

83-#783 - 12328
off

COPPER QUEEN CLAIMS

COPPER CAMP

DIAMOND DRILLING ASSESSMENT REPORT

GREENWOOD MINING DIVISION

N.T.S. 82 E. 2

Latitude & Longitude 118° 46.5' W.; 49° 7.5' N.

for

McKinney Resources Incorporated

by

Wayne Waters

November 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Drill holes located on
Crown Grant L. ~~387~~ 456
Crown Grant L. 388

12,328

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Diamond Drill Hole Locations
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Introduction:

Diamond drilling by McKinney Resources Inc. took place during the period June 28 to July 5, 1983. During this period two BQ diamond drill holes were completed on the King Solomon and Copper Mine crown grant mineral claims. The total footage drilled during this program was 652 feet. The purpose of this drilling program was to try and intersect the projected extensions of the zones of mineralization that had been found on the King Solomon and Copper Mine claims. The two diamond drill holes that were drilled did not intersect any mineralization.

This report describes the results of two diamond drill holes.

Location Data:

The claims lie 8 km N. W. of the city of Greenwood in Southern B. C., and 13 km N. of the U. S. border (Figure 1).

N.T.S. 82 E./2

Location of principal workings of the Copper Queen Camp.

Latitude Longitude

118° 46.5' W.; 49° 7.5' N.

UTM 370100 E.; 5442000 W. Zone 11

Elevation 1,520 M a.s.l.

Topography and Access

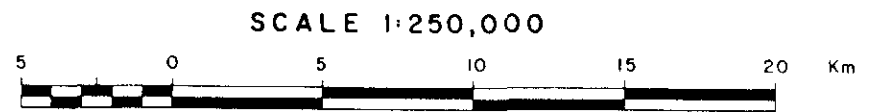
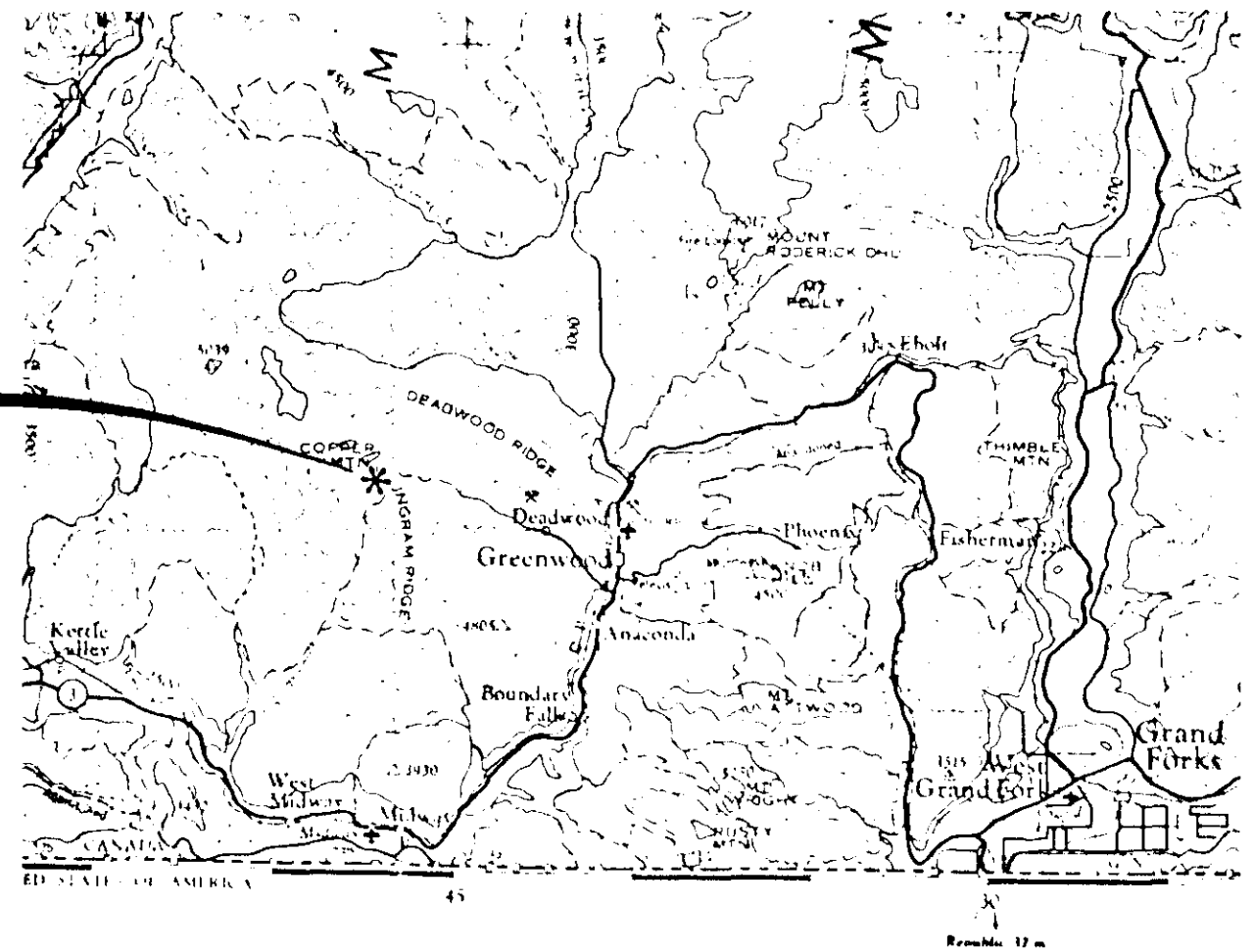
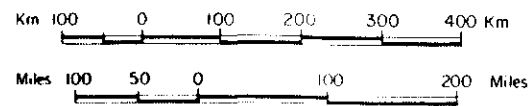
The claims straddle a ridge trending N.E. - S.W. On the S.E. side the ground slopes steeply from 1300 m. at the foot of the ridge to approximately 1500 m. at the top.

To the N.W. lies the divide between the Wallace Creek drainage on the north and Ingram Creek drainage to the south.

Most of the south slopes are covered by widely - spaced trees and grassland.

On other slopes and especially in valleys timber is of moderate size.

Access to the property is by 8 km of gravel road from Greenwood. Numerous old logging and mining roads cut across the Copper Queen claims. The two drill sites where the two 1983 diamond drill holes are located can be reached by two wheel drive vehicles.



COPPER QUEEN CLAIMS LOCATION MAP			
PLAN No.	DRAWN	DATE	
143			
Revised		N.T.S.	
		82 E/2	

Ownership and claim status:

Ownership, status and location of claims, crown grants and reverted crown grants are shown in Table 1 and Figure 2.

Table 1:

Located claims

<u>Name of claims</u>	<u>Record Numbers</u>
Mac 1	3313
Mac 2	3314
Jumbo Fr.	3312

Reverted Crown Grants

<u>Name of claims</u>	<u>Record Numbers</u>
Jumbo	1905
Commander Fr.	1906
Copper Mine	1907

Crown Granted Mineral Claims

<u>Name of claims</u>	<u>Lot numbers</u>
Enterprise	617
Honolulu	1572
Copper King	1713
Copper Queen	387
King Solomon	388
Magnolia	1851
Independence	2311
Last Chance	660
Ute Fr.	2611

Ownership:Crown Grants

Lot 387 & 388

Messers E.P. & W.D. Roberts

Lot 617,1572 & 1713

W.E. McArthur

Lot 1851,2311,660 & 2611

R.F. Sander

Reverted Crown Grants

Jumbo Lot 655

Record dateOwner

Commander Fr. Lot 1708

Nov.

W.E. McArthur

Copper Mine Lot 456

Nov.

W.E. McArthur

Nov.

W.E. McArthur

Located ClaimsRecord No.Owner

Mac 1

3313

W.E. McArthur

Mac 2

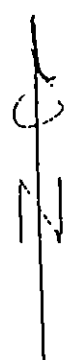
3314

W.E. McArthur

Jumbo Fr.

3312

W.E. McArthur

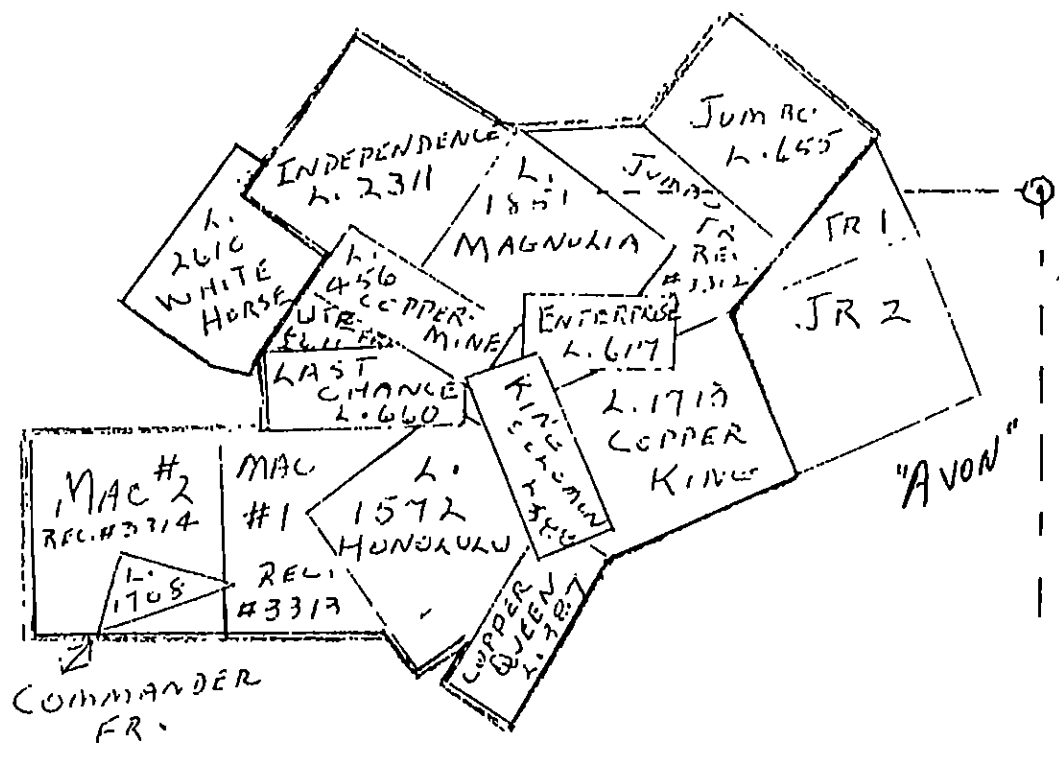


COPPER CAMP

GREENWOOD MINING DIVISION

SCALE: 1" = 1500'

Figure 2



History of the Copper Queen Camp:

The earliest record of activity in the Copper Queen Camp is found in the 1894 edition of the B. C. Dept. of Mines in which an 18 foot shaft and a 40 foot tunnel are reported on the Copper Mine. Widths are reported to have been 40 feet in the Copper Mine and 26 feet in the King Solomon in which grades are reported to have been between 15% and 20% copper. No information exists on tonnage mined prior to 1902 but because no railroad was put into the Copper Queen camp, tonnage can be assumed to have been small. The 1902 and 1903 editions of the Annual Report of B. C. Dept. of Mines report 850 tons shipped in 1901 and about 1000 tons in 1902.

In 1917 the King Solomon and Big Copper between them shipped 950 tons. After 1918, the property lay dormant until 1950 when the late W. E. McArthur carried out a programme of drilling and stripping which led to further exploration.

Previous Work:

Prior to the end of W.W.I., there had been about 400 feet of drifting, 30 feet of shaft sinking and mining of a few thousand tons of oxidized copper ore from the Upper Brooklyn Limestone.

In 1953 and 1954 the late W. E. McArthur of Greenwood carried out a programme of diamond drilling and stripping of the King Solomon and Copper Mine claims. This work led to the discovery of a body of sulphides from which two carloads of ore were shipped to the Tacoma Smelter.

In 1954 Noranda Mines Ltd. drilled for extensions of the roughly-conformable body passing through the Copper Queen and King Solomon claims. From maps supplied by McIntyre Porcupine Mines, it is believed that four holes were drilled by Noranda.

In 1955 C.M. & S. drilled a further four holes, again in search of extensions to the conformable body passing through the Copper Queen claims. This drilling intersected mineralized limestone but of too low a grade.

In 1967 McIntyre Porcupine Mines drilled a further four holes which were all directed at I. P. anomalies, these holes also did not intersect any mineralization.

In 1977 Riocanex Ltd. drilled one hole which was collared in Upper sharpstone and was directed at reaching the Lower Limestone Unit. This hole penetrated Upper Sharpstone which was expanded to a considerable degree by Tertiary hypabyssal rocks followed by pyritiferous cherts which were thought to be either the cherts commonly found beneath the Upper Sharpstone or cherts of the Knob Hill basement.

Regional Geology:

The country between Grand Forks and Rock Creek is underlain by a sequence of volcanic and sedimentary rock of pre-Permian and Triassic age, known as the Anarchist Group, which is intruded by a variety of granitic and dioritic rocks believed to be of Cretaceous age. Both the Anarchist Group and the Intrusives are extensively covered by Tertiary flows and pyroclastics. Associated Tertiary dykes and sills are numerous. Because it has been used to describe rocks both below and above a major unconformity, the term Anarchist is not used in this report. Below the unconformity lies the pre-Permian Knob Hill Formation of meta-volcanics and meta-sediments. Above the unconformity is the Triassic Brooklyn Formation which consists of five mappable units: a shale, two sharpstone conglomerates and two limestones as shown in the table below.

The Knob Hill Formation consists of intermediate and silicic volcanics, cherts, argillites and locally limestones. The Knob Hill rocks were metamorphosed, uplifted, and eroded, prior to the deposition of the Brooklyn Formation in Triassic time. The oldest unit of the Brooklyn Formation is the Rawhide Shale reported by Seraphim (1956) to occur SE of the Phoenix Mine. The shale is limited to some hundred metres thick extending approximately six hundred metres along strike. A similar shale occurs on the high ground between Wallace and Ingram Creeks and may be correlative with the Rawhide shale southeast of Phoenix. Such shales are thought to represent depressions in the eroded Knob Hill landscape prior to deposition of succeeding units of the Brooklyn Formation.

More common than the shale as the basic unit of the Brooklyn Formation is a sharpstone conglomerate, an unsorted sedimentary breccia consisting of angular clasts of chert ranging in size from 0.1 to 4.0 cm.

This, the lower of two sharpstone units consists of angular chert fragments devoid for the most part of alluvial sorting. At the Phoenix Mine aeolian quartzites occur in association with this unit, the Lower Sharpstone conglomerate. This distinctive lithology is believed to have been deposited as outwash fans in a desert. The term "fanglomerate" seems to be applicable.

The following unit, the Lower Limestone represents a marine transgression. The limestones range from micro-crystalline to coarsely crystalline, and beds of pyritic fine grained, thin bedded limestone. The Lower Limestone has a very restricted distribution.

Overlying the Lower Limestone is the Upper Sharpstone, a unit which is widely distributed in the Greenwood area. The upper member of the Upper Sharpstone contains distinctive clasts of limestone and is known as "Puddingstone". The Upper Sharpstone conglomerate is typically of a greenish or mauvish hue, and is much finer grained than the Lower Sharpstone. Water sorting is common and considerable thicknesses of the Upper Sharpstone can be occupied by siltstones and sandstones.

The Upper Sharpstone is succeeded by a second limestone, the Upper Limestone which represents a second marine transgression. The Upper and Lower Limestone are not easily distinguished from one another.

Geology of Copper Queen Claims:

The rocks most abundantly exposed on the Copper Queen Claims are Tertiary volcanics and related dykes and sills. The Upper member of the underlying Brooklyn formation which dips approximately 45 degrees to the SE are exposed on a SE slope of the ridge which runs NE-SW through the claims. Extensive outcrops of the Upper Limestone occur in the vicinity of the old Copper Queen workings and the slopes above. Upper Sharpstone identified as such by the presence of water-sorted beds of conglomerate, siltstone, and sandstone and by the limestone clast conglomerate (Puddingstone) is found in the south part of the map sheet NTS 82E/2, and to a lesser extent at the North end. Anomalous bedding attitudes observed south of the Copper Queen workings are presumed to be due to the Healy Fault.

1983 Drill Programme:

The 1983 diamond drill programme consisted of two holes for a combined footage of 652'. The first hole was drilled on the King Solomon claim and was in a N15W direction. (figure 3) This hole was drilled to a depth of 345 feet at a -50 degree angle. The purpose of this hole was to try and pick up the undrilled section between the two open cuts that previously produced small tonnages of high grade copper. The second hole was drilled on the Copper Mine claim and this was a vertical hole that was drilled to try and pick up the downward extension of the open cut that produced high grade ore early in the century. This vertical hole was drilled to a depth of 307' (figure 3). A small intersection of red bed was intersected at 75.5 to 82 feet. This section was assayed for copper, gold and silver (see enclosed assay certificate) but the results were very low. At this point it was determined to not drill any additional holes on this property.

Core Storage:

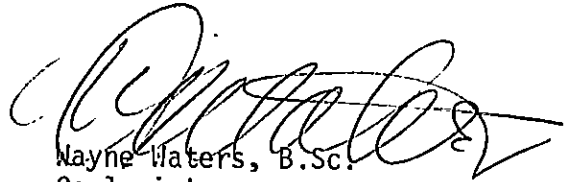
The diamond drill core from the two diamond drill holes that were drilled at the Copper Camp in June and July of 1983 is stored at Ted McArthur's warehouse in Greenwood B.C.

Address for Ted McArthur is W.E. McArthur, P.O. Box 258, Greenwood B.C., V0H 1J0.

Statement of Expenditures:

Drilling Invoices		\$ 11,736.00
Field Costs		927.16
Analytical		<u>72.75</u>
	Total	\$ 12,735.91

The above costs were incurred in carrying out the diamond drilling as described in this report.



Wayne Waters, B.Sc.
Geologist.



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B C
CANADA V7J 2C1

TELEPHONE (604) 984-0221
TELEX 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : MCKINNEY RESOURCES

844 WEST HASTINGS
VANCOUVER, B.C.
V6C 2X4

CERT. # : A8312611-001-
INVOICE # : 18312611
DATE : 19-JUL-83
P.O. # : NONE

Sample description	Prep code	Cu %	Ag FA oz/T	Au FA oz/T			
201	207	0.03	0.02	<0.003	--	--	--
202	207	0.08	0.20	<0.003	--	--	--
203	207	0.01	0.06	<0.003	--	--	--
204	207	--	0.14	<0.003	--	--	--



MEMBER
CANADIAN TESTING
ASSOCIATION

[Signature]
.....
Registered Assayer, Province of British Columbia

DIAMOND DRILL RECORD,

HOLE NO. 1

PROPERTY Copper Camp

SHEET NUMBER 1

SECTION FROM _____ TO _____

STARTED June 28 1983

LATITUDE _____

DATUM _____

COMPLETED July 3 1983

DEPARTURE _____

BEARING N15W

ULTIMATE DEPTH 345'

ELEVATION _____

DIP -50

PROPOSED DEPTH _____

DEPTH FEET	CORE RECOV	DESCRIPTION	CORE SAMPLE NO.	FOOTAGE	CORE ASSAYS				SLUDGE SAMPLE		SLUDGE ASSAYS			
					AG.	CU.	PB.	ZN.	NO.	FOOTAGE	AG.	CU.	PB.	ZN.
0-115		100feet of casing, broken ground abundant Fe stain silicified Limestone												
115-117	90%	White Limestone, Fe stain minor fracturing												
117-127	90%	White Limestone, abundant Fe stain, 1' breccia at 126 to 127 feet, abundant hematite stringers from 122 to 127 feet												
127-135	90%	White limestone breccia at 128, 129 and 130 feet shearing at 130 feet, 1 foot of Fe stain at 131 feet												
135-135	90%	Greenstone dyke?												
136-137	590%	Grey-white limestone												
137.5-141	90%	Grey green limestone with breccia at 139'												
141-177	90%	144-145' abundant Fe stain, at 143.5' a 45 degree shear to C.A. Limestone trough out section 144' 4" Fe stain shearing at 45 degrees to C.A. 153 to 154' 1 foot of core lost due to bad ground 157 to 167' lost 2.5 feet of core due to ground												

DIAMOND DRILL RECORD,

HOLE NO. _____

PROPERTY Copper Camp

SHEET NUMBER 2 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	CORE RECOV	DESCRIPTION	CORE SAMPLE NO.	FOOTAGE	CORE ASSAYS				SLUDGE SAMPLE		SLUDGE ASSAYS			
					AG.	CU.	PB.	ZN.	NO.	FOOTAGE	AG.	CU.	PB.	ZN.
177-297	90%	Grey Limestone throughout section, rock fairly competent shear 80 degrees to C.A. at 194' 207 to 272' Grey white Limestone, fine carbonaceous bands from 212 to 297', minor fracturing throughout, minor shears at 222', 45 degrees to C.A. and shear at 234, 70 degrees to C.A.												
258-265	90%	small basic dyke minor shear with carbonaceous material, shear is 75 degrees to C.A.												
265-267	90%	Limestone ground badly broken												
267-297	90%	Grey Limestone at 280' shearing 70 degrees to C.A. 290-290.5 basic dyke.												
297-307	90%	Greenish Limestone, brecciated, Minor pyrite, ground badly broken at 300'												
307-313.5	90%	Grey Limestone small amount of Carbonaceous bands.												
313.5-326	90%	Grey green limestone badly broken, minor pyrite												
326-345	90%	Grey Limestone												

DIAMOND DRILL RECORD,

HOLE NO. 2

PROPERTY Copper Camp

SHEET NUMBER 1 SECTION FROM _____ TO _____ STARTED July 3, 1983

LATITUDE _____ DATUM _____ COMPLETED July 5, 1983

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH 307'

ELEVATION _____ DIP Vertical PROPOSED DEPTH _____

DEPTH FEET	CORE RECOV	DESCRIPTION	CORE SAMPLE NO.	FOOTAGE	CORE ASSAYS				SLUDGE SAMPLE		SLUDGE ASSAYS			
					AG.	CU.	PB.	ZN.	NO.	FOOTAGE	AG.	CU.	PB.	ZN.
0-49		10 feet of casing, Altered sill or dyke?, light colored, appears to have inclusions of chlorite and is brecciated in places.												
49-51	90%	Light colored sill or dyke?												
51-51.5		6" of grey limestone												
51.5-54.5		light colored sill or dyke, at 52.5 shear 60 degrees to C.A.												
54.5-60		Brecciated limestone												
60-65		Light colored sill or dyke, 64-65 abundant carbon or dyke, slip has no particular angle.												
65-68		Brecciated limestone												
68-71		light sill or dyke												
71-72		limestone												
72-75		light colored sill or dyke												
75-75.5		dark gouge, shear parallel to C.A.						AU						
75.5-82		Copper zone? brecciated	201	2'	.02oz/t	.03%	.003oz/t							
			202	2'	20 "	.08%	.003 "							
			203	2'	.06 "	.01%	.003 "							
			204	3.5'	.14 "	.01%	.003 "							

[Handwritten signature]

DIAMOND DRILL RECORD,

HOLE NO. 2

PROPERTY _____

SHEET NUMBER 2

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____


PROPOSED DEPTH _____

DEPTH FEET	CORE RECOV	DESCRIPTION	CORE SAMPLE NO.	FOOTAGE	CORE ASSAYS				SLUDGE SAMPLE		SLUDGE ASSAYS			
					AG.	CU.	PB.	ZN.	NO.	FOOTAGE	AG.	CU.	PB.	ZN.
82-103		Grey limestone, shear at 91' parallel to C.A.												
103-104		Porphyry, brecciated, breccia approximately 1/2" altered xls of calcite, abundant biotite												
104-106		Grey limestone												
106-122		Porphyry sili, altered calcite and biotite												
122-126		Dark green dyke												
126-127		Altered Porphyry												
127-136		Limestone carbon seams												
136-137		Basic dyke												
137-272		Altered Porphyry												
227-272		Grey limestone, badly broken												
272-305		Altered Porphyry												
305-307		Grey limestone												

WRITER'S CERTIFICATE

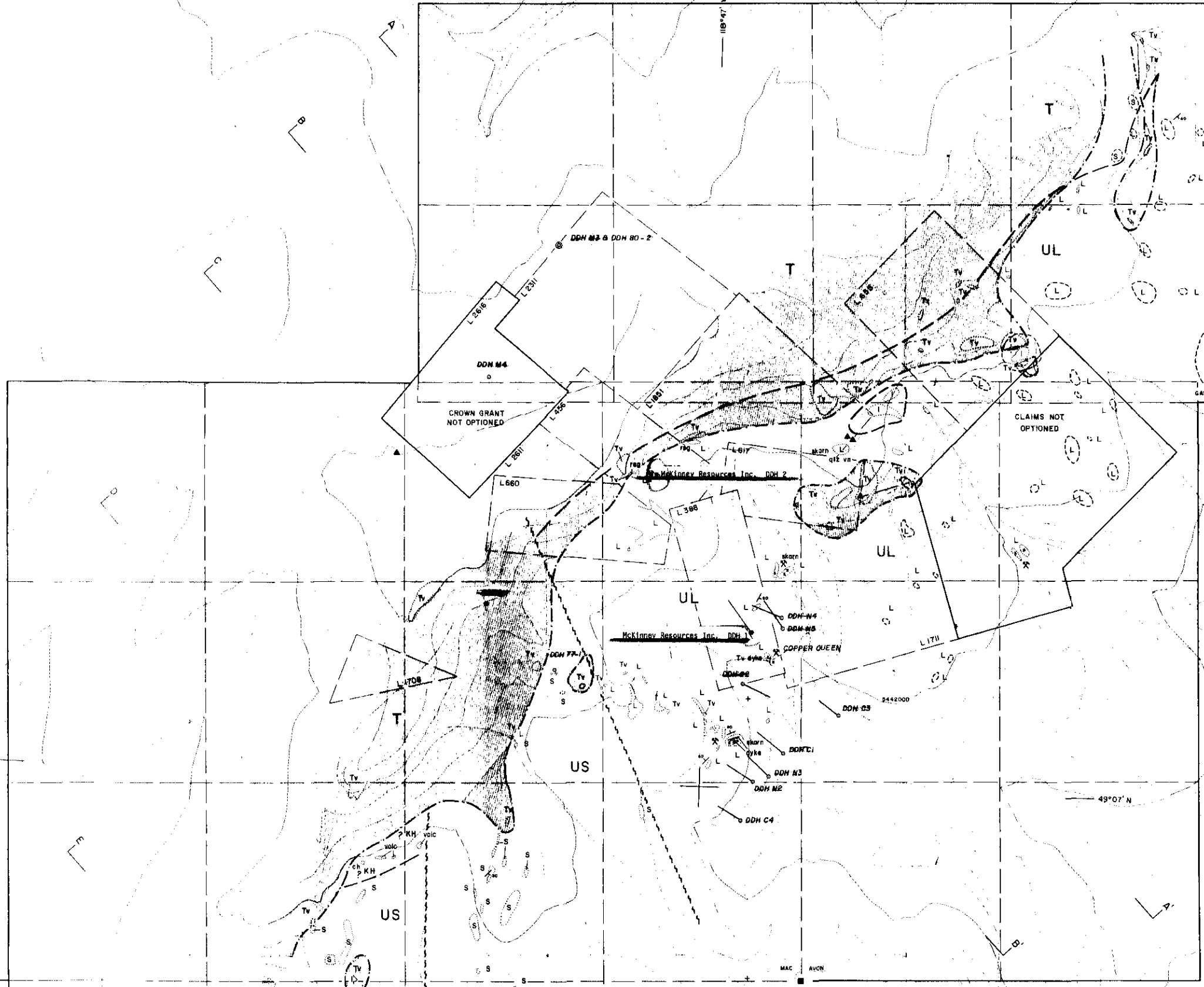
I, Wayne Waters of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at 3756 West Broadway, Vancouver British Columbia, V6R 2C1.
2. I am a graduate of the University of British Columbia B.Sc. in Geology in 1972.
3. I have been practicing my profession since I graduated in 1972.
4. I am the author of this report which is based on the diamond drilling of two holes that were done in 1983.



Wayne Waters, B.Sc. Geologist

July 23, 1984
Vancouver, B.C..



3442000 +
45°07' N
345000 +
346000 +

LEGEND

- Stratigraphic Units**
- T Tertiary volcanic and hypabyssal rocks
 - I Intrusives (believed to be Cretaceous)
 - UL Triassic (Brooklyn Formation)
 - UL Upper Limestone
 - US Upper Shergstone
 - US Pre-Permian
 - KH Knob Hill
- Lithologic Symbols**
- Tv Tertiary volcanic and hypabyssal rocks
 - L Limestone
 - S Shergstone conglomerate
 - volc Volcanic rocks
 - ch Chert
 - qtz vn Quartz vein
 - reg Regolith
 - Land of Tertiary cover
 - Geologic contact, inferred and projected beneath Tertiary cover
 - Fault - inferred
 - Outcrop located on orthophoto
 - Outcrop transferred from previous mapping
 - Boundary of M63 unit or Crown Grant
 - Boundary of claims optioned to Joliet Venture
 - Legal Corner Post
 - Old Post
 - Disposed Drill Hole, 1980
 - Previous Diamond Drill Hole
 - Trench
 - Old excavations
 - Copper occurrence
 - Cross Section Line

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,328

SCALE 1:5000
100 50 0 100 200 300 400 METERS

**COPPER QUEEN CLAIMS
GEOLOGY, CLAIMS AND
DIAMOND DRILL HOLE
LOCATIONS**

PLAN No	DRAWN	DATE	FIGURE
		NTS 82 E/2	3