



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Admire Effective Pay - Ft. Ticker No. 21864
Date 4-12-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Bill Baker
Information Test No. 1 O.K. ☒ Misrun ☐ Interval Tested From 720' to 750' Total Depth 750'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 715 Ft. Size 6 3/4 Bottom Packer Depth 720 Ft. Size 6 3/4
Riddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Joint Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 30 Ft. Size 5 1/2 OD Surface Choke Size 1/2 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 743 Ft. Clock No. 8373 Depth 746 Ft. Clock No. 8474
Top Make Kuster Cap. 3150 No. 1565 ☒ Inside ☐ Outside Bottom Make Kuster Cap. 3200 No. 1561 ☒ Inside ☐ Outside
Flow Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ ☒ Inside ☐ Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ ☒ Inside ☐ Outside
Time Set Packer 8:40 M
Tool Open I.F.P. From 8:45 M. to 9:15 M. ☐ Hr. 30 Min. From (B) 41 P.S.I. To (C) 49 P.S.I.
Tool Closed I.C.I.P. From 9:15 M. to 9:45 M. ☐ Hr. 30 Min (D) 296 P.S.I.
Tool Open F.F.P. From 9:45 M. to 11:15 M. 1 Hr. 30 Min. From (E) 66 P.S.I. To (F) 63 P.S.I.
Tool Closed F.C.I.P. From 11:15 M. to 12:00 M. ☐ Hr. 45 Min. (G) 309 P.S.I.
Initial Hydrostatic Pressure (A) 382 P.S.I. Final Hydrostatic Pressure (H) 373 P.S.I. Maximum Temp. 82

INFORMATION

LOW Strong blow throughout test. Gas to surface in 7 minutes. See attached sheet for
gas measurements.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 70' gas cut mud.

Reversed Out ☐ Yes ☒ No Mud Type chem Viscosity 35 Weight 9.6 Water Loss 30.8 cc. Chlorides 800 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Shall Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? ☐

DILLING CONTRACTOR White & Ellis Drlg. Co Length Drill Pipe? 500 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 250 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4H90 In. Length D.S.T. Tool 50 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-12-77

Test Ticket No. 21864

Recorder No. 1565

Capacity 3150

Location 743 Ft

Clock No. 8373

Elevation 1223 Kelly Bushing

Well Temperature 82 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	382 P.S.I.	Open Tool	8:40 M	
B First Initial Flow Pressure	41 P.S.I.	First Flow Pressure	30 Mins.	30 Mins
C First Final Flow Pressure	49 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins
D Initial Closed-in Pressure	296 P.S.I.	Second Flow Pressure	90 Mins.	90 Mins
E Second Initial Flow Pressure	66 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins
F Second Final Flow Pressure	63 P.S.I.			
G Final Closed-in Pressure	309 P.S.I.			
H Final Hydrostatic Mud	373 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>18</u> Inc.		Breakdown: <u>15</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>41</u>	<u>0</u>	<u>49</u>	<u>0</u>	<u>66</u>	<u>0</u>	<u>63</u>
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>282</u>	<u>5</u>	<u>58</u>	<u>3</u>	<u>185</u>
P 3 <u>10</u>	<u>38</u>	<u>6</u>	<u>287</u>	<u>10</u>	<u>58</u>	<u>6</u>	<u>288</u>
P 4 <u>15</u>	<u>41</u>	<u>9</u>	<u>292</u>	<u>15</u>	<u>58</u>	<u>9</u>	<u>295</u>
P 5 <u>20</u>	<u>44</u>	<u>12</u>	<u>294</u>	<u>20</u>	<u>59</u>	<u>12</u>	<u>297</u>
P 6 <u>25</u>	<u>47</u>	<u>15</u>	<u>295</u>	<u>25</u>	<u>59</u>	<u>15</u>	<u>299</u>
P 7 <u>30</u>	<u>49</u>	<u>18</u>	<u>296</u>	<u>30</u>	<u>59</u>	<u>18</u>	<u>300</u>
P 8 _____	_____	<u>21</u>	<u>296</u>	<u>35</u>	<u>60</u>	<u>21</u>	<u>301</u>
P 9 _____	_____	<u>24</u>	<u>296</u>	<u>40</u>	<u>60</u>	<u>24</u>	<u>303</u>
P10 _____	_____	<u>27</u>	<u>296</u>	<u>45</u>	<u>60</u>	<u>27</u>	<u>304</u>
P11 _____	_____	<u>30</u>	<u>296</u>	<u>50</u>	<u>61</u>	<u>30</u>	<u>304</u>
P12 _____	_____	_____	_____	<u>55</u>	<u>61</u>	<u>33</u>	<u>305</u>
P13 _____	_____	_____	_____	<u>60</u>	<u>61</u>	<u>36</u>	<u>306</u>
P14 _____	_____	_____	_____	<u>65</u>	<u>62</u>	<u>39</u>	<u>307</u>
P15 _____	_____	_____	_____	<u>70</u>	<u>62</u>	<u>42</u>	<u>308</u>
P16 _____	_____	_____	_____	<u>75</u>	<u>62</u>	<u>45</u>	<u>309</u>
P17 _____	_____	_____	_____	<u>80</u>	<u>63</u>	_____	_____
P18 _____	_____	_____	_____	<u>85</u>	<u>63</u>	_____	_____
P19 _____	_____	_____	_____	<u>90</u>	<u>63</u>	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____

Phone 316 262-5861

316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201**GAS FLOW REPORT**

Date 4-12-77 Ticket 21864 Company Range Oil Company, Inc.
 Well Name and No. Heffron #1 Dst No. 1 Interval Tested 720' - 750'
 County Cowley State Kansas Sec. 15 Twp. 33S Rg. 4E

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
8:55	10 min.	1.5 PSIG		1/2" choke		41,000 C.F.P.D. Gas
9:00	15 min.	2.0 PSIG		1/2" choke		47,000 C.F.P.D. Gas
9:05	20 min.	2.5 PSIG		1/2" choke		53,400 C.F.P.D. Gas
9:10	25 min.	3.5 PSIG		1/2" choke		64,000 C.F.P.D. Gas
9:15	30 min.	4 PSIG		1/2" choke		68,000 C.F.P.D. Gas

SECOND FLOW						
9:50	35 min.	8.5 PSIG		1/2" choke		105,000 C.F.P.D. Gas
10:10	55 min.	9 PSIG		1/2" choke		108,000 C.F.P.D. Gas
10:25	70 min.	9.5 PSIG		1/2" choke		112,000 C.F.P.D. Gas
10:35	80 min.	10 PSIG		1/2" choke		116,000 C.F.P.D. Gas
10:45	90 min.	10.5 PSIG		1/2" choke		119,000 C.F.P.D. Gas
10:50	95 min.	11 PSIG		1/2" choke		121,000 C.F.P.D. Gas
11:00	105 min.	11.5 PSIG		1/2" choke		125,000 C.F.P.D. Gas
11:15	120 min.	11.5 PSIG		1/2" choke		125,000 C.F.P.D. Gas

GAS BOTTLE

Serial No. 626 Date Bottle Filled 4-12-77 Date to be Invoiced 4-12-77

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

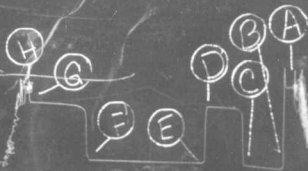
All charges subject to 1% per month, equal to 12% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Range Oil Company, Inc.

Authorized by Robert G. Brooks

Ticket # 21864

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P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Stalmer Effective Pay - Ft. Ticket No. 21981
Date 4-14-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Norman Allen
Formation Test No. 2 O.K. ☒ Misrun ☐ Interval Tested From 2080' to 2129' Total Depth 2129'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 2075 Ft. Size 6 3/4 Bottom Packer Depth 2080 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 49 Ft. Size 5 1/2 OD & DR Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 2122 Ft. Clock No. 6800 Depth 2125 Ft. Clock No. 8476
Top Make Kuster Cap. 3150 No. 1564 Inside ☐ Outside ☒ Bottom Make Kuster Cap. 4200 No. 1558 Inside ☐ Outside ☒
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐ Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐
Time Set Packer 4:28 A.M.
Tool Open I.F.P. From 4:30 A.M. to 5:00 A.M. - Hr. 30 Min. From (B) 99 P.S.I. To (C) 182 P.S.I.
Tool Closed I.C.I.P. From 5:00 A.M. to 5:30 A.M. - Hr. 30 Min (D) 776 P.S.I.
Tool Open F.F.P. From 5:30 A.M. to 6:00 A.M. - Hr. 30 Min. From (E) 204 P.S.I. To (F) 243 P.S.I.
Tool Closed F.C.I.P. From 6:00 A.M. to 6:30 A.M. - Hr. 30 Min. (G) 772 P.S.I.
Initial Hydrostatic Pressure (A) 1093 P.S.I. Final Hydrostatic Pressure (H) 1074 P.S.I. Maximum Temp. 98

INFORMATION

BLOW Fair blow throughout test.
Did Well Flow - Yes ☒ No ☐ Recovery Total Ft. 480' slightly muddy saltwater.
Reversed Out - Yes ☒ No ☐ Mud Type chem Viscosity 35 Weight 9.6 Water Loss 30.8 cc. Chlorides 800 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? ☐
DRILLING CONTRACTOR White & Ellis Drlg. Co Length Drill Pipe? 1920 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 In.
Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4H90 In. Length D.S.T. Tool 69 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-14-77

Test Ticket No. 21981

Recorder No. 1564 Capacity 3150 Location 2122 Ft.

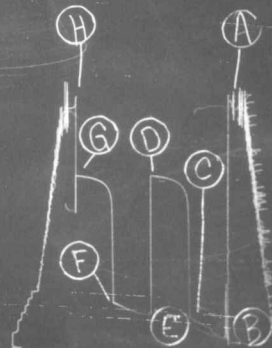
Clock No. 6800 Elevation 1223 Kelly Bushing Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1093 P.S.I.	Open Tool	4:28 A.M.	
B First Initial Flow Pressure	99 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	182 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	776 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	204 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	243 P.S.I.			
G Final Closed-in Pressure	772 P.S.I.			
H Final Hydrostatic Mud	1074 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>99</u>	<u>0</u>	<u>182</u>	<u>0</u>	<u>204</u>	<u>0</u>	<u>243</u>
P 2 <u>5</u>	<u>102</u>	<u>3</u>	<u>707</u>	<u>5</u>	<u>195</u>	<u>3</u>	<u>701</u>
P 3 <u>10</u>	<u>121</u>	<u>6</u>	<u>736</u>	<u>10</u>	<u>199</u>	<u>6</u>	<u>732</u>
P 4 <u>15</u>	<u>144</u>	<u>9</u>	<u>750</u>	<u>15</u>	<u>208</u>	<u>9</u>	<u>746</u>
P 5 <u>20</u>	<u>160</u>	<u>12</u>	<u>757</u>	<u>20</u>	<u>219</u>	<u>12</u>	<u>754</u>
P 6 <u>25</u>	<u>172</u>	<u>15</u>	<u>764</u>	<u>25</u>	<u>224</u>	<u>15</u>	<u>761</u>
P 7 <u>30</u>	<u>182</u>	<u>18</u>	<u>767</u>	<u>30</u>	<u>243</u>	<u>18</u>	<u>764</u>
P 8		<u>21</u>	<u>771</u>			<u>21</u>	<u>768</u>
P 9		<u>24</u>	<u>773</u>			<u>24</u>	<u>770</u>
P10		<u>27</u>	<u>775</u>			<u>27</u>	<u>771</u>
P11		<u>30</u>	<u>776</u>			<u>30</u>	<u>772</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TK4#21981
I.



1564



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Layton Effective Pay - Ft. Ticket No. 21982
Date 4-15-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Norman Allen
Formation Test No. 3 O.K. ☒ Misrun ☐ Interval Tested From 2508' to 2523' Total Depth 2523'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 2503 Ft. Size 6 3/4 Bottom Packer Depth 2508 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth - Ft. Size -
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 15 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 2516 Ft. Clock No. 6800 Depth 2519 Ft. Clock No. 8476
Top Make Kuster Cap. 3150 No. 1564 Inside Outside Bottom Make Kuster Cap. 4200 No. 1558 Inside Outside
Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside
Time Set Packer 9:58 AM
Tool Open I.F.P. From 10:00 AM to 10:30 AM - Hr. 30 Min. From (B) 49 P.S.I. To (C) 141 P.S.I.
Tool Closed I.C.I.P. From 10:30 AM to 11:00 AM - Hr. 30 Min (D) 842 P.S.I.
Tool Open F.F.P. From 11:00 AM to 11:30 AM - Hr. 30 Min. From (E) 166 P.S.I. To (F) 207 P.S.I.
Tool Closed F.C.I.P. From 11:30 AM to 12:15 PM - Hr. 45 Min. (G) 844 P.S.I.
Initial Hydrostatic Pressure (A) 1250 P.S.I. Final Hydrostatic Pressure (H) 1239 P.S.I. Maximum Temp. 111

INFORMATION

BLOW Fair blow throughout test.
Did Well Flow - Yes ☒ No ☐ Recovery Total Ft. 410' salt water.
Reversed Out - Yes ☒ No ☐ Mud Type chem Viscosity 49 Weight 9.3 Water Loss 14.0 cc. Chlorides 1800 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -
DRILLING CONTRACTOR White & Ellis Drilling Co. Length Drill Pipe? 2338 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.
Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4H90 In. Length D.S.T. Tool 35 Ft.
Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-15-77 Test Ticket No. 21982
 Recorder No. 1564 Capacity 3150 Location 2516 Ft.
 Clock No. 6800 Elevation 1223 Kelly Bushing Well Temperature 111 °F

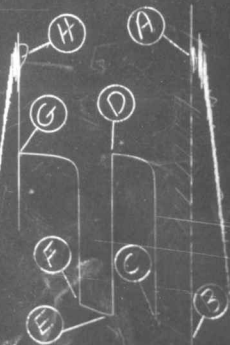
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1250 P.S.I.	Open Tool	9:58 A.M.	
B First Initial Flow Pressure	49 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	141 P.S.I.	Initial Closed-in Pressure	30 Mins.	33 Mins.
D Initial Closed-in Pressure	842 P.S.I.	Second Flow Pressure	30 Mins.	25 Mins.
E Second Initial Flow Pressure	166 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	207 P.S.I.			
G Final Closed-in Pressure	844 P.S.I.			
H Final Hydrostatic Mud	1239 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>5</u> Inc.		Breakdown: <u>15</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>49</u>	<u>0</u>	<u>141</u>	<u>0</u>	<u>166</u>	<u>0</u>	<u>207</u>
P 2 <u>5</u>	<u>67</u>	<u>3</u>	<u>761</u>	<u>5</u>	<u>168</u>	<u>3</u>	<u>790</u>
P 3 <u>10</u>	<u>91</u>	<u>6</u>	<u>796</u>	<u>10</u>	<u>174</u>	<u>6</u>	<u>809</u>
P 4 <u>15</u>	<u>108</u>	<u>9</u>	<u>812</u>	<u>15</u>	<u>186</u>	<u>9</u>	<u>820</u>
P 5 <u>20</u>	<u>122</u>	<u>12</u>	<u>820</u>	<u>20</u>	<u>197</u>	<u>12</u>	<u>824</u>
P 6 <u>25</u>	<u>133</u>	<u>15</u>	<u>826</u>	<u>25</u>	<u>207</u>	<u>15</u>	<u>830</u>
P 7 <u>30</u>	<u>141</u>	<u>18</u>	<u>829</u>			<u>18</u>	<u>833</u>
P 8		<u>21</u>	<u>834</u>			<u>21</u>	<u>835</u>
P 9		<u>24</u>	<u>836</u>			<u>24</u>	<u>838</u>
P10		<u>27</u>	<u>839</u>			<u>27</u>	<u>839</u>
P11		<u>30</u>	<u>840</u>			<u>30</u>	<u>840</u>
P12		<u>33</u>	<u>842</u>			<u>33</u>	<u>842</u>
P13						<u>36</u>	<u>843</u>
P14						<u>39</u>	<u>843</u>
P15						<u>42</u>	<u>843</u>
P16						<u>45</u>	<u>844</u>
P17							
P18							
P19							
P20							

TKT# 21982

I





Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 21983
Date 4-15-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Bill Baker
Formation Test No. *4 O.K. ☒ Misrun ☐ Interval Tested From 2649' to 2665' Total Depth 2665'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 2644 Ft. Size 6 3/4 Bottom Packer Depth 2649 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 16 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 2658 Ft. Clock No. 8476 Depth 2661 Ft. Clock No. 6800
Top Make Kuster Cap. 3150 No. 1564 ☒ Inside ☐ Outside Bottom Make Kuster Cap. 4200 No. 1558 ☒ Inside ☐ Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ ☐ Inside ☐ Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ ☐ Inside ☐ Outside
Time Set Packer 10:43 P M
Tool Open I.F.P. From 10:45 P.M. to 11:15 P.M. - Hr. 30 Min. From (B) 37 P.S.I. To (C) 29 P.S.I.
Tool Closed I.C.I.P. From 11:15 P.M. to 11:45 P.M. - Hr. 30 Min. (D) 931 P.S.I.
Tool Open F.F.P. From 11:45 P.M. to 12:15 A.M. - Hr. 30 Min. From (E) 51 P.S.I. To (F) 39 P.S.I.
Tool Closed F.C.I.P. From 12:15 P.M. to 12:45 A.M. - Hr. 30 Min. (G) 921 P.S.I.
Initial Hydrostatic Pressure (A) 1337 P.S.I. Final Hydrostatic Pressure (H) 1320 P.S.I. Maximum Temp. 114

INFORMATION

BLOW Very weak blow for 15 minutes then died.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 15' heavy drilling mud.

Reversed Out ☐ Yes ☒ No Mud Type chem Viscosity 47 Weight 9.5 Water Loss 10.8 cc. Chlorides 2200 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer ☒ Yes Did Packers Hold? ☒ Yes Did Tool Plug? ☐ No Where? ☐

DRILLING CONTRACTOR White & Ellis Drilg. Co. Length Drill Pipe? 2515 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4H90 In. Length D.S.T. Tool 36 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-15-77 Test Ticket No. 21983
 Recorder No. 1564 Capacity 3150 Location 2658 Ft.
 Clock No. 8476 Elevation 1223 Kelly Bushing Well Temperature 114 °F

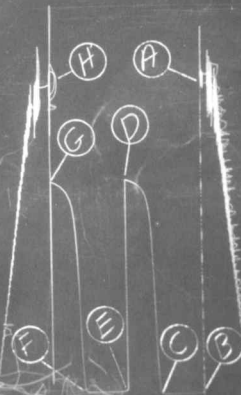
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1337</u> P.S.I.	Open Tool	<u>10:43</u> P _M	
B First Initial Flow Pressure	<u>37</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>29</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>931</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>51</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>39</u> P.S.I.			
G Final Closed-in Pressure	<u>921</u> P.S.I.			
H Final Hydrostatic Mud	<u>1320</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>37</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>51</u>	<u>0</u>	<u>39</u>
P 2 <u>5</u>	<u>29</u>	<u>3</u>	<u>60</u>	<u>5</u>	<u>39</u>	<u>3</u>	<u>115</u>
P 3 <u>10</u>	<u>29</u>	<u>6</u>	<u>389</u>	<u>10</u>	<u>39</u>	<u>6</u>	<u>413</u>
P 4 <u>15</u>	<u>29</u>	<u>9</u>	<u>678</u>	<u>15</u>	<u>39</u>	<u>9</u>	<u>659</u>
P 5 <u>20</u>	<u>29</u>	<u>12</u>	<u>815</u>	<u>20</u>	<u>39</u>	<u>12</u>	<u>798</u>
P 6 <u>25</u>	<u>29</u>	<u>15</u>	<u>871</u>	<u>25</u>	<u>39</u>	<u>15</u>	<u>857</u>
P 7 <u>30</u>	<u>29</u>	<u>18</u>	<u>896</u>	<u>30</u>	<u>39</u>	<u>18</u>	<u>884</u>
P 8		<u>21</u>	<u>910</u>			<u>21</u>	<u>900</u>
P 9		<u>24</u>	<u>922</u>			<u>24</u>	<u>911</u>
P10		<u>27</u>	<u>928</u>			<u>27</u>	<u>918</u>
P11		<u>30</u>	<u>931</u>			<u>30</u>	<u>921</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

HA# 21983

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Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Kansas City Effective Pay - Ft. Ticket No. 21984
Date 4-16-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Norman Allen
Formation Test No. 5 O.K. ☒ Misrun ☐ Interval Tested From 2764' to 2790' Total Depth 2790'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 2759 Ft. Size 6 3/4 Bottom Packer Depth 2764 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 26 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.
RECORDERS Depth 2783 Ft. Clock No. 8476 Depth 2786 Ft. Clock No. 6800
Top Make Kuster Cap. 3150 No. 1564 ☒ Inside ☐ Outside Bottom Make Kuster Cap. 4200 No. 1558 ☒ Inside ☐ Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ ☒ Inside ☐ Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ ☒ Inside ☐ Outside
Time Set Packer 1:58 P M
Tool Open I.F.P. From 2:00 P.M. to 2:30 P.M. - Hr. 30 Min. From (B) 43 P.S.I. To (C) 40 P.S.I.
Tool Closed I.C.I.P. From 2:30 P.M. to 3:00 P.M. - Hr. 30 Min (D) 40 P.S.I.
Tool Open F.F.P. From 3:00 P.M. to 3:30 P.M. - Hr. 30 Min. From (E) 40 P.S.I. To (F) 40 P.S.I.
Tool Closed F.C.I.P. From 3:30 P.M. to 4:00 P.M. - Hr. 30 Min. (G) 40 P.S.I.
Initial Hydrostatic Pressure (A) 1413 P.S.I. Final Hydrostatic Pressure (H) 1408 P.S.I. Maximum Temp. 114

INFORMATION

BLOW Weak blow for 8 minutes.
Did Well Flow - Yes ☒ No ☐ Recovery Total Fr. 3' drilling mud.
Reversed Out - Yes ☒ No ☐ Mud Type chem Viscosity 43 Weight 9.4 Water Loss 10.4 cc. Chlorides 2900 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐
Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? ☐
DRILLING CONTRACTOR White & Ellis Drlg. Co Length Drill Pipe? 2594 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 In.
Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4H90 In. Length D.S.T. Tool 46 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-16-77 Test Ticket No. 21984
 Recorder No. 1564 Capacity 3150 Location 2783 Ft.
 Clock No. 8476 Elevation 1223 Kelly Bushing Well Temperature 114 °F

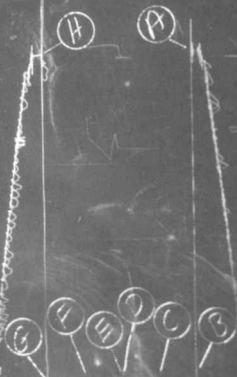
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1413</u>	P.S.I.	<u>1:58</u>	P M
B First Initial Flow Pressure	<u>43</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>40</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>40</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
E Second Initial Flow Pressure	<u>40</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
F Second Final Flow Pressure	<u>40</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
G Final Closed-in Pressure	<u>40</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1408</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>43</u>	<u>0</u>	<u>40</u>	<u>0</u>	<u>40</u>	<u>0</u>	<u>40</u>
P 2 <u>5</u>	<u>40</u>	<u>3</u>	<u>40</u>	<u>5</u>	<u>40</u>	<u>3</u>	<u>40</u>
P 3 <u>10</u>	<u>40</u>	<u>6</u>	<u>40</u>	<u>10</u>	<u>40</u>	<u>6</u>	<u>40</u>
P 4 <u>15</u>	<u>40</u>	<u>9</u>	<u>40</u>	<u>15</u>	<u>40</u>	<u>9</u>	<u>40</u>
P 5 <u>20</u>	<u>40</u>	<u>12</u>	<u>40</u>	<u>20</u>	<u>40</u>	<u>12</u>	<u>40</u>
P 6 <u>25</u>	<u>40</u>	<u>15</u>	<u>40</u>	<u>25</u>	<u>40</u>	<u>15</u>	<u>40</u>
P 7 <u>30</u>	<u>40</u>	<u>18</u>	<u>40</u>	<u>30</u>	<u>40</u>	<u>18</u>	<u>40</u>
P 8		<u>21</u>	<u>40</u>			<u>21</u>	<u>40</u>
P 9		<u>24</u>	<u>40</u>			<u>24</u>	<u>40</u>
P 10		<u>27</u>	<u>40</u>			<u>27</u>	<u>40</u>
P 11		<u>30</u>	<u>40</u>			<u>30</u>	<u>40</u>
P 12							
P 13							
P 14							
P 15							
P 16							
P 17							
P 18							
P 19							
P 20							

TAT# 21984

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Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 21985
Date 4-18-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Norman Allen

Formation Test No. 6 O.K. ☒ Misrun ☐ Interval Tested From 3219' to 3227' Total Depth 3227'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 3214 Ft. Size 6 3/4 Bottom Packer Depth 3219 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 8 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3220 Ft. Clock No. 8476 Depth 3223 Ft. Clock No. 6800
Top Make Kuster Cap. 3150 No. 1564 Inside ☒ Outside ☐ Bottom Make Kuster Cap. 4200 No. 1558 Inside ☐ Outside ☒
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐ Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside ☐

Time Set Packer 12:58 A M
Tool Open I.F.P. From 1:00 A.M. to 1:30 A.M. - Hr. 30 Min. From (B) 29 P.S.I. To (C) 40 P.S.I.
Tool Closed I.C.I.P. From 1:30 M. to 2:00 A.M. - Hr. 30 Min (D) 1072 P.S.I.
Tool Open F.F.P. From 2:00 A.M. to 3:00 A.M. 1 Hr. - Min. From (E) 83 P.S.I. To (F) 57 P.S.I.
Tool Closed F.C.I.P. From 3:00 A.M. to 4:00 A.M. 1 Hr. - Min. (G) 1128 P.S.I.
Initial Hydrostatic Pressure (A) 1683 P.S.I. Final Hydrostatic Pressure (H) 1641 P.S.I. Maximum Temp. 116

INFORMATION

BLOW Weak blow increasing to a fair blow at the end of test.

Did Well Flow ☐ Yes ☒ No Recovery Total Ft. 1020' gas in pipe. 120' oil & gas cut mud, 3' free oil.

Reversed Out ☐ Yes ☒ No Mud Type chem Viscosity 53 Weight 9.9 Water Loss 11.2 cc. Chlorides 2600 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Dual Packer ☒ Yes Did Packers Hold? ☒ Yes Did Tool Plug? ☐ No Where? ☐

DRILLING CONTRACTOR White & Ellis Drilg. Co. Length Drill Pipe? 3049 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4H90 In. Length D.S.T. Tool 28 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-18-77 Test Ticket No. 21985
Recorder No. 1564 Capacity 3150 Location 3220 Ft.
Clock No. 8476 Elevation 1223 Kelly Bushing Well Temperature 116 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1683</u> P.S.I.	<u>12:58</u> AM	
B First Initial Flow Pressure	<u>29</u> P.S.I.	<u>30</u> Mins.	<u>25</u> Mins.
C First Final Flow Pressure	<u>40</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1072</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>83</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>57</u> P.S.I.		
G Final Closed-in Pressure	<u>1128</u> P.S.I.		
H Final Hydrostatic Mud	<u>1641</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>20</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>29</u>	<u>0</u>	<u>40</u>	<u>0</u>	<u>83</u>	<u>0</u>	<u>57</u>
P 2 <u>5</u>	<u>31</u>	<u>3</u>	<u>81</u>	<u>5</u>	Plugging action	<u>3</u>	<u>133</u>
P 3 <u>10</u>	<u>35</u>	<u>6</u>	<u>257</u>	<u>10</u>	Plugging action	<u>6</u>	<u>280</u>
P 4 <u>15</u>	<u>36</u>	<u>9</u>	<u>570</u>	<u>15</u>	Plugging action	<u>9</u>	<u>389</u>
P 5 <u>20</u>	<u>36</u>	<u>12</u>	<u>690</u>	<u>20</u>	Plugging action	<u>12</u>	<u>494</u>
P 6 <u>25</u>	<u>40</u>	<u>15</u>	<u>801</u>	<u>25</u>	<u>54</u>	<u>15</u>	<u>606</u>
P 7		<u>18</u>	<u>887</u>	<u>30</u>	<u>54</u>	<u>18</u>	<u>701</u>
P 8		<u>21</u>	<u>956</u>	<u>35</u>	<u>54</u>	<u>21</u>	<u>796</u>
P 9		<u>24</u>	<u>1008</u>	<u>40</u>	<u>56</u>	<u>24</u>	<u>868</u>
P10		<u>27</u>	<u>1044</u>	<u>45</u>	<u>56</u>	<u>27</u>	<u>922</u>
P11		<u>30</u>	<u>1072</u>	<u>50</u>	<u>57</u>	<u>30</u>	<u>964</u>
P12				<u>55</u>	<u>57</u>	<u>33</u>	<u>998</u>
P13				<u>60</u>	<u>57</u>	<u>36</u>	<u>1024</u>
P14						<u>39</u>	<u>1046</u>
P15						<u>42</u>	<u>1063</u>
P16						<u>45</u>	<u>1078</u>
P17						<u>48</u>	<u>1093</u>
P18						<u>51</u>	<u>1101</u>
P19						<u>54</u>	<u>1109</u>
P20						<u>57</u>	<u>1119</u>
						<u>60</u>	<u>1128</u>

Ticket # 21985

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(H)

(A)

(G)

(D)

(F)

(C)

(E)

(B)



Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Range Oil Company, Inc. Lease & Well No. Heffron #1
Elevation 1223 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 21986
Date 4-18-77 Sec. 15 Twp. 33S Range 4E County Cowley State Kansas
Test Approved by Robert G. Brooks Western Representative Norman Allen

Formation Test No. 7 O.K. ☒ Misrun ☐ Interval Tested From 3231' to 3243' Total Depth 3243'
Size Main Hole 77/8 Rat Hole ☐ Conv. ☐ B.T. ☒ Damaged ☐ Yes ☒ No Conv. ☒ B.T. ☐ Damaged ☐ Yes ☒ No
Top Packer Depth 3226 Ft. Size 6 3/4 Bottom Packer Depth 3231 Ft. Size 6 3/4
Straddle ☐ Conv. ☐ B.T. ☐ Damaged ☐ Yes ☐ No Packer Depth ☐ Ft. Size ☐
Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 12 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS - Depth 3236 Ft. Clock No. 8476 Depth 3239 Ft. Clock No. 6800
Top Make Kuster Cap. 3150 No. 1564 Inside Outside Bottom Make Kuster Cap. 4200 No. 1558 Inside Outside
Below Straddle: Depth ☐ Rec. No. ☐ Clock No. ☐ Inside ☐ Outside Depth ☐ Ft. Rec. No. ☐ Clock No. ☐ Inside ☐ Outside

Time Set Packer 12:13 P.M.
Tool Open I.F.P. From 12:15 P.M. to 12:45 P.M. - Hr. 30 Min. From (B) 28 P.S.I. To (C) 42 P.S.I.
Tool Closed I.C.I.P. From 12:45 P.M. to 1:15 P.M. - Hr. 30 Min (D) 1190 P.S.I.
Tool Open F.F.P. From 1:15 P.M. to 2:00 P.M. - Hr. 45 Min. From (E) 51 P.S.I. To (F) 67 P.S.I.
Tool Closed F.C.I.P. From 2:00 P.M. to 3:00 P.M. 1 Hr. - Min. (G) 1204 P.S.I.
Initial Hydrostatic Pressure (A) 1618 P.S.I. Final Hydrostatic Pressure (H) 1586 P.S.I. Maximum Temp. 116

INFORMATION

Flow Fair blow throughout test. Gas to surface 5 minutes after final flow period, @ 2:05 PM.

Did Well Flow Gas Yes ☐ No ☐ Recovery Total Ft. Fluid recovery : 40' free oil, (43 degrees gravity corrected)
110' muddy gas cut oil, 20' gas & oil cut water.

Reversed Out ☐ Yes ☒ No ☐ Mud Type chem Viscosity 49 Weight 9.9 Water Loss 11.2 cc. Chlorides 2600 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint ☐ Jars: Size ☐ In. Make ☐ Ser. No. ☐

Equal Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR White & Ellis Drllg. Co. Length Drill Pipe? 3061 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 XH In.

Length Weight Pipe ☐ Ft. I.D. Weight Pipe ☐ In. Tool Joint Size ☐ In. Length Drill Collars 150 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4H90 In. Length D.S.T. Tool 32 Ft.

Remarks:

WESTERN TESTING CO., INC.

Pressure Data

Date 4-18-77 Test Ticket No. 21986

Recorder No. 1564 Capacity 3150 Location 3236 Ft.

Clock No. 8476 Elevation 1223 Kelly Bushing Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1618	P.S.I.	12:13 P _M	
B First Initial Flow Pressure	28	P.S.I.	30	30
C First Final Flow Pressure	42	P.S.I.	30	30
D Initial Closed-in Pressure	1190	P.S.I.	45	45
E Second Initial Flow Pressure	51	P.S.I.	60	57
F Second Final Flow Pressure	67	P.S.I.		
G Final Closed-in Pressure	1204	P.S.I.		
H Final Hydrostatic Mud	1586	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>19</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>28</u>	<u>0</u>	<u>42</u>	<u>0</u>	<u>51</u>	<u>0</u>	<u>67</u>
P 2 <u>5</u>	<u>33</u>	<u>3</u>	<u>166</u>	<u>5</u>	<u>45</u>	<u>3</u>	<u>171</u>
P 3 <u>10</u>	<u>34</u>	<u>6</u>	<u>305</u>	<u>10</u>	<u>48</u>	<u>6</u>	<u>371</u>
P 4 <u>15</u>	<u>36</u>	<u>9</u>	<u>509</u>	<u>15</u>	<u>50</u>	<u>9</u>	<u>647</u>
P 5 <u>20</u>	<u>39</u>	<u>12</u>	<u>718</u>	<u>20</u>	<u>53</u>	<u>12</u>	<u>922</u>
P 6 <u>25</u>	<u>40</u>	<u>15</u>	<u>951</u>	<u>25</u>	<u>56</u>	<u>15</u>	<u>1049</u>
P 7 <u>30</u>	<u>42</u>	<u>18</u>	<u>1076</u>	<u>30</u>	<u>59</u>	<u>18</u>	<u>1111</u>
P 8		<u>21</u>	<u>1136</u>	<u>35</u>	<u>62</u>	<u>21</u>	<u>1142</u>
P 9		<u>24</u>	<u>1166</u>	<u>40</u>	<u>65</u>	<u>24</u>	<u>1161</u>
P10		<u>27</u>	<u>1182</u>	<u>45</u>	<u>67</u>	<u>27</u>	<u>1174</u>
P11		<u>30</u>	<u>1190</u>			<u>30</u>	<u>1182</u>
P12						<u>33</u>	<u>1190</u>
P13						<u>36</u>	<u>1193</u>
P14						<u>39</u>	<u>1196</u>
P15						<u>42</u>	<u>1198</u>
P16						<u>45</u>	<u>1200</u>
P17						<u>48</u>	<u>1201</u>
P18						<u>51</u>	<u>1202</u>
P19						<u>54</u>	<u>1203</u>
P20						<u>57</u>	<u>1204</u>

Ticket # 21986

I

(A)

(A)

(G)

(D)

(F)

(E)

(C)

(B)

1564