

ASSESSMENT REPORT  
ON THE 1990  
GEOCHEMICAL SURVEY  
ON  
THE LIP # 1 MINERAL CLAIM  
RECORD NUMBER 11040  
RAINBOW CREEK, MT. MILLIGAN AREA  
OMINECA MINING DIVISION, B. C.

LOG NO:	09-20	RD.
ACTION:		
FILE NO:		

LOG NO:	16-01 '91	RD.
ACTION: Date received back for Amendment		
FILE NO:		

55 ° 05 ', 124 ° 01 '

NTS 93N/1E

FOR  
BP RESOURCES CANADA LIMITED  
MINING DIVISION  
55 UNIVERSITY AVENUE, 18TH FLOOR  
TORONTO, ONTARIO M5J 2H7  
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OWNERS: D. L. COOKE, R. U. BRUASET

OPERATOR: BP RESOURCES CANADA LIMITED

DATE SUBMITTED: 1990

FIELD WORK DONE: JUNE 14-29, 1990

REPORT BY: D. L. COOKE Ph.D., P. ENG.  
R. U. BRUASET B.Sc., F.G.A.C

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

20,280

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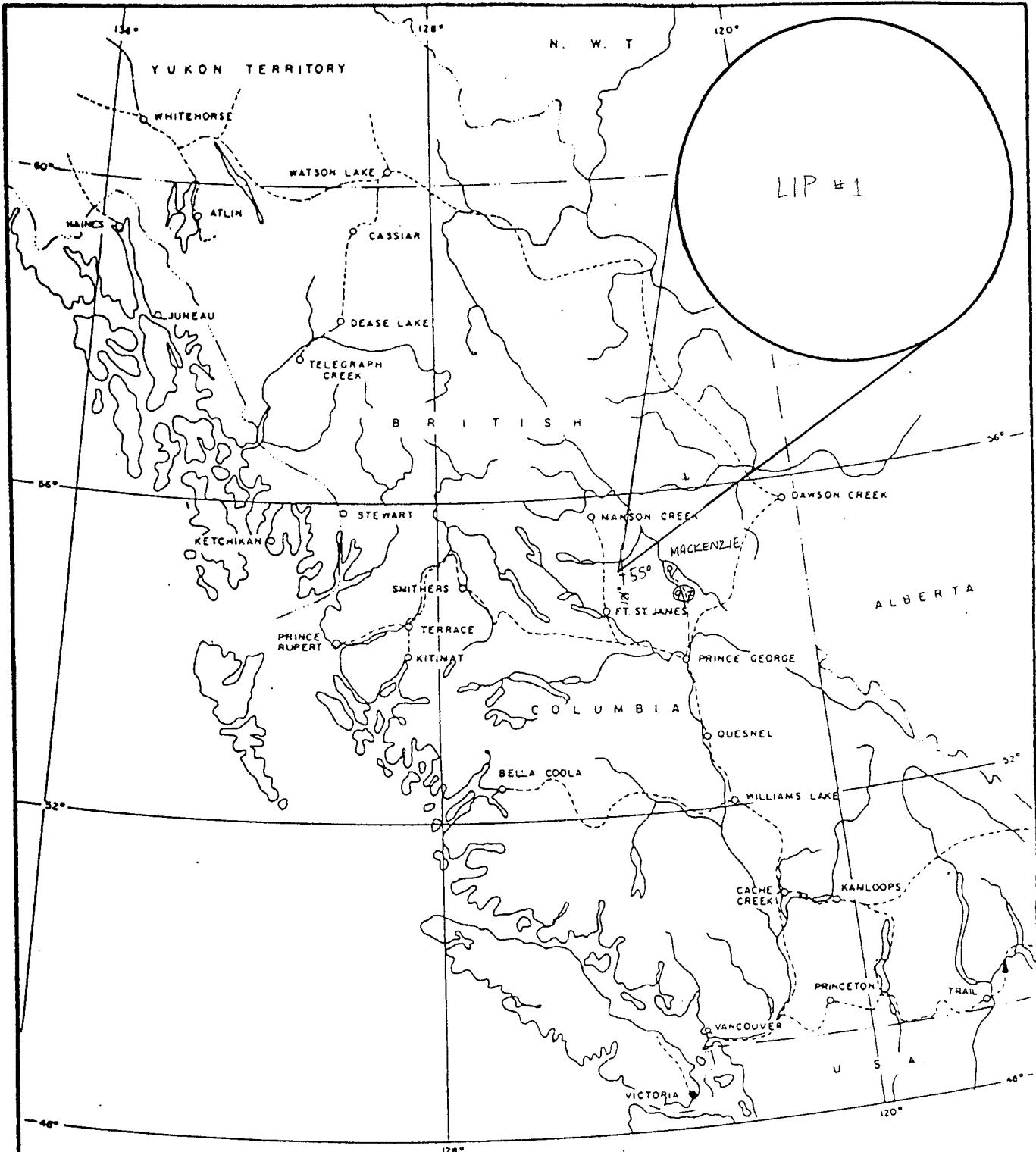
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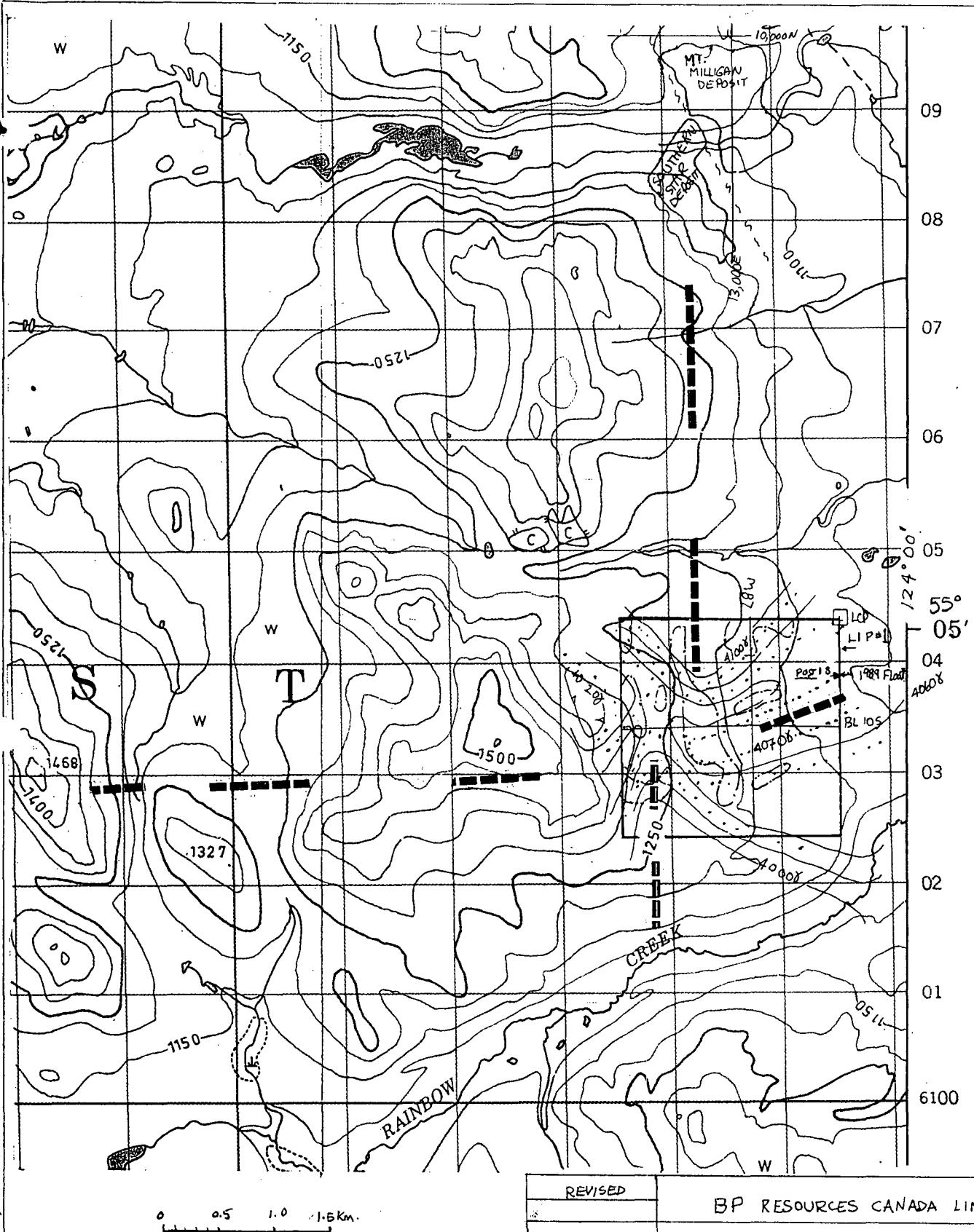
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100KM  
1: 7,930,000

PLATE 1

## PROPERTY LOCATION MAP BRITISH COLUMBIA



0 0.5 1.0 1.5 Km.

4000  
AEROMAGNETIC CONTOURS (Ref. 93N/1)

— AEROMAGNETIC TREND

— +90PPM Cu in soils (Ref. Plate 15a)

— MT. MILLIGAN DEPOSITS (Ref. Rebagliati, Harris, Cairns, 1989)

~~ FAULT

REVISED

BP RESOURCES CANADA LIMITED

LIP #1 M.C.  
CLAIM MAP

PROJ. NO.

NTS. 93N/1E

PLATE 2

SURVEY BY:

DRAWN BY:

R.L. Brusset

DATE: JULY 1990

SCALE: 1:50,000

RAGNAR L. BRUSSET & ASSOCIATES LTD.

D.L. COOKE AND ASSOCIATES LTD.

## 1. INTRODUCTION

This report describes a soil sampling program carried out in June 1990 on the sixteen unit LIP # 1 mineral claim located in the Mt. Milligan area of north central B. C. The Mt. Milligan area is located about 70 km west of the Town of Mackenzie.

Lip # 1 adjoins the south side of the Mt. Milligan JV of Continental Gold Corp.-BP Resources Canada Limited. An important alkaline gold-copper porphyry system occurs in the Joint Venture property. Based on currently available data, this system is centered about 4.5 km north of Lip # 1. One of the deposits, the Southern Star, extends to within 3.3 km of the latter (Plate 2). The gold-copper mineralization in the Mt. Milligan area is associated with pyrite, chalcopyrite and free gold occurring in Takla volcanics, coeval monzonite, diorite, etc. of Upper Triassic age. The principal deposits, the Mt. Milligan and Southern Star deposits, have central stocks and dykes of monzonitic composition which trend north northwesterly. The Mt. Milligan deposit is now in feasibility with reserves in the order of 200 MT grading about 0.02 oz/ton Au and 0.3 % Cu. Alkaline porphyry style mineralization has typically associated magnetite-rich phases. Consequently, aeromagnetics is widely regarded as the most cost-effective tool in alkaline porphyry exploration.

The authors are aware of the clustering tendencies of alkaline porphyry deposits, the magnitude of the Mt. Milligan system, and the potential significance of the mineralized float found on Lip # 1. The Lip Property is undergoing exploration for possible satellite gold-copper systems of the Mt. Milligan type as well as for the smaller, but higher grade deposits that are more typical of alkaline porphyry environments.

The current program is believed to be the first systematic geochemical survey conducted on Lip # 1 and no previous staking of this ground is indicated.

Lip # 1 M.C. is operated by BP Resources Canada Limited under terms of an option agreement with the D. L. Cooke and R. U. Bruaset.

The Lip # 1 was located on a subtle positive aeromagnetic pattern occurring on a prominent east-west trend (Geophysics Paper 1584, Wittschica Cr. 93N/1, (Plate 2)). A less prominent north-south aeromagnetic trend intersects the east-west trend in the west central portion of the claim. The north-south trend extends northward to the vicinity of the Southern Star deposit. Early encouragement, obtained at the time of staking, included the discovery of a sub-angular, fist-size monzonite float boulder in the creek near Identification Post 1 South. This material which has undergone potassic alteration and contains fracture controlled chalcopyrite was found to be anomalous in Cu, Mo, and Au. The float is considered important because it exhibits a geochemical signature similar

TABLE 1

## LIP # 1

## SUMMARY OF ANOMALOUS GOLD IN SOILS

BY INSPECTION OF DATA:

Anomalous: +39 ppb

Analyses: GOLD: Chemex FA-NAA with 1 ppb detection limit  
 COPPER: ACME ICP with 1 ppm detection limit

SAMPLE NO.	PLATE 3		GOLD ppb	(COPPER) ppm
	SOUTHING	WESTING		
L-90-258 S	L 16S	17 W	512	217
131 S	L 2 S	16 W	401	66
004 S	8+50 S	L 2 W	383	52
120 S	L0+00 S	18 W	228	51
112 S	"	11 W	168	69
100 S	O+00 S	L 6 W	111	102
185 S	L 4 S	11 W	83	71
39 S	15 S	L 4 W	77	51
152 S	L 6 S	10 W	65	34
26 S	4 S	4 W	62	68
115 S	L O+00 S	13 W	57	33
27 S	5 S	4 W	48	48
165 S	L 6 S	16+50 W	48	60
242 S	L 18 S	10 W	44	53
196 S	L 10 S	14 W	41	138
246 S	L 18 S	14 W	40	53
20 S	O+50 S	L 2 W	39	53

TABLE 2

GENERAL SUMMARY OF ANALYSIS WITH REFERENCE TO AVERAGE ABUNDANCE, OR RANGE, (LEVINSON, 1980 AND GEOEXPO VOL:QR Deposit)

ELEMENTS	DETECT. LIMIT	X IF PARTIAL y IF LIMITED	LIP VALUES LOWEST HIGHEST	LEVINSON TABLE 2-1 p. 43, p. 863, R=Range
Au ppb	1 ppb		<1 512	Av. 1 ppb
Mo ppm	1 ppm		1 2	Av. 2 ppm
Cu ppm	1 ppm		12 227	Av. 20 R. 2-100
Pb ppm	2 ppm		2 31	Av. 20 R. 2-200
Zn ppm	1 ppm		22 130	Av. 50 R. 10-300
Ag ppm	0.1 ppm		0.1 2.8	Av. 0.1 ppm
Ni ppm	1 ppm		6 81	Av. 30 R. 5-500
Co ppm	1 ppm		3 27	Av. 10 R. 1-40
Mn ppm	1 ppm	X	94 1861	Av. 850 ppm
Fe %	N/D	X	0.92 6.71	N/D
As ppm	2 ppm		2 39	Av. 5 R. 1-50
U ppm	5 ppm		5 8	Av. 1 ppm
Th ppm	2 ppm		<2 2	Av. 13 ppm
Sr ppm	1 ppm	X	19 149	R. 50-1000
Cd ppm	1 ppm		1 1.8	Av. 1 ppm
Sb ppm	2 ppm		2 4	Av. 5 ppm
Bi ppm	2 ppm		2 8	No data
V ppm	2 ppm		31 154	Av. 80 R. 20-500
Ca %	0.01 %	X	0.2 2.65	No data
P %	0.01 %	X	0.022 0.357	No data
La ppm	2 ppm	X	3 16	No data
Cr ppm	1 ppm	X	23 251	Av. 50 R. 5-1000
Mg %	0.01 %	X	0.18 2.34	No data
Ba ppm	2 ppm	X	51 179	Av. 500 R. 100-3000
Ti %	0.01 %	X	0.04 0.21	5000 (ppm)
B ppm	2 ppm	X	2 7	Av. 12 R. 2-100
Al %	0.01 %	y	1.16 3.91	No data
Na %	0.01 %	y	0.01 0.02	No data
K %	0.01 %	y	0.01 0.11	No data
W ppm	1 ppm	X	1 2	No data

QR REFERENCES: FOX, et al, in GEOEXPO/86 p. 61

Au in soil over QR: Gen. 125-299 ppb, occasionally + 300 ppb

Cu " " over QR: 140 to 250 ppm (personal communication)

As " " Broadly + 50-124 over deposit and down-ice

Mo " " > 6 ppm adjacent to N-side and down-ice

Fe " " ? > 4.5 % (pattern not apparent)

Co " " over QR: > 25 ppm including down-ice

Sb " " > 6 ppm down-ice

Zn " " approx. > 150 ppm starting 1 km down-ice

Mg " " > 0.9 % down-ice starting about 2 km N. "

V " " > 135 ppm down-ice

to that of Mt. Milligan and the QR deposits. Given that the glacial transport in the Mt. Milligan area is towards the northeast, we have come to regard the float from Lip # 1 as an important clue to the possible occurrence of other monzonitic mineralizing systems in the Mt. Milligan area or an indication of a possible extension of that system well beyond the known limits.

The soil survey discussed in this report was aimed at defining areas in Lip # 1 with anomalous concentrations of gold, copper and other alkaline porphyry indicator elements. Favorable geochemical anomalies were expected to be followed-up by IP and resistivity surveys to define drill targets. Any outcrop found during the survey would be mapped.

BP Resources Canada Limited had the subject claim surveyed this May with low-level aeromagnetics. This survey encompassed certain adjoining claims also operated by B P. Due to production difficulties, the results from this survey were not available to guide the soil program until well into the survey. Initially, north-south sample lines were used based on a postulated principal east-west structural trend indicated by the high-level aeromagnetics. Availability of the low-level data at the completion Lines 2 W through to 8 W indicated a strong north-south trend with a magnetic high centered along a longitude approximated by 9 W for the current grid. Accordingly, the line orientation for the balance of the survey was changed to east-west to more effectively sample this new trend. Subsequent correlation of this year's aeromagnetic survey with an earlier survey done to the north of the Lip indicated the need for data revision in light of speed changes of the survey aircraft. At report time, the authors have seen a poor quality FAX of the final aeromagnetics and it appears from this that the principal soil anomaly indicated by this survey lies on the margin of an aeromagnetic high. This configuration of aeromagnetics and soil anomaly is considered favorable.

The LIP property is situated in the physiographic division of the Manson Plateau which lies between the Omineca Mountains in the north and the Nechako Lowlands in the south (G. S. C. Map 1701 A, 1986).

The terrain of the Lip Property is gently easterly sloping with elevations ranging from about 1120 to 1300 m. Extensive logging is planned for the claim area during 1990 and 1991 and the first cutting commenced in the northeastern part of the claim during June 1990. The Philip Main Line logging road built by Fletcher-Challenge provides access to within a few hundred meters of the NE corner of the property. This logging road joins the main hauling road extending about 90 km to Windy Point on Highway 97. The current access

3.

is scheduled for extensions to the vicinity of LIP # 1 Identification Posts 2S and 3S this summer where a large block was to be cut commencing in July. The attached Plans at the scale of 1:5000 shows the main roads in existence at the time of the survey. In addition, several field points on the perimeters of active or proposed cut blocks are shown.

The soil geochemical program consisted of a total of 249 soil samples which were collected generally at 100 m intervals along lines 200 m apart. In all, 22 km of lines were sampled. Samples were analyzed for gold and for multi-elements. Five samples of miscellaneous float were also submitted for analysis. Analytical procedures are given in Appendix 5.

No outcrop was encountered in the survey. The possibility of outcrop occurring between sample lines is considered remote.

Ground control was by flagged and picketed lines measured with hip-chain and directed by Brunton compass. Tie lines were run between the ends of grid lines, all data having been plotted at the scale of 1:5000 (Plate 3). The Legal Corner Post of Lip # 1 is the grid origin. In addition, various traverses were run north and east of the Lip claims in order to establish general road reference for the property and for the purpose of confirming the position of the north boundary of Lip where overlap may exist on the previously located Phil 23 M. C. owned by BP Resources Canada Limited. In this surveying we sought to tie into a legal survey presently underway on the BP-Continental Gold JV and thereby establish the position of the key Phil 23 claim post which is located in a remote area relative to the Lip # 1 LCP. A tie-in with the LCP of Phil 23 was not achieved because of adverse weather and shortage of time. However, sufficient control was established for a later tie-in upon the completion of the legal survey scheduled for late July 1990. The suggested tie-in is the Mile 7 Post on the 124th Meridian of Longitude. This post lies on the Legal Boundary between the Cassiar and Cariboo Land Districts. It was apparently intended that this boundary was to coincide with the position of the 124<sup>th</sup> of the day, which it apparently does not. There are a number of possible reasons for this apparent discrepancy which relates to inadequacies in survey equipment designed to establish position astronomically (pers. comm. Jon Nagwood, Surveyor General's Office).

2. SUMMARY

No outcrop was encountered in the claim area. A few pieces of weekly mineralized float found under overturned roots were submitted for analysis, chiefly to check for gold. Heavy runoff

at the time of the survey made a thorough float search of the local creeks impractical. The soil survey indicated an area of anomalous copper (+90 ppm) trending north northeasterly which appears to be located on the margin of the principal aeromagnetic anomaly obtained in this year's low level survey. This principal soil anomaly measures 1650 m. in length and variously 50 to 300 m. in width. The central part of the anomaly measures 300 m. by 600 m. and for all intents and purposes, this portion of the soil anomaly lies on the aeromagnetic anomaly for which Lip # 1 was located (Plate 2). Gold in soils is characterized by one-point anomalies of + 39 ppm. The principal copper soil anomaly may warrant further work by means of IP and resistivity surveying in an attempt to define a drill target. The operator is known to favour such a program as the next step in the exploration. While further soil sampling is desirable, it is not considered essential in light of the small size of the property and the operator's interest in going directly to IP at this stage. IP would probably indicate whether or not a drill target exists in the claim.

### 3. DETAILED TECHNICAL DATA AND INTERPRETATION

#### 3A. SOIL SAMPLING

Soil samples were collected using a long handled shovel. Material from the top of the B-Horizon was sought. In the event of unavailability of "B", the C-Horizon was usually obtained. In a few instances, lower A Horizon was sampled where a fair amount of inorganic silt-size material appeared to be present near the limits of convenient sampling depth (70 cm). With the dark color of the latter such soils were assigned to A Horizon. A common sampling problem in the area is the frequent occurrence of boulders in the upper soil. This occasionally required the digging of several holes in order to obtain adequate sample material. Sample depth range from 25 cm to about 80 cm with 30 cm being the most common.

Samples were placed in Kraft soil envelopes of the gusseted type. They were accumulated in large plastic bags inside packsacks. Due to the frequent wet character of the soil, and the resulting weakening of the bags, about 20 % of the samples had suffered sufficient damage in handling to make rebagging essential. However, in no case did bags break open and mix with other sample material. Samples were field-dried in the sun or on a rack alongside a camp fire.

The gross soil profile of the area is readily apparent from road-cuts. Typically, the upper 1 to 2 meters consists of sand and gravel deposits and these rest on mixed clay and boulders (till). The relatively well sorted glacio-fluviatile deposits

(G. F. deposits) covering the till were deposited from melt-water emanating from glaciers. G. F. deposits or glacial outwash are often poor soil sample media partly because of low abundance of silt size particles to which some metal ions may be adsorbed. As a result, subdued geochemical signatures may result in the case of some elements.

The presence of till over mineralized bedrock could have a masking effect depending, on the composition of the till, elements considered and the position of the water table. In the present sampling, we have attempted to subdivide the B Horizon on the basis of apparent presence or absence of abundant silt-size fraction. This division is useful because many of the sample sites of "B" are best described as fine to coarse sand. PB ("poor B"). The typical "B" on the Lip Property is light brown to reddish brown, or a dark brown sandy soil. C Horizon samples are typically unoxidized till, and being till, is poorly sorted and contains a high proportion of silt-sized material. Out of a total of a total of 249 samples collected about 4% are "A", 9 % "PB", 69 % "B" and 18 % "C".

### 3B. TREATMENT OF DATA

In plotting the data, we have shown the principal elements sought, namely copper and gold, on a 1:5000 scale grid plan along with the soil type. We have also indicated by inspection of the copper data a plus 90 ppm clustering of values near the center of the claim located on a north-south trend of elevated values (+90 ppm). This area may be underlain by monzonitic intrusive, a possibility suggested by both high and low-level aeromagnetic surveys. The treatment of all of this data together regardless of soil horizon from which the samples came, is done with some trepidation but justified on the basis of low sample density, somewhat unfavorable soil conditions and the preliminary nature of the survey. In any detailed sampling here sufficient samples maybe obtained to treat separately data from different soil horizons. Multi-element data is also presented on "dot-plots" for each element considered. It is instructive to consider the distribution of the various elements in relation to the + 90 ppm copper contour of the main copper anomaly. Distinct geochemical pattern are indicated and summarized below. Please refer to Plates 4-34 including Plate 15a which contains all of the copper soil analysis on the convenient scale of 1:10,000.

Table 1 summarizes gold in soils indicated to be anomalous by inspection of the data. Corresponding copper result are included for completeness.

Table 2 presents the overall variation in each component for which analysis have been made and compare these results with the standard abundance tables of Levinson, 1980. Some references are made to abundances of certain indicator elements in the QR deposits at the

bottom of Table 2. The detailed multi-element soil geochemical data of this deposit or that of the Mt. Milligan are not, in the authors' knowledge in the public domain at the present, although summaries are available from various sources, two of which are indicated above.

A multi-element summary is included. This summary was compiled by overlaying the various dot-plots on copper (Plate 15). Several elements exhibit pattern that tend to support the existence a definite anomalous pattern in the area designated as "A" on Plate 15 A.

### 3C. SUMMARY OF DOT-PLOTS

Preliminary comparisons are made between the soil geochemical patterns for copper and the other elements based on dot-plots. These general correlations are indicated in 3 categories as follows:

(+) positive correlation i.e. relatively HIGH values of ELEMENT CONSIDERED generally coincide with relatively HIGH values of COPPER.

(-) negative correlation i.e. relatively LOW values of ELEMENT CONSIDERED generally coincide with relatively HIGH values in COPPER.

(O) little apparent correlation indicated.

(O) GOLD versus copper. Ref. Plates 16, 15 and 15a

NOTE: THE GENERAL PATTERN OF GOLD INDICATES LITTLE DIRECT RELATIONSHIP TO COPPER. The principal exception is the highest gold (512 ppb) and the second highest copper (217 ppm) [sample near west end of L 16W].

(+) ALUMINUM versus copper. Ref. Plates 5, 15 and 15a

(O) ANTIMONY versus copper. Ref. Plates 6, 15 and 15a

NOTE: Most values near the detection limit.

(+) ARSENIC versus copper. Ref. Plates 7, 15 and 15a

NOTE: MODERATELY STRONG DIRECT RELATIONSHIP

(O) BARIUM versus copper. Ref. Plates 8, 15, 15a

(O) BISMUTH versus copper. Ref. Plates 9, 15, 15a

(+) BORON versus copper. Ref. Plates 10, 15, 15a

(+) CADMIUM versus copper. Ref. Plates 11, 15, 15a

(+) CALCIUM versus copper. Ref. Plate 12, 15, 15a

(+) CHROMIUM versus copper. Ref. Plates 13, 15, 15a

(+) COBALT versus copper. Ref. Plates 14, 15, 15a

(O) IRON versus copper. Ref. Plates 16, 15, 15a

(+) LANTHANUM versus copper. Ref. Plates 18, 15, 15a

NOTE: La is lithophile and typically associated with Li, Na, K, Rb, Cs, Be, Mg, Ca, Sr, Ba, B, Al, Sc, Y and rare earths. Also ref. Levinson p. 868. Soil occurrences includes limonite and clays.

(+) LEAD versus copper. Ref. Plates 19, 15, 15a.

NOTE: a somewhat variable pattern that is mainly (+).

(+) MAGNESIUM versus copper. Ref. Plates 20, 15, 15a.

(+) MANGANESE versus copper. Ref. Plates 21, 15, 15a.

(O) MOLYBDENUM versus copper. Ref. Plates 22, 15, 15a.

NOTE: essentially detection limit-values.

- (+) NICKEL versus copper. Ref. Plates 23, 15, 15a.
- (+) PHOSPHORUS versus copper. Ref. Plates 24, 15, 15a.
- (+) POTASSIUM versus copper. Ref. Plates 25, 15, 15a.
- (+) SILVER versus copper. Ref. Plates 26, 15, 15a.
- (O) SODIUM versus copper. Ref. Plates 27, 15, 15a.  
NOTE: essentially detection limit-values.
- (+) STRONTIUM versus copper. Ref. Plates 28, 15, 15a.
- (O) THORIUM versus copper. Ref. Plates 29, 15, 15a.  
NOTE: Detection limit values.
- (O) TITANIUM versus copper. Ref. Plates 30, 15, 15a.  
NOTE: suggestion of Ti halo on some lines  
but the pattern is quite variable.
- (O) URANIUM versus copper. Ref. Plates 32, 15 and 15a.
- (O) TUNGSTEN versus copper. Ref. Plates 31, 15, 15a.  
NOTE: detection limit values.
- (O) VANADIUM versus copper. Ref. Plates 33, 15, 15a
- (O) ZINC versus copper. Ref. Plates 34, 15, 15a.

## 3D. INTERPRETATION.

Final interpretation of this data must be made in light of the low-level aeromagnetic data. From what we now know, it appears that copper soil anomalies (+ 90 ppm) occur mainly in the western part of the property near an aeromagnetic high. The possibility that the aeromagnetic high is caused by a monzonitic intrusion with associated alkaline porphyry gold-copper mineralization has to be considered. This would also be a possible source for mineralized monzonite float found last year in the main creek near Lip # 1 Identification Post 1 S. The overall north northwesterly trend of the largest soil anomaly is similar to the trend of the MBX and Southern Star stocks both situated about 3.5 to 4.5 km to the north of Lip # 1 (Rebagliati, et al, 1989). These intrusions are the "cores" of the Mt. Milligan and Southern Star Deposits.

## 3E. CONCLUSIONS

1. Systematic soil sampling on Lip # 1 has indicated several copper anomalies that may warrant further work.
2. Several multi-element anomalies coincide generally with copper anomalies. They are: Al, As, B, Cd, Ca, Cr, Co, La, Pb, Mg, Mn, Ni, P, Ag and Sr.
3. Multi-sample anomalies of gold do not occur in this data. Arguably, gold in these soils occurs perypheral to copper. However, individual gold highs could be significant in terms of small (30-50 MT) alkaline porphyry deposits.
4. Soil conditions on the property are far from ideal with the prevalence of well-sorted gravelly material. The geochemical responses for some elements are likely influenced by the thickness and quality of the overburden.
5. The Lip claim is completely drift covered.
6. High-level aeromagnetic patterns in the Lip area suggest possible structures of exploration interest. The soil sampling has served to more accurately define areas of ongoing interest.

Report by:

*Ragnar Bruaset*

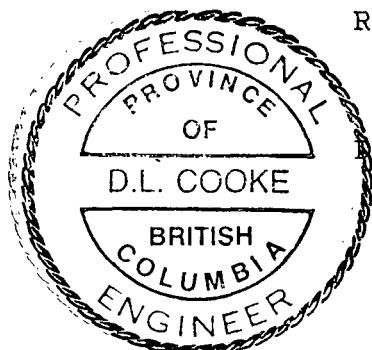
R. U. Bruaset B. Sc., F.G.A.C.

Ragnar U. Bruaset &amp; Associates Ltd.

*D. L. Cooke*  
D. L. Cooke Ph. D., P. Eng.

D. L. Cooke And Associates Ltd.

August 3, 1990



3F. REFERENCES

Fox, P.E., Cameron, R. S. and Hoffman, S. J. 1986 Geology and Soil Geochemistry of the Quesnel River Gold Deposit, British Columbia in: GEOEXPO/86 Exploration in the North American Cordillera

Levinson, A. A. 1980 Introduction to Exploration Geochemistry

Rebagliati, Harris, Caira 1989, Mt. Milligan Porphyry Gold-Copper Deposit Geology. 1:10,000 summary map.

## 4. COST STATEMENT

## ANALYSIS:

Chemex:	246 soils for NAA gold incl. prep.	@ \$9.00	\$2214.00
	5 rocks for NAA gold incl. prep.	@ \$12.00	\$60.00
Acme:	246 soils by 30 el. ICP	@ \$3.25	\$799.50
	5 rocks by 30 el. ICP, 1 disk, surcharge	@ \$5.28	26.40

## WAGES:

D. Anderegg	Period: June 12-29	17 days	@ \$115.24	\$1959.15
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## FEES:

Ragnar U. Bruaset & Associates Ltd.	\$10,600.00
D. L. Cooke & Associates Ltd.	\$1,600.00
New Horizon Software 246-sample Dot-Plots	\$369.00

## RENTAL:

Chain saw	2 days @ \$20.00	\$40.00
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SUPPLIES Stationery, flagging, string, sample bags, pickets	\$612.45
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## TRANSPORTATION

Surface transportation: rental, fuel, mileage, insurance	\$1991.97
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## DOMICILE

Meals, groceries, lodging, camp	\$1854.84
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## COMMUNICATION

Long distance calls, FAX	\$95.29
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## DELIVERY AND FREIGHT

Courier	\$100.00
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## REPORTING

Ragnar U. Bruaset & Associates Ltd.	\$2000.00
D. L. Cooke & Associates Ltd.	\$400.00

## REPORT MISCELLANEOUS

Photostat, printing, binding, mylar	\$350.00
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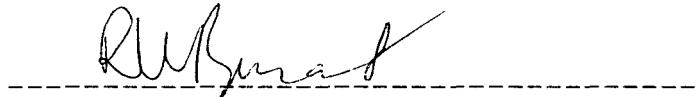
TOTAL	\$25072.60
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12.

### 5. STATEMENT OF QUALIFICATIONS

I certify that:

1. I am a 1967 graduate of the University of British Columbia with a B.Sc. degree in geology. I am a Fellow of the Geological Association of Canada, a Member of The Association of Exploration Geochemists, and the Society of Economic Geologists.
2. I have been involved in geological mapping and geochemical sampling programs in diverse Cordilleran areas since my graduation including alkaline porphyry environments in the Omineca district.
3. This report is based on work carried out in the field by me or under my directions on behalf of BP Resources Canada Limited.
4. That I visited the claim during the period June 14 to 29, 1990 and that I co-authored this report.

  
-----  
Ragnar U. Bruaset B.Sc. F.G.A.C.

August 3, 1990

13.

### 5. STATEMENT OF QUALIFICATIONS

I, DAVID LAWRENCE COOKE, of the Municipality of Surrey in the Province of British Columbia, hereby certify:

1. That I am a Consulting Geologist , residing at 10667 Arbutus Wynd, Surrey, B. C. V3R 0B5, with a business office at 811-675 West Hastings Street, Vancouver , B. C., V6B 1N2.
2. That I graduated with a B. Sc. degree in Geology from the University of New Brunswick in 1959, and with M. A. and Ph. D. degrees in Geology from the University of Toronto in 1961 and 1966, respectively.
3. That I have practised my profession as an exploration geologist from 1959 to the present time in Canada, the U.S.A., Mexico, the Caribbean and South America.
4. That I am a Registered Member of the Association of Professional Engineers of the Province of British Columbia since 1970.
5. That I visited Lip # 1 Mineral Claim on June 26 and 27, 1990 and participated in the combined geological and geochemical exploration program herein described and that I am a co-author of this report.



-----  
David L. Cooke, Ph.D., P. Eng.

August 3, 1990



2000 W

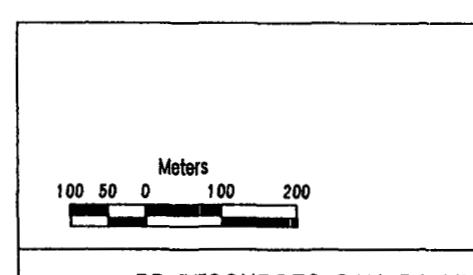
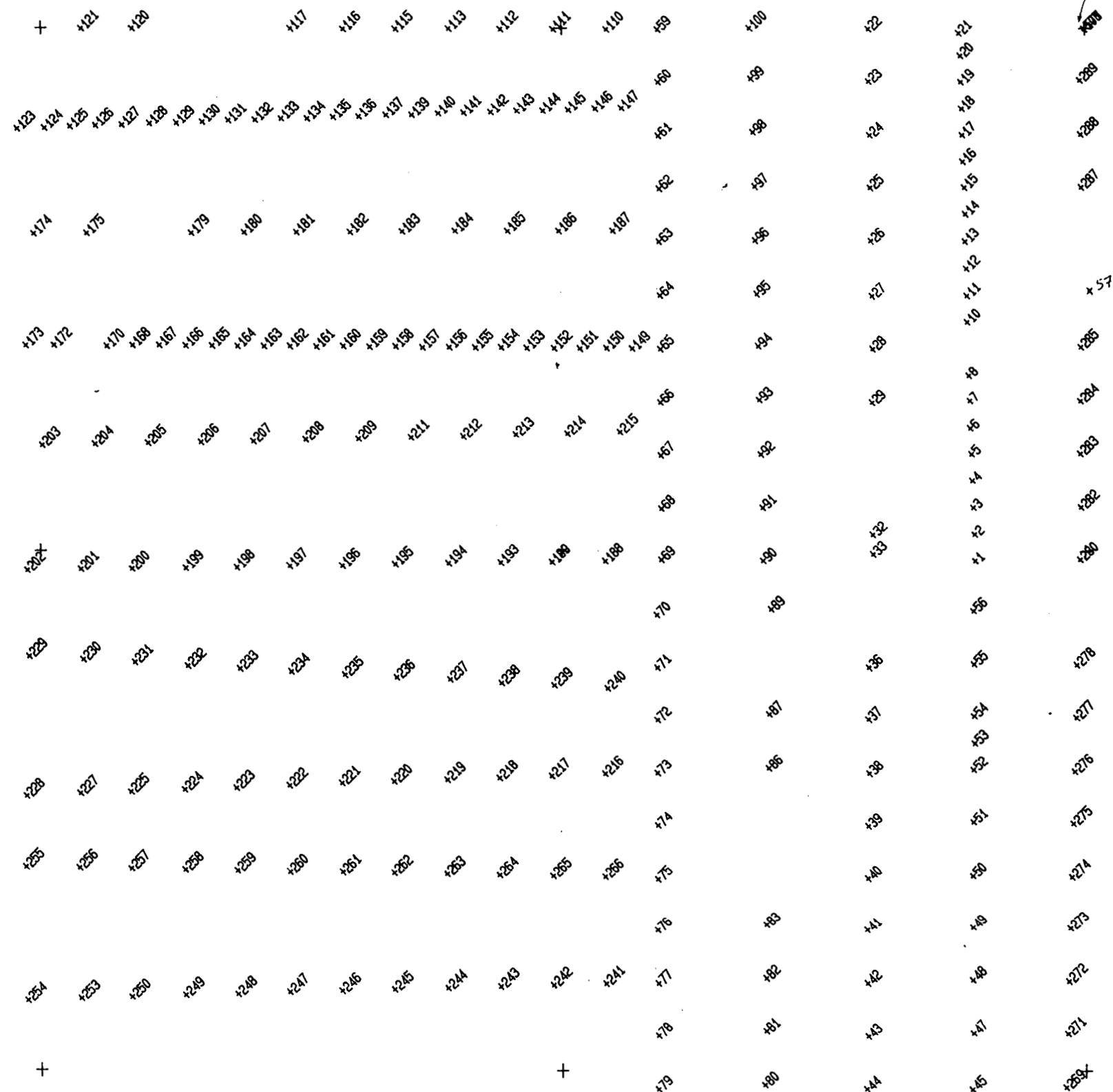
1000 W

0 E

N

1000 S

2000 S



### Sample Locations

LIP #1 M.C.

### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		4

2000 W

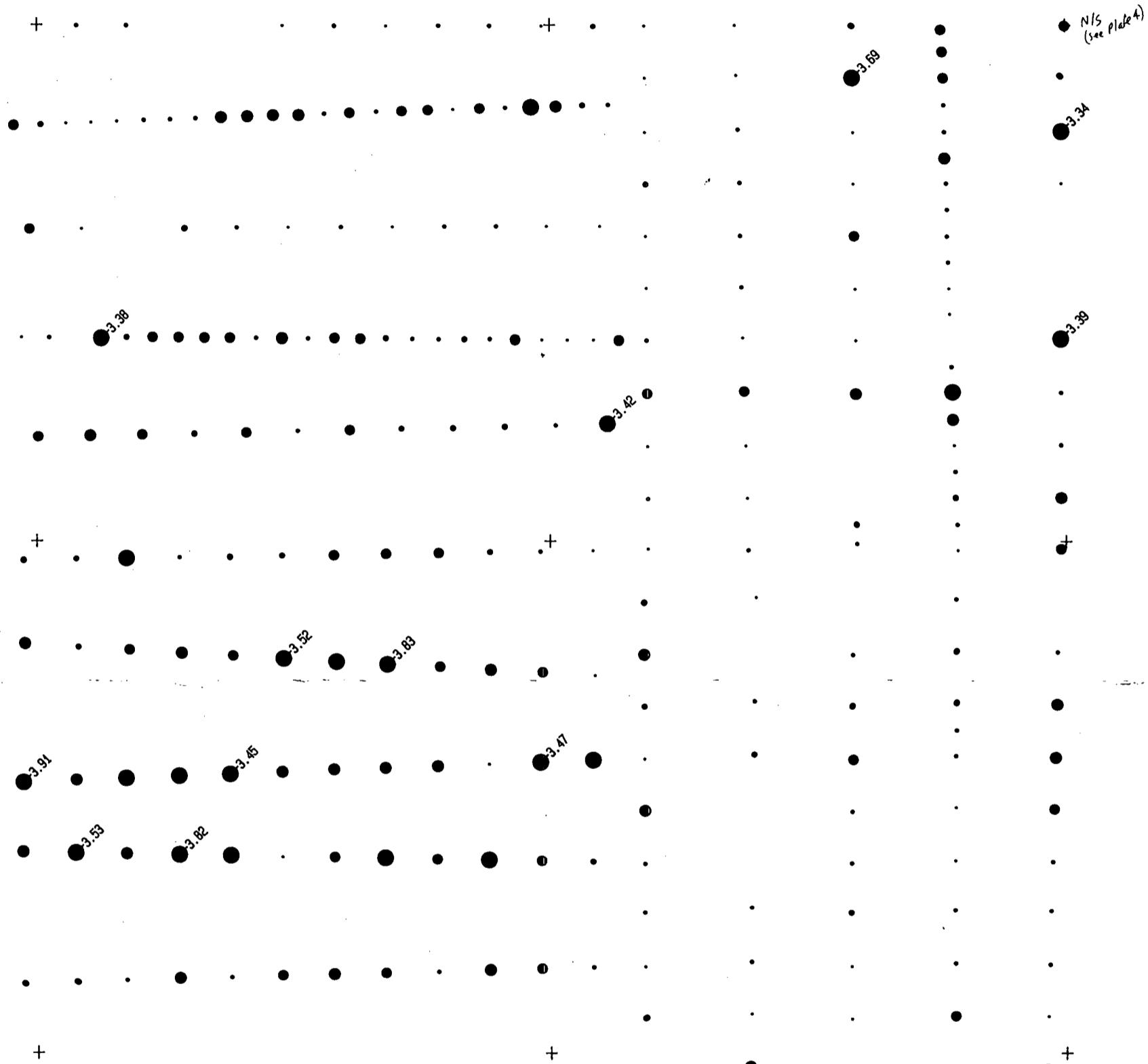
1000 W

0 E

N

1000 S

2000 S



ALUMINUM (%)		
LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Meters	Project No.	Scale
100 50 0 100 200	NTS 93N/1E	1 : 10000
	Date JULY 1990	Fig. No. 5
BP RESOURCES CANADA LIMITED	Report No.	New Horizon Software.

2000 W

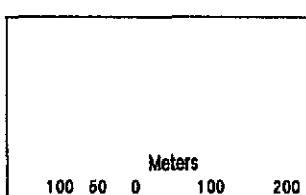
1000 W

0 E

N

1000 S

2000 S

+ NTS see  
plate 4

> 7  
 <= 7  
 < 6  
 <= 6  
 < 5  
 <= 5  
 < 4  
 <= 4  
 < 3  
 <= 3  
 < 2  
 <= 2  
 < 1  
 <= 1

### ANTIMONY (ppm)

LIP #1 M.C.

### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1 : 10000
Date	Report No.	Fig. No.
JULY 1990		6

BP RESOURCES CANADA LIMITED

2000 W

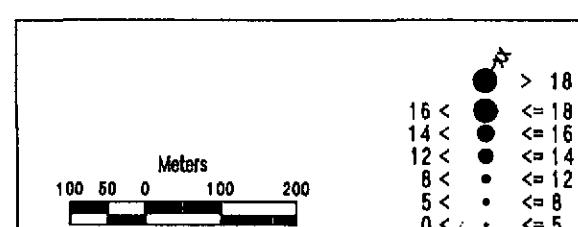
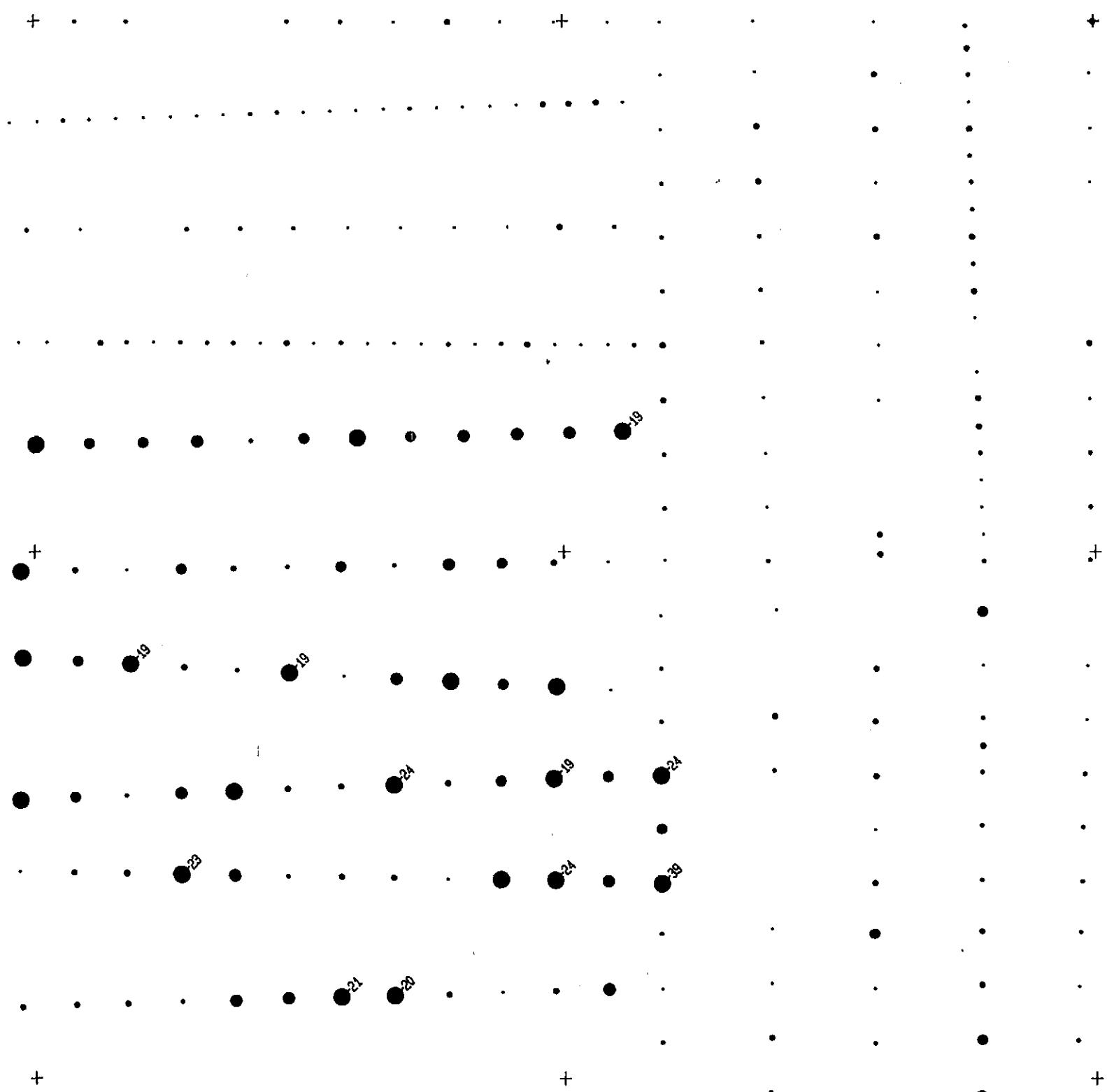
1000 W

0 E

N

1000 S

2000 S

N/S  
see Plate 4

ARSENIC (ppm)  
LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		7

2000 W

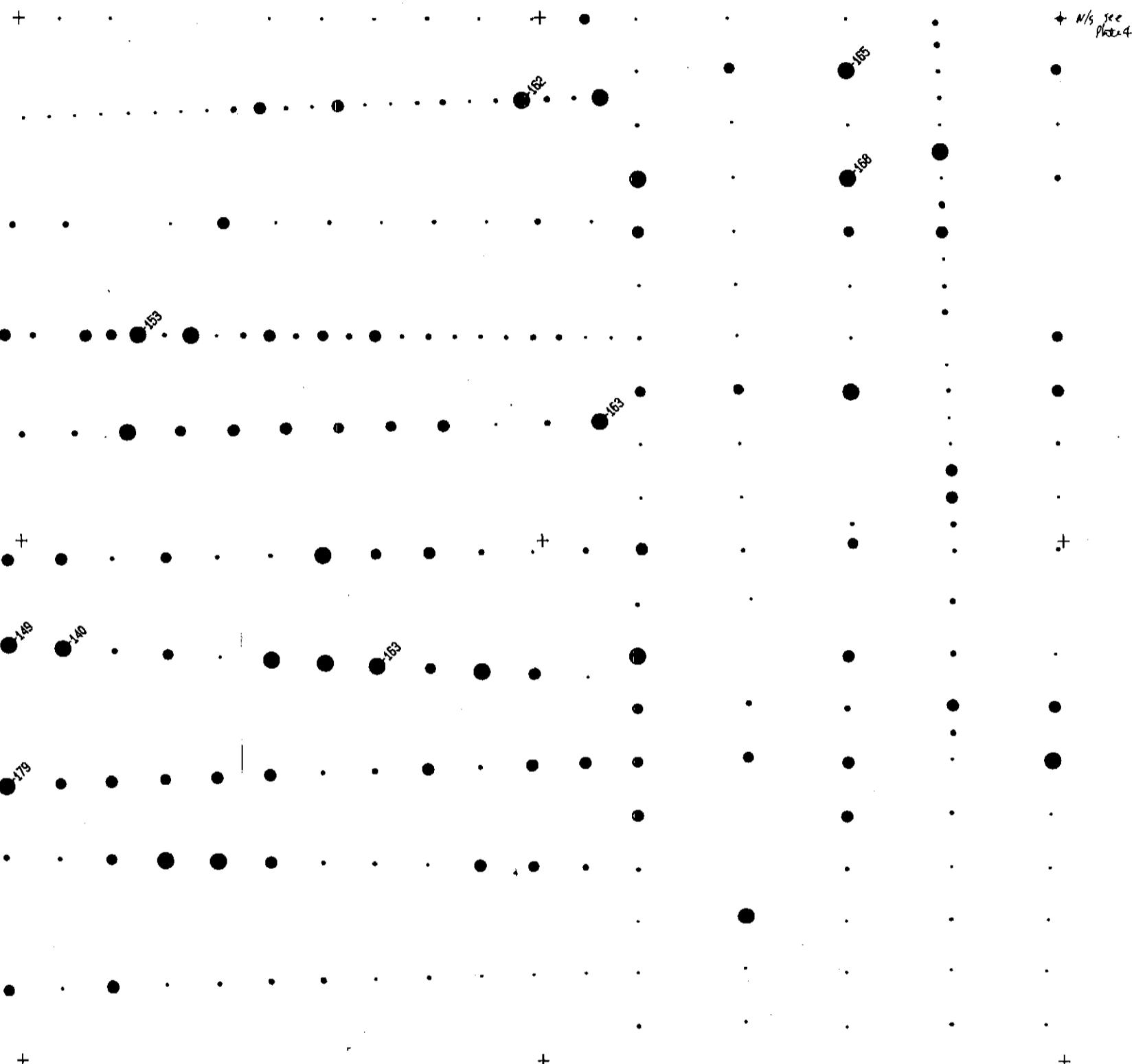
1000 W

0 E

N

1000 S

2000 S



BARIUM (ppm)		
LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		8
BP RESOURCES CANADA LIMITED		

2000 W

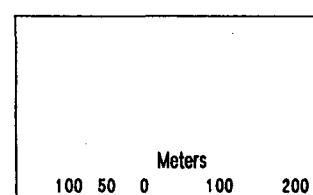
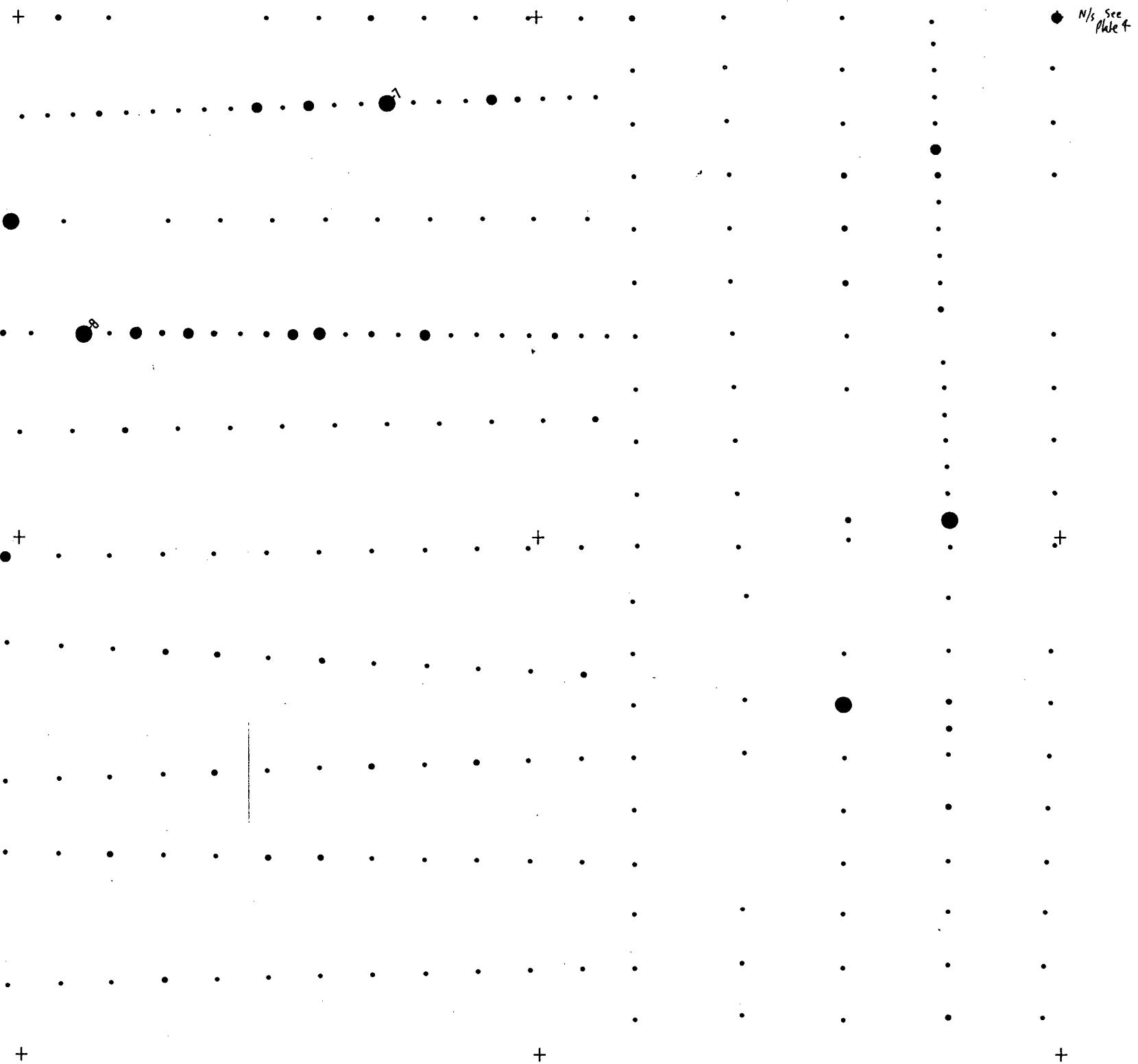
1000 W

0 E

N

1000 S

2000 S



- > 6
- ≤ 6
- ≤ 5
- ≤ 4
- ≤ 3
- ≤ 2
- ≤ 1

BP RESOURCES CANADA LIMITED

BISMUTH (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000

Date JULY 1990

Report No.

Fig. No. 9

New Horizon Software.

2000 W

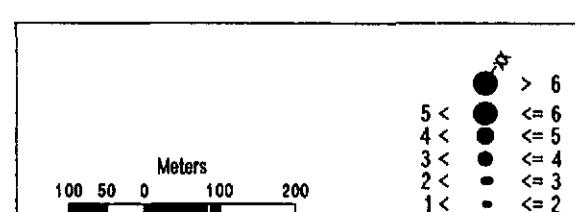
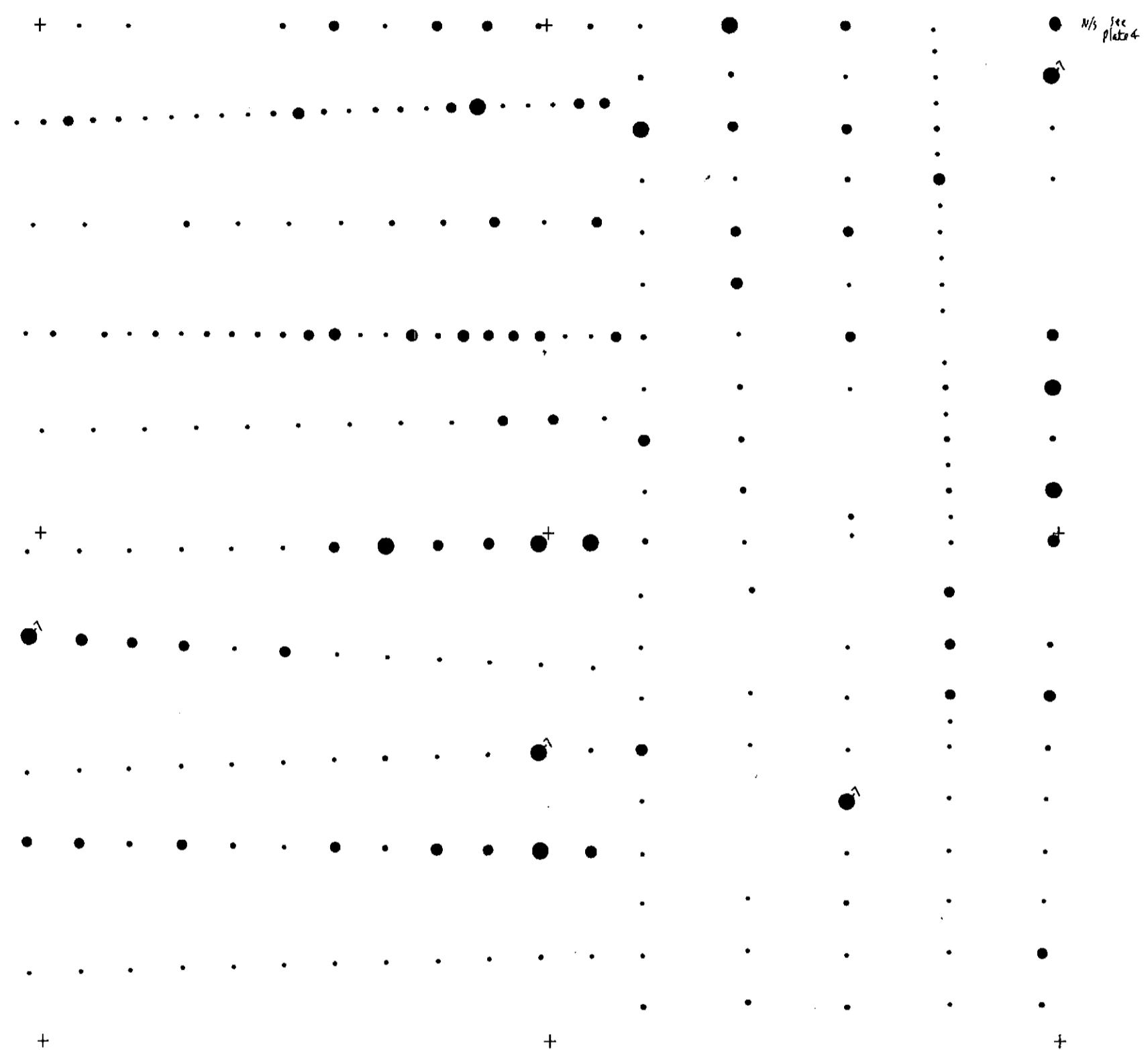
1000 W

0 E

N

1000 S

2000 S



BORON (ppm)  
LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1 : 10000
Date	Report No.	Fig. No.
JULY 1990		10

BP RESOURCES CANADA LIMITED

New Horizon Software.

2000 W

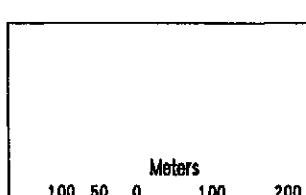
1000 W

0 E

N

1000 S

2000 S

+ N/S See  
Page 4

> 6  
<= 6  
> 5  
<= 5  
> 4  
<= 4  
> 3  
<= 3  
> 2  
<= 2  
> 1  
<= 1  
> 0  
<= 0

## CADMIUM (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 11

New Horizon Software.

2000 W

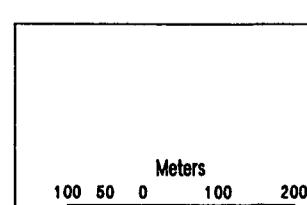
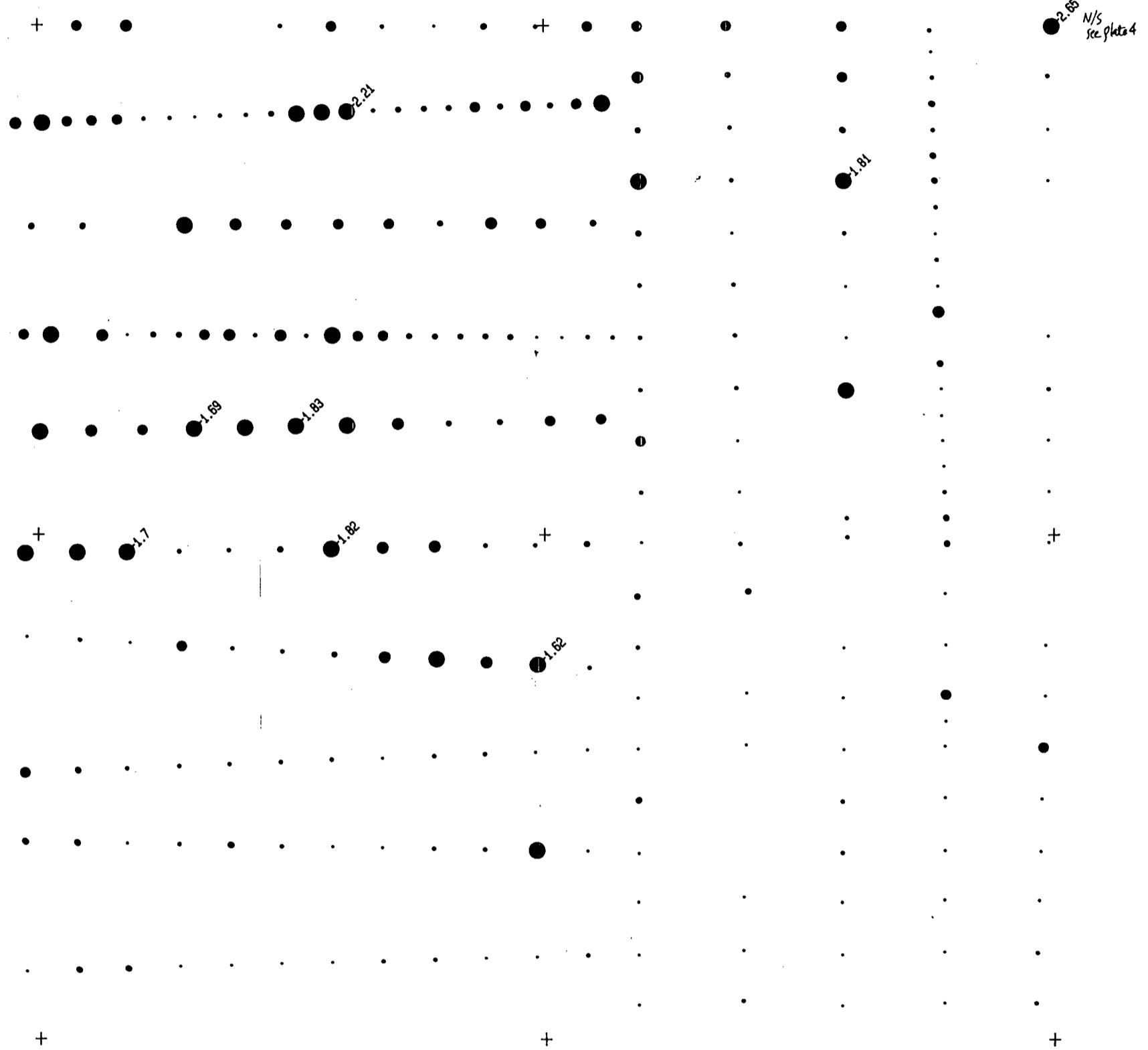
1000 W

0 E

N

1000 S

2000 S



> 1.5  
1.25 <  
1 <  
.8 <  
.6 <  
.45 <  
0 <

<= 1.5  
≤ 1.25  
≤ 1  
≤ .8  
≤ .6  
≤ .45

### CALCIUM (%) LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1 : 10000
Date	Report No.	Fig. No.

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 12

2000 W

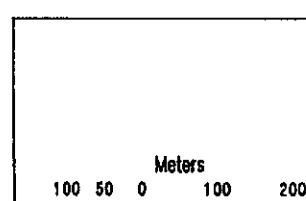
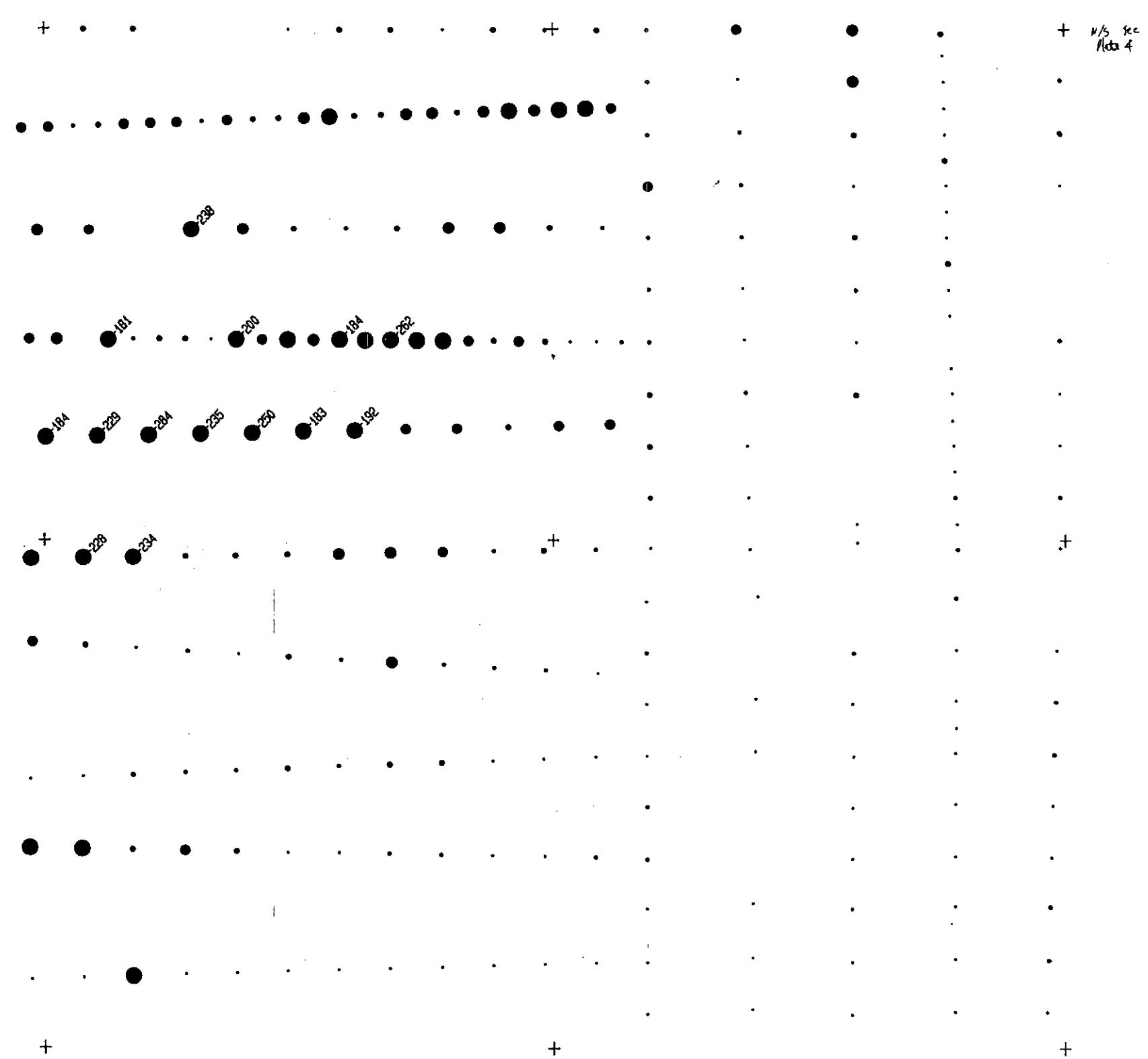
1000 W

0 E

Z

S  
O  
O  
O

5000



### CHROMIUM (ppm)

UP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.

30

Scale

© RESOURCES CANADA LIMITED

Date

---

**Report No.**

1  
3

2000 W

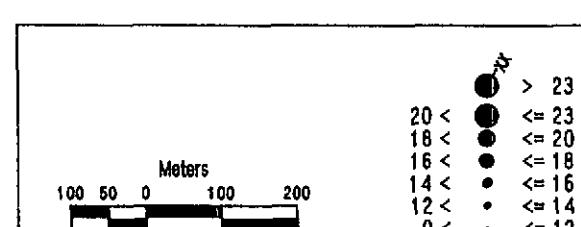
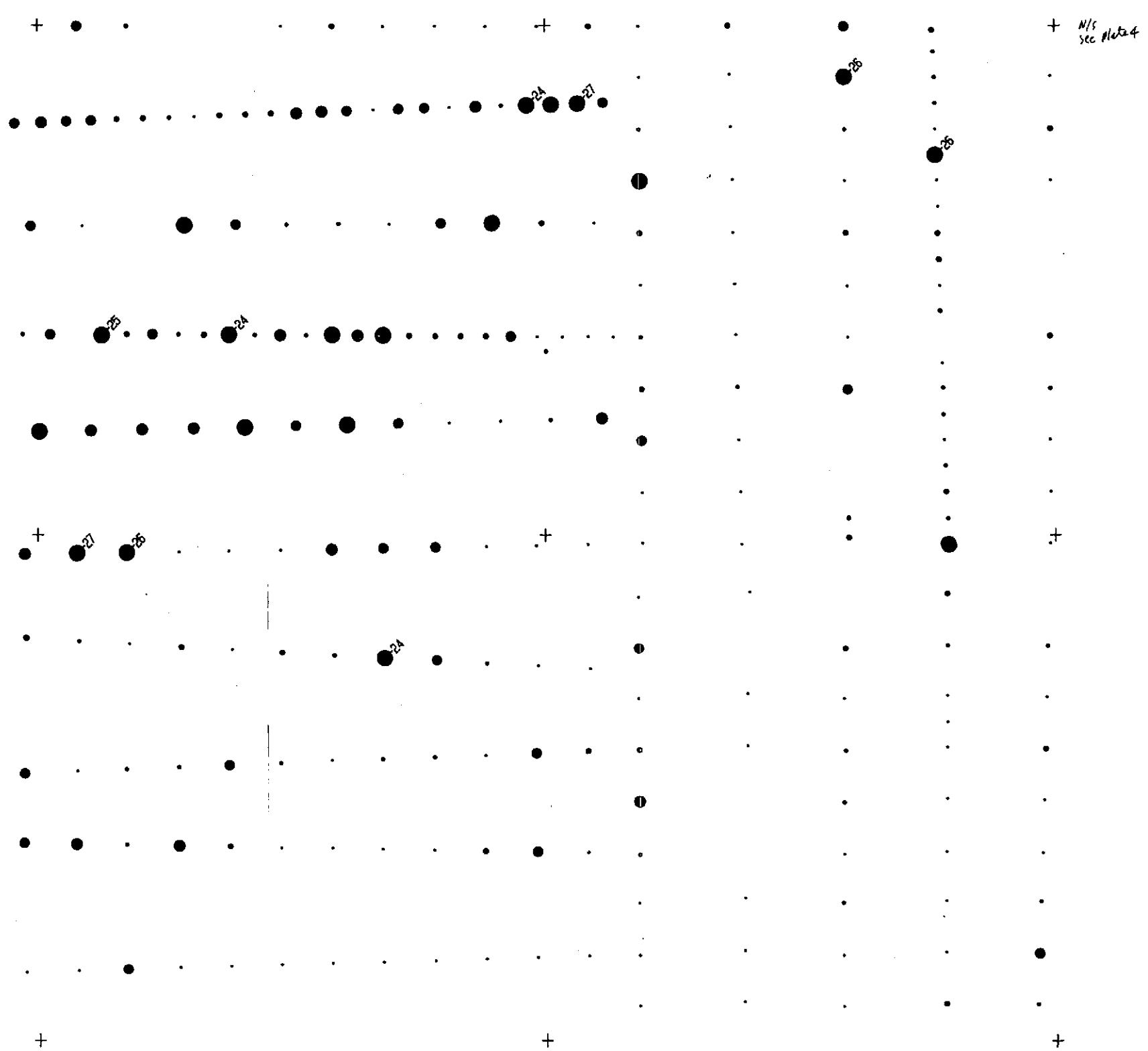
1000 W

0 E

N

1000 S

2000 S



COBALT (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1: 10000
Date	Report No.	Fig. No.
JULY 1990		14

BP RESOURCES CANADA LIMITED

New Horizon Software

2000 W

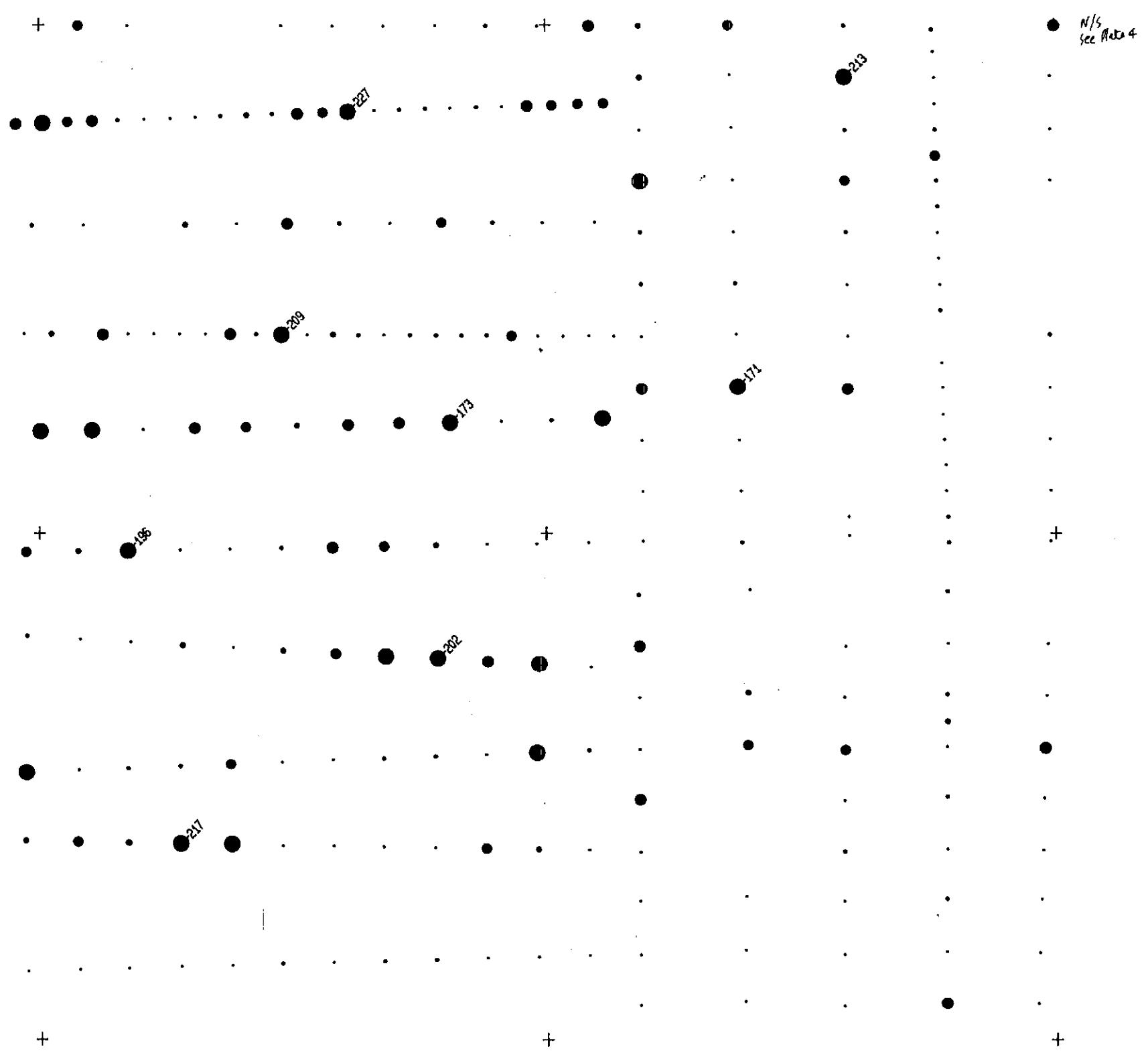
1000 W

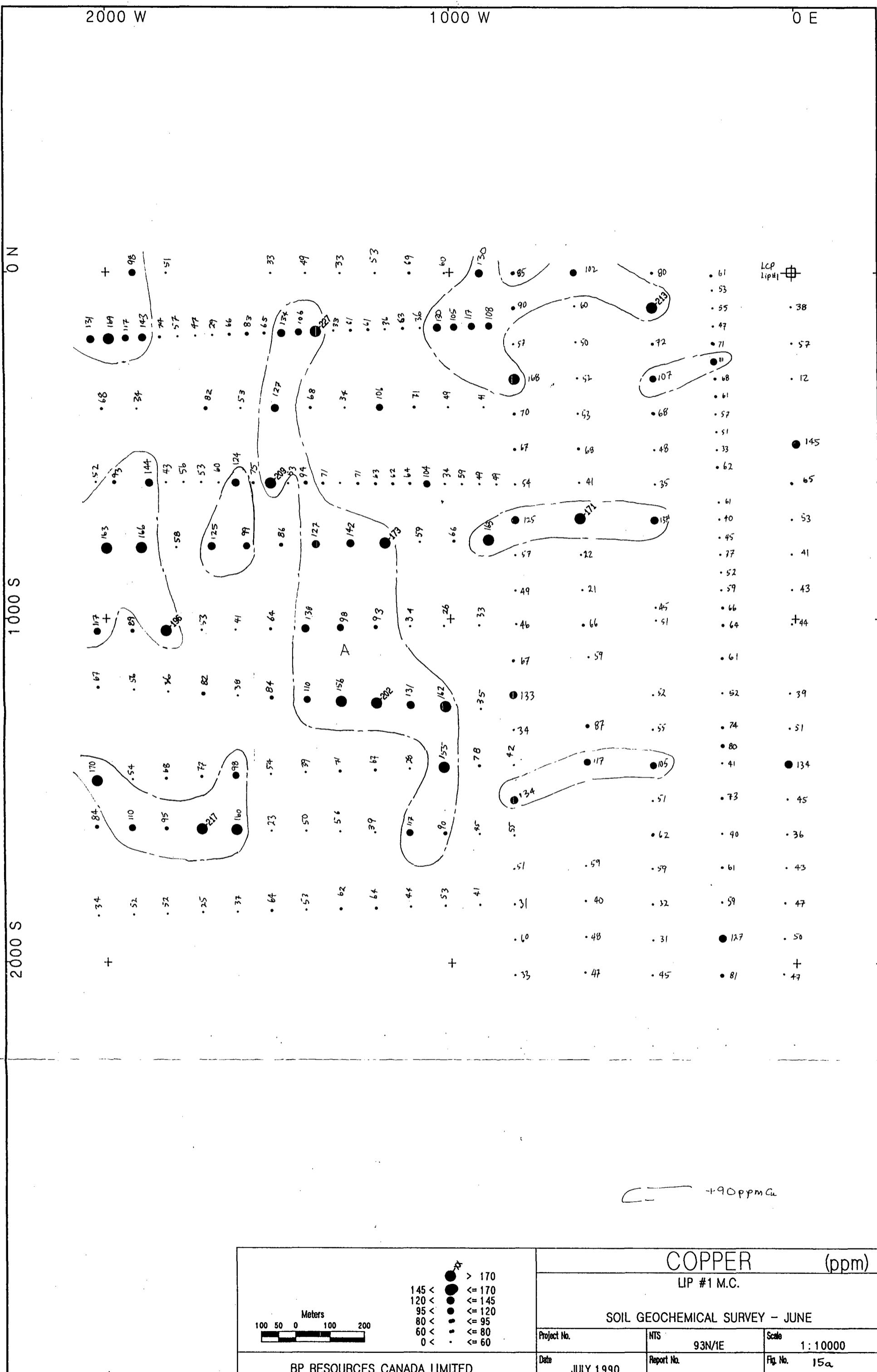
0 E

N

1000 S

2000 S

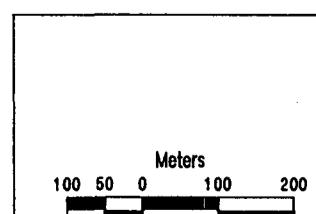
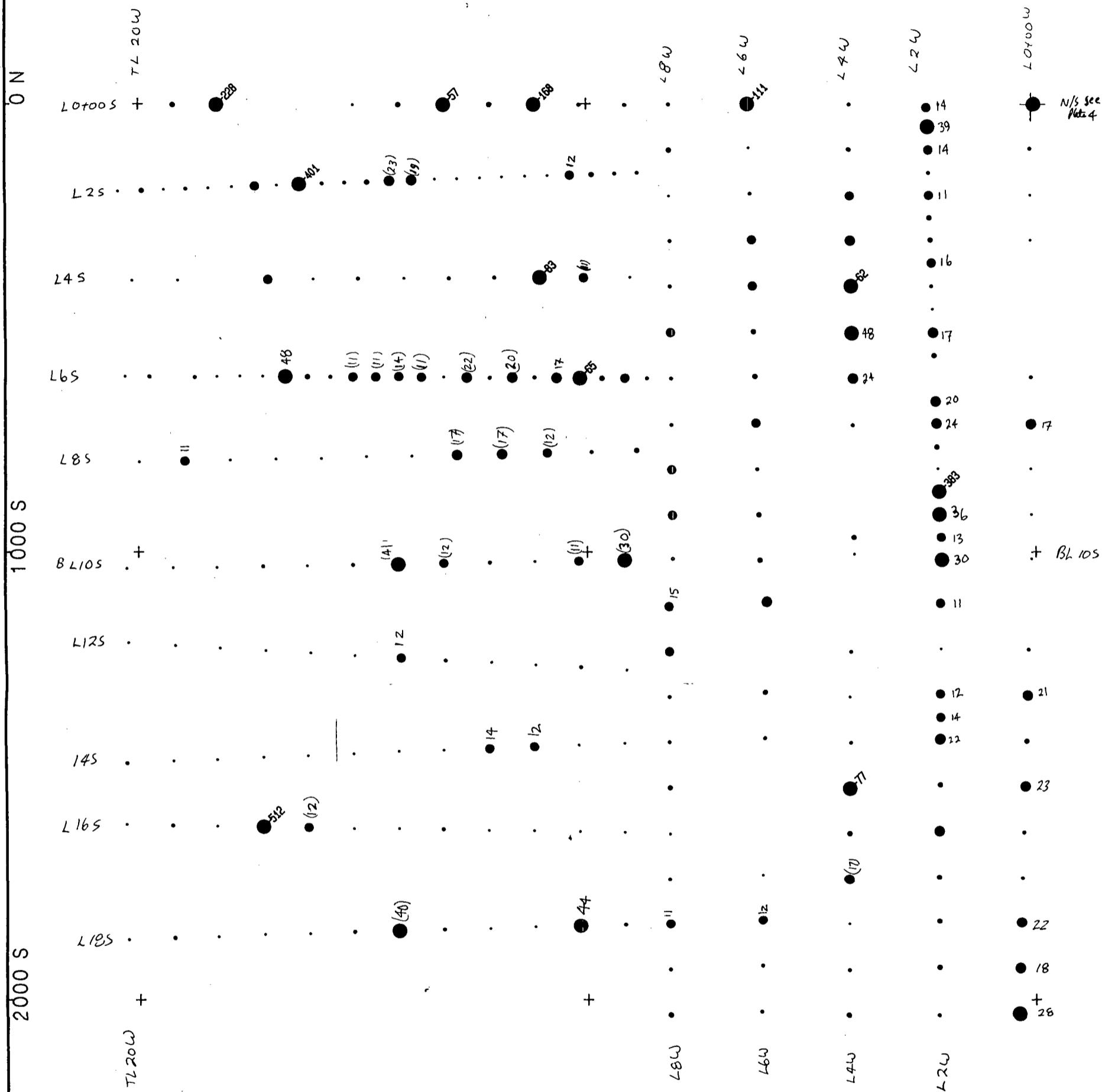




2000 W

1000 W

0 E



> 50  
≤ 50  
≤ 25  
≤ 16  
≤ 10  
≤ 7  
≤ 4  
≤ 4

**GOLD** (ppb)  
LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date JULY 1990	Report No.	Fig. No. 16

BP RESOURCES CANADA LIMITED

New Horizon Software.

2000 W

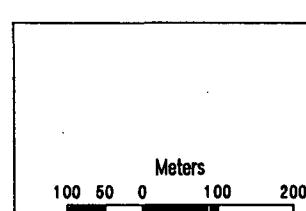
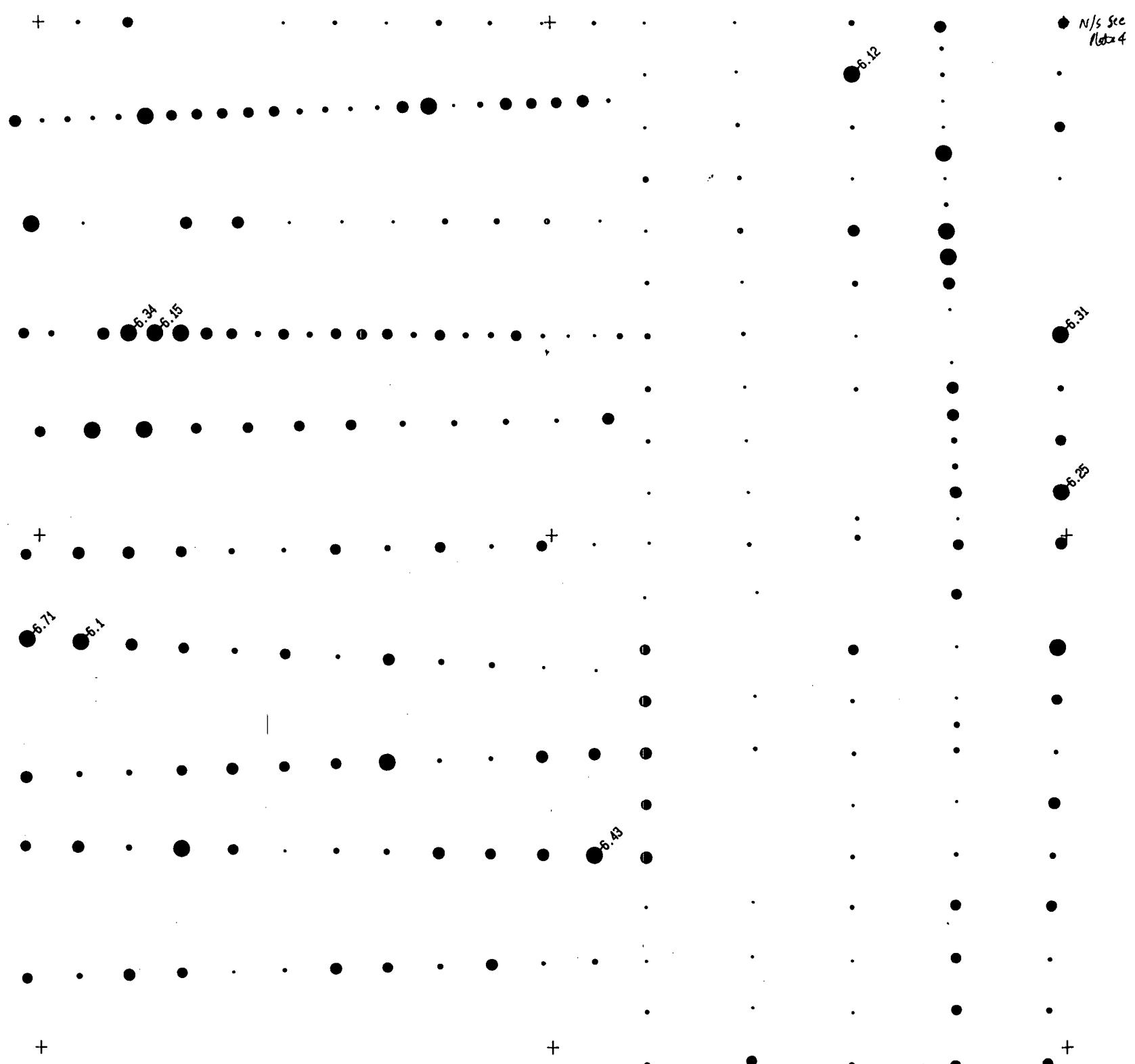
1000 W

0 E

N

1000 S

2000 S



> 6  
 5.5 <  
 5 <  
 4.5 <  
 4 <  
 3.5 <  
 0 <

≤ 6  
 ≤ 5.5  
 ≤ 5  
 ≤ 4.5  
 ≤ 4  
 ≤ 3.5

### IRON (%)

LIP #1 M.C.

### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1 : 10000
Date	Report No.	Fig. No.

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 17

2000 W

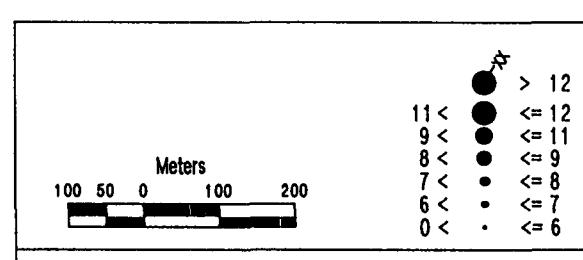
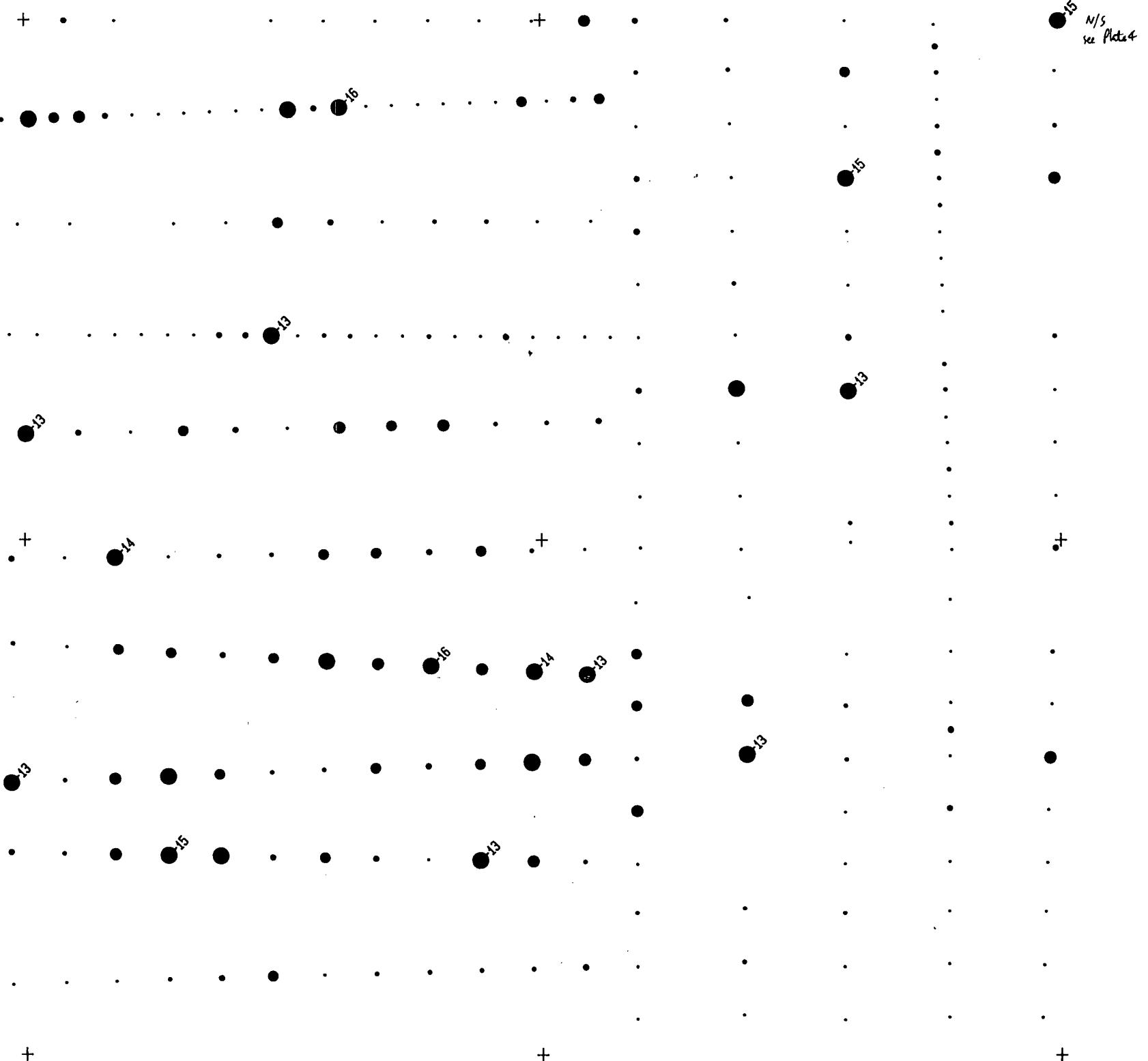
1000 W

0 E

N

1000 S

2000 S



- > 12
- <= 12
- > 11
- <= 11
- > 10
- <= 10
- > 9
- <= 9
- > 8
- <= 8
- > 7
- <= 7
- > 6
- <= 6
- > 5
- <= 5
- > 4
- <= 4
- > 3
- <= 3
- > 2
- <= 2
- > 1
- <= 1
- > 0
- <= 0

### LANTHANUM (ppm)

UP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		/8

2000 W

1000 W

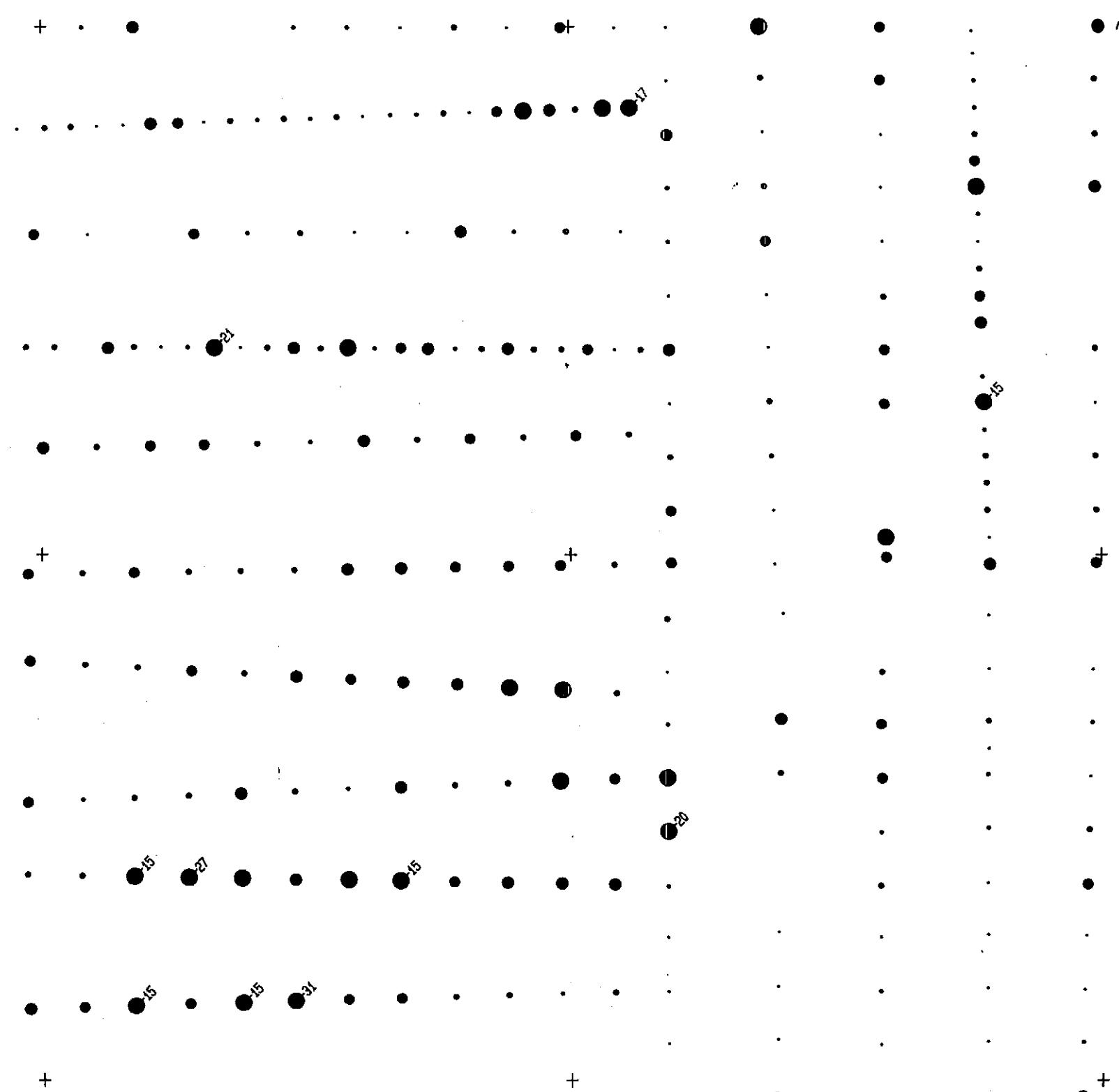
0 E

N

1000 S

2000 S

● N/S See  
Plot 4



2000 W

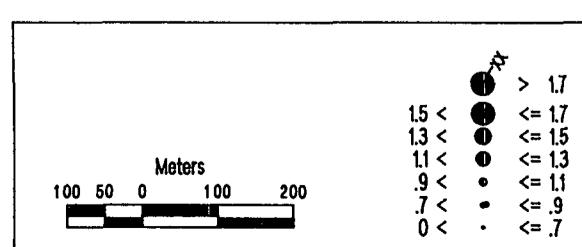
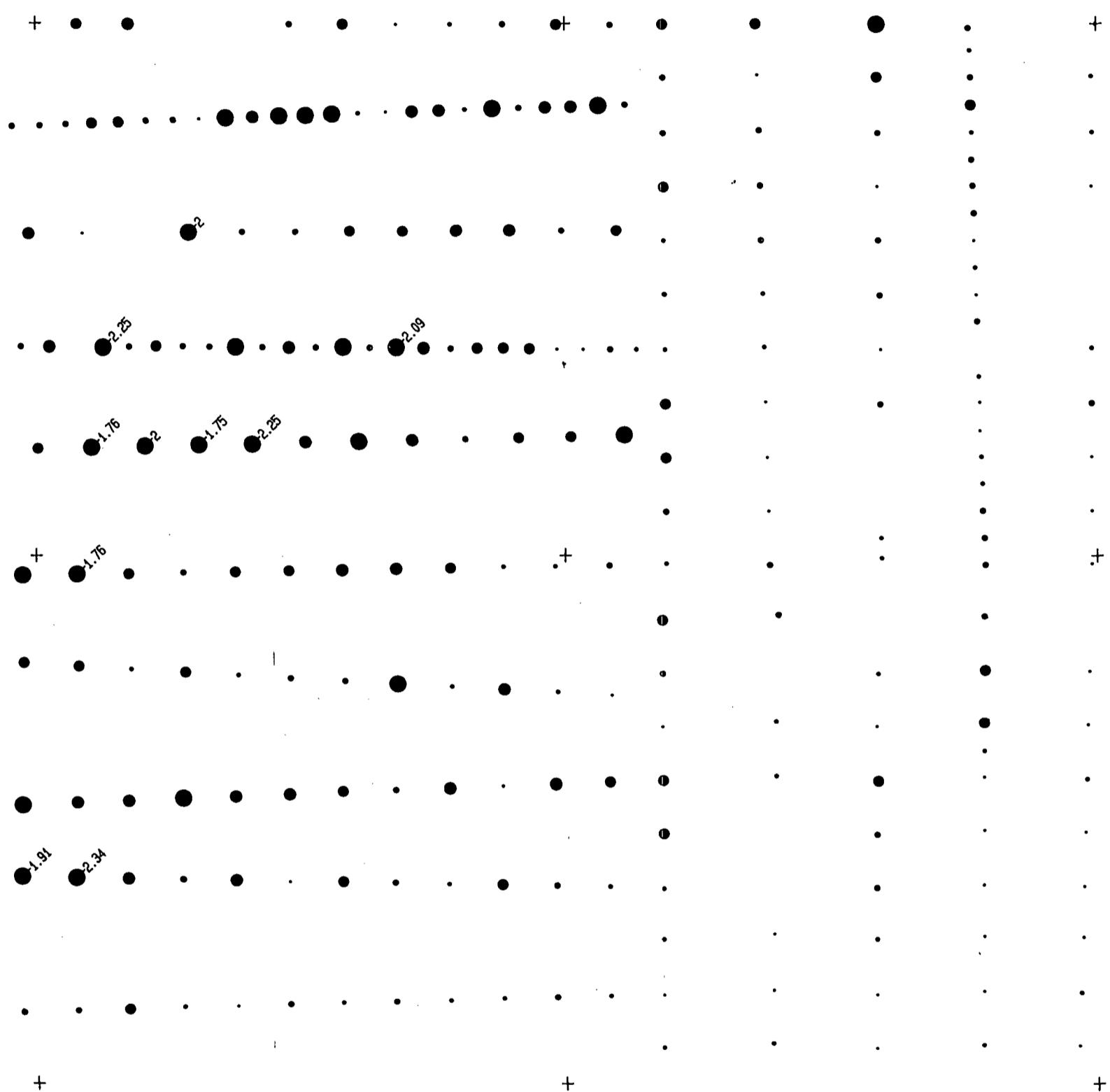
1000 W

0 E

N

1000 S

2000 S

+ N/S See  
Table 4

### MAGNESIUM (%)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		20

BP RESOURCES CANADA LIMITED

2000 W

1000 W

0 E

N

1000 S

2000 S

Meters

- > 1100
- $\leq$  1100
- $\leq$  900
- $\leq$  750
- $\leq$  650
- $\leq$  550
- $\leq$  400
- $\leq$  400

### MANGANESE (ppm)

LIP #1 M.C.

### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 21

2000 W

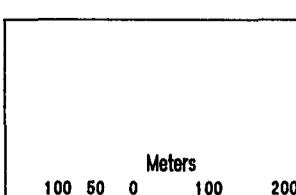
1000 W

0 E

N

S

S

+ N/S See  
Plate 4

> 6  
<= 6  
> 5  
<= 5  
> 4  
<= 4  
> 3  
<= 3  
> 2  
<= 2  
> 1  
<= 1  
> 0  
<= 0

### MOLYBDENUM (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		22

BP RESOURCES CANADA LIMITED

2000 W

1000 W

0 E

N

1000 S

2000 S

+ N/S  
See Plate 4

NICKEL (ppm) LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Project No.	NTS	Scale
	93N/1E	1:10000
BP RESOURCES CANADA LIMITED	Date	Report No.
	JULY 1990	Fig. No. 23

Meters  
100 50 0 100 200

> 65  
<= 65  
<= 55  
<= 45  
<= 40  
<= 35  
<= 30  
<= 30

2000 W

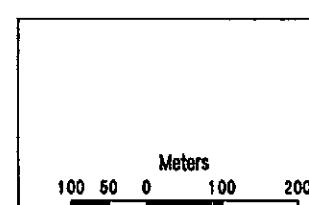
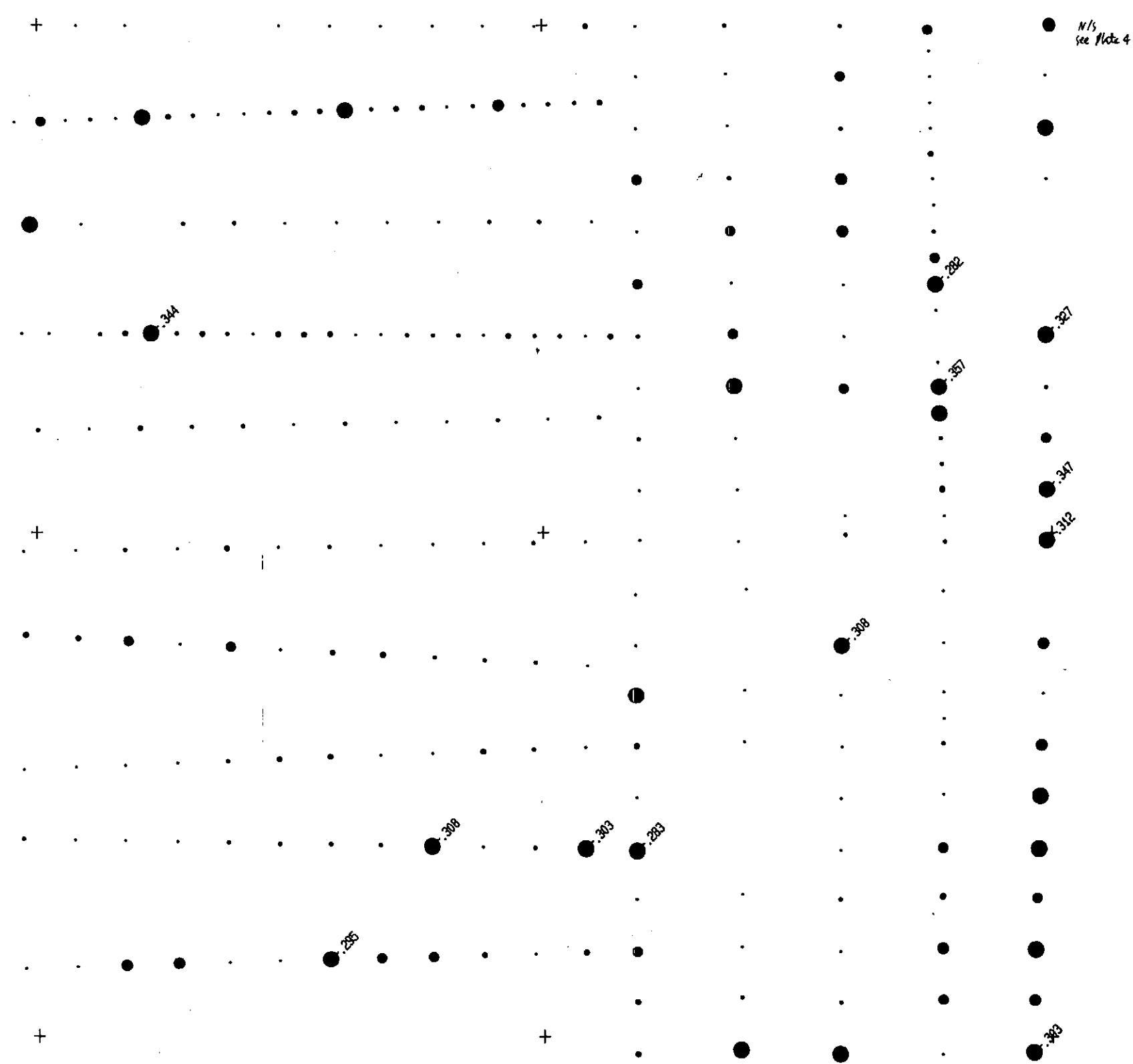
1000 W

0 E

20

1000 S

2000 S



**PHOSPHORUS (%)**

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

SOIL GEOCHEMICAL SURVEY - JUNE			
Project No.	NTS 93N/1E	Scale	1 : 10000
Date	Report No.	Fig. No.	24
JULY 1990			

2000 W

1000 W

0 E

N

1000 S

2000 S

+ N/S See  
Plot 4

POTASSIUM (%)		
LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		25
BP RESOURCES CANADA LIMITED	New Horizon Software.	

2000 W

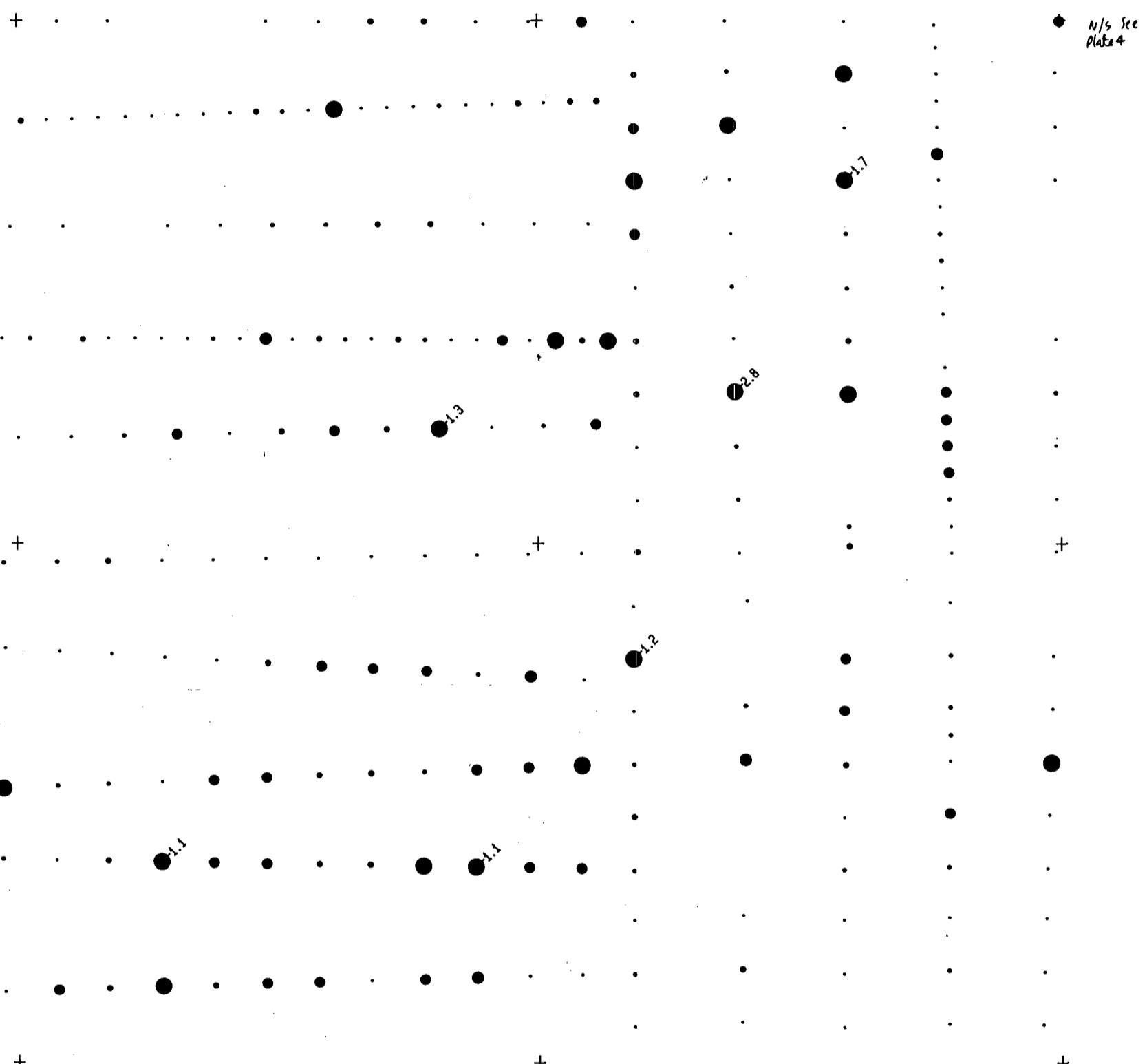
1000 W

0 E

N

1000 S

2000 S



SILVER (ppm)		
LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Project No.	NTS	Scale
	93N/1E	1 : 10000
Date	Report No.	Fig. No.
JULY 1990		26
BP RESOURCES CANADA LIMITED		

2000 W

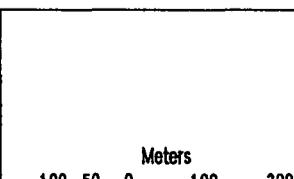
1000 W

0 E

N

1000 S

2000 S

+ N/S  
See Plate 4

> .06  
 .05 < = .06  
 .04 < = .05  
 .03 < = .04  
 .02 < = .03  
 .01 < = .02  
 0 < = .01

### SODIUM (%) LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

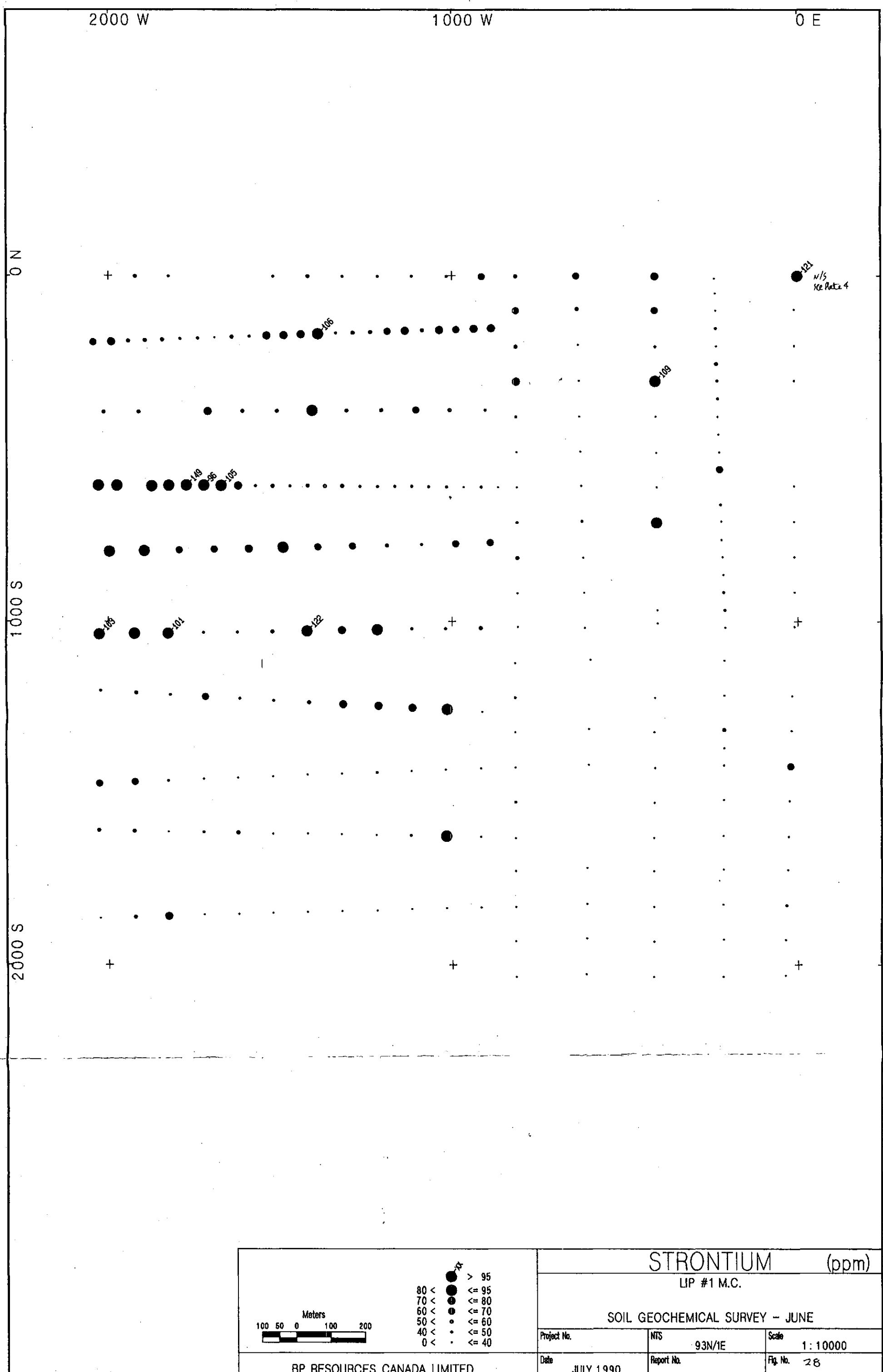
Project No.	NTS	Scale
	93N/1E	1 : 10000

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 27



2000 W

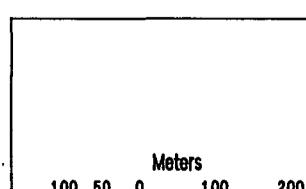
1000 W

0 E

N

1000 S

2000 S

+ N/S  
see plate 4

> 6  
<= 6  
<= 5  
<= 4  
<= 3  
<= 2  
<= 1

### THORIUM (ppm)

LIP #1 M.C.

#### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date JULY 1990	Report No.	Fig. No. 29

BP RESOURCES CANADA LIMITED

2000 W

1000 W

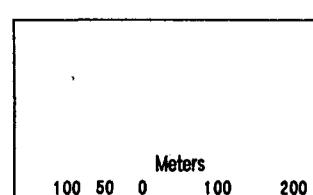
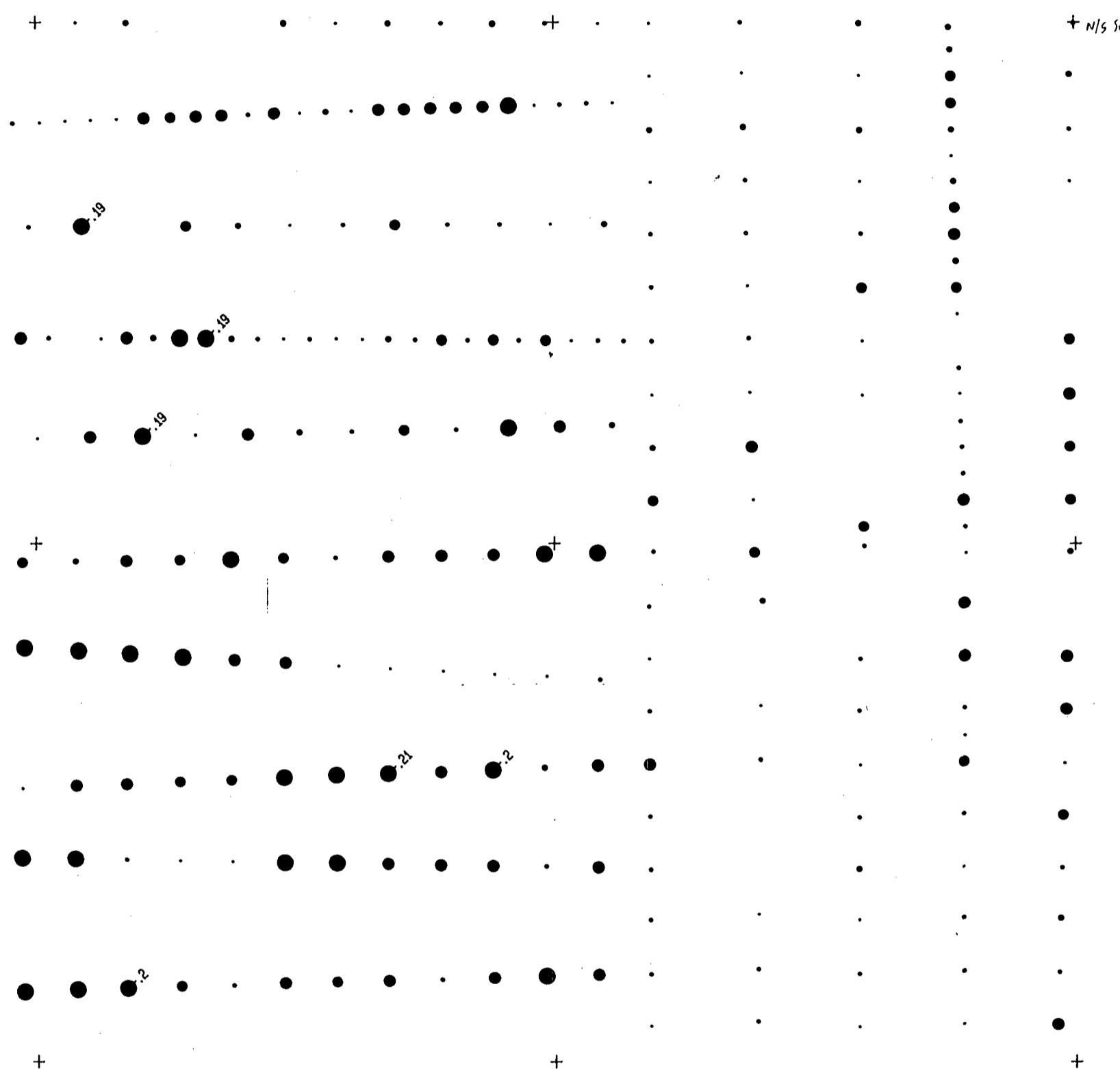
0 E

N

1000 S

2000 S

+ N/S see plate 4



- > .18
- .16 <
- .13 <
- .12 <
- .11 <
- .09 <
- 0 <
- ≤ .09
- ≤ .12
- ≤ .13
- ≤ .16
- ≤ .18

BP RESOURCES CANADA LIMITED

### TITANIUM (%) LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date JULY 1990	Report No.	Fig. No. 30

2000 W

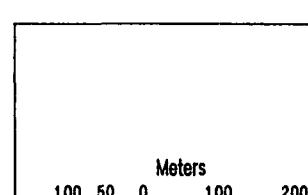
1000 W

0 E

N

1000 S

2000 S

+ N/S  
See Plate 4

> 6  
 <= 6  
 <= 5  
 <= 4  
 <= 3  
 <= 2  
 <= 1

### TUNGSTEN (ppm)

LIP #1 M.C.

### SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1 : 10000

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 31

2000 W

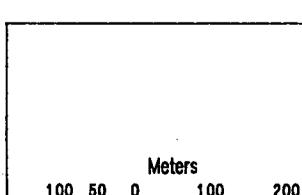
1000 W

0 E

0 N

1000 S

2000 S

+ N/S  
see Plate 4

> 30  
<= 30  
<= 25  
<= 20  
<= 15  
<= 10  
<= 5

BP RESOURCES CANADA LIMITED

URANIUM (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		32

2000 W

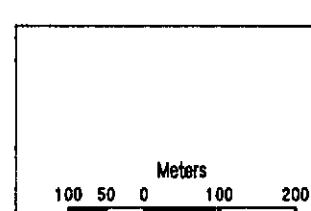
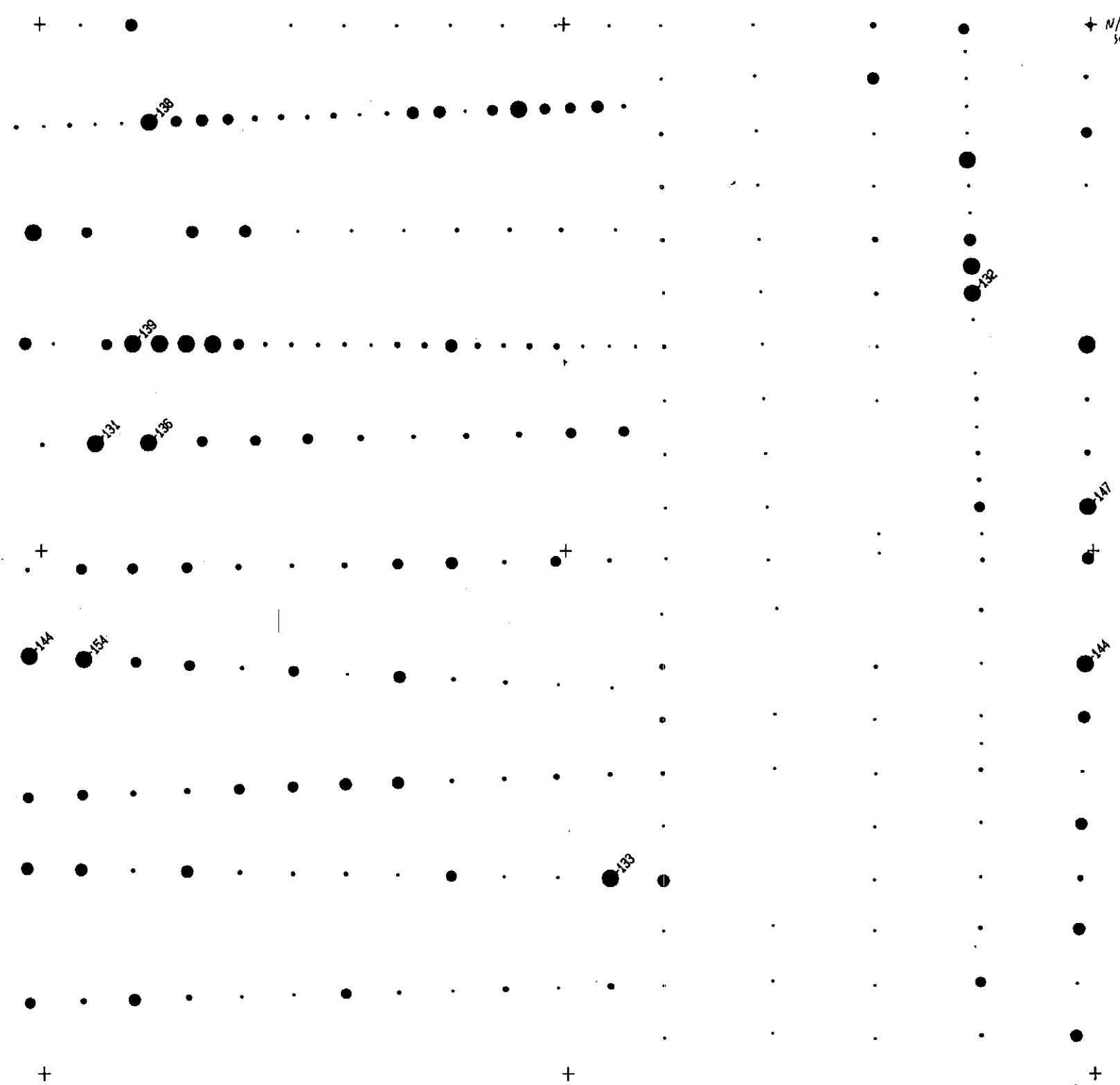
1000 W

0 E

N

1000 S

2000 S

+ N/S  
see Plate 4

- > 130
- ≤ 130
- ≤ 125
- ≤ 115
- ≤ 105
- ≤ 100
- ≤ 90
- ≤ 90

### VANADIUM (ppm)

LIP #1 M.C.

SOIL GEOCHEMICAL SURVEY - JUNE

Project No.	NTS	Scale
	93N/1E	1:10000

BP RESOURCES CANADA LIMITED

Date JULY 1990

Report No.

Fig. No. 33

2000 W

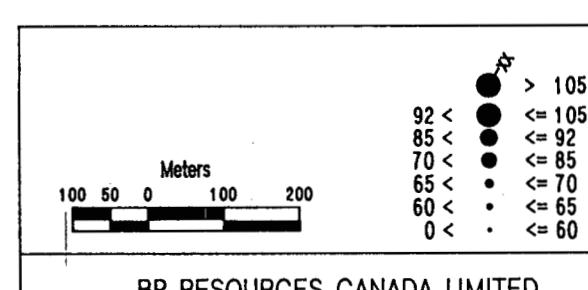
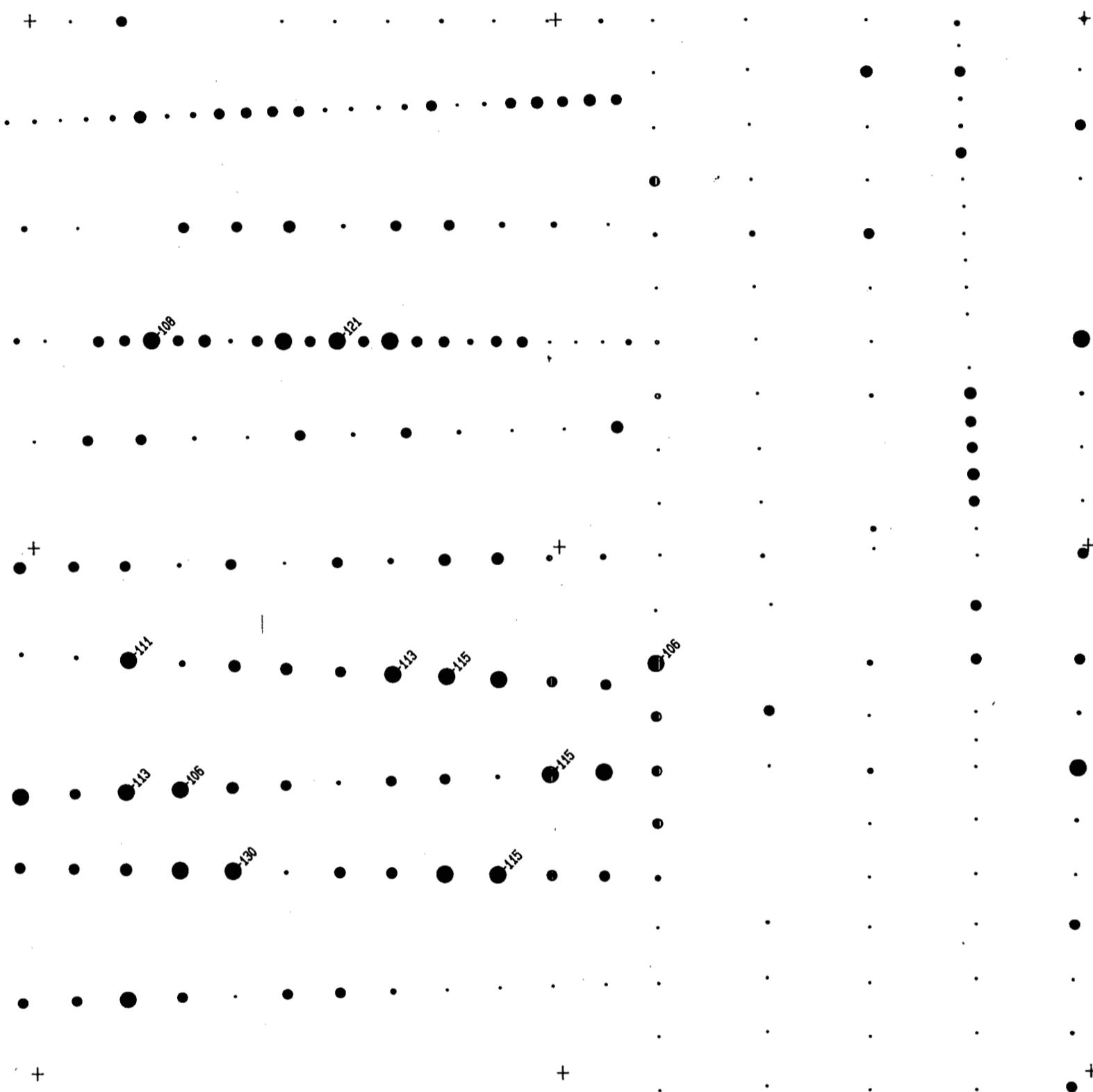
1000 W

0 E

N

1000 S

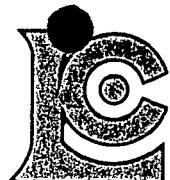
S

+ N/S  
See Plate 4

ZINC (ppm)		
LIP #1 M.C.		
SOIL GEOCHEMICAL SURVEY - JUNE		
Project No.	NTS	Scale
	93N/1E	1:10000
Date	Report No.	Fig. No.
JULY 1990		34

APPENDIX 1

CHEMEX CERTIFICATES



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

A9017600

## CERTIFICATE

A9017600

BRUASET, R. U.

Project:  
P.O. #:

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 8-JUL-90.

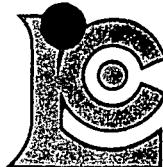
Comments:

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	93	Au ppb: Fuse 10 g sample	FA-NAA	1	10000

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	93	Dry, sieve to -80 mesh



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PHONE: 604-984-0221

BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

Page Num : 1  
Total Page : 3  
Invoice Date: 8-JUL-90  
Invoice No. : I-9017600  
P.O. Number :

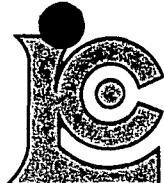
Project :  
Comments:

## CERTIFICATE OF ANALYSIS

A9017600

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb											
L90-001S	201	--	30										
L90-002S	201	--	13										
L90-003S	201	--	36										
L90-004S	201	--	383										
L90-005S	201	--	4										
L90-006S	201	--	10										
L90-007S	201	--	24										
L90-008S	201	--	20										
L90-010S	201	--	8										
L90-011S	201	--	17										
L90-012S	201	--	2										
L90-013S	201	--	5										
L90-014S	201	--	16										
L90-015S	201	--	10										
L90-016S	201	--	9										
L90-017S	201	--	11										
L90-018S	201	--	7										
L90-019S	201	--	14										
L90-020S	201	--	39										
L90-021S	201	--	14										
L90-022S	201	--	5										
L90-023S	201	--	6										
L90-024S	201	--	11										
L90-025S	201	--	24										
L90-026S	201	--	62										
L90-027S	201	--	48										
L90-028S	201	--	24										
L90-029S	201	--	6										
L90-032S	201	--	8										
L90-033S	201	--	4										
L90-036S	201	--	6										
L90-037S	201	--	2										
L90-038S	201	--	7										
L90-039S	201	--	77										
L90-040S	201	--	8										
L90-041S	201	--	17										
L90-042S	201	--	3										
L90-043S	201	--	7										
L90-044S	201	--	8										
L90-045S	201	--	7										

CERTIFICATION: \_\_\_\_\_



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To: BRUASET, R. U.

5851 HALIFAX ST.  
 BURNABY, BC  
 V5B 2P4

Page Number: 2  
 Total Pages: 3  
 Invoice Date: 8-JUL-90  
 Invoice No.: I-9017600  
 P.O. Number:

Project:  
 Comments:

## CERTIFICATE OF ANALYSIS A9017600

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb											
L90-047S	201	--	8										
L90-048S	201	--	9										
L90-049S	201	--	9										
L90-050S	201	--	19										
L90-051S	201	--	9										
L90-052S	201	--	22										
L90-053S	201	--	14										
L90-054S	201	--	12										
L90-055S	201	--	4										
L90-056S	201	--	11										
L90-057S	201	--	3										
L90-059S	201	--	5										
L90-060S	201	--	8										
L90-061S	201	--	4										
L90-062S	201	--	5										
L90-063S	201	--	5										
L90-064S	201	--	12										
L90-065S	201	--	7										
L90-066S	201	--	7										
L90-067S	201	--	12										
L90-068S	201	--	12										
L90-069S	201	--	7										
L90-070S	201	--	11										
L90-071S	201	--	15										
L90-072S	201	--	7										
L90-073S	201	--	6										
L90-074S	201	--	8										
L90-075S	201	--	4										
L90-076S	201	--	7										
L90-077S	201	--	11										
L90-078S	201	--	5										
L90-079S	201	--	8										
L90-080S	201	--	5										
L90-081S	201	--	7										
L90-082S	201	--	12										
L90-083S	201	--	3										
L90-086S	201	--	5										
L90-087S	201	--	8										
L90-089S	201	--	21										
L90-090S	201	--	10										

CERTIFICATION: \_\_\_\_\_

*Dick Voss*



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V5B 2P4

Page Number : 3  
Total Pages : 3  
Invoice Date: 8-JUL-90  
Invoice No.: I-9017600  
P.O. Number:

Project :  
Comments:

## CERTIFICATE OF ANALYSIS A9017600

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	—	—	—	—	—	—	—	—	—	—	—
L90-091S	201	8											
L90-092S	201	7											
L90-093S	201	12											
L90-094S	201	9											
L90-095S	201	9											
L90-096S	201	11											
L90-097S	201	14											
L90-098S	201	7											
L90-099S	201	3											
L90-100S	201	111											
L90-101S	201	44											
L90-105S	201	12											
L90-108S	201	5											

CERTIFICATION: Mark Vonk



# Chemex Labs Ltd.

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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

BY: BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

A9017581

## CERTIFICATE

A9017581

BRUASET, R. U.

Project:  
P.O. #:

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 8-JUL-90.

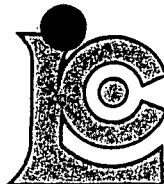
Comments:

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	67	Au ppb: Fuse 10 g sample	FA-NAA	1	10000

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	67	Dry, sieve to -80 mesh



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: BRUASET, R. U.

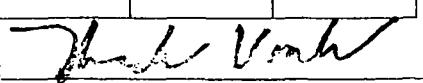
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BURNABY, BC  
V5B 2P4

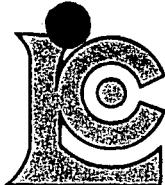
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Invoice Date: 8-JUL-90  
Invoice No.: I-9017581  
P.O. Number:

Project:  
Comments:

## CERTIFICATE OF ANALYSIS A9017581

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb											
L90-110S	201	--	6										
L90-111S	201	--	6										
L90-112S	201	--	168										
L90-113S	201	--	9										
L90-115S	201	--	57										
L90-116S	201	--	8										
L90-117S	201	--	2										
L90-120S	201	--	228										
L90-121S	201	--	9										
L90-123S	201	--	4										
L90-124S	201	--	8										
L90-125S	201	--	3										
L90-126S	201	--	5										
L90-127S	201	--	4										
L90-128S	201	--	< 1										
L90-129S	201	--	15										
L90-130S	201	--	4										
L90-131S	201	--	401										
L90-132S	201	--	5										
L90-133S	201	--	6										
L90-134S	201	--	8										
L90-135S	201	--	23										
L90-136S	201	--	19										
L90-137S	201	--	2										
L90-139S	201	--	2										
L90-140S	201	--	2										
L90-141S	201	--	3										
L90-142S	201	--	4										
L90-143S	201	--	3										
L90-144S	201	--	12										
L90-145S	201	--	9										
L90-146S	201	--	6										
L90-147S	201	--	7										
L90-149S	201	--	6										
L90-150S	201	--	14										
L90-151S	201	--	9										
L90-152S	201	--	65										
L90-153S	201	--	17										
L90-154S	201	--	7										
L90-155S	201	--	20										

CERTIFICATION: 



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 Total Pages: 2  
 Invoice Date: 8-JUL-90  
 Invoice No.: I-9017581  
 P.O. Number:

Project:  
 Comments:

## CERTIFICATE OF ANALYSIS A9017581

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	—	—	—	—	—	—	—	—	—	—	—
L90-156S	201	—	6										
L90-157S	201	—	22										
L90-158S	201	—	4										
L90-159S	201	—	11										
L90-160S	201	—	14										
L90-161S	201	—	11										
L90-162S	201	—	11										
L90-163S	201	—	5										
L90-164S	201	—	9										
L90-165S	201	—	48										
L90-166S	201	—	4										
L90-167S	201	—	2										
L90-168S	201	—	3										
L90-170S	201	—	5										
L90-172S	201	—	5										
L90-173S	201	—	2										
L90-174S	201	—	3										
L90-175S	201	—	1										
L90-179S	201	—	16										
L90-180S	201	—	1										
L90-181S	201	—	5										
L90-182S	201	—	4										
L90-183S	201	—	5										
L90-184S	201	—	7										
L90-185S	201	—	83										
L90-186S	201	—	11										
L90-187S	201	—	2										

CERTIFICATION:



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

A9018121

Comments:

## CERTIFICATE

A9018121

BRUASET, R. U.

Project:  
P.O. #:

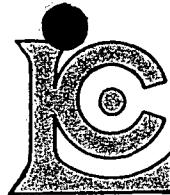
Samples submitted to our lab in Vancouver, BC.  
This report was printed on 14-JUL-90.

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	89	Au ppb: Fuse 10 g sample	FA-NAA	1	10000

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	89	Dry, sieve to -80 mesh



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 PHONE: 604-984-0221

To: BRUASET, R. U.

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 BURNABY, BC  
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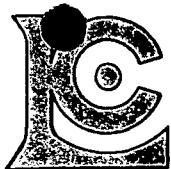
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 Invoice Date: 13-JUL-90  
 Invoice No.: I-9018121  
 P.O. Number:

Project :  
 Comments:

## CERTIFICATE OF ANALYSIS A9018121

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb													
L90-188S	201	--	30												
L90-189S	201	--	11												
L90-193S	201	--	2												
L90-194S	201	--	5												
L90-195S	201	--	12												
L90-196S	201	--	41												
L90-197S	201	--	5												
L90-198S	201	--	3												
L90-199S	201	--	5												
L90-200S	201	--	4												
L90-201S	201	--	3												
L90-202S	201	--	3												
L90-203S	201	--	2												
L90-204S	201	--	11												
L90-205S	201	--	1												
L90-206S	201	--	1												
L90-207S	201	--	1												
L90-208S	201	--	1												
L90-209S	201	--	2												
L90-211S	201	--	17												
L90-212S	201	--	17												
L90-213S	201	--	12												
L90-214S	201	--	6												
L90-215S	201	--	10												
L90-216S	201	--	1												
L90-217S	201	--	1												
L90-218S	201	--	12												
L90-219S	201	--	14												
L90-220S	201	--	2												
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L90-222S	201	--	2												
L90-223S	201	--	4												
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L90-225S	201	--	2												
L90-227S	201	--	4												
L90-228S	201	--	5												
L90-229S	201	--	2												
L90-230S	201	--	< 1												
L90-231S	201	--	2												
L90-232S	201	--	2												

CERTIFICATION: \_\_\_\_\_



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 Invoice No. : I-9018121  
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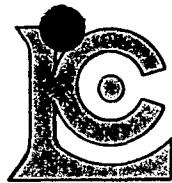
Project :  
 Comments:

## CERTIFICATE OF ANALYSIS

A9018121

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb										
L90-233S	201	--	2									
L90-234S	201	--	4									
L90-235S	201	--	12									
L90-236S	201	--	6									
L90-237S	201	--	3									
L90-238S	201	--	2									
L90-239S	201	--	5									
L90-240S	201	--	2									
L90-241S	201	--	7									
L90-242S	201	--	44									
L90-243S	201	--	< 1									
L90-244S	201	--	4									
L90-245S	201	--	6									
L90-246S	201	--	40									
L90-247S	201	--	5									
L90-248S	201	--	3									
L90-249S	201	--	< 1									
L90-250S	201	--	< 1									
L90-253S	201	--	7									
L90-254S	201	--	2									
L90-255S	201	--	3									
L90-256S	201	--	5									
L90-257S	201	--	2									
L90-258S	201	--	512									
L90-259S	201	--	12									
L90-260S	201	--	< 1									
L90-261S	201	--	2									
L90-262S	201	--	6									
L90-263S	201	--	2									
L90-264S	201	--	4									
L90-265S	201	--	4									
L90-266S	201	--	2									
L90-269S	201	--	28									
L90-271S	201	--	18									
L90-272S	201	--	22									
L90-273S	201	--	5									
L90-274S	201	--	5									
L90-275S	201	--	23									
L90-276S	201	--	9									
L90-277S	201	--	21									

CERTIFICATION: \_\_\_\_\_



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PHONE: 604-984-0221

By: BRUASET, R. U.

5851 HALIFAX ST.  
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Total Pages : 3  
Invoice Date: 13-JUL-90  
Invoice No.: I-9018121  
P.O. Number :

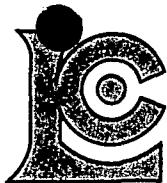
Project:  
Comments:

## CERTIFICATE OF ANALYSIS

A9018121

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb											
L90-278S	201	--	5										
L90-280S	201	--	2										
L90-282S	201	--	3										
L90-283S	201	--	< 1										
L90-284S	201	--	17										
L90-285S	201	--	6										
L90-287S	201	--	2										
L90-288S	201	--	2										
L90-289S	201	--	6										

CERTIFICATION:



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

A9018629

## CERTIFICATE

A9018629

BRUASET, R. U.

Project: LIP  
P.O. #: NONE

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 2-AUG-90.

To: BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

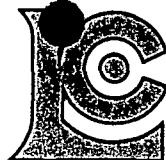
Comments:

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	5	Au ppb: Fuse 10 g sample	FA-NAA	1	10000

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205 294	5 5	Geochem ring to approx 150 mesh Crush and split (0-10 pounds)



# **Chemex Labs Ltd.**

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British Columbia, Canada V7J 2C1  
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BRUASET, R. U.

5851 HALIFAX ST.  
BURNABY, BC  
V5B 2P4

Page Number : 1  
Total Page : 1  
Invoice Date: 18-JUL-90  
Invoice No. : I-9018629  
P.O. Number : NONE

Project : LIP  
Comments:

## CERTIFICATE OF ANALYSIS

A9018629

CERTIFICATION

Frank Vork

APPENDIX 2

ACME CERTIFICATES

## GEOCHEMICAL ANALYSIS CERTIFICATE

BP Resources Canada Ltd. File # 90-2377 Page 1

700 - 890 W. Pender St., Vancouver BC V6B 4W3 1989  
(Detection limit given in Acme's price list is 2 ppm)

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L90-001S	1	64	12	59	.2	28	23	948	4.59	7	5	ND	1	40	.2	2	2	99	.69	.110	5	76	.91	82	.08	2	2.00	.01	.04	1
L90-002S	1	66	3	45	.1	33	13	338	3.50	3	5	ND	1	45	.7	2	6	81	.65	.072	7	63	1.00	89	.11	2	2.14	.01	.05	1
L90-003S	1	59	7	72	.3	34	15	447	5.08	4	5	ND	1	44	.4	2	2	106	.55	.145	6	72	1.05	111	.14	3	2.40	.01	.05	1
RE L90-008S	1	61	7	47	.2	29	11	292	3.12	6	5	ND	1	43	.2	2	2	69	.71	.091	7	65	.87	55	.11	3	2.15	.01	.04	1
L90-004S	1	52	8	91	.5	27	13	274	4.35	4	5	ND	1	35	.6	2	2	96	.43	.105	7	60	.84	115	.11	2	2.29	.01	.04	1
L90-005S	1	37	8	73	.5	24	11	314	4.10	7	5	ND	1	29	.2	2	2	91	.39	.115	5	64	.74	68	.11	3	1.80	.01	.04	1
L90-006S	1	45	5	77	.5	24	14	309	5.30	10	5	ND	1	21	.6	2	2	90	.27	.250	6	60	.69	72	.10	2	2.85	.01	.04	1
L90-007S	1	40	15	87	.6	20	13	324	5.32	9	5	ND	2	20	.6	3	2	95	.26	.357	7	62	.61	79	.09	3	3.18	.01	.04	1
L90-008S	1	59	5	45	.2	26	11	277	2.98	4	5	ND	1	41	.2	2	2	66	.67	.086	7	63	.82	51	.10	2	2.09	.01	.04	1
L90-010S	1	62	11	52	.2	24	13	694	3.06	5	5	ND	1	69	.2	2	3	78	1.05	.076	6	66	.94	91	.08	2	1.84	.01	.04	1
L90-011S	1	33	10	56	.2	19	10	225	5.49	12	5	ND	1	29	.2	2	2	132	.38	.282	6	64	.58	83	.13	2	1.90	.01	.04	1
L90-012S	1	51	7	56	.3	27	16	322	5.80	7	5	ND	1	30	.3	2	2	127	.49	.175	4	99	.87	58	.12	2	2.29	.01	.05	1
L90-013S	1	57	2	50	.3	23	15	264	5.68	11	5	ND	1	28	.2	2	2	121	.35	.103	5	68	.69	111	.14	2	2.26	.01	.04	2
L90-014S	1	61	6	53	.2	34	12	320	3.54	7	5	ND	1	45	.3	2	2	83	.58	.087	7	66	1.00	89	.13	2	2.06	.01	.04	1
L90-015S	1	68	13	51	.1	29	11	340	3.37	6	5	ND	1	42	.2	2	3	82	.61	.074	7	69	.94	64	.12	5	2.07	.01	.04	1
L90-016S	2	111	10	82	.7	37	26	1295	5.73	8	5	ND	1	52	1.2	2	4	127	.77	.130	8	88	.95	134	.08	2	2.81	.01	.06	1
L90-017S	1	71	7	62	.1	27	12	340	3.30	9	5	ND	1	40	.7	2	2	80	.56	.066	7	66	.88	63	.12	3	2.06	.01	.04	1
L90-018S	1	47	5	62	.1	29	13	406	3.26	5	5	ND	1	49	.3	2	2	86	.72	.067	6	64	1.14	78	.13	2	2.14	.01	.04	1
L90-019S	1	55	5	73	.2	27	14	322	3.97	8	5	ND	1	34	.5	2	2	90	.46	.067	7	66	.91	81	.13	2	2.71	.01	.04	1
L90-020S	1	53	2	58	.1	28	13	257	3.98	11	5	ND	1	31	.2	2	2	84	.38	.072	8	69	.76	93	.12	2	2.79	.01	.04	1
L90-021S	1	61	2	69	.2	36	15	343	5.04	7	5	ND	1	33	.9	2	2	108	.49	.173	4	87	1.00	92	.12	2	2.67	.01	.04	1
L90-022S	1	80	9	57	.2	47	18	445	4.23	5	5	ND	1	74	.6	2	2	102	.93	.105	6	140	1.51	72	.12	4	2.38	.01	.04	1
L90-023S	1	213	10	89	1.0	51	26	1313	6.12	11	5	ND	1	61	1.3	2	2	120	.97	.172	9	125	1.19	165	.04	2	3.69	.01	.07	1
L90-024S	1	72	2	53	.1	37	14	363	3.69	9	5	ND	1	48	.2	2	2	87	.80	.103	6	93	1.09	67	.12	4	1.84	.01	.04	1
L90-025S	2	107	2	55	1.7	20	12	1861	1.88	5	5	ND	1	109	.2	2	3	36	1.81	.208	15	42	.35	168	.01	3	1.76	.01	.04	1
L90-026S	1	68	4	71	.3	34	16	449	5.04	12	5	ND	1	34	.5	2	3	101	.48	.204	6	86	.94	99	.10	4	2.69	.01	.04	1
L90-027S	1	48	8	59	.3	26	12	346	4.07	2	5	ND	1	33	.2	3	3	94	.40	.076	6	71	.91	68	.13	2	1.98	.01	.04	1
L90-028S	1	35	10	41	.4	11	8	160	2.57	3	5	ND	1	28	.2	2	2	64	.30	.055	8	47	.33	58	.09	4	1.77	.01	.03	1
L90-029S	1	137	10	63	.9	42	18	1022	3.78	4	5	ND	1	86	.2	2	2	77	1.35	.173	13	97	1.02	133	.04	2	2.95	.01	.05	1
L90-032S	1	45	13	66	.3	26	13	282	3.72	11	5	ND	1	34	.2	2	3	87	.47	.063	7	60	.86	82	.13	3	2.32	.01	.04	1
L90-033S	1	51	10	57	.4	30	15	371	4.06	11	5	ND	1	34	.2	2	2	88	.49	.112	6	62	.83	96	.11	2	2.15	.01	.04	1
L90-036S	1	52	7	70	.6	25	15	397	4.90	11	5	ND	1	31	.5	2	2	96	.44	.308	5	72	.79	110	.10	2	2.14	.01	.05	1
L90-037S	1	55	9	59	.6	24	12	286	3.95	10	5	ND	2	31	.2	4	6	83	.36	.080	7	56	.69	94	.11	2	2.33	.01	.05	1
L90-038S	1	105	9	69	.4	36	13	419	3.68	11	5	ND	1	37	.3	2	2	78	.45	.078	7	69	1.12	110	.07	2	2.67	.01	.06	1
L90-039S	1	51	6	59	.1	25	13	397	3.09	4	5	ND	1	39	.2	2	2	70	.48	.068	6	53	.98	107	.10	7	2.09	.01	.05	1
L90-040S	1	62	8	47	.3	28	11	309	3.58	9	5	ND	1	31	.5	2	2	79	.46	.088	6	56	.92	80	.12	2	2.15	.01	.05	1
L90-041S	1	59	4	56	.1	27	13	289	3.84	13	5	ND	1	30	.2	2	2	75	.39	.094	7	55	.81	75	.09	3	2.50	.01	.04	1
STANDARD C*	19	62	42	136	7.2	75	31	1081	4.21	43	21	8	40	51	18.2	19	22	57	.53	.094	38	59	.95	180	.08	34	1.97	.06	.14	12
STANDARD C	17	59	39	132	7.2	68	31	1032	4.03	41	19	7	36	52	18.2	16	21	55	.52	.095	36	58	.91	180	.08	32	1.92	.06	.14	11

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: Soil Pulp

DATE RECEIVED: JUL 9 1990 DATE REPORT MAILED: July 11/90 SIGNED BY..... D.TOEY, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

## BP Resources Canada Ltd. FILE # 90-2377

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	W ppm
L90-042S	1	32	5	44	.2	19	8	218	2.95	4	5	ND	1	28	.2	3	2	65	.34	.049	6	43	.58	61	.11	2	1.82	.01	.03	1
L90-043S	1	31	2	42	.1	20	9	179	3.18	6	5	ND	1	29	.2	3	2	76	.34	.115	5	46	.47	74	.09	3	1.74	.01	.03	1
L90-044S	1	45	6	55	.4	20	11	344	4.21	6	5	ND	1	22	.2	3	2	90	.32	.266	5	54	.61	73	.09	2	2.51	.01	.04	1
L90-045S	1	81	7	48	.2	32	16	285	4.53	15	5	ND	1	29	.2	3	2	87	.38	.073	5	58	.84	79	.11	3	2.31	.01	.04	1
L90-047S	1	127	4	58	.2	31	16	301	4.80	14	5	ND	1	25	.2	3	3	95	.36	.154	4	58	.78	82	.09	2	2.55	.01	.04	1
L90-048S	1	59	2	53	.3	20	12	249	4.99	11	5	ND	1	22	.2	3	2	112	.27	.211	5	64	.61	70	.10	2	2.22	.01	.03	1
L90-049S	1	61	4	52	.2	23	12	255	4.62	10	5	ND	1	22	.2	3	2	94	.24	.124	5	59	.58	76	.10	2	2.07	.01	.03	2
L90-050S	1	40	2	48	.3	16	8	202	3.80	6	5	ND	1	23	.2	2	2	84	.31	.170	5	48	.52	72	.08	2	1.69	.01	.03	1
L90-051S	1	73	5	56	.6	21	10	294	3.10	7	5	ND	1	35	.2	2	3	75	.40	.035	8	47	.60	82	.10	2	1.72	.01	.04	2
L90-052S	1	41	6	45	.2	17	9	219	4.36	7	5	ND	1	25	.2	3	2	100	.26	.109	5	50	.64	65	.13	2	2.13	.01	.04	1
L90-053S	1	88	2	58	.3	27	12	281	4.01	9	5	ND	1	36	.2	2	3	83	.44	.050	8	53	.81	94	.09	2	2.11	.01	.05	1
L90-054S	1	74	7	60	.3	30	12	400	3.47	8	5	ND	1	53	.7	3	3	82	.85	.063	6	57	1.28	116	.10	4	2.36	.02	.06	1
L90-055S	1	52	3	72	.3	26	14	336	3.39	5	5	ND	1	34	.4	4	2	74	.44	.050	6	54	1.18	88	.14	4	2.35	.01	.05	1
L90-056S	1	61	2	76	.1	31	16	521	4.91	14	5	ND	1	33	.5	2	2	97	.39	.087	5	77	1.04	94	.15	4	2.05	.01	.05	1
L90-057S	1	145	4	42	.6	31	10	1515	1.73	2	5	ND	1	121	1.3	3	2	31	2.65	.116	15	43	.40	87	.02	4	1.82	.01	.02	1
L90-059S	1	85	2	54	.2	36	12	405	3.01	3	5	ND	1	54	.2	2	3	74	.85	.071	8	79	1.13	73	.09	2	1.98	.01	.04	1
L90-060S	1	90	2	50	.4	30	10	312	2.57	2	5	ND	1	65	.2	2	2	69	1.14	.042	7	84	.91	73	.09	3	1.59	.01	.04	1
L90-061S	1	57	12	54	.5	29	14	639	3.41	4	5	ND	1	52	.2	2	2	95	.70	.084	6	85	1.05	78	.12	6	1.98	.01	.04	1
L90-062S	1	168	5	78	1.0	43	22	1016	4.36	6	5	ND	1	78	.7	2	2	93	1.41	.175	8	105	1.14	130	.04	2	2.40	.01	.06	2
L90-063S	1	70	5	64	.5	21	15	786	3.48	7	5	ND	1	50	.3	2	2	95	.61	.049	8	72	.72	120	.10	2	1.85	.01	.04	1
L90-064S	1	67	2	48	.2	30	12	387	3.87	6	5	ND	1	40	.2	2	2	90	.55	.165	6	84	.89	64	.10	2	1.92	.01	.03	2
L90-065S	1	54	12	63	.4	28	14	318	4.47	10	5	ND	1	40	.2	2	2	93	.55	.112	6	82	.90	83	.10	3	2.08	.01	.04	1
L90-066S	1	125	4	69	.4	43	15	614	4.02	10	5	ND	1	43	.2	2	2	88	.55	.089	8	90	1.11	98	.08	2	2.58	.01	.05	1
L90-067S	1	57	8	46	.1	33	17	606	3.74	8	5	ND	1	52	.2	2	2	90	.90	.106	6	93	1.17	62	.12	5	1.73	.01	.04	1
L90-068S	1	49	10	56	.1	28	12	357	3.31	7	5	ND	1	37	.2	2	2	82	.48	.058	5	73	1.06	68	.13	2	2.02	.01	.04	1
L90-069S	1	46	10	53	.4	21	10	276	3.00	4	5	ND	1	36	.2	2	2	80	.43	.053	6	62	.77	106	.11	3	1.74	.01	.04	1
L90-070S	1	67	8	50	.1	30	12	337	3.07	3	5	ND	1	39	.2	2	2	69	.66	.078	6	63	1.19	76	.10	2	2.43	.01	.04	1
L90-071S	1	133	4	106	1.2	44	18	819	5.00	7	5	ND	1	44	.5	2	2	102	.60	.073	9	83	1.08	133	.08	2	2.81	.01	.05	1
L90-072S	1	34	6	84	.2	18	10	252	5.41	8	5	ND	2	19	.2	2	2	102	.23	.239	9	56	.53	102	.10	2	2.40	.01	.04	1
L90-073S	1	42	13	75	.3	55	15	387	5.23	24	5	ND	1	32	.2	2	2	97	.43	.128	7	69	1.15	96	.15	5	1.95	.01	.06	1
L90-074S	1	134	20	78	.4	53	19	610	4.58	14	5	ND	2	48	.3	3	2	90	.72	.083	10	71	1.22	114	.11	2	2.92	.01	.07	1
L90-075S	1	55	5	69	.3	25	13	258	5.41	39	5	ND	1	28	.2	2	2	118	.42	.283	5	79	.76	79	.11	2	2.03	.01	.04	2
L90-076S	1	51	2	53	.1	23	10	299	3.40	8	5	ND	1	27	.2	2	2	72	.37	.078	7	49	.88	65	.10	2	2.22	.01	.04	1
L90-077S	1	31	2	49	.3	12	8	249	3.48	5	5	ND	1	24	.2	2	2	79	.29	.163	5	45	.48	66	.10	2	1.86	.01	.04	2
RE L90-073S	1	41	10	73	.3	54	17	376	5.08	24	5	ND	1	31	.2	2	2	94	.41	.123	7	67	1.11	94	.14	3	1.87	.01	.06	1
L90-078S	1	60	2	53	.2	25	12	476	3.58	6	5	ND	1	32	.3	2	2	68	.42	.164	6	46	.86	80	.09	3	2.34	.01	.05	1
L90-079S	1	33	2	37	.1	19	9	204	4.23	5	5	ND	1	26	.2	2	2	88	.31	.124	5	50	.56	76	.09	2	2.02	.01	.03	1
STANDARD C	18	57	37	132	7.2	70	32	1031	4.00	38	17	7	36	52	18.6	15	20	55	.52	.095	36	59	.91	179	.08	37	1.87	.06	.14	11
STANDARD C*	18	62	37	129	7.2	68	31	1022	3.97	42	19	8	37	50	18.5	17	18	56	.48	.095	35	58	.89	170	.08	33	1.79	.06	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	W ppm
L90-080S	1	47	6	56	.1	23	12	281	4.66	8	5	ND	1	19	.2	2	2	84	.27	.235	4	57	.62	52	.09	2	3.04	.01	.03	1
L90-081S	1	48	2	43	.2	22	10	262	3.14	10	5	ND	1	30	.2	2	2	64	.46	.097	6	46	.79	59	.11	3	1.91	.01	.04	1
L90-082S	1	40	2	57	.4	20	9	277	3.03	5	5	ND	1	25	.2	2	2	60	.34	.083	7	43	.67	59	.10	2	2.24	.01	.04	1
L90-083S	1	59	2	64	.2	21	10	337	2.87	5	5	ND	1	30	.2	2	2	61	.33	.048	7	49	.69	123	.06	2	2.23	.01	.05	1
L90-086S	1	117	7	58	.7	28	11	295	3.60	7	5	ND	1	32	.5	2	2	75	.42	.045	13	64	.82	98	.10	2	2.45	.01	.04	1
L90-087S	1	87	11	76	.3	29	11	312	3.30	9	5	ND	1	34	.2	2	2	62	.41	.058	10	50	.88	87	.07	2	2.13	.01	.05	2
L90-089S	1	59	2	47	.1	29	10	318	3.20	5	5	ND	1	39	.3	2	2	73	.62	.090	6	59	1.02	59	.12	3	1.85	.01	.04	1
L90-090S	1	66	2	65	.1	31	12	353	3.95	7	5	ND	1	35	.5	2	2	84	.46	.067	6	65	1.02	83	.13	2	2.16	.01	.04	2
L90-091S	1	21	4	44	.3	17	8	278	2.14	3	5	ND	1	20	.2	3	2	49	.30	.053	5	38	.54	53	.08	3	1.36	.01	.03	1
RE L90-096S	1	51	7	64	.2	27	11	278	3.89	9	5	ND	1	28	.2	2	2	80	.40	.154	4	73	.87	73	.10	2	2.13	.01	.04	1
L90-092S	1	22	6	38	.3	12	7	188	2.81	3	5	ND	1	32	.5	2	2	89	.39	.064	5	54	.34	66	.14	3	1.16	.01	.03	1
L90-093S	2	171	7	55	2.8	28	13	636	3.10	5	5	ND	1	44	.2	2	2	61	.59	.221	12	77	.55	96	.02	3	2.52	.01	.03	1
L90-094S	1	41	2	57	.1	24	10	363	3.67	6	5	ND	1	32	.6	2	2	82	.47	.172	4	67	.73	62	.10	2	1.99	.01	.03	1
L90-095S	1	68	2	49	.3	28	11	273	3.15	8	5	ND	1	37	.5	2	2	70	.49	.066	7	69	.87	72	.09	5	2.02	.01	.04	2
L90-096S	1	53	9	67	.2	28	12	291	4.04	7	5	ND	1	29	.3	2	2	83	.42	.161	5	74	.91	71	.11	4	2.19	.01	.04	1
L90-097S	1	52	7	60	.1	28	12	320	3.89	9	5	ND	1	35	.5	2	2	82	.53	.113	6	77	.94	66	.11	2	2.14	.01	.04	1
L90-098S	1	50	2	53	.8	32	12	318	3.69	9	5	ND	1	36	.5	2	2	86	.55	.090	5	81	1.07	57	.12	4	2.02	.01	.03	1
L90-099S	1	60	8	40	.3	24	12	493	2.48	5	5	ND	1	53	.6	2	2	69	.80	.057	7	69	.67	99	.07	3	1.54	.01	.04	1
L90-100S	1	102	13	49	.1	40	15	494	3.46	5	5	ND	1	61	.7	2	2	79	.98	.095	7	108	1.20	59	.11	6	1.90	.01	.04	1
L90-101S	1	67	4	48	.4	18	10	219	2.78	11	5	ND	2	25	.7	2	2	62	.30	.054	6	48	.59	93	.11	2	2.52	.01	.03	1
L90-105S	1	63	3	64	.4	20	12	308	4.00	5	5	ND	1	20	.6	2	4	78	.29	.204	6	50	.57	63	.08	3	2.14	.01	.04	1
L90-108S	1	36	11	70	.2	19	10	284	4.56	5	5	ND	1	23	.2	2	2	103	.35	.207	4	55	.63	63	.10	2	1.65	.01	.04	1
L90-110S	2	130	4	62	.5	33	16	755	3.55	3	5	ND	1	61	1.1	2	2	80	.94	.137	10	98	.91	99	.03	3	2.18	.01	.03	1
L90-111S	1	60	9	59	.2	33	12	323	3.38	3	5	ND	1	49	.7	2	2	80	.60	.062	6	80	1.20	56	.11	3	1.98	.01	.03	1
L90-112S	1	69	2	53	.1	31	12	313	3.83	2	5	ND	1	48	.4	2	2	89	.66	.081	6	100	1.02	59	.12	4	2.13	.01	.03	1
L90-113S	1	53	7	65	.4	22	11	427	4.10	9	5	ND	1	41	.2	2	2	89	.37	.082	6	65	.89	81	.11	4	2.14	.01	.04	1
L90-115S	1	33	2	59	.4	23	9	229	3.23	2	5	ND	1	46	.2	2	3	90	.47	.066	5	95	.69	65	.12	2	1.82	.01	.03	1
L90-116S	1	49	6	60	.2	32	15	454	3.72	6	5	ND	1	52	1.0	2	2	88	.90	.066	5	87	1.21	65	.09	4	2.04	.01	.04	1
L90-117S	1	33	6	53	.1	21	11	263	3.06	6	5	ND	1	41	.7	2	2	79	.50	.032	6	68	.92	58	.12	3	1.93	.01	.03	2
L90-120S	1	51	12	76	.1	33	14	427	4.65	6	5	ND	1	44	1.0	2	2	116	1.03	.060	3	93	1.41	62	.12	2	2.15	.01	.04	1
L90-121S	1	98	5	53	.1	36	17	596	3.63	7	5	ND	1	55	.9	2	3	85	.98	.083	8	93	1.29	68	.09	2	2.17	.01	.04	1
L90-123S	1	131	4	64	.2	39	18	475	5.16	5	5	ND	1	69	1.8	2	2	98	1.24	.073	7	104	1.07	61	.10	2	2.52	.01	.04	1
L90-124S	1	169	7	61	.4	36	19	772	3.98	3	5	ND	1	73	1.4	2	2	80	1.28	.151	12	102	1.03	65	.05	3	2.36	.01	.04	1
L90-125S	1	117	7	59	.2	33	17	609	4.19	7	5	ND	1	57	.2	3	2	92	.90	.089	9	76	1.08	60	.09	4	1.92	.01	.04	1
L90-126S	1	143	2	63	.2	34	17	629	3.88	3	5	ND	1	56	1.2	2	2	83	.87	.094	10	99	1.13	64	.08	3	1.97	.01	.04	1
L90-127S	1	74	3	67	.1	34	16	668	4.04	4	5	ND	1	52	.4	2	3	86	.83	.084	8	114	1.22	55	.09	3	1.95	.01	.03	1
L90-128S	1	57	12	89	.1	29	15	390	5.79	5	5	ND	1	46	.6	2	2	138	.60	.244	4	103	1.07	67	.14	2	2.19	.01	.06	1
STANDARD C	17	57	35	132	7.2	67	31	1030	4.00	41	18	6	36	52	18.6	15	18	56	.52	.094	36	57	.91	183	.08	39	1.88	.06	.14	11
STANDARD C*	17	56	38	123	7.2	67	31	974	3.80	38	17	6	36	48	18.4	17	19	55	.48	.088	36	56	.86	171	.08	34	1.69	.05	.14	11

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L90-129S	1	47	10	61	.1	30	14	534	4.65	4	5	ND	1	45	.2	2	2	112	.55	.122	5	109	.91	56	.13	2	2.08	.01	.04	2
L90-130S	1	29	4	66	.1	24	9	287	4.80	5	5	ND	1	32	.2	2	2	123	.33	.107	6	79	.70	68	.15	2	2.06	.01	.04	1
L90-131S	1	66	8	72	.1	35	15	434	5.00	4	5	ND	1	55	.4	2	2	112	.55	.069	5	103	1.62	69	.15	2	2.97	.01	.04	1
L90-132S	1	83	6	80	.2	34	16	627	4.53	6	5	ND	1	47	.2	2	2	101	.48	.080	6	93	1.34	89	.11	2	2.84	.01	.05	1
L90-133S	1	65	7	84	.4	40	16	461	4.55	7	5	ND	1	78	.2	3	4	103	.70	.109	6	91	1.55	110	.14	3	2.94	.01	.05	1
L90-134S	1	134	6	77	.3	53	19	589	4.21	4	5	ND	1	78	.6	2	2	93	1.27	.134	12	136	1.55	80	.08	5	2.85	.01	.05	2
L90-135S	1	106	7	63	.1	56	20	684	4.39	5	5	ND	1	80	.2	2	4	101	1.35	.123	8	176	1.59	57	.12	3	2.30	.01	.05	1
L90-136S	2	227	3	62	1.0	37	18	1559	3.59	2	5	ND	1	106	.8	2	2	70	2.21	.262	16	89	.80	113	.03	2	2.79	.01	.05	1
L90-137S	1	33	6	64	.2	25	10	248	4.00	2	5	ND	1	47	.2	2	2	99	.59	.094	6	88	.69	71	.14	3	2.24	.01	.03	1
L90-139S	1	61	6	70	.1	44	17	420	5.17	6	5	ND	1	54	.2	2	7	116	.72	.148	5	139	1.41	56	.16	3	2.60	.01	.04	1
L90-140S	1	61	8	76	.1	44	18	412	5.85	4	5	ND	1	56	.9	2	2	122	.71	.126	5	135	1.42	80	.15	2	2.80	.01	.04	1
L90-141S	1	36	2	50	.3	26	8	253	2.59	2	5	ND	1	63	.2	2	2	83	.64	.030	6	87	.75	90	.16	4	1.65	.01	.05	1
L90-142S	1	63	9	62	.2	52	20	686	4.46	4	5	ND	1	71	.2	2	2	109	.95	.105	6	144	1.64	58	.15	6	2.55	.01	.05	1
L90-143S	1	36	13	77	.1	36	14	416	5.03	2	5	ND	1	53	.4	2	4	126	.68	.214	5	161	.99	83	.17	2	2.09	.01	.05	1
L90-144S	1	130	12	92	.4	57	24	792	4.70	9	5	ND	1	71	.3	2	3	110	.98	.093	9	136	1.39	162	.09	2	3.28	.01	.06	1
L90-145S	1	105	8	79	.2	57	21	635	4.85	9	5	ND	1	61	1.1	2	2	110	.80	.092	6	152	1.50	94	.11	2	2.97	.01	.05	1
L90-146S	1	117	14	91	.4	52	27	1372	5.18	9	5	ND	1	80	.5	2	2	123	.97	.091	8	164	1.58	85	.11	4	2.43	.01	.05	1
L90-147S	1	108	17	76	.4	37	18	1123	3.61	2	5	ND	1	77	.5	2	2	93	1.32	.121	9	105	1.08	122	.05	4	2.11	.01	.05	1
RE L90-143S	1	40	11	76	.1	35	17	426	4.96	2	5	ND	1	51	.9	2	5	124	.67	.215	5	159	1.00	83	.16	2	2.06	.01	.05	1
L90-149S	1	49	7	70	.9	26	11	266	4.41	6	5	ND	1	37	.2	2	2	87	.47	.136	6	79	.79	66	.30	4	2.51	.01	.03	1
L90-150S	1	49	3	57	.4	27	11	336	3.12	2	5	ND	1	49	.3	2	2	81	.55	.064	6	67	.97	63	.11	2	1.77	.01	.04	1
L90-151S	1	59	10	53	.8	17	7	175	3.15	2	5	ND	1	38	.2	2	3	76	.40	.095	6	65	.39	94	.08	2	1.78	.01	.03	1
L90-152S	1	34	8	38	.2	18	8	201	3.55	4	5	ND	1	43	.2	2	2	102	.45	.115	4	86	.51	91	.13	4	1.40	.01	.03	1
L90-153S	1	104	7	83	.5	38	18	594	4.91	9	5	ND	1	50	.2	2	2	104	.66	.129	8	109	1.21	82	.11	4	2.71	.01	.05	1
L90-154S	1	64	11	79	.2	36	16	566	4.11	7	5	ND	1	50	.3	2	2	100	.64	.076	6	98	1.22	78	.13	4	2.29	.01	.05	1
L90-155S	1	62	8	69	.2	41	15	571	4.27	5	5	ND	1	50	.2	2	2	103	.72	.097	6	109	1.18	82	.10	5	2.44	.01	.05	1
L90-156S	1	63	6	74	.3	39	15	515	4.84	8	5	ND	1	50	.5	2	4	118	.64	.104	7	153	1.09	90	.13	3	2.14	.01	.05	1
L90-157S	1	71	11	83	.4	46	15	586	4.48	2	5	ND	1	45	.5	2	2	102	.71	.097	5	172	1.31	77	.11	5	2.08	.01	.04	1
L90-158S	1	49	10	101	.2	79	22	556	4.77	4	5	ND	1	57	.9	2	3	104	.92	.084	5	262	2.09	114	.12	2	2.42	.01	.06	1
L90-159S	1	71	5	81	.3	46	19	325	4.66	4	5	ND	1	52	.8	2	2	90	.92	.061	.7	151	1.02	93	.09	2	2.76	.01	.03	1
L90-160S	1	94	13	121	.4	64	23	1317	4.71	8	5	ND	1	59	.2	2	5	91	1.39	.122	7	184	1.68	97	.08	5	2.51	.01	.09	1
L90-161S	1	53	7	73	.2	36	13	390	4.18	3	5	ND	1	44	.4	2	4	99	.56	.122	6	127	1.01	91	.11	4	2.21	.01	.05	1
L90-162S	1	209	12	94	.7	57	19	1053	4.89	10	5	ND	1	58	1.1	2	3	95	1.19	.136	13	157	1.39	111	.06	3	2.96	.01	.06	1
L90-163S	1	75	8	75	.2	39	13	364	4.39	3	5	ND	1	48	.7	2	2	99	.59	.089	8	117	1.01	95	.10	3	2.25	.01	.04	1
L90-164S	1	124	4	64	.3	63	24	708	4.94	6	5	ND	1	79	.8	2	3	113	1.05	.095	8	200	1.65	64	.12	3	2.58	.01	.05	1
L90-165S	1	60	21	91	.1	24	15	617	5.22	7	5	ND	1	105	.4	2	4	128	.84	.147	6	56	.94	128	.19	3	2.62	.01	.05	2
L90-166S	1	53	6	72	.1	25	14	353	5.63	6	5	ND	1	96	.2	2	3	126	.66	.091	6	99	.98	80	.17	2	2.69	.01	.04	1
STANDARD C	18	59	38	132	7.2	73	31	1030	4.04	39	20	7	37	53	18.5	15	19	55	.52	.094	37	58	.92	179	.08	33	1.95	.06	.14	12
STANDARD C*	18	58	42	131	7.2	69	31	1014	4.04	37	21	6	38	52	18.4	17	21	54	.51	.095	37	59	.92	183	.08	33	1.90	.06	.14	11

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	U ppm
L90-167S	1	56	4	108	.1	25	18	824	6.15	4	5	ND	1	149	.5	2	5	127	.72	.344	4	91	1.28	153	.12	3	2.52	.01	.05	2
L90-168S	1	43	7	81	.2	23	15	397	6.34	6	5	ND	1	92	.4	3	2	139	.41	.149	5	75	.94	97	.16	2	2.33	.01	.05	1
L90-170S	1	144	11	79	.4	77	25	671	5.45	9	5	ND	1	93	.4	2	8	114	1.02	.106	6	181	2.25	112	.09	3	3.38	.01	.09	1
L90-172S	1	93	8	50	.3	40	17	515	4.11	4	5	ND	1	91	.3	2	2	87	1.38	.068	6	132	1.31	93	.10	3	2.10	.01	.04	2
L90-173S	1	52	8	70	.1	26	14	441	4.74	4	5	ND	1	83	.5	2	3	122	.91	.064	5	112	.96	117	.14	2	1.88	.01	.04	1
L90-174S	1	68	9	67	.2	46	17	405	5.69	7	5	ND	1	55	.3	3	6	126	.71	.239	3	143	1.44	87	.11	2	2.60	.01	.04	1
L90-175S	1	34	2	32	.1	19	8	179	3.18	2	5	ND	1	58	.2	2	2	108	.63	.022	4	118	.59	92	.19	2	1.62	.01	.02	2
L90-179S	1	82	10	75	.1	61	23	857	5.15	7	5	ND	1	74	.4	2	2	119	1.45	.103	5	238	2.00	53	.13	3	2.46	.01	.05	2
L90-180S	1	53	6	81	.1	32	17	560	5.29	6	5	ND	1	59	.8	2	2	122	1.02	.106	5	125	1.03	107	.12	2	2.07	.01	.04	1
L90-181S	1	127	8	86	.3	32	13	436	3.23	6	5	ND	1	60	.2	2	2	71	.94	.074	9	90	1.01	74	.07	2	1.91	.01	.05	1
L90-182S	1	68	2	62	.3	31	13	373	3.37	5	5	ND	1	86	.2	2	2	83	.96	.070	8	75	1.21	82	.11	2	2.13	.01	.03	1
L90-183S	1	34	3	74	.4	30	12	328	3.41	4	5	ND	1	53	.2	2	2	84	.88	.072	6	88	1.13	71	.13	3	1.89	.01	.04	1
L90-184S	1	106	11	80	.4	46	17	461	4.08	3	5	ND	1	56	.2	2	2	94	.80	.083	7	132	1.41	78	.10	3	2.29	.01	.04	1
L90-185S	1	71	6	70	.1	41	21	954	4.14	5	5	ND	1	62	.2	2	2	98	1.05	.103	7	142	1.31	60	.10	4	2.24	.01	.04	1
RE L90-182S	1	66	3	61	.2	31	14	370	3.36	5	5	ND	1	87	.2	2	2	82	.96	.070	7	74	1.21	80	.11	4	2.16	.01	.03	1
L90-186S	1	49	7	68	.1	24	15	596	4.07	9	5	ND	1	57	.2	2	2	96	.99	.109	5	86	.94	87	.09	2	1.76	.01	.04	1
L90-187S	1	41	2	56	.2	31	11	361	3.19	7	5	ND	1	45	.2	2	2	81	.80	.080	5	82	1.16	60	.12	4	1.87	.01	.03	1
STANDARD C	18	58	38	132	7.2	70	32	1031	4.14	39	19	7	37	53	18.6	16	20	55	.54	.095	37	59	.94	179	.08	35	2.00	.06	.14	11
STANDARD C*	18	58	40	126	7.2	66	31	1015	4.03	37	19	7	37	51	18.9	15	20	54	.52	.093	35	56	.91	172	.08	34	1.87	.05	.14	11

## GEOCHEMICAL ANALYSIS CERTIFICATE

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L90-188S	1	33	8	66	.1	28	9	365	3.22	2	5	ND	1	52	.2	2	2	92	.72	.031	6	80	1.06	86	.18	6	1.96	.01	.03	1
L90-189S	1	26	10	67	.1	27	9	301	4.53	10	5	ND	1	42	.3	2	2	115	.52	.106	7	95	.78	71	.18	6	2.03	.01	.02	1
L90-193S	1	34	9	86	.2	26	9	281	3.87	14	5	ND	1	44	.3	2	2	92	.56	.055	9	73	.77	86	.15	4	2.36	.01	.02	1
L90-194S	1	93	9	87	.1	45	18	721	4.88	16	5	ND	1	85	.5	2	2	123	1.18	.072	8	115	1.30	116	.15	4	2.74	.01	.04	1
L90-195S	1	98	11	67	.2	50	17	732	4.48	6	5	ND	1	79	.2	2	2	108	1.09	.073	9	130	1.42	98	.16	6	2.57	.01	.05	1
L90-196S	1	138	11	84	.1	57	20	883	4.51	14	5	ND	1	122	.5	2	2	101	1.82	.106	9	136	1.42	125	.10	4	2.63	.01	.06	1
L90-197S	1	64	7	59	.1	37	12	378	3.53	6	5	ND	1	57	.2	2	2	91	.72	.055	7	89	1.14	80	.13	2	2.34	.01	.03	1
L90-198S	1	41	7	75	.2	35	11	367	4.35	9	5	ND	1	45	.2	2	2	102	.55	.135	7	89	1.17	81	.17	2	2.32	.01	.04	1
L90-199S	1	53	7	62	.1	34	10	318	4.51	14	5	ND	1	45	.3	3	2	106	.48	.056	6	100	.99	99	.13	2	2.26	.01	.01	1
L90-200S	1	196	10	74	.4	81	26	465	5.48	2	5	ND	1	101	.6	2	2	114	1.70	.094	14	234	1.16	76	.15	2	3.27	.01	.06	1
L90-201S	1	89	8	79	.3	69	27	1380	5.12	9	5	ND	1	86	.4	2	2	110	1.33	.082	6	228	1.76	115	.12	2	2.50	.01	.06	1
L90-202S	1	117	9	89	.3	61	19	727	4.77	17	5	ND	1	103	.6	3	4	99	1.26	.083	8	157	1.66	118	.13	2	2.46	.01	.06	2
L90-203S	1	163	11	56	.2	60	21	575	4.85	18	5	ND	1	94	.5	2	2	92	1.29	.101	13	184	1.17	94	.09	2	2.72	.01	.04	1
L90-204S	1	166	8	74	.2	67	20	564	5.54	13	5	ND	1	87	.4	2	2	131	1.11	.053	8	229	1.76	92	.16	2	2.88	.01	.07	1
L90-205S	1	58	9	77	.3	73	19	466	5.72	13	5	ND	1	63	.4	2	3	136	.96	.145	6	284	2.00	133	.19	2	2.53	.01	.06	1
L90-206S	1	125	9	62	.5	78	19	814	4.73	16	5	ND	1	68	.8	2	2	108	1.69	.119	9	235	1.75	98	.09	2	2.46	.01	.06	1
L90-207S	1	99	8	60	.2	79	23	907	4.95	8	5	ND	1	71	.2	2	2	112	1.43	.105	8	250	2.25	113	.16	2	2.52	.01	.08	1
L90-208S	1	86	6	75	.4	58	17	590	4.59	14	5	ND	1	81	.9	4	2	110	1.83	.073	6	183	1.48	114	.12	2	2.28	.01	.01	1
L90-209S	1	127	11	63	.5	76	23	1055	4.93	17	5	ND	1	68	.5	2	2	104	1.41	.109	11	192	1.56	105	.10	2	2.79	.01	.05	1
L90-211S	1	142	8	71	.4	50	17	687	4.40	13	5	ND	1	67	.4	2	2	96	1.19	.076	9	112	1.34	103	.13	2	2.48	.01	.04	1
L90-212S	1	173	10	64	1.3	41	12	594	4.40	15	5	ND	1	58	.6	2	2	103	.73	.085	11	103	.91	108	.11	2	2.37	.01	.05	2
L90-213S	1	59	7	57	.1	36	11	338	4.43	15	5	ND	1	48	.2	2	2	103	.63	.096	7	93	1.16	69	.18	4	2.49	.01	.03	1
L90-214S	1	66	10	52	.3	39	13	463	3.93	15	5	ND	1	64	.3	2	2	107	.86	.062	7	105	1.13	86	.15	4	2.29	.01	.02	2
RE L90-211S	1	145	6	74	.3	51	17	692	4.37	15	5	ND	1	67	.4	2	2	96	1.20	.076	9	112	1.34	100	.13	2	2.45	.01	.04	1
L90-215S	1	163	8	90	.5	63	20	809	5.29	19	5	ND	1	63	.7	4	3	111	.98	.100	8	119	1.56	163	.12	2	3.42	.01	.07	1
L90-216S	1	78	9	98	1.0	36	16	685	5.01	14	5	ND	1	36	.2	2	2	100	.42	.074	10	64	1.26	112	.16	2	3.13	.01	.06	1
L90-217S	1	153	14	115	.6	51	17	704	5.25	19	5	ND	1	40	.3	4	2	105	.45	.108	12	69	1.34	120	.12	7	3.47	.01	.05	1
L90-218S	1	28	8	62	.5	17	7	350	3.81	13	5	ND	1	35	.2	2	3	99	.46	.147	9	66	.46	79	.20	2	1.55	.01	.05	2
L90-219S	1	67	8	74	.3	43	14	534	3.91	9	5	ND	1	44	.2	2	2	92	.56	.059	8	89	1.47	108	.15	2	2.98	.01	.04	1
L90-220S	1	71	11	82	.4	39	14	445	6.00	24	5	ND	1	35	.5	3	3	120	.44	.086	9	100	1.10	93	.21	3	2.87	.01	.03	1
L90-221S	1	39	6	65	.4	31	10	357	4.99	9	5	ND	1	33	.2	3	2	118	.46	.143	7	77	1.23	76	.18	2	2.81	.01	.04	1
L90-222S	1	54	8	72	.5	40	14	424	5.00	12	5	ND	1	40	.3	3	2	107	.57	.143	7	90	1.35	112	.17	2	2.96	.01	.05	1
L90-223S	1	98	11	86	.5	45	17	1003	5.35	18	5	ND	1	38	.3	2	3	110	.50	.101	9	85	1.42	113	.13	2	3.45	.01	.05	1
L90-224S	1	77	8	106	.2	47	14	433	4.62	15	5	ND	1	36	.2	2	2	102	.48	.074	12	79	1.56	102	.13	2	3.24	.01	.05	1
L90-225S	1	68	8	113	.3	36	14	485	4.46	7	5	ND	1	47	.2	2	2	102	.55	.064	10	71	1.49	114	.16	2	3.27	.01	.05	1
L90-227S	1	54	6	77	.3	23	11	472	4.20	13	5	ND	1	65	.2	4	2	111	.77	.070	7	48	1.45	105	.15	2	3.08	.01	.04	1
L90-228S	1	170	9	104	.9	38	18	1183	5.26	18	8	ND	1	65	.3	2	2	115	.94	.079	13	64	1.56	179	.08	2	3.91	.01	.11	1
STANDARD C	20	58	40	132	7.1	75	31	1076	4.24	44	20	8	40	52	18.9	17	21	60	.54	.099	40	60	1.00	182	.10	34	2.06	.06	.14	12
STANDARD C	18	60	36	132	7.0	72	29	1019	4.00	39	23	7	38	53	18.5	15	20	57	.51	.094	38	60	.93	181	.09	33	1.94	.06	.13	11

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-KNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: Soil Pulp

DATE RECEIVED: JUL 14 1990 DATE REPORT MAILED: July 18/90 SIGNED BY: C. Leong D. Toye, C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS

## BP Resources Canada Ltd.

FILE # 90-2536

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L90-229S	1	67	9	64	.2	38	15	473	6.71	17	5	ND	2	47	.6	3	2	144	.43	.122	7	108	1.16	149	.17	7	2.92	.01	.06	1
L90-230S	1	56	8	63	.2	32	14	624	6.10	13	5	ND	1	52	.4	3	2	154	.55	.141	6	95	1.11	140	.17	5	2.37	.01	.07	1
L90-231S	1	36	8	111	.2	20	10	325	5.37	19	5	ND	2	46	.5	3	2	110	.41	.173	9	50	.78	90	.17	4	2.62	.01	.06	1
L90-232S	1	82	10	67	.2	34	15	478	4.53	11	5	ND	2	65	.7	3	3	115	.88	.051	9	81	1.11	103	.18	4	2.86	.01	.04	1
L90-233S	1	38	8	87	.2	20	9	296	4.30	6	5	ND	1	41	.3	2	3	100	.47	.178	8	67	.73	72	.16	2	2.67	.01	.04	1
L90-234S	1	81	12	92	.4	37	15	472	4.74	19	5	ND	1	46	.7	3	2	108	.50	.079	9	96	1.05	134	.15	4	3.52	.01	.05	1
L90-235S	1	110	10	80	.6	35	13	580	3.78	3	5	ND	1	58	.7	2	3	89	.71	.126	12	77	1.07	134	.06	2	3.21	.01	.06	1
L90-236S	1	156	11	113	.6	61	24	1033	5.33	16	5	ND	1	78	1.1	3	2	117	1.20	.134	11	131	1.66	163	.09	2	3.83	.01	.07	1
L90-237S	1	202	12	115	.5	35	18	983	4.11	17	5	ND	1	77	1.4	2	2	91	1.38	.117	16	75	.82	101	.08	2	2.74	.01	.05	1
L90-238S	1	136	13	104	.3	39	14	799	4.12	13	5	ND	1	73	1.1	4	2	98	1.19	.120	10	82	1.32	134	.07	2	3.05	.01	.04	1
L90-239S	1	162	13	72	.7	34	11	472	3.37	17	5	ND	1	94	1.2	2	2	74	1.62	.117	14	75	.87	117	.06	2	2.62	.01	.03	1
RE L90-244S	1	67	6	57	.5	26	8	328	4.05	12	5	ND	1	37	.4	2	2	79	.47	.180	7	50	.78	77	.11	2	2.14	.01	.04	1
L90-240S	1	35	8	71	.2	15	6	191	2.08	3	5	ND	1	38	.2	2	3	51	.51	.032	13	40	.56	75	.11	2	1.72	.01	.03	1
L90-241S	1	41	7	60	.1	23	9	266	4.01	16	5	ND	1	36	.2	2	2	105	.46	.135	8	64	.86	68	.14	2	2.24	.01	.04	1
L90-242S	1	53	6	60	.2	23	9	369	3.76	10	5	ND	1	37	.3	3	2	86	.38	.057	7	52	1.05	74	.17	2	2.57	.01	.05	1
L90-243S	1	44	8	56	.7	20	8	259	5.09	5	5	ND	2	27	.3	2	2	102	.29	.125	7	59	.73	69	.15	2	3.08	.01	.04	1
L90-244S	1	64	7	56	.5	26	8	326	4.05	12	5	ND	1	37	.3	2	2	79	.47	.180	7	52	.78	76	.11	2	2.15	.01	.05	1
L90-245S	1	62	9	69	.1	30	11	374	4.88	20	5	ND	2	37	.4	4	2	92	.47	.177	7	60	1.09	70	.15	2	2.51	.01	.06	2
L90-246S	1	53	9	75	.6	22	9	395	5.25	21	5	ND	1	30	.5	4	2	107	.36	.295	6	60	.76	87	.13	2	2.85	.01	.03	1
L90-247S	1	64	31	85	.5	25	10	330	3.75	16	5	ND	1	32	.4	4	2	85	.33	.068	9	56	.95	86	.15	2	2.74	.01	.04	1
L90-248S	1	37	15	45	.4	13	5	169	2.26	16	5	ND	1	35	.2	2	2	66	.38	.067	8	45	.49	80	.10	2	2.15	.01	.03	2
L90-249S	1	25	10	83	.8	19	8	292	4.98	7	5	ND	1	23	.4	4	3	101	.33	.213	7	70	.78	69	.13	2	2.88	.01	.03	1
L90-250S	1	52	15	103	.4	41	17	625	5.49	12	5	ND	1	75	.5	3	2	122	.65	.202	6	157	1.28	118	.20	2	2.12	.01	.06	1
L90-253S	1	52	10	81	.6	28	10	368	4.25	12	5	ND	1	55	.5	3	2	101	.77	.050	6	70	.95	72	.17	2	2.49	.01	.05	1
L90-254S	1	34	12	72	.2	27	10	324	4.64	12	5	ND	1	34	.3	3	2	115	.42	.072	6	70	.98	102	.18	2	2.39	.01	.04	2
L90-255S	1	84	8	73	.3	59	17	481	4.94	3	5	ND	1	52	.3	2	2	117	.73	.098	8	150	1.91	87	.18	4	2.96	.01	.06	1
L90-256S	1	110	7	80	.1	70	20	632	5.26	12	5	ND	1	60	.5	4	2	121	.77	.085	7	157	2.34	84	.18	4	3.53	.01	.07	1
L90-257S	1	95	15	92	.4	39	13	422	4.29	9	5	ND	1	37	.5	4	3	91	.43	.087	11	91	1.31	99	.11	3	2.93	.01	.06	1
L90-258S	1	217	27	101	1.1	57	19	779	5.58	23	5	ND	1	50	.8	3	2	120	.53	.087	15	105	1.09	131	.09	4	3.82	.01	.06	1
L90-259S	1	160	13	130	.6	51	16	796	4.52	15	5	ND	1	56	.8	3	2	95	.62	.100	12	95	1.31	127	.09	3	3.13	.01	.06	1
L90-260S	1	23	12	61	.5	16	6	226	3.07	6	5	ND	1	40	.5	2	3	92	.51	.092	8	63	.42	117	.18	2	1.58	.01	.06	2
L90-261S	1	50	13	80	.4	31	11	360	4.39	12	5	ND	1	35	.3	4	3	93	.45	.100	9	70	1.15	84	.18	4	2.80	.01	.05	1
L90-262S	1	56	15	80	.4	30	12	348	4.10	10	5	ND	2	31	.2	3	2	89	.37	.100	8	78	.96	80	.16	3	3.29	.01	.05	1
L90-263S	1	39	10	100	.8	27	11	398	5.46	2	5	ND	1	31	.2	3	2	112	.47	.308	6	85	.86	72	.15	5	2.57	.01	.06	1
L90-264S	1	117	11	115	1.1	38	15	572	4.59	17	5	ND	1	41	.2	3	2	90	.46	.064	13	64	1.15	108	.15	4	3.29	.01	.08	1
L90-265S	1	90	11	85	.6	27	17	501	5.07	24	5	ND	1	87	.6	3	2	89	1.29	.119	10	57	.91	96	.10	6	2.56	.01	.06	1
L90-266S	1	45	11	75	.6	26	11	273	6.43	16	5	ND	2	38	.2	3	2	133	.45	.303	7	75	.81	93	.16	5	2.46	.01	.06	1
STANDARD C	20	63	40	141	7.3	75	32	1084	4.23	38	17	8	41	53	18.0	20	21	61	.55	.094	39	59	.98	184	.10	33	2.07	.06	.14	12
STANDARD C	18	57	38	132	7.3	72	31	1034	4.06	44	21	7	39	52	18.6	16	18	58	.52	.096	39	60	.94	181	.09	38	1.98	.06	.13	11

## BP Resources Canada Ltd.

FILE # 90-2536

Page 3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
L90-269S	1	47	11	76	.1	18	13	411	4.79	6	5	ND	1	29	.3	2	2	107	.30	.303	5	56	.64	77	.11	2	2.63	.01	.05	1
L90-271S	1	50	6	61	.1	21	13	259	4.46	7	5	ND	1	35	.4	2	2	120	.47	.192	5	68	.57	74	.15	3	1.73	.01	.05	1
L90-272S	1	47	2	58	.1	30	18	281	3.72	5	5	ND	1	44	.2	2	2	89	.51	.274	6	73	.71	57	.11	4	2.12	.01	.07	1
L90-273S	1	43	2	78	.1	27	14	343	4.55	7	5	ND	1	29	.7	2	2	119	.37	.178	5	71	.67	65	.12	2	2.23	.01	.05	1
L90-274S	1	36	9	44	.1	14	8	283	4.02	7	5	ND	1	27	.5	2	2	103	.30	.232	5	56	.45	62	.10	2	2.06	.01	.04	1
L90-275S	1	45	7	64	.2	18	10	272	5.09	6	5	ND	1	25	.5	2	2	124	.28	.227	6	61	.57	69	.13	2	2.69	.01	.04	1
L90-276S	1	134	3	98	.9	36	16	739	3.83	7	5	ND	1	68	1.1	2	2	83	.99	.190	11	78	.83	129	.04	3	3.06	.01	.05	1
L90-277S	1	51	6	64	.1	22	12	263	4.99	4	5	ND	1	31	.5	2	2	123	.40	.079	6	74	.69	108	.14	5	3.03	.01	.04	1
L90-278S	1	39	3	85	.1	19	13	306	5.92	4	5	ND	1	27	.6	2	2	144	.28	.217	7	62	.65	67	.16	3	2.23	.01	.04	1
L90-280S	1	44	9	78	.1	22	12	284	5.34	6	5	ND	2	28	.4	2	2	123	.34	.312	8	67	.64	76	.12	5	2.62	.01	.05	1
L90-282S	1	43	8	55	.1	23	12	269	6.25	8	5	ND	2	29	.6	2	2	147	.40	.347	5	77	.68	68	.13	6	2.92	.01	.05	1
L90-283S	1	41	8	49	.2	19	8	212	4.73	6	5	ND	1	23	1.0	2	2	101	.20	.166	6	59	.58	78	.13	3	2.09	.01	.05	2
L90-284S	1	53	2	64	.3	24	14	395	4.02	4	5	ND	1	40	.6	2	2	92	.47	.096	6	62	.91	107	.15	6	2.30	.01	.06	1
L90-285S	1	65	7	96	.1	29	16	332	6.31	12	5	ND	2	23	.6	2	2	126	.29	.327	7	81	.89	96	.13	5	3.39	.01	.05	1
L90-287S	1	12	11	22	.2	6	3	94	.92	2	5	ND	1	33	.2	2	2	38	.30	.032	11	23	.18	88	.09	2	1.21	.01	.03	1
L90-288S	1	57	7	77	.1	29	16	360	4.97	4	5	ND	2	25	.9	2	2	108	.29	.280	7	79	.84	64	.11	2	3.34	.01	.05	1
L90-289S	1	38	8	52	.1	24	11	296	3.63	3	5	ND	1	39	.4	2	2	96	.48	.060	6	74	.78	96	.12	7	2.47	.01	.04	1
STANDARD C	19	58	38	134	7.3	71	32	1058	3.96	40	18	7	36	53	18.2	15	19	57	.48	.095	38	61	.88	179	.07	38	2.04	.06	.14	12

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. V6A 1R6

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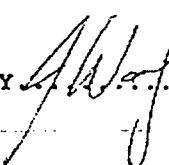
## GEOCHEMICAL ANALYSIS CERTIFICATE

BP Resources Canada Ltd. PROJECT LIP File # 90-2786  
 700 - 890 W. Pender St., Vancouver BC V6B 4W3

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Mi	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	U
	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm									
L90-28R	1	35	9	54	.1	43	17	553	2.74	3	5	ND	1	27	.5	4	2	41	.61	.091	2	98	2.09	22	.11	5	1.73	.02	.03	.2
L90-54R	1	41	2	8	.1	8	4	155	1.59	2	5	ND	1	119	.2	2	2	25	.84	.182	9	36	.33	84	.11	4	.86	.05	.29	.2
L90-114R	1	104	17	66	.2	104	26	476	3.23	13	5	ND	1	141	.7	4	2	119	2.42	.081	5	86	1.37	61	.20	13	2.14	.04	.03	.1
L90-171R	1	95	6	67	.1	6	20	882	5.43	5	5	ND	1	60	1.2	2	2	111	2.50	.120	7	16	.91	40	.21	13	1.77	.04	.17	.1
L90-310R	1	67	6	44	.1	16	12	312	3.54	2	5	ND	6	32	.6	--2	3	114	.90	.162	14	37	.75	49	.18	4	.89	.03	.12	.1
STANDARD C	19	58	43	128	7.2	72	31	1027	3.96	43	18	6	39	53	18.5	16	23	56	.48	.094	40	59	.88	180	.07	35	1.85	.06	.14	.12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-KNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Mn Fe Sr Ca P La Cr Mg Ba Tl B V AND LIMITED FOR Na K AND Al. Au DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Rock Pulp

DATE RECEIVED: JUL 23 1990 DATE REPORT MAILED:

SIGNED BY  D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

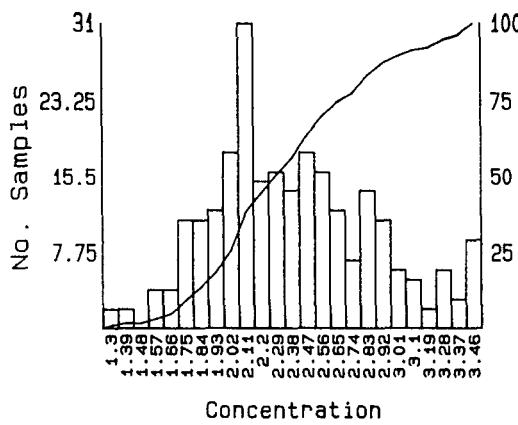
APPENDIX 3

DOT-PLOT STATISTICS (FIGS. 35-64)

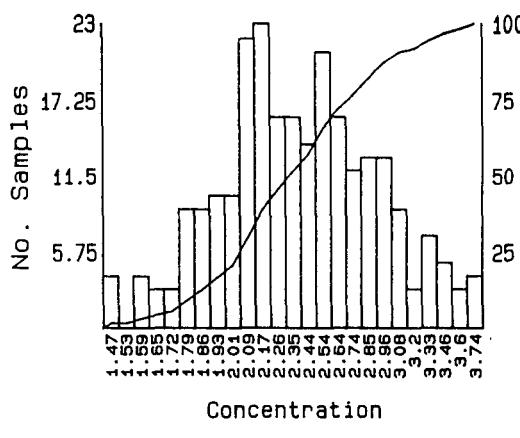
## ALUMINUM

(%)

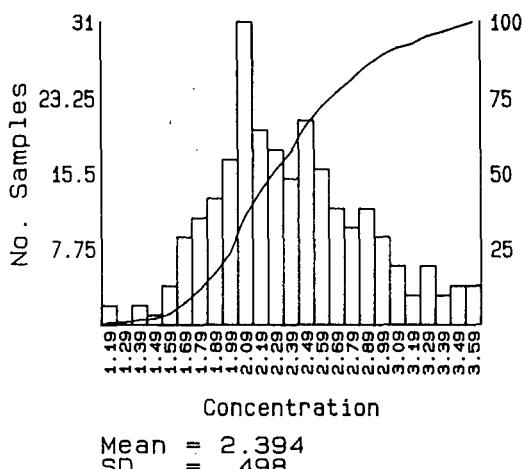
## TRUNCATED ARITHMETIC



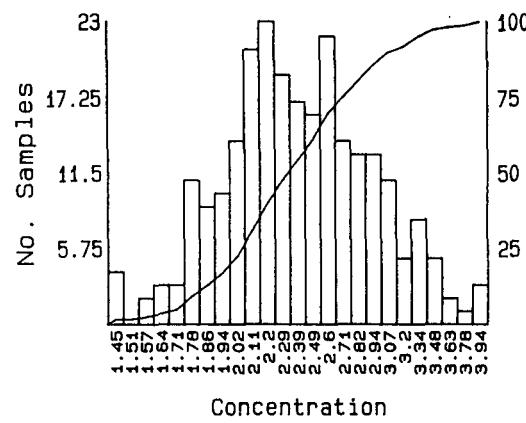
## TRUNCATED LOGARITHMIC



## ARITHMETIC



## LOGARITHMIC



Number Samples = 249  
Minimum Value = 1.16  
Maximum Value = 3.91

SUBSET CRITERIA  
 Property Code(s) = [] East  
 Sample Type(s) = [] North  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

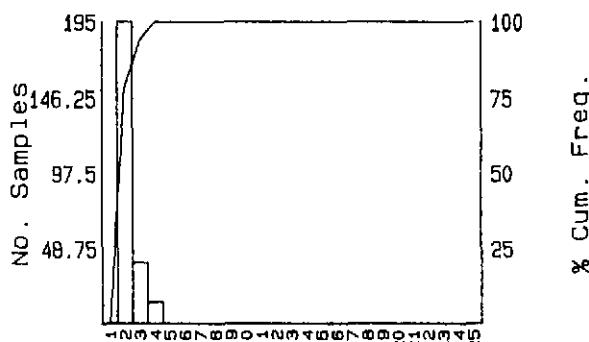
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	35

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 2.273  
SD = .559

Number Samples = 249  
Minimum Value = 2  
Maximum Value = 4

SUBSET CRITERIA  
Property Code(s) = [] East North  
Sample Type(s) = []  
Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

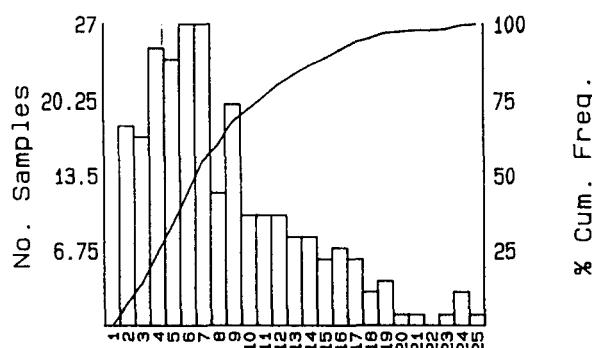
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	36

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 8.39  
SD = 5.261

Number Samples = 249  
Minimum Value = 2  
Maximum Value = 39

SUBSET CRITERIA  
Property Code(s) =  East North  
Sample Type(s) =   
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

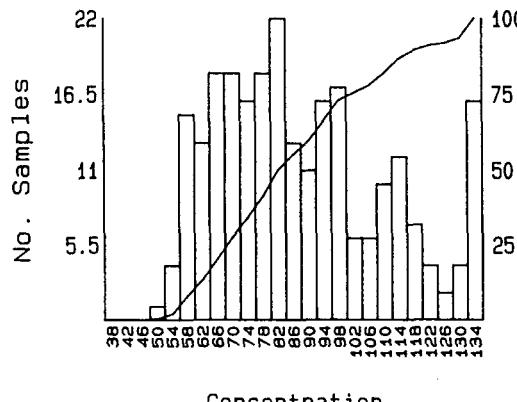
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No. 37
	JULY 1990		93N/1E	

BP RESOURCES CANADA LIMITED

# BARIUM (ppm)

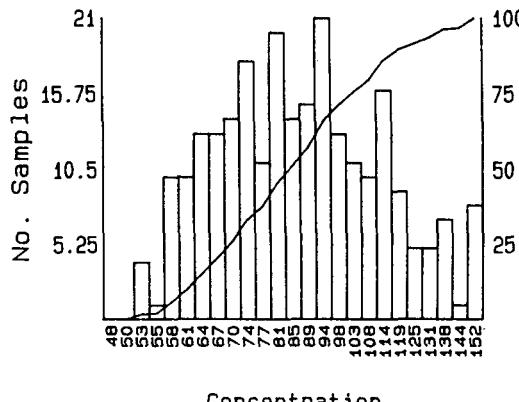
TRUNCATED ARITHMETIC



Concentration

Mean = 85.322  
SD = 19.955

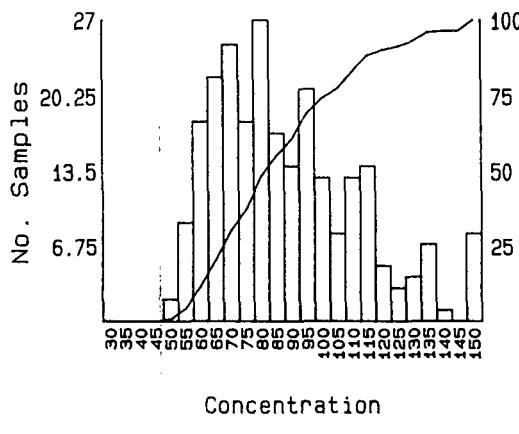
TRUNCATED LOGARITHMIC



Concentration

Mean = 83.721  
SD = .104

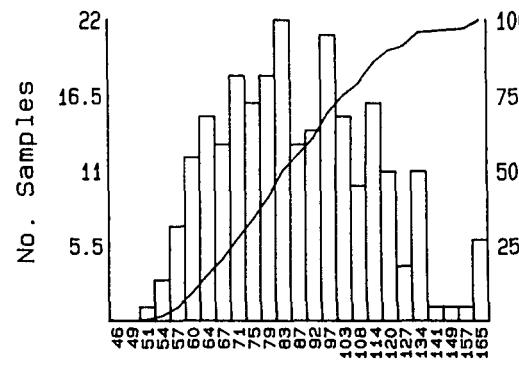
ARITHMETIC



Concentration

Mean = 88.811  
SD = 24.721

LOGARITHMIC



Concentration

Mean = 85.701  
SD = .115

Number Samples = 249  
Minimum Value = 51  
Maximum Value = 179

SUBSET CRITERIA  
 Property Code(s) = []      East  
 Sample Type(s) = []      North  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

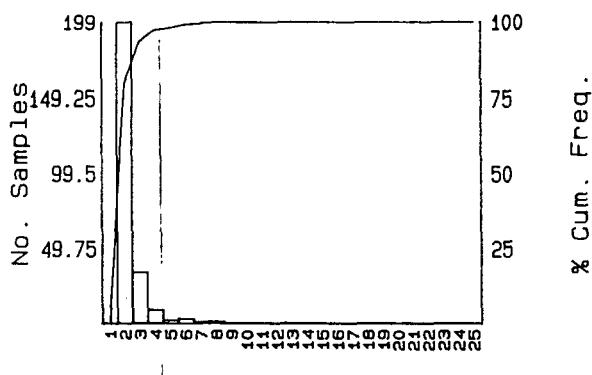
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	38

BP RESOURCES CANADA LIMITED

## ARITHMETIC



Concentration  
Mean = 2.325  
SD = .83

Number Samples = 249  
Minimum Value = 2  
Maximum Value = 8

SUBSET CRITERIA  
Property Code(s) =  East North  
Sample Type(s) =   
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

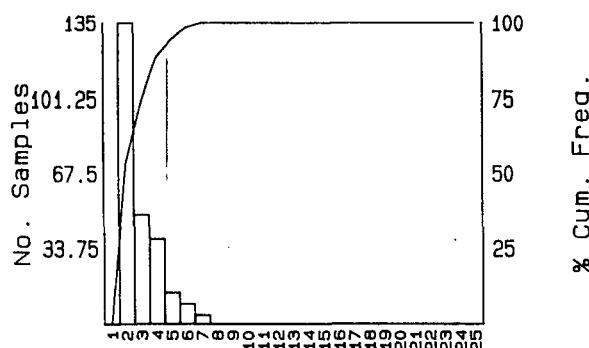
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	39

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 2.896  
SD = 1.224

Number Samples = 249  
Minimum Value = 2  
Maximum Value = 7

SUBSET CRITERIA  
Property Code(s) = [] East North  
Sample Type(s) = []  
Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

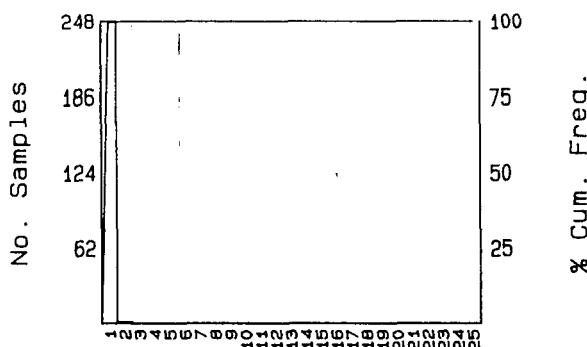
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	40

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 1.016  
 SD = .078

Number Samples = 249  
 Minimum Value = 1  
 Maximum Value = 1.8

SUBSET CRITERIA  
 Property Code(s) =  East North  
 Sample Type(s) =   
 Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

LIP #1 M.C.

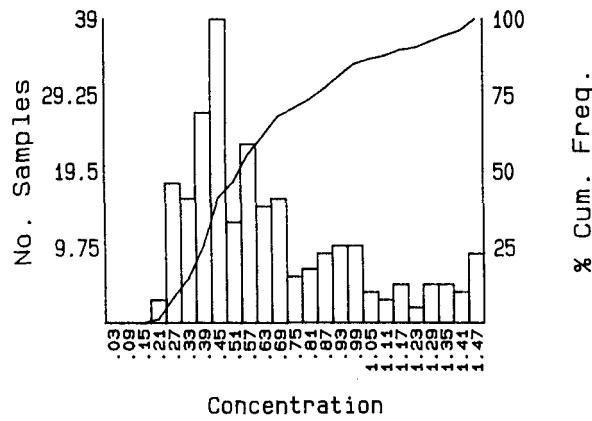
Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	41

BP RESOURCES CANADA LIMITED

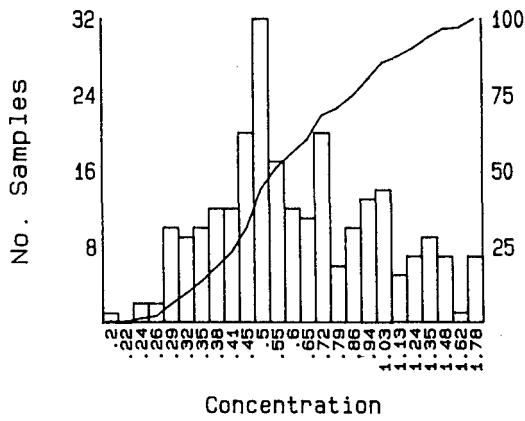
## CALCIUM

(%)

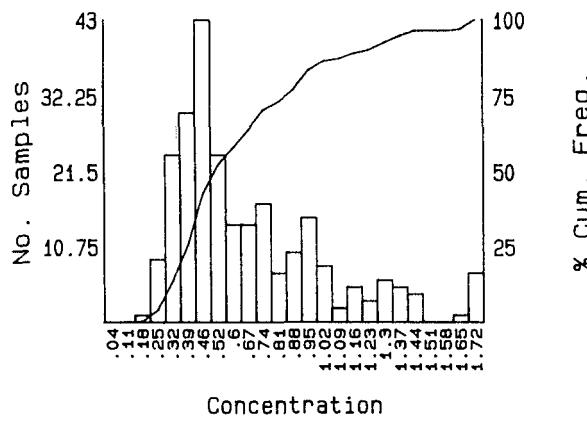
## TRUNCATED ARITHMETIC



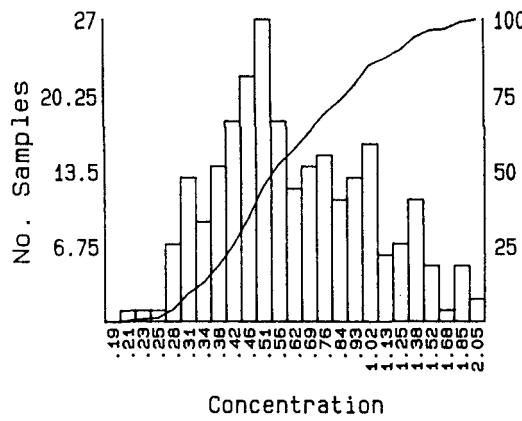
## TRUNCATED LOGARITHMIC



## ARITHMETIC



## LOGARITHMIC



Number Samples = 249  
Minimum Value = .2  
Maximum Value = 2.65

SUBSET CRITERIA

Property Code(s)	=	[]	East	North
Sample Type(s)	=	[]		
Lab Code(s)	=	[]		

## SOIL GEOCHEMICAL SURVEY – JUNE

**Project Name**

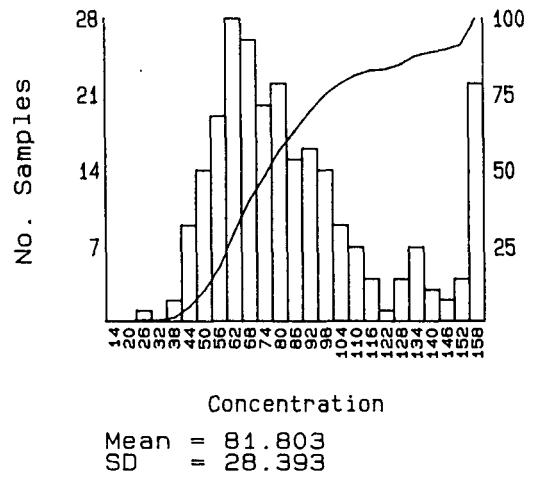
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	42

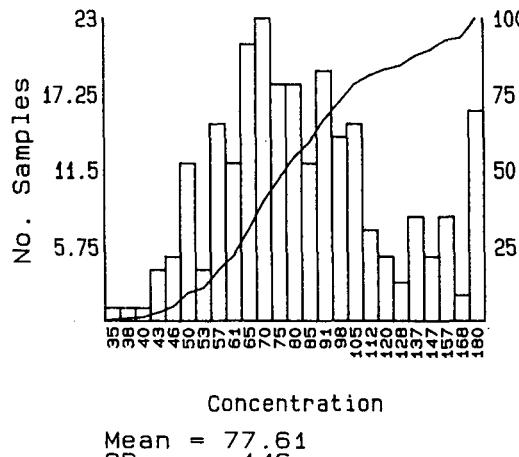
BP RESOURCES CANADA LIMITED

# CHROMIUM (ppm)

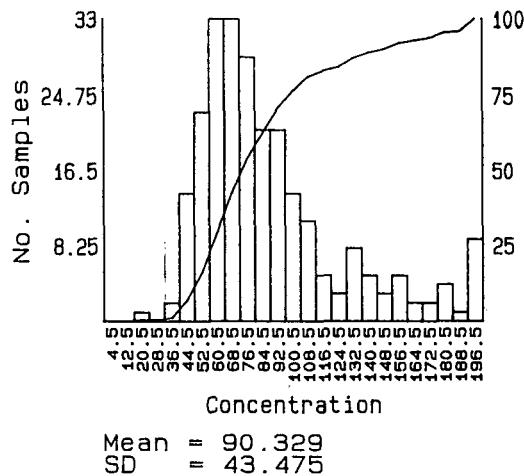
TRUNCATED ARITHMETIC



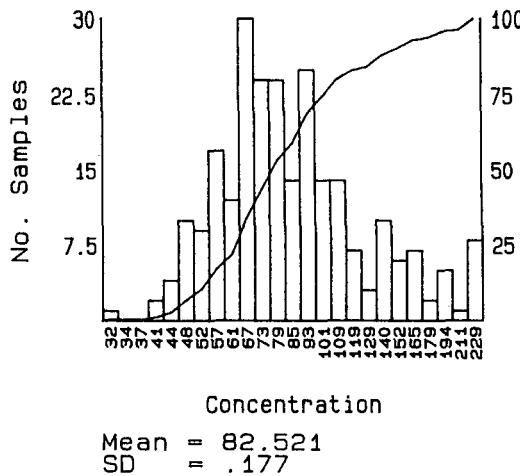
TRUNCATED LOGARITHMIC



ARITHMETIC



LOGARITHMIC



Number Samples = 249  
Minimum Value = 23  
Maximum Value = 284

SUBSET CRITERIA  
 Property Code(s) = [] East  
 Sample Type(s) = [] North  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

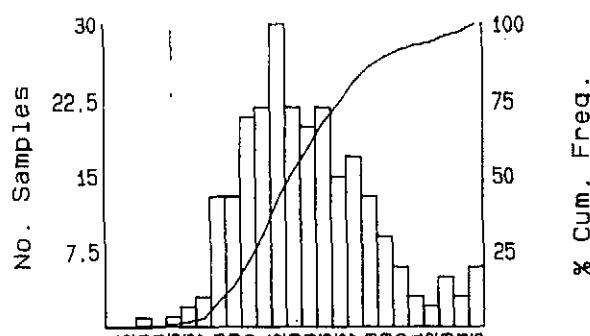
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	43

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 13.956  
SD = 4.354

Number Samples = 249  
Minimum Value = 3  
Maximum Value = 27

SUBSET CRITERIA  
Property Code(s) = [] East North  
Sample Type(s) = []  
Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

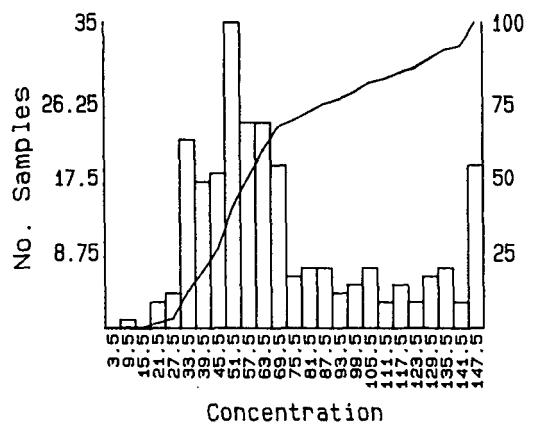
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/E	44

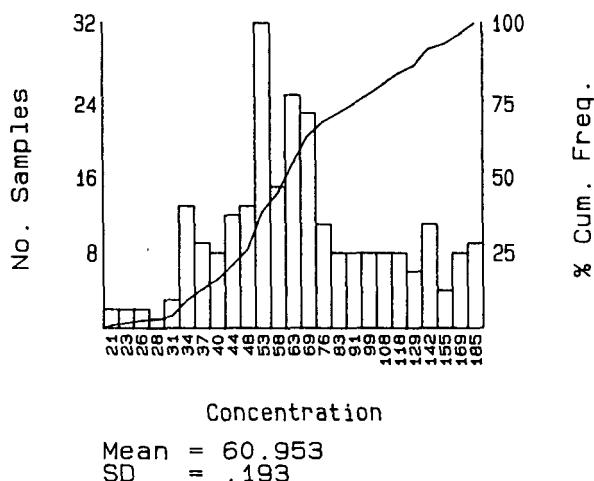
BP RESOURCES CANADA LIMITED

# COPPER (ppm)

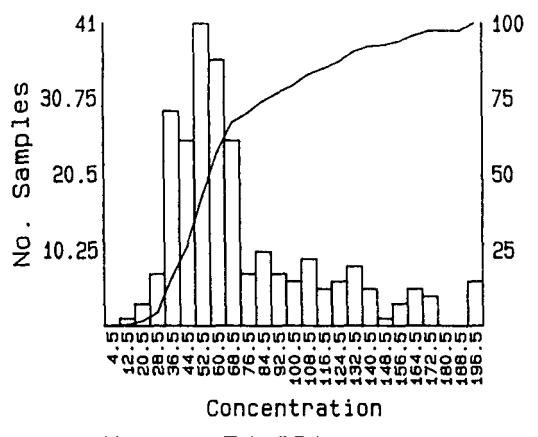
## TRUNCATED ARITHMETIC



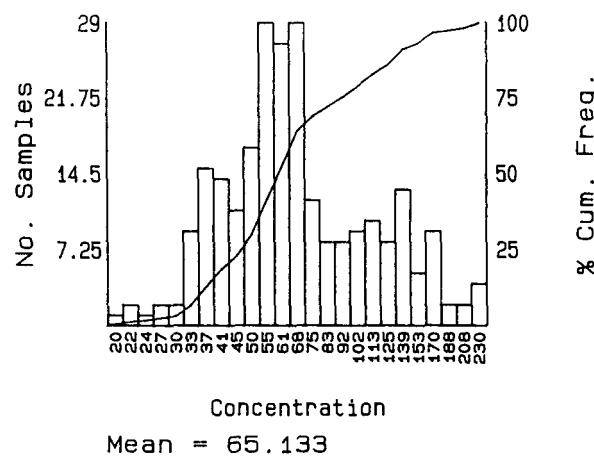
## TRUNCATED LOGARITHMIC



## ARITHMETIC



## LOGARITHMIC



Number Samples = 249  
Minimum Value = 12  
Maximum Value = 227

SUBSET CRITERIA  
Property Code(s) = []      East  
Sample Type(s) = []  
Lab. Code(s) = []      North

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

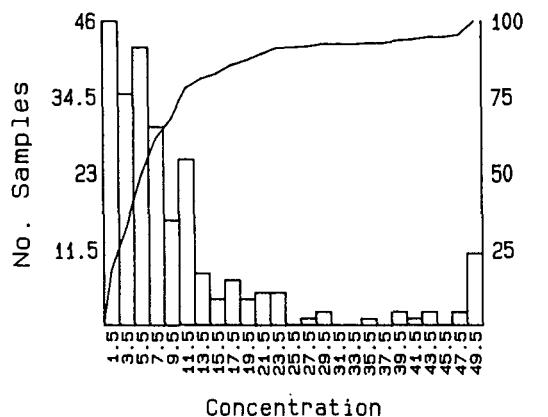
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	45

BP RESOURCES CANADA LIMITED

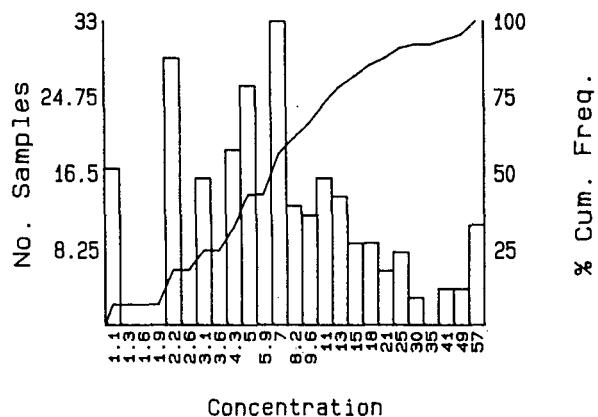
# GOLD (ppb)

## TRUNCATED ARITHMETIC



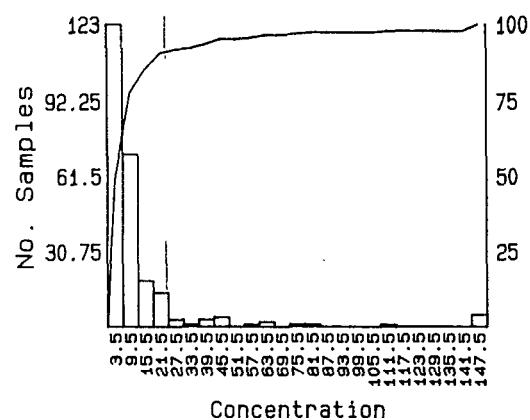
Mean = 10.095  
SD = 12.181

## TRUNCATED LOGARITHMIC



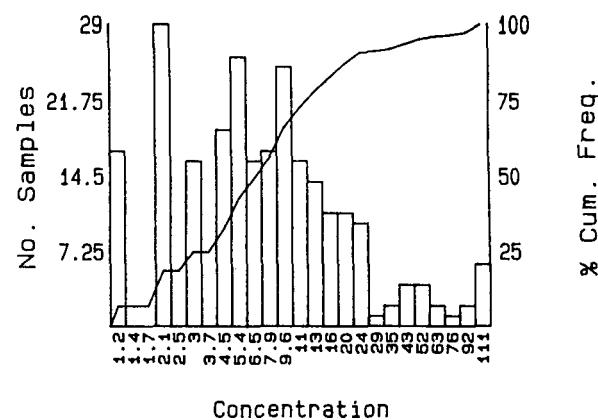
Mean = 5.997  
SD = .394

## ARITHMETIC



Mean = 17.092  
SD = 51.199

## LOGARITHMIC



Mean = 6.898  
SD = .483

Number Samples = 249  
Minimum Value = 1  
Maximum Value = 512

SUBSET CRITERIA  
Property Code(s) = [] East North  
Sample Type(s) = []  
Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

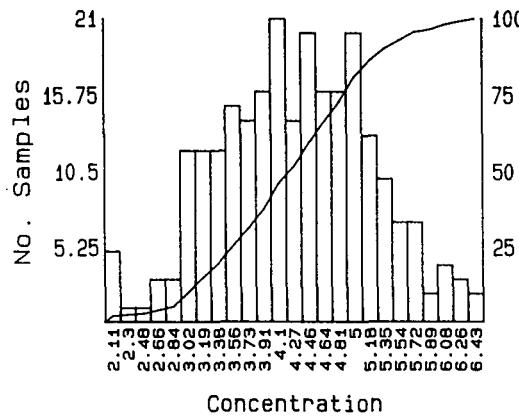
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	46

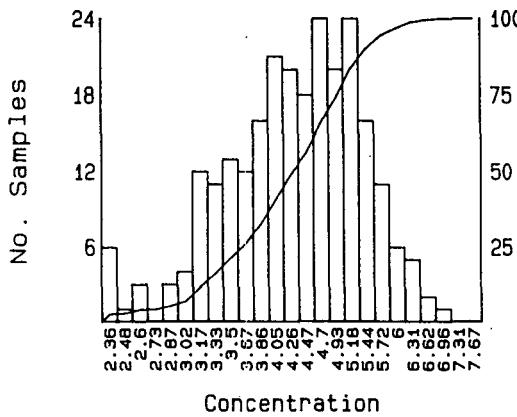
BP RESOURCES CANADA LIMITED

## TRUNCATED ARITHMETIC



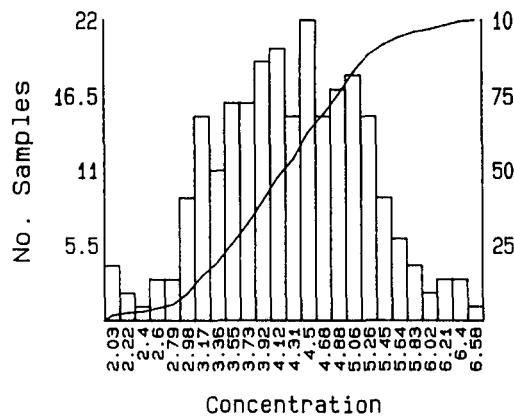
Mean = 4.207  
SD = .871

## TRUNCATED LOGARITHMIC



Mean = 4.158  
SD = .001

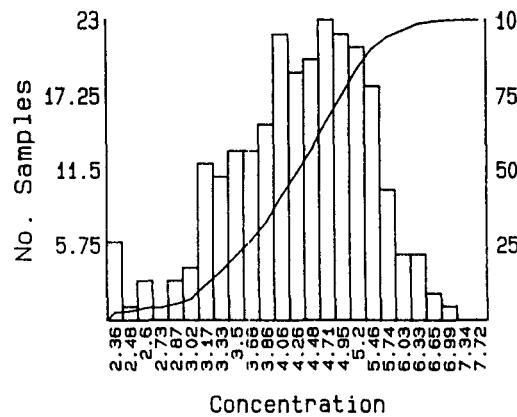
## ARITHMETIC



Mean = 4.281  
SD = .939

Number Samples = 249  
Minimum Value = .92  
Maximum Value = 6.71

## LOGARITHMIC



Mean = 4.166  
SD = .001

## SUBSET CRITERIA

Property Code(s) = [] East North  
Sample Type(s) = []  
Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

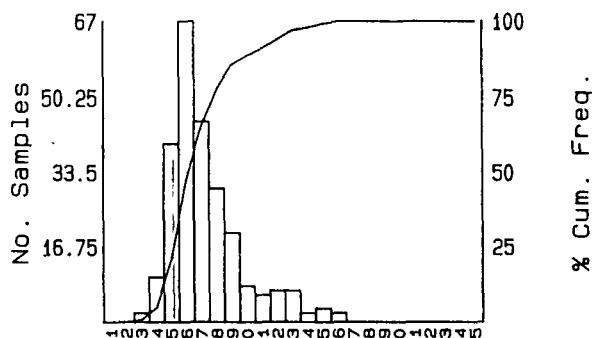
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	47

BP RESOURCES CANADA LIMITED

# LANTHANUM (ppm)

## ARITHMETIC



### Concentration

Mean = 7.265  
SD = 2.45

Number Samples = 249  
Minimum Value = 3  
Maximum Value = 16

SUBSET CRITERIA

Property Code(s) = <input type="text"/>	East	North
Sample Type(s) = <input type="text"/>		
Lab. Code(s) = <input type="text"/>		

## SOIL GEOCHEMICAL SURVEY - JUNE

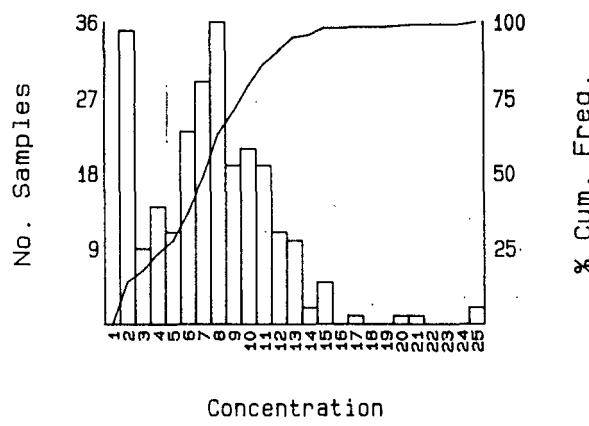
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	48

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 7.663  
SD = 4.116

Number Samples = 249  
Minimum Value = 2  
Maximum Value = 31

SUBSET CRITERIA  
Property Code(s) =  East North  
Sample Type(s) =   
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

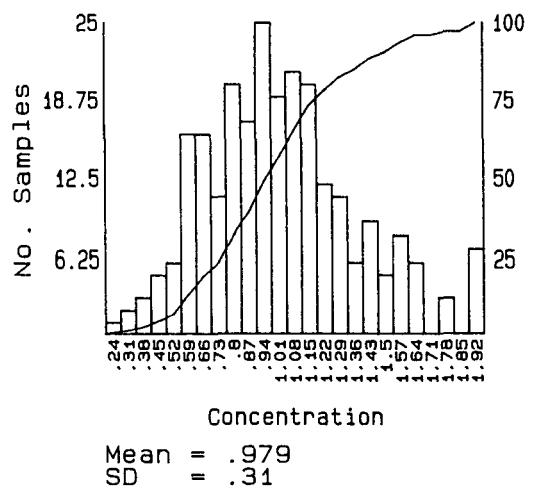
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	49

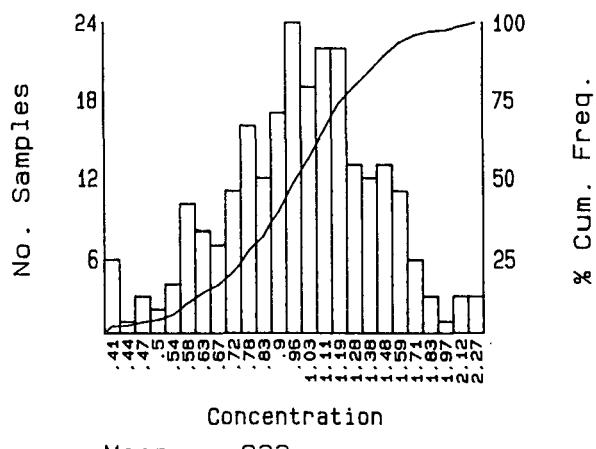
BP RESOURCES CANADA LIMITED

# MAGNESIUM (%)

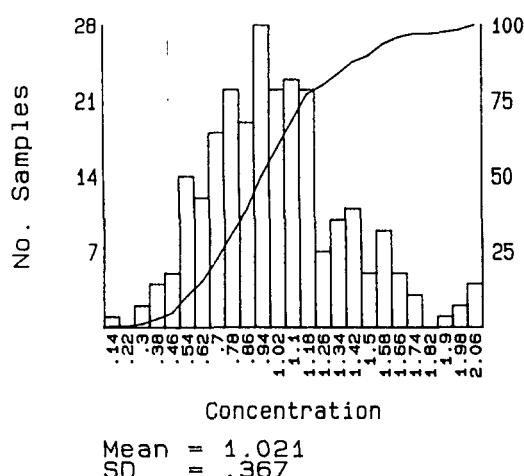
TRUNCATED ARITHMETIC



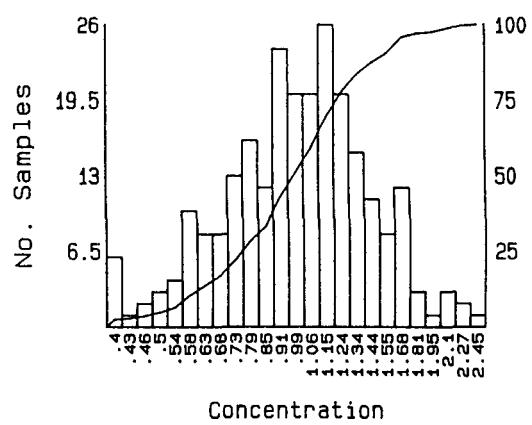
TRUNCATED LOGARITHMIC



ARITHMETIC



LOGARITHMIC



Number Samples = 249  
Minimum Value = .18  
Maximum Value = 2.34

SUBSET CRITERIA  
 Property Code(s) = [] East  
 Sample Type(s) = [] North  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

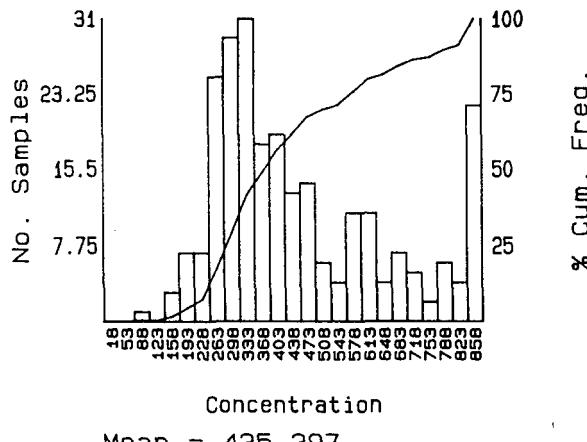
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	50

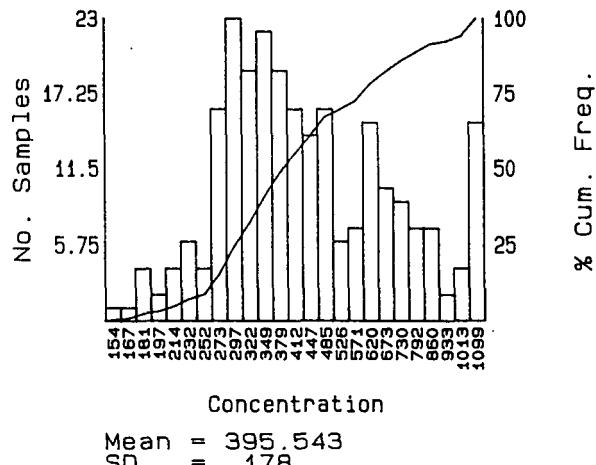
BP RESOURCES CANADA LIMITED

# MANGANESE (ppm)

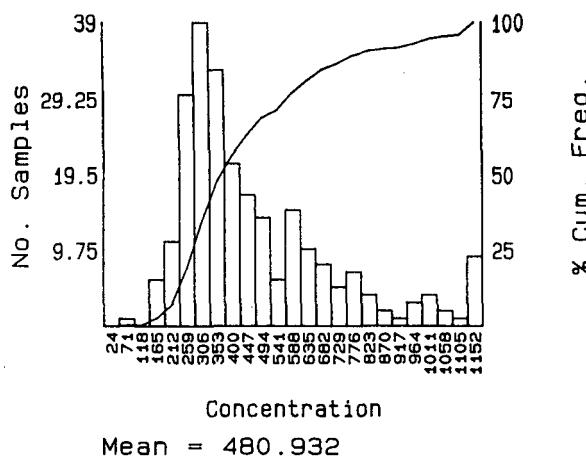
TRUNCATED ARITHMETIC



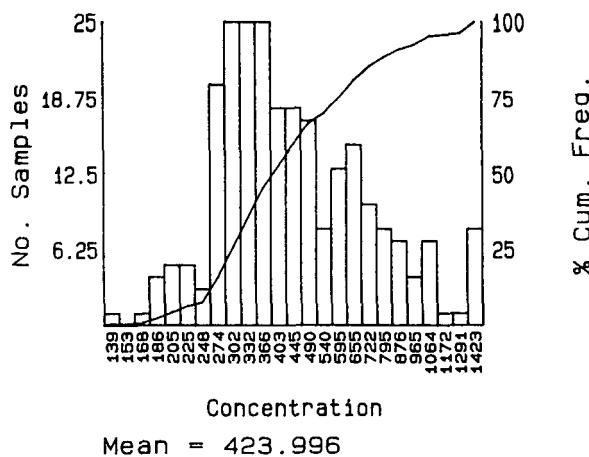
TRUNCATED LOGARITHMIC



ARITHMETIC



LOGARITHMIC



Number Samples = 249  
Minimum Value = 94  
Maximum Value = 1861

SUBSET CRITERIA  
Property Code(s) =  East  
Sample Type(s) =   
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

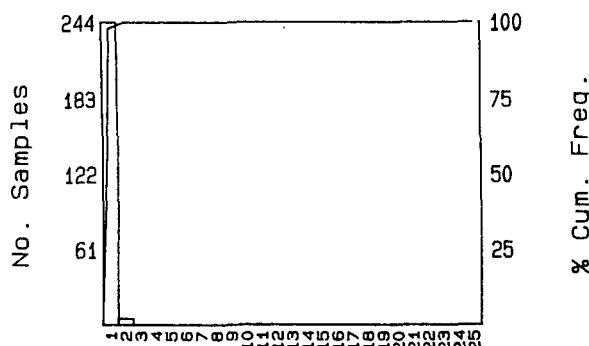
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	51

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 1.02  
 SD = .141

Number Samples = 249  
 Minimum Value = 1  
 Maximum Value = 2

SUBSET CRITERIA  
 Property Code(s) =  East North  
 Sample Type(s) =   
 Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

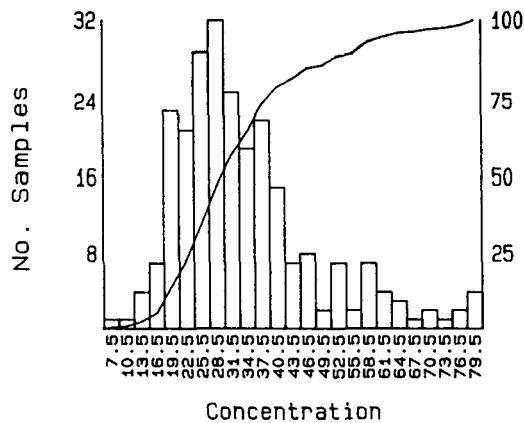
Project Name

LIP #1 M.C.

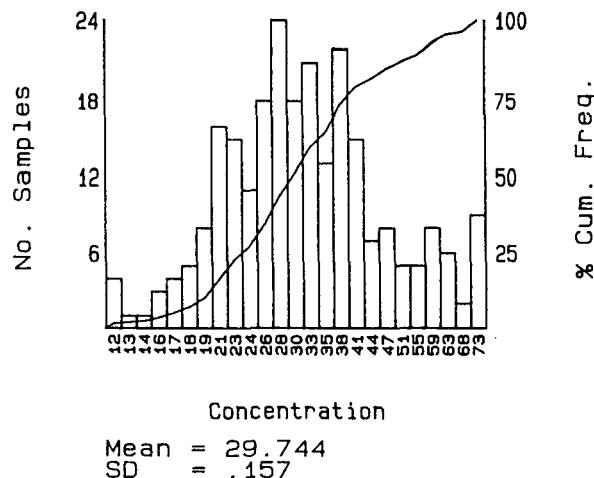
Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	52

BP RESOURCES CANADA LIMITED

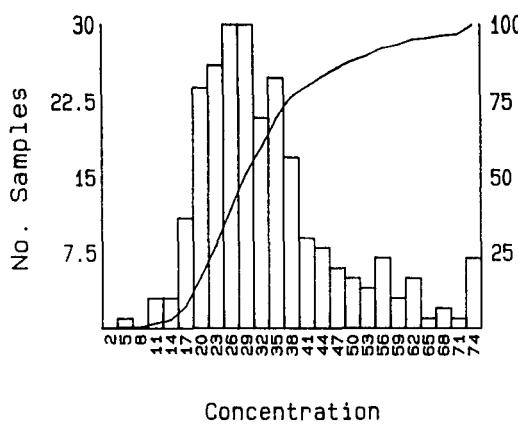
## TRUNCATED ARITHMETIC



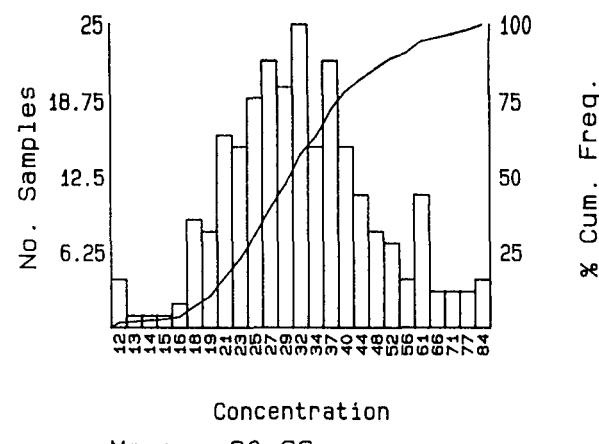
## TRUNCATED LOGARITHMIC



## ARITHMETIC



## LOGARITHMIC



Number Samples = 249  
Minimum Value = 6  
Maximum Value = 81

SUBSET CRITERIA  
 Property Code(s) = [] East  
 Sample Type(s) = [] North  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

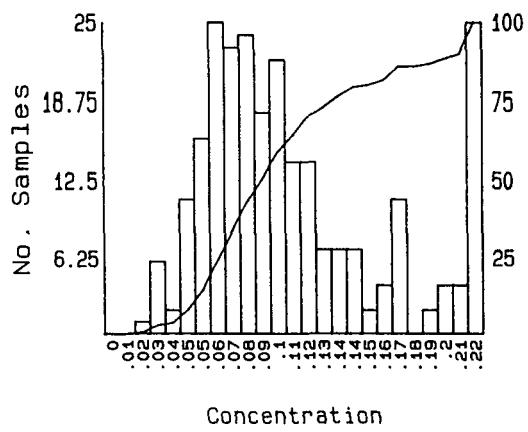
LIP #1 M.C.

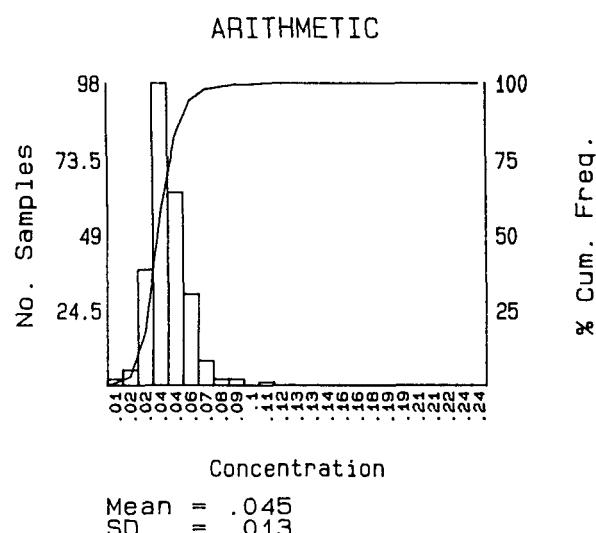
Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	53

BP RESOURCES CANADA LIMITED

# PHOSPHORUS (%)

TRUNCATED ARITHMETIC





Number Samples = 249  
Minimum Value = .01  
Maximum Value = .11

SUBSET CRITERIA  
Property Code(s) =  East North  
Sample Type(s) =   
Lab. Code(s) =

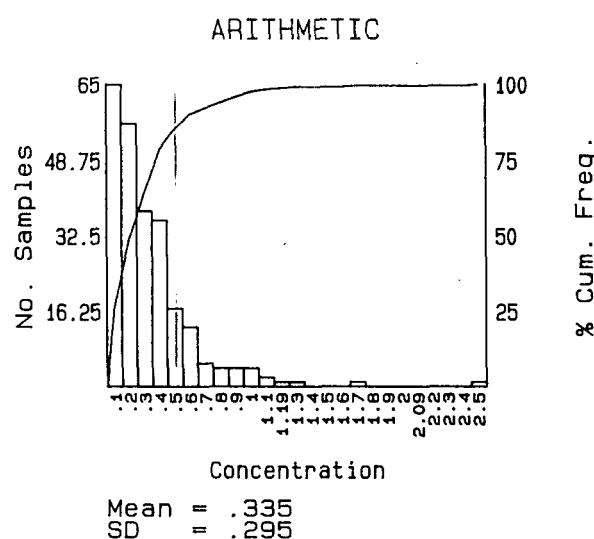
### SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	55

BP RESOURCES CANADA LIMITED



Number Samples = 249  
Minimum Value = .1  
Maximum Value = 2.8

SUBSET CRITERIA  
 Property Code(s) =  East North  
 Sample Type(s) =   
 Lab. Code(s) =

### SOIL GEOCHEMICAL SURVEY - JUNE

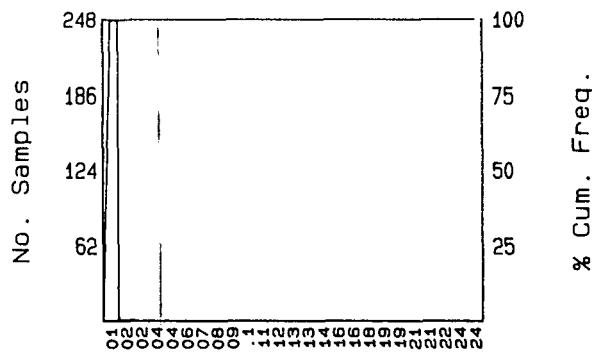
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	56

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = .01  
 SD = .001

Number Samples = 249  
 Minimum Value = .01  
 Maximum Value = .02

SUBSET CRITERIA  
 Property Code(s) = [] East North  
 Sample Type(s) = []  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

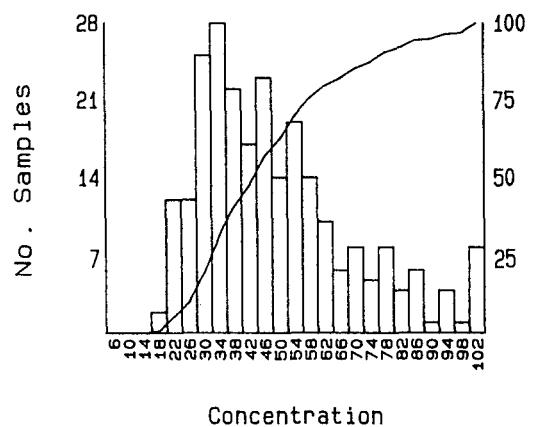
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	57

BP RESOURCES CANADA LIMITED

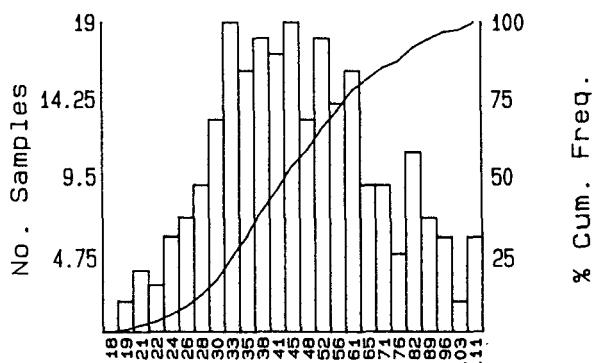
# STRONTIUM (ppm)

TRUNCATED ARITHMETIC



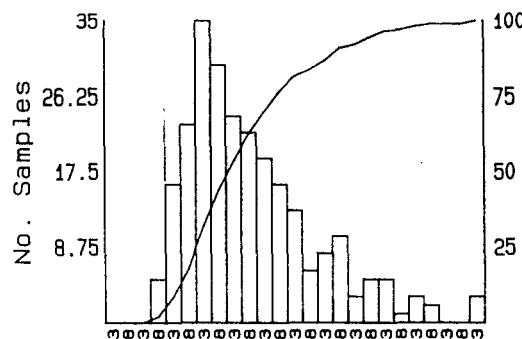
Concentration  
Mean = 45.681  
SD = 16.707

TRUNCATED LOGARITHMIC



Concentration  
Mean = 43.469  
SD = .164

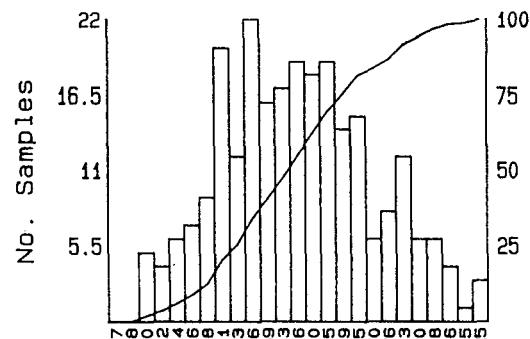
ARITHMETIC



Concentration  
Mean = 49.04  
SD = 21.611

Number Samples = 249  
Minimum Value = 19  
Maximum Value = 149

LOGARITHMIC



Concentration  
Mean = 44.975  
SD = .179

## SUBSET CRITERIA

Property Code(s) =  East  
Sample Type(s) =  North  
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

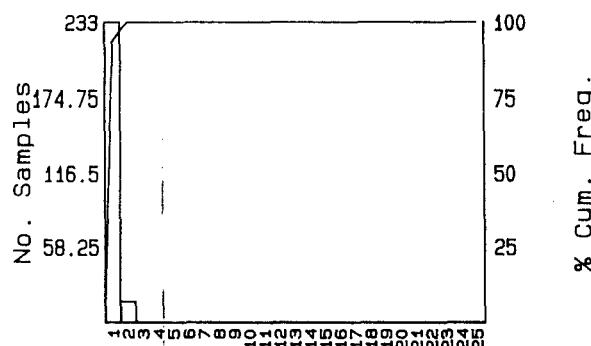
Project Name

LIP #1 M.C.

Project Code	Date JULY 1990	Report No.	N.T.S. 93N/1E	Fig. No. 58
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BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 1.064  
 SD = .246

Number Samples = 249  
 Minimum Value = 1  
 Maximum Value = 2

SUBSET CRITERIA  
 Property Code(s) =  East North  
 Sample Type(s) =   
 Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

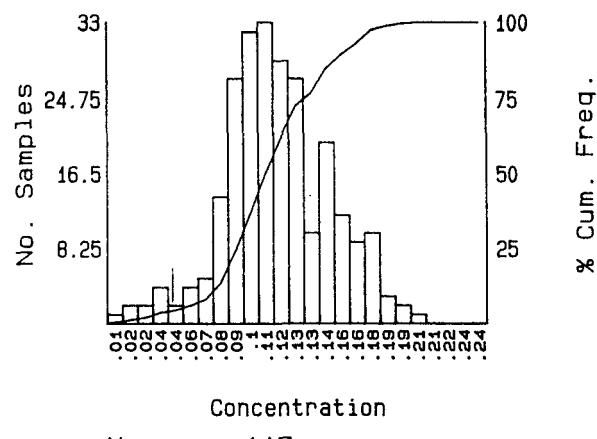
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	59

BP RESOURCES CANADA LIMITED

## ARITHMETIC



Number Samples = 249  
Minimum Value = .01  
Maximum Value = .21

SUBSET CRITERIA  
Property Code(s) =  East North  
Sample Type(s) =   
Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

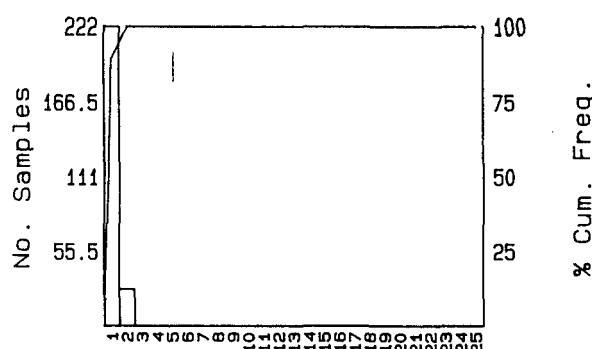
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	60

BP RESOURCES CANADA LIMITED

## TUNGSTEN (ppm)

## ARITHMETIC



## Concentration

Mean = 1.108  
 SD = .312

Number Samples = 249  
 Minimum Value = 1  
 Maximum Value = 2

SUBSET CRITERIA  
 Property Code(s) = [] East North  
 Sample Type(s) = []  
 Lab. Code(s) = []

## SOIL GEOCHEMICAL SURVEY - JUNE

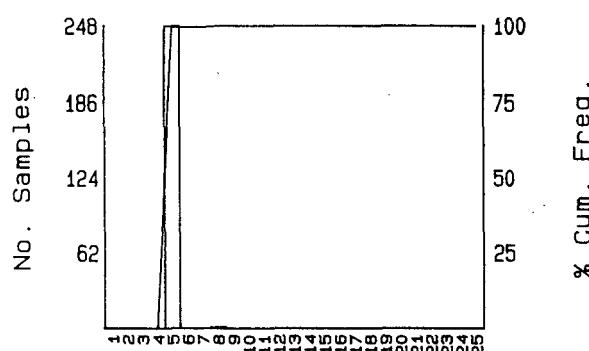
Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	61

BP RESOURCES CANADA LIMITED

## ARITHMETIC



## Concentration

Mean = 5.012  
 SD = .19

Number Samples = 249  
 Minimum Value = 5  
 Maximum Value = 8

SUBSET CRITERIA  
 Property Code(s) =  East North  
 Sample Type(s) =   
 Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

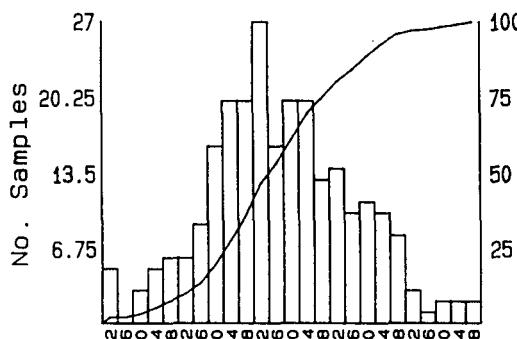
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	62

BP RESOURCES CANADA LIMITED

# VANADIUM (ppm)

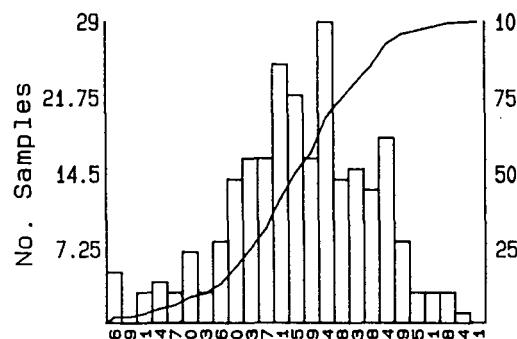
TRUNCATED ARITHMETIC



Concentration

Mean = 94.9  
SD = 18.208

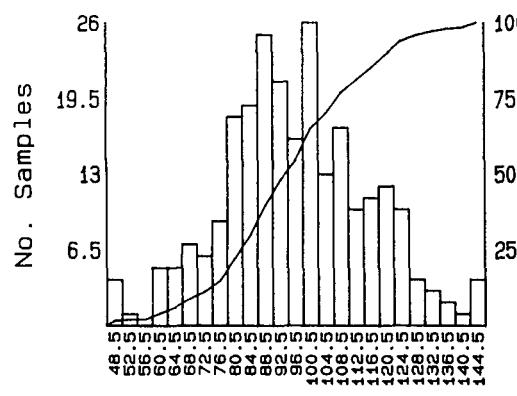
TRUNCATED LOGARITHMIC



Concentration

Mean = 93.511  
SD = .095

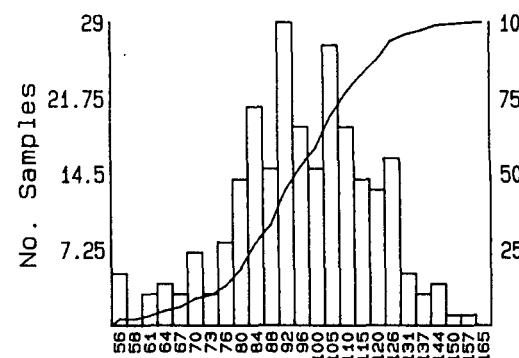
ARITHMETIC



Concentration

Mean = 96.41  
SD = 19.774

LOGARITHMIC



Concentration

Mean = 94.195  
SD = .098

Number Samples = 249  
Minimum Value = 31  
Maximum Value = 154

SUBSET CRITERIA  
 Property Code(s) =  East  
 Sample Type(s) =  North  
 Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

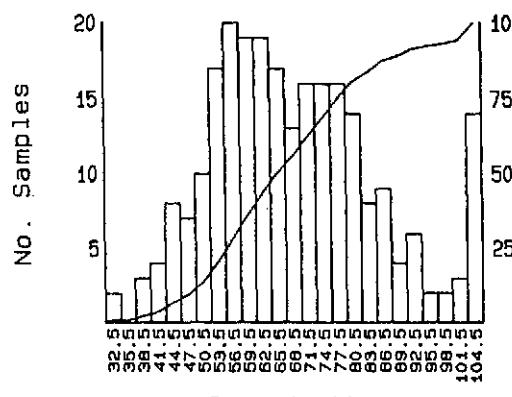
LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	63

BP RESOURCES CANADA LIMITED

# ZINC (ppm)

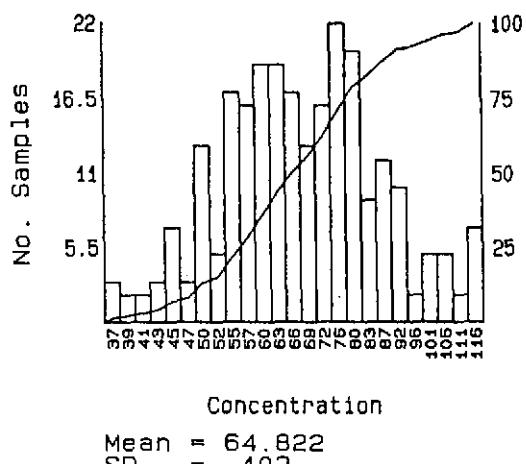
## TRUNCATED ARITHMETIC



Mean = 65.773

SD = 14.093

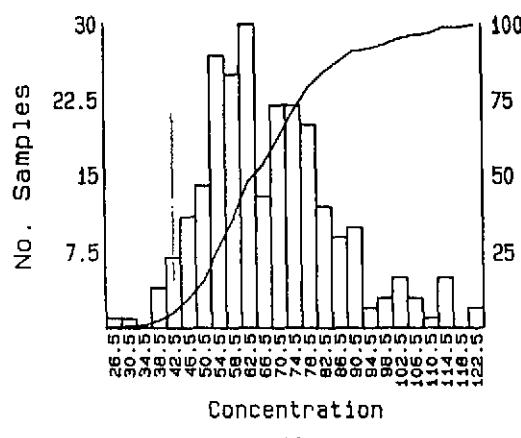
## TRUNCATED LOGARITHMIC



Mean = 64.822

SD = .102

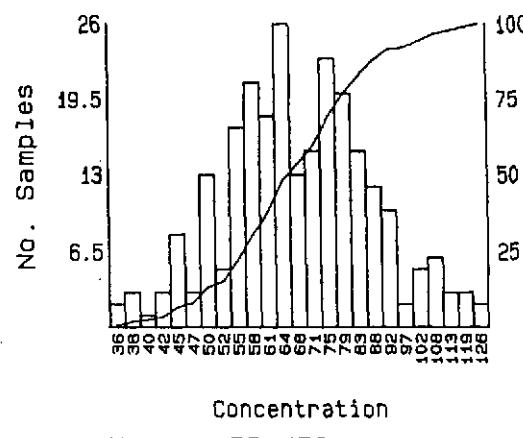
## ARITHMETIC



Mean = 68.639

SD = 17.597

## LOGARITHMIC



Mean = 66.452

SD = .112

Number Samples = 249

Minimum Value = 22

Maximum Value = 130

## SUBSET CRITERIA

Property Code(s) =  East

North

Sample Type(s) =

Lab. Code(s) =

## SOIL GEOCHEMICAL SURVEY - JUNE

Project Name

LIP #1 M.C.

Project Code	Date	Report No.	N.T.S.	Fig. No.
	JULY 1990		93N/1E	64

BP RESOURCES CANADA LIMITED

## APPENDIX 4

### DESCRIPTION OF FLOAT SAMPLES

L90-28R            GRID: 6S, 4W        4 ppb Au, 35 ppm Cu, 1 ppm Mo

Takla augite porphyry with trace chalcopyrite as replacement in mafics. Magnetic. Subrounded.

L90-54R            GRID: 13S, 2W        9 ppb Au, 41 ppm Cu, 1 ppm Mo

Fine-grain felsic volcanic containing about 1/4 % disseminated pyrite; no visible chalcopyrite. Non-magnetic. Subrounded.

L90- 114R   GRID: 12+35 W 0+00 S 47 ppb Au, 104 ppm Cu, 1 ppm Mo

Very fine-grain intrusive (unmineralized) in contact with Takla andesite (mineralized with minor disseminated pyrite and chalcopyrite). Magnetic. Subrounded.

L90-171R   GRID: 19 W, 6S 3ppb Au, 95 ppm Cu, 1 ppm Mo

Augite porphyry Takla from 2 m X 4 m. erratic containing trace pyrite and chalcopyrite. Strongly magnetic. Subrounded.

L90-310R   GRID: 3+40 S, 8W 3ppb Au, 67 ppm Cu, 1 ppm Mo

Porphyritic monzonite characterized by plagioclase laths to 1.5 cm. About 10 % mafics incl. magnetite. Pink feldspar ground mass (K-spatized ?). Trace disseminated chalcopyrite. Strongly magnetic. Well rounded.

## APPENDIX 5.

### CHEMEX PREPARATION AND ANALYTICAL PROCEDURES FOR FA-NAA

LOWER DETECTION LIMIT FOR GOLD: 1 ppb

#### Soil geochemical preparation - Codes 201, 203:

Geochemical samples (soils, silts) are dried at 50 deg. C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Prep. Code 201 refers to the -80 mesh material. If insufficient sample is obtained, sample is sieved to -35 mesh and ring pulverized. Prep. code 203 refer to the -35 mesh procedure.

#### Rock preparation code (Code 205):

1. Entire sample is crushed in jaw crusher to approximately 3/4 inch.
2. Sample is crushed in gyratory cone crusher to approximately 1/8 inch.
3. Sample is split in Jones Riffler to approximately 200-300 grams.
4. Sample is pulverized in ring grinder to approximately 150 mesh.

#### Au fire assay-NAA ppb-Chemex Code 101.

A 10 gram sample is fused in litharge, carbonate and silicious flux. The resulting lead button contains any gold in the sample. The resulting lead button containing any gold in the sample is cupelled in a muffle furnace to produce a precious metal bead.

Sample beads plus standard beads and irradiated in a thermal neutron flux. The gamma emissions of the irradiated beads are counted utilizing a Ge (Li) detector and quantified for gold. The detection limit is 1 ppb Au.

#### ACME ICP analysis

The method used is summarized at the bottom of the data sheets. Detection limits are indicated in Table 2.

