

Company	SMITHERMAN DRILLING COMPANY				Lease & Well No.	RALSTON #7					
Elevation	N/A		Formation	Arbuckle		Effective Pay	-	Ft. Ticket No.	10401		
Date	7/28/81	Sec.	17	28S	Range	4E	County	Butler	State	Kansas	
Test Approved by				Mark A. Thompson			Western Representative			Kenny Kirkendall	
Formation Test No.	1	Interval Tested from	2392	ft. to	2396	ft.	Total Depth	2396	ft.		
Packer Depth	2392	ft.	Size	6 3/4	in.	Packer Depth	-	ft.	Size	-	in.
Packer Depth	2387	ft.	Size	6 3/4	in.	Packer Depth	-	ft.	Size	-	in.
Depth of Selective Zone Set -											
Top Recorder Depth (Inside)	AP	2375	ft.	Recorder Number	2605	Cap.	4150				
Bottom Recorder Depth (Outside)	AP	2378	ft.	Recorder Number	10979	Cap.	4100				
Below Straddle Recorder Depth		-	ft.	Recorder Number	-	Cap.	-				
Drilling Contractor	White & Ellis Drilling Rig #4				Drill Collar Length	150	I. D.	-	in.		
Mud Type	chemical	Viscosity	36	Weight Pipe Length	-	I. D.	-	in.			
Weight	9.1	Water Loss	12	cc.	Drill Pipe Length	2117	I. D.	-	in.		
Chlorides	2,000	P.P.M.		Test Tool Length	25	ft.	Tool Size	5 1/2	in.		
Jars: Make	No	Serial Number	-	Anchor Length	4	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:	Weak building to fair; fair blow throughout final flow period.										

Recovered	345	ft. of	free gassy oil
Recovered		ft. of	
Recovered		ft. of	
Recovered		ft. of	
Recovered		ft. of	
Remarks:			

Time Set Packer(s)	1:15	A.M.	Time Started Off Bottom		A.M.	Maximum Temperature	109°
		P.M.			P.M.		
Initial Hydrostatic Pressure	(A)	1151	P.S.I.				
Initial Flow Period	Minutes	35	(B)	54	P.S.I. to (C)	101	P.S.I.
Initial Closed In Period	Minutes	45	(D)	892	P.S.I.		
Final Flow Period	Minutes	30	(E)	150	P.S.I. to (F)	167	P.S.I.
Final Closed In Period	Minutes	51	(G)	896	P.S.I.		
Final Hydrostatic Pressure	(H)	1139	P.S.I.				

WESTERN TESTING CO., INC.
Pressure Data

Date 7/28/81 Recorder No. 2605 Capacity 4150 Test Ticket No. 10401
Location 2375 Ft.
Clock No. - Elevation - Well Temperature 109 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1151	P.S.I.	1:15P	M
B First Initial Flow Pressure	54	P.S.I.	30	35
C First Final Flow Pressure	101	P.S.I.	45	45
D Initial Closed-in Pressure	892	P.S.I.	30	30
E Second Initial Flow Pressure	150	P.S.I.	45	51
F Second Final Flow Pressure	167	P.S.I.		
G Final Closed-in Pressure	896	P.S.I.		
H Final Hydrostatic Mud	1139	P.S.I.		

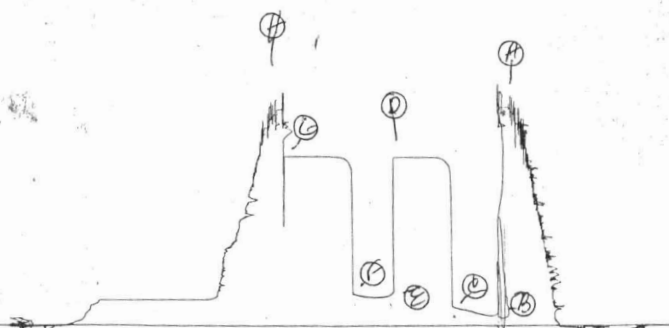
Open Tool
First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>17</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>54</u>	<u>0</u>	<u>101</u>	<u>0</u>	<u>150</u>	<u>0</u>	<u>167</u>
P 2 <u>5</u>	<u>54</u>	<u>3</u>	<u>840</u>	<u>5</u>	<u>150</u>	<u>3</u>	<u>848</u>
P 3 <u>10</u>	<u>58</u>	<u>6</u>	<u>869</u>	<u>10</u>	<u>150</u>	<u>6</u>	<u>879</u>
P 4 <u>15</u>	<u>65</u>	<u>9</u>	<u>886</u>	<u>15</u>	<u>150</u>	<u>9</u>	<u>888</u>
P 5 <u>20</u>	<u>77</u>	<u>12</u>	<u>890</u>	<u>20</u>	<u>155</u>	<u>12</u>	<u>892</u>
P 6 <u>25</u>	<u>84</u>	<u>15</u>	<u>892</u>	<u>25</u>	<u>159</u>	<u>15</u>	<u>893</u>
P 7 <u>30</u>	<u>93</u>	<u>18</u>	<u>892</u>	<u>30</u>	<u>167</u>	<u>18</u>	<u>894</u>
P 8 <u>35</u>	<u>101</u>	<u>21</u>	<u>892</u>			<u>21</u>	<u>894</u>
P 9		<u>24</u>	<u>892</u>			<u>24</u>	<u>895</u>
P10		<u>27</u>	<u>892</u>			<u>27</u>	<u>896</u>
P11		<u>30</u>	<u>892</u>			<u>30</u>	<u>896</u>
P12		<u>33</u>	<u>892</u>			<u>33</u>	<u>896</u>
P13		<u>36</u>	<u>892</u>			<u>36</u>	<u>896</u>
P14		<u>39</u>	<u>892</u>			<u>39</u>	<u>896</u>
P15		<u>42</u>	<u>892</u>			<u>42</u>	<u>896</u>
P16		<u>45</u>	<u>892</u>			<u>45</u>	<u>896</u>
P17						<u>48</u>	<u>896</u>
P18						<u>51</u>	<u>896</u>
P19							
P20							

PK # 10401
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2605



Company Smitherman Drilling Company Lease & Well No. Ralston #7
Elevation N/A Formation Arbuckle Effective Pay - Ft. Ticket No. 10402
Date 7/28/81 Sec. 17 Twp. 28S Range 4E County Butler State Kansas
Test Approved by Mark A. Thompson Western Representative Kenny Kirkendall

Formation Test No. 2 Interval Tested from 2399 ft. to 2411 ft. Total Depth 2411 ft.
Packer Depth 2399 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2394 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2406 ft. Recorder Number 2405 Cap. 4150
Bottom Recorder Depth (Outside) 2409 ft. Recorder Number 10979 Cap. 4100
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #4 Drill Collar Length 150 I. D. - in.
Mud Type chemical Viscosity 43 Weight Pipe Length - I. D. - in.
Weight 9.2 Water Loss 11.2 cc. Drill Pipe Length - I. D. - in.
Chlorides 1,400 P.P.M. Test Tool Length 18 ft. Tool Size 5 1/2 in.
Jars: Make No Serial Number - Anchor Length 12 ft. Size 5 1/2 in.
Did Well Flow? - Reversed Out - 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: Good blow throughout test.

Recovered 930 ft. of free oil
Recovered 180 ft. of salt water
Recovered - ft. of -
Recovered - ft. of -
Recovered - ft. of -

Remarks: _____

Time Set Packer(s) 2:50 A.M. P.M. Time Started Off Bottom _____ A.M. P.M. Maximum Temperature 110°
Initial Hydrostatic Pressure _____ (A) 1130 P.S.I.
Initial Flow Period _____ Minutes 35 (B) 80 P.S.I. to (C) 303 P.S.I.
Initial Closed In Period _____ Minutes 48 (D) 892 P.S.I.
Final Flow Period _____ Minutes 30 (E) 390 P.S.I. to (F) 468 P.S.I.
Final Closed In Period _____ Minutes 48 (G) 892 P.S.I.
Final Hydrostatic Pressure _____ (H) 1120 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 7/28/81
Recorder No. 2605 Capacity 4150 Test Ticket No. 10402
Clock No. -- Elevation -- Location 2406 Ft.
Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1130</u> P.S.I.	Open Tool	<u>2:50</u>	<u>M</u>
B First Initial Flow Pressure	<u>80</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>303</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
D Initial Closed-in Pressure	<u>892</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>390</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>48</u> Mins.
F Second Final Flow Pressure	<u>468</u> P.S.I.			
G Final Closed-in Pressure	<u>892</u> P.S.I.			
H Final Hydrostatic Mud	<u>1120</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 7 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: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

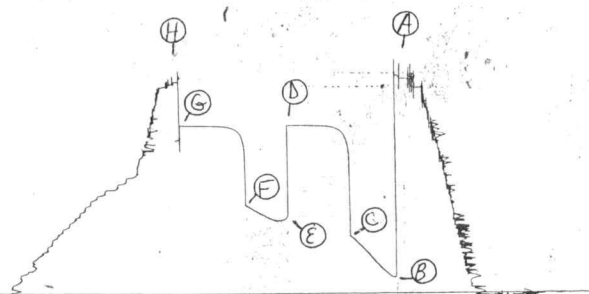
Final Shut-In
Breakdown: 16 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>80</u>	<u>0</u>	<u>303</u>	<u>0</u>	<u>390</u>	<u>0</u>	<u>468</u>
P 2 <u>5</u>	<u>95</u>	<u>3</u>	<u>788</u>	<u>5</u>	<u>390</u>	<u>3</u>	<u>813</u>
P 3 <u>10</u>	<u>129</u>	<u>6</u>	<u>846</u>	<u>10</u>	<u>392</u>	<u>6</u>	<u>852</u>
P 4 <u>15</u>	<u>169</u>	<u>9</u>	<u>867</u>	<u>15</u>	<u>405</u>	<u>9</u>	<u>869</u>
P 5 <u>20</u>	<u>210</u>	<u>12</u>	<u>877</u>	<u>20</u>	<u>424</u>	<u>12</u>	<u>879</u>
P 6 <u>25</u>	<u>246</u>	<u>15</u>	<u>884</u>	<u>25</u>	<u>443</u>	<u>15</u>	<u>884</u>
P 7 <u>30</u>	<u>282</u>	<u>18</u>	<u>886</u>	<u>30</u>	<u>468</u>	<u>18</u>	<u>886</u>
P 8 <u>35</u>	<u>303</u>	<u>21</u>	<u>887</u>			<u>21</u>	<u>887</u>
P 9		<u>24</u>	<u>888</u>			<u>24</u>	<u>888</u>
P10		<u>27</u>	<u>889</u>			<u>27</u>	<u>889</u>
P11		<u>30</u>	<u>890</u>			<u>30</u>	<u>890</u>
P12		<u>33</u>	<u>891</u>			<u>33</u>	<u>891</u>
P13		<u>36</u>	<u>891</u>			<u>36</u>	<u>891</u>
P14		<u>39</u>	<u>891</u>			<u>39</u>	<u>891</u>
P15		<u>42</u>	<u>891</u>			<u>42</u>	<u>891</u>
P16		<u>45</u>	<u>891</u>			<u>45</u>	<u>891</u>
P17		<u>48</u>	<u>892</u>			<u>48</u>	<u>892</u>
P18							
P19							
P20							

DST
#2

TKT. # 1040.2

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Company Smitherman Drilling Company Lease & Well No. Ralston #7
Elevation N/A Formation Arbuckle Effective Pay - Ft. Ticket No. 10403
Date 7/29/81 Sec. 17 Twp. 28S Range 4E County Butler State Kansas
Test Approved by Mark A. Thompson Western Representative Kenny Kirkendall

Formation Test No. 3 Interval Tested from 2418 ft. to 2432 ft. Total Depth 2432 ft.
Packer Depth 2418 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2413 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2423 ft. Recorder Number 2605 Cap. 4150
Bottom Recorder Depth (Outside) 2428 ft. Recorder Number 10979 Cap. 4100
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Drilling Rig #4 Drill Collar Length 150 I. D. - in.
Mud Type chemical Viscosity 43 Weight Pipe Length - I. D. - in.
Weight 9.2 Water Loss 11.2 cc. Drill Pipe Length - I. D. - in.
Chlorides 1,400 P.P.M. Test Tool Length 18 ft. Tool Size 5 1/2 in.
Jars: Make No Serial Number - Anchor Length 14 ft. Size 5 1/2 in.
Did Well Flow? -- Reversed Out - 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: Good blow throughout test.

Recovered 1800 ft. of salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s)	A.M. P.M.	Time Started Off Bottom	A.M. P.M.	Maximum Temperature
<u>2:45</u>				<u>110°</u>
Initial Hydrostatic Pressure		(A) <u>1161</u>	P.S.I.	
Initial Flow Period	Minutes <u>35</u>	(B) <u>110</u>	P.S.I. to (C) <u>464</u>	P.S.I.
Initial Closed In Period	Minutes <u>48</u>	(D) <u>916</u>	P.S.I.	
Final Flow Period	Minutes <u>30</u>	(E) <u>562</u>	P.S.I. to (F) <u>717</u>	P.S.I.
Final Closed In Period	Minutes <u>60</u>	(G) <u>914</u>	P.S.I.	
Final Hydrostatic Pressure		(H) <u>1151</u>	P.S.I.	

WESTERN TESTING CO., INC.
Pressure Data

Date 7/29/81
Recorder No. 2605 Capacity 4150 Test Ticket No. 10403
Clock No. - Elevation - Location 2423 Ft. -
Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1161	P.S.I.	2:45	M
B First Initial Flow Pressure	110	P.S.I.	30	Mins. 35
C First Final Flow Pressure	464	P.S.I.	45	Mins. 48
D Initial Closed-in Pressure	916	P.S.I.	30	Mins. 30
E Second Initial Flow Pressure	562	P.S.I.	45	Mins. 60
F Second Final Flow Pressure	717	P.S.I.		
G Final Closed-in Pressure	914	P.S.I.		
H Final Hydrostatic Mud	1151	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>7</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>20</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>110</u>	<u>0</u>	<u>464</u>	<u>0</u>	<u>562</u>	<u>0</u>	<u>717</u>
P 2 <u>5</u>	<u>127</u>	<u>3</u>	<u>804</u>	<u>5</u>	<u>562</u>	<u>3</u>	<u>844</u>
P 3 <u>10</u>	<u>195</u>	<u>6</u>	<u>838</u>	<u>10</u>	<u>581</u>	<u>6</u>	<u>869</u>
P 4 <u>15</u>	<u>258</u>	<u>9</u>	<u>859</u>	<u>15</u>	<u>614</u>	<u>9</u>	<u>881</u>
P 5 <u>20</u>	<u>320</u>	<u>12</u>	<u>869</u>	<u>20</u>	<u>651</u>	<u>12</u>	<u>892</u>
P 6 <u>25</u>	<u>379</u>	<u>15</u>	<u>879</u>	<u>25</u>	<u>684</u>	<u>15</u>	<u>898</u>
P 7 <u>30</u>	<u>428</u>	<u>18</u>	<u>888</u>	<u>30</u>	<u>717</u>	<u>18</u>	<u>900</u>
P 8 <u>35</u>	<u>464</u>	<u>21</u>	<u>894</u>			<u>21</u>	<u>903</u>
P 9		<u>24</u>	<u>900</u>			<u>24</u>	<u>906</u>
P10		<u>27</u>	<u>902</u>			<u>27</u>	<u>909</u>
P11		<u>30</u>	<u>906</u>			<u>30</u>	<u>911</u>
P12		<u>33</u>	<u>908</u>			<u>33</u>	<u>912</u>
P13		<u>36</u>	<u>910</u>			<u>36</u>	<u>912</u>
P14		<u>39</u>	<u>912</u>			<u>39</u>	<u>913</u>
P15		<u>42</u>	<u>914</u>			<u>42</u>	<u>913</u>
P16		<u>45</u>	<u>916</u>			<u>45</u>	<u>914</u>
P17		<u>48</u>	<u>916</u>			<u>48</u>	<u>914</u>
P18						<u>51</u>	<u>914</u>
P19						<u>54</u>	<u>914</u>
P20						<u>57</u>	<u>914</u>
						<u>60</u>	<u>914</u>

2605

DSX
#3

TK+ #10403
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