

5196

1974 Geological, Geochemical, and
Geophysical Report

82W/8E

TITLE	Deer Park Property
AUTHORS	M.G. Laub and J.L. LeBel
DATE	October 1974
COMMODITY	Mo
LOCATION-Area	Castlegar, B.C.
Mining Division	Trail Creek
Coordinates	Latitude 49°20'N Longitude 118°02'
NTS	82W
CLASS	Prospect Drilled

PERIOD OF WORK - June 18, - August 13, 1974

AMAX VANCOUVER

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5196 MAP

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SUMMARY

The Deer Park Property, located 17 miles west of Castlegar, consists of 85 mineral claims which were optioned from Heinz Veerman and William Botel. The molybdenum property is accessible by road and partially covers Mt. Shields at an elevation of approximately 5,000 feet.

Although previous work dates back to the early 1900's, it wasn't until recent years that extensive surveys were undertaken. Work on the property includes old adits and shafts, geological mapping, soil sampling, geophysical surveys and diamond drilling. To date 4,690 feet have been drilled in two separate programs.

The area is underlain mainly by Coryell syenites and monzonites which intrude Nelson and Valhalla granite and granodiorite.

A breccia zone which appears to have concentrated molybdenum and other metals peripheral to and within it is the most important rock type on the property. The breccia is thought to be the result of rupture associated with local stress systems.

Molybdenite is found in and near breccia as interstitial blebs and along fracture planes. It is closely associated with altered zones containing chlorite, magnetite, pyrite, fluorite, hematite and calcite.

The breccia zone was thought to extend further east and west than the original grid cut in 1973. The 1974 surveys, have delineated the breccia zone fully.

Geochemical data, geological mapping and the magnetometer survey all suggest that mineralization is confined to the immediate

vicinity of the breccia.

CONCLUSIONS

Mineralization has been found to be closely associated with the breccia both on surface and in diamond drill holes. The favourable zones were tested and most intersected some mineralization although of subeconomic quantities.

The breccia zone has been closed off limiting the probable extent of mineralization to the existing grids.

No new targets that warrant additional expenditures at this time were established in recent surveys.

RECOMMENDATIONS

Because no new targets were developed and no economically significant mineralization was found, it is recommended that no further work be done on the property and the option be terminated.

CHAPTER I - INTRODUCTION

Location and Access

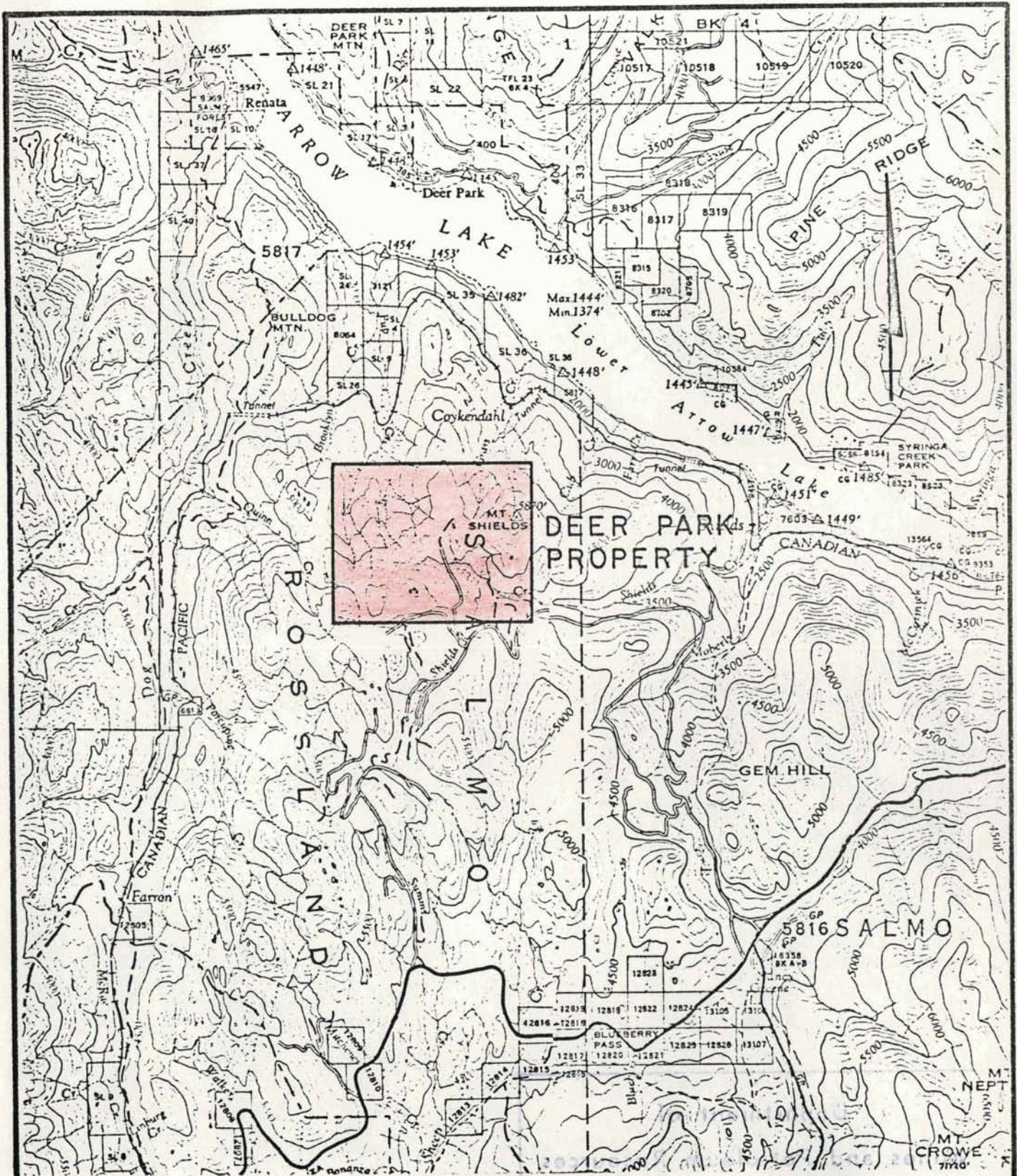
The Deer Park Property is located on the north branch of Upper Shields Creek approximately 17 air miles due west of the town of Castlegar and 4 miles south of Lower Arrow Lake (Fig.1). Approximate coordinates at the property centre are 49°20'N and 118°02'E. The National Topographic System designation is 82E 8 (E 1/2).

The claims lie at an elevation of 5,000 feet and are accessible by two gravel roads leaving the Blueberry-Paulson Highway (#3). The first route is 17 miles west along the highway from Castlegar, then (approximately 6 miles) north along a gravel road and finally west along Shields Creek for approximately 5 miles. The second route is 23 miles from Castlegar (on highway #3), and then 8 miles north on gravel road (Fig.1). Both routes may require 4-wheel drive vehicles most of the year because of steep slopes and muddy sections.

Claims

The Deer Park Property is comprised of 85 contiguous mineral claims in 4 groups as outlined in Figure 2. The complete claim schedule is inserted as Appendix I.

The claims are held under an option agreement with Heinz Veerman and William Botel. Commitments under the Veerman-Botel agreement are outlined on Page 2 of the Property Report submitted by H.W. Sellmer, April 1974.



AMAX EXPLORATION INC.

DEER PARK PROPERTY
 TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA

LOCATION MAP

SCALE 2 1 0 2 MILES
 1 : 126,720

Handwritten: 5196 MI

Physiography and Vegetation

The 1973 grid was cut on the south-central portion of the property where terrain is generally a "gently undulating up-land surface at elevations from 4,500 to 5,500 feet". The two new sections of grid cut in 1974 cover steeply down-cutting stream valleys that are densely forested.

A prominent feature on the property is Mount Shields which rises to an elevation of 5870'. The Pup Creek area in the northwest corner of the property lies at approximately 3,500 feet (Fig.1).

Portions of the property have been logged or burned over. Cedar, Fir, Spruce and Hemlock can be found on the valley floors while Lodgepole Pine, Jackpine, Tamarack and Spruce cover the up-land areas. Steep slopes, dense undergrowth and windfall hinder passage through many areas.

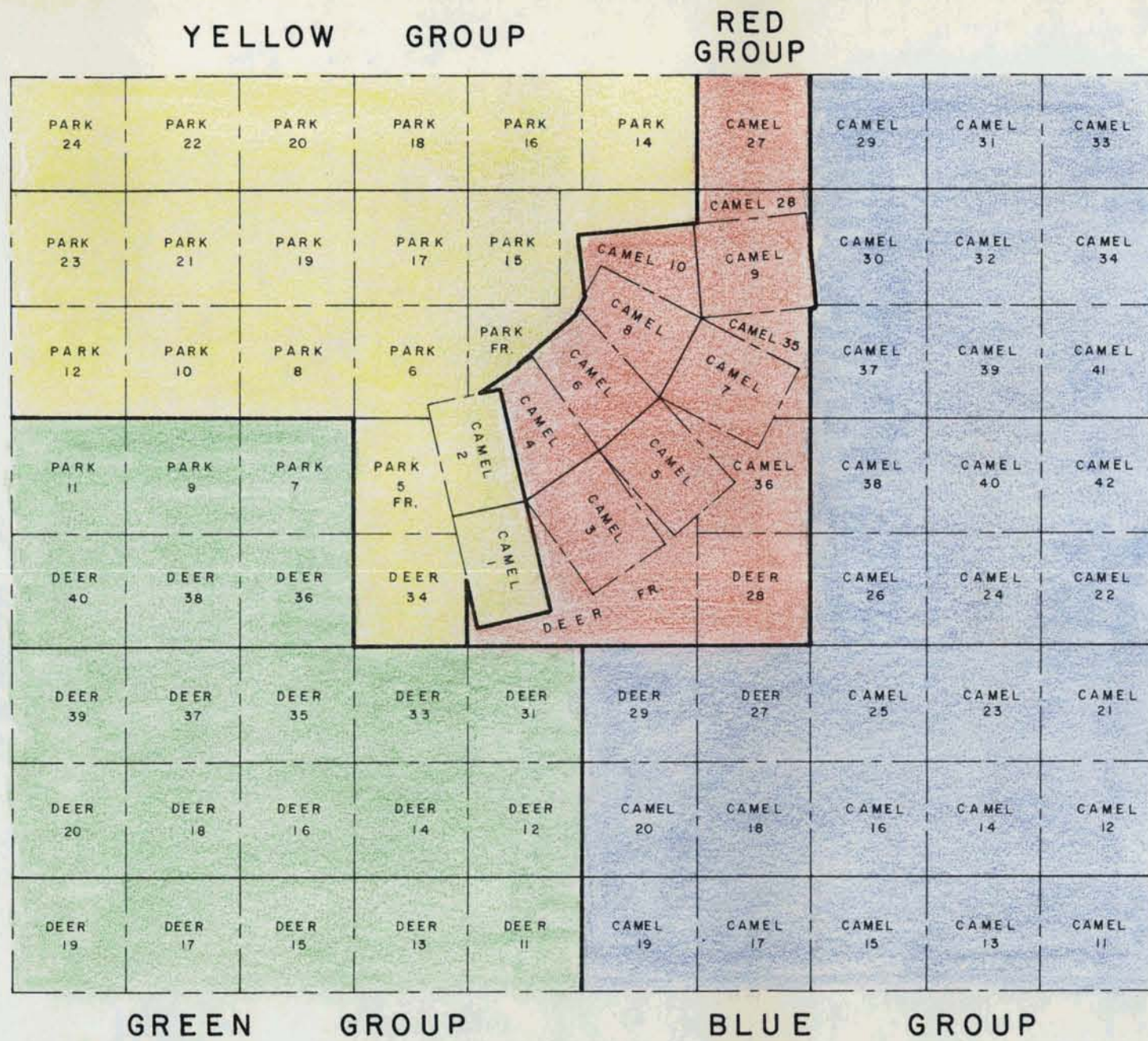
The area is prone to fire hazard during summer because of lack of precipitation and high temperatures. The summer of 1974 did not follow the usual seasonal pattern. Late snowfall and increased rainfall during July kept the fire hazard lower than usual.

Upper Shields Creek contained water for the entire summer although water level dropped considerably at times.

Previous Work

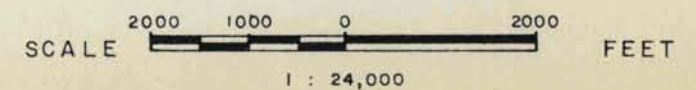
In the early 1900's, work was carried out on the "Midas Group" in the form of adits, open cuts and a shaft.

From the 1950's to 1970, G. Blaney of Vancouver owned the property. Scurry-Rainbow optioned the property from Blaney in 1968, and performed a limited amount of work.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5196 MAP #2

AMAX EXPLORATION INC.
DEER PARK PROPERTY
TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA
CLAIM MAP



In 1970, West Coast Mining and Exploration staked the ground and subsequently carried out geological mapping, geochemical sampling, a magnetometer survey and an EM survey. Seven holes were drilled in 1971 totalling 1,800 feet.

When West Coast Mining and Exploration disbanded, Veerman and Botel became owners of the property and in August 1973 submitted the property to Amax Exploration, Inc.

In the fall of 1973, a grid was cut in the south-central portion of the property and H.W. Sellmer of Amax carried out detailed geological mapping and soil geochemistry over the grid. Magnetometer and Induced Polarization Surveys were also carried out.

In 1974, 2,890 feet of diamond drilling was completed in 5 holes (Figure 3).

Present Scope of Work

The grid was extended to the east-southeast and to the west-northwest with crosslines at 200 foot intervals for a total distance of approximately 23 line miles.

The following lines were cut relative to baseline
70+00N:

East Grid

L 112+00E to 130+00E, from 20+00N to 36+00S

L 82+00E to 110+00E, from 20+00S to 36+00S

West Grid

L 46+00E, 52+00E to 56+00E from 38+00N to 20+00S

L 48+00E, 50+00E to 20+00N to 20+00S

L 58+00E to 68+00E, from 38+00N to 20+00N

Four lines (102-108E) were extended by chain and compass method from 90+00N to 98+00N for geological mapping and soil sampling.

Detailed geological mapping was carried out by mapping all outcrop up to 50 feet on either side of the lines.

Soil geochemistry involved collecting samples at 200 foot intervals along the grid lines. Samples were analyzed for Mo and Cu.

A magnetometer survey with stations at 100 foot intervals was completed over the grid.

Results of the surveys are discussed in this report.

CHAPTER II - GEOLOGY

General Statement

H.W. Sellmer outlines the "Regional and Property Geology" in his April 1974 report on the Deer Park Property. The reader is referred to the above report for additional detail. This report describes work carried out on the two sections of grid cut in 1974.

The grid cut in 1973 is referred to as the "central" grid in this report. The two 1974 sections are the "east" and "west" grids respectively.

The property was mapped from June 18 to August 9, 1974 by geologist K. Wallace and assisted by V. Sellmer and R. Smith under the direct supervision of M. Laub.

Rock types encountered on the new grids are the same as found on the central grid and, therefore, no further petrographic studies were undertaken. A suite of rocks was cut and stained to check K-feldspar content.

Regional Geology

The vicinity of the Deer Park Property is underlain by Valhalla granites and Nelson granodiorites (Cretaceous) intruded by Coryell syenites and monzonites (Paleocene). Older rocks in the area include volcanic rocks of the Rossland Group (Jurassic), metamorphic rocks of the Anarchist Group and Mount Roberts Formation (Paleozoic), and Monashee and Grand Forks Groups (Proterozoic). Younger groups include the volcanic Kettle River Formation and Phoenix Volcanic Group (Paleocene or Eocene) and Miocene balsalts. A Table of Formations, the legend from GSC Map 6-1957 Kettle River Sheet is shown as Table I (after page 8).

East Grid Geology

The East Grid is underlain by relatively fresh and unaltered massive coarse to medium grained pink syenite. Toward the northeast and south, syenite outcrops in a series of ridges and cliffs. Feldspar (comprising 70-80% of the rock) is present in euhedral to subhedral crystals ranging up to 1 1/2 cm in size. These crystals are usually zoned and rimmed with potassium feldspar. Potassium feldspar also occurs interstitially. Mafic content (biotite and hornblende) ranges from 15-25%. Quartz is present in variable amounts (0-5%) as are sphene, epidote and magnetite.

The majority of fractures strike in a northwesterly direction with steep to vertical dips. There are a few andesite dykes cutting the syenites, mainly in the northern half of the grid, which strike northwest to north-south.

Locally the syenites are cut by narrow rhyolitic dykes (usually not wider than one foot).

The southwestern area of the grid is predominantly aphanitic feldspar porphyry cut by a number of syenite porphyry and andesite dykes striking in a northwest direction. In some cases the syenite porphyry was observed to grade into the porphyritic andesite.

The aphanitic feldspar porphyry is well fractured, often with 12-15 fractures per foot. Many of these fractures are filled with magnetite, epidote or hematite.

Locally the aphanitic feldspar porphyry loses its feldspar phenocrysts and grades into a very fine grained, gray, hard rhyolite. This unit was subdivided into unit 5b and added to the existing legend of rock types.

LEGEND

CENOZOIC	TERTIARY MIOCENE(?)	11	Basalt, olivine basalt	
		PALEOCENE OR EOCENE		
	PHOENIX VOLCANIC GROUP	10	Andesite, trachyte; minor basalt; locally, interbedded tuff, shale, and/or siltstone	
		9	KETTLE RIVER FORMATION: rhyolite and dacite tuff; locally, conglomerate, sandstone, and shale; minor rhyolite flows and intrusive porphyritic rhyolite	
PALEOCENE(?)		8	CORYELL INTRUSIONS: syenite; monzonite, shonkinite and granite	
MESOZOIC	CRETACEOUS(?) LOWER CRETACEOUS(?)	7	VALHALLA INTRUSIONS: granite, porphyritic granite	
		6	NELSON INTRUSIONS: granodiorite, porphyritic granite; diorite, monzonite, quartz monzonite	
	5	Ultrabasic intrusions, serpentinite		
	JURASSIC		4	ROSSLAND GROUP Andesite, latite; agglomerate and flow breccia; minor greywacke
	PERMIAN(?)		3	ANARCHIST GROUP Greenstone, greywacke, limestone; paragneiss
PALAEOZOIC	PENNSYLVANIAN AND/OR PERMIAN		2	MOUNT ROBERTS FORMATION: greywacke, greenstone, limestone; paragneiss
	PROTEROZOIC (?)		1	MONASHEE AND GRAND FORKS GROUPS Paragneiss; minor crystalline limestone and pegmatite

Table I - Geologic Column of the Kettle River Sheet (East Half)

West Grid Geology

The West Grid is predominantly coarse to medium grained pink syenite similar to that found elsewhere on the property. It is cut by a series of northwest trending andesite and syenite porphyry dykes. Locally the syenite is intruded by narrow (no more than one foot wide) rhyolite dykes composed of approximately 70% K-feldspar and 30% quartz. The majority of fractures strike northwest but a few also strike northeast. Many fractures are filled with magnetite.

Sparse outcrops indicate that the aphanitic feldspar porphyry may occupy the central part of the West Grid.

Molybdenite was found only in the southern part (line 46E, 52N) in a finer grained phase - a medium grained, granitic, pink monzonite with approximately 20% mafics (biotite and hornblende), 3% quartz, and 70-80% feldspar. The feldspar is divided approximately 50:50, plagioclase:K-feldspar in subhedral to anhedral grains 3-5 mm long. Molybdenite occurs as small blebs disseminated interstitially to rock-forming minerals. The monzonite grades into coarse grained syenite on either side.

Discussion

Areas to the east and west of the breccia zone were mapped to outline the extent of the breccia.

Mapping revealed massive medium to coarse grained mainly non-porphyritic syenites somewhat different than those associated with the mineralization. No breccia was found on the new grid lines.

One area near the baseline on the east grid may be in part breccia but it is covered with glacial debris. Geochemical

data suggests the zone may continue for 200 to 400 feet. Outcrop and ridges of syenite enclose the zone on the eastern grid lines with no sign of mineralization or breccia.

The only outcrop containing molybdenite occurs on the West Grid in otherwise barren rock.

If economic mineralization is to be located, it will most probably be found on the central grid section, peripheral to or within the breccia.

Diamond drilling has tested much of the strike length of the breccia zone. Most drill holes intersected mineralization. The best targets have been tested and the limited size of the intervening untested areas make it unlikely that economically significant mineralized zones will be found by additional drilling.

CHAPTER III - GEOCHEMISTRY

General Statement

Soil sampling was carried out in conjunction with the geological mapping from June 18 to August 9, 1974. A total of 634 soil samples and 4 rock chip samples were collected on the property during the survey. Results of the analyses are listed in Appendix II.

Anomalous zones located on the central grid were closed off by the East and West Grids. Anomalous areas are outlined on the geochemical map (Fig.4a,4b, in pocket).

Method

Soil samples were collected along the baseline and crosslines at 200 foot intervals using a mattock. Samples were collected from the B horizon and placed in numbered Kraft "wet-strength" sample envelopes.

Rock chip samples were collected by chipping samples over a large area of one rock type. They were placed in marked plastic bags.

Analyses for Mo and Cu were performed by Rossbacher Laboratories in Burnaby, B.C.

Environmental and analytical data were recorded on standard data sheets for computer processing.

Results of the 1974 survey were compiled with the 1973 results and anomalous zones are shown on the compounded geochemical map (Fig.4a,4b).

Intervals for anomalous concentrations of Mo and Cu are listed below:

Element	Anomalous (ppm)	Highly Anomalous (ppm)
Mo	30 - 100	100+
Cu	60 - 200	200+

Environment

A geochemical environment description of the area is given in H.W. Sellmer's property report.

Late snow in the area delayed programs. Snow was on the ground in wooded areas until late June. During the last half of June, weather turned hot and dry with temperatures generally in the 80° F range. July was unusually cold and wet which aided in keeping fire hazard low. August was hot and dry.

Soil profiles on the two grid extension are similar to those on the central grid. Generally, podzolic soils were sampled with well defined Ah, Ae and Bf horizons. Most samples were taken on well drained, relatively steep slopes.

Although most of the area sampled is covered to some extent with glacial debris, it is believed that in many places results do reflect the bedrock metal concentrations.

Most of the area north of the baseline on crossline 112E to 120E is covered with glacial debris that may mask the true metal values. The area to the north and east is an outcrop slope that leads to Mt. Shields off the grid. The metal values on this ridge are of similar magnitude as are those in areas covered by glacial drift.

Discussion of Results

Soil samples were analyzed for Mo and Cu to fully outline anomalous zone located on the central grid.

The anomaly on the northwest section of the central grid was closed off with no anomalous values. The anomaly near the baseline on the east portion of the central grid, was extended slightly before dropping off to background values. Minor isolated slightly anomalous values do not appear to form any significant pattern.

Most of the outcrops found were massive coarse-grained syenite indicating a closure of the breccia zone. The geochemical pattern reinforces the geological conclusion that the breccia does not extend far beyond the central grid.

Mo

The Mo content of the soils ranges from 1 to 78 ppm. Only 9 samples contained greater than 30 ppm Mo.

One chip sample at 46E,52N was highly anomalous (260 ppm). It was a monzonite phase which grades into the massive medium-grained syenite.

The multi-element anomalous zone located on the baseline of the central grid extends a short distance onto the East Grid. The anomaly is south of the baseline on the East Grid and has a peak value of 78 ppm Mo and 404 ppm Cu. The anomalous area is believed to be underlain by coarse-grained syenites but may in part be breccia since little outcrop was found in the vicinity of the anomaly.

Cu

Copper values range from 6 to 404 ppm. Twenty samples were taken over 60 ppm and only 6 of the twenty were over 100 ppm. One sample was found to contain over 200 ppm Cu.

The lack of anomalous values supports the geological evidence that the breccia does not extend much beyond the central grid area. The geological/geochemical results support H.W. Sellmer's statement that there is a "coincidence of anomalous concentration of Mo,Cu,Ag,An & W over the breccia zone..... and clearly indicates that the breccia has some control in localizing the distribution of metals."

CHAPTER IV - GEOPHYSICS

Introduction

During the period August 7 to August 13, 1974 twenty-four line miles of ground magnetometer survey were completed on extensions of the 1973 Deer Park Property grid.

The survey was initiated to trace the limits of a north-west - southeast trending belt of magnetic anomalies that were outlined during a similar survey in 1973. The magnetic anomalies, in part, have been attributed to magnetite-rich phases of a breccia and therefore indicate important locii for MoS₂ mineralization.

Instrument And Procedure

The instrument employed was a Model G-816 portable proton magnetometer manufactured by Geometric of 914 Industrial Avenue, Palo Alto, California. The magnetometer operates on the principle of nuclear magnetic resonance and measures the total intensity of the earth's magnetic field.

The survey was conducted with the sensor carried in the backpack shoulder sling configuration. In this mode individual readings are accurate to ± 5 gammas.

Measurements were obtained every 100 feet on cut grid lines spaced 200 feet apart. Diurnal variations and day to day base level changes were removed by establishing accurate baseline stations and "looping" back to these stations during the remainder of the survey. Changes between any two reoccupied base stations were assumed to arise from either diurnal drift or base level changes. Parts of the survey involved extensions to existing lines.

In these cases the previously obtained values at the ends of the lines were assumed to be accurate and used as absolute base stations. The survey was adjusted to the 1973 level by rereading previously occupied stations and applying a constant correction factor. Also several lines were reread in their entirety to ensure consistency between the 1973 results and the present survey.

Overall consistency is considered excellent and the survey probably has an overall accuracy of ± 10 gammas.


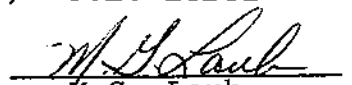
The corrected magnetic values are plotted and contoured on Figures 5a and 5b.

Results and Discussion

The present data indicates that the northwest-southeast trending belt of large amplitude spatially discontinuous anomalies, outlined by the 1973 survey terminates or is interrupted in both the northwest and southeast quadrants of the grid. Termination in the West Grid occurs by 58E,95N and in the East Grid by 114E,55N. The numerous local anomalies such as those centred at 114E,64N; 122E,66N, and 60E,108N can also be attributed to concentrations of higher susceptibility material.

Based on the magnetics two possible additional exploration targets exist. They are the anomalies located on the northwest and southeast corners of the central grid.

The anomalous areas are underlain by monzonite or syenite where the original model postulates that breccia should be present. Either the breccias do not outcrop or some modification of the model is required.


J.L. LeBel

M.G. Laub

APPENDIX I
CLAIM SCHEDULE

APPENDIX I - CLAIM SCHEDULE

Claim No.	Record No.	Anniversary Date	Rental Date	Group
Deer 11	4481	August 6, 1980	August 6, 1976	Green
12	4482	August 6, 1982	August 6, 1978	Green
13	4483	August 6, 1980	August 6, 1976	Green
14	4484	August 6, 1980	August 6, 1976	Green
15	4485	August 6, 1980	August 6, 1976	Green
16	4486	August 6, 1980	August 6, 1976	Green
17	4487	August 6, 1978	August 6, 1976	Green
18	4488	August 6, 1978	August 6, 1976	Green
19	4489	August 6, 1978	August 6, 1976	Green
20	4490	August 6, 1978	August 6, 1976	Green
27	4515	August 10, 1980	August 10, 1976	Blue
28	4516	August 10, 1978	August 10, 1975	Red
29	4491	August 6, 1982	August 6, 1978	Blue
31	4492	August 6, 1982	August 6, 1978	Green
33	4493	August 6, 1982	August 6, 1978	Green
34	4494	August 6, 1979	August 6, 1976	Yellow
35	4495	August 6, 1980	August 6, 1976	Green
36	4496	August 6, 1980	August 6, 1976	Green
37	4497	August 6, 1978	August 6, 1976	Green
38	4498	August 6, 1978	August 6, 1976	Green
39	4499	August 6, 1978	August 6, 1976	Green
40	4500	August 6, 1978	August 6, 1976	Green
Deer Fr.	4467	August 6, 1978	August 6, 1975	Red
Park 6	4458	August 6, 1979	August 6, 1976	Yellow
7	4459	August 6, 1980	August 6, 1976	Green
8	4460	August 6, 1978	August 6, 1976	Yellow
9	4461	August 6, 1980	August 6, 1976	Green
10	4462	August 6, 1978	August 6, 1976	Yellow
11	4463	August 6, 1978	August 6, 1976	Green
12	4464	August 6, 1978	August 6, 1976	Yellow
14	4468	August 6, 1978	August 6, 1976	Yellow
15	4469	August 6, 1978	August 6, 1976	Yellow
16	4470	August 6, 1978	August 6, 1976	Yellow
17	4471	August 6, 1978	August 6, 1976	Yellow
18	4472	August 6, 1978	August 6, 1976	Yellow
19	4473	August 6, 1978	August 6, 1976	Yellow
20	4474	August 6, 1978	August 6, 1976	Yellow
21	4475	August 6, 1978	August 6, 1976	Yellow
22	4476	August 6, 1978	August 6, 1976	Yellow
23	4477	August 6, 1978	August 6, 1976	Yellow
24	4478	August 6, 1978	August 6, 1976	Yellow
Park Fr.	4465	August 6, 1979	August 6, 1976	Yellow
Park 5 Fr.	4466	August 6, 1979	August 6, 1976	Yellow

CLAIM SCHEDULE (CONT'D)

Claim No.	Record No.	Anniversary Date	Rental Date	Group
Camel 1	5148	March 14, 1976	March 14, 1975	Yellow
2	5149	March 14, 1976	March 14, 1975	Yellow
3	5197	Sept. 18, 1978	Sept. 18, 1975	Red
4	5198	Sept. 18, 1978	Sept. 18, 1975	Red
5	5199	Sept. 18, 1978	Sept. 18, 1975	Red
6	5200	Sept. 18, 1978	Sept. 18, 1975	Red
7	5201	Sept. 18, 1977	Sept. 18, 1975	Red
8	5202	Sept. 18, 1977	Sept. 18, 1975	Red
9	5203	Sept. 18, 1977	Sept. 18, 1975	Red
10	5204	Sept. 18, 1977	Sept. 18, 1975	Red
11	5205	Sept. 18, 1976	Sept. 18, 1975	Blue
12	5206	Sept. 18, 1976	Sept. 18, 1975	Blue
13	5207	Sept. 18, 1976	Sept. 18, 1975	Blue
14	5208	Sept. 18, 1976	Sept. 18, 1975	Blue
15	5209	Sept. 18, 1976	Sept. 18, 1975	Blue
16	5210	Sept. 18, 1976	Sept. 18, 1975	Blue
17	5211	Sept. 18, 1976	Sept. 18, 1975	Blue
18	5212	Sept. 18, 1976	Sept. 18, 1975	Blue
19	5213	Sept. 18, 1976	Sept. 18, 1975	Blue
20	5214	Sept. 18, 1976	Sept. 18, 1975	Blue
21	5215	Sept. 18, 1976	Sept. 18, 1975	Blue
22	5216	Sept. 18, 1976	Sept. 18, 1975	Blue
23	5217	Sept. 18, 1976	Sept. 18, 1975	Blue
24	5218	Sept. 18, 1976	Sept. 18, 1975	Blue
25	5219	Sept. 18, 1977	Sept. 18, 1975	Blue
26	5220	Sept. 18, 1976	Sept. 18, 1975	Blue
27	5221	Sept. 18, 1977	Sept. 18, 1975	Red
28	5222	Sept. 18, 1977	Sept. 18, 1975	Red
29	5223	Sept. 18, 1976	Sept. 18, 1975	Blue
30	5224	Sept. 18, 1976	Sept. 18, 1975	Blue
31	5225	Sept. 18, 1976	Sept. 18, 1975	Blue
32	5226	Sept. 18, 1976	Sept. 18, 1975	Blue
33	5227	Sept. 18, 1976	Sept. 18, 1975	Blue
34	5228	Sept. 18, 1976	Sept. 18, 1975	Blue
35	5229	Sept. 18, 1977	Sept. 18, 1975	Red
36	5230	Sept. 18, 1978	Sept. 18, 1975	Red
37	5231	Sept. 18, 1976	Sept. 18, 1975	Blue
38	5232	Sept. 18, 1976	Sept. 18, 1975	Blue
39	5233	Sept. 18, 1976	Sept. 18, 1975	Blue
40	5234	Sept. 18, 1976	Sept. 18, 1975	Blue
41	5235	Sept. 18, 1976	Sept. 18, 1975	Blue
42	5236	Sept. 18, 1976	Sept. 18, 1975	Blue

APPENDIX II

GEOCHEMICAL DATA

Analytical Results

&

Procedures for Collection and Processing of Geochemical Samples

cert. #4033

Labn 1977

Amise yob3

(3)

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 17, 74

TYPE SAMPLES Soil / SILT

PROJECT Amax

LOCATION Deer Park #589 631

REQUESTED BY M. LAUB

DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	L PRL 4		6	34								01
02	6		8	26								02
03	7		2	24								03
04	10		4	20								04
05	11		4	20								05
06	S 23		2	16								06
07	24		12	68								07
08												08
09												09
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26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40

COMMENT:

DATE SAMPLES RECEIVED _____
DATE REPORTS MAILED _____
ANALYST _____

4066 AMAX EXPLORATION INC. ANALYTICAL REPORT

7

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 26, 74
 PROJECT AMAR #1987
 REQUESTED BY M. LAUB

TYPE SAMPLES Soil
 LOCATION Dave Park 587 & 631
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo ✓	Cu ✓	Ni								No.
01	4PRS 11		6	18									01
02	12		4	14									02
03	13		4	12									03
04	14		6	14									04
05	15		4	14									05
06	16		6	14									06
07													07
08													08
09													09
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

INV. 4099
 cert # 4090

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY E 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE August 12, 74 AUG 50 TYPE SAMPLES soils
 PROJECT Amax LOCATION Deer Park
 REQUESTED BY M. Lamb VANCOUVER DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni									No.
01	4PRS 17		2	30										01
02	18		2	24										02
03	19		2	16										03
04	20		2	14										04
05	21		4	14										05
06	22		2	12										06
07	23		1	18										07
08	24		1	12										08
09	25		2	14										09
10	26		2	20										10
11	27		6	28										11
12	28		2	10										12
13	29		4	24										13
14	30		4	20										14
15	31		1	24										15
16	32		4	20										16
17	33		1	16										17
18	A 34		2	10										18
19	B 34		2	12										19
20	35		2	18										20
21	36		4	20										21
22	38		2	16										22
23	39		4	14										23
24	40		4	16										24
25	41		4	16										25
26	42		2	12										26
27	43		2	40										27
28	44		2	20										28
29	45		2	20										29
30	46		2	32										30
31	47		2	18										31
32	48		2	14										32
33	49		2	24										33
34	50		2	12										34
35	51		2	30										35
36	52		4	20										36
37	53		2	14										37
38	54		2	16										38
39	55		2	22										39
40	G 26		6	24										40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

NV. 4099 90
cont # 4090

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE August 12. 74 TYPE SAMPLES Soils

OBJECT AMAX # 2008 LOCATION Deer Park

REQUESTED BY M. Laub DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo✓	Cu✓	Ni							No.
01	4PRS 56		4	20								01
02	57		2	16								02
03	58		2	12								03
04	59		2	10								04
05	60		2	14								05
06	61		4	12								06
07	62		2	12								07
08	63		2	58								08
09	64		6	20								09
10	65		4	24								10
11	66		2	16								11
12	67		4	12								12
13	68		2	12								13
14	69		4	16								14
15	70		12	30								15
16												16
17												17
18												18
19												19
20												20
21												21
22												22
23												23
24												24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40

COMMENT: _____

DATE SAMPLES RECEIVED _____

DATE REPORTS MAILED _____

ANALYST _____

Inv. # 4055

1

ORD. # 1977 AMAX EXPLORATION INC. ANALYTICAL REPORT

Inv. # 4068

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 17, 74

TYPE SAMPLES Soil/SILT

PROJECT Amal

LOCATION Deer Park #58 of 631

REQUESTED BY M. LAUB

DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	APVS 1		6	18								01
02	2		22	28								02
03	3		4	24								03
04	L 4		8	36								04
05	S 5		52	72								05
06	6		36	166								06
07	7		6	22								07
08	8		8	26								08
09	L 9		4	22								09
10	10		2	20								10
11	S 11		2	26								11
12	12		78	404								12
13	13		6	28								13
14	14		22	66								14
15	15		14	48								15
16	16		14	18								16
17	17		6	22								17
18	18		4	24								18
19	19		3	24								19
20	20		4	22								20
21	21		8	32								21
22	22		6	20								22
23	23		8	24								23
24	24		50	42								24
25	25		6	30								25
26	26		8	24								26
27	27		2	22								27
28	28		6	28								28
29	29		14	30								29
30	30		6	20								30
31	31		26	60								31
32	32		6	30								32
33	33		2	28								33
34	34		6	28								34
35	35		12	24								35
36	36		2	16								36
37	37		8	30								37
38	38		4	20								38
39	39		4	24								39
40	G 22		52	268								40

COMMENT:

DATE SAMPLES RECEIVED _____
DATE REPORTS MAILED _____
ANALYST _____

Cont. # 4055

no. 1977

no. 4068

AMAX EXPLORATION INC. ANALYTICAL REPORT

(2)

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 17, 74

TYPE SAMPLES Soil / Silt

PROJECT Ammax

LOCATION Deer Lake Park #1587631

REQUESTED BY M. Laur

DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni								No.
01	4 PVS 40		✓ 18	✓ 46									01
02	41		2	24									02
03	42		8	28									03
04	43		2	18									04
05	44		6	28									05
06	47		2	20									06
07	48		6	24									07
08	49		2	32									08
09	So		2	28									09
10	Sl		2	32									10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4066

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 26, 74
PROJECT Amak #1987
REQUESTED BY M. LAUBTYPE SAMPLES Soil
LOCATION Deer Park 587 & 631
DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	4PVS 45		10	22								01
02	46		6	14								02
03	52		8	28								03
04	53		10	36								04
05	54		8	28								05
06	55		8	28								06
07	56		4	24								07
08	57		8	32								08
09	58		12	38								09
10	59		7	24								10
11	60		6	26								11
12	61		6	32								12
13	62		6	16								13
14	63		14	30								14
15	64		8	28								15
16	65		6	13								16
17	66		8	40								17
18	67		6	12								18
19	68		6	22								19
20	69		6	22								20
21	70		5	12								21
22	71		20	34								22
23	72		8	13								23
24	73		6	23								24
25	74		4	18								25
26	75		4	24								26
27	76		3	12								27
28	77		-	18								28
29	78		2	22								29
30	79		2	16								30
31	80		2	20								31
32	81		4	20								32
33	82		3	24								33
34	83		7	58								34
35	84		2	12								35
36	85		2	20								36
37	86		2	18								37
38	88		4	20								38
39	89		2	30								39
40	G 29		24	240								40

COMMENT:

DATE SAMPLES RECEIVED _____
DATE REPORTS MAILED _____
ANALYST _____

4066 AMAX EXPLORATION INC. ANALYTICAL REPORT

2

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 26, 74 TYPE SAMPLES Soil
 SUBJECT Amex #1987 LOCATION Deer Park 587 & 631
 REQUESTED BY M. LAUB DISPOSITION OF REJECTS _____

No.	Sample	pH	Mg	Cu	Ni							No.
01	4PVS 90		8	30								01
02	91		4	18								02
03	92		4	14								03
04	93		4	16								04
05	94		3	16								05
06	95		8	24								06
07	96		5	24								07
08	97		3	20								08
09	98		8	12								09
10	99		4	20								10
11	100		5	24								11
12	101		4	16								12
13	102		4	12								13
14	103		#2	8								14
15	104		4	12								15
16	105		2	14								16
17	106		2	16								17
18	107		2	12								18
19	108		4	16								19
20	109		10	16								20
21	110		2	16								21
22	111		2	12								22
23	112		4	14								23
24	113		2	14								24
25	114		4	12								25
26	115		2	12								26
27	116		3	12								27
28	117		4	12								28
29	118		2	10								29
30	119		2	12								30
31	120		2	16								31
32	121		2	14								32
33	122		2	10								33
34	123		2	12								34
35	124		2	18								35
36	125		2	16								36
37	126		4	16								37
38	127		4	6								38
39	128		4	16								39
40	G 21		12	>400								40

COMMENT: _____

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4066

AMAX EXPLORATION INC. ANALYTICAL REPORT

3

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 26, 74
PROJECT Amax #1987
REQUESTED BY M. LAUBTYPE SAMPLES Soil
LOCATION Deer Park 587 & 631
DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	4 PVS 129		12	10								01
02	130		2	20								02
03	131		3	12								03
04	132		2	16								04
05	133		12	10								05
06	134		2	20								06
07	135		2	16								07
08	136		2	10								08
09	137		2	14								09
10	138		4	16								10
11	139		2	14								11
12	140		3	14								12
13	141		8	22								13
14	142		5	20								14
15	143		2	14								15
16	144		2	20								16
17	145		2	10								17
18	146		5	24								18
19	147		4	16								19
20	148		8	10								20
21	149		2	20								21
22	150		4	20								22
23	151		2	24								23
24	152		6	17								24
25	153		3	12								25
26	154		4	20								26
27	155		4	18								27
28	156		7	22								28
29	157		2	16								29
30	158		2	16								30
31	159		2	14								31
32	160		4	14								32
33	161		2	12								33
34	162		2	14								34
35	163		2	18								35
36	164		2	16								36
37	165		2	14								37
38	166		2	16								38
39	167		2	22								39
40	G 21		12	>400								40

COMMENT:

DATE SAMPLES RECEIVED _____
DATE REPORTS MAILED _____
ANALYST _____

4066 AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

④

DATE July 26, 74
 PROJECT Amax #1987
 REQUESTED BY M. LAUB

TYPE SAMPLES Soil
 LOCATION Deer Park 587 & 631
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni						No.
01	4PVS-168		2	20							01
02	169		4	16							02
03	170		4	18							03
04	171		1	12							04
05	172		4	20							05
06	173		1	18							06
07	174		2	16							07
08	175		8	14							08
09	176		6	14							09
10	177		14	4?							10
11	178		2	14							11
12	179		1	16							12
13	180		2	20							13
14	181		2	22							14
15	182		2	16							15
16	183		4	22							16
17	184		4	14							17
18	185		2	20							18
19	186		2	24							19
20	187		6	40							20
21	188		2	16							21
22	189		6	24							22
23	190		4	18							23
24	191		6	56							24
25	192		1	420							25
26	193		2	12							26
27	194		4	20							27
28	195		4	43							28
29	196		7	22							29
30	197		12	62							30
31	198		2	26							31
32	199		2	20							32
33	200		3	16							33
34	201		4	24							34
35	202		20	30							35
36	203		2	14							36
37	204		2	30							37
38	205		4	18							38
39	206		4	14							39
40	G 22		④	196							40

COMMENT: ?

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4066 AMAX EXPLORATION INC. ANALYTICAL REPORT

5

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 26 74
 SUBJECT AMAX #1989
 REQUESTED BY M. LAUB

TYPE SAMPLES soil
 LOCATION DEAR PARK 5374
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni								No.
01	4PVS 207		4	16									01
02	208		4	14									02
03	209		4	16									03
04	210		4	16									04
05	211		2	18									05
06	212		4	12									06
07	213		4	16									07
08	214		4	14									08
09	215		4	16									09
10	216		4	20									10
11	217		6	16									11
12	218		4	12									12
13	219		6	14									13
14	220		4	18									14
15	4PVL 087		16	100									15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4070

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 30, 74 TYPE SAMPLES Soil
 PROJECT Amak LOCATION Deer Park 587 & 631
 REQUESTED BY M. LAUB DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni								No.
01	4PVS 221		2	14									01
02	222		2	10									02
03	223		2	18									03
04	224		2	16									04
05	225		3	12									05
06	226		2	16									06
07	227		3	18									07
08	228		2	20									08
09	229		4	26									09
10	230		4	16									10
11	231		4	12									11
12	232		2	10									12
13	233		5	16									13
14	234		3	12									14
15	235		3	20									15
16	236		2	16									16
17	237		4	12									17
18	238		8	20									18
19	239		4	20									19
20	240		16	56									20
21	241		7	14									21
22	242		3	10									22
23	243		4	12									23
24	244		4	10									24
25	245		3	18									25
26	246		6	16									26
27	247		6	28									27
28	248		14	16									28
29	249		6	18									29
30	250		5	28									30
31	251		20	58									31
32	252		8	18									32
33	253		7	18									33
34	254		20	32									34
35	255		6	24									35
36	256		6	14									36
37	257		8	16									37
38	258		6	16									38
39	259		6	16									39
40	G 26		6	26									40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4070

AMAX EXPLORATION INC. ANALYTICAL REPORT

2

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 30, 74TYPE SAMPLES SoilPROJECT AmarLOCATION Deer Park 5874 631REQUESTED BY M. LAUB

DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo ✓	Cu ✓	Ni								No.
01	4PUS 260		2	8									01
02	261		3	12									02
03	262		6	16									03
04	263		2	16									04
05	264		2	12									05
06	265		6	24									06
07	266		4	22									07
08	267		3	16									08
09	268		6	22									09
10	269		6	20									10
11	270		6	18									11
12	271		5	16									12
13	272		6	16									13
14	273		4	14									14
15	274		3	12									15
16	275		6	16									16
17	276		4	18									17
18	277		6	24									18
19	278		4	20									19
20	279		6	16									20
21	280		3	16									21
22	281		4	20									22
23	282		3	16									23
24	283		6	20									24
25	284		12	26									25
26	285		7	16									26
27	286		12	22									27
28	287		22	36									28
29	288		16	38									29
30	289		8	14									30
31	290		22	32									31
32	291		12	24									32
33	292		10	22									33
34	293		6	20									34
35	294		6	18									35
36	295		4	18									36
37	296		7	16									37
38	297		12	24									38
39	298		6	20									39
40	G 27		24	256									40

COMMENT:

DATE SAMPLES RECEIVED _____

DATE REPORTS MAILED _____

ANALYST _____

4070 AMAX EXPLORATION INC. ANALYTICAL REPORT



BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 30, 74
 PROJECT Amax
 REQUESTED BY M. LAUB

TYPE SAMPLES SOL
 LOCATION Deer Park 587 8631
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	4PVS 299		6	20								01
02	300		6	24								02
03	301		14	38								03
04	302		10	22								04
05	303		8	26								05
06	304		10	26								06
07	305		10	30								07
08	306		6	16								08
09	307		4	20								09
10	308		26	36								10
11	309		10	28								11
12	310		4	18								12
13	311		4	18								13
14	312		6	16								14
15	313		10	22								15
16	314		4	20								16
17	315		4	20								17
18	316		30	30								18
19	317		14	10								19
20	318		48	156								20
21	319		6	16								21
22	320		40	70								22
23	321		24	34								23
24	322		28	74								24
25	323		6	20								25
26	324		4	16								26
27	325		6	20								27
28	326		4	20								28
29	327		6	24								29
30	328		4	20								30
31	329		8	28								31
32	330		4	20								32
33	331		6	34								33
34	332		6	16								34
35	333		5	14								35
36	334		4	22								36
37	335		4	24								37
38	336		4	22								38
39	337		4	20								39
40	G 21		12	> 400								40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4070 AMAX EXPLORATION INC. ANALYTICAL REPORT

4

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 30, 74
 PROJECT Amax
 REQUESTED BY S. M. LAUB

TYPE SAMPLES Soil
 LOCATION Deer Park 5878631
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	4PVS 338		4	16								01
02	339		8	48								02
03	340		6	30								03
04	341		5	20								04
05	342		5	16								05
06	343		6	20								06
07	344		4	16								07
08	345		7	24								08
09	346		2	30								09
10	347		6	26								10
11	348		4	20								11
12	349		20	96								12
13	350		8	24								13
14	351		8	32								14
15	352		6	28								15
16	353		14	20								16
17	354		6	20								17
18	355		14	26								18
19	356		16	36								19
20	357		10	20								20
21	358		5	16								21
22	359		26	38								22
23	360		10	26								23
24	361		16	24								24
25	362		6	22								25
26	363		6	24								26
27	364		6	18								27
28	365		5	18								28
29	366		7	20								29
30	367		32	64								30
31	368		8	20								31
32	369		6	24								32
33	370		6	22								33
34	371		18	32								34
35	372		12	24								35
36	373		12	20								36
37	374		8	16								37
38	375		14	22								38
39	376		9	24								39
40	G 22		52	276								40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

4070 AMAX EXPLORATION INC. ANALYTICAL REPORT

5

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 30, 74 TYPE SAMPLES Soil
 OBJECT Amar LOCATION Deer Park 587 & 631
 REQUESTED BY M. LAUB DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	4PVS 377		8	24								01
02	378		5	16								02
03	379		8	16								03
04	G 26		6	24								04
05												05
06												06
07												07
08												08
09												09
10												10
11												11
12												12
13												13
14												14
15												15
16												16
17												17
18												18
19												19
20												20
21												21
22												22
23												23
24												24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

Cest. #4090
INV. 4099

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. BURNABY 2, B.C.

DATE August-12, 74

APR-29 1974
TYPE SAMPLES

Soils

584

PROJECT Amara #2008

LOCATION Deas Park

REQUESTED BY M. Leub

VANCOUVER OFFICE
DISPOSITION OF REJECTS

No.	Sample	pH	Mo	Cu	Ni								No.
01	1PV5 380		6	20									01
02	381		6	16									02
03	382		30	22									03
04	383		6	12									04
05	384		12	36									05
06	385		10	16									06
07	386		16	40									07
08	387		2	24									08
09	388		16	24									09
10	389		10	24									10
11	390		2	20									11
12	391		2	20									12
13	392		4	20									13
14	393		4	24									14
15	394		6	28									15
16	395		4	20									16
17	396		4	20									17
18	397		6	24									18
19	398		4	20									19
20	399		6	20									20
21	400		6	28									21
22	401		8	22									22
23	402		6	20									23
24	403		6	26									24
25	404		12	24									25
26	405		8	16									26
27	406		12	20									27
28	407		6	24									28
29	408		8	24									29
30	409		8	24									30
31	410		8	20									31
32	411		6	20									32
33	412		4	20									33
34	413		4	10									34
35	414		8	24									35
36	415		6	20									36
37	416		4	20									37
38	417		4	30									38
39	418		6	20									39
40	422		52	270									40

COMMENT:

DATE SAMPLES RECEIVED _____

DATE REPORTS MAILED _____

ANALYST _____

1110-4-71
cont #4090

(2)

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY 2225 SPRINGER AVE. BURNABY 2, B.C.

DATE August 12. 74 AUG 29 1974
 PROJECT Amax. # 2008 TYPE SAMPLES Soil
 REQUESTED BY M. Laub LOCATION Deer Park
 VANCOUVER OFFICE DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo	Cu	Ni							No.
01	APVS 419		6	16								01
02	420		6	18								02
03	421		4	32								03
04	422											04
05	422		6	40								05
06	423		8	40								06
07	424		6	32								07
08	425		4	26								08
09	426		2	12								09
10	427		4	12								10
11	428		2	10								11
12	429		1	12								12
13	430		2	22								13
14	431		4	104								14
15	432											15
16	432		14	104								16
17	433		4	30								17
18	434		2	20								18
19	435		6	24								19
20	436		6	24								20
21	437		4	26								21
22	438		4	16								22
23	439		12	70								23
24	440		2	16								24
25	441		1	20								25
26	442											26
27	442		1	18								27
28	443		1	18								28
29	444											29
30	444		2	12								30
31	445		1	16								31
32	446		2	12								32
33	447		2	20								33
34	448		2	56								34
35	449		2	48								35
36	450		1	40								36
37	451		2	16								37
38	452		1	20								38
39	453		1	16								39
40	G 26		6	24								40

COMMENT: _____

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

NY. 4099
 cont #4090

AMAX EXPLORATION INC. ANALYTICAL REPORT

3

BURNABY LABORATORY - 2225 SPRINGER AVE. BURNABY 2, B.C.

DATE August 12, 74
 PROJECT Amax # 2008
 REQUESTED BY M. Laub

TYPE SAMPLES soils
 LOCATION Deer park
 DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo ✓	Cu ✓	Ni							No.
01	HPVS 454		2	36								01
02	455		2	22								02
03	456		2	20								03
04	457		2	20								04
05	458		8	32								05
06	459		2	22								06
07	460		6	60								07
08	461		2	20								08
09	462		2	22								09
10	463		2	18								10
11	464		2	20								11
12	465		4	20								12
13	466		2	22								13
14	467		4	38								14
15	468		6	28								15
16	469		6	80								16
17	470		4	54								17
18	471		2	28								18
19	472		6	32								19
20	473		2	28								20
21	474		4	12								21
22	475		12	12								22
23	476		12	80								23
24	477		2	18								24
25	478		4	24								25
26	479		4	24								26
27	480		2	18								27
28	481		6	40								28
29	482		4	40								29
30	483		2	12								30
31	484		10	72								31
32	485		1	12								32
33	486		1	12								33
34	487		2	24								34
35	488		6	24								35
36	490		1	12								36
37	500		2	20								37
38	501		2	18								38
39	502		2	24								39
40	G27		24	264								40

COMMENT:

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

INV. 4099
 acct # 4090

4

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE August 12, 74 ANALYST AM 59 514
 TYPE SAMPLES soils
 PROJECT Amax # 2008 LOCATION Deer Park
 REQUESTED BY M. Laub VANCOURVER C. DISPOSITION OF REJECTS _____

No.	Sample	pH	Mo ✓	Cu ✓	Ni								No.
01	4PVS 503		2	12									01
02	504		2	50									02
03	505		8	26									03
04	506		6	46									04
05	507		6	20									05
06	508		4	30									06
07	509		4	18									07
08	510		6	34									08
09	511		3	22									09
10	512		4	20									10
11	513		4	24									11
12	514		2	18									12
13	515		2	24									13
14	516		6	20									14
15	517		4	20									15
16	518		2	12									16
17	519		4	20									17
18	520		6	24									18
19	521		4	16									19
20	522		2	18									20
21	522												21
22	523		2	16									22
23	524		2	18									23
24	525		2	20									24
25	526		2	24									25
26	527		4	26									26
27	528		2	20									27
28	529		4	24									28
29	530		2	20									29
30	531		4	50									30
31	532		2	44									31
32	533		2	28									32
33	534		1	20									33
34	535		2	26									34
35	536		2	16									35
36	537		2	22									36
37	538		2	20									37
38	539		2	20									38
39	540		2	20									39
40	G 21		10	2400									40

COMMENT: _____

DATE SAMPLES RECEIVED _____
 DATE REPORTS MAILED _____
 ANALYST _____

YV. 4099
 20J #4090

5

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY 2225 SPRINGER AVE - BURNABY 2, B.C.

DATE August 12. 74 AUG 29 1974
 TYPE SAMPLES soils
 PROJECT Amax # 2008 LOCATION Deer Park
 REQUESTED BY M. Laub VANCOURT DISPOSITION OF REJECTS

No.	Sample	pH	Mo	Cu	Ni								No.
01	4PVS 541		2	22									01
02	541												02
03	542		2	16									03
04	543		1	14									04
05	543												05
06	544		4	14									06
07	545		2	20									07
08	546		12	60									08
09	547		2	20									09
10	548		3	16									10
11	549		2	14									11
12	550		2	8									12
13	551		2	14									13
14	552		2	18									14
15	553		4	24									15
16	554		4	30									16
17	555		2	24									17
18	556		2	14									18
19	557		2	14									19
20	558		2	12									20
21	559		1	16									21
22	560		1	18									22
23	561		2	20									23
24	562		2	32									24
25	563		6	22									25
26	564		14	26									26
27	565		6	22									27
28	566		4	26									28
29	491		2	12									29
30	492		2	14									30
31	493		1	8									31
32	494		2	12									32
33	495		2	32									33
34	496		1	14									34
35	497		2	18									35
36	498		2	16									36
37	499		4	14									37
38	489		2	12									38
39													39
40	G 22		52	256									40

COMMENT: _____

DATE SAMPLES RECEIVED _____

DATE REPORTS MAILED _____

ANALYST _____

Procedures for Collection and Processing
of Geochemical Samples

Analytical Methods for Ag, Mo, Cu, Pb, Zn,
Fe, Mn, Ni, Co and W in sediments and soils;
Mo, Cu, Zn, Ni and SO_4^{--} in waters.

Amax Exploration, Inc.
Vancouver Office.

September 1970

SAMPLE COLLECTION

Soils

B horizon material is sampled and thus organic rich topsoil and leached upper subsoil are avoided. Occasionally organic rich samples have to be taken in swampy depressions.

Samples are taken by hand from a small excavation made with a cast iron mattock. Approximately 200 gms of finer grained material is taken and placed in a numbered, high wet-strength, Kraft paper bag. The bags are closed by folding and do not have metal tabs.

Observations as to the nature of the sample and the environment of the sample site are made in the field.

Drainage Sediments

Active sediments are taken by hand from tributary drainages which are generally of five square miles catchment or less. Composite samples are taken of the finest material available from as near as possible to the centre of the drainage channel thus avoiding collapsed banks. More than one sample is taken if marked mineralogical or textural segregation of the sediments is evident.

Some 200 gm of finer material is collected unless the sediment is unusually coarse in which case the weight is increased to 1 kg. Samples are placed in the same type of Kraft paper bag as are employed in soil sampling. Water samples are taken at all appropriate sites. Approximately 100 mls are sampled and placed in a clean, screw sealed, polythene bottle. Observations are made at each site regarding the environment and nature of the sample.

Rock Chips

Composite rock chip samples generally consist of some ten small fragments broken from unweathered outcrop with a steel hammer. Each fragment weighs some 50 gms. Samples are placed in strong polythene bags and sealed with non-contaminating wire tabs. Samples are restricted to a single rock type and obvious mineralization is avoided.

Soil, sediment and rock samples are packed securely in cardboard boxes or canvas sacks and dispatched by road or air.

APPENDIX III

STATEMENTS OF QUALIFICATIONS

RESUME OF QUALIFICATIONS

I, Mary Grace Laub, presently residing at 919-2012 Fullerton Avenue, North Vancouver, British Columbia, do hereby submit my resumé of qualifications.

In 1965, I received a Bachelor of Science degree in geology from Michigan Technological University.

In 1968, I received a Master of Science degree in geology from the University of Pennsylvania.

I further submit that since 1965, I have practiced as a geologist in research, teaching, and exploration in both Canada and the United States.



(Miss) M.G. Laub, F.G.A.C.

February 15, 1974

STATEMENT OF QUALIFICATIONS

NAME: J. LAURENCE LEBEL

ADDRESS: 1607-1155 HARWOOD STREET
VANCOUVER, BC V6E 1S1

EDUCATION: B.Sc. (1971) Queen's University - Geological Engineering -
Geophysics Option

M.Sc (1973) University of Manitoba - Geophysics

EXPERIENCE:

- 5/70-9/70 - Amax Exploration, Inc. Vancouver, B.C.
 - conducting and compiling magnetometer surveys
- 5/71-9/71 - Amax Exploration, Inc. Toronto, Ont.
 - conducting and reporting on IP/resistivity surveys
- 5/72-12/72- Gulf Minerals, Toronto, Ont.
 - senior geophysical operator
 - conducting and reporting on magnetometer
electromagnetic and scintillometer surveys
- 3/73-12/73- Scintrex Surveys, Concord, Ont.
 - Junior Geophysicist
 - conducting, supervising of and reporting on
airborne magnetometer and electromagnetic surveys,
ground electromagnetic and IP/resistivity surveys
- 4/74 -
 - Amax Exploration, Inc. Toronto & Vancouver
 - Staff Geophysicist

STATEMENT OF QUALIFICATIONS

NAME: KAREN WALLACE - 16 Millgate Crescent, Willowdale, Ont.

EDUCATION: Earl Haig Secondary School, Willowdale, Ont. 1966-1970

University of Toronto, B.Sc. Geology 1974

EXPERIENCE: Texas Gulf, Inc. - May 1973- Sept. 1973 - Lab Work and Field Work

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

iii

April 30, 1974

SUMMARY OF SOME ANALYTICAL TECHNIQUES CURRENTLY IN USE AT ROSSBACHER LABORATORY

A ANALYTICAL TECHNIQUES FOR GEOCHEMICAL SAMPLES

SAMPLE PREPARATION

Packages of samples are opened as soon as they arrive at the laboratory and the bags placed in numerical sequence in an electrically heated sample drier (maximum temperature 70°C).

After drying soil and sediment samples they are lightly pounded with a wooden block to break up aggregates of fine particles and are then passed through a 35 mesh stainless steel sieve. The coarse material is discarded and the minus 35 mesh fraction replaced in the original bag providing that this is undamaged and not excessively dirty.

Rock samples are exposed to the air until the outside surfaces are dry; only if abnormally wet are rocks placed in the sample drier. Rock samples are processed in such manner that a fully representative 1/2 g. sample can be obtained for analysis. The entire amount of each sample is passed through a jaw crusher and thus reduced to fragments of 2 mm. size or less. A minimum of 1 kg. is then passed through a pulverizer with plates set such that 95% of the product will pass through a 100 mesh

screen. Where samples are appreciably heavier than 2 kg the material is split after jaw crushing by means of a Jones splitter. After pulverizing the sample is mixed by rolling on paper and is then placed in a Kraft paper bag.

SAMPLE DIGESTION

Digestion tubes (100 x 16 mm) are marked at the 5 ml level with a diamond pencil. Tubes are cleaned with hot water and concentrated HCl. 0.5 g samples are weighed accurately, using a Fisher Dial-O-Gram balance, and placed in the appropriate tubes.

To each of the samples thus prepared are added 2 ml of an acid mixture comprising 15% nitric and 85% perchloric acids. Racks of tubes are then placed on an electrical hot plate, brought to a gentle boil ($\frac{1}{2}$ hour) and digested for $4\frac{1}{2}$ hours. Samples unusually rich in organic material are first burned in a porcelain crucible heated by a bunsen burner before the acid mixture is added. Digestion is performed in a stainless steel fume hood.

After digestion tubes are removed from the hot plate and the volume is brought up to 5 ml with deionized water. The tubes are shaken to mix the solution and then centrifuged for one minute. The resulting clear upper layer is used for Cu, Mo, Pb, Zn, Ag, Fe, Mn, Ni and Co determination by a Perkin-Elmer 290B atomic absorption spectrophotometer. Analytical procedures are given on the following pages.

ANALYTICAL PROCEDURESSilver

1. Scope - This procedure covers a range of silver in the sample from less than .5 to 1000 ppm
2. Summary of Method - The sample is treated with nitric and perchloric acid mixture to oxidize organics and sulphides. The silver then is present as perchlorate in aqueous solution. The concentration is determined by atomic absorption spectrophotometer.
3. Interferences - Silver below 1 gamma/ml is not very stable in solution. Maintaining the solution in 20% perchloric prevents silver being absorbed on the glass container. Determination must be completed on the same day as the digestion.

Samples high in dissolved solids, especially calcium, cause high background absorbance. This background absorbance must be corrected using an adjacent Ag line.

Silver AA Settings P.E. 290

Lamp - Ag

Current 4 ma position 3

Slit 7 A

Wavelength 3281A Dial 287.4

Fuel - acetylene - flow - 14

Oxidant - air - flow - 14

Burner - techtron AB_51 in line

Maximum Conc. 3 to 4x

Calibration

1. Set 1 gamma/ml to read 40 equivalent to 20 gamma/gm
 Factor $\frac{1}{2}$ x meter reading
 Check standards
 4, 10, 20, 40 ppm Ag in sample
2. Set 15 gamma/ml to 100 equivalent to 100 ppm
 Check standards
 40, 100 ppm
 Factor directly in ppm Ag
3. Rotate burner to maximum angle
 Set 10.0 gamma/ml Ag to read 100
 Check standards
 100, 200, 400, 1000 ppm Ag
 Factor 10x scale reading
4. Samples higher than 1000 ppm should be re-analyzed by assay procedure
5. Background correction for sample reading between 1 to 5 ppm
 Calibrate AA in step 1
 Dial wavelength to 300 (peak)
 Read the samples again
 Subtract the background reading from the first reading

Standards

1. 1000 gamma/ml Ag - 0.720 gm Ag_2SO_4 dissolved in 20 mls HxClO_3
 and dilute to 500 mls
2. 100 gamma/ml Ag - 10 mls of above + 20 mls HClO_4 , dilute to 100 mls

3. Recovery spiked standard

5 gamma/ml Ag - 5 mls 100 gamma/ml dilute to 100 mls with
"mixed" acid

Working AA Standards

Pipette .2, .5, 1, 2, 5, 10 mls of 100 gamma/ml and 2, 5 mls 1.000 gamma/ml dilute to 100 mls with 20% HClO₄. This equivalent to 4, 10, 20, 40, 100, 200, 400, and 1000 ppm Ag in the sample .50 gm diluted to 10 mls.

Recovery Standard

Pipette 2 mls of 5 gamma/ml Ag in mix acids into a sample and carry through the digestion. This should give a reading of 20 ppm Ag + original sample content.

Follow the general geochemical procedure for sample preparation and digestion.

For low assay Ag, the same procedure is used. Ag is then calculated in oz/ton.

$$1 \text{ ppm} = .0292 \text{ oz/ton}$$

conversion factor

$$\text{oz/ton} = .0292 \times \text{ppm Ag}$$

Zn Geochemical AA Setting

Lamp Zn

Current 8 #3 Slit 20A

Wave length 2133 Dial 84.9

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - P.E. short path 90°

Range

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

0 - 50 gamma/ml Factor 10x - 0 to 1000 ppm

For Waters - Burner AB- 51 in line 1 gamma/ml read 100 to give 0
to 1000 ppb

High Zn Burner Boling in line. Wavelength 3075. Dial 250 Slit 7A

Fuel 14 Air 14.5

0 to 1000 gamma/ml read 0 to 20 Factor 400 x

Pure Standard 10,000 gamma/ml

1 gm Zn dissolved, H₂O, HCl, HNO₃, HClO₄, fumed to HClO₄ -
make up to 100 mls H₂O

1000, 100 gamma/ml and 100 ml by dilution in 20 % HClO₄

0 to 200 gamma/ml Zn use combined Cu, Ni, Co, Pb, Zn standards

Pipette

1, 2, 3, 5, 8, 10 mls of 10,000 gamma/ml - dilute to 100 mls
with 20% HClO₄ to give

100, 200, 300, 500, 800, 1000 gamma/ml Zn for high standards

Co Geochemical AA Setting

Lamp - 5 multi element

Current 10 #4 Slit 2A

Wavelength 2407 Dial 133.1

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - AB 51 in line

Range

0 - 10 gamma/ml read 100 Factor 2 x reading to 200 ppm

0 - 20 gamma ml read 100 Factor 4 x reading to 400 ppm

Burner at maximum angle

0 - 100 gamma/ml read 100 Factor 20 x reading to 2000 ppm

0 - 200 gamma/ml read 100 Factor 40 x reading to 4000 ppm

Standards - 1000 gamma/ml

1.000 gm cobalt metal dissolved in HCl, HNO₃, and fumed into
HClO₄, dilute to 1 liter

Pipette:

1, 2, 10, 20 mls into 100 ml vol flasks diluted to mark
with 20% HClO₄

This gives

10, 20, 100, 200 gamma/ml Co

Mixed - combination standards of Cu, Ni, Co, Pb, Zn

of

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml are used
for calibration

Mn Geochemical AA Setting

Lamp Multi element Ca, Ni, Co, Mn Cr

Current 10 #4 Slit 7A

Wave length 4030.8 Dial 425.2

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - P.E. short path (or AB 50)

Range

0 - 100 gamma/ml Factor 20x - 0 to 2000 ppm

0 - 200 gamma/ml Factor 40x - 0 to 4000 ppm

Burner 90°

0 - 1000 gamma/ml Factor 200x - 0 to 20,000 ppm

0 - 2000 gamma/ml Factor 400x - 0 to 40,000 ppm

EDTA Extraction - use AB 51 in line

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

Standards

Fisher 10,000 gamma/ml (ml)

10x Dilution 1000 gamma/ml

Pipette

.5, 1, 2, 3, 5, 8, 10, ml of 1000 gamma/ml

2, 3, 5, 8, 10, 15, 20 ml of 10,000 gamma/ml dilute to 100

mls with 20% HClO₄. This gives

5, 10, 20, 30, 50, 80, 100, 200, 300, 500, 800, 1000, 1500,

2000 gamma/ml.

Mo Geochemical AA Setting

Lamp ASL H/C Mo

Current 5 #5 Slit 7A

Wavelength 3133 Dial 260.2

Fuel - Acetylene Flow 12.0 to give 1" red feather

Oxidant - Nitrous oxide Flow 14.0

Burner - AB 50 in line

Caution read the operation using N_2O and acetylene flame at
end of general AA procedure

Range

0 - 10 gamma/ml Factor 2x - 0 to 200 ppm

Rotate burner to max. angle

0 - 50 gamma/ml Factor 10 x 0 to 1000 ppm

0 - 100 gamma/ml Factor 20 x 0 to 2000 ppm

Standards 1000 gamma/ml

Dissolve .750 gms MoO_3 (acid molybdic) with 20 mls H_2O , 6
lumps NaOH, when all dissolved, add 20 mls HCl, dilute to 500 mls
100 gamma/ml - 10 x dilution

Pipette

.2, .5, 1, 2, 3, 5, 8, 10 mls of 100 gamma/ml

2, 3, 5, 8, 10 mls of 1000 gamma/ml add 5 mls 10% $AlCl_3$
and dilute to 100 mls with 20% $HClO_4$

This gives

.2, .5, 1, 2, 3, 5, 8, 10, 20, 30, 50, 80, 100 gamma/ml Mo

Fe Geochemical AA Setting

Lamp - Fe

- Do not use multi element Fe

Current 10 #4 Slit 2A

Wavelength 3440.6 Dial 317.5

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - PE Short Path 90°

Range

0 - 5000 gamma/ml 0.1 x % - 0 to 10.0%

0 - 10,000 gamma/ml 0.2 x % - 0 to 20.0%

Higher Fe - 10 x dilution

Standards 10,000 gamma/mlWeigh 5.000 gms iron wires, into beaker, add H₂O, HCl, HNO₃,HClO₄, heat to HClO₄ fumes. Add HClO₄ to 100 mls + 100 mlsH₂O, warm, dilute to 500 mls

Pipette

1, 5, 10, 20, 30, 50, 80 mls 10,000 gamma/ml dilute to 100
mls with 20% HClO₄ to give100, 500, 1000, 2000, 3000, 5000, 8000 gamma/ml to be
equivalent to .2, 1.0, 2.0, 4.0, 6.0, 10.0%, 16.0% Fe in geochem
sample

Ni Geochemical AA Setting

Lamp P.E. H/C. Ni or multi element Cu, Ni, Co, Mn, Cr

Current 10 #4, Slit 2A

Wave length 3415 Dial 312.5

Fule - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner AB 51 in line

Range

0 - 20 gamma/ml Factor 4x - 0 - 400 ppm

0 - 100 gamma/ml Factor 20x - 0 - 2000 gamma

45° 0 - 200 gamma/ml Factor 40x - 0 - 4000 ppm

0 - 500 gamma/ml Factor 100x - 0 - 10,000 ppm

Ni in waters and very low ranges

Wave length 2320 Dial 118

Range 0 - 5 gamma/ml Factor 1x - 0 - 100 ppm

Standards 10,000 gamma/ml

1.000 gm pure Ni metal dissolved in HCl, HNO₃, HClO₄ to perchloric fumes, dilute to 100 ml H₂O

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% HClO₄

1, 2, 5, 8, 10 mls of 100 gamma/ml

2, 5, 8, 10 mls 1000 gamma/ml

2, 5, 8, 10 mls 10,000 gamma/ml - dilute to 100 mls in 20%

HClO₄. This gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200, 500, 800, 1000 gamma/ml

Combined Standards - Cu, Ni, Co, Pb, Zn is used as a working standard

Cu Geochemical AA Setting

Lamp Single Cu or

5 multi element

Current 10 for multi element #4 Slit 7A

4 for single #3 Slit 7A

Wavelength 3247 Dial 280

Burner Techtron AB 51 (For Cu in natural waters)

P.E. Short Path (For geochem)

Fuel Acetylene Flow 14

Oxidant Air Flow 14

Range

0 - 5 gamma/ml Factor 1x to 100 ppm (for low Cu)

0 - 20 gamma/ml Factor 4x to 400 ppm

Burner 90°

0 - 200 gamma/ml Factor 40x to 4000 ppm

Wavelength 2492 Dial 147

Burner in line

Range

0 - 1000 gamma/ml Factor 200x to 20,000 ppm

0 - 2000 gamma/ml Factor 400x to 40,000 ppm

Higher range than 40,000 ppm requires 10x dilution

Standards

10,000 gamma/ml

1.000 gm metal powder, H₂O, HCl, HNO₃ until dissolved, add

HClO₄, fume dilute to 100 mls

1000 gamma/ml 10x dilution above in 20% HClO₄

2000 gamma/ml 20 mls 10,000 gamma/ml - dilute to 100 mls in
20% HClO₄

100 gamma/ml 10x dilution 1000 gamma/ml dilute to 100 mls in
20% HClO₄

200 gamma/ml 10x dilution 2000 gamma/ml dilute to 100 mls in
20% HClO₄

Pipette

1, 2, 3, 5, 8, 10 mls 100 gamma/ml - dilute to 100 mls with
20% HClO₄ to give 1, 2, 3, 5, 8, 10 gamma/ml

Combined standards Cu, Ni, Co, Pb, Zn

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml

Pb Geochemical AA Setting

Lamp ASL H/c Pb

Current 5 ma Slit 7A

Wave length 2833 Dial 208

Fuel - acetylene Flow 14

Oxidant - air Flow 14

Burner AB 51 in line

Range

0 - 20 gamma/ml to read 0 to 80. Factor 5x 0 to 500 ppm

0 - 200 gamma/ml to read 0 to 80. Factor 50x 0 to 5000 ppm

Standards - 10,000 gamma/ml

1.000 pure metal, dissolved in HNO₃, fumed to HClO₄ make up to 100 mls in 20% HClO₄

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% HClO₄

Pipette

1, 2, 5, 8, 10 mls 100 gamma/ml

2, 5, 8, 10, 20 mls 1000 gamma/ml dilute to 100 mls in 20%

HClO₄ this gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200 gamma/ml

Combined Standards Cu, Ni, Co, Pb, Zn, are used as working standards

W in Soils and Silts

Reagents and apparatus

Test tubes - pyrex disposable

Test tubes - screw cap

Bunsen Burner

Flux - 5 parts Na_2CO_3

4 parts NaCl

1 part KNO_3 pulverized to -80 mesh

7% SnCl_2 in 70% HCl

20% KSCN in H_2O

Extractant - 1 part tri-n-butyl phosphate

9 parts carbon tetrachloride

Standards

1000 gamma/ml W

.18 gms $\text{Na}_2\text{WO}_4 \cdot 2\text{H}_2\text{O}$ dissolved in H_2O , make up to 100 mls

100 gamma/ml, 10 gamma/ml by dilution

Standardization

Pipette .5, 1, 2, 3, .5, 8, 10 ml of 10 gamma/ml

and 1.5, 2 mls of 100 gamma/ml - dilute to 10 mls

continue from step #4

Artificial colors - Nabob pure Lemon Extract, dilute with 1:1 ethanol and water to match. Tightly seal these for permanent standards

Procedure

1. Weigh 1.0 gram sample, add 2 gm flux, mix

2. Sinter in rotary for 2 to 3 minutes (Flux dull red for one minute)
3. Cool, add 10 mls H_2O , heat in sand bath to boiling, cool, let sit overnight
4. Stir, crush, and mix. Let settle
5. Take 2 ml aliquot into screw cap test tube
6. Add 7 mls $SnCl_2$, heat in hot water bath for 5 minutes ($80^\circ C$)
7. Cool to less than $15^\circ C$
8. Add 1 ml 20% $KSCN$, mix (if lemon yellow; compare color standard 10x)
9. Add $\frac{1}{2}$ ml extractant, cap, shake vigorously 1 minute
10. Compare color

Molybdenum in Water Samples

1. Transfer 50 mls to 125 separatory funnel
2. Add 5 ml .2% ferric chloride in conc HCl
3. Add 5 mls of mixed KSCN and SnCl₂
4. Add 1.2 mls isopropyl ether, shake for 1 minute, and allow phases to separate
5. Drain off water
6. Compare the color of extractant

Standardization

Pipette 0, .2, .5, 1, 2, 3, 4, 5, mls of 1 gamma/ml and 1, 1.5, 2, mls of 10 gamma/ml dilute to 50 mls with demineralized H₂O, and continue step #2.

This equivalent to -

1, 4, 10, 20, 40, 60, 80, 100, 200, 300, 400 ppb Mo

Artificial color - Nabob orange extract dilute with 1:1 H₂O to methanol to match. Seal tightly

SnCl₂ - 15% in 15% HCl

300 gm SnCl₂ · 2H₂O + 300 mls HCl, until SnCl₂ dissolved
dilute to 2 liters

KSCN - 5% in H₂O

Mixed SnCl₂ - KSCN

3 parts SnCl₂ to 2 parts KSCN

Water Samples Run for AA

1. Cu - 2 gamma/ml reads 80 scale therefore 1 unit = 25 ppb
2. Zn - 1 gamma/ml reads full scale therefore 1 unit = 10 ppb
3. Ni - 2.5 gamma/ml reads 50 scale therefore 1 unit = 50 ppb

Burner: long slot techtron burner in line

Sulphate in Natural Waters

1. Pipette 0.5 ml sulphate reagent mix into a colorimetric tube
2. Add 5 ml water sample and mix
3. Read at 343 *mμ* against a demineralized water blank
4. Read again at 400 *mμ* and subtract from sulphate reading
5. Calculate ppm sulphate from the graph

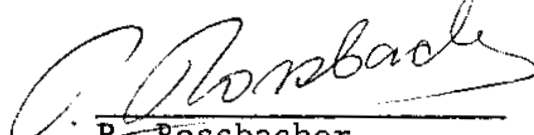
Reagent

Dissolve 54 grams red mercuric oxide (J.T. Baker 2620- Can Lab) in 185 ml 70% perchloric acid and 20 ml H₂O, shake for one hour. Add 46.3 grams ferric perchlorate [Fe(ClO₄)₃ · 6H₂O] (GFS 39) and 47 grams aluminum perchlorate [Al (ClO₄)₃ · 8H₂O] (GFS 2) Add 400 ml water to dissolve, let settle overnight, decant into bottle and make to 1 liter

pH MEASUREMENTS

Soil and drainage sediment samples are dampened with water in a glass beaker to a pasty consistency. Demineralized water is used for this purpose as it has a low buffer capacity and thus does not influence the pH of the sample. Measurement is made with a Fisher Acument pH meter. Electrodes are stored in buffer overnight. A 30 minute warm up time is allowed for the instrument each morning. A 10 ml aliquot is taken from water samples for pH measurement.

ROSSBACHER LABORATORY



P. Rossbacher

APPENDIX V

CONTRACTOR INVOICES & CONTRACT

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
 BURNABY, B. C.
 CANADA
 TELEPHONE: 299-6910
 AREA CODE: 604

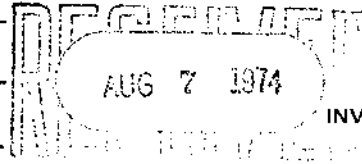
AMAX

AMAX EXPLORATION INC.

601-535 THURLOW STREET

VANCOUVER, B.C.

re.



DATE Aug 5, 1974

INVOICE NO. 4066

VANCOUVER CERTIFICATE NO. 4055 and 4070

project # 567/631, order #^s 1977, and 1995

No. 810 No.

ITEM	DESCRIPTION	SUB-TOTAL	TOTAL
263	Geochem. analysis, 2 elements, @ \$ 1.40	\$ 366.20 ✓	
263	" prep. 0.10	26.30 ✓	
	Freight as per inclosed invoice	25.00 ✓	
			<u>\$ 417.50</u> ✓

APPROVED	DATE
Project	Exp. Date
631	8691
AMOUNT	
	417.50
CK # 3501	AUG 15 '74

TERMS - NET 30 DAYS

TERMS - NET 30 DAYS

Rossbacher Laboratory

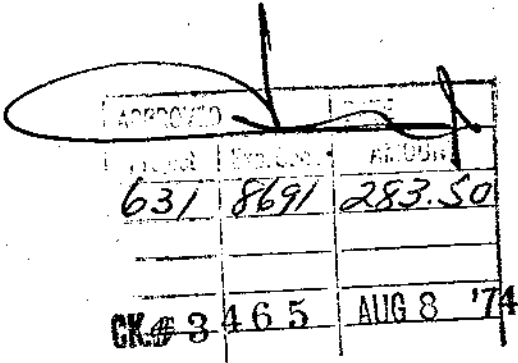
GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
 BURNABY, B. C.
 CANADA
 TELEPHONE: 299-6910
 AREA CODE: 604

~~AMAX EXPLORATION INC.~~
~~601-535 THURLOW STREET~~
~~VANCOUVER, B.C.~~
 re. project # ~~5877631~~, order # 1967 ✓

AMAX
 RECEIVED
 AUG 7 1974
 VANCOUVER OFFICE

DATE Aug. 5, 1974
 INVOICE NO. 1076
 CERTIFICATE NO. 4066

ITEM	DESCRIPTION	SUB-TOTAL	TOTAL
189	Geochem analysis , 2 elements @ \$ 1.40	\$ 264.60 ✓	
189	" prep 0.10	18.90 ✓	
			
			\$ <u>283.50</u> ✓

TERMS - NET 30 DAYS

AMAX

AUG 29 1974

Rossbacher Laboratory

VANCOUVER OFFICE

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

AMAX EXPLORATION INC.

601-535 Thurlow street

Vancouver B.C.

Project DEER PARK order 2008

DATE Aug 22, 1974

INVOICE NO. 4099

CERTIFICATE NO. 4090

ITEM	DESCRIPTION		SUB-TOTAL	TOTAL
243 ✓ 242 ✓ 1 ✓	Geochem. analysis, 2 elements Geochem. prep. Rock prep.	@ \$ 1.40 ✓ @ 0.10 ✓ @ 0.75 ✓	\$ 340.20 ✓ 24.20 ✓ 0.75 ✓	
				\$ 365.15 ✓ K

H. W. Sellman

APPROVED	DATE
Project	Exp. Exp.
3671	587
3573	SEP 4 '74

TERMS - NET 30 DAYS



STRATO GEOLOGICAL LTD.
 MINERAL EXPLORATION CONTRACTORS
 19 - 448 SEYMOUR STREET
 VANCOUVER 2, BRITISH COLUMBIA, CANADA

AMAX
 RECEIVED
 AUG 16 1974
 TELEPHONE 688-3141
 VANCOUVER OFFICE

August 8th, 1974.

In Account with -

Amax Exp. Ltd.,
 53 Thurlow Street,
 Vancouver, B.C.
 Attn. - Mary Laub.

Re: Deer-Park Linecutting Contract.

<u>Line</u>	<u>Footage</u>	<u>Line</u>	<u>Footage</u>	<u>Line</u>	<u>Footage</u>
B.L. 110-130	2000	Line 110	1600	Line 46E	5800
Line 112E	5600	108	1600	48E	2500
114	5600	106	1600	50E	2400 ^{s/b} ₂₃₀₀
116	5600	104	1600	52E	5800
118	5600	102	1600	54E	5800
120	5600	100	1600	56E	5800
122	5600	98	1600	58E	1800
124	5100	96	1600	60E	1800
126	5600	94	1600	62E	1800
128	5600	92	1600	64E	1800
130	<u>5600</u>	90	1600	66E	1800
	57500 ✓	88	1600	68E	1800
		86	1600		
		84	1600	B.L. 46 to 50 -	400
		82	<u>1600</u>		
			24000 ✓		<u>39800</u> ✓

TYPING ERROR
 (SEE M.G. LAUB
 MEMO)

Total Footage - 121,300 ft. ✓

22.97 ✓ miles x \$170 ✓ mi.

Account Paid

Account Receivable

= 22.97 mi. ✓

= ~~\$3894.98~~ 3904.90

= ~~2888.88~~ 2040.00

\$1894.98 1864.90 ✓

BY 3382
 (M.G. Laub)

APPROVED	H. W. Sellner	DATE
Project	Exp. No.	AMOUNT
587	8683	1864.90
3572		SEP 3 '74

M.G. Laub
 Aug. 26, 1974

AMAX EXPLORATION, INC.

A SUBSIDIARY OF AMERICAN METAL CLIMAX, INC.

PHONE (AREA CODE 604) 683-0474

#601-535 THURLOW STREET
VANCOUVER 5, BRITISH COLUMBIA

May 21, 1974

Strato Geological Ltd.,
Mineral Exploration Contractors,
19 - 448 Seymour Street,
Vancouver 2, B.C.

Attention: Mr. U. Leis

Gentlemen:

The following is the line cutting contract on our Deer Park Property near Castlegar, British Columbia. It is agreed that the job will be executed under the terms and conditions outlined below.

1. AMAX guarantees Strato Geological Ltd. twenty-four (24) line miles of line cutting work near Castlegar, British Columbia to commence on or about June 15, 1974.
2. Strato Geological Ltd. agrees to carry out line cutting, specifically to consist of cutting, chaining and picketing an extension of an existing base line 2,000 feet to the east (true) and 1,200 feet to the west (true) with north-south (true) cross-lines at 200 foot intervals as follows:

East Section

Cross lines 112+00E to 130+00E shall be cut from 20+00N to 36+00S of base line 70+00N. Cross lines 84+00E to 110+00E shall be cut from 20+00S to 36+00S of base line 70+00N.

West Section

Cross lines 46+00E to 56+00E shall be cut from 38+00N to 20+00S of base line 70+00N. Cross Lines 58+00E to 68+00E shall be cut from 38+00N to 20+00N of base line 70+00N.

The lines are to be run by compass or line-of-sight where this is necessitated by local magnetics or where deemed necessary by AMAX's representatives. Marked stations identified by writing on pickets shall be established every 100 feet horizontal distance on the base line and cross lines. Accuracy control shall be maintained by chaining in the ends of cross lines. All growth shall be cleared from the lines to a minimum width of three (3) feet. Deadfall shall be cut so it lies on the ground or removed. All slash shall be kept clear of the lines. Line cutting and slash disposal shall be carried out in accordance with Forest Service Regulations governing the area.

3. The basic fee for line cutting will be \$170.00 per line mile. There will be no charge for time-off taken by crew for any reason.

4. There will be no additional charges to AMAX. The basic fee includes transportation costs, accommodation and board, and supplies such as flagging, pickets, etc.

5. Strato Geological Ltd. shall be deemed a contractor, not an agent for AMAX, and, in addition, shall maintain in full force and effect at its expense during the performance of the survey the following insurance in amounts not less than those specified below:

- a) Workman's Compensation in accordance with the laws of the Province of British Columbia.
- b) Comprehensive General Liability Insurance with not less than bodily injury limits of \$100,000 per person and \$300,000 per occurrence and property damage limits of \$25,000 per accident, and
- c) Comprehensive Automobile Liability Insurance with not less than bodily injury limits of \$100,000 per person and \$300,000 per occurrence and property damage limits of \$25,000 per accident.

The above certificates shall stipulate that the policy shall not be reduced or cancelled during the period work is being done for AMAX unless ten (10) days prior written notice is furnished to AMAX at its Vancouver Office.

6. Indemnification: Strato Geological Ltd. agrees to indemnify and save harmless personnel of AMAX against any and all loss and expense including attorney's fees and other legal expenses, by reason of liability imposed or claimed to be imposed by law upon AMAX for damages because of bodily injuries, including death, at any time resulting from, or on account of damage to property sustained by any person or persons arising out of or in consequence of the performance of work called for by this agreement.

7. Invoices for all fees and expenses, pursuant to clauses 3 and 4 will be submitted, in duplicate, to the AMAX Vancouver Office in two installments 1. when 50% of the work is completed and 2. immediately following completion of the work. An additional two copies of the invoice will be forwarded to the AMAX representative in charge of the project for his field approval. AMAX will pay all such invoices promptly on receipt of field approval.

Agreed to by:

Uno Lee

Strato Geological Ltd.

H. W. Sellmer

Amax Exploration, Inc.

Date: May 22, 1974

MGL/b

STATEMENT OF QUALIFICATIONS

NAME: VERENA I. SELLMER

EDUCATION: South Okanagan High School - Graduated 1973
1st Year Arts - University of British Columbia

STATEMENT OF QUALIFICATIONS

RANDI VICTORIA SMITH - 1860 Queens Avenue, West Vancouver

EDUCATION - University of British Columbia 2nd Year Arts
(including courses in Paleontology and
Sedimentology)

APPENDIX IV

STATEMENT OF COST

APPENDIX IV

STATEMENT OF COST

PERIOD OF WORK - June 18 - August 13, 1974

SUMMARY OF WORK - 23 line miles, linecutting, Geological, Geochemical
& Geophysical Surveys

23 miles line cutting by Strato Geological Ltd., 448 Seymour St.
Vancouver, B.C. @ \$170.00/mile \$ 3,904.90

Personnel-Salaries

M.G. Laub, Geologist - 601-535 Thurlow St. Vancouver	
- 10 days @ \$53.57/day	535.70
K.E. Wallace, Sr. Assist. - 16 Millgate Cres. Willowdale, Ont.	
- 30 days @ \$27.36/day	820.80
V.I. Sellmer, Jr. Assist. - R.R.#1, Osoyoos, B.C.	
- 28 days @ \$18.81/day	526.68
R.V. Smith, Jr. Assist. - 1860 Queens Ave. W. Vancouver	
- 2 days @ \$18.81/day	37.62
L.L. LeBel, Geophysicist - 601-535 Thurlow St., Vancouver	
- 7 days @ \$55.56	388.92

Soil Sample Analysis - 634 soils, 2 elements @ \$1.50 951.00

Magnetometer Rental - 7 days @ \$15.00/day 105.00

Vehicle Rental - 30 days @ \$20.00/day 600.00

Accommodation & Board - 77 man days @ \$15.00/day 1,155.00

Report Preparation & Drafting - 500.00

\$ 9,525.60

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **5196** MAP

60+00 N

50+00 N

L 46+00 E

L 50+00 E

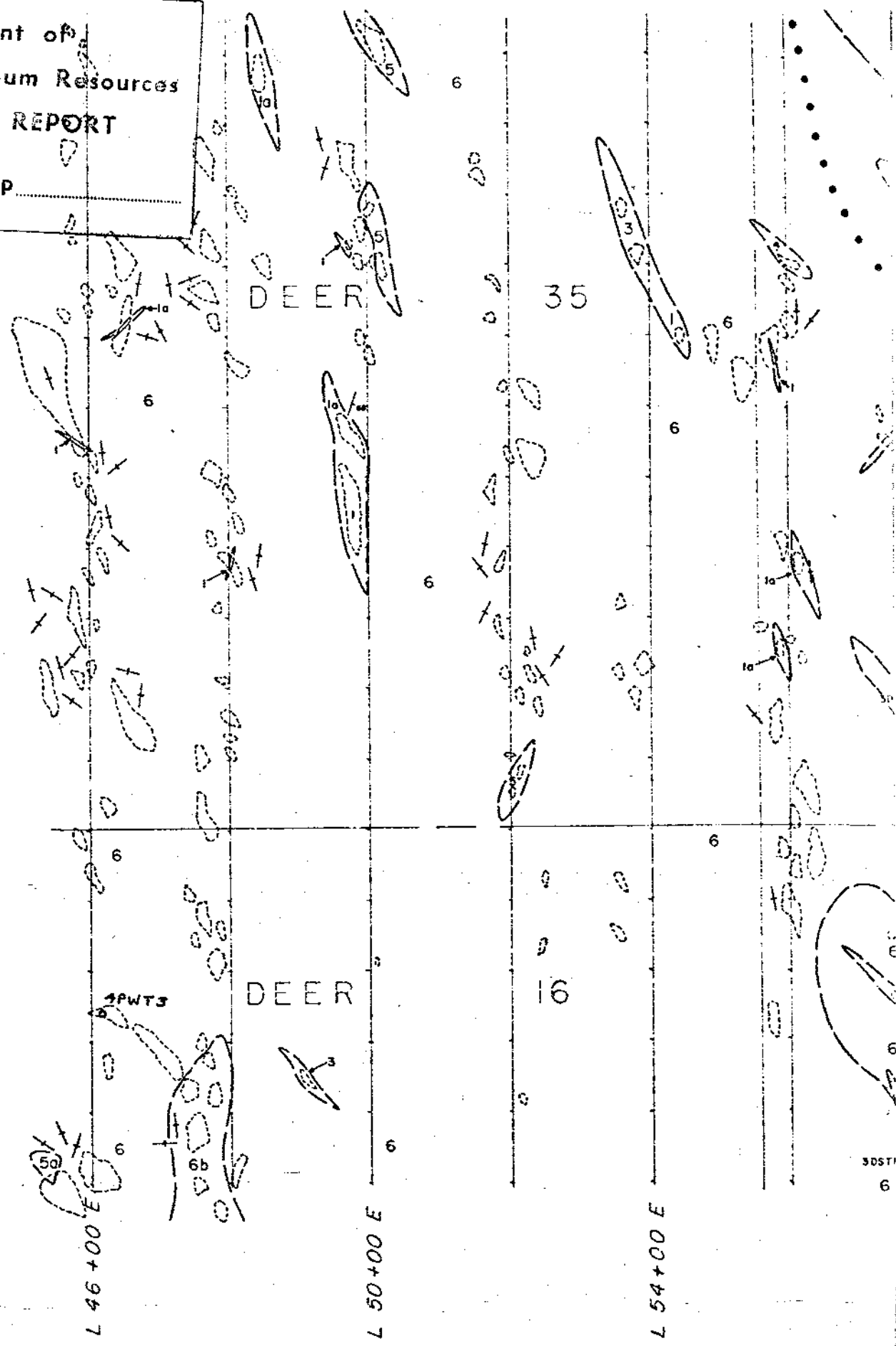
L 54+00 E

DEER

DEER

35

16



30571
6

5196

AMAX EXPLORATION, INC.

A SUBSIDIARY OF AMERICAN METAL CLIMATE
PHONE (AREA CODE 604) 683-0474

#601-535 THURLOW STREET
VANCOUVER 5, BRITISH COLUMBIA

November 5, 1974

File No. 166-Trail Creek

ADMIN (R77)			
ADMIN			
DGGC			
C.P.R.			
DGGC			
ACPR			
G.C.			
ACCTS.			
GEOLOG.			
INSP.			
M. REV.			
EC. & P.			
FILING CLERK			

Mr. E.J. Bowles,
Chief Gold Commissioner,
Mineral Resources Branch,
Dept. of Mines & Petroleum Resources,
Victoria, B.C.

Dear Mr. Bowles:

11838

Re: DEER, CAMEL, PARK Mineral Claims
Geological-Geochemical-Geophysical Report #5196

In regard to your letter of November 1, 1974, I have enclosed the map section with the location of the sample in question. A more precise location would read 46+15E, 52+50N.

The molybdenite occurs in the monzonite host rock (Unit 6) as described in the report.

I trust your query is satisfactorily answered.

**Department of
Mines and Petroleum Resources
ASSESSMENT REPORT**

NO. **5196** MAP

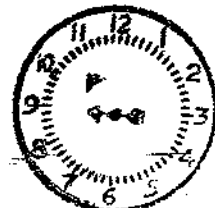
Yours very truly,
AMAX EXPLORATION, INC.

M.G. Laub

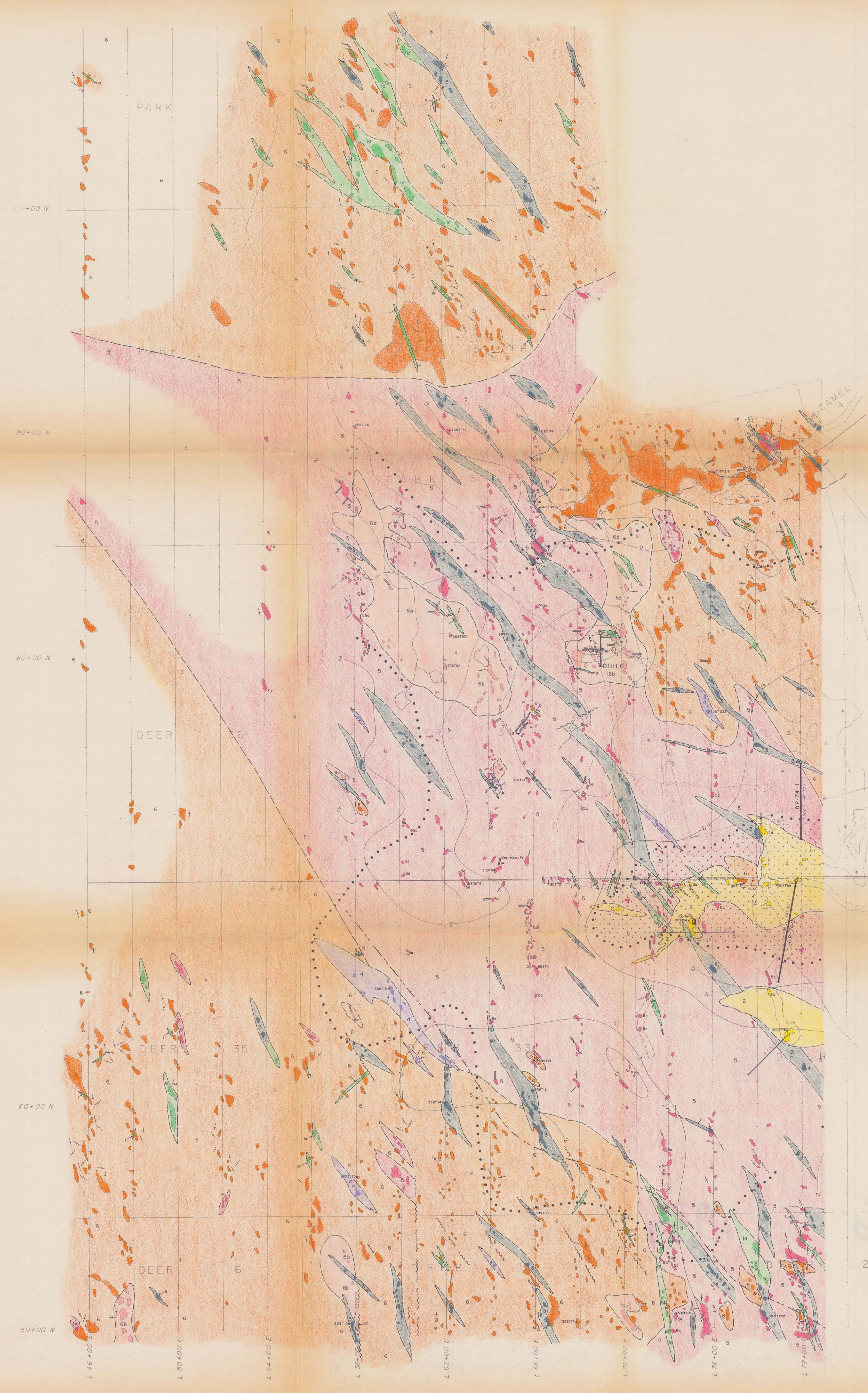
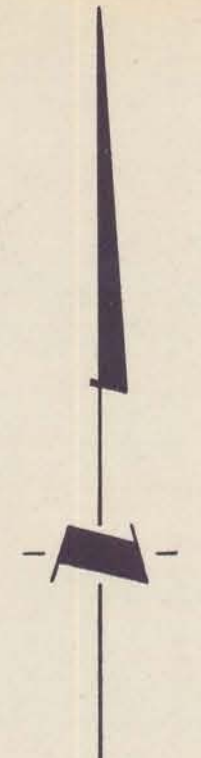
M.G. Laub

NOV 7 '74 AM

MGL/b
Enclosure
cc: Mining Recorder,
Rossland, B.C.



DEPT. OF MINES



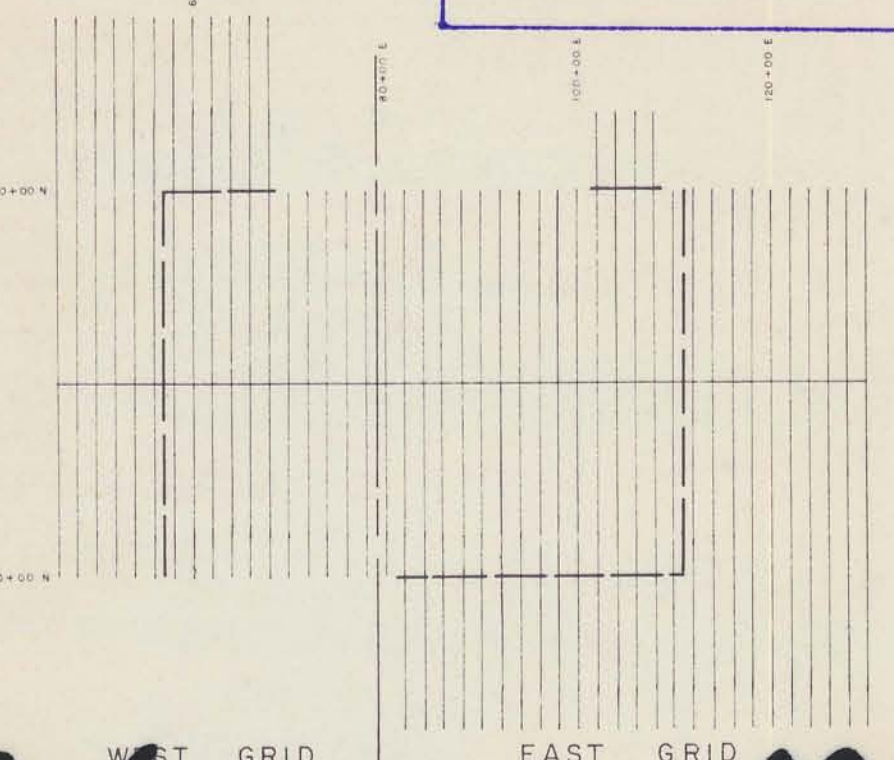
LEGEND

- 1 Andesite.
 - 1a Andesite with feldspar phenocrysts.
- 2 Breccia.
 - 2a Magnetite rich breccia.
- 3 Pink and grey syenite porphyry.
- 4 Feldspar biotite porphyry.
- 5 Aphanitic feldspar porphyry.
 - 5a Feldspar quartz porphyry.
 - 5b Rhyolite.
- 6 Coarse grained biotite hornblende monzonite.
 - 6a Fine to medium grained monzonite to quartz monzonite.
 - 6b Medium to fine grained quartz monzonite.

SYMBOLS

- Shaft
- Diamond drill hole (West Coast Mining and Exploration), number, dip.
- Diamond drill hole (Amax Exploration Inc.), number, collar dip, length.
- Road.
- Stream.
- Swamp, swamp boundary.
- Cliff.
- Claim post, claim location line.
- Claim boundary.
- Outcrop, suboutcrop and/or boulder.
- Geological contact (defined, assumed).
- Fault or linear.
- Fracture, joint.
- Vein.
- Glacial striae.
- Hand specimen, number.
- Limit of observed pyrite, area of >1/2% observed pyrite.
- Limit of magnetite in fractures and veins.
- Vein/ff contour of observed quartz and quartz magnetite veins.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5196 MAP #3B



5196 — KEY — M3B

M. J. Laub

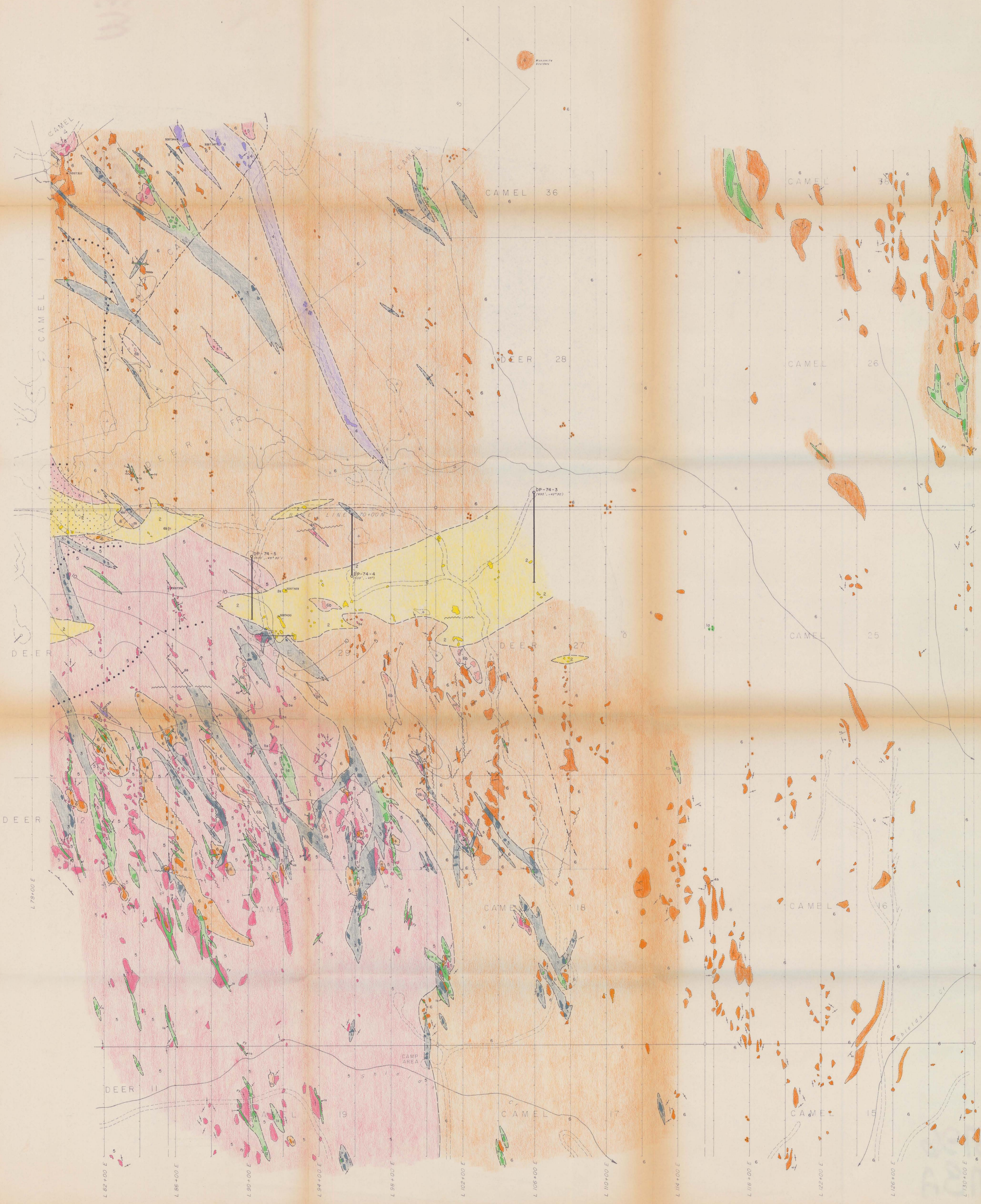
AMAX EXPLORATION INC.
DEER PARK PROPERTY
TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA

**GEOLOGICAL MAP
WEST GRID**

SCALE 200 0 200 FEET
1:2,400

DATE	Drawn by H.C.P.	FIG. 3b
REVISED	Date	
APPROVED	N.T.S. File	
	82 E B	

To accompany: "1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT" by M.G. Laub and J.L. LeBel.

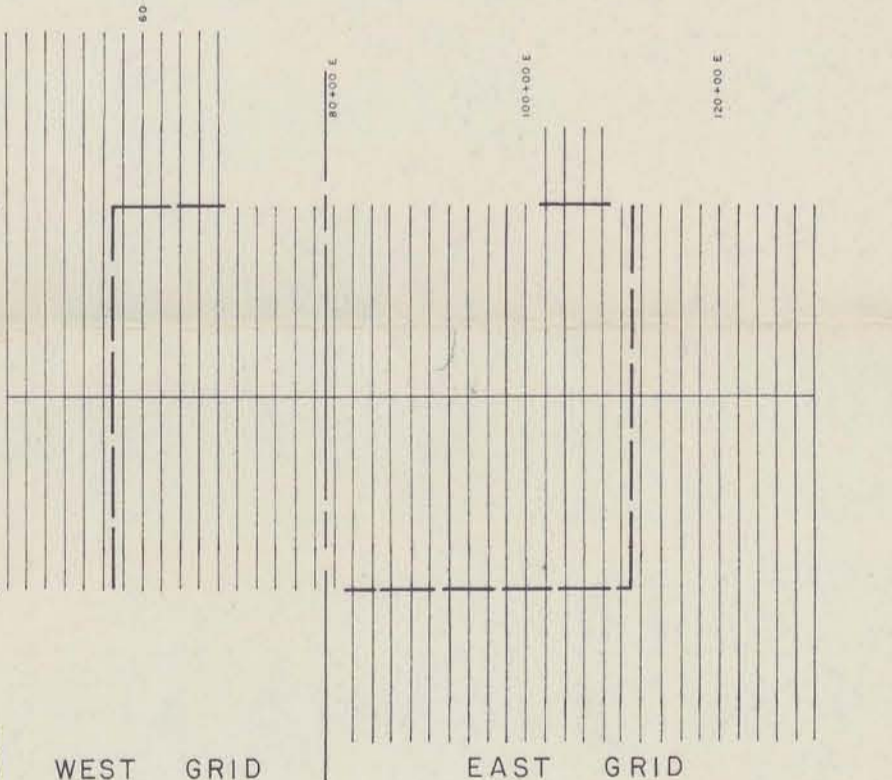


LEGEND

- 1 Andesite.
- 1a Andesite with feldspar phenocrysts.
- 2 Breccia.
- 2a Magnetite rich breccia.
- 3 Pink and grey syenite porphyry.
- 4 Feldspar biotite porphyry.
- 5 Aphanitic feldspar porphyry.
- 5a Feldspar quartz porphyry.
- 5b Rhyolite.
- 6 Coarse grained biotite hornblende monzonite.
- 6a Fine to medium grained monzonite to quartz monzonite.
- 6b Medium to fine grained quartz monzonite.

SYMBOLS

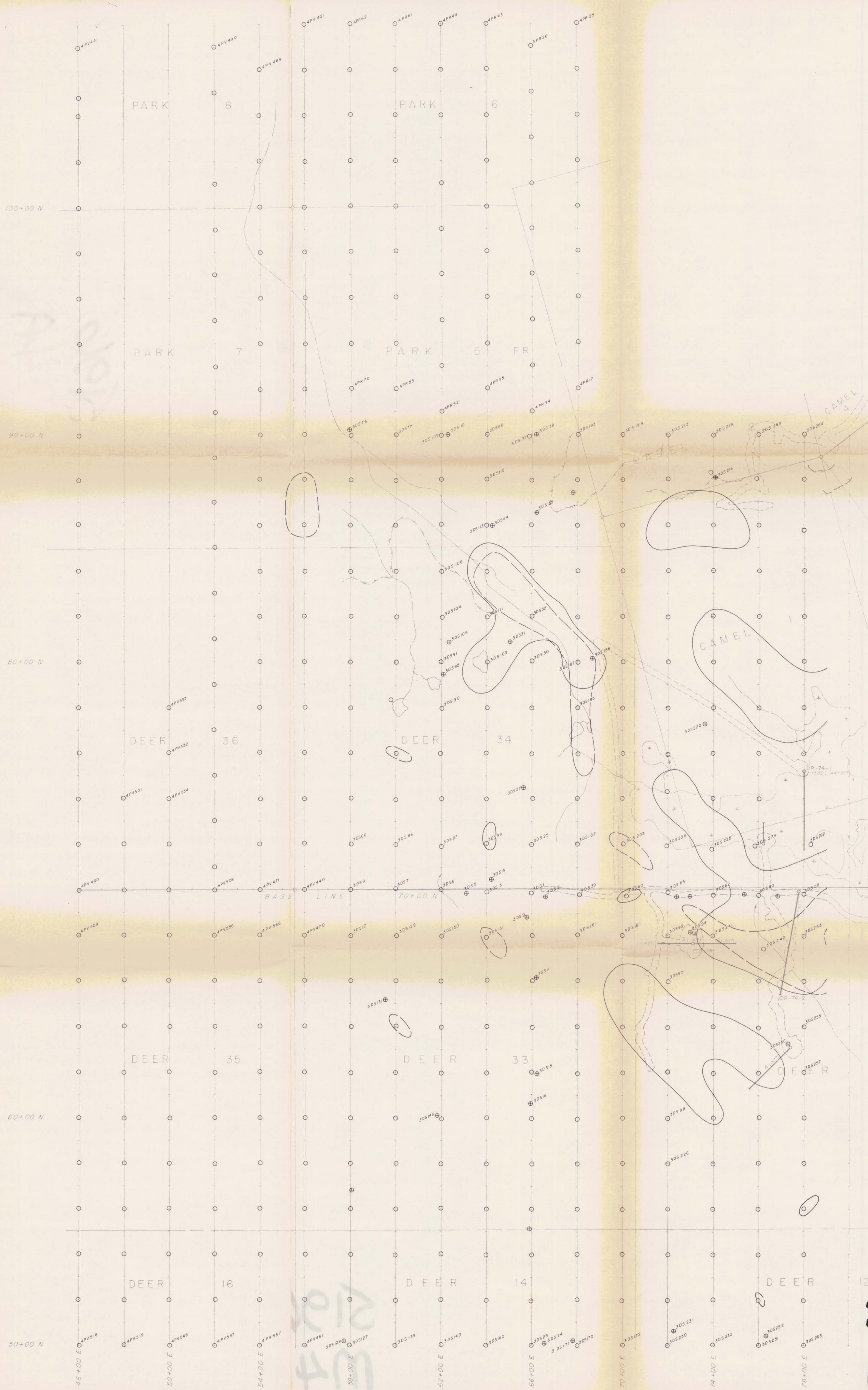
- Shaft
- Diamond drill hole (West Coast Mining and Exploration), number, dip.
- Diamond drill hole (Amax Exploration Inc.), number, collar dip, length.
- Road.
- Stream.
- Swamp, swamp boundary.
- Cliff.
- Claim post, claim location line.
- Claim boundary.
- Outcrop, suboutcrop and/or boulder.
- Geological contact (defined, assumed).
- Fault or linear.
- Fracture, joint.
- Vein.
- Glacial striae.
- Hand specimen, number.
- Limit of observed pyrite, area of >1/2% observed pyrite.
- Limit of magnetite in fractures and veins.
- Vein/ft contour of observed quartz and quartz magnetite veins.



Department of
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ASSESSMENT REPORT
NO. 5196 MAP #3A

5196
M3A

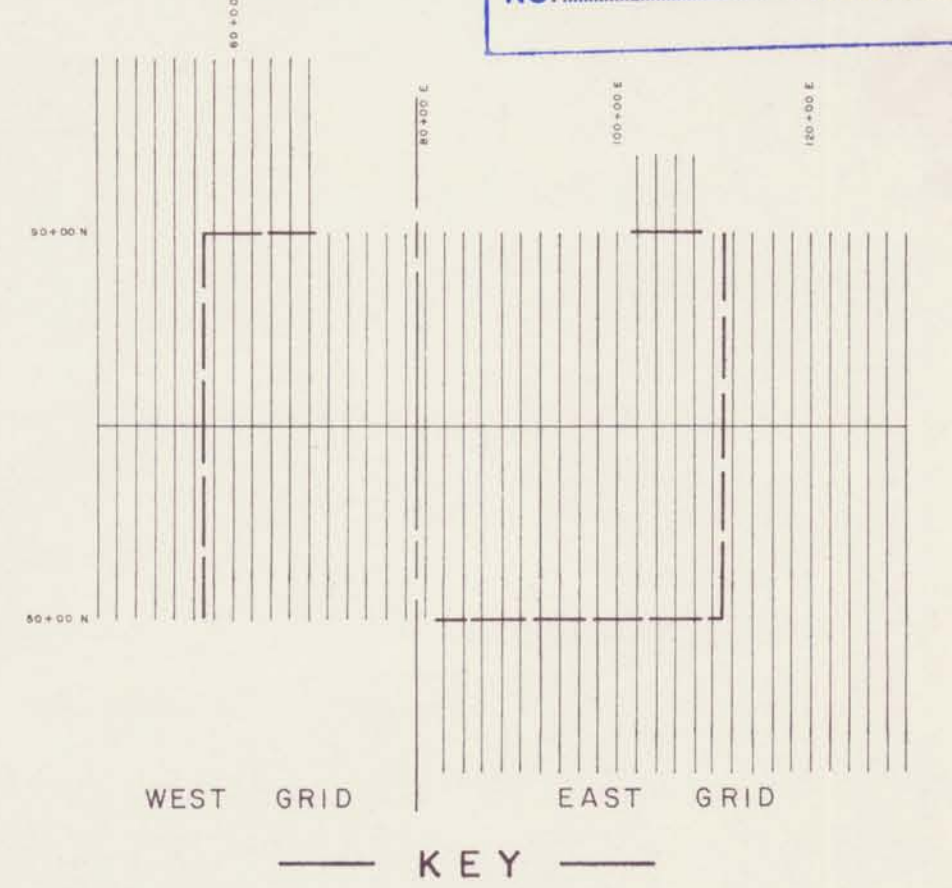
AMAX EXPLORATION INC.
DEER PARK PROPERTY
TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA
**GEOLOGICAL MAP
EAST GRID**
SCALE 1:2400 FEET
DATE: _____ DRAWN BY: H.C.F.
REVISED: _____ CHECKED BY: N.T.S. FILE: 52E8
To accompany "1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT" by M.G. Laub and J.L. LeBel



LEGEND

- Shaft
- Diamond drill hole (West Coast Mining and Exploration), number, dip.
- DP-74-5 Diamond drill hole (Amax Exploration Inc.), number, collar dip, length.
- Road
- ~ Stream
- ~ Swamp, swamp boundary
- ~ Cliff
- Claim post, claim location line
- Claim boundary
- 4PV 532 Soil sample site, sample number.
- ⊕ 305 27 Rock chip sample site, sample number.
- Limit of samples with >30 p.p.m. Mo
- Limit of samples with >100 p.p.m. Cu

Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **5196** MAP # **4B**



5196
M4B

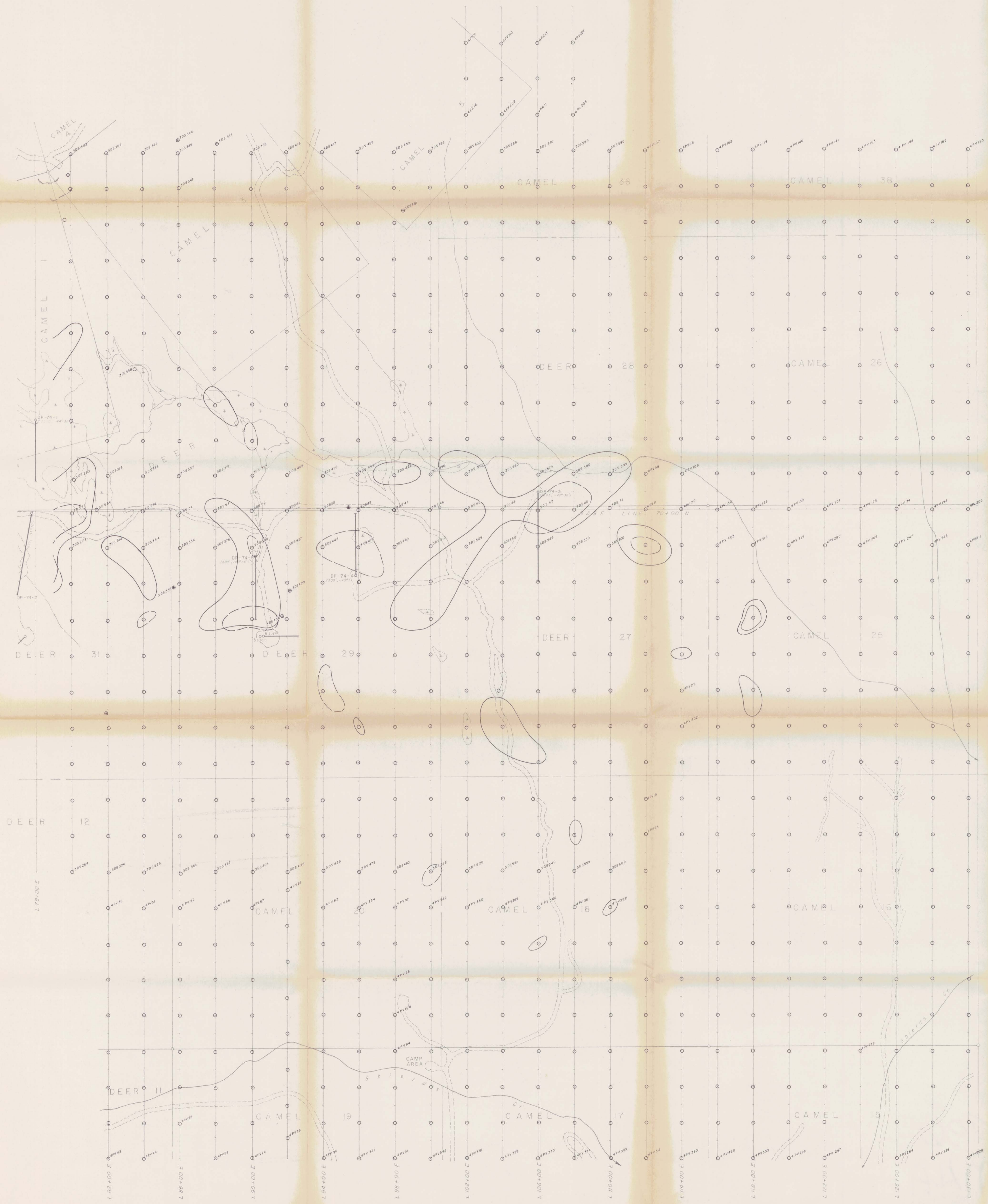
AMAX EXPLORATION INC.
DEER PARK PROPERTY
TRAIL CREEK MINING DIVISION - BRITISH COLUMBIA
GEOCHEMICAL ANOMALY MAP
WEST GRID

SCALE 1:2400 FEET

DATE REVISION	DATE PRINTED	DATE	Drawn by: H.C.P.
			N.T.S. File
			82 E B

To accompany "1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT" by M.G. Laub and J.L. LeBel

FIG. 4b



- LEGEND**
- Shaft
 - Diamond drill hole (West Coast Mining and Exploration), number, dip.
 - Diamond drill hole (Amax Exploration Inc.), number, collar dip, length.
 - Road
 - Stream
 - Swamp, swamp boundary
 - Cliff
 - Claim post, claim location line
 - Claim boundary
 - Soil sample site, sample number
 - Rock chip sample site, sample number
 - Limit of samples with >30 p.p.m. Mo
 - Limit of samples with >100 p.p.m. Cu



Department of
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ASSESSMENT REPORT
NO. 5196 MAP #4A

5196
M4A

AMAX EXPLORATION INC.
DEER PARK PROPERTY
TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA
GEOCHEMICAL ANOMALY MAP
EAST GRID

SCALE 1:2400 FEET

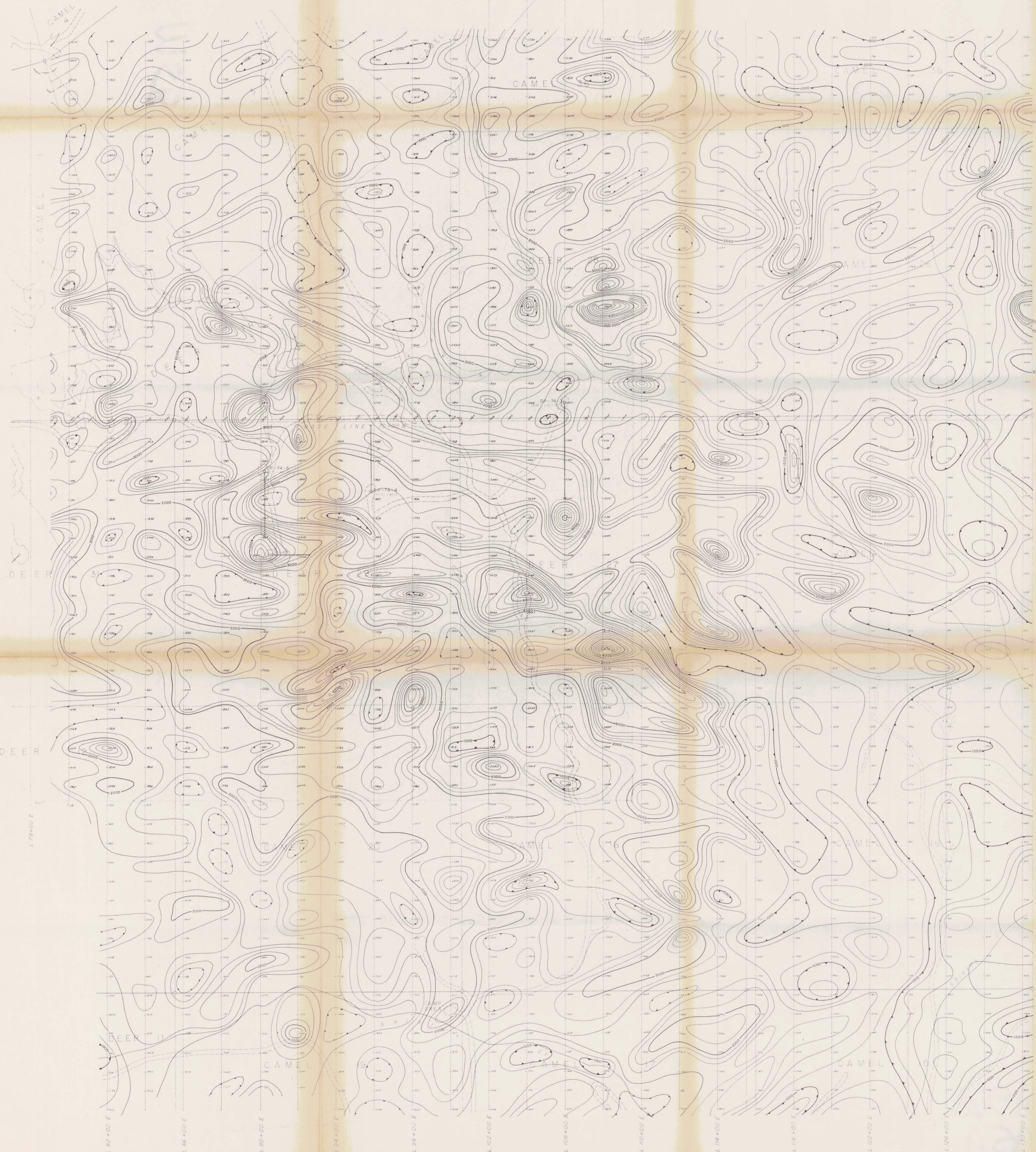
DATE	REVISED	DATE	REVISED

Drawn by H.C.P.
Date
N.T.S. F118
B2 E R

FIG. 4a

To accompany: 1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT by M.G. Laub and J.L. LeBel

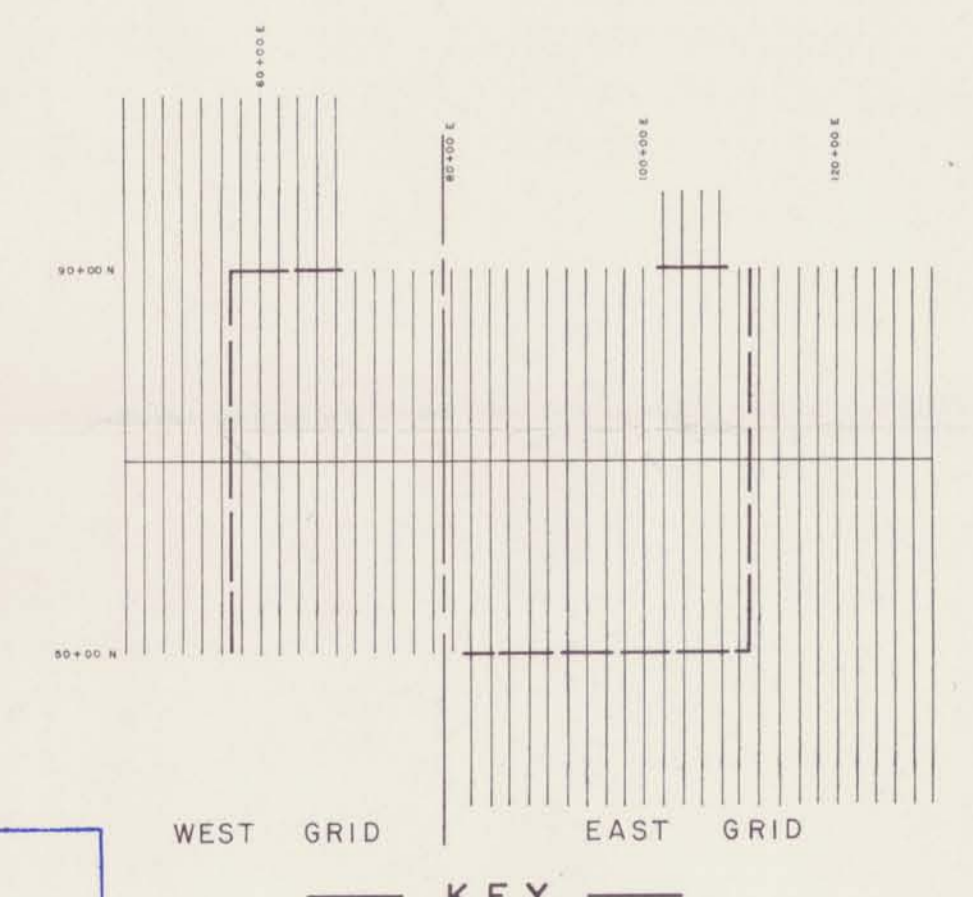
2012



LEGEND

- Shaft
- Diamond drill hole (West Coast Mining and Exploration), number, dip.
- Diamond drill hole (Amax Exploration Inc.), number, collar dip, length.
- Road
- Stream
- Swamp, swamp boundary
- Cliff
- Claim post, claim location line
- Claim boundary
- Magnetometer survey readings in gammas
- Isomagnetic contour
- Magnetic low

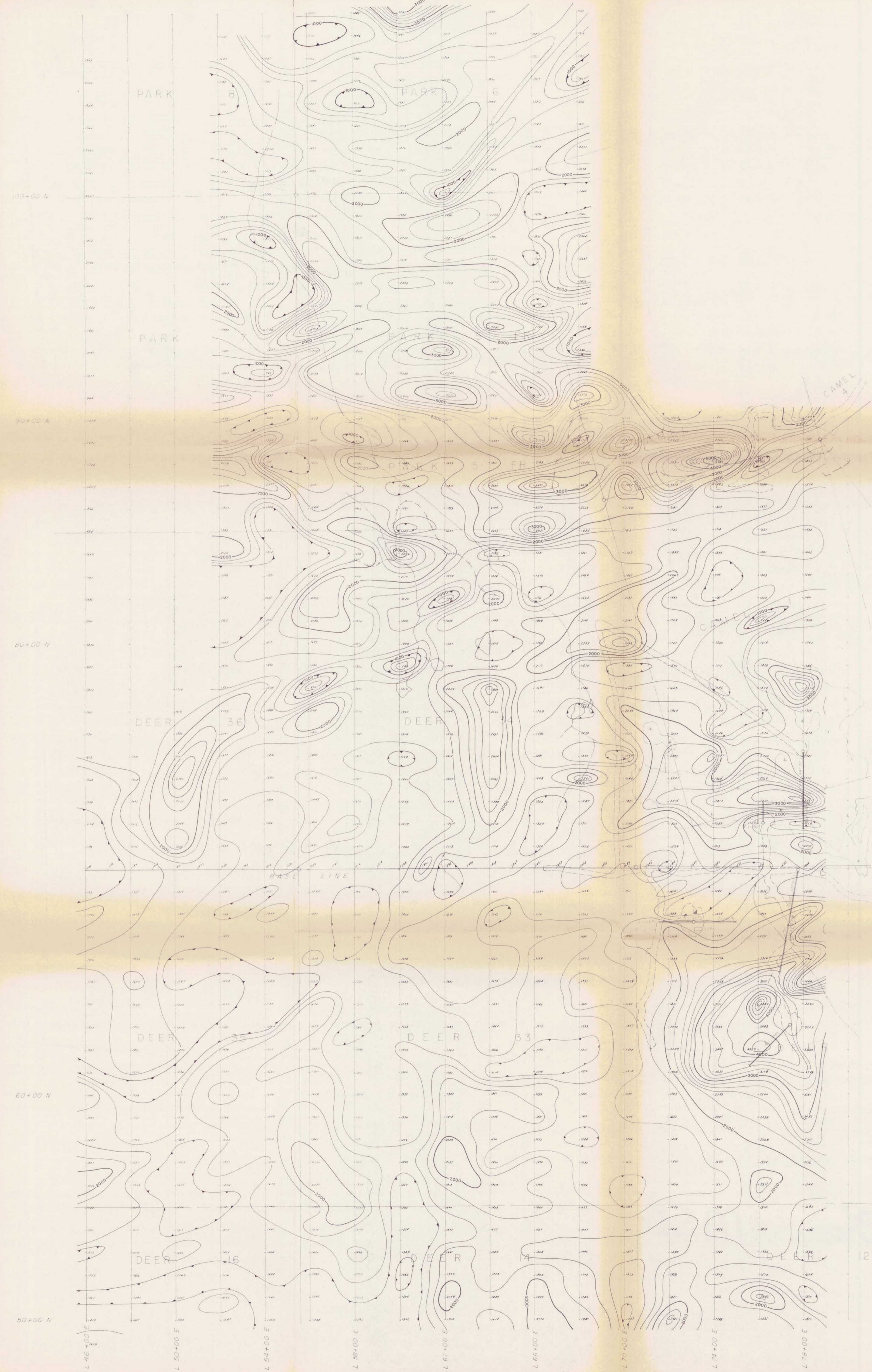
INSTRUMENT Geometrics 816 Proton Precession Magnetometer
 MEASUREMENT Total Field
 OPERATOR G. M. DePaoli J. L. LeBel
 DATE Nov 1975 Aug 1974
 ABSOLUTE BASE VALUE 57,000 gammas
 CONTOUR INTERVAL 200 gammas



Department of
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 NO. 5196 MAP #5A

5196
MSA

AMAX EXPLORATION INC.
 DEER PARK PROPERTY
 TRAIL CREEK MINING DIVISION — BRITISH COLUMBIA
MAGNETOMETER SURVEY
EAST GRID
 SCALE 1:2,400 FEET
 DATE: _____ DRAWN BY: H.C.P.
 REVISIONS: _____ GATE: _____
 N.T.S. FILE: 82 E 8
 FIG. 50
 To accompany: "1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT" by M.G. Laub and J.L. LeBel

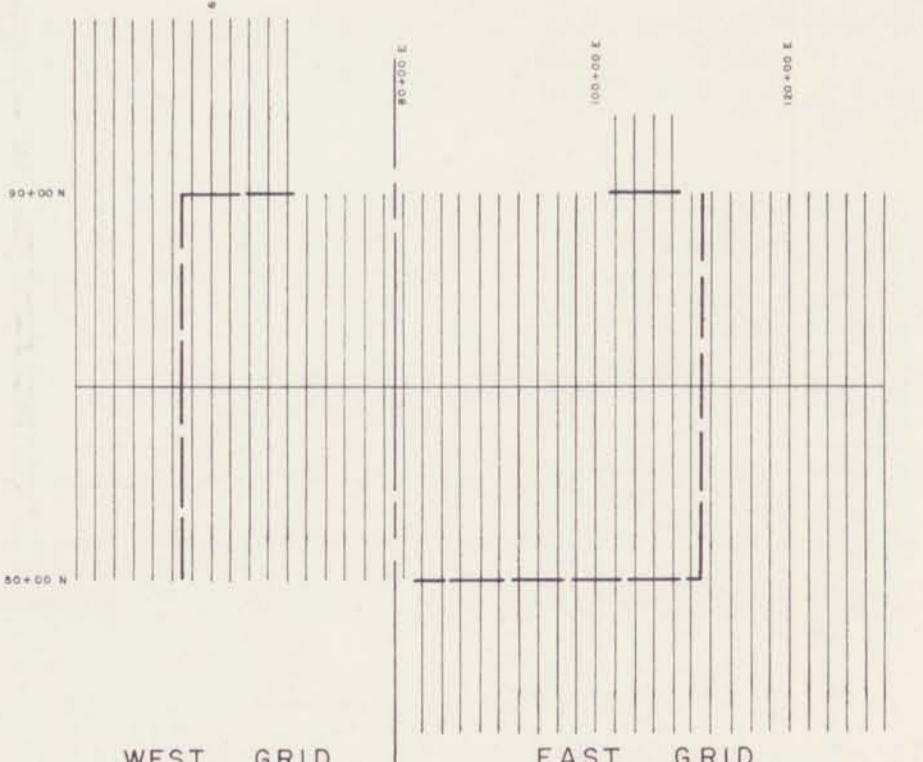


LEGEND

- Shaft
- Diamond drill hole (West Coast Mining and Exploration), number, dip
- ⌋ Diamond drill hole (Amax Exploration Inc.), number, collar dip, length
- Road
- ~ Stream
- ⌋ Swamp, swamp boundary
- ⌋ Cliff
- Claim post, claim location line
- Claim boundary
- ⌋ Magnetometer survey readings in gammas
- Isomagnetic contour
- ⌋ Magnetic low

INSTRUMENT Geometrics B16 Proton Precession Magnetometer
 MEASUREMENT Total Field
 OPERATOR G M DePaoli J L LeBel
 DATE Nov. 1973 Aug 1974
 ABSOLUTE BASE VALUE 57,000 gammas
 CONTOUR INTERVAL 200 gammas

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 No. 5196 MAP #5B



5196 KEY MSB

AMAX EXPLORATION INC.
 DEER PARK PROPERTY
 TRAIL CREEK MINING DIVISION - BRITISH COLUMBIA
MAGNETOMETER SURVEY
WEST GRID
 SCALE 1:2,400
 DATE PRINTED _____ Drawn by: H.C.F.
 DATE _____ Date _____
 N.T.S. File 82 E B
 FIG. 5b

To accompany: "1974 GEOLOGICAL, GEOCHEMICAL AND GEO-PHYSICAL REPORT" by M.G. Laub and J.L. LeBel