

Company Imperial Oil Company Lease & Well No. Seacat #1-25
 Elevation 2440 Kelly Bushing Formation --- Effective Pay --- Ticket No. 3400
 Date 9/6/79 Sec. 25 Twp. 29S Range 21W County Ford State Kansas
 Test Approved by Hal Clarke Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 5199 ft. to 5226 ft. Total Depth 5226 ft.
 Packer Depth 5194 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4199 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5203 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 4206 ft. Recorder Number 2606 Cap. 4150
 Below Straddle Recorder Depth = ft. Recorder Number = Cap. =

Drilling Contractor Eagle Drilling Company Drill Collar Length 374 I. D. 2 1/4 in.
 Mud Type Mon-Pac Viscosity 53 Weight Pipe Length 317 I. D. 2 1/2 in.
 Weight 9.1 Water Loss 11.0 cc. Drill Pipe Length 4480 I. D. 3.8 in.
 Chlorides 31,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 407 Anchor Length 27 ft. Size 5 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 FH in.

Blow: Very weak blow on initial flow; died in thirty minutes: few bubbles on final flow.

Recovered 25 ft. of oil spotted drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: OUTSIDE RECORDER CLOCK STOPPED.

Time Set	Packer(s)	Time Started	Off Bottom	Maximum Temperature
	<u>6:20</u>	<u>9:20</u>		<u>126</u>
Initial Hydrostatic Pressure		(A)	<u>2578</u>	P.S.I.
Initial Flow Period	Minutes <u>60</u>	(B)	<u>99</u>	P.S.I. to (C) <u>33</u> P.S.I.
Initial Closed In Period	Minutes <u>60</u>	(D)	<u>45</u>	P.S.I.
Final Flow Period	Minutes <u>60</u>	(E)	<u>43</u>	P.S.I. to (F) <u>26</u> P.S.I.
Final Closed In Period	Minutes <u>60</u>	(G)	<u>32</u>	P.S.I.
Final Hydrostatic Pressure		(H)	<u>2557</u>	P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 9/6/79 Test Ticket No. 3400
 Recorder No. 2604 Capacity 4150 Location 5203 Ft.
 Clock No. -- Elevation 2440 Kelly Bushing Well Temperature 126 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2578	P.S.I.	6:20P	M
B First Initial Flow Pressure	99	P.S.I.	60	Mins. 60 Mins.
C First Final Flow Pressure	33	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	45	P.S.I.	60	Mins. 60 Mins.
E Second Initial Flow Pressure	43	P.S.I.	60	Mins. 60 Mins.
F Second Final Flow Pressure	26	P.S.I.		
G Final Closed-in Pressure	32	P.S.I.		
H Final Hydrostatic Mud	2557	P.S.I.		

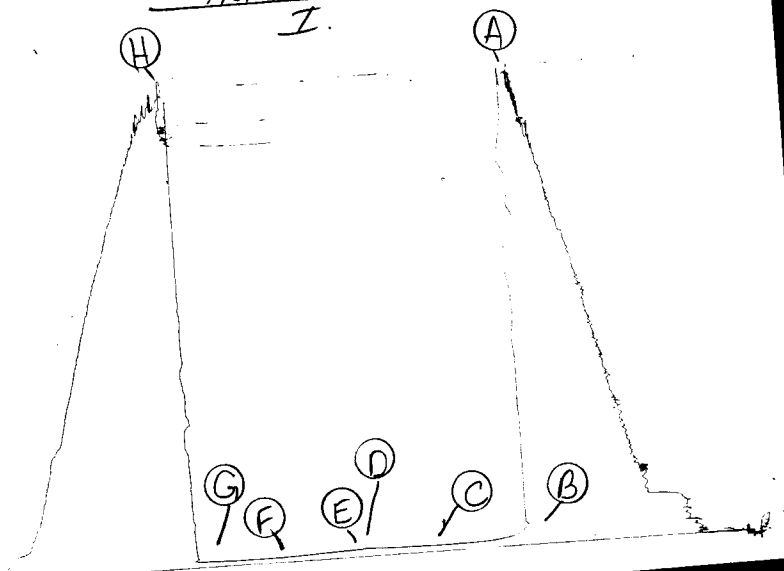
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>12</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.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	99	0	33	0	43	0	26	0
P 2	71	5	33	3	41	5	26	3
P 3	55	10	33	6	39	10	25	6
P 4	47	15	34	9	38	15	25	9
P 5	43	20	35	12	37	20	25	12
P 6	40	25	35	15	36	25	25	15
P 7	36	30	36	18	34	30	26	18
P 8	35	35	36	21	32	35	26	21
P 9	34	40	36	24	30	40	26	24
P10	33	45	37	27	29	45	27	27
P11	33	50	37	30	29	50	27	30
P12	33	55	39	33	28	55	28	33
P13	33	60	39	36	26	60	28	36
P14			39	39			29	39
P15			39	42			29	42
P16			40	45			30	45
P17			41	48			30	48
P18			42	51			31	51
P19			43	54			31	54
P20			44	57			32	57
			45	60			32	60

2604 DST #1

TKI #3400

I.



Company Imperial Oil Company Lease & Well No. Seacat #1-25
 Elevation 2440 Kelly Bushing Formation Mississippi Effective Pay -- Ft. Ticket No. 3951
 Date 9/7/79 Sec. 25 Twp. 29S Range 21W County Ford State Kansas
 Test Approved by Hal Clarke Western Representative Rod Tritt

Formation Test No. 2 Interval Tested from 5223 ft. to 5263 ft. Total Depth 5263 ft.
 Packer Depth 5218 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5223 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --

Top Recorder Depth (Inside) 5227 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 5230 ft. Recorder Number 2606 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Eagle Drilling Rig #1 Drill Collar Length 374 I. D. 2 1/4 in.
 Mud Type mon-pac Viscosity 54 Weight Pipe Length 317 I. D. 2 1/2 in.
 Weight 9.0 Water Loss 10.2 cc. Drill Pipe Length 4517 I. D. 3.8 in.
 Chlorides 35,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 407 Anchor Length 40 ft. Size 5 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 FH in.

Blow: Good blow throughout test. No gas to surface

Recovered 130 ft. of drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 6:20 A.M. Time Started Off Bottom 12:20 P.M. Maximum Temperature 129
 Initial Hydrostatic Pressure 2587 P.S.I. (A)
 Initial Flow Period 60 Minutes (B) 119 P.S.I. to (C) 81 P.S.I.
 Initial Closed In Period 120 Minutes (D) 185 P.S.I.
 Final Flow Period 60 Minutes (E) 111 P.S.I. to (F) 77 P.S.I.
 Final Closed In Period 120 Minutes (G) 346 P.S.I.
 Final Hydrostatic Pressure 2532 P.S.I. (H)

WESTERN TESTING CO., INC.
Pressure Data

Date 9/7/79 Test Ticket No. 3951
 Recorder No. 2604 Capacity 4150 Location 5227 Ft.
 Clock No. -- Elevation 2440 Kelly Bushing Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2587</u> P.S.I.	Open Tool	<u>6:20P</u>	<u>M</u>
B. First Initial Flow Pressure	<u>119</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
C. First Final Flow Pressure	<u>81</u> P.S.I.	Initial Closed-in Pressure	<u>120</u> Mins.	<u>120</u> Mins.
D. Initial Closed-in Pressure	<u>185</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E. Second Initial Flow Pressure	<u>111</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	<u>120</u> Mins.
F. Second Final Flow Pressure	<u>77</u> P.S.I.			
G. Final Closed-in Pressure	<u>346</u> P.S.I.			
H. Final Hydrostatic Mud	<u>2532</u> P.S.I.			

PRESSURE BREAKDOWN

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

Initial Shut-In
 Breakdown: 40 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: 40 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>119</u>	<u>0</u>	<u>81</u>	<u>0</u>	<u>111</u>	<u>0</u>	<u>77</u>
P 2 <u>5</u>	<u>104</u>	<u>3</u>	<u>81</u>	<u>5</u>	<u>102</u>	<u>3</u>	<u>77</u>
P 3 <u>10</u>	<u>94</u>	<u>6</u>	<u>81</u>	<u>10</u>	<u>92</u>	<u>6</u>	<u>79</u>
P 4 <u>15</u>	<u>92</u>	<u>9</u>	<u>81</u>	<u>15</u>	<u>87</u>	<u>9</u>	<u>83</u>
P 5 <u>20</u>	<u>85</u>	<u>12</u>	<u>83</u>	<u>20</u>	<u>83</u>	<u>21</u>	<u>87</u>
P 6 <u>25</u>	<u>83</u>	<u>15</u>	<u>85</u>	<u>25</u>	<u>81</u>	<u>15</u>	<u>92</u>
P 7 <u>30</u>	<u>81</u>	<u>18</u>	<u>89</u>	<u>30</u>	<u>79</u>	<u>18</u>	<u>96</u>
P 8 <u>35</u>	<u>81</u>	<u>21</u>	<u>91</u>	<u>35</u>	<u>79</u>	<u>21</u>	<u>100</u>
P 9 <u>40</u>	<u>81</u>	<u>24</u>	<u>94</u>	<u>40</u>	<u>77</u>	<u>24</u>	<u>109</u>
P10 <u>45</u>	<u>81</u>	<u>27</u>	<u>96</u>	<u>45</u>	<u>77</u>	<u>27</u>	<u>115</u>
P11 <u>50</u>	<u>81</u>	<u>30</u>	<u>98</u>	<u>50</u>	<u>77</u>	<u>30</u>	<u>124</u>
P12 <u>55</u>	<u>81</u>	<u>33</u>	<u>101</u>	<u>55</u>	<u>77</u>	<u>33</u>	<u>128</u>
P13 <u>60</u>	<u>81</u>	<u>36</u>	<u>104</u>	<u>60</u>	<u>77</u>	<u>36</u>	<u>134</u>
P14		<u>39</u>	<u>108</u>			<u>39</u>	<u>141</u>
P15		<u>42</u>	<u>110</u>			<u>42</u>	<u>147</u>
P16		<u>45</u>	<u>114</u>			<u>45</u>	<u>153</u>
P17		<u>48</u>	<u>117</u>			<u>48</u>	<u>162</u>
P18		<u>51</u>	<u>120</u>			<u>51</u>	<u>170</u>
P19		<u>54</u>	<u>123</u>			<u>54</u>	<u>177</u>
P20		<u>57</u>	<u>126</u>			<u>57</u>	<u>183</u>
		<u>60</u>	<u>128</u>			<u>60</u>	<u>192</u>

WESTERN TESTING CO., INC.

Pressure Data

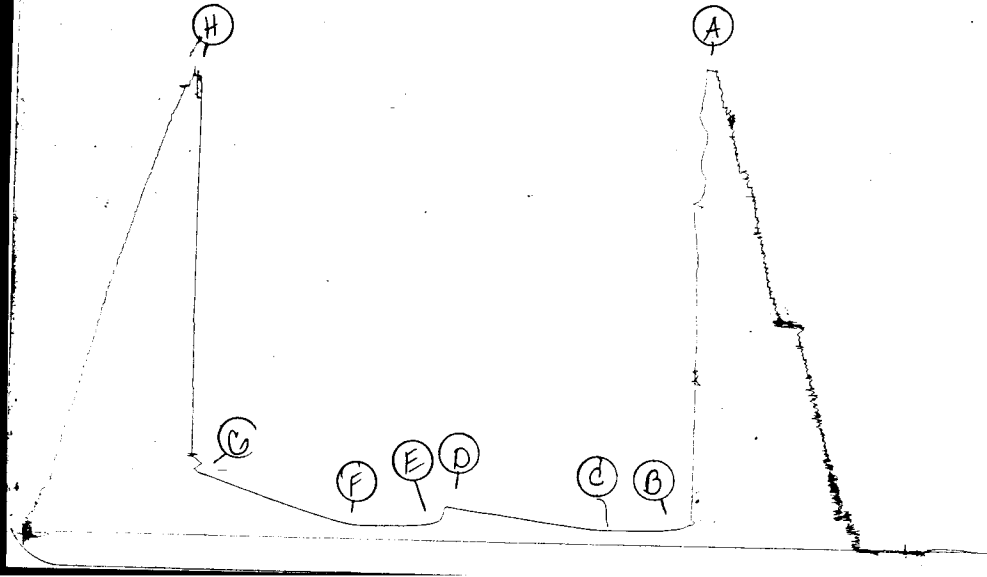
Date 9/7/79 Test Ticket No. 3951
 Recorder No. 2604 Capacity 4150 Location 5227 Ft.
 Clock No. -- Elevation 2440 Kelly Bushing Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2587	P.S.I.	6:20P	M
B First Initial Flow Pressure	119	P.S.I.	60	Mins. 60 Mins.
C First Final Flow Pressure	81	P.S.I.	120	Mins. 120 Mins.
D Initial Closed-in Pressure	185	P.S.I.	60	Mins. 60 Mins.
E Second Initial Flow Pressure	111	P.S.I.	120	Mins. 120 Mins.
F Second Final Flow Pressure	77	P.S.I.		
G Final Closed-in Pressure	346	P.S.I.		
H Final Hydrostatic Mud	2532	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of 5 mins.	and a final inc. of 0 Min.	of 3 mins.	and a final inc. of 0 Min.	of 5 mins.	and a final inc. of 0 Min.	of 3 mins.	and a final inc. of 0 Min.
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1		63	132			63	198	
P 2		66	135			66	207	
P 3		69	138			69	213	
P 4		72	141			72	222	
P 5		75	145			75	230	
P 6		78	148			78	237	
P 7		81	150			81	245	
P 8		84	153			84	254	
P 9		87	155			87	262	
P10		90	158			90	267	
P11		93	161			93	275	
P12		96	164			96	284	
P13		99	168			99	292	
P14		102	171			102	301	
P15		105	173			105	307	
P16		108	175			108	316	
P17		111	178			111	325	
P18		114	180			114	331	
P19		117	183			117	337	
P20		120	185			120	346	

TRK # 3951
I



Company Imperial Oil Company Lease & Well No. Seacat #1-25
 Elevation 2440 Kelly Bushing Formation Mississippi Effective Pay -- Ft. Ticket No. 3952
 Date 9/9/79 Sec. 25 Twp. 29S Range 21W County Ford State Kansas
 Test Approved by Hal Calrke Western Representative Rod Tritt

Formation Test No. 3 Interval Tested from 5362 ft. to 5400 ft. Total Depth 5400 ft.
 Packer Depth 5357 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5362 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --

Top Recorder Depth (Inside) 5366 ft. Recorder Number 2604 Cap. 4150
 Bottom Recorder Depth (Outside) 5369 ft. Recorder Number 2606 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Eagle Drilling Rig #1 Drill Collar Length 374 I. D. 2 1/4 in.
 Mud Type premix-mon-pac Viscosity 56 Weight Pipe Length 317 I. D. 2 1/2 in.
 Weight 9.1 Water Loss 12.2 cc. Drill Pipe Length 4643 I. D. 3.8 in.
 Chlorides 34,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 407 Anchor Length 38 ft. Size 5 1/2 OD in.
 Did Well Flow? No 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 FH in.

Blow: Fair blow on initial flow and weak blow on final flow period. No gas to surface.

Recovered 700 ft. of muddy water
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 3:40 A.M. Time Started Off Bottom 9:40 P.M. Maximum Temperature 128
 Initial Hydrostatic Pressure 2697 P.S.I. (A)
 Initial Flow Period 60 Minutes (B) 55 P.S.I. to (C) 213 P.S.I.
 Initial Closed In Period 120 Minutes (D) 1664 P.S.I.
 Final Flow Period 55 Minutes (E) 288 P.S.I. to (F) 331 P.S.I.
 Final Closed In Period 120 Minutes (G) 1658 P.S.I.
 Final Hydrostatic Pressure 2642 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 9/9/79

Test Ticket No. 3952

Recorder No. 2604 Capacity 4150 Location -- Ft.

Clock No. -- Elevation 2440 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	2697	P.S.I.		3:40A	M
B First Initial Flow Pressure	55	P.S.I.	First Flow Pressure	60	Mins. 60 Mins.
C First Final Flow Pressure	213	P.S.I.	Initial Closed-in Pressure	120	Mins. 120 Mins.
D Initial Closed-in Pressure	1664	P.S.I.	Second Flow Pressure	60	Mins. 55 Mins.
E Second Initial Flow Pressure	288	P.S.I.	Final Closed-in Pressure	120	Mins. 120 Mins.
F Second Final Flow Pressure	331	P.S.I.			
G Final Closed-in Pressure	1658	P.S.I.			
H Final Hydrostatic Mud	2642	P.S.I.			

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 40 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 40 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	55	0	213	0	288	0	331
P 2	5	60	3	295	5	282	3	436
P 3	10	64	6	749	10	277	6	952
P 4	15	81	9	1240	15	280	9	1265
P 5	20	98	12	1343	20	282	12	1359
P 6	25	117	15	1395	25	286	15	1410
P 7	30	136	18	1431	30	292	18	1443
P 8	35	151	21	1460	35	299	21	1469
P 9	40	166	24	1479	40	310	24	1485
P10	45	181	27	1498	45	316	27	1506
P11	50	192	30	1513	50	322	30	1521
P12	55	205	33	1529	55	331	33	1534
P13	60	213	36	1540			36	1542
P14			39	1550			39	1555
P15			42	1561			42	1563
P16			45	1571			45	1574
P17			48	1582			48	1580
P18			51	1590			51	1586
P19			54	1597			54	1592
P20			57	1601			57	1599
			60	1606			60	1604

WESTERN TESTING CO., INC.
Pressure Data

Date 9/9/79 Test Ticket No. 3952
 Recorder No. 2604 Capacity 4150 Location -- Ft.
 Block No. -- Elevation 2440 Kelly Bushing Well Temperature 128 °F

Point	Pressure	Open Tool	Time Given	Time Computed
Initial Hydrostatic Mud	2697 P.S.I.	Open Tool	3:40A	M
First Initial Flow Pressure	55 P.S.I.	First Flow Pressure	60 Mins.	60 Mins.
First Final Flow Pressure	213 P.S.I.	Initial Closed-in Pressure	120 Mins.	120 Mins.
Initial Closed-in Pressure	1664 P.S.I.	Second Flow Pressure	60 Mins.	55 Mins.
Second Initial Flow Pressure	288 P.S.I.	Final Closed-in Pressure	120 Mins.	120 Mins.
Second Final Flow Pressure	331 P.S.I.			
Final Closed-in Pressure	1658 P.S.I.			
Final Hydrostatic Mud	2642 P.S.I.			

PRESSURE BREAKDOWN

Point Ins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
	final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
1		63	1611			63	1609	
2		66	1618			66	1613	
3		69	1622			69	1616	
4		72	1626			72	1621	
5		75	1630			75	1624	
6		78	1634			78	1627	
7		81	1637			81	1631	
8		84	1639			84	1633	
9		87	1642			87	1636	
10		90	1645			90	1641	
11		93	1647			93	1644	
12		96	1650			96	1646	
13		99	1652			99	1649	
14		102	1655			102	1650	
15		105	1658			105	1651	
16		108	1659			108	1652	
17		111	1660			111	1653	
18		114	1662			114	1655	
19		117	1663			117	1656	
20		120	1664			120	1658	

2604

DST #1

TRK # 3952
I

