

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
--	---

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
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

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

Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	JARBOE A 2
Doc ID	1466721

All Electric Logs Run

Dual Induction
Compensated Density/Neutron PE
Micro
Sonic
Geologist Mudlog
Cement Bond

Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	JARBOE A 2
Doc ID	1466721

Tops

Name	Top	Datum
Heebner	3646	-1667
Toronto	3662	-1683
Douglas	3676	-1697
Brown Lime	3806	-1827
Lansing/Kansas City	3828	-1849
BKC	4154	-2175
Mississippian	4266	-2287
Viola	4372	-2393
Simpson	4470	-2491
Arbuckle	4564	-2585

OPERATOR

Company: Younger Energy Company
 Address: 9415 E. Harry
 Suite 403, Bldg 400
 Wichita, KS 67207

Contact Geologist:
 Contact Phone Nbr: 316-681-2542
 Well Name: Jarboe A #2
 Location: Sec. 25 - T26S - R14W
 API: 15-151-22486-0000
 Pool:
 State: Kansas

Field: Wildcat
 Country: USA



Scale 1:240 Imperial

Well Name: Jarboe A #2
 Surface Location: Sec. 25 - T26S - R14W
 Bottom Location:
 API: 15-151-22486-0000
 License Number: 30705
 Spud Date: 4/22/2019 Time: 6:45 PM
 Region: Pratt County
 Drilling Completed: 4/29/2019 Time: 12:15 AM
 Surface Coordinates: 1925' FSL & 1155' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1967.00ft
 K.B. Elevation: 1979.00ft
 Logged Interval: 3500.00ft To: 4505.00ft
 Total Depth: 4605.00ft
 Formation: Arbuckle
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -98.80808
 Latitude: 27.75358
 N/S Co-ord: 1925' FSL
 E/W Co-ord: 1155' FWL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530

Phone Nbr: 620-617-4091
 Logged By: KLG #136

Name: Keith Reavis

CONTRACTOR

Contractor: Duke Drilling Company
 Rig #: 1
 Rig Type: mud rotary
 Spud Date: 4/22/2019
 TD Date: 4/29/2019
 Rig Release:

Time: 6:45 PM
 Time: 12:15 AM
 Time:

ELEVATIONS

K.B. Elevation: 1979.00ft
K.B. to Ground: 12.00ft

Ground Elevation: 1967.00ft

NOTES

Due to positive drill stem tests and electrical log analyses in the Lansing and Mississippian, 5 1/2" production casing was set and cemented to further test these zones through perforations and stimulation.

A Bloodhound gas detection system operated by Bluestem Labs was employed during the drilling of this well. ROP and gas data from said system were imported into this log.

The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully submitted,
Keith Reavis


daily drilling report

DATE	7:00 AM DEPTH	REMARKS
04/25/2019		Geologist Keith Reavis on location @1400 hrs, 3300 ft, drilling ahead Topeka, Heebner, Toronto, Douglas, Lansing, show and gas kick in B zone warrants test
04/26/2019	3870	short trip, TOH, conduct and complete DST #1, successful test, back in hole w/bit, resume drilling, show and kick in K zone warrants test, out w/bit in w/tools, conducting DST #2
04/27/2019	4058	complete DST #2, successful test, back in w/bit, resume drilling, show and gas kick in J warrants test, conduct and complete DST #3, successful test, lay down tools, TIH w/bit, resume drilling, BKC, Marmaton, Miss
04/28/2019	4300	drilling ahead, Mississippian, show, kick and structural gain warrants test, short trip, TOH w/bit & in w/tools, conduct and complete DST #4, successful test, back in hole w/bit, resume drilling, Viola, Simpson, Arbuckle
04/29/2019	4605	TD @ 4605 ft @ 0015 hrs, cfs, short trip, ctch, TOH for logs, conduct logging operations, geologist off location @ 1000 hrs

well comparison sheet

DRILLING WELL					COMPARISON WELL			
Younger Jarboe A2					Younger - Jarboe A1			
1925' FSL & 1155' FWL					150' E N/2 NE SE			
Sec 25-T26S-R14W					Sec 25-T26S-R14W			
1979 KB					1964 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Heebner	3635	-1656	3646	-1667	3624	-1660	4	-7
Toronto	3655	-1676	3662	-1683	3642	-1678	2	-5
Douglas	3678	-1699	3676	-1697	3667	-1703	4	6
Brown Lime	3797	-1818	3806	-1827	3782	-1818	0	-9
Lansing	3824	-1845	3828	-1849	3808	-1844	-1	-5
middle I por	4024	-2045	4030	-2051	4010	-2046	1	-5
Stark Shale	4096	-2117	4098	-2119	4077	-2113	-4	-6
BKC	4153	-2174	4154	-2175	4132	-2168	-6	-7
Mississippian	4265	-2286	4266	-2287	4273	-2309	23	22
Viola	4366	-2387	4372	-2393	4360	-2396	9	3
Simpson	4468	-2489	4470	-2491	4424	-2460	-29	-31
Arbuckle	4559	-2580	4564	-2585	4512	-2548	-32	-37
Rotary TD	4605	-2626	4610	-2631	4596	-2632	6	1

Drill Stem Test #1

DRILL STEM TEST REPORT	
	Younger Energy Company 9415 E Harry Ste 403 bldg400 Wichita, Kansas 67207
25-26S-14W Pratt Jarbo "A" # @ Job Ticket: 01258	DST# 1

GENERAL INFORMATION:

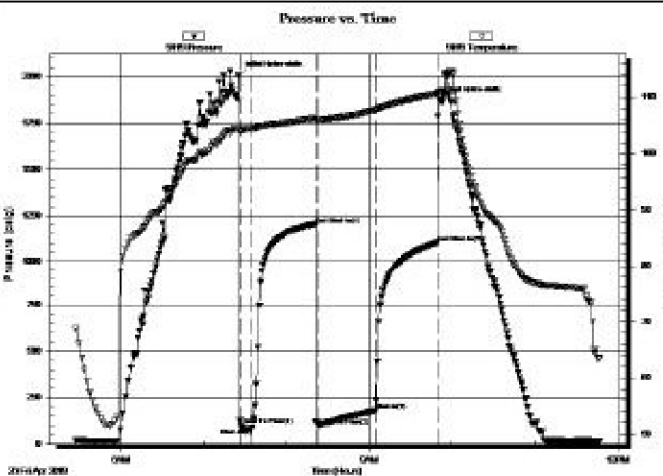
Formation: **Lansing "B"**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 07:25:00
 Time Test Ended: 00:00:00
 Interval: **3844.00 ft (KB) To 3870.00 ft (KB) (TVD)**
 Total Depth: **3870.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches hole Condition: Fair**

Test Type: **Conventional Bottom Hole (initial)**
 Tester: **Gene Budig**
 Unit No: **1**
 Reference Elevations: **1979.00 ft (KB)**
1967.00 ft (CF)
 KB to GR/CF: **12.00 ft**

Serial #: 9119

Press@RunDepth: **1100.41 psig @** ft (KB) Capacity: psig
 Start Date: **2019.04.26** End Date: **2019.04.26** Last Calb.: **1899.12.30**
 Start Time: **05:24:00** End Time: **11:47:30** Time On Btm: **2019.04.26 @ 07:25:30**
 Time Off Btm: **2019.04.26 @ 09:51:00**

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 1 minute
 1st Shut-in 45 Minutes fair blow back
 2nd Opening 45 Minutes same as 1st gas to surface on the final shut-in
 2nd Shut-in 45 minutes fair blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.96	104.44	Initial Hydro-static
1	96.93	103.88	Open To Flow (1)
10	83.44	104.49	Shut-in(1)
55	1201.00	106.28	End Shut-in(1)
57	96.64	105.93	Open To Flow (2)
99	179.46	107.75	Shut-in(2)
144	1100.41	110.63	End Shut-in(2)
146	1878.55	111.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	60% GAS 26% OIL 8% MUD 6% WATER	1.68
60.00	14% gas 7.6% Oil 5% Mud 5% Water	0.84
120.00	10% Gas 5% Oil 8% Mud 77% water	1.68
0.00		0.00

Gas Rates

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

Drill Stem Test #2



DRILL STEM TEST REPORT

Younger Energy Company
 9415E Harry Ste 403 Bldg 400
 Wichita, Kansas 67207
 ATTN: Keith Feavis

25-26-14w Pratt
Jarbo "A" # @
 Job Ticket: 01359
 Test Start: 2019.04.27 @ 22:00:00

DST# :2

GENERAL INFORMATION:

Formation: **kansas City #1**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 23:47:00
 Time Test Ended: 00:00:00
 Interval: **32972.0 ft (KB) To 3990.00 ft (KB) (TVD)**
 Total Depth: **3990.00 ft (KB) (TVD)**

Test Type: **Conventional Bottom Hole (initial)**
 Tester: **Gene Budig**
 Unit No: **1**
 Reference Elevations: **1979.00 ft (KB)**
1967.00 ft (CF)

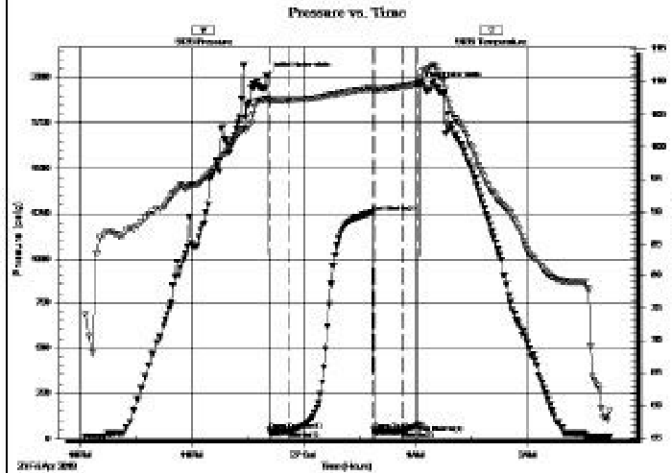
Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139

Press@RunDepth: 73.12 psig @ ft (KB) Capacity: psig
 Start Date: 2019.04.26 End Date: 2019.04.27 Last Calb.: 1899.12.30
 Start Time: 22:00:00 End Time: 02:44:00 Time On Btrrc: 2019.04.26 @ 23:40:59
 Time Off Btrm: 2019.04.27 @ 01:02:00

TEST COMMENT: 1st opening 10 Minutes weak blow
 1st Shut-h 45 Minutes
 2nd Opening 16 Minutes weak blow for 12 Minutes and died
 2nd Shut-h 10 Minutes



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.97	107.39	Initial Hydro-static
1	45.05	106.86	Open To Flow (1)
11	42.69	107.13	Shut-In(1)
57	1256.84	108.91	End Shut-In(1)
58	44.15	108.67	Open To Fbw(2)
73	43.68	109.18	Shut-In(2)
81	73.12	109.55	End Shut-In(2)
82	1959.24	110.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drilling mud	0.21

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (M d/d)

Drill Stem Test #3



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
 Wichita, Kansas 67207

Jarbo "A" # @

Job Ticket: 01360

DST#: 3

ATTN: Keith Feavis

Test Start: 2019.04.27 @ 11:30:00

GENERAL INFORMATION:

Formation: Kansas City "J"
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:57:00
 Time Test Ended: 17:31:00

Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 1

Interval: 4046.00 ft (KB) To 4680.00 ft (KB) (TVD)
 Total Depth: 4080.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1979.00 ft (KB)
 1967.00 ft (CF)
 KB to GR/CF: 12.00 ft

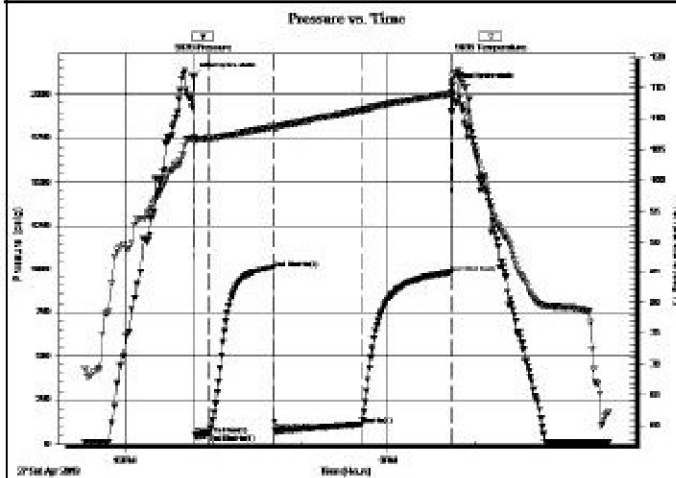
Serial #: 9139

Outside

Press@RunDepth: 977.05 psig @ 4075.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2019.04.27 End Date: 2019.04.27 Last Calb.: 2019.04.27
 Start Time: 11:30:00 End Time: 17:30:30 Time On Btrrc: 2019.04.27 @ 12:46:30
 Time Off Btrm: 2019.04.27 @ 15:43:30

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 90 seconds
 1st shut-in 45 Minutes no blow back
 2nd Opening 60 Minutes good blow built to the bottom of the bucket in 1 minute
 2nd Shut-h 60 Minutes 3 inch blow back

and shut-in 60 minutes since blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2105.89	106.72	Initial Hydro-static
2	51.17	106.67	Open To Flow (1)
12	57.73	106.85	End Shut-in(1)
55	101.214	108.77	End Shut-in(2)
56	76.39	108.63	Open To Fbw (2)
115	110.56	111.44	Shut-In(1)
176	977.05	114.04	End Shut-In(3)
177	2045.27	116.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2900.00	Gas in the pipe	40.68
45.00	water cut muddy frothy oil	0.63
0.00	10% Gas 30%Oil 25%Mud30%Water	0.00
90.00	water cut muddy frothy oil	1.26
0.00	20%Gas 30%Oil 18%Mud 35%Waster	0.00
30.00	oil and gas cut muddy water	0.42

Gas Rates

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

Drill Stem Test #4



DRILL STEM TEST REPORT

Younger Energy Company

25-26-14w Pratt

9415E Harry Ste 403 bldg400
Wichita, Kansas 67207

Jarbo "A" # @

Job Ticket: 01361

DST#: 4

ATTN: Keith Feavis

Test Start: 2019.04.28 @ 06:00:00

GENERAL INFORMATION:

Formation: Mississippi

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:00

Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4236.00 ft (KB) To 4300.00 ft (KB) (TVD)

Total Depth: 4300.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches -hole Condition: Fair

Reference Elevations: 1979.00 ft (KB)

1967.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 9139

Outside

Press@RunDepth: 1305.56 psig @ 4295.06 ft (KB)

Start Date: 2019.04.28

End Date: 2019.04.28

Start Time: 06:00:00

End Time: 12:43:30

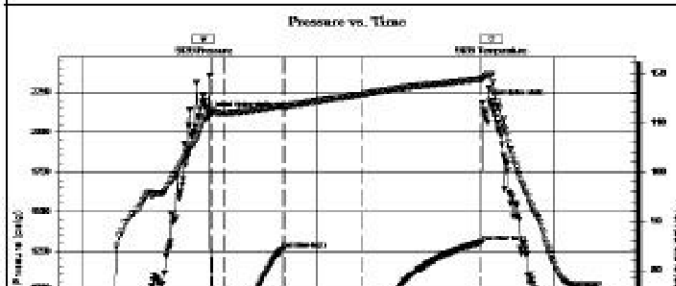
Capacity: 5000.00 psig

Last Calb.: 2019.04.28

Time On Btrm: 2019.04.28 @ 07:37:30

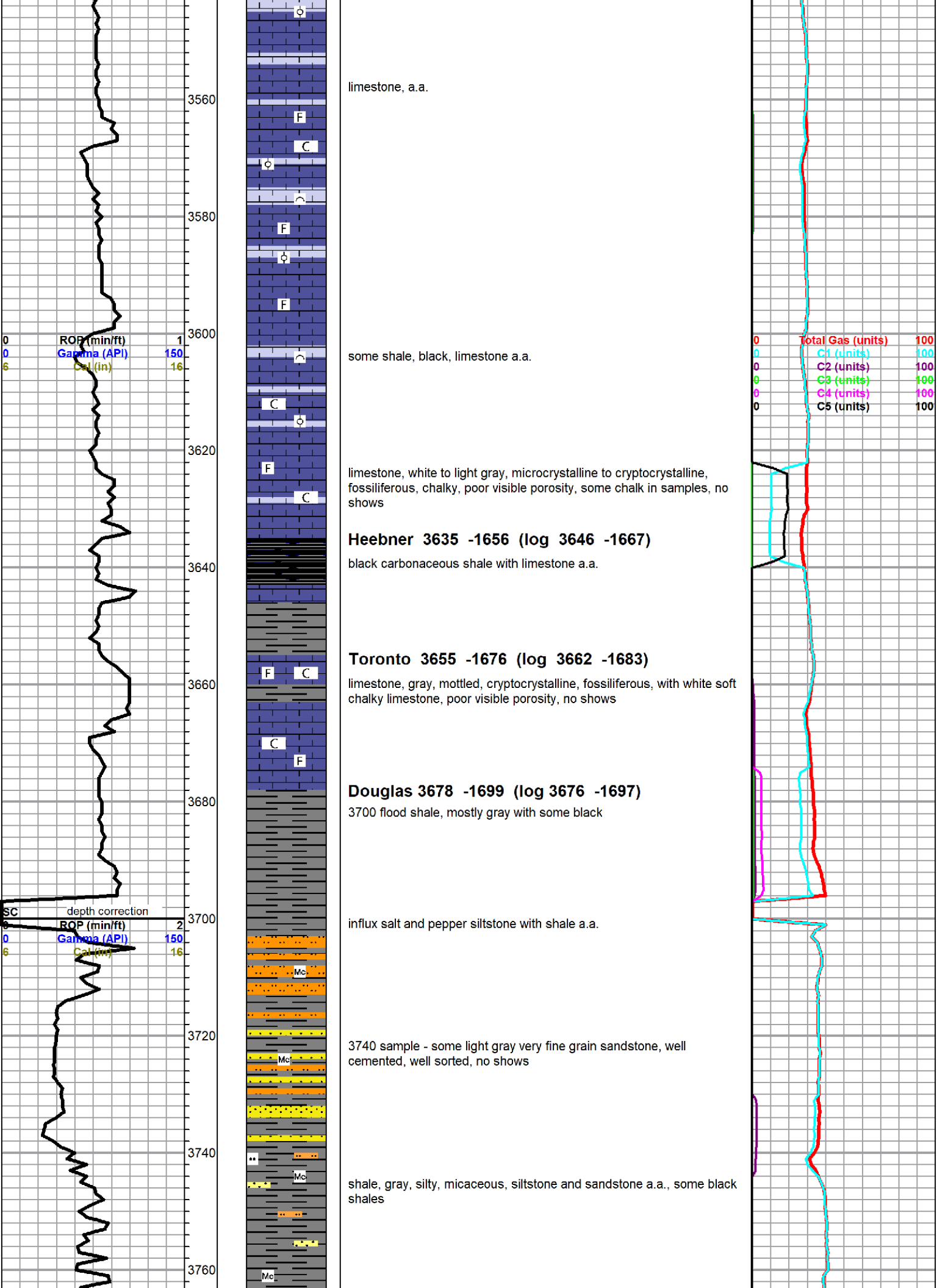
Time Off Btrm: 2019.04.28 @ 11:06:00

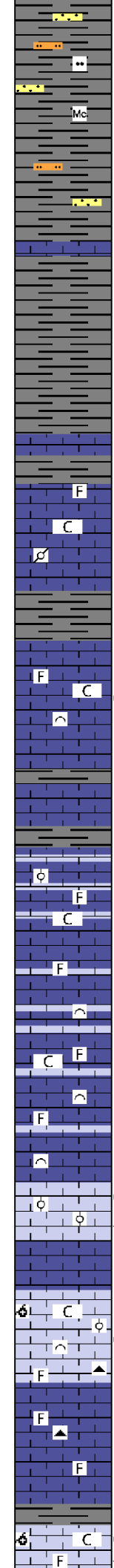
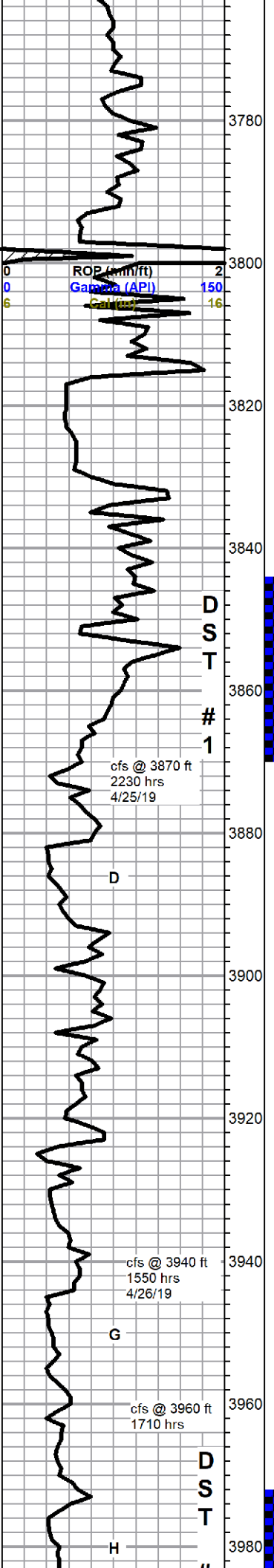
TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of a 5 gallon bucket in 2 minutes
 1st Shut-in 45 Minutes no blow back
 2nd opening 60 Minutes gas to surface IN 2 MINUTES SEE GAS FLOW REPORT
 2nd Shut-in 90 Minutes no blow back



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.83	111.05	Initial Hydro-static
2	117.50	112.31	Open To Flow (1)
12	104.30	111.84	Shut-In(1)
56	1257.76	113.33	End Shut-In(1)
58	98.74	113.16	Open To Fbw (2)
117	107.60	115.61	Shut-In(2)
177	2045.27	116.07	Final Hydro-static





a.a.

Brown Lime 3797 -1818 (log 3806 -1827)

limestone, gray to brown, cryptocrystalline, cherty, slightly fossiliferous, dense, no show

Lansing 3824 -1845 (log 3828 -1849)

limestone, gray mottled to light gray, mixed fossiliferous to pelletal, some dense, some chalky, poor visible porosity, no shows

limestone, gray, microcrystalline, fossiliferous, cherty, some black oily fossil fragments, with limestone, light gray, micro-cryptocrystalline, fossiliferous to bioclastic, small specimens, chalky in part, poor visible porosity, trace free oil droplets in tray, slight show droplets on break, no stain, good sweet odor, good spotty fluorescence, slow streaming cut

limestone, cream, fossiliferous to sub-oolitic, trace oolitic, chalky, with denser gray mottled fossiliferous, poor visible porosity, no shows

3940 samp limestone, gray and tan mottled, fossiliferous to bioclastic, poor porosity, limestone, gray, micro-cryptocrystalline, dense, sub-lithographic, cream chalky fossiliferous, no shows

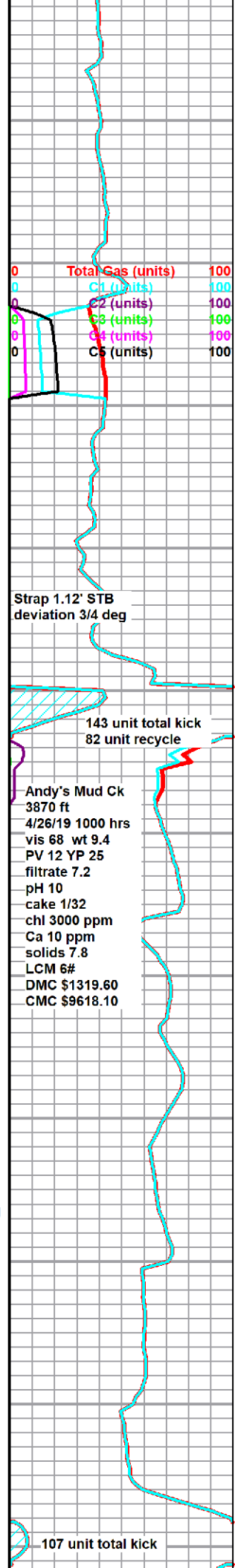
as above, chalkier, some weathering

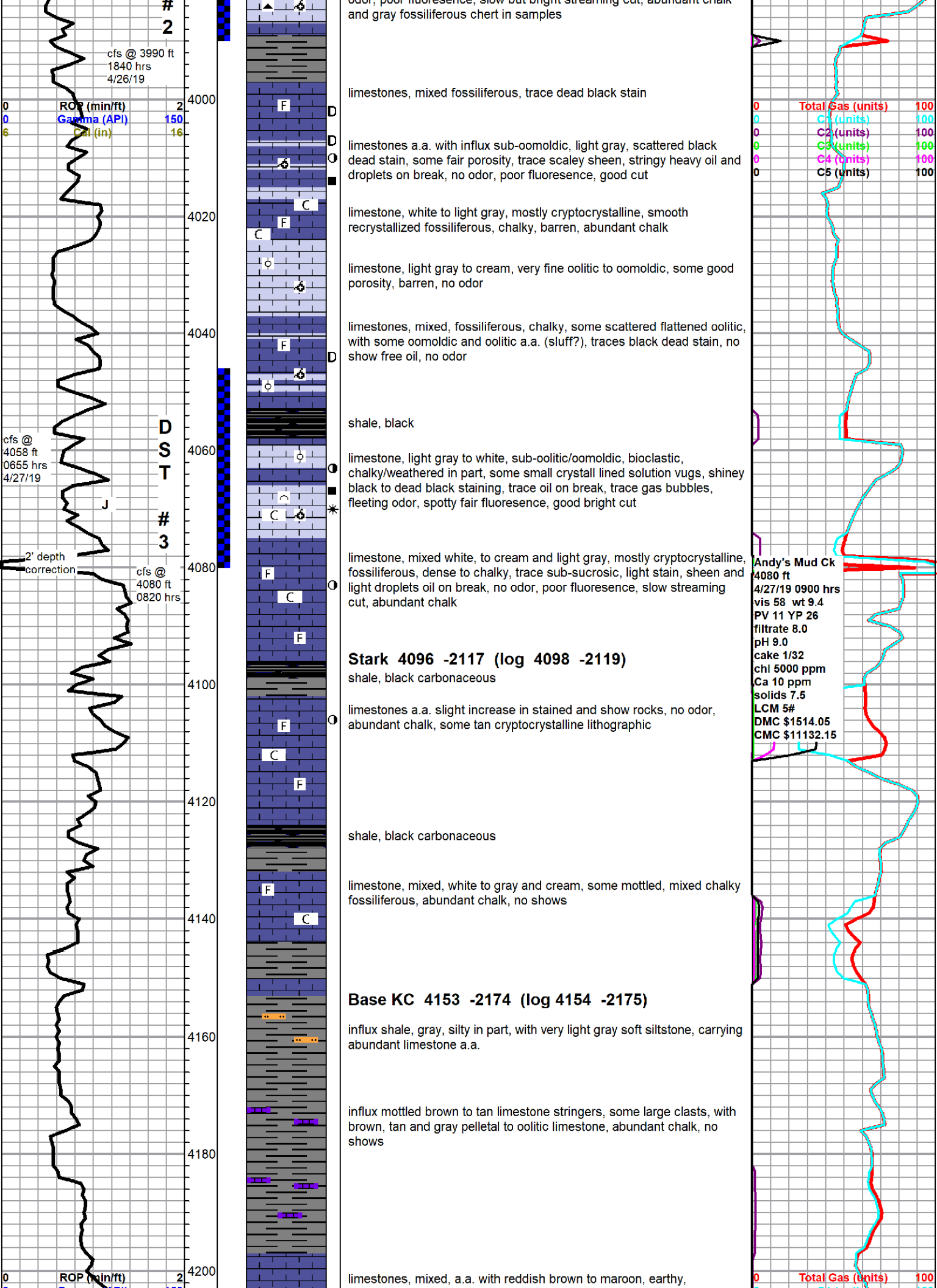
limestone, tan, very fine sugary oolitic, some pinpoint porosity, light stain, show gas bubbles and heavy stringy oil droplets on break, fleeting odor, no fluorescence, slight streaming slow blue cut

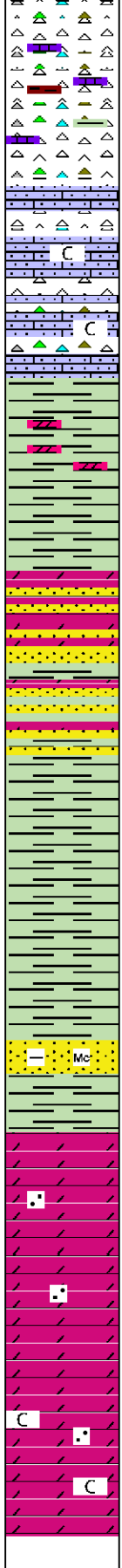
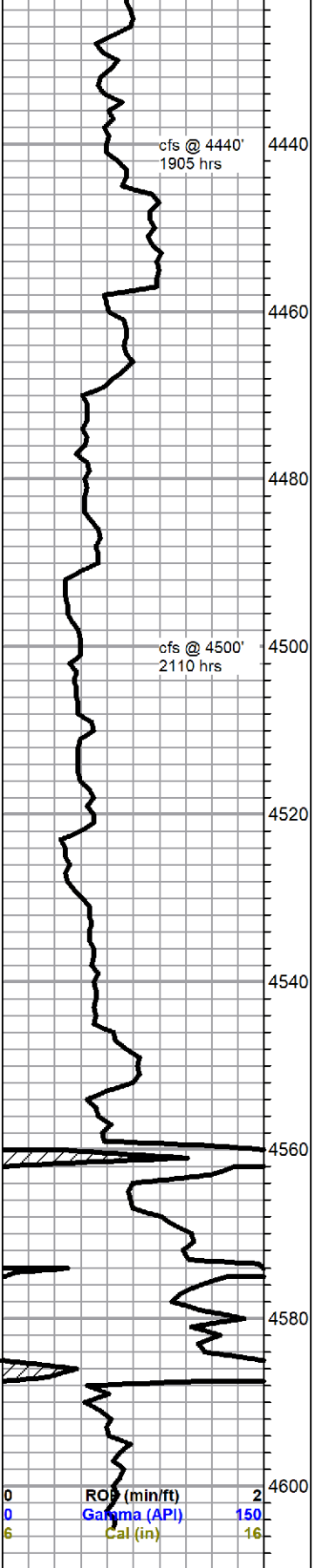
limestone, light gray to cream, mixed fine oolitic to oomoldic, some fair pinpoint porosity, trace stain and oil on break, with white to cream and gray chalky flattened oolitic to fossiliferous, no stain, trace oil droplets on break, poor fluorescence, slow but bright streaming cut, abundant chalk, scattered fossiliferous cherts

limestone, light brown to cream, micro-cryptocrystalline, fossiliferous, cherty in part, poor visible porosity, no shows, scattered gray/brown fossiliferous chert

limestone, light gray, oomoldic to sub-oomoldic, some fossiliferous, scattered black stain, slight show oil on break, show gas bubbles, no odor, poor fluorescence, slow but bright streaming cut, abundant chalk







4460 & 80' samples, cherts (mostly white boney) and white sandy limestone a.a.

chert a.a. with abundant white to light gray sandy limestone, sandy, some gray arenaceous dolomitic limestone, dense, no shows

Simpson 4468 -2489 (log 4470 -2491)

4500' 30 min sample - also flood green shale, slightly waxy, some pyritic

4500' 30 min sample - flood dolomite, blue gray streaky, microcrystalline, sub-rhombic to sub-sucrosic, some large rhombs and sand grains, argillaceous, traces pyrite poor visible porosity, no shows

60 min sample a.a. some dolomite is much sandier, trace blue/gray very dolomitic sandstone, variable grain, argillaceous, pyritic, no shows

4540 and 60 samples, sandstone, quartz, gray to salt and pepper and brown, fine to very fine grain, micaceous, dolomitic, argillaceous/shaley, rounded, poor to fair sorted, poor visible porosity, no shows

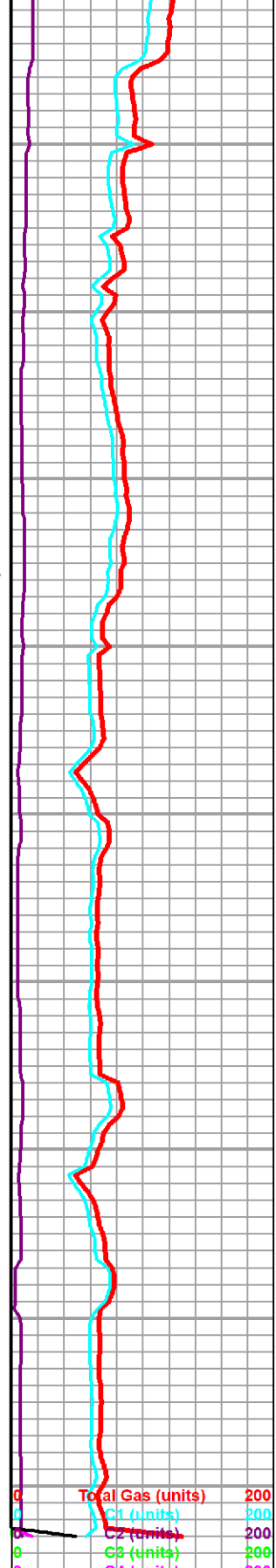
flood sands a.a.

Arbuckle 4559 -2580 (log 4564 -2585)

dolomite, tan, micro-cryptocrystalline, lithographic to sub-sucrosic, dense, trace sandy, no shows

dolomite, white to tan, crypto-microcrystalline, rhombic to lithographic, some sandy, some crystalline friable, abundant caliche, still carrying abundant white chert, some probably associated with dolomite, no shows

TD 4605 ft @ 0015 hrs 4/29/19
ELI log TD 4610 ft



0 ROF (min/ft) 2
0 Gamma (API) 150
6 Cal (in) 16

0 Total Gas (units) 200
0 C1 (units) 200
0 C2 (units) 200
0 C3 (units) 200



DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

ATTN: keith Reavis

Jarbo "A" # @

25-26s-14w Pratt

Start Date: 2019.04.26 @ 05:24:00

End Date: 2019.04.26 @ 00:00:00

Job Ticket #: 01358 DST #: 1

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2019.04.26 @ 12:15:30

Younger Energy Company
25-26s-14w Pratt
Jarbo "A" # @
DST # 1
Lansing "B"
2019.04.26



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01358

DST#: 1

ATTN: keith Reavis

Test Start: 2019.04.26 @ 05:24:00

GENERAL INFORMATION:

Formation: **Lansing "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:25:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3844.00 ft (KB) To 3870.00 ft (KB) (TVD)**

Reference Elevations: 1979.00 ft (KB)

Total Depth: 3870.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9119

Press@RunDepth: 1100.41 psig @ ft (KB)

Capacity: psig

Start Date: 2019.04.26

End Date: 2019.04.26

Last Calib.: 1899.12.30

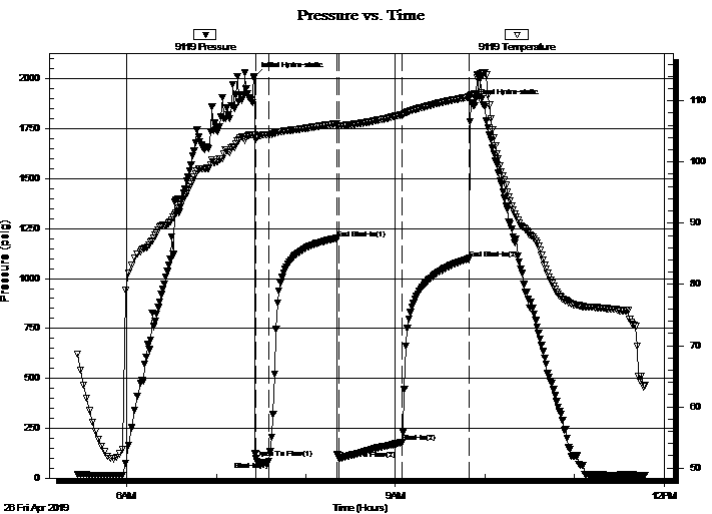
Start Time: 05:24:00

End Time: 11:47:30

Time On Btm: 2019.04.26 @ 07:25:30

Time Off Btm: 2019.04.26 @ 09:51:00

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 1 minute
1st Shut-In 45 Minutes fair blow back
2ndn Opening 45 Minutes same as 1st gas to surface on the final shut-in
2nd Shut-In 45 minutes fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.96	104.44	Initial Hydro-static
1	96.93	103.88	Open To Flow (1)
10	83.44	104.49	Shut-In(1)
55	1201.00	106.28	End Shut-In(1)
57	96.64	105.93	Open To Flow (2)
99	179.46	107.75	Shut-In(2)
144	1100.41	110.63	End Shut-In(2)
146	1878.55	111.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	60% GAS 26% OIL 8% MUD 6% WATER	1.68
60.00	14% gas 76% Oil 5% Mud 5% Water	0.84
120.00	10% Gas 5% Oil 8% Mud 77% w ater	1.68
0.00		0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01358

DST#: 1

ATTN: keith Reavis

Test Start: 2019.04.26 @ 05:24:00

GENERAL INFORMATION:

Formation: **Lansing "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:25:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3844.00 ft (KB) To 3870.00 ft (KB) (TVD)**

Reference Elevations: 1979.00 ft (KB)

Total Depth: 3870.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139

Press@RunDepth: 1098.11 psig @ ft (KB)

Capacity: psig

Start Date: 2019.04.26

End Date: 2019.04.26

Last Calib.: 1899.12.30

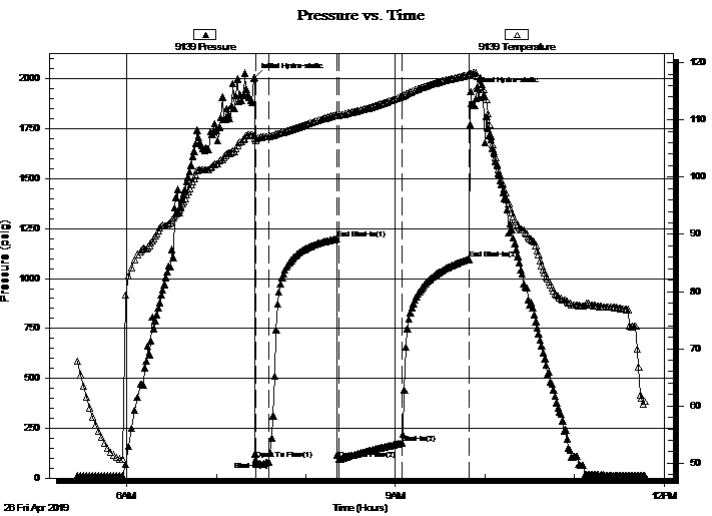
Start Time: 05:24:00

End Time: 11:47:30

Time On Btm: 2019.04.26 @ 07:25:30

Time Off Btm: 2019.04.26 @ 09:50:30

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 1 minute
1st Shut-In 45 Minutes fair blow back
2ndn Opening 45 Minutes same as 1st gas to surface on the final shut-in
2nd Shut-In 45 minutes fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.46	107.24	Initial Hydro-static
1	95.89	106.45	Open To Flow (1)
10	81.94	107.09	Shut-In(1)
55	1198.44	110.90	End Shut-In(1)
57	94.07	110.83	Open To Flow (2)
99	177.10	114.11	Shut-In(2)
144	1098.11	117.86	End Shut-In(2)
145	1935.77	118.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	60% GAS 26% OIL 8% MUD 6% WATER	1.68
60.00	14% gas 76% Oil 5% Mud 5% Water	0.84
120.00	10% Gas 5% Oil 8% Mud 77% w ater	1.68
0.00		0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company
 9415 E. Harry Ste 403 bldg400
 Wichita ,Kansas 67207
 ATTN: keith Reavis

25-26s-14w Pratt
Jarbo "A" # @
 Job Ticket: 01358 **DST#: 1**
 Test Start: 2019.04.26 @ 05:24:00

Tool Information

Drill Pipe:	Length: 3841.00 ft	Diameter: 3.80 inches	Volume: 53.88 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 53.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3844.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	56.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3819.00	
Hydraulic tool	5.00			3824.00	
Jars	5.00			3829.00	
Safety Joint	5.00			3834.00	
Packer	5.00			3839.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3844.00	
Anchor	21.00			3865.00	
Recorder	0.00	9119	Inside	3865.00	
Recorder	0.00	9139	Outside	3865.00	
Bullnose	5.00			3870.00	26.00 Bottom Packers & Anchor
Total Tool Length:	56.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01358

DST#: 1

ATTN: keith Reavis

Test Start: 2019.04.26 @ 05:24:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 68.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 1200.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	60% GAS 26% OIL8% MUDDM 6%WATER	1.683
60.00	14%gas 76%Oil 5% Mud 5% Water	0.842
120.00	10% Gas 5%Oil 8% Mud 77% w ater	1.683
0.00		0.000

Total Length: ft Total Volume: 4.208 bbl

Num Fluid Samples: 0

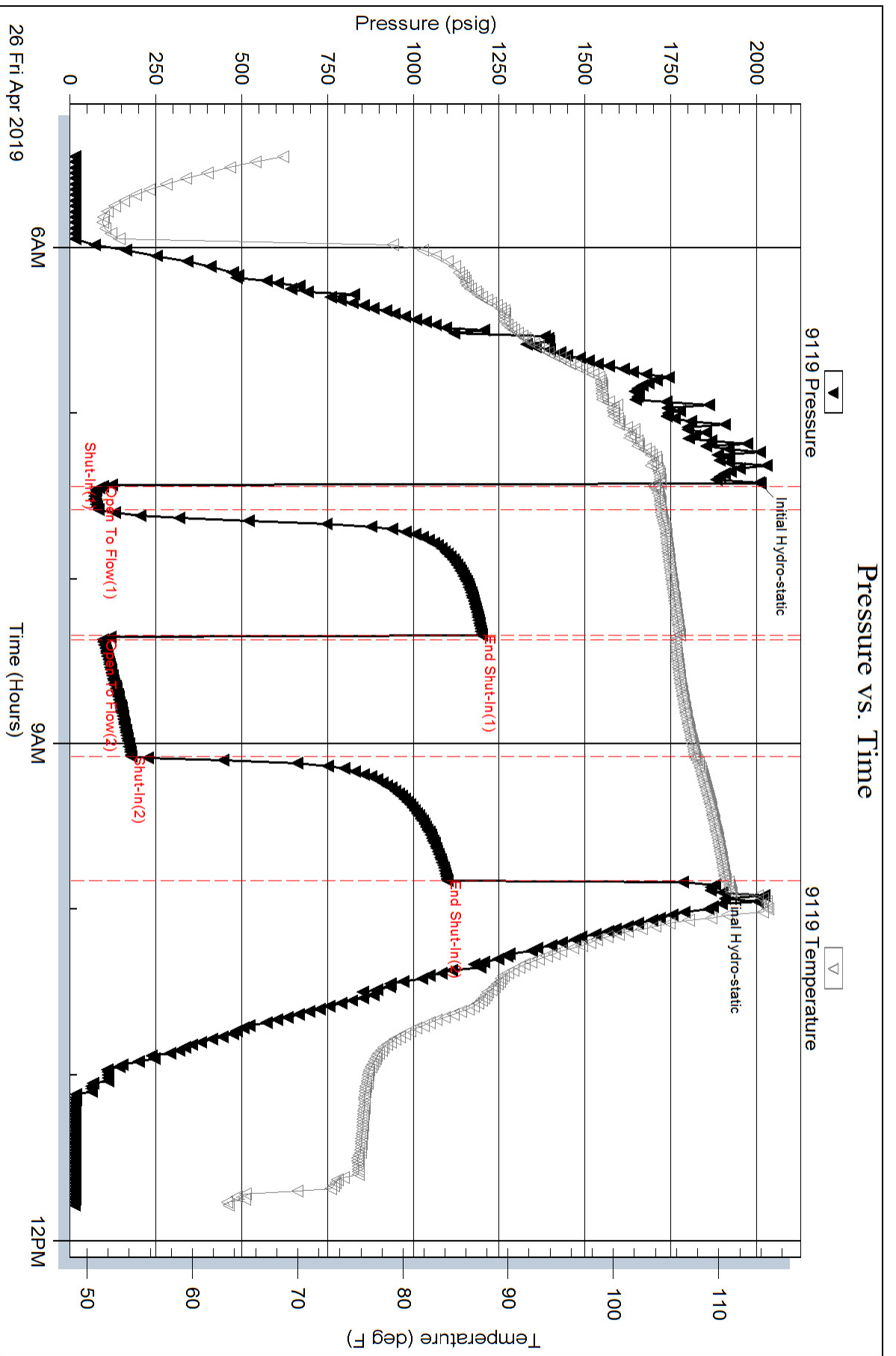
Num Gas Bombs: 0

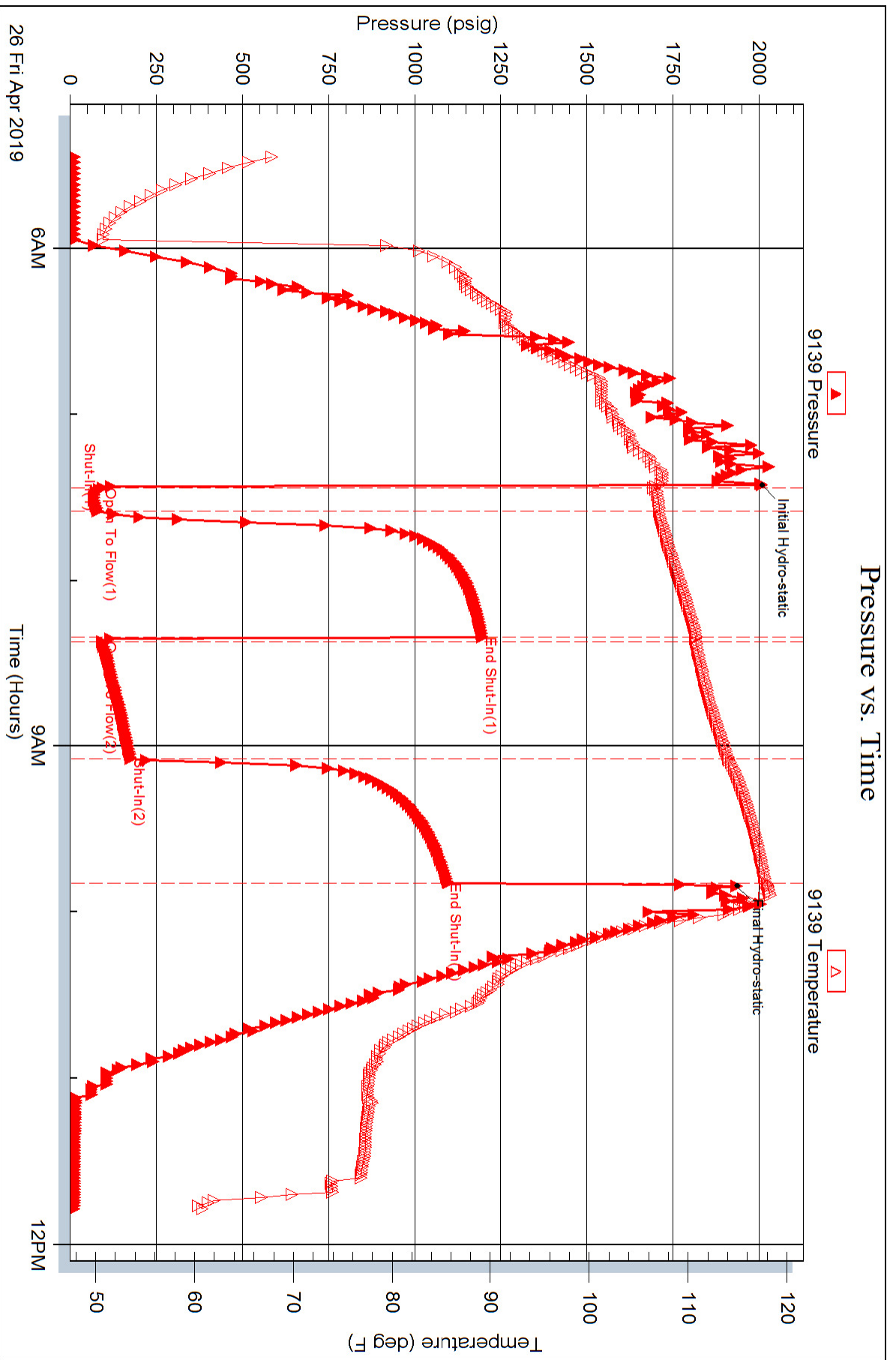
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

ATTN: keith Reavis

Jarbo "A" # @

25-26s-14w Pratt

Start Date: 2019.04.27 @ 22:00:00

End Date: 2019.04.27 @ 00:00:00

Job Ticket #: 01359 DST #: 2

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2019.04.27 @ 03:09:09



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01359

DST#:2

ATTN: keith Reavis

Test Start: 2019.04.27 @ 22:00:00

GENERAL INFORMATION:

Formation: **kansas City :H:**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:47:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 32972.0 ft (KB) To 3990.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 3990.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139

Press@RunDepth: 73.12 psig @ ft (KB)

Capacity: psig

Start Date: 2019.04.26

End Date: 2019.04.27

Last Calib.: 1899.12.30

Start Time: 22:00:00

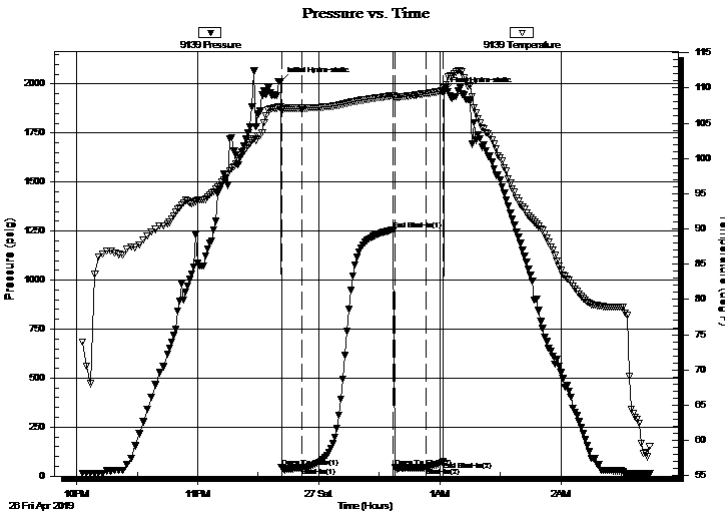
End Time: 02:44:00

Time On Btm: 2019.04.26 @ 23:40:59

Time Off Btm: 2019.04.27 @ 01:02:00

TEST COMMENT: 1st opening 10 Minutes w eak bl;ow
1st Shut-In 45 Minutes
2nd Opening 16 Minutes w eak blow for 12 Minutes and died
2nd Shut-In 10 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.97	107.39	Initial Hydro-static
1	45.05	106.86	Open To Flow (1)
11	42.69	107.13	Shut-In(1)
57	1256.84	108.91	End Shut-In(1)
58	44.15	108.67	Open To Flow (2)
73	43.68	109.18	Shut-In(2)
81	73.12	109.55	End Shut-In(2)
82	1959.24	110.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drilling mud	0.21

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01359

DST#: 2

ATTN: keith Reavis

Test Start: 2019.04.27 @ 22:00:00

GENERAL INFORMATION:

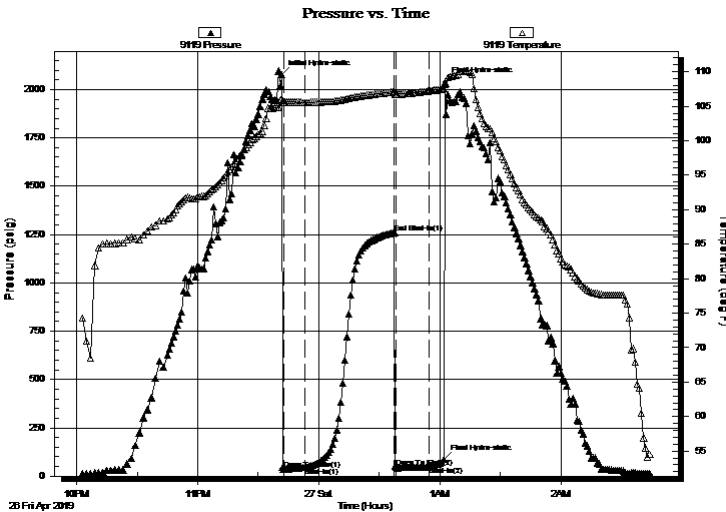
Formation: **kansas City :H:**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:47:00
 Time Test Ended: 00:00:00
 Interval: **32972.0 ft (KB) To 3990.00 ft (KB) (TVD)**
 Total Depth: 3990.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 1
 Reference Elevations: 1979.00 ft (KB)
 1967.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 9119

Press@RunDepth: 1260.70 psig @ ft (KB) Capacity: psig
 Start Date: 2019.04.26 End Date: 2019.04.27 Last Calib.: 1899.12.30
 Start Time: 22:00:00 End Time: 02:44:00 Time On Btm: 2019.04.26 @ 23:41:30
 Time Off Btm: 2019.04.27 @ 01:02:00

TEST COMMENT: 1st opening 10 Minutes weak bl;ow
 1st Shut-In 45 Minutes
 2nd Opening 16 Minutes weak blow for 12 Minutes and died
 2nd Shut-In 10 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2079.22	106.02	Initial Hydro-static
1	36.39	105.61	Open To Flow (1)
12	44.39	105.57	Shut-In(1)
56	1260.70	107.10	End Shut-In(1)
57	46.18	106.76	Open To Flow (2)
73	49.88	107.22	Shut-In(2)
81	86.31	107.52	Final Hydro-static
81	2039.05	108.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drilling mud	0.21

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01359

DST#: 2

ATTN: keith Reavis

Test Start: 2019.04.27 @ 22:00:00

Tool Information

Drill Pipe:	Length: 3970.00 ft	Diameter: 3.80 inches	Volume: 55.69 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 55.69 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3972.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

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

Shut In Tool	5.00			3947.00	
Hydraulic tool	5.00			3952.00	
Jars	5.00			3957.00	
Safety Joint	5.00			3962.00	
Packer	5.00			3967.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3972.00	
Anchor	13.00			3985.00	
Recorder	0.00	9119	Inside	3985.00	
Recorder	0.00	9139	Outside	3985.00	
Bullnose	5.00			3990.00	18.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01359

DST#:2

ATTN: keith Reavis

Test Start: 2019.04.27 @ 22:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Drilling mud	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

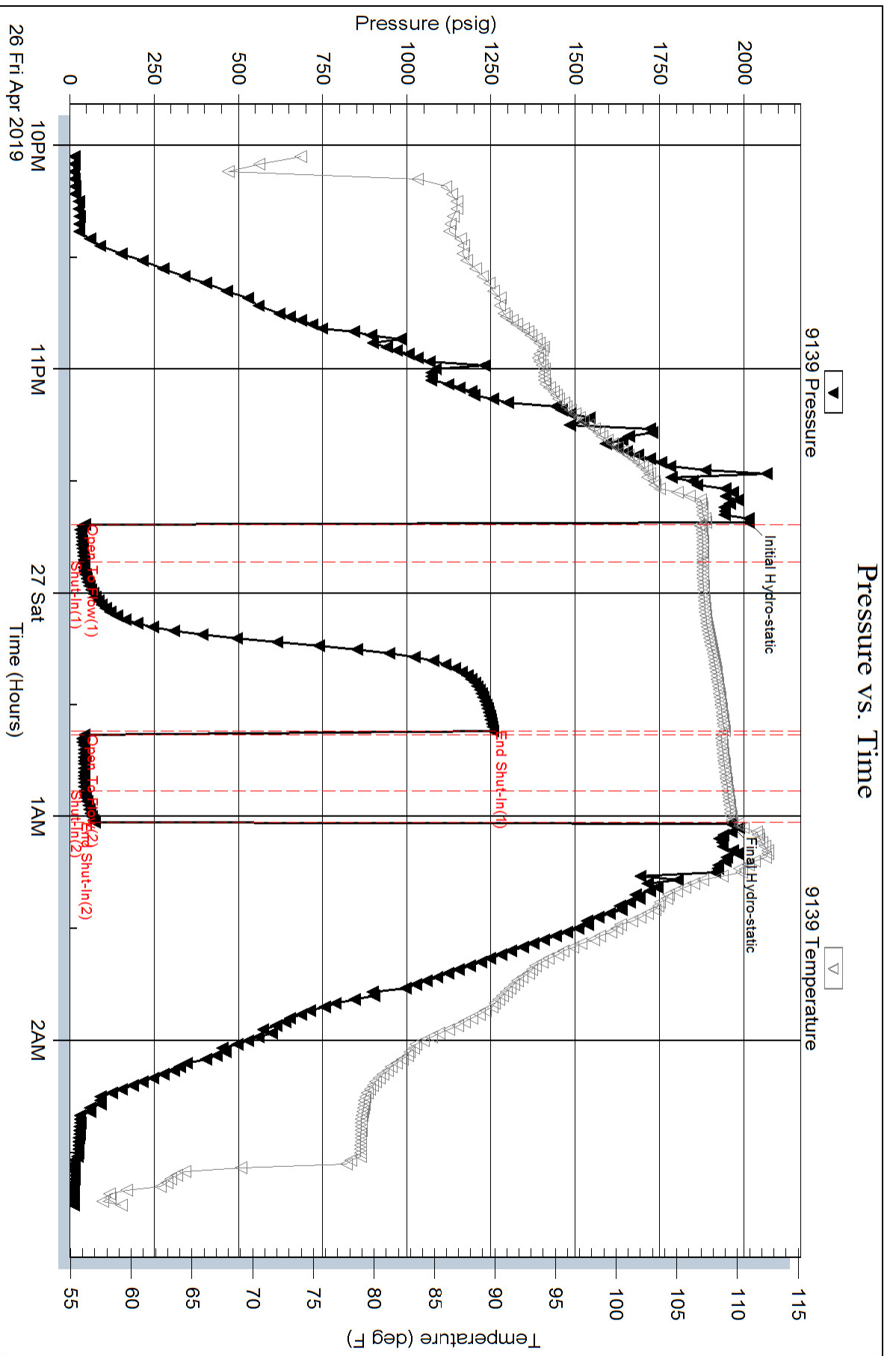
Num Gas Bombs: 0

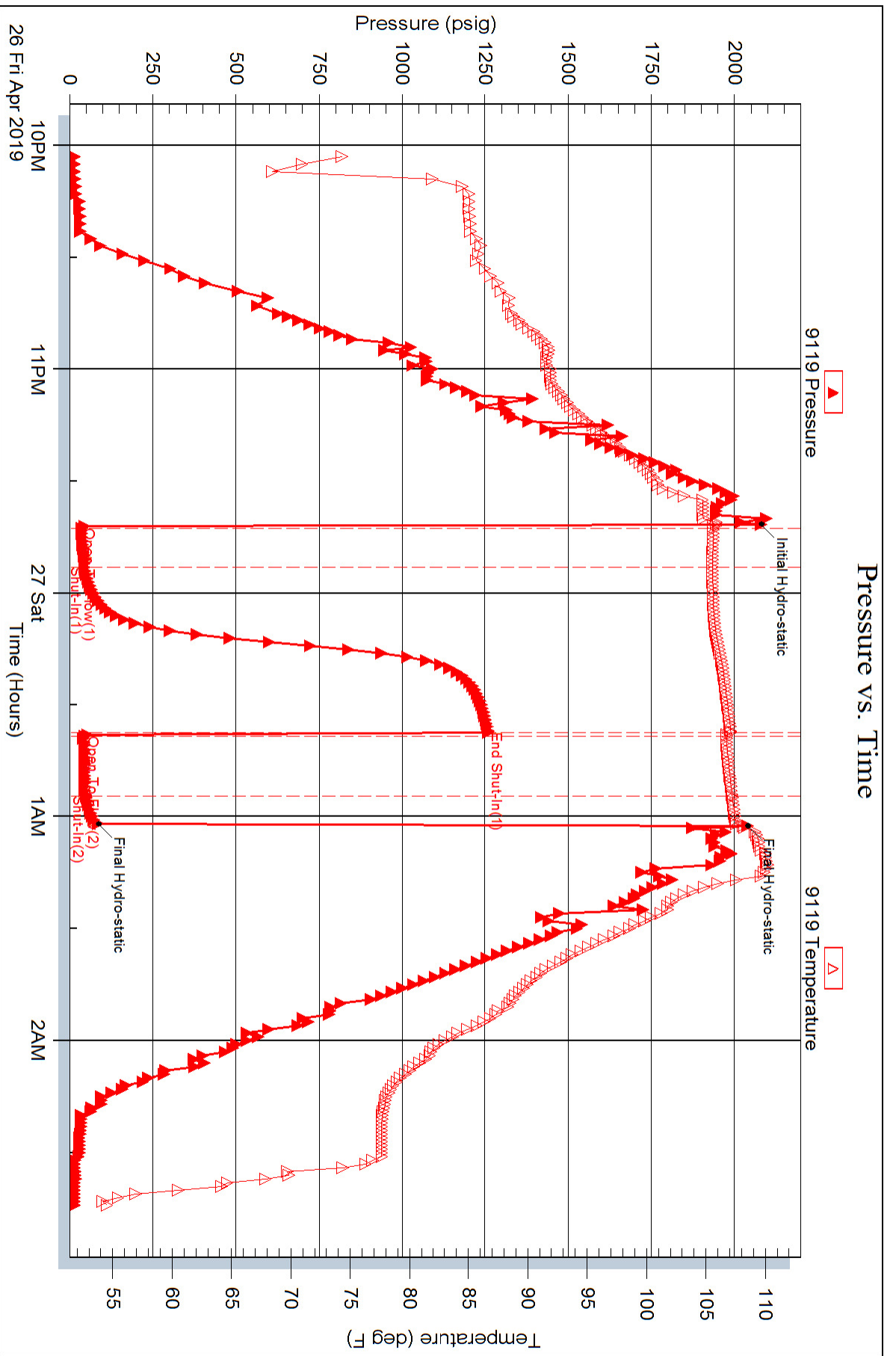
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

ATTN: keith Reavis

Jarbo "A" # @

25-26s-14w Pratt

Start Date: 2019.04.27 @ 11:30:00

End Date: 2019.04.27 @ 17:31:00

Job Ticket #: 01360 DST #: 3

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2019.04.27 @ 18:07:07



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01360

DST#: 3

ATTN: keith Reavis

Test Start: 2019.04.27 @ 11:30:00

GENERAL INFORMATION:

Formation: **Kansas City "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:57:00

Time Test Ended: 17:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4046.00 ft (KB) To 4680.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139 Outside

Press@RunDepth: 977.05 psig @ 4075.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.27

End Date:

2019.04.27

Last Calib.:

2019.04.27

Start Time: 11:30:00

End Time:

17:30:30

Time On Btm:

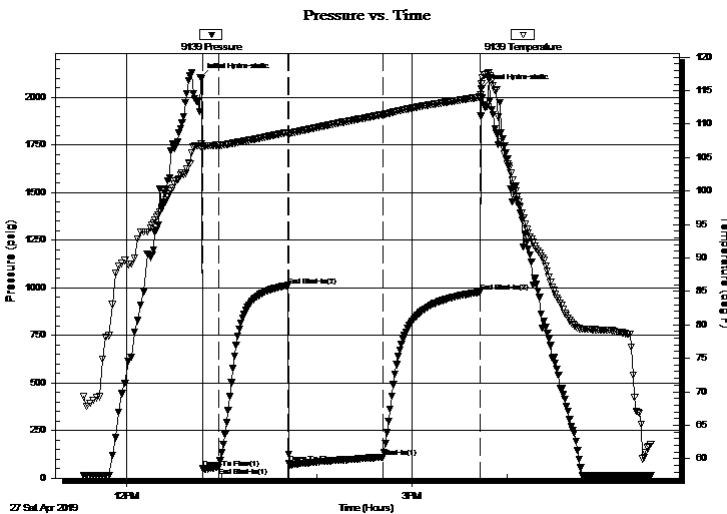
2019.04.27 @ 12:46:30

Time Off Btm:

2019.04.27 @ 15:43:30

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 90 seconds
1st shut-in 45 Minutes no blow back
2nd Opening 60 Minutes good blow built to the bottom of the bucket in 1 minute
2nd Shut-In 60 Minutes 3 inch blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2105.89	106.72	Initial Hydro-static
2	51.17	106.67	Open To Flow (1)
12	57.73	106.85	End Shut-In(1)
55	1012.14	108.77	End Shut-In(2)
56	76.39	108.63	Open To Flow (2)
115	110.56	111.44	Shut-In(1)
176	977.05	114.04	End Shut-In(3)
177	2045.27	116.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2900.00	Gas in the pipe	40.68
45.00	w ater cut muddy frothy oil	0.63
0.00	10% Gas 30%Oil 25%Mud30%Water	0.00
90.00	w ater cut muddy frothy oil	1.26
0.00	20%Gas 30%Oil 18%Mud 35%Waster	0.00
30.00	oil and gas cut muddy w ater	0.42

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01360

DST#: 3

ATTN: keith Reavis

Test Start: 2019.04.27 @ 11:30:00

GENERAL INFORMATION:

Formation: **Kansas City "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:57:00

Time Test Ended: 17:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4046.00 ft (KB) To 4680.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9119

Inside

Press@RunDepth: 980.03 psig @ 4075.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.27

End Date:

2019.04.27

Last Calib.:

2019.04.27

Start Time: 11:30:00

End Time:

17:30:30

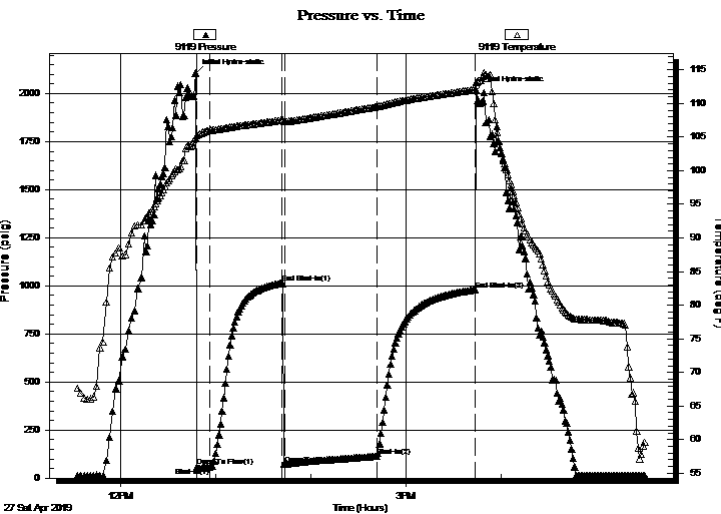
Time On Btm:

2019.04.27 @ 12:46:59

Time Off Btm:

2019.04.27 @ 15:44:00

TEST COMMENT: 1st Opening 10 Minutes good blow built to the bottom of the bucket in 90 seconds
1st shut-in 45 Minutes no blow back
2nd Opening 60 Minutes good blow built to the bottom of the bucket in 1 minute
2nd Shut-In 60 Minutes 3 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2105.74	104.87	Initial Hydro-static
2	59.05	105.17	Open To Flow (1)
10	57.73	105.96	Shut-In(1)
55	1014.78	107.53	End Shut-In(1)
57	72.57	107.29	Open To Flow (2)
115	113.25	109.52	Shut-In(2)
177	980.03	112.03	End Shut-In(2)
178	2017.51	113.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2900.00	Gas in the pipe	40.68
45.00	w ater cut muddy frothy oil	0.63
0.00	10% Gas 30%Oil 25%Mud30%Water	0.00
90.00	w ater cut muddy frothy oil	1.26
0.00	20%Gas 30%Oil 18%Mud 35%Waster	0.00
30.00	oil and gas cut muddy w ater	0.42

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company
 9415 E. Harry Ste 403 bldg400
 Wichita ,Kansas 67207
 ATTN: keith Reavis

25-26s-14w Pratt
Jarbo "A" # @
 Job Ticket: 01360 **DST#: 3**
 Test Start: 2019.04.27 @ 11:30:00

Tool Information

Drill Pipe:	Length: 4031.00 ft	Diameter: 3.80 inches	Volume: 56.54 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 56.54 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4046.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	64.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Shut In Tool	5.00			4021.00	
Hydraulic tool	5.00			4026.00	
Jars	5.00			4031.00	
Safety Joint	5.00			4036.00	
Packer	5.00			4041.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	4046.00	
Anchor	29.00			4075.00	
Recorder	0.00	9119	Inside	4075.00	
Recorder	0.00	9139	Outside	4075.00	
Bullnose	5.00			4080.00	34.00 Bottom Packers & Anchor
Total Tool Length:	64.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01360

DST#: 3

ATTN: keith Reavis

Test Start: 2019.04.27 @ 11:30:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 58.00 sec/qt
Water Loss: 7.99 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2900.00	Gas in the pipe	40.679
45.00	w ater cut muddy frothy oil	0.631
0.00	10% Gas 30%Oil 25%Mud30%Water	0.000
90.00	w ater cut muddy frothy oil	1.262
0.00	20%Gas 30%Oil 18%Mud 35%Waster	0.000
30.00	oil and gas cut muddy w ater	0.421
0.00	25%Gas 15% Oil15% mud 45% Water	0.000
0.00	Chlorides 78000	0.000

Total Length: 3065.00 ft Total Volume: 42.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

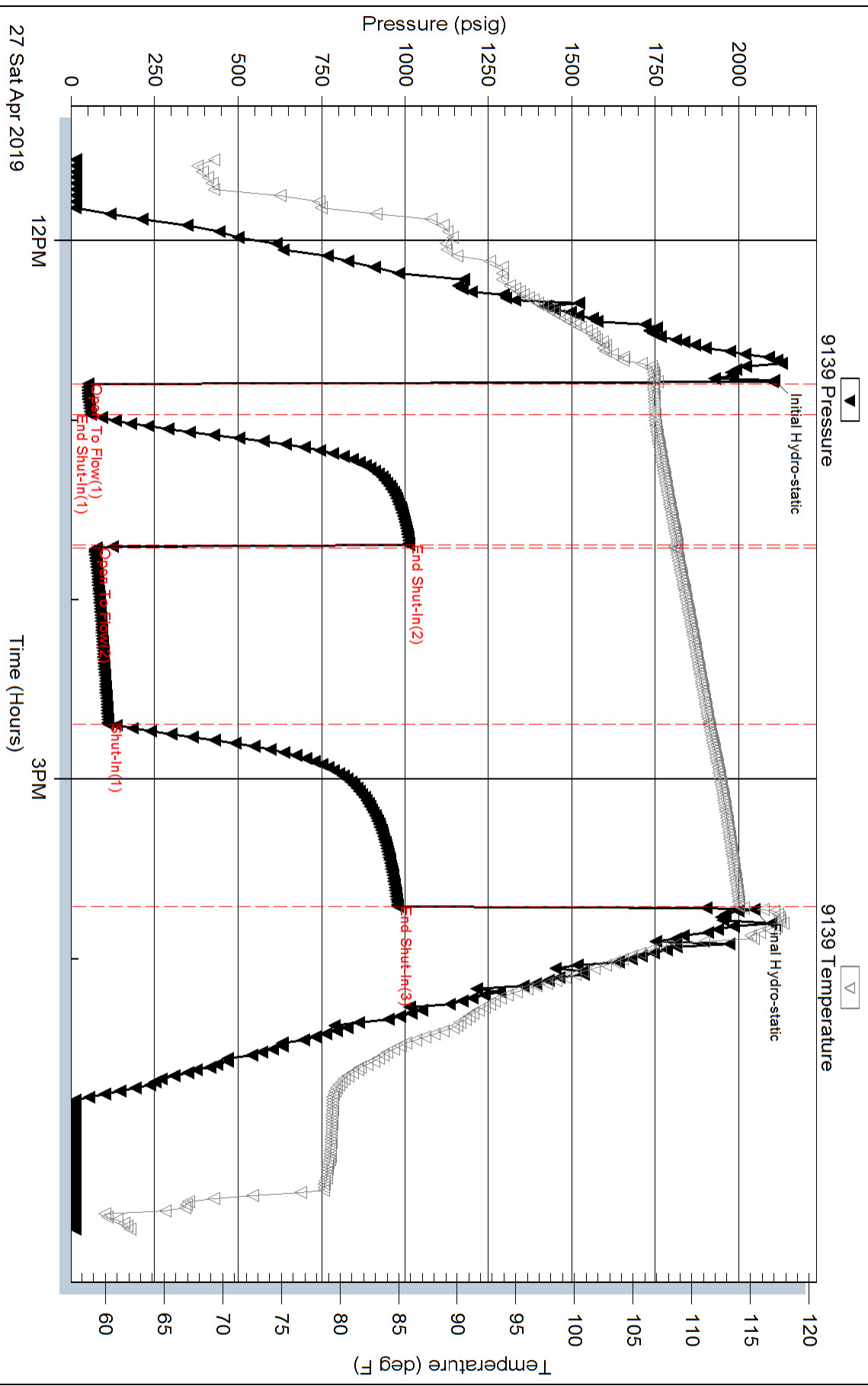
Serial #:

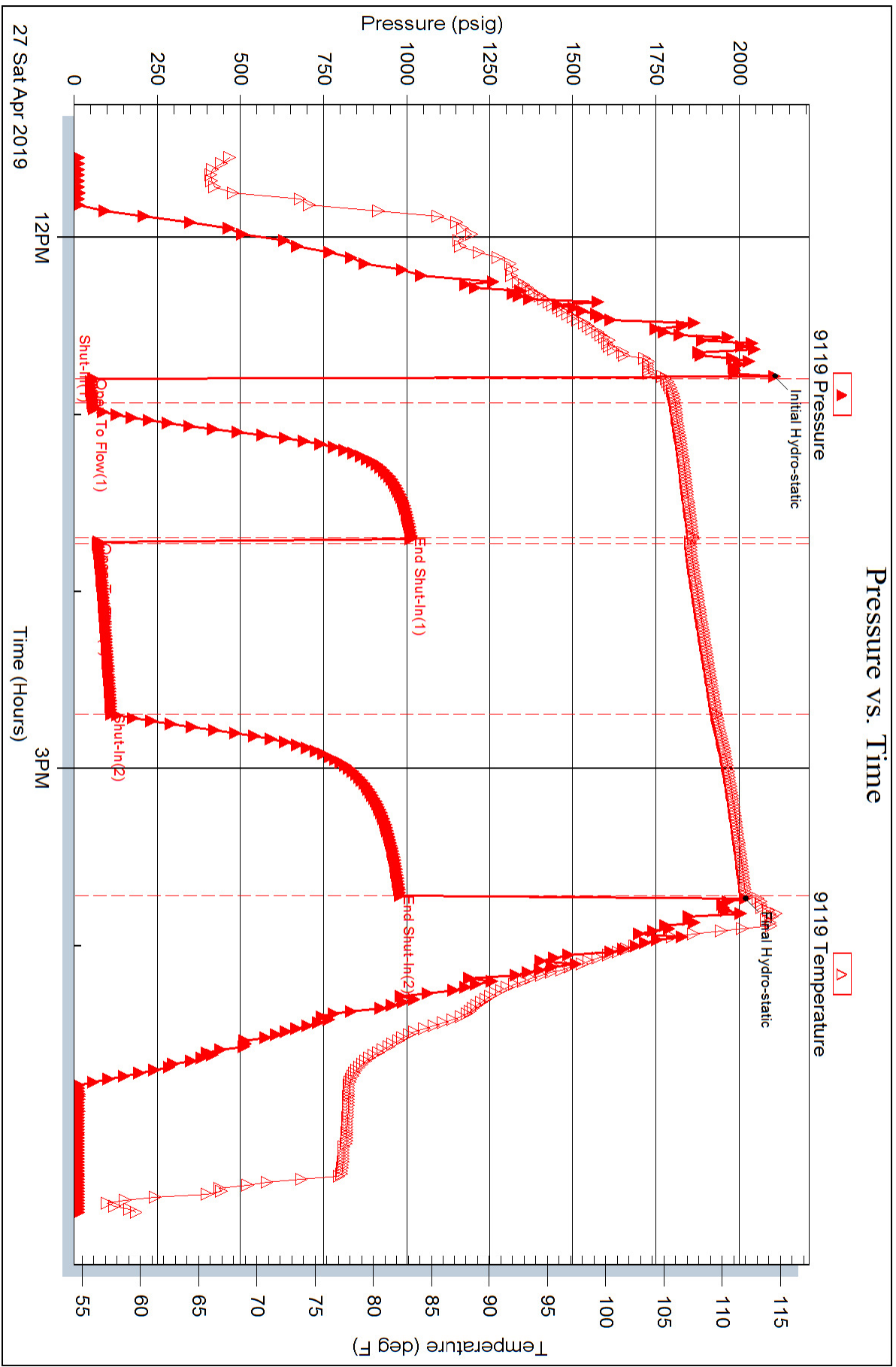
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

ATTN: keith Reavis

Jarbo "A" # @

25-26s-14w Pratt

Start Date: 2019.04.28 @ 06:00:00

End Date: 2019.04.28 @ 00:45:00

Job Ticket #: 01361 DST #: 4

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2019.04.28 @ 12:58:17



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01361

DST#: 4

ATTN: keith Reavis

Test Start: 2019.04.28 @ 06:00:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:00

Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4236.00 ft (KB) To 4300.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139 Outside

Press@RunDepth: 1305.56 psig @ 4295.06 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.28

End Date: 2019.04.28

Last Calib.: 2019.04.28

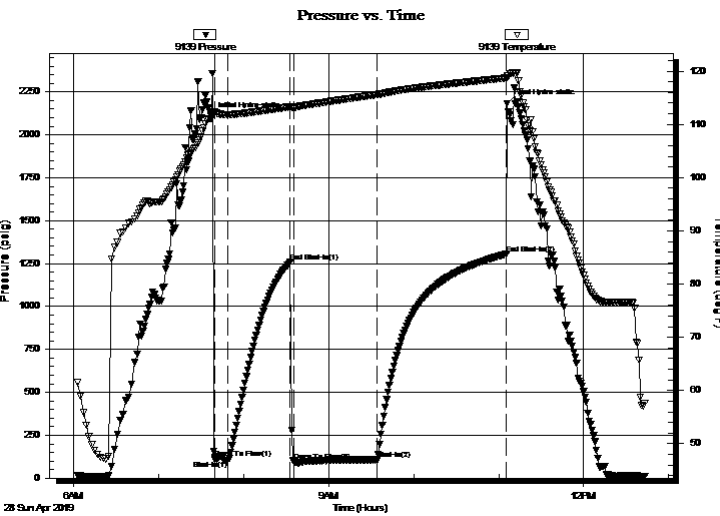
Start Time: 06:00:00

End Time: 12:43:30

Time On Btm: 2019.04.28 @ 07:37:30

Time Off Btm: 2019.04.28 @ 11:06:00

TEST COMMENT: 1st Opening 10 Minutes ghood blow built to the bottom of a 5 gallon bucket in 2 minutes
1st Shut-In 45 Minutes no blow back
2nd opening 60 Minutes gas to suirfaCE IN 2 MINUTES SEE GAS FLOW REPORT
2nd Shut-In 90 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.83	111.05	Initial Hydro-static
2	117.50	112.31	Open To Flow (1)
12	104.30	111.84	Shut-In(1)
56	1257.76	113.33	End Shut-In(1)
58	98.74	113.16	Open To Flow (2)
117	107.60	115.61	Shut-In(2)
208	1305.56	118.71	End Shut-In(2)
209	2179.79	119.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	DRILLING MUD	2.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	12.40	42.52
Last Gas Rate	0.25	12.40	42.52
Max. Gas Rate	0.25	12.40	42.52



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01361

DST#: 4

ATTN: keith Reavis

Test Start: 2019.04.28 @ 06:00:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:00

Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **4236.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1308.38 psig @ 4295.06 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.28

End Date: 2019.04.28

Last Calib.: 2019.04.28

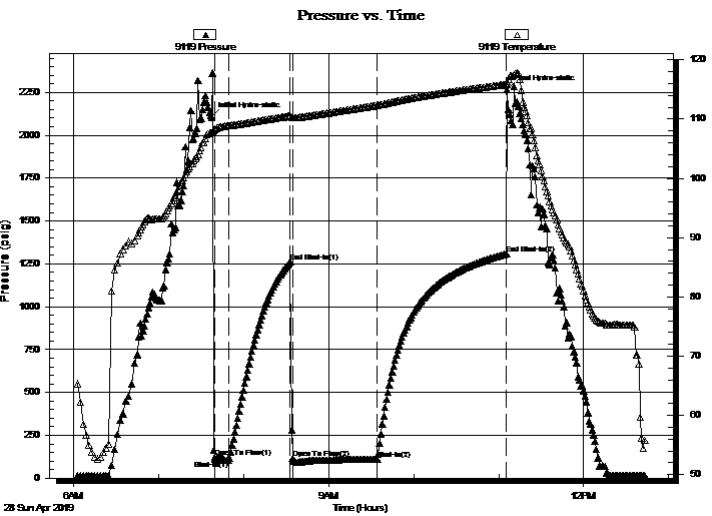
Start Time: 06:00:00

End Time: 12:43:30

Time On Btm: 2019.04.28 @ 07:37:30

Time Off Btm: 2019.04.28 @ 11:06:00

TEST COMMENT: 1st Opening 10 Minutes ghood blow built to the bottom of a 5 gallon bucket in 2 minutes
1st Shut-In 45 Minutes no blow back
2nd opening 60 Minutes gas to suirfaCE IN 2 MINUTES SEE GAS FLOW REPORT
2nd Shut-In 90 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.52	107.67	Initial Hydro-static
2	121.00	108.28	Open To Flow (1)
12	105.98	108.86	Shut-In(1)
56	1260.54	110.53	End Shut-In(1)
57	115.14	110.22	Open To Flow (2)
117	110.48	112.31	Shut-In(2)
208	1308.38	115.83	End Shut-In(2)
209	2267.82	116.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	DRILLING MUD	2.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	12.40	42.52
Last Gas Rate	0.25	12.40	42.52
Max. Gas Rate	0.25	12.40	42.52



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company
 9415 E. Harry Ste 403 bldg400
 Wichita ,Kansas 67207
 ATTN: keith Reavis

25-26s-14w Pratt
Jarbo "A" # @
 Job Ticket: 01361 **DST#: 4**
 Test Start: 2019.04.28 @ 06:00:00

Tool Information

Drill Pipe:	Length: 4221.00 ft	Diameter: 3.80 inches	Volume: 59.21 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	72000.00 lb
			<u>Total Volume: 59.21 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4236.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.06 ft				
Tool Length:	94.06 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4211.00	
Hydraulic tool	5.00			4216.00	
Jars	5.00			4221.00	
Safety Joint	5.00			4226.00	
Packer	5.00			4231.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	4236.00	
Anchor	5.00			4241.00	
Change Over Sub	0.75			4241.75	
Drill Pipe	31.56			4273.31	
Change Over Sub	0.75		Inside	4274.06	
Anchor	21.00			4295.06	
Recorder	0.00	9119	Inside	4295.06	
Recorder	0.00	9139	Outside	4295.06	
Bullnose	5.00			4300.06	64.06 Bottom Packers & Anchor

Total Tool Length: 94.06



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01361

DST#: 4

ATTN: keith Reavis

Test Start: 2019.04.28 @ 06:00:00

Mud and Cushion Information

Mud Type:		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:	bbl		
Water Loss:	8.00 in ³	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
165.00	DRILLING MUD	2.315

Total Length: 165.00 ft Total Volume: 2.315 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

Younger Energy Company

25-26s-14w Pratt

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

Jarbo "A" # @

Job Ticket: 01361

DST#: 4

ATTN: keith Reavis

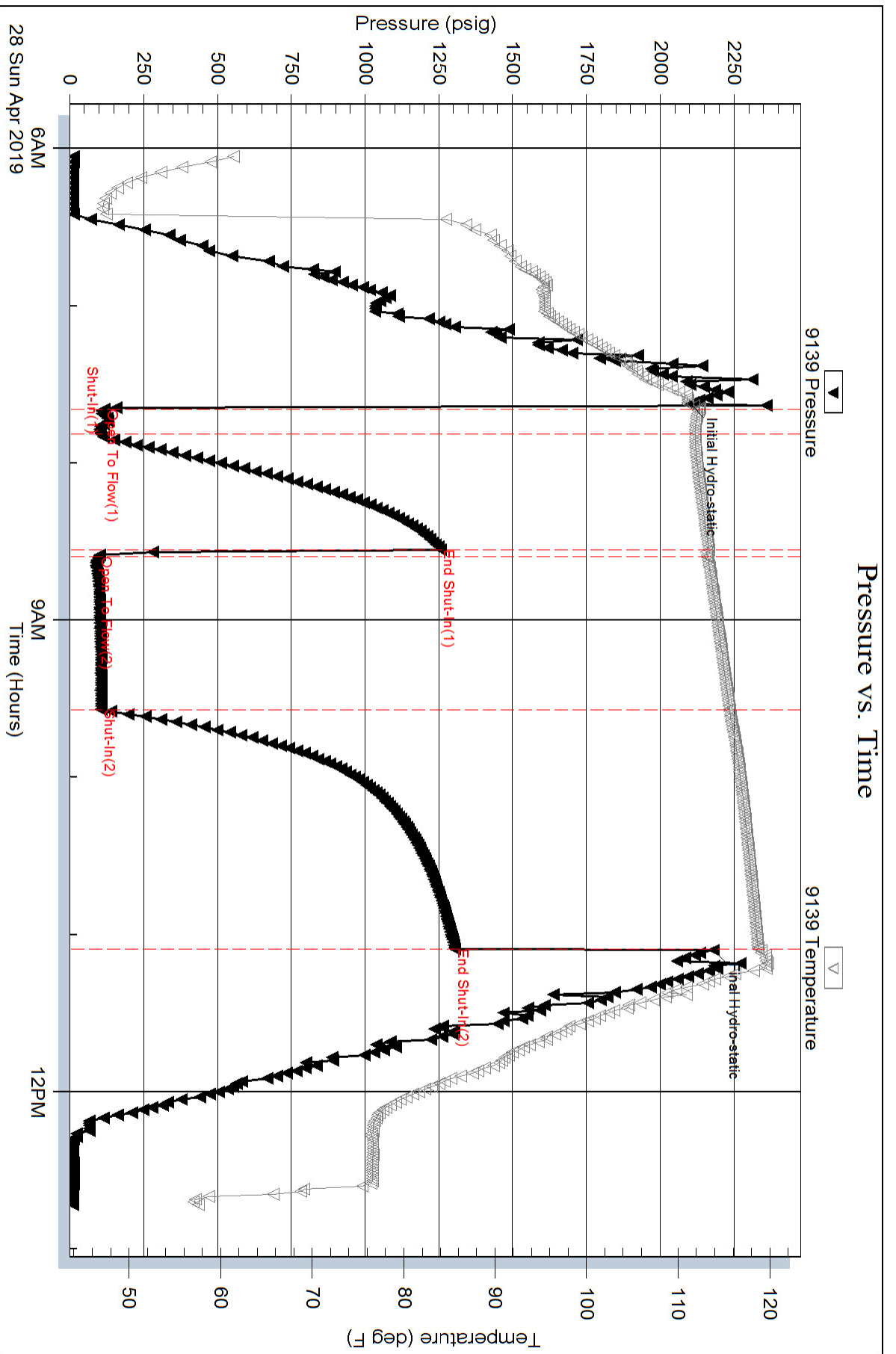
Test Start: 2019.04.28 @ 06:00:00

Gas Rates Information

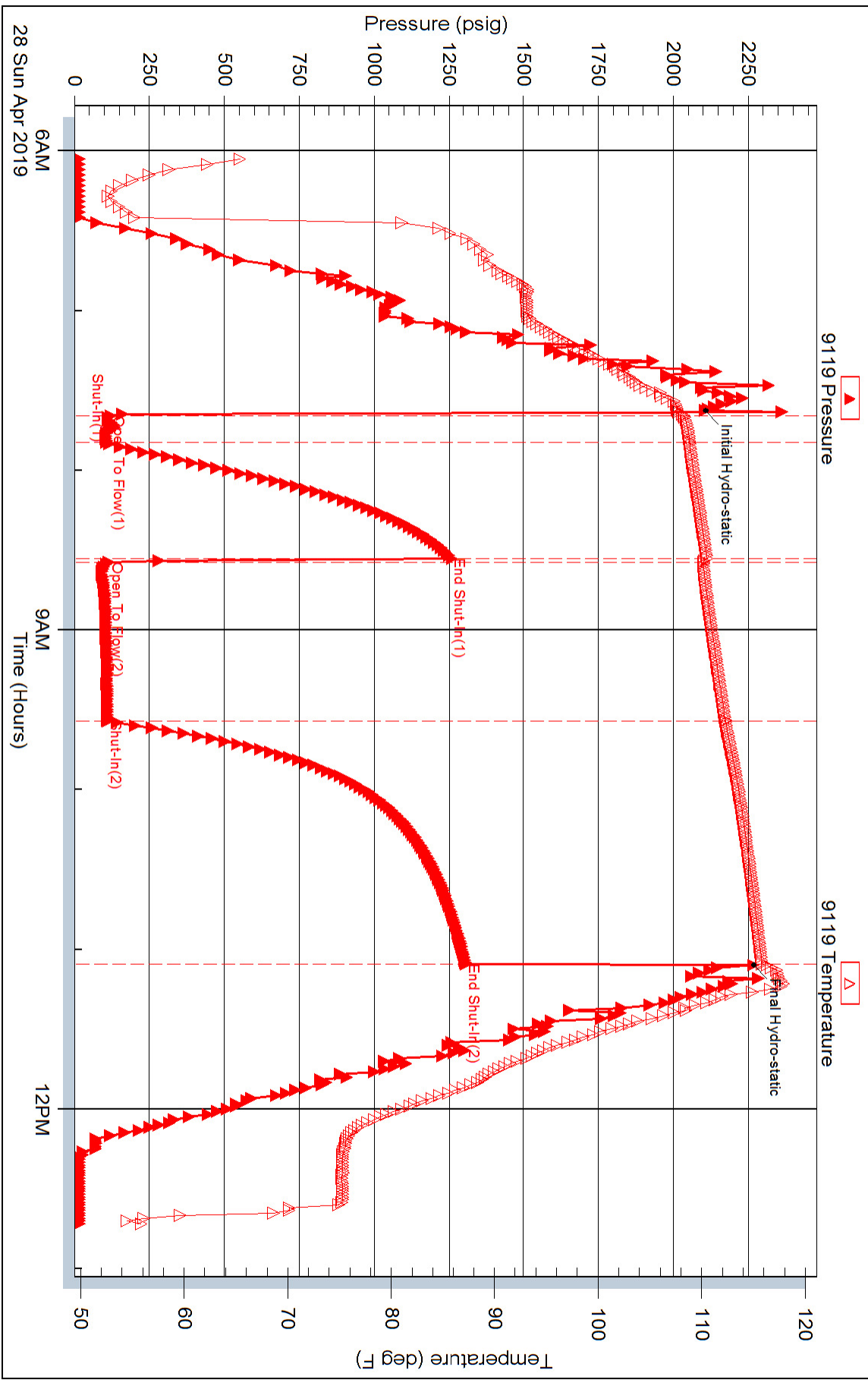
Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	15	0.25	12.40	42.52
2	25	0.25	12.40	42.52
2	35	0.25	12.40	42.52
2	45	0.25	11.00	40.30
2	55	0.25	12.40	42.52



Pressure vs. Time



GLOBAL OIL FIELD SERVICES, LLC

24 S. Lincoln
RUSSELL, KS 67665

Invoice

RECEIVED APR 30 2019

Date	Invoice #
4/28/2019	0013373

Bill To
YOUNGER ENERGY COMPANY 9415 E HARRY ST STE 403 BLDG 400 WICHITA,KS 67207

P.O. No.	Terms	Project
JARBOE A#2	Due on receipt	

Quantity	Description	Rate	Amount
450	60/40 POZMIX CEMENT	13.75	6,187.50
15	CALCIUM-CHLORIDE	80.00	1,200.00
8	BENTONITE GEL	30.00	240.00
473	HANDLING	1.90	898.70
	BULK MILEAGE	1,200.00	1,200.00
130	60/40 POZMIX CEMENT	13.75	1,787.50
5	CALCIUM-CHLORIDE	80.00	400.00
3	BENTONITE GEL	30.00	90.00
138	HANDLING	1.90	262.20
	BULK MILEAGE	450.00	450.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	850.00	850.00
45	HEAVY EQUIPMENT. ONE WAY	6.50	292.50
45	LMV- ONE WAY	2.75	123.75
1	8 5/8 BAFFLE PLATE	103.00	103.00
1	8 5/8 RUBBER PLUG	165.00	165.00
	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		0.00
	PAWNEE CO SALES TAX	8.50%	0.00

131
Cement Surface csq

Thank you for your business.

Phone #	Fax #
785-445-3525	785-445-3526

Total

\$14,250.15
(2,137.52)

12,112.63

Jarboe A#2
COP 4/30/19
JLB

GLOBAL OIL FIELD SERVICES, LLC
 24 S. Lincoln
 RUSSELL, KS 67665

RECEIVED MAY 10 2019

Invoice

Date	Invoice #
5/8/2019	0013432

Bill To
YOUNGER ENERGY COMPANY 9415 E HARRY ST STE 403 BLDG 400 WICHITA, KS 67207

P.O. No.	Terms	Project
JARBOE#2	Due on receipt	

Quantity	Description	Rate	Amount
300	COMMON CEMENT	16.50	4,950.00
26	SALT	16.00	416.00
6	BENTONITE GEL	30.00	180.00
500	MUD SWEEP	1.25	625.00
332	HANDLING	1.90	630.80
	BULK MILEAGE	1,200.00	1,200.00
1	TRI-PLEX PUMP TRUCK CHARGE FOR LONGSTRING	1,400.00	1,400.00
35	HEAVY EQUIPMENT. ONE WAY	6.50	227.50
35	LMV- ONE WAY	2.75	96.25
10	5 1/2 TURBOLIZER	84.00	840.00
1	5 1/2 BASKET	215.00	215.00
1	5 1/2 LD PLUG & BAFFLE	285.00	285.00
1	5 1/2 AFU FLOAT SHOE	325.00	325.00
	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		
	PAWNEE CO SALES TAX	8.50%	0.00

*1231
 Cement production rsg.*

April 5/1

Thank you for your business.

Phone #	Fax #
785-445-3525	785-445-3526

Total

\$11,390.55

*Jarboe #2
 5/15*

