

Note: This material is related to a section in AP42, *Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the file number, the AP42 chapter and then the section. The file name "rel01_c01s02.pdf" would mean the file relates to AP42 chapter 1 section 2. The document may be out of date and related to a previous version of the section. The document has been saved for archival and historical purposes. The primary source should always be checked. If current related information is available, it will be posted on the AP42 webpage with the current version of the section.

AP42 Section:	7.1
Related	4
Title:	Written communication from Karen Hazenrack to "Dick," regarding Gap Data May 4, 1979 Possibly Richard Burr, US EPA

5/4/79

Dick -

I've enclosed our most recent work-up of the gap data which you sent to Joe Zebaga recently. I've separated primary only tests from secondary seal tests.

Although not directly comparable, the general results seem to be consistent with the distribution given in the CTG. However, in comparing the total number of tests we counted with the counts given in the CTG, there are some differences, particularly in the total number of Tube seal tests. Since the general results seem to agree as well as a comparison can be made, I see no particular problem in our use of this data. Nevertheless, I did want to share our results with you prior to meeting on May 16, so that we could get any comments you may have on our analysis at the meeting.

Looking forward to seeing you in Houston and discussing our seal factor analysis with you.

cc. J.G. Zebaga
R.L. Russell
R.E. Hills

Karen Hanzewack

Analysis of CARB gap data -

	<u>ERE</u>	<u>EPA (from CTG)</u>
<u>Primary Seals</u>		
Welded Shoe	154	163
Tube (and with weatherhead)	115	141
Riveted	<u>87</u>	<u>94</u>
	1	
Total.	356	398

Secondary Seals

Welded	17	} 47
Riveted	<u>44</u>	
Total.	61	47

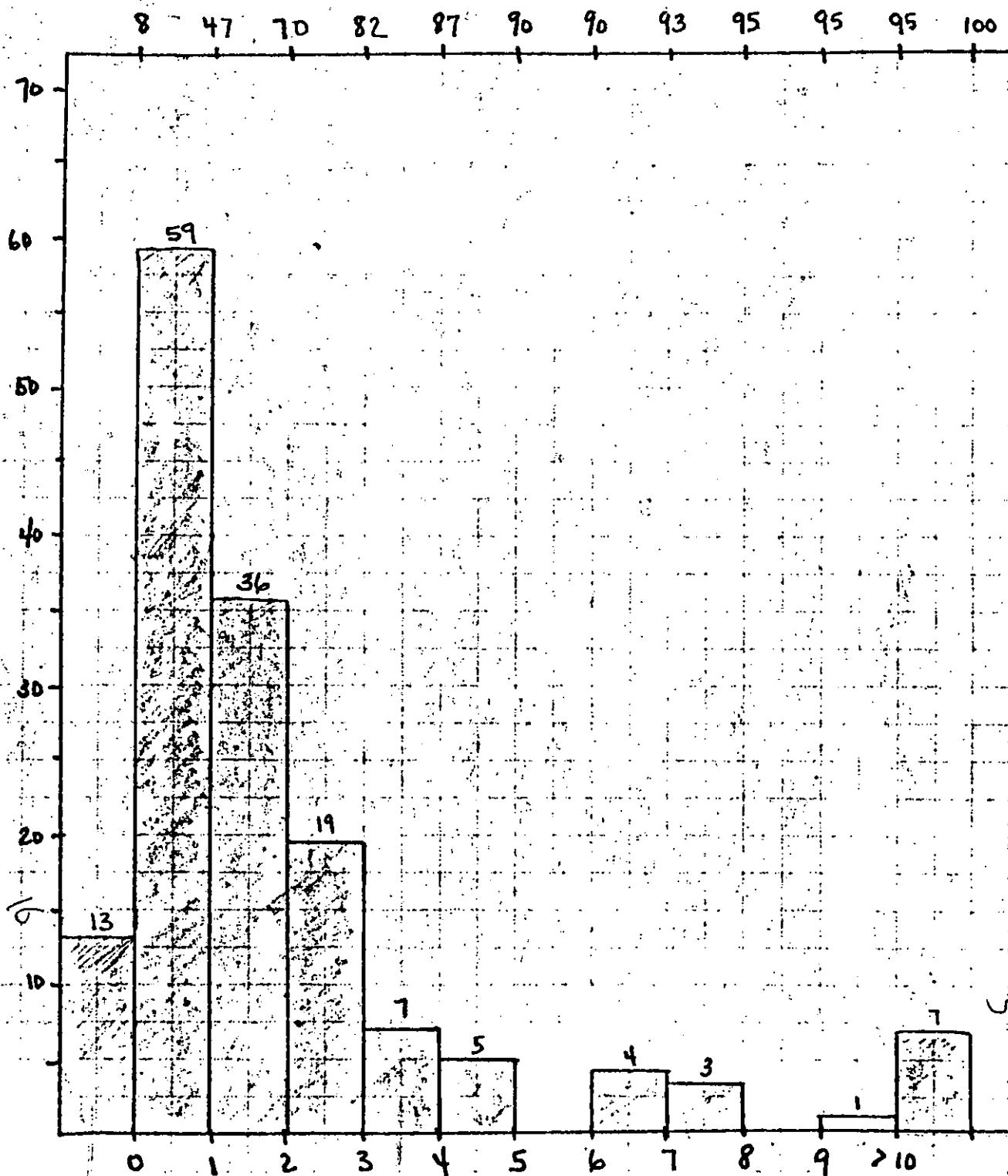
Total (Primary + Secondary) 417 445

GAP AREA DISTRIBUTION

Welded Tanks
Primary Shoe Seals

Cumulative Per cent

Number of Tests
(154 Total)



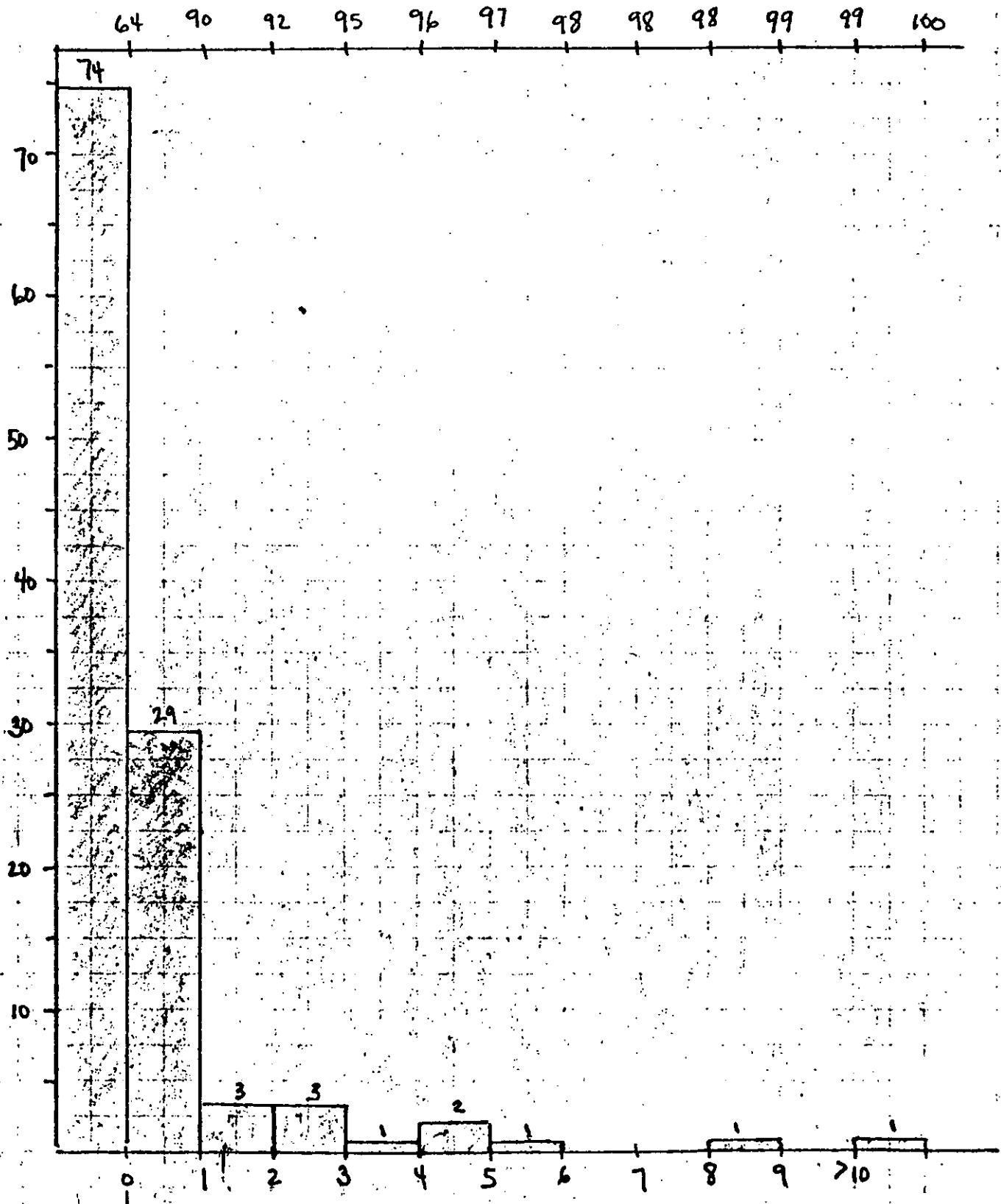
Total Gap Area (in²/ft²)

GAP AREA DISTRIBUTION-

Welded Tanks
Tube Seals
Including Weathershields

Cumulative Percent

Number of Tests
(115 total)



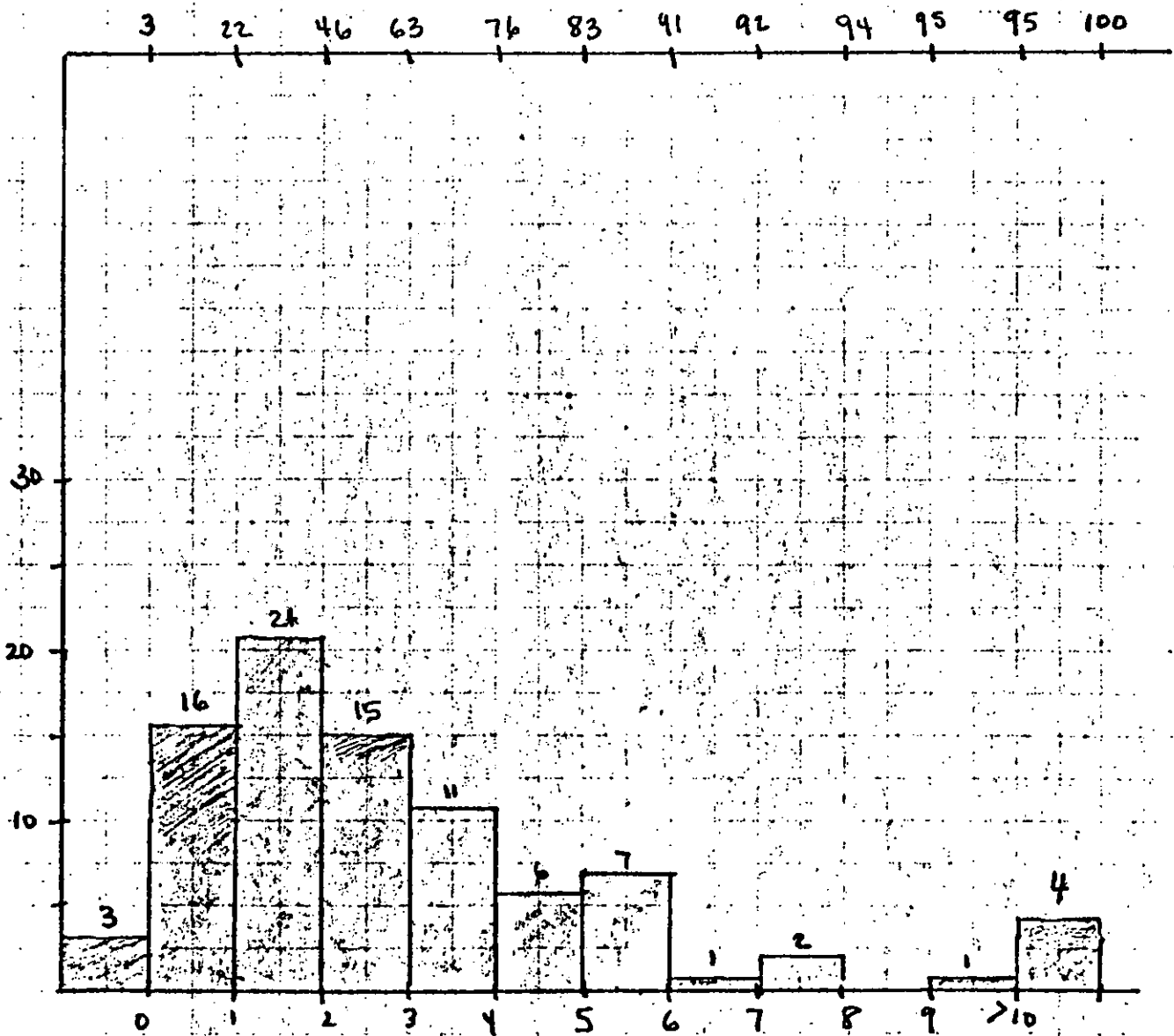
Total Gap Area (in²/ft)

GAP AREA DISTRIBUTION -

Riveted Tanks
Primary Shoe Seals

Cumulative Percent

Number of Tests
(87 total)

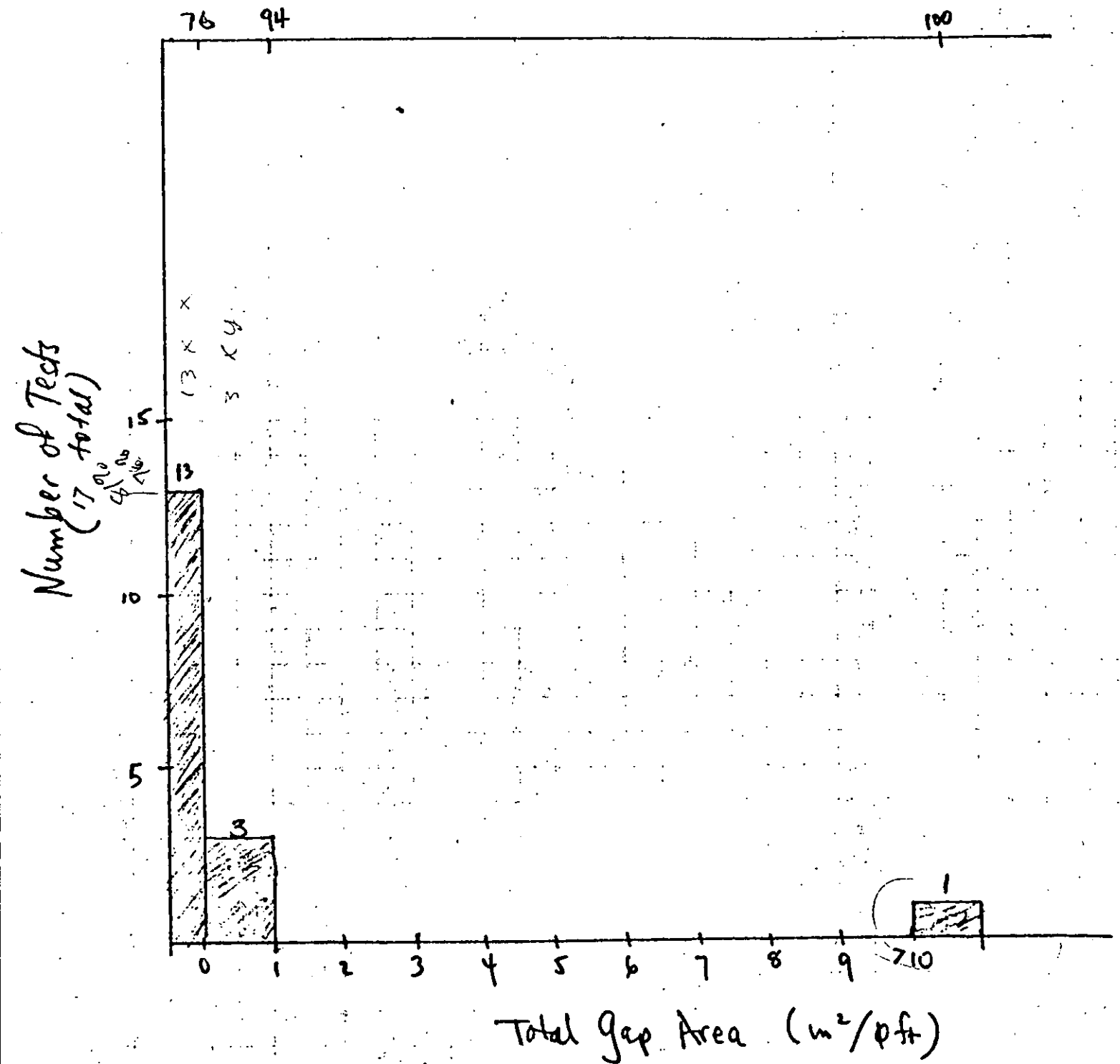


Total Gap Area (in²/ft²)

GAP AREA DISTRIBUTION

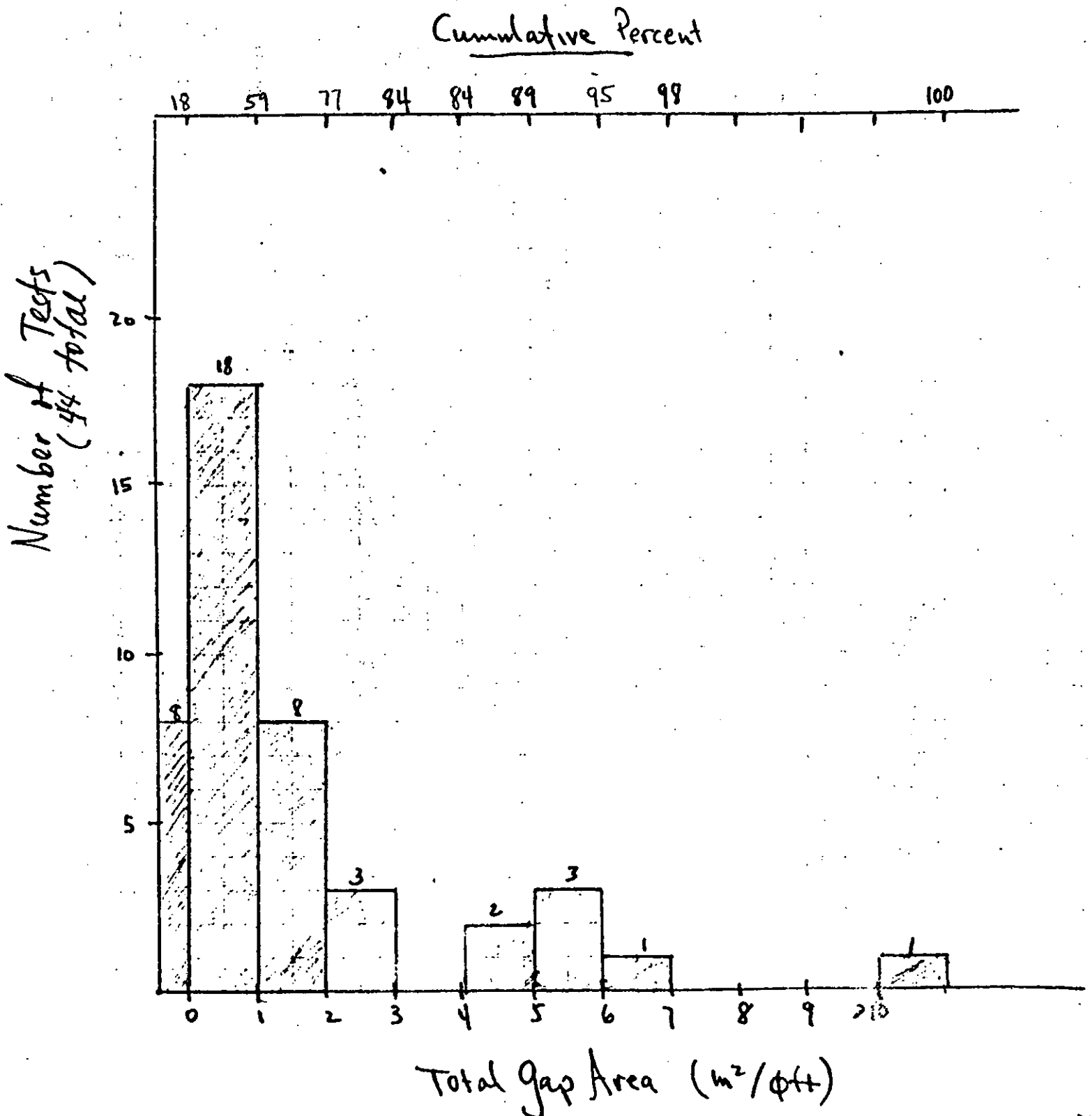
Welded Tanks
Shoe Seals with
Secondary Seals

Cumulative Percent



GAP AREA DISTRIBUTION

Riveted Tanks
Shoe or Tube Primary with
Secondary Seals



TRAP FORTIFIED
SEA TIDE - 3000

NUMBER OF TURNS

All Tails

Primary only 3

Secondary 1+7 8

0.0	II	II	1	3	II	1	7	8	11
0.1	III	I			III				4
0.2	III	III			II				5
0.3	II			16	II				2
0.4	II	II			I			18	2
0.5	III				III				4
0.6	III				III				3
0.7	III	III			II				5
0.8	III	II			I				3
0.9	II	III							2
1.0									0
1.1	II	I			II				2
1.2	III	II			I				3
1.3	III	III		21				8	4
1.4	II	II			I				2
1.5	II	I			II				2
1.6	III	III			I				6
1.7	III	II							3
1.8	I	I			I				1
1.9	III	III							5
2.0	II	III			I				2
2.1	III	II							3
2.2	II	II							2
2.3	I	I		15				3	1
2.4	II	II							2
2.5	II	II							2
2.6									0
2.7	II	I			I				2
2.8	I	I							1
2.9	II	I							2
3.0-3.9	III	III		11				0	11
4.0-4.9	III	III		6				2	8
5.0-5.9	III	III		7				3	10
6.0-6.9	II	I		1				1	2
7.0-7.9	II	II		2					2
8.0-8.9		I							0
9.0-9.9	I	I		4				1	1
10.0	III	III							4

(87)

(44)

1/2 rived. 1247

PRODUCT STORES, ALL

[illegible]

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

[illegible]

Produced by Not a Cave

[illegible]

THANK YOU: RIVETED
SCALTYPC: 5410E

SECONDARY SEAL TYPE: N
PRODUCT STORED: CRUDE

[illegible]

J. J. J.

SEASONALY SEC. TYPE: ANY (SEE REMARKS)
PRODUCER STORED: ALL

[illegible]

PRODUCT - STCRED: NOT CLEARED

[illegible]

SECONDARY STAFF: WIRE / OIL
PRODUCT STORE: WBT LEAD

Product Staged: 100% Published

[illegible]

0111

Product - CRUDE

[illegible]

SCHE TYPE: 3-E

Product SECRET;

Product ~~SECRET~~ - ALL PROBABILITIES

[illegible]

D - Double Star

Gap Size
0.0-0.9

NUMBER OF TANKS

TANK TYPE: WELDED
SEAL TYPE: TUBE

0.0	471	169	74
0.1	471		10
0.2	I		1
0.3	III		4
0.4	III		3
0.5	II		2
0.6	III		4
0.7	II		2
0.8	II		2
0.9	I		1
1.0			1
1.1			
1.2	II		2
1.3			
1.4			
1.5			
1.6			
1.7			
1.8	I		1
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			3
2.6	III		
2.7			
2.8			
2.9			
3.0-3.9	I		1
4.0-4.9	II		2
5.0-5.9	I		1
6.0-6.9			
7.0-7.9			
8.0-8.9	I		1
9.0-9.9			
10.0	I		1
			115

ΣΗΛ ΤΥΠΙ: Τυφ...

SECRET

[illegible]

PRODUCT SOURCE: ALL

Product	Quantity	Unit Price	Total Price
15	1122	0.00	0.00
16	0	0.00	0.00
17	0	0.00	0.00
18	0	0.00	0.00
19	0	0.00	0.00
20	0	0.00	0.00
21	0	0.00	0.00
22	0	0.00	0.00
23	0	0.00	0.00
24	0	0.00	0.00
25	0	0.00	0.00
26	0	0.00	0.00
27	0	0.00	0.00
28	0	0.00	0.00
29	0	0.00	0.00
30	0	0.00	0.00
31	0	0.00	0.00
32	0	0.00	0.00
33	0	0.00	0.00
34	0	0.00	0.00
35	0	0.00	0.00
36	0	0.00	0.00
37	0	0.00	0.00
38	0	0.00	0.00
39	0	0.00	0.00
40	0	0.00	0.00
41	0	0.00	0.00
42	0	0.00	0.00
43	0	0.00	0.00
44	0	0.00	0.00
45	0	0.00	0.00
46	0	0.00	0.00
47	0	0.00	0.00
48	0	0.00	0.00
49	0	0.00	0.00
50	0	0.00	0.00
51	0	0.00	0.00
52	0	0.00	0.00
53	0	0.00	0.00
54	0	0.00	0.00
55	0	0.00	0.00
56	0	0.00	0.00
57	0	0.00	0.00
58	0	0.00	0.00
59	0	0.00	0.00
60	0	0.00	0.00
61	0	0.00	0.00
62	0	0.00	0.00
63	0	0.00	0.00
64	0	0.00	0.00
65	0	0.00	0.00
66	0	0.00	0.00
67	0	0.00	0.00
68	0	0.00	0.00
69	0	0.00	0.00
70	0	0.00	0.00
71	0	0.00	0.00
72	0	0.00	0.00
73	0	0.00	0.00
74	0	0.00	0.00
75	0	0.00	0.00
76	0	0.00	0.00
77	0	0.00	0.00
78	0	0.00	0.00
79	0	0.00	0.00
80	0	0.00	0.00
81	0	0.00	0.00
82	0	0.00	0.00
83	0	0.00	0.00
84	0	0.00	0.00
85	0	0.00	0.00
86	0	0.00	0.00
87	0	0.00	0.00
88	0	0.00	0.00
89	0	0.00	0.00
90	0	0.00	0.00
91	0	0.00	0.00
92	0	0.00	0.00
93	0	0.00	0.00
94	0	0.00	0.00
95	0	0.00	0.00
96	0	0.00	0.00
97	0	0.00	0.00
98	0	0.00	0.00
99	0	0.00	0.00
100	0	0.00	0.00

$$(S_{AB}^2)_{\text{avg}} = \frac{1}{N} \sum_{i=1}^N S_{AB}^2 = 1.0$$
[illegible]

Cal. 125
(2) (+)

Number of tanks

Tank Type: WHEEL
SEAL Type: SNIP

all tanks

Primary only

0.0			7	13	27
0.1			1		12
0.2			5		7
0.3			9	59	9
0.4			7		7
0.5			6		6
0.6			4		5
0.7			5		9
0.8			6		7
0.9			6		8
1.0			5		6
1.1			1		1
1.2			8		8
1.3			5	36	5
1.4			3		3
1.5			2		2
1.6			3		3
1.7			2		2
1.8			4		5
1.9			3		4
2.0			3		4
2.1			2		2
2.2			2	19	1
2.3			1		0
2.4			2		2
2.5			3		2
2.6			2		3
2.7			2		2
2.8			1		1
2.9			2		2
3.0-3.9				7	7
4.0-4.9				5	5
5.0-5.9				0	0
6.0-6.9				4	1
7.0-7.9				3	0
8.0-8.9				0	0
9.0-9.9				1	1
>10.0				7	9
				154	184

SEAL TYPE: 5110E

PRODUCT STORE: ALL PRODUCTS

A - correct weights used in calculating the area

SEAL TYPIC: SVOE

PRODUCED BY: ALI REZA

1517 NO 03X03H5LAW -X

A - 0120

collected using 2" gcp's 10/16/16

$\frac{1}{2}$ m² good soil = 12 m². ———— Total cost at compliance
 $\frac{1}{2}$ m² good soil = 12 m².

Revised 7/18 - 8/178
Rick Burd.

SECONDARY SEAL TYPE: NO SECONDARY SEAL
PRODUCT STORED: NOT CRUDE

[illegible]

TANK TYPE: WELDED
SEAL TYPE: SHOE

[illegible]

2

PRODUCT_STORED: NOT CRUING

W + WEATHER GUARD

CCNY 4-25-61, PC: A.Y.: (see p. 10)

SETL TYPE: 5108

Product Story: All products

[illegible]

WZ: WZ A7100 6 00000

W. - WIPER

[illegible]

[illegible]

TABLES WITH NOGAPS

Serial no	Weight	Length	Width	Depth	Volume	Area	Perimeter	Other	Remarks
1702	225	100	120	10	1000	1000	1000	1000	1000
1703	225	100	120	10	1000	1000	1000	1000	1000
1704	225	100	120	10	1000	1000	1000	1000	1000
1705	225	100	120	10	1000	1000	1000	1000	1000
1706	225	100	120	10	1000	1000	1000	1000	1000
1707	225	100	120	10	1000	1000	1000	1000	1000
1708	225	100	120	10	1000	1000	1000	1000	1000
1709	225	100	120	10	1000	1000	1000	1000	1000
1710	225	100	120	10	1000	1000	1000	1000	1000
1711	225	100	120	10	1000	1000	1000	1000	1000
1712	225	100	120	10	1000	1000	1000	1000	1000
1713	225	100	120	10	1000	1000	1000	1000	1000
1714	225	100	120	10	1000	1000	1000	1000	1000
1715	225	100	120	10	1000	1000	1000	1000	1000
1716	225	100	120	10	1000	1000	1000	1000	1000
1717	225	100	120	10	1000	1000	1000	1000	1000
1718	225	100	120	10	1000	1000	1000	1000	1000
1719	225	100	120	10	1000	1000	1000	1000	1000
1720	225	100	120	10	1000	1000	1000	1000	1000
1721	225	100	120	10	1000	1000	1000	1000	1000
1722	225	100	120	10	1000	1000	1000	1000	1000
1723	225	100	120	10	1000	1000	1000	1000	1000
1724	225	100	120	10	1000	1000	1000	1000	1000
1725	225	100	120	10	1000	1000	1000	1000	1000
1726	225	100	120	10	1000	1000	1000	1000	1000
1727	225	100	120	10	1000	1000	1000	1000	1000
1728	225	100	120	10	1000	1000	1000	1000	1000
1729	225	100	120	10	1000	1000	1000	1000	1000
1730	225	100	120	10	1000	1000	1000	1000	1000
1731	225	100	120	10	1000	1000	1000	1000	1000
1732	225	100	120	10	1000	1000	1000	1000	1000
1733	225	100	120	10	1000	1000	1000	1000	1000
1734	225	100	120	10	1000	1000	1000	1000	1000
1735	225	100	120	10	1000	1000	1000	1000	1000
1736	225	100	120	10	1000	1000	1000	1000	1000
1737	225	100	120	10	1000	1000	1000	1000	1000
1738	225	100	120	10	1000	1000	1000	1000	1000
1739	225	100	120	10	1000	1000	1000	1000	1000
1740	225	100	120	10	1000	1000	1000	1000	1000
1741	225								

