

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: Arcadian Resources, LLC
LEASE: Southfork #1-2

ELEVATIONS
KB 3438'

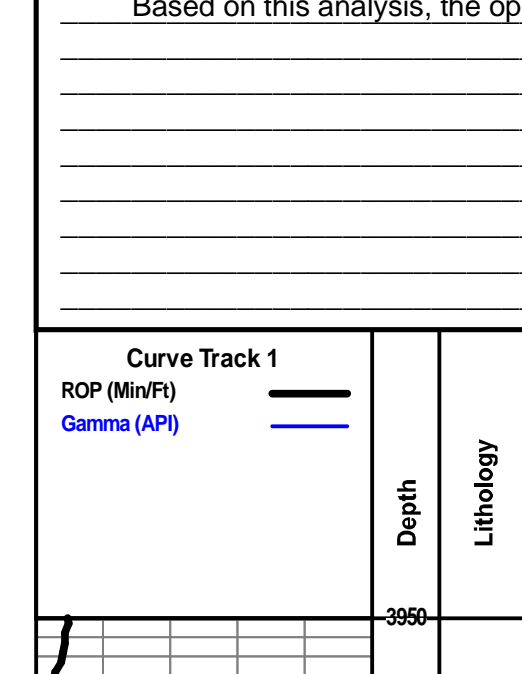
FIELD: Wildcat
LOCATION: 2303 FSL & 680' FEL
SEC: 2 TWP: 8S RGE: 37W
COUNTY: Sherman STATE: Kansas
CONTRACTOR: Maurin Drilling Rig #3
SPUD: 12/26/19 COMP: 1/4/20
RTD: 5029' LTD: 5031'
MUD UP: 3500' TYPE MUD: Chemical

CONDUCTOR: _____
SURFACE: _____
PRODUCTION: _____
GL: 3433'
Measurements Are All From Kelly Bushing

SAMPLES SAVED FROM 3700' TO RTD
DRILLING TIME KEPT FROM 3700' TO RTD
SAMPLES EXAMINED FROM 3700' TO RTD
GEOLOGICAL SUPERVISION FROM 3700'
REFERENCE WELL: _____

ELECTRICAL SURVEYS
Pioneer
D.L. CND, MTC

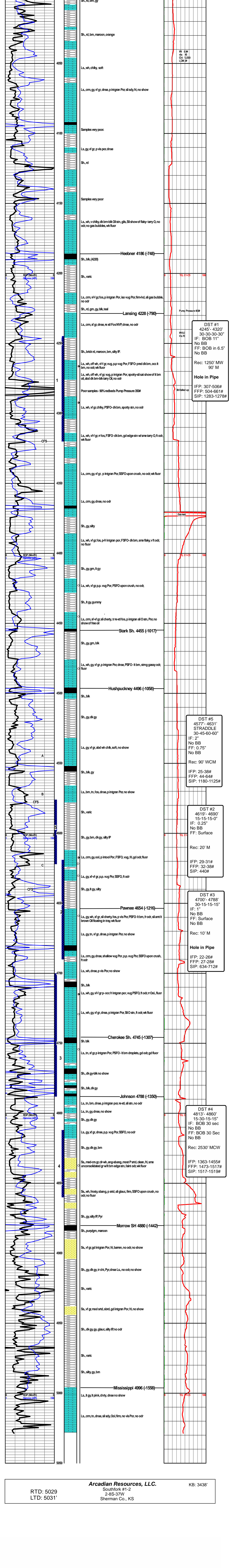
Formation	Sample Tops	E-log Tops	Struct. Feas.
Heebner Sh.	4186 (-748)		
Lansing	4228 (-790)		
Stark Sh.	4454 (-1017)		
Pawnee	4654 (-1216)		
Cherokee Sh.	4745 (-1307)		
Johnson Zn	4788 (-1350)		
Morrow Sh.	4880 (-1442)		
Miss.	4996 (-1558)		



REMARKS
The Southfork #1-2 was drilled and evaluated through sample, DST, and Log Analysis. Based on this analysis, the operator elected to plug and abandon this test.

Respectfully Submitted,

Sean P. Deenihan





DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St
Concordia, KS 66901

ATTN: Sean Deenihan

Southfork #1-2

2-8s-37w Sherman KS

Start Date: 2019.12.30 @ 05:59:00

End Date: 2019.12.30 @ 13:45:00

Job Ticket #: 66412 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.03 @ 16:49:47



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66412

DST#: 1

ATTN: Sean Deenihan

Test Start: 2019.12.30 @ 05:59:00

GENERAL INFORMATION:

Formation: **LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:27:15

Time Test Ended: 13:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4245.00 ft (KB) To 4320.00 ft (KB) (TVD)

Reference Elevations: 3437.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

3432.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 661.32 psig @ 4246.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.12.30

End Date: 2019.12.30

Last Calib.: 2019.12.30

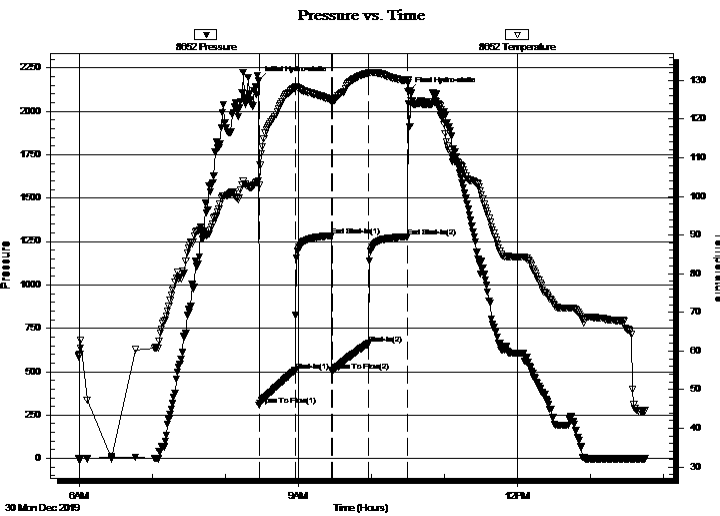
Start Time: 05:59:05

End Time: 13:44:59

Time On Btm: 2019.12.30 @ 08:27:00

Time Off Btm: 2019.12.30 @ 10:29:45

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 6 3/4 min. Diesel/ 8 min. H2O, built to 44"
30 - IS: No blow back
30 - FF: Blow built to BOB at 6 1/2 min. Diesel/ 8 min., H2O, built to 38 1/2"
30 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2174.15	103.96	Initial Hydro-static
1	306.95	102.88	Open To Flow (1)
30	505.61	128.17	Shut-In(1)
60	1282.79	124.94	End Shut-In(1)
61	504.47	124.67	Open To Flow (2)
91	661.32	131.92	Shut-In(2)
123	1277.60	129.80	End Shut-In(2)
123	2111.10	130.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
630.00	SMCW 91%w, 9%m	7.48
250.00	MCW 60%w, 40%m	3.51
370.00	WCM 88%m, 12%w	5.19
90.00	Mud 100% (Didn't take smpl)	1.26

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66412

DST#: 1

ATTN: Sean Deenihan

Test Start: 2019.12.30 @ 05:59:00

Tool Information

Drill Pipe:	Length: 4074.00 ft	Diameter: 3.80 inches	Volume: 57.15 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 149.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 57.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4245.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	107.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: found hole in pipe w hile tripping out at 1320' above tool

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4214.00	
Shut In Tool	5.00			4219.00	
Hydraulic tool	5.00			4224.00	
Jars	5.00			4229.00	
EM Tool	3.00			4232.00	
Safety Joint	3.00			4235.00	
Packer	5.00			4240.00	32.00 Bottom Of Top Packer
Packer	5.00			4245.00	
Packer - Shale	0.00			4245.00	
Stubb	1.00			4246.00	
Recorder	0.00	6625	Inside	4246.00	
Recorder	0.00	8652	Outside	4246.00	
Perforations	7.00			4253.00	
Blank Spacing	64.00			4317.00	
Bullnose	3.00			4320.00	75.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66412

DST#: 1

ATTN: Sean Deenihan

Test Start: 2019.12.30 @ 05:59:00

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:

100000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.55 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 13500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
630.00	SMCW 91%w , 9%m	7.480
250.00	MCW 60%w , 40%m	3.507
370.00	WCM 88%m, 12%w	5.190
90.00	Mud 100% (Didn't take smp)	1.262

Total Length: 1340.00 ft Total Volume: 17.439 bbl

Num Fluid Samples: 0

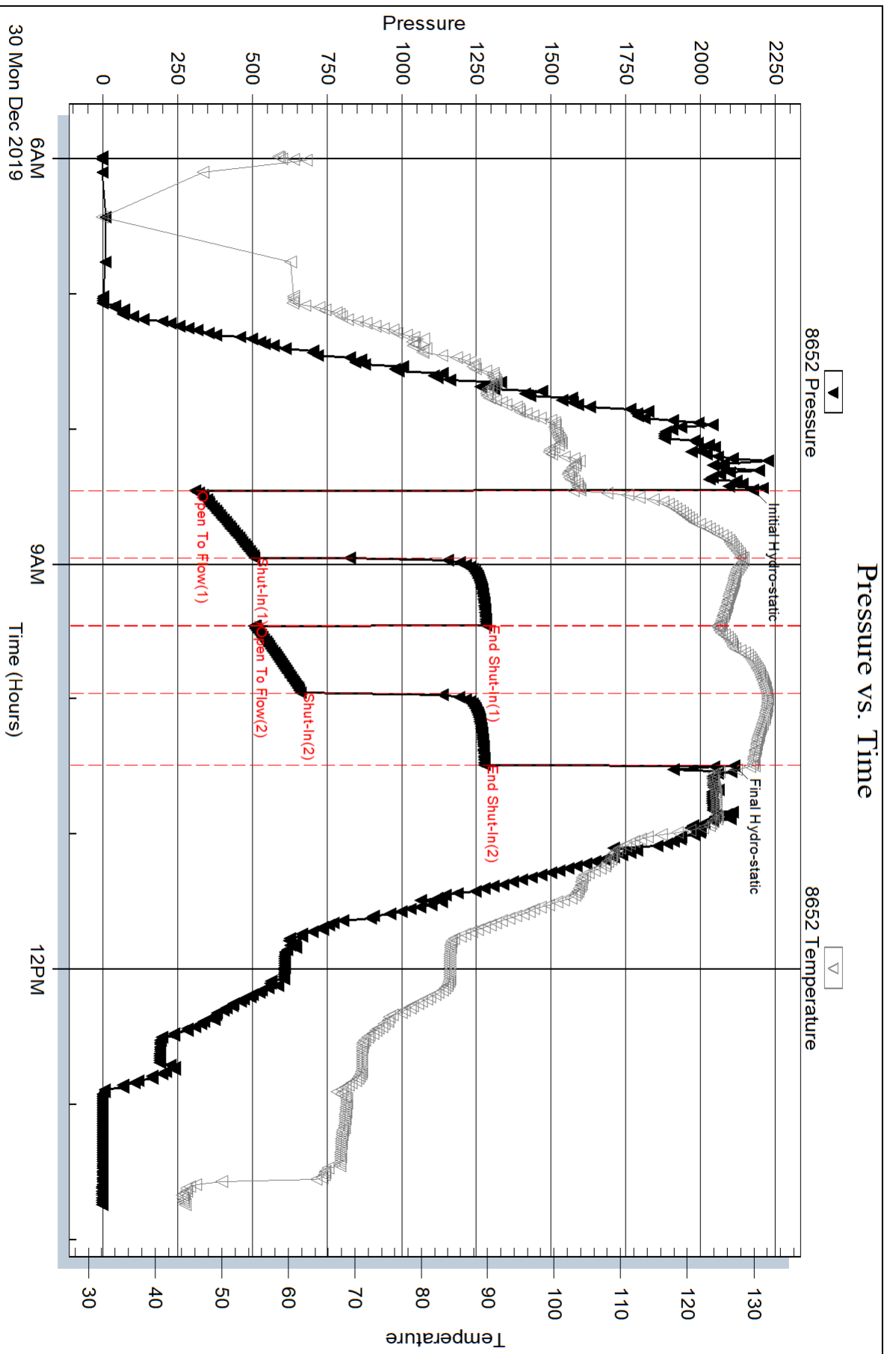
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .141 ohms @ 40 deg F Chlorides = 100,000 ppm



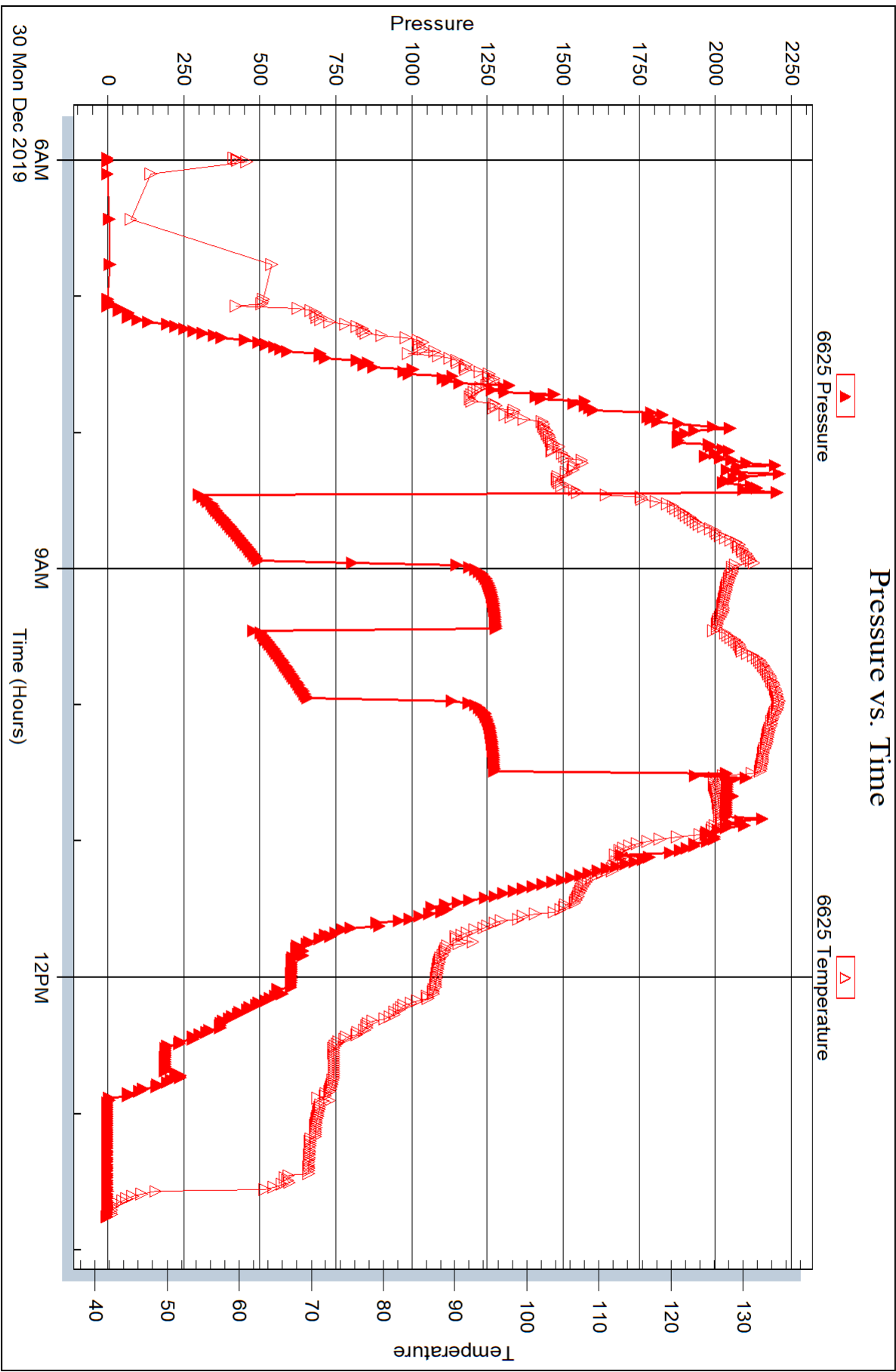
Serial #: 6625

Inside

Arcadian Resources LLC

Southfork #1-2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St
Concordia, KS 66901

ATTN: Sean Deenihan

Southfork #1-2

2-8s-37w Sherman KS

Start Date: 2019.12.31 @ 13:26:00

End Date: 2019.12.31 @ 18:49:15

Job Ticket #: 66413 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.03 @ 16:49:25



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

ATTN: Sean Deenihan

Job Ticket: 66413

DST#: 2

Test Start: 2019.12.31 @ 13:26:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:01:00

Time Test Ended: 18:49:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4619.00 ft (KB) To 4690.00 ft (KB) (TVD)

Reference Elevations: 3437.00 ft (KB)

Total Depth: 4619.00 ft (KB) (TVD)

3432.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 30.52 psig @ 4620.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.12.31 End Date: 2019.12.31

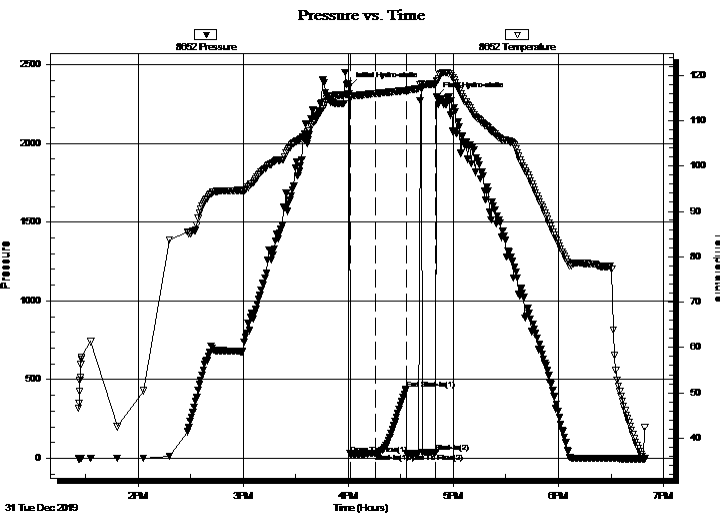
Last Calib.: 2019.12.31

Start Time: 13:26:05 End Time: 18:49:14

Time On Btm: 2019.12.31 @ 16:00:30

Time Off Btm: 2019.12.31 @ 16:50:30

TEST COMMENT: 15 - IF: Blow built to 1/4"+
15 - IS: No blow back
15 - FF: Weak surface blow, flushed tool, Weak surface blow
Pulled Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2362.41	115.87	Initial Hydro-static
1	28.51	114.94	Open To Flow (1)
16	30.52	115.96	Shut-In(1)
33	440.45	116.67	End Shut-In(1)
33	32.37	116.50	Open To Flow (2)
50	37.64	118.08	Shut-In(2)
50	2296.96	118.84	Final Hydro-static

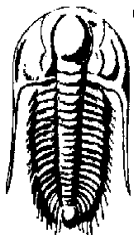
Recovery

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

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66413

DST#: 2

ATTN: Sean Deenihan

Test Start: 2019.12.31 @ 13:26:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:01:00

Time Test Ended: 18:49:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4619.00 ft (KB) To 4690.00 ft (KB) (TVD)

Total Depth: 4619.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3437.00 ft (KB)

3432.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 4620.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.12.31

End Date: 2019.12.31

Last Calib.: 2019.12.31

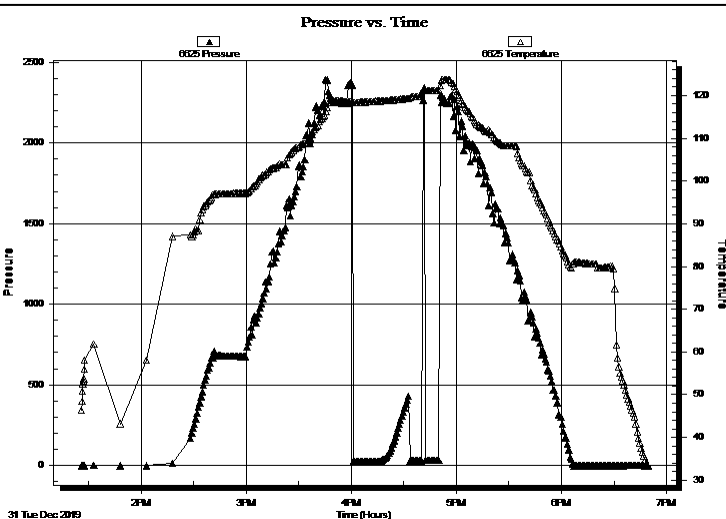
Start Time: 13:26:05

End Time: 18:49:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 15 - IF: Blow built to 1/4"+
15 - IS: No blow back
15 - FF: Weak surface blow , flushed tool, Weak surface blow
Pulled Tool



PRESSURE SUMMARY

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

Recovery

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

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66413

DST#: 2

ATTN: Sean Deenihan

Test Start: 2019.12.31 @ 13:26:00

Tool Information

Drill Pipe:	Length: 4450.00 ft	Diameter: 3.80 inches	Volume: 62.42 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 149.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 63.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4619.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4588.00	
Shut In Tool	5.00			4593.00	
Hydraulic tool	5.00			4598.00	
Jars	5.00			4603.00	
EM Tool	3.00			4606.00	
Safety Joint	3.00			4609.00	
Packer	5.00			4614.00	32.00 Bottom Of Top Packer
Packer	5.00			4619.00	
Packer - Shale	0.00			4619.00	
Stubb	1.00			4620.00	
Recorder	0.00	6625	Inside	4620.00	
Recorder	0.00	8652	Outside	4620.00	
Perforations	31.00			4651.00	
Blank Spacing	33.00			4684.00	
Perforations	3.00			4687.00	
Bullnose	3.00			4690.00	71.00 Bottom Packers & Anchor
Total Tool Length:	103.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66413

DST#: 2

ATTN: Sean Deenihan

Test Start: 2019.12.31 @ 13:26:00

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.53 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 15000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100%	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

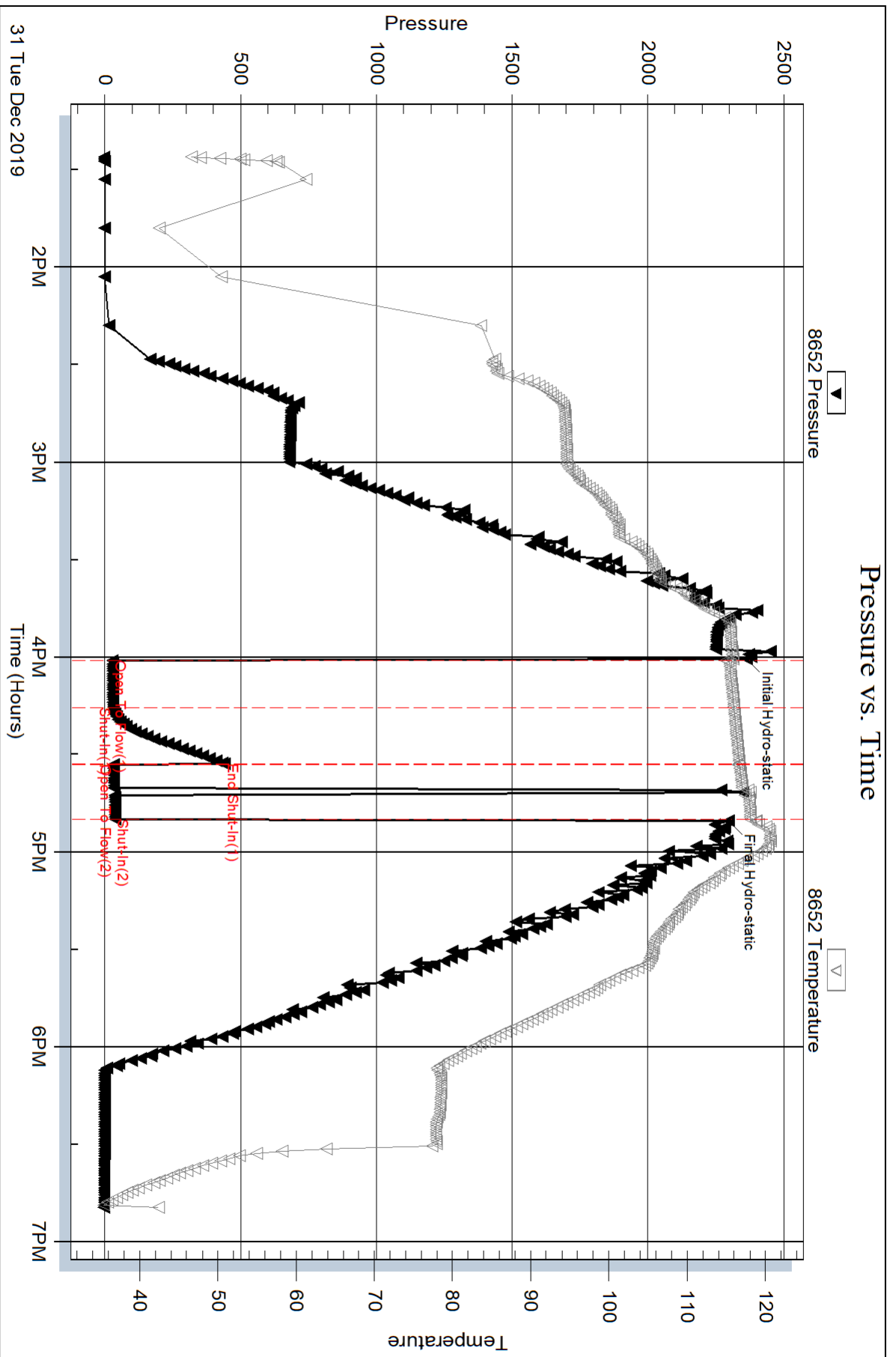
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



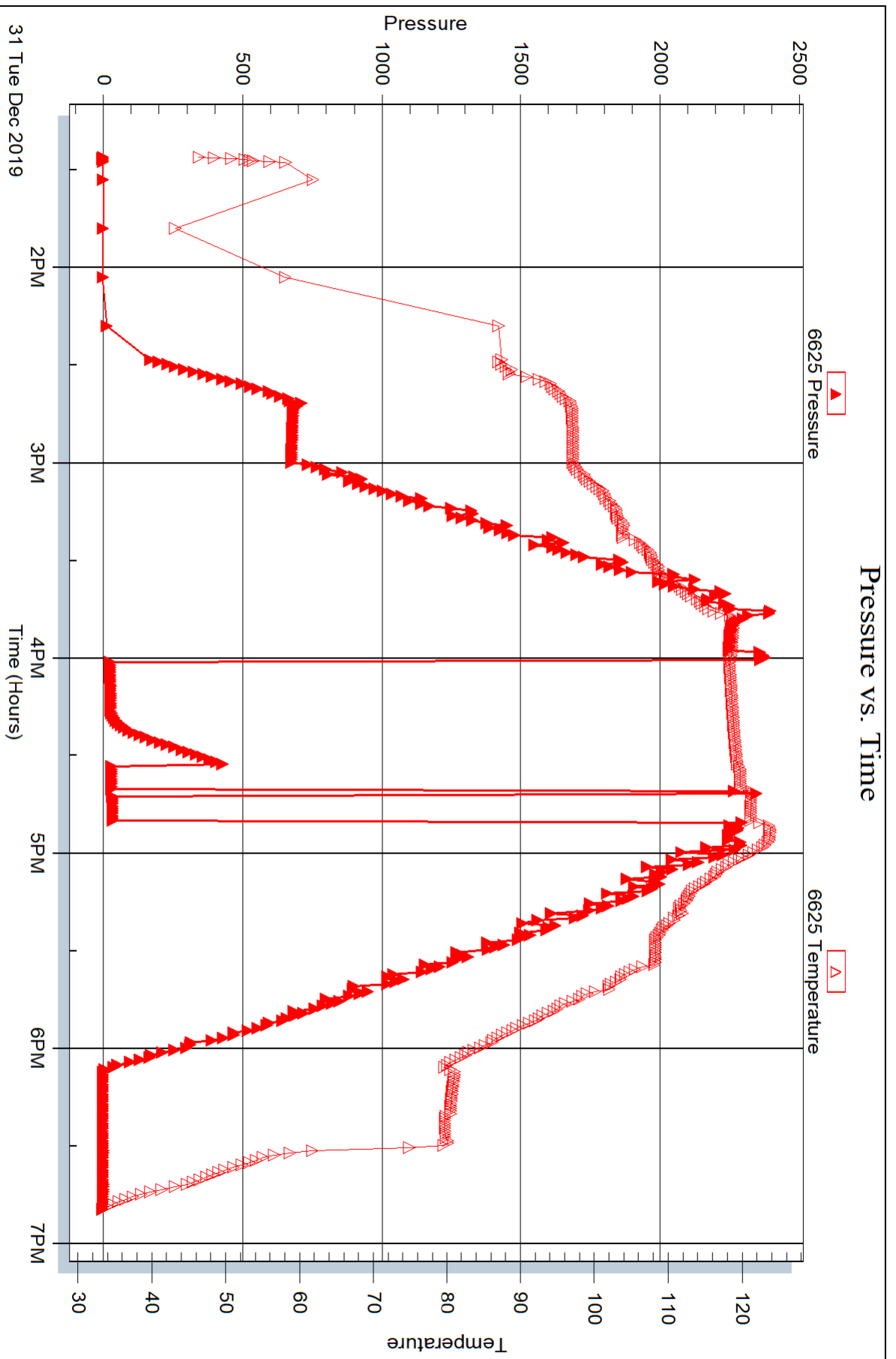
Serial #: 6625

Inside

Arcadian Resources LLC

Southfork #1-2

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St
Concordia, KS 66901

ATTN: Sean Deenihan

Southfork #1-2

2-8s-37w Sherman KS

Start Date: 2020.01.01 @ 03:52:00

End Date: 2020.01.01 @ 09:56:45

Job Ticket #: 66414 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.03 @ 16:49:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66414

DST#: 3

ATTN: Sean Deenihan

Test Start: 2020.01.01 @ 03:52:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:29:30

Time Test Ended: 09:56:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4700.00 ft (KB) To 4788.00 ft (KB) (TVD)

Reference Elevations: 3437.00 ft (KB)

Total Depth: 4788.00 ft (KB) (TVD)

3432.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 27.69 psig @ 4701.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.01.01 End Date: 2020.01.01

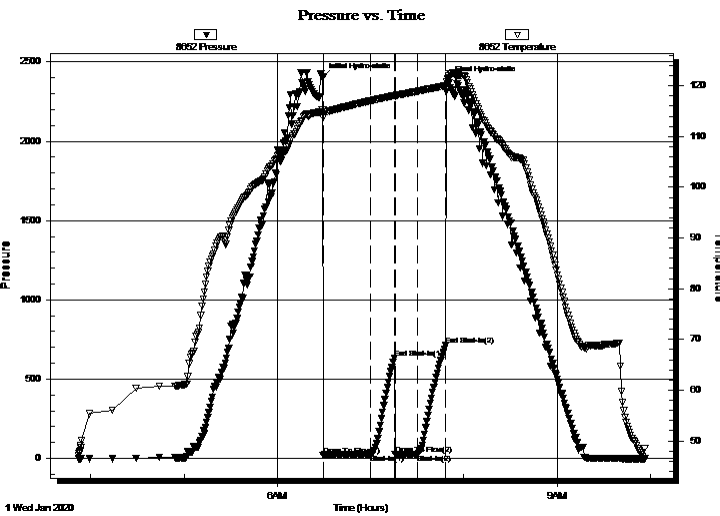
Last Calib.: 2020.01.01

Start Time: 03:52:05 End Time: 09:56:44

Time On Btm: 2020.01.01 @ 06:29:15

Time Off Btm: 2020.01.01 @ 07:50:00

TEST COMMENT: 30 - IF: Blow built to 1" in diesel
15 - IS: No blow back
15 - FF: Weak surface blow
15 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2399.78	115.32	Initial Hydro-static
1	21.64	113.75	Open To Flow (1)
31	26.23	117.03	Shut-In(1)
46	633.56	118.06	End Shut-In(1)
47	27.21	117.93	Open To Flow (2)
61	27.69	118.91	Shut-In(2)
79	711.98	120.00	End Shut-In(2)
81	2385.41	121.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	VSWCM 98% m, 2% w	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66414

DST#: 3

ATTN: Sean Deenihan

Test Start: 2020.01.01 @ 03:52:00

Tool Information

Drill Pipe:	Length: 4544.00 ft	Diameter: 3.80 inches	Volume: 63.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 149.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 64.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4700.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	120.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4669.00	
Shut In Tool	5.00			4674.00	
Hydraulic tool	5.00			4679.00	
Jars	5.00			4684.00	
EM Tool	3.00			4687.00	
Safety Joint	3.00			4690.00	
Packer	5.00			4695.00	32.00 Bottom Of Top Packer
Packer	5.00			4700.00	
Packer - Shale	0.00			4700.00	
Stubb	1.00			4701.00	
Recorder	0.00	6625	Inside	4701.00	
Recorder	0.00	8652	Outside	4701.00	
Perforations	20.00			4721.00	
Blank Spacing	64.00			4785.00	
Bullnose	3.00			4788.00	88.00 Bottom Packers & Anchor

Total Tool Length: 120.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66414

DST#: 3

ATTN: Sean Deenihan

Test Start: 2020.01.01 @ 03:52:00

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.54 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 15000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	VSWCM 98% _m , 2% _w	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

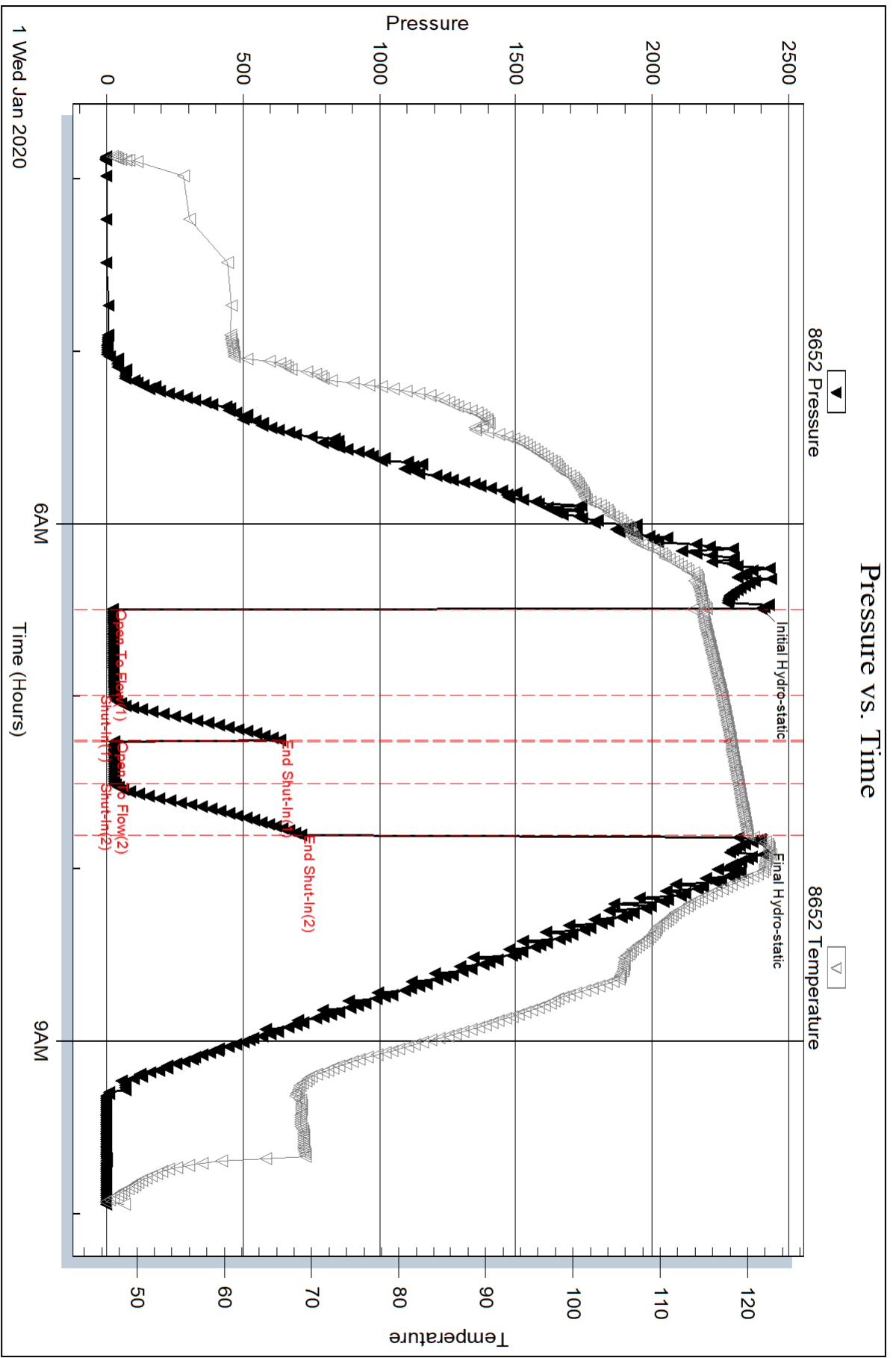
Num Gas Bombs: 0

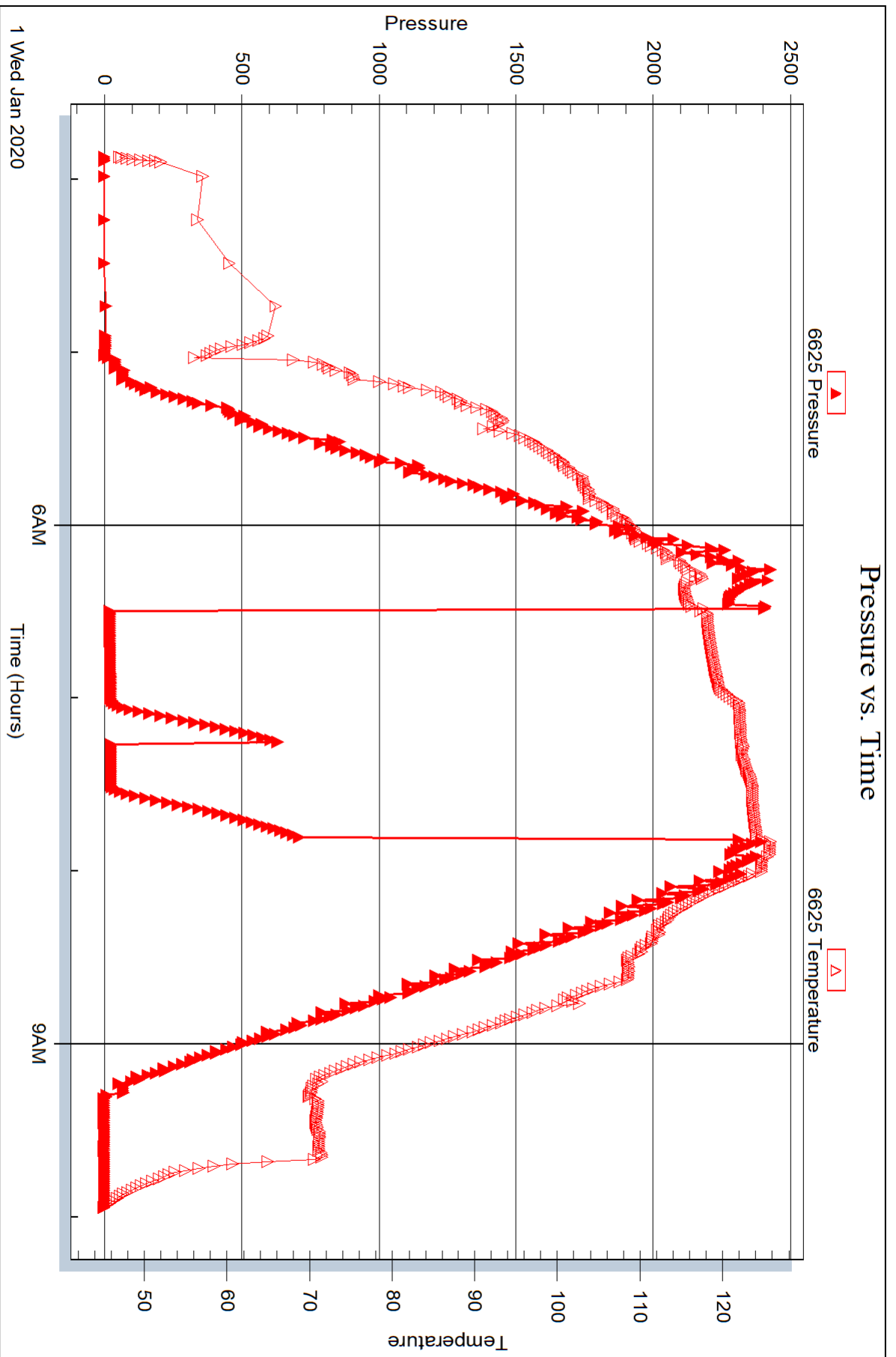
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St
Concordia, KS 66901

ATTN: Sean Deenihan

Southfork #1-2

2-8s-37w Sherman KS

Start Date: 2020.01.01 @ 17:53:00

End Date: 2020.01.02 @ 01:28:45

Job Ticket #: 66415 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.03 @ 16:46:10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

ATTN: Sean Deenihan

Job Ticket: 66415

DST#: 4

Test Start: 2020.01.01 @ 17:53:00

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:39:00

Time Test Ended: 01:28:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4813.00 ft (KB) To 4860.00 ft (KB) (TVD)

Reference Elevations: 3437.00 ft (KB)

Total Depth: 4860.00 ft (KB) (TVD)

3432.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 1516.67 psig @ 4814.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.01.01 End Date: 2020.01.02

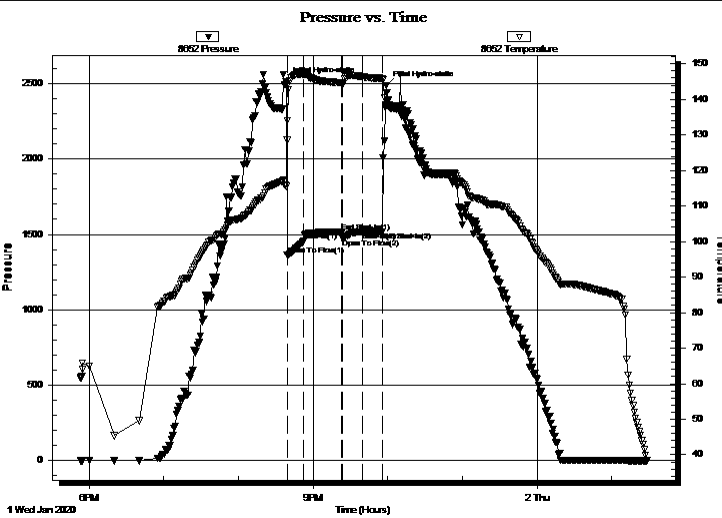
Last Calib.: 2020.01.02

Start Time: 17:53:05 End Time: 01:28:44

Time On Btm: 2020.01.01 @ 20:38:15

Time Off Btm: 2020.01.01 @ 21:59:00

TEST COMMENT: 15 - IF: Blow built to BOB (11") at 30 to 45 sec., built to 440"
30 - IS: No blow back
15 - FF: Blow built to BOB at 30 sec., built to around 80"
15 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2515.31	115.51	Initial Hydro-static
1	1363.34	128.53	Open To Flow (1)
14	1454.39	147.01	Shut-In(1)
45	1517.71	144.65	End Shut-In(1)
46	1473.23	144.62	Open To Flow (2)
62	1516.67	146.33	Shut-In(2)
78	1518.65	145.91	End Shut-In(2)
81	2488.31	138.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2255.00	Water 99%w, 1%m	30.27
275.00	MCW 63%w, 37%m	3.86

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66415

DST#: 4

ATTN: Sean Deenihan

Test Start: 2020.01.01 @ 17:53:00

Tool Information

Drill Pipe:	Length: 4666.00 ft	Diameter: 3.80 inches	Volume: 65.45 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 149.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 66.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4813.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4782.00	
Shut In Tool	5.00			4787.00	
Hydraulic tool	5.00			4792.00	
Jars	5.00			4797.00	
EM Tool	3.00			4800.00	
Safety Joint	3.00			4803.00	
Packer	5.00			4808.00	32.00 Bottom Of Top Packer
Packer	5.00			4813.00	
Packer - Shale	0.00			4813.00	
Stubb	1.00			4814.00	
Recorder	0.00	6625	Inside	4814.00	
Recorder	0.00	8652	Outside	4814.00	
Perforations	10.00			4824.00	
Blank Spacing	33.00			4857.00	
Bullnose	3.00			4860.00	47.00 Bottom Packers & Anchor

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66415

DST#: 4

ATTN: Sean Deenihan

Test Start: 2020.01.01 @ 17:53:00

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:

125000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 14500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2255.00	Water 99%w, 1%m	30.274
275.00	MCW 63%w, 37%m	3.858

Total Length: 2530.00 ft Total Volume: 34.132 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

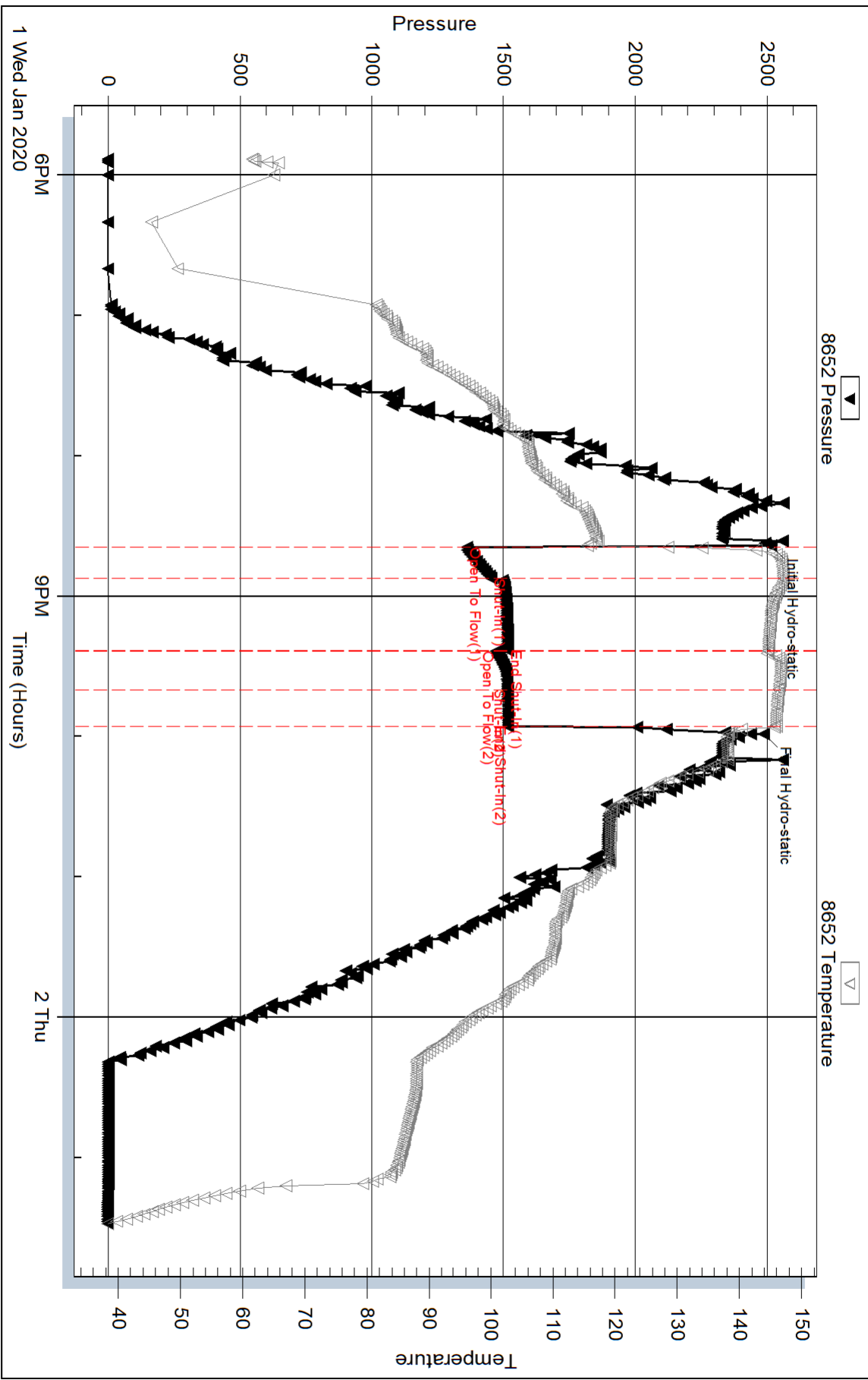
Serial #:

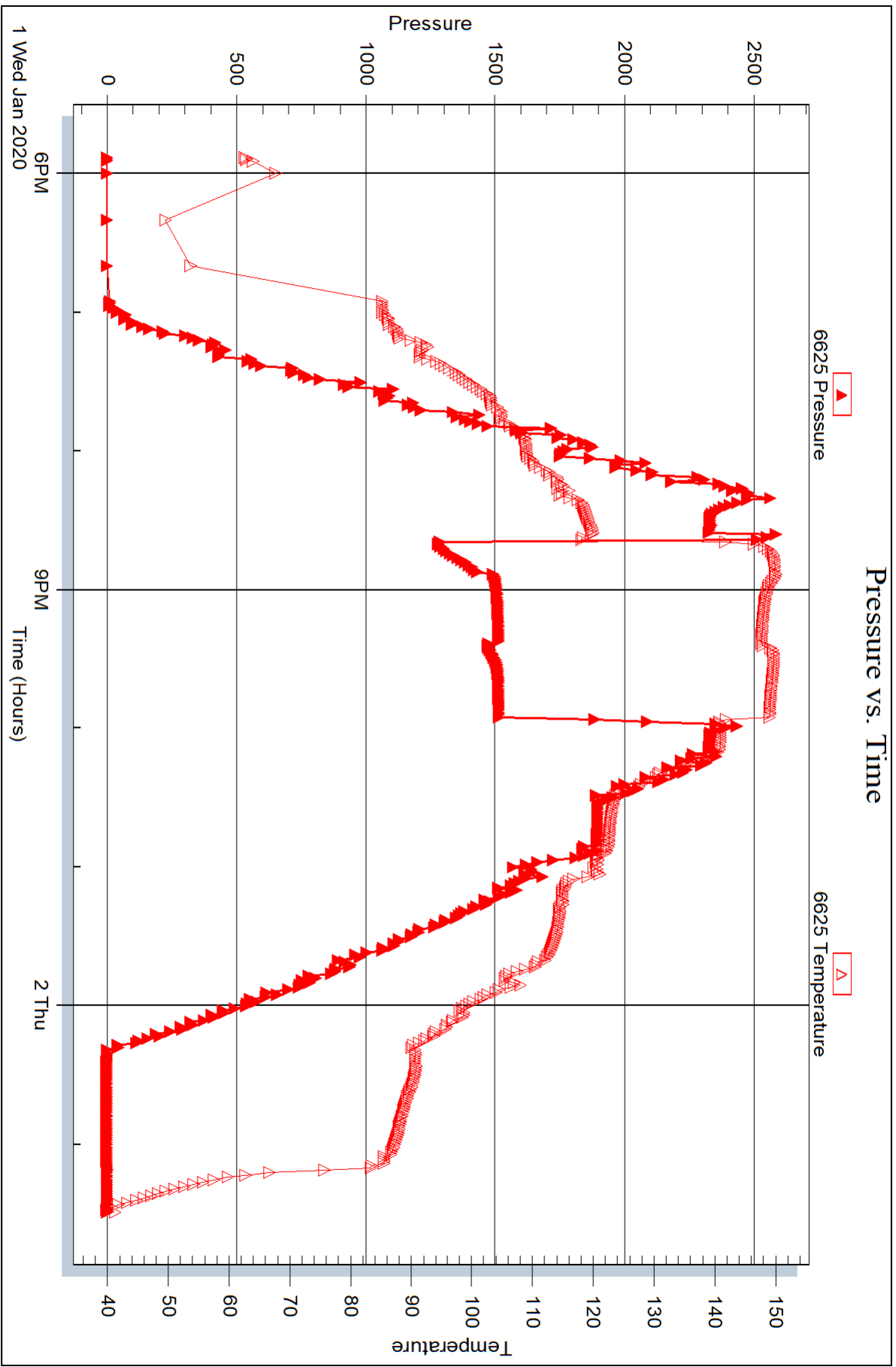
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .128 ohms @ 38 deg F Chlorides = 125,000 ppm

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St
Concordia, KS 66901

ATTN: Sean Deenihan

Southfork #1-2

2-8s-37w Sherman KS

Start Date: 2020.01.02 @ 19:39:00

End Date: 2020.01.03 @ 04:25:15

Job Ticket #: 66416 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.01.03 @ 16:45:12



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

ATTN: Sean Deenihan

Job Ticket: 66416

DST#: 5

Test Start: 2020.01.02 @ 19:39:00

GENERAL INFORMATION:

Formation: **Altamont "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:43:15

Time Test Ended: 04:25:15

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Interval: 4577.00 ft (KB) To 4631.00 ft (KB) (TVD)

Reference Elevations: 3437.00 ft (KB)

Total Depth: 5031.00 ft (KB) (TVD)

3432.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 64.38 psig @ 4578.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.01.02

End Date:

2020.01.03

Last Calib.:

2020.01.03

Start Time:

19:39:05

End Time:

04:25:15

Time On Btm:

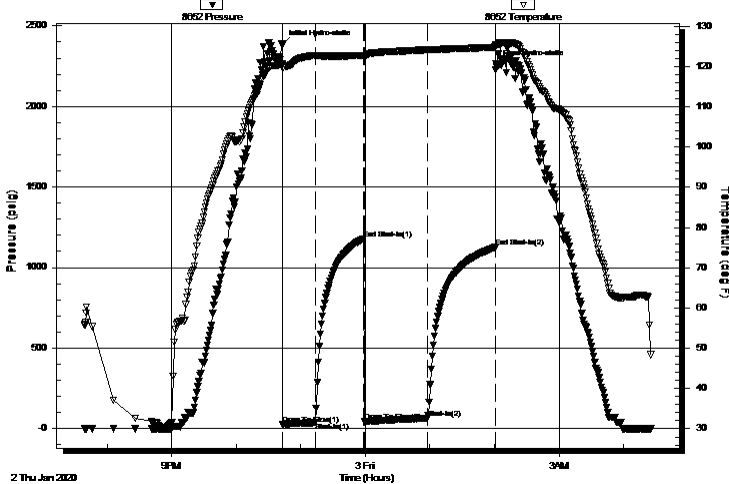
2020.01.02 @ 22:43:00

Time Off Btm:

2020.01.03 @ 02:01:30

TEST COMMENT: 30 - IF: Blow built to 2" in diesel
45 - IS: No blow back
60 - FF: Blow built to 3/4" in diesel
60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2381.93	120.64	Initial Hydro-static
1	25.04	119.60	Open To Flow (1)
31	38.01	122.66	Shut-In(1)
76	1179.60	122.78	End Shut-In(1)
76	43.79	122.27	Open To Flow (2)
135	64.38	124.16	Shut-In(2)
198	1124.60	124.80	End Shut-In(2)
199	2262.20	125.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	WCM 76% _m , 24% _w	0.44

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66416

DST#: 5

ATTN: Sean Deenihan

Test Start: 2020.01.02 @ 19:39:00

Tool Information

Drill Pipe:	Length: 4415.00 ft	Diameter: 3.80 inches	Volume: 61.93 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 149.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 62.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4577.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	4631.00 ft			
Interval between Packers:	54.00 ft			
Tool Length:	487.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4545.00	
Shut In Tool	5.00			4550.00	
Hydraulic tool	5.00			4555.00	
Jars	5.00			4560.00	
EM Tool	4.00			4564.00	
Safety Joint	3.00			4567.00	
Packer	5.00			4572.00	33.00 Bottom Of Top Packer
Packer	5.00			4577.00	
Stubb	1.00			4578.00	
Recorder	0.00	6625	Inside	4578.00	
Recorder	0.00	8652	Outside	4578.00	
Perforations	13.00			4591.00	
Blank Spacing	33.00			4624.00	
Perforations	2.00			4626.00	
Blank Off Sub	1.00			4627.00	
Blank Spacing	4.00			4631.00	54.00 Tool Interval
Packer	0.00			4631.00	
Packer - Shale	0.00			4631.00	
Stubb	1.00			4632.00	
Recorder	0.00	8167	Below	4632.00	
Perforations	15.00			4647.00	
Blank Spacing	380.00			5027.00	
Perforations	1.00			5028.00	
Bullnose	3.00			5031.00	400.00 Bottom Packers & Anchor
Total Tool Length:	487.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources LLC

2-8s-37w Sherman KS

1302 Olive St
Concordia, KS 66901

Southfork #1-2

Job Ticket: 66416

DST#: 5

ATTN: Sean Deenihan

Test Start: 2020.01.02 @ 19:39:00

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:

30000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 17000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	WCM 76%m, 24%w	0.443

Total Length: 90.00 ft Total Volume: 0.443 bbl

Num Fluid Samples: 0

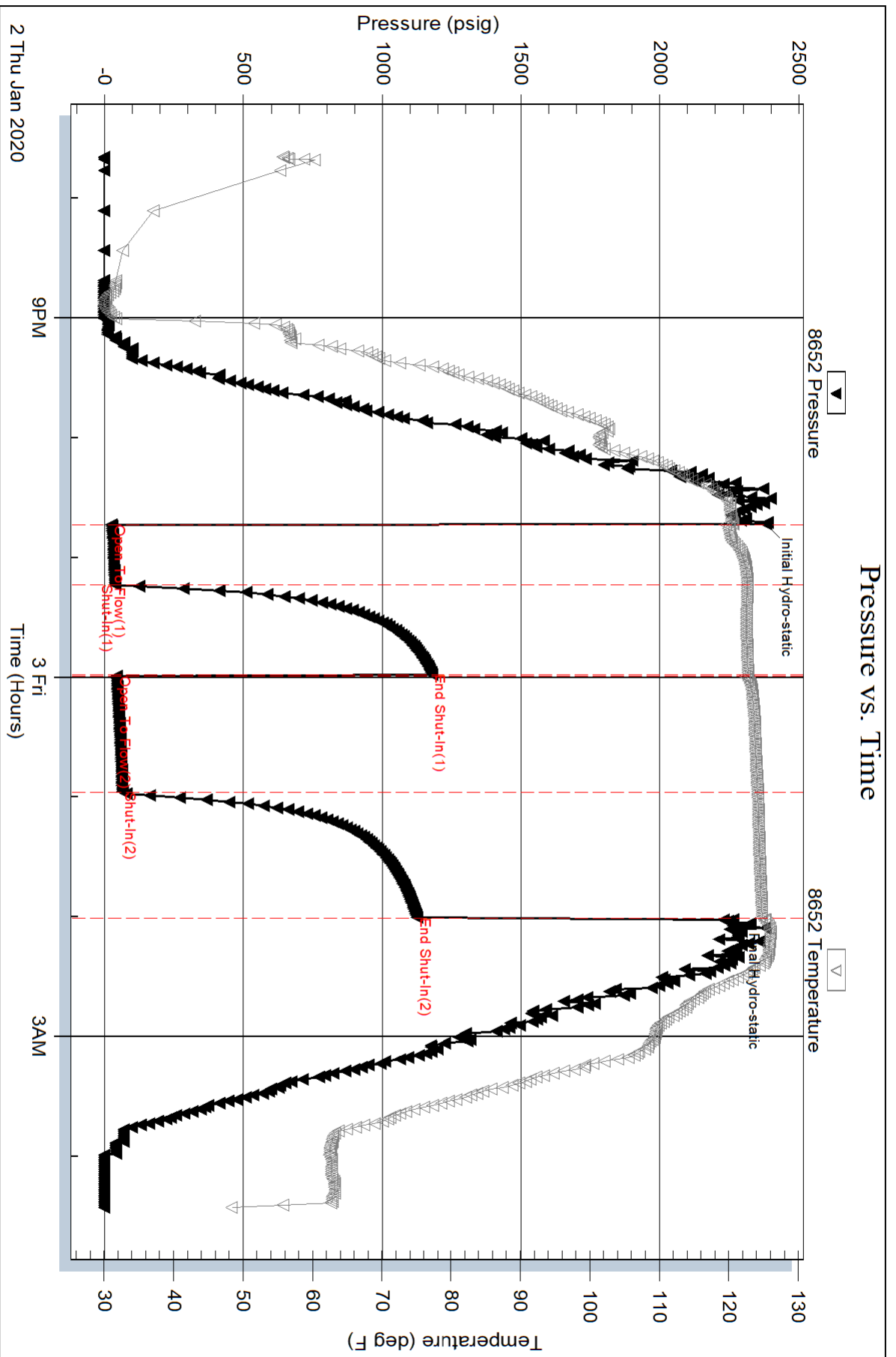
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .544 ohms @ 30.6 deg F Chlorides = 30,000 ppm



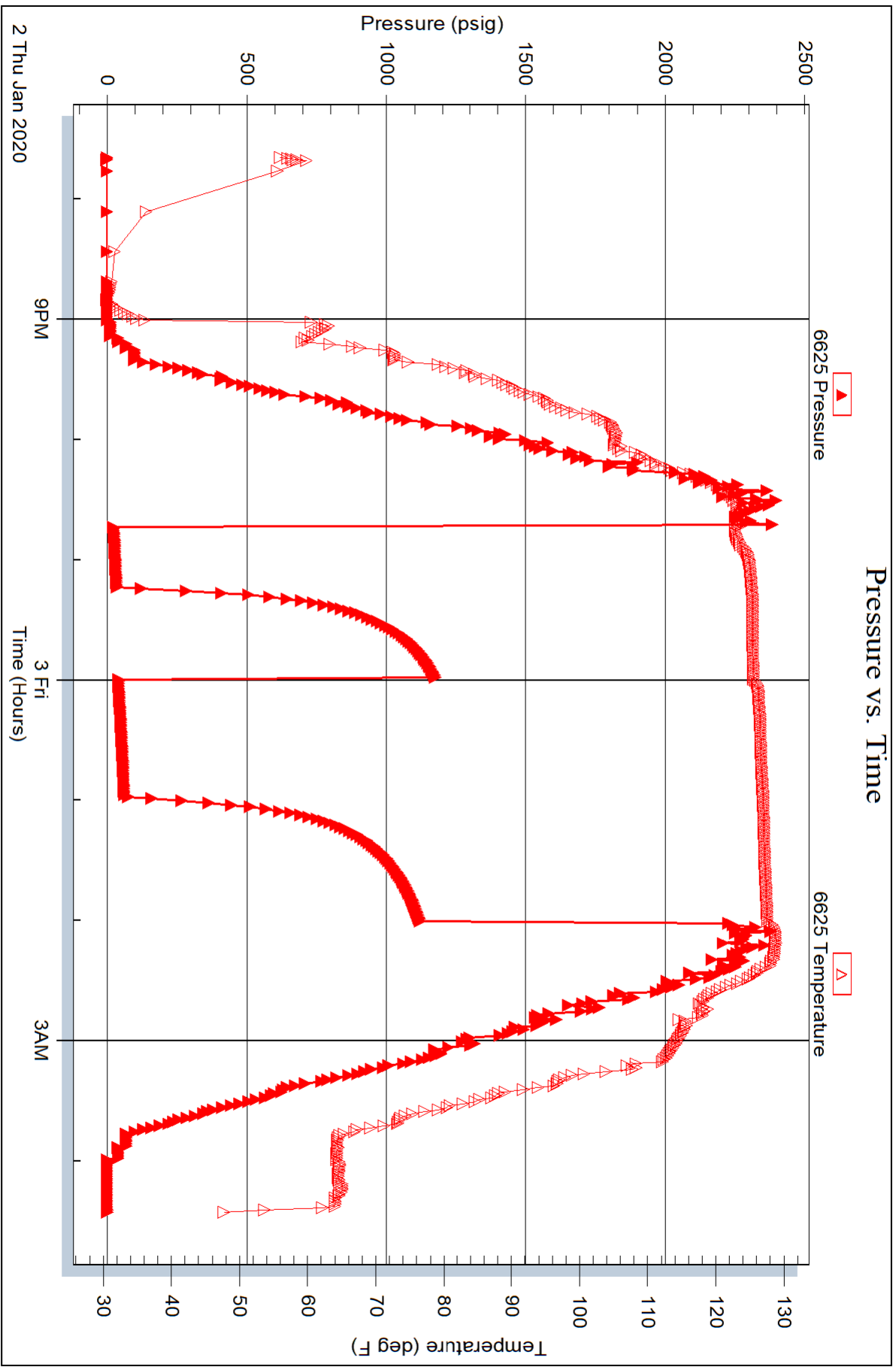
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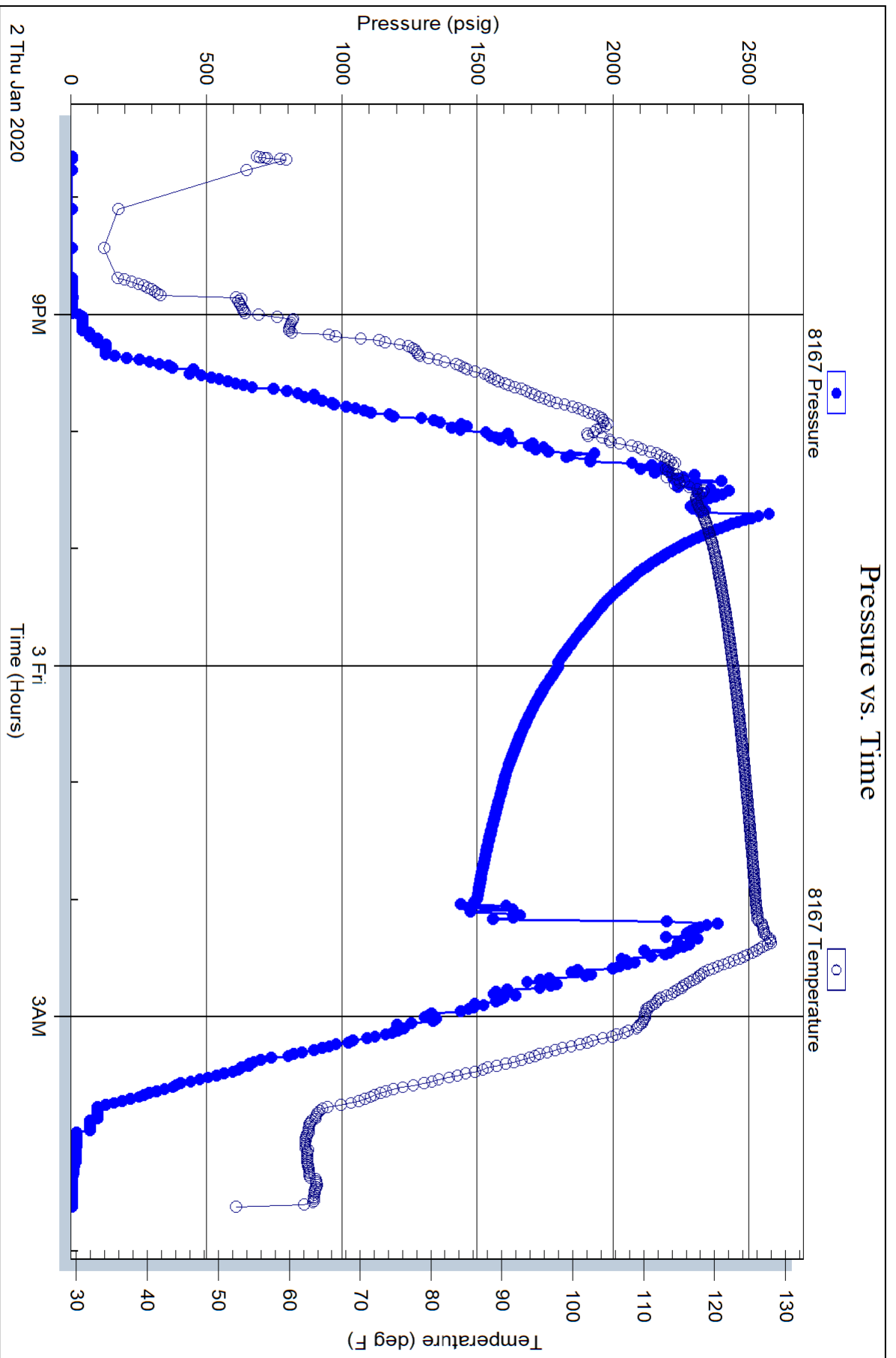
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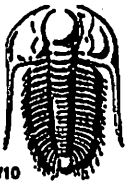
Arcadian Resources LLC

Southfork #1-2

DST Test Number: 5







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66412

NO.

Well Name & No. Southfork #1-2 Test No. 1 Date 12-30-19
 Company Arcadian Resources LLC Elevation 3437 KB 3432 GL
 Address 1302 Olive St Concordia, KS 66901
 Co. Rep / Geo. ^{Sean} ~~John~~ Deenihan Rig Murfin #3
 Location: Sec. 2 Twp 8s Rge. 37w Co. Sherman State KS

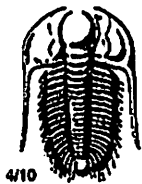
Interval Tested 4245 - 4320 Zone Tested LKC "B"
 Anchor Length 75 Drill Pipe Run 4074 Mud Wt. 9.2
 Top Packer Depth 4240 Drill Collars Run ~~400~~ 149 Vis 49
 Bottom Packer Depth 4245 (shale) Wt. Pipe Run - WL 10.6
 Total Depth 4320 Chlorides 13,500 ppm System LCM 2
 Blow Description IF: ~~40~~ Blow built to BOB (11") at 6 3/4 min diesel / 8 min H₂O, built to 44"
ISI: No blowback
FF: Blow built to BOB at 6 1/2 min diesel / 8 min in H₂O, built to 38 1/2"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>Mud (didn't take sample)</u>			<u>100?</u>	
<u>370</u>	<u>WCM</u>		<u>12</u>	<u>88</u>	
<u>250</u>	<u>MCW</u>		<u>60</u>	<u>40</u>	
<u>630</u>	<u>SMCW</u>		<u>91</u>	<u>9</u>	
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1340 BHT 130 Gravity _____ API RW .141 @ 40 °F Chlorides 100,000 ppm

(A) Initial Hydrostatic <u>2174</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>4:50</u>
(B) First Initial Flow <u>307</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:59</u>
(C) First Final Flow <u>506</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>8:27</u>
(D) Initial Shut-In <u>1283</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>10:29</u>
(E) Second Initial Flow <u>504</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>13:40</u>
(F) Second Final Flow <u>661</u>	<input checked="" type="checkbox"/> Mileage <u>160 RT</u> 160	Comments <u>Hole in pipe</u>
(G) Final Shut-In <u>1278</u>	<input type="checkbox"/> Sampler _____	<u>@ 1320 q have tool</u>
(H) Final Hydrostatic <u>2111</u>	<input type="checkbox"/> Straddle _____	<u>Hotel</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input checked="" type="checkbox"/> EM Tool <u>6-07</u> 350
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Ruined Packer _____
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>350</u>
	<input type="checkbox"/> Accessibility _____	Total <u>2060</u>
	Sub Total <u>1710</u>	MP/DST Disc't _____

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



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66413

NO.

Well Name & No. Southfork #1-2 Test No. 2 Date 12-31-19
 Company Arcadian Resources LLC Elevation 3437 KB 3432 GL
 Address 1302 Olive St. Concordia, KS 66901
 Co. Rep / Geo. Sean Deenihan Rig Murfin #3
 Location: Sec. 2 Twp 8s Rge. 37w Co. Sherman State KS

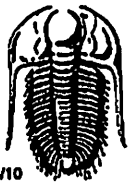
Interval Tested 4619-4690 Zone Tested Pawnee
 Anchor Length 71 Drill Pipe Run 4450 Mud Wt. 9.2
 Top Packer Depth 4614 Drill Collars Run 149 Vis 54
 Bottom Packer Depth 4619 (shale) Wt. Pipe Run - WL 10.6
 Total Depth 4690 Chlorides 15,000 ppm System LCM 2
 Blow Description IF: Blow built to 1/4"
ISI: No blowback
FF: Weak surface blow, Flushed tool, Weak surface blow
Pulled tool

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

Rec Total 20 BHT 118 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2362 Test 1300 T-On Location 11:50
 (B) First Initial Flow 29 Jars 250 T-Started 13:26
 (C) First Final Flow 31 Safety Joint _____ T-Open 16:01
 (D) Initial Shut-In 440 Circ Sub _____ T-Pulled 16:50
 (E) Second Initial Flow 32 Hourly Standby _____ T-Out 18:40
 (F) Second Final Flow 38 Mileage 166 RT 160 Comments Hotel
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 2297 Straddle _____ EM Tool 13:25 350
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Extra Copies _____
 Day Standby _____
 Accessibility _____
 Sub Total 1960 Sub Total 0 Total 2310 MP/DST Disc't _____

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66414

NO.

Well Name & No. Southfork #1-2 Test No. 3 Date 1-1-20
 Company Arcadian Resources LLC Elevation 3437 KB 3432 GL
 Address 1302 Olive St Concordia, KS 66901
 Co. Rep / Geo. Sean Deenihan Rig Murfin #3
 Location: Sec. 2 Twp 8s Rge. 37w Co. Sherman State KS

Interval Tested 4700 - 4788 Zone Tested Cherokee
 Anchor Length 88 Drill Pipe Run 4544 Mud Wt. 9.2
 Top Packer Depth 4695 Drill Collars Run 149 Vis 54
 Bottom Packer Depth 4700 (Shale) Wt. Pipe Run - WL 10.6
 Total Depth 4788 Chlorides 15000 ppm System LCM 2
 Blow Description IF: Blow built to 1" in diesel
ISI: No blowback
FF: Weak surface blow
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>VSWCM</u>		<u>2</u>	<u>98</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 120 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2400 Test 1300 T-On Location 2:25
 (B) First Initial Flow 22 Jars 250 T-Started 3:52
 (C) First Final Flow 26 Safety Joint _____ T-Open 6:29
 (D) Initial Shut-In 634 Circ Sub _____ T-Pulled 7:48
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 9:50
 (F) Second Final Flow 28 Mileage 160RT 160 Comments Hotel
 (G) Final Shut-In 712 Sampler _____
 (H) Final Hydrostatic 2385 Straddle _____ EM Tool 3:41 350
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 15 Extra Recorder _____
 Final Flow 15 Day Standby _____
 Final Shut-In 15 Accessibility _____
 Sub Total 1960 Sub Total _____ MP/DST Disc't _____

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66415

NO.

Well Name & No. Southfork #1-2 Test No. 4 Date 1-1-20
 Company Arcadian Resources LLC Elevation 3437 KB 3432 GL
 Address 1302 Olive St. Concordia, KS 66901
 Co. Rep / Geo. Sean Deenihan Rig Murfin #3
 Location: Sec. 2 Twp 8s Rge. 37w Co. Sherman State KS

Interval Tested 4813 - 4860 Zone Tested Morrow Sand
 Anchor Length 47 Drill Pipe Run 4666 Mud Wt. 9.3
 Top Packer Depth 4808 Drill Collars Run 149 Vis 51
 Bottom Packer Depth 4813 (Shale) Wt. Pipe Run - WL 9.8
 Total Depth 4860 Chlorides 14,500 ppm System LCM 2
 Blow Description IF: Blow built to BOB @ (11") at 30-45 sec, built to 440"
ISI: No blowback
FF: Blow built to BOB at 30 sec, built to around 80"
FST: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>275</u>	<u>mcw</u>		<u>63</u>	<u>37</u>	
<u>2255</u>	<u>Water</u>		<u>99</u>	<u>1</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2530 BHT 146 Gravity API RW .128 @ 38 °F Chlorides 125 000 ppm

(A) Initial Hydrostatic <u>2515</u>	<input checked="" type="checkbox"/> Test 1300	T-On Location <u>16:55</u> <u>Y1</u>
(B) First Initial Flow <u>1363</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>17:53</u>
(C) First Final Flow <u>1454</u>	<input type="checkbox"/> Safety Joint	T-Open <u>20:39</u>
(D) Initial Shut-In <u>1518</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>21:55</u>
(E) Second Initial Flow <u>1473</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:25</u> <u>1/2</u>
(F) Second Final Flow <u>1517</u>	<input checked="" type="checkbox"/> Mileage <u>160 RT</u> 160	Comments <u>Hotel</u>
(G) Final Shut-In <u>1519</u>	<input type="checkbox"/> Sampler	<input checked="" type="checkbox"/> EM Tool <u>17:42</u> 350 NS
(H) Final Hydrostatic <u>2488</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>15</u>	<input type="checkbox"/> Day Standby	Total <u>1960</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1960</u>	

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66416

NO.

Well Name & No. Southfork #1-2 Test No. 5 Date 1-2-20
 Company Arcadian Resources LLC Elevation 3437 KB 3432 GL
 Address 1302 Olive St Concordia, KS 66901
 Co. Rep / Geo. Sean Deenihan Rig Murfin #3
 Location: Sec. 2 Twp 8s Rge. 37w Co. Sherman State KS

Interval Tested 4577-4631 Zone Tested Altament C
 Anchor Length 4000 - 4000 ^{54 Anchor} _{400 Tail} Drill Pipe Run 4415 Mud Wt. 9.2
 Top Packer Depth 4572-4577 Drill Collars Run 149 Vls 51
 Bottom Packer Depth 4631 (shale) Wt. Pipe Run - WL 10.2
 Total Depth 5031 Chlorides 17000 ppm System LCM 2 1/2
 Blow Description IF: Blow built to 2" in diesel
ISI: No blowback
FF: Blow built to 3/4" in diesel
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>WCM</u>		<u>24</u>	<u>76</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90 BHT 125 Gravity API RW .544 @ 30.6° F Chlorides 30,000 ppm
 (A) Initial Hydrostatic 2382 Test 1300 T-On Location 17:30 1/2
 (B) First Initial Flow 25 Jars 250 T-Started 19:39
 (C) First Final Flow 38 Safety Joint _____ T-Open 22:43
 (D) Initial Shut-In 1180 Circ Sub _____ T-Pulled 2:00
 (E) Second Initial Flow 44 Hourly Standby _____ T-Out 5:00 1/3
 (F) Second Final Flow 64 Mileage 160 RT 160 Comments Hotel
 (G) Final Shut-In 1125 Sampler _____
 (H) Final Hydrostatic 2262 Straddle 600 EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer 640
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 990
 Accessibility _____ Total 3300
 Sub Total 2310 MP/DST Disc't _____

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

Southfork
Statement

FRANKS Oilfield Service & Cementing
815 Main Street
KS 67671

Date
1/30/2020

To:
Arcadian Resources 1302 Olive St. Concordia, KS 66901

		Amount Due	Amount Enc.
		\$28,650.78	
Date	Transaction	Amount	Balance
12/14/2019	Balance forward		0.00
12/26/2019	INV #0119. Due 01/25/2020.		9,981.09
01/03/2020	INV #0123. Due 02/02/2020.	9,981.09	15,335.78
01/08/2020	INV #0128. Due 02/07/2020.	5,354.69	23,273.69
01/17/2020	INV #0129. Due 02/16/2020.	7,937.91	28,650.78
		5,377.09	

Handwritten notes:
S.7
2020
Franks Oilfield @ rahoo.com
Jan #

CURRENT	1-30 DAYS	31-60 DAYS PAST DUE	61-90 DAYS PAST DUE	OVER 90 DAYS PAST DUE	Amount Due
18,669.69	9,981.09	0.00	0.00	0.00	\$28,650.78

(E)

FRANKS Oilfield Service, LLC

Invoice

815 Main Street

Victoria, KS 67671

Email: franksoilfield@yahoo.com

Office (785) 639-3949

24 Hour Service Line (785) 639-7269

Date	Invoice #
12/26/2019	0119

Bill To
Arcadian Resources 1302 Olive St. Concordia, KS 66901

Please Pay from this Invoice.
Remit Payment to:
815 Main Street
Victoria, KS 67671
Billing Questions - Call Tianna at
(785) 639-3949

County/State	Lease/Well#	Terms	Job Type
Sherman Co., KS	South Fork 1-2	Net 30	Surface

Description	Quantity	Rate	Amount
Pump Charge	1	1,150.00	1,150.00
Mileage	55	6.50	357.50
20 tons at 55 miles	1,100	1.50	1,650.00
Class A Cement	190	20.00	3,800.00T
Surface Blend	225	24.50	5,512.50T
25% Discount		-3,117.50	-3,117.50

Accounts Due Net 10th. 1-1/2% Per Month on all Past Due Accounts. 18% Annual Rate.

We appreciate your business and look forward to serving you again!

Subtotal \$9,352.50

Sales Tax (9.0%) \$628.59

Balance Due \$9,981.09

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0119

LOCATION Hoxie KS


FOREMAN Mike Shaw

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER		SECTION	TOWNSHIP	RANGE	COUNTY
12-26-14		South fork 1-2		2	8 S	37 W	Sherman ^{KS}
CUSTOMER Arcadian Resources				Brawstons N6CRQ Wst to CR35 1 1/2 N E into			
MAILING ADDRESS 1302 Olive St				TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Concordia				101	Seck		
STATE KS				102	Mikes		
ZIP CODE 66901							
JOB TYPE	HOLE SIZE	HOLE DEPTH	CASING SIZE & WEIGHT				
Surface	12 1/4"	240'	8 3/8" 23 #				
CASING DEPTH	DRILL PIPE	TUBING	OTHER				
240'							
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT in CASING				
14.8/15.4	1.4/1.2		20'				
DISPLACEMENT	DISPLACEMENT PSI	MIX PSI	RATE				
15.25 bbls							
REMARKS: Safety meeting and log up on Muckin Hig #3 Circulate Cements mix 225 sx Class A 38cc 28 gel esplore 15 1/4 bbls Water Shut in Cement did not circulate run 1" down to 35' tagged out Mixed 225 190 Sx Class A cement to surface							

Thanks Mike & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PL002	1	PUMP CHARGE	1150. ⁰⁰	1150
M001	55	MILEAGE	6.50	357.5
M002	20 tons	Ton Mileage delivery	1.50	1650. ⁰⁰
CPool	190 sx	Class A	20. ⁰⁰	3800. ⁰⁰
CB004	225 sx	Class A 38cc 28 gel	24.50	5512.50
			Subtotal	12470. ⁰⁰
			less 25% discount	3117.50
			Subtotal	9352.50
			SALES TAX	628.59
			ESTIMATED TOTAL	9,981.09

AUTHORIZATION  TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

FRANKS Oilfield Service, LLC

815 Main Street

Victoria, KS 67671

Email: franksoilfield@yahoo.com

Office (785) 639-3949
24 Hour Service Line (785) 639-7269

Invoice

Date	Invoice #
12/26/2019	0119

Please Pay from this Invoice.
Remit Payment to:
815 Main Street
Victoria, KS 67671
Billing Questions-Call Tianna at
(785) 639-3949

Bill To
Arcadian Resources 1302 Olive St. Concordia, KS 66901

County/State	Lease/Well#	Terms	Job Type
Sherman Co., KS	South Fork 1-2	Net 30	Surface

Description	Quantity	Rate	Amount
Pump Charge	1	1,150.00	1,150.00
Mileage	55	6.50	357.50
20 tons at 55 miles	1,100	1.50	1,650.00
Class A Cement	190	20.00	3,800.00T
Surface Blend	225	24.50	5,512.50T
25% Discount		-3,117.50	-3,117.50

Accounts Due Net 10th. 1-1/2% Per Month on all Past Due Accounts. 18% Annual Rate.

We appreciate your business and look forward to serving you again!

Subtotal	\$9,352.50
Sales Tax (9.0%)	\$628.59
Balance Due	\$9,981.09

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0119
 LOCATION Hoxie KS
 FOREMAN M. H. Shaw

FIELD TICKET & TREATMENT REPORT CEMENT


DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-26-14		South Fork 1-2	2	8S	37W	Sherman ^{KS}
CUSTOMER		MAILING ADDRESS		CITY		STATE
Arcadian Resources		1302 Olive St		Concordia		KS
Brawstons M6CRQ West 6 CR35 1 1/2 N E. 10		ZIP CODE	TRUCK #			
		46901	DRIVER			
			TRUCK #			
			DRIVER			

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 240' CASING SIZE & WEIGHT 8 3/8" 23 #
 CASING DEPTH 260' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8/15.4 SLURRY VOL 1.4/1.2 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 15.25 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meetings and rig up on Muffin Rig #3 Circulate 695.45
Mix 225 Sx Class A 38cc 28 gal displacer 15 1/4 bbls Water Shut in
Cement did not circulate Run 1" down to 35' tagged out Mixed ~~190~~
Sx Class A Cement to surface

Thanks M. H. Shaw

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
P0002	1	PUMP CHARGE	1150.00	1150
M001	55	MILEAGE	6.50	357.5
M1002	20 tons	Ton Mileage delivery	1.50	1650.00
CPool	190 Sx	Class A	20.00	3800.00
CB004	225 Sx	Class A 38cc 28 gal	24.50	5512.50
			Subtotal	12470.00
			less 258 discount	3117.50
			Subtotal	9352.50
			SALES TAX	
			ESTIMATED TOTAL	

AUTHORIZATION  TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

FRANKS Oilfield Service, LLC

Invoice

815 Main Street

Victoria, KS 67671

Email: franksoilfield@yahoo.com

Office (785) 639-3949
24 Hour Service Line (785) 639-7269

Date	Invoice #
1/3/2020	0123

Bill To
Arcadian Resources 1302 Olive St. Concordia, KS 66901

Please Pay from this Invoice.
Remit Payment to:
815 Main Street
Victoria, KS 67671
Billing Questions Call Tianna at
(785) 639-3949

County/State	Lease/Well#	Terms	Job Type
Sherman Co., KS	South Fork 1-2	Net 30	PTA

Description	Quantity	Rate	Amount
Pump Charge	1	1,150.00	1,150.00
Mileage	55	6.50	357.50
11.34 tons at 55 miles	623.7	1.50	935.55
60/40 4% gel 1/4# floseal	255	16.25	4,143.75T
8-5/8 Wooden Plug	1	165.00	165.00T
25% Discount		-1,687.95	-1,687.95

Accounts Due Net 10th. 1-1/2% Per Month on all Past Due Accounts. 18% Annual Rate.

We appreciate your business and look forward to serving you again!

Subtotal	\$5,063.85
Sales Tax (9.0%)	\$290.84
Balance Due	\$5,354.69

