

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

GEOCHEMICAL REPORT

MITTEN 1 CLAIM  
Golden Mining Division  
Lead Mountain Area

N.T.S. 82K/16

Lat: 50° 58'

Long: 116° 29'

OWNER  
Cominco Ltd.

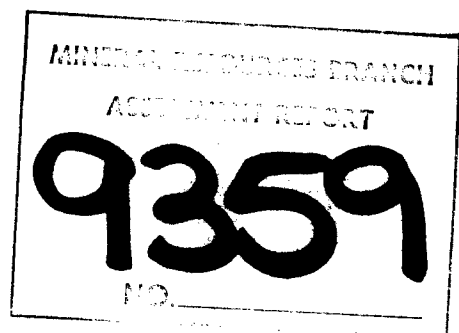
Kootenay Exploration  
1051 Industrial Road No. 2  
Cranbrook, B.C.  
V1C 4K7

Work Performed During July 1981

Reported By:

G.L. Webber

Under the Supervision of  
Gary Medford  
Geologist



COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

TABLE OF CONTENTS

	Page
1.00 GENERAL STATEMENT. . . . .	1
2.00 INTRODUCTION . . . . .	1
2.10 Status of Ownership. . . . .	1
2.20 Location and Access. . . . .	1
2.30 General Character of the Area. . . . .	2
3.00 GEOCHEMISTRY . . . . .	2
3.10 Survey Grid. . . . .	2
3.20 Soil Analysis. . . . .	2
STATEMENT OF EXPENDITURES. . . . .	3
STATEMENT OF QUALIFICATIONS. . . . .	4
AFFIDAVIT. . . . .	5

ATTACHMENTS

Assay Results, Histogram Data and Cumulative  
Probabilty Plot for Pb/Zn/Cu.

Plate 1	Geochemical soil grid, Pb values, Scale 1 cm. to .48m. (1" to 400')
Plate 2	" " " Zn " " " "
Plate 3	" " " Cu " " " "

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

GEOCHEMICAL SURVEY

MITTEN CLAIM

Golden Mining Division

1.00 GENERAL STATEMENT

This report relates to a soil geochemical survey and expenditures on the Mitten Claim (9 units), recorded on the 11th day of August, 1975, Record No. 21.

The soil geochemical survey was conducted during July 1981. The survey grid is located on the northeast corner of the Mitten Claim.

Histogram data, Log Transform Histograms along with Cumulative Probability Plots for Pb/Zn/Cu are included in this report.

A total of 271 soil samples were taken and assayed by atomic absorption for ppm Pb, Zn and Cu. Total expenditure for the program were \$2,888.00. Assessment credit of \$1,000 held over from Geochemical Survey on the Mitten dated March 3rd, 1977, Mining Receipt No. 96962-E - Total \$3,888.00.

It is requested that 3,600 be applied as two years assessment credit to the Mitten Claim (9 units).

Affidavits on Application for Certificate of work filed with the Mining Recorder at Golden, B.C.

2.00 INTRODUCTION

2.10 Status of Ownership

The Mitten Claim is 100% Cominco owned.

2.20 Location and Access

The Mitten Claim consists of 9 units and is located North-northwest of Jubilee Mountain and 4 kms. southwest of Harrogate on Lat: 50° 58' and Long: 116° 29'.

Access to the south end of the property is by an old mining road from the Baroid of Canada mine on Jubilee Mountain, a distance of 9.6 kms.

### 2.30 General Character of the Area

This claim covers an area of moderate to low relief in the area north on Jubilee ridge. The slopes are moderate with some dolomite bluffs, the highest point being 1325m. and the lowest point on the Mitten claim is 1143m.

The area has been logged and/or burnt off, and is now covered mainly by second growth lodgepole pine, Douglas fir and low bush.

### 3.00 GEOCHEMISTRY

Soil samples were collected with a grub hoe, and stored in wet strength kraft bags. Samples were hung on racks and allowed to dry at atmospheric temperature. Upon drying, samples were sieved through -80 mesh nylon screen, and assayed by atomic absorption methods.

Due to terrain, uniformity in sampling was generally maintained and collected from the "B" horizon. A number of samples were collected from a master horizon of active material subject to rapid downhill transport. No samples were collected from talus or till. (Average depth of soil samples was 15 cm.) Material samples were mainly from freely drained soils. Two samples were not taken due to a swamp. They were 22S 10E and 24S 11E.

### 3.10 Survey Grid

A 731m. (2,400 ft.) baseline, azimuth  $312^{\circ}$  was established and sample lines @ 61m. (200 ft.) intervals were established along the baseline and extended NNE at  $43^{\circ}$ . Sample intervals along the lines were 30.5m. (100 ft.). Sampling was carried out during the month of July, 1981.

### 3.20 Soil Analysis

Samples were shipped to Cominco's Vancouver Exploration Research Lab for analysis. The ERL process: - Weigh 0.5 Gms. of -80 mesh soil into a test tube add 5 mls. of 20%  $\text{HNO}_3$ . Digest for 90 minutes in water bath at  $95^{\circ}\text{C}$  (shake every 15 minutes). After digestion make up to 10 mls. with deionised  $\text{H}_2\text{O}$  shake well and run on A.A.

The soil geochemical survey was undertaken to explore for Pb/Zn deposits in the Cambrian carbonates of the Jubilee and McKay formations.

EXHIBIT "A"

STATEMENT OF EXPENDITURES

GEOCHEMICAL SURVEY - MITTEN CLAIM (9 units)

GOLDEN MINING DIVISION

Geochemical Soil Survey

As a result of this geochemical soil survey on the Mitten Claim, the following expenditures were incurred by Cominco Ltd.

Salaries:

Gary Medford - Geologist, sampling & supervision 2 days @ \$160/day	\$320.00
Brian Sherret (field assistant) 7 days @ \$70/day	490.00
Gordon Mackay (field assistant) 7 days @ \$60/day	420.00
G.L. Webber - report and map preparation 2 days @ \$150/day	300.00
Transportation: 4x4 - 9 days @ \$25/day	225.00
Domicile: 16 days @ \$20/day	320.00
Geochemical Analysis - 813 determinations @ \$1.00	<u>813.00</u>
	2,888.00
Assessment Credit 1977 M.R. No. 96962-E	<u>1,000.00</u>
	3,888.00

COMINCO LTD.


EXPLORATION

WESTERN DISTRICT

STATEMENT OF QUALIFICATION

I, G. Harden, Manager for Cominco Ltd., Exploration, Western District of 700-409 Granville Street, Vancouver, British Columbia, hereby declare that Mr. G.L. Webber has been working for Cominco Ltd. in mineral exploration for the past 25 years.

I consider him to be a competent geologist who is well qualified to prepare this geochemical assessment work report on the Mitten 1 mineral claim.

  
\_\_\_\_\_  
G. HARDEN  
Manager, Exploration  
Western District

12 August 1981

IN THE MATTER OF THE

B.C. MINERAL ACT

AND

IN THE MATTER OF A GEOCHEMICAL PROGRAMME

CARRIED OUT ON THE MITTEN MINERAL CLAIMS

in the Golden Mining Division of the  
Province of British Columbia

More Particularly N.T.S. 82K/16

A F F I D A V I T

I, G.L. Webber, of the City of Kimberley in the Province of British Columbia, make Oath and say:

1. That I am employed as a Geologist with Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose;
2. The annexed hereto and marked as Exhibit "A" to this my Affidavit is true copy of expenditures incurred on a geochemical survey program, on the Mitten mineral claim.
3. That the said expenditures were incurred between the 1st day of July, 1980 and 1st day of August, 1981; for the purpose of mineral exploration on the above noted claims.

Reported by: G.L. Webber  
G.L. WEBBER  
Geologist

Endorsed by: G.A. Medford  
G.A. MEDFORD  
Geologist

Approved for  
Release by: [Signature]

cc: Mining Recorder, Golden, B.C.  
Cranbrook Office



CORRELATION MATRICES OF LOG TRANSFORMED DATA  
 Matrix with incomplete data excluded

	Cu	Pb	Zn
Cu	! 1.00	0.19	0.29
Pb	! 0.19	1.00	0.20
Zn	! 0.29	0.20	1.00

THERE WERE 271 SAMPLES .OF WHICH 271 HAD DATA FOR ALL 3 ELEMENTS  
 ONLY SAMPLES WITH DATA FOR ALL ELEMENTS WERE CONSIDERED .

Matrix with incomplete data included

	Cu	Pb	Zn
Cu	! 1.00	0.19	0.29
Pb	! 0.19	1.00	0.20
Zn	! 0.29	0.20	1.00

ALL AVAILABLE DATA FOR EACH SAMPLE WERE USED, EVEN IF SOME ELEMENTS WERE MISSING

Number of data pairs found

	Cu	Pb	Zn
Cu	! 271	271	271
Pb	! 0	271	271
Zn	! 0	0	271

THESE ARE THE NUMBERS OF SAMPLES WHERE DATA WAS FOUND FOR BOTH ELEMENTS IN EACH PAIR  
 SEE INCOMPLETE DATA INCLUDED MATRIX ABOVE

WITTEN

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
SB1 20908	S	-1	+0	+0	12	35	157
SB1 20909	S	-1	+1	+0	9	14	316
SB1 20910	S	-1	+2	+0	4	7	75
SB1 20911	S	-1	+3	+0	4	4	46
SB1 20912	S	-1	+4	+0	5	<4	28
SB1 20913	S	-1	+5	+0	6	5	32
SB1 20914	S	-1	+6	+0	5	7	31
SB1 20915	S	-1	+7	+0	6	4	23
SB1 20916	S	-1	+8	+0	12	<4	52
SB1 20917	S	-1	+9	+0	18	<4	34
SB1 20918	S	-1	+10	+0	26	<4	30
SB1 20919	S	-1	+11	+0	76	<4	25
SB1 20920	S	-1	+12	+0	5	<4	26
SB1 20921	S	-1	+13	+0	16	<8	18
SB1 20922	S	-1	+14	+0	53	<4	21
SB1 20923	S	-1	+15	+0	7	5	19
SB1 20924	S	-1	+16	+0	4	4	27
SB1 20925	S	-1	+17	+0	4	6	18
SB1 20926	S	-1	+18	+0	6	6	37
SB1 20927	S	-1	+19	+0	4	4	34
SB1 20928	S	-1	+20	+0	6	5	30
SB1 20929	S	-1	+0	-2	5	11	251
SB1 20930	S	-1	+1	-2	5	8	40
SB1 20931	S	-1	+2	-2	4	6	42
SB1 20932	S	-1	+3	-2	18	<4	26
SB1 20933	S	-1	+4	-2	4	<4	40
SB1 20934	S	-1	+5	-2	8	6	35
SB1 20935	S	-1	+6	-2	5	5	25
SB1 20936	S	-1	+7	-2	7	<4	28
SB1 20937	S	-1	+8	-2	12	5	42
SB1 20938	S	-1	+9	-2	4	4	12
SB1 20939	S	-1	+10	-2	7	5	26
SB1 20940	S	-1	+11	-2	4	5	25
SB1 20941	S	-1	+12	-2	11	7	45
SB1 20942	S	-1	+13	-2	6	5	18
SB1 20943	S	-1	+14	-2	12	16	65
SB1 20944	S	-1	+15	-2	5	<4	22
SB1 20945	S	-1	+16	-2	7	4	43

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	CU PPM	PB PPM	ZN PPM
SB1 20946	S	-1	+17	-2	4	5	15
SB1 20947	S	-1	+18	-2	6	4	35
SB1 20948	S	-1	+19	-2	6	6	38
SB1 20949	S	-1	+20	-2	6	5	34
SB1 20950	S	-1	+0	-4	18	<8	72
SB1 20951	S	-1	+1	-4	11	11	42
SB1 20952	S	-1	+2	-4	14	<4	2410
SB1 20953	S	-1	+3	-4	11	<4	471
SB1 20954	S	-1	+4	-4	7	<4	123
SB1 20955	S	-1	+5	-4	5	<4	35
SB1 20956	S	-1	+6	-4	6	7	32
SB1 20957	S	-1	+7	-4	5	6	33
SB1 20958	S	-1	+8	-4	18	<4	47
SB1 20959	S	-1	+9	-4	6	7	32
SB1 20960	S	-1	+10	-4	4	6	33
SB1 20961	S	-1	+11	-4	8	6	28
SB1 20962	S	-1	+12	-4	21	12	42
SB1 20963	S	-1	+13	-4	5	<4	29
SB1 20964	S	-1	+14	-4	7	<4	41
SB1 20965	S	-1	+15	-4	5	<4	33
SB1 20966	S	-1	+16	-4	11	5	65
SB1 20967	S	-1	+17	-4	7	7	41
SB1 20968	S	-1	+18	-4	8	4	58
SB1 20969	S	-1	+19	-4	7	5	38
SB1 20970	S	-1	+20	-4	6	<4	44
SB1 20971	S	-1	+0	-6	7	8	76
SB1 20972	S	-1	+1	-6	9	6	72
SB1 20973	S	-1	+2	-6	34	248	180
SB1 20974	S	-1	+3	-6	14	9	36
SB1 20975	S	-1	+4	-6	7	4	34
SB1 20976	S	-1	+5	-6	9	7	36
SB1 20977	S	-1	+6	-6	5	7	34
SB1 20978	S	-1	+7	-6	7	6	42
SB1 20979	S	-1	+8	-6	18	5	50
SB1 20980	S	-1	+9	-6	7	<4	32
SB1 20981	S	-1	+10	-6	3	<4	10
SB1 20982	S	-1	+11	-6	6	<4	23
SB1 20983	S	-1	+12	-6	7	4	29

M I T T E N

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
S81 20984	S	-1	+13	-6	4	<4	27
S81 20985	S	-1	+14	-6	13	11	40
S81 20986	S	-1	+15	-6	7	6	41
S81 20987	S	-1	+16	-6	8	<4	35
S81 20988	S	-1	+17	-6	5	4	33
S81 20989	S	-1	+18	-6	7	7	30
S81 20990	S	-1	+19	-6	13	5	34
S81 20991	S	-1	+20	-6	8	<4	42
S81 20992	S	-1	+0	-8	7	4	32
S81 20993	S	-1	+1	-8	10	<8	38
S81 20994	S	-1	+2	-8	30	<8	24
S81 20995	S	-1	+3	-8	20	<8	24
S81 20996	S	-1	+4	-8	5	5	17
S81 20997	S	-1	+5	-8	5	6	33
S81 20998	S	-1	+6	-8	6	5	35
S81 20999	S	-1	+7	-8	7	<4	51
S81 21000	S	-1	+8	-8	21	7	47
S81 21001	S	-1	+9	-8	5	5	38
S81 21002	S	-1	+10	-8	4	6	45
S81 21003	S	-1	+11	-8	13	5	58
S81 21004	S	-1	+12	-8	4	7	27
S81 21005	S	-1	+13	-8	4	4	31
S81 21006	S	-1	+14	-8	5	5	40
S81 21007	S	-1	+15	-8	23	4	68
S81 21008	S	-1	+16	-8	4	<4	40
S81 21009	S	-1	+17	-8	7	5	52
S81 21010	S	-1	+18	-8	4	5	29
S81 21011	S	-1	+19	-8	4	4	39
S81 21012	S	-1	+20	-8	4	6	45
S81 21013	S	-1	+0	-10	5	8	32
S81 21014	S	-1	+1	-10	3	5	21
S81 21015	S	-1	+2	-10	20	6	34
S81 21016	S	-1	+3	-10	11	<4	16
S81 21017	S	-1	+4	-10	2	<4	39
S81 21018	S	-1	+5	-10	5	6	44
S81 21019	S	-1	+6	-10	3	<4	59
S81 21020	S	-1	+7	-10	14	<4	55
S81 21021	S	-1	+8	-10	3	<4	30

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
SB1 21022	S	-1	+9	-10	3	4	26
SB1 21023	S	-1	+10	-10	10	5	39
SB1 21024	S	-1	+11	-10	5	6	33
SB1 21025	S	-1	+12	-10	3	6	17
SB1 21026	S	-1	+13	-10	6	7	35
SB1 21027	S	-1	+14	-10	3	<4	46
SB1 21028	S	-1	+15	-10	5	7	35
SB1 21029	S	-1	+16	-10	5	<4	44
SB1 21030	S	-1	+17	-10	6	<4	45
SB1 21031	S	-1	+18	-10	5	5	45
SB1 21032	S	-1	+19	-10	5	5	37
SB1 21033	S	-1	+20	-10	4	6	31
SB1 21034	S	-1	+0	-12	3	6	33
SB1 21035	S	-1	+1	-12	15	5	27
SB1 21036	S	-1	+2	-12	10	5	42
SB1 21037	S	-1	+3	-12	39	<4	30
SB1 21038	S	-1	+4	-12	6	<4	37
SB1 21039	S	-1	+5	-12	3	5	32
SB1 21040	S	-1	+6	-12	21	<4	53
SB1 21041	S	-1	+7	-12	8	4	51
SB1 21042	S	-1	+8	-12	3	<4	18
SB1 21043	S	-1	+9	-12	4	6	32
SB1 21044	S	-1	+10	-12	20	5	49
SB1 21045	S	-1	+11	-12	7	<4	54
SB1 21046	S	-1	+12	-12	7	4	42
SB1 21047	S	-1	+13	-12	5	5	28
SB1 21048	S	-1	+14	-12	2	<4	26
SB1 21049	S	-1	+15	-12	16	6	31
SB1 21050	S	-1	+16	-12	22	7	43
SB1 21051	S	-1	+17	-12	7	5	55
SB1 21052	S	-1	+18	-12	3	5	30
SB1 21053	S	-1	+19	-12	3	5	36
SB1 21054	S	-1	+20	-12	4	<4	34
SB1 21055	S	-1	+0	-14	6	8	38
SB1 21056	S	-1	+1	-14	15	9	51
SB1 21057	S	-1	+2	-14	8	8	30
SB1 21058	S	-1	+3	-14	15	9	40
SB1 21059	S	-1	+4	-14	4	4	33

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
SB1 21060	S	-1	+5	-14	12	7	52
SB1 21061	S	-1	+6	-14	3	6	42
SB1 21062	S	-1	+7	-14	7	<4	36
SB1 21063	S	-1	+8	-14	4	4	35
SB1 21064	S	-1	+9	-14	6	<4	41
SB1 21065	S	-1	+10	-14	5	4	48
SB1 21066	S	-1	+11	-14	5	4	41
SB1 21067	S	-1	+12	-14	9	<4	54
SB1 21068	S	-1	+13	-14	9	6	39
SB1 21069	S	-1	+14	-14	12	8	39
SB1 21070	S	-1	+15	-14	8	5	48
SB1 21071	S	-1	+16	-14	4	4	38
SB1 21072	S	-1	+17	-14	15	6	49
SB1 21073	S	-1	+18	-14	4	<4	42
SB1 21074	S	-1	+19	-14	4	4	26
SB1 21075	S	-1	+20	-14	7	5	32
SB1 21076	S	-1	+0	-16	4	8	25
SB1 21077	S	-1	+1	-16	8	5	39
SB1 21078	S	-1	+2	-16	6	<4	17
SB1 21079	S	-1	+3	-16	6	<4	42
SB1 21080	S	-1	+4	-16	7	4	43
SB1 21081	S	-1	+5	-16	9	8	45
SB1 21082	S	-1	+6	-16	<4	<4	25
SB1 21083	S	-1	+7	-16	6	4	38
SB1 21084	S	-1	+8	-16	4	<4	38
SB1 21085	S	-1	+9	-16	5	5	40
SB1 21086	S	-1	+10	-16	18	7	61
SB1 21087	S	-1	+11	-16	18	6	54
SB1 21088	S	-1	+12	-16	20	9	65
SB1 21089	S	-1	+13	-16	18	8	55
SB1 21090	S	-1	+14	-16	5	5	36
SB1 21091	S	-1	+15	-16	5	6	35
SB1 21092	S	-1	+16	-16	14	8	50
SB1 21093	S	-1	+17	-16	4	4	60
SB1 21094	S	-1	+18	-16	5	<4	42
SB1 21095	S	-1	+19	-16	4	6	42
SB1 21096	S	-1	+20	-16	3	4	29
SB1 21097	S	-1	+0	-18	2	4	28

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
SB1 21098	S	-1	+1	-18	15	9	48
SB1 21099	S	-1	+2	-18	6	6	53
SB1 21100	S	-1	+3	-18	5	5	54
SB1 21101	S	-1	+4	-18	4	6	36
SB1 21102	S	-1	+5	-18	5	6	39
SB1 21103	S	-1	+6	-18	5	<4	55
SB1 21104	S	-1	+7	-18	4	<4	40
SB1 21105	S	-1	+8	-18	3	5	22
SB1 21106	S	-1	+9	-18	9	6	36
SB1 21107	S	-1	+10	-18	5	6	39
SB1 21108	S	-1	+11	-18	5	<4	36
SB1 21109	S	-1	+12	-18	12	5	49
SB1 21110	S	-1	+13	-18	14	7	56
SB1 21111	S	-1	+14	-18	6	6	64
SB1 21112	S	-1	+15	-18	54	<4	36
SB1 21113	S	-1	+16	-18	6	4	40
SB1 21114	S	-1	+17	-18	3	4	26
SB1 21115	S	-1	+18	-18	4	<4	32
SB1 21116	S	-1	+19	-18	3	<4	35
SB1 21117	S	-1	+20	-18	22	5	36
SB1 21118	S	-1	+0	-20	21	5	54
SB1 21119	S	-1	+1	-20	3	4	37
SB1 21120	S	-1	+2	-20	4	<4	34
SB1 21121	S	-1	+3	-20	5	5	32
SB1 21122	S	-1	+4	-20	5	9	34
SB1 21123	S	-1	+5	-20	5	4	37
SB1 21124	S	-1	+6	-20	4	6	15
SB1 21125	S	-1	+7	-20	5	7	21
SB1 21126	S	-1	+8	-20	4	5	23
SB1 21127	S	-1	+9	-20	7	10	39
SB1 21128	S	-1	+10	-20	12	7	54
SB1 21129	S	-1	+11	-20	11	5	43
SB1 21130	S	-1	+12	-20	8	4	58
SB1 21131	S	-1	+13	-20	6	6	44
SB1 21132	S	-1	+14	-20	4	6	26
SB1 21133	S	-1	+15	-20	5	6	40
SB1 21134	S	-1	+16	-20	4	7	30
SB1 21135	S	-1	+17	-20	10	7	63

REPORTING DATE 28 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
S81 21136	S	-1	+18	-20	4	5	34
S81 21137	S	-1	+19	-20	3	<4	43
S81 21138	S	-1	+20	-20	7	8	43
S81 21139	S	-1	+0	-22	5	12	50
S81 21140	S	-1	+1	-22	6	6	45
S81 21141	S	-1	+2	-22	4	7	29
S81 21142	S	-1	+3	-22	8	5	48
S81 21143	S	-1	+4	-22	2	5	18
S81 21144	S	-1	+5	-22	2	5	17
S81 21145	S	-1	+6	-22	12	6	30
S81 21146	S	-1	+7	-22	15	11	88
S81 21147	S	-1	+8	-22	3	7	34
S81 21148	S	-1	+9	-22	3	5	32
S81 21149	S	-1	+10	-22	7	7	58
S81 21150	S	-1	+12	-22	10	7	55
S81 21151	S	-1	+13	-22	4	<4	37
S81 21152	S	-1	+14	-22	4	4	39
S81 21153	S	-1	+15	-22	7	5	35
S81 21154	S	-1	+16	-22	10	6	58
S81 21155	S	-1	+17	-22	3	4	75
S81 21156	S	-1	+18	-22	10	8	60
S81 21157	S	-1	+19	-22	7	7	94
S81 21158	S	-1	+20	-22	7	5	70
S81 21159	S	-1	+0	-24	4	20	56
S81 21160	S	-1	+1	-24	3	8	34
S81 21161	S	-1	+2	-24	1	<4	35
S81 21162	S	-1	+3	-24	7	5	33
S81 21163	S	-1	+4	-24	3	6	23
S81 21164	S	-1	+5	-24	3	4	33
S81 21165	S	-1	+6	-24	3	5	29
S81 21166	S	-1	+7	-24	2	<4	30
S81 21167	S	-1	+8	-24	3	4	33
S81 21168	S	-1	+9	-24	25	6	55
S81 21169	S	-1	+11	-24	4	<4	39
S81 21170	S	-1	+12	-24	4	8	26
S81 21171	S	-1	+13	-24	2	7	29
S81 21172	S	-1	+14	-24	2	4	27
S81 21173	S	-1	+15	-24	5	4	92



REPORTING DATE 26 JUL 1981

SAMPLE NUMBER	TYPE	MAP	E/W	N/S	Cu PPM	Pb PPM	Zn PPM
SB1 21174	S	-1	+16	-24	3	4	49
SB1 21175	S	-1	+17	-24	2	<4	26
<del>SB1 21176</del>	<del>S</del>	<del>-1</del>	<del>+18</del>	<del>-24</del>	<del>1</del>	<del>&lt;4</del>	<del>40</del>
SB1 21177	S	-1	+19	-24	3	4	40
SB1 21178	S	-1	+20	-24	3	<4	38

WHERE ANALYSIS REQUESTED BUT NO VALUES SHOWN, RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

Cu Pb Zn 20% HNO3 DIGESTION / AA

MITTEN

HISTOGRAM DATA FOR LEAD

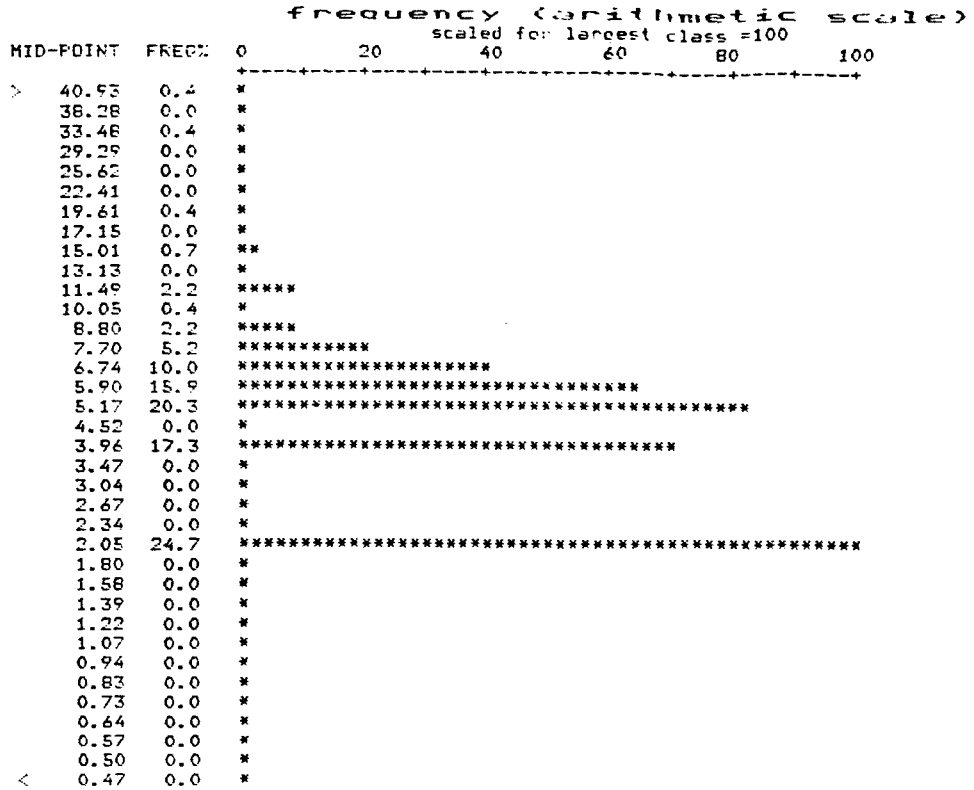
CLASS	LIMITS *	FREQ	%FREQ	CUM	CUMZ
1	LESS THAN 0.42	0	0.0	271	100.00
2	0.42 TO 0.49	0	0.0	271	100.00
3	0.49 TO 0.56	0	0.0	271	100.00
4	0.56 TO 0.64	0	0.0	271	100.00
5	0.64 TO 0.73	0	0.0	271	100.00
6	0.73 TO 0.83	0	0.0	271	100.00
7	0.83 TO 0.95	0	0.0	271	100.00
8	0.95 TO 1.09	0	0.0	271	100.00
9	1.09 TO 1.25	0	0.0	271	100.00
10	1.25 TO 1.43	0	0.0	271	100.00
11	1.43 TO 1.63	0	0.0	271	100.00
12	1.63 TO 1.87	0	0.0	271	100.00
13	1.87 TO 2.14	67	24.7	271	100.00
14	2.14 TO 2.45	0	0.0	204	75.28
15	2.45 TO 2.80	0	0.0	204	75.28
16	2.80 TO 3.20	0	0.0	204	75.28
17	3.20 TO 3.66	0	0.0	204	75.28
18	3.66 TO 4.18	47	17.3	204	75.28
19	4.18 TO 4.78	0	0.0	157	57.93
20	4.78 TO 5.47	55	20.3	157	57.93
21	5.47 TO 6.26	43	15.9	102	37.64
22	6.26 TO 7.15	27	10.0	59	21.77
23	7.15 TO 8.18	14	5.2	32	11.81
24	8.18 TO 9.36	6	2.2	18	6.64
25	9.36 TO 10.70	1	0.4	12	4.43
26	10.70 TO 12.23	6	2.2	11	4.06
27	12.23 TO 13.99	0	0.0	5	1.85
28	13.99 TO 16.00	2	0.7	5	1.85
29	16.00 TO 18.29	0	0.0	3	1.11
30	18.29 TO 20.91	1	0.4	3	1.11
31	20.91 TO 23.91	0	0.0	2	0.74
32	23.91 TO 27.34	0	0.0	2	0.74
33	27.34 TO 31.27	0	0.0	2	0.74
34	31.27 TO 35.75	1	0.4	2	0.74
35	35.75 TO 40.88	0	0.0	1	0.37
36	MORE THAN 40.88	1	0.4	1	0.00

ppm IN INTERVALS OF .058 LOG (BASE 10) UNITS  
 THERE ARE 34 REGULAR CLASSES .AN OVERFLOW AND UNDERFLOW CLASS  
 THE RANGE CONSIDERED IS 8 STD DEVIATIONS CENTRED ON THE GEOMETRIC MEAN  
 THE CLASS INTERVAL IS APPROX ONE-QUARTER STD DEVIATION

ERL JOB V81-590S. SAMPLES S81-20908-21178

MITTEN

LOG TRANSFORM HISTOGRAM FOR LEAD



↑  
ppm

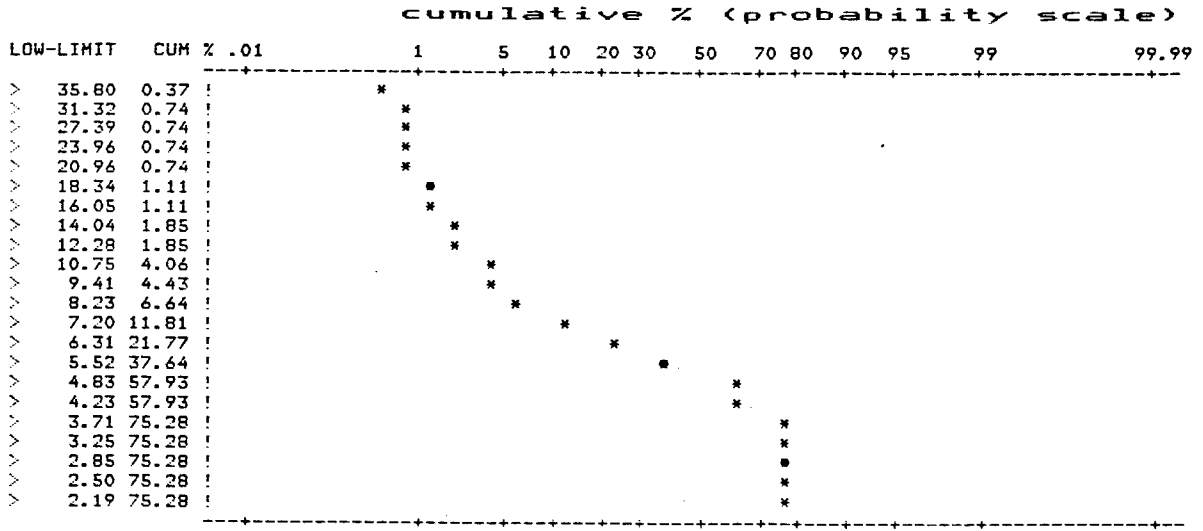
NOTE : CONC SCALE IS LOGARITHMIC (INTERVAL=.058). VALUES ARE MID-POINTS OF CLASSES

ERL JOB V81-590S, SAMPLES S81-20908-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GED MEAN (M+2STD DEV)
LEAD	271	<4 TO 248 ppm	6.0 ( 36)	4.4 ( 14)

MITTEN

CUMULATIVE PROBABILITY PLOT FOR LEAD



↑  
ppm

NOTE: CONCENTRATION SCALE IS LOGARITHMIC (INTERVAL=.058). VALUES ARE CLASS LOWER LIMITS

ERL JOB V81-590S. SAMPLES S81-20908-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
LEAD	271	<4 TO 248 ppm	6.0 ( 36)	4.4 ( 14)

MITTEN

HISTOGRAM DATA FOR ZINC

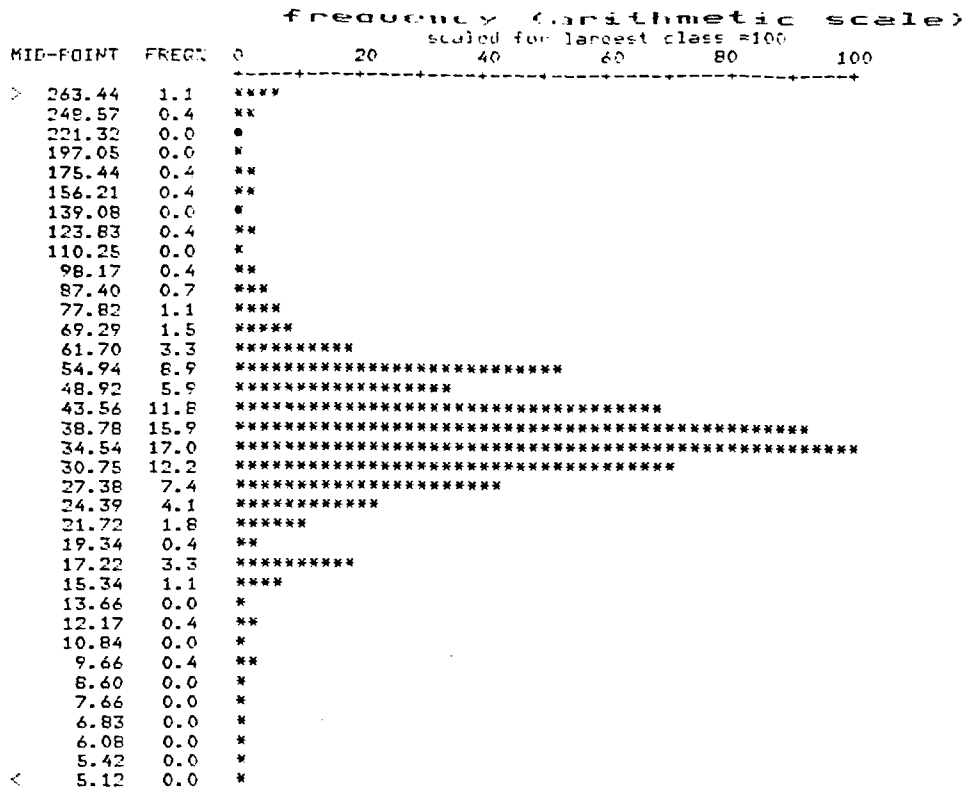
CLASS	LIMITS *	FREQ	%FREQ	CUM	CUMZ
1	LESS THAN 5.07	0	0.0	271	100.00
2	5.07 TO 5.69	0	0.0	271	100.00
3	5.69 TO 6.39	0	0.0	271	100.00
4	6.39 TO 7.18	0	0.0	271	100.00
5	7.18 TO 8.07	0	0.0	271	100.00
6	8.07 TO 9.06	0	0.0	271	100.00
7	9.06 TO 10.18	1	0.4	271	100.00
8	10.18 TO 11.43	0	0.0	270	99.63
9	11.43 TO 12.84	1	0.4	270	99.63
10	12.84 TO 14.43	0	0.0	269	99.26
11	14.43 TO 16.20	3	1.1	269	99.26
12	16.20 TO 18.20	9	3.3	266	98.15
13	18.20 TO 20.44	1	0.4	257	94.83
14	20.44 TO 22.96	5	1.8	256	94.46
15	22.96 TO 25.79	11	4.1	251	92.62
16	25.79 TO 28.97	20	7.4	240	88.56
17	28.97 TO 32.54	33	12.2	220	81.18
18	32.54 TO 36.55	46	17.0	187	69.00
19	36.55 TO 41.05	43	15.9	141	52.03
20	41.05 TO 46.11	32	11.8	98	36.16
21	46.11 TO 51.79	16	5.9	66	24.35
22	51.79 TO 58.17	24	8.9	50	18.45
23	58.17 TO 65.34	9	3.3	26	9.59
24	65.34 TO 73.38	4	1.5	17	6.27
25	73.38 TO 82.43	3	1.1	13	4.80
26	82.43 TO 92.58	2	0.7	10	3.69
27	92.58 TO 103.98	1	0.4	8	2.95
28	103.98 TO 116.79	0	0.0	7	2.58
29	116.79 TO 131.18	1	0.4	7	2.58
30	131.18 TO 147.34	0	0.0	6	2.21
31	147.34 TO 165.49	1	0.4	6	2.21
32	165.49 TO 185.88	1	0.4	5	1.85
33	185.88 TO 208.78	0	0.0	4	1.48
34	208.78 TO 234.50	0	0.0	4	1.48
35	234.50 TO 263.39	1	0.4	4	1.48
36	MORE THAN 263.39	3	1.1	3	0.00

ppm IN INTERVALS OF .050 LOG (BASE 10) UNITS  
 THERE ARE 34 REGULAR CLASSES ,AN OVERFLOW AND UNDERFLOW CLASS  
 THE RANGE CONSIDERED IS 8 STD DEVIATIONS CENTRED ON THE GEOMETRIC MEAN  
 THE CLASS INTERVAL IS APPROX ONE-QUARTER STD DEVIATION

ERL JOB V81-590S, SAMPLES S81-20908-21178

MITTEN

LOG TRANSFORM HISTOGRAM FOR ZINC



↑  
p = m

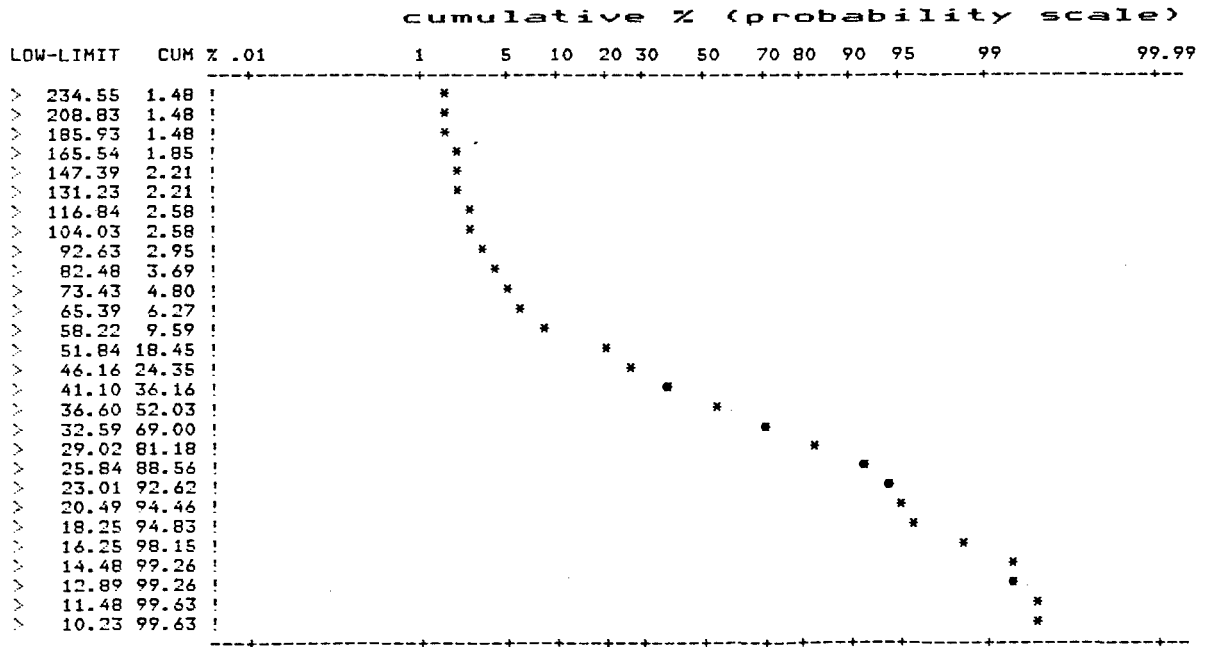
NOTE : CONC SCALE IS LOGARITHMIC (INTERVAL=.050). VALUES ARE MID-POINTS OF CLASSES

EF. JOB V81-590S. SAMPLES S81-20906-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GED MEAN (M+2STD DEV)
ZINC	271	10 TO 2410 ppm	52.3 ( 349)	38.7 ( 107)

MITTEN

CUMULATIVE PROBABILITY PLOT FOR ZINC



↑  
ppm

NOTE: CONCENTRATION SCALE IS LOGARITHMIC (INTERVAL=.050), VALUES ARE CLASS LOWER LIMITS

ERL JOB V81-590S, SAMPLES S81-20908-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
ZINC	271	10 TO 2410 ppm	52.3 ( 349)	38.7 ( 107)

MITTEN

HISTOGRAM DATA FOR COPPER

CLASS	LIMITS *	FREQ	%FREQ	CUM	CUM%
1	LESS THAN 0.43	0	0.0	271	100.00
2	0.43TO 0.50	0	0.0	271	100.00
3	0.50TO 0.59	0	0.0	271	100.00
4	0.59TO 0.68	0	0.0	271	100.00
5	0.68TO 0.80	0	0.0	271	100.00
6	0.80TO 0.93	0	0.0	271	100.00
7	0.93TO 1.08	2	0.7	271	100.00
8	1.08TO 1.26	0	0.0	269	99.26
9	1.26TO 1.47	0	0.0	269	99.26
10	1.47TO 1.72	0	0.0	269	99.26
11	1.72TO 2.00	10	3.7	269	99.26
12	2.00TO 2.33	0	0.0	259	95.57
13	2.33TO 2.72	0	0.0	259	95.57
14	2.72TO 3.17	30	11.1	259	95.57
15	3.17TO 3.70	0	0.0	229	84.50
16	3.70TO 4.31	46	17.0	229	84.50
17	4.31TO 5.02	43	15.9	183	67.53
18	5.02TO 5.85	0	0.0	140	51.66
19	5.85TO 6.82	25	9.2	140	51.66
20	6.82TO 7.95	31	11.4	115	42.44
21	7.95TO 9.27	19	7.0	84	31.00
22	9.27TO 10.80	7	2.6	65	23.99
23	10.80TO 12.58	15	5.5	58	21.40
24	12.58TO 14.66	8	3.0	43	15.87
25	14.66TO 17.09	8	3.0	35	12.92
26	17.09TO 19.92	8	3.0	27	9.96
27	19.92TO 23.21	11	4.1	19	7.01
28	23.21TO 27.05	2	0.7	8	2.95
29	27.05TO 31.52	1	0.4	6	2.21
30	31.52TO 36.73	1	0.4	5	1.85
31	36.73TO 42.80	1	0.4	4	1.48
32	42.80TO 49.88	0	0.0	3	1.11
33	49.88TO 58.12	2	0.7	3	1.11
34	58.12TO 67.73	0	0.0	1	0.37
35	67.73TO 78.93	1	0.4	1	0.37
36	MORE THAN 78.93	0	0.0	0	0.00

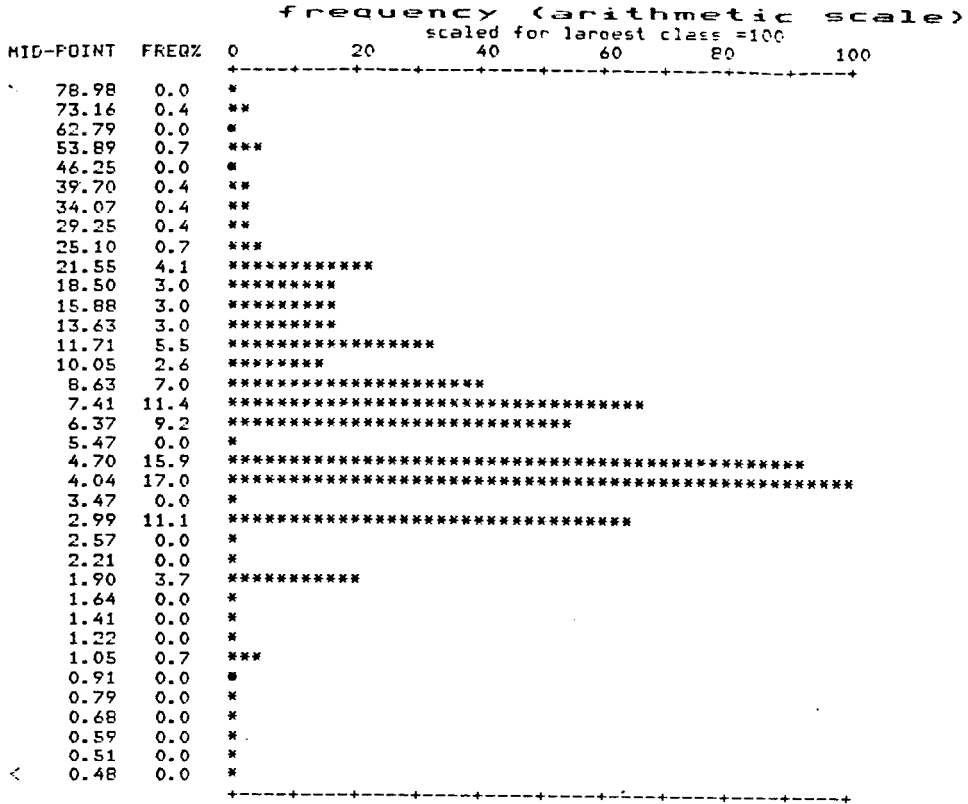
ppm IN INTERVALS OF .066 LOG (BASE 10)UNITS  
 THERE ARE 34 REGULAR CLASSES ,AN OVERFLOW AND UNDERFLOW CLASS  
 THE RANGE CONSIDERED IS 8 STD DEVIATIONS CENTRED ON THE GEOMETRIC MEAN  
 THE CLASS INTERVAL IS APPROX ONE-QUARTER STD DEVIATION

ERL JOB V81-590S, SAMPLES S81-20908-21178



MITTEN

LOG TRANSFORM HISTOGRAM FOR COPPER



↑  
ppm

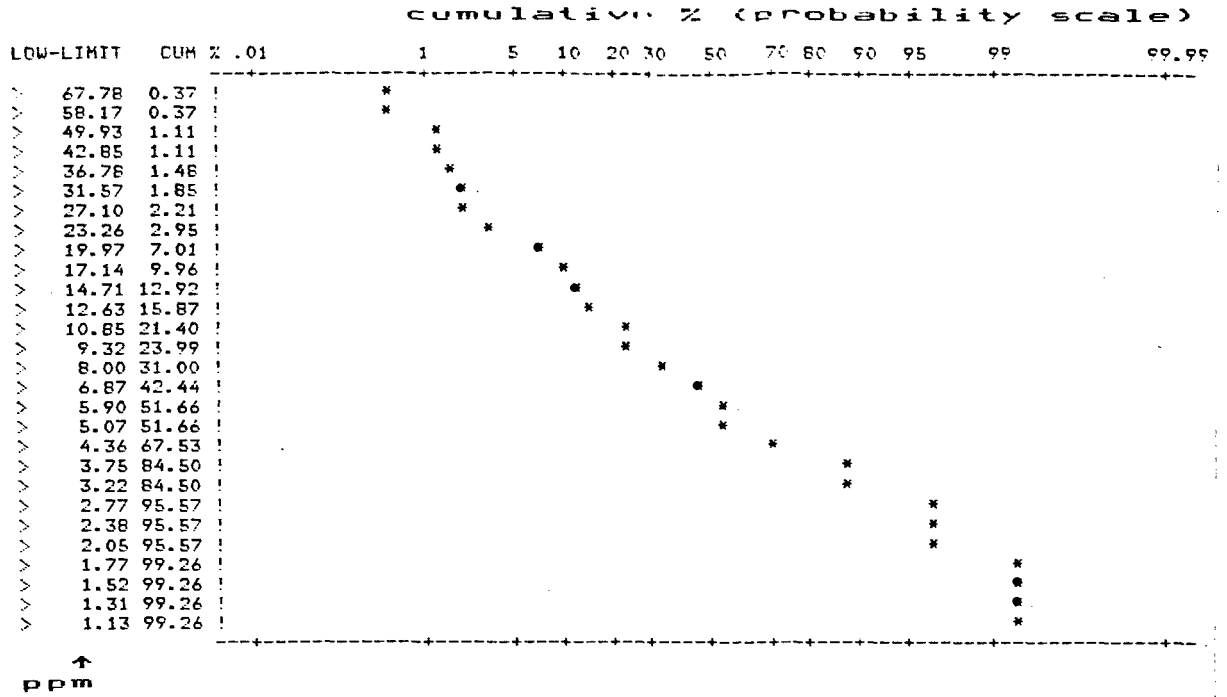
NOTE : CONC SCALE IS LOGARITHMIC (INTERVAL=.066). VALUES ARE MID-POINTS OF CLASSES

ERL JOB V81-590S. SAMPLES S81-20908-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
COPPER	271	1 TO	76 ppm 8.2 ( 24)	6.3 ( 24)

MITTEN

CUMULATIVE PROBABILITY PLOT FOR COPPER



NOTE: CONCENTRATION SCALE IS LOGARITHMIC (INTERVAL=.066). VALUES ARE CLASS LOWER LIMITS

ERL JOB V81-590S, SAMPLES SB1-20906-21178

ELEMENT	NO OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
COPPER	271	1 TO	76 ppm	8.2 ( 24 )
				6.3 ( 24 )

SUMMARY OF STATISTICS FOR MITTEN

ERL JOB V81-590S. SAMPLES 561-2090E-21176

ELEMENT	NO OF ANALYSES	RANGE UNITS	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
COPPER	271	76 TO	1 ppm 8.2 ( 24)	6.3 ( 24)
LEAD	271	248 TO	<4 ppm 6.0 ( 36)	4.4 ( 14)
ZINC	271	2410 TO	10 ppm 52.3 ( 349)	38.7 ( 107)

IF YOU WISH TO REPLOT THE HISTOGRAM DATA USE ORDINARY ARITHMETIC GRAPH PAPER AND PLOT THE CONC MID-POINTS AT EQUAL SPACINGS ON THE X-AXIS AND FREQUENCY % ON THE Y AXIS

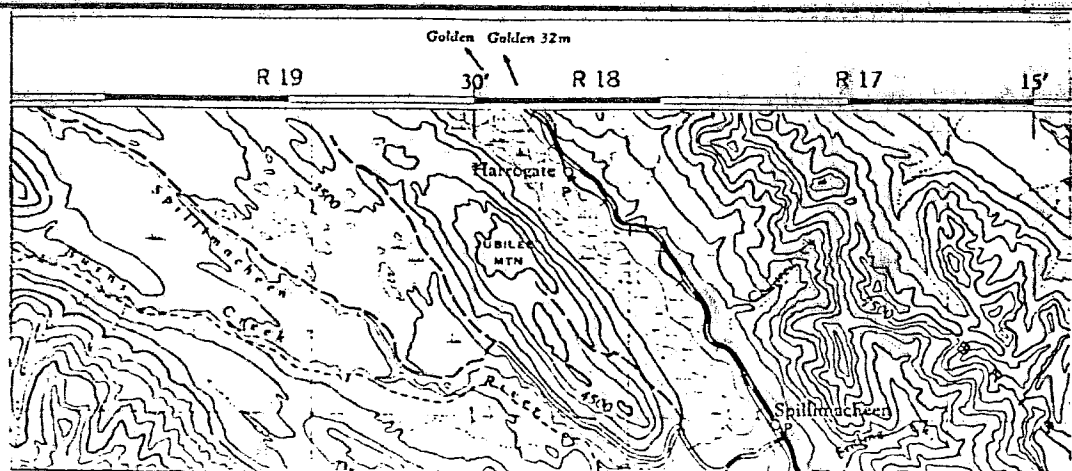
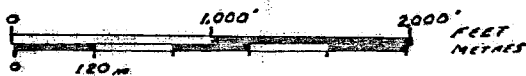
IF YOU WISH TO REPLOT THE CUMULATIVE PLOT USE GRAPH PAPER WITH ARITHMETIC SCALE FOR PPM LOWER LIMITS AND PROBABILITY SCALE FOR CUMULATIVE %

THREE USEFUL REFERENCES :LEPeltier,C.1969 A simplified statistical treatment of geochemical data by graphical representation.ECON GEOLOGY 64(5),P538  
 SINCLAIR,A.J. 1974 Selection of threshold values in geochemical data using probability graphs.JOURN. GEOCHEM. EXPLORATION 3 .P129  
 SINCLAIR,A.J. 1976 Applications of probability graphs in mineral exploration.SPECIAL VOL 4.ASSOCIATION OF EXPL.GEOCHEMISTS.95 P



MITTEN CLAIM  
GEOCHEMICAL GRID

SCALE 1" to 1000'  
1cm to 120m



LOCATION MAP SCALE 250:000

312°	05 01E	05 01E	05 02E	05 03E	05 04E	05 05E	05 06E	05 07E	05 08E	05 09E	05 10E	05 11E	05 12E	05 13E	05 14E	05 15E	05 16E	05 17E	05 18E	05 19E	05 20E	042°
	12	9	4	18	4	8	5	7	12	4	7	4	11	6	12	5	7	4	6	6	6	
	5	5	4	18	4	8	5	7	12	4	7	4	11	6	12	5	7	4	6	6	6	
45 0E	18	11	14	11	7	5	6	5	18	4	4	8	21	5	7	5	11	7	8	7	4	
	7	9	14	14	7	9	5	7	18	7	3	6	7	4	13	7	8	5	7	13	8	
85 0E	7	10	30	20	5	5	6	7	21	5	4	13	4	4	5	23	4	7	4	4	4	
	5	3	20	11	2	5	3	14	3	3	10	5	3	6	3	5	5	6	5	5	4	
125 0E	3	15	10	39	6	3	21	8	3	4	20	7	7	5	2	16	22	7	7	3	4	
	6	15	8	15	4	12	3	7	4	6	5	5	5	9	12	8	7	15	4	4	7	
165 0E	4	8	6	6	7	9	4	6	4	5	18	18	20	18	5	5	12	4	5	4	3	
	2	15	8	5	4	5	5	4	3	9	5	5	12	14	6	34	6	3	4	3	22	
205 0E	21	3	4	5	5	4	5	4	7	12	11	8	2	4	5	4	10	4	3	7		
	5	6	4	8	2	2	12	15	3	3	7	18	10	4	4	7	10	3	10	7	7	
245 0E	3	7	7	3	3	3	2	3	25	15	4	4	2	2	5	3	2	7	3	3		

PPM CU

SCALE 1" to 400'  
1cm to .48m

BASE LINE



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9359**  
NO.

COPPER

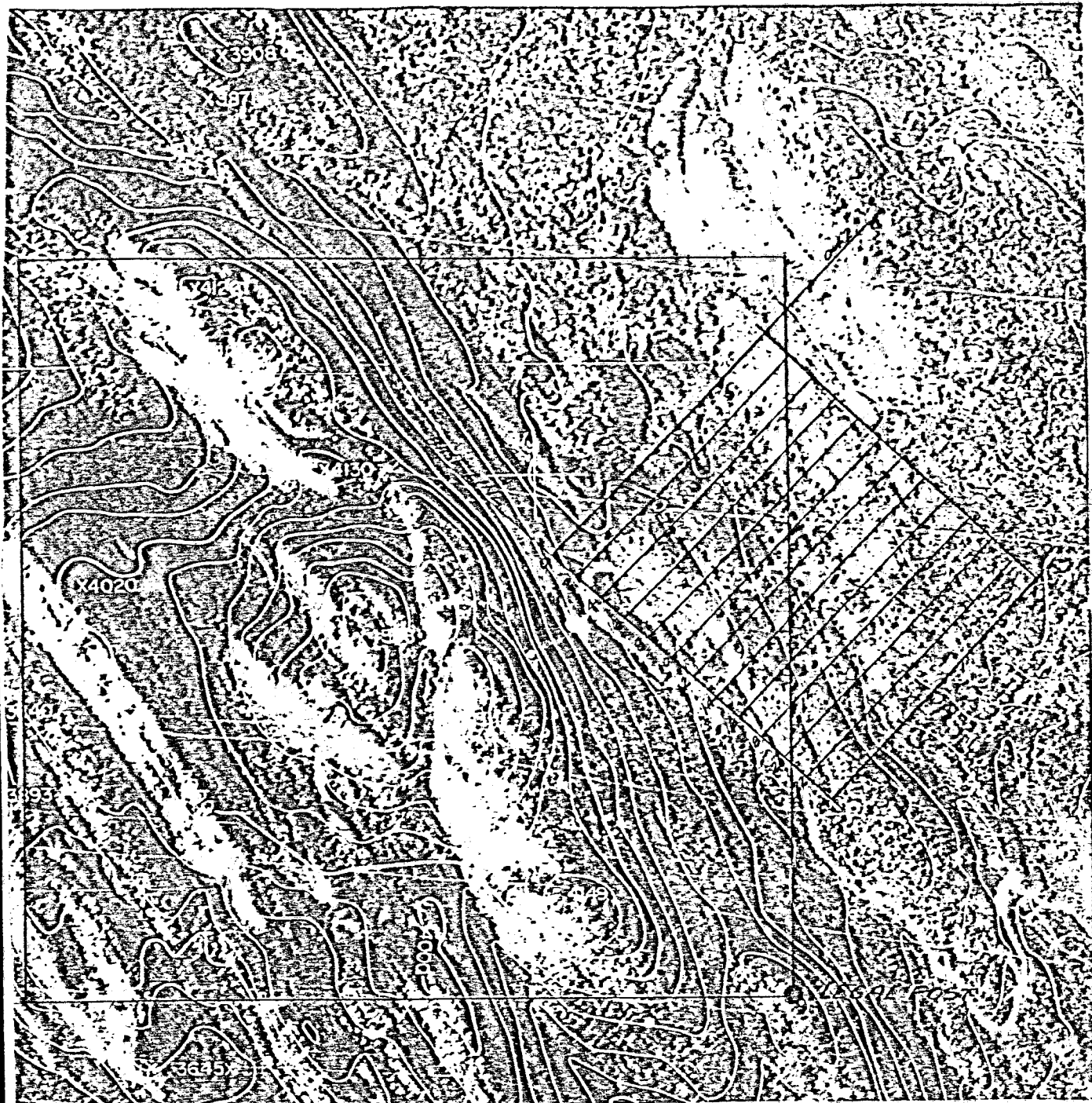


Drawn by: GLW	Traced by:		
Revised by	Date	Revised by	Date

MITTEN CLAIM (3 UNITS)  
SOIL GEOCHEMICAL GRID

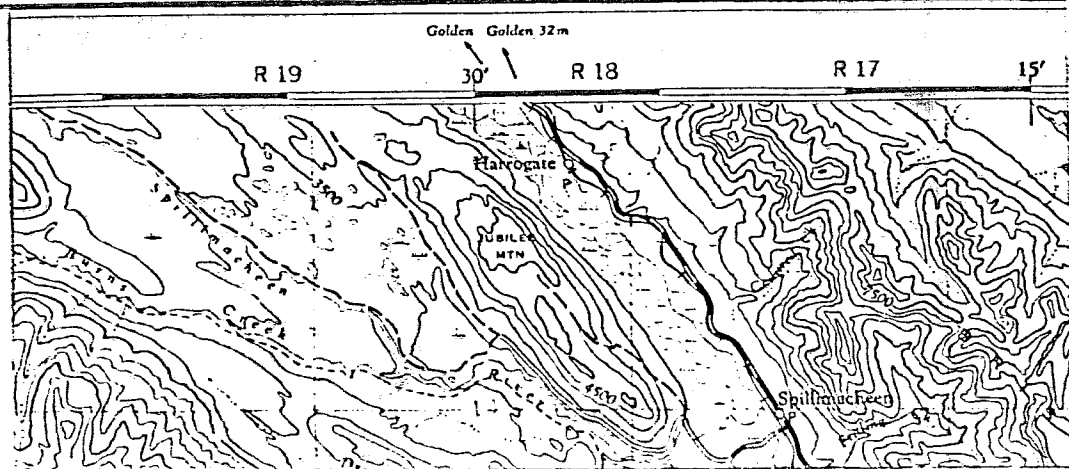
NTS 82G/15416

Scale: Date: AUG 4 1981 Plate: 3



MITTEN CLAIM  
GEOCHEMICAL GRID

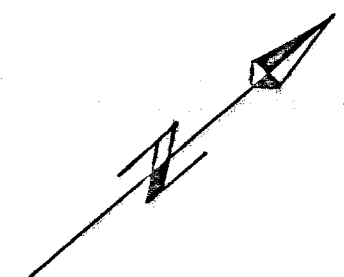
SCALE 1" to 1,000'  
1cm to 120m



LOCATION MAP SCALE 250:000

35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
05 OF	05 01E	05 02E	05 03E	05 04E	05 05E	05 06E	05 07E	05 08E	05 09E	05 10E	05 11E	05 12E	05 13E	05 14E	05 15E	05 16E	05 17E	05 18E	05 19E	05 20E
11	8	6	<4	<4	6	5	<4	9	7	9	5	7	5	7	6	5	5	7	5	5
45 OF	<8	11	<4	<4	<4	7	6	<4	7	6	6	12	<4	<4	5	7	7	5	5	<4
8	6	2+8	9	7	7	6	5	<4	<4	<4	7	<4	11	6	<4	7	7	5	5	<4
85 OF	4	<8	<8	<8	5	6	5	<4	7	7	6	5	7	7	7	<4	5	5	5	6
8	5	6	<4	<4	6	<4	<4	<4	7	5	6	6	7	<4	7	<4	5	5	5	5
125 OF	6	5	5	<4	<4	5	<4	7	<4	6	5	<4	7	5	<4	6	7	5	5	<4
8	9	9	6	7	6	<4	7	<4	7	7	<4	6	8	7	7	6	7	5	5	5
165 OF	8	5	<4	<4	7	8	<4	7	<4	5	7	6	9	6	5	6	6	7	7	5
7	9	6	5	6	6	<4	<4	5	6	6	<4	5	7	6	<4	7	7	<4	<4	5
205 OF	5	4	<4	5	9	7	6	7	5	10	7	5	7	6	6	7	7	5	5	<4
8	6	7	5	5	5	5	6	11	7	5	7	NS	7	<4	7	5	6	7	8	7
245 OF	20	8	<4	5	6	7	5	<4	7	6	NS	<4	8	7	7	7	7	2	<4	<4

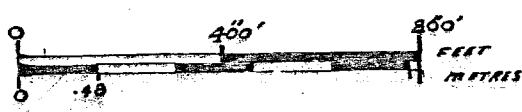
042°



BASE LINE

PPM Pb

SCALE 1" to 400'  
1cm to 48m



MINERAL RECONSTRUCTION  
AGENCY REPORT  
**9359**  
NO.

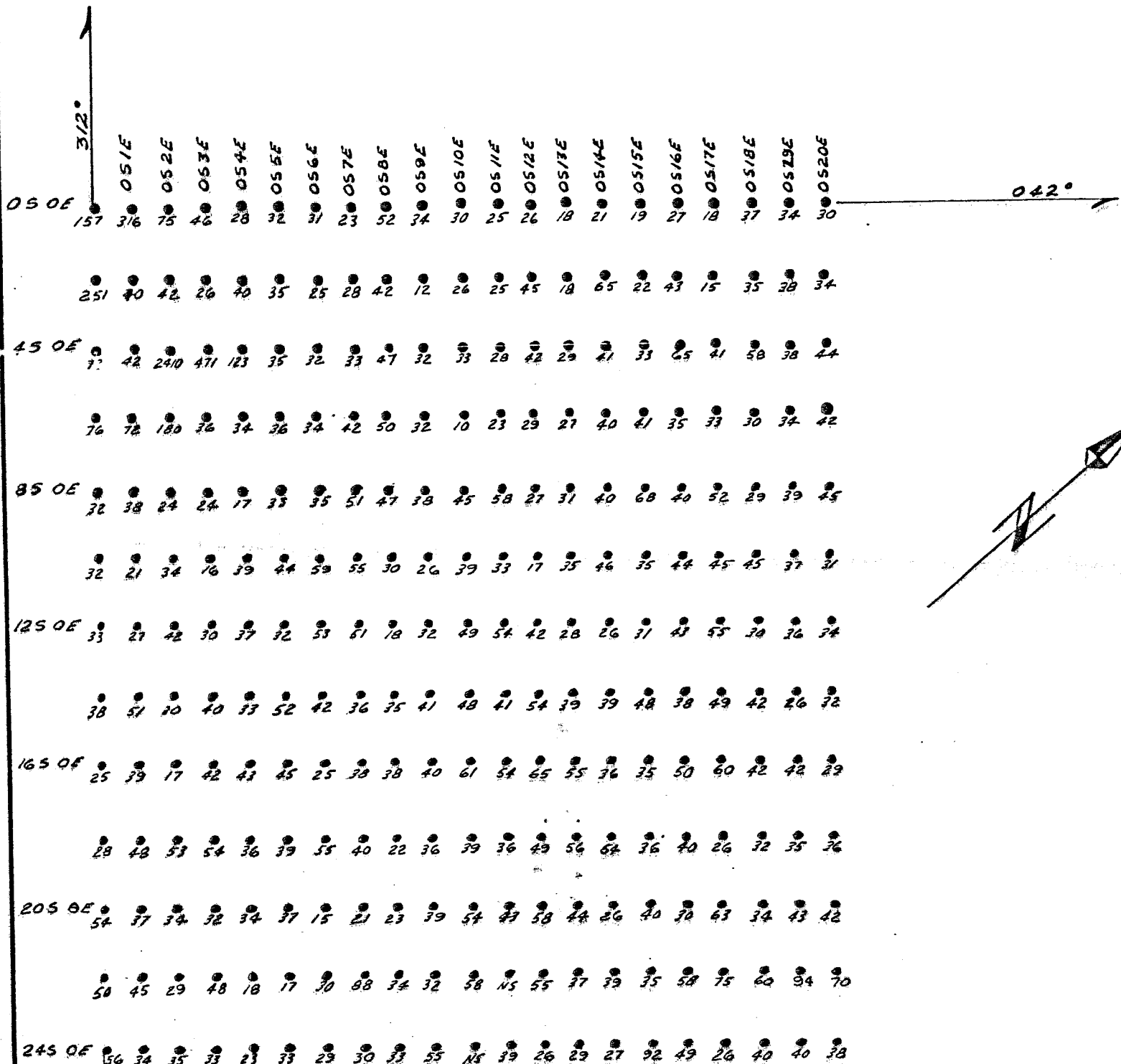
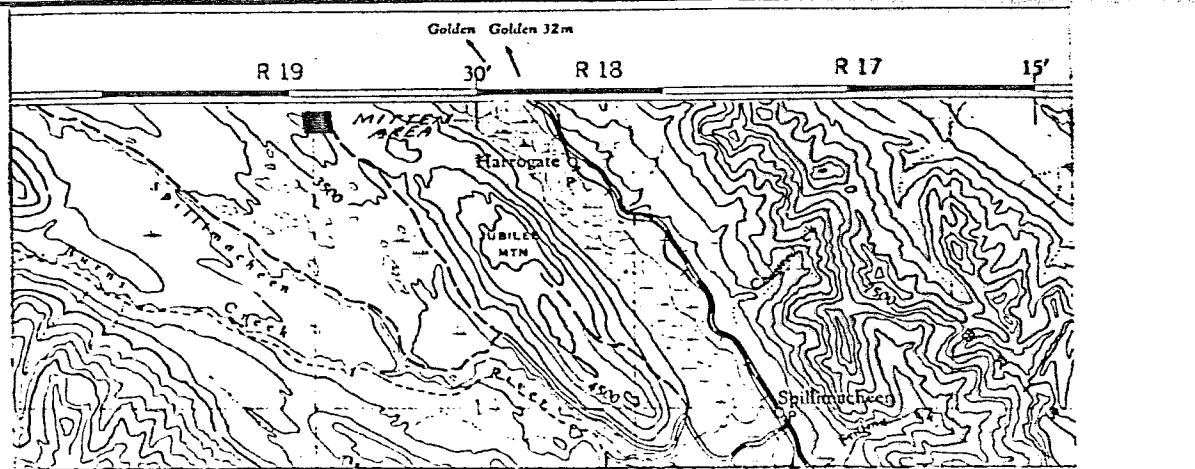
<u>LEAD</u>					
Drawn by: <u>GLW</u>		Traced by:		<u>MITTEN CLAIM (3 UNITS)</u> <u>SOIL GEOCHEMICAL GRID</u>  <u>NTS 82G15E16</u> Scale: Date: <u>AUG 4 1981</u> Plate: <u>1</u>	
Revised by	Date	Revised by	Date		





MITTEN CLAIM  
GEOCHEMICAL GRID

SCALE 1" to 1,000'  
1cm to 120m



PPM Zn

SCALE 1" to 400'  
1cm to 48m



9359

ZINC



Drawn by: GCM		Traced by:	
Revised by	Date	Revised by	Date

MITTEN CLAIM (9 UNITS)  
SOIL GEOCHEMICAL GRID

NTS 82G/5416

Scale:

Date: AUG 4 1981

Plate: 2