Vancouver Petrographics Ltd.

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Report for: Jim Mustard,
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Samples: Dave's Ridge, JM 8121,JM8149, M81113, M81114

Summary:

The samples are divided into two groups. The first is a spotted argillite formed by metamorphism of a mudstone. Spots are mainly of micas, with some epidote, K-feldspar, and calcite. Their texture suggests that they may represent an original porphyroblastic metamorphic mineral which has undergone retrogressive alteration to the present assemblage. Alternately, the present assemblage may represent the original prograde mineralogy. The groundmass is dominated by sericite with lesser quartz. Some quartz occurs in quartz-rich lenses and some occurs in detrital? grains slightly coarser grained than the groundmass. Carbonaceous opaque is common in some layers.

samples: JM 8149, M 81113, M 81114

The second group contains hypabyssal intrusive rocks of quartz monzonite to granitic composition. They are porphyritic, with phenocrysts of quartz, feldspars, and minor biotite in a groundmass dominated by K-feldspar and quartz.

JM 8121 Quartz-(Feldspar) Porphyritic Granite-Rhyolite

this sample contains patches of garnet suggesting that it was metamorphosed. It is cut by quartz-epidote veins.

Dave's Ridge Quartz-Feldspar Porphyry

John Payne

John Payne,
January 1982

Hy Duplicate — pg. 18 + 19, sent Aug 10/81

			Cu	Pb	Zn
Dup.	10N	- 600w	100	390	720
		- 660w	84	210	680
		- 720w	22	46	130
		- 780w	95	300	1000
			Cu	Pb	Zn
Dup.	10S	- 780w	67	1900	575
		840w	75	330	740
		1020w	42	103	224
		1080w	101	215	565
		1140w	21	78	170
		1260w	50	165	310
		1320w	45	150	180

RECONTOUR Hy VALUES (1:10,000)

USED

Zn

111 – 260
261 – 360
361 – 600
> 600 ppm

mean + 1SD 260 ppm
+ 2SD 360 ppm
3SD 600 ppm.

Pb

35 – 85 ppm.
86 – 160
161 – 225
> 226 –

85
166
225

Cu ①

20 – 40 ppm.
41 – 80
81 – 95
> 95

mean + 1SD = 75 ppm.
" 2SD = 100 ppm.
" 3SD = 140 ppm.

②

50 – 75 ppm.
76 – 100
101 – 140
> 141

Ba

115 – 300
301 – 500
501 – 750
> 750

Background < 115
mean + 1SD 300 ppm.
2 500 ppm.
3 750 ppm.

1078 tot.

Hy Cu	%	No of Samples	Values in ppm 6 + 15 + 25 + 35.
750ppm. B: Anomalous	10%	108	52 74 97 140
B: Background	90%	970	18 28 43 79.
A+B	100%	1078.	

55% ~~of~~ of 59 samples are above 50ppm. ,49 below 70ppm.

of the 970 Background samples. 76% of 819 samples are below low. threshold of 25 & remaining 151 are within the int group.

High priority to all values above 50ppm
2nd " ~~to 49 values in int range.~~ to the 200 values in the int. range of which 49 are anomalous.

But simplifying & keeping the Cu as one Population can derive the following.

6 + 15 25 35

20 43 80 96

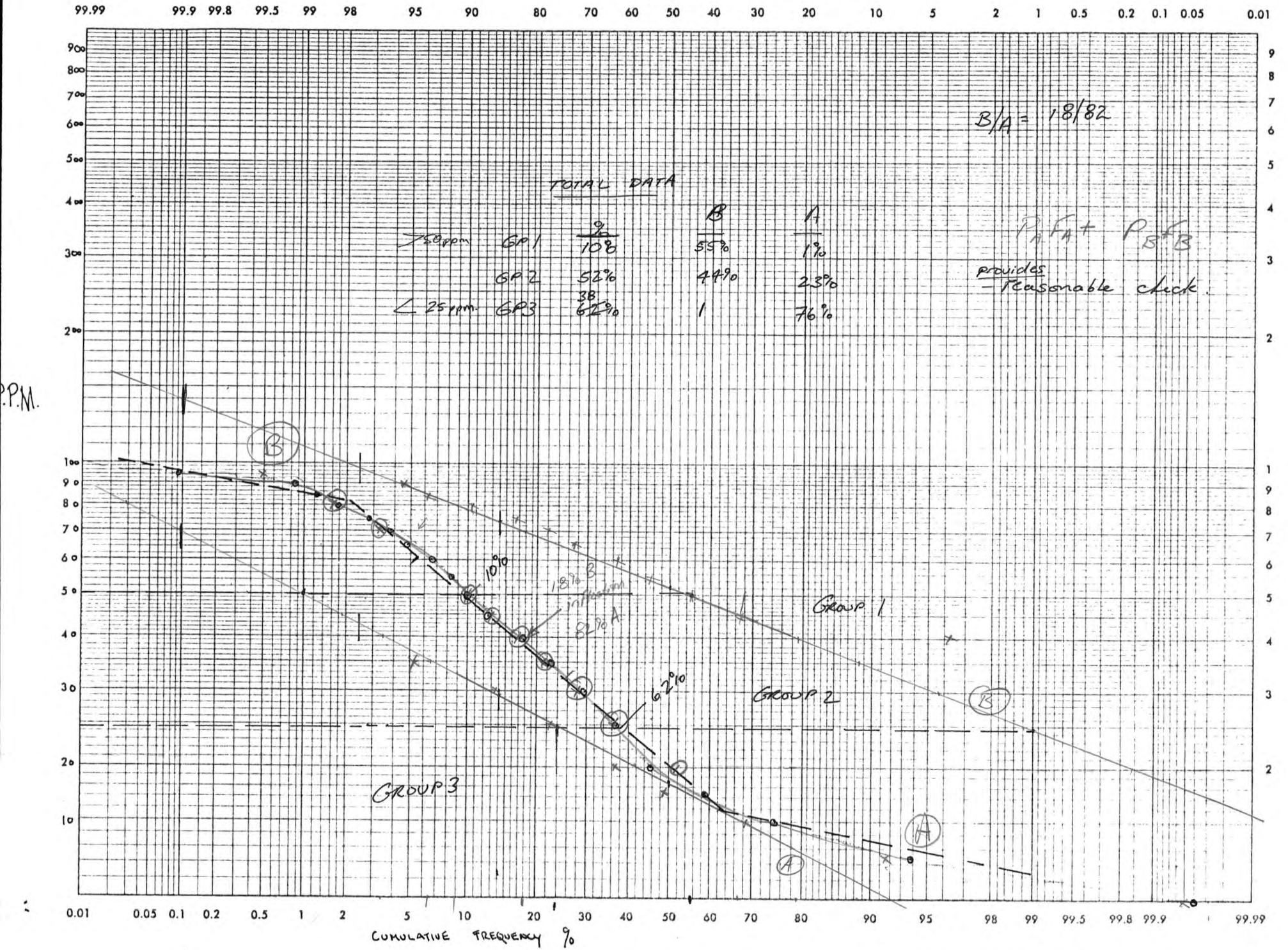
Possible threshold value is 40 ppm

① ② ③ ④ 5.
720 ↔ 43 ↔ 80 ↔ 96 >

CLEARPRINT PAPER CO. C328 LOGARITHMIC PROBABILITY
PRINTED IN U.S.A. ON CLEARPRINT TECHNICAL PAPER NO. 1015
CLEARPRINT CHARTS

HY Cu. dec 15/81 9K

TOTAL = 1078 samples.



P.P.M.

Hy

Pb	b	+1SD	+2SD	+3SD
	35	84	160	225

(420) break in slope. ✓

Ba	b	+1SD	+2SD	+3SD
	113	300	500	750

(450) break in slope.

	b	1S	2SD	3SD	
Cu	20	40	80	95	(40 as a threshold)
	50	75	100	140	(Anomalous population)

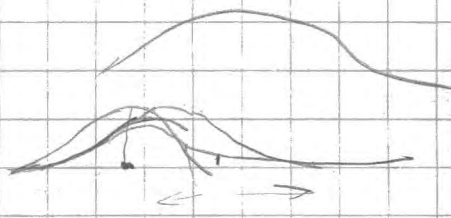
Zn	b	+1SD	+2SD	+3SD
	110	260	360	550

- better threshold may be at 270 (break in slope)

Hy

Pb

102 ppm — m+2SD
135 ppm — m+3SD
165 ppm — > m+4SD



↓

I.C.
≤ 102 ppm
103 - 135 ppm.
136 - 164
> 164 ppm.

Zn

400 ppm — m+2SD
650 ppm — m+3SD
865 ppm — m+4SD

↓

I.C.
< 400 ppm
401 - 650 ppm
651 - 865 ppm
> 865 ppm.

Cu

38 ppm — m+2SD
69 ppm — m+3SD
87 ppm. — m+4SD

↓

< 38 ppm
39 - 69 ppm
70 - 87 ppm.
> 87 ppm.

CLEARPRINT PAPER CO. C328 LOGARITHMIC PROBABILITY PRINTED IN U.S.A. ON CLEARPRINT TECHNICAL PAPER NO. 1015

HY Cu. dec 15/81 GK

P.P.M.

99.99 99.9 99.8 99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01

900 800 700 600 500 400 300 200 100 90 80 70 60 50 40 30 20 10

9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2

6/20 15/43 25/80 35/96

0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.5 99.8 99.9 99.99

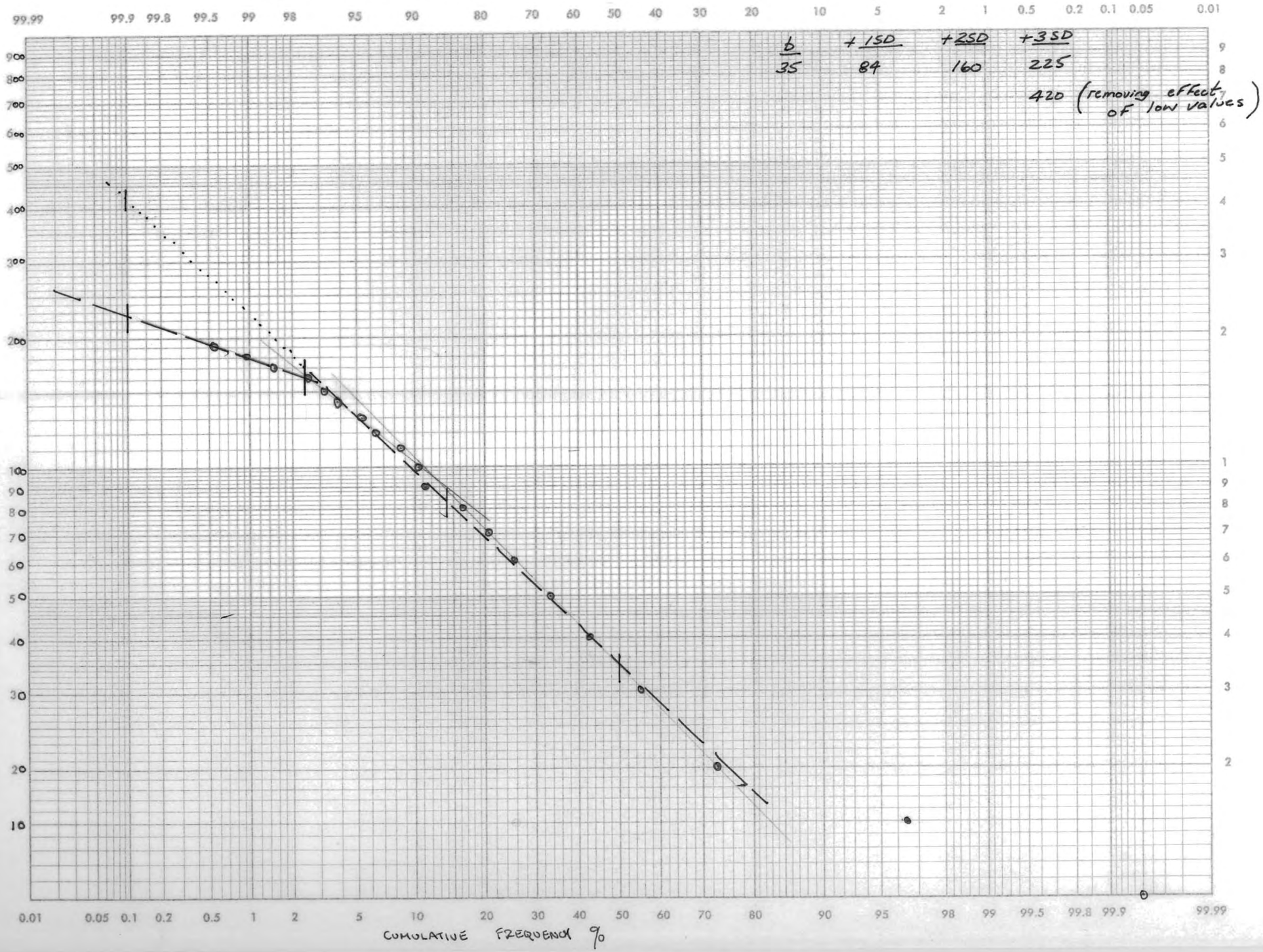
CUMULATIVE FREQUENCY %

CLEARPRINT PAPER CO. C328 LOGARITHMIC PROBABILITY

PRINTED IN U.S.A. ON CLEARPRINT TECHNICAL PAPER NO. 1015

Characteristic of plots with an excess of low values

HY Pb. dec. 16/81 9K

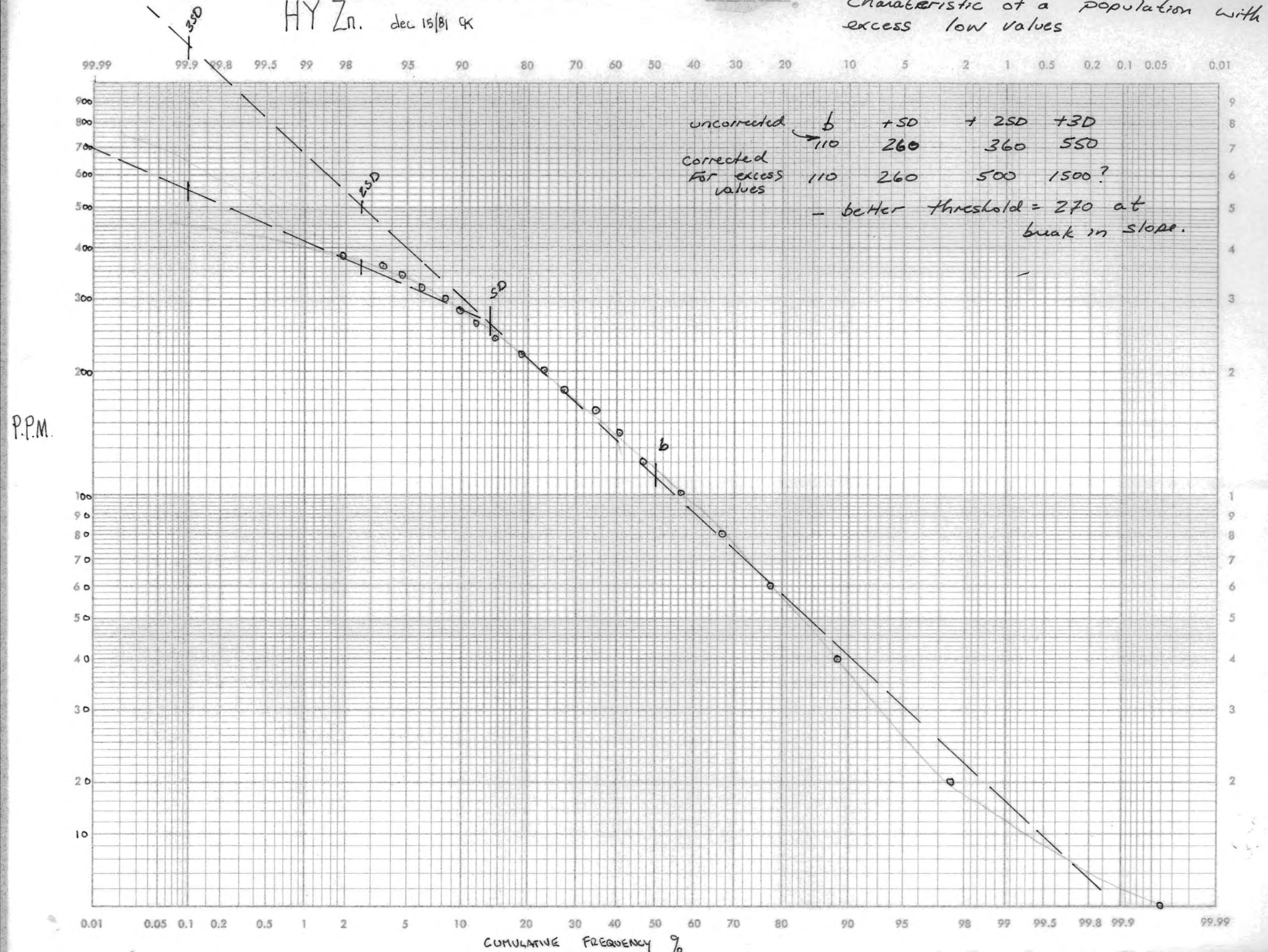


b	+1SD	+2SD	+3SD
35	84	160	225

420 (removing effect of low values)

HY Zn. dec 15/81 GK

Characteristic of a population with excess low values

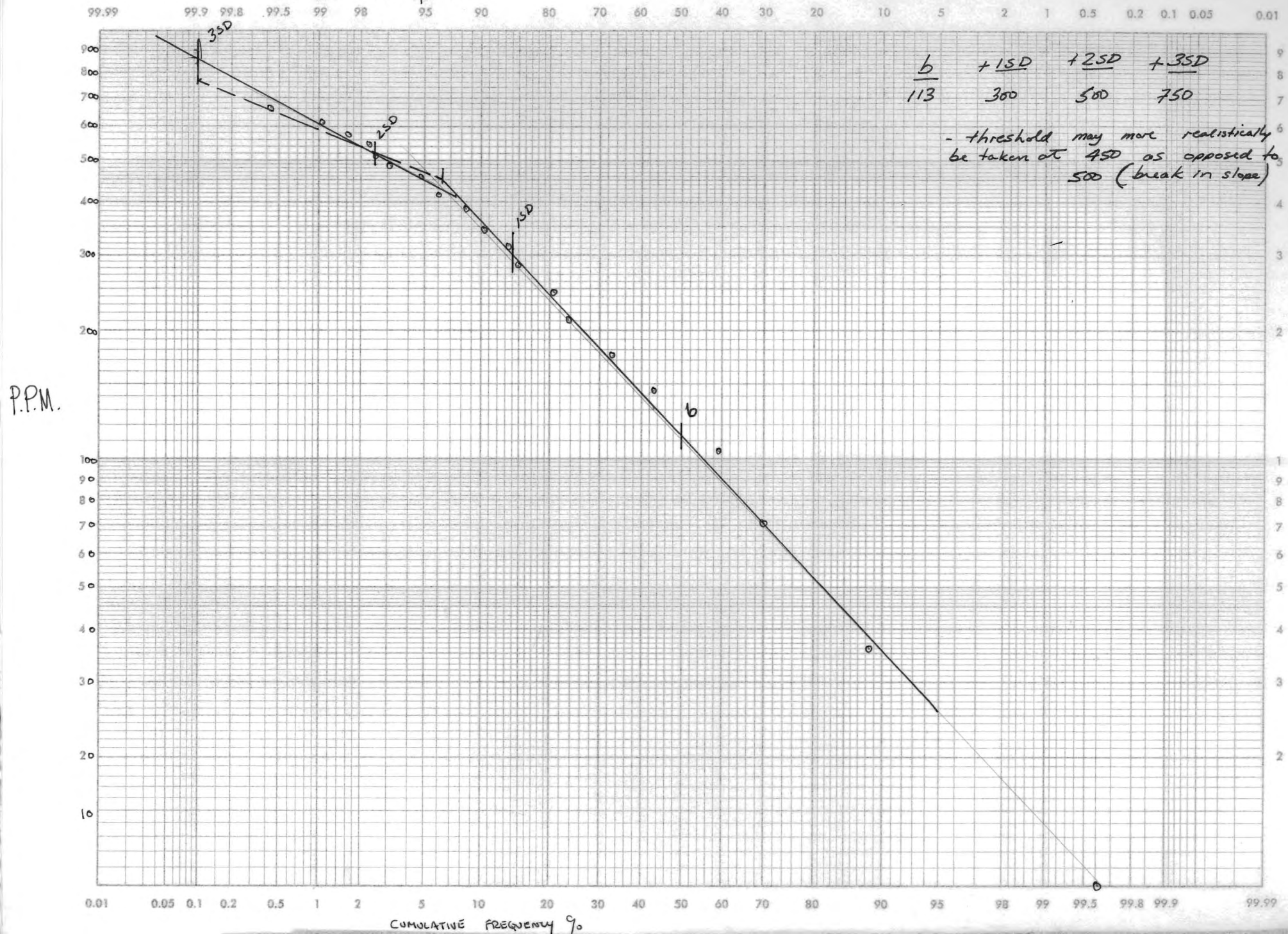


	b	+5D	+25D	+3D
uncorrected →	110	260	360	550
corrected for excess values	110	260	500	1500?

– better threshold = 270 at break in slope.

HY Ba dec. 12/81 9K

characteristic of population with excess of low values



b	+1SD	+2SD	+3SD
113	300	500	750

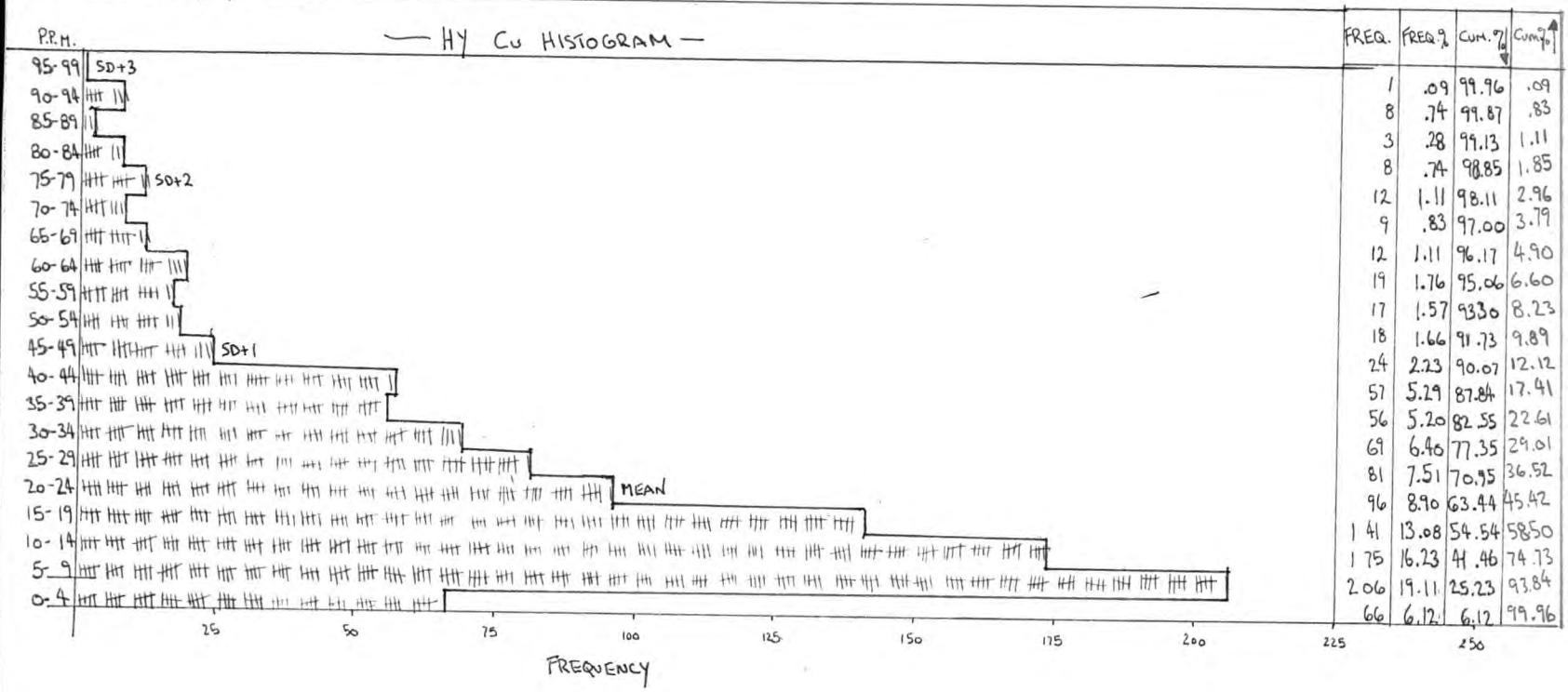
- threshold may more realistically be taken at 450 as opposed to 500 (break in slope)

HY Cu.

Dec 15/81 P.K.

Total Samples 1078

over 100 ppm (1.6% of total [1078])



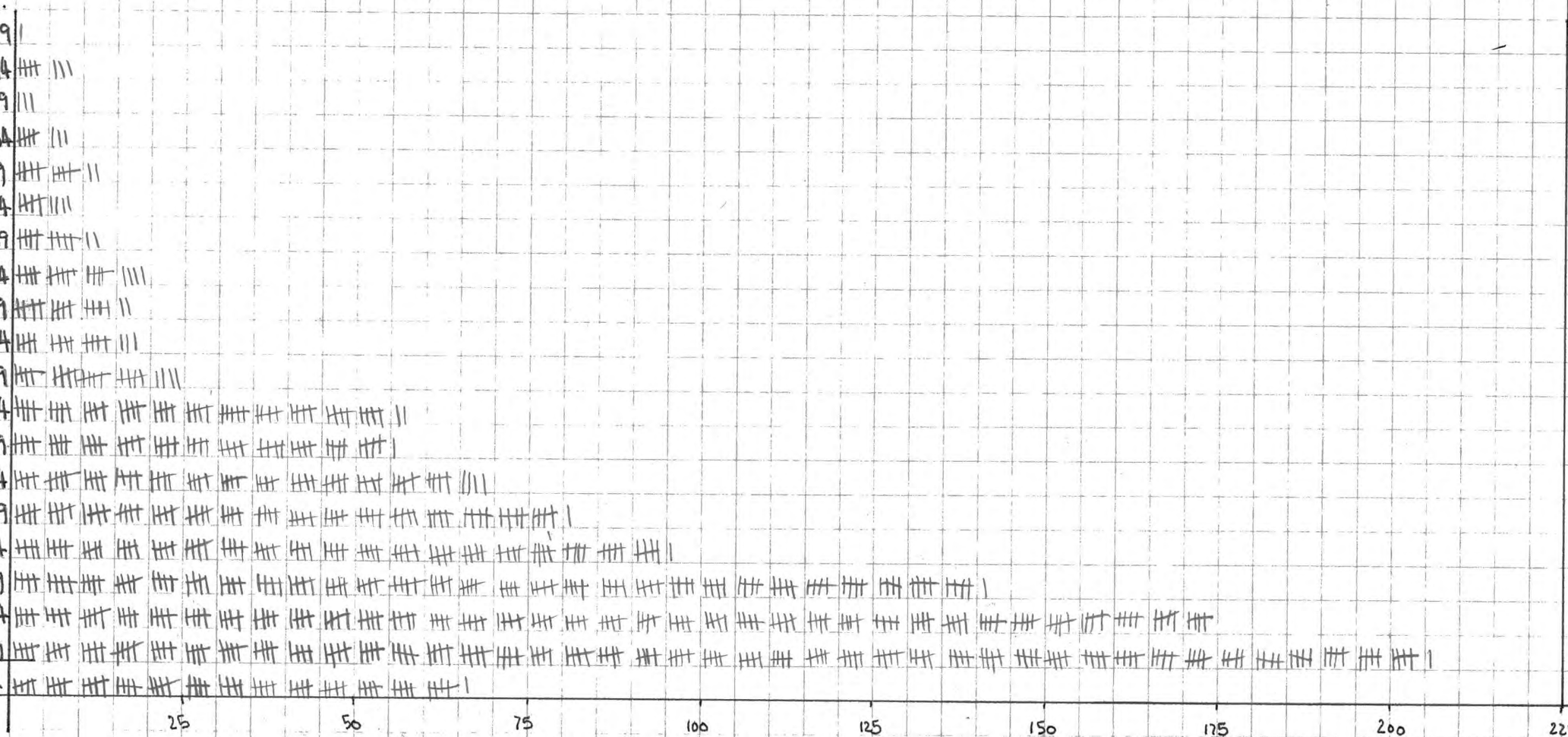
P.P.M.	FREQ.	FREQ%	CUM.% ↓	CUM.% ↑
95-99	1	.09	99.96	.09
90-94	8	.74	99.87	.83
85-89	3	.28	99.13	1.11
80-84	8	.74	98.85	1.85
75-79	12	1.11	98.11	2.96
70-74	9	.83	97.00	3.79
65-69	12	1.11	96.17	4.90
60-64	19	1.76	95.06	6.60
55-59	17	1.57	9330	8.23
50-54	18	1.66	91.73	9.89
45-49	24	2.23	90.07	12.12
40-44	57	5.29	87.84	17.41
35-39	56	5.20	82.55	22.61
30-34	69	6.40	77.35	29.01
25-29	81	7.51	70.95	36.52
20-24	96	8.90	63.44	45.42
15-19	141	13.08	54.54	5850
10-14	175	16.23	41.46	74.73
5-9	206	19.11	25.23	93.84
0-4	66	6.12	6.12	99.96

HY Cu.

DEC 15/81 P.K.

TOTAL Samples 1078

OVER 100 |||| |||| |||| ||| (1.6 % of total [1096])



FREQ.	FREQ.%	CUM.% ↑	CUM% ↓
1	.09	99.96	.09
8	.74	99.87	.83
3	.28	99.13	1.11
8	.74	98.85	1.85
12	1.11	98.11	2.96
9	.83	97.00	3.79
12	1.11	96.17	4.90
19	1.76	95.06	6.66
17	1.57	93.30	8.23
18	1.66	91.73	9.89
24	2.23	90.07	12.12
57	5.29	87.84	17.41
56	5.20	82.55	22.61
69	6.40	77.35	29.01
81	7.51	70.95	36.52
96	8.90	63.44	45.42
141	13.08	54.54	58.50
175	16.23	41.46	74.73
206	19.11	25.23	93.84
66	6.12	6.12	99.96

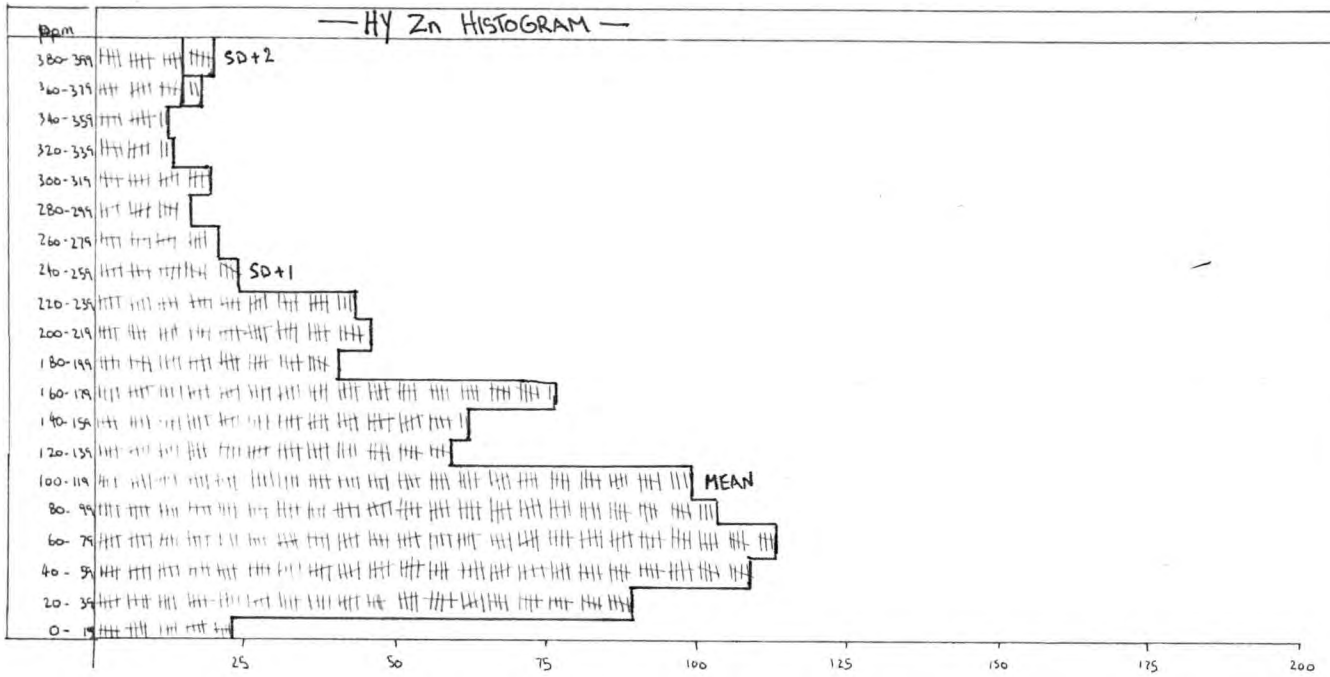
HY Zn.

Dec. 15/81 9K

++++ ++++ ||| 83 + 1017 = 1100

over 400 ++++ ++++ ++++ ++++ ++++ 7.5% of samples over 400

Total Samples 1017



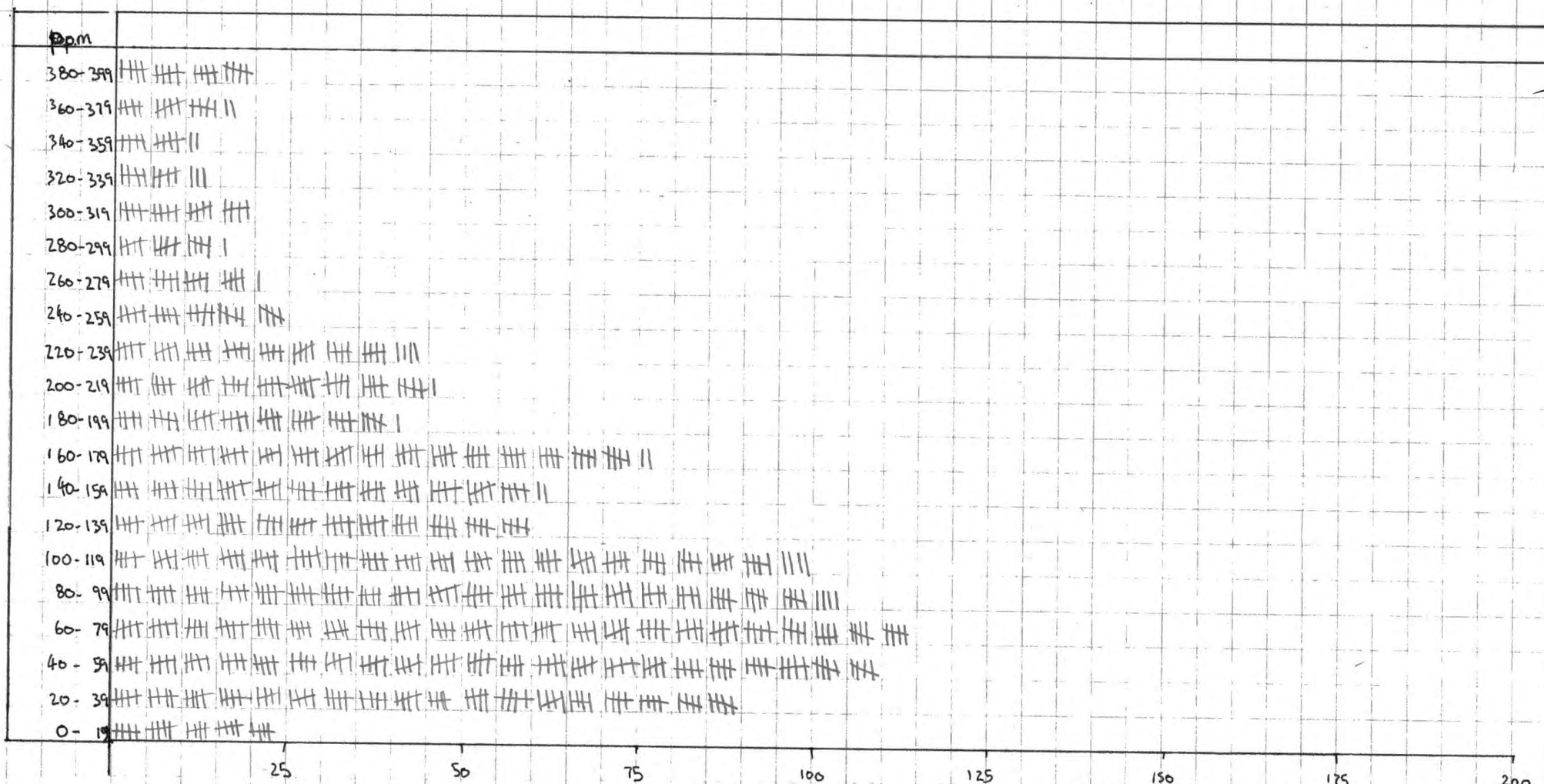
FREQ.	FREQ %	CUM. % ↑	CUM. % ↓
20	1.96	99.96	1.96
17	1.67	98.00	3.63
12	1.18	96.33	4.81
13	1.28	95.15	6.09
20	1.96	93.87	8.05
16	1.57	91.91	9.62
21	2.06	90.34	11.68
25	2.46	88.28	14.14
44	4.32	85.82	18.46
46	4.52	81.50	22.98
41	4.03	76.98	27.01
77	7.57	72.95	34.58
62	6.10	65.38	40.68
60	5.90	59.28	46.58
99	9.73	53.38	56.31
104	10.23	43.65	66.54
115	11.30	33.42	77.84
110	10.81	22.12	88.65
90	8.85	11.31	97.50
25	2.46	2.46	99.96

HY Zn.

DEC. 15/81 PK

(over 400 - 83 + 1017 = 1100 — 7.5% of samples > 400)

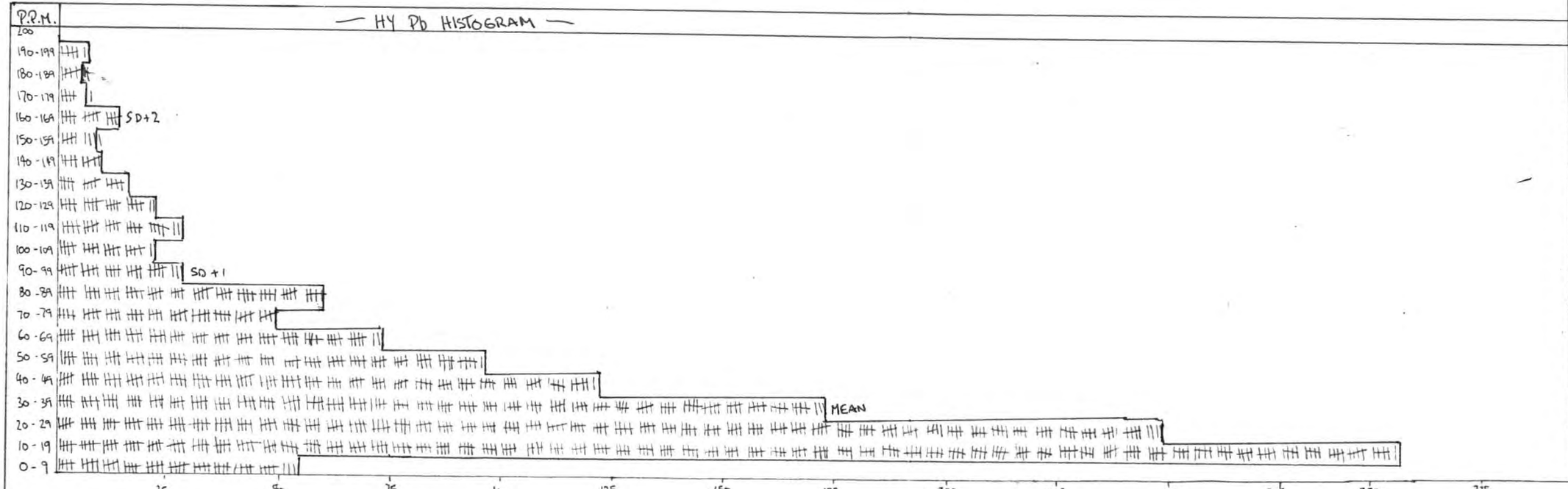
Total Samples 1017



FREQ.	FREQ %	CUM. % ↑	CUM. % ↓
20	1.96	99.96	1.96
17	1.67	98.00	3.63
12	1.18	96.33	4.81
13	1.28	95.15	6.09
20	1.96	93.87	8.05
16	1.57	91.91	9.62
21	2.06	90.34	11.68
25	2.46	88.28	14.14
44	4.32	85.82	18.46
46	4.52	81.50	22.98
41	4.03	76.98	27.01
77	7.57	72.95	34.58
62	6.10	65.38	40.68
60	5.90	59.28	46.58
99	9.73	53.38	56.31
104	10.23	43.65	66.54
115	11.30	33.42	77.84
110	10.81	22.12	88.65
90	8.85	11.31	97.50
25	2.46	2.46	99.96

HY Pb.

dec 16/81 9K

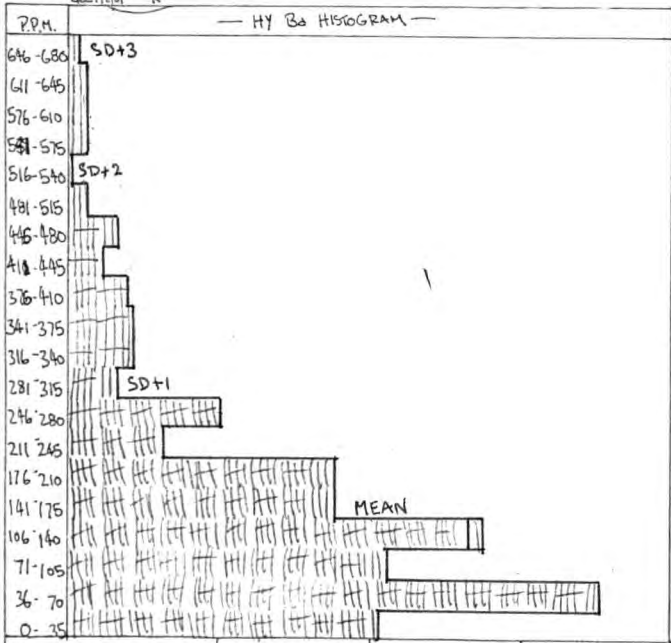


	FREQ.	FREQ%	CUM% ↑	CUM% ↓
190-199	7	.51	99.95	.51
180-189	6	.44	99.44	.95
170-179	7	.51	99.00	1.46
160-169	15	1.10	98.49	2.56
150-159	9	.66	97.39	3.22
140-149	10	.73	96.73	3.95
130-139	16	1.20	96.00	5.15
120-129	22	1.66	94.80	6.75
110-119	28	2.10	93.20	8.85
100-109	22	1.60	91.10	10.45
90-99	28	2.10	89.50	12.55
80-89	60	4.40	87.40	16.95
70-79	50	3.60	83.00	20.55
60-69	73	5.40	79.40	25.95
50-59	97	7.20	74.00	33.15
40-49	122	9.00	66.80	42.15
30-39	172	12.80	57.80	54.95
20-29	249	18.40	45.00	73.35
10-19	307	22.70	26.60	96.05
0-9	54	3.90	3.90	99.95

Total Samples 1355

HY Ba

dec. 12/81 gk

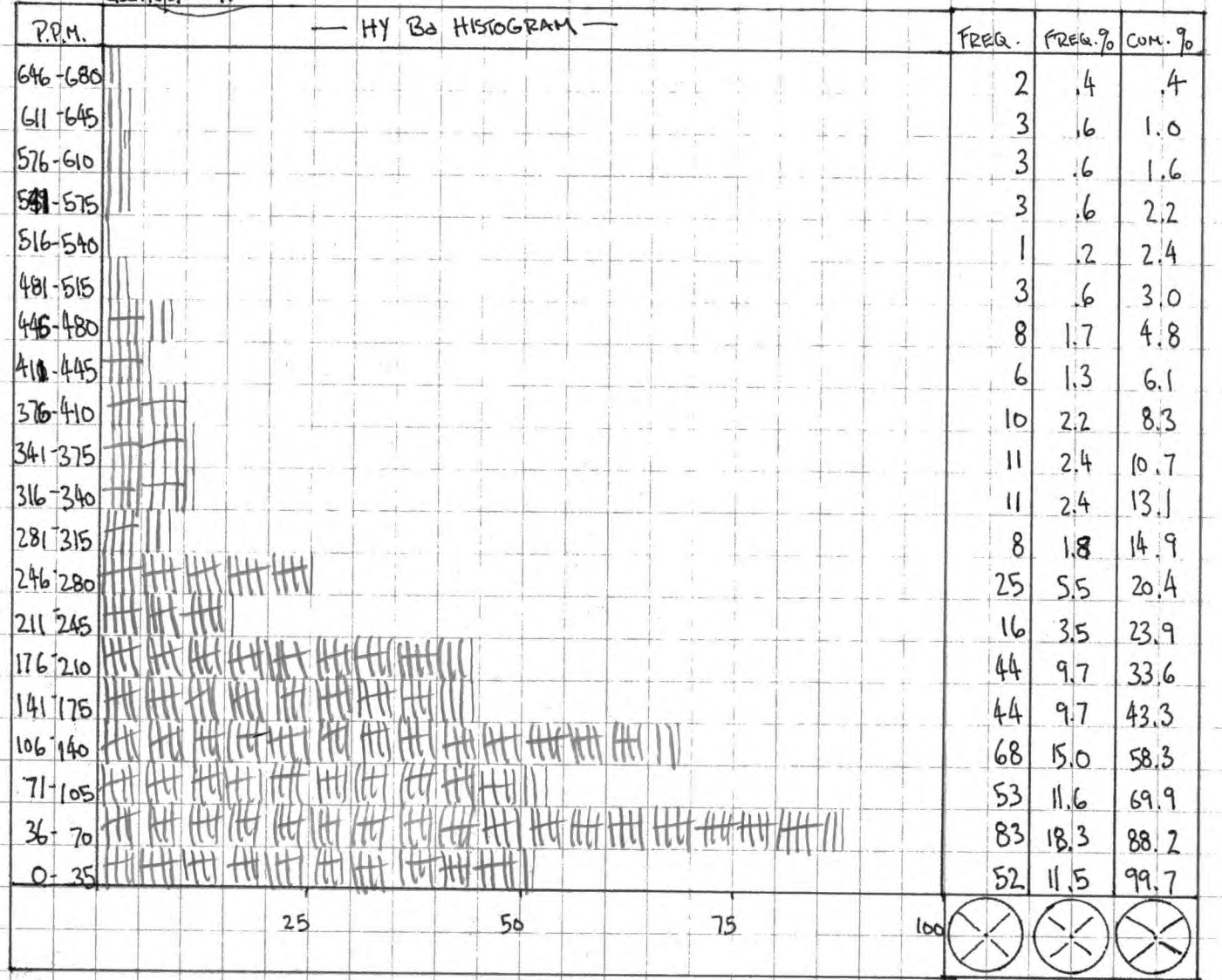


FREQ.	FREQ.%	CUM.%
2	.4	.4
3	.6	1.0
3	.6	1.6
3	.6	2.2
1	.2	2.4
3	.6	3.0
8	1.7	4.8
6	1.3	6.1
10	2.2	8.3
11	2.4	10.7
11	2.4	13.1
8	1.8	14.9
25	5.5	20.4
16	3.5	23.9
44	9.7	33.6
44	9.7	43.3
68	15.0	58.3
53	11.6	69.9
83	18.3	88.2
52	11.5	99.7

TOTAL Samples 454

HY Ba

dec. 12/81 9K



P.P.M.	FREQ.	FREQ.%	COM.%
646-680	2	.4	.4
611-645	3	.6	1.0
576-610	3	.6	1.6
541-575	3	.6	2.2
516-540	1	.2	2.4
481-515	3	.6	3.0
446-480	8	1.7	4.8
411-445	6	1.3	6.1
376-410	10	2.2	8.3
341-375	11	2.4	10.7
316-340	11	2.4	13.1
281-315	8	1.8	14.9
246-280	25	5.5	20.4
211-245	16	3.5	23.9
176-210	44	9.7	33.6
141-175	44	9.7	43.3
106-140	68	15.0	58.3
71-105	53	11.6	69.9
36-70	83	18.3	88.2
0-35	52	11.5	99.7

Total Samples 454

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Jim Mustard
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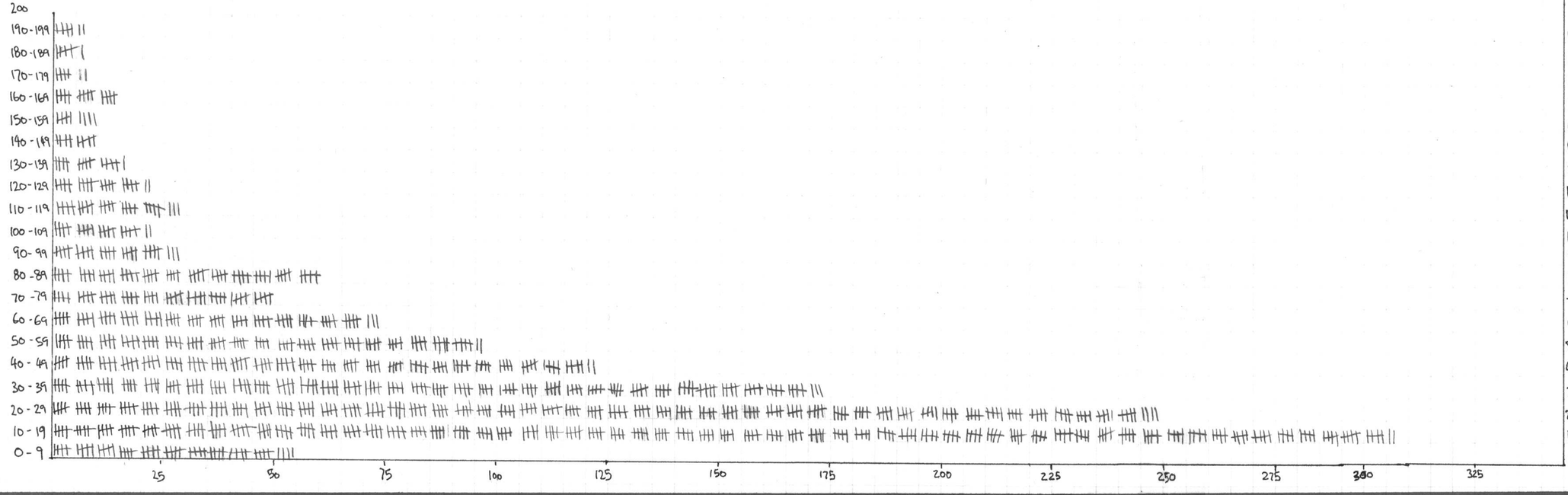
HY Pb.



	FREQ.	FREQ%	COM.% ↑	COM% ↓
190-199	7	.51	99.95	.51
180-189	6	.44	99.44	.95
170-179	7	.51	99.00	1.46
160-169	15	1.10	98.49	2.56
150-159	9	.66	97.39	3.22
140-149	10	.73	96.73	3.95
130-139	16	1.20	96.00	5.15
120-129	22	1.60	94.80	6.75
110-119	28	2.10	93.20	8.85
100-109	22	1.60	91.10	10.45
90-99	28	2.10	89.50	12.55
80-89	60	4.40	87.40	16.95
70-79	50	3.60	83.00	20.55
60-69	73	5.40	79.40	25.95
50-59	97	7.20	74.00	33.15
40-49	122	9.00	66.80	42.15
30-39	173	12.80	57.80	54.95
20-29	249	18.40	45.00	73.35
10-19	307	22.70	26.60	96.05
0-9	54	3.90	3.90	99.95

TOTAL Samples 1355