

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 Recompletion Date	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
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 3-27
Doc ID	1447692

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 3-27
Doc ID	1447692

Tops

Name	Top	Datum
Base	2136	+541
Heebner	3633	-956
Lansing	3670	-993
Muncie	3827	-1150
Stark Shale	3914	-1237
Hushpuckney	3951	-1274
Marmaton	4051	-1374
Pawnee	4127	-1450
L. Cherokee	4202	-1525
Johnson	4244	-1567
Mississippian	4303	-1626

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 3-27
Doc ID	1447692

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	4292	4300			250 gal 7.5% RWR-2 acid w/4% KCL wtr flush
4	4269	4272			750 gal 15% NeFe
4	4262	4267			750 gal 15% NeFe
4	4252	4254			750 gal 15% NeFe
4	4245	4250			750 gal 15% NeFe
4	4169	4172			200 gal 15% RWR-1
4	4106	4114			500 gal 15% NeFe
4	4086	4088			500 gal 15% NeFe
4	3955	3958			1000 gal 15% RWR-1
4	3880	3887			250 gal 15% RWR-1
4	3844	3849			200 gal 15% RWR-1
4	3784	3790			250 gal 15% RWR-1
4	3752	3756			250 gal 15% RWR-1

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	OTTLEY 3-27
Doc ID	1447692

Perforations

Shots Per Foot	Perforation Top	Perforation Bottom	BridgePlugType	BridgePlugSet At	Material Record
4	3748	3749			250 gal 15% RWR-1

SWIFT



Services, Inc.

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



Invoice

DATE	INVOICE #
1/9/2019	31932

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

- Acidizing
- Cement
- Tool Rental

INT

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-27	Ottley	Logan	Duke Drlg Rig #2	Oil	Development	Surface Pipe	Gideon

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	90	Miles	5.00	450.00
576D-S	Pump Charge - Shallow <u>Surface</u> (< 500 Ft.)	1	Job	875.00	875.00
325	Standard Cement	165	Sacks	13.00	2,145.00T
278	Calcium Chloride	7	Sack(s)	40.00	280.00T
279	Bentonite Gel	3	Sack(s)	30.00	90.00T
290	D-Air	3	Gallon(s)	42.00	126.00T
276	Flocele	50	Lb(s)	2.50	125.00T
581D	Service Charge Cement	165	Sacks	1.75	288.75
583D	Drayage	729.45	Ton Miles	0.85	620.03
	Subtotal				4,999.78
	Sales Tax Logan County			8.00%	221.28

RECEIVED
JAN 15 2019

502-5
DH

We Appreciate Your Business!

Total \$5,221.06

DW



Services, Inc.

TICKET 031932

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

PAGE 1 OF 1

SERVICE LOCATIONS
 1. Ness City, KS WELL/PROJECT NO. 3-27 LEASE Ottley COUNTY/PARISH Logan STATE KS CITY Scott City DATE 1/9/19 OWNER
 2. TICKET TYPE SERVICE SALES CONTRACTOR Duke RIG NAME/NO. 2 SHIPPED VIA CT DELIVERED TO Locations ORDER NO.
 3. WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE Surface Pps WELL PERMIT NO.
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC ACCT DF	DESCRIPTION	QTY. U/M			UNIT PRICE	AMOUNT		
				QTY.	U/M	QTY.			U/M	
575		1	MILEAGE TRK #112			90	m	5.00	450.00	
5768		1	Pump Charge - Surface			1	job	875.00	875.00	
325		1	Standard CMT			165	sts	13.00	2145.00	
278		1	Calcium Chloride			7	sts	40.00	280.00	
279		1	Bentonite Gel			3	sts	30.00	90.00	
290		1	D-Air			3	gal	42.00	126.00	
276		1	Flocele			50	lbs	2.50	125.00	
581		1	Service Charge CMT			165	sts	1.75	288.75	
583		1	Drayage			16210	lbs	0.85	620.03	
			REMIT PAYMENT TO:	SURVEY			AGREE	UNDecided	DISAGREE	PAGE TOTAL
			SWIFT SERVICES, INC.	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?						1
			P.O. BOX 466	WE UNDERSTOOD AND MET YOUR NEEDS?						4,999.78
			NESS CITY, KS 67560	OUR SERVICE WAS PERFORMED WITHOUT DELAY?						
			785-798-2300	WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?						
				ARE YOU SATISFIED WITH OUR SERVICE?			<input type="checkbox"/> YES	<input type="checkbox"/> NO		
				TOTAL						5221.06

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.

DATE SIGNED 1/9/2019 TIME SIGNED 12:45 A.M. P.M.

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

SWIFT OPERATOR Anderson Fields APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 1/9/19 PAGE NO. 1

CUSTOMER Shakespeare Oil WELL NO. 3-27 LEASE Ottley JOB TYPE Surface Pipe TICKET NO. 031932

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2000							On Location 8 5/8" 23' pipe RTD: 268' TD: 268'
	2250							Start 8 5/8" Casing in Well
	2350				✓			Break Circulation
	2355	4	5		✓		0	Pump 5 bbl Water Spacer
	0000	4	40		✓		100	Mix 165 sks of STD 2% gel 3% CC @ 14.7ppg
	0010	4	0		✓		250	Start Displacement
		4	10 14				250	Circulate CMT to Surface - 10 sks to Pit -
	0015	0	16 1/2		✓		250	KO Pump Shut-in Release Pressure *Valve Hold*
								Wash-up Truck
	0045							Job Complete 165 sks used 10 sks to pit Thank You Gideon, Preston, Isaac

SWIFT



Services, Inc.

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



Invoice

DATE	INVOICE #
1/20/2019	27787

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

- Acidizing
- Cement
- Tool Rental

INT

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-27	Ottley	Logan	Duke Drlg Rig #4	Oil	Development	Cement Longstring	Jonathan

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	80	Miles	5.00	400.00
578D-L	Pump Charge - <u>Long String</u>	1	Job	1,300.00	1,300.00
290	D-Air	2	Gallon(s)	42.00	84.00T
280	Flocheck 21	500	Gallon(s)	3.50	1,750.00T
221	Liquid KCL (Clayfix)	2	Gallon(s)	25.00	50.00T
325	Standard Cement	225	Sacks	13.00	2,925.00T
284	Calseal	11	Sack(s)	35.00	385.00T
283	Salt	1,200	Lb(s)	0.20	240.00T
292	Halad 322	200	Lb(s)	8.00	1,600.00T
277	Gilsonite (Coal Seal)	1,125	Lb(s)	0.85	956.25T
419-4	4 1/2" Rotating Head Rental	1	Each	200.00	200.00T
581D	Service Charge Cement	225	Sacks	1.75	393.75
583D	Drayage	991	Ton Miles	0.85	842.35
	Subtotal				11,126.35
	Sales Tax Logan County			8.00%	655.22

*502-5
QK*

RECEIVED

JAN 25 2019

We Appreciate Your Business!

Total

\$11,781.57



Services, Inc.

CHARGE TO: Shakespear O'J Co
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

TICKET 277.87
 PAGE 1 OF 2

1. SERVICE LOCATIONS: Hays, KS WELL PROJECT NO: 3-27 LEASE: Ottley COUNTY/PARISH: Logan STATE: KS CITY: _____ DATE: 01/26/19 OWNER: _____

2. Ness City, KS TICKET TYPE: SERVICE CONTRACTOR: Duke Drilling RIG NAME NO: #4 SHIPPED VIA: CT DELIVERED TO: Location ORDER NO: _____

3. WELL TYPE: O'J WELL CATEGORY: New JOB PURPOSE: Cement Long String WELL PERMIT NO: _____ WELL LOCATION: _____

4. REFERRAL LOCATION: _____ INVOICE INSTRUCTIONS: _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #113	80	mi			5.00	400.00
578					Pump Charge - Long String	1	EA			1300.00	1300.00
290					N-Air	2	gal			42.00	84.00
280					Flackelk 21	500	gal			3.50	1750.00
221					Liquid RCL	2	gal			25.00	50.00
325					Standard Cement	225	Sks			13.00	2925.00
284					Calsol	11	Sks			35.00	385.00
283					Salt	1200	lbs			0.20	240.00
292					Haloid 322	200	lbs			8.00	1600.00
277					Coal Seal (Gilsnide)	1125	lbs			8.50	9562.50

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

DATE SIGNED: _____ TIME SIGNED: _____

DATE SIGNED: _____ TIME SIGNED: _____

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

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE	TOTAL
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				Page 1	9690.25
WE UNDERSTOOD AND MET YOUR NEEDS?				Page 2	1430.18
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Sub Total	11120.43
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Logan	655.22
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO		8000	11815.71
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				TOTAL	11815.71

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

SWIFT OPERATOR: _____ APPROVAL: _____

Thank You!



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

TICKET CONTINUATION

TICKET No. 27787

CUSTOMER
 Shalespore Drilling Co.

WELL
 OHley 3-27

DATE
 01/20/19

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				UNIT PRICE	AMOUNT		
		LOC	ACCT	DF			QTY	U/M	QTY	U/M				
419						Retaking Head Rental 4 1/2"				1	EA		200.00	200.00
581						Service Charge Cement				225	SKS		1.25	393.75
583						Drayage				80	mi		0.85	842.35
SERVICE CHARGE														
MILEAGE CHARGE														
TOTAL WEIGHT														
LOADED MILES														
TON MILES														
CUBIC FEET														
CONTINUATION TOTAL													1436.10	

CONTINUATION TOTAL

1436.10

JOB LOG

SWIFT Services, Inc.

DATE 01/20/19 PAGE NO. 1

CUSTOMER *Shakespeare Oil* WELL NO. *3-27* LEASE *Ottley* JOB TYPE *Long String* TICKET NO. *27787*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0315							On location, Rig just starting Casing Larson Float Equipment
								TD - 4393' Total Pipe - 4384' set @ 4381' 106 JTs Baffle Plate - 4337' P.C. - 2067'
	0545							Break Circulation on Bottom
	0655							Hook up to Swift
	0700	2	7					Plug Rathole w/ 30 SKs
	0710	5	15				400	Pump KCL spacer ahead
		5	12				200	Pump Flocheck 21
		5	5				400	Pump KCL spacer Behind
	0720	4					400	Start EA 2 Cmt - 195 SKs
	0735	4	48				Vac	Fin Cmt Drop Plug Wash out Pump + Lines
	0740	7					Vac	Start Displacement
		6 1/2	48				400	Catch Cmt
							800	Lift PSI
	0755	6	69				1500	Land PSI, Plug Down
	0800							Release Truck, Dry Wash up Reak up
	0815							Job Complete
								Thanks Jon, Austin, Isaac

SWIFT



Services, Inc.

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



Invoice

DATE	INVOICE #
1/25/2019	31994

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

- Acidizing
- Cement
- Tool Rental

FNT

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30		<u>Ottley</u> #3-27	Logan	Wild West	Oil	Development	Cement Port Collar	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	5.00	400.00
576D-D	Pump Charge - Deep Surface (> 500 Ft.) & Port Collars				1	Job	1,300.00	1,300.00
330	Swift Multi-Density Standard (MIDCON II)				200	Sacks	16.25	3,250.00T
276	Flocele				50	Lb(s)	2.50	125.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
583D	Drayage				1,293.63	Ton Miles	0.85	1,099.59
581D	Service Charge Cement				325	Sacks	1.75	568.75
	Subtotal							6,827.34
	Sales Tax Logan County						8.00%	276.72
We Appreciate Your Business!							Total	\$7,104.06

RECEIVED
FEB 01 2019

*302-5
DH*

DW



CHARGE TO: Shakespear
 ADDRESS
 CITY, STATE, ZIP CODE

PAGE 1 OF 1
 TICKET 031994

SERVICE LOCATIONS: Wood City KS
 WELL/PROJECT NO.:
 LEASE: Ottley
 COUNTY/PARISH: Leson
 STATE: KS
 CITY: Ottley
 DATE: 25 Jan 19
 OWNER:
 ORDER NO.:
 TICKET TYPE:
 SERVICE
 SALES
 CONTRACTOR:
 RIG NAME/NO.:
 SHIPPED BY: OT
 DELIVERED TO: Location
 WELL TYPE: ST
 WELL CATEGORY: Development
 JOB PURPOSE: Development
 WELL PERMIT NO.:
 WELL LOCATION:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	LOC	ACCT	DF	DESCRIPTION	QTY. U/M			UNIT PRICE	AMOUNT
575		1			MILEAGE TRV 114	80	mi		5.00	400.00
576D		1			Pump charge port collar	1	ea		1308.00	1308.00
330		1			SND cement	200	sk		16.25	3250.00
276		1			Placed	50	lb		2.50	125.00
290		1			D-air	2	gal		42.00	84.00
583		1			D sewage	3	234/16		0.85	1099.59
581		1			sewage charge	325	sk		1.75	568.75

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

DATE SIGNED: _____ TIME SIGNED: _____

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

SURVEY: OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? 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: 6827.34

TOTAL: 7104.00

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

SWIFT OPERATOR: pcball APPROVAL: _____

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 25 Jan 19 PAGE NO. 1

CUSTOMER: Shakespeare WELL NO. # 7 LEASE: Otley #3-27 JOB TYPE: cement port collar TICKET NO. 31994

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								325 sk SMD cement w/ 1/4# flocele 2 3/8 x 4 1/2 port collar - 2067'
	0920							on loc TRK 114
	0935					1000	1000	test to 1000psi - held open port collar
	0940	3 3/4				250		Mix SMD cement @ 11.2 ppgr
		3 3/4	15			300		-CIRC fluid -
		3 3/4	107			650		→ cement to surface ← { 200 sk mixed 15sk to port }
		3 3/4	7			650		Displace w/ H ₂ O close port collar
	1030					1000	1000	test to 1000psi - held Run 5 jts Reverse hole clean
			20					
	1045							Wash truck
								Back up
	1120							job complete Thanks Blaine, Flint, & ISAAC

ELEVATIONS
 KB 2677'
 GL 2668'

COMPANY & WELL Shakespeare # 3-27 Otley
 LOCATION 2240' FNL, 1310' FWL, NW/4
 SEC 27 TWSP 14s RGE 32w
 COUNTY Logan STATE Kansas

COMPANY Shakespeare Oil Company, Inc
 LEASE # 3-27 Otley
 FIELD APPX NE SE SW NW
 LOCATION 2240' FNL, 1310' FWL, NW/4
 SEC 27 TWSP 14s RGE 32w
 COUNTY Logan STATE Kansas
 CONTRACTOR Duke Drilling Rig #4
 SPUD 1-9-2019 COMP 1-20-2019
 RTD 4393' LTD 4392'
 MUD UP 3466' TYPE MUD Chemical
 SAMPLES SAVED FROM 3540' TO RTD
 DRILLING TIME KEPT FROM 3460' TO RTD
 SAMPLES EXAMINED FROM 3540' TO RTD
 GEOLOGICAL SUPERVISION FROM 3515' TO RTD
 GEOLOGIST ON WELL Tim J. Lauer

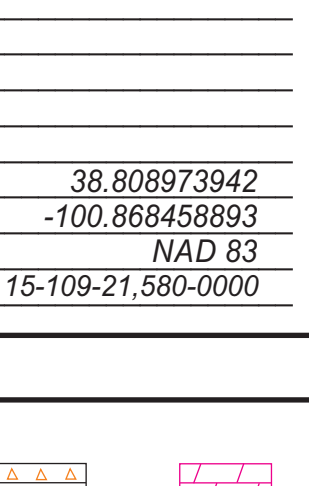
ELEVATIONS
 KB 2677'
 DF
 GL 2668'

Measurements Are All From Kelly Bushing

CASING
 CONDUCTOR SURFACE 8-5/8" @ 268'
 PRODUCTION 4-1/2" @ 4381'

ELECTRICAL SURVEYS
 Weatherlog DCPL, DIL, ML
 Engineer: Terry Guthmuller

FORMATION TOPS	ELECTRIC LOG	SAMPLE LOG
Base Anhydrite	2136 (+541)	2134 (+543)
Heebner	3633 (-956)	3632 (-955)
Lansing	3670 (-993)	3668 (-991)
Stark	3914 (-1237)	3912 (-1235)
Marmaton	4051 (-1374)	4048 (-1375)
Pawnee	4127 (-1450)	4123 (-1446)
L. Cherokee Shale	4202 (-1525)	4200 (-1523)
Johnson Zone	4244 (-1567)	4241 (-1564)
Mississippian	4303 (-1626)	4307 (-1630)
Total Depth	4392 (-1715)	4393 (-1716)



REMARKS Due to drill stem test results, and log evaluation, operator elected to run production casing to further test the location.

Respectfully submitted,
 Tim J. Lauer
 1/21/2019

38.808973942
 -100.868458893
 NAD 83
 API: 15-109-21,580-0000

LEGEND



DRILLING TIME IN MINUTES PER FOOT
 Rate of Penetration Decreases

DEPTH
 SHWES

SAMPLE DESCRIPTION

REMARKS

SPUD 4:00 PM 1-9-2019
 RTD 7:35 AM 1-19-2019

"BIT RECORD"
 1.) Smith FHI24Y (New)
 Under Surface to 4393' RTD

"VERTICAL SURVEYS"
 3/4" @ 267'
 1/4" @ 1511'
 3/4" @ 3058'
 3/4" @ 3619'
 1" @ 4202'
 1" @ 4393'

1-9-2019 - MIRT, RURT
 Prep to set Surf Csg.

1-10-2019 - 7:00 AM
 PTD @ 268' WOC
 set 8-5/8" @ 268'

1-11-2019 - 7:00 AM
 Drg @ 1970'

1-12-2019 - 7:00 AM
 Drg @ 2725'

1-13-2019 - 7:00 AM
 Drg @ 3250'

1-14-2019 - 7:00 AM
 PTD @ 3720'
 Preparing for DST (1)

1-15-2019 - 7:00 AM
 PTD @ 3765'
 GH with DST (2)

1-16-2019 - 7:00 AM
 Drg @ 3995'

1-17-2019 - 7:00 AM
 PTD @ 4202'
 Running DST(3)

1-18-2019 - 7:00 AM
 PTD @ 4280'
 Running DST(4)

1-19-2019 - 7:35 AM
 RTD @ 4393'
 CFS, Cond hole for Logging

1-20-2019 - 7:00 AM
 RTD @ 4393'
 Ran Weatherford OH Logs
 Ran 4 1/2" Prod. Csg.
 set at 4381' w/200 sx
 port collar at 2067'
 Plug dn. 8:00 am 1-20-2019

Call Point 3300'
 9:05 AM 1-13-2019

Geologist on location 3515'
 Board: 3742.91
 LCM: 1# Ph: 11.0 WL: 7.2

Displace native fluid at 3466'
 Added Premix to bring mud up

Pipe Strap on DST (1)
 Board: 3742.91
 CPM: 3741.96
 Diff: 0.95 short

Mud Check at 3720 before DST
 vis: 53 wt. 9.0 Chlor: 2.00
 LCM: 1# Ph: 11.0 WL: 7.2

DST (1) 3688'-3720'
30-30-30-60
 Blow: fair, built to 4.5" on FFP
 no blowback on FFP

31' MCW, oil spots
 (0% gas, 0% oil, 40% mud, 60% wt)
62' MCW
 (0% gas, 0% oil, 20% mud, 80% wt)

93' Total Fluid
 IHP: 1755 FFP: 34-55
 IFP: 15-32 FSP: 338
 ISIP: 386 FHP: 1727

Temp: 104F
 Chlorides: MUD: 2.200 PPM
 DST: 31.000 PPM

Rw = 0.38 Ohms @ 42F
 Both Shut-in curves broken over
 Good oil stem in fluid at tool

Mud Check at 3765 before DST
 vis: 54 wt. 9.0 Chlor: 3.000
 LCM: 1# Ph: 11.0 WL: 8.8

DST (1) 3722'-3765'
15-30-30-60
 Blow: Strong, built to 16" on FFP
 built to 3" blowback on ISIP
 Strong, 50% w/ 40% FFP
 built to 6" blowback on FFP

286' GIP
38' GOC
 (20% gas, 80% oil, 0% mud, 0% wt)
62' GOCM
 (10% gas, 20% oil, 70% mud, 0% wt)

178' Total Fluid
 IHP: 2196 FFP: 56-132
 IFP: 19-28 FSP: 953
 ISIP: 917 FHP: 1759

Temp: 108F
 Chlorides: MUD: 3.000 PPM
 DST: NA (no water recovered)

Gravity = .35 (not corrected API)
 Both Shut-in curves broken over

Mud Check at 3997
 vis: 61 wt. 9.1 Chlor: 4.400
 LCM: 1# Ph: 10.5 WL: 8.8

DST (3) 4082'-4202'
30-30-30-60
 Blow: weak, built to 11 1/4" on FFP
 no blowback on FFP

10' Oil Spotted Mud
 IHP: 2095 FFP: 18-19
 IFP: 19-28 FSP: 2011
 ISIP: 192 FHP: 2018

Temp: 107F
 Chlorides: MUD: 4.000 PPM
 DST: NA

Note: 1# Shut-in curve not broken over
 still bldg. Final Shut-in curve broken over

Mud Check at 4202 during test
 vis: 67 wt. 9.3 Chlor: 4.000
 LCM: 1# Ph: 10.0 WL: 7.2

DST (4) 4222'-4280'
15-30-45-90
 Blow: strong, built to 11 1/4" on FFP
 built to 3 1/2" blowback on ISIP;
 strong, 60% w/ 40% FFP
 no blowback on FFP

476' GIP
20' GOCM
 (5% gas, 10% oil, 85% mud, 0% wt)
62' GOCM
 (30% gas, 20% oil, 50% mud, 0% wt)

811' Total Fluid
 IHP: 2822 FFP: 28-47
 IFP: 19-28 FSP: 466
 ISIP: 394 FHP: 2035

Temp: 114F
 Chlorides: MUD: 4.000 PPM
 DST: NA

Note: 1# Shut-in curve not broken over
 still bldg. Final Shut-in curve broken over

Mud Check at 4280 after test
 vis: 56 wt. 9.4 Chlor: 4.400
 LCM: 2# Ph: 10.0 WL: 9.6

Jet hole add full tank fresh Premix
 Rig Check at 4310 before test
 vis: 65 wt. 8.9 LCM: 2#

DST (5) 4280'-4310'
30-30-30-90
 Blow: weak, built to 11 1/4" on FFP
 no blowback on FFP

5' SOC
 (0% gas, 5% oil, 95% mud, 0% wt)

17' Total Fluid
 IHP: 2073 FFP: 16-17
 IFP: 15-17 FSP: 611
 ISIP: 477 FHP: 2066

Temp: 109F
 Chlorides: MUD: 4.400 PPM
 DST: NA

Note: Both Shut-in curves still bldg.

Rot TD reached
 7:35 AM 1-19-2019

COMPANY & WELL Shakespeare # 3-27 Otley
 LOCATION 2240' FNL, 1310' FWL, NW/4
 SEC 27 TWSP 14s RGE 32w
 COUNTY Logan STATE Kansas

ELEVATIONS
 KB 2677'
 GL 2668'



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64315

DST#: 1

ATTN: Tim Lauer

Test Start: 2019.01.14 @ 11:55:10

GENERAL INFORMATION:

Formation: **Lansing B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:49:10

Time Test Ended: 18:24:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 3688.00 ft (KB) To 3720.00 ft (KB) (TVD)

Reference Elevations: 2677.00 ft (KB)

Total Depth: 3720.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8166 Outside

Press@RunDepth: 55.29 psig @ 3689.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.14

End Date:

2019.01.14

Last Calib.: 2019.01.14

Start Time: 11:55:15

End Time:

18:24:39

Time On Btm: 2019.01.14 @ 13:48:10

Time Off Btm: 2019.01.14 @ 16:34:10

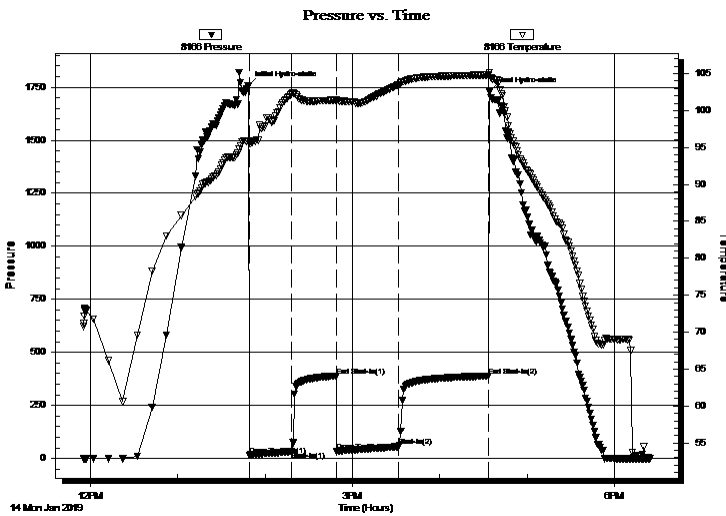
TEST COMMENT: IF: 1/4 blow built to 4 1/2.

IS: No return.

FF: Surface blow built to 4 1/2.

FS: No return.

PRESSURE SUMMARY



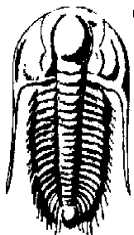
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1755.65	95.86	Initial Hydro-static
1	15.24	95.47	Open To Flow (1)
30	32.42	102.22	Shut-In(1)
61	388.44	101.42	End Shut-In(1)
61	34.24	101.35	Open To Flow (2)
104	55.29	103.49	Shut-In(2)
165	388.23	104.79	End Shut-In(2)
166	1727.26	105.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mcw 80%w 20%m	0.87
31.00	mcw Oil spots 60%w 40%m	0.43

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

ATTN: Tim Lauer

Job Ticket: 64315

DST#: 1

Test Start: 2019.01.14 @ 11:55:10

GENERAL INFORMATION:

Formation: **Lansing B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:49:10

Time Test Ended: 18:24:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: **3688.00 ft (KB) To 3720.00 ft (KB) (TVD)**

Total Depth: 3720.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2677.00 ft (KB)

2668.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: **6651** Inside

Press@RunDepth: psig @ 3689.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.14

End Date:

2019.01.14

Last Calib.:

2019.01.14

Start Time: 11:56:00

End Time:

18:25:24

Time On Btm:

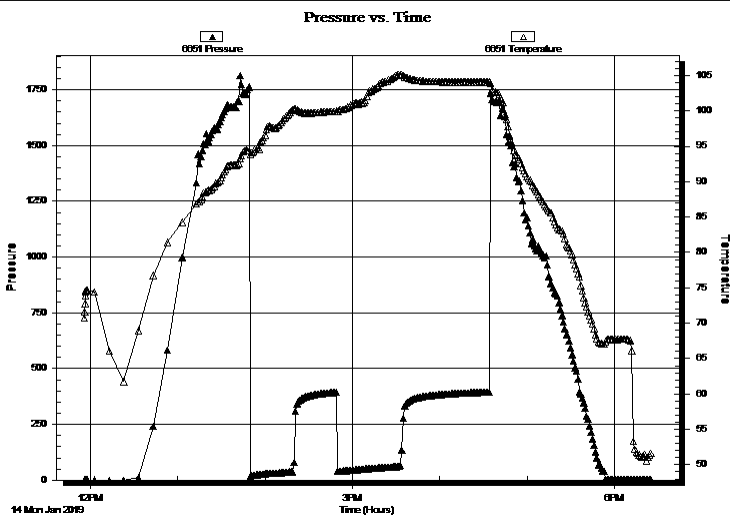
Time Off Btm:

TEST COMMENT: IF: 1/4 blow built to 4 1/2.

IS: No return.

FF: Surface blow built to 4 1/2.

FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mcw 80%w 20%m	0.87
31.00	mcw Oil spots 60%w 40%m	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64315

DST#: 1

ATTN: Tim Lauer

Test Start: 2019.01.14 @ 11:55:10

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:

31000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	mcw 80%w 20%m	0.870
31.00	mcw Oil spots 60%w 40%m	0.435

Total Length: 93.00 ft Total Volume: 1.305 bbl

Num Fluid Samples: 0

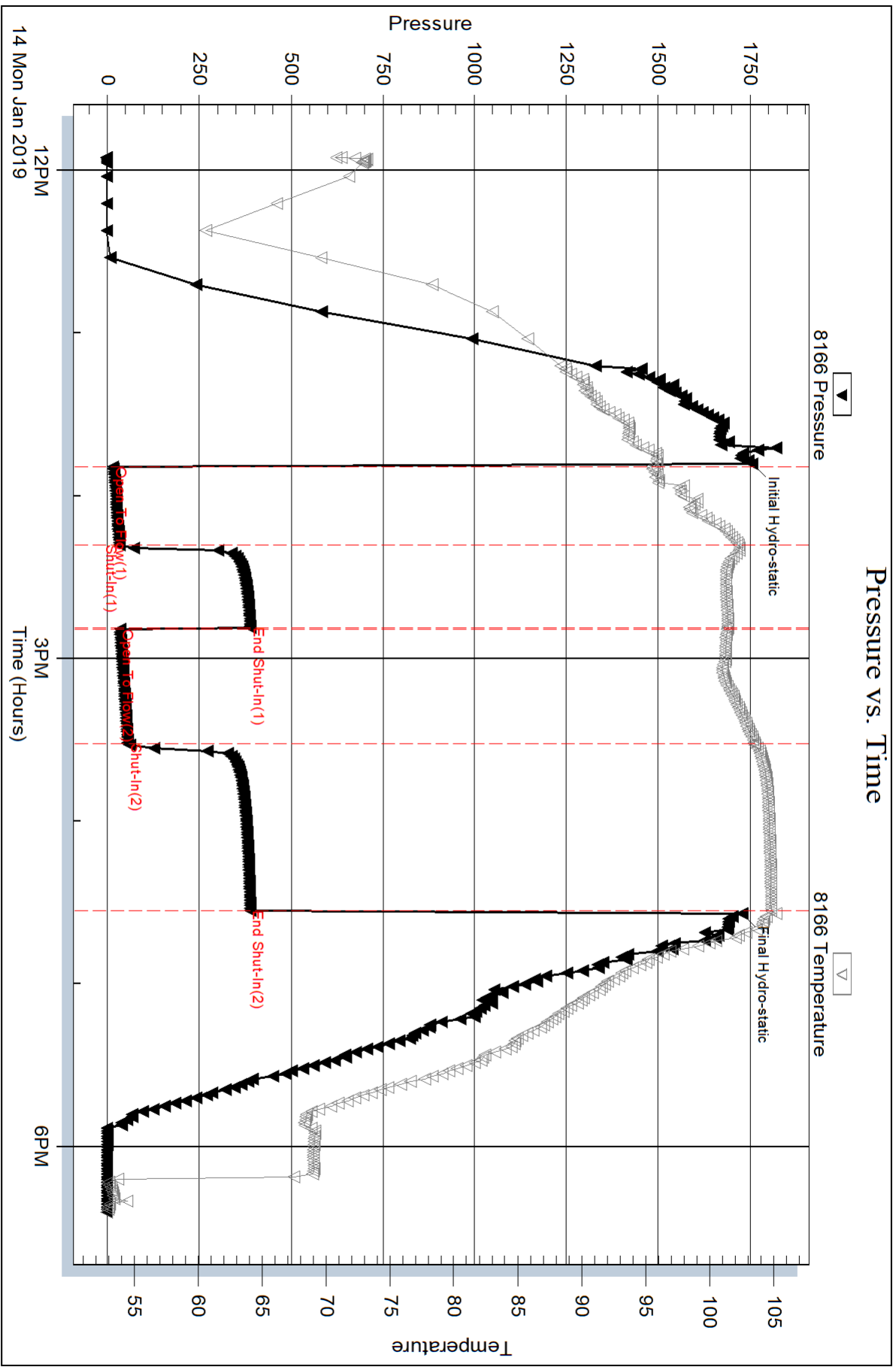
Num Gas Bombs: 0

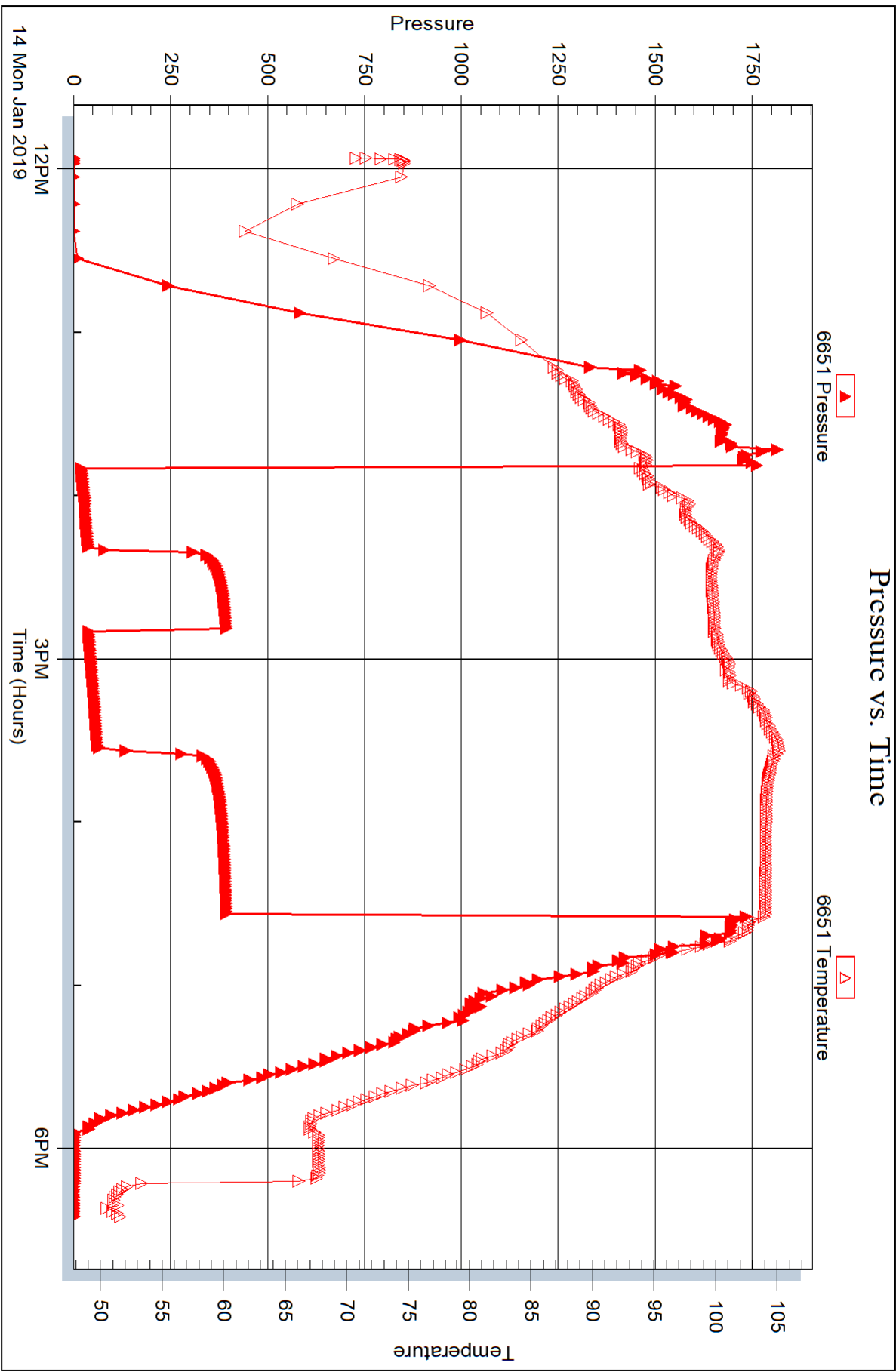
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .38@42=31000







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

ATTN: Tim Lauer

Job Ticket: 64316

DST#: 2

Test Start: 2019.01.15 @ 05:17:58

GENERAL INFORMATION:

Formation: **Lansing C&D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:52:53

Time Test Ended: 12:50:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 3722.00 ft (KB) To 3765.00 ft (KB) (TVD)

Reference Elevations: 2677.00 ft (KB)

Total Depth: 3765.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8166 Outside

Press@RunDepth: 132.17 psig @ 3723.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.15 End Date: 2019.01.15

Last Calib.: 2019.01.15

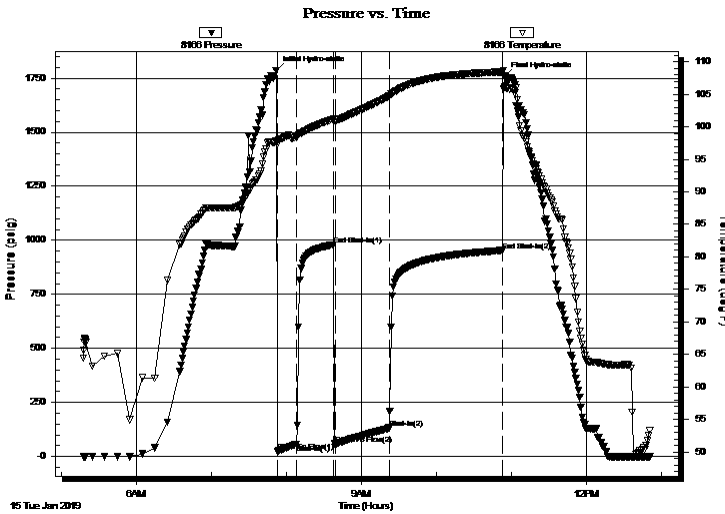
Start Time: 05:17:58 End Time: 12:50:52

Time On Btm: 2019.01.15 @ 07:51:53

Time Off Btm: 2019.01.15 @ 10:54:22

TEST COMMENT: IF: BOB in 9 min. 16"
IS: Surface blow built to 3.
FF: BOB in 9 min 46 1/2.
FS: Surface blow built to 6.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1786.07	97.85	Initial Hydro-static
1	21.82	97.27	Open To Flow (1)
16	56.62	98.44	Shut-In(1)
46	978.91	101.18	End Shut-In(1)
48	56.31	101.02	Open To Flow (2)
91	132.17	104.72	Shut-In(2)
181	953.11	108.44	End Shut-In(2)
183	1759.14	107.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 10%g 20%o 70%m	0.87
236.00	go 20%g 80%o	3.31
0.00	384 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64316

DST#: 2

ATTN: Tim Lauer

Test Start: 2019.01.15 @ 05:17:58

GENERAL INFORMATION:

Formation: **Lansing C&D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:52:53

Time Test Ended: 12:50:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: **3722.00 ft (KB) To 3765.00 ft (KB) (TVD)**

Reference Elevations: 2677.00 ft (KB)

Total Depth: 3765.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 6651 Inside

Press@RunDepth: psig @ 3723.00 ft (KB)

Start Date: 2019.01.15

End Date: 2019.01.15

Capacity: 8000.00 psig

Last Calib.: 2019.01.15

Start Time: 05:17:10

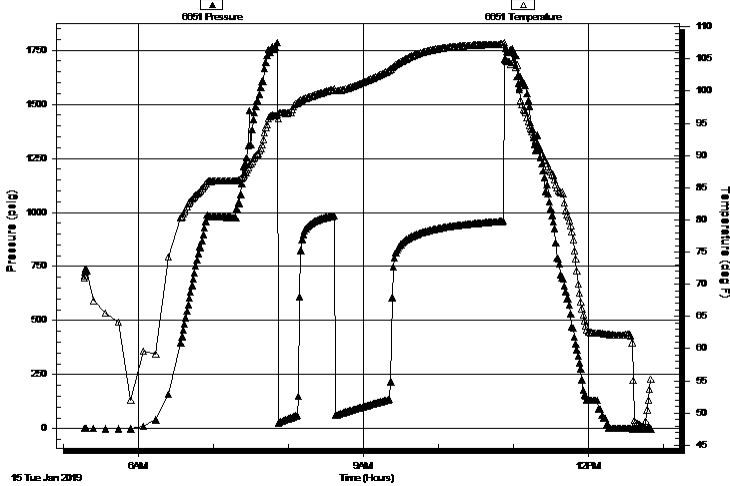
End Time: 12:50:04

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB in 9 min. 16"
IS: Surface blow built to 3.
FF: BOB in 9 min 46 1/2.
FS: Surface blow built to 6.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 10%g 20%o 70%m	0.87
236.00	go 20%g 80%o	3.31
0.00	384 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64316

DST#: 2

ATTN: Tim Lauer

Test Start: 2019.01.15 @ 05:17:58

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 10%g 20%o 70%m	0.870
236.00	go 20%g 80%o	3.310
0.00	384 GIP	0.000

Total Length: 298.00 ft Total Volume: 4.180 bbl

Num Fluid Samples: 0

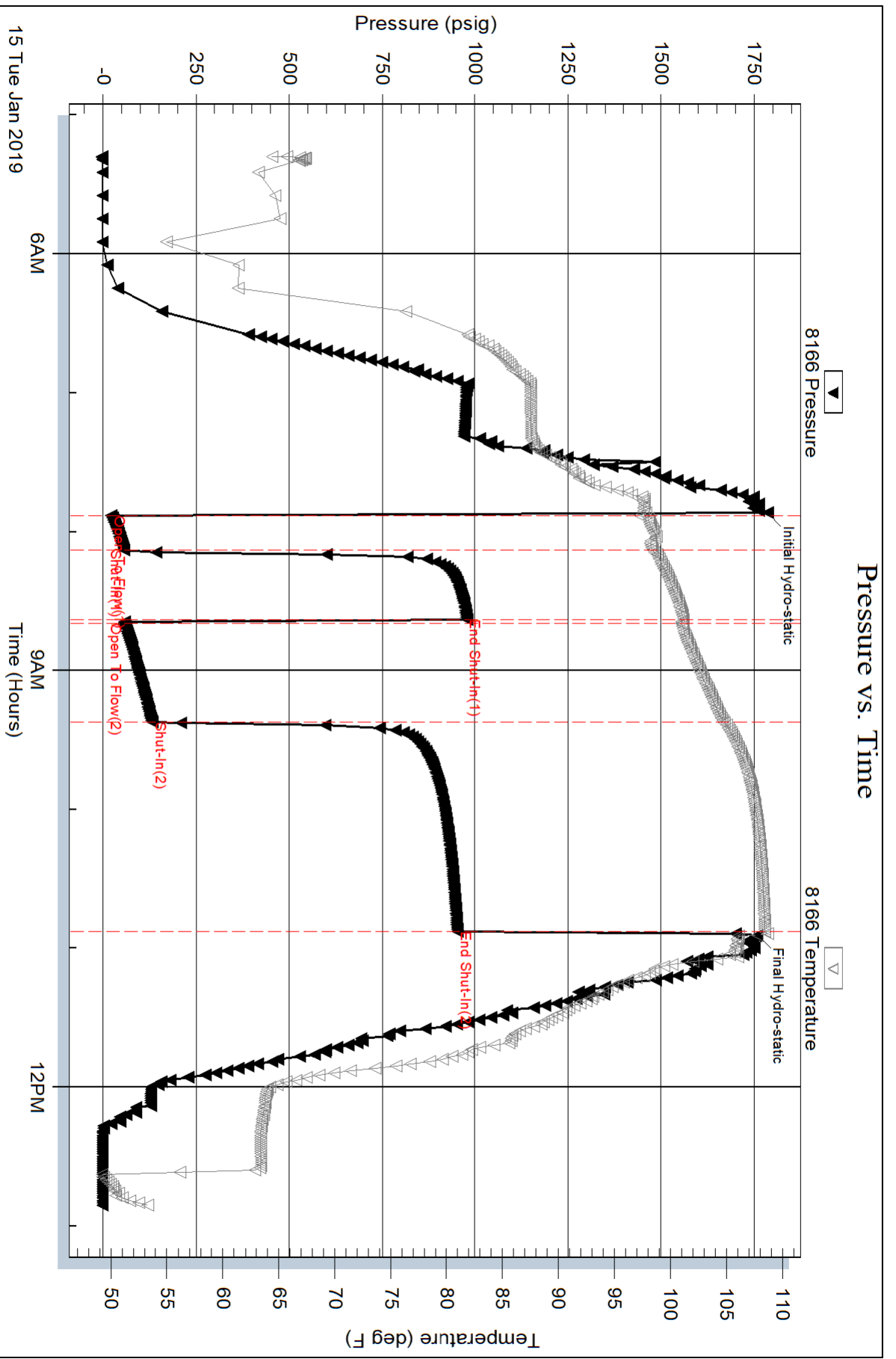
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 34@50=35



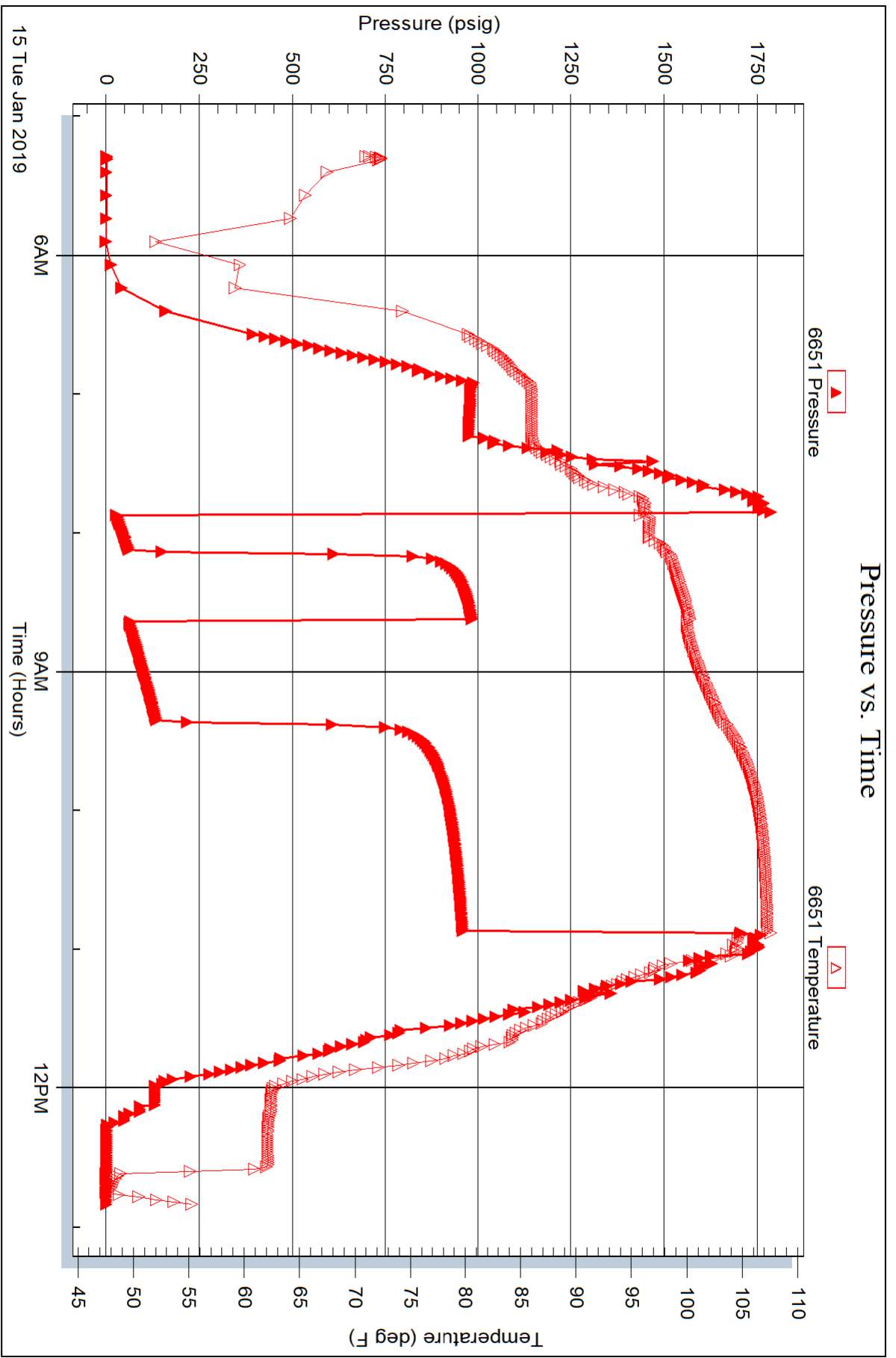
Serial #: 6651

Inside

Shakespeare Oil Co. Inc

Ottley 3-27

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64316

Printed: 2019.01.15 @ 13:11:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64317

DST#: 3

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 04:25:45

GENERAL INFORMATION:

Formation: **Marmaton C- Ft. Scot**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:36:45

Time Test Ended: 10:47:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: **4082.00 ft (KB) To 4202.00 ft (KB) (TVD)**

Reference Elevations: 2677.00 ft (KB)

Total Depth: 4202.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8166 Outside

Press@RunDepth: 19.26 psig @ 4083.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.17

End Date: 2019.01.17

Last Calib.: 2019.01.17

Start Time: 04:25:50

End Time: 10:47:44

Time On Btm: 2019.01.17 @ 06:35:15

Time Off Btm: 2019.01.17 @ 09:09:15

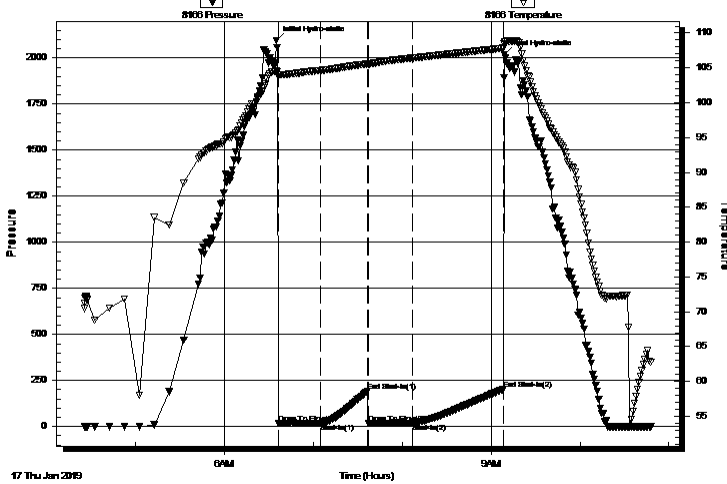
TEST COMMENT: IF: 1/2 blow built to 1 1/4.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.79	104.52	Initial Hydro-static
2	18.00	103.75	Open To Flow (1)
30	18.77	104.64	Shut-In(1)
62	192.17	105.57	End Shut-In(1)
62	18.80	105.46	Open To Flow (2)
92	19.26	106.40	Shut-In(2)
153	201.64	107.83	End Shut-In(2)
154	2018.45	108.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud oil spots 100%m	0.14

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64317

DST#: 3

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 04:25:45

GENERAL INFORMATION:

Formation: **Marmaton C- Ft. Scot**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:36:45

Time Test Ended: 10:47:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4082.00 ft (KB) To 4202.00 ft (KB) (TVD)

Total Depth: 4202.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2677.00 ft (KB)

2668.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6651 Inside

Press@RunDepth: psig @ 4083.00 ft (KB)

Start Date: 2019.01.17

End Date:

2019.01.17

Capacity: 8000.00 psig

Last Calib.:

2019.01.17

Start Time:

04:25:45

End Time:

10:47:39

Time On Btm:

Time Off Btm:

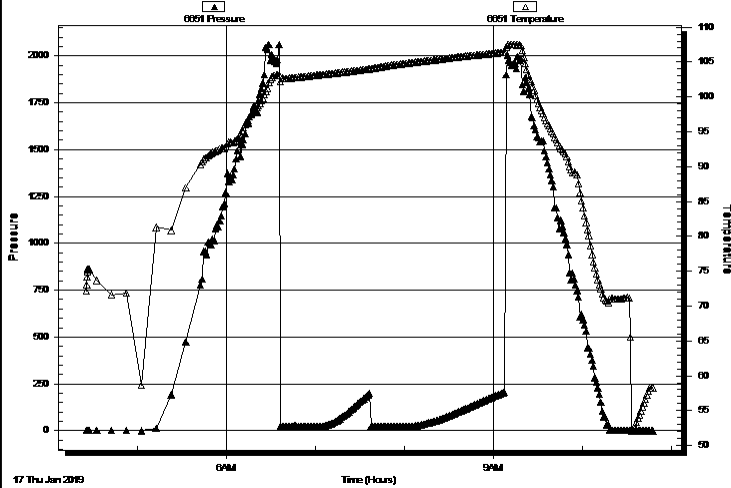
TEST COMMENT: IF: 1/2 blow built to 1 1/4.

IS: No return.

FF: No blow .

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud oil spots 100%m	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64317

DST#: 3

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 04:25:45

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: 61.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud oil spots 100%m	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

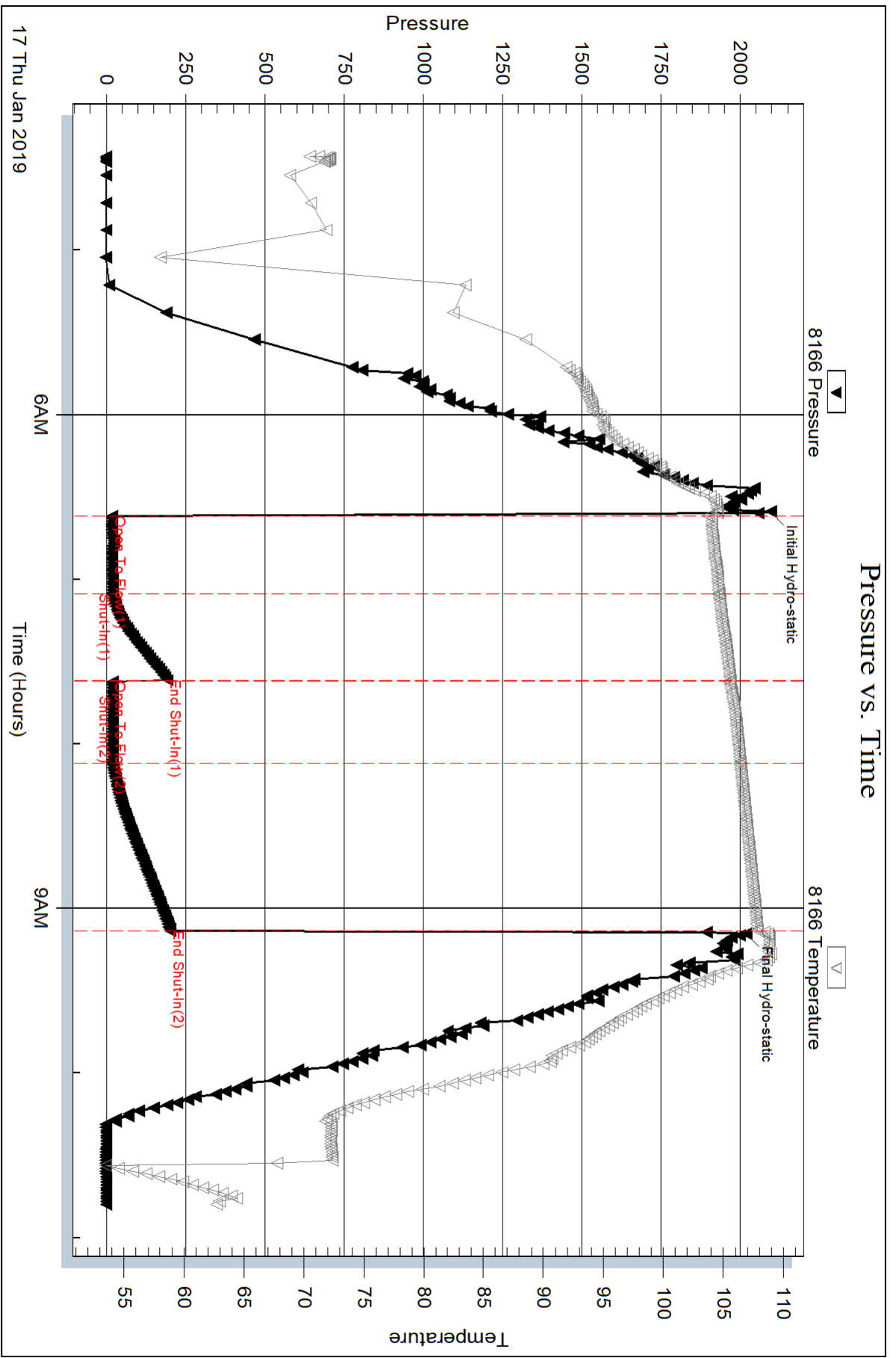
Num Gas Bombs: 0

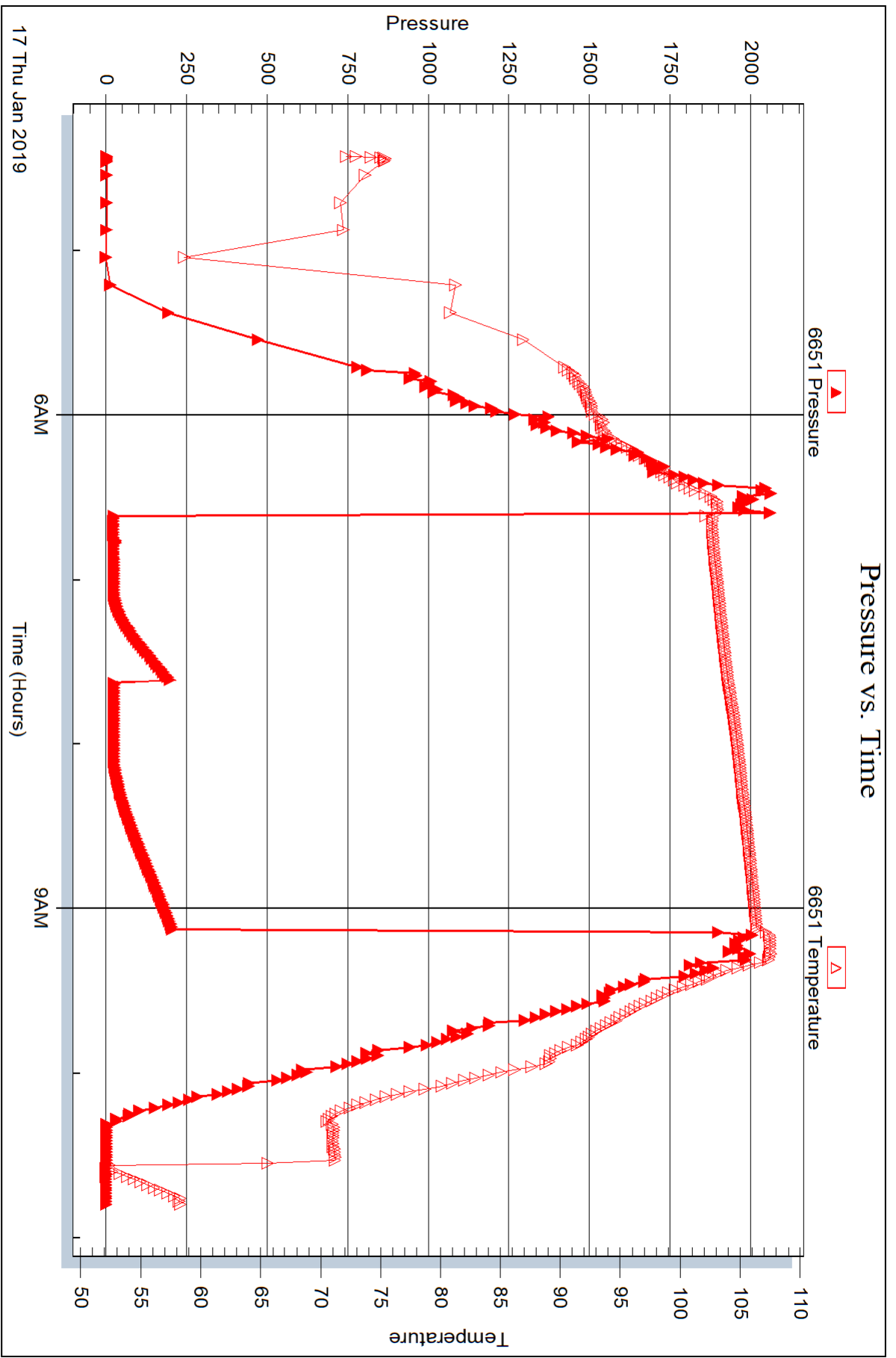
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64318

DST#: 4

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 22:24:24

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:47:24

Time Test Ended: 06:01:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4222.00 ft (KB) To 4280.00 ft (KB) (TVD)

Reference Elevations: 2677.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8166 Outside

Press@RunDepth: 47.95 psig @ 4223.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.17 End Date: 2019.01.18

Last Calib.: 2019.01.18

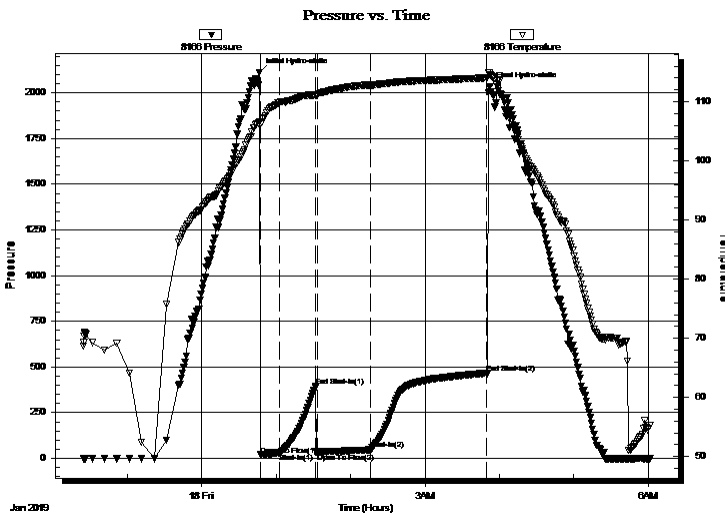
Start Time: 22:24:29 End Time: 06:01:23

Time On Btm: 2019.01.18 @ 00:46:24

Time Off Btm: 2019.01.18 @ 03:51:54

TEST COMMENT: IF: BOB in 14 min. 11"
IS: Surface blow built to 3/4.
FF: BOB in 2 mins. 33"
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.34	106.59	Initial Hydro-static
1	19.22	106.27	Open To Flow (1)
16	28.49	109.86	Shut-In(1)
46	394.45	111.13	End Shut-In(1)
47	28.77	111.12	Open To Flow (2)
90	47.95	112.81	Shut-In(2)
184	466.42	114.04	End Shut-In(2)
186	2035.30	114.82	Final Hydro-static

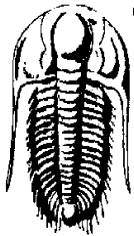
Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 30%g 20%o 50%m	0.87
20.00	gocm 5%g 10%o 85%m	0.28
0.00	476 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64318

DST#: 4

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 22:24:24

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:47:24

Time Test Ended: 06:01:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4222.00 ft (KB) To 4280.00 ft (KB) (TVD)

Reference Elevations: 2677.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 6651

Inside

Press@RunDepth: psig @ 4223.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.17

End Date:

2019.01.18

Last Calib.:

2019.01.18

Start Time: 22:24:33

End Time:

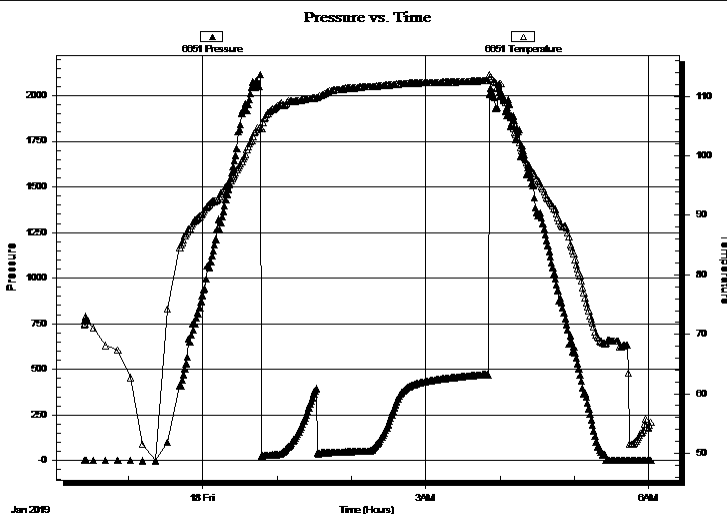
06:01:27

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB in 14 min. 11"
IS: Surface blow built to 3/4.
FF: BOB in 2 mins. 33"
FS: No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 30%g 20%o 50%m	0.87
20.00	gocm 5%g 10%o 85%m	0.28
0.00	476 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64318

DST#: 4

ATTN: Tim Lauer

Test Start: 2019.01.17 @ 22:24:24

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: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 30%g 20%o 50%m	0.870
20.00	gocm 5%g 10%o 85%m	0.281
0.00	476 GIP	0.000

Total Length: 82.00 ft Total Volume: 1.151 bbl

Num Fluid Samples: 0

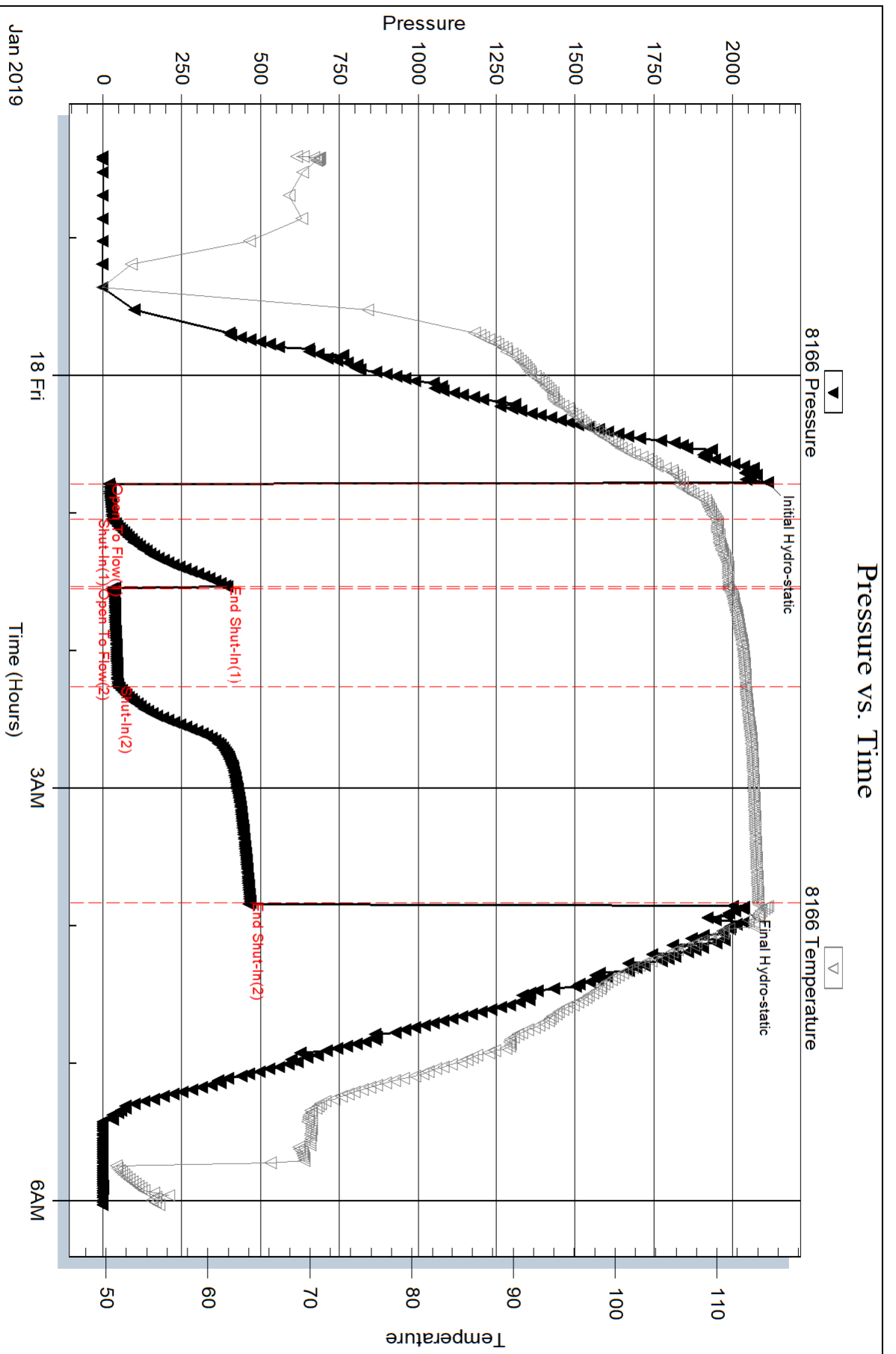
Num Gas Bombs: 0

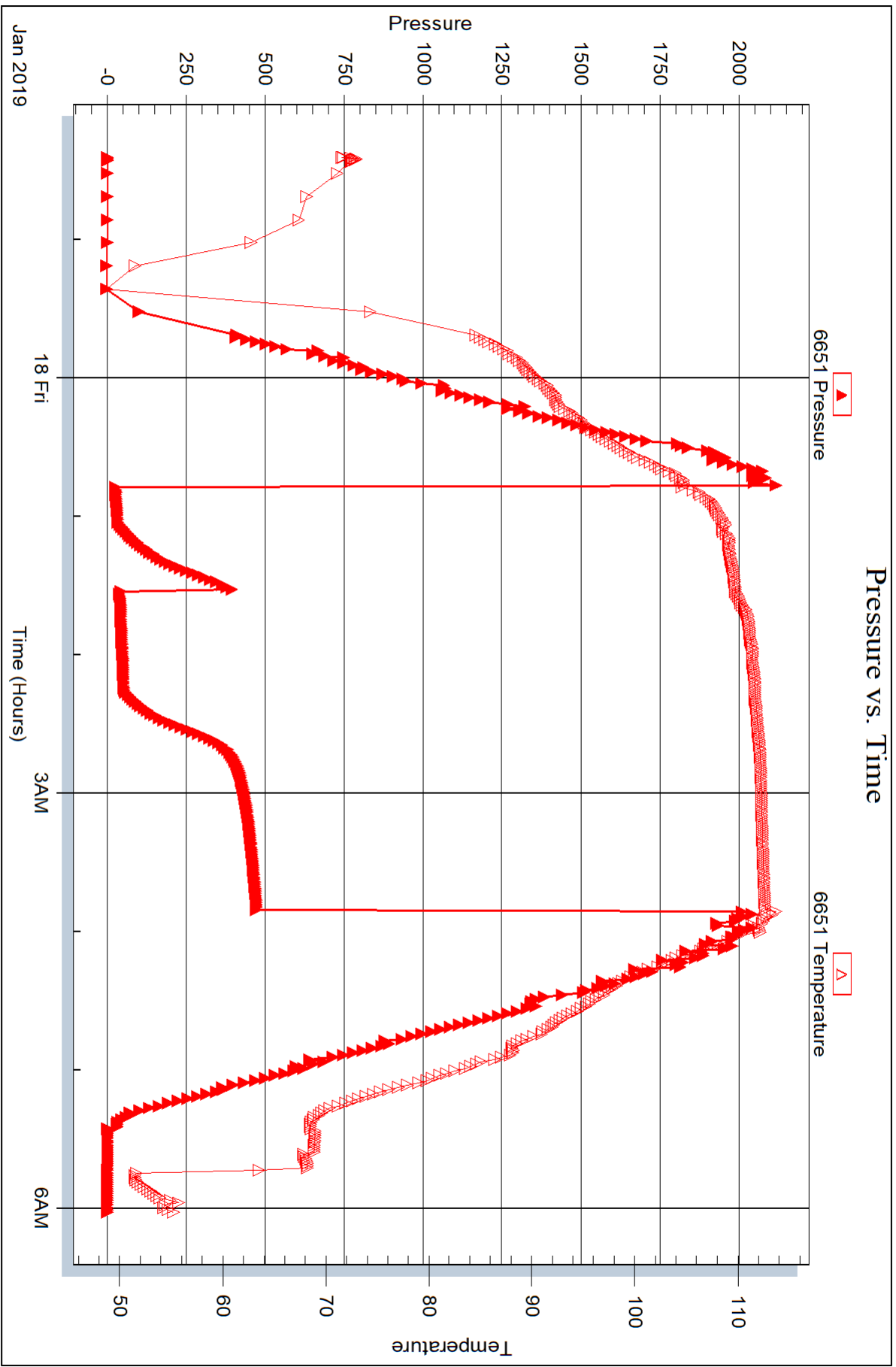
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64319

DST#: 5

ATTN: Tim Lauer

Test Start: 2019.01.18 @ 14:14:28

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:34:28

Time Test Ended: 21:55:58

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4280.00 ft (KB) To 4310.00 ft (KB) (TVD)

Reference Elevations: 2677.00 ft (KB)

Total Depth: 4310.00 ft (KB) (TVD)

2668.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8166 Outside

Press@RunDepth: 17.55 psig @ 4281.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.18 End Date: 2019.01.18

Last Calib.: 2019.01.18

Start Time: 14:14:33 End Time: 21:55:57

Time On Btm: 2019.01.18 @ 16:33:28

Time Off Btm: 2019.01.18 @ 19:36:58

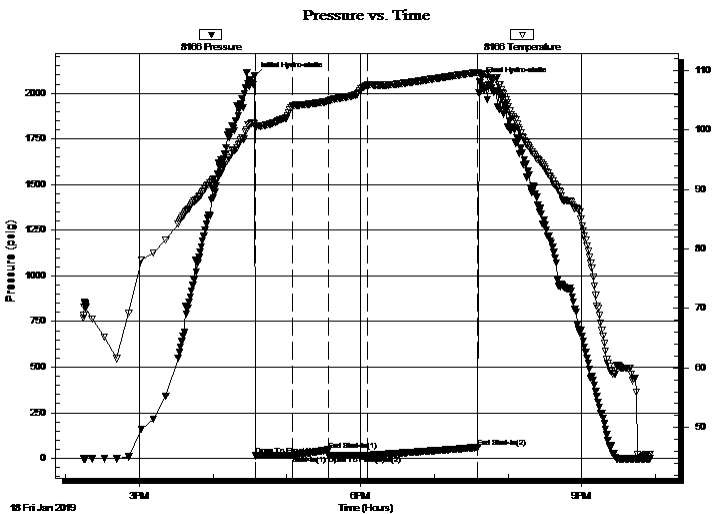
TEST COMMENT: IF: 1" blow built to 1 1/4.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.53	101.12	Initial Hydro-static
1	15.55	100.65	Open To Flow (1)
31	17.33	104.04	Shut-In(1)
60	47.14	104.84	End Shut-In(1)
61	16.83	104.93	Open To Flow (2)
93	17.55	107.58	Shut-In(2)
182	61.03	109.70	End Shut-In(2)
184	2066.04	109.46	Final Hydro-static

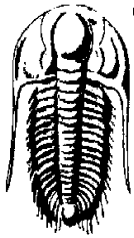
Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 5%o 95%m	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

ATTN: Tim Lauer

Job Ticket: 64319

DST#: 5

Test Start: 2019.01.18 @ 14:14:28

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:34:28

Time Test Ended: 21:55:58

Interval: **4280.00 ft (KB) To 4310.00 ft (KB) (TVD)**

Total Depth: 4310.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Reference Elevations: 2677.00 ft (KB)

2668.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: **6651** Inside

Press@RunDepth: psig @ 4281.00 ft (KB)

Start Date: 2019.01.18

End Date: 2019.01.18

Capacity: 8000.00 psig

Last Calib.: 2019.01.18

Start Time: 14:14:31

End Time: 21:55:55

Time On Btm:

Time Off Btm:

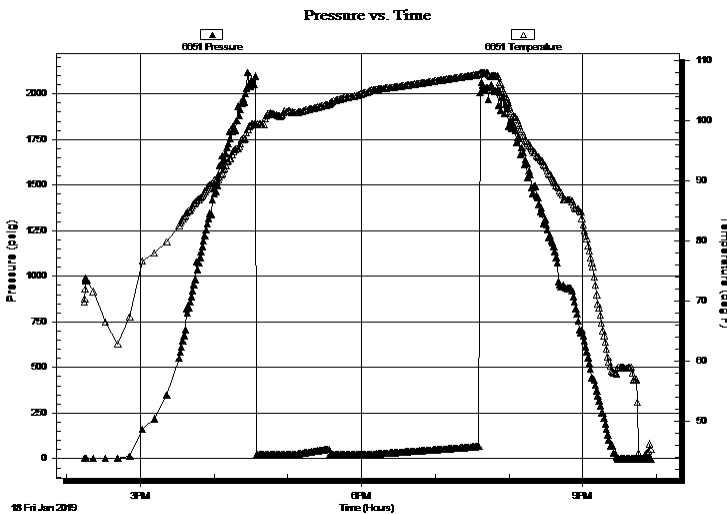
TEST COMMENT: IF: 1" blow built to 1 1/4.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 5%o 95%m	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co. Inc

27-14s-32w Logan, Ks

202 W Main St
Salem, IL 62881

Ottley 3-27

Job Ticket: 64319

DST#: 5

ATTN: Tim Lauer

Test Start: 2019.01.18 @ 14:14:28

Tool Information

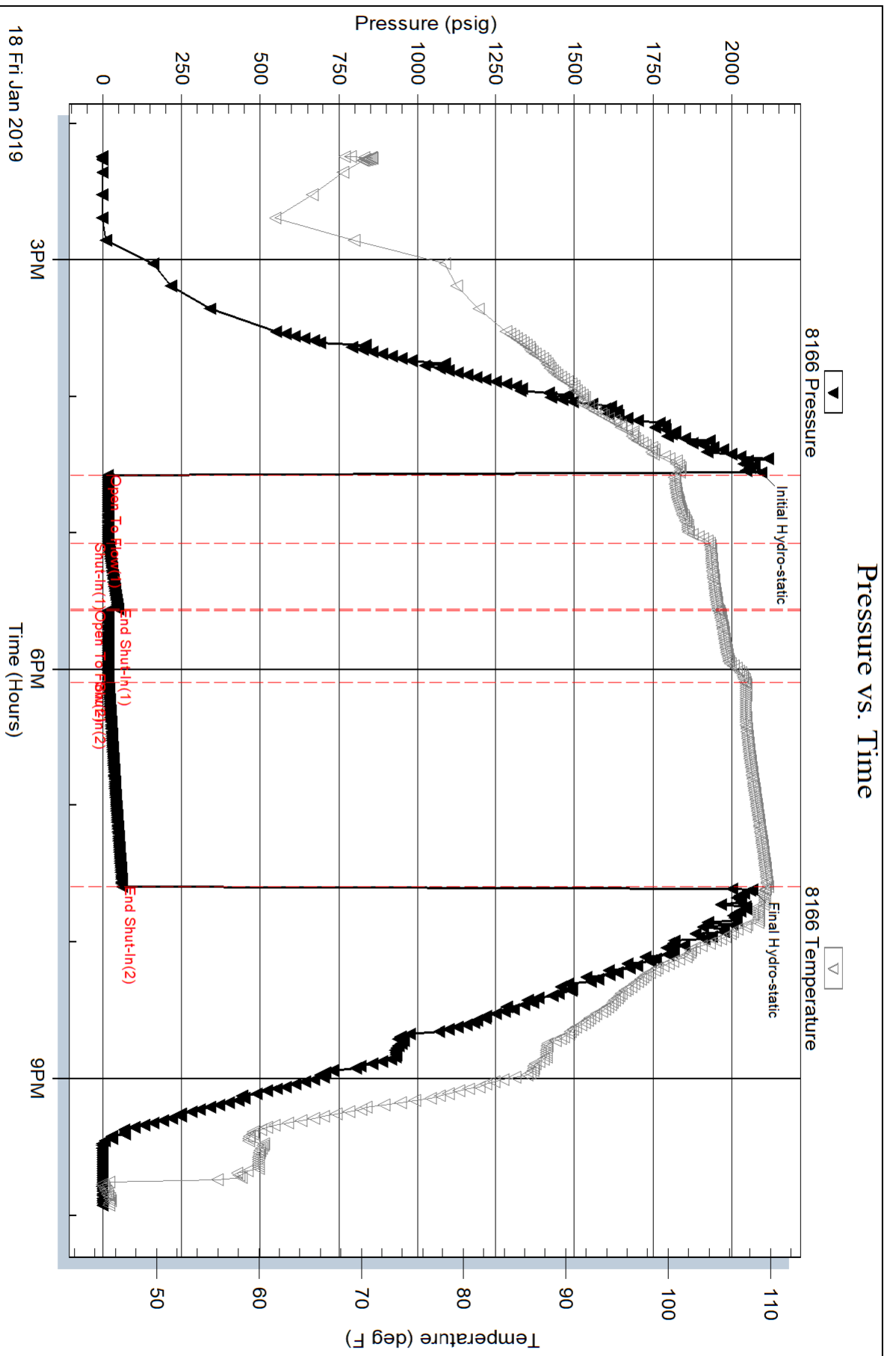
Drill Pipe:	Length: 4278.00 ft	Diameter: 3.80 inches	Volume: 60.01 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 60.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4280.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4254.00	
Shut In Tool	5.00			4259.00	
Hydraulic tool	5.00			4264.00	
Jars	5.00			4269.00	
Safety Joint	2.00			4271.00	
Packer	5.00			4276.00	27.00 Bottom Of Top Packer
Packer	4.00			4280.00	
Stubb	1.00			4281.00	
Recorder	0.00	6651	Inside	4281.00	
Recorder	0.00	8166	Outside	4281.00	
Perforations	24.00			4305.00	
Bullnose	5.00			4310.00	30.00 Bottom Packers & Anchor

Total Tool Length: 57.00



Serial #: 6651

Inside

Shakespeare Oil Co. Inc

Ottley 3-27

DST Test Number: 5

