DRILL STEM TEST REPORT

H & D Exploration, LLC.

165 West 1st
P.O.Box 387
Hoisington, Ks. 67544
ATTN: Jim Musgrove

5-25s-12w Stafford Co. Ks.

Farris #1

Job Ticket: 65456 **DST#: 2**

Test Start: 2019.11.20 @ 11:08:13

GENERAL INFORMATION:

Formation: **Arbucke**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:36:58
Time Test Ended: 18:55:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68

Interval: 4164.00 ft (KB) To 4172.00 ft (KB) (TVD)
Total Depth: 4172.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

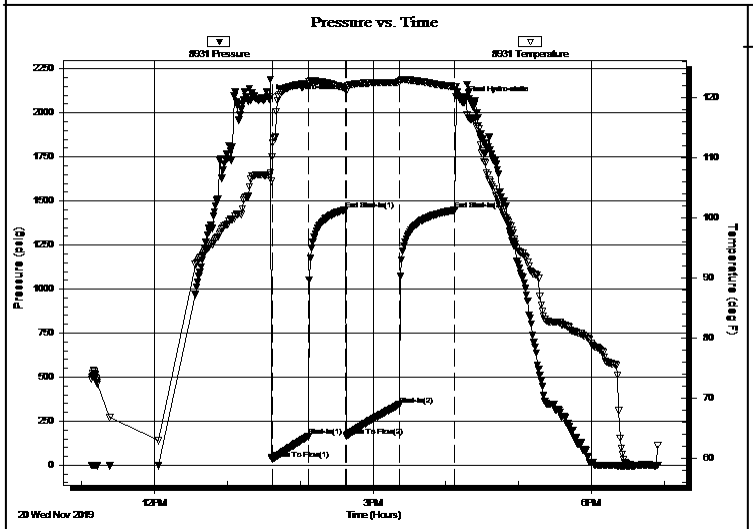
Reference Elevations: 1901.00 ft (KB)
1892.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8931 **Inside**

Press@RunDepth: 343.10 psig @ 4165.00 ft (KB)
Start Date: 2019.11.20 End Date: 2019.11.20
Start Time: 11:08:18 End Time: 18:55:12

Capacity: 8000.00 psig
Last Calib.: 2019.11.20
Time On Btm: 2019.11.20 @ 13:34:28
Time Off Btm: 2019.11.20 @ 16:12:28

TEST COMMENT: IF: Strong Blow . B.O.B. in 10 mins. Built to 32.45".
ISI: No Blow .
FF: Strong Blow . B.O.B. in 11 mins. Built to 43.89".
FSI: No Blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2079.35	107.23	Initial Hydro-static
3	34.06	110.24	Open To Flow (1)
33	163.26	122.39	Shut-In(1)
63	1450.77	121.59	End Shut-In(1)
64	165.72	121.04	Open To Flow (2)
107	343.10	122.57	Shut-In(2)
153	1448.36	121.87	End Shut-In(2)
158	2070.16	120.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GVSOMCW 1%g 2%o 3%m 94%w	0.88
63.00	GVSOMCW 1%g 5%o 20%m 74%w	0.88
630.00	GOspecCW 1%g 3%m 96%w	8.84
32.00	GVSOMCW 1%g 5%o 40%m 54%w	0.45
0.00	94' G.I.P. 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

H & D Exploration, LLC.

165 West 1st
P.O.Box 387
Hoisington, Ks. 67544
ATTN: Jim Musgrove

5-25s-12w Stafford Co. Ks.

Farris #1

Job Ticket: 65456 **DST#: 2**

Test Start: 2019.11.20 @ 11:08:13

GENERAL INFORMATION:

Formation: **Arbucke**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:36:58
Time Test Ended: 18:55:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68

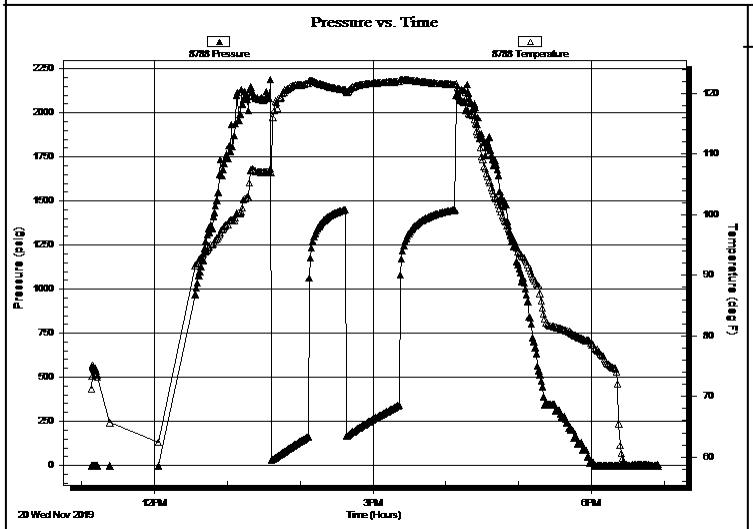
Interval: 4164.00 ft (KB) To 4172.00 ft (KB) (TVD)
Total Depth: 4172.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1901.00 ft (KB)
1892.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8788 **Outside**
Press@RunDepth: psig @ 4165.00 ft (KB)
Start Date: 2019.11.20 End Date: 2019.11.20
Start Time: 11:08:20 End Time: 18:55:14

Capacity: 8000.00 psig
Last Calib.: 2019.11.20
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow . B.O.B. in 10 mins. Built to 32.45".
ISI: No Blow .
FF: Strong Blow . B.O.B. in 11 mins. Built to 43.89".
FSI: No Blow .



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GVSOMCW 1%g 2%o 3%m 94%w	0.88
63.00	GVSOMCW 1%g 5%o 20%m 74%w	0.88
630.00	GOspecCW 1%g 3%m 96%w	8.84
32.00	GVSOMCW 1%g 5%o 40%m 54%w	0.45
0.00	94' G.I.P. 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

H & D Exploration, LLC.

165 West 1st
P.O.Box 387
Hoisington, Ks. 67544
ATTN: Jim Musgrove

5-25s-12w Stafford Co. Ks.

Farris #1

Job Ticket: 65456 **DST#: 2**

Test Start: 2019.11.20 @ 11:08:13

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	10.00 lb/gal	Cushion Length:	ft	Water Salinity:	25000 ppm
Viscosity:	41.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	16.38 in³	Gas Cushion Type:			
Resistivity:	10200.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GVSOMCW 1%g 2%o 3%m 94%w	0.884
63.00	GVSOMCW 1%g 5%o 20%m 74%w	0.884
630.00	GOspecCW 1%g 3%m 96%w	8.837
32.00	GVSOMCW 1%g 5%o 40%m 54%w	0.449
0.00	94' G.I.P. 100%g	0.000

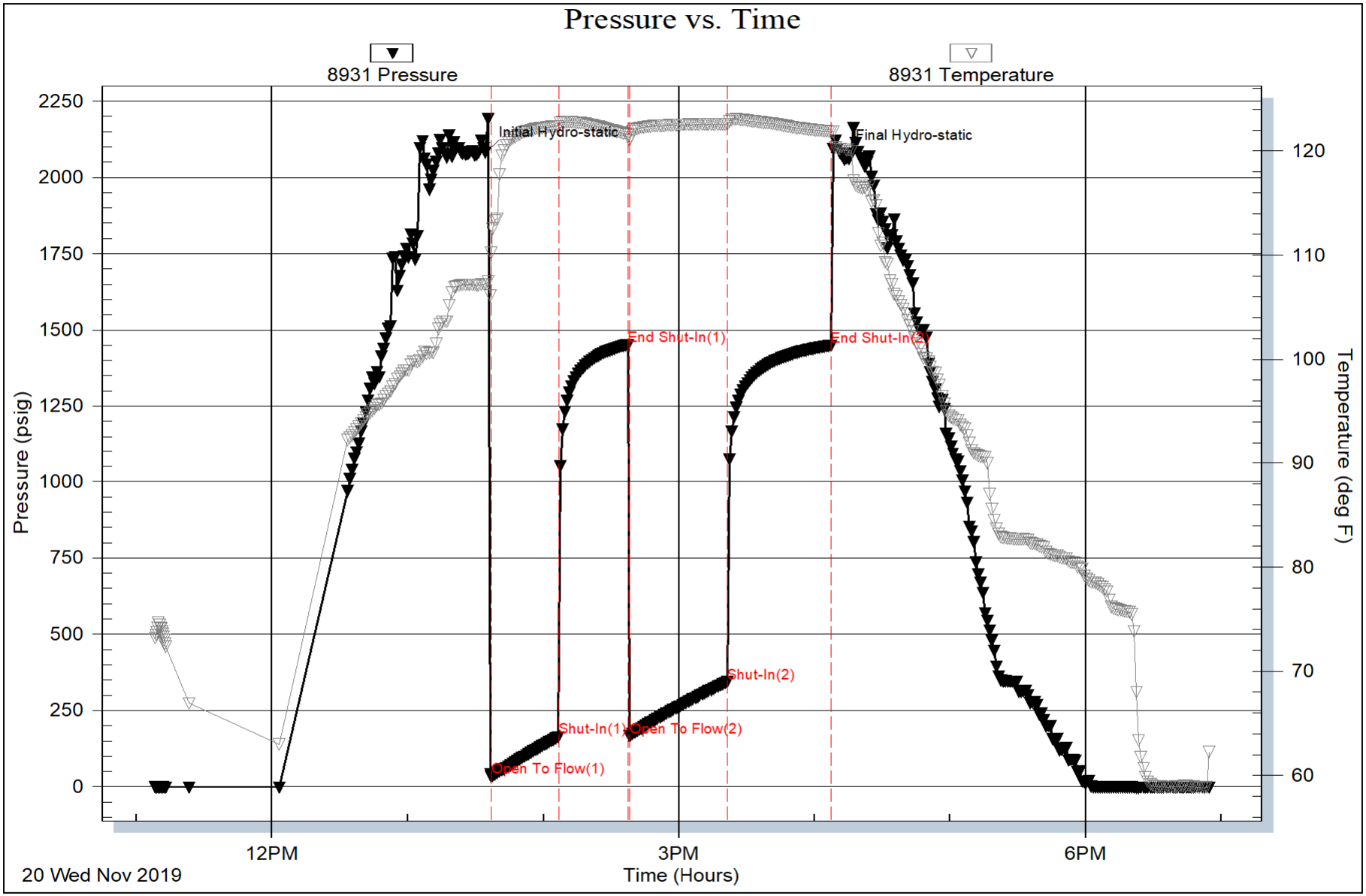
Total Length: 788.00 ft Total Volume: 11.054 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

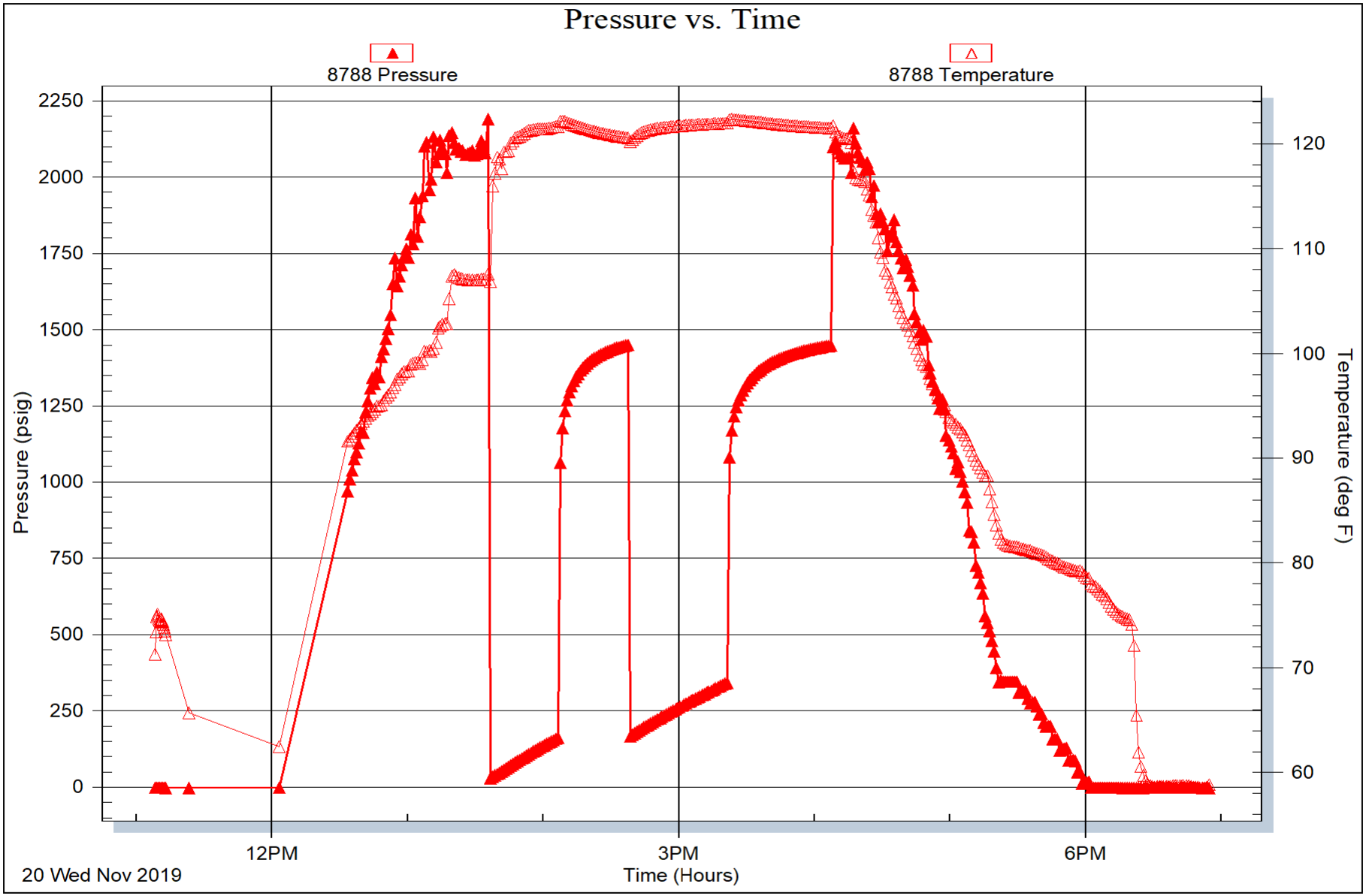
Recovery Comments: Ran a tank of fresh Pre-mix right before test.
RW .33 @ 59 Degrees = 25,000 Chlorides.

Serial #: 8931 **Inside** H & D Exploration, LLC. Farris #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65456 Printed: 2019.11.20 @ 20:25:34

Serial #: 8788 **Outside** H & D Exploration, LLC. Farris #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65456 Printed: 2019.11.20 @ 20:25:34