5134

A REPORT

ON

93M/5E & 6W

The Geological Reconnaissance of the Area covered by the Beta Claims, Nine Mile Mountain, Hazelton, Omineca Mining Division, British Columbia.

Latitude 55° 21'N, Longitude 127° 29'W Sheet 93M

BY

Daniel M. Basco,

Nordic Mining Services

Nordic Management & Development,Ltd.

For Spectrum Industrial Resources, Ltd.

Date of Work: August 19-28, 1974.

Date of Report: September 5,1974.

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A Report on the Reconnaissance Geology of the Area covered by the Beta Claims Group, Nine Mile Mountain, Hazelton, Omineca Mining Division, B.C.

INTRODUCTION

During the period of August 19-28,1974, the undersigned with Garth Alley and Abe Friesen, undertook a geological reconnaissance of the area covered by the Beta Claims group, formerly the Barber Bill group. A 1" = 200' base map was used in mapping by employing Brunton compass, tape, and altimeter, making use of some of the claim posts as control points.

PROPERTY

As of date, the property belongs to Spectrum Industrial Resources, Ltd., and consists of the following:

NAME OF CLAIM	RECORD NO.	EXPIRY DATE
Beta 5	128190	September 7,1974.
Beta 7-20	128192-128205	September 7,1974.

For obvious reason, five claims have been dropped. These include Beta 1,2,3,4 and 6.

LOCATION AND ACCESS

The claims are situated on the north side of Nine Mile Mountain and cover the east side of a steep-walled cirque known as Silver Cup Basin which opens up to the north. A point in the claim group has the approximate geographic position: 55° 21' North Latitude and 127° 29'West Longitude.

The access to the property is by way of the Nine Mile Mountain road from New Hazelton to Silver Cup Basin, a distance of 13 miles. From the road, a cat-road about 1 mile long leads up to the workings at 4,100 feet of elevation, which are situated on the east side of the basin. The lower end of the basin is at elevation of 3,400 ft.

PREVIOUS WORK

As per MEMOIR 223, W.S. Harris & Associates carried out a little development work in the property, then known as Barber Bill Group, in 1928. C.H. Schwerdt restaked 18 claims of the group in 1948, and optioned the prospect to Crown Silver Lead Mines, Limited, a subsidiary of Trans-Continental Resources, Limited. Surface work was carried out during the 1951 season by C.D. McCord, for the company.

Surface work consisted of Stripping and open-cutting, exposing a vein for about 375 feet at 4,100 feet of elevation on the eastern side of the basin.A 45 foot adit was driven midway along the strike of the vein and a shallow winze was driven at the face of the tunnel.

Mention was also made in the Memoir, about the 18 samples collected from the second vein 1,600 feet farther south of the adit, at an elevation of 4,750 feet, yielding sufficient values in silver, lead & zinc. Attempt to find this vein failed because of debris covering, during recent field trip in the area.

LOCAL GEOLOGY

Mesozoic sedimentary rocks underlie the area covered by the Beta claims. These rocks are invaded by a granodioritic stock belonging to the Bulkley intrusions that may be related to the batholithic rocks of the Coast Mountain that lie some 25 to 35 miles to the west.

The sedimentary rocks are parts of the upper sedimentary division of the Hazelton Group of Upper Jurassic to Lower Cretaceous age. The rock consists of interbedded sandstone, greywacke, argillite and shale. At or near the contacts with the granodiorite, the sedimentary rocks are altered to slate, quartzite, and hornfels. The ore in the area occurs in the greywacke.

The granodiorite in the area represents the northwestern continuity of the granodiorite-diorite stock, 4 miles long and more than ½ mile wide, emplaced in the northern part of Nine Mile Mountain. Age is Upper Cretaceous or later. The granodiorite was reported to be made up of 20% quartz, 15% altered biotite, 60% oligoclase feldspar, and a little orthoclase.

Apparently, field evidence indicate that a direct genetic relationship between the mineral deposit and the granodiorite in the area exists.

MINERAL DEPOSITS

G.S.C. MEMOIR 223 (Revised Edition) 1954, made mention of two veins having been exposed by surface workings (stripping and open-cutting) earlier carried out in the former Barber Bill Group now covered by the Beta claims owned by Spectrum Industrial Resources, Ltd. These veins may be referred to as "first" and "second" vein in this report. Only the first vein was seen and described in this report, as the second vein was not observed during the recent reconnaissance of the area because of possible covering effected by talus or fallen debris.

The first vein occurs on the east side of a steep-walled cirque known as the Silver Cup Basin at elevation of 4,100 feet. It is accessible by a 1-mile winding cat-road which joins with the Nine Mile Mountain road on the lower rim of the Basin or cirque in the north at elevation of 3,400 feet. The vein has been exposed by earlier surface workings for a length of 375 feet along strike, emplaced as a replacement of a bedding plane fault zone in a greywacke striking N.N.W. and dipping 180 to 30 E.S.E. into the mountain. It ranges in width, from 4 inches to 4 feet, and is made up of very finely crystalline jamesonite, galena, sphalerite, and arsenopyrite, with minor quartz and fine pyrite stringers in parts. Certain internal structural details of the replaced bedding plane fault in the greywacke such as shear fractures, slivers, and fine bedding are still discernible in the massive sulphide vein. A 45 foot adit with a shallow winze at the face was driven midway along the strike of the vein. In the adit, the vein has an average width of 2 feet, widening to 4 feet for a short distance, where a drag or divergent fracture occurs. The grade of the deposit may be indicated by the reported average values of the assays stated in the following. Ten samples from a section of the vein 70 feet long beginning at the portal of the adit both ways gave an average value of silver - 23.76oz/ton; lead-6.90%; and zinc 8.26% across an average width of 2.02 feet. A 2 foot channel sample across the vein near the winze assayed silver 14.89 oz/ton; lead 5.67%; zinc 12.50%; gold 0.05 oz/ton; antimony 2.22%; and cadmium 0.1%. At present much of the first vein is pretty well concealed by talus or freshly fallen debris.

The second vein was reported to occur at an elevation of 4,750 feet on a steep slope of the basin 1,600 feet to the south of the first vein. As exposed, the former is said to be 250 feet long and 1.84 feet wide. Eighteen samples collected from the second vein gave the following uncut averages of silver 8.32 oz/ton; lead 3.02%; and zinc 5.37%.

CONCLUSION AND RECOMMENDATION

The property appears to show good prospects of finding additional orebodies along contact zones between the granodiorite intrusive and the intruded sedimentary rocks. To this end the following recommendations are herewith offered.

1. Detailed geologic mapping and investigation of the contact zones between the intruded sedimentary rocks and the granodiorite intrusive in the area covered by the retained claims of the company.
2. Side-cutting and trenching to expose the second vein in the upper workings now concealed by talus accumulations.
3. Diamond drilling to a total of 2,000 feet in 4 or 5 holes properly located in the lower workings area, to probe for the lateral and vertical continuity, as well as, grade and thickness of the first vein. In this connection, it is advisable to reopen and enlarge the adit, now partly caved, to serve as one of the sites for drilling operation.

Respectfully submitted,

Daniel M. Basco

September 5,1974
Nordic Mining Services
Nordic Management & Development,Ltd.

Daniel M. Basco,
Geologist.

STATEMENT OF QUALIFICATIONS

Name: BASCO , Daniel M.

Profession: Geologist

Education: B.Sc. Geology, University of the Philippines, 1935.

Took post-graduate courses in Economic Geology, University of the Philippines, 1936-1940.

Made studies and observations of basemetal mining and exploration projects in Japan, under the auspices of Mitsui Mining & Smelting Co., 1957.

Professional Associations: Registered Geologist, Philippines Board of Examiners.
Fellow, Geological Association of Canada.
Member, Mineralogical Association of Canada.

Philippines Experience:

Eleven years teaching geology, University of the Philippines.

Three years Government Geologist for Philippines Bureau of Mines.

Fifteen years diversified experience in the practice of geology having been connected as Field,Mining, Exploration and Chief geologist for different mining and exploration companies, such as Mitsui Mining & Smelting Co.,,Marsman & Co., Elizalde & Co.,Island Oil & Industrial Corporation and Marinduque Mining & Industrial Corporation.

Canadian Experience: (1964-1974)

Ten years geological experience as Mines, Exploration and Consulting Geologist at one time or another for Western Mines, Ltd., Kerr Addison Mines, Ltd., Condor Mines, Ltd., Cloumbia River Mines, Ltd., Mt. Sicker Mines, Ltd., and Nordic Management & Development,Ltd.

Daniel M Basco

BETA CLAIMS - HAZELTON, B.C. EXPENSES

Claims Beta 5 & 7-20 = 15 claims

Dan Basco Engineering fee	$850.00
Garth Alley (10 days @ $50./day)	$500.00
Abe Friesen (10 days @ $45/day)	$450.00
Supplies	$142.18
Transportation (10 days @ $20/day-jeep rental)	$200.00
Mileage (2000 mi @ .20¢ mile)	$400.00
Meals & Accomodation	$469.13
Total	$3011.31

Declared before me at the

of , in the

Province of British Columbia, this VANCOUVER, B. C.

day of SEP 16 1974 , A.D.

Sub-Mining Recorder

Fred W. Chapman

FRED. W. CHAPMAN

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

True South

15/

11 13

16 18

2 1

15 17

20 19

·5250

·5150

·4750

Upper Rim of Basin

15/

Silver Cup Workings

·4600

/15

Upper? Workings ?

4070 4020 4000 3970 3920 3800 3780 3760 3720 3715 4125 4130 3870 3820 4100 4085 3600 3550 3500 3480 3380 3280

Lower Workings

Nine Mile Road

Lower rim of Basin

Ag 14.89 oz/ton; Pb 5.67; Zn 12.50%; Sb 2.22%
2

Ag 22.15 oz/ton; Pb 6.90%; Zn 8.26%
2.02'

18

Talus-covered part of vein.

Scale 1"=20"

El: 4,100

E-W Section Thru Adit, Facing South

LEGEND

UPPER CRETACEOUS OR LATER

Granodiorite

UPPER JURASSIC & LOWER CRETACEOUS

Conglomerate, sandstone, shale, argillite, greywacke, quartzite, Taff, minor lava; some coal.

Geologic boundary

Strike & dip of bedding

Shear or fault

Mineral Showing or vein; talus-covered in dash & dots.

Claim line

Road

Upper rim of Silver Cup Basin

·4200 Elevation control

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5134 MAP #1

SPECTRUM INDUSTRIAL RESOURCES
BETA CLAIMS
OMINECA MINING DIVISION-BRITISH COLUMBIA
GEOLOGICAL MAP
BY D.M. BASCO Daniel M. Basco SEPT, 1974
SCALE IN FEET
200 100 0 200 400

5134 M1

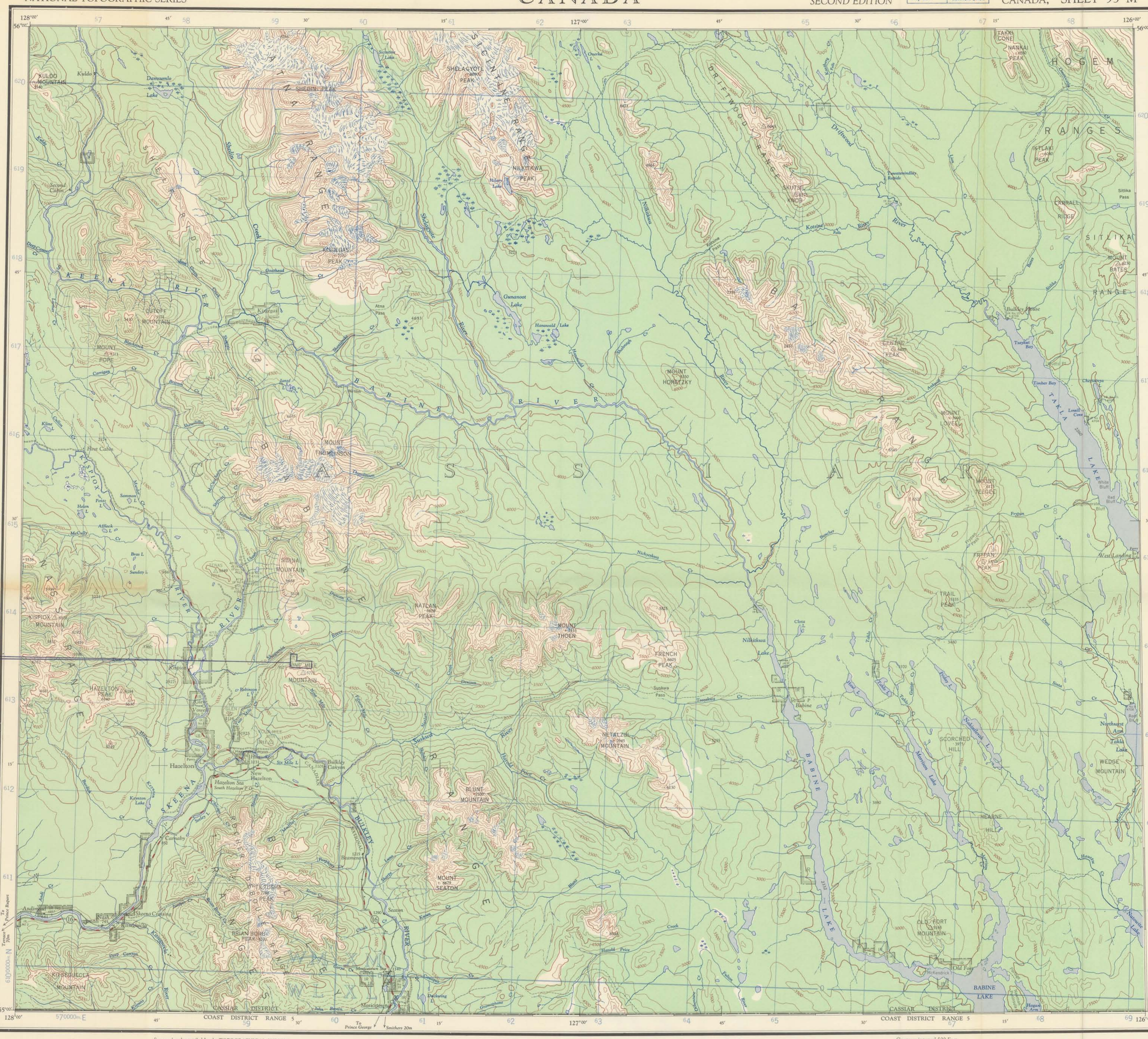
NATIONAL TOPOGRAPHIC SERIES

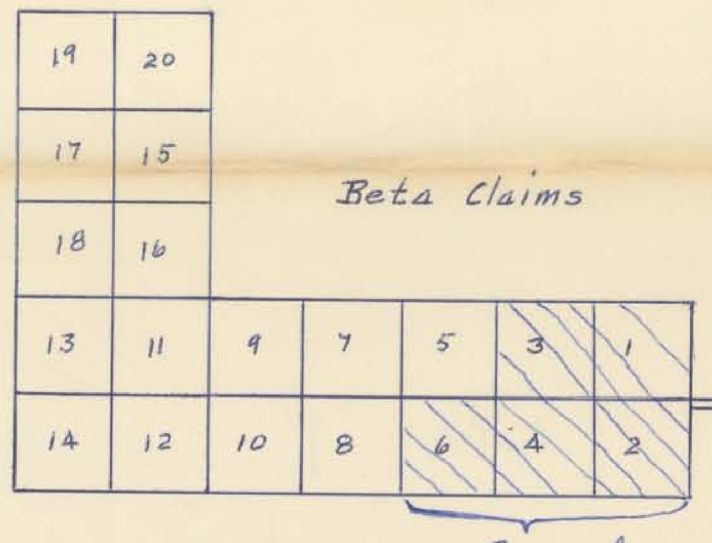
CANADA

SECOND EDITION

Refer to this Map as:	93 M EDITION 2 ASE

CANADA, SHEET 93 M





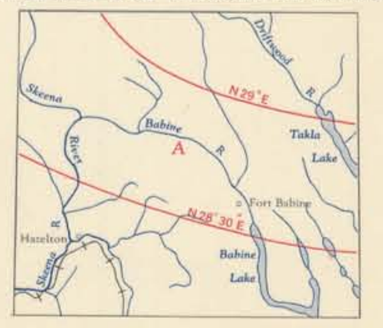
Spectrum Industrial Resources Ltd.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5134 MAP #2

Surveyed and compiled by the TOPOGRAPHICAL SURVEY,
Dept. of Mines and Technical Surveys 1935
Revised with the aid of Air Photographs,
drawn and reproduced by the ARMY SURVEY ESTABLISHMENT, R.C.E. 1953-54

Universal Transverse Mercator Projection

DECLINATION OF THE COMPASS NEEDLE, 1954



The declination of the compass needle at any place along a red line is the declination given on that red line. At other places the declination is between those given on the neighbouring red lines; thus at the place marked A, the declination is between N. 28°30' E. and N. 29° E. The easterly declinations of the compass needle are decreasing 4 minutes annually.

REFERENCE

Road, Hard Surface, All Weather — More than 2 Lanes, Route No. 26, 2 Lanes
" Loose Surface, All Weather — 2 Lanes Wide or More
" " " Less than 2 Lanes — All Weather, Dry Weather
Cart Track, Trail — Cart Track, Trail
Railway, Multiple Track
" Single Track
Boundary, International
" Province or State
" County or District
" Reservations, Indian, Military, etc.

HAZELTON

BRITISH COLUMBIA

Scale 1 : 250,000
1 Inch to 4 Miles Approximately

Miles 5 0 5 10 15 20 Miles
Kilometres 5 0 5 10 15 20 25 30 Kilometres

Copies may be obtained from
The Map Distribution Office,
Dept. of Mines and Technical Surveys,
Ottawa.

Contour interval 500 Feet.
All Elevations in Feet above Mean Sea Level.
North American Datum 1927

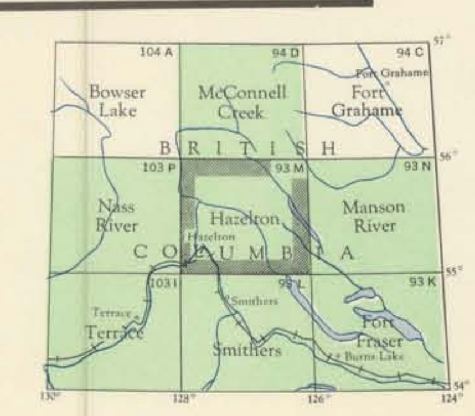
REFERENCE

Horizontal Control Point △ — Spot Elevation, in feet .124
Contours, Elevation — Forest, unclassified
" Depression — Swamp or Marsh
" Approximate
Glacier or Snowfield — W.L. 125
Stream, Intermittent — Ferry — Mud — Sand
Dam — Falls — Lighthouse
Airfield, on Land — Water — Landing Ground — Anchorage
Power Transmission Line

GRID ZONE DESIGNATION 9U	TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 1000 METRES		
100,000 M. SQUARE IDENTIFICATION: WN XN 620, 60, WM XM, WL XL 610	SAMPLE POINT TRAIL JUNCTION		
	1. Read letters identifying 100,000 metre square in which the point lies.	XM	
	2. Locate first VERTICAL grid line to LEFT of point and read LARGE figures labeling the line either in the top or bottom margin, or on the line itself. Estimate tenths from grid line to point.	60	
IGNORE the SMALLER figures of any grid number; these are for finding the full coordinates. Use ONLY the LARGER figures of the grid number; example: 570000	3. Locate first HORIZONTAL grid line BELOW point and read LARGE figures labeling the line either in the left or right margin, or on the line itself. Estimate tenths from grid line to point.	32	
	SAMPLE REFERENCE	XM6032	
	If reporting beyond 18° in any direction, prefix Grid Zone Designation as	9UXM6032	

TEN THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 9

5134
M2



NOTE: On the above index the sheets published are shown tinted green

HAZELTON B.C.
SHEET 93 M
SECOND EDITION