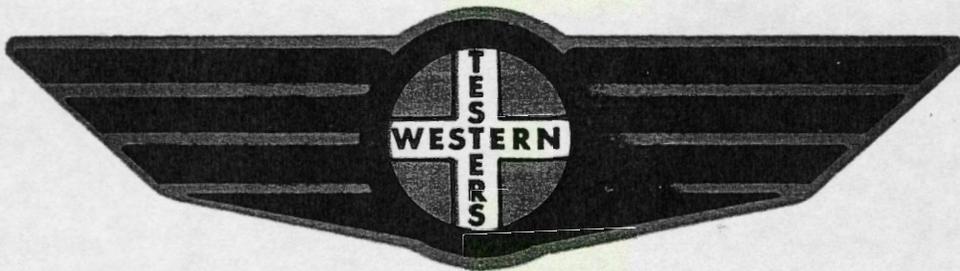


FORMATION

TEST

REPORT

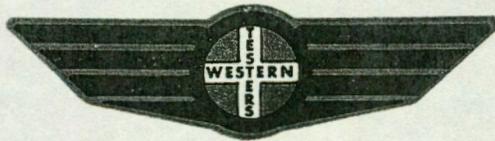


HOME OFFICE

P. O. BOX 793

GREAT BEND, KANSAS

Gladstone 3-7903



Home Office: Great Bend, Kansas

Elev. 2495' D.P.

P. O. Box 793

Gladstone 3-7903

Company Walters Drilling Company Lease & Well No. Hickman #4 Trk. #2903

Date 11-2-62 Sec. 17 Twp. 17 Range 24 County Waba State Kansas

Test Approved by Don D. Beauchamp Western Representative Bill Hager

Formation Test No. 1 O.K. Misrun Interval Tested From 4338' to 4372' Total Depth 4372'
Size Main Hole 7 7/8" Rat Hole None Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 4333 Ft. Size 6 3/4" Packer Depth 4338 Ft. Size 6 3/4"
Straddle Yes No Conv. B.T. Damaged Yes No
Packer Depth 4333 Ft. Size 6 3/4"
Tool Size 7 5/8" O.D. Tool Jt. Size 4 1/2" P.H. Anchor Length 34 Ft. Size 5 1/2" O.D.

RECORDERS
Depth 4341 Ft. Clock No. 6774 Inside
Top Make Amrad Cap. 3150# No. 1560 Outside
Below Straddle: Depth _____ Clock No. _____ Inside
Top Make _____ Cap. _____ No. _____ Outside
Depth 4344 Ft. Clock No. 102 Inside
Bottom Make Western Cap. 4000# No. 22 Outside
Depth _____ Clock No. _____ Inside
Bottom Make _____ Cap. _____ No. _____ Outside

Time Set Packer 1:58 P M
Tool Open I.F.P. From 2:00P M. to 2:05P M. - Hr. 5 Min. From (B) 23 P.S.I. To (C) 54 P.S.I.
Tool Closed I.C.I.P. From 2:06P M. to 2:36P M. - Hr. 30 Min. (D) 1226 P.S.I.
Tool Open F.F.P. From 2:37P M. to 3:37P M. 1 Hr. - Min From (E) 81 P.S.I. To (F) 180 P.S.I.
Tool Closed F.C.I.P. From 3:38P M. to 4:08P M. - Hr. 30 Min. (G) 1001 P.S.I.
Initial Hydrostatic Pressure (A) 2394 P.S.I. Final Hydrostatic Pressure (H) 2358 P.S.I.

SURFACE Size Choke 1 in. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW Strong blow throughout test Bottom Choke Size 3/4 in.
Did Well Flow Yes No. Recovery Total Fr. 475 Oil 1875' G.I.P. Gas XX Water _____
45' G.C.M. - 60' O. & G.C.M. - 370' Froggy Oil Mud _____

Reversed Out Yes No Mud Type starch Viscosity 40 Weight 10.1 Maximum Temp. 117 °F
EXTRA EQUIPMENT: Dual Packers Safety Joint Jars: Size No Make _____ Ser. No. _____
Type Circ. Sub. 4 1/2" P.H. Plug Did Tool Plug? No Where? _____ Did Packer Hold? Yes

Remarks
48' Test Tool
755' Wt. Pipe - 2.7" I.D.
3569' D.P. - 3.8" I.D.

WESTERN TESTING CO., INC.
Pressure Data

Date 11-2-52 Test Ticket No. 2903
 Order No. 1560 Capacity 3150# Location 4341 Ft.
 Check No. 6774 Elevation 2195' D.P. Well Temperature 117 °F

Point	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	<u>2094</u>	P.S.I.	<u>1:58P</u>	<u>1:58 PM</u>
First Initial Flow Pressure	<u>23</u>	P.S.I.	<u>5</u> Mins.	<u>5</u> Mins.
First Final Flow Pressure	<u>54</u>	P.S.I.	<u>30</u> Mins.	<u>29</u> Mins.
Initial Closed-in Pressure	<u>1226</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
Second Initial Flow Pressure	<u>81</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
Second Final Flow Pressure	<u>180</u>	P.S.I.		
Final Closed-in Pressure	<u>1001</u>	P.S.I.		
Final Hydrostatic Mud	<u>2358</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Press.	Initial Shut-In	Second Flow Pressure	Final Shut-In
Breakdown: <u>1</u> Inc.	Breakdown: <u>9</u> Inc.	Breakdown: <u>12</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>-</u> Min.	final inc. of <u>2</u> Min.	final inc. of <u>-</u> Min.	final inc. of <u>-</u> Min.

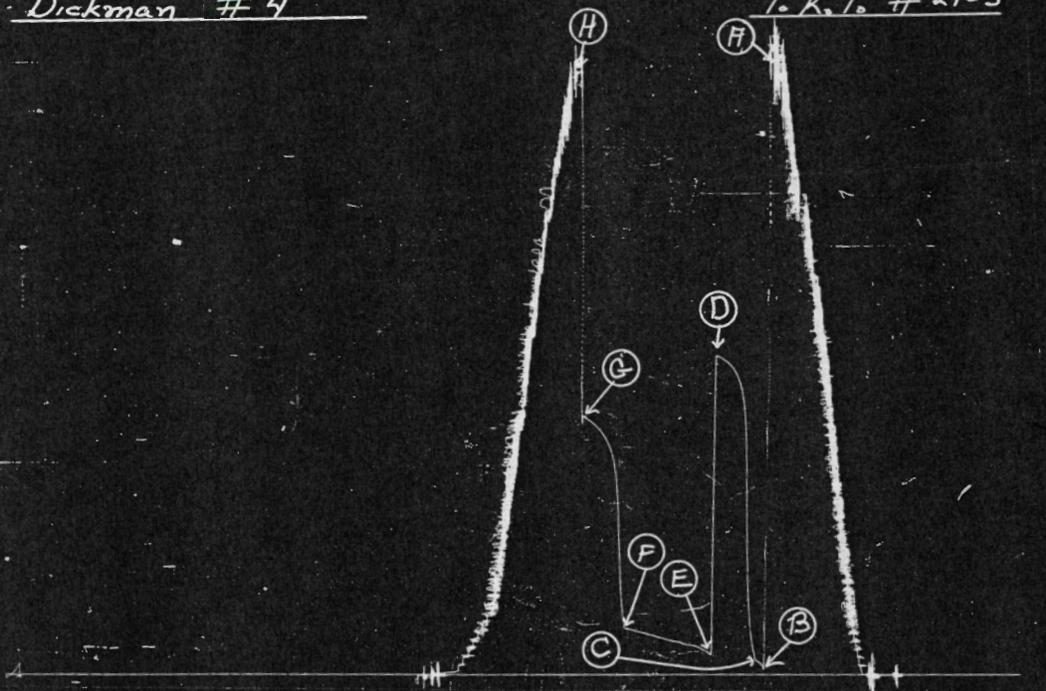
Point	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
0	23	0	54	0	81	0	180
5	54	3	119	5	95	3	349
		6	915	10	109	6	742
		9	1039	15	113	9	857
		12	1129	20	121	12	901
		15	1169	25	128	15	930
		18	1192	30	136	18	951
		21	1209	35	144	21	968
		24	1220	40	151	24	981
		27	1230	45	158	27	992
		29	1226 ^h	50	165	30	1001
				55	173		
				60	180		

Walters Drlg. Co.

Dickman #4

Test #1

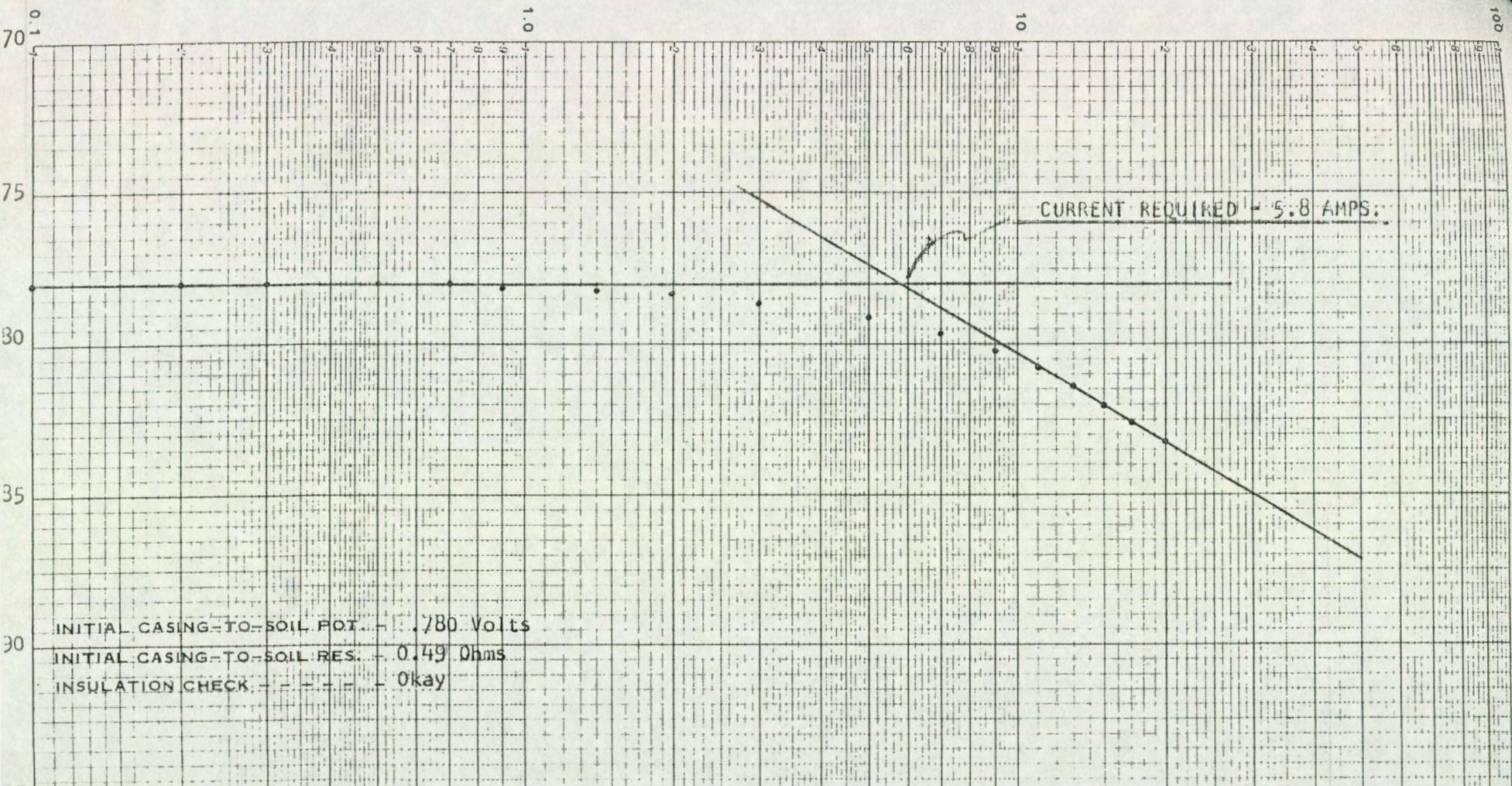
T.K.T. # 2903



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2394	PSI
(B) First Initial Flow Pressure	23	PSI
(C) First Final Flow Pressure	54	PSI
(D) Initial Closed-in Pressure	1226	36 PSI
(E) Second Initial Flow Pressure	81	PSI
(F) Second Final Flow Pressure	180	PSI
(G) Final Closed-in Pressure	1001	PSI
(H) Final Hydrostatic Mud	2358	PSI

IMPRESSED CURRENT - AMPERES



INITIAL CASING-TO-SOIL POT. - .780 Volts
 INITIAL CASING-TO-SOIL RES. - 0.49 Ohms
 INSULATION CHECK - - - - - Okay

SOIL RESISTIVITY CHECK			
LOCATION	6'	12'	18'
S-SW	648	576	1008

CORROSION SERVICES, INC.	
CURRENT REQUIREMENT TEST	
COMPANY: WALTERS DRILLING COMPANY	
WELL: Dickman SWD #4	
LOCATION: Sec. 17, 17S, 24W	FIELD:
COUNTY: Ness	STATE: Kansas
DATE: 5-24-63	ENGR: KRH



Home Office: Great Bend, Kansas

P. O. Box 793

Gladstone 3-7903

Elev. 2495' B.P.

Company Western Drilling Company

Lease & Well No. Dickman #4

Trt. #2904

Date 11-3-62 Sec. 17 Twp. 17 Range 24 County Wash State Kansas

Test Approved by Don D. Beauchamp Western Representative Bill Hager

Formation Test No. 2 O.K. Misrun Interval Tested From 4460' to 4467' Total Depth 4467'
 Size Main Hole 7 7/8" Rat Hole 6 1/8" Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
 Packer Depth 4460 Ft. Size 5 1/2" Packer Depth _____ Ft. Size _____
 Straddle Yes No Conv. B.T. Damaged Yes No
 Packer Depth _____ Ft. Size _____
 Tool Size 5 1/2" O.D. Tool Jt. Size 1 1/2" P.H. Anchor Length - 7 Ft. Size 1 1/2" O.D.

RECORDERS Depth 4454 Ft. Clock No. 6774 ~~EX~~ Depth 4455 Ft. Clock No. 102
 Top Make Amerada Cap. 3200# No. 1561 Inside Outside Bottom Make Western Cap. 4000# No. 21 Inside Outside
 Below Straddle: Depth _____ Clock No. _____ Inside Outside Depth _____ Ft. Clock No. _____ Inside Outside
 Top Make _____ Cap. _____ No. _____ Outside Inside Bottom Make _____ Cap. _____ No. _____ Outside Inside

Time Set Packer 4:15P M
 Tool Open I.F.P. From 4:16P M. to 4:21P M. - Hr. 5 Min. From (B) 35 P.S.I. To (C) 35 P.S.I.
 Tool Closed I.C.I.P. From 4:22P M. to 4:52P M. - Hr. 30 Min. (D) 1182 P.S.I.
 Tool Open F.F.P. From 4:53P M. to 5:53P M. 1 Hr. - Min From (E) 39 P.S.I. To (F) 51 P.S.I.
 Tool Closed F.C.I.P. From 5:54P M. to 6:54P M. 1 Hr. - Min. (G) 1125 P.S.I.
 Initial Hydrostatic Pressure (A) 2451 P.S.I. Final Hydrostatic Pressure (H) 2433 P.S.I.

SURFACE Size Choke 1 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
 INFORMATION _____ M. _____
 _____ M. _____
 _____ M. _____

BLOW Weak blow for 45 mins. - Flushed tool - Very weak for 3 mins. Bottom Choke Size 3/4 in.

Did Well Flow Yes No. Recovery Total Ft. 45 Oil _____ Gas _____ Water _____ Mud _____

Reversed Out Yes No Mud Type Starch Viscosity 45 Weight 10.3 Maximum Temp. 124 °F

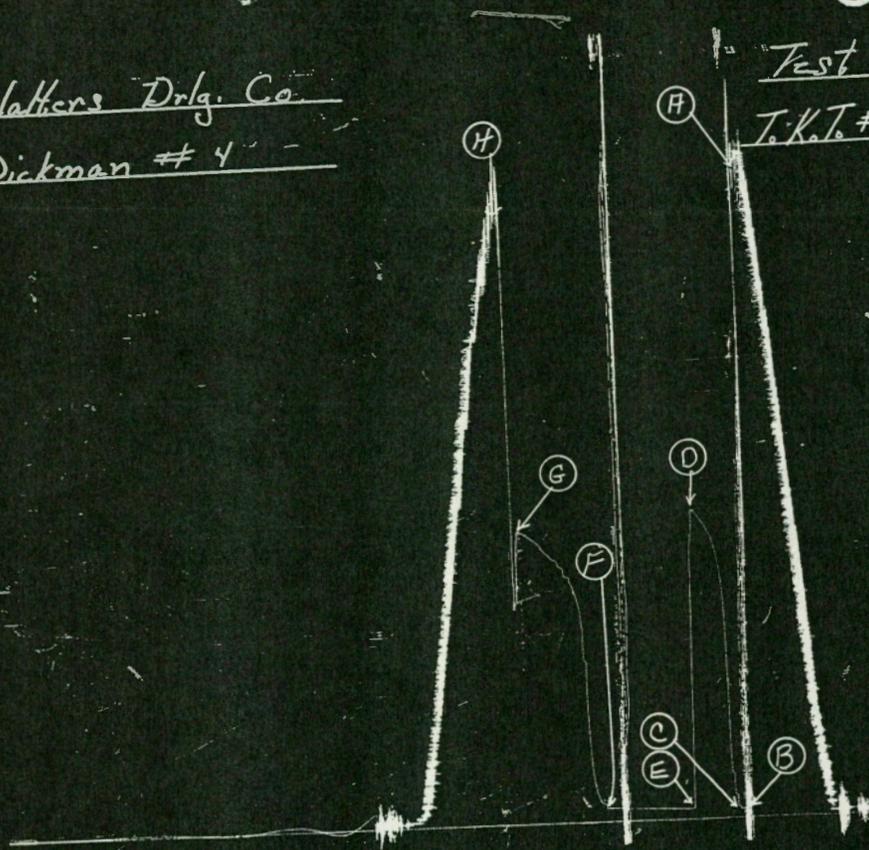
EXTRA EQUIPMENT: Dual Packers No Safety Joint No Jars: Size No Make _____ Ser. No. _____

Type Circ. Sub. 4 1/2" P.H. Plug Did Tool Plug? No Where? _____ Did Packer Hold? Yes

Remarks
27' Test Tool
755' Mt. Pipe - 2.7" I.D.
3685' B.P. - 3.8" I.D.

Walters Drlg. Co.
Dickman # 4

Test # 2
T.K.T. # 2904



This is an actual photograph of recorder chart.

POINT	PRESSURE	
(A) Initial Hydrostatic Mud	2451	PSI
(B) First Initial Flow Pressure	35	PSI
(C) First Final Flow Pressure	35	PSI
(D) Initial Closed-in Pressure	1182	PSI
(E) Second Initial Flow Pressure	39	PSI
(F) Second Final Flow Pressure	51	PSI
(G) Final Closed-in Pressure	1125	PSI
(H) Final Hydrostatic Mud	2433	PSI

WESTERN TESTING CO., INC.
Pressure Data

11-3-62
 Order No. 1561 Capacity 32007 Location 115A Ft.
 Well No. 6774 Elevation 2495' D.F. Well Temperature 124 °F
 Test Ticket No. 2904

	Pressure			Time Given		Time Computed
Initial Hydrostatic Mud	<u>2451</u>	P.S.I.	Opened Tool	<u>4:16P</u>	M	<u>4:16P</u>
First Initial Flow Pressure	<u>35</u>	P.S.I.	First Flow Pressure	<u>5</u>	Mins.	<u>4</u> Mins.
First Final Flow Pressure	<u>35</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u>	Mins.	<u>29</u> Mins.
Initial Closed-in Pressure	<u>1182</u>	P.S.I.	Second Flow Pressure	<u>60</u>	Mins.	<u>60</u> Mins.
Second Initial Flow Pressure	<u>39</u>	P.S.I.	Final Closed-in Pressure	<u>60</u>	Mins.	<u>57</u> Mins.
Second Final Flow Pressure	<u>51</u>	P.S.I.				
Final Closed-in Pressure	<u>1125</u>	P.S.I.				
Final Hydrostatic Mud	<u>2433</u>	P.S.I.				

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>19</u> Inc.	
of <u>4</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>-</u> Min.		final inc. of <u>2</u> Min.		final inc. of <u>-</u> Min.		final inc. of <u>-</u> Min.	

	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
<u>0</u>	<u>35</u>	<u>0</u>	<u>35</u>	<u>0</u>	<u>39</u>	<u>0</u>	<u>51</u>
<u>4</u>	<u>35</u>	<u>3</u>	<u>90</u>	<u>5</u>	<u>39</u>	<u>3</u>	<u>71</u>
		<u>6</u>	<u>248</u>	<u>10</u>	<u>40</u>	<u>6</u>	<u>114</u>
		<u>9</u>	<u>278</u>	<u>15</u>	<u>40</u>	<u>9</u>	<u>215</u>
		<u>12</u>	<u>1000</u>	<u>20</u>	<u>41</u>	<u>12</u>	<u>619</u>
		<u>15</u>	<u>1063</u>	<u>25</u>	<u>42</u>	<u>15</u>	<u>822</u>
		<u>18</u>	<u>1103</u>	<u>30</u>	<u>42</u>	<u>18</u>	<u>878</u>
		<u>21</u>	<u>1131</u>	<u>35</u>	<u>43</u>	<u>21</u>	<u>924</u>
		<u>24</u>	<u>1157</u>	<u>40</u>	<u>44</u>	<u>24</u>	<u>944</u>
		<u>27</u>	<u>1175</u>	<u>45</u>	<u>45</u>	<u>27</u>	<u>977</u>
		<u>29</u>	<u>1182</u>	<u>50</u>	<u>46</u>	<u>30</u>	<u>1006</u>
				<u>55</u>	<u>50</u>	<u>33</u>	<u>1015</u>
				<u>60</u>	<u>51</u>	<u>36</u>	<u>1033</u>
						<u>39</u>	<u>1050</u>
						<u>42</u>	<u>1066</u>
						<u>45</u>	<u>1087</u>
						<u>48</u>	<u>1100</u>
						<u>51</u>	<u>1112</u>
						<u>54</u>	<u>1123</u>
						<u>57</u>	<u>1125</u>