

Company Petroleum Energy, Inc. Lease & Well No. Smith #1
Elevation 1741 Kelly Bushing Lansing Effective Pay -- Ft. Ticket No. 4288
Date 12/27/79 Sec. 20 Twp. 20S Range 10W County Rice State Kansas
Test Approved by Ken Hamlin Western Representative Roger Lisenby

Formation Test No. 1 Interval Tested from 3050 ft. to 3080 ft. Total Depth 3080 ft.

Packer Depth 3045 ft. Size 6 3/4 in. Packer Depth 3050 ft. Size 6 3/4 in.

Packer Depth -- ft. Size -- in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 3073 ft. Recorder Number 969 Cap. 4200

Bottom Recorder Depth (Outside) 3076 ft. Recorder Number 1051 Cap. 4250

Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. --

Drilling Contractor Duke Drilling Rig #2 Drill Collar Length -- I. D. --- in.

Mud Type starch Viscosity 40 Weight Pipe Length 920 I. D. 3.4 in.

Weight 10 .0 Water Loss 11.8 cc. Drill Pipe Length 2109 I. D. 3.8 in.

Chlorides 70,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 3/4 in.

Jars: Make -- Serial Number -- Anchor Length 30 ft. Size 5 1/2 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 XH in.

Blow: Very weak blow throughout first opening. No blow second opening.

Recovered 30 ft. of mud slightly gas cut with a few oil spots.

Recovered ft. of

Recovered ft. of NO WATER

Recovered ft. of

Recovered ft. of

Remarks:

Tool slid ten teet.

Time Set Packer(s) 10:35 AM Time Started Off Bottom 12:37 PM Maximum Temperature 102°

Initial Hydrostatic Pressure (A) 1682 P.S.I.

Initial Flow Period Minutes 30 (B) 82 P.S.I. to (C) 54 P.S.I.

Initial Closed In Period Minutes 30 (D) 75 P.S.I.

Final Flow Period Minutes 30 (E) 61 P.S.I. to (F) 53 P.S.I.

Final Closed In Period Minutes 30 (G) 65 P.S.I.

Final Hydrostatic Pressure (H) 1673 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/27/79

Test Ticket No. 4288

Recorder No. 969

Capacity 4200

Location 3073 Ft.

Clock No. --

Elevation 1741 Kelly Bushing

Well Temperature 102 °F

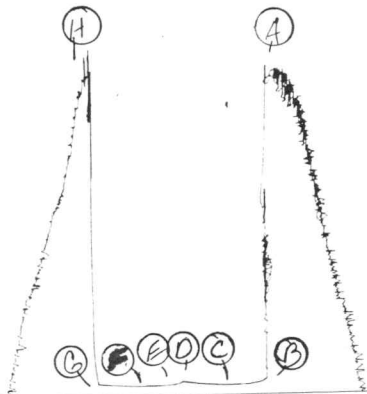
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1682</u> P.S.I.	Open Tool	<u>10:35A</u> M	
B First Initial Flow Pressure	<u>82</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>54</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>75</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>61</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>53</u> P.S.I.			
G Final Closed-in Pressure	<u>65</u> P.S.I.			
H Final Hydrostatic Mud	<u>1673</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>82</u>	<u>0</u>	<u>54</u>	<u>0</u>	<u>61</u>	<u>0</u>	<u>53</u>
P 2 <u>5</u>	<u>65</u>	<u>3</u>	<u>54</u>	<u>5</u>	<u>60</u>	<u>3</u>	<u>53</u>
P 3 <u>10</u>	<u>59</u>	<u>6</u>	<u>56</u>	<u>10</u>	<u>56</u>	<u>6</u>	<u>53</u>
P 4 <u>15</u>	<u>55</u>	<u>9</u>	<u>57</u>	<u>15</u>	<u>54</u>	<u>9</u>	<u>55</u>
P 5 <u>20</u>	<u>55</u>	<u>12</u>	<u>59</u>	<u>20</u>	<u>53</u>	<u>12</u>	<u>56</u>
P 6 <u>25</u>	<u>55</u>	<u>15</u>	<u>61</u>	<u>25</u>	<u>53</u>	<u>15</u>	<u>57</u>
P 7 <u>30</u>	<u>54</u>	<u>18</u>	<u>63</u>	<u>30</u>	<u>53</u>	<u>18</u>	<u>60</u>
P 8		<u>21</u>	<u>65</u>			<u>21</u>	<u>61</u>
P 9		<u>24</u>	<u>67</u>			<u>24</u>	<u>62</u>
P10		<u>27</u>	<u>71</u>			<u>27</u>	<u>64</u>
P11		<u>30</u>	<u>75</u>			<u>30</u>	<u>65</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

9/09

TRK # 4288
I



Company Petroleum Energy, Inc. Lease & Well No. Smith #1
 Elevation 1741 Kelly Bushing Formation Arbuckle Effective Pay ---- Ft. Ticket No. 4289
 Date 12/28/79 Sec. 20 Twp. 20S Range 10W County Rice State Kansas
 Test Approved by Jim Musgrove Western Representative Roger Lisenby
 Formation Test No. 2 Interval Tested from 3240 ft. to 3295 ft. Total Depth 3295 ft.
 Packer Depth 3235 ft. Size 6 3/4 in. Packer Depth 3240 ft. Size 6 3/4 in.
 Packer Depth -- ft. Size -- in. Packer Depth -- ft. Size -- in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 3287 ft. Recorder Number 969 Cap. 4200
 Bottom Recorder Depth (Outside) 3290 ft. Recorder Number 1051 Cap. 4250
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. --
 Drilling Contractor Duke Drilling Company Rig #2 Drill Collar Length -- I. D. -- in.
 Mud Type starch Viscosity 42 Weight Pipe Length 889 I. D. 3.4 in.
 Weight 10.3 Water Loss 11.2 cc. Drill Pipe Length 2330 I. D. 3.8 in.
 Chlorides 79,000 P.P.M. Test Tool Length 21 ft. Tool Size 4 3/4 in.
 Jars: Make -- Serial Number -- Anchor Length 55 ft. Size 5 1/2 with 1 in. Jt. WTPipe
 Did Well Flow? NO Reversed Out NO Surface Choke Size 3 1/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: One inch in bucket slowly decreased to 1/2 inch first opening. Very weak
blow, died in 22 minutes-second opening-flushed tool-very weak blow thru
second opening.
 Recovered ft. of

Recovered 20 ft. of oil and gas cut mud (10% oil;90% mud) (No water)
 Recovered 60 ft. of oil and gas cut mud (2% oil;98% mud) (No water)
 Recovered 80 ft. of TOTAL FLUID
 Recovered ft. of

Remarks: TOOL SLID TWELVE FEET TO BOTTOM.

Time Set Packer(s) 5:54 ^{=A.M.} P.M. Time Started Off Bottom 7:58 ^{=A.M.} P.M. Maximum Temperature 104°
 Initial Hydrostatic Pressure (A) 1816 P.S.I.
 Initial Flow Period Minutes 30 (B) 96 P.S.I. to (C) 79 P.S.I.
 Initial Closed In Period Minutes 30 (D) 920 P.S.I.
 Final Flow Period Minutes 30 (E) 117 P.S.I. to (F) 90 P.S.I.
 Final Closed In Period Minutes 30 (G) 918 P.S.I.
 Final Hydrostatic Pressure (H) 1782 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/28/79

Recorder No. 969 Capacity 4200 Test Ticket No. 4289

Clock No. -- Elevation 1741 Kelly Bushing Location 3287 Ft.

Well Temperature 104 °F

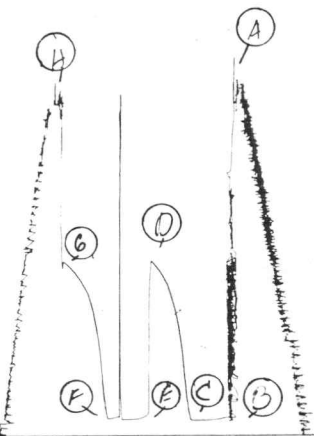
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1816 P.S.I.	Open Tool	5:54P	M
B First Initial Flow Pressure	96 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	79 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	920 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	117 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	90 P.S.I.			
G Final Closed-in Pressure	918 P.S.I.			
H Final Hydrostatic Mud	1782 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>11</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>96</u>	<u>0</u>	<u>79</u>	<u>0</u>	<u>117</u>	<u>0</u>	<u>90</u>
P 2 <u>5</u>	<u>92</u>	<u>3</u>	<u>158</u>	<u>5</u>	<u>92</u>	<u>3</u>	<u>190</u>
P 3 <u>10</u>	<u>84</u>	<u>6</u>	<u>322</u>	<u>10</u>	<u>86</u>	<u>6</u>	<u>381</u>
P 4 <u>15</u>	<u>80</u>	<u>9</u>	<u>486</u>	<u>15</u>	<u>84</u>	<u>9</u>	<u>539</u>
P 5 <u>20</u>	<u>80</u>	<u>12</u>	<u>627</u>	<u>20</u>	<u>83</u>	<u>12</u>	<u>660</u>
P 6 <u>25</u>	<u>79</u>	<u>15</u>	<u>713</u>	<u>25</u>	<u>94</u>	<u>15</u>	<u>736</u>
P 7 <u>30</u>	<u>79</u>	<u>18</u>	<u>777</u>	<u>30</u>	<u>90</u>	<u>18</u>	<u>781</u>
P 8		<u>21</u>	<u>822</u>			<u>21</u>	<u>818</u>
P 9		<u>24</u>	<u>861</u>			<u>24</u>	<u>846</u>
P10		<u>27</u>	<u>891</u>			<u>27</u>	<u>875</u>
P11		<u>30</u>	<u>920</u>			<u>30</u>	<u>900</u>
P12						<u>33</u>	<u>918</u>
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

flushed tool

TKT # 4289
I



TEST # 2

969

Company Petroleum Energy, Inc. Lease & Well No. Smith #1
Elevation 1741 Kelly Bushing Formation Arbuckle Effective Pay -- Ft. Ticket No. 4290
Date 12/29/79 Sec. 20 Twp. 20S Range 10W County Rice State Kansas
Test Approved by Jim Musgrove Western Representative Roger Lisenby
Formation Test No. 3 Interval Tested from 3241½ ft. to 3296½ ft. Total Depth 3296½ ft.
Packer Depth 3236½ ft. Size 6 3/4 in. Packer Depth 3241½ ft. Size 6 3/4 in.
Packer Depth -- ft. Size -- in. Packer Depth -- ft. Size -- in.
Depth of Selective Zone Set --

Top Recorder Depth (Inside)	<u>3288½</u> ft.	Recorder Number	<u>969</u>	Cap	<u>4200</u>
Bottom Recorder Depth (Outside)	<u>3291½</u> ft.	Recorder Number	<u>1051</u>	Cap	<u>4250</u>
Below Straddle Recorder Depth	<u>-</u> ft.	Recorder Number	<u>-</u>	Cap	<u>-</u>
Drilling Contractor	<u>Duke Drilling Rig #2</u>	Drill Collar Length	<u>--</u>	I. D.	<u>--</u> in.
Mud Type	<u>starch</u> Viscosity <u>45</u>	Weight Pipe Length	<u>889</u>	I. D.	<u>3.4</u> in.
Weight	<u>10.2</u> Water Loss <u>12.8</u> cc.	Drill Pipe Length	<u>2331½</u>	I. D.	<u>3 1/8</u> in.
Chlorides	<u>65,000</u> P.P.M.	Test Tool Length	<u>21</u> ft.	Tool Size	<u>4 3/4</u> in.
Jars: Make	<u>--</u> Serial Number <u>--</u>	Anchor Length	<u>55</u> ft.	Size	<u>5½</u> in.
Did Well Flow?	<u>No</u> Reversed Out <u>No</u>	Surface Choke Size	<u>3/4</u> in.	Bottom Choke Size	<u>3/4</u> in.
		Main Hole Size	<u>7 7/8</u> in.	Tool Joint Size	<u>4½XH</u> in.

Blow: Good blow 2½ inches in bucket first opening. No blow second opening.
Flushed tool, very weak throughout rest of second opening.

Recovered 60 ft. of gas in pipe
Recovered 30 ft. of slightly oil cut mud
Recovered 60 ft. of oil cut mud
Recovered ft. of (No water)
Recovered ft. of
Remarks: Tool slid five feet to bottom

Time Set Packer(s)	<u>6:18</u>	<u>A.M.</u> <u>P.M.</u>	Time Started Off Bottom	<u>9:50</u>	<u>A.M.</u> <u>P.M.</u>	Maximum Temperature	<u>104°</u>
Initial Hydrostatic Pressure			(A)	<u>1820</u>	P.S.I.		
Initial Flow Period	Minutes	<u>45</u>	(B)	<u>115</u>	P.S.I. to (C)	<u>84</u>	P.S.I.
Initial Closed In Period	Minutes	<u>48</u>	(D)	<u>949</u>	P.S.I.		
Final Flow Period	Minutes	<u>30</u>	(E)	<u>119</u>	P.S.I. to (F)	<u>95</u>	P.S.I.
Final Closed In Period	Minutes	<u>36</u>	(G)	<u>836</u>	P.S.I.		
Final Hydrostatic Pressure			(H)	<u>1797</u>	P.S.I.		

WESTERN TESTING CO., INC.

Pressure Data

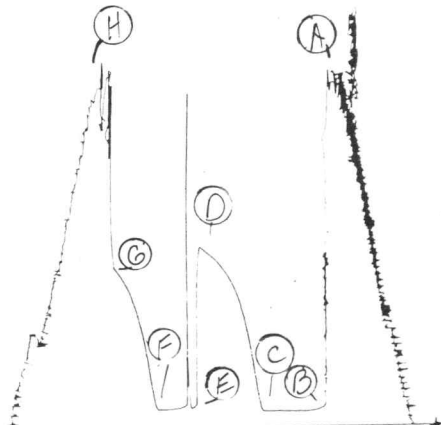
Date 12/29/79 Test Ticket No. 4290
 Recorder No. 969 Capacity 4200 Location 3288½ Ft.
 Clock No. -- Elevation 1741 Kelly Bushing Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1820</u> P.S.I.	Open Tool	<u>6:18A</u>	<u>M</u>
B First Initial Flow Pressure	<u>115</u> P.S.I.	First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
C First Final Flow Pressure	<u>84</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
D Initial Closed-in Pressure	<u>949</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>119</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Mins.
F Second Final Flow Pressure	<u>95</u> P.S.I.			
G Final Closed-in Pressure	<u>836</u> P.S.I.			
H Final Hydrostatic Mud	<u>1797</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>16</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>12</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>115</u>	<u>0</u>	<u>84</u>	<u>0</u>	<u>119</u>	<u>0</u>	<u>95</u>
P 2 <u>5</u>	<u>92</u>	<u>3</u>	<u>131</u>	<u>5</u>	<u>104</u>	<u>3</u>	<u>143</u>
P 3 <u>10</u>	<u>86</u>	<u>6</u>	<u>219</u>	<u>10</u>	<u>106</u>	<u>6</u>	<u>240</u>
P 4 <u>15</u>	<u>82</u>	<u>9</u>	<u>322</u>	<u>15</u>	<u>99</u>	<u>9</u>	<u>342</u>
P 5 <u>20</u>	<u>82</u>	<u>12</u>	<u>424</u>	<u>20</u>	<u>96</u>	<u>12</u>	<u>443</u>
P 6 <u>25</u>	<u>82</u>	<u>15</u>	<u>527</u>	<u>25</u>	<u>95</u>	<u>15</u>	<u>529</u>
P 7 <u>30</u>	<u>82</u>	<u>18</u>	<u>604</u>	<u>30</u>	<u>95</u>	<u>18</u>	<u>598</u>
P 8 <u>35</u>	<u>86</u>	<u>21</u>	<u>676</u>			<u>21</u>	<u>668</u>
P 9 <u>40</u>	<u>84</u>	<u>24</u>	<u>736</u>			<u>24</u>	<u>723</u>
P10 <u>45</u>	<u>84</u>	<u>27</u>	<u>783</u>			<u>27</u>	<u>764</u>
P11		<u>30</u>	<u>813</u>			<u>30</u>	<u>799</u>
P12		<u>33</u>	<u>844</u>			<u>33</u>	<u>830</u>
P13		<u>36</u>	<u>875</u>			<u>36</u>	<u>836</u>
P14		<u>39</u>	<u>895</u>				
P15		<u>42</u>	<u>914</u>				
P16		<u>45</u>	<u>934</u>				
P17		<u>48</u>	<u>949</u>				
P18							
P19							
P20							

Plot # 4290
I



9/19