



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 5234

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 838-0601

1507 GL
Elevation 1512 KB

Formation KC

Eff. Pay - Ft.

District Augusta

Date 3-2-80

Customer Order No.

COMPANY NAME Pendleton Land & Exploration, Inc.

ADDRESS 1700 Security Life Bldg Denver, Colo 80202

LEASE AND WELL NO. Olson #1 COUNTY Morris STATE KS Sec. 9 Twp 14 Rge 8E

Mail Invoice To Co. Name Address No. Copies Requested 1

Mail Charts To Co. Name Address No. Copies Requested 5

Formation Test No. 1 Interval Tested from 1820 ft. to 1843 ft. Total Depth 1843 ft.

Packer Depth 1820 ft. Size 5 1/2 in. Packer Depth - ft. Size - in.

Packer Depth 1815 ft. Size 5 1/2 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 1836 ft.

Recorder Number 1561

Cap. 3200

Bottom Recorder Depth (Outside) 1839 ft.

Recorder Number 10980

Cap. 4200

Below Straddle Recorder Depth - ft.

Recorder Number -

Cap. -

Drilling Contractor Materi Drilling Co #44

Drill Collar Length 315 I. D. 1 3/4 in.

Mud Type Chen Viscosity 43

Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 6 cc.

Drill Pipe Length 1478 I. D. 2.75 in.

Chlorides 4000 P.P.M.

Test Tool Length 50 ft. Tool Size 4 1/2 in.

Jars: Make WTC Serial Number 401

Anchor Length 23 ft. Size 4 1/2 in.

Did Well Flow? Yw Reversed Out Yw

Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

Main Hole Size 6 1/4 in. Tool Joint Size 3 1/2 in.

Blow: 2 break 35 minutes

Recovered 160 ft. of Thin drilling mud

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Remarks:

105 miles from Augusta to location

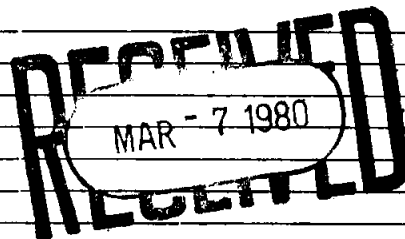


Table with columns: Time Set Packer(s), AM/PM, Time Started Off Bottom, AM/PM, Maximum Temperature, Initial Hydrostatic Pressure, Initial Flow Period, Initial Closed In Period, Final Flow Period, Final Closed In Period, Final Hydrostatic Pressure. Includes handwritten values for each field.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Charles O. Sturdevant
Signature of Customer or his authorized representative

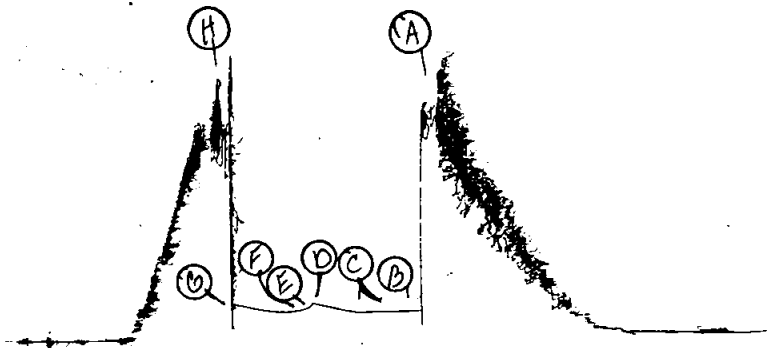
Western Representative Norman Allen

FIELD INVOICE

Table listing items and costs: Open Hole Test \$500.00, Misrun \$, Straddle Test \$, Jars \$275.00, Selective Zone \$, Safety Joint \$35.00, Standby \$, Evaluation \$, Extra Packer \$, Circ. Sub. \$, Chicago \$, Fluid Sampler \$, Extra Charts \$.

TOTAL \$810.00

KL#5234  
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**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 2-2-80 Recorder No. 1561 Capacity 3200 Test Ticket No. 5234  
 Clock No. \_\_\_\_\_ Elevation 1507 & 2 - 1572 KB Location 1836 Well Temperature 82

Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>861</u>	P.S.I.		<u>2:30 P M</u>	
B First Initial Flow Pressure	<u>98</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Min.
C First Final Flow Pressure	<u>96</u>	P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Min.
D Initial Closed-in Pressure	<u>133</u>	P.S.I.	Second Flow Pressure	<u>15</u> Mins.	<u>15</u> Min.
E Second Initial Flow Pressure	<u>110</u>	P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Min.
F Second Final Flow Pressure	<u>98</u>	P.S.I.			
G Final Closed-in Pressure	<u>128</u>	P.S.I.			
H Final Hydrostatic Mud	<u>849</u>	P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure  
Breakdown: 6 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 16 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 3 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Final Shut-In  
Breakdown: 14 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>98</u>	0	<u>96</u>	0	<u>110</u>	0	<u>98</u>
P 2 5	<u>97</u>	3	<u>96</u>	5	<u>110</u>	3	<u>98</u>
P 3 10	<u>96</u>	6	<u>96</u>	10	<u>104</u>	6	<u>98</u>
P 4 15		9	<u>96</u>	15	<u>98</u>	9	<u>94</u>
P 5 20		12	<u>96</u>	20	<del>98</del>	12	<u>100</u>
P 6 25		15	<u>96</u>	25	<del>98</del>	15	<u>104</u>
P 7 30	<u>96</u>	18	<u>96</u>	30	<del>98</del>	18	<u>107</u>
P 8 35		21	<u>99</u>	35		21	<u>110</u>
P 9 40		24	<u>102</u>	40		24	<u>113</u>
P10 45		27	<u>105</u>	45		27	<u>116</u>
P11 50		30	<u>110</u>	50		30	<u>119</u>
P12 55		33	<u>114</u>	55		33	<u>121</u>
P13 60		36	<u>118</u>	60		36	<u>124</u>
P14		39	<u>122</u>	65		39	<u>126</u>
P15		42	<u>126</u>	70		42	<u>128</u>
P16		45	<u>129</u>	75		45	<del>128</del>
P17		48	<u>133</u>	80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

Company Pendleton Land & Exploration, Inc. Lease & Well No. Olson #1  
 Elevation 1507 Ground Level Formation --- Effective Pay -- Ft. Ticket No. 5234  
 Date 3/2/80 Sec. 9 Twp. 14 Range 8E County Morris State Kansas  
 Test Approved by Charles O. Sturdavant Western Representative Norman Allen

Formation Test No. 1 Interval Tested from 1820 ft. to 1843 ft. Total Depth 1843 ft.  
 Packer Depth 1820 ft. Size 5½ in. Packer Depth - ft. Size - in.  
 Packer Depth 1815 ft. Size 5½ in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 1836 ft. Recorder Number 1561 Cap. 3200  
 Bottom Recorder Depth (Outside) 1839 ft. Recorder Number 10980 Cap. 4200  
 Below Straddle Recorder Depth - ft. Recorder Number -- Cap. -  
 Drilling Contractor Materi Drilling Co. Rig #44 Drill Collar Length 315 I. D. 1 3/4 in.  
 Mud Type chemical Viscosity 43 Weight Pipe Length - I. D. - in.  
 Weight 9.2 Water Loss 6 cc. Drill Pipe Length 1478 I. D. 2.75 in.  
 Chlorides 4,000 P.P.M. Test Tool Length 50 ft. Tool Size 4½OD in.  
 Jars: Make WTC Serial Number 401 Anchor Length 23 ft. Size 4½OD in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 6¼ in. Tool Joint Size 3½IF in.

Weak thirty-five minutes.

Blow: \_\_\_\_\_  
 Recovered 160 ft. of thin drilling mud  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Remarks: \_\_\_\_\_

Time Set Packer(s) 2:30 <sup>AM.</sup>/<sub>PM.</sub> Time Started Off Bottom 4:45 <sup>AM.</sup>/<sub>PM.</sub> Maximum Temperature 82°  
 Initial Hydrostatic Pressure ..... (A) 861 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 98 P.S.I. to (C) 96 P.S.I.  
 Initial Closed In Period ..... Minutes 48 (D) 133 P.S.I.  
 Final Flow Period ..... Minutes 15 (E) 110 P.S.I. to (F) 98 P.S.I.  
 Final Closed In Period ..... Minutes 42 (G) 128 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 849 P.S.I.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3/2/80

Recorder No. 1561

Test Ticket No. 5234

Capacity 3200

Location 1836

Clock No. ----- Elevation 1507 Ground Level - 1512 Kelly Bushing Well Temperature 82

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	861 P.S.I.	Open Tool	2:30P	M
B First Initial Flow Pressure	98 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	96 P.S.I.	Initial Closed-in Pressure	45 Mins.	48 Mins.
D Initial Closed-in Pressure	133 P.S.I.	Second Flow Pressure	15 Mins.	15 Mins.
E Second Initial Flow Pressure	110 P.S.I.	Final Closed-in Pressure	45 Mins.	42 Mins.
F Second Final Flow Pressure	98 P.S.I.			
G Final Closed-in Pressure	128 P.S.I.			
H Final Hydrostatic Mud	849 P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure  
Breakdown: 6 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 16 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 3 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Final Shut-In  
Breakdown: 14 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	98	0	96	0	110	98
P 2	5	97	3	96	5	110	98
P 3	10	96	6	96	10	104	98
P 4	15	96	9	96	15	108	94
P 5	20	96	12	96			100
P 6	25	96	15	96			104
P 7	30	96	18	96			107
P 8			21	99			110
P 9			24	102			113
P10			27	105			116
P11			30	110			119
P12			33	114			121
P13			36	118			124
P14			39	122			126
P15			42	126			128
P16			45	129			
P17			48	133			
P18							
P19							
P20							



P. O. BOX 1599 PHONE (316) 838-0601  
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 5235

Elevation 1507GL  
1512KB

Formation Hutton

Eff. Pay \_\_\_\_\_ Ft.

District Augusta Date 3-3-80

Customer Order No. \_\_\_\_\_

COMPANY NAME Pendleton Land Exploration Inc.

ADDRESS 1700 Security Life Bldg Denver Co 80202

LEASE AND WELL NO. Olaon #1 COUNTY Morris STATE Ko Sec. 9 Twp 14 Rge 8E

Mail Invoice To Same Co. Name \_\_\_\_\_ Address \_\_\_\_\_ No. Copies Requested 1

Mail Charts To Same Address \_\_\_\_\_ No. Copies Requested 5

Formation Test No. 2 Interval Tested from 1880 ft. to 1901 ft. Total Depth 1901 ft.  
Packer Depth 1880 ft. Size 5 1/2 00 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Packer Depth 1875 ft. Size 5 2 00 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 1894 ft. Recorder Number 1561 Cap. 3200  
Bottom Recorder Depth (Outside) 1897 ft. Recorder Number 10980 Cap. 4200  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

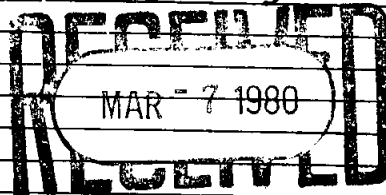
Drilling Contractor Materi Only Co #44 Drill Collar Length 315 I. D. 1 3/4 in.  
Mud Type Chem Viscosity 45 Weight Pipe Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.  
Weight 9.3 Water Loss 7.2 cc. Drill Pipe Length 1538 I. D. 2.25 in.  
Chlorides 3000 P.P.M. Test Tool Length 48 ft. Tool Size 4 1/2 00 in.  
Jars: Make WTC Serial Number 401 Anchor Length 21 ft. Size 4 2 00 in.  
Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
Main Hole Size 6 1/4 in. Tool Joint Size 3 1/2 F in.

Blow: Fail thruout test

Recovered 210 ft. of Oil (very low gravity oil under 15°)  
Recovered 125 ft. of Oil int muddy

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: 10.5 miles from Augusta to location



Time Set Packer(s) <u>9:30</u> <u>A.M.</u>	Time Started Off Bottom <u>12:30</u> <u>P.M.</u>	Maximum Temperature <u>84</u>
Initial Hydrostatic Pressure _____ (A) <u>910</u> P.S.I.	Initial Flow Period _____ Minutes <u>15</u> (B) <u>80</u> P.S.I.	to (C) <u>70</u> P.S.I.
Initial Closed In Period _____ Minutes <u>45</u> (D) <u>510</u> P.S.I.	Final Flow Period _____ Minutes <u>60</u> (E) <u>100</u> P.S.I.	to (F) <u>135</u> P.S.I.
Final Closed In Period _____ Minutes <u>60</u> (G) <u>500</u> P.S.I.	Final Hydrostatic Pressure _____ (H) <u>895</u> P.S.I.	

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Charles D. Sturdevant  
Signature of Customer or his authorized representative

Western Representative Norman Allen

FIELD INVOICE

Open Hole Test	\$ <u>500.00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ <u>275.00</u>
Selective Zone	\$ _____
Safety Joint	\$ <u>35.00</u>
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
TOTAL	\$ <u>810.00</u>

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3-3-80 Test Ticket No. 5235  
 Recorder No. 1561 Capacity 3200 Location 1894 Ft.  
 Clock No. \_\_\_\_\_ Elevation 1507 ft. 1572 KB Well Temperature 84 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>907</u>	P.S.I.	<u>9:30</u> A M	
B First Initial Flow Pressure	<u>86</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>69</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>540</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>102</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>127</u>	P.S.I.		
G Final Closed-in Pressure	<u>500</u>	P.S.I.		
H Final Hydrostatic Mud	<u>889</u>	P.S.I.		

**PRESSURE BREAKDOWN**

<b>First Flow Pressure</b> Breakdown: <u>3</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<b>Initial Shut-In</b> Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	<b>Second Flow Pressure</b> Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<b>Final Shut-In</b> Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>86</u>	0	<u>69</u>	0	<u>102</u>	0	<u>127</u>
P 2	<u>72</u>	3	<u>350</u>	5	<u>1097</u>	3	<u>314</u>
P 3	<u>69</u>	6	<u>405</u>	10	<u>95</u>	6	<u>361</u>
P 4	<u>69</u>	9	<u>437</u>	15	<u>96</u>	9	<u>383</u>
P 5		12	<u>459</u>	20	<u>99</u>	12	<u>399</u>
P 6		15	<u>473</u>	25	<u>103</u>	15	<u>415</u>
P 7		18	<u>484</u>	30	<u>107</u>	18	<u>424</u>
P 8		21	<u>493</u>	35	<u>110</u>	21	<u>423</u>
P 9		24	<u>502</u>	40	<u>114</u>	24	<u>441</u>
P10		27	<u>511</u>	45	<u>118</u>	27	<u>450</u>
P11		30	<u>519</u>	50	<u>121</u>	30	<u>459</u>
P12		33	<u>524</u>	55	<u>124</u>	33	<u>465</u>
P13		36	<u>528</u>	60	<u>127</u>	36	<u>471</u>
P14		39	<u>532</u>	65		39	<u>477</u>
P15		42	<u>536</u>	70		42	<u>482</u>
P16		45	<u>540</u>	75		45	<u>487</u>
P17		48		80		48	<u>490</u>
P18		51		85		51	<u>493</u>
P19		54		90		54	<u>496</u>
P20		57				57	<u>498</u>
		60				60	<u>500</u>



Pendleton Land & Exploration, Inc.

Olson #1

Company 1507 Ground Level Lease & Well No.

Elevation 1512 Kelly Bu. Hunton Effective Pay ----- Ft. Ticket No. 5235

Date 3/3/80 Sec. 9 Twp. 14S Range 8E County Morris State Kansas

Test Approved by Charles D. Sturdavant Western Representative Norman Allen

Formation Test No. 2 Interval Tested from 1880 ft. to 1901 ft. Total Depth 1901 ft.

Packer Depth 1980 ft. Size 5 1/2 OD in. Packer Depth - ft. Size - in.

Packer Depth 1875 ft. Size 5 1/2 OD in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 1894 ft. Recorder Number 1561 Cap. 3200

Bottom Recorder Depth (Outside) 1897 ft. Recorder Number 10980 Cap. 4200

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

Drilling Contractor Materi Drilling Co. Rig #44 Drill Collar Length 315 I. D. 1 3/4 in.

Mud Type chemical Viscosity 45 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 7.2 cc. Drill Pipe Length 1538 I. D. 2.25 in.

Chlorides 3,000 P.P.M. Test Tool Length 48 ft. Tool Size 4 1/2 OD in.

Jars: Make WTC Serial Number 401 Anchor Length 21 ft. Size 4 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 6 1/4 in. Tool Joint Size 3 1/2 IF in.

Blow: Fair throughout test.

Recovered 210 ft. of oil (very low gravity oil under 15°)

Recovered 125 ft. of oil cut muddy water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 9:30 A.M. Time Started Off Bottom 12:30 P.M. Maximum Temperature 84°

Initial Hydrostatic Pressure (A) 907 P.S.I.

Initial Flow Period Minutes 15 (B) 86 P.S.I. to (C) 69 P.S.I.

Initial Closed In Period Minutes 45 (D) 540 P.S.I.

Final Flow Period Minutes 60 (E) 102 P.S.I. to (F) 127 P.S.I.

Final Closed In Period Minutes 60 (G) 500 P.S.I.

Final Hydrostatic Pressure (H) 889 P.S.I.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3/3/80 Recorder No. 1561 Capacity 3200 Test Ticket No. 5235  
 Clock No. -- Elevation 1507 Ground Level 1512 Kelly Bushing 84 Ft. Location 1894 Well Temperature 84 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	907 P.S.I.	9:30A M	
B First Initial Flow Pressure	86 P.S.I.	15 Mins.	15 Mins.
C First Final Flow Pressure	69 P.S.I.	45 Mins.	45 Mins.
D Initial Closed-in Pressure	540 P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	102 P.S.I.	60 Mins.	60 Mins.
F Second Final Flow Pressure	127 P.S.I.		
G Final Closed-in Pressure	500 P.S.I.		
H Final Hydrostatic Mud	889 P.S.I.		

**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>15</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>86</u>	<u>0</u>	<u>69</u>	<u>0</u>	<u>102</u>	<u>0</u>	<u>127</u>
P 2 <u>5</u>	<u>72</u>	<u>3</u>	<u>350</u>	<u>5</u>	<u>97</u>	<u>3</u>	<u>314</u>
P 3 <u>10</u>	<u>69</u>	<u>6</u>	<u>405</u>	<u>10</u>	<u>95</u>	<u>6</u>	<u>361</u>
P 4 <u>15</u>	<u>69</u>	<u>9</u>	<u>437</u>	<u>15</u>	<u>96</u>	<u>9</u>	<u>383</u>
P 5		<u>12</u>	<u>459</u>	<u>20</u>	<u>99</u>	<u>12</u>	<u>399</u>
P 6		<u>15</u>	<u>473</u>	<u>25</u>	<u>103</u>	<u>15</u>	<u>415</u>
P 7		<u>18</u>	<u>484</u>	<u>30</u>	<u>107</u>	<u>18</u>	<u>424</u>
P 8		<u>21</u>	<u>493</u>	<u>35</u>	<u>110</u>	<u>21</u>	<u>433</u>
P 9		<u>24</u>	<u>502</u>	<u>40</u>	<u>114</u>	<u>24</u>	<u>441</u>
P10		<u>27</u>	<u>511</u>	<u>45</u>	<u>118</u>	<u>27</u>	<u>450</u>
P11		<u>30</u>	<u>519</u>	<u>50</u>	<u>121</u>	<u>30</u>	<u>459</u>
P12		<u>33</u>	<u>524</u>	<u>55</u>	<u>124</u>	<u>33</u>	<u>465</u>
P13		<u>36</u>	<u>528</u>	<u>60</u>	<u>127</u>	<u>36</u>	<u>471</u>
P14		<u>39</u>	<u>532</u>			<u>39</u>	<u>477</u>
P15		<u>42</u>	<u>536</u>			<u>42</u>	<u>482</u>
P16		<u>45</u>	<u>540</u>			<u>45</u>	<u>487</u>
P17						<u>48</u>	<u>490</u>
P18						<u>51</u>	<u>493</u>
P19						<u>54</u>	<u>496</u>
P20						<u>57</u>	<u>498</u>
						<u>60</u>	<u>500</u>



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5236

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 1507 GL 1512 RB Formation Eff. Pay Ft.

District Augusta Date 3-4-80 Customer Order No.

COMPANY NAME Pendleton Sand & Excavation, Inc.

ADDRESS 1700 Security Life Bldg Denver Colo 80202

LEASE AND WELL NO. Olson #1 COUNTY Morris STATE Ko. Sec. 9 Twp 14S Rge 8E

Mail Invoice To Same Co. Name Address No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 7 Interval Tested from 1903 ft. to 1916 ft. Total Depth 1916 ft. Packer Depth 1903 ft. Size 5 1/2 CD in. Packer Depth 1898 ft. Size 5 1/2 CD in.

Top Recorder Depth (Inside) 1909 ft. Recorder Number 1561 Cap. 3200 Bottom Recorder Depth (Outside) 1912 ft. Recorder Number 10980 Cap. 4200 Below Straddle Recorder Depth ft. Recorder Number - Cap. -

Drilling Contractor Walter Daly Co #44 Drill Collar Length 315 I. D. 1 3/4 in. Mud Type Chem Viscosity 45 Weight Pipe Length - I. D. - in. Weight 9.3 Water Loss 7.2 cc. Drill Pipe Length 1561 I. D. 2.25 in. Chlorides 3000 P.P.M. Test Tool Length 40 ft. Tool Size 4 1/2 CD in. Jars: Make WTC Serial Number 401 Anchor Length 13 ft. Size 4 1/2 CD in. Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in. Main Hole Size 6 1/2 in. Tool Joint Size 3 1/2 IF in.

Blow: Very weak 20 minutes

Recovered 2 ft. of Oil Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of Remarks: Standing 9 hrs in DST #3

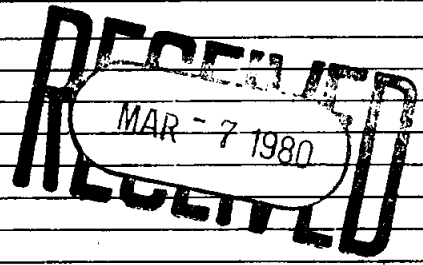


Table with 4 columns: Time Set Packer(s), A.M./P.M., Time Started Off Bottom, A.M./P.M., Maximum Temperature. Rows include Initial Hydrostatic Pressure, Initial Flow Period, Initial Closed In Period, Final Flow Period, Final Closed In Period, Final Hydrostatic Pressure.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Charles D. Sturdavant Signature of Customer or his authorized representative

Western Representative Norman Allen

FIELD INVOICE

Table with 2 columns: Item, Price. Items include Open Hole Test (\$500.00), Misrun, Straddle Test, Jars (\$275.00), Selective Zone, Safety Joint (\$35.00), Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, TOTAL (\$810.00).

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3-4-80 Test Ticket No. 5236  
 Recorder No. 1561 Capacity 3200 Location 1909 Ft.  
 Clock No. \_\_\_\_\_ Elevation 1507 ~~ft~~ + 1512 KB Well Temperature 84 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>926</u>	P.S.I.	<u>4:30 A M</u>	
B First Initial Flow Pressure	<u>19</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>19</u>	P.S.I.	<u>45</u> Mins.	<u>39</u> Mins.
D Initial Closed-in Pressure	<u>26</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>21</u>	P.S.I.	<u>60</u> Mins.	<u>75</u> Mins.
F Second Final Flow Pressure	<u>21</u>	P.S.I.		
G Final Closed-in Pressure	<u>29</u>	P.S.I.		
H Final Hydrostatic Mud	<u>912</u>	P.S.I.		

**PRESSURE BREAKDOWN**

First Flow Pressure  
Breakdown: 3 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Initial Shut-In  
Breakdown: 13 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 12 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

Final Shut-In  
Breakdown: 25 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>19</u>	0	<u>19</u>	0	<u>21</u>	0	<u>21</u>
P 2		3		5		3	
P 3		6		10		6	
P 4	<u>19</u>	9		15		9	
P 5		12	<u>19</u>	20		12	
P 6		15	<u>20</u>	25		15	
P 7		18	<u>20</u>	30		18	
P 8		21	<u>21</u>	35		21	
P 9		24	<u>22</u>	40		24	<u>21</u>
P10		27	<u>23</u>	45		27	<u>22</u>
P11		30	<u>24</u>	50		30	
P12		33	<u>25</u>	55		33	
P13		36	<u>25</u>	60	<u>21</u>	36	<u>22</u>
P14		39	<u>26</u>	65		39	<u>23</u>
P15		42		70		42	<u>23</u>
P16		45		75		45	<u>23</u>
P17		48		80		48	<u>24</u>
P18		51		85		51	<u>24</u>
P19		54		90		54	<u>24</u>
P19		57				57	<u>25</u>
P20		60				60	<u>25</u>

*cont*

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date \_\_\_\_\_ Test Ticket No. 5336  
 Recorder No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

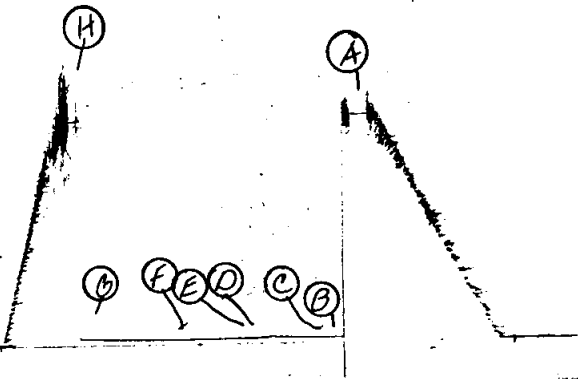
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	Open Tool _____	M _____	
B First Initial Flow Pressure _____	P.S.I.	First Flow Pressure _____	Mins. _____	Mins. _____
C First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure _____	Mins. _____	Mins. _____
D Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure _____	Mins. _____	Mins. _____
E Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure _____	Mins. _____	Mins. _____
F Second Final Flow Pressure _____	P.S.I.			
G Final Closed-in Pressure _____	P.S.I.			
H Final Hydrostatic Mud _____	P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ 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	_____	63	_____	_____	_____	63	<u>25</u>
P 2	_____	66	_____	_____	_____	66	<u>26</u>
P 3	_____	69	_____	_____	_____	69	<u>27</u>
P 4	_____	72	_____	_____	_____	72	<u>28</u>
P 5	_____	75	_____	_____	_____	75	<u>29</u>
P 6	_____	78	_____	_____	_____	78	_____
P 7	_____	81	_____	_____	_____	81	_____
P 8	_____	84	_____	_____	_____	84	_____
P 9	_____	87	_____	_____	_____	87	_____
P10	_____	90	_____	_____	_____	90	_____
P11	_____	93	_____	_____	_____	93	_____
P12	_____	96	_____	_____	_____	96	_____
P13	_____	99	_____	_____	_____	99	_____
P14	_____	102	_____	_____	_____	102	_____
P15	_____	105	_____	_____	_____	105	_____
P16	_____	108	_____	_____	_____	108	_____
P17	_____	111	_____	_____	_____	111	_____
P18	_____	114	_____	_____	_____	114	_____
P19	_____	117	_____	_____	_____	117	_____
P20	_____	120	_____	_____	_____	120	_____

NH # 5236  
I

1951



Company Pendleton Land & Exploration, Inc. Lease & Well No. Olson #1  
 1507 Ground Level  
 Elevation 1512 Kelly Bushing Formation --- Effective Pay -- Ft. Ticket No. 5236  
 Date 3/4/80 Sec. 9 Twp. 14S Range 8E County Morris State Kansas  
 Test Approved by Charles D. Sturdavant Western Representative Norman Allen

Formation Test No. 3 Interval Tested from 1903 ft. to 1916 ft. Total Depth 1916 ft.  
 Packer Depth 1903 ft. Size 5½OD in. Packer Depth - ft. Size - in.  
 Packer Depth 1898 ft. Size 5½OD in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 1909 ft. Recorder Number 1561 Cap. 3200  
 Bottom Recorder Depth (Outside) 1912 ft. Recorder Number 10980 Cap. 4200  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Materi Drlg. Co. Rig #44 Drill Collar Length 315 I. D. 1 3/4 in.  
 Mud Type chemical Viscosity 45 Weight Pipe Length - I. D. - in.  
 Weight 9.3 Water Loss 7.2 cc. Drill Pipe Length 1561 I. D. 2.25 in.  
 Chlorides 3,000 P.P.M. Test Tool Length 40 ft. Tool Size 4½OD in.  
 Jars: Make WTC Serial Number 401 Anchor Length 13 ft. Size 4½OD in.  
 Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 6¼ in. Tool Joint Size 3½IF in.

Blow: Very weak twenty-minutes.

Recovered 2 ft. of oil  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Remarks:    

Time Set Packer(s)	<u>4:30</u> <del>PM</del> <u>AM</u>	Time Started Off Bottom	<u>7:30</u> <del>PM</del> <u>AM</u>	Maximum Temperature	<u>84°</u>
Initial Hydrostatic Pressure	(A)	<u>926</u>	P.S.I.		
Initial Flow Period	Minutes	<u>15</u>	(B)	<u>19</u>	P.S.I. to (C) <u>19</u> P.S.I.
Initial Closed In Period	Minutes	<u>39</u>	(D)	<u>26</u>	P.S.I.
Final Flow Period	Minutes	<u>60</u>	(E)	<u>21</u>	P.S.I. to (F) <u>21</u> P.S.I.
Final Closed In Period	Minutes	<u>75</u>	(G)	<u>29</u>	P.S.I.
Final Hydrostatic Pressure	(H)	<u>912</u>	P.S.I.		

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3/4/80 Test Ticket No. 5236  
 Recorder No. 1561 Capacity 3200 Location 1909 Ft.  
 Clock No. ---- Elevation 1507 Ground Level & 1512 Kelly Bushing Well Temperature 84 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	926	P.S.I.	Open Tool	4:30A	M
B First Initial Flow Pressure	19	P.S.I.	First Flow Pressure	15	Mins. 15 Mins.
C First Final Flow Pressure	19	P.S.I.	Initial Closed-in Pressure	45	Mins. 39 Mins.
D Initial Closed-in Pressure	26	P.S.I.	Second Flow Pressure	60	Mins. 60 Mins.
E Second Initial Flow Pressure	21	P.S.I.	Final Closed-in Pressure	60	Mins. 75 Mins.
F Second Final Flow Pressure	21	P.S.I.			
G Final Closed-in Pressure	29	P.S.I.			
H Final Hydrostatic Mud	912	P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>25</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	0	19	0	19	0	21	21
P 2	5	19	3	19	5	21	21
P 3	10	19	6	19	10	21	21
P 4	15	19	9	19	15	21	21
P 5			12	19	20	21	21
P 6			15	20	25	21	21
P 7			18	20	30	21	21
P 8			21	21	35	21	21
P 9			24	22	40	21	21
P10			27	23	45	21	22
P11			30	24	50	21	22
P12			33	25	55	21	22
P13			36	25	60	21	22
P14			39	26			23
P15							23
P16							24
P17							24
P18							24
P19							25
P20							25

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 3/4/80 Test Ticket No. 5236  
 Recorder No. 1561 Capacity 3200 Location 1909 Ft.  
 Clock No. ---- Elevation 1507 Ground Level & 1512 Kelly Bushing Well Temperature 84 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>926</u> P.S.I.	Open Tool	<u>4:30A</u> M	
B First Initial Flow Pressure	<u>19</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>19</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>39</u> Mins.
D Initial Closed-in Pressure	<u>26</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>21</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>75</u> Mins.
F Second Final Flow Pressure	<u>21</u> P.S.I.			
G Final Closed-in Pressure	<u>29</u> P.S.I.			
H Final Hydrostatic Mud	<u>912</u> P.S.I.			

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
 Breakdown: 3 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 13 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: 12 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 25 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1						<u>63</u>	<u>25</u>
P 2						<u>66</u>	<u>26</u>
P 3						<u>69</u>	<u>27</u>
P 4						<u>72</u>	<u>28</u>
P 5						<u>75</u>	<u>29</u>
P 6							
P 7							
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 5237

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 1512 RB Formation Eff. Pay Ft.

District Augusta Date 3-5-80 Customer Order No.

COMPANY NAME Pendleton Land & Cattle Co.

ADDRESS 1700 Security Life Bldg Denver Colo 80202

LEASE AND WELL NO. County Adams STATE KS Sec. 9 Twp 14 Rge 8E

Mail Invoice To Co. Name Address No. Copies Requested 1

Mail Charts To Address No. Copies Requested

Formation Test No. Standby Interval Tested from ft. to ft. Total Depth 2113 ft.

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

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

Depth of Selective Zone Set

Top Recorder Depth (Inside) ft. Recorder Number Cap.

Bottom Recorder Depth (Outside) ft. Recorder Number Cap.

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Material Only #44 Drill Collar Length I. D. in.

Mud Type Viscosity Weight Pipe Length I. D. in.

Weight Water Loss cc. Drill Pipe Length I. D. in.

Chlorides P.P.M. Test Tool Length ft. Tool Size in.

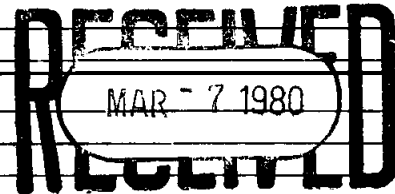
Jars: Make Serial Number Anchor Length ft. Size in.

Did Well Flow? Reversed Out Surface Choke Size in. Bottom Choke Size in.

Main Hole Size 6 1/4 in. Tool Joint Size 3 1/2 IF in.

Blow:

Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of



Remarks: Note: Tester & test tools were on location entire standby time

to day 11:00AM 3-4-80 to 11:00AM 3-6-80 = 48 hours

Table with columns: Time Set Packer(s), A.M./P.M., Time Started Off Bottom, A.M./P.M., Maximum Temperature. Rows include Initial Hydrostatic Pressure, Initial Flow Period, Initial Closed In Period, Final Flow Period, Final Closed In Period, Final Hydrostatic Pressure.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Charles L. Sturdavant Signature of Customer or his authorized representative

Western Representative Norman Allen

FIELD INVOICE

Table with columns: Item, Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby (48 hrs), Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts.

TOTAL \$ 180.00