

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1349842

Form ACO-1

August 2013

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 ☐ SIOW
- ☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
- ☐ OG ☐ GSW ☐ Temp. Abd.
- ☐ 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 ENHR ☐ Conv. to SWD
- ☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer
- ☐ Commingled Permit #: _____
- ☐ Dual Completion Permit #: _____
- ☐ SWD Permit #: _____
- ☐ ENHR Permit #: _____
- ☐ GSW Permit #: _____

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

API No. 15 - _____

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

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____

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

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 <i>(Attach Additional Sheets)</i>	☐ Yes	☐ No	☐ Log	Formation (Top), Depth and Datum	☐ Sample
Samples Sent to Geological Survey	☐ Yes	☐ No	Name	Top	Datum
Cores Taken	☐ Yes	☐ No			
Electric Log Run	☐ Yes	☐ No			
List All E. Logs Run:					

CASING RECORD ☐ New ☐ 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
☐ Perforate				
☐ Protect Casing				
☐ Plug Back TD				
☐ Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No (If No, skip questions 2 and 3)

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No (If No, skip question 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)

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)		Depth
TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run: ☐ Yes ☐ No
Date of First, Resumed Production, SWD or ENHR.		Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain) _____			
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> ☐ Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Globe Operating, Inc.
Well Name	DEWERFF 2
Doc ID	1349842

Tops

Name	Top	Datum
Anhydrite	679	1197
Base	703	1175
Topeka	2919	1043
Heebner	3190	1314
Toronto	3205	1329
Douglas	3221	1345
Brown Lime	3320	1444
Lansing	3341	1465
BKC	3582	1706
Viola	3604	1728
Simpson	3696	1820
Arbuckle	3753	1875
LTD	3846	1970
RTD	3845	1969

Form	ACO1 - Well Completion
Operator	Globe Operating, Inc.
Well Name	DEWERFF 2
Doc ID	1349842

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.250	8.625	23	690	A-Serv & 60/40	370	3% CC

[illegible]

Geological Report

DeWerff #2

347' FNL & 1359' FEL

Sec. 32 T22s R12w

Stafford County, Kansas



Globe Operating, Inc.

General Data

Well Data:	Globe Operating, Inc. DeWerff #2 347' FNL & 1359' FEL Sec. 32 T22s R12w Stafford County, Kansas API # 15-185-23981-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #2
Geologist:	Jason T Alm
Spud Date:	March 6, 2017
Completion Date:	March 14, 2017
Elevation:	1868' Ground Level 1876' Kelly Bushing
Directions:	Hudson KS, Intersection of Main St and Highway, South into location.
Casing:	690' 8 5/8" surface casing
Samples:	10' wet and dry, 2900' to RTD
Drilling Time:	2800' to RTD
Electric Logs:	ELI "Jeff Luebbers" CNL/CDL, DIL, MEL
Drillstem Tests:	Four, Eagle Testers "Gene Budig"
Problems:	DST #4, Top packer failed. Reset and got them to seat.
Remarks:	After DST #1 gas detector was inaccurate due to high amounts of gas in mud.

Formation Tops

	Globe Operating, Inc. DeWerff #2 Sec. 32 T22s R12w 347' FNL & 1359' FEL
Formation	
Anhydrite	679' +1197
Base	703' +1175
 Topeka	 2919' -1043
Heebner	3190' -1314
Toronto	3205' -1329
Douglas	3221' -1345
Brown Lime	3320' -1444
Lansing	3341' -1465
BKC	3582' -1706
Viola	3604' -1728
Simpson	3696' -1820
Arbuckle	3753' -1875
LTD	3846' -1970
RTD	3845' -1969

Sample Zone Descriptions

- LKC “D-zone”** **(3384’, -1508): Covered in DST #1**
 Ls – Fine crystalline, oolitic with poor scattered oomoldic and scattered very poor inter-crystalline porosity, light to fair oil stain with light saturation, slight show of free oil when broken, light yellow fluorescents, fair cut flourescents, 40 units hotwire.
- LKC “F-zone”** **(3412’, -1536): Covered in DST #1**
 Ls – Fine crystalline, oolitic packstone with fair to good oomoldic and oolicastic porosity, light to fair brown oil stain in porosity with light scattered saturation, fair show of free oil, many gas bubbles on break, good odor, light to fair yellow fluorescents, good cut, 115 units hotwire.
- LKC “I-zone”** **(3489’, -1613): Covered in DST #2**
 Ls – Fine crystalline, oolitic packstone in part with fair oolicastic and oomoldic porosity, light fair spotted oil stain, slight show of free oil when broken, light to fair spotted yellow fluorescents, good cut.

LKC “J-zone”	(3508’, -1632): Covered in DST #2 Ls – Fine crystalline, oolitic packstone with poor to fair oomoldic and oolitic porosity, light to fair oil stain with light saturation, slight show of free oil when broken, fair spotted yellow fluorescents, good cut.
LKC “K-zone”	(3536’, -1660): Covered in DST #2 Ls – Fine crystalline, oolitic with poor to fair oolitic porosity, light to fair brown oil stain in porosity, slight show of free oil, light odor, fair yellow fluorescents, fair cut.
Viola	(3604’, -1728): Covered in DST #4 Chert – Weathered in part with good vuggy porosity, light to good oil stain in porosity, show of free oil, good odor, bright yellow fluorescents, slightly dolomitic with fair inter-crystalline porosity, many gas bubble on break.
Simpson	(3796’, -1820): Covered in DST #3 Dolo – SS – Fine crystalline with poor inter-crystalline porosity, mottled with fine grained sand with poor inter-granular porosity, light oil stain in porosity, slight show of free oil, fair to good yellow fluorescents, slight gilsonite.
Arbuckle	(3753’, -1875): Not Tested Dolo – Fine rhombic crystalline with poor inter-crystalline, vuggy and scattered oomoldic porosity, light to fair scattered oil stain, mostly tarry, show of free oil on cup, strong “sour” odor, very dull poor fluorescents, poor cut.

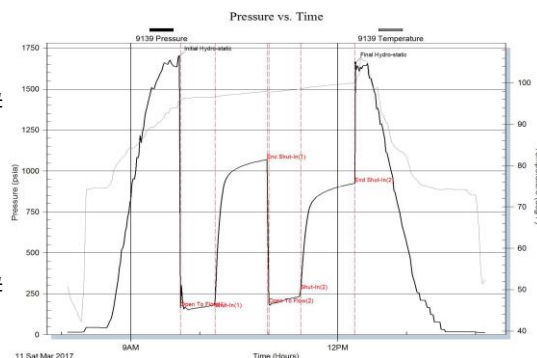
Drill Stem Tests

Diamond Testing, Inc.
"Gene Budig"

DST #1 LKC D thru F zones

Interval (3372' – 3425') Anchor Length 53'

IHP – 1697 #
IFP – 30" – B.O.B. 1 min. 166-200 #
Gauge 10 min. 179.10 MCF
20 min. 163.01 MCF
30 min. 146.04 MCF
ISI – 45" – B.O.B. Imm 1169 #
FFP – 30" – B.O.B. Imm 283-357 #
Gauge 10 min. 159.27 MCF
20 min. 115.28 MCF
30 min. 115.28 MCF
FSI – 45" – B.O.B. Imm 926 #
FHP – 1659 #
BHT – 100°F

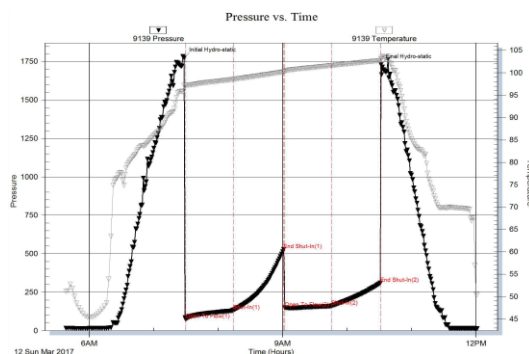


Recovery: GTS 6 min.
120' Heavy Mud
60' MW 70% Water
60' Sl. MW 90% Water

DST #2 LKC I thru K zones

Interval (3478' – 3550') Anchor Length 72'

IHP – 1773 #
IFP – 45" – B.O.B. 32 min. 75-134 #
ISI – 45" – Dead 528 #
FFP – 45" – Built to 5 in. 150-161 #
FSI – 45" – Dead 390 #
FHP – 1729 #
BHT – 103°F

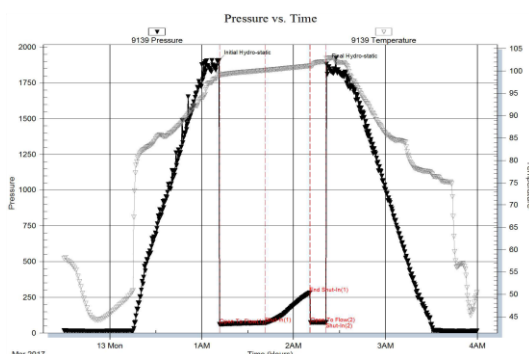


Recovery: 20' mud with oil spots

DST #3 Simpson

Interval (3690' – 3746') Anchor Length 56'

IHP – 1907 #
IFP – 30" – W.S.B. 60-72 #
ISI – 30" – Dead 251 #
FFP – 10" – Dead 72-75 #
FHP – 1882 #
BHT – 103°F



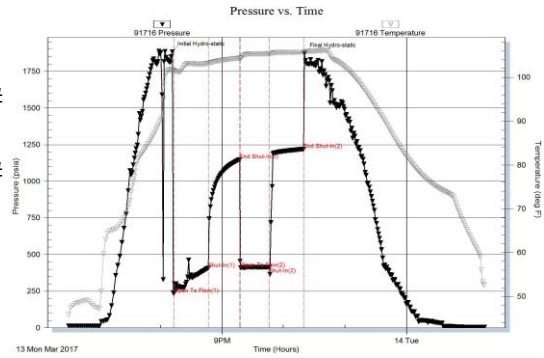
Recovery: 20' Mud

DST #4 Viola

Interval (3580' – 3659') Anchor Length 79'

IHP	– 1883 #	
IFP	– 30" – B.O.B. 11 min.	234-407 #
ISI	– 30" – Dead	1148 #
FFP	– 30" – Built to 2 in.	408-414 #
FSI	– 30" – Dead	1219 #
FHP	– 1872 #	
BHT	– 105°F	

Recovery:	200' Mud	
	180' MW	50% Water
	180' MW	35% Water
	400' MW	60% Water



Structural Comparison

Formation	Globe Operating, Inc.	Hilton Drilling		Globe Operating, Inc.	
	DeWerff #2	Spangenberg #1		DeWerff #1	
	Sec. 32 T22s R12w	Sec. 33 T22s R12w		Sec. 32 T22s R12w	
	347' FNL & 1359' FEL	NW NW NW		330' FSL & 2539' FWL	
Anhydrite	679' +1197	NA	NA	656', +1196	(+1)
Base	703' +1175	NA	NA	685', +1167	(+8)
Topeka	2919' -1043	NA	NA	2910', -1058	(+15)
Heebner	3190' -1314	3178' -1317	(+3)	3180', -1328	(+16)
Toronto	3205' -1329	NA	NA	3196', -1344	(+15)
Douglas	3221' -1345	NA	NA	3214', -1362	(+17)
Brown Lime	3320' -1444	3307' -1446	(+2)	3314', -1462	(+18)
Lansing	3341' -1465	3330' -1469	(+4)	3332', -1480	(+15)
BKC	3582' -1706	NA	NA	3375', -1723	(+17)
Viola	3604' -1728	3620' -1759	(+31)	3613', -1761	(+33)
Simpson	3696' -1820	3674' -1813	(-7)	3708', -1856	(+36)
Arbuckle	3753' -1875	3736' -1875	FL	3766', -1914	(+39)

Summary

The location for the DeWerff #2 well was found via 3-D seismic survey. The new well ran structurally as expected on all shallow but lower than expected on deeper datums. Four Drill Stem Tests were conducted, all of which were negative. After all gathered data had been examined the decision was made to plug and abandon the DeWerff #2 well.

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.



DRILL STEM TEST REPORT

Prepared For: **GLOBE OPERATING INC.**

P.O. BOX 12
GREAT BEND ,KANSAS 67530

ATTN: JASON ALM

DEWERFF 2

12-22S-12W STAFFORD

Start Date: 2017.03.11 @ 08:04:00

End Date: 2017.03.11 @ 14:09:00

Job Ticket #: 01158 DST #: 1

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

Printed: 2017.03.11 @ 14:35:00



DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01158

DST#: 1

ATTN: JASON ALM

Test Start: 2017.03.11 @ 08:04:00

GENERAL INFORMATION:

Formation: **LANSING KANSAS CITY**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:44:00

Time Test Ended: 14:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-

Interval: **3372.00 ft (KB) To 3425.00 ft (KB) (TVD)**

Reference Elevations: 1876.00 ft (KB)

Total Depth: 3425.00 ft (KB) (TVD)

1868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Inside

Press@RunDepth: 926.12 psia @ 3420.14 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.11

End Date:

2017.03.11

Last Calib.:

2017.03.11

Start Time: 08:04:00

End Time:

14:08:30

Time On Btm:

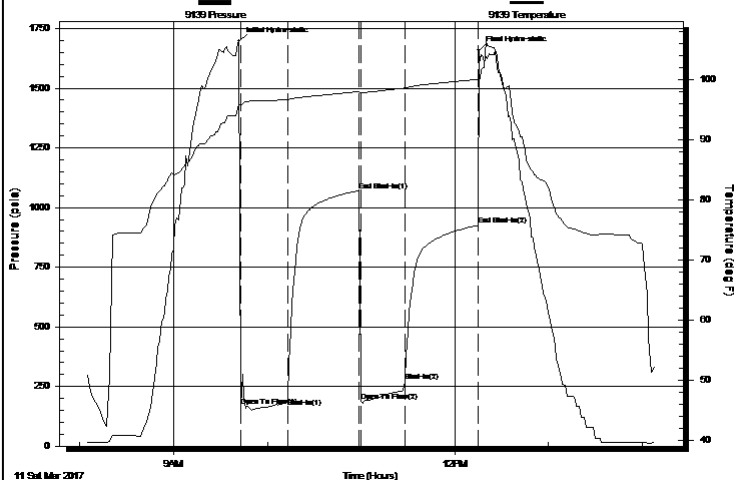
2017.03.11 @ 09:42:00

Time Off Btm:

2017.03.11 @ 12:15:30

TEST COMMENT: 1ST OPENING 30 MINUTES GOOD BLOW BOTTOM OF THE BUCKET IN 1 MINUTE GAS IN 6 MINUTES
1ST SHUT-IN 45 MINUTES
2ND OPENING 30 MINUTES STRONG BLOW SEE GAS FLOW REPORT
2ND SHUT-IN 45 MINUTES GOOD BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1697.06	95.77	Initial Hydro-static
1	166.89	95.62	Open To Flow (1)
31	199.95	96.63	Shut-In(1)
77	1069.23	97.98	End Shut-In(1)
78	189.16	97.78	Open To Flow (2)
106	273.42	98.56	Shut-In(2)
153	926.12	99.99	End Shut-In(2)
154	1659.42	100.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	THICK HEAVY MUD	1.68
60.00	MUDDY WATER 70 WATER 30 MUD	0.84
60.00	SLIGHTLY MUDDY WATER 90 WATER (0.84)	
180.00	WATER CHLORIDES 68,000	2.52

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	6.23	179.10
Last Gas Rate	1.00	4.01	115.28
Max. Gas Rate	1.00	6.23	179.10



DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01158

DST#: 1

ATTN: JASON ALM

Test Start: 2017.03.11 @ 08:04:00

GENERAL INFORMATION:

Formation: **LANSING KANSAS CITY**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:44:00

Time Test Ended: 14:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-

Interval: **3372.00 ft (KB) To 3425.00 ft (KB) (TVD)**

Total Depth: 3425.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1876.00 ft (KB)

1868.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **91916** Outside

Press@RunDepth: 925.07 psia @ 3420.14 ft (KB)

Start Date: 2017.03.11

End Date:

2017.03.11

Capacity: 5000.00 psia

Last Calib.: 2017.03.11

Start Time: 08:04:00

End Time:

14:08:00

Time On Btm: 2017.03.11 @ 09:42:00

Time Off Btm: 2017.03.11 @ 12:16:00

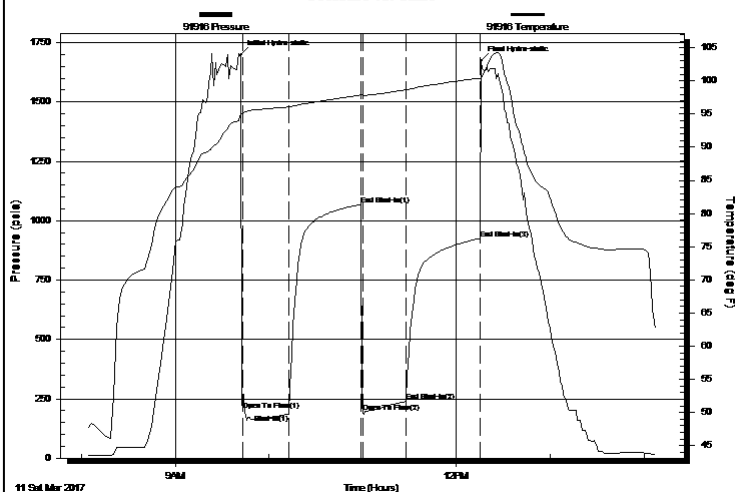
TEST COMMENT: 1ST OPENING 30 MINUTES GOOD BLOW BOTTOM OF THE BUCKET IN 1 MINUTE GAS IN 6 MINUTES

1ST SHUT-IN 45 MINUTES

2ND OPENING 30 MINUTES STRONG BLOW SEE GAS FLOW REPORT

2ND SHUT-IN 45 MINUTES GOOD BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1698.36	94.92	Initial Hydro-static
1	201.24	95.18	Open To Flow (1)
31	185.72	96.06	Shut-In(1)
77	1067.42	97.87	End Shut-In(1)
78	194.15	97.84	Open To Flow (2)
106	238.39	98.64	End Shut-In(2)
153	925.07	100.40	End Shut-In(3)
154	1672.72	100.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	THICK HEAVY MUD	1.68
60.00	MUDDY WATER 70 WATER 30 MUD	0.84
60.00	SLIGHTLY MUDDY WATER 90 WATER (0.84)	
180.00	WATER CHLORIDES 68,000	2.52

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	6.23	179.10
Last Gas Rate	1.00	4.01	115.28
Max. Gas Rate	1.00	6.23	179.10



DRILL STEM TEST REPORT

TOOL DIAGRAM

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01158

DST#: 1

ATTN: JASON ALM

Test Start: 2017.03.11 @ 08:04:00

Tool Information

Drill Pipe:	Length: 3377.00 ft	Diameter: 3.80 inches	Volume: 47.37 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
			Total Volume: 47.37 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3372.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.14 ft			
Tool Length:	73.14 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3357.00	
Hydraulic tool	5.00			3362.00	
Top Packer	5.00			3367.00	
Packer	5.00			3372.00	20.00 Bottom Of Top Packer
Anchor	5.00			3377.00	
Change Over Sub	0.75			3377.75	
Drill Pipe	31.64			3409.39	
Change Over Sub	0.75			3410.14	
Anchor	10.00			3420.14	
Recorder	0.00	9139	Inside	3420.14	
Recorder	0.00	91916	Outside	3420.14	
Bullnose	5.00			3425.14	53.14 Anchor Tool

Total Tool Length: 73.14



DRILL STEM TEST REPORT

FLUID SUMMARY

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01158

DST#: 1

ATTN: JASON ALM

Test Start: 2017.03.11 @ 08:04:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 9.20 in³

Resistivity: ohm.m

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	THICK HEAVY MUD	1.683
60.00	MUDDY WATER 70 WATER 30 MUD	0.842
60.00	SLIGHTLY MUDDY WATER 90 WATER 10 MU	0.842
180.00	WATER CHLORIDES 68,000	2.525

Total Length: 420.00 ft

Total Volume: 5.892 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01158

DST#: 1

ATTN: JASON ALM

Test Start: 2017.03.11 @ 08:04:00

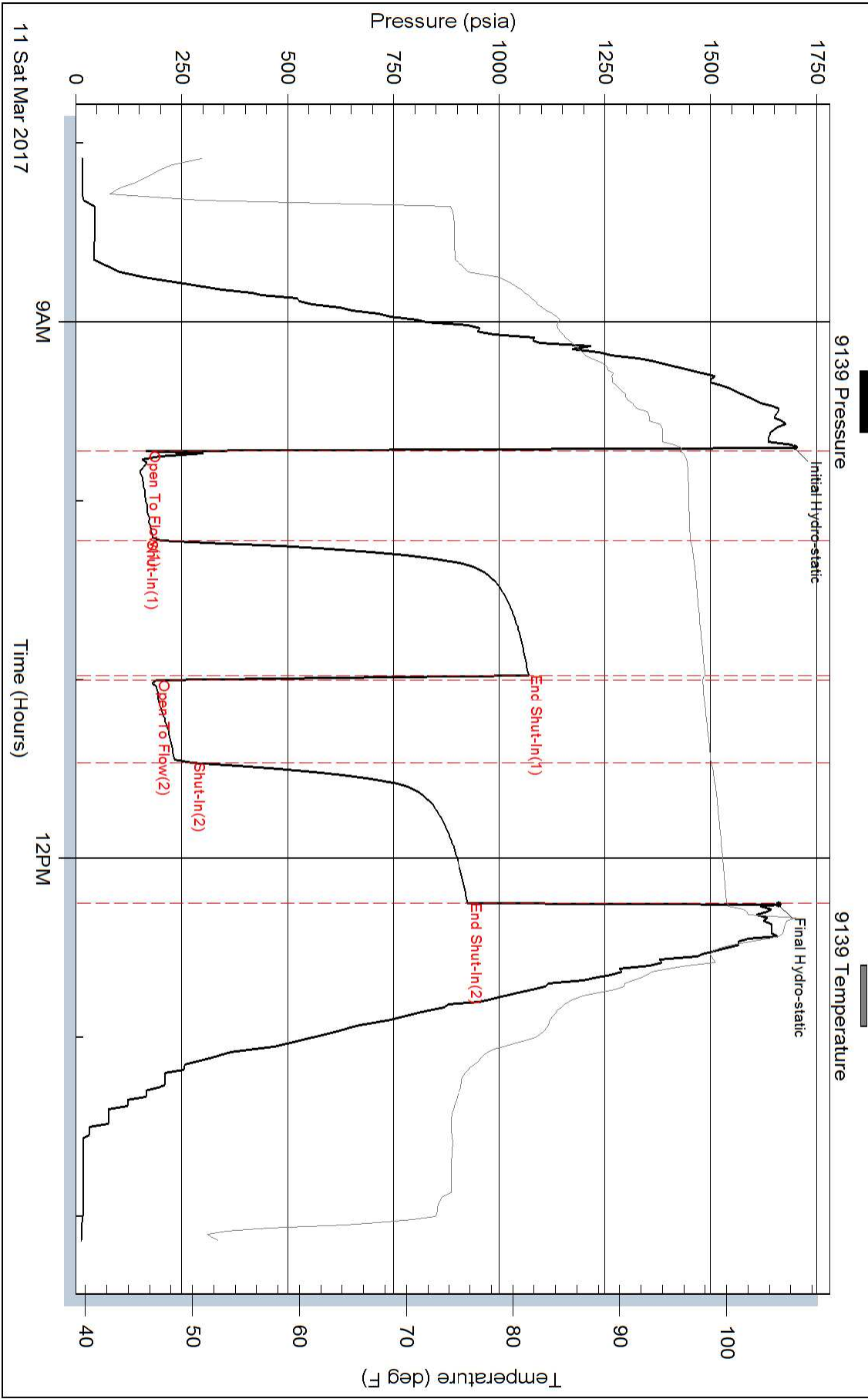
Gas Rates Information

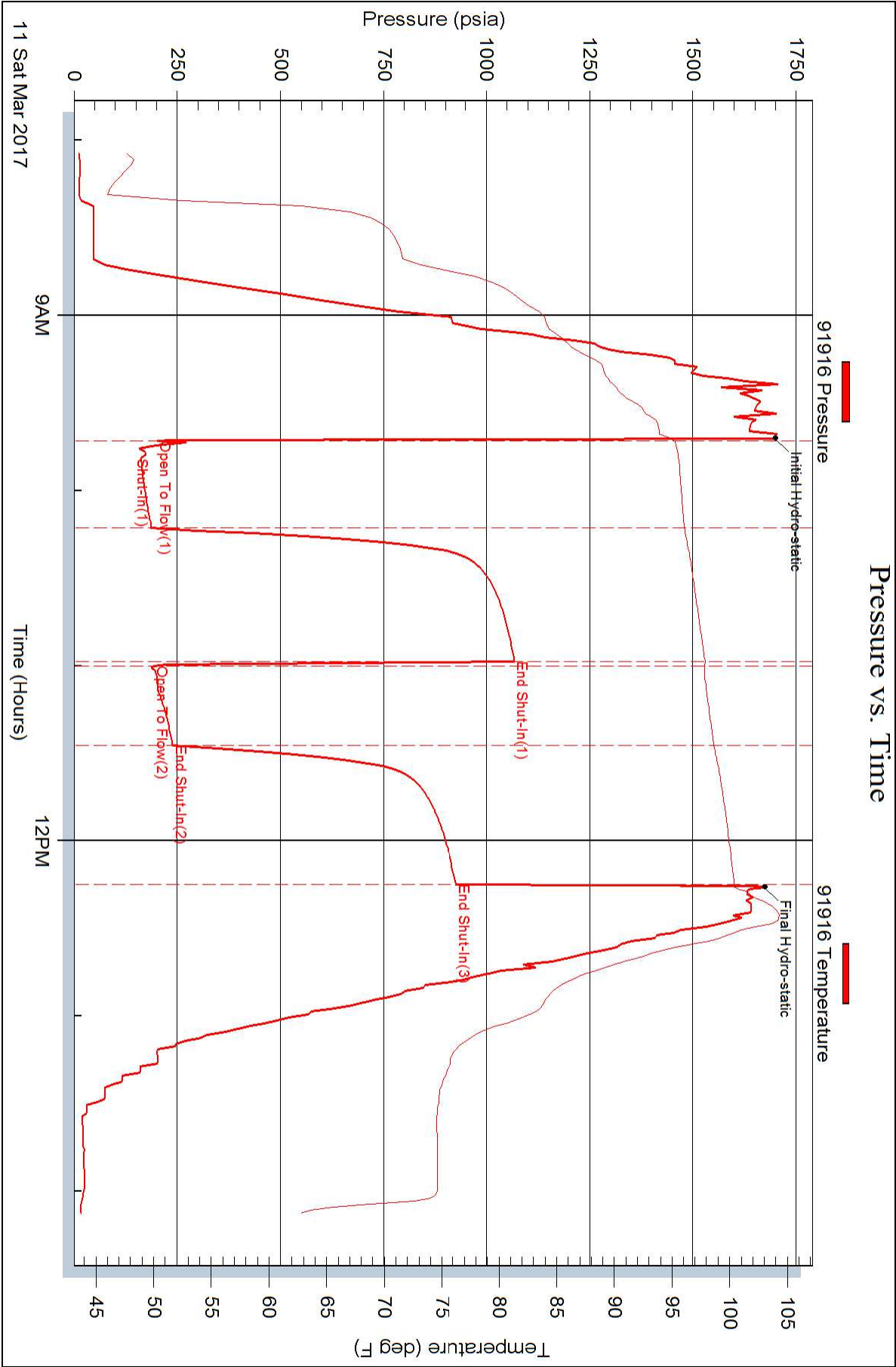
Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
1	10	1.00	6.23	179.10
1	20	1.00	5.67	163.01
1	30	1.00	5.08	146.04
2	10	1.00	5.54	159.27
2	20	1.00	4.01	115.28
2	30	1.00	4.01	115.28

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **GLOBE OPERATING INC.**

P.O. BOX 12
GREAT BEND ,KANSAS 67530

ATTN: JASON ALM

DEWERFF 2

12-22S-12W STAFFORD

Start Date: 2017.03.12 @ 05:37:00

End Date: 2017.03.12 @ 00:00:00

Job Ticket #: 01157 DST #: 2

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

Printed: 2017.03.15 @ 13:43:58



DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01157

DST#: 2

ATTN: JASON ALM

Test Start: 2017.03.12 @ 05:37:00

GENERAL INFORMATION:

Formation: **LANSING KANSAS CITY**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:29:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3478.00 ft (KB) To 3550.00 ft (KB) (TVD)**

Reference Elevations: 1876.00 ft (KB)

Total Depth: 3550.00 ft (KB) (TVD)

1868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Inside

Press@RunDepth: 309.90 psia @ 3545.14 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.12

End Date:

2017.03.12

Last Calib.:

2017.03.12

Start Time: 05:38:00

End Time:

12:01:30

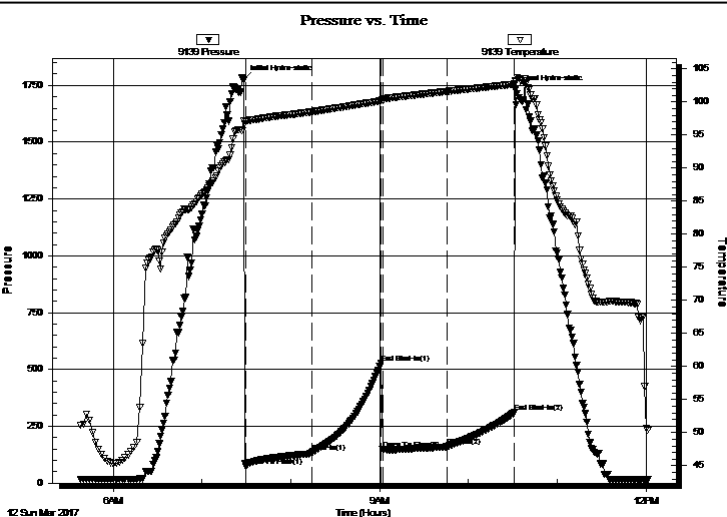
Time On Btm:

2017.03.12 @ 07:28:00

Time Off Btm:

2017.03.12 @ 10:31:30

TEST COMMENT: 1ST OPENING 45 MINUTES WEAK BUILDING BLOW BUILT TO BOTTOM OF THE BUCKET IN 32 MINUTES
1ST SHUT-IN 45 MINUTES-NO BLOW BACK
2ND OPENING 45 MINUTES WEAK BLOW BUILT TO 5 INCHES DECREASED TO WEAKSURFACE BLOW
2ND SHUT-IN 45 MINUTES NO BLOW BACKI



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1773.41	97.19	Initial Hydro-static
2	75.20	97.22	Open To Flow (1)
46	133.61	98.52	Shut-In(1)
93	528.41	100.19	End Shut-In(1)
94	150.17	100.30	Open To Flow (2)
138	160.93	101.60	Shut-In(2)
183	309.90	102.71	End Shut-In(2)
184	1729.60	103.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	THICK MUD	0.28
120.00	MUDDY WATER 50 MUD 50 WATER	1.68
60.00	MUDDY WATER 40 MUD 60 WATER	0.84
0.00	THERE WAS A TRACE OF OIL THROUGH	0.00
0.00	CHLORIDES 41,000	0.00

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01157

DST#: 2

ATTN: JASON ALM

Test Start: 2017.03.12 @ 05:37:00

GENERAL INFORMATION:

Formation: **LANSING KANSAS CITY**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:29:00

Time Test Ended: 00:00:00

Interval: **3478.00 ft (KB) To 3550.00 ft (KB) (TVD)**

Total Depth: 3550.00 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: 1876.00 ft (KB)

1868.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 91716 Outside

Press@RunDepth: 310.56 psia @ 3545.14 ft (KB)

Start Date: 2017.03.12

End Date:

2017.03.12

Start Time: 05:37:30

End Time:

12:01:00

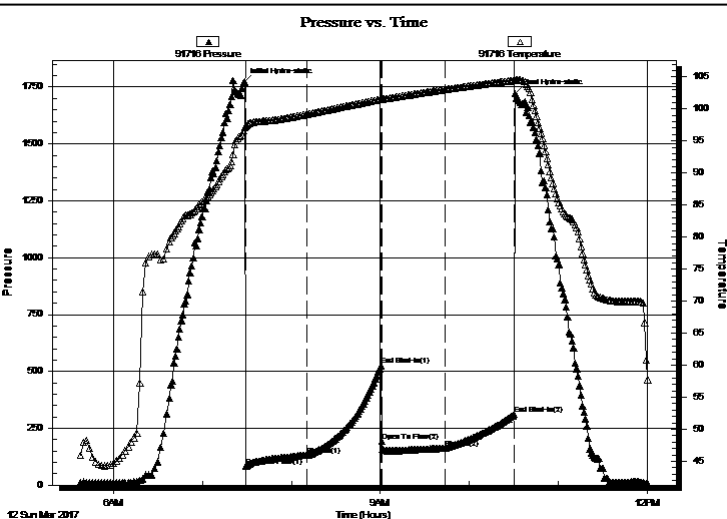
Capacity: 5000.00 psia

Last Calib.: 2017.03.12

Time On Btm: 2017.03.12 @ 07:27:30

Time Off Btm: 2017.03.12 @ 10:31:00

TEST COMMENT: 1ST OPENING 45 MINUTES WEAK BUILDING BLOW BUILT TO BOTTOM OF THE BUCKET IN 32 MINUTES
1ST SHUT-IN 45 MINUTES-NO BLOW BACK
2ND OPENING 45 MINUTES WEAK BLOW BUILT TO 5 INCHES DECREASED TO WEAKSURFACE BLOW
2ND SHUT-IN 45 MINUTES NO BLOW BACKI



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1769.09	96.58	Initial Hydro-static
2	83.43	97.29	Open To Flow (1)
43	131.78	99.14	Shut-In(1)
93	525.66	101.55	End Shut-In(1)
94	193.26	101.55	Open To Flow (2)
136	161.98	103.02	Shut-In(2)
183	310.56	104.44	End Shut-In(2)
184	1721.03	104.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	THICK MUD	0.28
120.00	MUDDY WATER 50 MUD 50 WATER	1.68
60.00	MUDDY WATER 40 MUD 60 WATER	0.84
0.00	THERE WAS A TRACE OF OIL THROUGHOUT	0.00
0.00	CHLORIDES 41,000	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01157

DST#: 2

ATTN: JASON ALM

Test Start: 2017.03.12 @ 05:37:00

Tool Information

Drill Pipe:	Length:	3471.00 ft	Diameter:	3.80 inches	Volume:	48.69 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:	62000.00 lb
					Total Volume:	48.69 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft							
Depth to Top Packer:	3478.00 ft							
Depth to Bottom Packer:	ft							
Interval between Packers:	72.14 ft							
Tool Length:	92.14 ft							
Number of Packers:	2		Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3463.00	
Hydraulic tool	5.00			3468.00	
Top Packer	5.00			3473.00	
Packer	5.00			3478.00	20.00 Bottom Of Top Packer
Anchor	5.00			3483.00	
Change Over Sub	0.75			3483.75	
Drill Pipe	30.64			3514.39	
Change Over Sub	0.75			3515.14	
Anchor	30.00			3545.14	
Recorder	0.00	9139	Inside	3545.14	
Recorder	0.00	91716	Outside	3545.14	
Bullnose	5.00			3550.14	72.14 Anchor Tool

Total Tool Length: 92.14



DRILL STEM TEST REPORT

FLUID SUMMARY

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01157

DST#: 2

ATTN: JASON ALM

Test Start: 2017.03.12 @ 05:37:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 9.17 in³

Resistivity: ohm.m

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	THICK MUD	0.281
120.00	MUDDY WATER 50 MUD 50 WATER	1.683
60.00	MUDDY WATER 40 MUD 60 WATER	0.842
0.00	THERE WAS A TRACE OF OIL THROUGH OUT	0.000
0.00	CHLORIDES 41,000	0.000

Total Length: 200.00 ft

Total Volume: 2.806 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

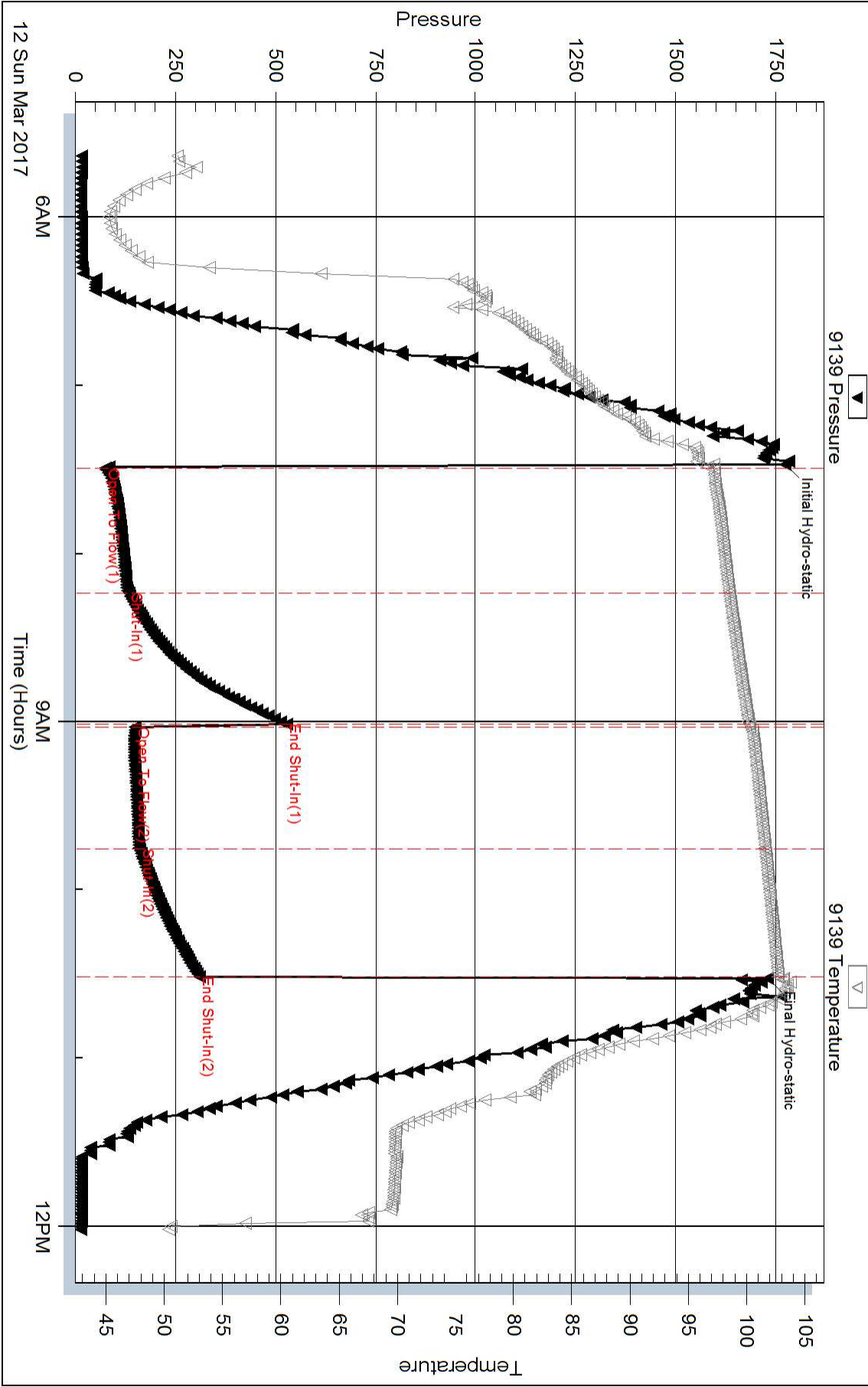
Serial #:

Laboratory Name:

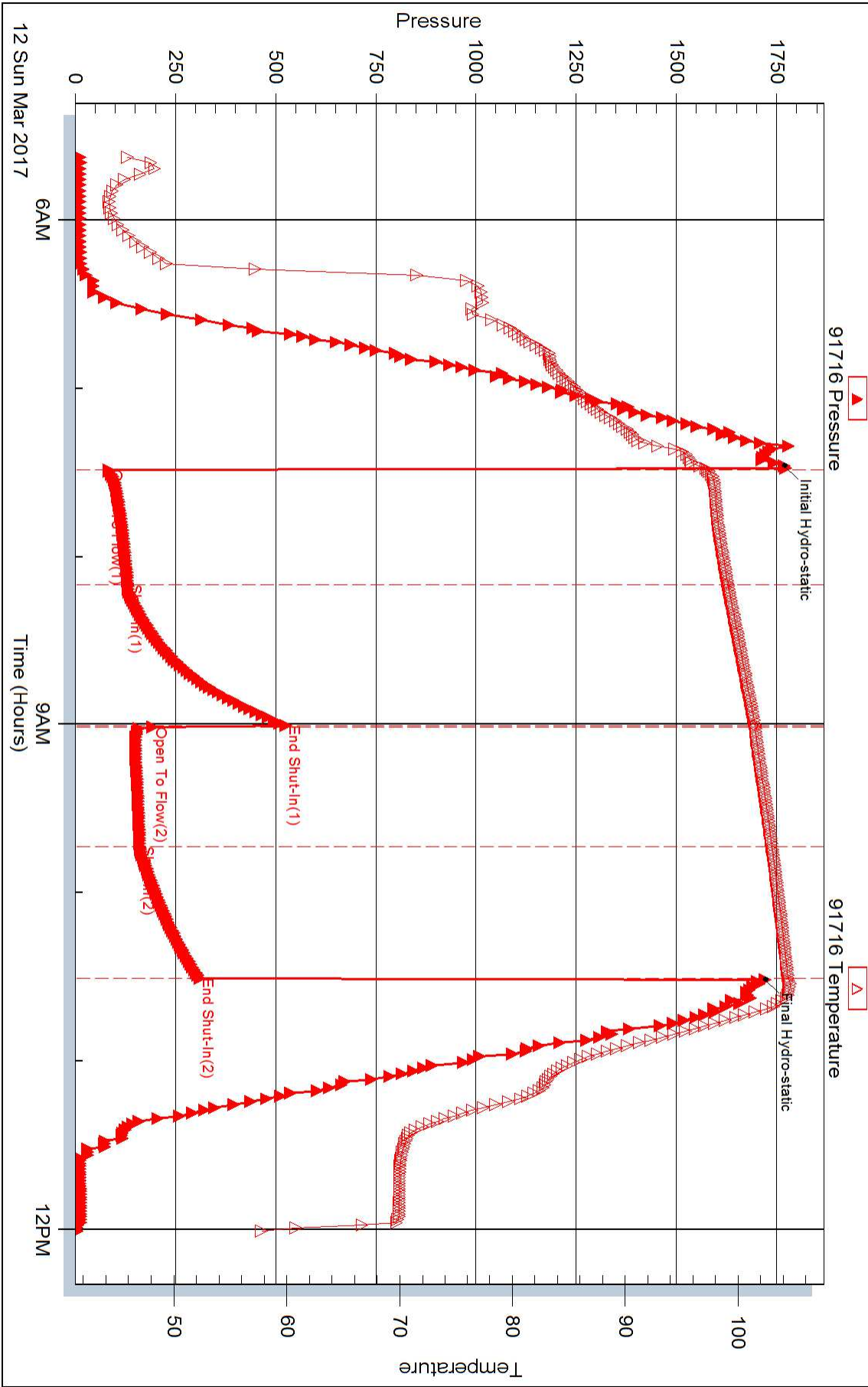
Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **GLOBE OPERATING INC.**

P.O. BOX 12
GREAT BEND ,KANSAS 67530

ATTN: JASON ALM

DEWERFF 2

12-22S-12W STAFFORD

Start Date: 2017.03.12 @ 23:29:00

End Date: 2017.03.13 @ 04:00:00

Job Ticket #: 01159 DST #: 3

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

Printed: 2017.03.14 @ 01:35:28



DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01159

DST#: 3

ATTN: JASON ALM

Test Start: 2017.03.12 @ 23:29:00

GENERAL INFORMATION:

Formation: **SIMPSON**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:11:00

Time Test Ended: 04:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3690.00 ft (KB) To 3746.00 ft (KB) (TVD)**

Total Depth: 3746.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1876.00 ft (KB)

1868.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **9139** Inside

Press@RunDepth: 281.12 psia @ 3742.14 ft (KB)

Start Date: 2017.03.12

End Date: 2017.03.13

Start Time: 23:30:00

End Time: 03:59:30

Capacity: 5000.00 psia

Last Calib.: 1899.12.30

Time On Btm: 2017.03.13 @ 01:11:00

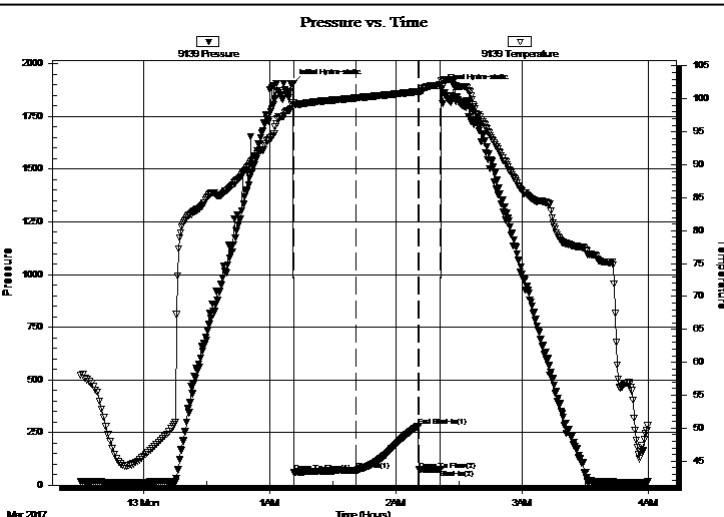
Time Off Btm: 2017.03.13 @ 02:21:30

TEST COMMENT: 1ST OPENING 30 MINUTES WEAK BLOW FOR 12 MINUTES AND DIED

1ST SHUT-IN 30 MINUTES NO BLOW BACK

2ND OPENING 10 MINUTES NO BLOW PULLED TEST TOOL

2ND SHUT-IN NONE TAKEN



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1907.01	99.38	Initial Hydro-static
1	60.44	99.01	Open To Flow (1)
30	71.63	100.13	Shut-In(1)
60	281.12	101.11	End Shut-In(1)
60	72.41	101.07	Open To Flow (2)
70	74.91	102.08	Shut-In(2)
71	1881.54	102.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	MUD	0.28

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01159

DST#: 3

ATTN: JASON ALM

Test Start: 2017.03.12 @ 23:29:00

GENERAL INFORMATION:

Formation: **SIMPSON**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:11:00

Time Test Ended: 04:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3690.00 ft (KB) To 3746.00 ft (KB) (TVD)**

Reference Elevations: 1876.00 ft (KB)

Total Depth: 3746.00 ft (KB) (TVD)

1868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **91716** Outside

Press@RunDepth: 280.43 psia @ 3742.14 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.12

End Date:

2017.03.13

Last Calib.:

2017.03.13

Start Time: 23:29:31

End Time:

03:59:01

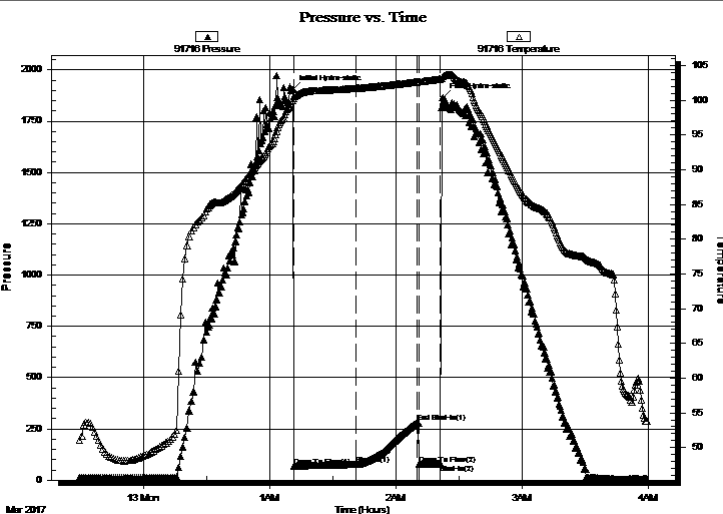
Time On Btm:

2017.03.13 @ 01:11:01

Time Off Btm:

2017.03.13 @ 02:22:01

TEST COMMENT: 1ST OPENING 30 MINUTES WEAK BLOW FOR 12 MINUTES AND DIED
1ST SHUT-IN 30 MINUTES NO BLOW BACK
2ND OPENING 10 MINUTES NO BLOW PULLED TEST TOOL
2ND SHUT-IN NONE TAKEN



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1903.90	100.29	Initial Hydro-static
1	67.96	100.53	Open To Flow (1)
30	76.22	101.72	Shut-In(1)
59	280.43	102.66	End Shut-In(1)
60	79.07	102.69	Open To Flow (2)
70	79.24	103.07	Shut-In(2)
71	1865.91	103.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	MUD	0.28

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01159

DST#: 3

ATTN: JASON ALM

Test Start: 2017.03.12 @ 23:29:00

Tool Information

Drill Pipe:	Length: 3690.00 ft	Diameter: 3.80 inches	Volume: 51.76 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: 74000.00 lb
			Total Volume: 51.76 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3690.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.14 ft			
Tool Length:	77.14 ft			
Number of Packers:	2	Diameter:	6.75 inches	
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3675.00	
Hydraulic tool	5.00			3680.00	
Top Packer	5.00			3685.00	
Packer	5.00			3690.00	20.00 Bottom Of Top Packer
Anchor	5.00			3695.00	
Change Over Sub	0.75			3695.75	
Drill Pipe	30.64			3726.39	
Change Over Sub	0.75			3727.14	
Anchor	15.00			3742.14	
Recorder	0.00	9139	Inside	3742.14	
Recorder	0.00	91716	Outside	3742.14	
Bullnose	5.00			3747.14	57.14 Anchor Tool

Total Tool Length: 77.14



DRILL STEM TEST REPORT

FLUID SUMMARY

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01159

DST#: 3

ATTN: JASON ALM

Test Start: 2017.03.12 @ 23:29:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 9.19 in³

Resistivity: ohm.m

Salinity: 7400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MUD	0.281

Total Length: 20.00 ft

Total Volume: 0.281 bbl

Num Fluid Samples: 0

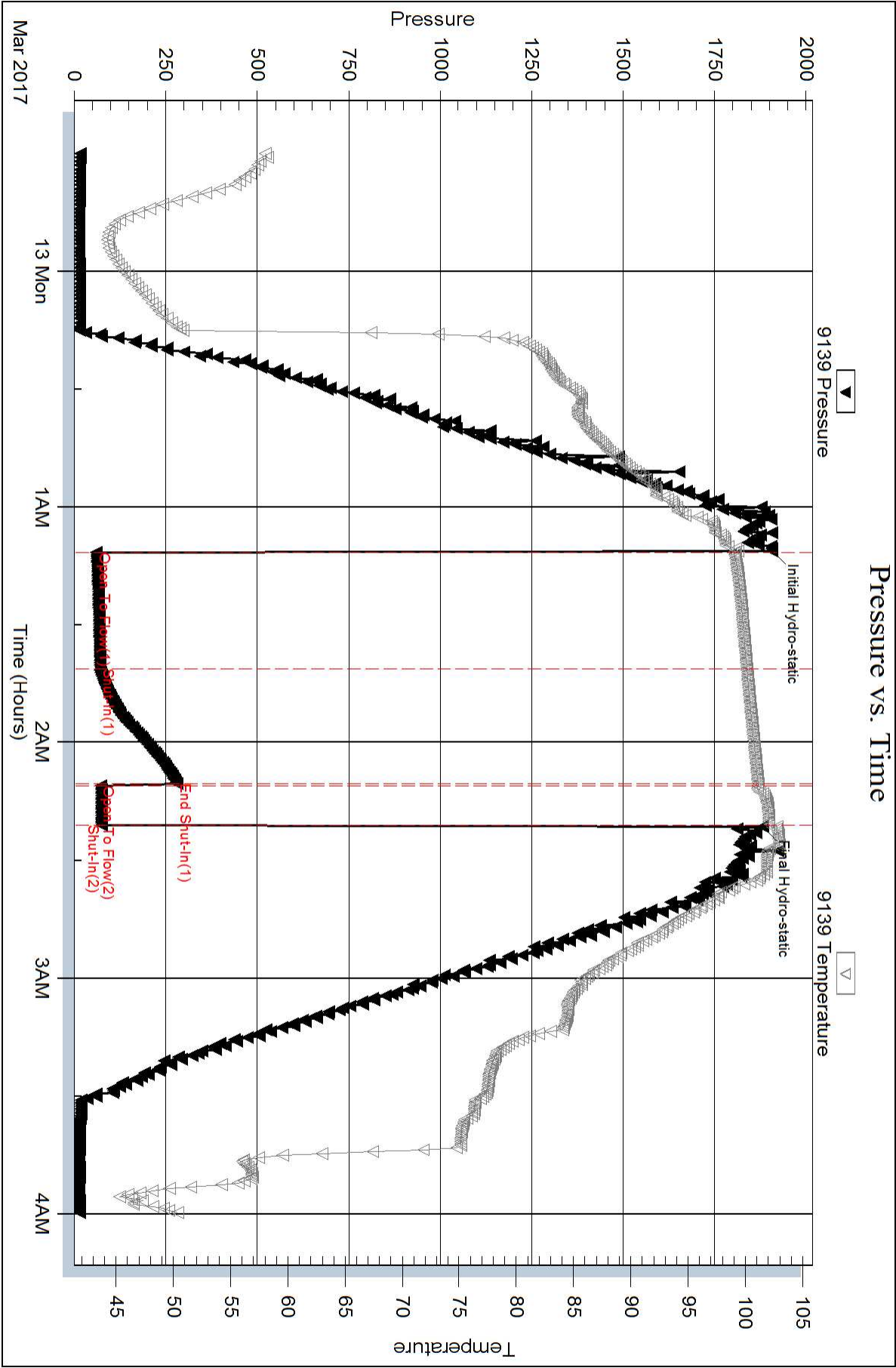
Num Gas Bombs: 0

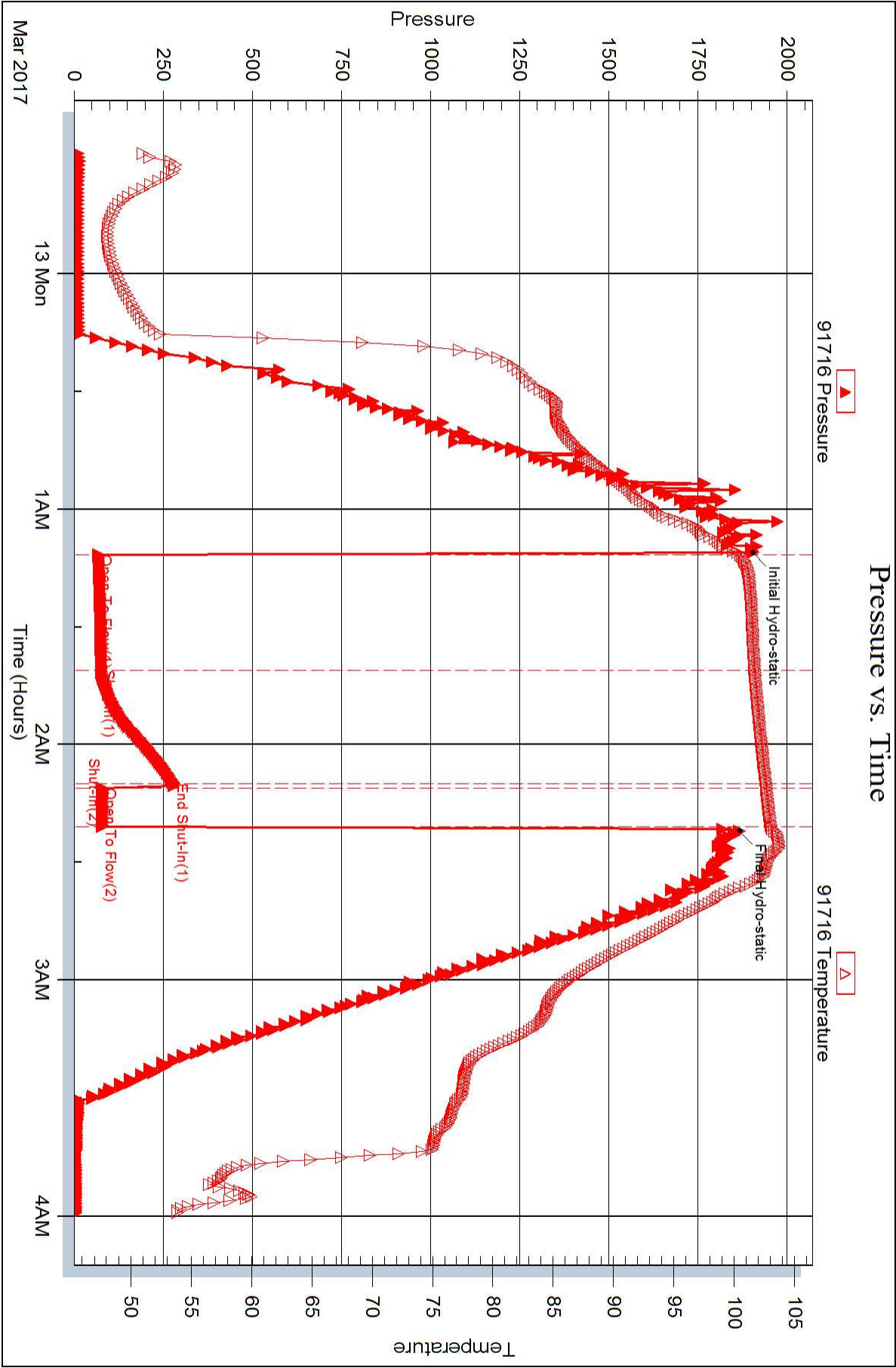
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **GLOBE OPERATING INC.**

P.O. BOX 12
GREAT BEND ,KANSAS 67530

ATTN: JASON ALM

DEWERFF 2

12-22S-12W STAFFORD

Start Date: 2017.03.13 @ 06:30:00

End Date: 2017.03.13 @ 01:11:00

Job Ticket #: 01160 DST #: 4

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

Printed: 2017.03.15 @ 11:56:42



DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01160

DST#: 4

ATTN: JASON ALM

Test Start: 2017.03.13 @ 06:30:00

GENERAL INFORMATION:

Formation: **VIOLA**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:11:00

Time Test Ended: 01:11:00

Test Type: Conventional Straddle (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3580.00 ft (KB) To 3659.00 ft (KB) (TVD)**

Reference Elevations: 1876.00 ft (KB)

Total Depth: 3845.00 ft (KB) (TVD)

1868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **91716** Outside

Press@RunDepth: 1219.36 psia @ 3658.03 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.13

End Date:

2017.03.14

Last Calib.: 2017.03.14

Start Time: 18:30:30

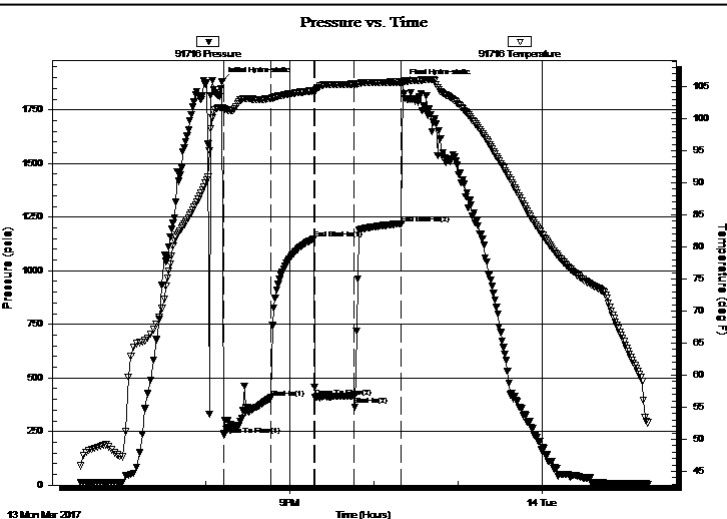
End Time:

01:15:30

Time On Btm: 2017.03.13 @ 20:11:30

Time Off Btm: 2017.03.13 @ 22:20:30

TEST COMMENT: 1ST OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM POFA 5 GALLON BUCKET IN 11 MINUTES
1ST SHUT-IN 30 MINUTES NO BLOW BACK
2ND OPENING 30 MINUTES WEAK BLOW BUILT TO 2 INCHES DECREASED AND DIED IN 28 MINUTES
2ND SHUT-IN 30 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1882.53	101.68	Initial Hydro-static
2	234.63	101.50	Open To Flow (1)
35	407.09	103.19	Shut-In(1)
66	1148.42	104.35	End Shut-In(1)
67	408.58	104.37	Open To Flow (2)
95	413.75	105.40	Shut-In(2)
128	1219.36	105.72	End Shut-In(2)
129	1872.01	105.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
200.00	mud	2.81
180.00	muddy water 50 mud 50 water	2.52
180.00	muddy water 65 mud 35 water	2.52
400.00	muddy water 40 mud 60 water	5.61
0.00	chlorides 38000	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01160

DST#: 4

ATTN: JASON ALM

Test Start: 2017.03.13 @ 06:30:00

GENERAL INFORMATION:

Formation: **VIOLA**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:11:00

Time Test Ended: 01:11:00

Test Type: Conventional Straddle (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3580.00 ft (KB) To 3659.00 ft (KB) (TVD)**

Reference Elevations: 1876.00 ft (KB)

Total Depth: 3845.00 ft (KB) (TVD)

1868.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139 Outside

Press@RunDepth: psia @ 3844.44 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.13

End Date:

2017.03.14

Last Calib.: 2017.03.14

Start Time: 18:15:00

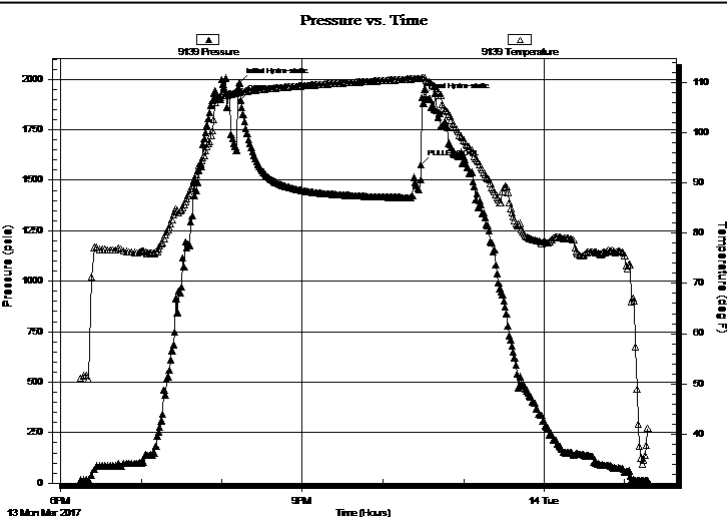
End Time:

01:17:30

Time On Btm: 2017.03.13 @ 20:13:30

Time Off Btm: 2017.03.13 @ 22:29:00

TEST COMMENT: 1ST OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM POF A 5 GALLON BUCKET IN 11 MINUTES
1ST SHUT-IN 30 MINUTES NO BLOW BACK
2ND OPENING 30 MINUTES WEAK BLOW BUILT TO 2 INCHES DECREASED AND DIED IN 28 MINUTES
2ND SHUT-IN 30 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1981.30	108.10	Initial Hydro-static
1	1897.40	108.11	OPRND TOOL
135	1575.46	110.82	PULLED TOOL
136	1908.15	110.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
200.00	mud	2.81
180.00	muddy water 50 mud 50 water	2.52
180.00	muddy water 65 mud 35 water	2.52
400.00	muddy water 40 mud 60 water	5.61
0.00	chlorides 38000	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01160

DST#: 4

ATTN: JASON ALM

Test Start: 2017.03.13 @ 06:30:00

GENERAL INFORMATION:

Formation: **VIOLA**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:11:00

Time Test Ended: 01:11:00

Test Type: Conventional Straddle (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3580.00 ft (KB) To 3659.00 ft (KB) (TVD)**

Total Depth: 3845.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1876.00 ft (KB)

1868.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 9119 Inside

Press@RunDepth: 1221.01 psia @ 3658.03 ft (KB)

Start Date: 2017.03.13

End Date:

2017.03.14

Capacity: 5000.00 psia

Last Calib.: 2017.03.15

Start Time: 17:48:01

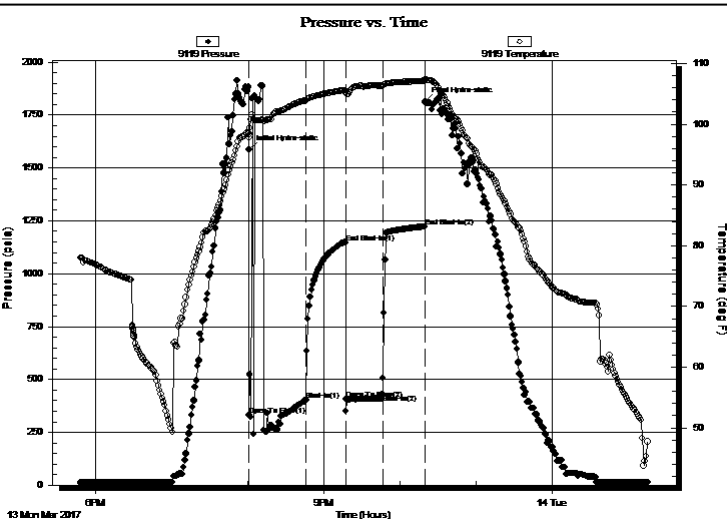
End Time:

01:15:26

Time On Btm: 2017.03.13 @ 20:01:02

Time Off Btm: 2017.03.13 @ 22:19:47

TEST COMMENT: 1ST OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM POFA 5 GALLON BUCKET IN 11 MINUTES
1ST SHUT-IN 30 MINUTES NO BLOW BACK
2ND OPENING 30 MINUTES WEAK BLOW BUILT TO 2 INCHES DECREASED AND DIED IN 28 MINUTES
2ND SHUT-IN 30 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1585.92	98.38	Initial Hydro-static
1	330.23	97.78	Open To Flow (1)
46	402.37	103.84	Shut-In(1)
76	1146.61	105.57	End Shut-In(1)
77	406.07	105.30	Open To Flow (2)
106	430.87	106.31	Shut-In(2)
139	1221.01	107.09	End Shut-In(2)
139	1811.96	107.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
200.00	mud	2.81
180.00	muddy water 50 mud 50 water	2.52
180.00	muddy water 65 mud 35 water	2.52
400.00	muddy water 40 mud 60 water	5.61
0.00	chlorides 38000	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01160

DST#: 4

ATTN: JASON ALM

Test Start: 2017.03.13 @ 06:30:00

Tool Information

Drill Pipe:	Length: 3590.00 ft	Diameter: 3.80 inches	Volume: 50.36 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
		Total Volume: 50.36 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3580.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	3659.03 ft			
Interval between Packers:	79.03 ft			
Tool Length:	289.44 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			3565.00	
Hydraulic tool	5.00			3570.00	
Top Packer	5.00			3575.00	
Packer	5.00			3580.00	20.00 Bottom Of Top Packer
Change Over Sub	0.75			3580.75	
Drill Pipe	62.53			3643.28	
Change Over Sub	0.75			3644.03	
Perforations	14.00			3658.03	
Recorder	0.00	9119	Inside	3658.03	
Recorder	0.00	91716	Outside	3658.03	
Blank Off Sub	1.00			3659.03	79.03 Tool Interval
Packer	5.00			3664.03	
Anchor	22.00		Inside	3686.03	
Change Over Sub	0.75		Outside	3686.78	
Drill Pipe	156.91			3843.69	
Change Over Sub	0.75			3844.44	
Recorder	0.00	9139	Outside	3844.44	
Bullnose	5.00			3849.44	190.41 Bottom Packers & Anchor
Total Tool Length:	289.44				



DRILL STEM TEST REPORT

FLUID SUMMARY

GLOBE OPERATING INC.

12-22S-12W STAFFORD

P.O. BOX 12
GREAT BEND, KANSAS 67530

DEWERFF 2

Job Ticket: 01160

DST#: 4

ATTN: JASON ALM

Test Start: 2017.03.13 @ 06:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 61.00 sec/qt

Water Loss: 9.98 in³

Resistivity: ohm.m

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	mud	2.805
180.00	muddy w ater 50 mud 50 w ater	2.525
180.00	muddy w ater 65 mud 35 w ater	2.525
400.00	muddy w ater 40 mud 60 w ate	5.611
0.00	chlorides 38000	0.000

Total Length: 960.00 ft

Total Volume: 13.466 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

