

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

Well Name	Rugan Farms #2-24
Formation	Arbuckle 3504'-3525'
Surface Location	Sec 24-20s-14w-Barton Co-KS
Field	
Company Name	LD Drilling
Well Operator	LD Drilling
Well Type	Vertical
Test Type	Conv. Bottom-Hole
Test Purpose (AEUB)	Initial Test
Gauge Name	Inside 5951
Start Test Date	2014/08/15
Start Test Time	14:27:00
Final Test Date	2014/08/15
Final Test Time	21:11:00
Job Number	F299
Contact	LD Davis
Site Contact	Jim Musgrove
Qualified By	Jim Musgrove

TEST RESULTS

Initial flow built to BOB in 30 seconds, GTS in 15 minutes. Blowback @ 3/4" on initial shut-in.
 Final flow built to BOB immediately, Guaged gas. No blowback on final shut-in.

RECOVERED 205' TOTAL FLUID

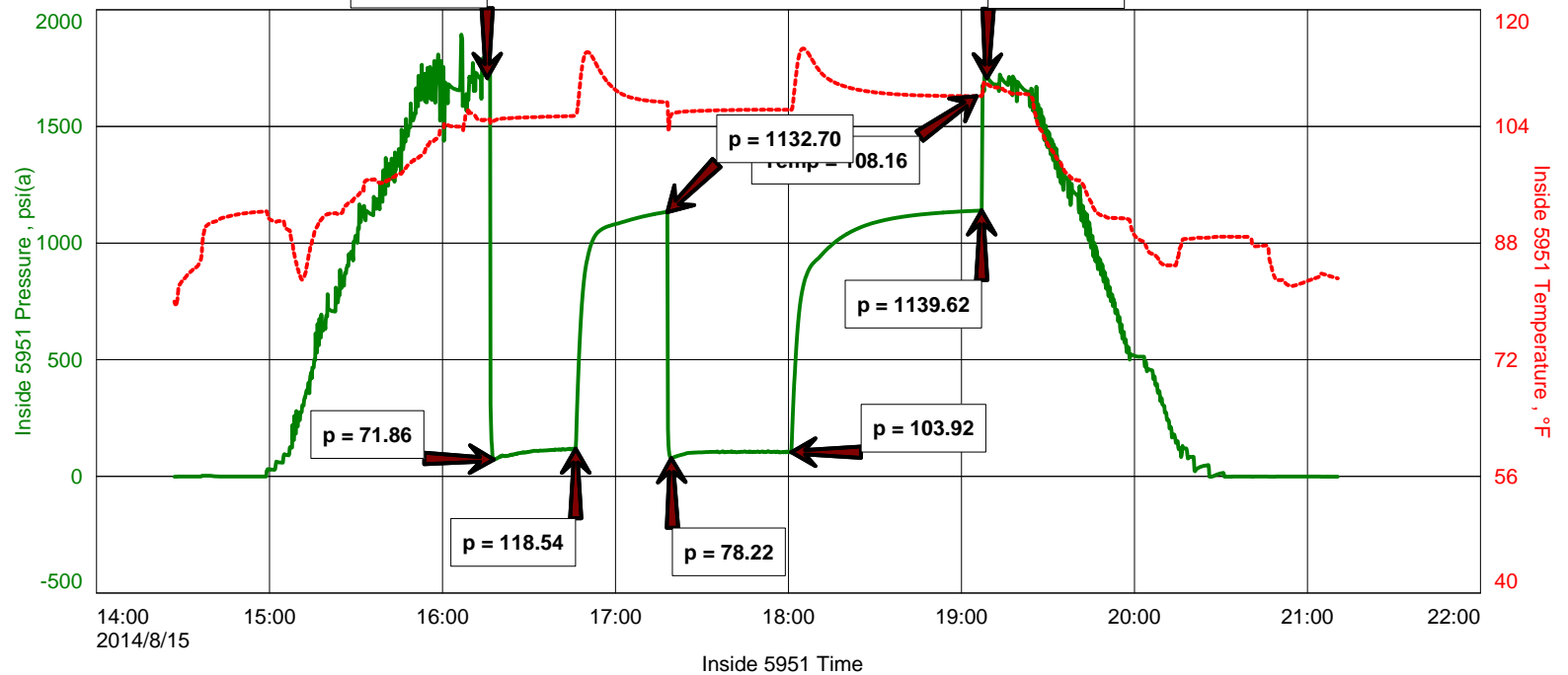
142' SGCM 5%g, 95%m
 63' SGC OSM 10%g, 3%o, 87%m

Flowed gas to surface, stabilized on final flow at 51,800 CF/D.

LD Drilling
 Start Test Date: 2014/08/15
 Final Test Date: 2014/08/15

Rugan Farms #2-24
 Formation: Arbuckle 3504'-3525'
 Job Number: F299

DST #4





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: _____

TIME ON: _____
TIME OFF: _____

Company _____ Lease & Well No. _____
Contractor _____ Charge to _____
Elevation _____ Formation _____ Effective Pay _____ Ft. Ticket No. _____
Date _____ Sec. _____ Twp. _____ S Range _____ W County _____ State **KANSAS**
Test Approved By _____ Diamond Representative _____

Formation Test No. _____ Interval Tested from _____ ft. to _____ ft. Total Depth _____ ft.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth _____ ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type _____ Viscosity _____ Drill Collar Length _____ ft. I.D. 2 1/4 in.
Weight _____ Water Loss _____ cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
Chlorides _____ P.P.M. Drill Pipe Length _____ ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number _____ Test Tool Length _____ ft. Tool Size 3 1/2-IF in.
Did Well Flow? _____ Reversed Out _____ Anchor Length _____ ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: _____
2nd Open: _____

Recovered _____ ft. of _____	Price Job Other Charges Insurance Total
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	

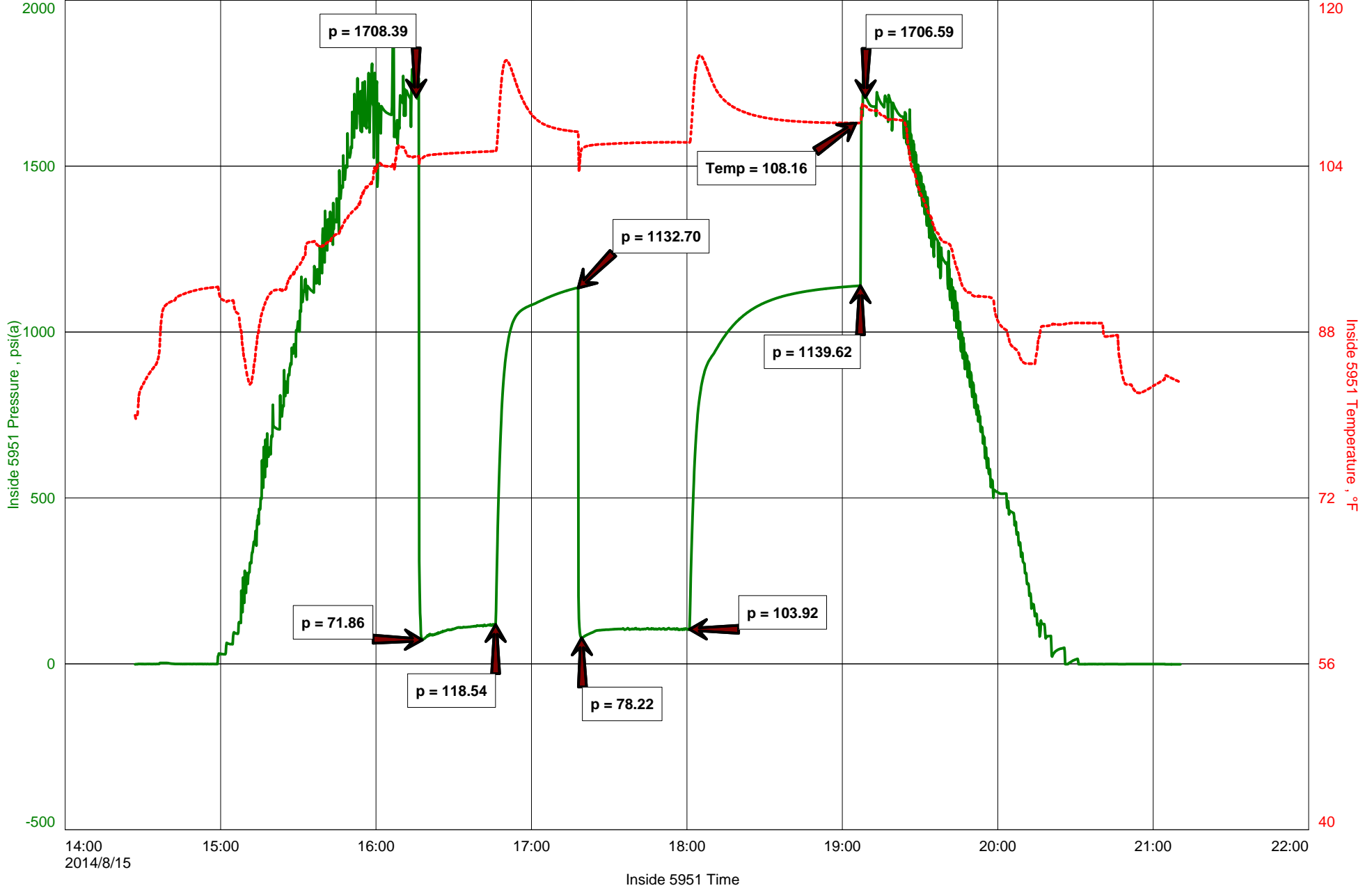
Time Set Packer(s) _____ A.M. P.M. Time Started Off Bottom _____ A.M. P.M. Maximum Temperature _____
Initial Hydrostatic Pressure..... (A) _____ P.S.I.
Initial Flow Period..... Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.
Initial Closed In Period..... Minutes _____ (D) _____ P.S.I.
Final Flow Period..... Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.
Final Closed In Period..... Minutes _____ (G) _____ P.S.I.
Final Hydrostatic Pressure..... (H) _____ P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

LD Drilling
Start Test Date: 2014/08/15
Final Test Date: 2014/08/15

Rugan Farms #2-24
Formation: Arbuckle 3504'-3525'
Job Number: F299

Rugan Farms #2-24





DIAMOND TESTING

P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: RUGFAZ DST4

ON LOCATION: 14:12
START RECORDERS: 14:27
STOP RECORDERS: 21:11

Company LD DRILLING, INC. Lease & Well No. RUGAN FARMS #2-24
Contractor PETROMARK DRLLG. REG #2 Charge to LD DRILLING, INC.
Elevation 1892' KB Formation ARBUCKLE Effective Pay _____ Ft. Ticket No. F299
Date 8-15-14 Sec. 24 Twp. 20S Range 14W County BARTON State KANSAS
Test Approved By JIM MUSGROVE Diamond Representative JAKE FAHRENBRUCH

Formation Test No. 4 Interval Tested from 3504 ft. to 3525 ft. Total Depth 3525 ft.
Packer Depth 3499 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3504 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3490 ft. Recorder Number 5951 Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 3505 ft. Recorder Number 5584 Cap. 5000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 45 Drill Collar Length 125 ft. I.D. 2 1/4 in.
Weight 9.1+ Water Loss 16 cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
Chlorides 15000 P.P.M. Drill Pipe Length 3354 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number _____ Test Tool Length 25 ft. Tool Size 3 1/2-IF in.
Did Well Flow? _____ Reversed Out _____ Anchor Length 21 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2"XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: STRONG BLOW @ B.O.B. IN 30 SEC / GTS 15 MIN / 8B @ 3/4"
2nd Open: STRONG BLOW @ B.O.B. IMMEDIATELY / GAUGE GAS

Recovered 142 ft. of SGCM 5'G, 95"m
Recovered 63 ft. of SGC OSM 10'G, 3"O, 87"m
Recovered _____ ft. of TOTAL FLUID REC: 205'

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Recovered _____ ft. of _____	
Remarks: _____	
	Total

Time Set Packer(s) 4:17 ^{AM} (P.M.) Time Started Off Bottom 7:02 ^{AM} (P.M.) Maximum Temperature 108F

Initial Hydrostatic Pressure..... (A) 1708 P.S.I.
Initial Flow Period..... Minutes 30 (B) 72 P.S.I. to (C) 119 P.S.I.
Initial Closed In Period..... Minutes 30 (D) 1133 P.S.I.
Final Flow Period..... Minutes 45 (E) 78 P.S.I. to (F) 104 P.S.I.
Final Closed In Period..... Minutes 60 (G) 1140 P.S.I. THANKS!
Final Hydrostatic Pressure..... (H) 1707 P.S.I. Jake Fahrenbruch

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LOREN HADDON 620-786-0388



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
GAS VOLUME REPORT

Company LD DRILLING Lease & Well No. RUGAN FARMS #2-24
Date 8-15-14 Sec. 24 Twp. 20S Rge. 14 W Location _____ County BARTON State KS
Drilling Contractor PETROMARK DRILL #2 Formation ARBUCKLE DST No. 4
Remarks: GAS SAMPLE TAKEN AT 5:50 PM.

INITIAL FLOW

Time O'Clock	Orifice Size	Gauge PSI	CF/D
4:32 PM	1/4 in.	27 in.	57,700
4:37 PM	in.	29 in.	60,400
4:42 PM	in.	31 in.	63,200
4:47 PM	in.	34 in.	67,500
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

FINAL FLOW

Time O'Clock	Orifice Size	Gauge PSI	CF/D
5:27 PM	1/4 in.	19 in.	45,500
5:37 PM	in.	22 in.	50,200
5:47 PM	in.	23 in.	51,800
5:57 PM	in.	23 in.	51,800
6:02 PM	in.	23 in.	51,800
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

Paul E. Zahradnick