

Company J. A. Allison Lease & Well No. Harter #9
Elevation 1240 Kelly Bushing (Est.) Oread Effective Pay -- Ft. Ticket No. 1915
Date 8/1/79 Sec. 16 Twp. 29S Range 4E County Butler State Kansas
Test Approved by George R. Dent Western Representative Norman Allen
Formation Test No. 1 Interval Tested from 1484 ft. to 1505 ft. Total Depth 1505 ft.
Packer Depth 1484 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 1479 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 1498 ft. Recorder Number 1564 Cap. 3150
Bottom Recorder Depth (Outside) 1501 ft. Recorder Number 10980 Cap. 4200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis Drilling Co. #3 Drill Collar Length 180 I. D. 2 1/4 in.
Mud Type chemical Viscosity 38 Weight Pipe Length - I. D. - in.
Weight 9.3 Water Loss 14.4 cc. Drill Pipe Length 1284 I. D. 3.8 in.
Chlorides 1,600 P.P.M. Test Tool Length 41 ft. Tool Size 4 1/2 OD in.
Jars: Make -- Serial Number -- 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 7 7/8 in. Tool Joint Size 3 1/2 IF in.
Blow: Fair throughout test.

Recovered 60 ft. of drilling mud

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 12:45 ~~AM~~ P.M. Time Started Off Bottom 3:45 ~~AM~~ P.M. Maximum Temperature 94
Initial Hydrostatic Pressure 764 P.S.I. (A)
Initial Flow Period 30 Minutes (B) 39 P.S.I. to (C) 43 P.S.I.
Initial Closed In Period 60 Minutes (D) 522 P.S.I.
Final Flow Period 30 Minutes (E) 50 P.S.I. to (F) 53 P.S.I.
Final Closed In Period 60 Minutes (G) 428 P.S.I.
Final Hydrostatic Pressure 746 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

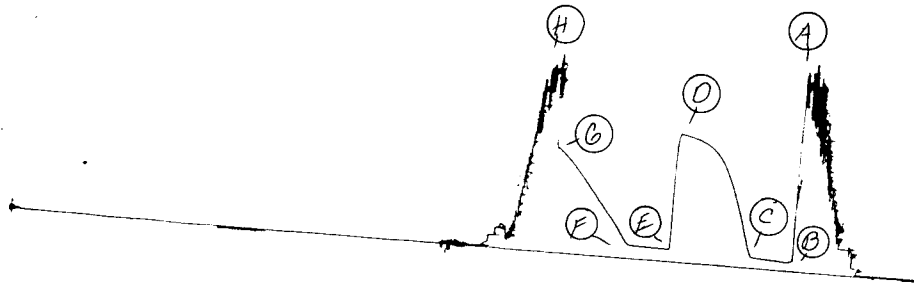
Date 8/1/79 Recorder No. 1564 Capacity 3150 Location 1915
 Well Temperature 1498 °F
 Clock No. -- Elevation 1240 Kelly Bushing

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	764 P.S.I.		12:45P	M
B First Initial Flow Pressure	39 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	43 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	522 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	50 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	53 P.S.I.			
G Final Closed-in Pressure	428 P.S.I.			
H Final Hydrostatic Mud	746 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</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 0	39	0	43	0	50	0	53
P 2 5	36	3	82	5	50	3	67
P 3 10	39	6	138	10	50	6	91
P 4 15	40	9	194	15	51	9	113
P 5 20	40	12	244	20	52	12	137
P 6 25	42	15	291	25	52	15	160
P 7 30	43	18	335	30	53	18	180
P 8		21	377			21	202
P 9		24	410			24	222
P10		27	436			27	244
P11		30	458			30	268
P12		33	469			33	289
P13		36	477			36	307
P14		39	489			39	329
P15		42	497			42	350
P16		45	508			45	369
P17		48	511			48	381
P18		51	514			51	390
P19		54	517			54	402
P20		57	520			57	415
		60	522			60	428

TKT # 1915
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Company J. A. Allison Lease & Well No. Harter #9
 Elevation 1240 Kelly Bushing Kansas City Effective Pay -- Ft. Ticket No. 1916
 Date 8/3/79 Sec. 16 Twp. 29S Range 4E County Butler State Kansas
 Test Approved by George R. Dent Western Representative Norman Allen
 Formation Test No. 2 Interval Tested from 2113 ft. to 2130 ft. Total Depth 2130 ft.
 Packer Depth 2113 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2108 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -- ft. Size - in.
 Top Recorder Depth (Inside) 2123 ft. Recorder Number 1564 Cap. 3150
 Bottom Recorder Depth (Outside) 2126 ft. Recorder Number 10980 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis Drilling Co. #3 Drill Collar Length 120 I. D. 2 1/4 in.
 Mud Type chemical Viscosity 44 Weight Pipe Length - I. D. - in.
 Weight 9.6 Water Loss 12 cc. Drill Pipe Length 1973 I. D. 3.8 in.
 Chlorides 1,800 P.P.M. Test Tool Length 37 ft. Tool Size 4 1/2 OD in.
 Jars: Make -- Serial Number -- Anchor Length 17 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 3 1/2 IF in.

Blow: Weak five minutes.

Recovered 1 ft. of drilling mud
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: -

Time Set Packer(s) 8:45 A.M. Time Started Off Bottom 10:45 A.M. Maximum Temperature 100
 Initial Hydrostatic Pressure (A) 1100 P.S.I.
 Initial Flow Period 30 Minutes (B) 20 P.S.I. to (C) 20 P.S.I.
 Initial Closed In Period 30 Minutes (D) 20 P.S.I.
 Final Flow Period 30 Minutes (E) 20 P.S.I. to (F) 20 P.S.I.
 Final Closed In Period 30 Minutes (G) 20 P.S.I.
 Final Hydrostatic Pressure (H) 1098 P.S.I.

WESTERN TESTING CO., INC. Pressure Data

Date 8/3/79

Recorder No. 1564

Clock No. --

Capacity 3150

Elevation 1240 Kelly Bushing

Test Ticket No. 1916

Location 2123 Ft

Well Temperature 100 °F

Point

Pressure

A Initial Hydrostatic Mud	1100	P.S.I.
B First Initial Flow Pressure	20	P.S.I.
C First Final Flow Pressure	20	P.S.I.
D Initial Closed-in Pressure	20	P.S.I.
E Second Initial Flow Pressure	20	P.S.I.
F Second Final Flow Pressure	20	P.S.I.
G Final Closed-in Pressure	20	P.S.I.
H Final Hydrostatic Mud	1098	P.S.I.

Open Tool

First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

Time Given
8:45A

Time Computed

Time Given	Mins.	Time Computed	Mins.
30		30	
30		30	
30		30	
30		30	

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 6 Inc.

of 5 mins. and a

final inc. of 0 Min.

Point Mins.

Press.

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

Initial Shut-In

Breakdown: 10 Inc.

of 3 mins. and a

final inc. of 0 Min.

Point Minutes

Press.

0	20
3	20
6	20
9	20
12	20
15	20
18	20
21	20
24	20
27	20
30	20

Second Flow Pressure

Breakdown: 6 Inc.

of 5 mins. and a

final inc. of 0 Min.

Point Minutes

Press.

0	20
5	20
10	20
15	20
20	20
25	20
30	20

Final Shut-In

Breakdown: 10 Inc.

of 3 mins. and a

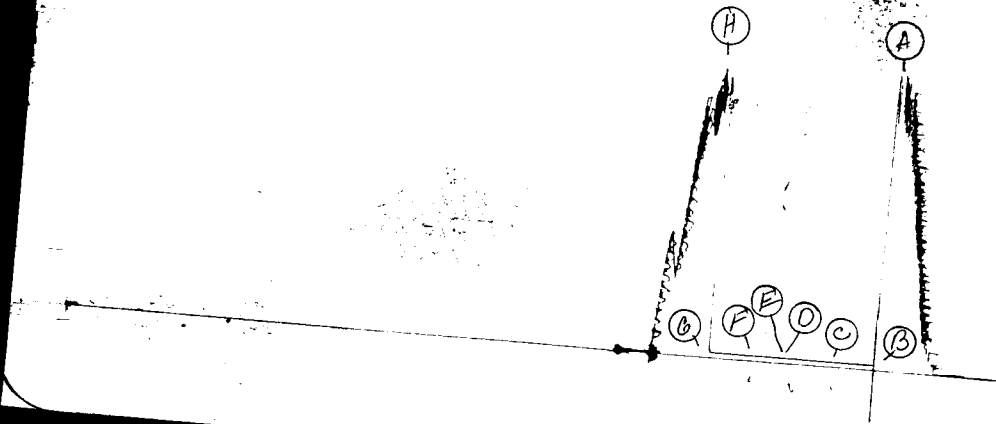
final inc. of 0 Min.

Point Minutes

Press.

0	20
3	20
6	20
9	20
12	20
15	20
18	20
21	20
24	20
27	20
30	20

TRK # 1916
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1564

Company J. A. Allison
 Elevation 1240 Kelly Bushing Formation Kansas City Lease & Well No. Harter #9
 Date 8/3/79 Sec. 16 Twp. 29S Range 4E Effective Pay -- Ft. Ticket No. 191
 Test Approved by George R. Dent County Butler State Kansas
 Western Representative Norman Allen
 Formation Test No. 3 Interval Tested from 2133 ft. to 2151 ft. Total Depth 2151 ft.
 Packer Depth 2133 ft. Size 6 3/4 in.
 Packer Depth 2128 ft. Size 6 3/4 in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 2144 ft.
 Bottom Recorder Depth (Outside) 2147 ft.
 Below Straddle Recorder Depth -- ft.
 Drilling Contractor White & Ellis Drilling Co. #3
 Mud Type chemical Viscosity 44
 Weight 9.6 Water Loss 12 cc.
 Chlorides 1,800 P.P.M.
 Jars: Make -- Serial Number --
 Did Well Flow? No Reversed Out No
 Blow: Weak ten minutes.
 Recorder Number 1564 Cap. 3150
 Recorder Number 10980 Cap. 4200
 Recorder Number -- Cap. --
 Drill Collar Length 120 I. D. 2 1/4 in.
 Weight Pipe Length -- I. D. -- in.
 Drill Pipe Length 1933 I. D. 3.8 in.
 Test Tool Length 38 ft. Tool Size 4 1/2 OD in.
 Anchor Length 18 ft. Size 4 1/2 OD in.
 Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2 IF in.

Recovered 20 ft. of very slightly oil cut mud 10% oil; 90% mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Remarks:

Time Set Packer(s) 6:30 ~~AM~~ P.M. Time Started Off Bottom 8:30 ~~AM~~ P.M. Maximum Temperature 100
 Initial Hydrostatic Pressure 1100 P.S.I.
 Initial Flow Period 30 Minutes (B) 34 P.S.I. to (C) 34 P.S.I.
 Initial Closed In Period 30 Minutes (D) 151 P.S.I.
 Final Flow Period 30 Minutes (E) 40 P.S.I. to (F) 40 P.S.I.
 Final Closed In Period 30 Minutes (G) 218 P.S.I.
 Final Hydrostatic Pressure 1097 P.S.I. (H)

WESTERN TESTING CO., INC. Pressure Data

Date 8/3/79

Recorder No. 1564

Clock No. --

Capacity 3150

Elevation 1240 Kelly Bushing

Test Ticket No. 1917

Location 2144 Ft.

Well Temperature 100 °F

Point

Pressure

A Initial Hydrostatic Mud	1100	P.S.I.
B First Initial Flow Pressure	34	P.S.I.
C First Final Flow Pressure	34	P.S.I.
D Initial Closed-in Pressure	151	P.S.I.
E Second Initial Flow Pressure	40	P.S.I.
F Second Final Flow Pressure	40	P.S.I.
G Final Closed-in Pressure	218	P.S.I.
H Final Hydrostatic Mud	1097	P.S.I.

Open Tool

First Flow Pressure	30	Mins.
Initial Closed-in Pressure	30	Mins.
Second Flow Pressure	30	Mins.
Final Closed-in Pressure	30	Mins.

Time Given

Time Computed

6:30P	M	30	Mins.
		30	Mins.
		30	Mins.
		30	Mins.

PRESSURE BREAKDOWN

First Flow Pressure

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

Point Mins.	Press.
P 1 0	34
P 2 5	34
P 3 10	34
P 4 15	34
P 5 20	34
P 6 25	34
P 7 30	34
P 8	
P 9	
P 10	
P 11	
P 12	
P 13	
P 14	
P 15	
P 16	
P 17	
P 18	
P 19	
P 20	

Initial Shut-In

Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	34
3	39
6	45
9	54
12	65
15	73
18	89
21	105
24	121
27	138
30	151

Second Flow Pressure

Breakdown: 40 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	40
5	40
10	40
15	40
20	40
25	40
30	40

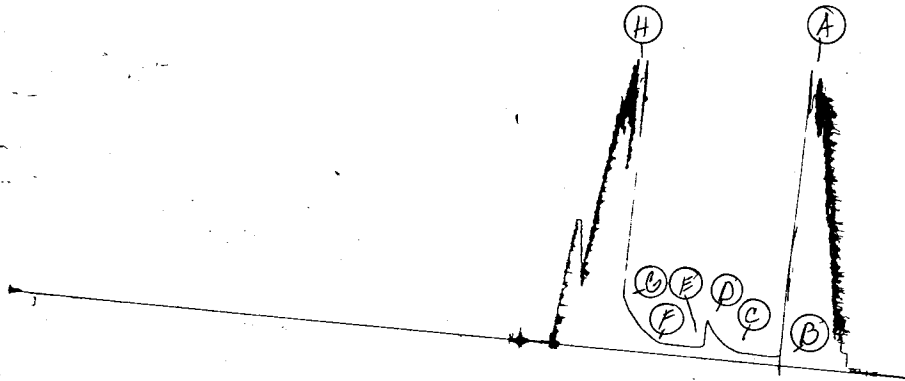
Final Shut-In

Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	40
3	45
6	53
9	65
12	79
15	88
18	104
21	121
24	146
27	165
30	218

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Company J. A. Allison Lease & Well No. Harter #9
Elevation 1240 Kelly Bushing Kansas City Formation 29S Effective Pay -- Ft. Ticket No. 1918
Date 8/4/79 Sec. 16 Twp. 4E Range 4E County Butler State Kansas
Test Approved by George R. Dent Western Representative Norman Allen
Formation Test No. 4 Interval Tested from 2160 ft. to 2200 ft. Total Depth 2200 ft.
Packer Depth 2160 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2155 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 2193 ft. Recorder Number 1564 Cap. 3150
Bottom Recorder Depth (Outside) 2196 ft. Recorder Number 10980 Cap. 4200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis Drilling Co. #3 Drill Collar Length 120 I. D. 2 1/2 in.
Mud Type chemical Viscosity 41 Weight Pipe Length - I. D. - in.
Weight 9.5 Water Loss 12 cc. Drill Pipe Length 2020 I. D. 3.8 in.
Chlorides 1,800 P.P.M. Test Tool Length 60 ft. Tool Size 4 1/2 OD in.
Jars: Make -- Serial Number -- Anchor Length 40 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 3 1/2 IF in.

Blow: Weak 30 minutes.

Recovered 45 ft. of drilling mud with few specks of oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 6:30 A.M. Time Started Off Bottom 8:30 A.M. Maximum Temperature 100
Initial Hydrostatic Pressure 1126 P.S.I.
Initial Flow Period 30 Minutes (A) 39 P.S.I. to (C) 48 P.S.I.
Initial Closed In Period 27 Minutes (D) 717 P.S.I.
Final Flow Period 30 Minutes (E) 60 P.S.I. to (F) 60 P.S.I.
Final Closed In Period 30 Minutes (G) 690 P.S.I.
Final Hydrostatic Pressure 1109 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 8/4/79
 Recorder No. 1564
 Clock No. -- Capacity 3150 Location 2193 Ft.
 Elevation 1240 Kelly Bushing Well Temperature 100 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1126	P.S.I.	6:30A	M
B First Initial Flow Pressure	39	P.S.I.	30	Mins. 30
C First Final Flow Pressure	48	P.S.I.	30	Mins. 27
D Initial Closed-in Pressure	717	P.S.I.	30	Mins. 30
E Second Initial Flow Pressure	60	P.S.I.	30	Mins. 30
F Second Final Flow Pressure	60	P.S.I.	30	Mins. 30
G Final Closed-in Pressure	690	P.S.I.		
H Final Hydrostatic Mud	1109	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: 9 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

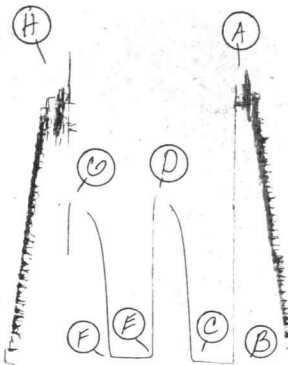
Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 10 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>0</u>	<u>39</u>	<u>0</u>	<u>48</u>	<u>0</u>	<u>60</u>	<u>0</u>	<u>60</u>
P 2 <u>5</u>	<u>39</u>	<u>3</u>	<u>221</u>	<u>5</u>	<u>60</u>	<u>3</u>	<u>151</u>
P 3 <u>10</u>	<u>39</u>	<u>6</u>	<u>436</u>	<u>10</u>	<u>60</u>	<u>6</u>	<u>391</u>
P 4 <u>15</u>	<u>40</u>	<u>9</u>	<u>559</u>	<u>15</u>	<u>60</u>	<u>9</u>	<u>511</u>
P 5 <u>20</u>	<u>43</u>	<u>12</u>	<u>625</u>	<u>20</u>	<u>60</u>	<u>12</u>	<u>578</u>
P 6 <u>25</u>	<u>46</u>	<u>15</u>	<u>658</u>	<u>25</u>	<u>60</u>	<u>15</u>	<u>617</u>
P 7 <u>30</u>	<u>48</u>	<u>18</u>	<u>684</u>	<u>30</u>	<u>60</u>	<u>18</u>	<u>640</u>
P 8		<u>21</u>	<u>693</u>			<u>21</u>	<u>654</u>
P 9		<u>24</u>	<u>707</u>			<u>24</u>	<u>672</u>
P10		<u>27</u>	<u>717</u>			<u>27</u>	<u>678</u>
P11						<u>30</u>	<u>690</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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1564



Company J. A. Allison Lease & Well No. Harter #9
Elevation 1240 Kelly Bushing Kansas City 1919
Date 8/4/79 Formation 29S Effective Pay -- Ft. Ticket No. 1919
Sec. 16 Twp. 29S Range 4E County Butler State Kansas
Test Approved by George R. Dent Western Representative Norman Allen

Formation Test No. 5 Interval Tested from 2210 ft. to 2240 ft. Total Depth 2240 ft.

Packer Depth 2210 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2205 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 2233 ft.

Recorder Number 1564 Cap. 3150

Bottom Recorder Depth (Outside) 2236 ft.

Recorder Number 10980 Cap. 4200

Below Straddle Recorder Depth - ft.

Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Co. #3

Drill Collar Length 120 I. D. 2 1/4 in.

Mud Type chemical Viscosity 59

Weight Pipe Length - I. D. - in.

Weight 9.6 Water Loss 12 cc.

Drill Pipe Length 2070 I. D. 3.8 in.

Chlorides 1,700 P.P.M.

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

Jars: Make -- Serial Number --

Anchor Length 30 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 3 1/2 IF in.

Blow: Weak five minutes.

Recovered 2 ft. of drilling mud with few specks of oil

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Remarks: -

Time Set	Packer(s)	5:45	A.M.	P.M.	Time Started Off Bottom	7:45	A.M.	P.M.	Maximum Temperature	100
Initial Hydrostatic Pressure					(A)	1149		P.S.I.		
Initial Flow Period		30			(B)	36		P.S.I. to (C)	34	P.S.I.
Initial Closed In Period		30			(D)	64		P.S.I.		
Final Flow Period		30			(E)	42		P.S.I. to (F)	34	P.S.I.
Final Closed In Period		30			(G)	47		P.S.I.		
Final Hydrostatic Pressure					(H)	1144		P.S.I.		

WESTERN TESTING CO., INC. Pressure Data

Date 8/4/79
Recorder No. 1564 Capacity 3150 Test Ticket No. 1919
Clock No. -- Elevation 1240 Kelly Bushing Location 2233 Ft.
Well Temperature 100 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1149	P.S.I.	5:45P	M
B First Initial Flow Pressure	36	P.S.I.	30	30
C First Final Flow Pressure	34	P.S.I.	30	30
D Initial Closed-in Pressure	64	P.S.I.	30	30
E Second Initial Flow Pressure	42	P.S.I.	30	30
F Second Final Flow Pressure	34	P.S.I.	30	30
G Final Closed-in Pressure	47	P.S.I.		
H Final Hydrostatic Mud	1144	P.S.I.		

Open Tool
First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

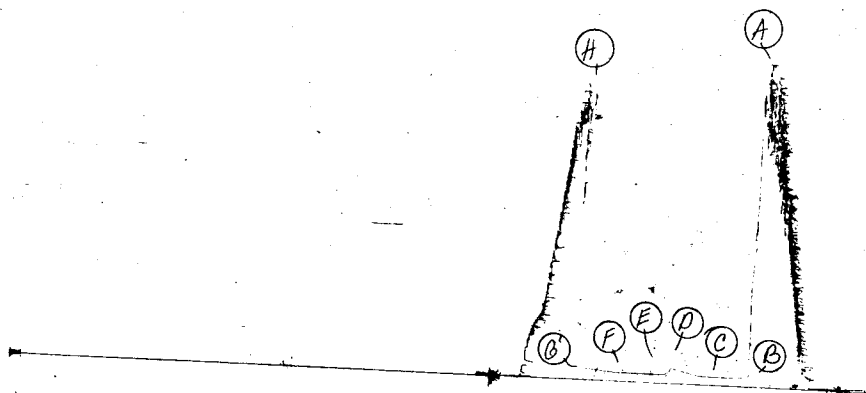
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 10 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	36	0	34	0	42	0	34
P 2 5	34	3	34	5	37	3	34
P 3 10	34	6	36	10	36	6	34
P 4 15	34	9	38	15	34	9	34
P 5 20	34	12	40	20	34	12	37
P 6 25	34	15	45	25	34	15	39
P 7 30	34	18	49	30	34	18	41
P 8		21	53			21	43
P 9		24	56			24	45
P10		27	59			27	46
P11		30	64			30	47
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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Company J. A. Allison Lease & Well No. Harter #9

Elevation 1240 Kelly Bushing Formation Kansas City Effective Pay -- Ft. Ticket No. 1920

Date 8/5/79 Sec. 16 Twp 29S Range 4E County Butler State Kansas

Test Approved by George R. Dent Western Representative Norman Allen

Formation Test No. 6 Interval Tested from 2250 ft. to 2290 ft. Total Depth 2290 ft.

Packer Depth 2250 ft. Size 6 3/4 in.

Packer Depth 2245 ft. Size 6 3/4 in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 2283 ft.

Bottom Recorder Depth (Outside) 2286 ft.

Below Straddle Recorder Depth -- ft.

Drilling Contractor White & Ellis Drilling Co. #3

Mud Type chemical Viscosity 41

Weight 9.5 Water Loss 12 cc.

Chlorides 1,700 P.P.M.

Jars: Make -- Serial Number --

Did Well Flow? No Reversed Out No

Recorder Number 1564 Cap 3150

Recorder Number 10980 Cap 4200

Recorder Number -- Cap --

Drill Collar Length 120 I. D. 2 1/4 in.

Weight Pipe Length -- I. D. -- in.

Drill Pipe Length 2110 I. D. 3.8 in.

Test Tool Length 60 ft. Tool Size 4 1/2 OD in.

Anchor Length 40 ft. Size 4 1/2 OD in.

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

Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2 IF in.

Blow: Weak thirty minutes.

Recovered 65 ft. of drilling mud with very slight show of oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 6:15 A.M. Time Started Off Bottom 8:15 A.M. Maximum Temperature 101

Initial Hydrostatic Pressure (A) 1145 P.S.I.

Initial Flow Period Minutes 30 (B) 37 P.S.I. to (C) 67 P.S.I.

Initial Closed In Period Minutes 27 (D) 804 P.S.I.

Final Flow Period Minutes 30 (E) 71 P.S.I. to (F) 84 P.S.I.

Final Closed In Period Minutes 27 (G) 773 P.S.I.

Final Hydrostatic Pressure (H) 1143 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 8/5/79

Recorder No. 1564

Clock No. --

Capacity 3150

Elevation 1240 Kelly Bushing

Test Ticket No. 1920

Location 2283

Well Temperature 101 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1145</u>	P.S.I.	<u>6:15A</u>	<u>M</u>
B First Initial Flow Pressure	<u>37</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
C First Final Flow Pressure	<u>67</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
D Initial Closed-in Pressure	<u>804</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
E Second Initial Flow Pressure	<u>71</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
F Second Final Flow Pressure	<u>84</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
G Final Closed-in Pressure	<u>773</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1143</u>	P.S.I.		

Open Tool

First Flow Pressure

Initial Closed-in Pressure

Second Flow Pressure

Final Closed-in Pressure

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

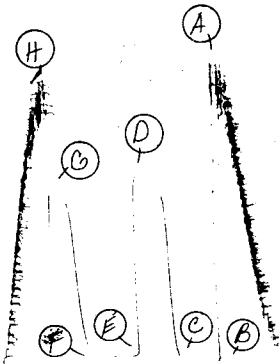
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 9 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>0</u>	<u>37</u>	<u>0</u>	<u>67</u>	<u>0</u>	<u>71</u>	<u>0</u>	<u>84</u>
P 2 <u>5</u>	<u>43</u>	<u>3</u>	<u>191</u>	<u>5</u>	<u>71</u>	<u>3</u>	<u>95</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>634</u>	<u>10</u>	<u>71</u>	<u>6</u>	<u>132</u>
P 4 <u>15</u>	<u>45</u>	<u>9</u>	<u>729</u>	<u>15</u>	<u>74</u>	<u>9</u>	<u>221</u>
P 5 <u>20</u>	<u>48</u>	<u>12</u>	<u>757</u>	<u>20</u>	<u>77</u>	<u>12</u>	<u>406</u>
P 6 <u>25</u>	<u>53</u>	<u>15</u>	<u>775</u>	<u>25</u>	<u>80</u>	<u>15</u>	<u>633</u>
P 7 <u>30</u>	<u>67</u>	<u>18</u>	<u>785</u>	<u>30</u>	<u>84</u>	<u>18</u>	<u>715</u>
P 8 _____	_____	<u>21</u>	<u>795</u>	_____	_____	<u>21</u>	<u>745</u>
P 9 _____	_____	<u>24</u>	<u>800</u>	_____	_____	<u>24</u>	<u>770</u>
P10 _____	_____	<u>27</u>	<u>804</u>	_____	_____	<u>27</u>	<u>773</u>
P11 _____	_____	_____	_____	_____	_____	_____	_____
P12 _____	_____	_____	_____	_____	_____	_____	_____
P13 _____	_____	_____	_____	_____	_____	_____	_____
P14 _____	_____	_____	_____	_____	_____	_____	_____
P15 _____	_____	_____	_____	_____	_____	_____	_____
P16 _____	_____	_____	_____	_____	_____	_____	_____
P17 _____	_____	_____	_____	_____	_____	_____	_____
P18 _____	_____	_____	_____	_____	_____	_____	_____
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____

TRC # 1920
I

1564



Company J. A. Allison Lease & Well No. Harter #9
Elevation 1240 Kelly Bushing Formation Cleveland Effective Pay -- Ft. Ticket No. 1921
Date 8/5/79 Sec. 16 Twp. 29S Range 4E County Butler State Kansas
Test Approved by George R. Dent Western Representative Norman Allen

Formation Test No. 7 Interval Tested from 2357 ft. to 2380 ft. Total Depth 2380 ft.

Packer Depth 2357 ft. Size 6 3/4 in.

Packer Depth - ft. Size - in.

Packer Depth 2352 ft. Size 6 3/4 in.

Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 2373 ft.

Recorder Number 1564 Cap. 3150

Bottom Recorder Depth (Outside) 2376 ft.

Recorder Number 10980 Cap. 4200

Below Straddle Recorder Depth - ft.

Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Co. #3

Drill Collar Length 120 I. D. 2 1/4 in.

Mud Type chemical Viscosity 42

Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 11.5 cc.

Drill Pipe Length 2217 I. D. 4 1/2 OD in.

Chlorides 1,800 P.P.M.

Test Tool Length 43 ft. Tool Size 4 1/2 OD in.

Jars: Make -- Serial Number --

Anchor Length 23 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 3 1/2 IF in.

Blow: Weak three minutes.

Recovered 3 ft. of drilling mud with show of oil in tool

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 8:30 ~~A.M.~~ P.M. Time Started Off Bottom 10:30 ~~A.M.~~ P.M. Maximum Temperature 102

Initial Hydrostatic Pressure (A) 1198 P.S.I.

Initial Flow Period Minutes 30 (B) 39 P.S.I. to (C) 33 P.S.I.

Initial Closed In Period Minutes 30 (D) 614 P.S.I.

Final Flow Period Minutes 30 (E) 37 P.S.I. to (F) 37 P.S.I.

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

Final Hydrostatic Pressure (H) 1191 P.S.I.

WESTERN TESTING CO., INC. Pressure Data

Date 8/5/79 Test Ticket No. 1921
Recorder No. 1564 Capacity 3150 Location 2373 Ft.
Clock No. -- Elevation 1240 Kelly Bushing Well Temperature 102 °F

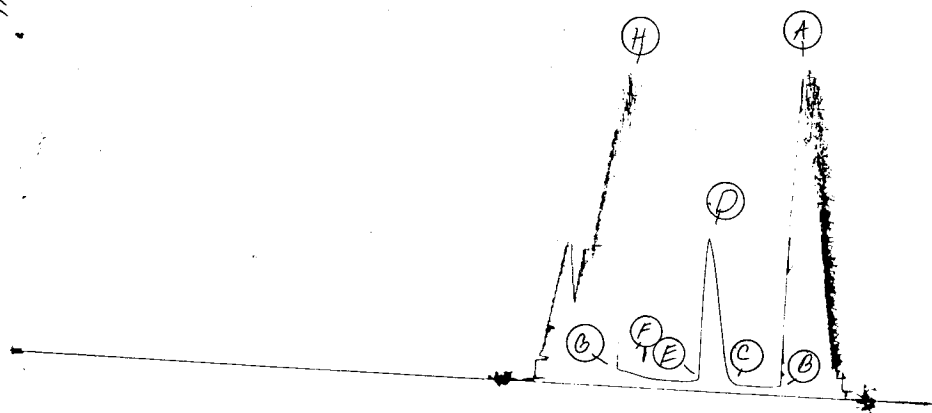
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1198 P.S.I.	Open Tool	8:30P	M
B First Initial Flow Pressure	39 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	33 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	614 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	37 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	37 P.S.I.			
G Final Closed-in Pressure	65 P.S.I.			
H Final Hydrostatic Mud	1191 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>39</u>	<u>0</u>	<u>33</u>	<u>0</u>	<u>37</u>	<u>0</u>	<u>37</u>
P 2 <u>5</u>	<u>34</u>	<u>3</u>	<u>36</u>	<u>5</u>	<u>37</u>	<u>3</u>	<u>38</u>
P 3 <u>10</u>	<u>33</u>	<u>6</u>	<u>45</u>	<u>10</u>	<u>37</u>	<u>6</u>	<u>39</u>
P 4 <u>15</u>	<u>33</u>	<u>9</u>	<u>78</u>	<u>15</u>	<u>37</u>	<u>9</u>	<u>40</u>
P 5 <u>20</u>	<u>33</u>	<u>12</u>	<u>140</u>	<u>20</u>	<u>37</u>	<u>12</u>	<u>45</u>
P 6 <u>25</u>	<u>33</u>	<u>15</u>	<u>241</u>	<u>25</u>	<u>37</u>	<u>15</u>	<u>50</u>
P 7 <u>30</u>	<u>33</u>	<u>18</u>	<u>339</u>	<u>30</u>	<u>37</u>	<u>18</u>	<u>53</u>
P 8		<u>21</u>	<u>444</u>			<u>21</u>	<u>56</u>
P 9		<u>24</u>	<u>531</u>			<u>24</u>	<u>59</u>
P10		<u>27</u>	<u>575</u>			<u>27</u>	<u>62</u>
P11		<u>30</u>	<u>614</u>			<u>30</u>	<u>65</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TK # 1921

1564



Company J. A. Allison Lease & Well No. Harter #9
 Elevation 1240 Kelly Bushing Formation Arbuckle Effective Pay --- Ft. Ticker No. 1922
 Date 8/7/79 Sec. 16 Twp. 29S Range 4E County Butler State Kansas
 Test Approved by George R. Dent Western Representative Norman Allen
 Formation Test No. 8 Interval Tested from 2662 ft. to 2675 ft. Total Depth 2675 ft.
 Packer Depth 2662 ft. Size 6 3/4 in.
 Packer Depth 2657 ft. Size 6 3/4 in.
 Depth of Selective Zone Set ---
 Top Recorder Depth (Inside) 2668 ft.
 Bottom Recorder Depth (Outside) 2671 ft.
 Below Straddle Recorder Depth --- ft.
 Drilling Contractor White & Ellis Drilling Co. #3
 Mud Type chemical Viscosity 40
 Weight 9.6 Water Loss 12 cc.
 Chlorides 1,700 P.P.M.
 Jars: Make --- Serial Number ---
 Did Well Flow? No Reversed Out Yes
 Blow: Strong throughout test.

Recorder Number 1564 Cap. 3150
 Recorder Number 10980 Cap. 4200
 Recorder Number --- Cap. ---
 Drill Collar Length 120 I. D. 2 1/4 in.
 Weight Pipe Length --- I. D. --- in.
 Drill Pipe Length 2522 I. D. 3.81D in.
 Test Tool Length 33 ft. Tool Size 4 1/2 OD in.
 Anchor Length 13 ft. Size 4 1/2 OD in.
 Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2 IF in.

Recovered 60 ft. of free oil
 Recovered 2100 ft. of salt water (Top 50% of recovery slightly oil cut)
 Recovered --- ft. of ---
 Recovered --- ft. of ---
 Recovered --- ft. of ---
 Remarks: ---

Time Set Packer(s) 8:15 A.M. Time Started Off Bottom 11:30 A.M. Maximum Temperature 109
 Initial Hydrostatic Pressure --- (A) 1381 P.S.I.
 Initial Flow Period --- Minutes 30 (B) 155 P.S.I. to (C) 650 P.S.I.
 Initial Closed In Period --- Minutes 60 (D) 1041 P.S.I.
 Final Flow Period --- Minutes 45 (E) 673 P.S.I. to (F) 969 P.S.I.
 Final Closed In Period --- Minutes 60 (G) 1040 P.S.I.
 Final Hydrostatic Pressure --- (H) 1378 P.S.I.

WESTERN TESTING CO., INC. Pressure Data

Date 8/7/79

Recorder No. 1564

Clock No. --- Capacity 3150

Test Ticket No. 1922

Location 2668

Point Elevation 1240 Kelly Bushing Well Temperature 109

A Initial Hydrostatic Mud	Pressure	
B First Initial Flow Pressure	1387	P.S.I.
C First Final Flow Pressure	155	P.S.I.
D Initial Closed-in Pressure	650	P.S.I.
E Second Initial Flow Pressure	1041	P.S.I.
F Second Final Flow Pressure	673	P.S.I.
G Final Closed-in Pressure	969	P.S.I.
H Final Hydrostatic Mud	1040	P.S.I.
	1378	P.S.I.

Open Tool
First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

Time Given	Time Computed
8:15A	M
30	30 Mins.
60	60 Mins.
45	45 Mins.
60	60 Mins.

PRESSURE BREAKDOWN

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

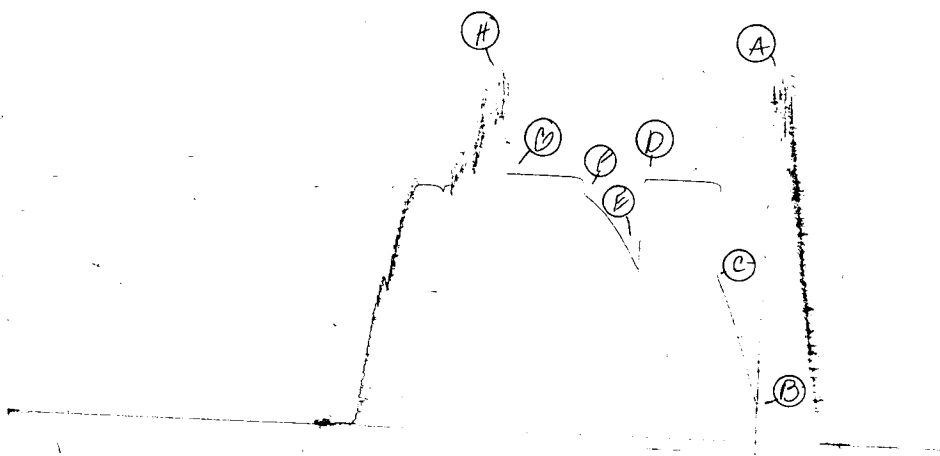
Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 20 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>0</u>	<u>155</u>	<u>0</u>	<u>650</u>	<u>0</u>	<u>673</u>	<u>0</u>	<u>969</u>
P 2 <u>5</u>	<u>218</u>	<u>3</u>	<u>1033</u>	<u>5</u>	<u>717</u>	<u>3</u>	<u>1030</u>
P 3 <u>10</u>	<u>302</u>	<u>6</u>	<u>1038</u>	<u>10</u>	<u>767</u>	<u>6</u>	<u>1036</u>
P 4 <u>15</u>	<u>388</u>	<u>9</u>	<u>1041</u>	<u>15</u>	<u>806</u>	<u>9</u>	<u>1040</u>
P 5 <u>20</u>	<u>467</u>	<u>12</u>	<u>1041</u>	<u>20</u>	<u>845</u>	<u>12</u>	<u>1040</u>
P 6 <u>25</u>	<u>533</u>	<u>15</u>	<u>1041</u>	<u>25</u>	<u>880</u>	<u>15</u>	<u>1040</u>
P 7 <u>30</u>	<u>650</u>	<u>18</u>	<u>1041</u>	<u>30</u>	<u>909</u>	<u>18</u>	<u>1040</u>
P 8 <u>---</u>	<u>---</u>	<u>21</u>	<u>1041</u>	<u>35</u>	<u>928</u>	<u>21</u>	<u>1040</u>
P 9 <u>---</u>	<u>---</u>	<u>24</u>	<u>1041</u>	<u>40</u>	<u>949</u>	<u>24</u>	<u>1040</u>
P 10 <u>---</u>	<u>---</u>	<u>27</u>	<u>1041</u>	<u>45</u>	<u>969</u>	<u>27</u>	<u>1040</u>
P 11 <u>---</u>	<u>---</u>	<u>30</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>30</u>	<u>1040</u>
P 12 <u>---</u>	<u>---</u>	<u>33</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>33</u>	<u>1040</u>
P 13 <u>---</u>	<u>---</u>	<u>36</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>36</u>	<u>1040</u>
P 14 <u>---</u>	<u>---</u>	<u>39</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>39</u>	<u>1040</u>
P 15 <u>---</u>	<u>---</u>	<u>42</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>42</u>	<u>1040</u>
P 16 <u>---</u>	<u>---</u>	<u>45</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>45</u>	<u>1040</u>
P 17 <u>---</u>	<u>---</u>	<u>48</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>48</u>	<u>1040</u>
P 18 <u>---</u>	<u>---</u>	<u>51</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>51</u>	<u>1040</u>
P 19 <u>---</u>	<u>---</u>	<u>54</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>54</u>	<u>1040</u>
P 20 <u>---</u>	<u>---</u>	<u>57</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>57</u>	<u>1040</u>
P 21 <u>---</u>	<u>---</u>	<u>60</u>	<u>1041</u>	<u>---</u>	<u>---</u>	<u>60</u>	<u>1040</u>

1564



Company J. A. Allison Lease & Well No. Harter #9
 Elevation 1214 Kelly Bushing Formation Arbuckle Effective Pay -- Ft. Ticker No. 3254
 Date 8/12/79 Sec. 16 Twp. 29S Range 4E County Butler State Kansas
 Test Approved by J. A. Allison Western Representative W.K. Hager-Norman Allen
 Formation Test No. 10 Interval Tested from 2682 ft. to 2702 ft. Total Depth 3415 ft.
 Packer Depth 2682 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2702 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set 2716
 Top Recorder Depth (Inside) 2689 ft. Recorder Number 1558 Cap. 4200
 Bottom Recorder Depth (Outside) 2692 ft. Recorder Number 1559 Cap. 4200
 Below Straddle Recorder Depth 2712 ft. Recorder Number 1561 Cap. 3150
 Drilling Contractor White & Ellis Drilling #3 Drill Collar Length - I. D. - in.
 Mud Type chemical Viscosity 42 Weight Pipe Length -- I. D. 3.8 in.
 Weight 9.6 Water Loss 12 cc. Drill Pipe Length 2666 I. D. -- in.
 Chlorides 1,400 P.P.M. Test Tool Length 62 ft. Tool Size 5 1/2 in.
 Jars: Make -- Serial Number -- Anchor Length 20 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: Strong blow on initial flow period/strong blow on final flow period.

Recovered 310 ft. of clean oil 34° gravity corrected
 Recovered 650 ft. of very slightly muddy oil
 Recovered 835 ft. of sulphur cut salt water (.18 resistivity @ 78°F)
 Recovered - ft. of (55,000 ppm chlorides)
 Recovered 1795 ft. of total fluid

Remarks: _____

Time Set Packer(s) 7:25 A.M. Time Started Off Bottom 9:55 A.M. Maximum Temperature 110
 Initial Hydrostatic Pressure 1330 P.S.I.
 Initial Flow Period 30 Minutes (A) 120 P.S.I. to (C) 473 P.S.I.
 Initial Closed In Period 45 Minutes (D) 1015 P.S.I.
 Final Flow Period 30 Minutes (E) 596 P.S.I. to (F) 756 P.S.I.
 Final Closed In Period 45 Minutes (G) 1023 P.S.I.
 Final Hydrostatic Pressure 1306 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 8/12/79

Recorder No. 1558

Capacity 4200

Test Ticket No. 3254

Clock No. -- Elevation 1214 Ke-ly Bushing

Location 2689 Ft.

Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1330	P.S.I.	7:25A	M
B First Initial Flow Pressure	120	P.S.I.	30	30
C First Final Flow Pressure	473	P.S.I.	45	45
D Initial Closed-in Pressure	1015	P.S.I.	30	30
E Second Initial Flow Pressure	596	P.S.I.	45	45
F Second Final Flow Pressure	756	P.S.I.		
G Final Closed-in Pressure	1023	P.S.I.		
H Final Hydrostatic Mud	1306	P.S.I.		

Open Tool
First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

PRESSURE BREAKDOWN

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

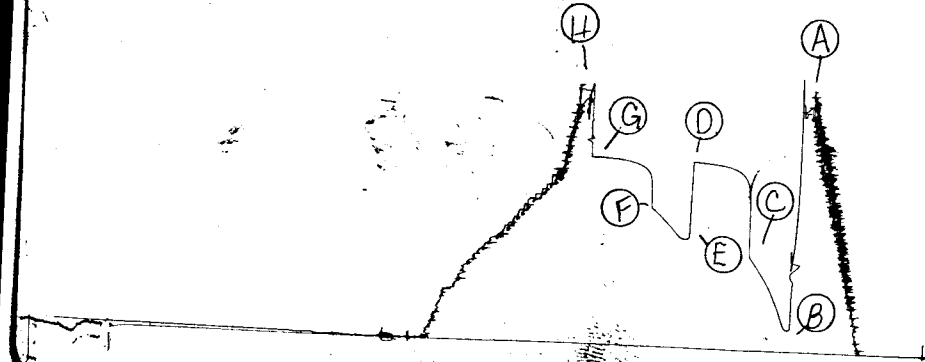
Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

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

Final Shut-In
Breakdown: 15 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	120	0	473	0	596	0	756
P 2 5	137	3	887	5	596	3	941
P 3 10	226	6	941	10	623	6	973
P 4 15	310	9	964	15	662	9	981
P 5 20	363	12	979	20	704	12	996
P 6 25	416	15	987	25	730	15	1000
P 7 30	473	18	990	30	756	18	1004
P 8		21	996			21	1008
P 9		24	999			24	1012
P 10		27	1002			27	1016
P 11		30	1004			30	1019
P 12		33	1007			33	1021
P 13		36	1009			36	1023
P 14		39	1011			39	1023
P 15		42	1013			42	1023
P 16		45	1015			45	1023
P 17							
P 18							
P 19							
P 20							

TR# 3354
I.



Tkt# 3254
Below Straddle Seat

