

Company Petroleum Energy, Inc. Lease & Well No. Hodgins #1
Elevation 1841 Kelly Bushing Indian Cave Effective Pay ----- Ft. Ticket No. 5523
Date 4/4/80 Sec. 15 Twp. 20S Range 10W County Rice State Kansas
Test Approved by Jim Musgrove Western Representative Vernon Wondra
Formation Test No. 1 Interval Tested from 2338 ft. to 2392 ft. Total Depth 2392 ft.
Packer Depth 2333 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2338 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 2341 ft. Recorder Number 10979 Cap. 4100
Bottom Recorder Depth (Outside) 2344 ft. Recorder Number 1563 Cap. 4200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis Drlg. Co. Rig #2 Drill Collar Length 344 I. D. 2 1/4 in.
Mud Type salt gel Viscosity 45 Weight Pipe Length - I. D. - in.
Weight 10.5 Water Loss N/C cc. Drill Pipe Length 1973 I. D. 3.8 in.
Chlorides 90,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
Jars: Make - Serial Number - Anchor Length 54 ft. Size 5 1/2 OD in.
Did Well Flow? NO Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong blow throughout first flow period. Good blow decreased to weak
two inch blow by end of second flow period.

Recovered 1360 ft. of water
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks:

8'10"
Time Set Packer(s) 1:40 AM Time Started Off Bottom 4:10 AM Maximum Temperature 89°
Initial Hydrostatic Pressure (A) 1315 P.S.I.
Initial Flow Period Minutes 45 (B) 275 P.S.I. to (C) 665 P.S.I.
Initial Closed In Period Minutes 30 (D) 702 P.S.I.
Final Flow Period Minutes 45 (E) 690 P.S.I. to (F) 708 P.S.I.
Final Closed In Period Minutes 30 (G) 708 P.S.I.
Final Hydrostatic Pressure (H) 1292 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

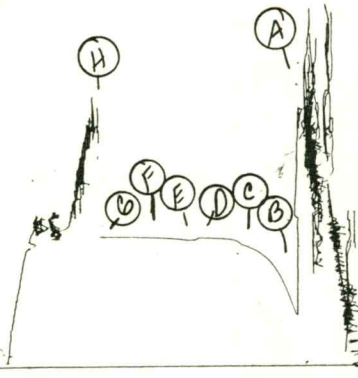
Date 4/4/80 Recorder No. 10979 Capacity 4100 Test Ticket No. 5523
 Clock No. ----- Elevation 1841 Kelly Bushing Location 2341 Ft. 89 °F
 Well Temperature

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1315 P.S.I.	Open Tool	1:40P M	
B First Initial Flow Pressure	275 P.S.I.	First Flow Pressure	45 Mins.	45 Mins.
C First Final Flow Pressure	665 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	702 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E Second Initial Flow Pressure	690 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	708 P.S.I.			
G Final Closed-in Pressure	708 P.S.I.			
H Final Hydrostatic Mud	1292 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>9</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>9</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>275</u>	<u>0</u>	<u>665</u>	<u>0</u>	<u>690</u>	<u>0</u>	<u>708</u>
P 2 <u>5</u>	<u>355</u>	<u>3</u>	<u>681</u>	<u>5</u>	<u>690</u>	<u>3</u>	<u>708</u>
P 3 <u>10</u>	<u>447</u>	<u>6</u>	<u>692</u>	<u>10</u>	<u>694</u>	<u>6</u>	<u>708</u>
P 4 <u>15</u>	<u>513</u>	<u>9</u>	<u>694</u>	<u>15</u>	<u>698</u>	<u>9</u>	<u>708</u>
P 5 <u>20</u>	<u>567</u>	<u>12</u>	<u>695</u>	<u>20</u>	<u>700</u>	<u>12</u>	<u>708</u>
P 6 <u>25</u>	<u>602</u>	<u>15</u>	<u>696</u>	<u>25</u>	<u>702</u>	<u>15</u>	<u>708</u>
P 7 <u>30</u>	<u>627</u>	<u>18</u>	<u>697</u>	<u>30</u>	<u>704</u>	<u>18</u>	<u>708</u>
P 8 <u>35</u>	<u>640</u>	<u>21</u>	<u>698</u>	<u>35</u>	<u>706</u>	<u>21</u>	<u>708</u>
P 9 <u>40</u>	<u>653</u>	<u>24</u>	<u>700</u>	<u>40</u>	<u>707</u>	<u>24</u>	<u>708</u>
P10 <u>45</u>	<u>665</u>	<u>27</u>	<u>701</u>	<u>45</u>	<u>708</u>	<u>27</u>	<u>708</u>
P11		<u>30</u>	<u>702</u>			<u>30</u>	<u>708</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TR # 5523
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Company Petroleum Energy, Inc. Lease & Well No. Hodgins #1
 Elevation 1841 Kelly Bushing Kansas City Formation ----- Effective Pay ----- Ft. Ticket No. 5524
 Date 4/7/80 Sec. 15 Twp. 20S Range 10W County Rice State Kansas
 Test Approved by Jim Musgrove Western Representative Vernon Wondra
 Formation Test No. 2 Interval Tested from 3136 ft. to 3172 ft. Total Depth 3172 ft.
 Packer Depth 3131 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3136 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3162 ft. Recorder Number 10979 Cap. 4100
 Bottom Recorder Depth (Outside) 3165 ft. Recorder Number 1563 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis Drlg. Co. Rig #2 Drill Collar Length 344 I. D. 2 1/4 in.
 Mud Type salt-gel-starch Viscosity 40 Weight Pipe Length - I. D. - in.
 Weight 10.1 Water Loss 15.8 cc. Drill Pipe Length 2773 I. D. 3.8 in.
 Chlorides 66,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make -- Serial Number - Anchor Length 34 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Good eight inch blow decreased to very weak blow by end of second flow period.

Recovered 360 ft. of gas in pipe
 Recovered 50 ft. of slightly oil and gas cut mud
 Recovered 60 ft. of oil cut mud (chlorides 70,000 ppm)
 Recovered ft. of
 Recovered ft. of
 Remarks: 5' 15"

Time Set Packer(s) 11:20 ~~PM~~ ^{A.M.} Time Started Off Bottom 1:50 ~~PM~~ ^{A.M.} Maximum Temperature 100°
 Initial Hydrostatic Pressure (A) 1723 P.S.I.
 Initial Flow Period Minutes 25 (B) 52 P.S.I. to (C) 44 P.S.I.
 Initial Closed In Period Minutes 30 (D) 88 P.S.I.
 Final Flow Period Minutes 45 (E) 56 P.S.I. to (F) 50 P.S.I.
 Final Closed In Period Minutes 42 (G) 99 P.S.I.
 Final Hydrostatic Pressure (H) 1717 P.S.I.

WESTERN TESTING CO., INC.

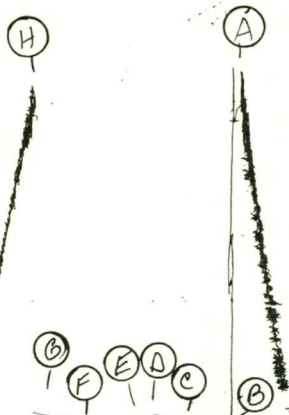
Pressure Data

Date 4/7/80 Test Ticket No. 5524
 Recorder No. 10979 Capacity 4100 Location 3162 Ft.
 Clock No. ----- Elevation 1841 Kelly Bushing Well Temperature 100 °F
 Point Pressure Time Given Time Computed
 A Initial Hydrostatic Mud 1723 P.S.I. Open Tool 11:20A
 B First Initial Flow Pressure 52 P.S.I. First Flow Pressure 30 Mins. 25 Mins.
 C First Final Flow Pressure 44 P.S.I. Initial Closed-in Pressure 30 Mins. 30 Mins.
 D Initial Closed-in Pressure 88 P.S.I. Second Flow Pressure 45 Mins. 45 Mins.
 E Second Initial Flow Pressure 56 P.S.I. Final Closed-in Pressure 45 Mins. 42 Mins.
 F Second Final Flow Pressure 50 P.S.I.
 G Final Closed-in Pressure 99 P.S.I.
 H Final Hydrostatic Mud 1717 P.S.I.

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>5</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>14</u> Inc. of <u>3</u> mins. and a 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>52</u>	<u>0</u>	<u>44</u>	<u>0</u>	<u>56</u>	<u>0</u>	<u>50</u>
P 2 <u>5</u>	<u>50</u>	<u>3</u>	<u>46</u>	<u>5</u>	<u>55</u>	<u>3</u>	<u>55</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>48</u>	<u>10</u>	<u>50</u>	<u>6</u>	<u>57</u>
P 4 <u>15</u>	<u>44</u>	<u>9</u>	<u>50</u>	<u>15</u>	<u>50</u>	<u>9</u>	<u>61</u>
P 5 <u>20</u>	<u>44</u>	<u>12</u>	<u>57</u>	<u>20</u>	<u>50</u>	<u>12</u>	<u>63</u>
P 6 <u>25</u>	<u>44</u>	<u>15</u>	<u>66</u>	<u>25</u>	<u>50</u>	<u>15</u>	<u>65</u>
P 7		<u>18</u>	<u>69</u>	<u>30</u>	<u>50</u>	<u>18</u>	<u>68</u>
P 8		<u>21</u>	<u>74</u>	<u>35</u>	<u>50</u>	<u>21</u>	<u>72</u>
P 9		<u>24</u>	<u>82</u>	<u>40</u>	<u>50</u>	<u>24</u>	<u>75</u>
P10		<u>27</u>	<u>86</u>	<u>45</u>	<u>50</u>	<u>27</u>	<u>78</u>
P11		<u>30</u>	<u>88</u>			<u>30</u>	<u>81</u>
P12						<u>33</u>	<u>85</u>
P13						<u>36</u>	<u>90</u>
P14						<u>39</u>	<u>94</u>
P15						<u>42</u>	<u>99</u>
P16							
P17							
P18							
P19							
P20							

TKT # 5524
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Company Petroleum Energy, Inc. Lease & Well No. Hodgins #1
 Elevation 1841 Kelly Bushing Kansas City Formation ----- Effective Pay ----- Ft. Ticket No. 5525
 Date 4/7/80 Sec. 15 Twp. 20S Range 10W County Rice State Kansas
 Test Approved by Jim Musgrove Western Representative Vernon Wondra
 Formation Test No. 3 Interval Tested from 3172 ft. to 3188 ft. Total Depth 3188 ft.
 Packer Depth 3167 ft. Size 6 3/4 in. Packer Depth = ft. Size - in.
 Packer Depth 3172 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3178 ft. Recorder Number 10979 Cap. 4100
 Bottom Recorder Depth (Outside) 3181 ft. Recorder Number 1563 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis Drlg. Co. Rig # 2 Drill Collar Length 344 I. D. 2 1/4 in.
 Mud Type salt-gel-starch Viscosity 40 Weight Pipe Length - I. D. - in.
 Weight 10.1 Water Loss 15.8 cc. Drill Pipe Length 2807 I. D. 3.8 in.
 Chlorides 66,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.
 Jars: Make -- Serial Number -- Anchor Length 16 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Weak one inch blow throughout both flow periods.

Recovered 90 ft. of gas cut muddy water
 Recovered 290 ft. of gas cut water (chlorides 72,000 ppm)
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Remarks:

Time Set Packer(s) 10:30 ~~A.M.~~ P.M. Time Started Off Bottom 1:00 ~~A.M.~~ P.M. Maximum Temperature 100°
 Initial Hydrostatic Pressure 1732 (A) P.S.I.
 Initial Flow Period 25 Minutes (B) 44 P.S.I. to (C) 90 P.S.I.
 Initial Closed In Period 30 Minutes (D) 923 P.S.I.
 Final Flow Period 45 Minutes (E) 137 P.S.I. to (F) 172 P.S.I.
 Final Closed In Period 45 Minutes (G) 929 P.S.I.
 Final Hydrostatic Pressure 1713 (H) P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/7/80 Test Ticket No. 5525
 Recorder No. 10979 Capacity 4100 Location 3178 Ft.
 Clock No. ----- Elevation 1841 Kelly Bushing Well Temperature 100 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1732 P.S.I.	Open Tool	10:30P M	
B First Initial Flow Pressure	44 P.S.I.	First Flow Pressure	30 Mins.	25 Mins.
C First Final Flow Pressure	90 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	923 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E Second Initial Flow Pressure	137 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	172 P.S.I.			
G Final Closed-in Pressure	929 P.S.I.			
H Final Hydrostatic Mud	1713 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>9</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>44</u>	<u>0</u>	<u>90</u>	<u>0</u>	<u>137</u>	<u>0</u>	<u>172</u>
P 2 <u>5</u>	<u>40</u>	<u>3</u>	<u>713</u>	<u>5</u>	<u>124</u>	<u>3</u>	<u>704</u>
P 3 <u>10</u>	<u>53</u>	<u>6</u>	<u>846</u>	<u>10</u>	<u>128</u>	<u>6</u>	<u>842</u>
P 4 <u>15</u>	<u>63</u>	<u>9</u>	<u>871</u>	<u>15</u>	<u>139</u>	<u>9</u>	<u>869</u>
P 5 <u>20</u>	<u>76</u>	<u>12</u>	<u>888</u>	<u>20</u>	<u>149</u>	<u>12</u>	<u>885</u>
P 6 <u>25</u>	<u>90</u>	<u>15</u>	<u>898</u>	<u>25</u>	<u>155</u>	<u>15</u>	<u>896</u>
P 7		<u>18</u>	<u>903</u>	<u>30</u>	<u>162</u>	<u>18</u>	<u>901</u>
P 8		<u>21</u>	<u>909</u>	<u>35</u>	<u>165</u>	<u>21</u>	<u>906</u>
P 9		<u>24</u>	<u>914</u>	<u>40</u>	<u>169</u>	<u>24</u>	<u>912</u>
P10		<u>27</u>	<u>919</u>	<u>45</u>	<u>172</u>	<u>27</u>	<u>916</u>
P11		<u>30</u>	<u>923</u>			<u>30</u>	<u>921</u>
P12						<u>33</u>	<u>925</u>
P13						<u>36</u>	<u>926</u>
P14						<u>39</u>	<u>927</u>
P15						<u>42</u>	<u>928</u>
P16						<u>45</u>	<u>929</u>
P17							
P18							
P19							
P20							

TKT # 5525
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