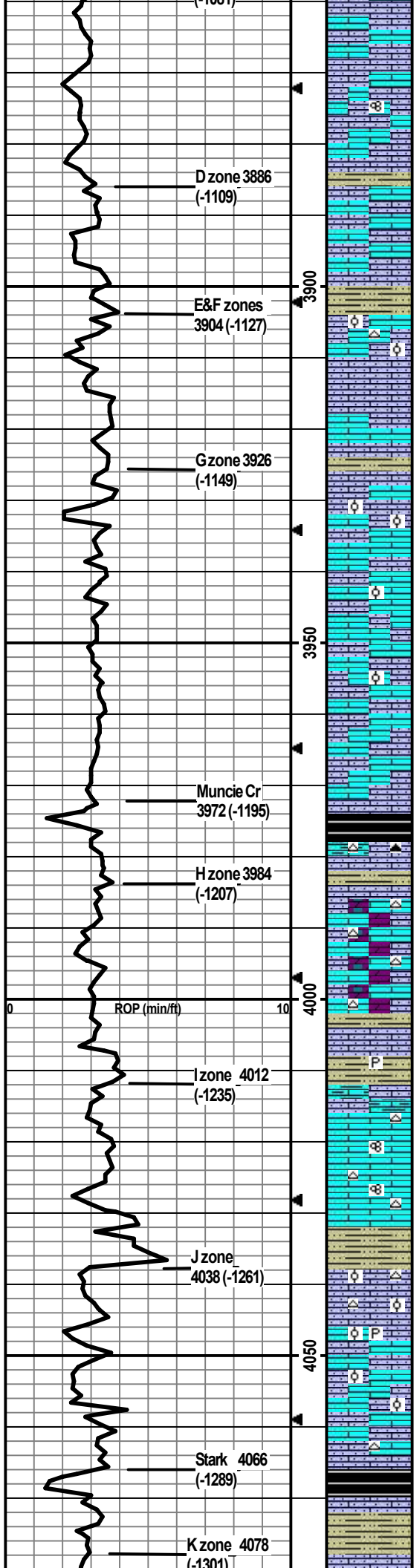
**Survey Record  
Deg @ Ft**

0.75 @ 266'  
0.75 @ 2463'  
0.00 @ 3600'  
0.75 @ 5030'

CFS @ 3790'  
Stop/30"/60"

CFS @ 3830'  
Stop/30"/60"

CFS @ 3850'  
Stop/30"/60"



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

CFS @ 3870'  
Stop/30"/60"

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

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

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

CFS @ 3895'  
Stop/20"/40"

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

CFS @ 3910'  
Stop/20"/40"

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

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

SH: m-dk gry, silty, carb, soft.

LS: cm/lt bm, micro-m xtal, chalky, some sndy ool, some f-vf in-xtal por w/m-crs oo-castic por, no odor, ns.

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

LS: same as above, no odor, ns.

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

SH: blk, silty, carb, firm.

CFS @ 3980'  
Stop/30"/60"

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

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

LS: cm/lt-m bm, micro-m xtal, some silty/sndy, some chalky, some dolomitic, wht chert, foss frags, min vf-f in-xtal por, no odor, ns.

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

SH: lt-m gry/green-gry/red-bm, some vry silty/sndy, carb, min pyrite, soft-firm.

LS: wht/cm/lt-m bm/lt gry, micro-m xtal, min silty/sandy/arg, some chalky, min cm chert, foss frags/fushn, min ppt-vf in-xtal por, no odor, ns.

CFS @ 4028'  
Stop/30"/60"

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

LS: cm/lt gry, vf-m xtal, some silty/sndy, some chalky, cm/lt orange ool chert, foss frags/some ool, no vis por, no odor, ns.

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

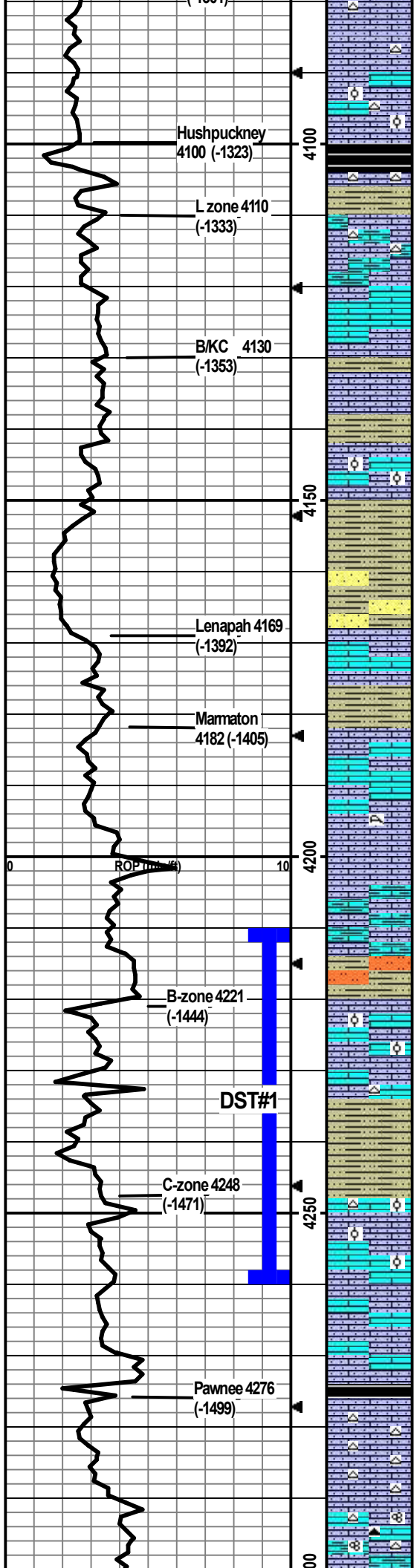
CFS @ 4050'  
Stop/30"/60"

LS: cm/lt bm/lt gry, micro-m xtal, some silty/sndy, some chalky, foss frags/ool, min vf-f in-xtal por w/min m-crs oo-castic por, no odor, ns.

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

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

SH: lt-dk gry, silty, carb, soft.



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

LS: cm/lt bm/lt gry, micro-m xtal w2ndry xtal, some silty/sndy, chalky, min wht/cm chert, foss frags/dense ool, no vis por, no odor, ns.

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

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

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

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

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

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

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

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

SH: lt-dk gry/abund lt-m red-bm, vry silty/sndy, carb, soft.

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

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

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

LS: cm/lt bm/lt gry-bm, micro-m xtal w/crs 2ndry xtals, some silty/sndy, chalky, foss frags, no vis por, no odor, ns.

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

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

SH: lt-dk gry/lt green-gry/red-bm, vry silty/sndy, carb, soft-firm. Slststn: lt-m gry, vf, arg, carb, friable, no odor, ns.

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

LS: cm/lt bm, micro-m xtal, some silty, some chalky, min wht/cm/lt gry chert, min foss frags, 24 pcs w/staining, fo on break, ppt-vf in-xtal por, dul yel fluor, slit odor, sfo.

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

LS: cm/lt-m bm/lt gry, micro-m xtal, silty/sndy, chalky, min wht/lt gry chert, min foss frags/dense ool, 12 pcs w/staining, fo on brk, dul yel fluor, ppt-vf in-xtal por, no odor, sfo.

LS: cm/lt gry/lt bm, micro-m xtal, some silty/sndy, some chalky, foss frags/dense ool, 3 pcs w/staining assume from above, no odor, ns.

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

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

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

LS: cm/lt bm, vf-f xtal, silty, some chalky, abund wht/lt gry chert, foss frags, no vis por, no odor, ns.

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

CFS @ 4090'  
Stop/30"/60"

CFS @ 4120'  
Stop/30"/60"

Conducted 10  
Stand Wiper Trip @  
4120'.

CFS @ 4175'  
Stop/30"/60"

CFS @ 4200'  
Stop/30"/60"

CFS @ 4230'  
Stop/30"/60"

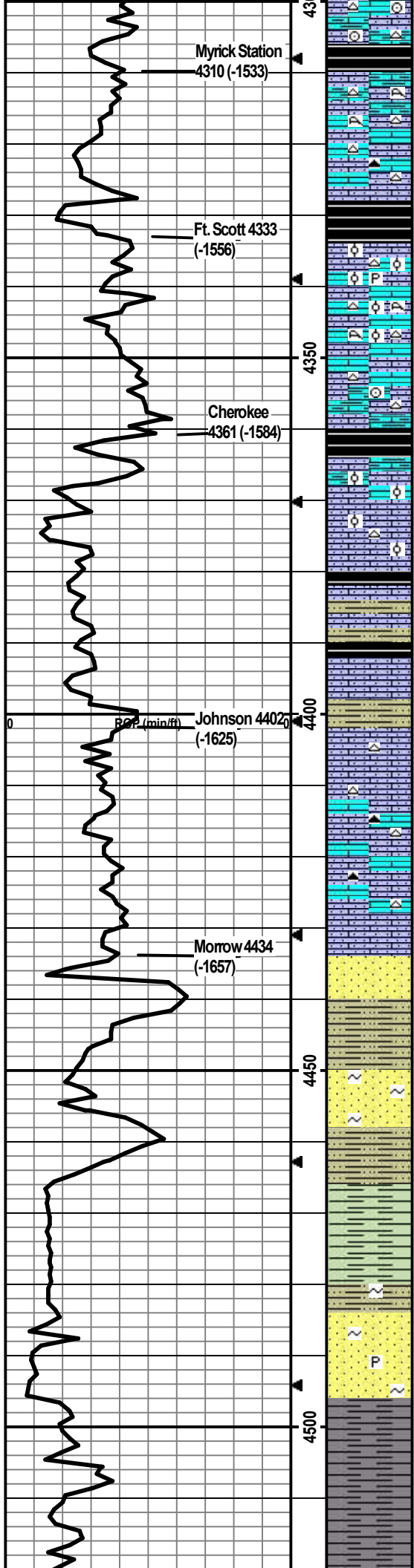
**DST#1) 4210-4260**

**Marmaton B & C**

10/15/15/15  
1st) Blow built to 3/4"; no BB.  
2nd) No Blow; no BB.  
IFP 28-29#  
ISIP 176#  
FFP 30-30#  
FSIP 104#  
HP 2099-2082#  
Recvd: 5" Mud w/oil spots.

CFS @ 4260'  
Stop/30"/60"

CFS @ 4290'  
Stop/30"/60"



LS: cm/lt-m bm/lt-m gry-bm, micro-m xtal, some silty/arg, chalky, lt gry chert, foss frags/crin, no vis por, no odor, ns.  
 SH: dk gry/blk, silty, firm, fissile.  
 LS: cm/lt-m bm, micro-m xtal, some vry silty/sndy/arg, some chalky, wht/lt gry/lt bm chert, foss frags/lattice coral, no vis por, no odor, ns.

LS: cm/lt bm, micro-m xtal, some silty/sndy, some chalky, wht/lt-dk gry chert, foss frags, no vis por, no odor, ns.  
 SH: blk, slt silty, slt carb, firm-hard, fissile.  
 LS: cm/lt-m bm/gry mottling, micro-m xtal, some silty, some chalky, wht chert, pyritic, foss frags/dense ool, no vis por, no odor, ns.

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

LS: cm/lt gry/lt gry-bm, micro-m xtal, some silty/sndy/arg, chalky, lt bm chert, foss frags/crin, no vis por, no odor, ns.  
 SH: m-dk gry/blk/some bm mottling, silty, slt carb, firm.  
 LS: cm/lt-m bm/lt-m gry-bm, micro-m xtal, some vry silty/sndy/arg, some chalky, foss frags/ool, no vis por, no odor, ns.

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

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

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

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

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

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

LS: cm/lt brn/min lt gry, micro-m xtal, some silty/sndy, chalky, foss frags, no vis por, no odor, ns.  
 SS: wht, vf-f, sr-wr, qtz, opaque, clean clusters, min carb matrix, friable, no odor, ns.  
 SH: lt-dk gry/gry-green/dk red-bm/mustard yel, vry silty/sndy, carb, soft-firm. SS.

SS: wht/lt gry/lt-m green, vf-f/min m-crs, sr-wr, pred qtz, glauc, some arg matrix, friable, no odor, ns.  
 SH: lt-dk gry/dk green/mustard yel, vry silty/sndy, soft-firm.

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

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

SH: lt-dk gry/dk gry-green/min mustard yel, some waxy, some vry silty/sndy, some glauc, soft-firm.  
 SS: wht/min lt gry, vf-f, sr-wr, qtz, slt carb, some glauc, some pyritic, hard, friable, no odor, ns.

Flood of SH: m-dk gry, min silty, firm. Some SS: as above, no odor, ns.

SH: m-dk gry, min silty, firm. Some SS: as above, no odor, ns.

CFS @ 4320'  
Stop/30"/60"

CFS @ 4350'  
Stop/30"/60"

CFS @ 4380'  
Stop/30"/60"

CFS @ 4420'  
Stop/30"/60"

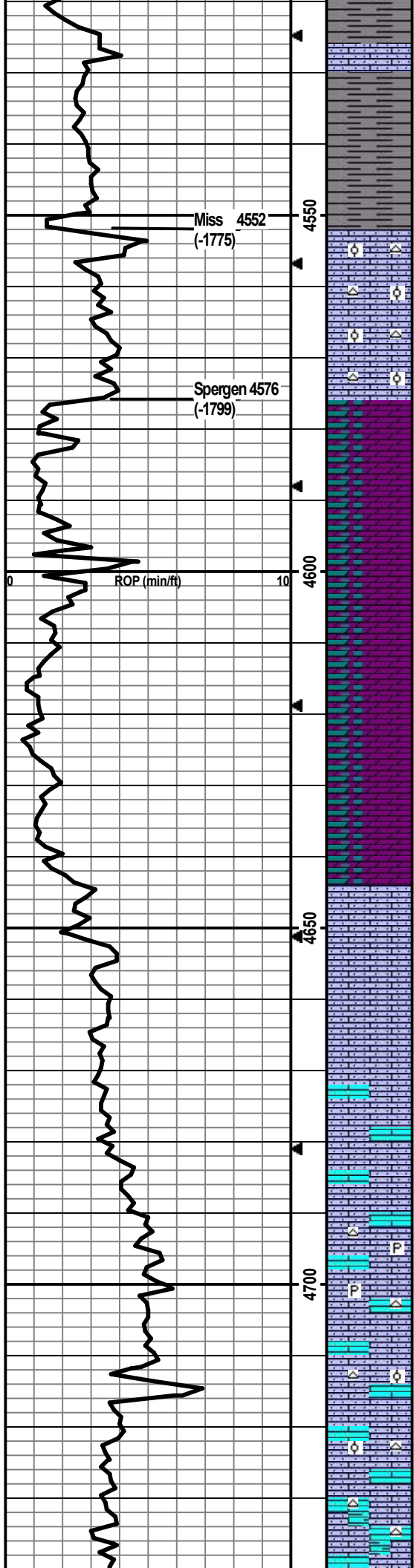
CFS @ 4440'  
Stop/30"/60"

CFS @ 4460'  
Stop/30"/60"

CFS @ 4480'  
Stop/30"/60"

CFS @ 4500'  
Stop/30"/60"





LS: wht/cm/lt-m bm, micro-m xtal, silty/sndy, chalky, lt bm/orange chert, foss frags/ool, no vis por, no odor, ns. (Cont flood of SH and SS.)

SH: m-dk gry, min silty, firm.

Drill cutting samples at 20' intervals start at 4560'.

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

DOLO: lt-m bm/some gry mottling, vf-f, sucrosic, sndy, vf-crs in-xtal por, no odor, ns.

LS: cm/lt gry, vf-m xtal, sndy, chalky, wht/lt gry chert, dense ool, no vis por, no odor, ns. (Flood of Dolo as above.)

DOLO: lt-m bm/gry mottling, vf-f xtal, sucrosic, sndy, f-crs/vug in-xtal por, no odor, ns.

LS: wht/cm/lt bm/lt gry, vf-m xtal, sndy, chalky, wht/cm chert, ool, no vis por, no odor, ns. (Flood of Dolo as above.)

DOLO: lt-m bm/m-dk gry, vf-f xtal, sucrosic, sndy, f-crs/vug in-xtal por, no odor, ns.

DOLO: cm/lt-m bm/lt-m gry, vf-f xtal, sucrosic, sndy, f-crs/vug in-xtal por, no odor, ns.

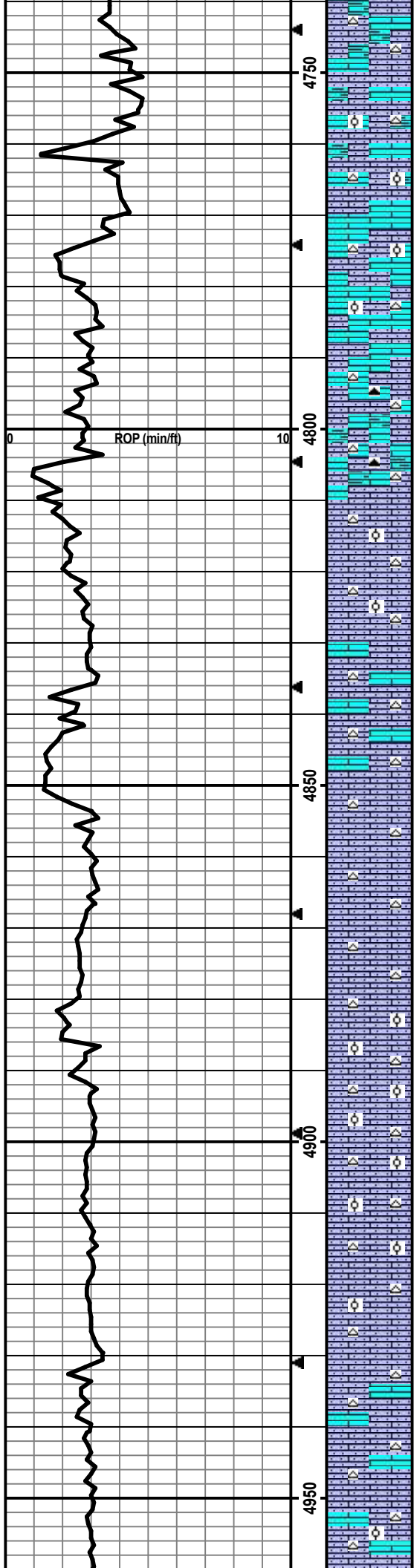
LS: cm/lt-m gry/lt-m bm, vf-m xtal, vry silty/sndy, chalky, foss frags, no vis por, no odor, ns.

LS: cm/lt-m bm/lt-m gry/gry mottling, micro-crs xtal w/some 2ndry xtals, some silty/sndy, chalky, foss frags, no vis por, no odor, ns.

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

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

LS: wht/cm/lt bm/lt gry, micro-m xtal, some silty/sndy/arg, some chalky,



increase wht/lt gry/lt bm chert, foss frags, no vis por, no odor, ns.

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

LS: wht/cm/lt-m bm, micro-m xtal, less silty/sndy, wht/lt gry chert, foss frags/ool, no vis por, no odor, ns.

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

LS: cm/lt bm/lt gry/gry mottling, vf-m xtal, vry silty/sndy, wht chert, foss frags/ool, no vis por, no odor, ns. (Smpl is flood of SH.)

LS: cm/lt bm/lt gry, micro-m xtal, some vry silty/sndy, wht/lt gry chert, foss frags, no vis por, no odor, ns. (Cont flood of SH.)

LS: wht/cm, vf-f xtal, vry sndy, chalky, wht chert, no vis por, no odor, ns.

LS: cm/lt bm, vf-m xtal, sndy, vry chalky, wht chert, med ool, vf-f in-ool por, no odor, ns.

LS: cm, vf-m xtal, sndy, vry chalky, wht/cm chert, med ool, vf-f in-ool por, no odor, ns.

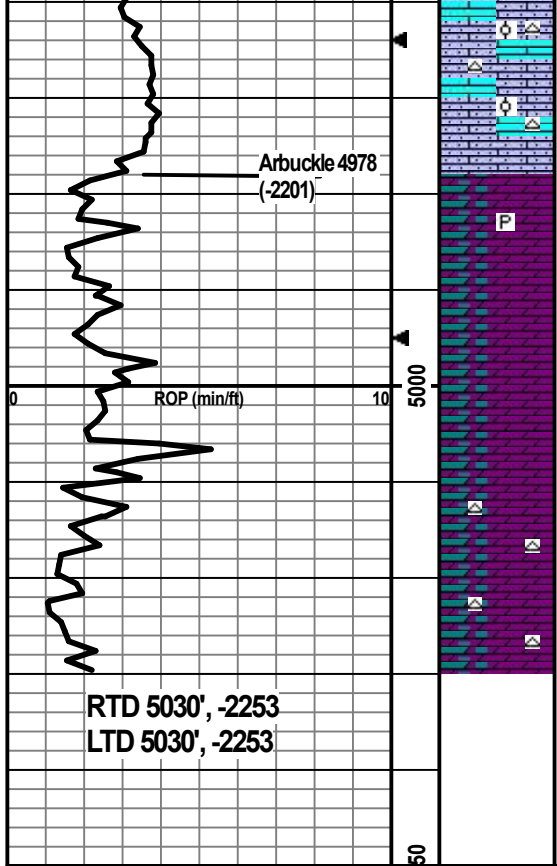
LS: cm/min lt bm/min lt gry, vf-f xtal, sndy, flood of wht chalk, wht chert, min ool, no vis por, no odor, ns.

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

LS: cm/lt bm/lt gry vf-m xtal, some sndy, chalky, wht foss chert, foss

CFS @ 4760'  
Stop: 30"/60"

**Conducted 10  
Stand Wiper Trip @  
4760'.**



LS: cm/lt bl/lt gry, vf-f xtal, some sndy, chalky, w/lt ross chert, ross frags/ool, no vis por, no odor, ns.

DOLO: cm/lt gry, vf-f xtal, sndy, sucrosic, slit pyritic, f-crs/vug in-xtal por, no odor, ns.

DOLO: cm/lt gry, micro-f xtal, sndy, sucrosic, f-crs/vug in-xtal por, no odor, ns.

DOLO: cm/lt gry, vf-f xtal, sndy, sucrosic, wht/cm/lt gry chert, f-crs/vug in-xtal por, no odor, ns.

TD @ 5030'

CFS @ 5030'  
Stop/30"/60"  
Made 10 Std Wiper Trip, CTCH  
1.5 hr, TOH for logging.



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



# Invoice

DATE	INVOICE #
6/12/2023	36626

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



- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#4-10	Ottley	Logan	Wild West	Oil	Development	Port Collar	Gideon
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	8.00	640.00
578D-D	Pump Charge - Deep Squeeze (> 1500 Ft.)				1	Job	1,700.00	1,700.00
330	Swift Multi-Density Standard (MIDCON II)				220	Sacks	21.00	4,620.00T
276	Flocele				75	Lb(s)	4.00	300.00T
290	D-Air				3	Gallon(s)	42.00	126.00T
581D	Service Charge Cement				250	Sacks	2.00	500.00
583D	Drayage				1,000	Ton Miles	1.00	1,000.00
	Subtotal							8,886.00
	Sales Tax Logan County						8.00%	403.68
<b>We Appreciate Your Business!</b>							<b>Total</b>	\$9,289.68



Services, Inc.

CHARGE TO: Shakespeare Oil + Gas  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET 36626

PAGE 1 OF 1

1. SERVICE LOCATIONS <u>Ness City, KS</u>	WELL/PROJECT NO. <u>4-10</u>	LEASE <u>Ohley</u>	COUNTY/PARISH <u>Locas</u>	STATE <u>KS</u>	CITY	DATE <u>6/12/2003</u>	OWNER	
2. TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Wild West</u>	RIG NAME/NO.	SHIPPED VIA <u>at</u>	DELIVERED TO <u>Location</u>	WELL PERMIT NO.	ORDER NO.		
3. WELL TYPE <u>Oil</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>Perf Collar</u>	WELL LOCATION					
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS							

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY. U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF		QTY.	U/M		
<u>575</u>					MILEAGE <u>Truck #115</u>			<u>8.00</u>	<u>440.00</u>
<u>578</u>					<u>Pump Charge - Perf Collar</u>			<u>1.700</u>	<u>1,700.00</u>
<u>330</u>					<u>Swift Multi Density Cement</u>			<u>21.00</u>	<u>4,620.00</u>
<u>276</u>					<u>Floacle</u>			<u>4.00</u>	<u>300.00</u>
<u>292</u>					<u>D-Air</u>			<u>42.00</u>	<u>126.00</u>
<u>581</u>					<u>Cement Service Charge</u>			<u>2.00</u>	<u>500.00</u>
<u>583</u>					<u>Drayage</u>			<u>1.00</u>	<u>1,000.00</u>
REMIT PAYMENT TO:					SURVEY		PAGE TOTAL		
SWIFT SERVICES, INC. P.O. BOX 466 NESS CITY, KS 67560 785-798-2300					OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UNDECIDED	DISAGREE	TOTAL
					OUR SERVICE WAS PERFORMED WITHOUT DELAY?	YES	NO		
REMIT PAYMENT TO: SWIFT SERVICES, INC. P.O. BOX 466 NESS CITY, KS 67560 785-798-2300					ARE YOU SATISFIED WITH OUR SERVICE?	YES	NO		
					OUR SERVICE WAS PERFORMED WITHOUT DELAY?	YES	NO		
DATE SIGNED					TOTAL				

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 6/12/2003 TIME SIGNED 10:30  A.M.  P.M.

SWIFT OPERATOR Andrew Tuck APPROVAL

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

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

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?

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?  YES  NO

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1

TOTAL 9289.68

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 6/12/2023 PAGE NO. 1

CUSTOMER Shakespeare Oil & Gas WELL NO. #4-10 LEASE Otley JOB TYPE Port Collar TICKET NO. 366216

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0846							ON LOCATION 2 3/8" x 5 1/2"
								PC: 2,292'
	0850	Ø	-		✓		1200	TEST BS to 1,200 PSI Open PC
	0855	3	3	✓			700	INJECTION RATE
	0910	3	121	✓			Avg 450	Mix 220 sx of SMD @ 11.2ppg 1/4" Flo
								*Circulate CMT to surface* <del>153 to 121</del>
		3	8	✓			600	Displace CMT
		Ø	-	✓			1,200	Close PC Test to 1,200 PSI *Hold*
								Run 5 JEs
	0950	3	25	✓			400	Reverse Clean
	1010							Wash up Truck #115
	1045							Job Complete
								220 sx of SMD 1/4" Flo used *Approx 15 sx to Pit*
								THANKS!
								Gudeon, Tyler, Brett