ZINC

COPPER

MOLY

N

S

8
6
4
2
0
2
4
6
8
10
12
14
16

115 (60)
110 (100)
125 (130)
135 (34)
100 (90)
155 (95)
105 (75)
65 (110)
55 (35)

L-0
L-3E
M8-7

82 (60)
145 (125)
375 (340)
195 (12)
insa (135)
290 (260)
125 (170)
59 (140)
66 (35)

L-16E
M9-7
L-0
L-8W
M8-7

2 (3)
18 (48)
200+ (200+)
30 (2)
30 (2)
48 (32)
2 (2)
2 (2)
2 (2)

L-0
L-8E

JUNE 25/70 RERUN
(JULY 3/70 RERUN)

Zn June 25 results
July 3 "

Pb "
Cu "
Mn "

Gary Clarke

We received some samples ~~xxx~~ from John Brock which showed a great discrepancy in results. Below are the samples + the date we received them and their re-runs. Each sample was re-run three times. this page is Zn.

	June 25 Zn	June 25 Rerun Zn	Area Re-sampled rec'd July 3 Zn	July 3 Rerun Zn
LINE 0 45	116	125	24	150
12S	129	155	21	95
16S	41	65	22	110
LINE 8E - 8N	104	115	46	60
4N	98	110	58	100
4S	108	135	8	34
8S	88	100	52	90
12S	84	105	46	75
16S	46	55	8	35

Copper

	June 25	Rerun		July 3 Resampled area.	Resampled area Rerun.
LINE 0 - 4S	330	375		60	340
12S	260	290		108	260
16S	41	59	*	82	140
LINE 8E - 8N	84	82		42	60
4N	138	145		72	125
4S	192	195	*	12	12
8S	45	insuff sample.	*	106	135
12S	104	125		110	170
16S	62	66		18	55

Perhaps the resampled area samples just do give different readings for I don't comprehend the difference.

If you are at all interested in explanations I would venture that those samples run on July 3 did not recieve a hot digestion as our hot plates insist on either burning up or shorting out. It is most difficult to give constant temp for all samples.

② the homogeneity of the soil sample ~~and~~ is not as exact as it should be as well as the presence of organics which would cause samples to recieve incomplete digestion as organics tend to boil quickly carrying essential soil with it

③ the Moly results since Alan Coombes departure have gone up, which may account for some discrepency in the lower regions of the moly scale i.e. readings from 1-6. When reading Moly on the procedure we use - samples are compared against a set of standards (~~orange~~ orange in color) varying from 0-1-2-3-4-8-12-20-32-48/ppm. ~~The exceeding~~ Any samples that are not distinct in that scale. (that is they may be - or appear yellow) are difficult to ascribe

③ a number to. I believe Alan read anything that was not distinctly orange - as trace - where as Pam King has been reading them as somewhere from 0 - 8 depending on intensity. For verisimilitude we shall commence to read only those samples that show a definite color along that orange scale.

④ We have run intra and inter lab checks on various samples and our accuracy for inter lab checks was ⓐ Cu - 10-15% Error.

ⓑ Zn - >10 % Error

ⓒ Pb - 20-25% Error - this element gives most labs. difficulty

On intra lab checks our precision was

ⓐ Cu - 10-15% Error

ⓑ Zn - 10% "

ⓒ Pb - 30% "

⑤ We have made up new standards for the AA and will continue to run checks on these standards as we will with intra and inter lab checks. The deterioration of the elements within the standards would also cause inaccuracy.

⑥ The standard run on every rack evidences the fact ~~that~~ that a sample is not homogeneous as well as variance from hot plate to hot plate, rack to rack and reader to reader. Different samples 5 ft apart may also contribute. (over)

⑦ The error we exhibited is deplorable in a scientific field, however in doing 500-1000 samples/day each sample does not receive the accurate analytical attention it should.

I do not underestimate the gravity of the error and would appreciate any comment, as well as demand that we re-run samples showing a discrepancy. I only hope that our errors have not caused us to pass over Klondike-II.

Neil John Ross.

Dragan Bralac may extrapolate further when he sees you.

As for mixing up samples - i.e. sending them to the wrong camp I believe this has be rectified - condoning same line nos etc.

I go along with most comments made by Neil in my absence. Quality of data has been deteriorating in proportion with number of samples arriving to the lab. Also, there have been failures of hot plates which may account for poor digestion of some batches. We are doing what we can to overcome these problems.

cheers, Dragan

Ken – Perhaps Don didn't mention this problem to you. Resampled site and Reserve gave wide discrepancies II – I I gather that the column on the far right is the official one

Good Luck

Gary.

Moly

	June 25	Rerun	July 3	Rerun
LINE 0 45	180	+200 *1	32	+200 *1
~~125~~				
125	80	48	18	32
165	0	2	0	2
LINE 8E-8N	0	2	~~32~~	8
4N	50	48	48	
45	4	30	10	2
85	24	30	20	2
125	0	2	12	2
165	0	2	8	2

*1 - the moly sample had to be diluted and this hinders accuracy but the reading was in excess of 200

*2 - the interference in the first samples affected the reading - in the second set there was little interference and consequently lower readings.