

GEOLOGICAL AND GEOCHEMICAL REPORT ³

WATSON BAR

WATSON BAR CREEK PROSPECT, CLINTON M.D.

CAROLYN #1 - 8 RECORD #780 - 787 (6)

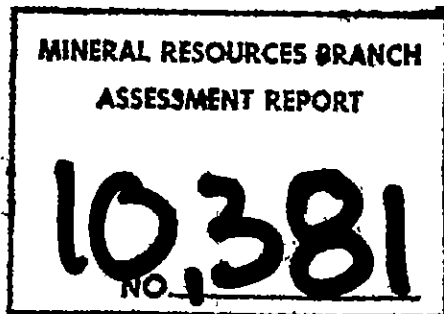
NTS 920/1

LATITUDE 51°03'N LONGITUDE 122°03'W

BY K. W. Livingstone, M.Sc.

JMT Services Corp.
8827 Hudson Street
Vancouver, B.C.

FOR E & B Explorations Inc.
#1440 - 800 West Pender
Vancouver, B.C.



SUBMITTED May 10, 1982

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SUMMARY

Eight claims (113 units were staked in late May 1980 to cover several large alteration zones in Jackass Mountain Group sediments of lower Cretaceous age. The claims are situated between Madsen and Trimble Creeks tributary to Watson Bar Creek near its confluence with the Fraser River, 60 km by gravel road north of Lillooet, B.C.

The area is crossed by one splay of the Fraser River fault system which separates the Cretaceous clastic sediments from Eocene Volcanics. A small stock of granodiorite composition occurs in a steep walled creek canyon and several altered felsic dykes of probable Eocene age cut the sediments. Large alteration zones of silica and carbonate, occasionally with stibnite, arsenopyrite, pyrite, cinnabar and other sulphides occur throughout the property and are the cause of extensive arsenic and mercury anomalies in soil and rock samples. Small areas are anomalous for gold.

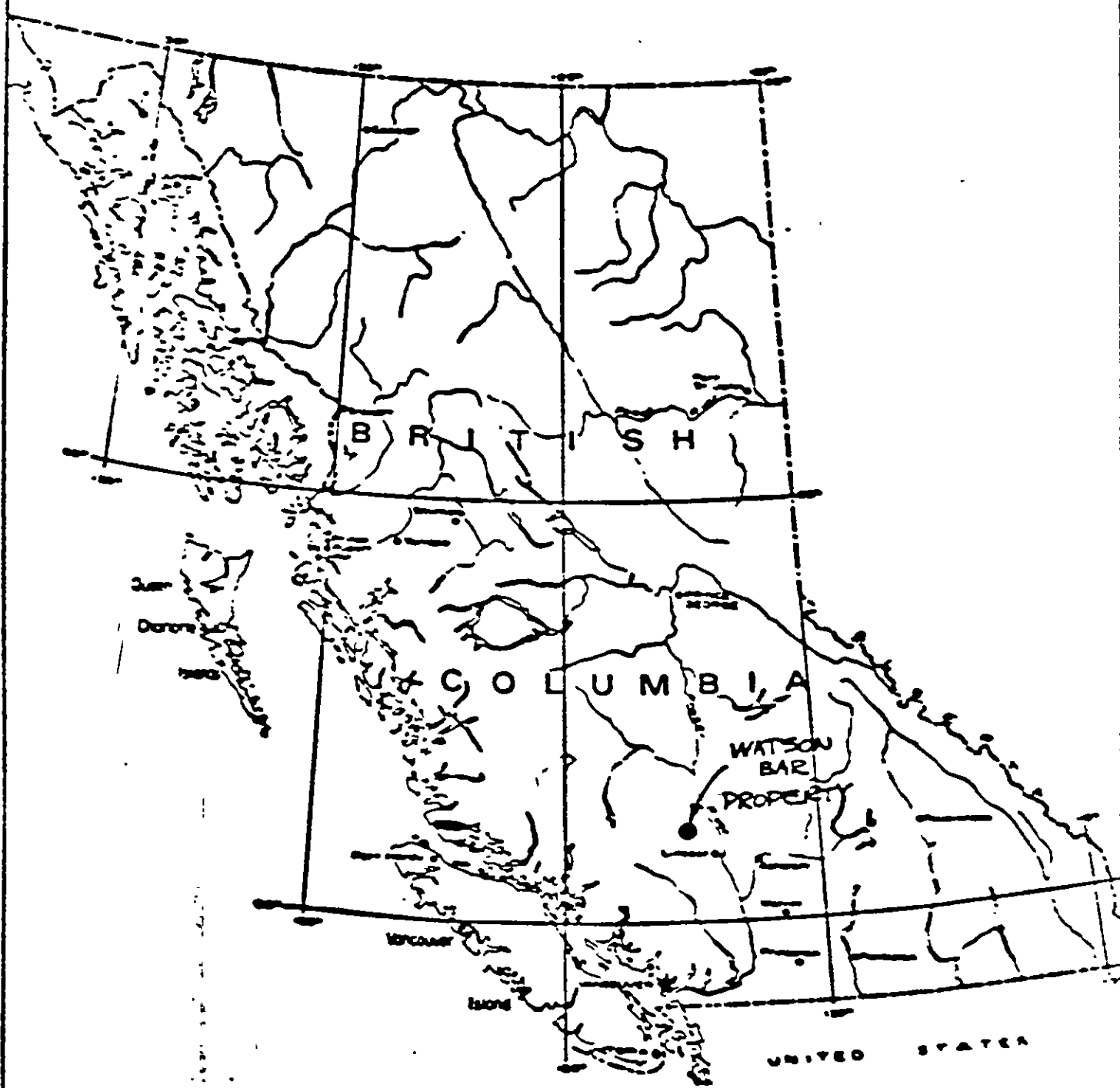
INTRODUCTION

As a result of preliminary reconnaissance prior to the Taseko-Bonapart map sheet geochemical survey release in June 1980 by the B.C. Department of Mines, eight claims were staked near Watson Bar Creek, to cover a broad alteration zone in sediments of the Jackass Mountain group of Early Cretaceous age. Watson Bar Creek was the locus of the highest arsenic value in silt samples in the survey and placer gold had been produced from Stirrup Creek (the first north fork of Watson Bar Creek) and from the lower portion of Watson Bark Creek itself. Disseminated gold showings in Jackass Mountain sediments occur at the "Astonisher" property at the head of Stirrup Creek and gold-silver mineralization was known to occur at Big Bar Creek in Eocene volcanics.

Exploration was done on the property in August and September. About 397 soil and 106 rock samples were analyzed for gold, arsenic and mercury.

LOCATION AND ACCESS

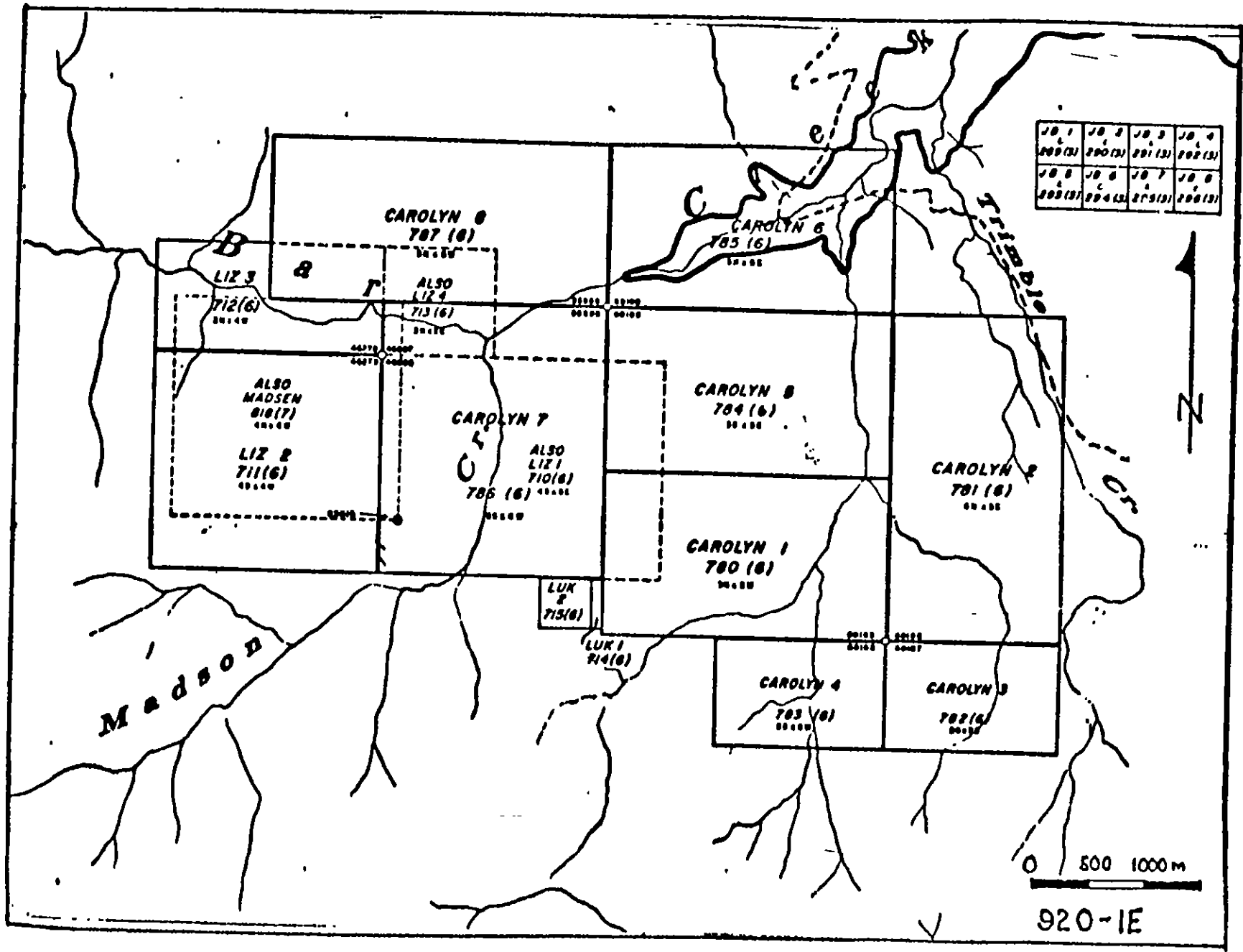
The Watson Bar property, comprising the Caroly 1 - 8 claims with a total 113 units is situated in mapsheet 92 0-1 between Trimble and Madsen Creeks, which enter Watson Bar from the south a short distance above its entry point into Fraser River, 60 km north of Lillooet, B.C. Access to the property is by gravel road from Bridge River, on the Lillooet-Bralorne Highway. Logging roads afford easy access to the south-central part of the claim block. Access to the western claims is more difficult but trails allow access to the Madsen Creek area from Hancock Ranch and from Watson Bar Creek crossing.



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PROPERTY LOCATION MAP
WATSON BAR PROPERTY

Scale		1:50,000	
Drawn by	Checked	Map scale	30000



JA 1	JA 2	JA 3	JA 4
200 (13)	200 (13)	201 (13)	202 (13)
JA 5	JA 6	JA 7	JA 8
203 (13)	204 (13)	205 (13)	206 (13)

0 500 1000 m

920-1E

MINERAL CLAIMS

The following is a list of claims on the property.

CLAIM NAME	UNITS	RECORD NO.	
CAROLYN 1	15	780 (6)	Watson Group
2	18	781 (6)	"
3	6	782 (6)	"
4	6	783 (6)	"
5	15	784 (6)	Bar Group
6	15	785 (6)	"
7	20	786 (6)	"
8	18	787 (6)	"

REGIONAL GEOLOGY

The Watson Bar Creek area is situated in the southern part of the Chilcotin Plateau adjacent to the eastern margin of the Coast Intrusive Complex and west of Fraser River. The Camelsfoot Range, north of Lillooet, B.C. is a panel of clastic sediments of upper Jurassic - lower Cretaceous age that are shallowly and openly folded between two splays of the Fraser fault system.

The Yalakom fault, on the southern margin of the block, is characterized by a wide zone of shearing and alteration with included lenses of serpentine and associated mercury showings such as Quartz Mountain and Red Eagle. The northern splay, which crosses the Watson Bar property on its north-east side is a much narrower fault zone and places Jackass Mtn. group sediments on the south against varicoloured rhyolitic to dacitic volcanic flows and ash tuffs of Eocene age on the northeast. The Fraser fault seems to be the northeast limit of alteration and mineralization 8 miles north of Watson Bar at Big Bar Ferry.

To the east of the aforementioned fault, is the main Fraser River Fault, which trends through the confluence of Big Bear Creek and Fraser River, forms the west limit of the bluffs at Chisolm Canyon, cuts across the mouth of Watson Bar Creek and proceeds up Trimble Creek to Leon Creek area. On the northeast of the fault, are grey to grey green shales and tuffs of the Pavillion Group of Triassic age, which are generally steeply dipping and may be isoclinally folded. Small granitoid intrusives occur at Big Bear Creek, Stirrup Creek, and in the Leon Creek-Kelly Creek portion of the Fraser Canyon. These are of early Cretaceous age and are cut by the major

faults. The upper limit of age of faulting (Miocene?) is determined by flaying "plateau basalts" which are not affected by the faults.

The closest significant mineralization to Watson Bar is the "Astonisher-Monty" gold showing owned by Robertson, Warren, and partners, and situated 5 miles north west of Watson Bar Creek. At this property, fine crystalline gold is present on dry fractures and micron gold is present in chalcedonic quartz associated with tellurides. Showings are in Jackass Mountain sediments adjacent to strongly altered felsic prophyry dykes and apparently associated with a strong north-east trending fault. Several showings of cinnabar and antimony occur outside the limit of gold occurrences and in quartz-carbonate altered zones near northeast trending faults. Associated with the showings is a large area with anomalous arsenic, mercury and tellurium in soils. The small creek draining the mineralized area, Stirrup Creek, has produced over \$250,000 in placer gold in the 1940's.

GEOLOGY OF THE PROPERTY

The Watson Bar property, situated between Madsen and Trimble Creek on the south side of Watson Bar Creek, is underlain by sediments of the Jackass Mountain Group - mid-lower Cretaceous age, and on the eastern portion, across the major "Watson Bar" fault, by Eocene "Kingsvale" volcanics.

The Jackass Mountain Group, well described by Trettin (1961), consists of extensive areas of conglomerates, with volcanic and granitoid pebbles, volcanic arenites, greywackes, and siltstones with minor beds of carbonaceous argillite and limestone. The sediments rarely show stratification and were believed to be deposited in a long narrow steep sided trough.

On Watson Bar property, geology has not been mapped in detail. Near the Watson Bar fault, on the uppermost logging road, grey siltstones and black argillaceous siltstones are weakly stratified. Near the same fault on Watson Bar Creek banks, conglomerates are present. Elsewhere on the property, rocks seen to date were originally sandstones and siltstones but are now strongly altered with carbonization and silicification. A small stock of granodiorite or quartz-diorite composition is present in the canyon of Thompson Creek and a number of strongly altered dykes of felsic composition are present in the logged area above Hancock's ranch. Larger dykes, one of which is strongly

altered to silica-sericite is present in the canyon of Watson Bar Creek near Madsen Creek. (Feldspar porphyry dykes such as are common H. Warren's gold property were not seen at the Watson Bar Creek property, but are present west of the claim boundary). Boulders of carbonatized, calcite and silica-cemented breccia of probable fault origin are present on the north creek bank near the road crossing at Watson Bar Creek. The main Watson Bar branch of the Fraser fault appears to be offset a few hundred metres here and the breccia boulders may mark the fault lines. Below the junction of Madsen Creek and Watson Bar Creek, there are considerable placer mining tailings.

GEOCHEMISTRY

The 1981 fieldwork was concentrated between the two areas worked in 1980. IN an area of overburden cover a soil sample grid was established. Where outcrop was encountered rock chips were taken. Samples were geochemically assayed for gold, arsenic and mercury. Analytical techniques are described in Appendix 1.

Approximately 106 rock chips and 397 soil samples were collected for geochemical assay.

The 1981 field work allowed complete geochemically evaluation of the alteration system. The results are plotted on maps in the pocket of this report.

MERCURY

Mercury values in soil were contoured at the 100, 200 and 400 ppb levels. Mercury highs correlated well with areas of intense silicification.

ARSENIC

Arsenic values in soil were contoured at 40, 80 and 160 ppm. The high values are associated with areas of intense silicification and a broad area of poor outcrop on the Carolyn #1 claim. There is some suggestion that some high values may be due to chemical transport and not truly reflecting bedrock mineralization beneath them.

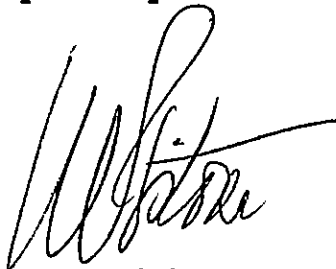
GOLD

Gold in soils is only locally anomalous and define smaller zones within the areas of anomalous arsenic and mercury. Gold values in soil up to 200-300 ppb range have been found.

CONCLUSIONS

Gold, arsenic and mercury have outlined anomalous areas within an extensive alteration system. Except for local areas of intense silicification, outcrop is generally poor. A programme of backhoe trenching and shallow percussion drilling is recommended to test those anomalous areas where outcrop is sparse. Diamond drilling would be predicated on those results.

Respectfully submitted



K. Wayne Livingstone, M.Sc.

STATEMENT OF COSTS
WATSON BAR PROPERTY

WAGES

K. W. Livingstone, geologist		
June 26($\frac{1}{2}$), 28, July 15 20($\frac{1}{2}$)		
Aug 9, 24, 26($\frac{1}{2}$), 26-31		
Sept 1, 5, 6, 7($\frac{1}{2}$), 14	16 days @ \$200	\$ 3,200.00
W. A. Howell, geologist		
Aug 27-31, Sept 1-4, 7, 9	11 days @ \$200	2,200.00
A. Muir, geochemical assistant		
Aug 17($\frac{1}{2}$), 25-29	5 $\frac{1}{2}$ days @ \$110	605.00
S. Courte, geochemical assistant		
Aug 27-31, Sept 1, 5, 6	8 days @ \$125	1,000.00
P. McAndless, supervision	2 days @ \$200	400.00

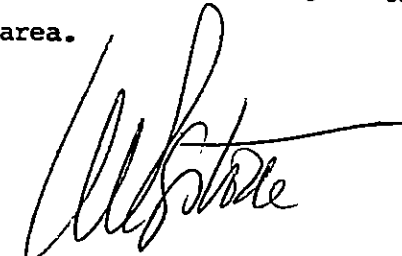
DISBURSEMENTS

Truck rental - 4x4		686.25
SBX-11		50.00
K.W.Livingstone, expenses		911.10
W.A.Howell, expenses		25.74
Horizon Helicopters		1,165.76
W.E.Peters & Son (chopper fuel)		536.83
United Helicopters		648.89
United Helicopters		425.47
Pacific Helicopters		451.00
Hudson Building Supplies		259.97
Chemex Labs		8,074.46
Domicile - camp, food, lodging	30 mandays @ \$45.00	1,350.00
Report preparation, map, drafting, typing, etc.		<u>1,500.00</u>
		<u>\$23,488.53</u>

STATEMENT OF QUALIFICATIONS

I, K. WAYNE LIVINGSTONE of Vancouver, British Columbia do hereby certify that,

1. I am a Professional Geologist, working in British Columbia and residing at 6775 West Blvd., Vancouver, B.C.
2. I am a graduate of CARLETON UNIVERSITY, Ottawa, Ontario with a B.Sc. honours geology, 1966.
3. I am a graduate of the UNIVERSITY OF BRITISH COLUMBIA with a M.Sc. geology, 1968.
4. I have practiced my profession as a mining exploration geologist since 1965.
5. I am a Member of the Geological Association of Canada.
6. I am a Member of the C.I.M.M.
7. This report is based on personal knowledge of the geology and mineral potential of the claim area.



K. Wayne Livingstone, M.Sc.

APPENDIX I

ANALYTICAL TECHNIQUES

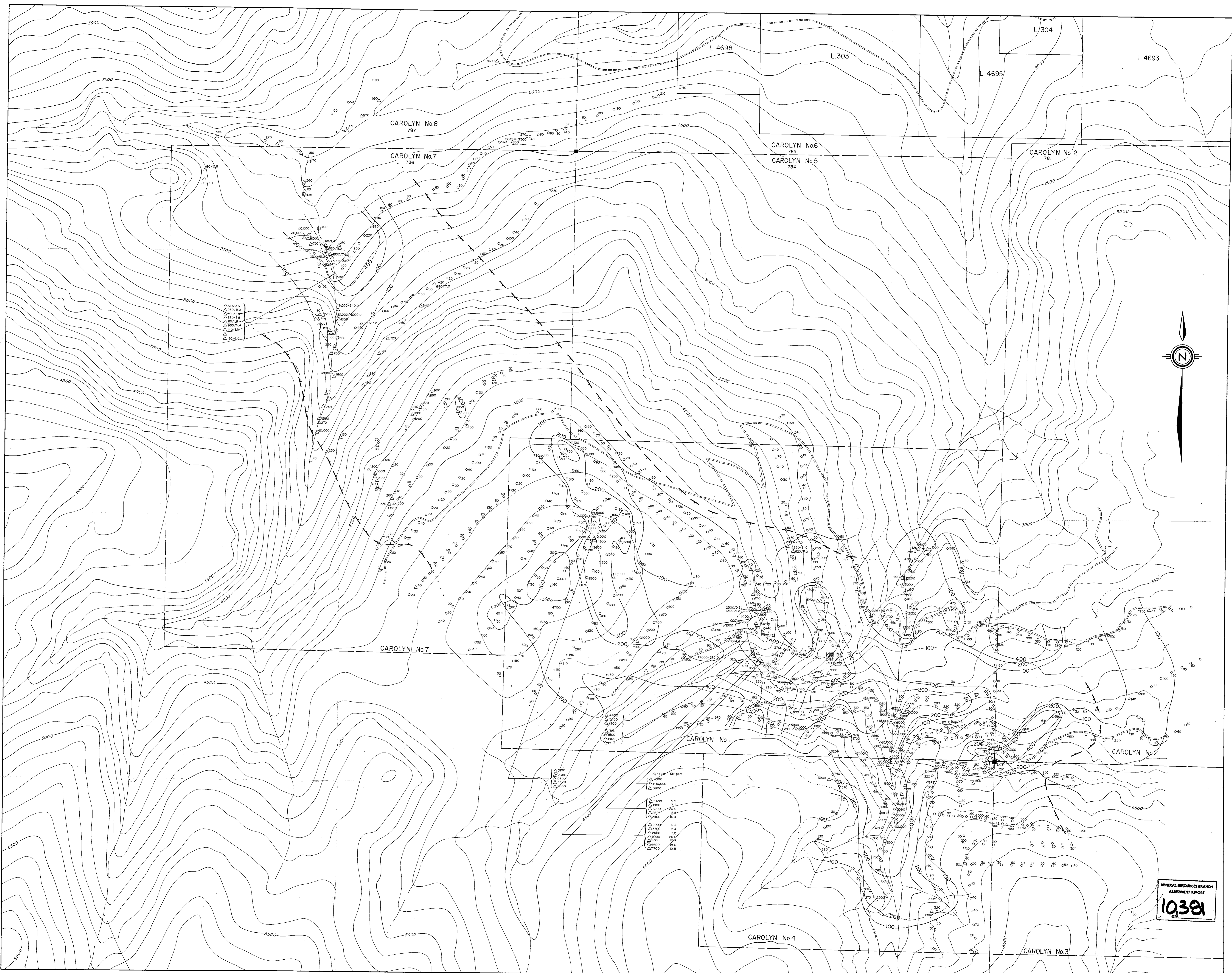
All geochemical assays were performed by Chemex Labs Ltd., North Vancouver B.C. Soil and silt samples were slowly dried, then sieved, and the - 80 mesh portion analyzed.

Arsenic was analyzed by perchloric-nitric acid digestion with a hydride finish and atomic absorption determination.

Gold was analyzed by fire assay preconcentration and neutron activation determination.

Antimony was analyzed by concentrated HCl digestion with KI, extraction with MIBK TOPO, and atomic absorption determination background corrected.

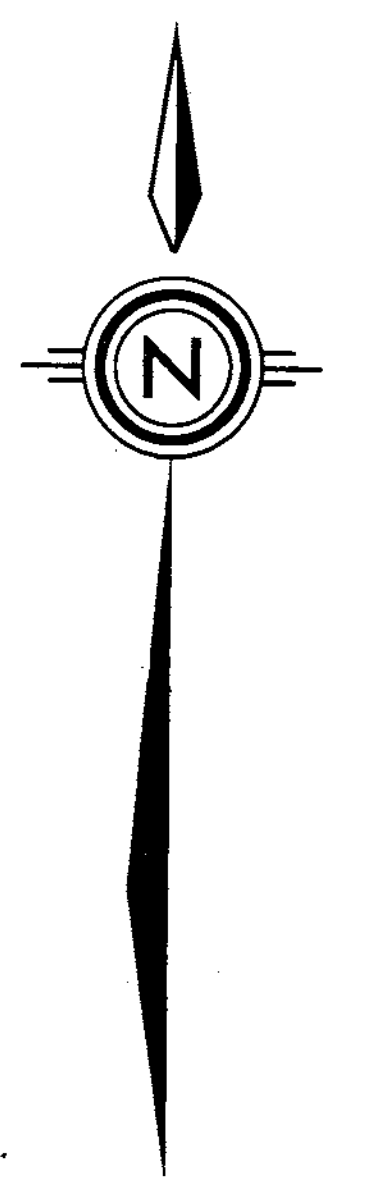
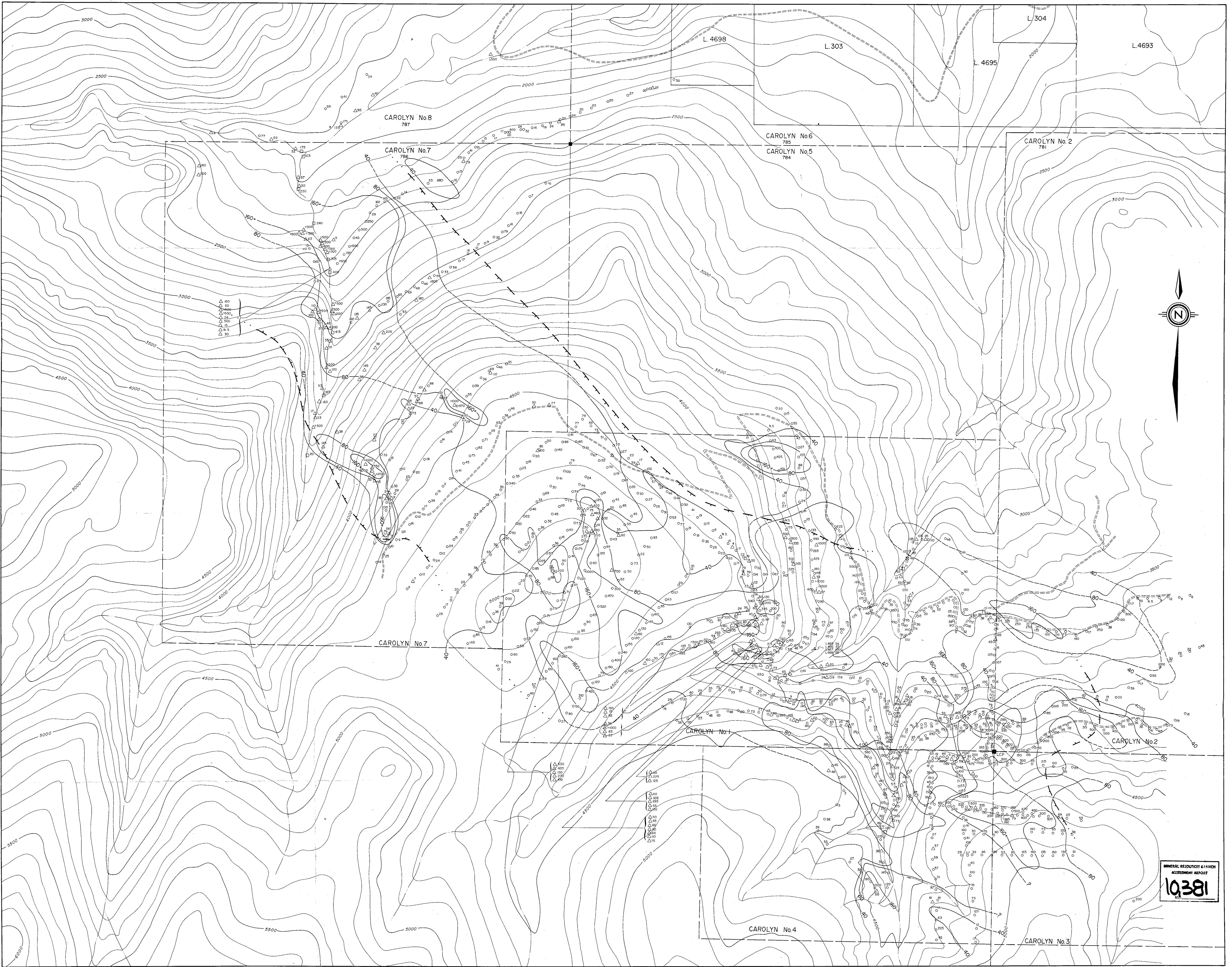
Mercury was analyzed using the Hatt-Ott procedure and closed cell atomic absorption determination.



Δ 30/3.6
 Δ 25/11.0
 Δ 20/18.8
 Δ 15/27.2
 Δ 10/36.0
 Δ 5/72.0

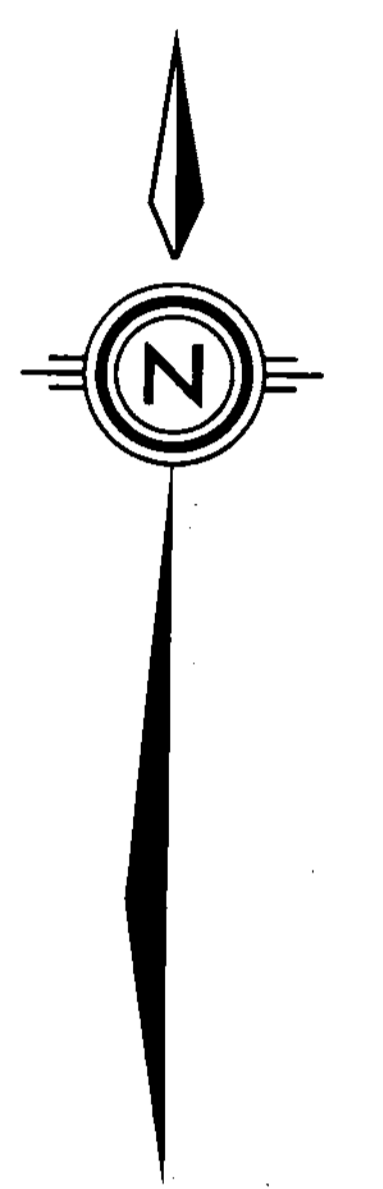
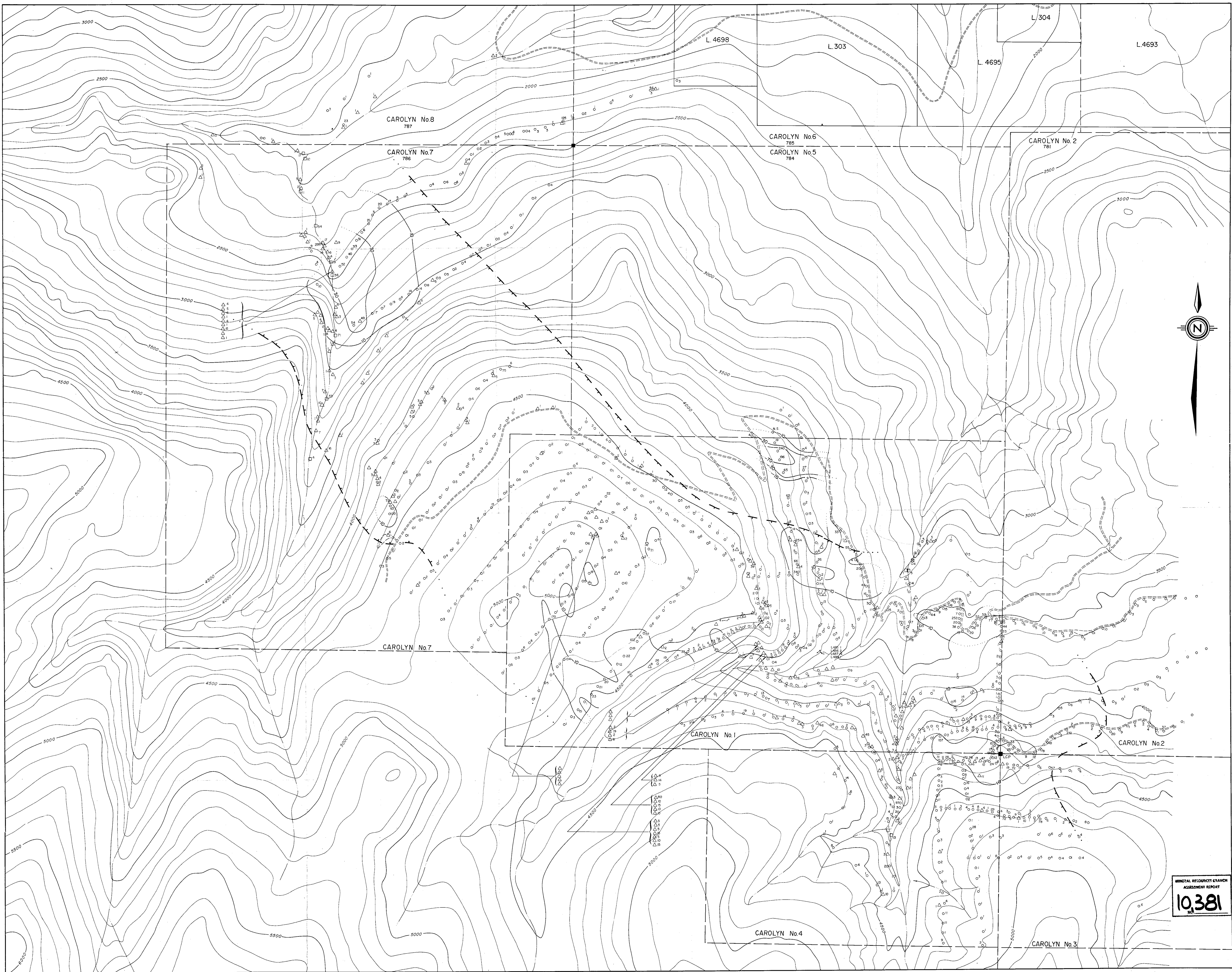
Δ 5400 5.2
 Δ 3900 5.4
 Δ 2400 5.6
 Δ 1900 5.8
 Δ 1400 6.0
 Δ 900 6.2
 Δ 400 6.4
 Δ 2000 11.4
 Δ 1700 12.2
 Δ 1400 13.0
 Δ 1100 13.8

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
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ASSESSMENT REPORT
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<p>LEGEND</p> <p>○ SOIL SAMPLE □ SHIP SAMPLE △ ROCK CHIP SAMPLE 61350 SAMPLE No.</p> <p>— 40 — GEOCHEM CONTOUR, WITH VALUE IN ppm</p>	<p>MAP SCALE SCALE IN METRES</p> <p>NTS</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>MADBY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO	DATE	MADBY	DESCRIPTION																	<p>E & B Explorations Inc.</p> <p>OFFICE: _____ DEPARTMENT: _____</p>	<p>MAP INDEX NUMBER: _____</p>	<p>SCALE: 1:5,000</p> <p>DRAWING NUMBER: _____</p>
NO	DATE	MADBY	DESCRIPTION																						
<p>TASEKO PROJECT WATSON BAR PROPERTY GEOCHEM MAP ARSENIC IN ppm</p>																									



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,381
NO.

<p>LEGEND</p> <ul style="list-style-type: none"> ○ SOIL SAMPLE □ SILT SAMPLE △ ROCK CHIP SAMPLE GL 350 SAMPLE NO. <p>—○— GEOCHEM. CONTOUR WITH VALUE IN P.P.B.</p>	<p>MAP SCALE</p> <p>SCALE IN METRES</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>MADE BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	MADE BY	DESCRIPTION																	<p>E & B Explorations Inc.</p> <p>OFFICE: _____ DEPARTMENT: _____</p>
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<p>TASEKO PROJECT WATSON BAR PROPERTY GEOCHEM MAP GOLD IN p.p.b.</p>		<p>MAP INDEX NUMBER: _____ SCALE: 1:5,000 DRAWING NUMBER: _____</p>																					