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2629

GEOCHEMICAL REPORT

on the

TAR CLAIMS #13, #14, #15 & #16

near the

SKUHUN CREEK

KAMLOOPS MINING DIVISION B.C.

Latitude 50° 17' N 50° 17 - 17½'
Longitude 121° 06' W 121° 04 - 05'

(Dates: 5th August to 11th August 1970)

for the

HIGHLAND VALLEY MINES LTD. (N.P.L.)

by

C. J. COVENEY, P. ENG.

VANCOUVER, B.C.

OCTOBER 5, 1970.

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ENCLOSURES

- #1 (1) Figure 1 Location Map - Scale 1" = 136 miles (*Page 1a*)
- #2 (2) Figure 2 Geochemical Survey - Scale 1" = 200 feet (*Real*)
- (3) Amex Exploration Services Ltd.,
Kamloops, B.C. - Personnel employed and
time spent
- (4) Chemex Labs Ltd. - Certificate of Analysis
of soil samples in parts
per million

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <u>2629</u> MAP
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- 1 -

SUMMARY AND CONCLUSIONS

The property is located in the Kamloops Mining Division, British Columbia, on the east side of Skuhun Creek about four miles from the junction with the Nicola River.

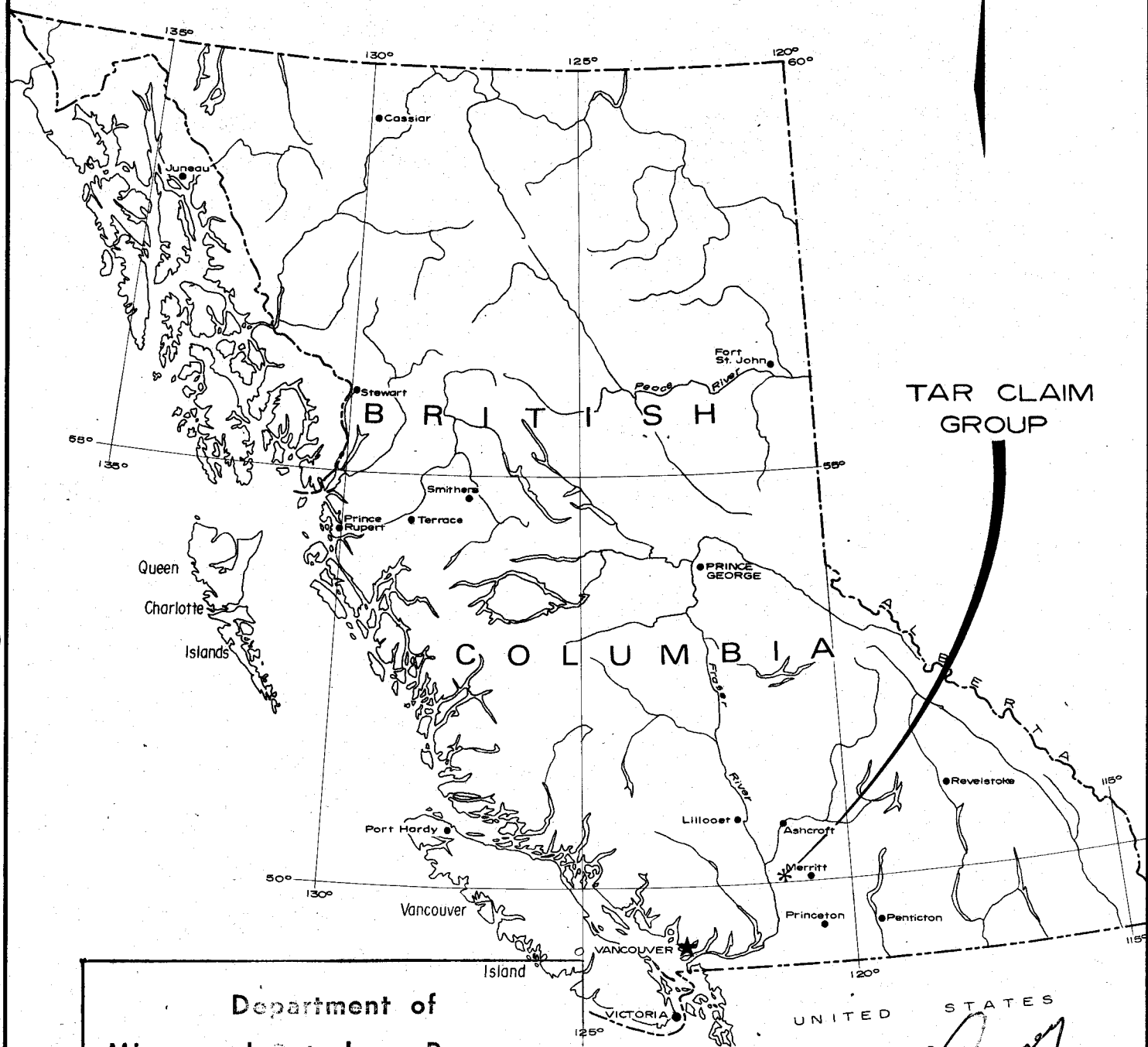
Geographically, the property is at latitude $50^{\circ} 17' N$ and longitude $121^{\circ} 06' W$ and can be reached by a dirt road that leaves the Merritt - Spences Bridge highway at Skuhun Creek.

Between August 5 - 11, 1970, a soil sampling program was carried out on Tar #13, #14, #15 and #16 mineral claims. The sampling program was contracted to Amex Exploration Services Ltd. of Kamloops with the copper determinations being done by Chemex Labs Ltd. of Vancouver, B.C.

Three anomalous areas were outlined - the largest of which has a length of 1500 feet and a width of 450 feet. All anomalies trend in a northwest direction paralleling the Nicola Volcanic - Quichon monzonite contact. The two largest anomalies are on steep hillsides and may be the result of the concentration of migrating copper material from the up-hill side.

To determine if the anomalies are valid, it is suggested that the area be checked using geophysical methods.

(1a)



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **2629** MAP **#1**

[Handwritten signature]

FIGURE 1
 HIGHLAND VALLEY MINES LIMITED (N.P.L.)
LOCATION MAP
 TAR GROUP
 HIGHLAND VALLEY AREA
 BRITISH COLUMBIA

SCALE: 1"=136 Miles

C. J. COVENEY & ASSOCIATES

October, 1970

INTRODUCTION

A geochemical survey (soil sampling) was carried out between 5th August - 11th August by Amex Exploration Services Ltd. of Kamloops, B.C. The collected samples were then sent to Chemex Labs Ltd. of Vancouver, B.C., for assay in parts per million for copper.

The survey covered the Tar claims #13, #14, #15 and #16.

LOCATION AND ACCESS

The claims, situated in the Kamloops Mining Division of British Columbia, are located at an elevation of 4000 feet on the east side of Skuhun Creek about 4 miles from its confluence with the Nicola River. (Figure 1.) Geographically, the claims are at 50° 17' north latitude and 121° 06' west longitude.

Access is from the Skuhun Creek turn-off on the Merritt-Spences Bridge highway. A dirt road follows Skuhun Creek for about 4 miles and from here a winding dirt road, suitable only for 4-wheel drive vehicles, leads directly to the property.

CLAIMS

The survey covered the Tar #13, #14, #15 and #16 mineral claims. (Figure 2.) Assessment credits are requested for the above four claims as well as Tar #11 and #12. All claims are contiguous and owned by Highland Valley Mines Ltd. (N.P.L.) with offices at:

Room 520,
885 Dunsmuir St.,
Vancouver, B.C.

<u>CLAIM NAME</u>	<u>TAG NO.</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
TAR 11	959511	71726	23 Sept./70
TAR 12	959512	71727	"
TAR 13	959513	71728	"
TAR 14	959514	71729	"
TAR 15	959515	71730	"
TAR 16	959516	71731	"

PROCEDURE

Copper mineralization was found at several locations on Tar #13 and #14 claims during a geological mapping program in 1969. Mapping also showed that the contact between the Nicola Volcanics and the Guichon monzonite trends in a northwesterly direction across the above two claims. Since drift cover is extensive and rock exposures scarce, it was decided to conduct a soil sampling program on claims #13, #14, #15 and #16. A grid of approximately 4 line miles covered the claims. (Figure 2). The base line was 3200 feet in length and cross-lines were cut at right angles to the base line at 400 foot

SHOWINGS

spacings. Soil samples were taken at 100 foot intervals along the cross-lines. Due to the semi-arid nature of the region where rainfall and vegetation growth is below normal, collections were taken with mattocks (heavy grub hoes) rather than with soil augers. This procedure enabled the collector to visibly examine the soil horizons and be more consistent in selecting the samples below the "B" horizon. The depth of the samples varied from 7" to 11". All organic material from the "A" horizon was carefully excluded from all samples. The soil samples were stored in S70 Kraft Paper sample bags and sent to Chemex Labs Ltd. of Vancouver for copper determinations.

Chemex Labs Ltd. processed the samples as follows: (See attached Certificate of Analysis.)

- (1) Samples are oven dried at 150° F. and then sieved through minus 80 mesh nylon and stainless steel sieve.
- (2) 0.50 gms. of -80 mesh material is weighed into a test tube and digested with hot 70% HClO_4 conc. HNO_3 acid solution. Digestion time - 3 hrs.
- (3) Digested sample is made up to 25 ml. volume with distilled water and then mixed thoroughly.
- (4) Copper determination was made by atomic absorption procedure. Detection limit = 1 ppm.

A total of 201 soil samples were sent for copper determination.

DISCUSSION

The background in the general Highland Valley area is about 40 p.p.m. and using this as a basis only those determinations in excess of 3 times background (120 p.p.m.) should be considered as anomalous. On Figure 2 the green colored areas are 3.0 - 3.5 times background; the blue 3.5 - 4.0 times and the red in excess of 4 times background.

Three anomalous areas are outlined and all trend in a north-westerly direction paralleling the volcanic-monzonite contact. The largest is adjacent to the contact and has a length of approximately 1500 feet and a width of about 450 feet. If 4 times background is to be considered as anomalous, then the dimensions are reduced to a length of 1000 feet and a width of 125 feet.

The two highest determinations (562 and 1275 p.p.m.) occur just south of the road in the southeast portion of Tar #14 and here there is evidence of malachite staining.

The area in which the large anomaly occurs is on a steep southwest facing hillside. How much then does the anomaly reflect buried sulphides or is it a reflection of concentrated migrating copper material from farther up the hill?

The second largest anomaly is on a northerly facing slope and the same question arises.

The smallest anomaly is close to the top of the hill and probably can be considered as non-migratory but the dimensions are too small to be of interest.

The area, however, should be checked with a geophysical method to verify the locations of the anomalies as outlined by the geochemical survey.

PERSONNEL (See attached invoice from Amex Exploration Services Ltd.)

Personnel engaged on the survey were:

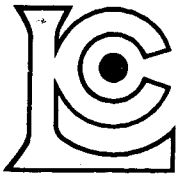
Bruce Bried	5 days
John Watters	5 days
A.A. Ablett	1 day

Respectfully submitted,



C. J. Coveney, P. Eng.,
Consulting Geologist.





CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA
TELEPHONE: 985-0648

• CHEMISTS • GEOCHEMISTS • ANALYSTS • ASSAYERS

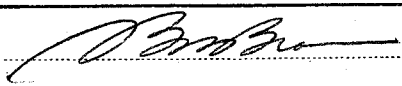
CERTIFICATE OF ANALYSIS

TO: Highland Valley Mines Ltd.,
#520 - 885 Dunsmuir St.,
Vancouver, B. C.

CERTIFICATE NO. 11336
INVOICE NO. 3834
DATE RECEIVED August 24/70
DATE ANALYSED August 29/70

ATTN: Mr. C. J. Coveney

SAMPLE NO.:	PPM Copper
301	72
302	31
303	41
304	38
305	108
306	94
307	124
308	90
309	63
310	60
311	60
312	52
313	66
314	50
315	31
316	40
317	78
318	48
319	110
320	64
321	58
322	28
323	33
324	100
325	1275
326	562
327	116
328	82
329	58
330	88
331	38
332	80
333	52
334	78
335	78
336	38
337	66
338	28
339	58
340	116
Std.	56

Certified by 



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CERTIFICATE OF ANALYSIS

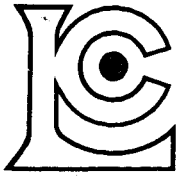
TO: Highland Valley Mines Ltd.,
#520 - 885 Dunsmuir St.,
Vancouver, B. C.

CERTIFICATE NO. 11337
INVOICE NO. 3834
DATE RECEIVED August 24/70
DATE ANALYSED August 29/70

ATTN: Mr. C. J. Coveney

SAMPLE NO.:	PPM Copper
341	60
342	28
343	46
344	90
345	118
346	62
347	72
348	108
349	84
350	84
351	78
352	96
353	242
354	51
355	118
356	108
357	138
358	160
359	212
360	134
361	136
362	178
363	163
364	96
365	76
366	56
367	31
368	156
369	183
370	141
371	70
372	92
373	131
374	106
375	104
376	138
377	106
378	94
379	90
380	96
Std.	54

Certified by _____



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NORTH VANCOUVER, B.C.
CANADA
TELEPHONE: 985-0648

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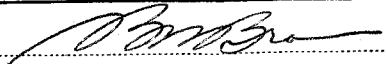
CERTIFICATE OF ANALYSIS

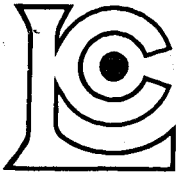
TO: Highland Valley Mines Ltd.,
#520 - 885 Dunsmuir St.,
Vancouver, B. C.

CERTIFICATE NO. 11338
INVOICE NO. 3834
DATE RECEIVED August 24/70
DATE ANALYSED August 29/70

ATTN: Mr. C. J. Coveney

SAMPLE NO.:	PPM Copper
381	40
382	62
383	54
384	58
385	86
386	92
387	70
388	102
389	86
390	92
391	94
392	178
393	173
394	114
395	96
396	80
397	80
398	44
399	41
401	30
402	72
403	74
404	44
405	124
406	80
407	40
408	86
409	82
410	60
411	104
412	64
413	41
414	63
415	58
416	36
417	34
418	36
419	86
420	48
421	46
Std.	52

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TELEPHONE: 985-0648

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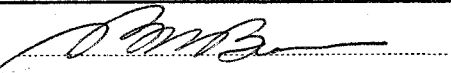
CERTIFICATE OF ANALYSIS

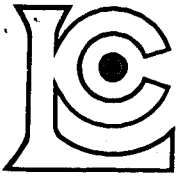
TO: Highland Valley Mines Ltd.,
#520 - 885 Dunsmuir St.,
Vancouver, B. C.

CERTIFICATE NO. 11339
INVOICE NO. 3834
DATE RECEIVED August 24/70
DATE ANALYSED August 29/70

ATTN: Mr C.J Coveney

SAMPLE NO.:	PPM Copper
422	52
423	52
424	48
425	52
426	16
427	28
428	52
429	40
430	52
431	120
432	31
433	98
434	58
435	52
436	33
437	68
438	72
439	84
440	33
441	36
442	68
443	64
444	90
445	104
446	92
447	52
448	41
449	86
450	94
451	90
452	84
453	92
454	120
455	92
456	20
457	24
458	141
459	51
460	51
461	58
Std. #22	54

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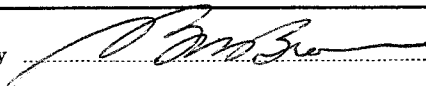
CERTIFICATE OF ANALYSIS

TO: Highland Valley Mines Ltd.,
#520 - 885 Dunsmuir St.,
Vancouver, B. C.

CERTIFICATE NO. 11340
INVOICE NO. 3834
DATE RECEIVED August 24/70
DATE ANALYSED August 29/70

ATTN: Mr. C.J. Coveney

SAMPLE NO.:	PPM Copper
462	78
463	92
464	41
465	40
466	28
467	46
468	72
469	42
470	74
471	64
472	46
473	52
474	63
475	178
476	148
477	70
478	200
479	66
480	60
481	58
482	95
483	63
484	122
485	212
486	168
487	242
488	112
489	40
490	41
491	102
492	173
493	110
494	168
495	230
496	141
497	136
526	26
527	90
528	44
529	86
Std.	52

Certified by 

AMEX EXPLORATION SERVICES LTD.

CONFIDENTIAL WORK

A. A. (AB) ABLETT

Phone 376-7490

BOX 286

KAMLOOPS, B.C.

August 31, 1970

Highland Valley Mines Ltd.,
520-8:5 Dunsmuir Street,
Vancouver, B.C.

Dear Sirs:

The following is a breakdown of our personnel engaged, and direct costs incurred during completion of 3.8 miles of grid preparation and soil collections on your TAR 13 to 16 mineral claims in the Skuhun Valley, southeast of Spences Bridge, B.C. This program was completed during the period August 5 to 11, 1970:

<u>PERSONNEL ENGAGED</u>	<u>TIME EXPENDED</u>	<u>WAGES</u>	
Bruce Bried	5 days	\$175.50	
John Watters	5 days	175.50	
A.A. Ablett	1 day	<u>50.00</u>	
		\$401.00	\$401.00

DIRECT COSTS

Board and accommodation 8 mandays @ \$5 per day	=	\$ 40.00	
1-4 wheel drive 3/4 Ton truck 5 days @ \$20.00 per day	=	<u>100.00</u>	
		\$140.00	<u>140.00</u>
Total costs	=		<u><u>\$541.00</u></u>

AAA/ea

Yours very truly,


A.A. Ablett, Pres.

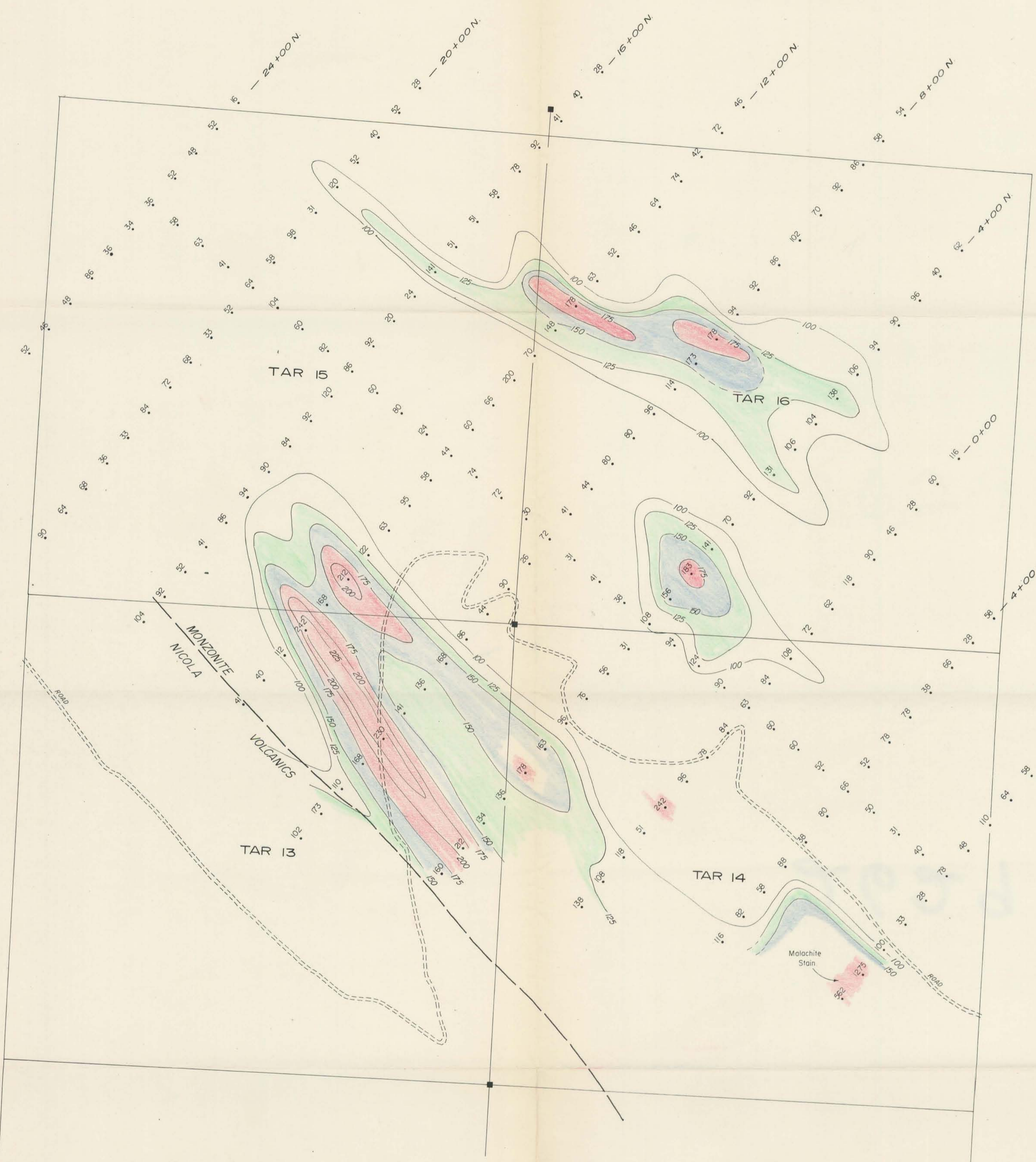
AMEX Exploration Services Ltd.

Declared before me at the *City*
Vancouver, in the
Province of British Columbia, this *5*
day of *October* *1970*, A.D.



Julie Turner
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2629 MAP #2

LEGEND

- Greater than 175 ppm Copper
- 150-175 ppm of Copper
- 125-150 ppm of Copper
- Soil sample location with Copper assay in ppm
- Contact
- Road

2629

FIGURE 2
HIGHLAND VALLEY MINES LIMITED (N.P.L.)
GEOCHEMICAL SURVEY
TAR GROUP
HIGHLAND VALLEY AREA
BRITISH COLUMBIA

Field work done by AMEX EXPLORATION SERVICES LTD. of Kamloops, B.C.
Assays done by CHEMEX LABS. LTD. of North Vancouver, B.C.



C.J. COVENEY & ASSOCIATES

October, 1970