



42A09NE0070 2.850 WARDEN

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Geoch Rpt on
Can Johns-Manville Co Ltd
Cl in Warden Twp
Warden & Mining Div

Can Johns-Manville
1972

**GEOCHEMICAL REPORT ON
CANADIAN JOHNS-MANVILLE CO. LIMITED CLAIMS
IN WARDEN TOWNSHIP
LARDER LAKE MINING DIVISION
PROVINCE OF ONTARIO**

Introduction:

The property consists of four claims situated in Warden Township, Larder Lake Mining Division, Province of Ontario. Collection of a majority of the samples, general supervision, interpretation and compilation of the report were carried out by the writer, Geologist with Canadian Johns-Manville Co. Limited.

Property:

These claims were staked in December, 1969 by Company personnel from Matheson, Ontario and later transferred to Canadian Johns-Manville Co. Limited. The claims are identified as follows;

L-243112 - SE 1/4, S 1/2 - Lot 10, Con 1

L-243113 - NE 1/4, S 1/2 - Lot 10, Con 1

L-243114 - NW 1/4, S 1/2 - Lot 9, Con 1

L-243115 - SW 1/4, S 1/2 - Lot 9, Con 1.

Location and Accessibility:

To reach the property one drives 16 miles east from Matheson on Highway #101; then 7 miles north on the Hedman-Potter Mines access road, turning west to the old Potter-Doal property for the last 2 miles. This turnoff is just before the gate on the Hedman road. From the Potter-Doal, a bush road runs westerly crossing the Munro-Warden Township line three times. At the third traversal which is about 2½ miles west, one is approximately 100 feet east of the #3 post of claim L-243112. This corner is the zero for the grid system.

APRIL
28, 1972

Location and Accessibility: (cont'd)

The Township line is used as the base line and from this a 7.5 mile grid system was cut north using 200 foot line spacing. The ends of these lines were chained in for accurate location using the north claim line and pickets were established at 100 foot intervals northward.

Topography:

The claims group is approximately one-third outcrop which consists of northwesterly trending ridges, three in the south and one in the northeast portion. Between these two ridges is a flat clay area that may have been a lake bed at one time. Drainage is affected by two small streams, one flowing north to a swamp and one flowing east to the beaver pond. The overburden here is estimated to be 20 to 50 feet deep and the vegetation is mainly poplar and alders. On the ridges sparse jackpine, birch and poplar cover can be found.

General Geology:

The following "Table of Formations" is taken directly from a Report entitled "Geology of Munro Township" by J. Satterly, Vol. LX, Part VIII, 1951 - and published by the Ontario Department of Mines.

Table of Formations

CENOZOIC

Recent: Windblown sand (dunes), stream deposits, peat.
Pleistocene: Sand, gravel, boulders; boulder clay; varved
clay, silt; windblown sand (dunes)
Great unconformity

PRECAMBRIAN

Keweenawan (?): Quartz diabase

Intrusive contact

Matachewan (?): Quartz diabase, diabase

Intrusive contact

Algoman (?): Quartz diorite, feldspar porphyry, felsite,
lamprophyre

Intrusive contact

Basic and Ultrabasic

intrusives Diorite, diabase, gabbro, peridotite and dunite
(serpentinized), pyroxenite

Intrusive contact

{ Rhyolite: rhyolite agglomerate and tuff
{ Andesite, basalt; pillow lava, diabasic lava
{ spherulitic lava, fragmental lava (flow breccia),
{ talc-chlorite schist, carbonate-chlorite schist;
{ actinolitized and chloritized lavas

Faulted contact

Sediments: Greywacke, argillite, arkose, conglomerate.

Rock types noted on the four claims include gabbro, peridotite,
acid volcanics, pyroxenite and felsite.

The geology of the claims has been thoroughly described in
a Canadian Johns-Manville report submitted for assessment work
and dated December 7th, 1970.

Previous Work:

Canadian Johns-Manville Co. Limited conducted an E. M. survey on the property during the fall of 1970 and several weak conductors were located. Two are associated with the nickel anomaly on the peridotite but these could be due to the two inch magnetite seams that are present. One is associated with a weak lead - zinc anomaly on Line 18+00E at 20+00N, in the gabbro. This is an isolated reading and is probably due to a small fault in the gabbro.

A weak anomaly was located on line 4+00E at 3+00N. This also is in gabbro, however, no geochem anomalies are present. It could be due to a slight concentration of pyrite which is present throughout the gabbro.

The strongest E. M. conductor was located in the southwest band of rhyolite between lines 2+00E and 8+00E. The only geochem anomaly is an isolated nickel value. The conductor is probably pyrite, arsenopyrite or pyrrhotite which are known to occur as 'pods' within this band of rhyolite.

A magnetometer survey was also carried out on the property facilitating excellent contact positioning for the peridotite under the heavy overburden.

Geochemical Survey:

I. Soils:

The low-lying clay area has been mentioned. This is a light grey to brown boulder clay. Close to the outcrop areas it becomes sandy grading to a white sand, and adjacent to rock, rusty red sand. Some black diatomaceous ? oozes can be found in the swamp area of the north central portion of the claims and

Geochemical Survey: (cont'd)

also in isolated pockets where the drainage is trapped in small rock basins. In the north central portion, and where individual samples are missing, it is because of this black ooze. It is difficult to sample and to compare with normal soils because of its organic nature. This led to about 30 possible samples being omitted.

II. Sampling:

A combination of soil and rock samples was taken along the grid lines at 100 foot intervals. Additional samples were taken on outcrop areas where warranted (e.g. sulphide "burns"). The combination of samples is necessary in this area because of the extent of bare rock. For the rock samples, as fresh a piece as possible was broken from outcrop, approximately one inch cube in size.

Soil sampling was carried out using a grub hoe with samples taken from approximately 18 inch depth. In the clay areas this depth revealed the red patches of accumulated oxides which would correspond to the 'B' horizon of the soil. Cleaning of the grub hoe was necessary between samples to avoid contamination.

The most effective method for this was by driving the blade into the ground at four or five points close to the sample site. The site was excavated to the 'B' horizon and then the grub hoe blade was sunk deep into this material. It was then levered out and a cigarette package size sample was obtained. This was reduced in size by breaking four pieces from the edges, each piece approximately one-fifth of the original sample. The samples taken would be 3 to 4 ounces in weight. Factors

Geochemical Survey: (cont'd)

noted for each sample were location, sample number, colour, texture, soil horizon, soil type, drainage and humus content.

A total of 339 samples was taken - 102 being rocks. The samples were sent to Bondar-Clegg & Co. Limited of Ottawa for geochemical analyses. Determinations were made for Cu, Pb, Zn, Mo, Ag and Ni by the atomic absorbtion method. Results are given as parts per million.

III. Results:

Histograms have been drawn for each element, both in rock and soil except for Mo since only a few samples were analyzed. These Mo determinations were made in error instead of for Ni. Since it only concerns 28 soil samples and 11 rocks it does not interfere with the overall picture. Originally this batch of samples was lost in the mail and upon resampling an error was made in the request for element determination, Mo being substituted for Ni.

The histograms show that, in general, values for soils are lower than those for rocks, but that the overall shape of the histogram is the same. However, the important points are that very little indication of a second population is present and that excesses of high values are absent. The Cu in rocks shows a second peak from 440 - 480 ppm and examination of the locations of the samples at and above this range has revealed some chalcopyrite mineralization.

The Ni histograms are the most interesting showing a second population beginning at about 1000 ppm and spreading to a maximum of 2600 ppm. The background value is about 200 ppm

Geochemical Survey: (cont'd)

and there is quite an increase (10 times) to these anomalous values.

The only other elements that show this 10 times background increase are Pb and Zn in rocks where one sample runs 450 ppm Pb and 1900 Zn. The Pb background is about 20 ppm and the Zn about 200 ppm.

Incidentally the Cu background for rocks is about 200 ppm and two samples occur above 10 times this value, one at 2700 ppm and one at 4600 ppm. Chalcopyrite mineralization was found at both these locations.

Conclusions:

As previously mentioned, detailed geological mapping was completed on the claims during the fall of 1970. A report covering the geological and geophysical surveys has been filed with the Ontario Dept. of Mines for assessment purposes.

Chalcopyrite is present in minor amounts associated with small "burns" in the gabbro and is definitely uneconomic. The two anomalous values were hand picked samples.

Pb - Zn mineralization is present at one isolated sample site, probably on a small break in the gabbro.

The nickeliferous mineralization is interesting in that it outlines one peridotite band and the isolated "highs" occur on a second narrow band to the south. It should be noted here that high nickel values are often associated with peridotites and that commonly the nickel is in the silicate form making it an uneconomic proposition. Nevertheless, this is worth additional work as nickel sulphides may be present and the

Conclusions: (cont'd)

peridotite band may thicken to the west or east giving a possible increase in values and a significant tonnage potential.

Recommendations:

1. Additional rock geochemical sampling.
2. Biogeochemical sampling using alder and/or birch trees.
3. Testing anomalous zones using hand auger and Copco plugger methods.

P.A.R. Brown

Submitted by: P. A. R. Brown
Geologist.

April 28th, 1972.

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 22/70

Project: #19
Munro-Warden
Area: Block

Weather: Sunny
Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3499	L 0 ⁴⁰⁰ Baseline		Clay Pale sandy brown, some roots
F3500	1 ⁴⁰⁰ N		Sand - grey some humus
F3501	2 ⁴⁰⁰ N		Sand - rusty red - little humus
F3502	3 ⁴⁰⁰ N		Sand - orange to grey - some humus roots
F3503	4 ⁴⁰⁰ N		Rock - Gabbro
F3504	5 ⁴⁰⁰ N		Rock - Gabbro
F3505	6 ⁴⁰⁰ N		Black Muck - humus
F3506	7 ⁴⁰⁰ ON		Sand - white to rusty red
F3507	8 ⁴⁰⁰ N		Sand - coarse grey - some humus
F3508	9 ⁴⁰⁰ N		Rock - Gabbro
F3509	10 ⁴⁰⁰ N		Rock - Gabbro
D7081	11 ⁴⁰⁰ N		Humus - dark brown
D7082	12 ⁴⁰⁰ N		Humus - dark brown
F3512	13 ⁴⁰⁰ N		Humus -
F3513	14 ⁴⁰⁰ N		Rock - Peridotite
F3514	15 ⁴⁰⁰ N		Rock - Peridotite
F3515	16 ⁴⁰⁰ N		Rock - Peridotite
F3516	17 ⁴⁰⁰ N		Sand & Clay - grey
F3517	18 ⁴⁰⁰ N		Clay - grey
F3518	19 ⁴⁰⁰ N		Clay - grey - brown - sandy
F3519	20 ⁴⁰⁰ N		Clay - Grey - brown - slightly sandy
F3520	21 ⁴⁰⁰ N		Clay - brown
F3521	22 ⁴⁰⁰ N		Clay - brown
F3522	23 ⁴⁰⁰ N		Clay - Brown

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 22/70

Project: #19
Munro-Warden
Area: Block

Weather: Sunny
Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3524	24-00 N		Clay
F3525	25-00 N		Clay - light brown, silty
F3526	26-00 N		Sand - light brown - clayey
F3527	26-50 N		Clay - brownish grey - sandy
	L2-00 East 26-00 N		
F3528	26-00 N		Rock - Gabbro
F3529	25-00 N		Clayey Sand - red/brown
F3530	24-00 N		Clay - grey/brown
F3531	23-00 N		Clay - brown
F3532	22-00 N		Humus - brown - close to stream
F3533	21-00 N		Sandy clay - brown
F3534	20-00 N		Sandy clay - brown
F3535	19-00 N		Humus - brown
F3536	18-00 N		Clay - Red/brown
F3537	17-00 N		Clay - greyish
F3538	16-00 N		Rock - Dunit
F3539	14-50 N		Rock - Dunit
F3540	11-50 N		Rock - Peridotite
F3541	11-00 N		Rock Peridotite
F3542	10-00 N		Rock - Gabbro
F3543	9-00 N		Rock - Gabbro
F3544	8-00 N		Sand - Rusty red
F3545	7-00 N		Clay - brown/grey
F3546	6-00 N		Brown humus

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown & Project: #19 Weather: Sunny
 R. Wright Munro-Warden
 Date: Sept 22/70 Area: Block Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3547	Line 1200 East 5400 N		Sand - br. own
F3548	4400 N		Rock - Gabbro
F3549	3400 "		Rock - Gabbro
F3550	2400 "		Rock - Gabbro
F3551	1400 "		Sand - red/brown
F3552	Baseline		Sand - Rusty red
<u>Sept 23/70</u>			
F3676	Line 4400 East Baseline		Sand - grey
F3677	1400 N		Rock - light grey
F3678	2400 "		Rock
F3679	3400 "		Rock
F3680	4400 "		Grey sand
F3681	5400 N		Clay - dark brown
F3682	6400 N		Humus
F3683	7400 "		Rock - Rhyolite, light grey
F3684	8400 "		Rock
F3685	9400 "		Rock
F3686	10400 "		Sand - grey
F3687	11400 N		Rock
F3688	12400 "		Rock
F3689	13400 "		Rock
F3690	14400 "		Rock - Peridotite
F3691	15400 "		Rock - Peridotite
F3692	16400 "		Sand - Coarse red/grey

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 23/70

Project: #19
Munro-Warden
Area: Block

Weather: Sunny
Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3693	Line 4E 17-00 N		Sand - Grey/brown, slightly clayey
F3694	18-00 N		Clay - brown/grey
F3695	19-00 N		Clay - light brown
F3696	20-00 N		Clay - brown
F3697	21-00 N		Clay - brown
F3698	22-00 N		Clay - brown
F3699	23-00 N		Clay - brown
F3700	24-00 N		Humus - dark brown
F3701	25-00 N		Humus - dark brown
F3702	26-00 N		Clay - brown
Sept 24/70			
F3703	Line 6-00 East 26-00 N		Clay - grey/brown
F3704	25-00 N		Clay - grey/brown
F3705	24-00 N		Humus - dark brown
F3706	23-00 N		Humus - dark brown
F3707	22-00 N		Humus - dark brown
F3708	21-00 N		Clay - grey/brown
F3709	20-00 N		Clay - brown
F3710	19-00 N		Clay - sandy, brown
F3711	18-00 N		Clay - sandy, brown
F3712	17-00 N		Light brown - sandy clay
F3713	16-00 N		Sand, coarse, much humus
F3714	15-00 N		Rock - Peridotite
F3715	14-00 N		Rock - Dunitic

CANADIAN JOHNS-MANVILLE CO. LIMITED

GEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 24/70

Project: #19
Munro-Warden
Area: Block

Weather: Sunny
Physiography:

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 28/70

Project: #19
Munro-Warden
Area: Block

Weather:

Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3816	Line 8100 East Baseline		
F3815	1N		Coarse Sand
F3814	2N		Humus
F3813	3N		Gravel
F3812	4N		Sand
F3811	5N		Sand
F3810	6N		Sand
F3809	7N		
F3818	8N		
F3817	9N		Humus
F3816	10N		Sand
F3815	11N		Sand
F3814	12N		Sand
F3623	13N		Sand
F3624	14N		Clay
F3625	15N		Clay
F3626	16N		Clay
F3627	17N		Clay
F3628	18N		Clay
F3629	19N		Clay
F3630	20N		Clay
F3631	21N		Clay
F3632	22N		Clay
	"		

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 29/70

Project: #19
Munro-Warden
Area: Block

Weather:
Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3633	Line 10-00 East 24"		Clay
F3634	23"		Clay
F3635	22"		Clay
F3636	21"		Clay
F3637	20"		Clay
F3638	19"		Clay
F3639	18"		Clay
F3640	17"		Clay
F3641	16"		Clay
F3642	15"		Sand
F3643	14"		
F3644	13"		
F3645	12"		
F3646	11"		
F3647	10"		
F3648	9"		
F3649	8"		
F3650	7"		
F3651	6"		
F3652	5"		
F3653	4"		
F3654	3"		
F3655	2"		
F3656	Baseline		

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown &
R. Wright
Date: Sept 29/70

Project: #19
Munro-Warden
Area: Block

Weather: Sunny
Physiography:

Sample No.	Location	Drainage Slope	Remarks
C6753	Lime 12:00 East 22N		Humus - top soil
C6754	21N		Humus - top soil
C6755	20N		Sand - rusty brown
C6756	19N		Rock
C6757	18N		Rock
C6758	17N		Sand - grey
C6759	16N		Sand - greyish, clayey
C6760	15N		Sandy grey clay
C6761	14N		Sand - grey
C6762	13N		Rock - Peridotite
C6763	12N		Rock - Peridotite
C6764	11N		Rock - Peridotite
C6765	10N		Sand - Coarse, grey
C6767	8N		Humus soil around boulders
C6768	7N		Rock
C6769	6N		Rock
C6770	5N		Rock - 20' W of lime
C6771	4N		Rock
C6772	3-10 N		Rock - sheared
C6773	3N		Rock
C6774	2N		Rock
C6775	1-50 N		Rock
C6776	1N		Rock
C6777	0-60N		Rock
C6778	Baseline		Clay - grey/brown

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATACollector: P. Brown &
R. Wright

Date: Sept 30/70

Project: #19
Munro-Warden
Area: BlockWeather: Sunny
Physiography:

Sample No.	Location	Drainage Slope	Remarks
C6730	Line 14-00 East Baseline		Rock
C6731	1N		Coarse sand
C6732	2N		Grey sand
C6733	3N		Grey sand & humus
C6734	4N		Gabbro, sheared
C6735	5"		Rock
C6736	6"		Rock
C6737	7"		Rock
C6738	8"		Grey to red sand
C6739	9"		Grey slightly red clay
C6740	10"		Dark brown clay
C6741	11"		Blue grey clay
C6742	12"		Slightly clayey red sand
C6743	13"		Light brown clay
C6744	14"		Light brown clay
C6745	15N		Grey silty clay
C6746	16"		Clay grey/red, some vegetation
C6747	17"		Red brown clay
C6748	18"		Rock - Gabbro
C6749	19"		Rock
C6750	20"		Rock
C6751	21"		Rock
C6752	22"		Very humus brown top soil
	"		

BONDAR-CLEGG & COMPANY LTD.

GEOCHEMICAL SOIL SURVEY DATA

P. A. R. Brown &
COLLECTOR E. Wright, T. P. Cook PROJECT #19

Munro-Warden Block
DATE May 5th, 1970 AREA Warden Twp

WEATHER Cool & clear

PHYSIOGRAPHY Hilly outcrops

SAMPLE NO.	LOCATION	DRAINAGE SLOPE	SOIL TYPE	HORIZON & DEPTH	COLOUR	TEXTURE	REMARKS	ANALYTICAL		
I-6655	Line 16+00E 0+00 b/l		Podsol		Red brown coarse -		side of hill			
6656	1+00N		Rock							
6657	2+00N		Boulders	- swamp black, coarse						
6658	3+00N			rock sample						
6659	4+00N		Podsol		Red brown - coarse					
I-6660	5+00N		Rock		Outcrop					
6661	6+00N		"		"					
6662	7+00N		Podsol		Red brown - fine material					
6663	8+00N		Clay		Grey - fine					
6664	10+00N		Podsol		Red brown - fine material					
6665	11+00N		Clay		Light brown - fine					
6666	12+00N		"		" " "					
6667	13+00N		"		" " "					
6668	14+00N		80% clay; 20% brown topsoil	- light brown clay						
6669	15+00N				Light brown clay					
I-6670	16+00N				Dark brown clayey topsoil - some humus					
6671	17+00N				Light brown sandy clay					
6672	18+00N				Light brown slightly rusty clay/ slightly sandy					
6673	19+00N				Coarse grained gabbro					
6674	20+00N				Outcrop - coarse grained gabbro					
6675	21+00N				Outcrop - medium grained gabbro					
6676	22+00N				Light brown sand					
I-6677	Line 16+00E 23+00N		Outcrop	- red brown sand - coarse grained						
6678	22+00N				" " "					
6679	21+00N				" " "					

BONDAR-CLEGG & COMPANY LTD.

GEOCHEMICAL SOIL SURVEY DATA

P. A. R. Brown

J. Wright, E. Cook

COLLECTOR L. Wright, No. 0008 PROJECT Munro-Warden Block

PROJECT #19

#19

~~Munro-Warden Block~~

WEATHER.

Sunny

May 5, 1970

AREA Warden Twp

PHYSIOGRAPHY -

CANADIAN JOHNS-MANVILLE CO. LIMITED

GEOCHEMICAL SOIL SURVEY DATA

Collector: P. A. R. Brown, Project: #19 Weather:
R. Wright, F. Cook Munro-Warden Physiography:
Date: Nov 6/70 Area: Block

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

P. A. R. Brown
 Collector: R. Wright, F. Cook Project: #19 Weather:
 Munro-Warden Area: Block Physiography:
 Date: Nov 6/70

Sample No.	Location	Drainage Slope	Remarks
F3603	Line 20'00 East Baseline		Red brown clay
F3604	1N		Sandy light brown clay
F3605	2N		Sandy light br own clay
F3606	3N		Sandy light brown clay
F3607	4N		Dark brown top soil & clay - 10% Humus
F3608	5N		Light brown clay
F3609	6N		Light brown clay
F3610	7N		Light brown clay
F3611	8N		Dark brown clay
F3612	9N		Light brown clay
F3613	10N		Light brown clay
F3614	11N		Dark brown clay
F3615	12N		Light brown clay
F3616	13N		Light brown sandy clay
F3617	14N		Grey sand
F3618	15N		Dark brown to black slightly clayey
F3619	16N		Reddish light brown clay
F3620	17N		Light brown clayey sand
F3621	18N		White sand
F3622	19N		Rock
F3691	20N		Rock
F3692	21N		Rock
F3693	22N		Rock
F3694	23N		Rock

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P Brown , R. Wright Project: #19 Weather:
 F. Cook Munro-Warden
 Date: Nov 6/70 Area: Block Physiography:

Sample No.	Location	Drainage Slope	Remarks
F3495	Line 20-30 0 East 24N		Rock
F3496	25-20 N		Red clay
P3739	Line 22-30 East 24N		Grey rock
F3740	23N		Rock
F3741	22N		Clay - light brown
F3742	21N		Sand & clay
F3743	20N		Rock
F3744	19N		Sand, white
F3745	18N		Clay & sand
F3746	17N		Light brown clay & sand
F3747	16N		Light brown clay & sand
F3748	15N		Sand
F3749	14N		Clay & sand
F3750	13N		Clay
F3751	12N		Clay
F3752	11N		Black muck
F3753	10N		Clay
F3754	9N		Clay
F3755	8N		Clay
F3756	7N		Clay
F3758	6N		Clay
F3759	5N		Clay
F3760	4N		Clay, light brown

CANADIAN JOHNS-MANVILLE CO. LIMITEDGEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown, R. Wright Project: #19
 F. Cook Munro-Warden
 Date: Nov 7/70 Area: Block

Weather: Sunny
 Physiography:

Sample No.	Location	Drainage Slope	Remarks
P3761	Line 22-00 East 3N		Clay & sand
P3762	2N		Clay
P3763	1N		Sand
P3764	Baseline		Rock
P3872	Line 24-00 East 24N		Dark brown clay
P3873	23N		Light brown clay
P3874	22N		Rust red sandy clay
P3875	21N		Rock
P3875	20N		Rock
P3870	19N		Rock
P3876	18N		Dark brown to black soil
P3878	16N		Dark brown humus soil
P3879	14N		Light brown sandy soil
P3880	13N		Light brown sandy soil
P3881	12N		Light clay
P3882	11N		Light brown clay
P3883	10N		Dark brown clay - humus
P3884	9N		Dark brown clay - humus
P3885	8N		Dark brown clay - humus
P3886	7N		Blue clay
P3887	6N		Sandy clay - humus
P3888	3N		Grey to br ov clay
P3889	2N - 15' W of line		Rock

CANADIAN JOHNS-MANVILLE CO., LIMITED

GEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown, R. Wright Project: #19 Weather: Sunny
P. Cook Munro-Warden
Date: Nov 7/70 Area: Block Physiography:

CANADIAN JOHNS-MANVILLE CO. LIMITED

GEOCHEMICAL SOIL SURVEY DATA

Collector: P. Brown,
R. Wright, F. Cook
Date: Nov 7/70

Project: #19
Munro-Warden
Area: Block

Weather:

BRANCH OFFICES

1600 PEMBERTON AVE., BOX 487,
NORTH VANCOUVER, B.C. CAMPBELLTON, N.B.

BONDAR-CLEGG & COMPANY LTD.

**768A BELFAST ROAD (M.R. 1), OTTAWA 8, ONTARIO
PHONE: 237-3110**

GEOCHEMICAL LAB REPORT

No. 691-0

Extraction Cu, Pb, Zn, Mo, Ni, Ag - HNO₃-HCl

From Mr. F.J. Eveleigh

Method..... A.A.

Date December 17

Fraction Used..... -80 soils

Analyst..... A.A.-G.B.



BONDAR-CLEGG & COMPANY LTD.

768A BELFAST ROAD (M.R. 1), OTTAWA 8, ONTARIO
PHONE: 237-3110 TELEX: 013-3548

GEOCHEMICAL LAB REPORT

No: 208-1

Extraction Cu, Pb, Zn, Mo, Ag - HNO₃-HCl

From Mr. F.J. Evelegh - Canadian Johns-Manville

Method A.A.

Date May 19

1971

Fraction Used -80 soils, -100 rocks

Analyst A.A.-G.B.

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm		REMARKS
F 6655	63	17	104	2	1.4	Soils	Project # 18 & 19
57	23	34	27	1	0.7		
59	14	12	56	1	0.9		
F 6662	23	13	34	1	1.1		
63	58	13	76	1	1.2		
64	5	10	20	1	0.7		
65	7	11	28	1	0.7		
66	24	20	106	2	1.1		
67	15	13	58	1	0.8		
68	16	14	56	1	1.1		
69	11	13	40	N.D.	0.8		N.D. - Not Detected
F 6670	28	19	90	2	1.3		
71	27	19	72	1	1.3		
72	19	14	68	1	0.9		
76	10	10	44	N.D.	0.6		
77	19	17	78	2	1.2		
78	17	8	44	1	0.7		
79	24	9	65	1	0.8		
F 6681	25	13	106	2	1.3		
82	8	9	26	N.D.	0.7		
*83	19	31	40	2	1.1		
84	12	15	52	1	0.9		
85	11	17	64	1	0.9		
86	11	18	60	1	1.1		
87	16	17	55	2	1.0		
*D 7081	44	39	64	2	1.0		
*D 7082	36	64	46	2	1.0		
F 6656	105	450	1900	2	2.2	Rocks	
58	83	18	188	2	1.4		
F 6660	600	45	195	2	1.4		

GEOCHEMICAL LAB REPORT

SAMPLE NO.		CU ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm		REMARKS
F 6661		172	18	105	1	1.2	Rocks	
F 6673		123	35	250	1	1.5		
74		12	65	510	2	1.1		
75		98	16	130	1	1.2		
F 6680		43	102	890	2	1.4		
88		40	34	320	1	1.0		
89		167	100	560	1	1.2		

* indicates organic sample

Tree samples to follow.

BRANCH OFFICES
1800 PEMBERTON AVE., BOX 487,
NORTH VANCOUVER, B.C. CAMPBELLTON, N.B.

BONDAR-CLEGG & COMPANY LTD.

*Plotted
Dec 1970
m - Annual*

768A BELFAST ROAD (M.R. 1), OTTAWA 8, ONTARIO
PHONE: 237-3110 TELEX: 013-3548

GEOCHEMICAL LAB REPORT

No. 644-0

Extraction Cu, Pb, Zn, Ni, Ag - HCl-HNO₃

from Mr. F.J. Evelegh -Canadian Johns- Manville

Method A.A.

Date December 3

Fraction Used -80 soils, -100 rocks

Analyst A.A.-G.B.

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm	REMARKS
F 3491	/ 10	7 /	58 /	9 /	0.8 /	L-20E
92	/ 95	8 /	40 /	47 /	1.0 /	
93	/ 240	8 /	44 /	72 /	0.8 /	
94	/ 59	9 /	36 /	130 /	0.8 /	
95	/ 36	8 /	28 /	72 /	1.0 /	
F 3503	/ 64	7 /	40 /	83 /	0.7 /	ROCK L-0700
04	/ 114	8 /	56 /	47 /	1.0 /	ROCK
08	/ 28	7 /	134 /	84 /	1.0 /	ROCK
09	/ 10	7 /	54 /	10 /	0.8 /	ROCK
12	/ 86	12 /	108 /	320 /	0.8 /	
13	/ 7	8 /	52 /	1800 /	0.7 /	ROCK
14	/ 10	9 /	66 /	1000 /	0.8 /	ROCK
15	/ 27	6 /	26 /	148 /	0.3 /	ROCK
28	/ 132	E /	68 /	77 /	1.2 /	ROCK L-2E
38	/ 30	4 /	30 /	168 /	0.2 /	ROCK
39	/ 8	8 /	76 /	1800 /	0.8 /	ROCK
40	/ 37	2 /	25 /	155 /	0.5 /	ROCK
41	/ 8	6 /	33 /	140 /	0.5 /	ROCK
42	/ 52	8 /	88 /	63 /	0.9 /	ROCK
43	/ 210	11 /	48 /	48 /	1.2 /	ROCK
48	/ 44	8 /	50 /	47 /	1.1 /	ROCK
49	/ 20	11 /	40 /	41 /	1.4 /	ROCK
50	/ 128	6 /	47 /	45 /	0.7 V	ROCK
F.3622	/ 76	7 /	68 /	35 /	0.8 /	L-20E 1000
23	/ 16	6 /	78 /	1950	0.9 /	L-8E
39	/ 24	20 /	72 /	64 /	0.8 /	L-10E
41	/ 15	14 /	48 /	65 /	0.4 /	
43	/ 5	8 /	81 /	2600	0.9 /	Wanda Twp.
44	/ 4	8 /	70 /	2300	1.0 /	1"=100'
45	/ 320	8 /	72 /	1180	0.9 /	Complete
46	/ 99	7 /	65 /	2100	1.2 /	

GEOCHEMICAL LAB REPORT

SAMPLE NO.		Cu PPM	Pb PPM	Zn PPM	NI PPM	Ag PPM		REMARKS
F 3647		/ 109	10 /	72 /	/ 62	1.4	/	L-10E
48		/ 10	6 /	72 /	/ 62	0.9	/	
49		/ 28	8 /	76 /	/ 900	1.0	/	
50		/ 240	10 /	50 /	/ 38	1.1	/	
51		/ 23	12 /	92 /	/ 13	1.2	/	
52		/ 116	9 /	104 /	/ 76	1.0	/	
53		/ 88	6 /	26 /	/ 99	0.4	/	
54		/ 81	55 /	35 /	/ 35	0.6	/	
55		/ 14	8 /	58 /	/ 1450	0.8	/	
56		/ 72	6 /	42 /	/ 53	0.9	/	
60		/ 114	13 /	58 /	/ 26	0.7	/	ROCK L-10E
68		/ 33	7 /	70 /	/ 173	0.4	/	ROCK
70		/ 280	8 /	100 /	/ 57	0.6	/	ROCK
77		/ 80	7 /	56 /	/ 39	1.0	/	ROCK L-4E
78		/ 92	8 /	52 /	/ 51	1.0	/	ROCK
79		/ 56	6 /	42 /	/ 61	1.0	/	ROCK
83		/ 96	9 /	50 /	/ 245	1.2	/	ROCK
84		/ 68	12 /	103 /	/ 58	1.0	/	ROCK
85		/ 60	7 /	32 /	/ 100	0.4	/	ROCK
87		/ 20	4 /	18 /	/ 85	0.2	/	ROCK
88		/ 11	6 /	20 /	/ 107	0.2	/	ROCK
90		/ 4	8 /	78 /	/ 1950	0.8	/	ROCK
91		/ 14	9 /	90 /	/ 1700	1.0	/	ROCK
F 3707		/ 33	18 /	132 /	/ 83	1.3	/	L-CE
14		/ 4	7 /	98 /	/ 1950	1.0	/	ROCK
15		/ 8	3 /	20 /	/ 120	0.2	/	ROCK
16		/ 4	9 /	78 /	/ 1800	1.0	/	ROCK
17		/ 26	4 /	24 /	/ 88	0.2	/	ROCK
18		/ 20	4 /	17 /	/ 120	0.3	/	ROCK
19		/ 39	6 /	20 /	/ 82	0.2	/	ROCK
20		/ 25	6 /	67 /	/ 18	0.9	/	ROCK
21		/ 74	5 /	42 /	/ 123	0.5	/	ROCK
22		/ 60	12 /	44 /	/ 46	1.0	/	ROCK
23		/ 89	7 /	76 /	/ 85	1.1	/	ROCK
24		/ 86	7 /	72 /	/ 81	0.9	/	ROCK
25		/ 56	6 /	45 /	/ 1320	0.7	/	ROCK

GEOCHEMICAL LAB REPORT

SAMPLE NO.	Cu PPM	Pb PPM	Zn PPM	Ni PPM	Ag PPM		REMARKS
F 3727	/ 48	5 /	51 /	/ 130	0.6	/	Rock L-6E
28	/ 90	8 /	56 /	/ 41	1.1	/	Rock
29	/ 104	6 /	76 /	/ 450	0.9	/	Rock
39	/ 33	10 /	81 /	/ 61	0.6	/	L-22E
40	/ 24	7 /	36 /	/ 40	0.4	/	
43	/ 52	8 /	60 /	/ 21	0.6	/	
56	/ 35	22 /	80 /	/ 60	0.7	/	
59	/ 38	21 /	79 /	/ 62	0.8	/	
64	/ 133	12 /	104 /	/ 24	0.7	/	
F 3809	/ 138	11 /	136 /	/ 12	0.9	/	L-8E
75	/ 60	7 /	60 /	/ 27	0.7	/	L-29E
89	/ 22	4 /	56 /	/ 48	1.0	/	
90	/ 110	6 /	82 /	/ 71	1.4	/	
92	/ 152	6 /	92 /	/ 41	1.0	/	
95	/ 14	5 /	46 /	/ 44	1.0	/	
96	/ 97	5 /	45 /	/ 25	0.9	/	
F 3914	/ 116	8 /	94 /	/ 1700	1.4	/	L-8E
18	/ 11	4 /	55 /	/ 11	0.8	/	
24E 19N F 2210	→ / 94	6 /	77 /	/ 36	1.2	/	L-24E
C 6730	/ 150	11 /	160 /	/ 190	1.2	/	Rock L-19E
34	/ 8	7 /	96 /	/ 8	1.5	/	Rock
35	/ 83	8 /	80 /	/ 29	1.5	/	Rock
36	/ 450	6 /	61 /	/ 60	1.4	/	Rock
37	/ 10	5 /	30 /	/ 36	0.9	/	Rock
48	/ 8	5 /	75 /	/ 44	1.3	/	Rock
49	/ 29	5 /	28 /	/ 30	1.0	/	Rock
50	/ 12	7 /	52 /	/ 36	1.6	/	Rock
51	/ 9	8 /	52 /	/ 28	1.4	/	Rock
56	/ 77	7 /	60 /	/ 40	1.3	/	Rock L-12E
57	/ 14	7 /	60 /	/ 41	1.0	/	Rock
62	/ 7	8 /	82 /	/ 2200	1.3	/	Rock
63	/ 3	8 /	76 /	/ 2200	1.4	/	Rock
64	/ 2	7 /	76 /	/ 1850	1.3	/	Rock
68	/ 25	6 /	36 /	/ 52	1.2	/	Rock
69	/ 61	7 /	60 /	/ 12	1.2	/	Rock
70	/ 20	4 /	132 /	/ 10	0.9	/	Rock

GEOCHEMICAL LAB REPORT

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm		REMARKS
C 6771	✓ 50	6 /	100 /	/ 12	1.2 /		Rock L-12E
72	/ 440	6 /	380 /	/ 50	1.5 /		
73	/ 78	4 /	40 /	/ 90	0.7 /		Rock
74	/ 71	7 /	52 /	/ 45	0.8 /		Rock
75	/ 89	5 /	76 /	/ 58	0.9 /		Rock
76	/ 137	8 /	120 /	/ 390	1.4 /		Rock
77	✓ 170	6 /	144 /	/ 440	1.3 /		Rock
78	✓ 20	9 /	40 /	/ 84	0.6 /		
F 3496	✓ 19	10 /	36 /	✓ 31	0.5 /		L-20E
99	/ 23	14 /	66 /	/ 81	0.9 ✓		L-0400
F 3500	/ 26	7 /	60 /	/ 80	0.4 /		
01	/ 23	4 /	152 /	/ 109	0.4 ✓		
02	/ 17	8 ✓	120 /	/ 91	0.4 ✓		
05	✓ 34	15 ✓	70 ✓	/ 50	1.0 ✓		
06	/ 5	6 /	17 /	/ 50	0.4 ✓		
07	✓ 4	7 /	25 /	/ 154	0.4 ✓		
16	✓ 2	6 /	12 ✓	/ 17	0.1 ✓		
17	✓ 16	15 /	56 ✓	/ 90	0.8 ✓		
18	/ 16	13 /	68 ✓	/ 65	0.8 ✓		
19	/ 9	11 /	40 ✓	/ 28	0.5 ✓		
20	/ 26	20 ✓	72 ✓	/ 51	0.9 ✓		
21	/ 23	15 ✓	61 ✓	/ 39	1.0 ✓		
22	/ 23	17 ✓	71 ✓	/ 43	1.2 ✓		
24	/ 24	17 ✓	68 ✓	/ 48	1.0 ✓		
25	/ 23	17 ✓	80 ✓	/ 48	1.0 ✓		
26	/ 2	4 ✓	22 ✓	/ 8	0.2 ✓		
27	/ 10	12 ✓	44 ✓	/ 27	0.6 ✓		
29	✓ 7	8 ✓	56 ✓	/ 28	0.7 ✓		L-2E
30	✓ 21	15 ✓	76 ✓	/ 41	0.9 ✓		
31	/ 20	14 ✓	58 ✓	/ 36	0.7 ✓		
32	/ 16	6 ✓	82 ✓	/ 39	0.4 ✓		
33	/ 34	19 ✓	80 ✓	/ 57	1.0 ✓		
34	/ 23	14 ✓	62 ✓	/ 42	0.8 ✓		
35	/ 26	14 ✓	80 ✓	/ 92	0.8 ✓		
36	/ 17	9 ✓	39 ✓	/ 34	0.6 ✓		
37	/ 6	8 ✓	27 ✓	/ 20	0.4 ✓		

GEOCHEMICAL LAB REPORT

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm		REMARKS
F 3544	/ 16	9 /	95 /	/ 88	0.7	/	L-2E
45	/ 27	12 /	68 /	/ 58	0.9	/	
46	/ 30	11 /	88 /	/ 102	0.8	/	
47	/ 9	6 /	22 /	/ 12	0.4	/	
F 3604	/ 26	11 /	64 /	/ 60	0.7	/	L-20C
05	/ 12	12 /	45 /	/ 40	0.6	/	
06	/ 21	18 /	75 /	/ 45	1.0	/	
07	/ 39	17 /	78 /	/ 78	1.1	/	
08	/ 18	19 /	80 /	/ 48	1.1	/	
09	/ 23	22 /	81 /	/ 50	1.0	/	
10	/ 18	17 /	75 /	/ 42	0.8	/	
11	/ 29	16 /	102 /	/ 60	1.2	/	
12	/ 24	18 /	72 /	/ 66	1.1	1.2	
13	/ 29	21 /	78 /	/ 53	1.2	/	
14	/ 18	16 /	75 /	/ 45	1.0	/	
15	/ 22	17 /	68 /	/ 52	1.1	/	
16	/ 5	6 /	34 /	/ 18	0.4	/	
17	/ 7	5 /	20 /	/ 20	0.4	/	
18	/ 18	12 /	84 /	/ 40	0.8	/	
19	/ 13	11 /	42 /	/ 27	0.7	/	
20	/ 6	6 /	22 /	/ 16	0.4	/	
21	/ 1	4 /	4 /	/ 2	0.1	/	
24	/ 1	5 /	2 /	/ 4	0.2	/	L-8E
25	/ 14	11 /	34 /	/ 44	0.5	/	
26	/ 8	6 /	20 /	/ 23	0.3	/	
27	/ 8	11 /	40 /	/ 22	0.6	/	
28	/ 6	7 /	26 /	/ 14	0.6	/	
29	/ 8	7 /	34 /	/ 20	0.8	/	
30	/ 11	13 /	48 /	/ 28	0.6	/	
31	/ 20	15 /	56 /	/ 35	0.8	/	
32	/ 26	20 /	124 /	/ 50	1.6	/	
33	/ 28	14 /	68 /	/ 47	1.5	/	L-10E
34	/ 12	20 /	74 /	/ 36	0.7	/	
35	/ 19	18 /	69 /	/ 45	1.0	/	
36	/ 13	12 /	78 /	/ 33	0.7	/	
37	/ 6	8 /	48 /	/ 20	0.6	/	

GEOCHEMICAL LAB REPORT

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm		REMARKS
F 3638	/ 17	17 /	80 /	41 /	0.8	/	L-10E
40	/ 7	6 /	26 /	28 /	0.3	/	
42	/ 2	4 /	12 /	16 /	0.1	/	
57	/ 4	5 /	14 /	16 /	0.4	/	L-11E
58	/ 7	5 /	18 /	49 /	0.4	/	
59	/ 5	7 /	15 /	12 /	0.2	/	
61	/ 9	6 /	25 /	36 /	0.4	/	
62	/ 6	4 /	16 /	31 /	0.4	/	
63	/ 22	11 /	76 /	59 /	1.0	/	
64	/ 32	15 /	94 /	58 /	1.0	/	
65	/ 30	15 /	92 /	65 /	1.2	/	
66	/ 10	11 /	52 /	30 /	0.6	/	
67	/ 10	8 /	34 /	25 /	0.4	/	
69	/ 3	6 /	16 /	7 /	0.3	/	
71	/ 17	20 /	105 /	53 /	1.4	/	
72	/ 12	12 /	94 /	39 /	0.8	/	
73	/ 11	12 /	60 /	27 /	0.8	/	
74	/ 4	6 /	20 /	12 /	0.3	/	
75	/ 8	7 /	24 /	14 /	0.3	/	
76	/ 8	10 /	40 /	49 /	0.3	/	L-4E
80	/ 4	7 /	14 /	26 /	0.2	/	
81	/ 35	14 /	78 /	230 /	1.2	/	
82	/ 22	4 /	10 /	28 /	0.9	/	
86	/ 3	6 /	7 /	11 /	0.1	/	
89	/ 15	31 /	30 /	87 /	0.5	/	
92	/ 12	8 /	66 /	150 /	0.6	/	
93	/ 6	8 /	44 /	62 /	0.4	/	
94	/ 15	14 /	47 /	41 /	0.6	/	
95	/ 31	23 /	78 /	53 /	1.1	/	
96	/ 24	17 /	64 /	43 /	0.8	/	
97	/ 24	17 /	63 /	43 /	1.0	/	
98	/ 38	24 /	80 /	62 /	1.4	/	
99	/ 40	20 /	84 /	55 /	1.2	/	
F 3700	/ 49	16 /	92 /	72 /	1.0	/	
01	/ 24	14 /	90 /	45 /	1.2	/	
02	/ 23	18 /	89 /	50 /	1.1	/	

GEOCHEMICAL LAB REPORT

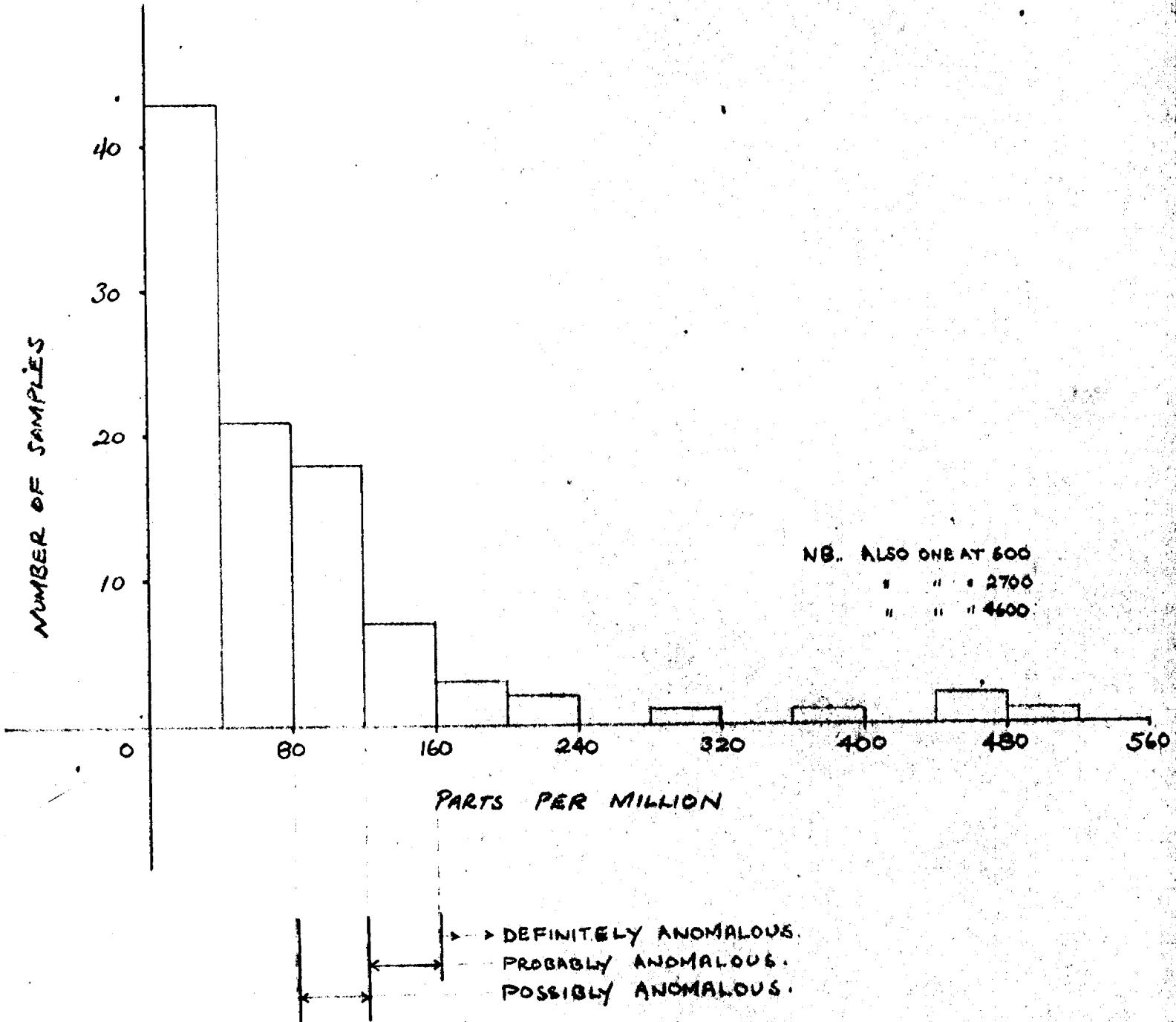
SAMPLE NO.		Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm		REMARKS
F 3703		/ 22	17 /	132 /	/ 56	1.5	/	L-6E
04		/ 18	16 /	100 /	/ 68	1.0	/	
05		/ 32	15 /	94 /	/ 93	1.0	/	
06		/ 26	14 /	53 /	/ 34	1.2	/	
08		/ 30	19 /	88 /	/ 53	1.2	/	
09		/ 22	17 /	61 /	/ 43	1.0	/	
10		/ 10	11 /	46 /	/ 28	0.6	/	
11		/ 12	9 /	40 /	/ 45	0.6	/	
12		/ 17	9 /	36 /	/ 40	0.6	/	
13		/ 7	11 /	34 /	/ 125	0.4	/	
as 3725	→	/ 14	6 /	124 /	/ 49	0.5	/	Rock
30		/ 20	5 /	87 /	/ 140	0.5	/	Rock
41		/ 20	18 /	68 ✓	/ 42 /	0.8	/	L-22E
42		/ 73	14 /	80 ✓	/ 50	1.4	/	
44		/ 1	4 /	8 /	/ 2	0.1	/	
45		/ 6	6 /	28 /	/ 19	0.5	/	
46		/ 15	12 /	44 /	/ 28	0.7	/	
47		/ 6	8 /	40 /	/ 19	0.4	/	
48		/ 4	4 /	20 ✓	/ 16	0.3	/	
49		/ 12	14 /	56 /	/ 36	0.8	/	
50		/ 22	20 /	81 /	/ 51	1.0	/	
52		/ 22	20 /	72 /	/ 48	1.1	/	
53		/ 42	18 /	147 /	/ 54	1.4	/	
54		/ 35	18 /	74 /	/ 53	1.2	/	
55		/ 23	20 /	77 /	/ 50	1.2	/	
56	→	28	20	69	45	1.2		
57		/ 22	18 ✓	92 ✓	/ 43	0.8	/	3858
58		/ 17	19 /	67 ✓	/ 42	0.8	/	3860
60		/ 19	17 /	58 ✓	/ 48	0.8	/	3861
61		/ 21	20 ✓	74 ✓	/ 49	1.1	/	3862
62		/ 12	10 ✓	40 ✓	/ 51	0.6	/	3863
F 3810		/ 6	11 /	48 ✓	/ 260	0.5	/	3864
11		/ 10	4 ✓	23 ✓	/ 80	0.3	/	
12		/ 4	6 /	7 ✓	/ 8	0.1	/	
13		/ 12	7 ✓	55 ✓	/ 36	0.4	/	
14		/ 30	10 ✓	23 ✓	/ 96	0.8	/	

GEOCHEMICAL LAB REPORT

SAMPLE NO.		Cu PPM	Pb PPM	Zn PPM	W PPM	Ag PPM	REMARKS
F 3815		/ 6	19 /	19 /	/ 32	0.3 /	
16		/ 30	20 /	122 /	/ 174	0.8 /	L-8E
22		/ 5	7 /	41 /	/ 11	0.3 /	L-19E
73		/ 23	17 /	79 /	/ 46	0.8 /	
74		/ 27	19 /	70 /	/ 45	0.9 /	
26		/ 12	7 /	46 /	/ 32	0.5 /	
28		/ 38	20 /	71 /	/ 53	1.1 /	
79		/ 18	16 /	115 /	/ 50	1.0 /	
80		/ 29	14 /	55 /	/ 40	0.8 /	
81		/ 24	19 /	65 /	/ 46	0.9 /	
82		/ 28	18 /	72 /	/ 46	0.8 /	
83		/ 23	21 /	92 /	/ 56	1.3 /	
84		/ 28	18 /	127 /	/ 61	1.4 /	
85		/ 41	15 /	80 /	/ 51	1.1 /	
86		/ 29	23 /	102 /	/ 60	1.0 /	
87		/ 22	15 /	86 /	/ 58	0.8 /	
88		/ 12	8 /	32 /	/ 30	0.5 /	
F 3915		/ 5	4 /	22 /	/ 31	0.1 /	L-8E
16		/ 3	7 /	7 /	/ 7	0.1 /	
37		/ 40	12 /	16 /	/ 55	0.6 /	
C 6731		/ 15	6 /	46 /	/ 40	0.2 /	L-19E
22		/ 4	4 /	10 /	/ 8	0.3 /	
33		/ 5	6 /	15 /	/ 38	0.3 /	
38		/ 15	4 /	25 /	/ 42	0.4 /	
39		/ 18	12 /	48 /	/ 44	0.7 /	
40		/ 25	11 /	50 /	/ 50	0.3 /	
41		/ 16	6 /	39 /	/ 50	0.4 /	
42		/ 6	3 /	27 /	/ 24	0.3 /	"
43		/ 12	11 /	58 /	/ 39	0.6 /	
44		/ 19	15 /	56 /	/ 54	0.9 /	
45		/ 20	6 /	56 /	/ 56	0.6 /	
46		/ 18	11 /	54 /	/ 51	0.7 /	
47		/ 29	18 /	62 /	/ 49	1.0 /	
48		/ 27	17 /	86 /	/ 93	1.0 /	
49		/ 30	16 /	90 /	/ 87	1.0 /	
		/ 32	15 /	55 /	/ 97	0.2 /	

GEOCHEMICAL LAB REPORT

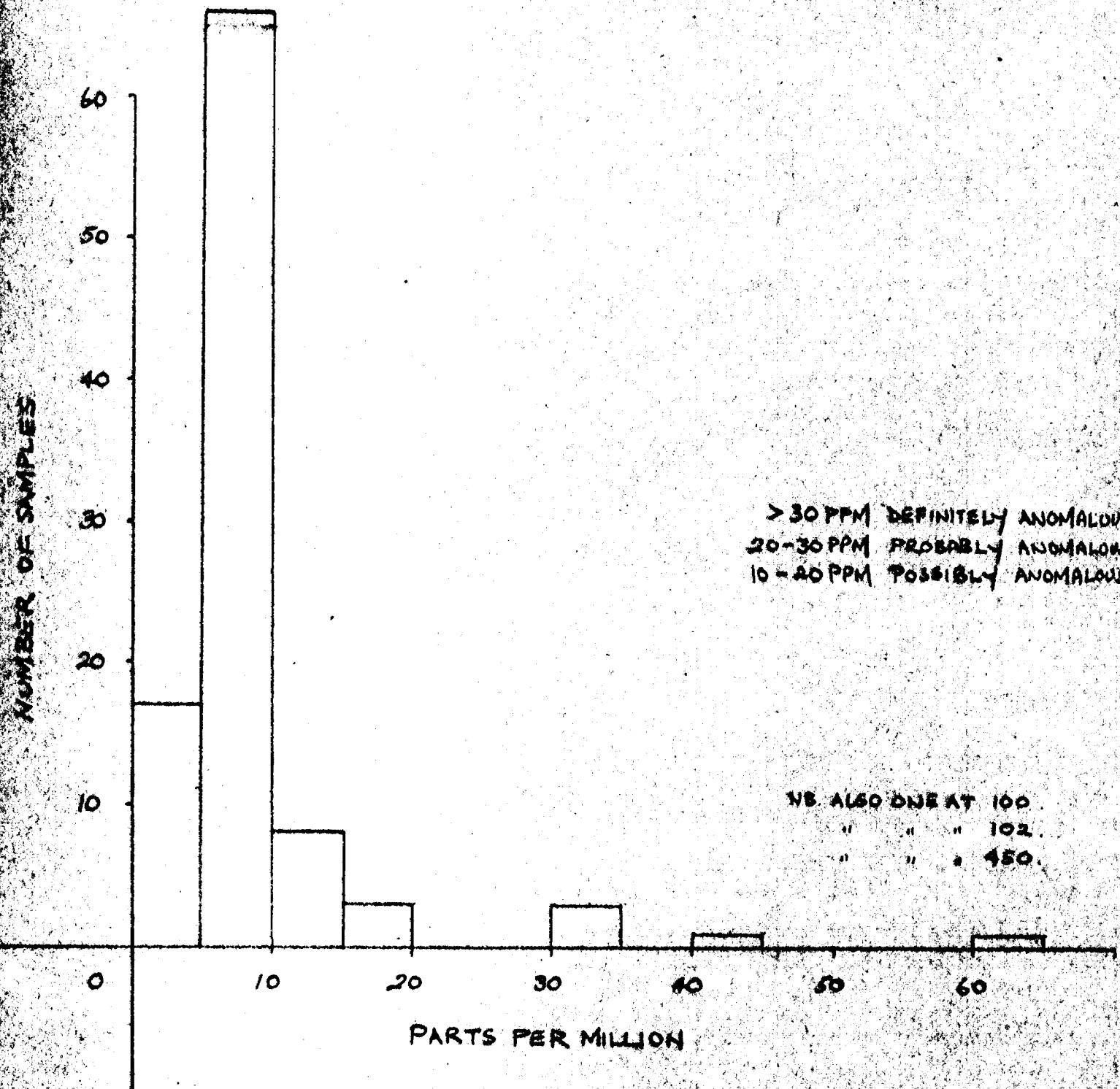
COPPER IN ROCKS



APR 28 1972

POTTER GROUP / WARDEN TWR

LEAD IN ROCKS

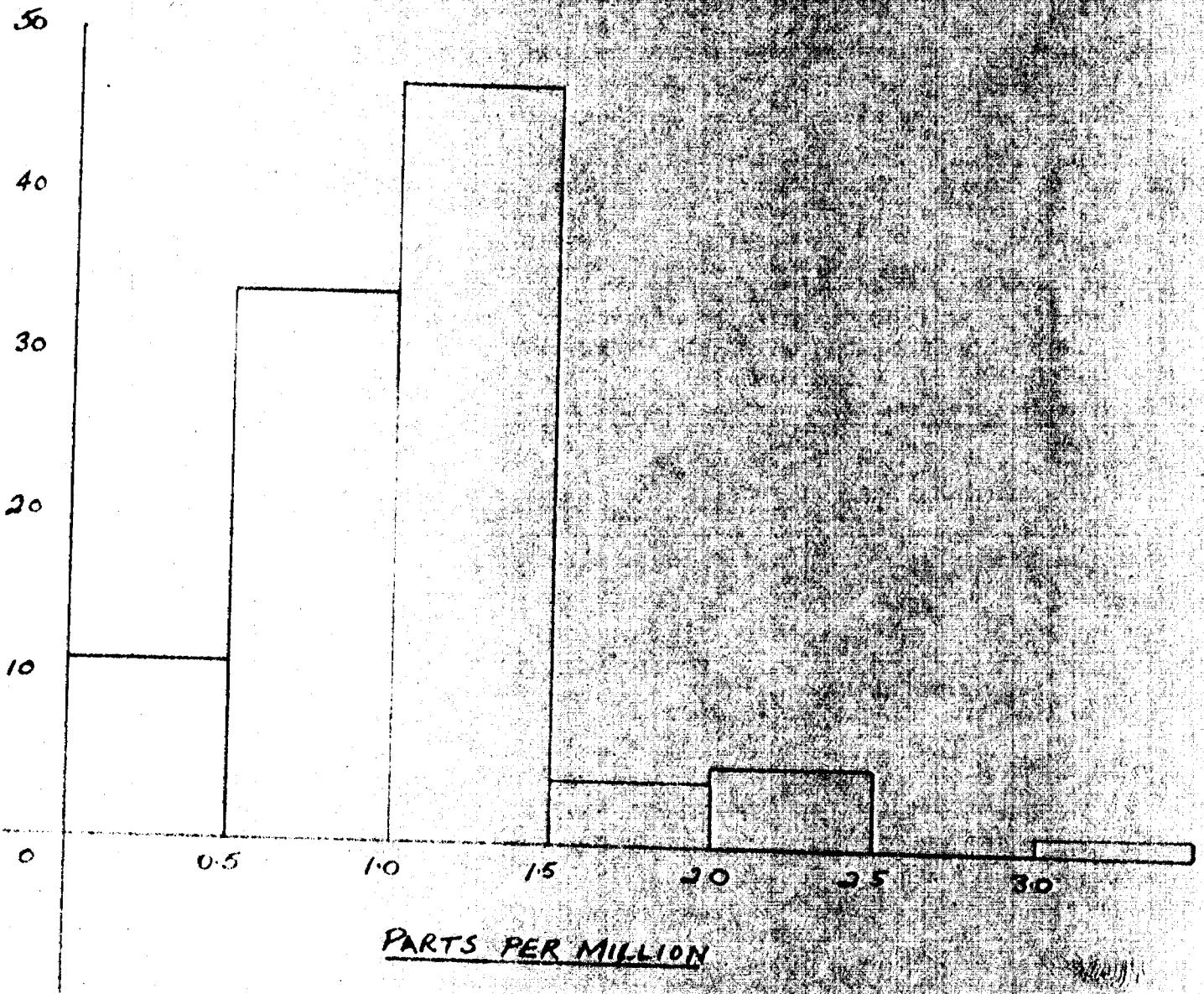


APR 28 1972

ROTTER GROUP / WARDEN LINE

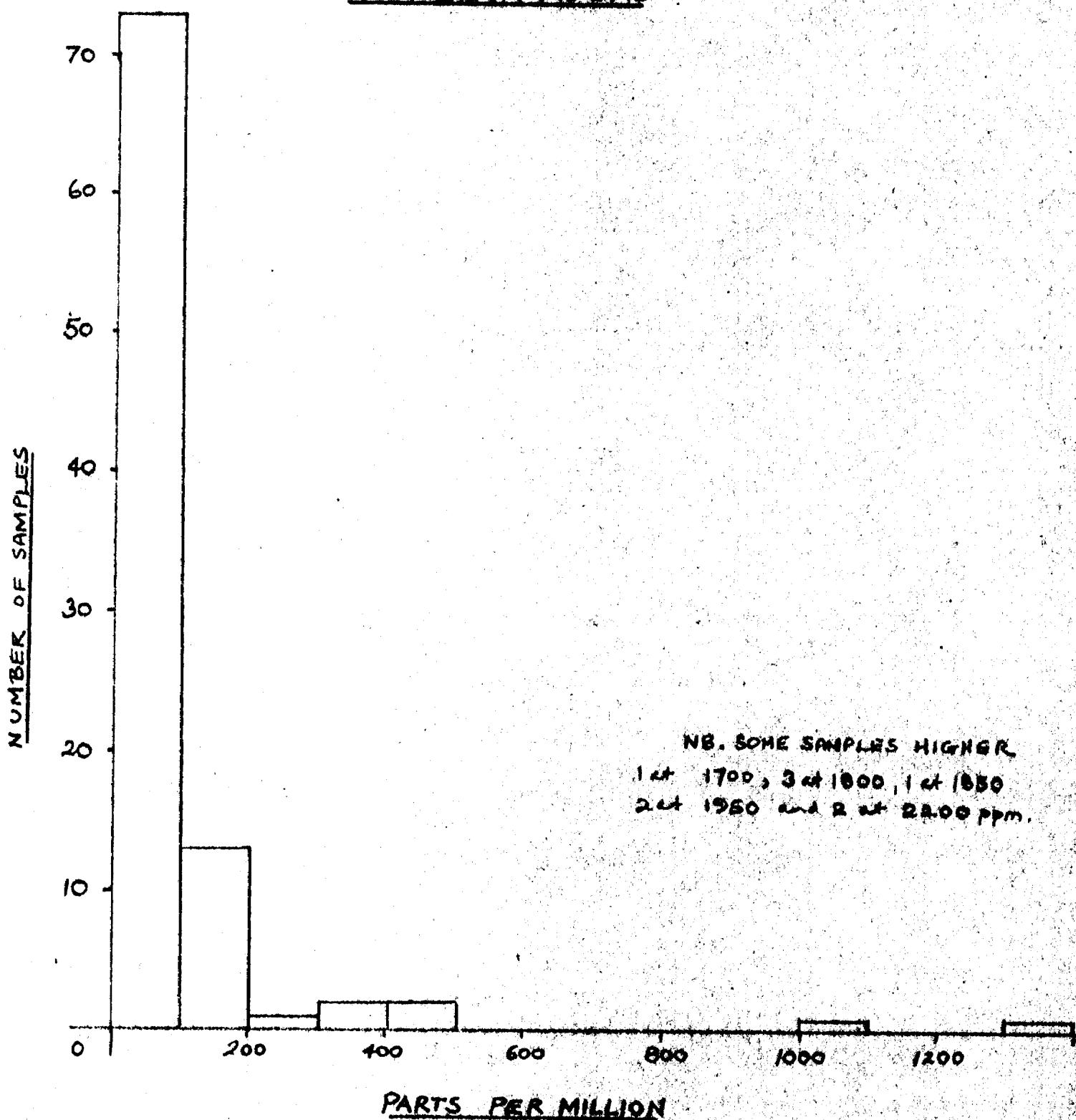
SILVER IN ROCKS

NUMBER OF SAMPLES



APR 28 1972
POTTER GROUP WARDEN TWP.
112 10mm

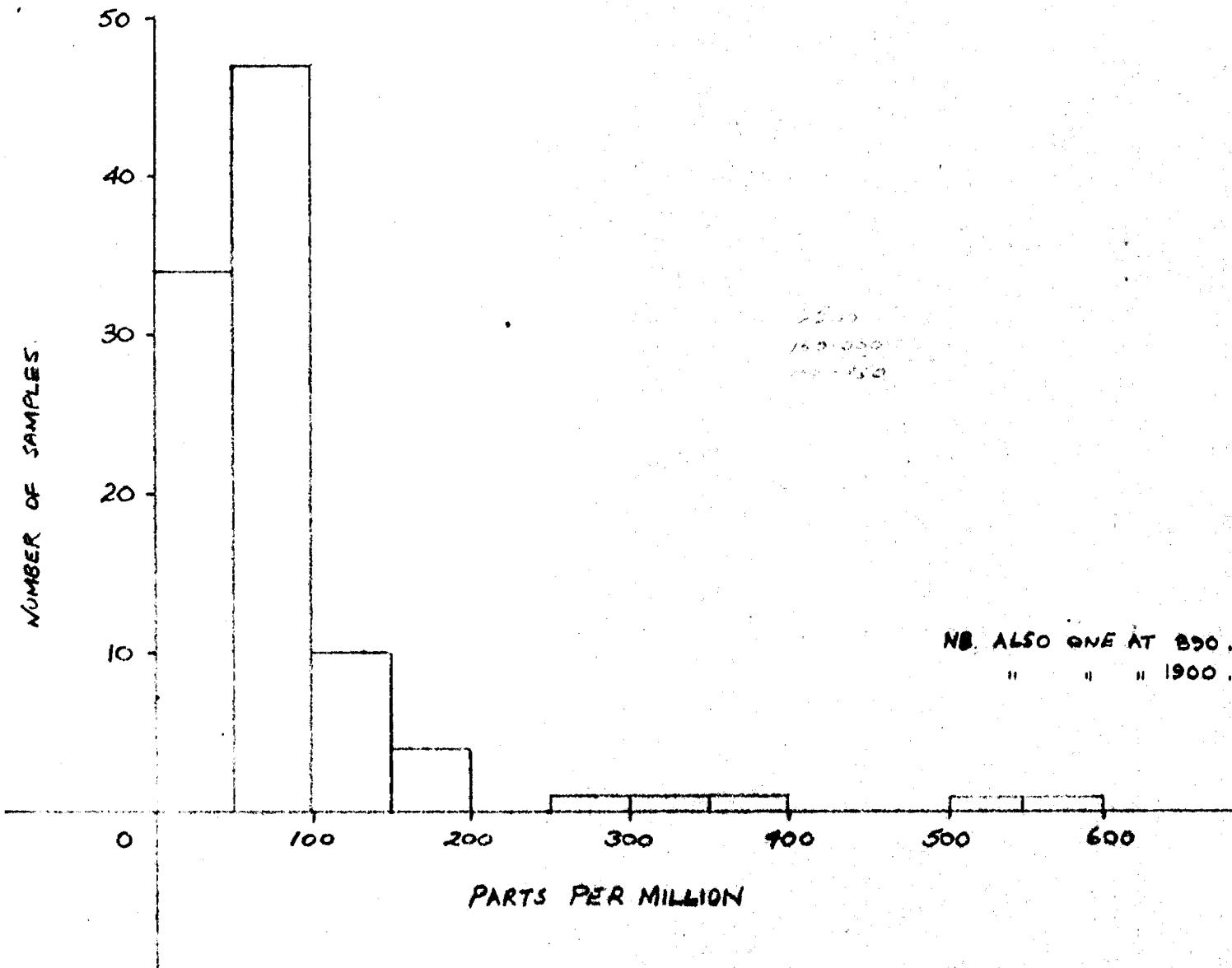
NICKEL IN ROCKS



APR 28 1972

POTTER GROUP WARDEN TWP.

ZINC IN ROCKS

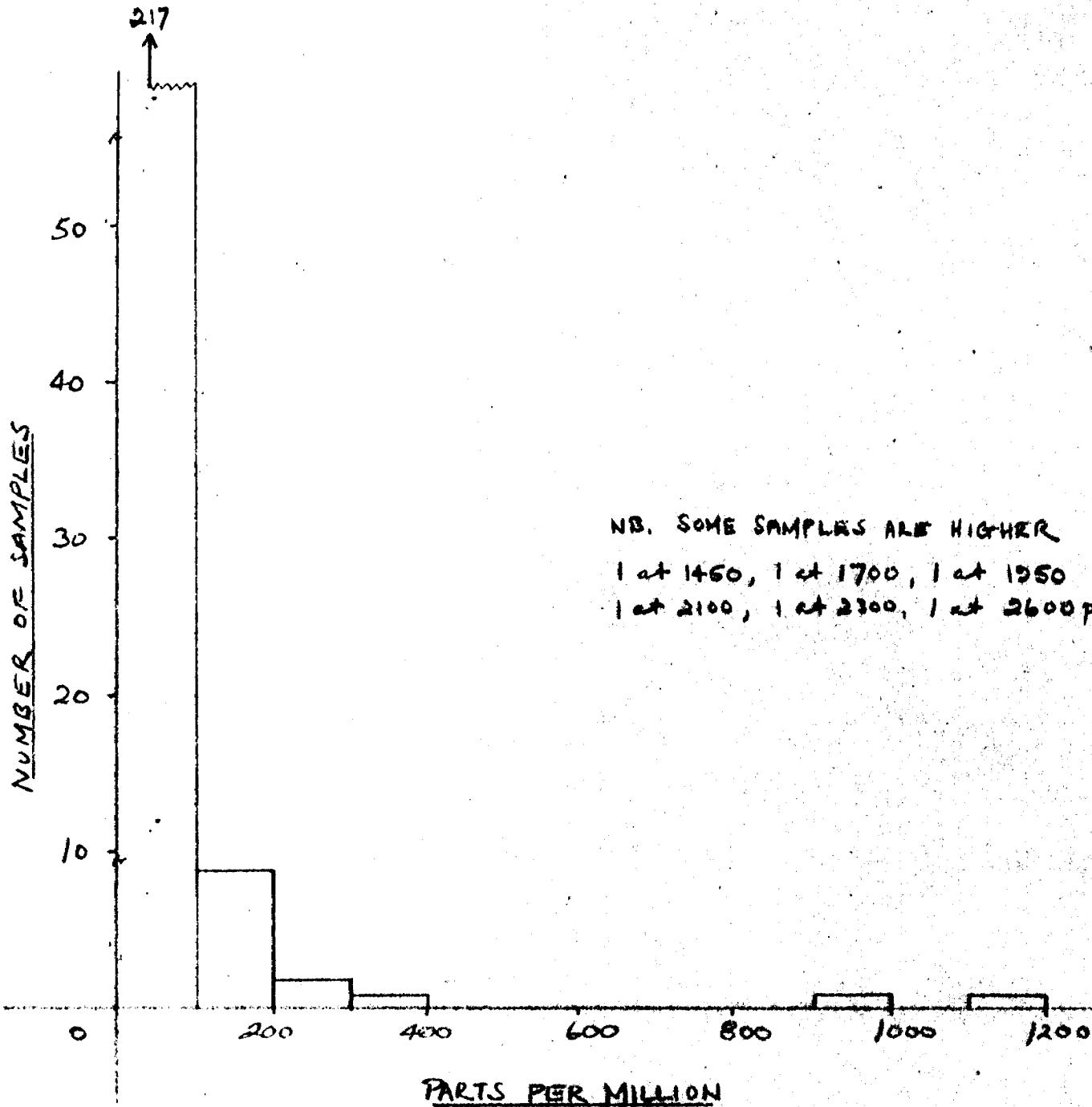


APR 28 1972

POTTER GROUP WARDEN TWP.

P.A.B. mm

NICKEL IN SOILS

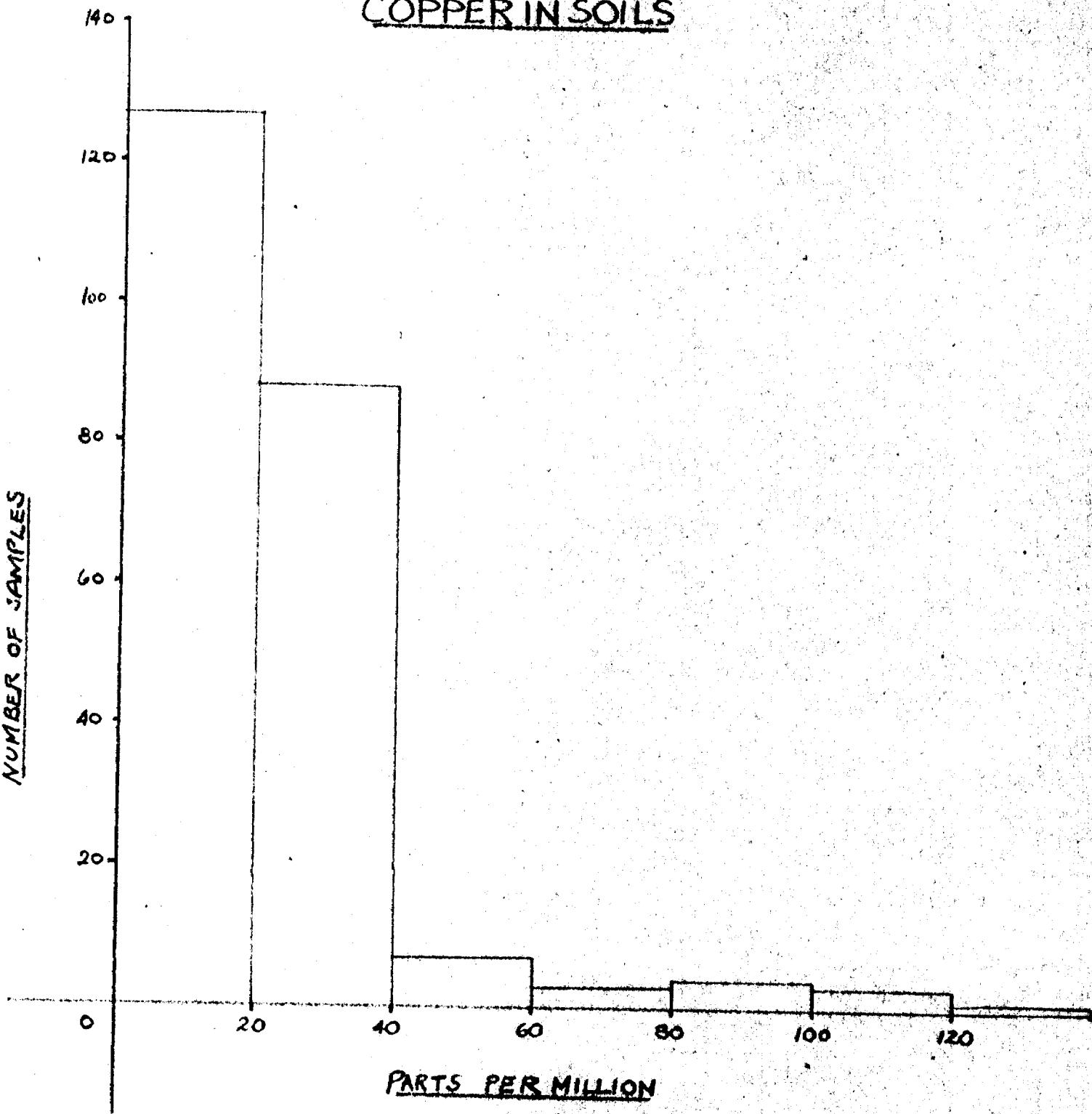


APR 28 1972

POTTER GROUP WARDEN TWP

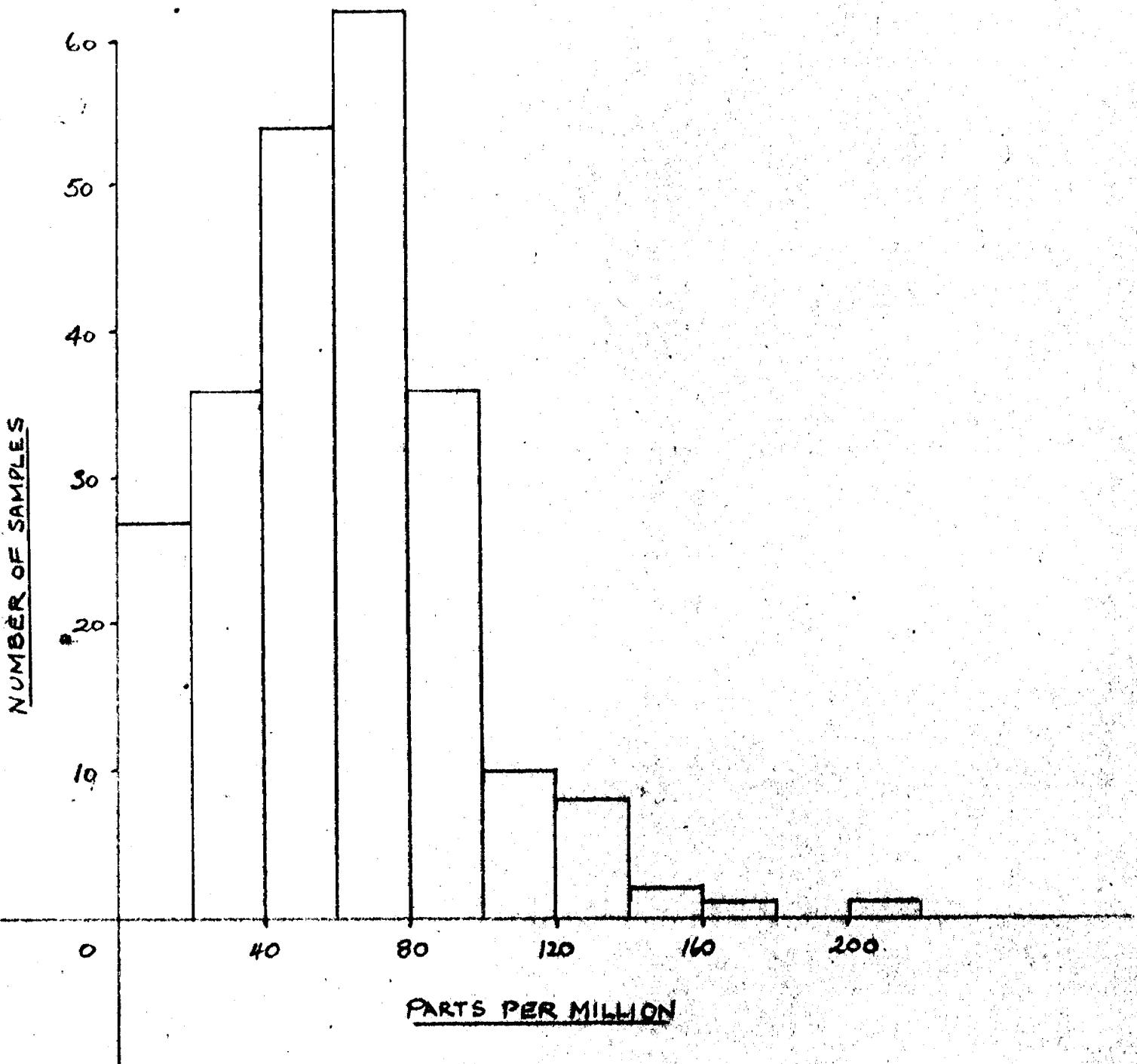
COPPER IN SOILS

NUMBER OF SAMPLES



APR 28 1972
POTTER GROUP WARDEN TWP
PAK 1200m

ZINC IN SOILS

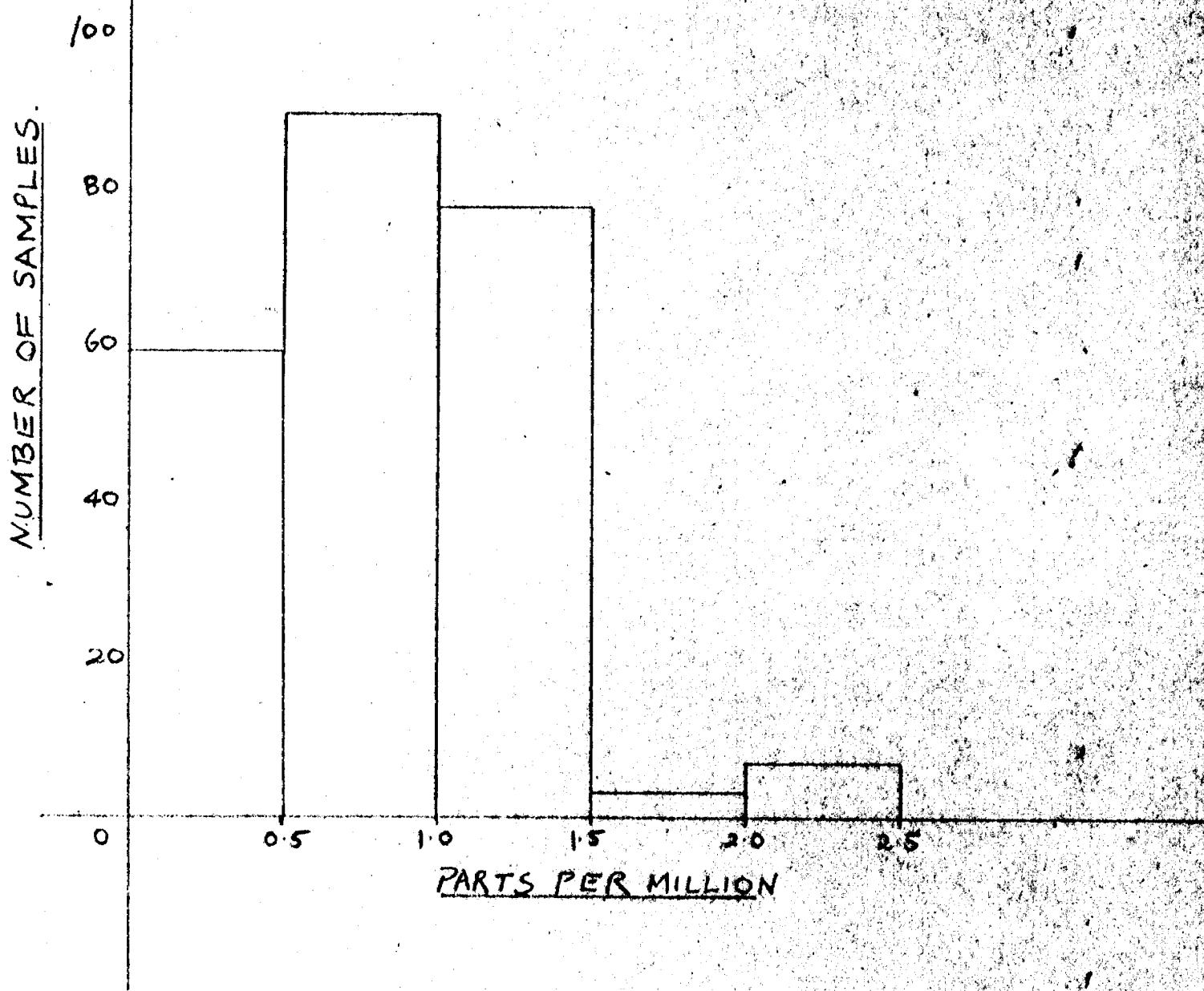


APR 28 1972

POTTER GROUP WARDEN TWP.

Mark Brown

SILVER IN SOILS

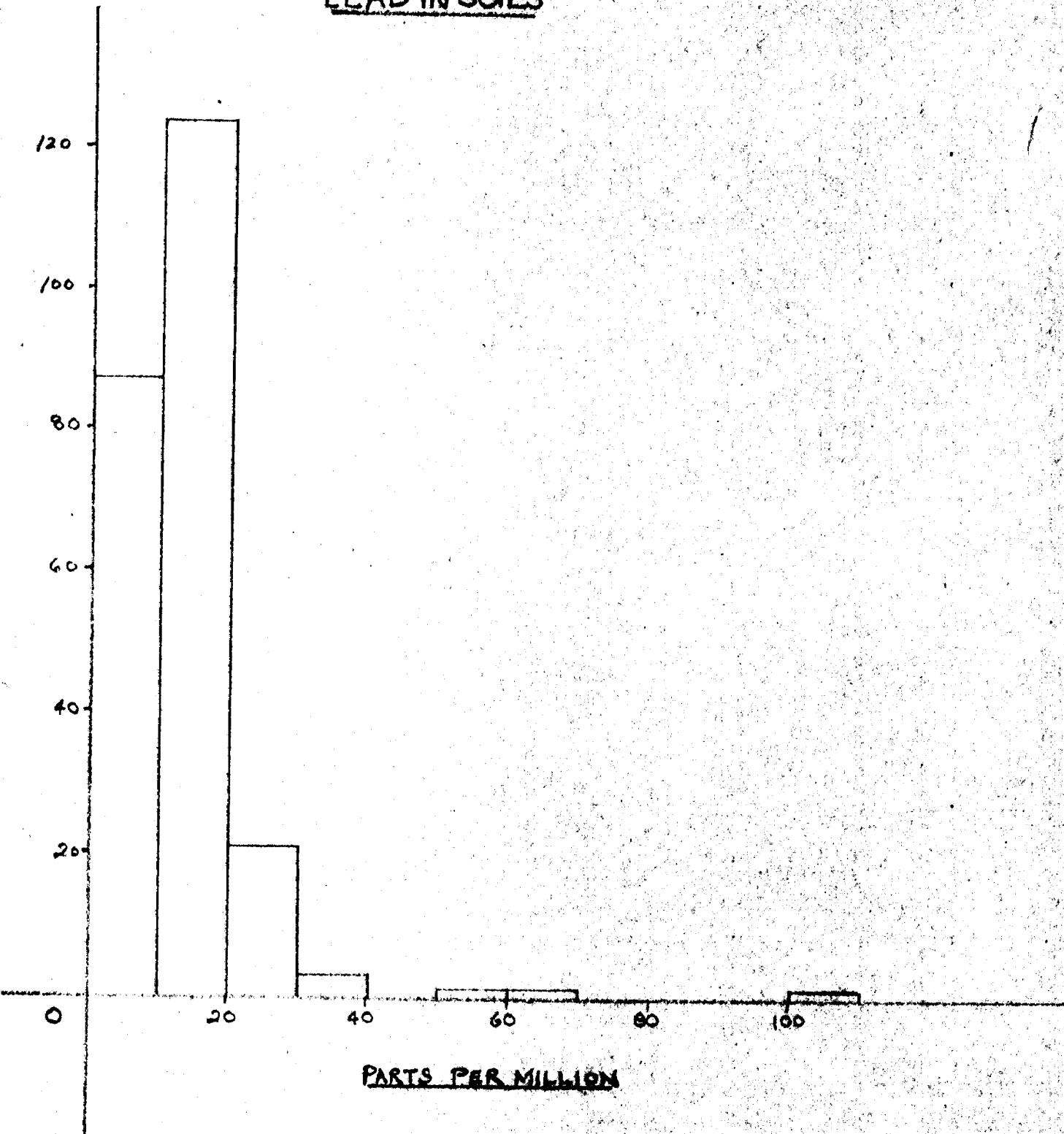


APR-28 1972

POTTER GROUP WARDEN TWP.

LEAD IN SOILS

NUMBER OF SAMPLES.



APR 28 1972

POTTER GROUP WARDEN TWP. *[Signature]*

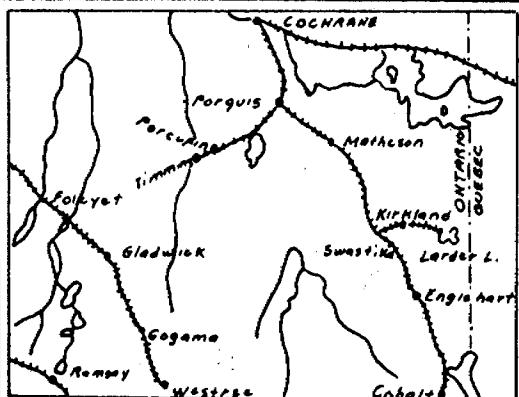
GEOL. LEGEND

- 6 Quartz diabase, diabase.
- 5 Granite 5a, Syenite 5b, Feldspar porphyry 5c,
Quartz feldspar 5d, Felsite 5e, Lamprophyre 5f.
- Diorite 4a, Gabbro diabase 4b,
- Peridotite & Dunite (Serpentinized)
(Asb. - Asbestos recognized)
- Pyroxenite 4d.
- Rhyolite fragmental lava
- Andesite basalt pillow lava 2a,
Diabasic lava 2b, Spherulitic lava 2c,
Fragmental lava 2d, Tuff & chert 2e,
Talc-chlorite schist 2f.
- 1 Greywacke 1a, Arkose 1b, Quartzite 1c,
Argillite or shale 1d, Conglomerate 1e,
Iron formation 1f, Chlorite schist 1g.
- Ob Carbonate rock
- [empty box]

GEO-MAG SYMBOLS

- Contour interval 500 gammas
- BCS#1 Magnetic Base Control Station
- Geological Contact
- Fault Zone G- Geological
 M- Magnetic
 T- Topographic

LOCATION SKETCH - 1" = 50 Miles



TOPO-SYMBOLS

- [square] Outcrop
- [square] Higher ground
- [square] Scarp
- * * Muskeg or Swamp
- [squiggle] Creek
- [drill hole] Drill hole
- [dashed line] Bush road
- [person] Direction in which lava flows face, indicated by shape of pillows
- [empty box]
- [empty box]

ELECTRO-MAG SYMBOLS

- Scale - 40 units = 1 inch
- Conducting Zone - S = Strong
W = Weak
 - RONKA H.L. UNIT
 - In phase curve
 - Out phase curve
 - NPOS Not proper coil spacing
 - East - Positive. West - Negative

MCPHAR V.L. UNIT

- Dip angle profile
- North & East - Positive
- South & West - Negative

Geol. Survey by -
Mag. Survey by -
E.M. Survey by -

CANADIAN JOHNS-MANVILLE CO. LTD.
MATTHESON MUNRD MINE ONTARIO

LEGEND SHEET PROVINCE OF ONTARIO

SCALE	DATE APR 28 1972
DRAWN - M.B.	
TRACED	
APPROVED - F.J.E.	

GEOPHYSICAL - GEOLOGIC
TECHNICAL DATA

42A09NE0070 2.850 WARDEN

900



TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey Geochemical
 Township or Area Warden Township
 Claim holder(s) Canadian Johns-Manville Co. Limited
P. O. Box 610, Matheson, Ontario
 Author of Report Philip A. R. Brown
 Address 27 Quinn Crescent, Matheson, Ontario
 Covering Dates of Survey Sept 22, 1970 - April 28th, 1972
(linecutting to office)
 Total Miles of Line cut 7.5

MINING CLAIMS TRAVESED
List numerically

L - 243112
 (prefix) (number)
 L - 243113
 L - 243114
 L - 243115

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical
--Electromagnetic
--Magnetometer
--Radiometric
--Other
Geological
Geochemical	20 See "

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
 (enter days per claim)

DATE: April 28th/72 SIGNATURE: P.A. Brown
Author of Report

PROJECTS SECTION

Res. Geol. _____ Qualifications 2.82
 Previous Surveys Land down

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 4

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____
Station interval _____
Line spacing _____
Profile scale or Contour intervals _____
(specify for each type of survey)

MAGNETIC

Instrument _____
Accuracy - Scale constant _____
Diurnal correction method _____
Base station location _____

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____

Base station value and location _____

Elevation accuracy _____

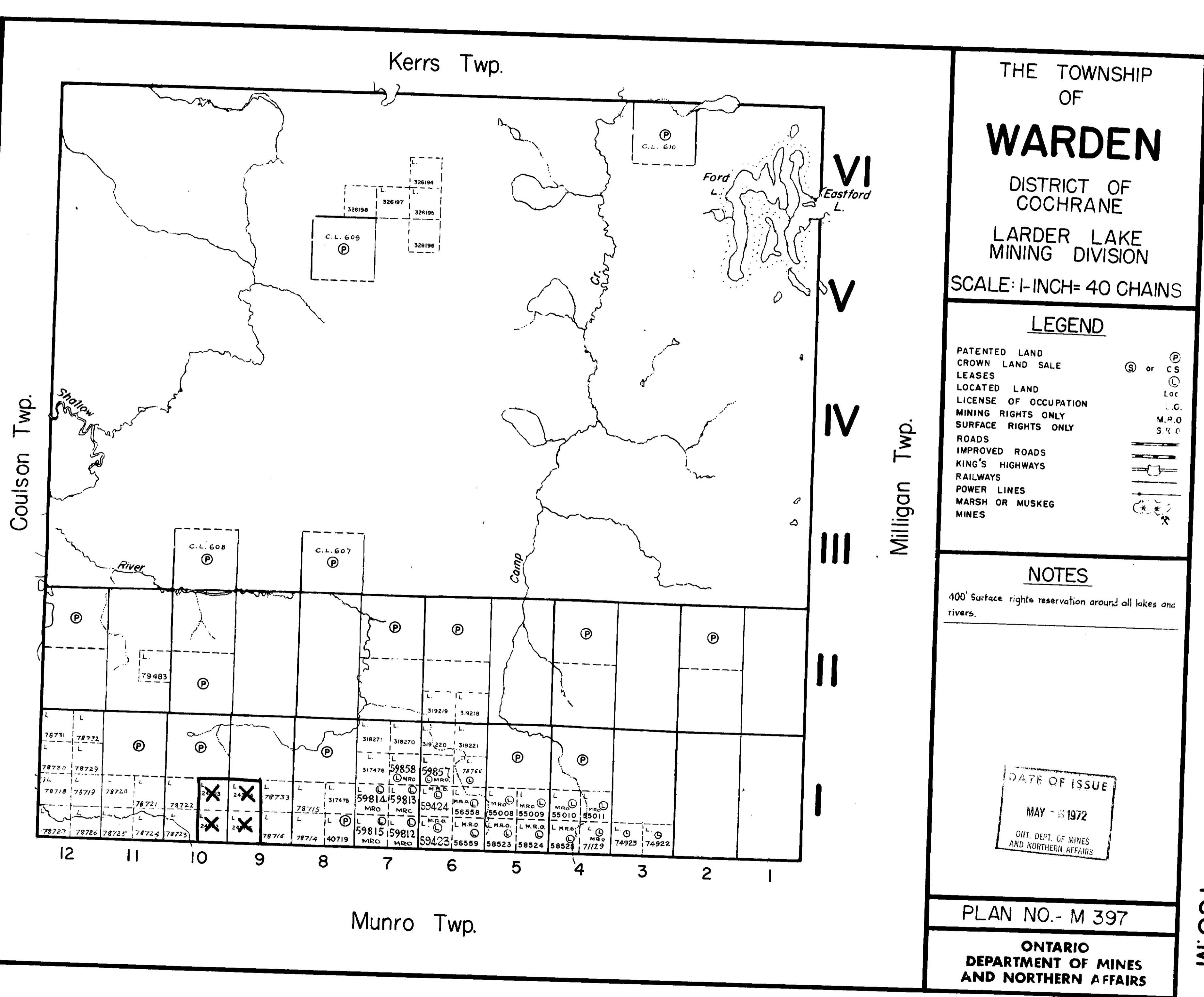
INDUCED POLARIZATION -- RESISTIVITY

Instrument _____
Time domain _____ Frequency domain _____
Frequency _____ Range _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

105 M

WARDEN TWP.

105 M





N.B. All values in parts per million (P.P.M)

J.W. Brown

ANOMALOUS GEOCHEM VALUES APR 28 1972

70,12,44 — 0.6,27
 2,4,22 — 0.2,8
 F3228 322,8,68 — 1.2,77
 F3702 33,18,89 — 1.1,50
 23,17,80 — 1.0,48
 7,8,56 — 0.7,28
 29,19,90 — 1.2,45
 24,17,68 — 1.0,48
 21,15,76 — 0.9,41
 49,16,62 — 1.0,72
 32,15,94 — 1.0,93
 23,17,77 — 1.2,43
 20,19,58 — 0.7,36
 40,20,89 — 1.2,55
 26,19,53 — 1.2,39
 23,15,61 — 1.0,39
 24,6,82 — 0.9,39
 38,24,90 — 1.4,62
 37,18,122 — 1.3,83
 26,20,124 — 1.6,50
 19,18,67 — 1.0,45
 30,16,90 — 1.0,87
 27,17,82 — 1.0,98
 10,10,44, N.D., 0.6 —
 17,8,44, 1, 0.7 —
 36,8,28 — 1.0,72
 33,10,81 — 0.6,61
 5,7,41 — 0.3,11
 24,17,63 — 1.0,43
 20,19,58 — 0.7,36
 40,20,89 — 1.2,55
 12,20,74 — 0.7,36
 19,17,78, 2, 1.2 —
 39,9,36 — 0.8,130
 24,7,26 — 0.4,40
 23,17,79 — 0.8,46
 23,15,61 — 1.0,39
 24,6,82 — 0.9,39
 38,24,90 — 1.4,62
 37,18,122 — 1.3,83
 26,20,124 — 1.6,50
 19,18,67 — 1.0,45
 30,16,90 — 1.0,87
 27,17,82 — 1.0,98
 10,10,44, N.D., 0.6 —
 17,8,44, 1, 0.7 —
 24,6,44 — 0.8,72
 20,18,68 — 0.8,42
 27,19,70 — 0.8,45
 24,20,72 — 0.9,51
 34,19,80 — 1.0,57
 29,17,63 — 1.0,43
 30,18,88 — 1.3,53
 13,2,78 — 0.7,33
 20,15,56 — 0.8,35
 9,8,52 — 1.9,28
 32,15,90 — 0.9,97
 98,16,130, 1, 1.2 —
 24,9,45, 1, 0.8 —
 95,8,40 — 1.0,47
 73,19,80 — 1.9,50
 69,7,60 — 0.7,27
 9,11,40 — 0.5,28
 F3228 23,19,62 — 0.8,42
 23,17,67 — 1.0,93
 11,13,48 — 0.6,28
 24,6,48 — 0.6,20
 15,7,47 — 0.6,77
 12,7,52 — 1.6,36
 12,65,510, 2, 1.1 —
 43,102,870, 2, 1.4 —
 10,7,58 — 0.8,9
 52,8,60 — 0.6,21
 14,5,46 — 1.0,44
 243113
 16,13,68 — 0.8,65
 26,19,80 — 0.8,92
 31,23,78 — 1.1,53
 10,11,46 — 0.6,28
 8,7,34 — 0.8,20
 17,17,80 — 0.8,41
 77,7,60 — 1.3,40
 29,5,28 — 1.0,30
 123,35,250, 1, 1.5 —
 25,13,106, 2, 1.3 —
 76,7,68 — 0.8,35
 1,4,8 — 0.1,2
 94,6,77 — 1.2,36
 14,11,30, — , 0.6,12
 3,10,15,56 — 0.8,90
 17,9,39 — 0.6,34
 21,5,19,97 — 0.6,49
 12,7,40 — 0.6,42
 6,7,36 — 0.6,19
 29,20,72 — 0.8,29
 14,7,60 — 1.0,41
 8,5,75 — 1.3,44
 19,19,68, 1, 0.9 —
 8,7,29 — 0.3,14
 1,4,9 — 0.1,2
 6,6,28 — 0.5,19
 12,7,46 — 0.5,17
 2,6,12,12 — 0.1,17
 6,8,27 — 0.4,20
 16,8,44 — 0.4,62
 17,9,36 — 0.6,40
 8,11,90 — 0.6,22
 7,6,26 — 0.3,28
 6,4 — 0.2,11
 29,18,69 — 1.0,49
 22,19,72, 1, 1.3 —
 4,6,20 — 0.3,12
 6,6,22 — 0.9,16
 15,12,44 — 0.7,28
 20,12,96 — 1.0,45
 27,6,26 — 0.3,148
 30,4,30 — 0.2,168
 12,8,66 — 0.6,150
 7,11,34 — 0.9,125
 8,6,20 — 0.3,23
 15,4,98 — 0.9,65
 13,7 — 0.4,90
 18,11,54 — 0.7,51
 28,19,90, 2, 1.3 —
 11,12,60 — 0.8,22
 13,11,92 — 0.7,27
 6,8,40 — 0.4,19
 39,20,71 — 1.1,53
 10,9,66 — 0.8,1000
 14,9,70 — 1.0,1700
 8,9,76 — 0.8,1800
 7,8,52 — 0.7,1800
 1,8,78 — 0.8,1950
 8,3,20 — 0.2,120
 1,5,2 — 0.2,4
 5,8,81 — 0.9,2600
 15,31,30 — 0.5,87
 9,9,78 — 1.0,1800
 15,3,20 — 0.5,87
 4,8,70 — 1.0,2300
 16,6,78 — 0.9,1950
 36,64,46, 2, 1.0 —
 11,6,20 — 0.2,107
 26,4,24 — 0.2,88
 116,99 — 1.4,1700
 320,8,72 — 0.9,1180
 37,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
 5,6,34 — 0.4,18
 22,20,81 — 1.0,51
 20,14,55 — 0.8,90
 6,7,26 — 0.4,17
 36,2,25 — 0.5,185
 44,39,64, 2, 1.0 —
 8,2,33 — 0.5,140
 20,4,10 — 0.2,85
 20,4,17 — 0.3,120
 5,4,22 — 0.1,31
 99,7,65 — 1.2,2100
 10,7,54 — 3.8,10
 52,9,68 — 0.9,33
 37,6,20 — 0.2,82
 3,6,7 — 0.1,11
 109,10,72 — 1.9,63
 3,2,7 — 0.1,7
 5,6,14 — 0.2,18
 25,11,50 — 0.9,50
 5,10,20, 1, 0.7 —
 10,8,39 — 0.4,28
 29,21,78 — 1.3,53
 35,18,74 — 1.1,53
 23,21,92 — 1.3,56
 7,8,92 — 1.3,2200
 12,11,58 — 0.6,37
 15,13,58 — 0.8 —
 280,8,100 — 0.6,57
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