

Company C. Oil Company, Inc. Lease & Well No. Hart #1
Elevation 1522 Kelly Bushing Kansas City Effective Pay -- Ft. Ticket No. 1816
Date 12/14/78 Sec. 7 Twp. 29S Range 8E County Butler State Kansas
Test Approved by Walter H. Martz Western Representative Will K. Hager/Roger Emmons

Formation Test No. 1 Interval Tested from 2046' ft. to 2073' ft. Total Depth 2073' ft.
Packer Depth 2041 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2046 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --

Top Recorder Depth (Inside) 2061 ft. Recorder Number 3085 Cap. 4500
Bottom Recorder Depth (Outside) 3064 ft. Recorder Number 1561 Cap. 3200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis #5 Drill Collar Length 340 I. D. 2 1/4 in.
Mud Type chemical Viscosity 36 Weight Pipe Length - I. D. - in.
Weight 8.8 Water Loss 26 cc. Drill Pipe Length 1686 I. D. 3.8 in.
Chlorides 1,700 P.P.M. Test Tool Length 47' in. Tool Size 5 1/2 in.
Jars: Make -- Serial Number -- Anchor Length 27 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 FH in.

Blow: Very weak blow/died 15 minutes into initial opening.

Recovered 15 ft. of mud with a few specks of oil on top of tool
Recovered - ft. of -
Recovered - ft. of -
Recovered - ft. of -
Recovered - ft. of -
Remarks: -

Time Set Packer(s) 2:20 ~~A.M.~~ P.M. Time Started Off Bottom 3:50 ~~A.M.~~ P.M. Maximum Temperature 100
Initial Hydrostatic Pressure (A) 986 P.S.I.
Initial Flow Period 45 Minutes (B) 21 P.S.I. to (C) 14 P.S.I.
Initial Closed In Period 45 Minutes (D) 26 P.S.I.
Final Flow Period NOT TAKEN Minutes (E) -- P.S.I. to (F) -- P.S.I.
Final Closed In Period NOT TAKEN Minutes (G) -- P.S.I.
Final Hydrostatic Pressure (H) 953 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/14/78

Recorder No. 3085

Test Ticket No. 1816

Capacity 4500

Location 2061 Ft.

Clock No. -- Elevation 1522 Kelly Bushing

Well Temperature 100 °F

Point

Pressure

Time Given

Time Computed

A Initial Hydrostatic Mud 986 P.S.I.
 B First Initial Flow Pressure 21 P.S.I.
 C First Final Flow Pressure 14 P.S.I.
 D Initial Closed-in Pressure 26 P.S.I.
 E Second Initial Flow Pressure -- P.S.I.
 F Second Final Flow Pressure -- P.S.I.
 G Final Closed-in Pressure -- P.S.I.
 H Final Hydrostatic Mud 953 P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

2:20P M

45 Mins. 45 Mins.

45 Mins. 45 Mins.

-- Mins. -- Mins.

-- Mins. -- Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 9 Inc.

of 5 mins. and a

final inc. of 0 Min.

Initial Shut-In

Breakdown: 15 Inc.

of 3 mins. and a

final inc. of 0 Min.

Second Flow Pressure

Breakdown: Inc.

of 5 mins. and a

final inc. of 0 Min.

Final Shut-In

Breakdown: Inc.

of 3 mins. and a

final inc. of 0 Min.

Point Mins.

Press.

Point Minutes

Press.

Point Minutes

Press.

Point Minutes

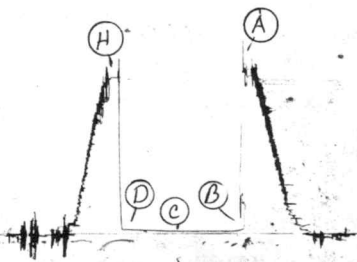
Press.

P 1 0 21
 P 2 5 17
 P 3 10 14
 P 4 15 14
 P 5 20 14
 P 6 25 14
 P 7 30 14
 P 8 35 14
 P 9 40 14
 P 10 45 14
 P 11
 P 12
 P 13
 P 14
 P 15
 P 16
 P 17
 P 18
 P 19
 P 20

0 14
3 17
6 17
9 17
12 17
15 19
18 19
21 20
24 20
27 21
30 22
33 22
36 23
39 24
42 25
45 26

5085

Tkt # 1816
I



Company C. Oil Company, Inc. Lease & Well No. Hart #1
Elevation 1522 Kelly Bushing Formation Wayside Sand Effective Pay -- Ft. Ticket No. 1817
Date 12/15/78 Sec. 7 Twp. 29S Range 8E County Butler State Kansas
Test Approved by Walter H. Martz Western Representative Will K. Hager/Roger Emmons

Formation Test No. 2 Interval Tested from 2306' ft. to 2354' ft. Total Depth 2354' ft.
Packer Depth 2301 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2306 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --

Top Recorder Depth (Inside) 2324 ft. Recorder Number 3085 Cap. 4500
Bottom Recorder Depth (Outside) 2327 ft. Recorder Number 1561 Cap. 3200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis #5 Drill Collar Length 340 I. D. 2 1/4 in.
Mud Type chemical Viscosity 36 Weight Pipe Length - I. D. - in.
Weight 8.8 Water Loss 36 cc. Drill Pipe Length 1946 I. D. 3.8 in.
Chlorides 1,700 P.P.M. Test Tool Length 68' in. Tool Size 5 1/2 in.
Jars: Make -- Serial Number -- Anchor Length 48' 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 FH in.

Blow: Weak increasing to fair.

Recovered 440 ft. of muddy salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Top sample 50,000 PPM: Middle sample 80,000 ppm; Bottom sample 88,000 ppm chlorides

Time Set Packer(s) 8:30 A.M. Time Started Off Bottom 10:30 A.M. Maximum Temperature 106
Initial Hydrostatic Pressure (A) 1159 P.S.I.
Initial Flow Period Minutes 30 (B) 31 P.S.I. to (C) 165 P.S.I.
Initial Closed In Period Minutes 30 (D) 746 P.S.I.
Final Flow Period Minutes 30 (E) 203 P.S.I. to (F) 213 P.S.I.
Final Closed In Period Minutes 30 (G) 741 P.S.I.
Final Hydrostatic Pressure (H) 1099 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/15/78 Recorder No. 3085 Capacity 4500 Test Ticket No. 1817
 Location 2324 Ft. Clock No. -- Elevation 1522 Kelly Bushing Well Temperature 106 °F

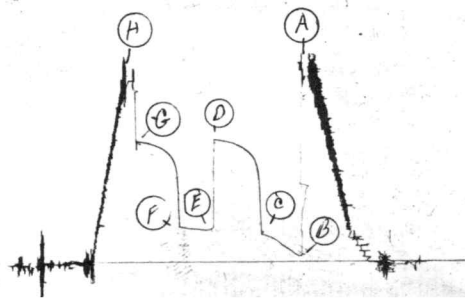
Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	1159 P.S.I.	8:30A M	
B First Initial Flow Pressure	31 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	165 P.S.I.	30 Mins.	30 Mins.
D Initial Closed-in Pressure	746 P.S.I.	30 Mins.	30 Mins.
E Second Initial Flow Pressure	203 P.S.I.	30 Mins.	30 Mins.
F Second Final Flow Pressure	213 P.S.I.		
G Final Closed-in Pressure	741 P.S.I.		
H Final Hydrostatic Mud	1099 P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</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>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</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>	31	0	165	0	203	0	213
P 2 <u>5</u>	48	3	588	5	194	3	590
P 3 <u>10</u>	74	6	646	10	201	6	644
P 4 <u>15</u>	105	9	672	15	203	9	672
P 5 <u>20</u>	139	12	690	20	206	12	695
P 6 <u>25</u>	158	15	704	25	210	15	706
P 7 <u>30</u>	165	18	718	30	213	18	716
P 8		21	730			21	725
P 9		24	734			24	730
P10		27	741			27	734
P11		30	746			30	741
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

Tkt # 1817

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Company C. Oil Company, Inc. Lease & Well No. Hart #1
Elevation 1522 Kelly Bushing Mississippi Effective Pay -- Ticket No. 1958
Date 12/16/78 Sec. 7 Twp. 29S Range 8E County Butler State Kansas
Test Approved by Walter H. Martz Western Representative Norman Allen/Roger Emmons
Formation Test No. 3 Interval Tested from 2812' ft. to 2845' ft. Total Depth 2845' ft.
Packer Depth 2812 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2807 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 2838 ft. Recorder Number 1562 Cap. 3150
Bottom Recorder Depth (Outside) 2841 ft. Recorder Number 1564 Cap. 3150
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis Drilling Co. #5 Drill Collar Length 340 I. D. 2 1/4 in.
Mud Type chemical Viscosity 47 Weight Pipe Length - I. D. - in.
Weight 9.8 Water Loss 10.4 cc. Drill Pipe Length 2442 I. D. 3.8 in.
Chlorides 3,000 P.P.M. Test Tool Length 53' in. Tool Size 4 1/2 OD in.
Jars: Make -- Serial Number -- Anchor Length 33' 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 7 7/8 in. Tool Joint Size 4 1/2 IF in.
Blow: Weak 30 minutes.

Recovered 30 ft. of slightly oil cut mud (5% oil; 95% mud)
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks: Opened tool for five minutes after ISIP (No blow) Came out of hole with tool.

Time Set Packer(s) 8:00 -- A.M. Time Started Off Bottom 9:30 A.M. Maximum Temperature 111
Initial Hydrostatic Pressure (A) 1443 P.S.I.
Initial Flow Period Minutes 45 (B) 17 P.S.I. to (C) 24 P.S.I.
Initial Closed In Period Minutes 45 (D) 66 P.S.I.
Final Flow Period Minutes 5 (E) 39 P.S.I. to (F) 33 P.S.I.
Final Closed In Period Minutes None taken (G) -- P.S.I.
Final Hydrostatic Pressure (H) 1415 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/16/78

Recorder No. 1562

Test Ticket No. 1958

Clock No. -- Capacity 3150

Location 2838 Ft.

Elevation 1522 Kelly Bushing

Well Temperature 111 °F

Point

Pressure

A Initial Hydrostatic Mud	<u>1443</u>	P.S.I.
B First Initial Flow Pressure	<u>17</u>	P.S.I.
C First Final Flow Pressure	<u>24</u>	P.S.I.
D Initial Closed-in Pressure	<u>66</u>	P.S.I.
E Second Initial Flow Pressure	<u>39</u>	P.S.I.
F Second Final Flow Pressure	<u>33</u>	P.S.I.
G Final Closed-in Pressure	<u>--</u>	P.S.I.
H Final Hydrostatic Mud	<u>1415</u>	P.S.I.

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

Time Given

Time Computed

8:00P

M

45 Mins. 45 Mins.

45 Mins. 39 Mins.

5 Mins. 5 Mins.

-- Mins. -- Mins.

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 9 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: 1 Inc.

of 5 mins. and a

final inc. of 0 Min.

Final Shut-In

Breakdown: -- Inc.

of 3 mins. and a

final inc. of 0 Min.

Point
Mins.

Press.

P 1	<u>0</u>	<u>17</u>
P 2	<u>5</u>	<u>20</u>
P 3	<u>10</u>	<u>20</u>
P 4	<u>15</u>	<u>20</u>
P 5	<u>20</u>	<u>22</u>
P 6	<u>25</u>	<u>22</u>
P 7	<u>30</u>	<u>22</u>
P 8	<u>35</u>	<u>22</u>
P 9	<u>40</u>	<u>24</u>
P 10	<u>45</u>	<u>24</u>
P 11		
P 12		
P 13		
P 14		
P 15		
P 16		
P 17		
P 18		
P 19		
P 20		

Point
Minutes

Press.

0	<u>24</u>
3	<u>24</u>
6	<u>24</u>
9	<u>24</u>
12	<u>28</u>
15	<u>30</u>
18	<u>33</u>
21	<u>38</u>
24	<u>41</u>
27	<u>42</u>
30	<u>46</u>
33	<u>52</u>
36	<u>60</u>
39	<u>66</u>

Point
Minutes

Press.

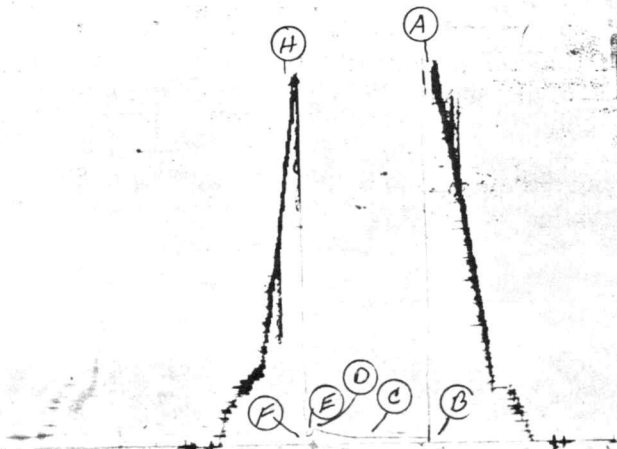
0	<u>39</u>
5	<u>33</u>

Point
Minutes

Press.

TKT # 1958

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Company C. Oil Company, Inc. Hart #1
 Elevation 1522 Kelly Bushing Formation Mississippi Lease & Well No. -- Ticket No. 1818
 Date 12/17/78 Sec. 7 Twp. 29S Range 8E County Butler State Kansas
 Test Approved by Walter H. Martz Western Representative Will K. Hager
 Formation Test No. 4 Interval Tested from 2845' ft. to 2877' ft. Total Depth 2877' ft.
 Packer Depth 2840 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2845 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 2865 ft. Recorder Number 3085 Cap. 4500
 Bottom Recorder Depth (Outside) 2868 ft. Recorder Number 1561 Cap. 3200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis #5 Drill Collar Length 340 I. D. 2 1/4 in.
 Mud Type chemical Viscosity 40 Weight Pipe Length - I. D. - in.
 Weight 9.8 Water Loss 10.4 cc. Drill Pipe Length 2485 I. D. 3.8 in.
 Chlorides 3,000 P.P.M. Test Tool Length 52 in. Tool Size 5 1/2 in.
 Jars: Make -- Serial Number -- Anchor Length 32 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 FH in.

Blow: Very weak increasing to weak on initial opening/very weak blow on final flow period.

Recovered 125 ft. of watery mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Top sample 4,000 ppm: Middle sample 4,000 ppm;

Time Set Packer(s) 8:15 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 10:15 ~~P.M.~~ ^{A.M.} Maximum Temperature 114
 Initial Hydrostatic Pressure (A) 1495 P.S.I.
 Initial Flow Period Minutes 30 (B) 38 P.S.I. to (C) 38 P.S.I.
 Initial Closed In Period Minutes 30 (D) 795 P.S.I.
 Final Flow Period Minutes 30 (E) 81 P.S.I. to (F) 69 P.S.I.
 Final Closed In Period Minutes 30 (G) 779 P.S.I.
 Final Hydrostatic Pressure (H) 1476 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 12/17/78 Recorder No. 3085 Capacity 4500 Test Ticket No. 1818
 Clock No. -- Elevation 1522 Kelly Bushing Location 2877 Ft. 114
 Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1495 P.S.I.	Open Tool	8:15 M	
B First Initial Flow Pressure	38 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	38 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	795 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	81 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	69 P.S.I.			
G Final Closed-in Pressure	779 P.S.I.			
H Final Hydrostatic Mud	1476 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>38</u>	<u>0</u>	<u>38</u>	<u>0</u>	<u>81</u>	<u>0</u>	<u>69</u>
P 2 <u>5</u>	<u>23</u>	<u>3</u>	<u>418</u>	<u>5</u>	<u>57</u>	<u>3</u>	<u>483</u>
P 3 <u>10</u>	<u>22</u>	<u>6</u>	<u>616</u>	<u>10</u>	<u>58</u>	<u>6</u>	<u>611</u>
P 4 <u>15</u>	<u>23</u>	<u>9</u>	<u>676</u>	<u>15</u>	<u>59</u>	<u>9</u>	<u>672</u>
P 5 <u>20</u>	<u>28</u>	<u>12</u>	<u>713</u>	<u>20</u>	<u>61</u>	<u>12</u>	<u>700</u>
P 6 <u>25</u>	<u>33</u>	<u>15</u>	<u>741</u>	<u>25</u>	<u>67</u>	<u>15</u>	<u>723</u>
P 7 <u>30</u>	<u>38</u>	<u>18</u>	<u>758</u>	<u>30</u>	<u>69</u>	<u>18</u>	<u>737</u>
P 8		<u>21</u>	<u>772</u>			<u>21</u>	<u>751</u>
P 9		<u>24</u>	<u>783</u>			<u>24</u>	<u>760</u>
P10		<u>27</u>	<u>788</u>			<u>27</u>	<u>772</u>
P11		<u>30</u>	<u>795</u>			<u>30</u>	<u>779</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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