5135

GEOLOGICAL-GEOCHEMICAL-GEOPHYSICAL REPORT

on the 94D/8E & 9E

BAP MINERAL CLAIMS

Nos. 5.8.9-19,21-23,25,26,30 and 34

owned by BP MINERALS LIMITED

KLIYUL CREEK AREA

Omineca Mining Division, B.C.

located 7 miles S.S.E. of Johanson Lake, B.C.

(126°05' Long., 56°29' Lat.)

BY: D.K. Mustard, P. Eng.

September 12, 1974

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SUMMARY

During the period of July 22 to August 13, 1974, a six man crew completed geological mapping, a geochemical, magnetometer and electromagnetic survey on the Bap claims, located approximately seven miles south southeast of Johanson Lake in the Omineca Mining Division, B.C.

The property comprises twenty claims, Bap 5,8,9-19,23, 25,26,30 and 34 which are underlain by folded and sheared tuffs of the Upper Takla Group, intruded by feldspar porphyry dykes and in the southwest by a small hornblende monzonite stock.

Massive and disseminated chalcopyrite, malachite and pyrite with minor galena and sphalerite occur in several north and northwest trending quartz veins. Chalcocite along fracture surfaces in a one foot wide zone, having a strike length of 200 feet was located during channel sampling on Bap 18. Numerous narrow intervals of malachite and manganese staining were located in gossanous ash tuffs.

A molybdenum geochemical anomaly immediately above the hornblende monzonite may represent a contact effect with the overlying volcanics at the time of intrusion. A zone of copper enrichment is in close proximity to the area of chalcocite mineralization and to chalcopyrite along quartz veins located upslope.

A marked zinc enrichment is noted near the centre of the gossan.

The ground magnetometer survey indicates a strong linear anomaly on the southwestern edge of the grid, which is thought

to be a hornblendite contact margin between the hornblende monzonite and gossanous ash tuff.

The electromagnetic survey did not reveal the presence of any conductors indicative of massive sulphide deposits within 100 feet of the surface on the Bap grid.

Further geological mapping of the monzonite and of lithologies adjacent to the gossan are indicated. The zinc anomaly and chalcocite mineralization warrant further investigation.

INTRODUCTION: -

During the period July 22-August 13, 1974, 3 line miles of grid were established and geological mapping, a geochemical (talus, soil, rock chip) survey, a ground magnetometer survey and an electromagnetic survey were completed on the Bap Claims by 10 field personnel, working under the direction of the author.

The Bap property comprises 20 claims, Bap 5,8,9 to 19, 23,25,26,30 and 34; all claims owned by BP Minerals Limited.

LOCATION AND ACCESS: -

The BAP Mineral Claims are situated in the Omenica Mining Division, approximately 7 miles south southeast of Johanson Lake and 14 miles northwest of Aiken Lake, along the northeast flank of the headwaters of Kliyul Creek.

Access to the property is by helicopter from Johanson Lake, current end point of the Omenica Highway from Fort St. James, under construction by the British Columbia Department of Mines and Petroleum Resources. Johanson Lake is accessible by float plane and the local airstrip is serviced during summer months by Twin Otter out of Prince George.

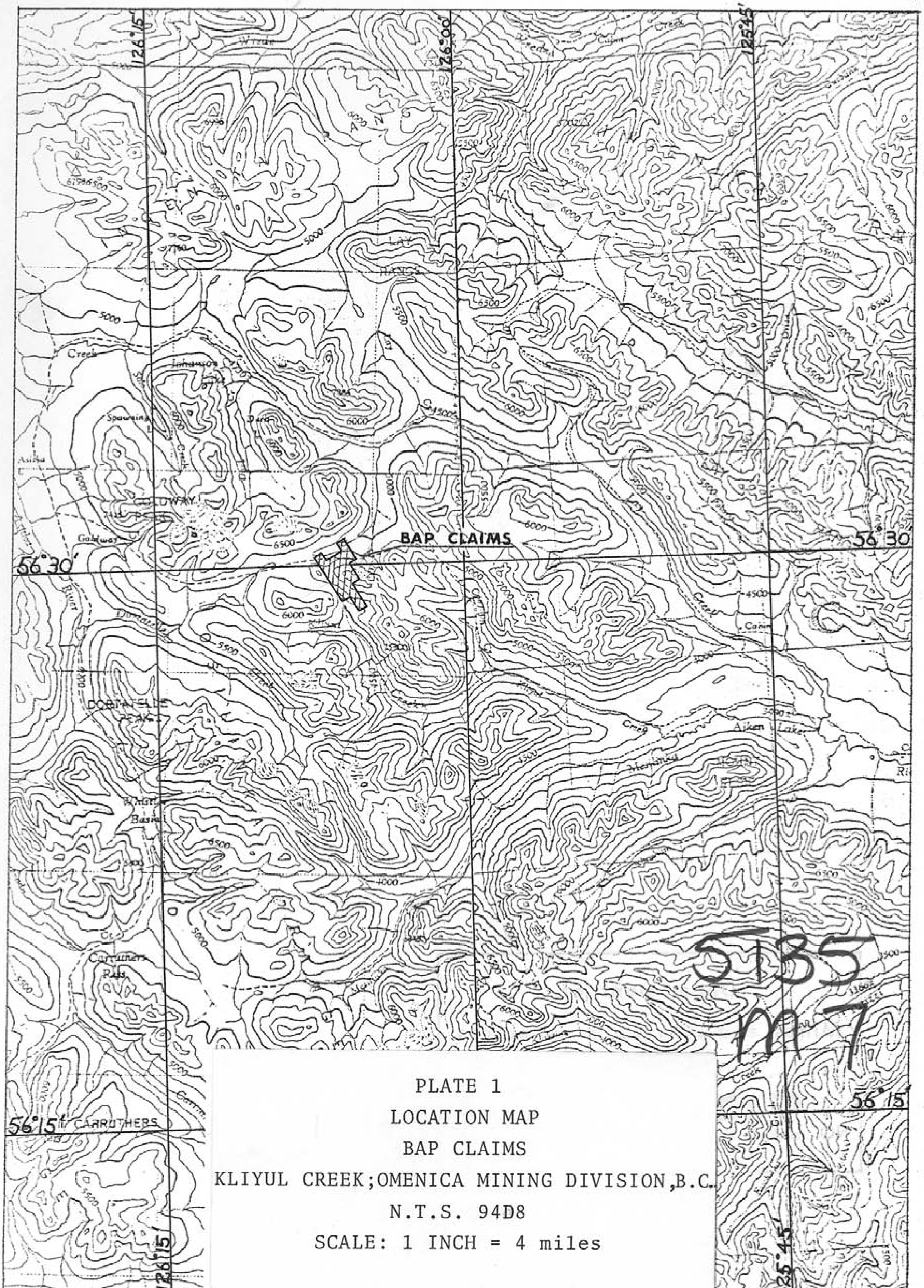


PLATE 1

LOCATION MAP

BAP CLAIMS

KLIYUL CREEK;OMENICA MINING DIVISION,B.C.

N.T.S. 94D8

SCALE: 1 INCH = 4 miles

FIELD WORK

Grid Preparation: - A 4-man crew from AMEX Exploration Services Ltd. working July 28,29, 1974, established 3 line miles of grid over Bap Claims nos. 9,10,13 to 15,18 and 19. A northwest-southeast base line was transited (107^{o} mag) for 2800 feet from the west center of Bap 10 to the center of Bap 18. The base line (100 E on each cross line) was surveyed by transit and chain with 400-foot stations, from line 800 N in the southeast to line 828 N at the northwest end. Compass and tape traverse lines were established at right angles to the base line, from each 400-foot station on the base line. Stations were set and marked every 100 feet by multicolored flagging and every 200 feet by pickets, along each line. The whole of the grid was tied by topography and altimeter elevation, to the orthophoto, at a scale of 1 inch = 1000 feet. The grid was later used for control in geological mapping and for the geochemical, magnetometer and electromagnetic surveys.

Orthophoto: - An orthophoto was prepared for the BAP CLAIMS by McElhanney Surveying and Engineering Limited. The orthophoto is an aerial photo mozaic of the Bap Claim area, corrected for horizontal scale distortions, with superimposed contour lines (contour interval 50'); scale 1 inch equals 1000 feet. The 1000-foot scale photo was used for reconnaissance mapping of the BAP Claims and a 500-foot scale topographic enlargement for detailed surveys on the grid.

Geological Mapping: - Two geologists spent 15 man days mapping the Bap Claims.

The grid, which covers a prominant gossan, was geologically mapped at a scale of 1 inch equals 500 feet. Reconnaissance mapping, adjacent to the Bap Claims, at a scale of 1 inch equals 1000 feet, was designated to evaluate the local geological setting with a view to better understanding the rock units which are poorly exposed in the gossan area. Rock chips of possible mineralized lithologies were taken in several locations both on and off the grid. Good control was afforded by the grid and orthophoto.

Geochemical Survey: - A geochemist and a sampler spent 6 man days sampling soil and talus on the grid and in an adjacent cirque at a station interval of 200 feet. In addition, the gossan area was channel sampled between lines 800 N and 804 N over a traverse length of 700 feet; samples represent continuous rock chipping over 5-foot outcrop sections. A total of 344 geochemical samples were collected and analyzed by atomic absorption for total copper, molybdenum and zinc by Vangeochem Lab Ltd., 1521 Pemberton Avenue, North Vancouver, B.C.

Magnetometer Survey: - An operator using a Sharpe M.F.I. fluxgate magnetometer spent 1 day, with helicopter support surveying the grid. Magnetic measurements were taken on the Bap grid at station intervals of 200 feet on cross lines 400 feet apart.

Electromagnetic Survey: - An operator and assistant using a JEM ground electromagnetic survey unit, spent 2 days with helicopter support, surveying the grid. Electromagnetic measurements were made at 100-foot station intervals over the Bap grid.

GENERAL GEOLOGY: -

The Bap mineral claims are underlain for the most part by volcanic rocks of the lower Jurassic, Upper Takla Group. These have been intruded by feldspar porphyry dykes and sills, minor quartz monzonite dykes and, along the southwestern claims, by a small stock of biotite hornblende monzonite having an ultramafic hornblendite margin.

Takla Group rocks are generally moderately to strongly sheared and locally pyritiferrous, gossanous and moderately silicified. Bedding where available strikes approximately 160° dipping 30° E. Regional shearing in the volcanics most commonly strikes 140°, with dips steep to the northeast. Pyrite, chalcopyrite, chalcocite and minor galena are found in the monzonite or the ash tuffs.

1) Takla Volcanics and Sediments: -

The stratigraphically lowest exposed rocks of the Takla are dark green or grey fine grained, andesitic ash tuffs. Mafics in the ash tuffs are moderately altered to chlorite. Feldspars are weakly to moderately altered to clay minerals, epidote and sericite.

To the northwest of line 804 N on the Bap grid the ash tuff unit contains abundant fine grained pyrite and is generally recessive and gossanous. The tuffs in this area are strongly sheared and chloritized with numerous outcrops of chlorite schist; several bands of less recessive outcrop generally indicate strongly silicified zones within the tuff. Several sills and dykes of poorly exposed feldspar porphyry were noted in shear zones cutting the gossan. The southeast extent of the gossan (near line 800 N) is bounded by a fault which strikes approximately north.

West and north of the fault, moving up section, the Takla volcanics are predominantly grey to black andesitic lapilli tuffs with minor outcrop of agglomerate. These pyroclastics are commonly monolithic, with fragments, having essentially the same composition as the matrix. The lapilli tuffs have a high content of altered augite together with abundant feldspar.

A few "bands" of pyritiferrous ash tuffs, "greywacke" and black, sooty, calcareous argillite were mapped at the 7000' level. These beds contain up to 3% very finely disseminated pyrite and locally form small gossans.

Very minor outcrops of dark green andesitic flows were mapped south of the grid on Bap #30. These appear to have the same composition as the augite rich pyroclastics and as such are difficult to distinguish. Another flow seen in minor outcrop on Bap #34 was an amygdaloidal hornblende andesite porphyry.

2) <u>Intrusive Rocks</u>: -

<u>Ultramafic-Hornblendite</u>: - This unit is best exposed near station 804 N - 94 E in a contact zone between a hornblende monzonite and the gossanous ash tuff. The ultramafic appears to form a margin to the monzonite intrusion, some 10 meters wide, composed of hornblende, biotite and feldspar. Feldspar content is generally less than 10% of the volume of the rock. The hornblendite is strongly magnetic indicating high magnetite content

and though pyrite is absent, minor malachite staining indicates traces of disseminated chalcopyrite.

Hornblende Diorite-Gabbro: - This intrusion was mapped on and southeast of Bap #30 and #34; it is medium grained equigranular with anhedral to subhedral hornblende crystals, is strongly magnetic and exhibits abundant disseminated magnetite. The color index is highly variable from 20-60% with an average of perhaps 35%. Ultramafic-hornblendite is spatially related to this intrusion, however no contact relations were observed. It was not ascertained whether these hornblendite rocks are phases of the same igneous complex or are discreet intrusive bodies.

Hornblende Monzonite: - This unit underlies Bap Claims nos. 9, 13,17,21 and consists of a weakly epidotized medium grained, equigranular rock containing to 10% hornblende, moderately altered to chlorite. Feldspars are weakly altered to epidote and in lesser extent sericite. Fracturing is variable in minor outcrop to 24 fractures per square foot. Quartz veins cutting the monzonite vary from .25 to 1 inch wide, are generally widely spaced and carry disseminated chalcopyrite and show malachite staining.

"Felsite" Porphyry: - This unit generally occurs as wide scattered, rather small dykes of limited extent. The "felsite" is a subtly foliated, porphyritic, leucocratic rock, off white to beige with a color index between 5-10%. The acicular hornblende in the matrix has been pervasively altered to chlorite. Epidotized, broadly tabular plagioclase phenocrysts range from .3 cm-1 cm in diameter.

Quartz Monzonite: - A medium grained, equigranular intrusive containing both hornblende and biotite phenocrysts. Quartz forms up to 25% of the few outcrops of this unit, mapped on Bap claims #25 and 26. Background chlorite-epidote alteration is pervasive in this unit. Contacts with other intrusives are not visible due to the recessive nature of the outcrop area. This unit is moderately sheared and weakly fractured.

STRUCTURAL GEOLOGY:-

Where bedding attitudes were visible in unaltered tuffs and limy argillites of the Takla Group, strikes averaged 160^{o} varying 155^{o}-180^{o} with dips varying 20^{o}-35^{o} E. The pyroclastics are generally massive and attitudes difficult to observe.

Regional shearing strikes approximately 140^{o} and dips steeply to the northeast. Foliation in the tuffs of the gossan zone largely conforms to the regional trends. The most pervasive shearing extends from the gossan zone through the southeast head-wall of the cirque cutting Bap #30. Other common shearing directions in the volcanics were at 100^{o}, 115^{o}, 130^{o}, 145^{o}, 160^{o} dipping steeply north and east.

A major fault near line 800 N striking approximately north marks the southeastern boundary of the gossan covering the north and central Bap claims. The fault is marked by the end of the gossan in a zone of shattered and recessive outcrop, with differing volcanic lithologies either side of the fault. The sense of movement along the fault is obscure due to a lack of local, unaltered outcrop.

ECONOMIC GEOLOGY: -

1) Mineralization: -

Three main types of mineralization were noted on the property; sulphides in quartz veins, minor sulphides as "smears" along fractures and fracture fillings and minor disseminated sulphides in pyroclastics.

The quartz veins are widespread, range from .25-1 inch wide and carry disseminated and semi-massive chalcopyrite, pyrite, and minor galena and sphalerite. Quartz type mineralization is found in the monzonite near contact with the gossanous ash tuffs and in heavily chloritized shear zones within the tuff unit. In the shear zones in minor outcrop, chalcopyrite ranges up to 15% and is coarse bleb to massive. Occasional shear zones carry some malachite but little or no chalcopyrite with the quartz.

Chalcocite has been recognized over a 1 foot zone of a 10-foot, malachite-manganese dendrite, stained band (in channel sampling traverse, near the base line on line 803 N), which is laterally continuous for 200 feet before disappearing under talus. This zone occurs in the ash tuff unit, locally carrying 3% disseminated pyrite and assays up to 2.15% copper. The chalcocite occurs as a discontinuous "smear" along closely spaced fractures.

Minor disseminated chalcopyrite was noted in porous, black, augite rich, monolithic pyroclastic. This subtly mineralized unit, local to Bap #23, contains up to 1% very fine grained chalcopyrite with minor malachite over a 40-foot outcrop area.

The ash tuff unit is discontinuously mineralized, over several narrow intervals by a combination of malachite and manganese dendrite staining.

The gossan area of the ash tuff and numerous "stain" zones in the hornblende diorite unit, contain disseminated bleby pyrite and fracture fill pyrite varying from 1% to 5%. Most gossanized zones are marked by shearing and silicification.

2) Structure: -

Mineralized quartz veins appear to conform closely to prominent directions of shearing. In the gossanous ash tuff, quartz veins typically follow the regional shearing, striking approximately 140° dipping 45-60° northeast; while in the monzonite, quartz veins commonly strike 100°, 140°, 170°-190° and dip 65-85° north and east. Pyrite in the tuffs is found as disseminations, disseminated along microshears and as fracture fill. Again, shearing conforms to the regional orientation of 140°, dipping 80 northeast. The chalcocite occurrence appears to be controlled by a narrow zone of closely spaced fractures that strike 170° and dip 80° E.

GEOCHEMICAL REPORT

Soil and talus sampling: - Samples were collected at 200-foot intervals along a northern grid whose lines were 400 feet apart and at 200-foot intervals along lines on other parts of the property. Approximately 0.5 kg of soil or talus fines were collected at each station, avoiding large pebbles as much as possible, and placed in a numbered wet strength, 8 by 24 cm kraft paper envelope. Because most of the property is overlain by talus cones, the sample depth was generally 0 to 5 cm. If soils were encountered, the top of the B horizon at 10 to 20 cm depth was chosen. Sample sites off the grid were marked by plastic flagging tape.

Samples were returned to base camp and dried in a field oven, sorted according to sampler and sample number, disaggregated by pounding with a rubber mallet and sieved at 10 and 80 mesh. The +10 mesh fraction was used to prepare pebble cards according to a procedure reported by Hoffman (1974) in the "Journal of Geochemical Exploration". The -80 mesh fraction was submitted to Vangeochem Lab Ltd. for chemical analysis of trace metals.

Bedrock sampling: - Bedrock samples were collected as:

(a) discontinuous chip channel samples

(b) areal chip samples

Bedrock samples generally contained 0.5 kg of rock chips. Discontinuous chip channel samples represented 10 feet of bedrock surface. Areal chip samples represented 30 square feet of exposed rock. Chip samples were collected using a geological pick in a regular fashion to avoid sampling bias.

Chips were placed into a numbered 8 by 24 cm wet strength kraft paper envelope and sent to Vangeochem Lab Ltd. for crushing and geochemical analysis.

Trace Metal Determination: - The following report by Vangeochem Lab Ltd. outlines the procedure used to determine acid soluble Mo, Cu, Pb, and Zn in geochemical samples.

VGC

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2172

TO: B. P. Minerals Ltd.,
405 - 1199 West Pender Street,
Vancouver, B. C.

FROM: Mr. Conway Chun,
Vangeochem Lab Ltd.,
1521 Pemberton Avenue,
North Vancouver, B. C.

SUBJECT: Analytical procedure used to determine acid soluble Mo, Pb, Zn, Cu, Ag in geochemical samples.

1. Sample Preparation

(a) Soil and silt samples analyzed as received.

(b) Rock chip samples first crushed and then pulverized to 100 mesh by using Siebtechnik Disc mill.

2. Methods of Digestion

(a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.

(b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).

(c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Mo, Pb, Zn, Cu and Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamp. The digested samples were aspirated directly into an air and acetylene

Continued......

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2172

flame. Mo analyses were aspirated into nitrous oxide and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mr. Conway Chun, and the laboratory staff.

Conway Chun
VANGEOCHEM LAB LTD.

CC:smb

pH determination: - pH was determined on the -10 +80 mesh sample splits by a modified procedure in current use at the Soil Science Department of the University of British Columbia. Approximately 16 gm of sample was placed in a 100 ml dixie cup to which 20 ml of deionized water was added. The suspension was stirred at 0, 15 and 30 minutes and allowed to stand 30 minutes prior to pH determination. pH measurements were made using a combination glass electrode and a calibrated Orion Model 401 pH meter. Calibration standards were included every 100 determinations to check on instrument drift. About two percent of the determinations were duplicate analysis used to check the precision of the technique.

GEOCHEMICAL INTERPRETATION

Introduction: - Trace metal levels in soils and talus samples were assumed to conform to a log normal distribution. Data were transformed to logarithmic values and the mean content, range (mean minus one standard deviation to mean plus one standard deviation, (M-1SD) to (M+1SD)) and threshold (mean plus two standard deviations, (M+2SD)) values were calculated (Table 1). Maps were plotted utilizing a symbol notation. Each symbol represents a range of trace metal concentrations and was chosen to indicate a statistical interval around the mean value. In order of size from smallest to largest they represent:

< mean (M) - 2 standard deviations (SD)
(M-2SD) to (M-1SD)
(M-1SD) to (M)
(M) to (M+1SD)
(M+1SD) to (M+2SD)
(M+2SD) to 2(M+2SD)
>2(M+2SD)

TABLE 1

Comparison of trace metal levels in soils and talus

		Soils	Talus
Mo(ppm)	Threshold	27	22
	Mean	6	5
	Range	3-13	3-11
Cu(ppm)	Threshold	598	963
	Mean	133	225
	Range	63-282	109-466
Zn(ppm)	Threshold	522	388
	Mean	119	112
	Range	57-249	60-208
Number of Samples		23	197

Actual concentration values for soils and talus fines are listed in Appendix 3, which also shows sample identification (ID) and grid coordinates. Appendix 4 lists channel sample and other selected bedrock data. Appendix 5 is a graphical comparison of the trace metal levels in soils and talus fine data.

The soil and talus results indicate the same anomalous areas and both surveys are treated as one for the purpose of interpretation.

Results: - The gossan zone is overlain by three anomalies, each indicated by a different element. Mo enrichment is localized towards the base of gossanized area immediately above the hornblende monzonite. This zone may represent a contact effect associated with the intrusion whereby Mo was introduced into overlying country rocks at the time of its emplacement. An area of more subtle anomalies (5 to 11 ppm) upslope may be related to quartz veins or sills of dioritic intrusion.

One zone of copper rich overburden is indicated where values range between 466 and 963 ppm. The zone lies in close proximity to the lower trench along which malachite and manganese dendrite staining and chalcocite was observed. Part of the anomaly may also be caused by copper mineralization along quartz veins common to this part of the property.

The zinc distribution shows an area having slight enhancement adjacent and upslope of the hornblende monzonite intrusion and a marked enrichment towards the centre of the gossan. Highest values lie along the most northerly line. No explanation is offered at present to explain this anomaly.

GEOPHYSICAL REPORT

1. Instrument Specifications and Survey Procedures

1.1. The Magnetic Survey

The survey was carried out using a direct reading Sharpe M.F.I. fluxgate magnetometer, manufactured by Sharpe Instruments of Canada Limited, now the instrument manufacturing division of Scintrex Limited, Toronto, Ontario. The instrument measures variations in the vertical component of the earth's magnetic field to an accuracy of ± 10 gammas on the most sensitive scale.

Magnetic measurements were made at 200-foot station intervals, on cross lines 400 feet apart. These cross lines trend approximately northeast-southwest. Corrections for diurnal variation of the earth's magnetic field were made by tying-in to a previously established base station at intervals not exceeding one hour. By surveying in this manner it is generally possible to repeat any reading on the property to within ± 20 gammas.

The results of the magnetometer survey, that is the relative readings of the vertical component of the earth's magnetic field, measured in gammas, are shown in contour form on map number 4. The contour interval is 500 gammas and the horizontal scale of the map is 1 inch represents 500 feet.

1.2. The Electromagnetic Survey

The survey was carried out using a JEM ground electromagnetic survey unit manufactured by Crone Geophysics Limited, Toronto, Ontario.

In general an inductive electromagnetic system consists of two coils viz. the transmitting coil and the receiving coil. In the normal scheme of field surveys these two coils do not change their roles, however in the JEM system, known also as the Shootback method, two identical coils are used to transmit and/or receive alternately. This method eliminates errors introduced by rugged topography due to elevation differences, misalignment and separation variations between the transmitting and receiving coils.

The field operation of the Shootback method is that of a moving source inductive system, that is, both the transmitting and receiving coils are maintained at constant separation and moved in unison along the survey lines. At each station one coil, the transmitter, is held with its axis at 15^{o} to the horizontal and the other coil, the receiver, measures the dip angle produced by this configuration. The role of the coils is now reversed and a second dip angle is measured. The inclinometers for measuring the dip angles are designed such that the dip angle in one case is negative and in the other case is positive. Thus the reading recorded for the station midway between the two coils is the sum of the dip angles obtained at both positions and is zero when no conductor is present. The presence of a conductor distorts both of the transmitted fields with the resultant sum not equal to zero but dependent on the shape, position, size and conductivity of the body. Measurements at two frequencies, 480 Hz. and 1800 Hz. were made at each station.

Electromagnetic measurements were made at 100-foot station intervals over the same grid lines as used for the magnetic survey.

The results of the electromagnetic survey, that is the profiles of the resultant dip angle measurements at both frequencies, are shown on map number 3. The vertical scale is 1 inch equals 20 degrees and the horizontal scale of the map is 1 inch represents 500 feet.

2. Discussion of Results

2.1. The Magnetic Survey

The average background magnetic response over the grid area is slightly less than 1500 gammas. This area is known to be underlain by strongly pyritized fine grained tuffs cut by feldspar diorite(?) porphyry dykes with no differentiation possible between the two rock types on the basis of the magnetic data alone.

The main feature of the magnetic map is a strong linear anomaly reaching almost 3000 gammas on the southwest(?) edge of the grid. This anomaly is most probably caused by a band of hornblendites occurring at the margin of a quartz(?) monzonite intrusion.

2.2. The Electromagnetic Survey

The electromagnetic survey did not indicate the presence of any conductors which may be indicative of massive sulphide deposits occurring within 100 feet or less of surface. The slight variation in the electromagnetic response is attributed to a combination of normal instrument and geological noise levels.

APPENDIXES 1 TO 5

APPENDIX 1

STATEMENT OF COSTS: credit for assessment work itemized below to be applied to BAP CLAIMS, Nos.:5,8,9-19,23,25,26,30,34.

1) Geological Mapping:						
M. Bradley	1 geologist	July31;Aug.1/5/6/12	5	man days	$33/day	$165
D. Hunter	1 geologist	Aug.2/3/5/7/8/9/10/11/12/13	10		31/day	310
2) Geochemical Survey:						
G. Seid	1 sampler	July 22,23,24,25	4		$22/day	88
S. Hoffman	1 geochemist	July 25; Aug.9	2		45/day	90
3) Magnetometer Survey:						
D. Baker	1 student	Aug.5	1		$24/day	24
4) Grid Preparation (see attached billing):						
	4 men	July 28,29	8		$70/man day	560
5) Electromagnetic Survey:						
	2 men	Aug.7 & 9	4		$155/line mile x 2.2 line miles	341
6) Food/Accommodation:						
total:	11 men		34		@ $15/man day	510
7) Helicopter Support: G3B-2 ($160/hour)						
i) Geological Mapping-Geochemical Survey:			3.0	hours		
ii) Geophysical Survey :			2.5			
iii) Grid Preparation :			1.5			
		total:	7.0	hours	@ $160/hour	1120
						$3208

Sub total	$3208
8) Sample Analysis (Vangeochem Labs): 271 samples x $2.35/sample (3 element) = $637 73 rock samples x $3.25/sample (3 element) = 237	874
9) Consultants: Dr. K. Fletcher Geochemist July 25/74 @ $150/day + $15 Food/Accommodation E. Bronlund Geologist Aug. 10/74 @ $150/day + $15 Food/Accommodation	330
10) Survey (McElhanney Surveying & Engineering Ltd.): orthophoto	1135
11) Drafting: (Altair Drafting) Base Map, Mag, EM, Geological Map	120
12) Computing: Plotting of geochemical maps - $15/map x 3 maps	45
Total costs	$5712

AMEX EXPLORATION SERVICES LTD.

A. A. (AB) ABLETT — Confidential Work

BUS. 376-7490
RES. 374-1123 — 204, 635 VICTORIA STREET — BOX 286, KAMLOOPS, B.C.

6 September, 1974

BP Minerals Limited,
405-1199 West Pender Street,
Vancouver, B.C.
V6E 2R1

Dear Sirs:

The following is a breakdown of our personnel engaged, and direct costs incurred during completion of 3 miles of grid preparation on your BAP group, Kliyul Creek Area, Omineca M.D. This program was completed July 28 and 29, 1974:

Personnel Engaged	Time Expended	Wages	
C. MacDonald	2 days	$140.00	
P.F. Cox	2 "	$140.00	
D. Ringer	2 "	$140.00	
T. Keehn	2 "	$140.00	
		$560.00	$560.00

Direct Costs

8 man-days	Board and accommodation @ $15/day	$120.00
	Total cost	$680.00

YVT

Job #74-11.

A.A. Ablett, President,
Amex Exploration Services Ltd.

APPENDIX 2

BAP CLAIMS AND OWNERSHIP

CLAIM No.	RECORD No.	TAG No.	Record Date	Expiry Date
5	127997	449905	13/8/73	13/8/74
8	128034	449946	4/9/73	4/9/74
9	127999	449909	13/8/73	4/9/74
10	128000	449910	13/8/73	4/9/74
11	128001	449911	13/8/73	4/9/74
12	128002	449912	13/8/73	4/9/74
13	128003	449913	13/8/73	4/9/74
14	128004	449914	13/8/73	4/9/74
15	128005	449915	13/8/73	4/9/74
16	128006	449916	13/8/73	4/9/74
17	128007	449917	13/8/73	4/9/74
18	128008	449918	13/8/73	4/9/74
19	128009	449919	13/8/73	4/9/74
21	128035	449947	4/9/73	4/9/74
22	128036	449948	4/9/73	4/9/74
23	128011	449923	4/9/73	4/9/74
25	128013	449925	4/9/73	4/9/74
26	128014	449926	4/9/73	4/9/74
30	128018	449930	4/9/73	4/9/74
34	128022	449934	4/9/73	4/9/74

Claims owned by BP Minerals Limited
#405-1199 West Pender Street
Vancouver, B.C.

Assessment work paid for by BP Minerals Limited

APPENDIX 3

Sample type, sample number, east and north grid coordinates, field notes and Mo, Cu and Zn data (ppm) are listed. 50 represents soil sample field and analytical data, 60 represents talus fine sample field and analytical data, and 80 represents bedrock sample field data only.

SAMPLE TYPE		ID		EAST	NORTH							Mo	Cu	Zn
50	4505	770784	X	010200	082800	94D08	3211193	21002CBBFX			85140SW	32	215	142
50	4505	770788	X	009400	082800	94D08	231119	235055BBF22449			65110	7	460	101
50	4505	770794	X	010500	082000	94D08	321119	22005CBBF224			40S	9	210	251
50	4505	770796	X	010400	082000	94D08	321119	260075BBF20 47			40S	5	25	65
50	4505	770798	X	010300	082000	94D08	321119	235045BBF24463			60140S	10	90	165
50	4505	770799	X	010200	082000	94D08	321119	230040BBF 22463			60140S	8	155	300
50	4505	770800	X	010100	082000	94D08	321119	290095BBF23436			60135SW	14	92	80
50	4505	770802	X	010000	082000	94D08	321119	290095BBF22434			70135SW	8	150	260
50	4505	770806	X	009200	082000	94D08	131219	215030PBM1238			2011ONE	4	100	65
50	4505	770810	X	010800	080800	94D08	3212192	203007BBM2266			30135S	3	390	350
50	4505	770811	X	010600	080800	94D08	3211183	215030PBF2265			20135S	6	157	430
50	4505	770813	X	010200	080800	94D08	3211193	207020BBFX			33140SW	5	110	80
50	4505	770819	X	009800	080800	94D08	3211193	205015BBF23443			30145S	35	177	95
50	4505	770821	X	009600	080800	94D08	3211193	215020BBF224			40S	10	156	120
50	4505	770823	X	009500	080800	94D08	3225192	210025GBG143			20145S	2	25	55
50	4505	770835	X	009400	080000	94D08	312192	215030PBM1226			30145SW	3	95	220
50	4505	840978	X	9400	82400	94D08	222 16	51220 25BBM			60115SE	3	520	22
50	4505	840979	X	9400	82600	94D08	221116	51220 25PBF		75YR44	70115SE	8	260	300
50	4505	840981	X	9200	82800	94D08	221 16	48210 15BBM			75110NW	4	72	50
50	4505	840995	X	9400	81800	94D08	321 18	46215 20BBM			75125S	5	87	112
50	4505	841028	X	10300	80400	94D08	321 19	52210 15BBM			75140S	4	145	102
50	4505	841031	X	10600	76550	94D08	321 16	50215 20BBM			80135S	2	140	75
50	4505	841054	X	9450	80025	94D08	321 16	50215 20BBM			30W	3	97	70
60	4505	770779	X	011200	082800	94D08	1 11	50	TF22456		05SW	3	73	130
60	4505	770780	X	011000	082800	94D08	2 11		TF23456		15N	6	150	275
60	4505	770781	X	010800	082800	94D08	3 11		TF23436		30W	8	435	1000
60	4505	770782	X	010600	082800	94D08	3 11		TF22456		40W	9	290	1350
60	4505	770783	X	010400	082800	94D08	3 11		TF23456		40W	12	365	800
60	4505	770785	X	010000	082800	94D08	3 11		TF2344		40SW	17	205	110
60	4505	770786	X	009800	082800	94D08	3 11		TF2245		35SW	10	270	280
60	4505	770787	X	009500	082800	94D08	4 11		TF23436		5 SW	8	275	400
60	4505	770790	X	011200	082000	94D08	1 11		TF23457		05S	7	290	140
60	4505	770791	X	011000	082000	94D08	3 11		TF22496		25S	13	390	175
60	4505	770792	X	010800	082000	94D08	3 11		TF2249		30S	6	207	260
60	4505	770793	X	010600	082000	94D08	3 11		TF20 36		40S	8	230	500
60	4505	770803	X	009800	082000	94D08	3 11		TF224		35S	7	140	240
60	4505	770804	X	009600	082000	94D08	3 11		TF224		35S	7	112	225
60	4505	770805	X	009400	082000	94D08	4 11		TF224		20SW	8	135	229
60	4505	770807	X	011200	080800	94D08	3 1		TF224		30S	3	212	105
60	4505	770809	X	011000	080800	94D08	3 1		TF224		30S	3	160	127
60	4505	770812	X	010400	080800	94D08	3 11		TF23446		35S	6	92	235
60	4505	770815	X	010100	080800	94D08	3 11		TFX 4		35S	3	112	55
60	4505	770816	X	010000	080800	94D08	3 11		TFX 36		35S	88	157	209
60	4505	770817	X	009900	080800	94D08	3 11		TF23434		40S	11	140	130
60	4505	770820	X	009700	080800	94D08	3 11		TFX		40S	15	295	165
60	4505	770826	X	009400	080800	94D08	3 11		TF1225		40S	2	420	470
60	4505	770827	X	011200	080600	94D08	3 11		TF22435		35S	3	170	90
60	4505	770828	X	011200	080200	94D08	3 1		TF32234		35S	4	225	225
60	4505	770829	X	010400	080000	94D08	3 1		TF224		35S	4	220	197
60	4505	770830	X	010200	080000	94D08	3 1		TF224		35S	4	198	197
60	4505	770831	X	010100	080000	94D08	3 11		TF2243		35S	4	190	197
60	4505	770832	X	010000	080000	94D08	3 1		TF224		30S	3	184	199
60	4505	770833	X	009800	080000	94D08	3 1		TF224X		30S	4	210	205
60	4505	770834	X	009600	080000	94D08	3 11		TF224		30S	7	270	149
60	4505	810400	X	12950	7165	94D08	3 1	55	TF22636		30SW	4	238	90
60	4505	810401	X	13050	7190	94D08	3 1	54	TF22636		30SW	2	175	65
60	4505	810404	X	13100	7210	94D08	3 1	60	TF2263		30SW	2	195	60
60	4505	810408	X	13200	7260	94D08	3 1	60	TF226		30SW	4	435	106
60	4505	810410	X	13250	7290	94D08	3 1	58	TF22		30SW	5	290	90

SAMPLE TYPE	ID		EAST	NORTH								Mo	Cu	Zn
60	4505 810413	X	13350	7320	94D08	3	13	49	TF222		30SW	2	385	102
60	4505 810416	X	13450	7360	94D08	3	13	54	TF22		30SW	2	200	85
60	4505 810417	X	13450	7385	94D08	3	13	52	TF22		30SW	2	215	77
60	4505 810418	X	13400	7410	94D08	3	1	52	TF22		30SW	19	230	110
60	4505 810419	X	13350	7425	94D08	3	1	49	TF226		30SW	2	165	80
60	4505 810420	X	13300	7435	94D08	3	1	52	TF226		30SW	2	175	73
60	4505 810421	X	13150	7465	94D08	3	1	53	TF22		30SW	3	220	75
60	4505 810422	X	13050	7490	94D08	3	1	52	TF226		30SW	4	143	72
60	4505 810423	X	12900	7510	94D08	3	1	52	TF226		30SW	3	145	71
60	4505 810427	X	11350	6950	94D08	1	1	54	TF22 39		35SE	9	5800	59
60	4505 810438	X	10100	7170	94D08	2	1	48	TF22		5S	9	325	72
60	4505 810439	X	10000	7155	94D08	2	11	51	TF123		5S	15	1620	72
60	4505 810440	X	09900	7220	94D08	2	11	51	TF123		5S	3	230	69
60	4505 810454	X	11400	7355	94D08	6	1	50	TF22536			3	350	107
60	4505 810461	X	11700	6800	94D08	2	1	41	TF22 35		10E	5	650	46
60	4505 810468	X	09850	7265	94D08	2	11	49	TF12349		15W	5	357	50
60	4505 810470	X	09500	7335	94D08	2	11	49	TF123		10W	14	430	55
60	4505 810473	X	09100	7480	94D08	3	1	51	TF123		30NW	4	570	75
60	4505 810474	X	09100	7495	94D08	3	1	51	TF123		30NW	5	2100	65
60	4505 810475	X	09100	7515	94D08	3	1	54	TF123		30NW	4	442	68
60	4505 810478	X	09000	7555	94D08	3	1	53	TF1238		30NW	5	630	62
60	4505 810481	X	09100	7595	94D08	9	11	47	TF12335		35N	7	253	55
60	4505 810484	X	08800	7695	94D08	91		48	TF123		35S	2	342	41
60	4505 810485	X	08350	7690	94D08	9	11	48	TF12 3		35N	11	136	27
60	4505 810487	X	07950	7710	94D08	9	1	47	TF12 3		35NW	12	187	55
60	4505 810490	X	09900	8280	94D08	3	11	50	TF		30SW	15	257	160
60	4505 810491	X	10000	8280	94D08	3	11	50	TF		30SW	14	210	115
60	4505 810522	X	13700	80150	94D08	3	1	55	TF226		30E	2	190	65
60	4505 810524	X	11420	78550	94D08	31		53	TF226		30S	1	195	80
60	4505 810525	X	11000	78550	94D08	31		53	TF22 53		30E	2	195	86
60	4505 810526	X	10800	78440	94D08	3	1	53	TF22		30SE	2	170	95
60	4505 810528	X	10830	78300	94D08	3	1	54	TF22		30SE	3	207	102
60	4505 810531	X	9900	78190	94D08	3	1	55	TF22		30S	7	356	77
60	4505 810533	X	7350	76880	94D08	9	1	60	TF123		30	3	132	75
60	4505 840886	X	9600	74875	94D08	321	18	532	TF		35N	6	710	55
60	4505 840887	X	9670	74690	94D08	321	10	512	TF		35N	4	550	50
60	4505 840888	X	9760	74460	94D08	321	18	522	TF		25NE	6	740	65
60	4505 840889	X	9830	74240	94D08	421	18	542	TF		20NW	6	445	64
60	4505 840890	X	9920	74040	94D08	321	18	482	TF		25NW	6	315	45
60	4505 840891	X	10000	73850	94D08	321	18	522	TF		25NW	5	235	40
60	4505 840892	X	10090	73660	94D08	321	18	532	TF		30NW	5	370	41
60	4505 840893	X	10180	73430	94D08	321	18	522	TF		35NW	17	640	118
60	4505 840894	X	10270	73230	94D08	321	18	512	TF		35NW	52	235	130
60	4505 840895	X	10350	73040	94D08	321	18	562	TF		30N	6	660	105
60	4505 840896	X	10440	72850	94D08	321	18	572	TF		35N	4	1050	100
60	4505 840897	X	10540	72680	94D08	321	18	572	TF		35N	9	850	90
60	4505 840898	X	10650	72470	94D08	322	18	532	TF		40NE	5	600	145
60	4505 840899	X	10810	72270	94D08	322	18	532	TF		35N	12	670	67
60	4505 840900	X	10970	72130	94D08	322	18	482	TF		35NW	4	273	40
60	4505 840901	X	11120	72040	94D08	321	181512		TF	12	40N	7	282	47
60	4505 840902	X	11330	71940	94D08	322	181572		TF	12	40N	4	415	95
60	4505 840903	X	11550	71870	94D08	322	18	552	TF		35NW	7	680	137
60	4505 840904	X	11800	71810	94D08	322	18	522	TF		45NW	1	345	40
60	4505 840905	X	12050	71840	94D08	322	18	532	TF		40W	5	4830	550
60	4505 840906	X	12260	71890	94D08	322	18	532	TF		30SW	8	970	55
60	4505 840907	X	12420	71940	94D08	322	18	522	TF		35SW	3	580	92
60	4505 840908	X	12600	72050	94D08	322	18	502	TF		25SW	3	210	75
60	4505 840909	X	12750	72200	94D08	322	18	602	TF		40SW	3	260	72
60	4505 840910	X	12810	72410	94D08	322	16	582	TF		35S	4	365	120
60	4505 840911	X	12830	72660	94D08	322	18	582	TF		40SW	5	410	62

SAMPLE TYPE	ID		EAST	NORTH						Mo	Cu	Zn
60	74505 840912	X	12870	72900	94D08	322 16 542	TF		40SW	12	215	97
60	74505 840913	X	12910	73110	94D08	321 18 542	TF		35W	4	226	94
60	74505 840914	X	12890	73320	94D08	322 18 542	TF		35SW	3	330	120
60	74505 840915	X	12810	73540	94D08	321 18 502	TF		30SW	2	227	80
60	74505 840916	X	12710	73720	94D08	321 182512	TF		35SW	15	770	115
60	74505 840917	X	12620	73950	94D08	321 18 522	TF		30SW	2	277	70
60	74505 840918	X	12550	74120	94D08	321 18 532	TF		20W	3	175	80
60	74505 840919	X	12500	74340	94D08	321 18 542	TF		25SW	3	155	97
60	74505 840920	X	12450	74550	94D08	321 18 562	TF		25SW	4	150	102
60	74505 840921	X	12350	74770	94D08	322 18 552	TF		35SW	3	127	90
60	74505 840922	X	12210	74960	94D08	321 18 532	TF		35SW	2	172	80
60	74505 840923	X	12060	75130	94D08	321 18 542	TF		35SW	1	160	88
60	74505 840924	X	11900	75295	94D08	321 18 562	TF		35SW	1	150	75
60	74505 840925	X	11730	75440	94D08	321 18 582	TF		35S	3	146	76
60	74505 840926	X	11560	75600	94D08	21 18 582	TF		35S	2	186	76
60	74505 840927	X	11395	75770	94D08	321 18 582	TF		35S	3	220	97
60	74505 840928	X	11220	75940	94D08	321 18 512	TF		35S	5	180	90
60	74505 840929	X	11070	76090	94D08	321 18 542	TF		35S	2	160	90
60	74505 840930	X	10910	76230	94D08	321 182502	TF		30S	7	190	80
60	74505 840931	X	10750	76390	94D08	321 18 512	TF		40S	3	175	94
60	74505 840966	X	11275	82400	94D08	622 18 496	TF	5	8W	4	135	242
60	74505 840967	X	11100	82400	94D08	221118 532	TF	5	10NW	2	140	182
60	74505 840968	X	11000	82400	94D08	221118 522	TF		10SW	5	142	220
60	74505 840969	X	10800	82400	94D08	321118 532	TF	53	35SW	5	157	450
60	74505 840970	X	10600	82400	94D08	321118 542	TF	53	35SW	5	285	600
60	74505 840971	X	10400	82400	94D08	3211181522	TF	52	38SW	4	200	500
60	74505 840972	X	10200	82400	94D08	3211182452	TF	5	40SW	48	250	220
60	74505 840973	X	10000	82400	94D08	321118 442	TF	5	40SW	10	95	90
60	74505 840974	X	10000	82600	94D08	321118 472	TF	5	40SW	16	140	105
60	74505 840975	X	10000	82200	94D08	3211182472	TF	5	40SW	14	116	125
60	74505 840976	X	9800	82400	94D08	321118 522	TF	53	40S	18	185	160
60	74505 840977	X	9600	82400	94D08	321118 532	TF		35S	18	185	162
60	74505 840982	X	11200	81600	94D08	321 18 512	TF		40SW	4	130	89
60	74505 840983	X	11000	81600	94D08	321 18 532	TF		40SW	4	135	115
60	74505 840984	X	10800	81600	94D08	321 18 522	TF		40SW	4	132	130
60	74505 840985	X	10600	81600	94D08	321 18 522	TF		40SW	4	163	156
60	74505 840986	X	10400	81600	94D08	321 18 532	TF		40W	5	180	300
60	74505 840987	X	10400	81625	94D08	321118 542	TF	5	40SW	6	70	127
60	74505 840988	X	10200	81600	94D08	321118 492	TF	53	40W	6	80	94
60	74505 840989	X	10000	81600	94D08	3211182392	TF	5	40SW	9	190	80
60	74505 840990	X	10000	81400	94D08	3211182422	TF	5	40SW	16	138	82
60	74505 840991	X	10000	81600	94D08	3211182462	TF	5	40SW	10	85	105
60	74505 840992	X	9800	81600	94D08	321118 482	TF		40SW	23	203	85
60	74505 840993	X	9600	81600	94D08	321118 502	TF		40SW	22	162	85
60	74505 840994	X	9400	81600	94D08	321118 492	TF		40S	7	80	125
60	74505 840997	X	11200	81200	94D08	322 181522	TF	16	25SE	4	105	97
60	74505 840998	X	11000	81200	94D08	321 18 512	TF		40SW	2	290	165
60	74505 840999	X	10800	81200	94D08	321 18 522	TF		40SW	6	315	260
60	74505 841000	X	10700	81200	94D08	321118 502	TF		40SW	5	160	215
60	74505 841001	X	10600	81200	94D08	321118 502	TF		40SW	7	105	260
60	74505 841002	X	10500	81200	94D08	321118 492	TF	5	40SW	9	133	290
60	74505 841003	X	10400	81200	94D08	211182462	TF	5	40SW	4	60	175
60	74505 841004	X	10300	81200	94D08	21118 482	TF	53	40SW	3	42	120
60	74505 841005	X	10200	81200	94D08	211182482	TF	5	40SW	3	50	62
60	74505 841006	X	10100	81200	94D08	3211182442	TF	5	40SW	4	72	56
60	74505 841007	X	10000	81200	94D08	3211182452	TF	53	40SW	8	127	62
60	74505 841008	X	10000	81000	94D08	3211182482	TF	5	40SW	2	70	55
60	74505 841009	X	10000	80800	94D08	3211182502	TF	5	40SW	15	250	200
60	74505 841010	X	10000	806	94D09	3211182522	TF	53		9	135	177
60	74505 841011	X	10100	80400	94D08	321 18 522	TF		40W	5	210	137

SAMPLE TYPE		ID		EAST	NORTH							Mo	Cu	Zn
60	74505	841012	X	10000	80400	94008	321	181522	TF	3	40W	4	350	225
60	74505	841013	X	10000	80200	94008	321	18 502	TF		40W	4	195	135
60	74505	841014	X	10050	80200	94008	321118	542	TF	5	40W	4	195	130
60	74505	841015	X	9900	80400	94009	321	18 552	TF		40W	12	455	270
60	74505	841016	X	9800	80400	94008	321	18 522	TF		40W	9	950	320
60	74505	841017	X	9700	80400	94008	321	18 502	TF		40W	28	530	182
60	74505	841018	X	9600	80400	94008	321118	492	TF	5	40W	16	405	145
60	74505	841019	X	9500	80400	94008	21	18 502	TF		10SE	6	470	115
60	74505	841020	X	9400	80400	94008	21	18 542	TF		40SW	2	93	124
60	74505	841021	X	11200	80400	94008	321	182582	TF		40S	3	315	115
60	74505	841022	X	11100	80400	94008	321	182592	TF		40S	6	245	226
60	74505	841023	X	11000	80400	94008	321	182572	TF		40S	4	215	172
60	74505	841024	X	10900	80400	94008	321	182572	TF		40S	3	210	120
60	74505	841025	X	10800	80400	94008	321	182562	TF		40S	3	196	115
60	74505	841026	X	10650	80400	94008	321	18 562	TF		40S	2	210	137
60	74505	841027	X	10400	80400	94008	322	18 552	TF		40S	4	225	125
60	74505	841029	X	10200	80400	94008	321	18 522	TF		40S	3	190	95
60	74505	841030	1X	9400	80400	94008	321	18 532	TF		40SW	3	95	101
60	74505	841032	X	10470	76710	94008	321	18 502	TF		30SW	3	150	75
60	74505	841033	X	10310	76900	94008	321	18 542	TF		35SW	3	140	72
60	74505	841034	X	10150	77050	94008	321	18 542	TF		35S	3	150	72
60	74505	841035	X	9990	77200	94008	321	18 512	TF		35S	3	165	70
60	74505	841036	X	9810	77350	94008	321	18 552	TF		35SW	4	155	80
60	74505	841037	X	9660	77500	94008	321	182502	TF		35S	11	310	58
60	74505	841038	X	9490	77620	94008	21	182482	TF		35S	27	425	55
60	74505	841039	X	9310	77770	94008	21	182512	TF		35S	4	260	115
60	74505	841040	X	9160	77870	94008	321	182552	TF		38SW	4	253	80
60	74505	841041	X	8950	77990	94008	321	182502	TF		40S	3	126	72
60	74505	841042	X	8820	78120	94008	321	18 502	TF		35SW	4	105	65
60	74505	841043	X	8820	78270	94008	321	18 492	TF		35S	4	140	80
60	74505	841044	X	8880	78420	94008	321	18 502	TF		35S	4	80	82
60	74505	841045	X	8550	78590	94008	321	18 492	TF		35SW	4	85	77
60	74505	841046	X	9020	78750	94008	321	18 492	TF		35SW	5	142	130
60	74505	841047	X	9100	78900	94008	321	18 502	TF		35SW	5	147	110
60	74505	841048	X	9200	79080	94008	321	18 522	TF		35SW	7	205	95
60	74505	841049	X	9240	79220	94008	321	18 582	TF		35W	7	228	110
60	74505	841050	X	9300	79400	94008	321	18 522	TF		30SW	4	149	90
60	74505	841051	X	9380	79550	94008	321	18 562	TF		35SW	3	146	90
60	74505	841052	X	9420	79700	94008	321	18 542	TF		35SW	4	170	87
60	74505	841053	X	9450	79840	94008	321	18 582	TF		35SW	2	15	55
60	74505	841055	X	9450	80200	94009	321	18 532	TF		35SW	4	600	100

BEDROCK

	ID			EAST	NORTH												
80	45055	770789	X	009400	082800	94D08	22	146	MRE53	5309876NE	DGRCF		3	224M	E M12PY21PY		12
80	45055	770795	X	010500	082000	94D08	31	442	DRB43		DGROF		6	234M	EQI02PY22PY	7	11
80	45055	770797	X	010400	082000	94D08	32	442	DDB64		MW1CF	2	1	X	CQI02PY22PY	10	11
80	45055	770801	X	010100	082000	94D08	32	442	MCB42		LGROM		5	123PFEHMC2PY22PY		1	1
80	45055	770808	X	011200	080800	94D08	37	436	DGR61		DGROF		X	123M	H I22PY32CP32CC	1	13
80	45055	770814	X	010200	080800	94D08	34	444	DRB52		LGROM		7	234M	EHMC2PY22PY		1
80	45055	770818	X	009900	080800	94D08	321	134	DRB63		MGROF	2	6	234M	EHM22PY02PY	5	1
80	45055	770822	X	009600	080800	94D08	34	446	DGR42		DGROF		4	224M	EHM22PY	1	
80	45055	770824	X	009500	080800	94D08	35	126	DBK32		DBK2M		9	143HBH W			
80	45055	770825	X	009400	080800	94D08	35	126	MRB42		LGY1M		6	123BHHEW			
80	45055	800540	X	10520	80191	94D08	2	13	DGY		DGYCF			224	H IC1PY	TR	
80	45055	800541	X	10510	80192	94D08	32	13	DGY		DGYOF			224	H M		
80	45055	800542	X	10500	80193	94D08	31	136	DGY		DGYOF			224	HCM	TR	
80	45055	800543	X	10490	80194	94D08	31	136	DGY		DGYCF			224	H M		1
80	45055	800544	X	10480	80195	94D08	31	136	DGY		DGYOF			224	H M		
80	45055	800545	X	10470	80196	94D08	31	136	DGY		DGYCF			224	H M01PY		
80	45055	800546	X	10460	80197	94D08	31	126	CBR		LGYCF			123	QHMC1PY22PY	1.	
80	45055	800547	X	10450	80198	94D08	31	126	CBR		LGYOF			123	QHMC1PY22PY	1.	
80	45055	800548	X	10440	80199	94D08	32	136	DGY		DGYCF			224	CHMC1PY22PY	1.	

ID			EAST	NORTH													
8074505	800549	X	10430	80200	94D08	32	136	OBR		DGYOF			224	HCM01PY22PY	3.		
8074505	800550	X	10420	80201	94D08	32	136	OBR		DGYCF			224	H W01PY22PY	2.		
8074505	800551	X	10410	80202	94D08	31	136	DGY		LGYOF			224	CHI22PY	TR		
8074505	800552	X	10400	80203	94D08	32	126	CBR		LGYOF			224	C M22PY	.5		
8074505	800553	X	10390	80204	94D08	32	146	LGY		LGYCF			224	CSW			
8074505	800554	X	10380	80205	94D08	32	136	MGY		MGYOF			224	H M22PY	.5		
8074505	800555	X	10370	80206	94D08	31	126	OBR		LGYOF			123	HCM01PY22PY	2.		
8074505	800556	X	10360	80207	94D08	31	126	OBR		LGYCF			123	HCW01PY22PY	4.		
8074505	800557	X	10350	80208	94D08	31	126	CBR		LGYOF			123	CQM01PY22PY	4.		
8074505	800558	X	10340	80209	94D08	31	126	OBR		LGYOF			123	CCM01PY22PY	3.		
8074505	800559	X	10330	80210	94D08	31	126	CBR		LGYOF			123	CQIC1PY22PY	2.		
8074505	800560	X	10320	80211	94D08	31	126	OBR		LGYOF			123	CSI01PY22PY	5.		1
8074505	800561	X	10310	80212	94D08	31	126	OBR		LGYCF			123	QSIC1PY22PY	5.		1
8074505	800562	X	10300	80213	94D08	31	126	CBR		LGYOF			123	QSIC1PY22PY	7.		1
8074505	800563	X	10290	80214	94D08	31	136	OBR		LGYOF			123	CSM01PY22PY	5.		
8074505	800564	X	10280	80215	94D08	31	126	OBR		LGYCF			123	SCM01PY22PY	5.		
8074505	800565	X	10270	80216	94D08	31	126	CBR		LGYOF			123	SCM01PY22PY	5.		
8074505	800566	X	10260	80217	94D08	31	126	OBR		LGYCF			123	SCM01PY22PY	4.		
8074505	800567	X	10250	80218	94D08	31	126	OBR		LGYOF			123	SQIC1PY22PY	4.		1
8074505	800568	X	10240	80219	94D08	31	126	CBR		LGYOF			123	CSI01PY22PY	4.		1
8074505	800569	X	10230	80220	94D08	31	126	OBR		LGYCF			123	CSIC1PY22PY	3.		1
8074505	800570	X	10220	80221	94D08	31	126	OBR		LGYOF			123	CQMC1PY22PY	2.		1
8074505	801116	X	10010	80191	94D08	32	136	OBR		LGYOF			224	CSI01PY22PY	3.		
8074505	801117	X	10000	80192	94D08	32	136	OBR		LGYCF			224	QSIC1PY22PY	3.		
8074505	801118	X	9990	80193	94D08	32	136	CBR		LGYOF			224	QSI01PY22PY	1.		
8074505	801119	X	9980	80194	94D08	32	136	OBR		LGYOF			224	SHM01PY22PY	1.		
8074505	801120	X	9970	80195	94D08	32	136	OBR		LGYOF		2	224	QSMC1PY22PY	.1		2
8074505	801121	X	9960	80196	94D08	32	136	MBR		LGYOF		3	224	SCH01PY22PY	TR		
8074505	801122	X	9950	80197	94D08	32	136	MCR		MGRCF			224	HSMC1PY22PY	TR		22
8074505	801123	X	9940	80198	94D08	32	136	MGY		DGYOF			224	H MC1PY22PY	.5		
8074505	801124	X	9930	80199	94D08	32	136	OBR		DGYCF			224	H M01PY22PY	.5		2
8074505	801125	X	9920	80200	94D08	31	126	OBR		LGYCF			224	QCIC1PY22PY	5.		
8074505	801126	X	9910	80201	94D08	31	126	CBR		LGYOF			224	EQM01PY22PY	5.		
8074505	801127	X	9900	80202	94D08	31	126	OBR		LGROM			224	EQM01PY22PY	5.		1
8074505	801128	X	9890	80203	94D08	31	126	MBR		LGYOM	3	6	123E	QHCWC1PY22PY	.5		1
8074505	801129	X	9880	80204	94D08	31	126	MBR		LGYOM	3	6	113E	QQSW01PY22PY	.5		
8074505	801130	X	9870	80205	94D08	32	136	OBR		LGYCF			224	CSMC1PY22PY	2.		
8074505	801131	X	9860	80206	94D08	31	126	MBR		LGYOM	3	6	123E	QHQWC1PY22PY	TR		1
8074505	801132	X	9850	80207	94D08	31	126	OBR		LGYCM	3	6	123E	QHQMC1PY22PY	1.		1
8074505	801133	X	9840	80208	94D08	31	126	MBR		LGROM	2	6	123F	HCWC1PY22PY	.1		
8074505	801134	X	9830	80209	94D08	31	129	MGY	53170	MGYOF			224	HSM22MA22CC22PY	1.	40	12
8074505	801135	X	9820	80210	94D08	31	129	MBR		LGYCM	3	6	123F	HCM22MA22PY01PY	.5	10	
8074505	801136	X	9810	80211	94D08	31	129	MGY		LGYOM	2	5	123F	EHW22MA01MA	.1	50	
8074505	801137	X	9800	80212	94D08	31	126	OBR		LGYCM	2	5	123F	CHW22MA22PY01PY	.5		
8074505	801138	X	9790	80213	94D08	31	129	OBR		LGRCM	2	5	123F	HCM22MA22PYC1PY	.5		22
8074505	801139	X	9780	80214	94D08	31	136	OBR		LGYOF			3	290	107		
8074505	801140	X	9770	80215	94D08	31	136	OBR		WHCF			123	CHM22PY01PY	.5		
8074505	801141		9760	80216	94D08	31	136	OBR		LGROF			123E	QCHM22PYC1PY	.2		
8074505	801142		9750	80217	94D08	31	136	OBR		LGROF			123	C M22PY01PY	.2		x
8074505	801143		9740	80218	94D08	31	126	OBR		LGYCF			123	HCW22PY01PY	.5		
8074505	801144		9730	80219	94D08	31	126	CBR		MGROF	1	2	224	HSW22PY01PY	4.		2
8074505	801145		9720	80220	94D08	31	126	OBR		MGYOM	2	5	123F	HEM22PY01PY	5.		
8074505	801146	X	9710	80221	94D08	31	126	MBR		LGYCM	2	4	123F	EHW22PYC1PY	3.		
8074505	801147	X	9700	80222	94D08	31	129	MBR		MGYOF			123E	QQSW22MA22PY01PY	2.	50	
8074505	801148	X	9690	80223	94D08	31	126	OBR		LGYCF			123E	CHQM22PYC1PY	4.		1
8074505	801149	X	9680	80224	94D08	31	129			LGYOM	2	5	123F	H M22MA22PYC1PY	2.	10	12
8074505	801150	X	9670	80225	94D08	31	129	OBR		MGYOF			123	HQM22MA01MA22PY	.3	10	1
8074505	801151	X	9660	80226	94D08	31	129	OBR		LGYCF			123E	QCHW22MA22PY01PY	.5	1	32
8074505	801152	X	9650	80227	94D08	31	126	OBR		LCYOF			123E	QCHW22PYC1PY	1.		x
8074505	801153	X	9640	80228	94D08	31	12	MBR		LGYCF			224	HCM01PY	TR		3

ID				EAST	NORTH										
80	4505	801154	X	9630	80229	94D08	31	126	MER		LGYOF		123EQHCW22PYC1PY	.2	1
80	4505	801155	X	9620	80300	94D08	31	126	OBR		LGYOM	3 4	123F HCM22PY01PY	5.	1
80	4505	810383	X	11700	80650	94D08	31		DBR		DGYC		322CL PY		
80	4505	810384	X	11650	80550	94D08	31				MGYO		123EQ PY	1	
80	4505	810385	X	11650	80550	94D08	31				DGRC		14		
80	4505	810386	X	11650	80550	94D08	31			4408080N	MGRO		222P H L		
80	4505	810387	X	11600	80200	94D08	31			1415530NE			224 PY01		2
80	4505	810388	X	11600	80200	94D08	31				BKC		227M		
80	4505	810389	X	11600	80200	94D08	31						322 PY01		2
80	4505	810390	X	11300	79900	94D08	31			1415030NE5303065NW			222P		3
80	4505	810391	X	11300	79900	94D08	31			1415030NE	DPUC		321CL		2
80	4505	810392	X	11050	79700	94D08	31				MGRO		224 PY01		
80	4505	810393	X	10800	79600	94D08	31				BKO		225M PY		
80	4505	810394	X	10900	79800	94D08	31		WH		LPI		123PF PYC2		4
80	4505	810395	X	09900	79750	94D08	3			32	1	30	222PFH M		
80	4505	810396	X	11950	71850	94D08	63				MGRO		123ECH M		
80	4505	810397	X	11950	71850	94D08	63			5	DGR1		222P		
80	4505	810398	X	12100	72000	94D08	63				BK		225 H W01CP	1	
80	4505	810399	X	12100	72000	94D08	63						215 CP		
80	4505	810402	X	13050	71900	94D08	31				0		226 PY		
80	4505	810403	X	13050	71900	94D08	31				0		226		3
80	4505	810405	X	13100	72100	94D08	31			1400520NE	BK C		226 PY	1	
80	4505	810406	X	13150	72350	94D08	31		LGY		MGYO		226 CP PY		
80	4505	810407	X	13150	72350	94D08	31						226 PY	1	9
80	4505	810409	X	13200	72600	94D08	37		BK		BK 0		123EQ		9
80	4505	810411	X	13250	72900	94D08	31		MGR		MGR		222PFH		9
80	4505	810412	X	13250	72900	94D08	31		LGR		LGR	10	222PF		
80	4505	810414	X	13350	73200	94D08	31				MGY		224 H W		
80	4505	810415	X	13350	73200	94D08	31						224 PY	1	
80	4505	810424	X	12000	70250	94D08	31		LGR		0		226M E W		
80	4505	810425	X	12050	70250	94D08	35				3		225M E L MT PY CP		
80	4505	810426	X	11900	69800	94D08	11		DGR	5413590 52080	DGRC		222P H M CP		
80	4505	810428	X	10950	69800	94D08	11						222P PY		
80	4505	810429	X	10950	69800	94D08	16				BK 0		212PF		1
80	4505	810430	X	10850	70000	94D08	16				0		222F H PY		
80	4505	810431	X	10850	70000	94D08	11				1		225M E M PY		3
80	4505	810432	X	10800	70400	94D08	14				DGR1		222P E L32CP		9
80	4505	810433	X	10800	70550	94D08	11						123EQHEMPYC1 CP		1
80	4505	810434	X	10800	70550	94D08	11						123PF		
80	4505	810435	X	10800	70550	94D08	17			32			123PF		
80	4505	810436	X	10300	71450	94D08	27				DGR1		221		
80	4505	810437	X	10200	71600	94D08	27				1		225 E MPY22		
80	4505	810441	X	09900	72200	94D08	21	5			2		123EQHELPYX2		
80	4505	810442	X	09900	72550	94D08	2	5			2		123EQHEMPY01		
80	4505	810443	X	09900	72550	94D08	2				0		123EQHEMPYC1		
80	4505	810444	X	09900	72550	94D08	21				GRO		123EQHEMC1PY	3	
80	4505	810445	X	09900	72550	94D08	21				0		123EQFH1PY01		
80	4505	810446	X	12000	72100	94D08	63				0		123EQ C1PY		
80	4505	810447	X	12000	72100	94D08	63				DGR2		225 CP PY GA		3
80	4505	810448	X	12250	71950	94D08	63				1		225M E M		
80	4505	810449	X	12000	72350	94D08	63				LGRC		226M EHM		
80	4505	810450	X	12000	72350	94D08	63		WH		WHO		123EQHLM		
80	4505	810451	X	12000	72350	94D08	65						123PFHEMC2PY		
80	4505	810452	X	11600	73200	94D08	65						122EQEHW PY		
80	4505	810453	X	11600	73200	94D08	61			4308012N	MGR		225M E M22CP		3
80	4505	810455	X	11050	74100	94D08	61		WH	5307590	DGRC		123PF CP PY		
80	4505	810456	X	10300	75600	94D08	61			54100	0		123PF PY22	2	
80	4505	810457	X	11100	67500	94D08	11		BK		BK 2		143EQ MT		
80	4505	810458	X	11000	67550	94D08	11		WH	33	LGY1		123PF PYC		
80	4505	810459	X	11050	68000	94D08	11			4408090	2		123EQ PYO CP34		

33.

ID		EAST	NORTH											
80 74505 810460	XX	11500	67850	94008	11				2	123EQ PYC				
80 74505 810462	XX	11800	68050	94008	23			5410090	DGR1	225M EHL PY				3
80 74505 810463	XX	13150	67850	94008	21		WH		1	123PFH M				1
80 74505 810464	XX	13150	67850	94008	21		WH		1	123PFH M				1
80 74505 810465	XX	13150	67850	94008	21					123PF				1
80 74505 810466	XX	13300	67700	94008	31				DGY2	2248				
80 74505 810467	XX	13300	67700	94008	31		WH		1	123PF				
80 74505 810469	XX	09700	73100	94008	23				1	123EQE L PY				
80 74505 810471	XX	09450	73550	94008	23			54130	0	123PFHEM				
80 74505 810472	XX	09100	74800	94008	31			53	1	123EQHEL PY				
80 74505 810476	XX	09100	75150	94008	31				2	123ECHELO1PY	CP		3	
80 74505 810477	XX	09100	75150	94008	31				2	123EQE L PY	CP	MA		
80 74505 810479	XX	08850	75900	94008	31		WH		MGY1	123PFEHM				
80 74505 810480	XX	09100	75950	94008	96		CR		0	123EQHEWPY11			4	
80 74505 810482	XX	09100	75950	94008	96				0	123 HEWPY11				
80 74505 810483	XX	09000	76850	94008	91		GY		BK 1	123EQ				9
80 74505 810486	XX	08250	77000	94008	91				GY 1	123FP PY12				
80 74505 810488	XX	07950	77100	94008	91				1	123PF PY				
80 74505 810489	XX	07950	77100	94008	91				LGR	12 HEMPY22				
80 74505 810492	XX	10100	82800	94008	3			3414580NE						
80 74505 810493	XX	10100	82800	94008	34	1		3414580NE		12 Q MPY01				
80 74505 810494	XX	10300	82800	94008	34					12 QHMPY01				
80 74505 810495	XX	10300	82800	94008	34		WH		WHO	12 QHMO1PY			1	
80 74505 810496	XX	10500	82800	94008	34				0	123 HSMPY22				
80 74505 810497	XX	10500	82800	94008	34				0	123 HSMPY22				
80 74505 810498	XX	10500	82800	94008	34				0	123EQHSMPY				
80 74505 810499	XX	10500	82800	94008	3				0	123 H PY				
80 74505 810500	XX	10900	82800	94008	34					22 H MPY				
80 74505 810501	XX	10900	82800	94008	34		WH			123PFHEW				
80 74505 810502	XX	10700	82000	94008	34				0	12 HEMPY				
80 74505 810503	XX	10550	82000	94008	34	1			DGRO	12 HEMPY01				
80 74505 810504	XX	10550	82000	94008	34				DGRO	12 HEMPY01				
80 74505 810505	XX	10420	82000	94008	34	1			MGRO					
80 74505 810506	XX	10335	82000	94008	21	1								
80 74505 810507	XX	10335	82000	94008	21	1			LGRO	225 HEI PY				
80 74505 810508	XX	10325	82000	94008	31	1	WH	3413065NE	0	12 QSIPY01			4	
80 74505 810509	XX	10070	82060	94008	31		LGR		LGRO	123PFHEM				
80 74505 810510	XX	10070	82060	94008	31				0					
80 74505 810511	XX	10070	82060	94008	31	1	WH		WHO	12 PF SWPY11			5	
80 74505 810512	XX	10070	82060	94008	31	1			0	PY				
80 74505 810513	XX	09830	81600	94008	31			5	GRO	123QFHEM PY				
80 74505 810514	XX	09880	81600	94008	31	1				12 Q MPY01				
80 74505 810515	XX	10010	81600	94008	31	1			LGRO	12 PFQ M2 PY			3	
80 74505 810516	XX	10100	81600	94008	31					12 Q PY				
80 74505 810517		10100	81600	94008	31				LGRO	12 EHM2 PY				
80 74505 810518	XX	10325	81560	94008	3									
80 74505 810519	XX	10660	81350	94008	3					123PF				
80 74505 810520	XX	10660	81350	94008	33					123PFH M				
80 74505 810521	XX	10850	81200	94008	36					12 H M				
80 74505 810523	XX	13250	75550	94008	31		DGY		BKO	211AF				
80 74505 810527	XX	10800	78440	94008	31		WH		0	123PFH W				
80 74505 810525	XX	10580	78170	94008	31	3	LGY		MGYO	2248 PY				
80 74505 810530	XX	10580	78170	94008	21		LGY		LGYO	331				1
80 74505 810532	XX	9130	78170	94008	33				0	113EQHEW				9
80 74505 810534	XX	7040	77070	94008	93	3			LGYO	123ECH MPY22				

EXECUTION TERMINATED

34.

SAMPLE CODING KEY

Sample Type	Project No.	I.D. No.	Zone	East	North	Map Sheet No.	Outcrop Topography / Outcrop Exposure	Type of Outcrop Weathering / Degree of Weathering / Surface Coatings	Weathered Surface Colour	Fracture Density	Joint Density	Structural Feature / Degree of Development	Structural Feature (Azimuth)	Structural Feature (Dip Angle)	Structural Feature (Dip Direction)	Fresh Surface Colour	Magnetic Character / Grain Size	Sediment Sorting	% Phenocrysts	Rock Type	Alteration Minerals / Degree of Alteration	Type and Habit of Mineralization	% Total Sulphides	Secondary Fillings
80	745050	850544	XX	10500	36500	94C03	34	444	DOR	2						LBL	0A			224	Q M			1
80	745050	850549	XX	10675	37600	94C03	36	526	LBR	2						LPL	0F			121EQ		22PY	20	
81	745050	800234	XX	17180	30380	94C03	45	427	DGY		3					DGR	M	L	3	22SM	H M			
81	745050	800247	XX	16070	26710	94C03	46	53	LGY							LBR	1F	2	1	225	CK W			2
81	745050	800320	XX	14560	30800	94C03	26	526	MGY		3	41	115	75	S	MGY	2M	1	4	226MZ	HS W			2
81	745050	800323	XX	14560	31200	94C03	44	127	LBR	3	3					MGR	1M	2	2	226MZ	EH M	92HE01PY		2
81	745050	800330	XX	14200	32000	94C03	26	137	MBR							MGY	2F	2	1	224.	HE W			2
81	745050	800357	XX	10630	37600	94C03	36	434	DBR	4						MPI	0M			121	K	01PY22PY	05	

Sample Type	Project No.	I.D. No.	Zone	East	North	Map Sheet No.	Stream Width (M)	Channel Depth (cm) / Velocity / pH / Geology / Stream Environment / Texture / Organic Content	Feature	Bedrock Geology		Order of Stream	Slope of Stream (Degrees)	Direction of Stream Flow	ppm Mo	ppm Cu	ppm Pb	ppm Zn	ppm Ag
10	745050	850346	XX	13800	39600	94C03	1	35400614		224		1	3	S	3	49		123	13
10	745050	850400	XX	13900	39200	94C03	1	30400614		22		2	5	S	3	43		103	11
10	745050	850443	XX	14000	38800	94C03	1	20455414				1	3	SE	3	51		104	20
10	745050	850456	XX	10650	38400	94C03	.5	5452844		2		1	15	S	4	165		86	16
20	745050	800139	XX	10820	36800	94C03	.1	1570644	1	725		1	07	NW	3	127		74	11
20	745050	800187	XX	18100	27380	94C03	.2	24706401			BLACK	1	04	E	2	45		42	11
20	745050	800270	XX	13100	29600	94C03	.1	14616421			10YR44	1	05	W	3	63		104	12
20	745050	800282	XX	11280	29050	94C03	.5	35620421				1	2	W	2	70		82	14

Sample Type	Project No.	I.D. No.	Zone	East	North	Map Sheet No.	Site Topography / Sample Environment / Site Drainage / Sample Percolation / Overburden Transport / Soil Parent Material	pH / Texture	Top of Sample Interval (cm)	Bottom of Sample Interval (cm)	Soil Type and Horizon	% Coarse Fragments / Shape Coarse Fragments	Slope (Degrees)	Slope Direction	ppm Mo	ppm Cu	ppm Pb	ppm Zn	ppm Ag
50	745050	760199	XX	9400	38000	94C03	271119	442	6	18	PBF	101	10	S	1	33		115	16
50	745050	760200	XX	9200	38000	94C03	271119	442	5	20		151	5	SE	3	47		127	16
50	745050	760201	XX	9000	38000	94C03	371119	502	4	20	PBF	201	27	SW	4	102	25	84	
50	745050	760202	XX	9000	37600	94C03	371119	497	8	20	PBF	201	28	S	5	205	32	97	
50	745050	760203	XX	9200	37600	94C03	671119	467	5	16	PBF	201			4	42	28	175	
50	745050	760204	XX	9400	37600	94C03	371119	477	5	20	PBF	301	35	S	3	53	27	83	
50	745050	760205	XX	9600	37600	94C03	371119	497	5	15	PBF	301	35	E	4	39	27	122	
50	745050	760209	XX	10400	37600	94C03	571119	[illegible]	5	15	PBF	251			3	62	20	113	

LIST 1

Code	INTRUSIVE ROCKS
1----	**INTRUSIVE ROCKS**
-1---	QUARTZ RICH
--1--	Granite
--2--	Quartz monzonite
--3--	Granodiorite
--4--	Quartz diorite
-2---	INTERMEDIATE
--1--	Syenite
--2--	Monzonite
--3--	Diorite
--4--	Gabbro
-3---	FELDSPATHOID RICH
--1--	Nepheline syenite
--2--	Nepheline monzonite
-4---	ULTRABASIC
--1--	Dunite
--2--	Pyroxenite
--3--	Hornblendite
--4--	Peridotite
--5--	Serpentinite
-50--	CARBONATITES
-6---	SPECIAL TYPES
--0--	*Unspecified*
--1--	Pegmatite
--2--	Aplite
--3--	Lamprophyre
--4--	Trap
--5--	Felsite
--6--	Intrusion breccia
--7--	Diabase

Code	MODIFIERS
---EQ	equigranular
---AF	aphanatic
---MI	microcrystalline
---QF	quartz-feldspar porphyry
	other phenocryst types
---H-	hornblende
---B-	biotite
---KF	feldspar-orthoclase
---PF	feldspar-plagioclase
---FU	feldspar-undifferentiated
---Q-	quartz
---P-	pyroxene
---XX	other types

LIST 2

Code	VOLCANIC ROCKS
2----	**VOLCANIC ROCKS**
-0---	UNDIFFERENTIATED
-1---	BASALT
-2---	ANDESITE
-3---	DACITE
-4---	RHYOLITE
-5---	QUARTZ LATITE
-6---	LATITE
-7---	TRACHYTE
-8---	PHONOLITE
-9---	NEPHELINE LATITE
--1--	Fine grained flows
--2--	Porphyritic flows
--3--	Crystal tuffs
--4--	Ash tuffs
--5--	Lapilli tuffs
--6--	Agglomerate
--7--	Lapilli breccia
--8--	Block breccia
--9--	Turbidite
--X--	Other

MODIFIERS

Code	PYROCLASTIC ASH TUFFS
---M-	massive
---B-	bedded
---S-	siliceous
---G-	gossanized

Code	PYROCLASTIC CRYSTAL TUFFS
---Q-	quartz phenocrysts
---F-	feldspar phenocrysts
---QF	quartz and feldspar phenocrysts

Code	ASH TUFF, LAPILLI TUFFS, AGGLOMERATES, BRECCIAS
---M-	monolithic
---P-	polylithic
----1	1.0-3.2cm
----2	3.2-10.cm
----3	10.-30.cm
----4	30.-100.cm
----5	>100.cm

Code	FLOWS
---P-	pyroxene porphyry
---H-	hornblende porphyry
---F-	feldspar porphyry
---A-	augite porphyry
---PF	pyroxene-feldspar porphyry
---HF	hornblende-feldspar porphyry
---AF	amygdaloidal flows-specify amygd. infillings (calcite, native Cu, chalcedony, etc.)
---PH	hornblende-pyroxene

- Make a note of composition of fragments and matrix if they differ.

LIST 3

Code	SEDIMENTARY ROCKS
3----	**SEDIMENTARY ROCKS**
-1---	ARENACEOUS
--1--	Siltstone
--2--	Mudstone
--3--	Greywake
--4--	Sandstone
--5--	Quartzite
--6--	Conglomerate
-2---	ARGILLACEOUS
--1--	Shale
--2--	Argillite
-3---	CALCAREOUS
--1--	Limestone
--2--	Dolomite
-4---	CHEMICAL PRECIPITATE
--1--	Chert
--2--	Marble
--3--	Iron formation

Code	MODIFIERS
---CL	calcareous
---CR	carbonaceous

LIST 4

Code	METAMORPHIC ROCKS
4----	**METAMORPHIC ROCKS**
-1---	FINE GRAINED CONTACT
--1--	Hornfels
-2---	PHANERITIC
--1--	Meta quartzite
--2--	Marble
--3--	Soapstone
--4--	Argillite
--5--	Serpentinite
--6--	Skarn
--7--	Amphibolite
--8--	Eclogite
-3---	MECHANICAL
--1--	Mylonite
--2--	Flaser
--3--	Augen
--4--	Ultramylonite
-40--	SLATE
-50--	PHYLLITE
-60--	SCHIST
-7---	GNEISS
-8---	MIGMATITE
--1--	Granite
--2--	Monzonite
--3--	Granodiorite
--4--	Augen
--5--	Granulite
--6--	Quartz diorite
--7--	Diorite
--0--	Amphibolite

Code	MODIFIER MINERALS
---AC	actinolite
---AD	andalucite
---AL	albite
---AM	albite-mica
---AP	anthophyllite
---BC	biotite-chlorite
---BI	biotite
---CH	chlorite
---CL	chloritoid
---CO	cordierite
---DI	diopside
---EC	epidote-chlorite
---EN	enstatite
---EP	epidote
---GA	garnet
---GC	garnet-chlorite
---GL	glaucophane
---GP	garnet-pyroxene
---GR	graphite
---HB	hornblende-biotite
---KY	kyanite
---MU	muscovite
---OL	olivine
---PH	phlogopite
---PY	pyrophyllite
---QM	quartz-mica
---QS	quartz-sericite
---SC	scapolite
---SE	sericite
---SP	serpentine
---SI	sillimanite
---SK	staurolite-kyanite
---ST	staurolite
---TM	tourmaline-mica
---TO	tourmaline
---TR	tremolite
---WO	wollastonite
---XX	other

BEDROCK

ID			EAST	NORTH											
80 45055	770789	X	009400	082800	94D08 22 146	MR853	5309876NE	DGR CF	3	224M	E M12PY21PY		12
80 45055	770795	X	010500	082000	94D08 31 442	DR843		DGROF	6	234M	EQI02PY22PY	7	11
80 45055	770797	X	010400	082000	94D08 32 442	DD864		MhICF 2	1	X	CQI02PY22PY	10	11
80 45055	770801	X	010100	082000	94D08 32 442	MC842		LGROM	5	123PF	EHMC2PY22PY	1	1
80 45055	770808	X	011200	080800	94D08 37 436	DGR61		DGROF	X	123M	H I22PY32CP32CC	1	13
80 45055	770814	X	010200	080800	94D08 34 444	DR852		LGRCM	7	234M	EHMC2PY22PY		1
80 45055	770818	X	009500	080800	94D08 321134	DR863		MGROF 2	6	234M	EHM22PY02PY	5	1

BEDROCK CODING KEY

123PF	Plagioclase Diorite Porphyry
234M	Dacitic ash tuff-monolithic
226M2	Monolithic Andesitic agglomerate -upper size range of fragments (3.2-10 cm)

APPENDIX 4

Chemical analyses were performed for some of the bedrock samples. Results for Mo, Cu, Pb (for some samples), and Zn are listed. Sample locations are available from Appendix 3 by referring to the sample ID.

Channel	ID	Mo	Cu	Pb	Zn
UPPER CHANNEL	85 4505 800540	10	245	25	332
	85 4505 800541	15	161	25	225
	85 4505 800542	16	340	20	385
	85 4505 800543	15	380	25	220
	85 4505 800544	14	325	25	225
	85 4505 800545	20	400	30	285
	85 4505 800546	12	150	20	210
	85 4505 800547	21	157	25	230
	85 4505 800548	6	44	22	55
	85 4505 800549	5	100	24	95
	85 4505 800550	3	101	24	90
	85 4505 800551	5	160	27	75
	85 4505 800552	5	124	25	95
	85 4505 800553	2	14	15	10
	85 4505 800554	7	81	23	110
	85 4505 800555	6	111	25	100
	85 4505 800556	9	85	26	140
	85 4505 800557	9	85	28	100
	85 4505 800558	7	53	26	117
	85 4505 800559	3	30	21	70
	85 4505 800560	3	60	25	80
	85 4505 800561	2	29	21	95
	85 4505 800562	2	37	15	85
	85 4505 800563	6	91	21	175
	85 4505 800564	4	46	20	145
	85 4505 800565	3	32	20	160
	85 4505 800566	3	19	21	145
	85 4505 800567	3	27	20	105
	85 4505 800568	2	27	21	125
	85 4505 800569	2	50	20	145
	85 4505 800570	2	24	19	175
LOWER CHANNEL	85 4505 801122	4	172		205
	85 4505 801123	5	72		160
	85 4505 801124	3	200		460
	85 4505 801125	6	335		162
	85 4505 801126	7	420		155
	85 4505 801127	4	220		145
	85 4505 801128	5	125		148
	85 4505 801129	2	117		156
	85 4505 801130	3	335		190
	85 4505 801131	1	110		135
	85 4505 801132	2	205		101
	85 4505 801133	2	160		120
	85 4505 801134	22	1500		205
	85 4505 801135	2	910		140
	85 4505 801136	1	475		160
	85 4505 801137	3	265		85
	85 4505 801138	3	310		98
	85 4505 801139	3	290		107
	85 4505 801140	6	116		66
	85 4505 801141	5	66		98
	85 4505 801142	3	42		52
	85 4505 801143	3	72		56
	85 4505 801144	77	135		56
	85 4505 801145	3	80		85
	85 4505 801146	3	40		65
	85 4505 801147	3	1650		205
	85 4505 801148	5	95		112
	85 4505 801149	3	315		85
	85 4505 801150	2	251		65
	85 4505 801151	3	102		62
	85 4505 801152	3	82		82
	85 4505 801153	3	283		75
	85 4505 801154	3	172		66

ID	Mo	Cu	Pb	Zn
1 85 4505 801155	3	120		46
81 4505 810399	2	1070		75
81 4505 810402	1	210		45
81 4505 810407	1	350		55
81 4505 810415	1	230		52
81 4505 810464	2	270	12	46
81 4505 810465	1	28	5	3
81 4505 810472	1	82	14	25
81 4505 810482	1	278	11	32
81 4505 810492	2	70	11	76
81 4505 810494	1	275	15	62
81 4505 810496	2	465	18	122
81 4505 810500	1	48	25	300
81 4505 810502	2	57	30	300
81 4505 810503	2	42	20	196
81 4505 810505	3	27	30	75
81 4505 810506	2	136	18	147
81 4505 810510	1	92	12	110
81 4505 810514	1	118	15	135
81 4505 810516	1	40	12	132
81 4505 810509	1	52	27	350

APPENDIX 5

FREQUENCY DISTRIBUTION PLOTS OF SOIL AND TALUS FINE GEOCHEMICAL DATA

Plate 2: Frequency distribution for molybdenum

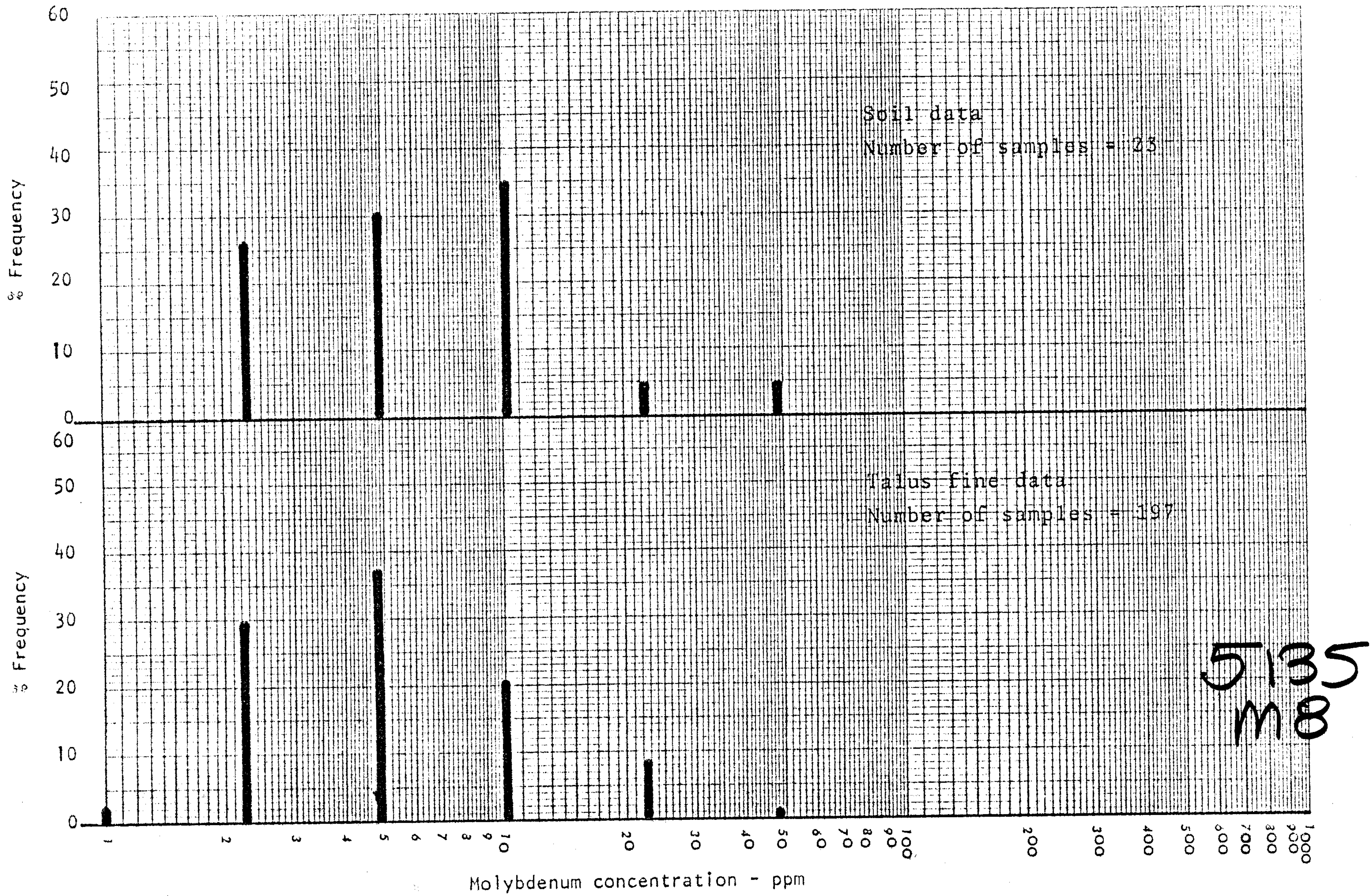


Plate 3: Frequency distribution for copper

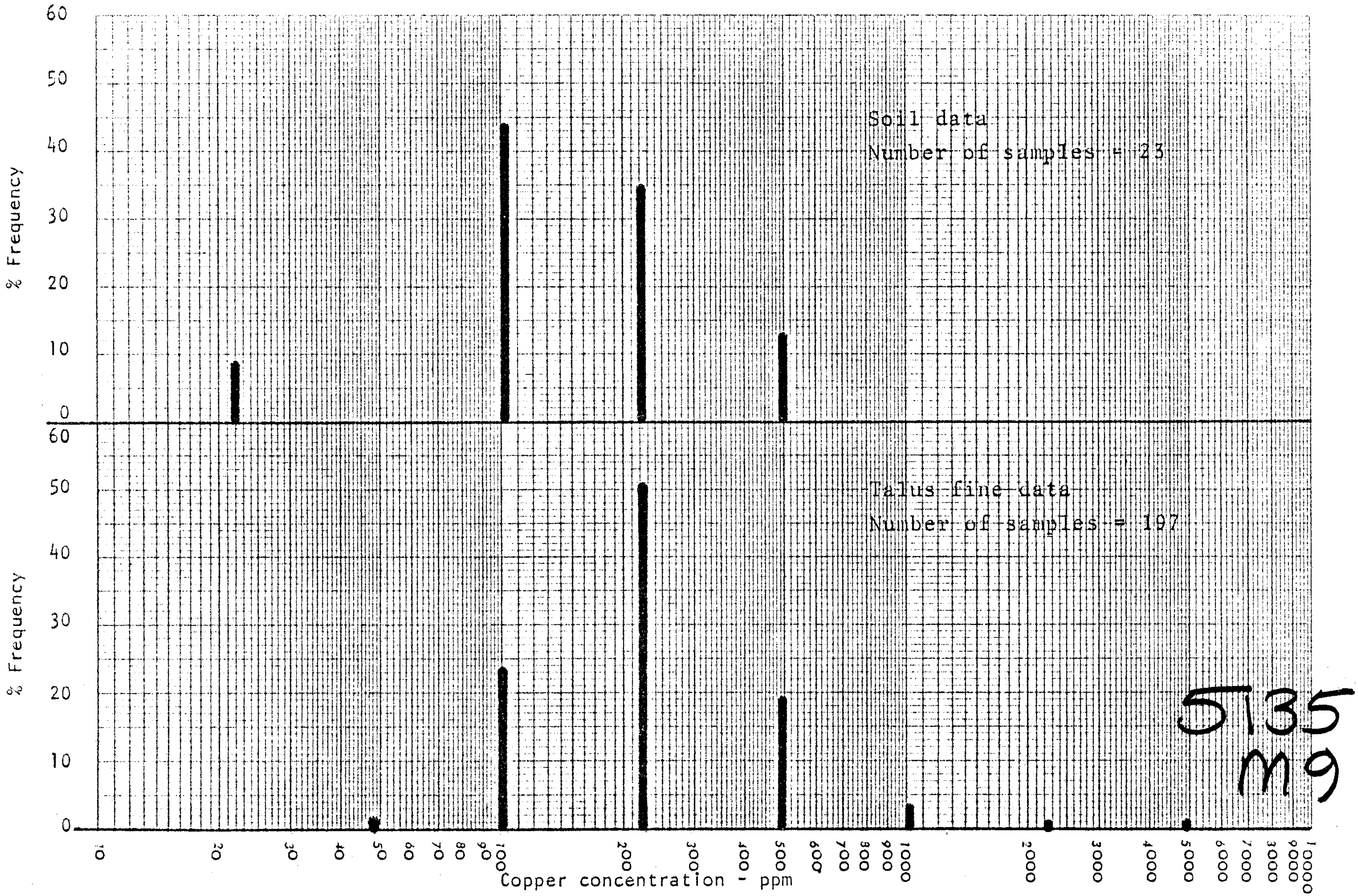
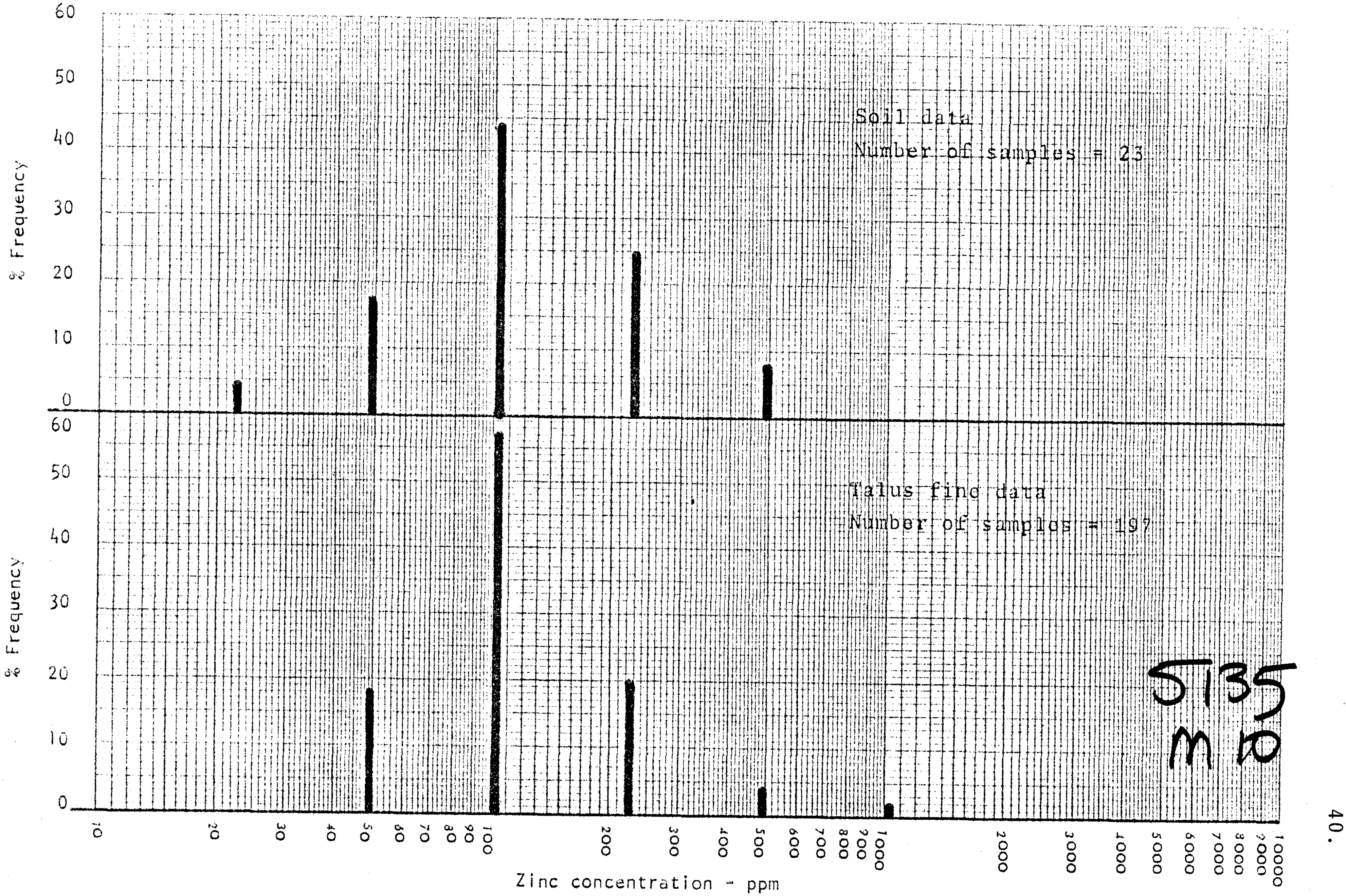
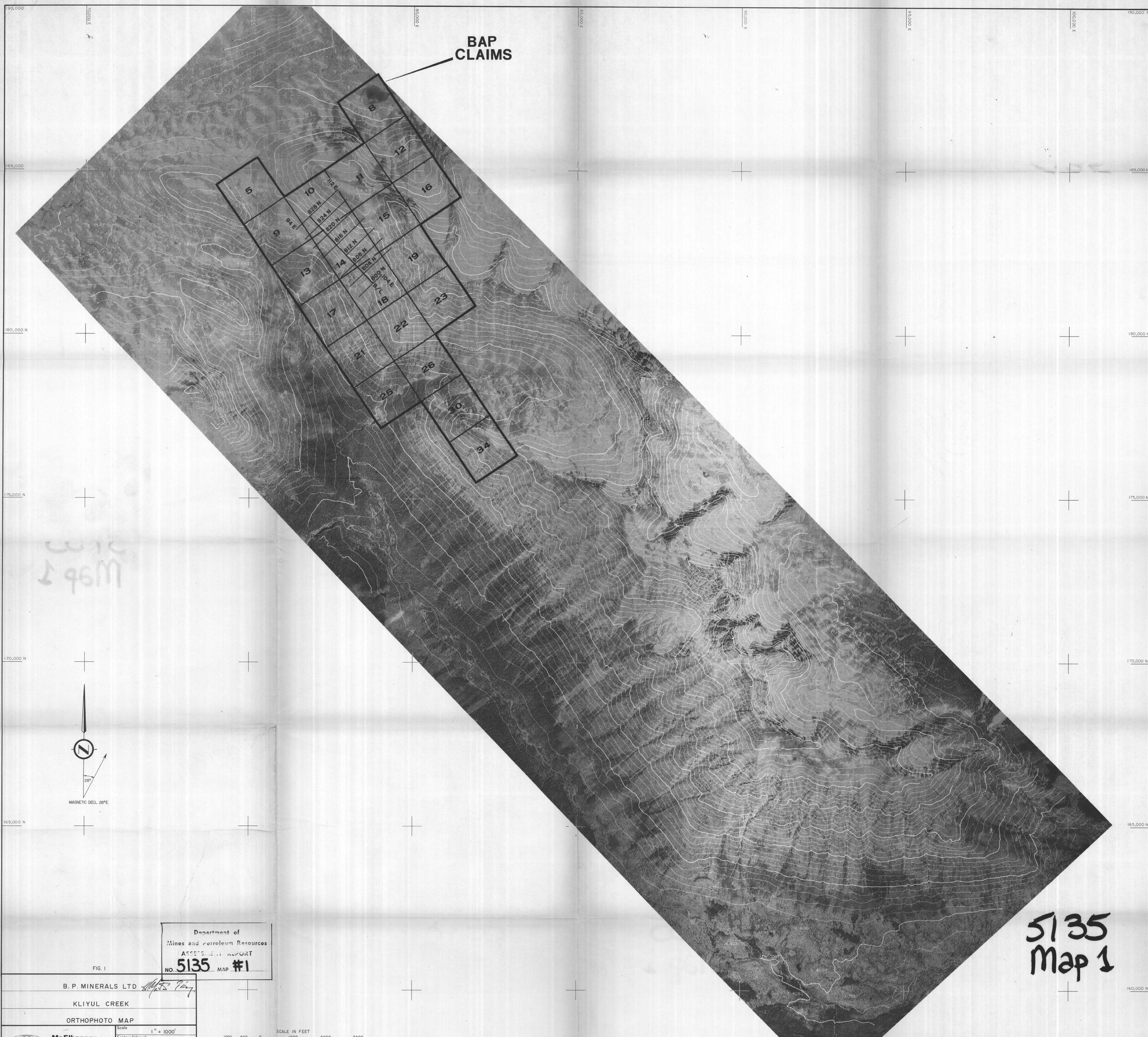


Plate 4: Frequency distribution for zinc





Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #1

5135
Map 1

FIG. I

B. P. MINERALS LTD	
KLIYUL CREEK	
ORTHOPHOTO MAP	
McElhanney Surveying & Engineering Ltd. 1200 West Pender Street, Vancouver B.C. Canada	Scale 1" = 1000'
	Contour Interval 50'
	Date May 28, 1974
	Job No. 06041-1
	Sheet No. 1 of 1

LEGEND

GEOLOGY

Unit	Description
9	Quartz Monzonite
8	Hornblende Diorite to Hornblende Gabbro 8a. Hornblende Diorite Porphyry
7	Feldspar–Diorite Porphyry Dyke
6	Biotite–Hornblende Monzonite Porphyry
5	Hornblendite; minor Hornblende Diorite
4	Medium Grained Andesitic Ash Tuffs and Lapilli Tuffs; some intercalations of Greywacke and Black, Calcareous Argillite; minor Amygdaloidal, Hornblende Andesite Porphyry
3	Pyritiferous and Gossanous Fine to Medium Grained Andesitic Ash Tuffs and minor Chlorite Schist
2	Limestone; minor limy argillite
1	Alteration :— Strong Silicification, Chloritization

SYMBOLS

- 20° Strike and Dip of Bedding
- 30° Strike and Dip of Foliation
- Shear Zone
- Contact – observed
- Contact – assumed
- Outcrop Area
- Channel Sampling ; Traverse Line
- 81-475 Rock Chip Location
- Cliffs

SCALE IN FEET

500 250 0 500 1000 1500

BP Minerals Limited

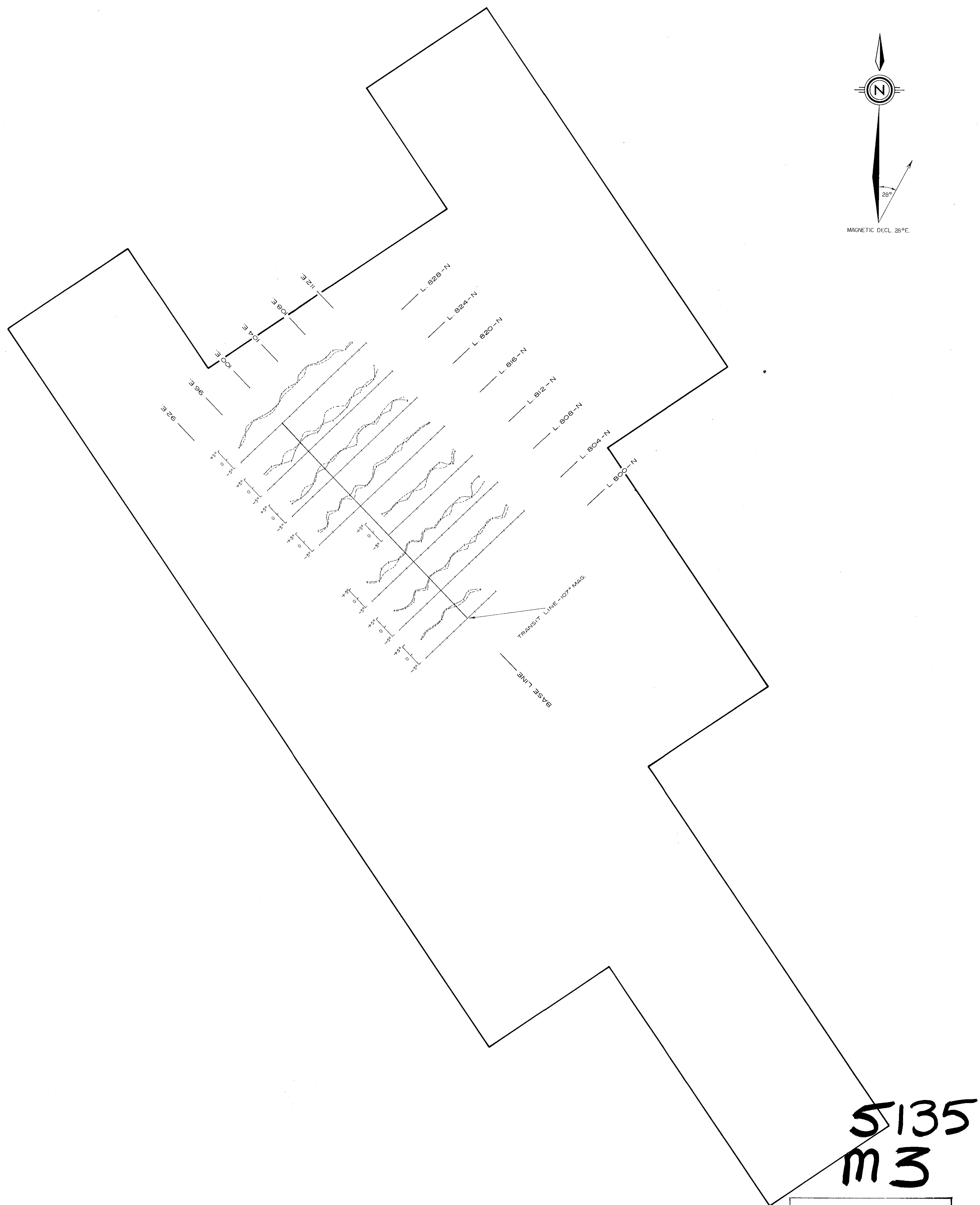
GEOLOGY

BAP CLAIMS

KLIYUL CREEK OMINECA M.D., B.C.

SCALE 1" = 500'		NTS 94 D 8	FIG. 2
DRAWN Altair	DATE	PROJ. 505	

To accompany report: Geological – Geochemical – Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.



5135
M3

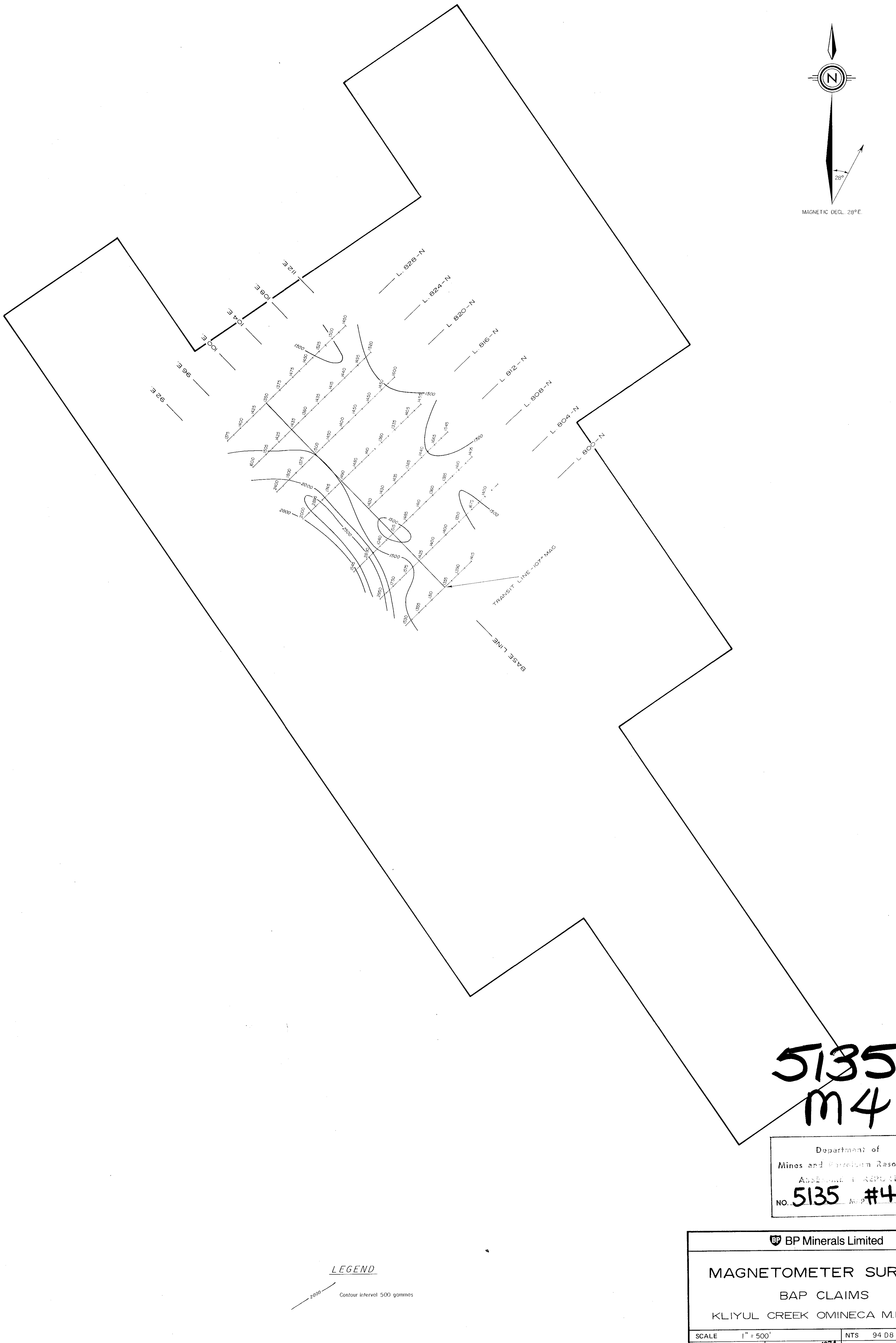
BP Minerals Limited

ELECTROMAGNETIC SURVEY

BAP CLAIMS

KLIYUL CREEK OMINECA M.D., B.C.

SCALE 1" = 500'		NTS 94 D8	FIG. 3
DRAWN Altair	DATE SEP 12 1974	PROJ. 505	
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.			



5135
M4

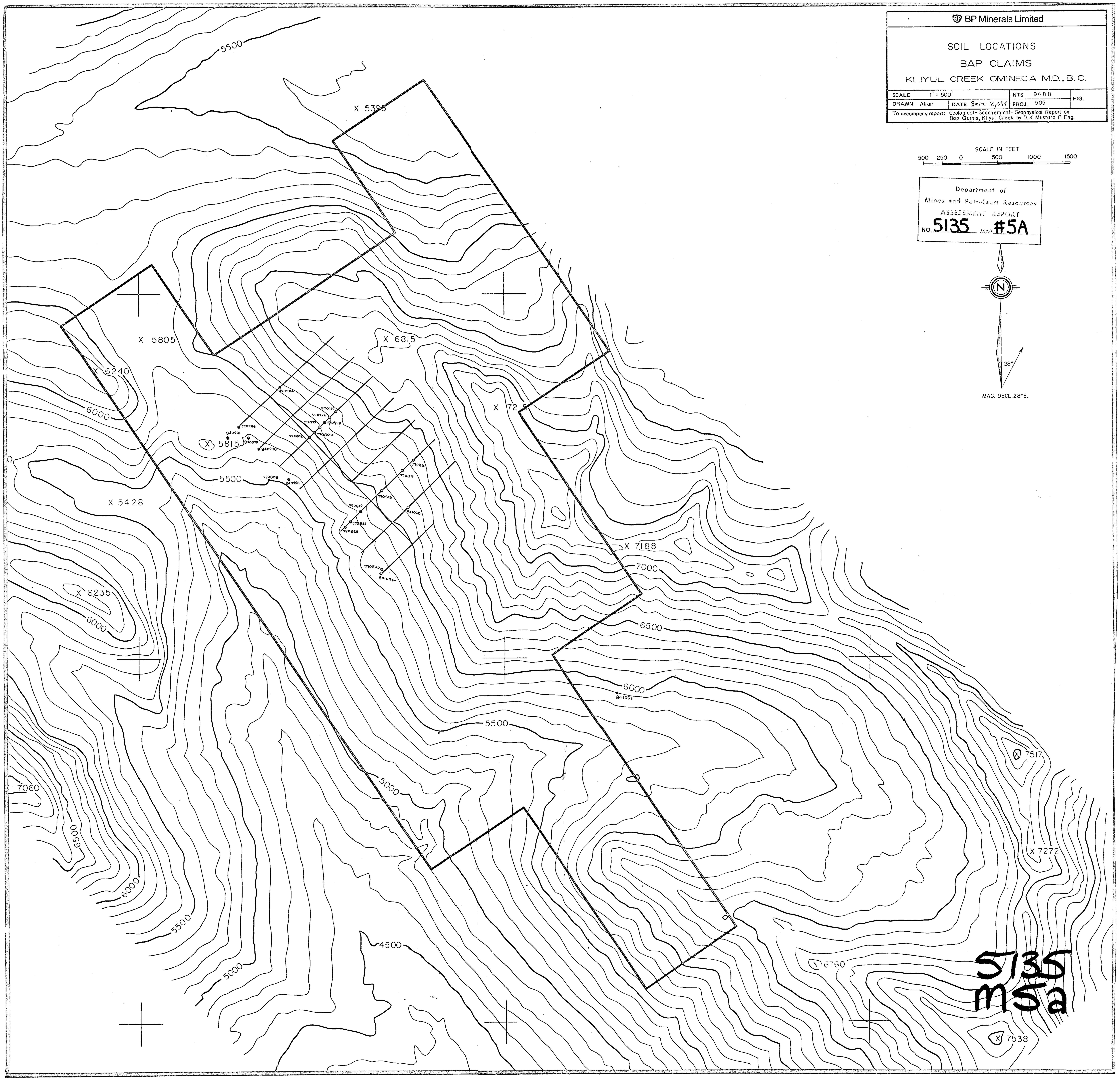
BP Minerals Limited

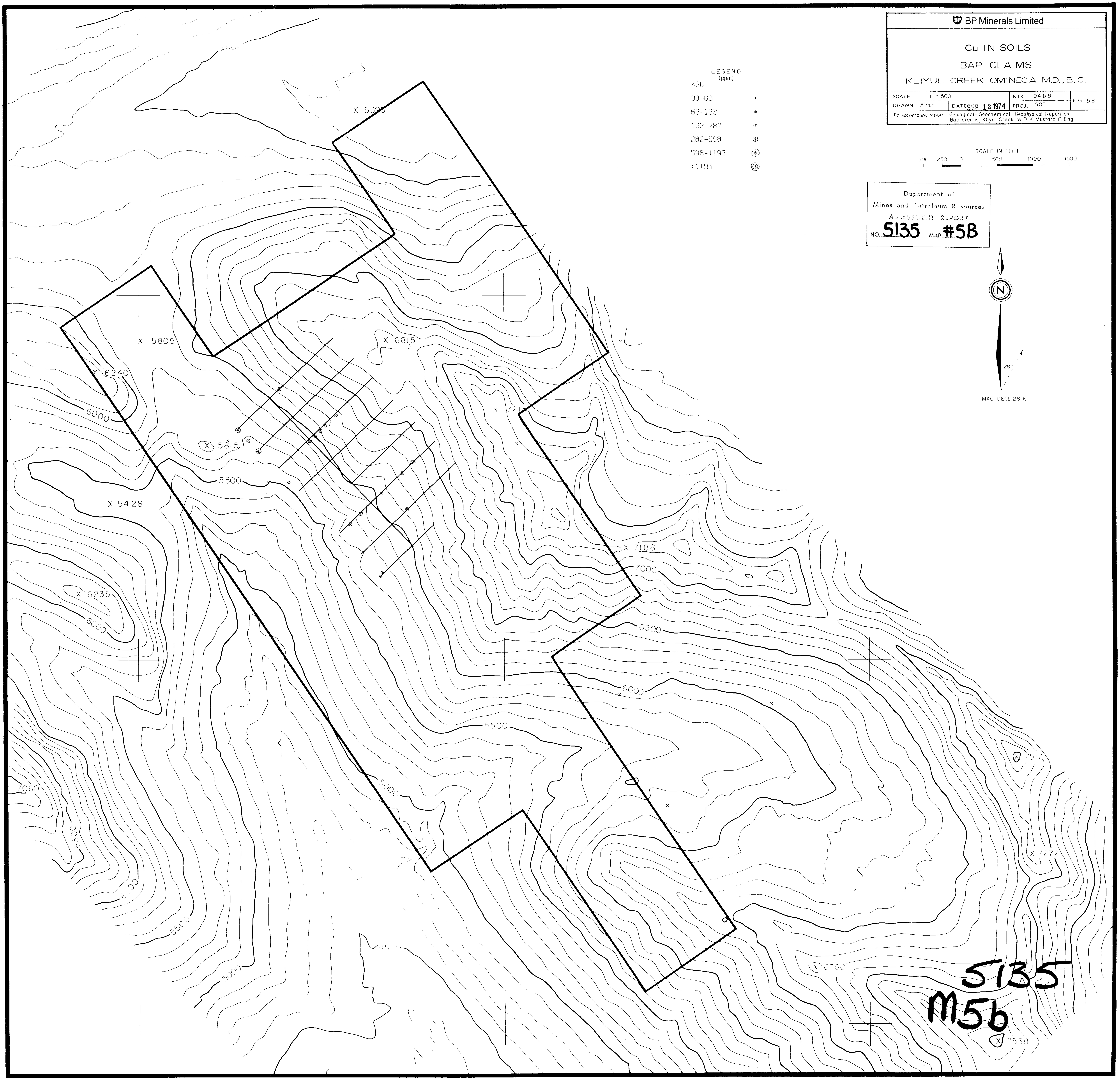
MAGNETOMETER SURVEY

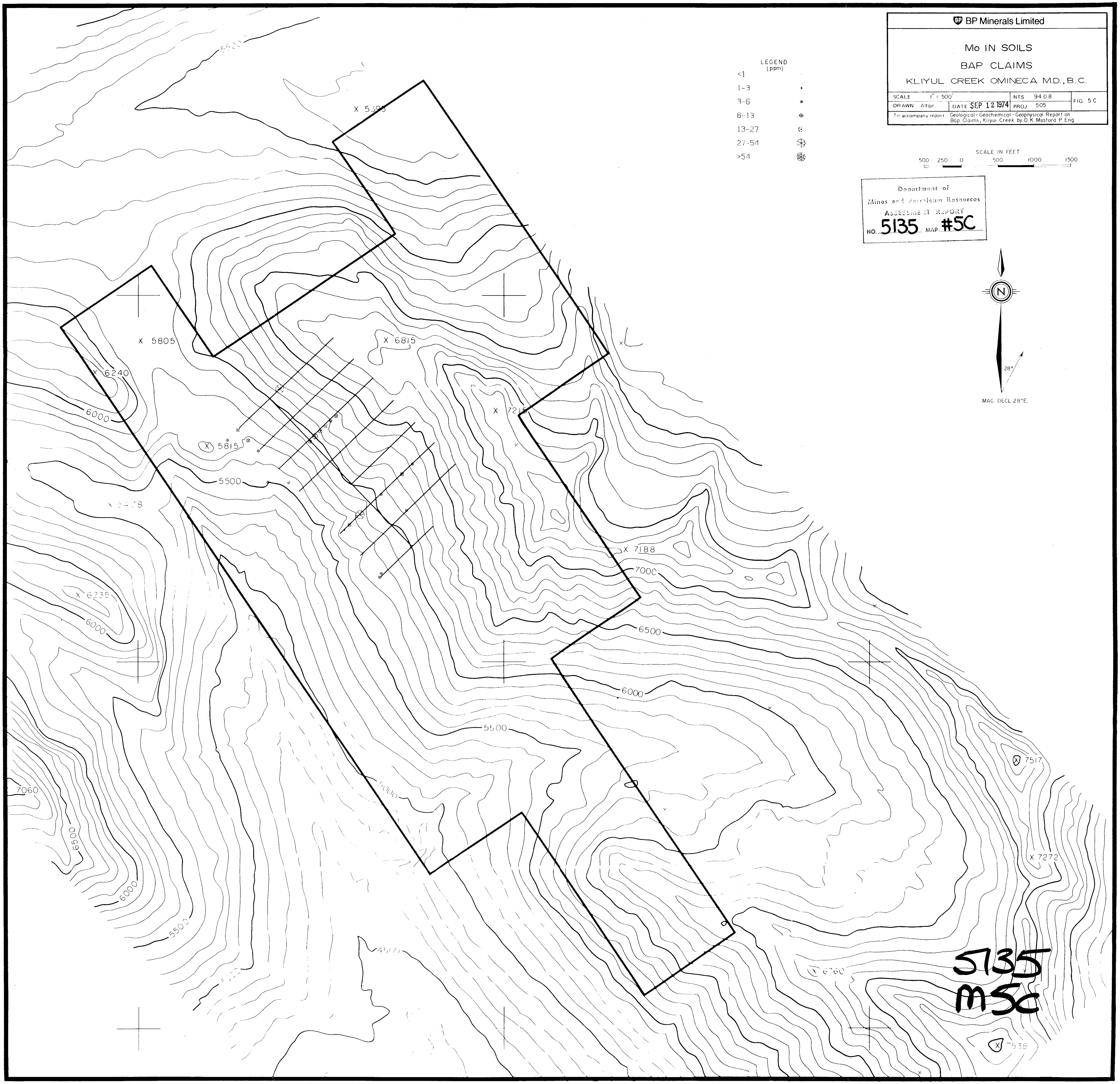
BAP CLAIMS

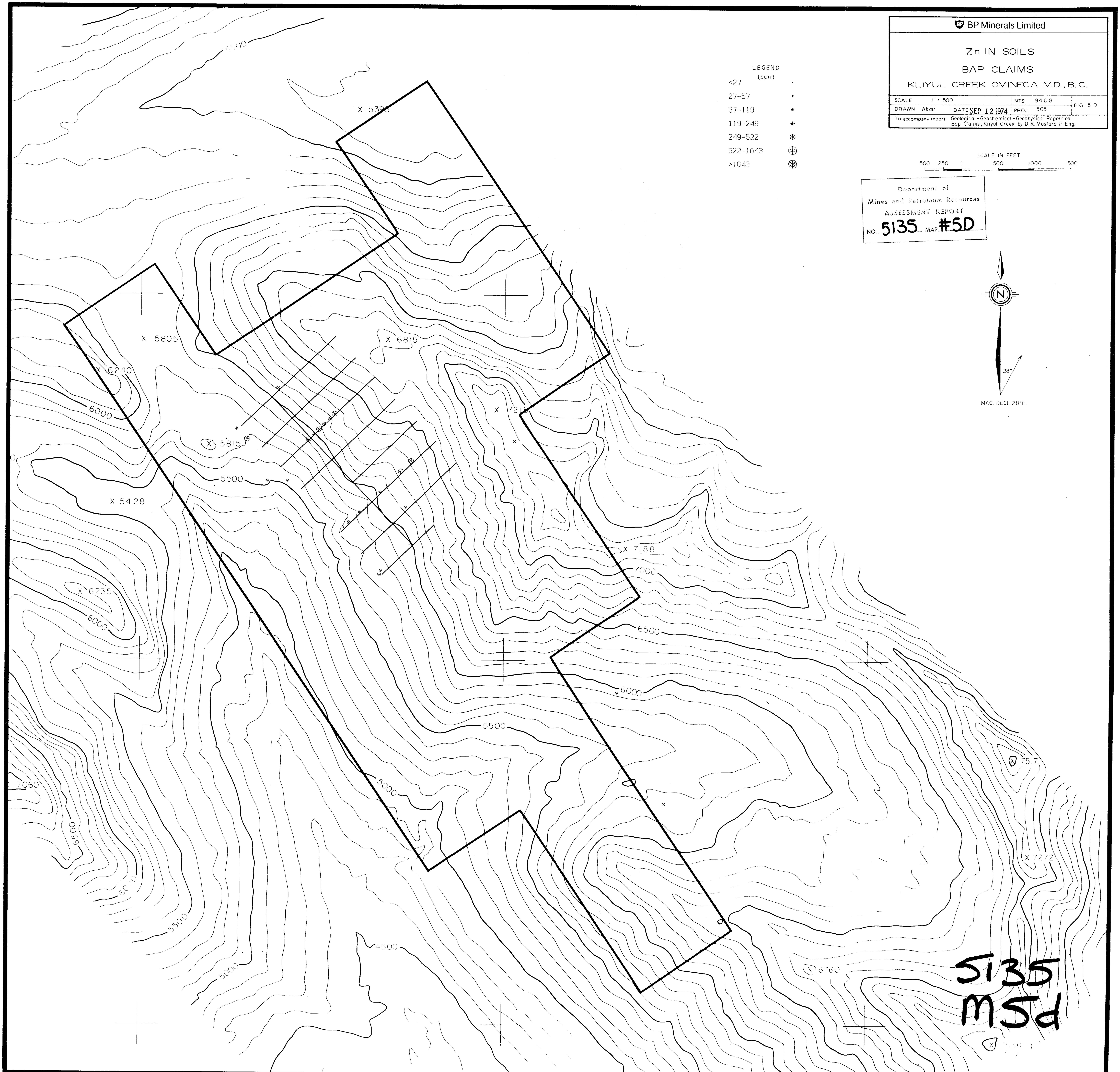
KLIYUL CREEK OMINECA M.D., B.C.

SCALE 1" = 500'		NTS 94 D8	FIG. 4
DRAWN Altair	DATE SEP 12 1974	PROJ. 505	
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P.Eng.			

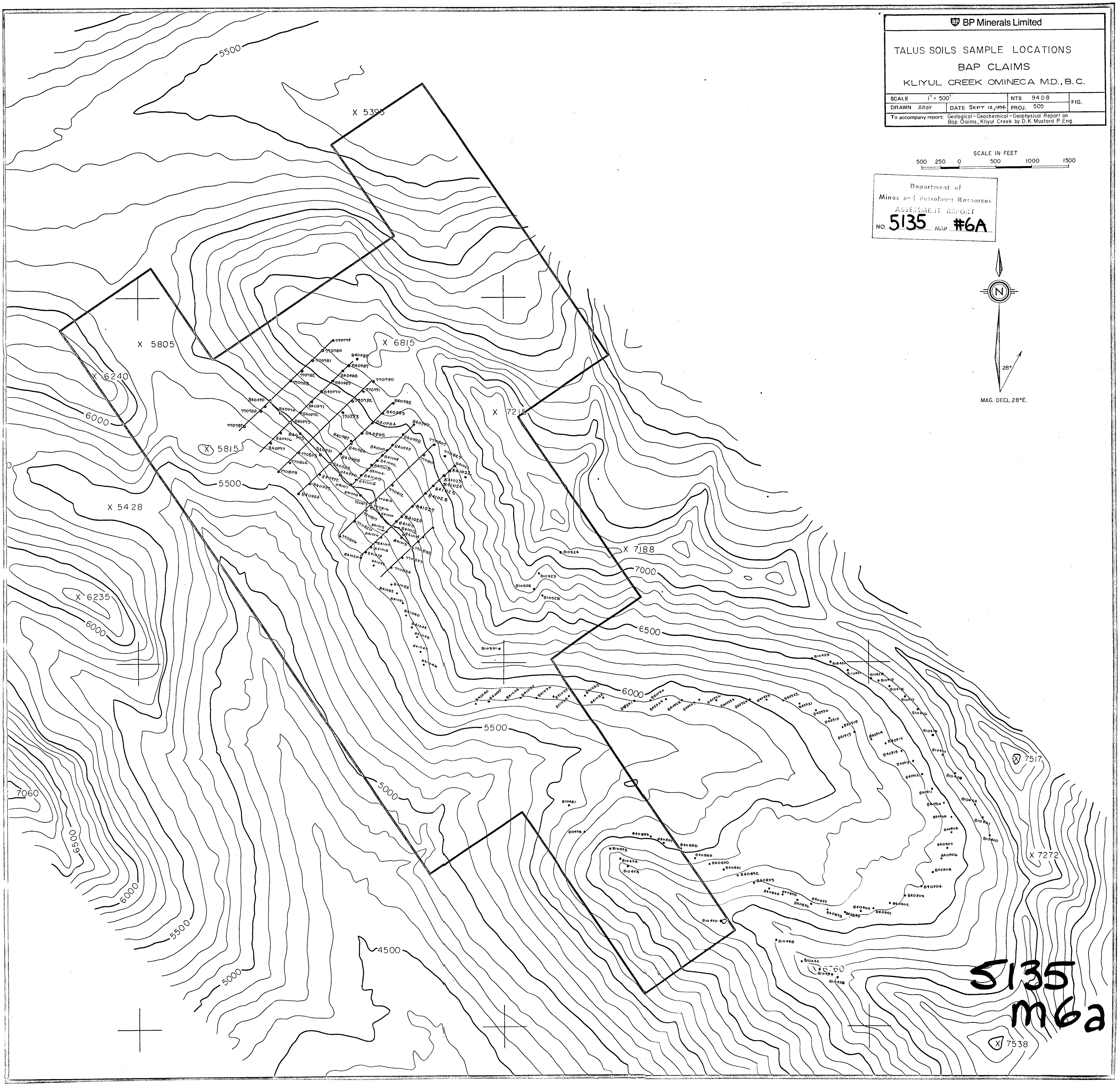

BP Minerals Limited
SOIL LOCATIONS
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94D8
FIG.
DRAWN Altair
DATE Sept. 12, 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
SCALE IN FEET
500 250 0 500 1000 1500
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #5A
N
28°
MAG. DECL. 28°E.
X 5395
X 5805
X 6240
X 6815
X 7215
X 5815
X 5428
X 7188
X 6235
X 7517
X 7272
X 6760
X 7538
7060
5500
6000
7000
6500
5000
4500
5135
M5a

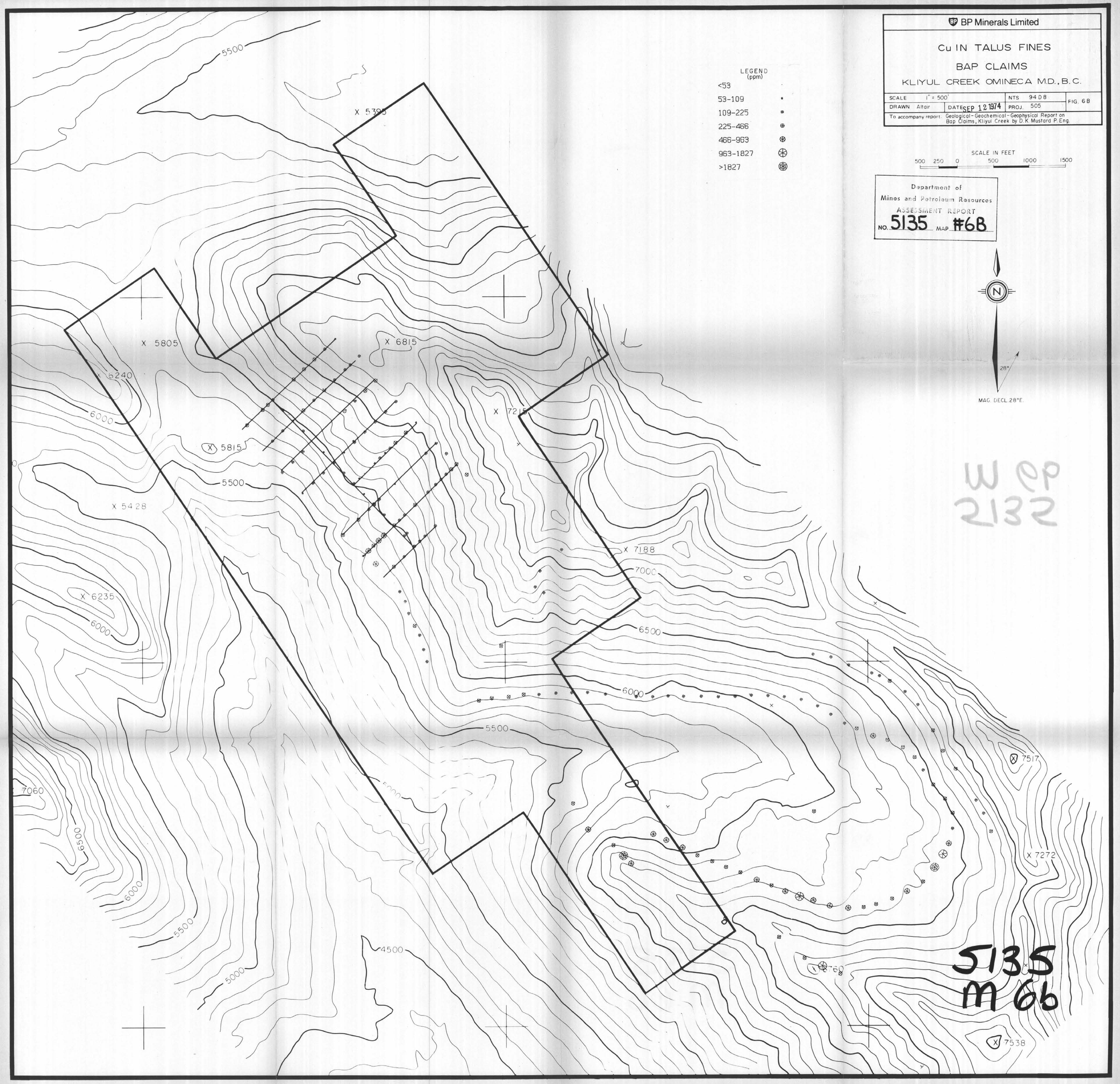

BP Minerals Limited
Cu IN SOILS
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94 D 8
FIG. 5B
DRAWN Altair
DATE SEP 12 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
LEGEND (ppm)
<30
30-63
63-133
133-282
282-598
598-1195
>1195
SCALE IN FEET
500 250 0 500 1000 1500
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #5B
N
28°
MAG. DECL 28°E.
X 5395
X 5805
X 6240
X 6815
X 7215
X 5815
5500
6000
X 5428
X 7188
7000
X 6235
6500
5000
X 7517
7060
X 7272
6760
5135
M5b

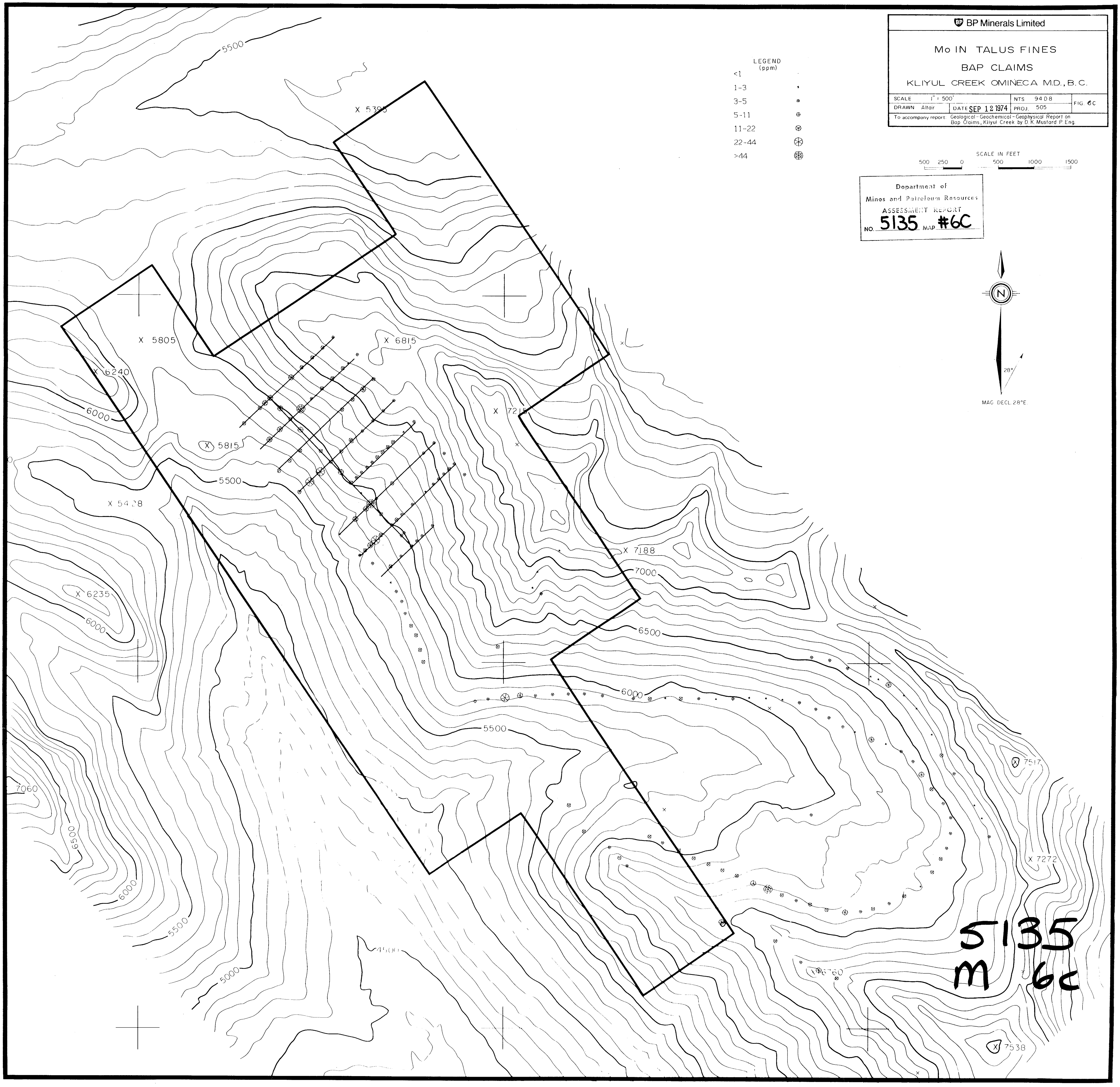

BP Minerals Limited
Mo IN SOILS
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94 D 8
FIG. 5 C
DRAWN Altair
DATE SEP 12 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
LEGEND (ppm)
<1
1-3
3-6
6-13
13-27
27-54
>54
SCALE IN FEET
500 250 0 500 1000 1500
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #5C
N
28°
MAG. DECL. 28°E.
X 5395
X 5805
X 6240
X 6815
X 7215
X 5815
5500
6000
X 6235
X 7188
7000
6500
6000
5500
X 7517
X 7272
7060
6500
6000
5500
5135
M5C

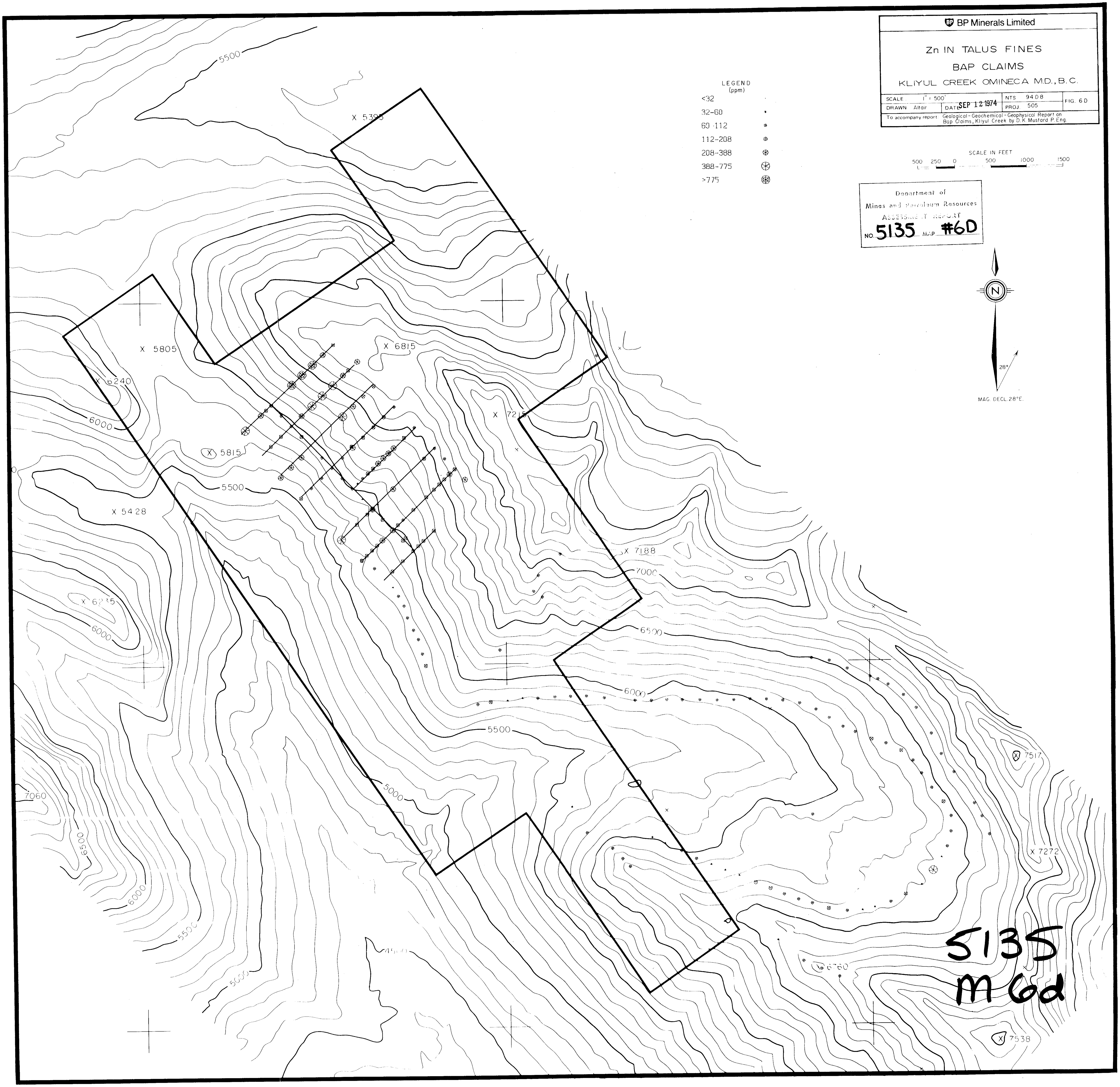


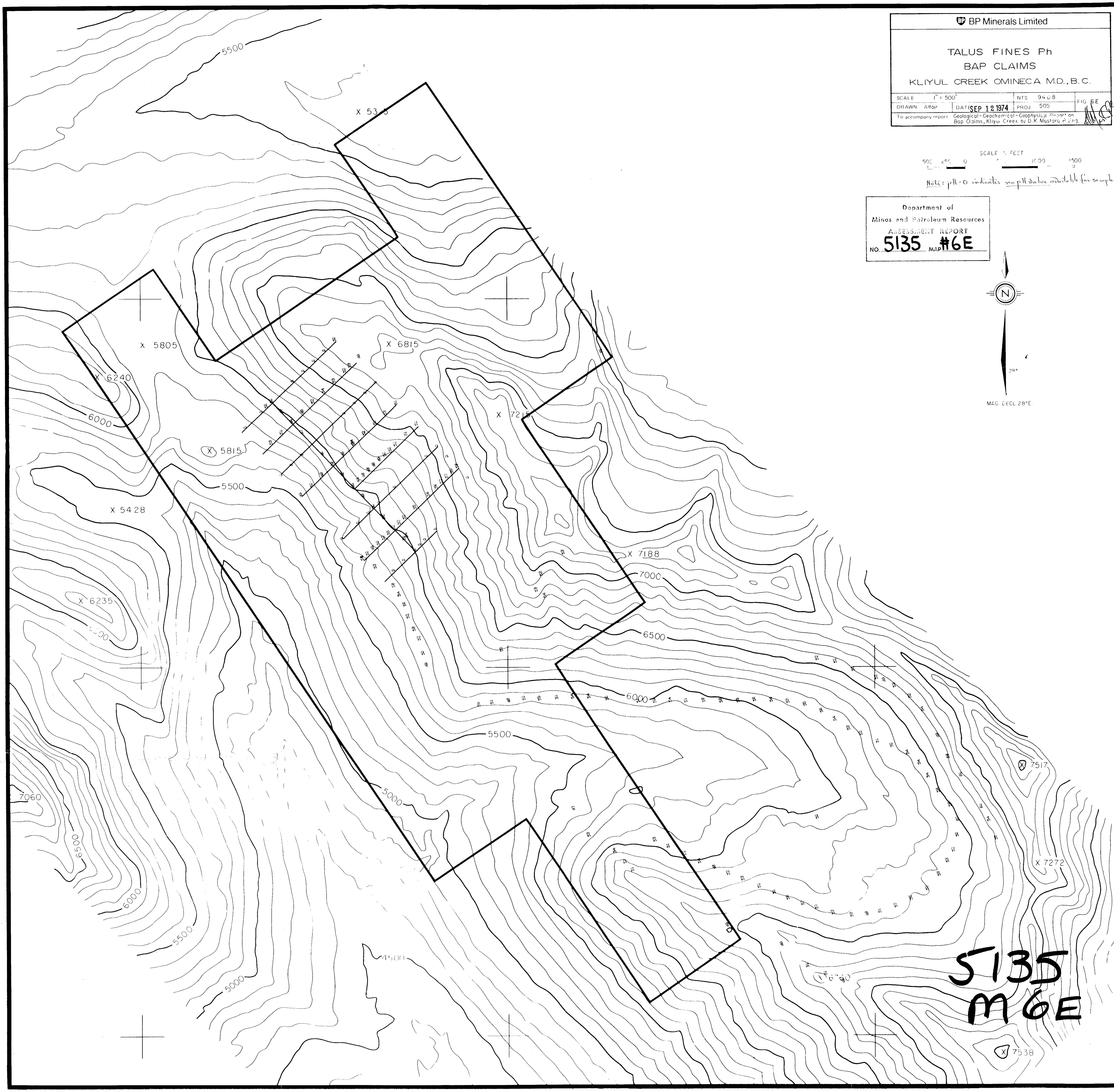
BP Minerals Limited
Zn IN SOILS
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94D8
FIG. 5 D
DRAWN Altair
DATE SEP 12 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
LEGEND (ppm)
<27
27-57
57-119
119-249
249-522
522-1043
>1043
SCALE IN FEET
500 250 0 500 1000 1500
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #5D
N
28°
MAG. DECL. 28°E.
5500
6000
6500
7000
5000
4500
X 5805
X 6240
X 5815
X 5428
X 6235
X 6815
X 7215
X 7188
X 7517
X 7272
7060
5135
M5d


BP Minerals Limited
TALUS SOILS SAMPLE LOCATIONS
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94 D 8
FIG.
DRAWN Altair
DATE SEPT 12, 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D. K. Mustard P. Eng.
SCALE IN FEET
500 250 0 500 1000 1500
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #6A
N
28°
MAG. DECL. 28°E.
X 5395
X 5805
X 6815
X 6240
X 7215
X 5815
X 5428
X 7188
X 6235
X 7517
X 7272
X 6760
X 7538
5500
6000
6500
7000
5000
4500
7060
5135
m6a


BP Minerals Limited
Cu IN TALUS FINES
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94 D 8
FIG. 6B
DRAWN Altair
DATE SEP 12 1974
PROJ. 505
To accompany report: Geological-Geochemical-Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
SCALE IN FEET
500 250 0 500 1000 1500
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #6B
LEGEND
(ppm)
<53
53-109
109-225
225-466
466-963
963-1827
>1827
N
28°
MAG. DECL. 28°E.
X 5395
5500
X 5805
X 6240
X 6815
X 7215
6000
X 5815
5500
X 5428
X 7188
7000
X 6235
6000
6500
6000
5500
X 7517
7060
5000
6500
X 7272
6000
5500
4500
5000
X 7538
5135
M 6b
19 W
2132


BP Minerals Limited
Mo IN TALUS FINES
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94D8
FIG. 6C
DRAWN Altair
DATE SEP 12 1974
PROJ. 505
To accompany report: Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
LEGEND (ppm)
<1
1-3
3-5
5-11
11-22
22-44
>44
SCALE IN FEET
500 250 0 500 1000 1500
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #6C
N
28°
MAG DECL. 28°E
X 5395
X 5805
X 6240
X 6815
X 7215
X 5815
X 5428
X 7188
X 6235
X 7517
X 7272
X 7538
X 6760
7060
5500
6000
6500
7000
5000
4500
5135
M 6c


BP Minerals Limited
Zn IN TALUS FINES
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
DRAWN Altair
DATE SEP 12 1974
NTS 94 D 8
PROJ. 505
FIG. 6 D
To accompany report: Geological-Geochemical-Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P.Eng.
LEGEND (ppm)
<32
32-60
60-112
112-208
208-388
388-775
>775
SCALE IN FEET
500 250 0 500 1000 1500
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #6D
N
28°
MAG. DECL. 28°E.
5500
X 5395
X 5805
X 6815
X 6240
6000
X 7215
X 5815
5500
X 5428
X 7188
7000
6500
6000
5500
5000
X 7517
7060
6500
X 7272
6000
5500
4500
5000
6760
X 7538
5135
M 6d


BP Minerals Limited
TALUS FINES Ph
BAP CLAIMS
KLIYUL CREEK OMINECA M.D., B.C.
SCALE 1" = 500'
NTS 94 D 8
FIG 6E
DRAWN Altair
DATE SEP 12 1974
PROJ 505
To accompany report Geological - Geochemical - Geophysical Report on Bap Claims, Kliyul Creek by D.K. Mustard P. Eng.
SCALE IN FEET
Note: pH = 0 indicates no pH value available for sample.
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5135 MAP #6E
N
MAG. DECL. 28°E.
5500
6000
6500
7000
5000
4500
X 5805
X 6240
X 5815
X 5428
X 6235
X 6815
X 7215
X 7188
X 7517
X 7272
X 7538
7060
5135
M6E