

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	MASTERS 1-8
Doc ID	1421856

All Electric Logs Run

POR
DIL
MEL
SON

Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	MASTERS 1-8
Doc ID	1421856

Tops

Name	Top	Datum
ANHY	2308	+660
BANHY	2325	+643
HEEB	3917	-949
LANS	3958	-990
MUN CR	4130	-1162
STRK	4224	-1256
HUSH	4264	-1296
BKC	4305	-1337
PAW	4440	-1472
MYR ST	4461	-1493
FT SCT	4477	-1509
CHER	4500	-1532
MISS	4580	-1612



Aug. 24, 2018 9:19AM

11444
11334

No. 0646 P 3
TICKET NUMBER 55264

PRESSURE PUMPING LLC
PO Box 34, Chanute, KS 66720
620-431-9210 or 800-457-8676

FIELD TICKET & TREATMENT REPORT CEMENT

LOCATION Oakley KS
FOREMAN Mikes Shaw

Invoice # 813977

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-17-18	1112	Mastars 1-8	8	18 S	31W	Scott #1
CUSTOMER <u>Mober Cream bio</u>		SECTION				
MAILING ADDRESS <u>5510 Diligent Center Road Smith</u>		TRUCK #				
CITY <u>Great Bend</u>		DRIVER				
STATE <u>KS</u>		TRUCK #				
ZIP CODE <u>67530</u>		DRIVER				

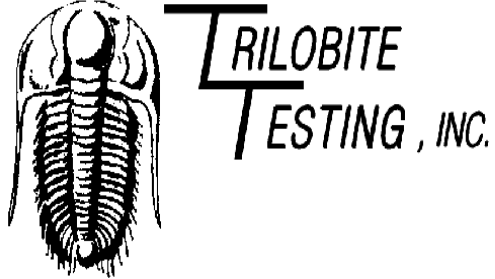
JOB TYPE Surface HOLE SIZE 12.25" HOLE DEPTH 310' CASING SIZE & WEIGHT 8 5/8" 23 lb
 CABING DEPTH 309' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.36 WATER gal/sk _____ CEMENT LEFT IN CASING 20'
 DISPLACEMENT 18 3/4 Hrs DISPLACEMENT PSI _____ MIX PSI _____ RATE _____
 REMARKS: Sebelby meters and Aguron wellbore circulation casing with 245x
Surface bleed II displace 18 3/4 Hrs. water shut in cement and circulate
cellar only

210 5x Class Cement w/ 38 gal cur 28 gal

Rx # 14 Thanks mikes Shaw

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION OF SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1152.00	1152.00
CE0002	45	MILEAGE	7.15	321.75
CE0710	9.87	Tons Ton Meters delivery	1.75	777.25
CE5871	210 5x	Surface bleed II	24.00	5040.00
SCANNED				
Subtotal				7287.01
less 308.01				2186.70
Subtotal				5102.31
SALES TAX				299.88
ESTIMATED TOTAL				5402.19

Revised 07/07
 AUTHORIZATION [Signature] TITLE Toolpusher DATE 6/17/18
 I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's
 acknowledgment received Timet Aug. 24, 2018 at 9:20AM (No. 2873) on the back of this form are in effect for services identified on this form



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Grant Galyon

Masters #1-8

8-18S-31w Scott,KS

Start Date: 2018.08.21 @ 04:04:00

End Date: 2018.08.21 @ 13:27:45

Job Ticket #: 64586 DST #: 1

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

Printed: 2018.08.28 @ 16:29:10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy
 10209 W. Central STE 2
 Wichita, KS 67212
 ATTN: Grant Galyon

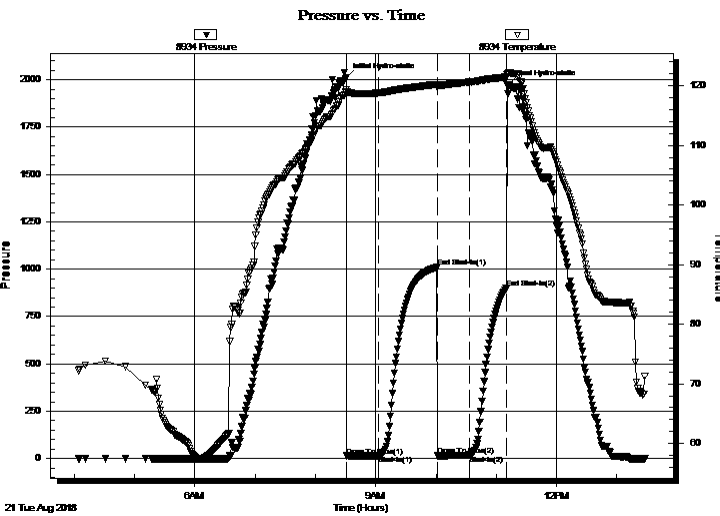
8-18S-31w Scott,KS
Masters #1-8
 Job Ticket: 64586 **DST#: 1**
 Test Start: 2018.08.21 @ 04:04:00

GENERAL INFORMATION:

Formation: **LKC 'E'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:31:15
 Time Test Ended: 13:27:45
 Interval: **4040.00 ft (KB) To 4060.00 ft (KB) (TVD)**
 Total Depth: 4060.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 2968.00 ft (KB)
 2957.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8934 Inside
 Press@RunDepth: 16.69 psig @ 4042.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.08.21 End Date: 2018.08.21 Last Calib.: 2018.08.21
 Start Time: 04:04:15 End Time: 13:27:45 Time On Btm: 2018.08.21 @ 08:31:00
 Time Off Btm: 2018.08.21 @ 11:12:30

TEST COMMENT: 30-IF-Weak Surface; Built to 1/2"
 45-ISI-No Return
 30-FF-Weak Surface
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.22	119.47	Initial Hydro-static
1	13.82	118.78	Open To Flow (1)
32	15.34	118.83	Shut-In(1)
90	1009.70	120.26	End Shut-In(1)
91	15.04	119.74	Open To Flow (2)
123	16.69	120.63	Shut-In(2)
159	899.02	121.48	End Shut-In(2)
162	1972.20	122.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100%M	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64586

DST#: 1

ATTN: Grant Galyon

Test Start: 2018.08.21 @ 04:04:00

Tool Information

Drill Pipe:	Length: 3915.00 ft	Diameter: 3.82 inches	Volume: 55.50 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4040.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4012.00	
Shut In Tool	5.00			4017.00	
Hydraulic tool	5.00			4022.00	
Jars	5.00			4027.00	
Safety Joint	3.00			4030.00	
Packer	5.00			4035.00	29.00 Bottom Of Top Packer
Packer	5.00			4040.00	
Stubb	1.00			4041.00	
Perforations	1.00			4042.00	
Recorder	0.00	8934	Inside	4042.00	
Recorder	0.00	9120	Outside	4042.00	
Perforations	15.00			4057.00	
Bullnose	3.00			4060.00	20.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64586

DST#: 1

ATTN: Grant Galyon

Test Start: 2018.08.21 @ 04:04:00

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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

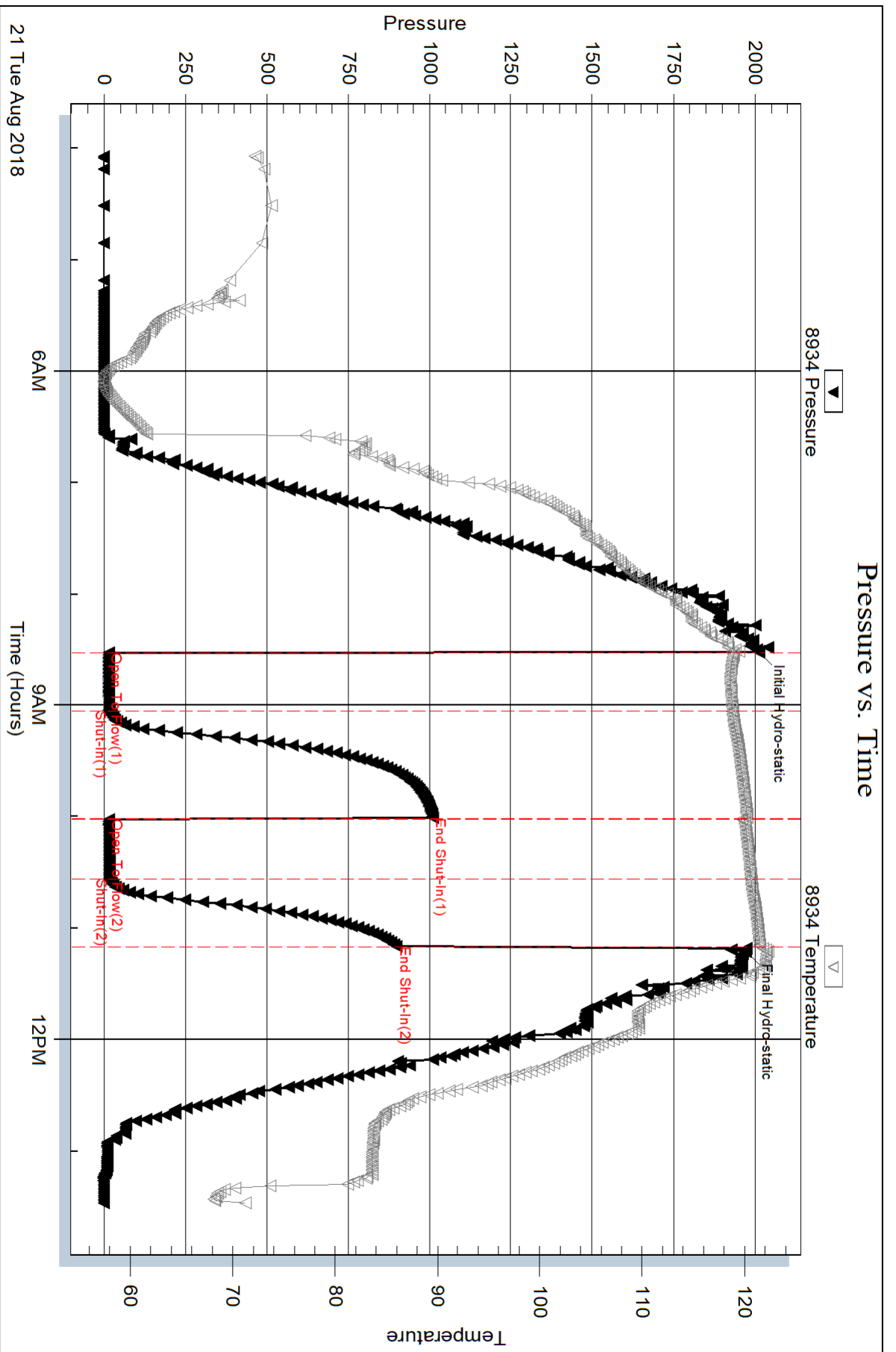
Num Gas Bombs: 0

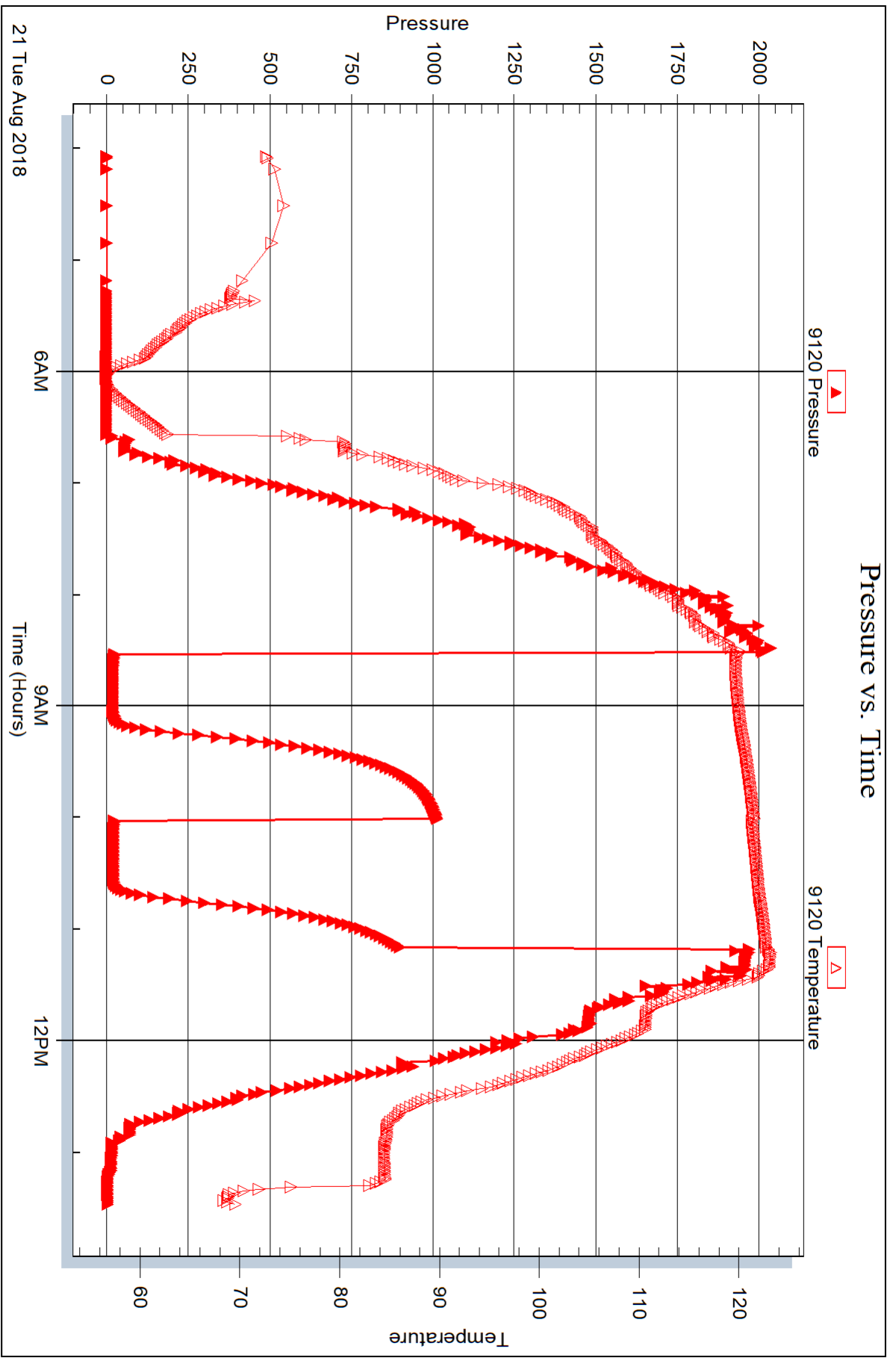
Serial #:

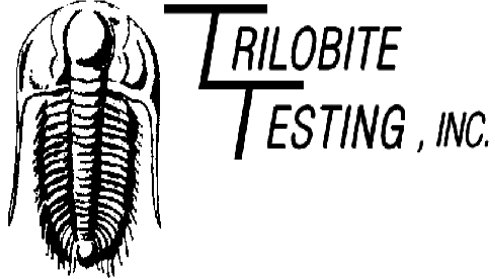
Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM







DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Grant Galyon

Masters #1-8

8-18S-31w Scott,KS

Start Date: 2018.08.22 @ 21:00:00

End Date: 2018.08.23 @ 05:49:30

Job Ticket #: 64587 DST #: 2

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

Printed: 2018.08.28 @ 16:28:20



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy
10209 W. Central STE 2
Wichita, KS 67212
ATTN: Grant Galyon

8-18S-31w Scott,KS
Masters #1-8
Job Ticket: 64587 **DST#: 2**
Test Start: 2018.08.22 @ 21:00:00

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:29:45
Time Test Ended: 05:49:30
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J. Staab
Unit No: 84
Interval: **4300.00 ft (KB) To 4390.00 ft (KB) (TVD)**
Reference Elevations: 2968.00 ft (KB)
Total Depth: 4390.00 ft (KB) (TVD) 2957.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

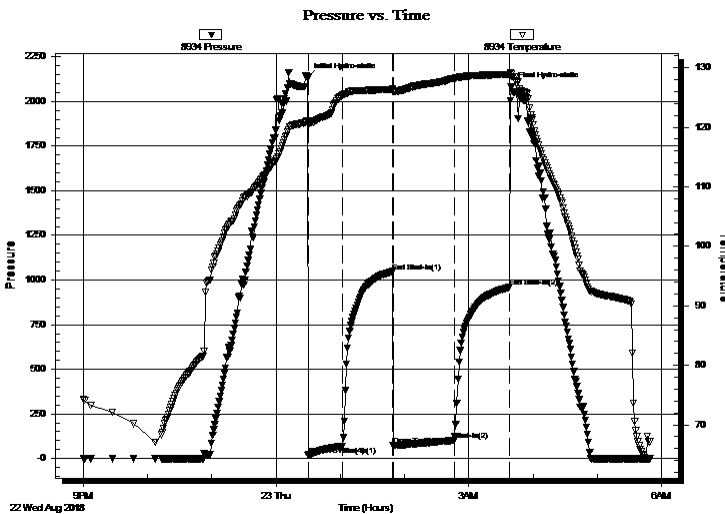
Serial #: 8934

Inside

Press@RunDepth: 102.02 psig @ 4303.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.08.22 End Date: 2018.08.23 Last Calib.: 2018.08.23
Start Time: 21:00:15 End Time: 05:49:30 Time On Btm: 2018.08.23 @ 00:29:30
Time Off Btm: 2018.08.23 @ 03:39:15

TEST COMMENT: 30-IF-Weak Surface; Built to 5"
45-ISI-No Return
60-FF-Weak Surface; Built to 9"
45-FSI-Weak Surface; Built to 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2131.88	121.07	Initial Hydro-static
1	19.04	120.38	Open To Flow (1)
33	68.77	125.41	Shut-In(1)
80	1047.86	126.38	End Shut-In(1)
80	71.56	126.05	Open To Flow (2)
137	102.02	128.18	Shut-In(2)
189	960.18	128.89	End Shut-In(2)
190	2085.91	128.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	OCM 20%O 80%M	1.48
10.00	Clean Oil 100%O	0.14
0.00	120' GIP 100%G	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy
10209 W. Central STE 2
Wichita, KS 67212
ATTN: Grant Galyon

8-18S-31w Scott,KS
Masters #1-8
Job Ticket: 64587 **DST#: 2**
Test Start: 2018.08.22 @ 21:00:00

Tool Information

Drill Pipe:	Length: 4191.00 ft	Diameter: 3.82 inches	Volume: 59.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 71000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	36.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4300.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	119.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			4272.00	
Shut In Tool	5.00			4277.00	
Hydraulic tool	5.00			4282.00	
Jars	5.00			4287.00	
Safety Joint	3.00			4290.00	
Packer	5.00			4295.00	29.00 Bottom Of Top Packer
Packer	5.00			4300.00	
Stubb	1.00			4301.00	
Perforations	1.00			4302.00	
Change Over Sub	1.00			4303.00	
Recorder	0.00	8934	Inside	4303.00	
Recorder	0.00	9120	Inside	4303.00	
Drill Pipe	63.00			4366.00	
Change Over Sub	1.00			4367.00	
Perforations	20.00			4387.00	
Bullnose	3.00			4390.00	90.00 Bottom Packers & Anchor
Total Tool Length:	119.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64587

DST#: 2

ATTN: Grant Galyon

Test Start: 2018.08.22 @ 21:00:00

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:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	OCM 20%O 80%M	1.478
10.00	Clean Oil 100%O	0.142
0.00	120' GIP 100%G	0.000

Total Length: 190.00 ft

Total Volume: 1.620 bbl

Num Fluid Samples: 0

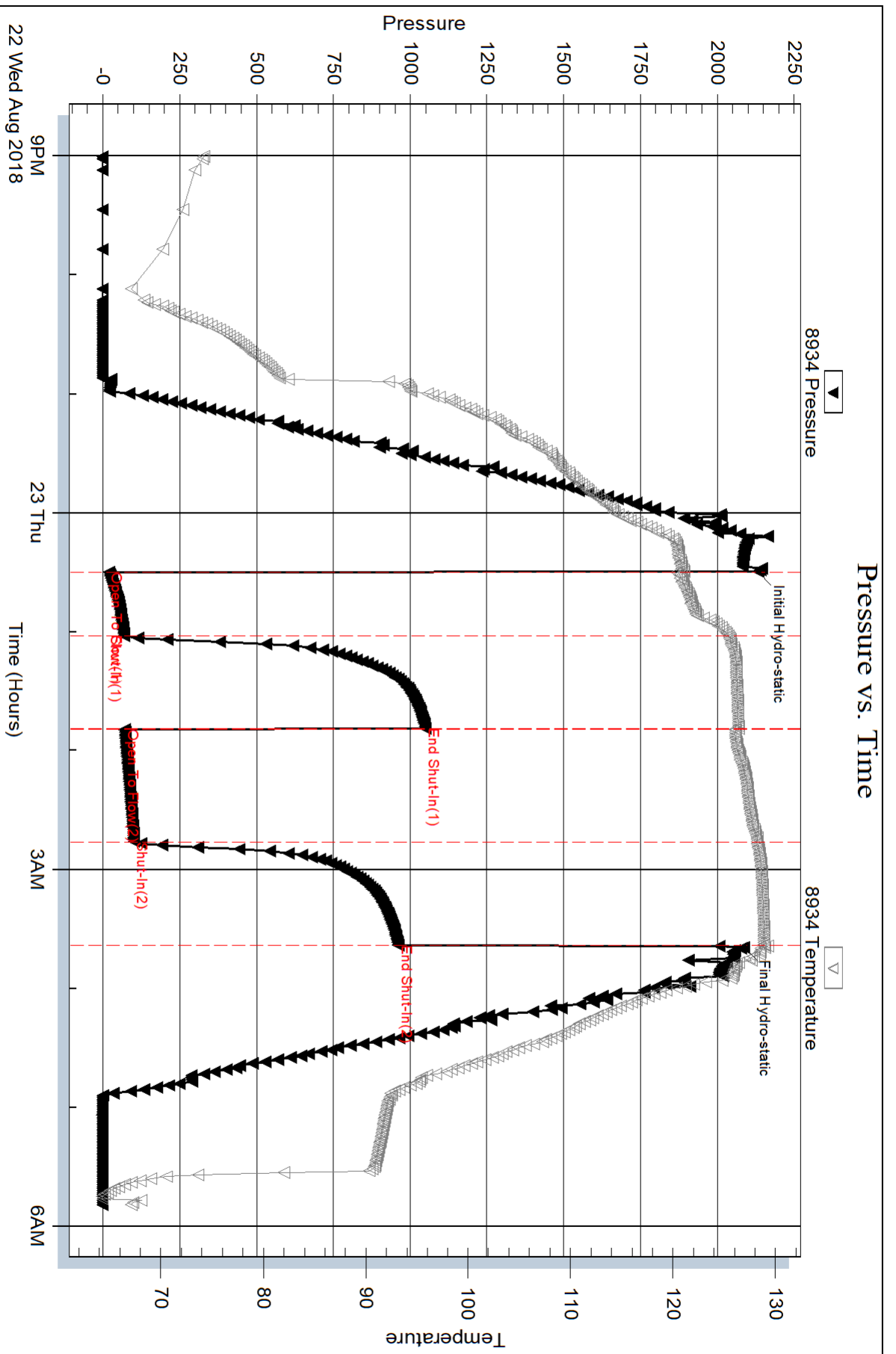
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM



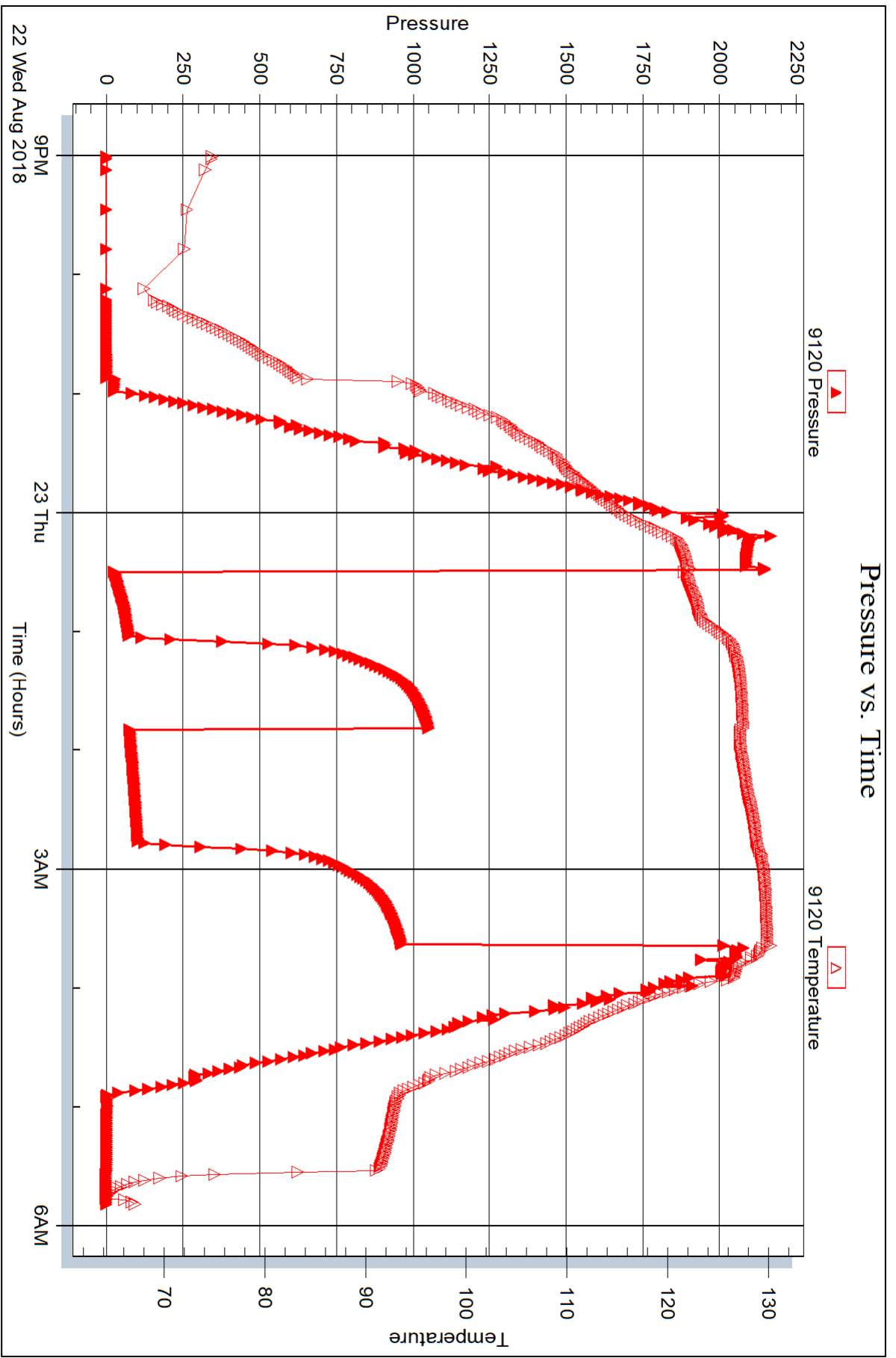
Serial #: 9120

Inside

Abercrombie Energy

Masters #1-8

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64587

Printed: 2018.08.28 @ 16:28:21



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Grant Galyon

Masters #1-8

8-18S-31w Scott,KS

Start Date: 2018.08.23 @ 18:42:00

End Date: 2018.08.24 @ 03:41:00

Job Ticket #: 64588 DST #: 3

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

Printed: 2018.08.28 @ 16:27:57



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy
 10209 W. Central STE 2
 Wichita, KS 67212
 ATTN: Grant Galyon

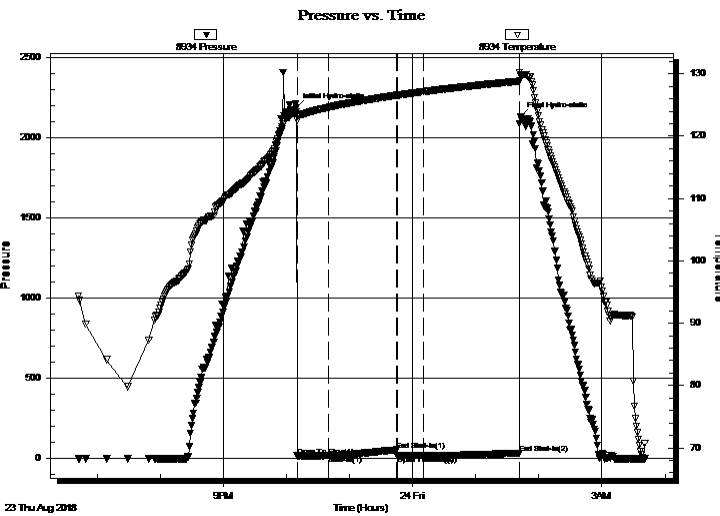
8-18S-31w Scott,KS
Masters #1-8
 Job Ticket: 64588 **DST#: 3**
 Test Start: 2018.08.23 @ 18:42:00

GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:10:00 Tester: Spencer J. Staab
 Time Test Ended: 03:41:00 Unit No: 84
 Interval: **4434.00 ft (KB) To 4503.00 ft (KB) (TVD)** Reference Elevations: 2968.00 ft (KB)
 Total Depth: 4503.00 ft (KB) (TVD) 2957.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 8934 Inside
 Press@RunDepth: 17.45 psig @ 4439.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.08.23 End Date: 2018.08.24 Last Calib.: 2018.08.24
 Start Time: 18:42:15 End Time: 03:41:00 Time On Btm: 2018.08.23 @ 22:09:45
 Time Off Btm: 2018.08.24 @ 01:42:45

TEST COMMENT: 30-IF-Weak Surface; Built to 1/4"
 60-ISI-No Return
 30-FF-No Blow
 90-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2187.10	123.93	Initial Hydro-static
1	15.75	122.58	Open To Flow (1)
30	17.26	124.62	Shut-In(1)
96	52.86	126.56	End Shut-In(1)
96	17.02	126.56	Open To Flow (2)
121	17.45	127.14	Shut-In(2)
212	32.67	128.82	End Shut-In(2)
213	2129.22	129.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	OSM 100%M	0.01

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy
 10209 W. Central STE 2
 Wichita, KS 67212
 ATTN: Grant Galyon

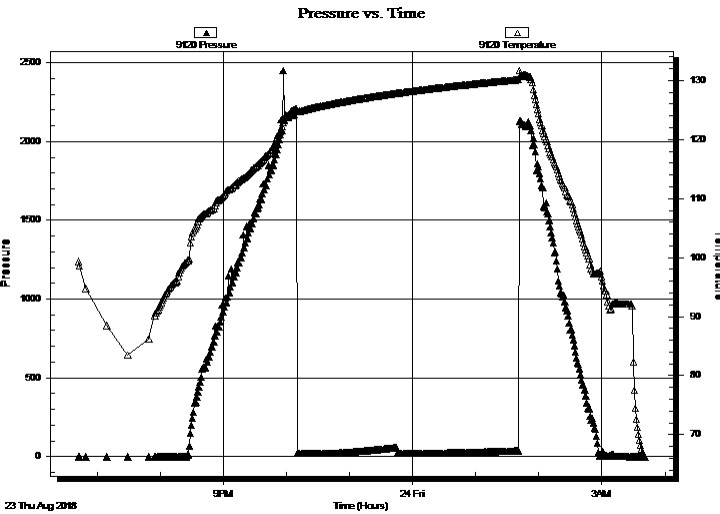
8-18S-31w Scott,KS
Masters #1-8
 Job Ticket: 64588 **DST#: 3**
 Test Start: 2018.08.23 @ 18:42:00

GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:10:00 Tester: Spencer J. Staab
 Time Test Ended: 03:41:00 Unit No: 84
 Interval: **4434.00 ft (KB) To 4503.00 ft (KB) (TVD)** Reference Elevations: 2968.00 ft (KB)
 Total Depth: 4503.00 ft (KB) (TVD) 2957.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 9120 Outside
 Press@RunDepth: psig @ 4439.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.08.23 End Date: 2018.08.24 Last Calib.: 2018.08.24
 Start Time: 18:42:15 End Time: 03:41:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Weak Surface; Built to 1/4"
 60-ISI-No Return
 30-FF-No Blow
 90-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	OSM 100%M	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy
10209 W. Central STE 2
Wichita, KS 67212
ATTN: Grant Galyon

8-18S-31w Scott,KS
Masters #1-8
Job Ticket: 64588 **DST#: 3**
Test Start: 2018.08.23 @ 18:42:00

Tool Information

Drill Pipe:	Length: 4317.00 ft	Diameter: 3.82 inches	Volume: 61.20 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	70000.00 lb
Drill Pipe Above KB:	28.00 ft			Final	70000.00 lb
Depth to Top Packer:	4434.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	69.00 ft				
Tool Length:	98.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			4406.00	
Shut In Tool	5.00			4411.00	
Hydraulic tool	5.00			4416.00	
Jars	5.00			4421.00	
Safety Joint	3.00			4424.00	
Packer	5.00			4429.00	29.00 Bottom Of Top Packer
Packer	5.00			4434.00	
Stubb	1.00			4435.00	
Perforations	3.00			4438.00	
Change Over Sub	1.00			4439.00	
Recorder	0.00	8934	Inside	4439.00	
Recorder	0.00	9120	Outside	4439.00	
Drill Pipe	32.00			4471.00	
Change Over Sub	1.00			4472.00	
Perforations	28.00			4500.00	
Bullnose	3.00			4503.00	69.00 Bottom Packers & Anchor
Total Tool Length:	98.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64588

DST#: 3

ATTN: Grant Galyon

Test Start: 2018.08.23 @ 18:42:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 52.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	OSM 100%M	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

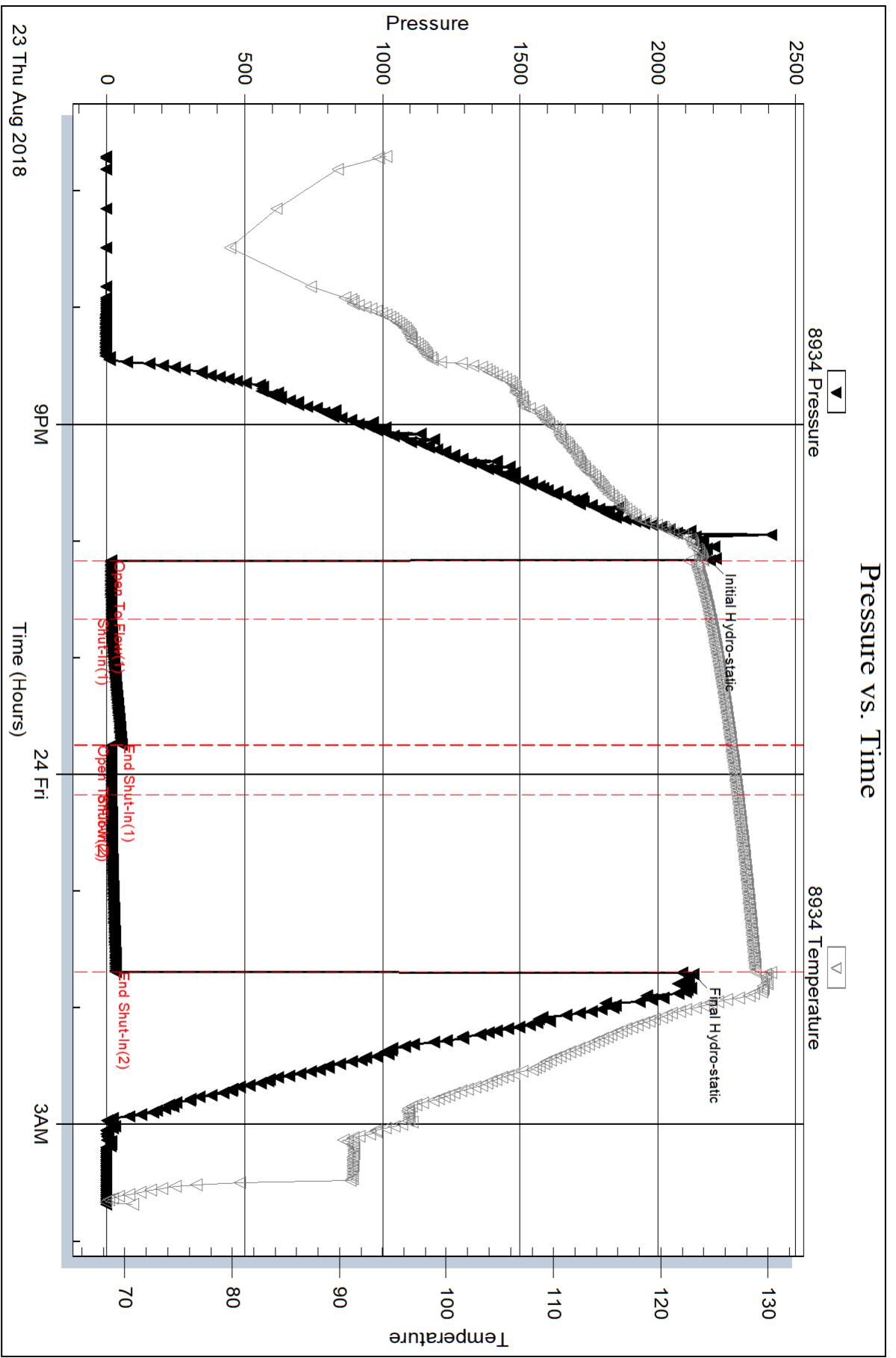
Num Gas Bombs: 0

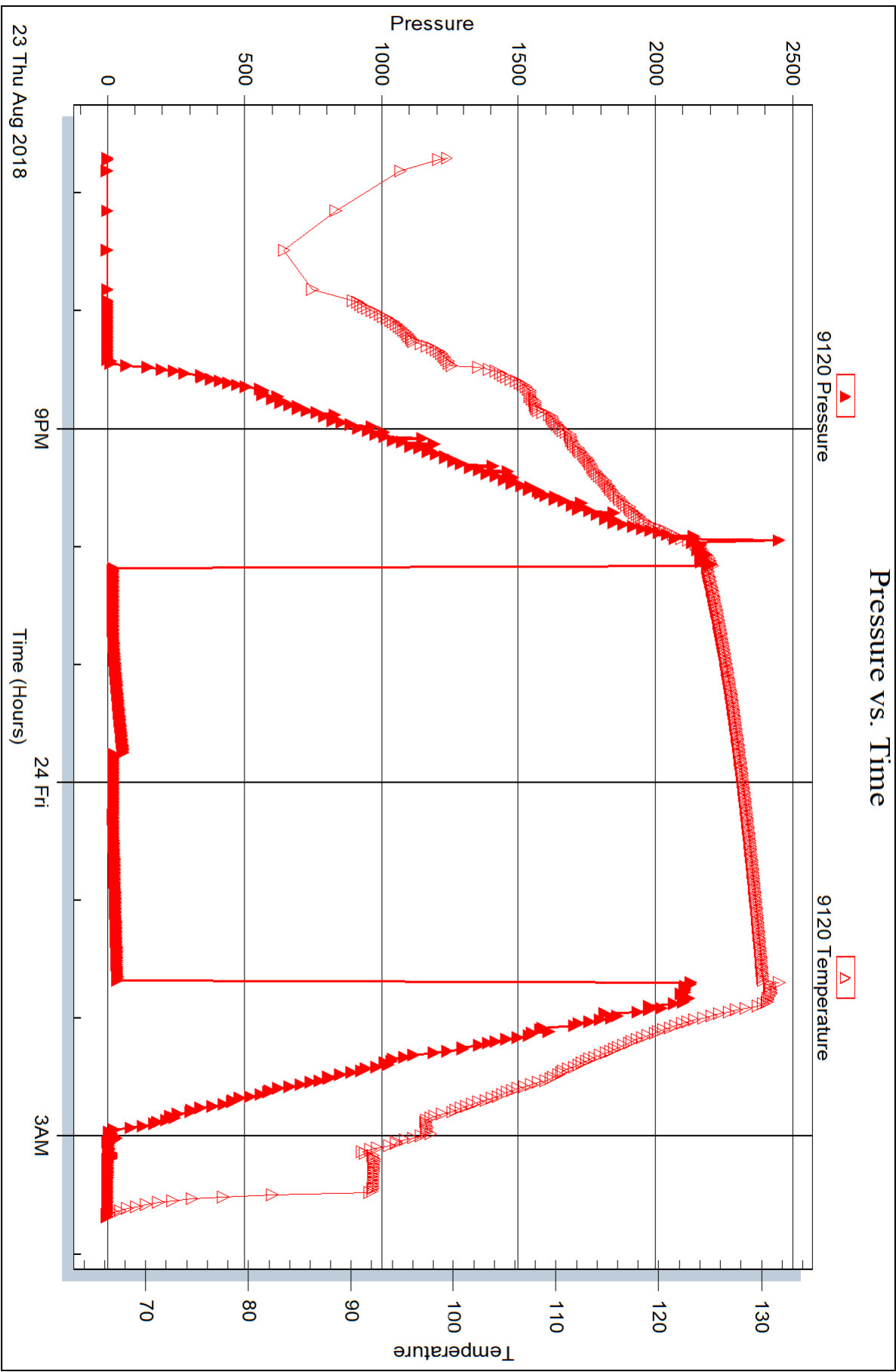
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM







DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Grant Galyon

Masters #1-8

8-18S-31w Scott,KS

Start Date: 2018.08.24 @ 13:34:00

End Date: 2018.08.24 @ 22:26:45

Job Ticket #: 64589 DST #: 4

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

Printed: 2018.08.28 @ 16:27:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy
 10209 W. Central STE 2
 Wichita, KS 67212
 ATTN: Grant Galyon

8-18S-31w Scott,KS
Masters #1-8
 Job Ticket: 64589 **DST#: 4**
 Test Start: 2018.08.24 @ 13:34:00

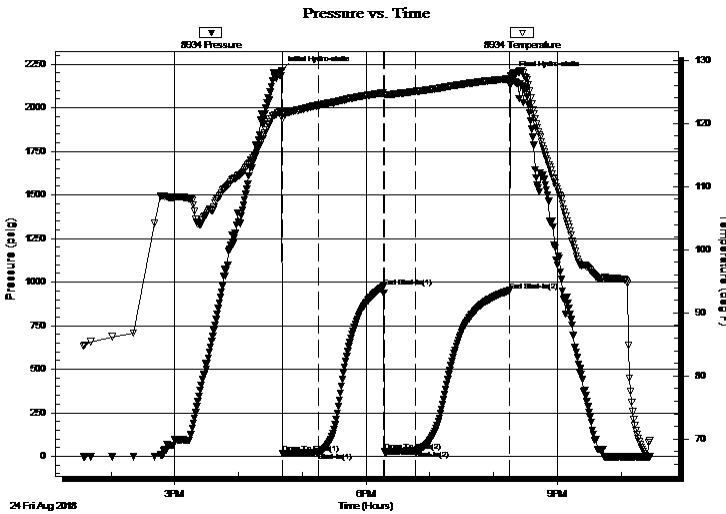
GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:41:00 Tester: Spencer J. Staab
 Time Test Ended: 22:26:45 Unit No: 84
 Interval: **4496.00 ft (KB) To 4570.00 ft (KB) (TVD)** Reference Elevations: 2968.00 ft (KB)
 Total Depth: 4570.00 ft (KB) (TVD) 2957.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 8934 Inside
 Press@RunDepth: 32.37 psig @ 4499.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.08.24 End Date: 2018.08.24 Last Calib.: 2018.08.24
 Start Time: 13:34:15 End Time: 22:26:45 Time On Btm: 2018.08.24 @ 16:40:45
 Time Off Btm: 2018.08.24 @ 20:17:30

TEST COMMENT: 30-IF-Weak Surface; Built to 3/4"
 60-ISI-No Return
 30-FF-No Blow
 90-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2214.62	122.02	Initial Hydro-static
1	15.89	120.69	Open To Flow (1)
35	25.39	122.78	Shut-In(1)
96	974.45	124.82	End Shut-In(1)
97	26.96	124.50	Open To Flow (2)
126	32.37	125.05	Shut-In(2)
215	952.13	127.06	End Shut-In(2)
217	2185.43	127.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 3%O 97%M	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64589

DST#: 4

ATTN: Grant Galyon

Test Start: 2018.08.24 @ 13:34:00

Tool Information

Drill Pipe:	Length: 4381.00 ft	Diameter: 3.82 inches	Volume: 62.10 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	110000.0 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	68000.00 lb
Drill Pipe Above KB:	30.00 ft			Final	68000.00 lb
Depth to Top Packer:	4496.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	74.00 ft				
Tool Length:	103.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

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

Change Over Sub	1.00			4468.00	
Shut In Tool	5.00			4473.00	
Hydraulic tool	5.00			4478.00	
Jars	5.00			4483.00	
Safety Joint	3.00			4486.00	
Packer	5.00			4491.00	29.00 Bottom Of Top Packer
Packer	5.00			4496.00	
Stubb	1.00			4497.00	
Perforations	1.00			4498.00	
Change Over Sub	1.00			4499.00	
Recorder	0.00	8934	Inside	4499.00	
Recorder	0.00	9120	Inside	4499.00	
Drill Pipe	32.00			4531.00	
Change Over Sub	1.00			4532.00	
Perforations	35.00			4567.00	
Bullnose	3.00			4570.00	74.00 Bottom Packers & Anchor
Total Tool Length:	103.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy

8-18S-31w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

Masters #1-8

Job Ticket: 64589

DST#: 4

ATTN: Grant Galyon

Test Start: 2018.08.24 @ 13:34:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	SOCM 3%O 97%M	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

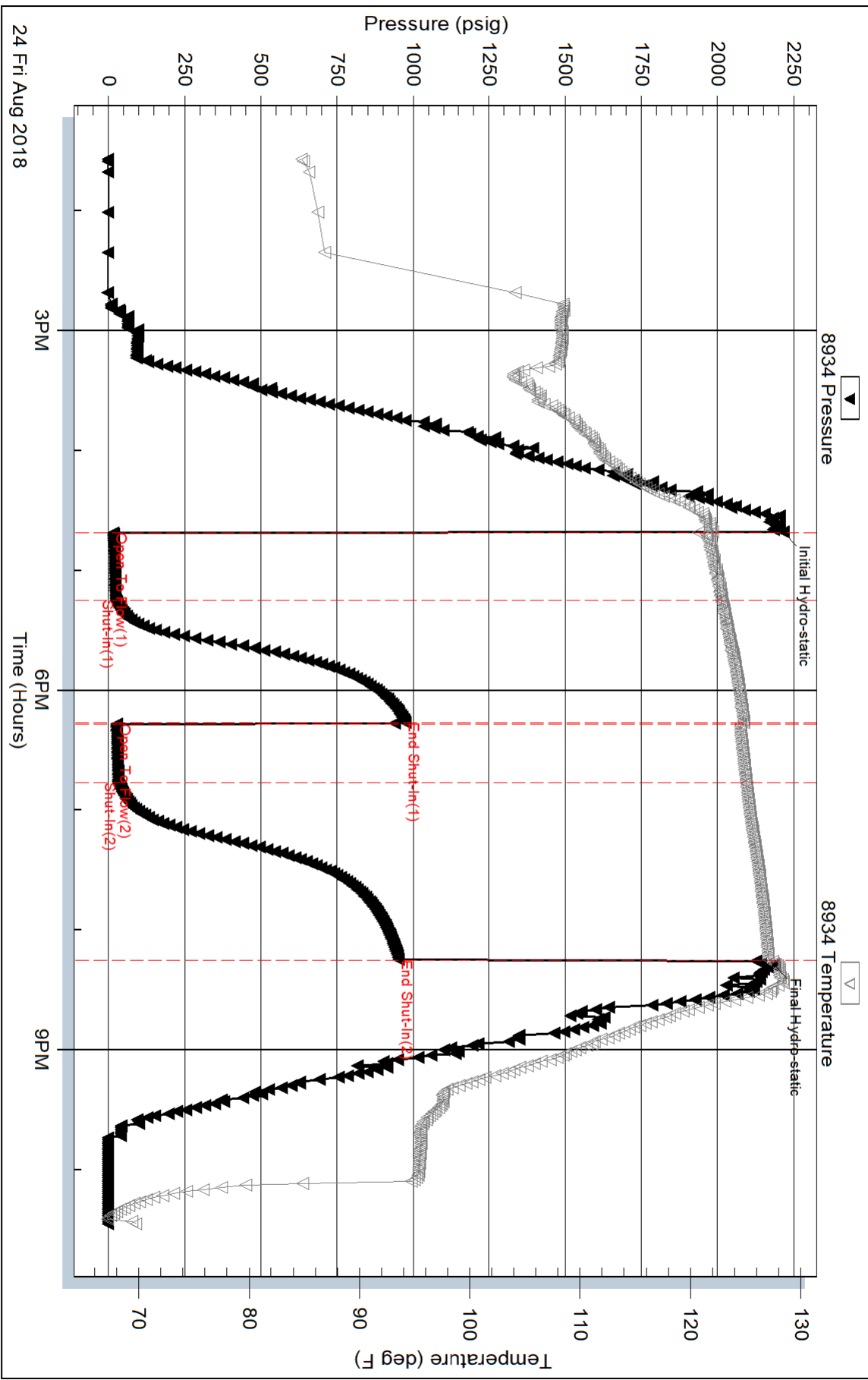
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

Pressure vs. Time



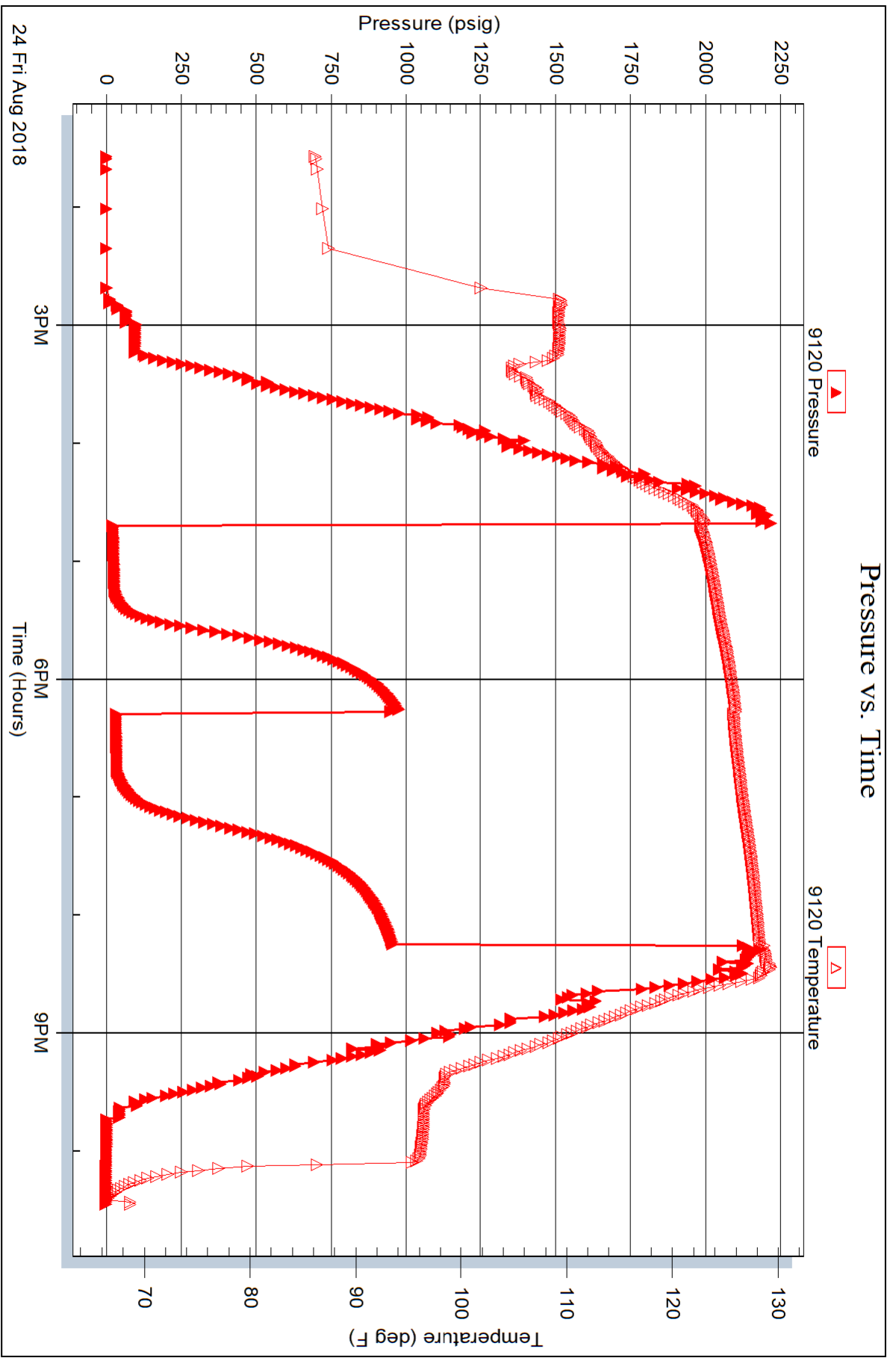
Serial #: 9120

Inside

Abercrombie Energy

Masters #1-8

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64586

Well Name & No. Masters #1-8 Test No. 1 Date 08/21/2018
 Company Abercrombie Energy Elevation 2968 KB 2957 GL
 Address 10209 W. Central STE 2 Wichita KS 67212
 Co. Rep / Geo. Grant Malyon Rig 20W #14
 Location: Sec. 8 Twp 18N Rge. 31W Co. Scott State KS

Interval Tested 4040'-4060' Zone Tested Lansing E
 Anchor Length 20' Drill Pipe Run 3995' Mud Wt. 9.3
 Top Packer Depth 4035' Drill Collars Run 116' Vis 57
 Bottom Packer Depth 4040' Wt. Pipe Run - WL 6.4
 Total Depth 4060' Chlorides 2300 ppm System LCM 2#

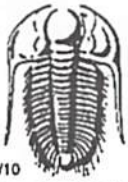
Blow Description 17- Weak Surface; Built to 1/2"
150- No Return
77- Weak Surface
750- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>OSM</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2010</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>03:47</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>04:04</u>
(C) First Final Flow <u>15</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>08:30</u>
(D) Initial Shut-In <u>1009</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>11:00</u>
(E) Second Initial Flow <u>15</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>13:26</u>
(F) Second Final Flow <u>16</u>	<input checked="" type="checkbox"/> Mileage <u>18 RT</u> 18	Comments _____
(G) Final Shut-In <u>899</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1972</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1493</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1493</u>	

Approved By _____ Our Representative Spencer J. Stuck Thanks!
 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.
 785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64587

Well Name & No. Masters #1-8 Test No. 2 Date 08/22/2018
 Company Abercrombie Energy LLC Elevation 2968 KB 2957 GL
 Address 10209 W. Central. STE 2 Wichita KS 67212
 Co. Rep / Geo. Grant Malyon Rig 2W2 #14
 Location: Sec. 8 Twp 18s Rge. 31w Co. Scott State Ks

Interval Tested 4300'-4390' Zone Tested Marmaton
 Anchor Length 90' Drill Pipe Run 4191' Mud Wt. 9.4
 Top Packer Depth 4295' Drill Collars Run 116' Vis 52
 Bottom Packer Depth 4300' Wt. Pipe Run - WL 8.8
 Total Depth 4390' Chlorides 4000 ppm System LCM 2#

Blow Description 17- Weak Surface; Built to 5"
1st No Return
7'7- Weak Surface; Built to 9"
75' Weak Surface; Built to 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>180'</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
<u>10</u>	<u>CO</u>	<u>100</u>			
	<u>120' GAP</u>	<u>100</u>			

Rec Total 190' BHT 128° Gravity 35 API RW - @ - F Chlorides - ppm
 (A) Initial Hydrostatic 2131 Test 1150 T-On Location 20:20
 (B) First Initial Flow 19 Jars 250 T-Started 21:00
 (C) First Final Flow 68 Safety Joint 75 T-Open 00:28
 (D) Initial Shut-In 1047 Circ Sub _____ T-Pulled 03:30
 (E) Second Initial Flow 71 Hourly Standby _____ T-Out 05:48
 (F) Second Final Flow 102 Mileage 1827 18
 (G) Final Shut-In 960 Sampler _____
 (H) Final Hydrostatic 2085 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1493

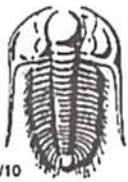
Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 45

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1493
 MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Jacob Thanks!

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785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64588

Well Name & No. Masters # 1-8 Test No. 3 Date 08/23/2018
 Company Abercrombie Energy Elevation 2968 KB 2957 GL
 Address 10209 W Central STE 2 Wichita KS 67212
 Co. Rep / Geo. Grant Johnson Rig W 20 #14
 Location: Sec. 8 Twp 18s Rge. 3W Co. Scott State Ks

Interval Tested 4434' - 4503' Zone Tested Pawnee, Myrick Station, Fort Scott
 Anchor Length 69' Drill Pipe Run 4317' Mud Wt. 9.2
 Top Packer Depth 4429' Drill Collars Run 116' Vis 52
 Bottom Packer Depth 4434' Wt. Pipe Run - WL 6.4
 Total Depth 4493' Chlorides 3500 ppm System LCM 2#

Blow Description 17- Weak Surfaces; Built to 1/4"
28- No Return
77- No Blow
78- No Return

Rec	Feet of	%gas	%oil	%water	%mud
3	OSM			100	

Rec Total 3' BHT 128° Gravity - API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic 2187 Test 1150 T-On Location 18:10
 (B) First Initial Flow 15 Jars 250 T-Started 18:42
 (C) First Final Flow 17 Safety Joint 75 T-Open 22:09
 (D) Initial Shut-In 52 Circ Sub _____ T-Pulled 01:39 08/24/2018
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 03:40
 (F) Second Final Flow 17 Mileage 16 RY 18 Comments _____
 (G) Final Shut-In 32 Sampler _____
 (H) Final Hydrostatic 2129 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 90
 Sub Total 1493
 Total 1493
 MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Steal *Thanks!*

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.

785-259-0056



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64589

Well Name & No. Masters #1-8 Test No. 4 Date 08/24/2018
 Company Abercrombie Energy Elevation 2968 KB 2957 GL
 Address 10209 W. Central 37E 2 Wichita Ks 67212
 Co. Rep / Geo. Grant Johnson Rig 2090 #14
 Location: Sec. 8 Twp 18S Rge. 3W Co. Scott State Ks

Interval Tested 4496' - 4570' Zone Tested Cherokee
 Anchor Length 74' Drill Pipe Run 4381' Mud Wt. 9.2
 Top Packer Depth 4491' Drill Collars Run 116' Vis 58
 Bottom Packer Depth 4496' Wt. Pipe Run - WL 7.2
 Total Depth 4570' Chlorides 3500 ppm System LCM 2#

Blow Description 77-Weak Surface; built to 3/4"
75- No Return
77- No Blow
78- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>SOCM</u>	<u>3</u>		<u>97</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 15' BHT _____ Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2214 Test 1150 T-On Location 13:08
 (B) First Initial Flow 15 Jars 250 T-Started 13:34
 (C) First Final Flow 25 Safety Joint 75 T-Open 16:43
 (D) Initial Shut-In 974 Circ Sub _____ T-Pulled 20:15
 (E) Second Initial Flow 26 Hourly Standby _____ T-Out 22:25
 (F) Second Final Flow 32 Mileage 1827 x 2 18+18
 (G) Final Shut-In 952 Sampler _____
 (H) Final Hydrostatic 2185 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Comments Loaded 08/25/2018
@ 16:00 spent 5
days in Scott!
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 90
 Sub Total 1511
 Total 1511
 MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Neal Thanks!

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785-259-0056