

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	OWEN 8
Doc ID	1421801

All Electric Logs Run

POR
MEL
DIL
SON

Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	OWEN 8
Doc ID	1421801

Tops

Name	Top	Datum
ANHY	2594	+521
B/ANHY	2616	+499
HEEB	4018	-903
TOR	4031	-916
LANS	4062	-947
MUN CR	4207	-1092
STRK	4290	-1175
HUSH	4324	-1209
BKC	4358	-1243
MARM	4396	-1281
PAW	4491	-1376
MYR ST	4528	-1413
FT SCT	4550	-1435
CHER	4578	-1463
MISS	4694	-1579



REMIT TO

QES Pressure Pumping LLC
Dept:970
P.O.Box 4346
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884
Chanute, KS 66720
620/431-9210, 1-800/467-8676
Fax 620/431-0012

Invoice

Invoice#

813816

Invoice Date: 08/14/18

Terms: Net 30

Page 1

ABERCROMBIE ENERGY
5510 OIL CENTER ROAD SOUTH
GREAT BEND KS 67530
USA
6207938186

RECEIVED

AUG 20 2018

OWEN 8

WICHITA



Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	30.000	805.00
CE0002	Equipment Mileage Charge - Heavy Equipment	20.000	7.1500	30.000	100.10
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	30.000	462.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	250.000	24.0000	30.000	4,200.00
	Subtotal				7,953.00
	Discounted Amount				2,385.90
	SubTotal After Discount				5,567.10

Amount Due 8,433.00 If paid after 09/13/18

Tax: 336.00
Total: 5,903.10

VENDOR NUMBER _____
 1352062
 OWEN #8
 CEMENT SURFACE OSS
 APPROVAL _____
 VERIFIED ACCURACY _____

ABERCROMBIE ENERGY LLC

10209 W. CENTRAL AVE. SUITE 2
 WICHITA, KANSAS 67222 / 316-262-1841

COMPANY: ABERCROMBIE ENERGY LLC

WELL NAME: OWEN #8

FIELD NAME: OWEN

LOCATION: 2310' FSL + 330' FEL

SECTION 21 TOWNSHIP 12S RANGE 33W

COUNTY: LOGAN STATE: KS

PRODUCTION: 

ELEVATION: KB 3115' / DF 3113' / OL 3104'

DRILLING TIME: 8/15/14

DRILLING TIME FROM: 3750' TO 4750'

DRILLING TIME FROM: 3800' TO 4750'

DRILLING TIME FROM: 3800' TO 4750'

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BIT RECORD

DATE	DEPTH	NO.	SIZE	MAKE	TYPE	OUT	FEET	HOURS
8/15/14	MYR ST	1	1 7/8	SMITH	F-L	4750	4557	102.5

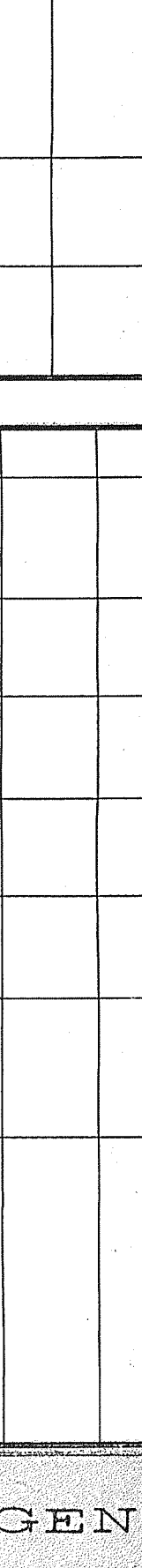
DRILL STEM TESTS

NO.	INTERVAL	DEPTH	REMARKS
1	4124 - 4145	16-18	3 Mud w/ oil spots
2	4122 - 4142	18-23	8 Mud w/ oil spots
3	4133 - 4142	15-17	10 Mud w/ oil spots
4	4122 - 4142	15-16	2 Mud
5	4121 - 4121	17-23	15 Mud w/ oil

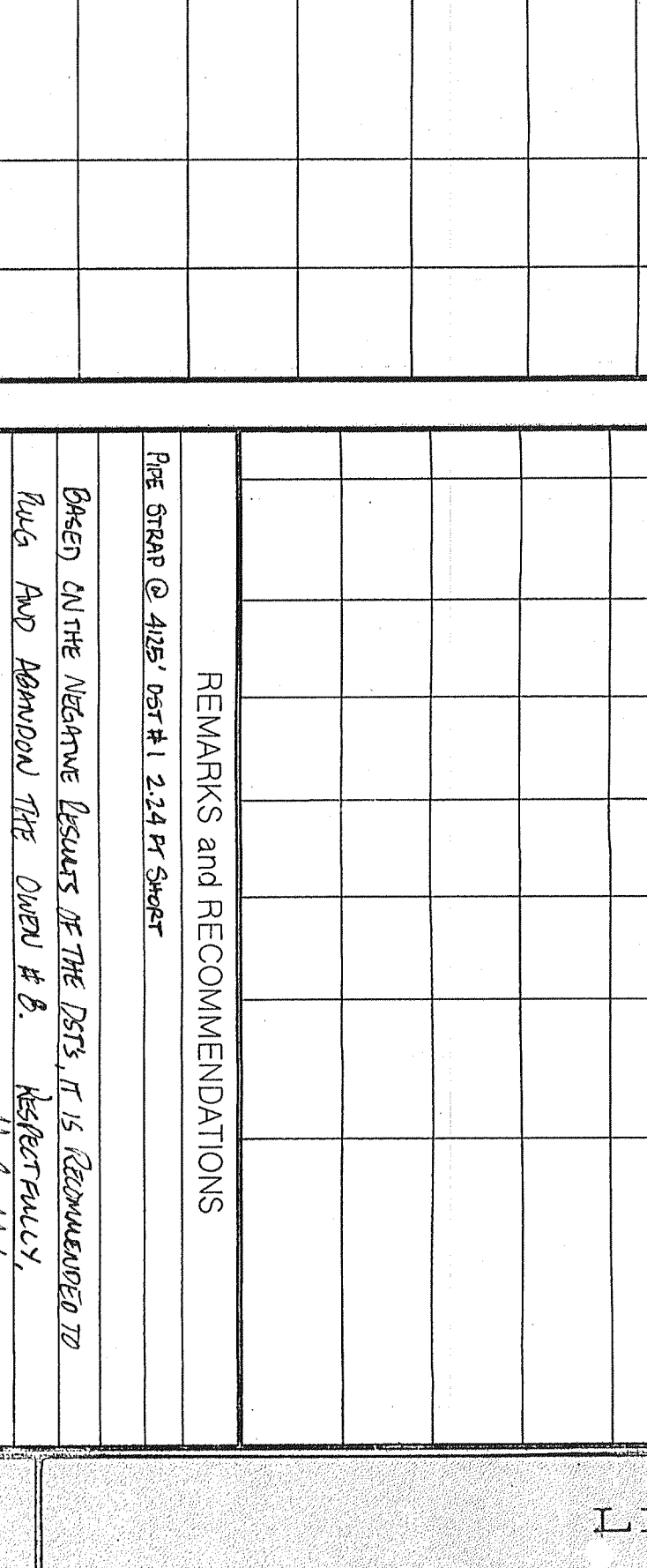
FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG DATA	STRUCTURAL POSITION
HEBNER	4018'	-70.3	-10
TORONTO	4015'	-71.6	-9
LANSING	4002'	-105.7	-10
STARK	4000'	-117.5	-8
HUSH	4000'	-143.2	-10
MUNCH CREEK	4000'	-143.2	-10
MARM	4000'	-143.2	-10
PANNEE	4000'	-143.2	-10
MYR ST	4000'	-143.2	-10
FT SET	4000'	-143.2	-10
CHERSH	4000'	-143.2	-10
MISS	4000'	-143.2	-10

LEGEND



SCALE 100



REMARKS and RECOMMENDATIONS

Free State @ 4124' Test at 2.24 ft Shale

Open in the negative direction at the DST, it is recommended to

Run and abandon the Open B. Negatively

CONTRACTOR: OWEN DRILLING, RIG #14

LEASE: OWEN #8

ELEVATION: 3115 KB

LOCATION: 2310' FSL + 330' FEL

SEC. 21 TWP. 12S. R. 33W

COUNTY: LOGAN STATE: KS



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste 2
Wichita, KS 67212

ATTN: Grant Galyon

Owen #8

21-12s-33w Logan,KS

Start Date: 2018.08.09 @ 20:16:00

End Date: 2018.08.10 @ 05:23:15

Job Ticket #: 64411 DST #: 1

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

Printed: 2018.08.14 @ 14:54:51



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

21-12s-33w Logan, KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64411

DST#: 1

ATTN: Grant Galyon

Test Start: 2018.08.09 @ 20:16:00

GENERAL INFORMATION:

Formation: **LKC E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:32:00

Time Test Ended: 05:23:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 4124.00 ft (KB) To 4145.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 4145.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8522

Inside

Press@RunDepth: 18.23 psig @ 4125.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.09

End Date:

2018.08.10

Last Calib.: 2018.08.10

Start Time: 20:16:05

End Time:

05:23:15

Time On Btm: 2018.08.10 @ 00:31:45

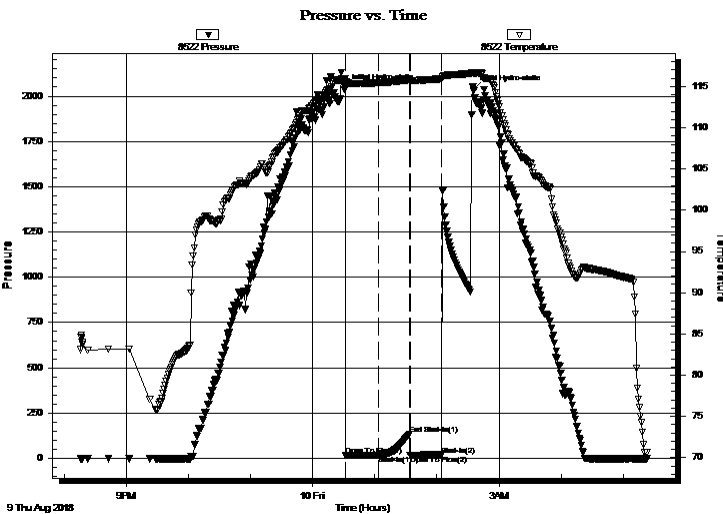
Time Off Btm: 2018.08.10 @ 02:35:30

TEST COMMENT: IF: Surface blow, Died @ 20 min.

IS: No return.

FF: No blow.

FS: No return.



PRESSURE SUMMARY

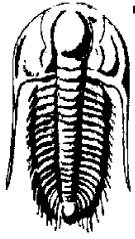
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2040.43	115.92	Initial Hydro-static
1	15.57	115.07	Open To Flow (1)
33	18.23	115.44	Shut-In(1)
63	135.56	115.83	End Shut-In(1)
63	17.73	115.65	Open To Flow (2)
93	19.00	115.92	Shut-In(2)
124	2034.74	116.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	mud 100m (oil spots)	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

21-12s-33w Logan, KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64411

DST#: 1

ATTN: Grant Galyon

Test Start: 2018.08.09 @ 20:16:00

Tool Information

Drill Pipe:	Length: 4000.00 ft	Diameter: 3.80 inches	Volume: 56.11 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4124.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	48.00 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			4098.00	
Shut In Tool	5.00			4103.00	
Hydraulic tool	5.00			4108.00	
Jars	5.00			4113.00	
Safety Joint	2.00			4115.00	
Packer	5.00			4120.00	27.00 Bottom Of Top Packer
Packer	4.00			4124.00	
Stubb	1.00			4125.00	
Recorder	0.00	8522	Inside	4125.00	
Recorder	0.00	8319	Outside	4125.00	
Perforations	17.00			4142.00	
Bullnose	3.00			4145.00	21.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64411

DST#: 1

ATTN: Grant Galyon

Test Start: 2018.08.09 @ 20:16:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	mud 100m (oil spots)	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

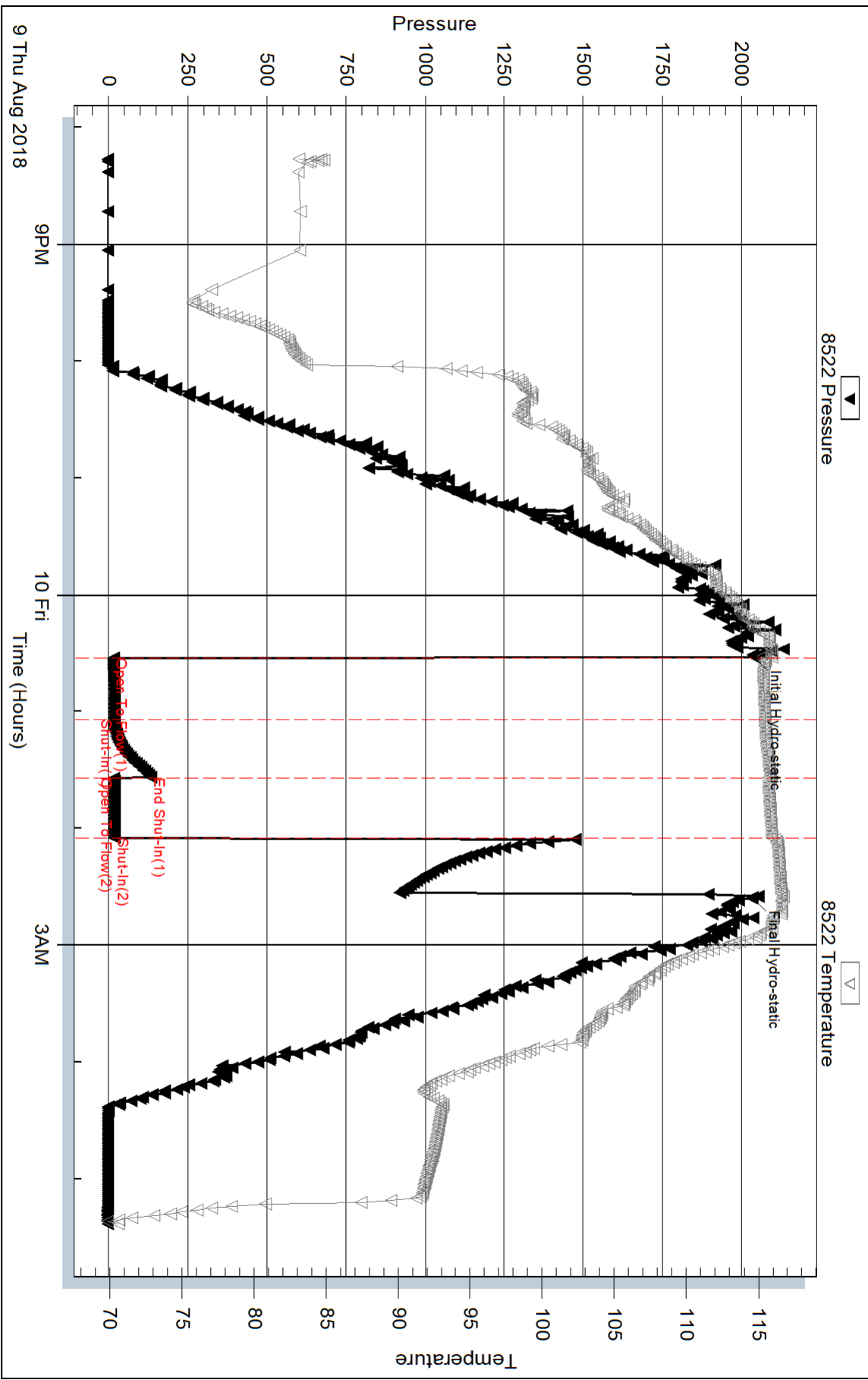
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

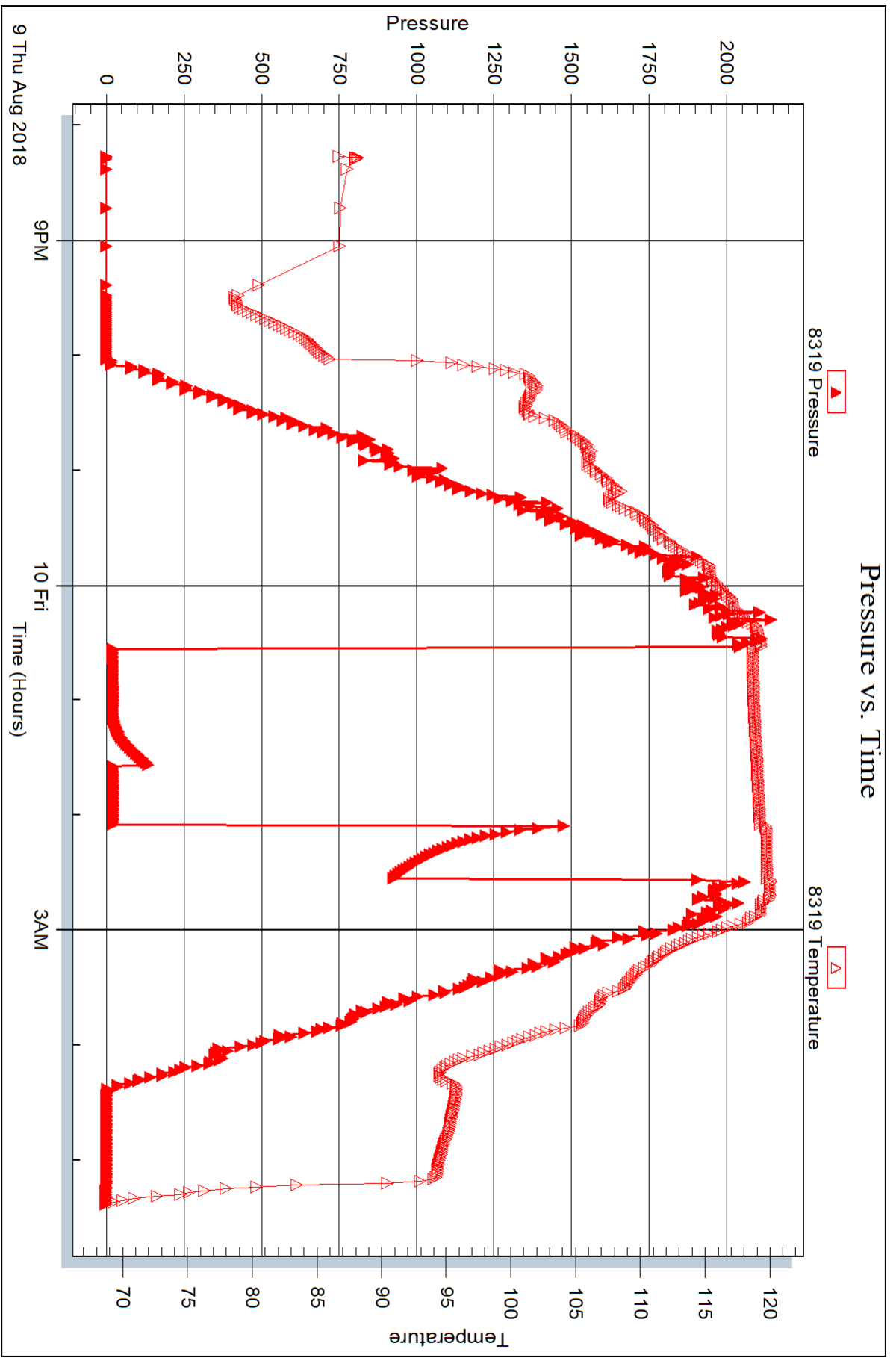


Serial #: 8319

Outside Abercrombie Energy, LLC

Owen #8

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 64411

Printed: 2018.08.14 @ 14:54:52



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste 2
Wichita, KS 67212

ATTN: Grant Galyon

Owen #8

21-12s-33w Logan,KS

Start Date: 2018.08.10 @ 16:18:00

End Date: 2018.08.11 @ 00:24:38

Job Ticket #: 64412 DST #: 2

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

Printed: 2018.08.14 @ 14:54:25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64412

DST#: 2

ATTN: Grant Galyon

Test Start: 2018.08.10 @ 16:18:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:48:53

Time Test Ended: 00:24:38

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4202.00 ft (KB) To 4242.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 4242.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8522

Inside

Press@RunDepth: 23.06 psig @ 4203.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.10

End Date:

2018.08.10

Last Calib.:

2018.08.10

Start Time: 15:18:05

End Time:

23:24:37

Time On Btm:

2018.08.10 @ 18:48:38

Time Off Btm:

2018.08.10 @ 20:51:23

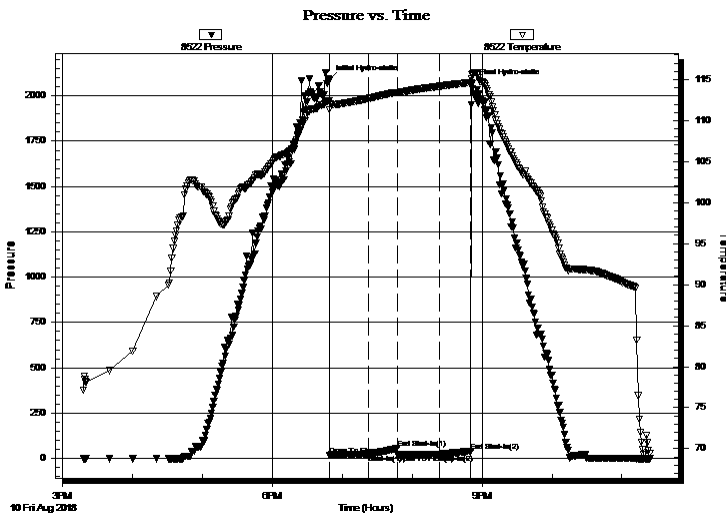
TEST COMMENT: IF: Surface blow, died @ 17 min.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2087.46	112.42	Initial Hydro-static
1	17.86	111.35	Open To Flow (1)
34	23.02	112.68	Shut-In(1)
59	54.33	113.45	End Shut-In(1)
59	22.16	113.40	Open To Flow (2)
95	23.06	114.17	Shut-In(2)
122	39.25	114.64	End Shut-In(2)
123	2069.33	115.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100m (oil spots)	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64412

DST#: 2

ATTN: Grant Galyon

Test Start: 2018.08.10 @ 16:18:00

Tool Information

Drill Pipe:	Length: 4064.00 ft	Diameter: 3.80 inches	Volume: 57.01 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 57.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4202.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	67.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			4176.00	
Shut In Tool	5.00			4181.00	
Hydraulic tool	5.00			4186.00	
Jars	5.00			4191.00	
Safety Joint	2.00			4193.00	
Packer	5.00			4198.00	27.00 Bottom Of Top Packer
Packer	4.00			4202.00	
Stubb	1.00			4203.00	
Recorder	0.00	8522	Inside	4203.00	
Recorder	0.00	8319	Outside	4203.00	
Perforations	3.00			4206.00	
Change Over Sub	1.00			4207.00	
Drill Pipe	31.00			4238.00	
Change Over Sub	1.00			4239.00	
Bullnose	3.00			4242.00	40.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64412

DST#: 2

ATTN: Grant Galyon

Test Start: 2018.08.10 @ 16:18:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

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

Serial #: 8522

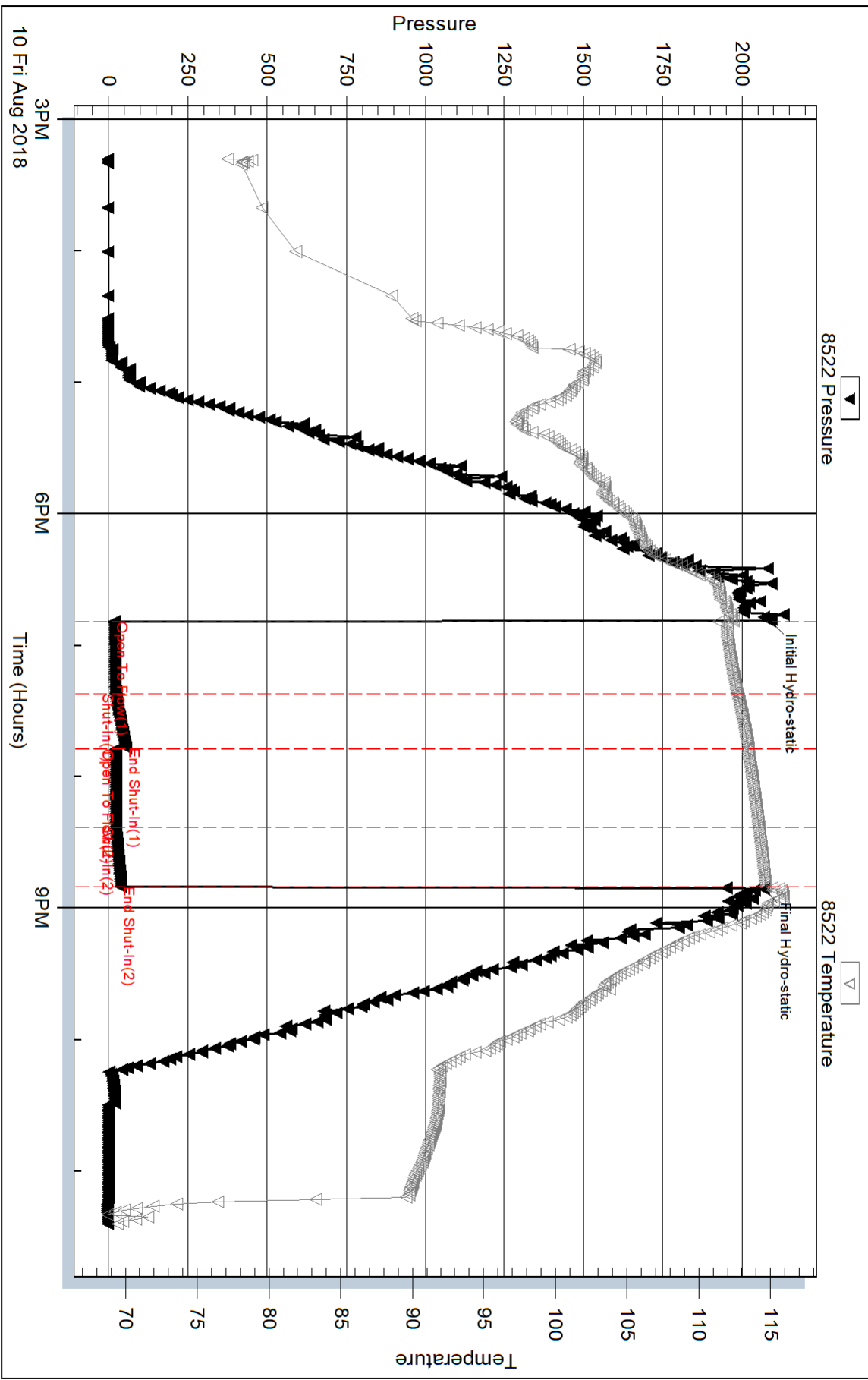
Inside

Abercrombie Energy, LLC

Owen #8

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64412

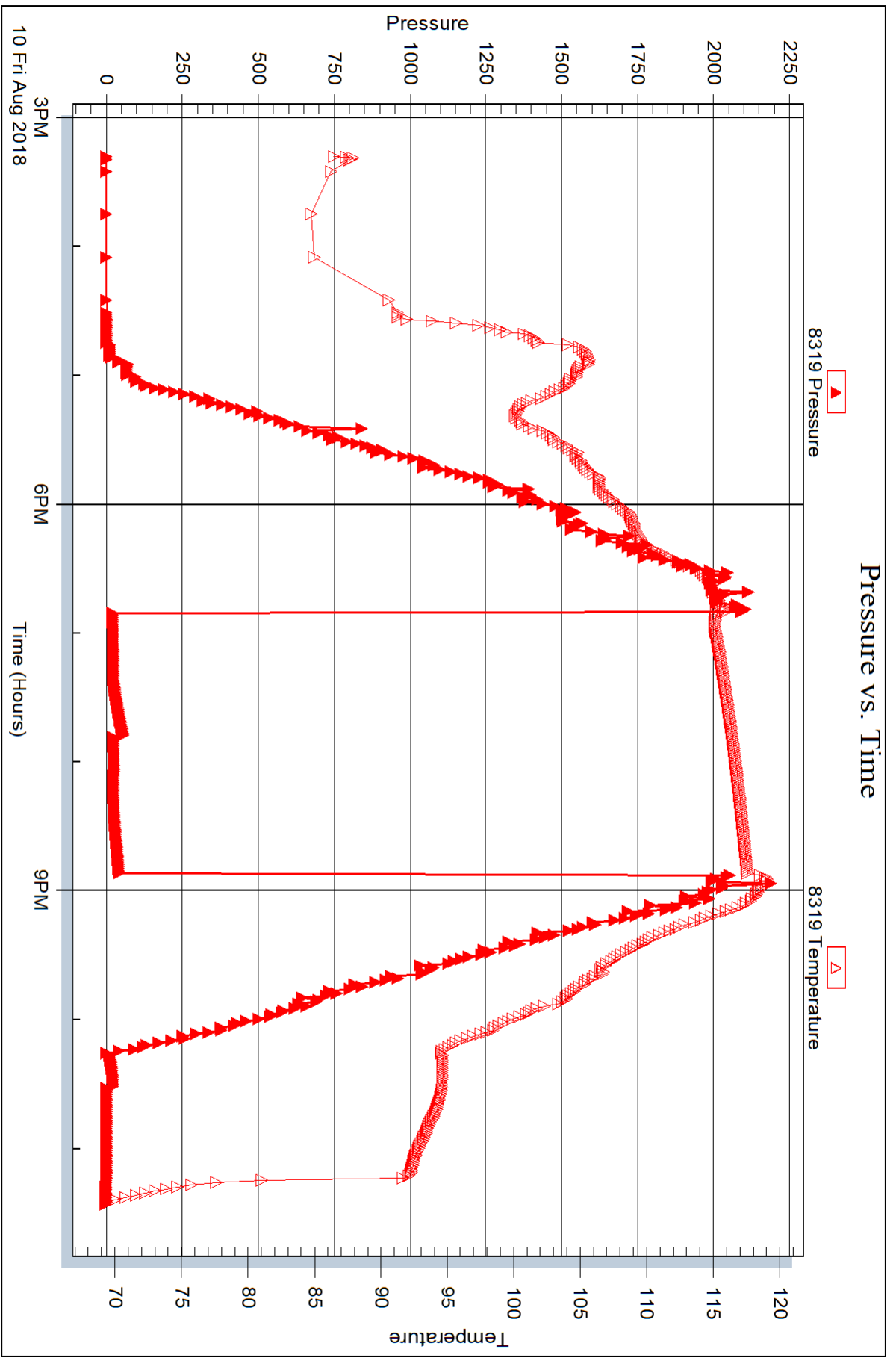
Printed: 2018.08.14 @ 14:54:26

Serial #: 8319

Outside Abercrombie Energy, LLC

Owen #8

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64412

Printed: 2018.08.14 @ 14:54:26



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste 2
Wichita, KS 67212

ATTN: Grant Galyon

Owen #8

21-12s-33w Logan,KS

Start Date: 2018.08.11 @ 08:20:00

End Date: 2018.08.11 @ 16:13:45

Job Ticket #: 64414 DST #: 3

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

Printed: 2018.08.14 @ 14:54:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

21-12s-33w Logan, KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64414

DST#: 3

ATTN: Grant Galyon

Test Start: 2018.08.11 @ 08:20:00

GENERAL INFORMATION:

Formation: **LKC I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:20:30

Time Test Ended: 16:13:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4233.00 ft (KB) To 4262.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 4262.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8522 Inside

Press@RunDepth: 19.70 psig @ 4234.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.11

End Date:

2018.08.11

Last Calib.: 2018.08.11

Start Time: 07:27:05

End Time:

15:20:44

Time On Btm: 2018.08.11 @ 10:20:15

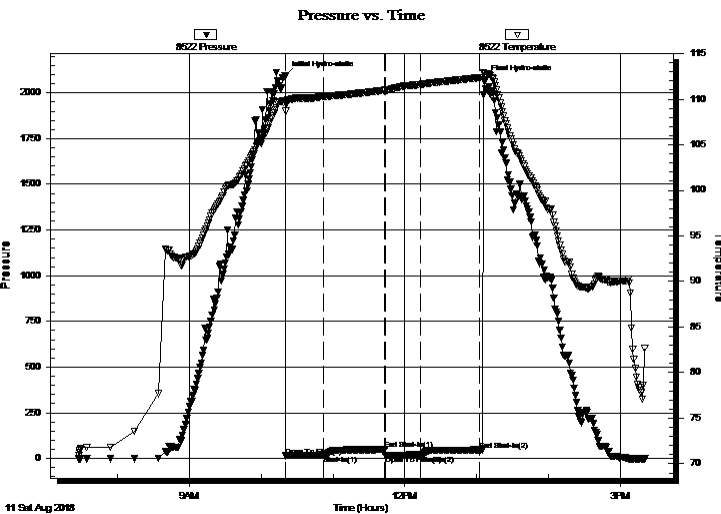
Time Off Btm: 2018.08.11 @ 13:06:15

TEST COMMENT: IF: Surface blow .

IS: No return.

FF: No blow .

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2092.60	109.84	Initial Hydro-static
1	14.82	108.67	Open To Flow (1)
32	17.48	110.28	Shut-In(1)
83	48.74	110.98	End Shut-In(1)
84	16.85	110.93	Open To Flow (2)
113	19.70	111.60	Shut-In(2)
163	47.01	112.35	End Shut-In(2)
166	2071.37	112.83	Final Hydro-static

Recovery

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

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64414

DST#: 3

ATTN: Grant Galyon

Test Start: 2018.08.11 @ 08:20:00

Tool Information

Drill Pipe:	Length: 4095.00 ft	Diameter: 3.80 inches	Volume: 57.44 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 58.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4233.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	56.00 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			4207.00	
Shut In Tool	5.00			4212.00	
Hydraulic tool	5.00			4217.00	
Jars	5.00			4222.00	
Safety Joint	2.00			4224.00	
Packer	5.00			4229.00	27.00 Bottom Of Top Packer
Packer	4.00			4233.00	
Stubb	1.00			4234.00	
Recorder	0.00	8522	Inside	4234.00	
Recorder	0.00	8319	Outside	4234.00	
Perforations	25.00			4259.00	
Bullnose	3.00			4262.00	29.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64414

DST#: 3

ATTN: Grant Galyon

Test Start: 2018.08.11 @ 08:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100m (oil spots)	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

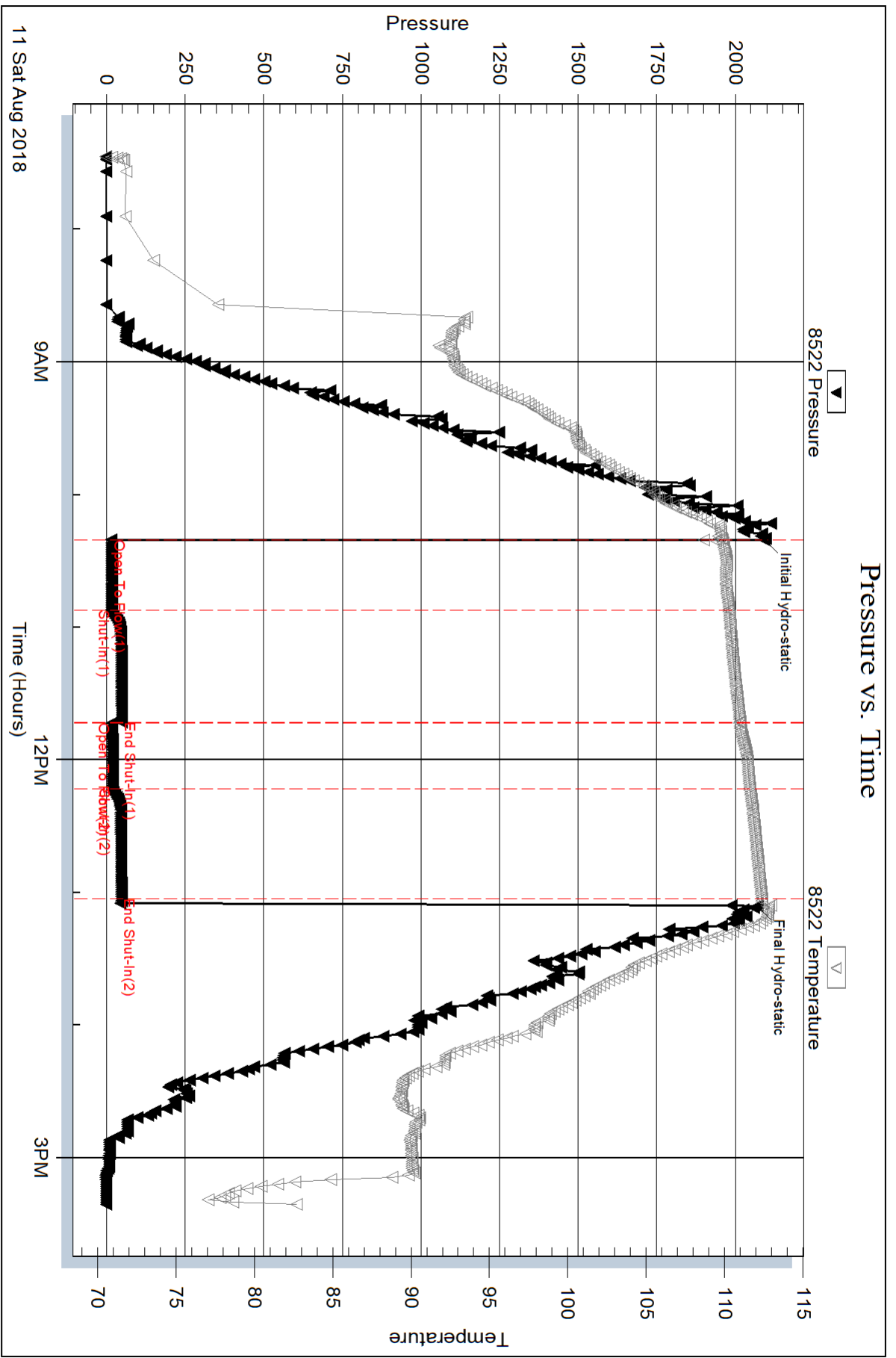
Num Gas Bombs: 0

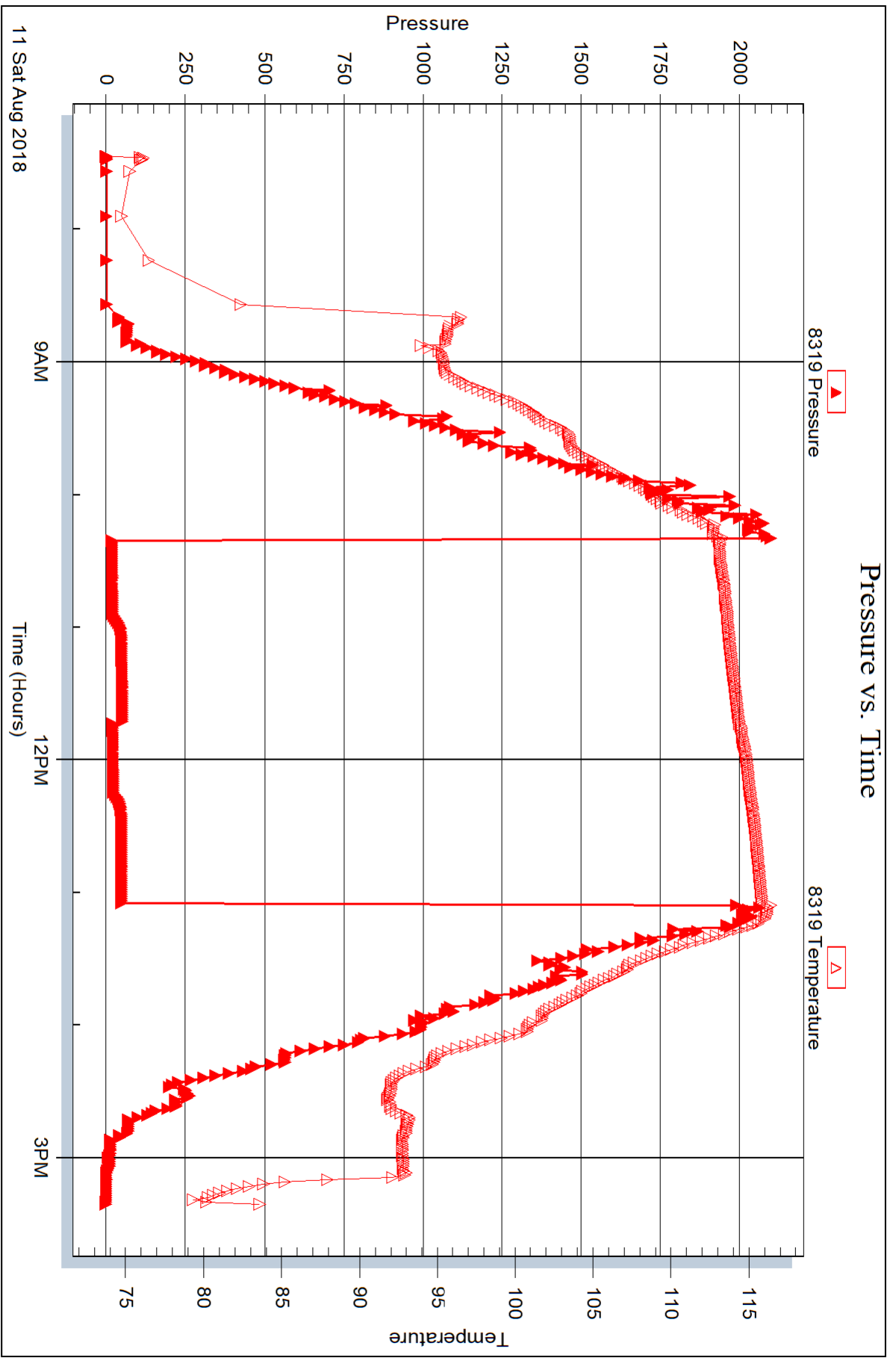
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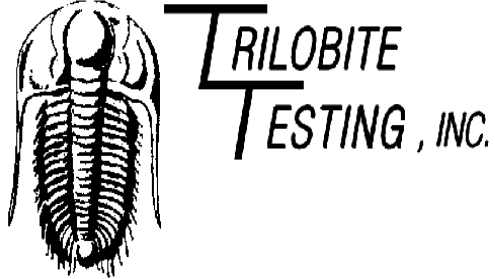
Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste 2
Wichita, KS 67212

ATTN: Grant Galyon

Owen #8

21-12s-33w Logan,KS

Start Date: 2018.08.12 @ 00:04:00

End Date: 2018.08.12 @ 07:18:30

Job Ticket #: 64415 DST #: 4

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

Printed: 2018.08.14 @ 14:53:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

21-12s-33w Logan, KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64415

DST#: 4

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 00:04:00

GENERAL INFORMATION:

Formation: **LKC J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:50:45

Time Test Ended: 07:18:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4263.00 ft (KB) To 4290.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 4390.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8522 Inside

Press@RunDepth: 16.08 psig @ 4264.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.12

End Date:

2018.08.12

Last Calib.: 2018.08.12

Start Time: 00:04:05

End Time:

07:18:29

Time On Btm: 2018.08.12 @ 02:50:30

Time Off Btm: 2018.08.12 @ 04:58:15

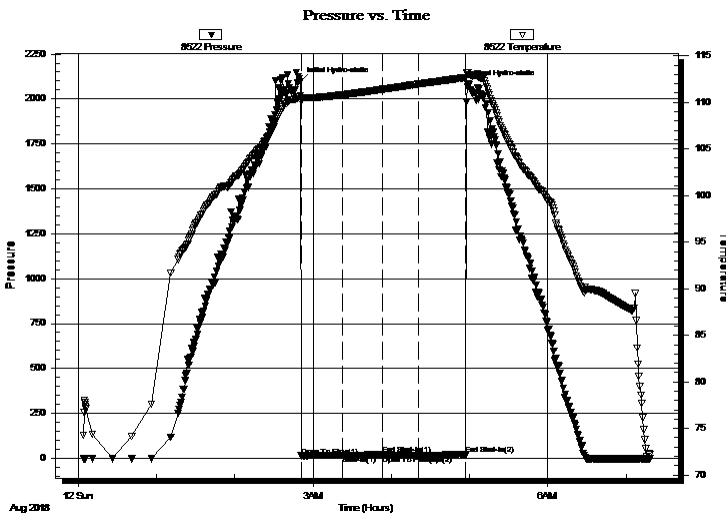
TEST COMMENT: IF: Surface blow, Died @ 20 min.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2096.37	110.72	Initial Hydro-static
1	14.32	110.08	Open To Flow (1)
32	16.00	110.81	Shut-In(1)
63	21.06	111.40	End Shut-In(1)
63	15.03	111.40	Open To Flow (2)
91	16.08	111.97	Shut-In(2)
126	21.81	112.65	End Shut-In(2)
128	2081.82	113.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100m	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, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64415

DST#: 4

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 00:04:00

Tool Information

Drill Pipe:	Length: 4127.00 ft	Diameter: 3.80 inches	Volume: 57.89 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4263.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4237.00	
Shut In Tool	5.00			4242.00	
Hydraulic tool	5.00			4247.00	
Jars	5.00			4252.00	
Safety Joint	2.00			4254.00	
Packer	5.00			4259.00	27.00 Bottom Of Top Packer
Packer	4.00			4263.00	
Stubb	1.00			4264.00	
Recorder	0.00	8522	Inside	4264.00	
Recorder	0.00	8319	Outside	4264.00	
Perforations	23.00			4287.00	
Bullnose	3.00			4290.00	27.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64415

DST#: 4

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 00:04:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

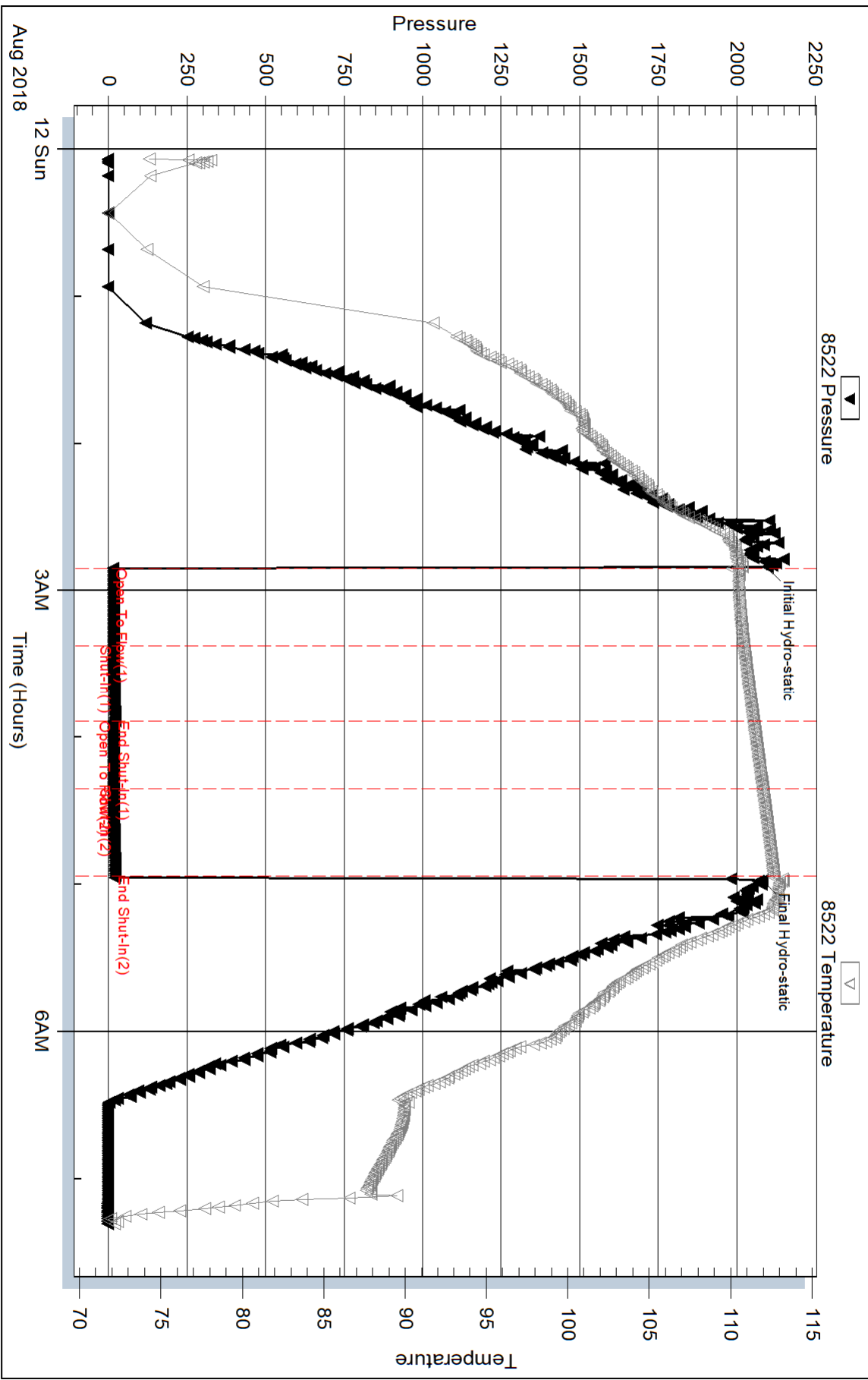
Serial #:

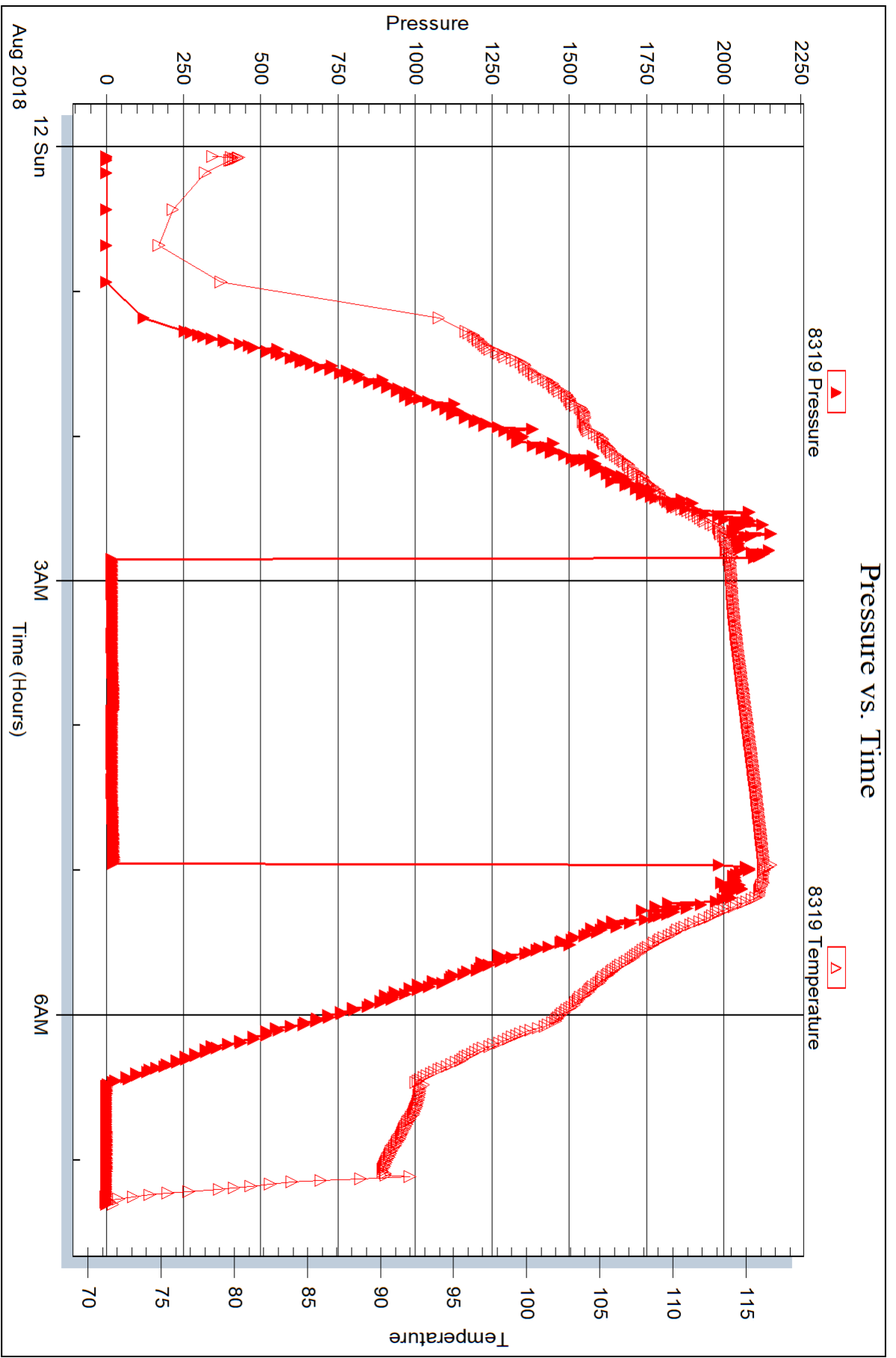
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste 2
Wichita, KS 67212

ATTN: Grant Galyon

Owen #8

21-12s-33w Logan,KS

Start Date: 2018.08.12 @ 16:06:00

End Date: 2018.08.12 @ 22:50:15

Job Ticket #: 64416 DST #: 5

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

Printed: 2018.08.14 @ 14:53:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

21-12s-33w Logan, KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64416

DST#: 5

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 16:06:00

GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:15:45

Time Test Ended: 22:50:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4282.00 ft (KB) To 4321.00 ft (KB) (TVD)

Reference Elevations: 3115.00 ft (KB)

Total Depth: 4321.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8522

Inside

Press@RunDepth: 28.70 psig @ 4283.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.12

End Date:

2018.08.12

Last Calib.:

2018.08.12

Start Time:

16:06:05

End Time:

22:50:14

Time On Btm:

2018.08.12 @ 18:15:30

Time Off Btm:

2018.08.12 @ 20:24:30

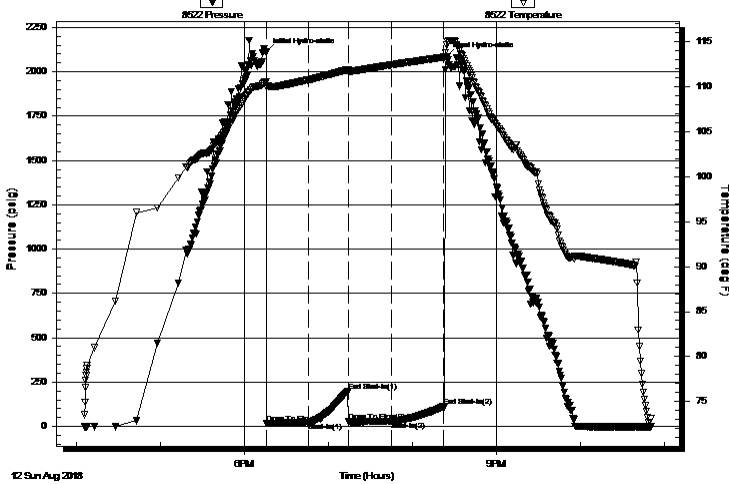
TEST COMMENT: IF: Surface blow, Died @ 13 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.22	110.54	Initial Hydro-static
1	16.96	109.97	Open To Flow (1)
30	22.75	110.76	Shut-In(1)
59	197.94	111.89	End Shut-In(1)
59	25.67	111.65	Open To Flow (2)
90	28.70	112.44	Shut-In(2)
127	112.96	113.29	End Shut-In(2)
129	2086.86	114.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud 100m (oil puddle on top)	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, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64416

DST#: 5

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 16:06:00

Tool Information

Drill Pipe:	Length: 4158.00 ft	Diameter: 3.80 inches	Volume: 58.33 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 116.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4282.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4256.00	
Shut In Tool	5.00			4261.00	
Hydraulic tool	5.00			4266.00	
Jars	5.00			4271.00	
Safety Joint	2.00			4273.00	
Packer	5.00			4278.00	27.00 Bottom Of Top Packer
Packer	4.00			4282.00	
Stubb	1.00			4283.00	
Recorder	0.00	8522	Inside	4283.00	
Recorder	0.00	8319	Outside	4283.00	
Perforations	2.00			4285.00	
Change Over Sub	1.00			4286.00	
Drill Pipe	31.00			4317.00	
Change Over Sub	1.00			4318.00	
Bullnose	3.00			4321.00	39.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

21-12s-33w Logan,KS

10209 W Central Ste 2
Wichita, KS 67212

Owen #8

Job Ticket: 64416

DST#: 5

ATTN: Grant Galyon

Test Start: 2018.08.12 @ 16:06:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud 100m (oil puddle on top)	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

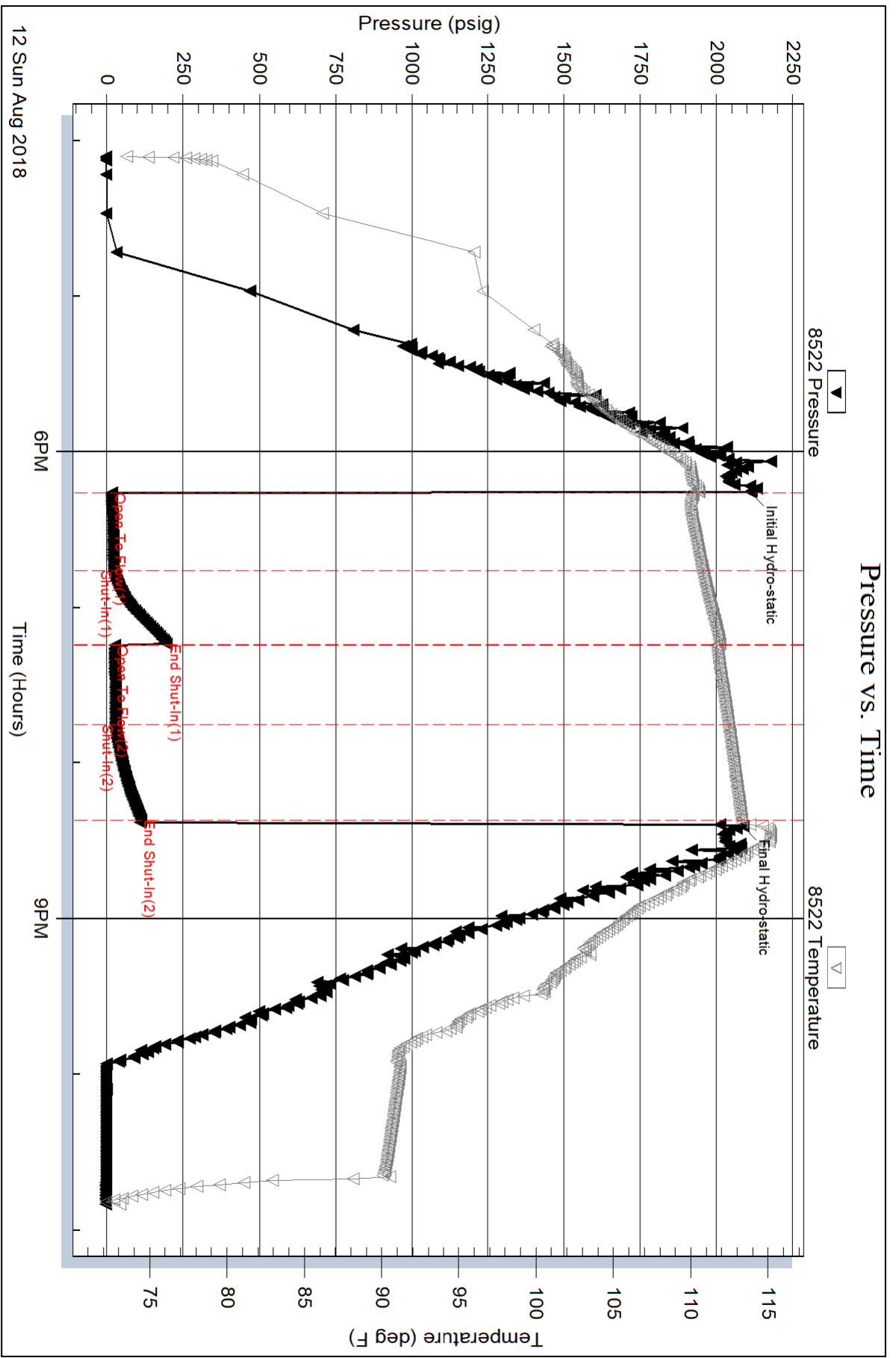
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

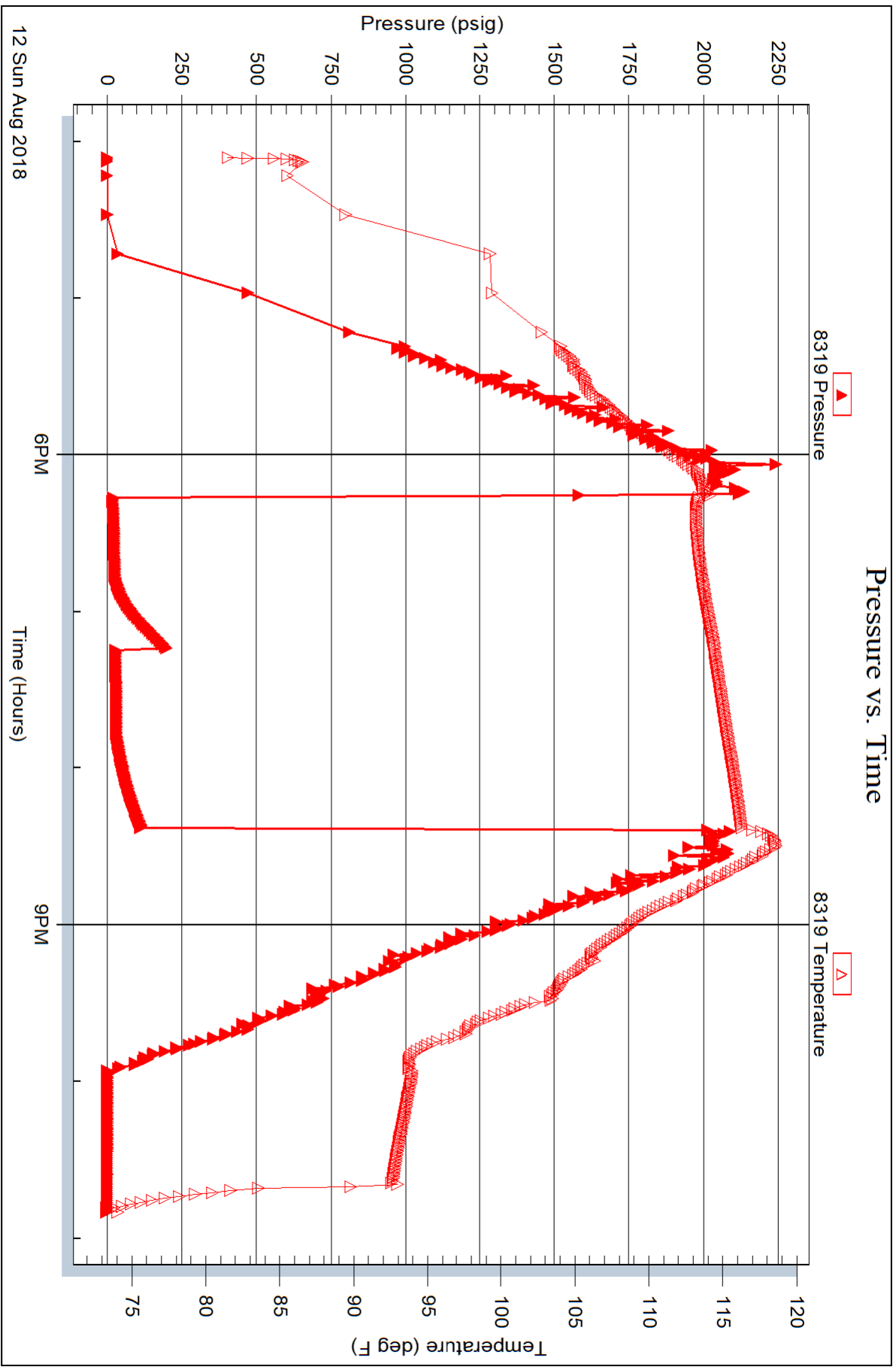


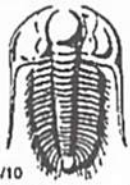
Serial #: 8319

Outside Abercrombie Energy, LLC

Owen #8

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64411

Well Name & No. Owen #8 Test No. 1 Date 8/10/2018
 Company Land Abercrombie Energy, LLC Elevation 3115 KB 3104 GL
 Address 10209 W Central Ste 2 Wichita, KS 67212
 Co. Rep / Geo. Grant Galyon Rig WW #
 Location: Sec. 21 Twp 12S Rge. 33W Co. Logan State KS

Interval Tested 4124 - 4145 Zone Tested LISC E
 Anchor Length 21 Drill Pipe Run 4,000 Mud Wt. 9.2
 Top Packer Depth 4119 Drill Collars Run 116 Vis 65
 Bottom Packer Depth 4124 Wt. Pipe Run Ø WL 8.8
 Total Depth 4145 Chlorides 3,000 ppm System LCM 2#
 Blow Description IF surface blow died @ 20 min.
ISI No return.
FF No blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>mod</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 3 BHT 111 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2040</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1920</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2016</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0032</u>
(D) Initial Shut-In <u>136</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>0235</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0523</u>
(F) Second Final Flow <u>19</u>	<input checked="" type="checkbox"/> Mileage <u>91 RT</u> 91	Comments
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2035</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1566</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1566</u>	

Approved By _____ Our Representative [Signature]

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

NO. 64412

Well Name & No. Owen #8 Test No. 2 Date 8/10/2018
 Company Abercrombie Energy, LLC Elevation 3115 KB 3104 GL
 Address 10209 Central Ste 2 Wichita, KS 67212
 Co. Rep / Geo. Grant Galyon Rig WW 14
 Location: Sec. 21 Twp 12S Rge. 33W Co. Logan State Ks

Interval Tested 4202 - 4242 Zone Tested LKC H
 Anchor Length 40' Drill Pipe Run 4064 Mud Wt. 9.2
 Top Packer Depth 4197 Drill Collars Run 116 Vis 64
 Bottom Packer Depth 4202 Wt. Pipe Run Ø WL 8.8
 Total Depth 4242 Chlorides 4,000 ppm System LCM 2#

Blow Description IF Surface blow died @ 17 min.
ISI No return
PF No blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 10 BHT 114 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2067</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1518</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1618</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1850</u>
(D) Initial Shut-In <u>54</u>	<input checked="" type="checkbox"/> Circ Sub <u>1/4</u>	T-Pulled <u>2050</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2326</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>91 RT</u> 91	Comments
(G) Final Shut-In <u>39</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2069</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1566</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1566</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64414

Well Name & No. Owen #8 Test No. 3 Date 8/11/2018
 Company Abercrombie Energy, LLC Elevation 3115 KB 3104 GL
 Address 10209 Central Ste #2 Wichita, KS 67212
 Co. Rep / Geo. Grant Galyon Rig WW#14
 Location: Sec. 21 Twp 12s Rge. 33w Co. Logan State KS

Interval Tested 4233-4262 Zone Tested LKC I
 Anchor Length 29' Drill Pipe Run 4095 Mud Wt. 9.3
 Top Packer Depth 4228 Drill Collars Run 116 Vis 59
 Bottom Packer Depth 4233 Wt. Pipe Run 0 WL 8.0
 Total Depth 4262 Chlorides 4500 ppm System LCM 1#

Blow Description TF: Surface blow
ISF: No return.
FF: No blow
FST: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MOD</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 10 BHT 112 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2092 Test 1150 T-On Location 0700
 (B) First Initial Flow 15 Jars 250 T-Started 0727
 (C) First Final Flow 17 Safety Joint 75 T-Open 1021
 (D) Initial Shut-In 47 Circ Sub 4/c T-Pulled 1259
 (E) Second Initial Flow 17-20 Hourly Standby _____ T-Out 1521
 (F) Second Final Flow 20 Mileage 91RT 91
 (G) Final Shut-In 47 Sampler _____
 (H) Final Hydrostatic 2071 Straddle _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1566 Sub Total 0
 Total 1566 MP/DST Disc't _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

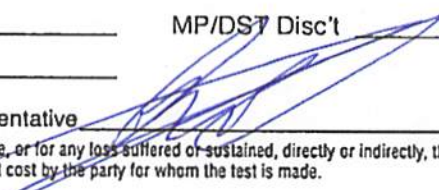
NO. 64415

Well Name & No. Owen #8 Test No. 4 Date 8/12/2018
 Company Abercrombie Energy, LLC Elevation 3115 KB 3104 GL
 Address 10209 Central Ste #2 Wichita, KS 67202
 Co. Rep / Geo. Grant Galvan Rig WW#14
 Location: Sec. 21 Twp 12S Rge. 33W Co. Logan State KS

Interval Tested 4263 4290 Zone Tested LKC J
 Anchor Length 27' Drill Pipe Run 4127 Mud Wt. 89
 Top Packer Depth 4258 Drill Collars Run 116 Vis 63
 Bottom Packer Depth 4263 Wt. Pipe Run 0 WL 4500 8.0
 Total Depth 4290 Chlorides 4500 ppm System LCM 1#
 Blow Description IF Surface blow died @ 20 min.
ISI No return
FF No blow
FSJ No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</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 Total 2 BHT 113 Gravity — API RW — @ — F Chlorides — ppm
 (A) Initial Hydrostatic 2096 Test 1150 T-On Location 2300
 (B) First Initial Flow 14 Jars 250 T-Started 0004
 (C) First Final Flow 16 Safety Joint 75 T-Open 0350
 (D) Initial Shut-In 21 Circ Sub _____ T-Pulled 0458
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 0719
 (F) Second Final Flow 16 Mileage 91AT 91 Comments _____
 (G) Final Shut-In 22 Sampler _____
 (H) Final Hydrostatic 2082 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1566
 Accessibility _____ MP/DS7 Disc't _____
 Sub Total 1566

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64416

Well Name & No. Owen #8 Test No. 5 Date 8/12/2018
 Company Abercrombie Energy, LLC Elevation 3115 KB 3104 GL
 Address 10209 Central Ste #2 Wichita, KS 67202
 Co. Rep / Geo. Grant Gaylon Rig WW #14
 Location: Sec. 21 Twp 12S Rge. 33W Co. Logan State Ks

Interval Tested 4282-4321 Zone Tested LKC K
 Anchor Length 39' Drill Pipe Run 4158 Mud Wt. 9.3
 Top Packer Depth 4277 Drill Collars Run 116 Vis 67
 Bottom Packer Depth 4282 Wt. Pipe Run 0 WL 9.6
 Total Depth 4321 Chlorides 5,000 ppm System LCM 1#
 Blow Description IF Surface bleed. died @ 13 min.
ISI No return.
FF No blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>mud</u>			<u>100</u>	
	<u>oil puddle on top</u>				

Rec Total 15 BHT 113 Gravity - API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic <u>211</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1530</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1406</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1815</u>
(D) Initial Shut-In <u>198</u>	<input checked="" type="checkbox"/> Circ Sub <u>4/c</u>	T-Pulled <u>2015</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2250</u>
(F) Second Final Flow <u>29</u>	<input checked="" type="checkbox"/> Mileage <u>9124 x 2</u> 91+91	Comments <u>p/v Tools @ 1300</u>
(G) Final Shut-In <u>113</u>	<input type="checkbox"/> Sampler	<u>08/14/2018</u>
(H) Final Hydrostatic <u>2087</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1657</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1657</u>	

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