

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

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SHELDON LAKE

YUKON TERRITORY

SHEET 105 J
FIRST EDITION

LODE OCCURRENCES

Pike Group Property (Atlas Explorations Limited) (about 62°11'N,
(Copper-Silver) 130°39'W)

References: Roddick and Green (1961); Chisholm and Brock
(1967). 1966

Atlas Explorations Limited holds a total of 776 claims in an area centred about 16 miles northwest of the abandoned trading post at Pelly Lakes. The initial claims were staked following extensive airborne geophysical surveys made in the Traffic Mountain - Pelly Lakes district early in 1966. Subsequent ground geophysical and geochemical surveys outlined anomalous areas along a broad valley west of Pelly Lakes containing three small lakes, one of which is known locally as Pike Lake. Prospecting of the area located copper-silver mineralization associated with a small Tertiary (?) acidic

intrusion, similar to those of unit 13, Roddick and Green (1961). During the 1966 season, surface exploration of the property was initiated, including a bulldozer trenching program and minor packsack test drilling.

The property was visited in early September, 1966, by which time a series of shallow bulldozer trenches had been cut across parts of the mineralized zone. Outcrop is sparse and the geology of the property is incompletely known, but sulphide mineralization appears to occur mainly along and near the southwest margin of an elongate stock or plug that cuts presumably Ordovician and Silurian sedimentary rocks (unit 3, Roddick and Green, 1961). Exposures observed on the property included banded chert, dark limy shale, and impure limestone. In places, notably along the bulldozer road leading from Pike Lake to the camp, rubble or near-outcrop zones of intermediate to mafic volcanic rocks are present (probably unit 14, Roddick and Green, 1961). The acidic intrusion shows subtle variations in composition and texture; in places the rock is a massive, medium-grained granodiorite or quartz monzonite; elsewhere it is porphyritic, and contains conspicuous quartz and plagioclase phenocrysts.

Sulphides, including arsenopyrite, chalcopyrite, pyrite, galena and sphalerite, occur disseminated through a rusty, gossanized zone along the contact of the intrusion and in its strongly-fractured marginal rocks. Near the western end of the zone, the mineralization appears to be confined within the intrusive rocks, which in this locality are generally more leucocratic than normal and are locally altered to pale green cherty-looking rocks. Here, the sulphide assemblage is dominantly arsenopyrite with minor pyrite and chalcopyrite, in contrast to the eastern and central parts of the zone where galena and sphalerite are common. A grab sample collected from one of the trenches across the western zone assayed*: 0.01 ounces per ton gold, 0.81 ounces per ton silver, trace lead and zinc, and 0.01 per cent copper.

The extent and continuity of mineralization on the Pike property is not yet known; however trenching results to date suggest that the zone may be fairly extensive, possibly up to 2 miles long. Chisholm and Brock (1967) reported that a partially-explored section of the mineralized zone is estimated to contain 2,500 tons of ore per vertical foot averaging 0.61 per cent copper and 2.44 ounces per ton silver.

*Assayed by G. Spalding, Whitehorse, Y.T.

#2

Canadian Yukon Mining Company Limited (62°15'N, 130°42'W)

References: Skinner (1962, p. 41); Green and Godwin (1963, pp. 30-31).
1963

The company was inactive in this area in 1963, and late in the year abandoned their claims.

PELLE PLATEAU AREA

Traffic Mountain

NTS 105 J2,7

#2

Canadian Yukon Mining Company Limited (Norken, Fool, Peak, and Rain Groups) (62°15'N, 130°42'W)

References: Green and Roddick (1961); Skinner (1962, p. 41).

1962
The company holds 40 claims located about 12 miles northwest of Traffic Mountain and about 60 miles east-northeast of Ross River. A small lake just north of the property is suitable for fixed-wing aircraft.

Work has been carried out by the present company since 1959 and has consisted of geological mapping, trenching, electromagnetic and magnetometer surveys, and diamond-drilling. In 1961, 5 holes with a total length of 1,800 feet were drilled and, in 1962, 8 holes with a total length of 2,800 feet were drilled.

Aside from scattered showings there is little outcrop on the claim group. Two of the more important showings, the Nipple, at an approximate elevation of 4,200 feet, and the Copter, at an approximate elevation of 4,900 feet and situated 4,200 feet east of the former, carry disseminated pyrrhotite, pyrite, and chalcopyrite. Elsewhere, float carrying encouraging values in copper, silver, lead, and zinc was discovered.

The electromagnetic survey indicated two parallel anomalies trending approximately 120 degrees azimuth. One of these passed near the Nipple showing and was traced for about 8,500 feet and the other near the Copter, for 800 feet. Drilling revealed that the anomalies were caused mainly by disseminated pyrrhotite rather than the type of mineralization exposed in the showings or found as float.

A number of the drill cores were examined during a brief visit to the property. The most common rock types are a purplish-brown and green finely banded hornfels and a dark grey to black argillite. The hornfels appears to be composed of very fine grained silicates. Frequently, it has been altered to very fine grained white material (chiefly quartz?) and in some places this alteration was observed to end abruptly at a hairline fracture. The banding of both the hornfels and the argillite showed numerous minor faults and folds, including some very attenuated isoclinal folds. Small amounts of sulphides, chiefly pyrrhotite, are widespread. The sulphides occur both as concentrations along the fine banding of the rock and in tiny crosscutting veinlets filled with quartz, calcite, and sulphide.

Green and Roddick (1961) have shown the claim group as underlain by Ordovician and Silurian chert and shale (their map-unit 3). However, the lithology of the drill core corresponds very closely to their unit 1a as mapped on Traffic Mountain, 12 miles to the southeast, where it is described as "light grey and whitish quartzite, banded hornfels and granulite, grey quartzite, skarn; minor chert and crystalline limestone" and is considered to be of Proterozoic age. Unit 1a has not been accurately dated in the general area and the close association of this unit with the Ordovician and Silurian chert and shale (unit 3) on both the claim group and Traffic Mountain suggests that the two (1a and 3) may be of the same age.

PELLE PLATEAU AREA

Traffic Mountain NTS105 J2,7

#2 Norken, Fool, Peak, and Rain Groups (lat. 62°14'N, long. 130°41'W)

References: Green and Roddick (1961a); Skinner (1961, p. 43).

1961

The Norken, Fool, Peak, and Rain Groups of 40 mineral claims lie about 60 miles east-northeast of Ross River and about 12 miles northwest of Traffic Mountain at an altitude of 4,500 to 5,000 feet.

The showings were formerly held by Kennco Explorations Limited. In 1959 they were restaked and acquired by Canadian Yukon Mining Company Limited. That year the company mapped the Norken and Fool Groups and trenched and sampled showings on these claims. In 1960 and 1961, electromagnetic and magnetometer surveys were made of all four groups and some prospecting and trenching was done; in 1961 about 1,800 feet of diamond-drilling was done.

It is reported that high-grade copper-zinc and lead float zones up to 100 feet wide have been traced for 10,000 feet and that there is a continuous E.M. and magnetometer anomaly along this mineralized zone. The country rocks are Ordovician or Silurian thin-bedded argillites and quartzites that strike northwesterly and dip steeply.

1960

- NTS 105 J 2,7

#2

A.K. Lytle did exploratory work on a former Kennco Explorations Limited copper property—restaked as the 'Norken', 'Fool', 'Peak', and 'Rain' groups of mineral claims. These 40 claims are in Sheldon Lake (105J) map-area at lat. 62°15'N, long. 130°43'W. In August 1959 the 'Norken', and 'Fool' groups were trenched, sampled, and geologically mapped. In June and July 1960, electromagnetic and magnetometer surveys were made of all four groups, and some prospecting and trenching was done. Disseminated sulphides are present in five or more showings in thin-bedded argillites and quartzites that strike easterly and dip steeply.

Pelly Plateau Area

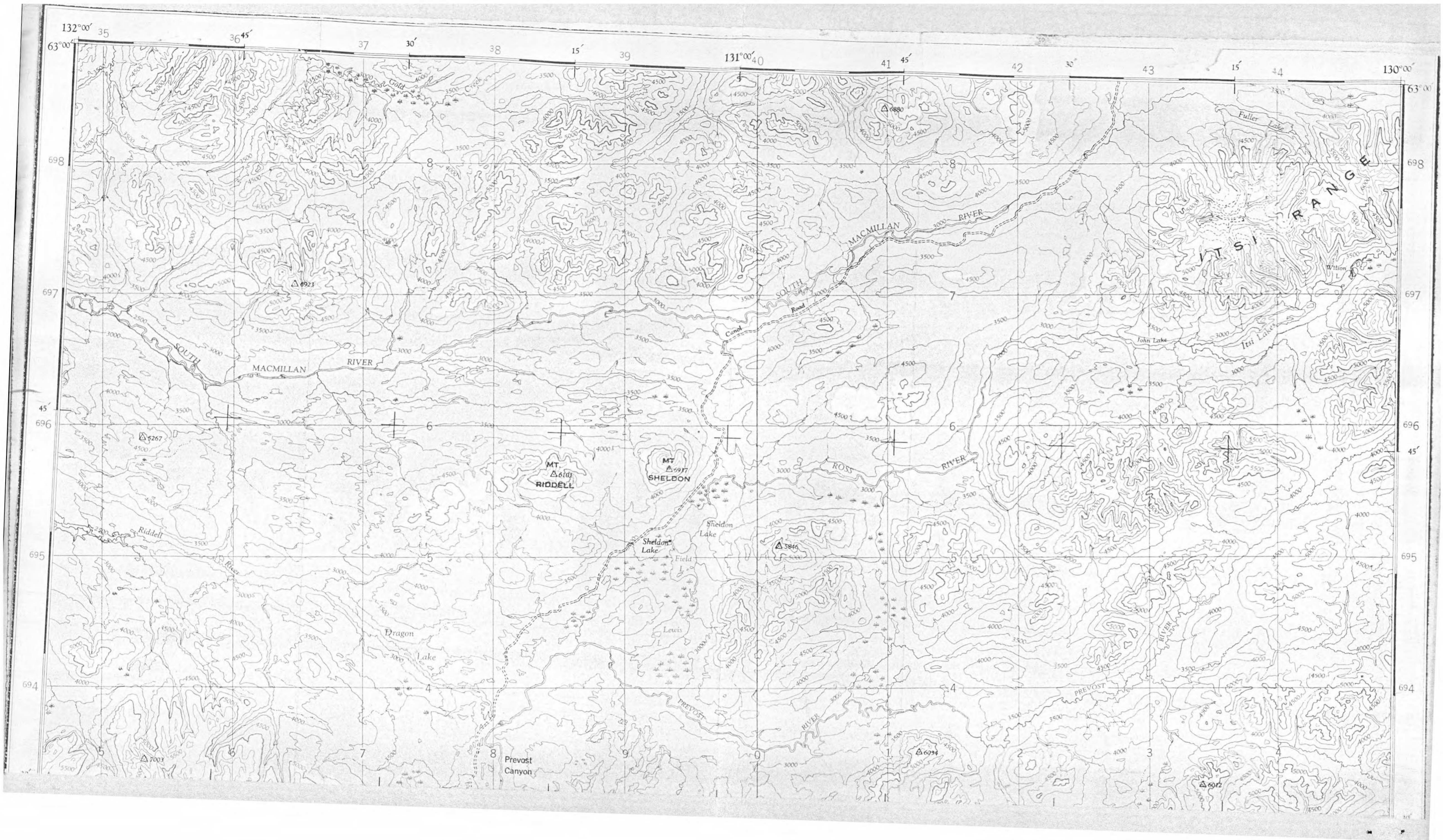
#3

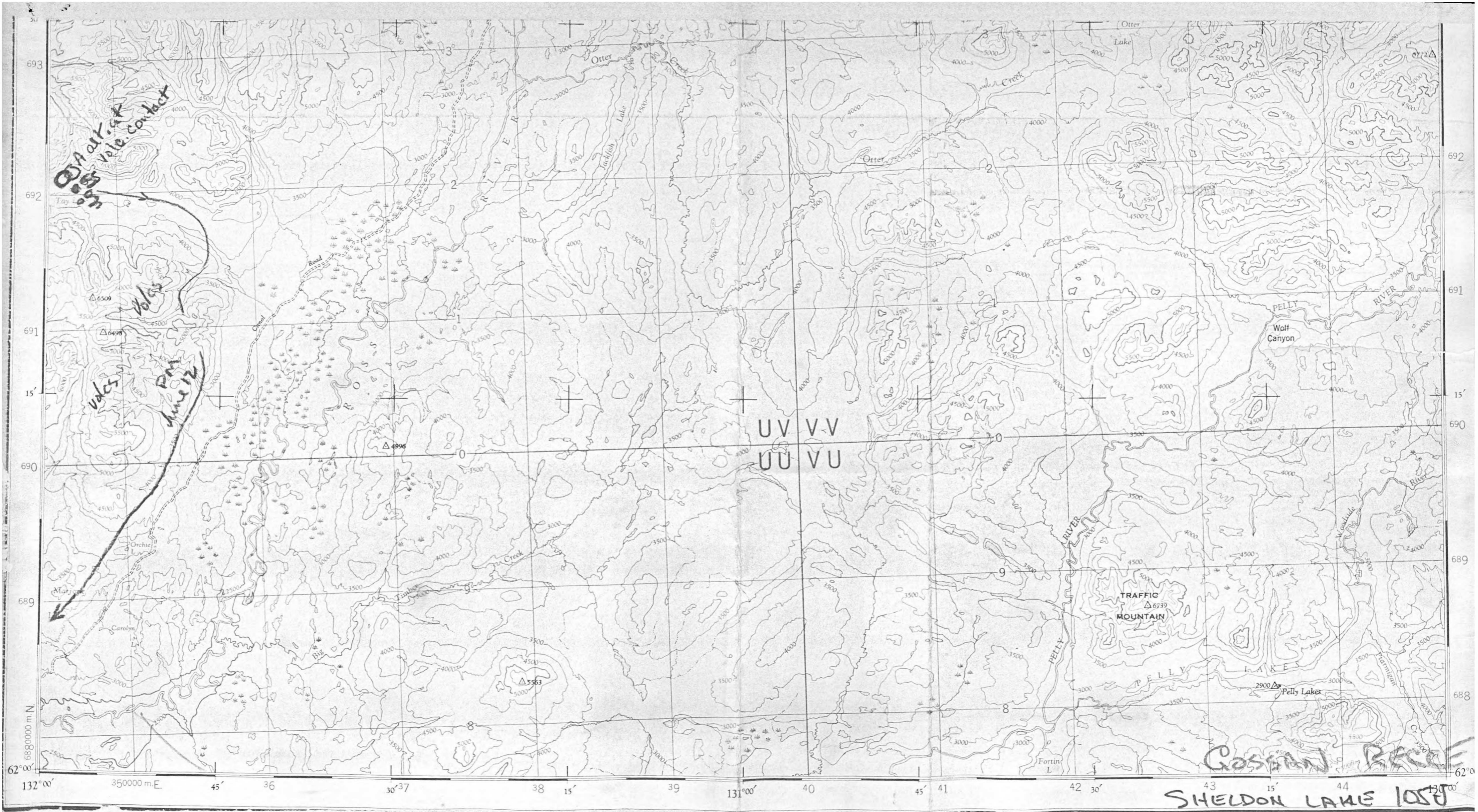
1960 NTS105 J12
Kennco Explorations (Western) Limited in February 1960
staked the 'Pad' group of nine copper-bearing mineral claims on the south shore of Dragon Lake, at lat. 62°37'N, long. 131°32'W, about 50 miles northeast of Ross River settlement. This group lies in Sheldon Lake (105J) map-area, which was mapped by Green and Roddick (1961a) in 1960. Access is by bush plane, 160 air miles from Whitehorse.

The company geologically mapped and made a magnetometer survey of the property and sampled the showings. The deposits are in skarn zones at and near the contact between limestone and a small granite stock. The underlying rocks, which strike northeasterly and dip about 45°NW, are mainly quartzite with some mica schist and limestone bands. Chalcopyrite and some scheelite are disseminated in the pyrrhotite-bearing skarn zones.

- #4 Bill - Pelly Group - Adjoins Pelly Lakes, S.E. of Pelly Lake Trading Post. Atlas Exploration 1966.
- #5 Jara Group - 105-J-16 - Located about 3 miles southeast of Fuller Lake. A mineralized shear zone, up to 10 ft. wide, traced for length of about 800 ft. Fair Pb-Zn-Ag values. The likelihood of exploitable tonnages being associated with the known showing is small. (T. Sadler-Brown, January 25, 1967).

PLACER OCCURRENCES





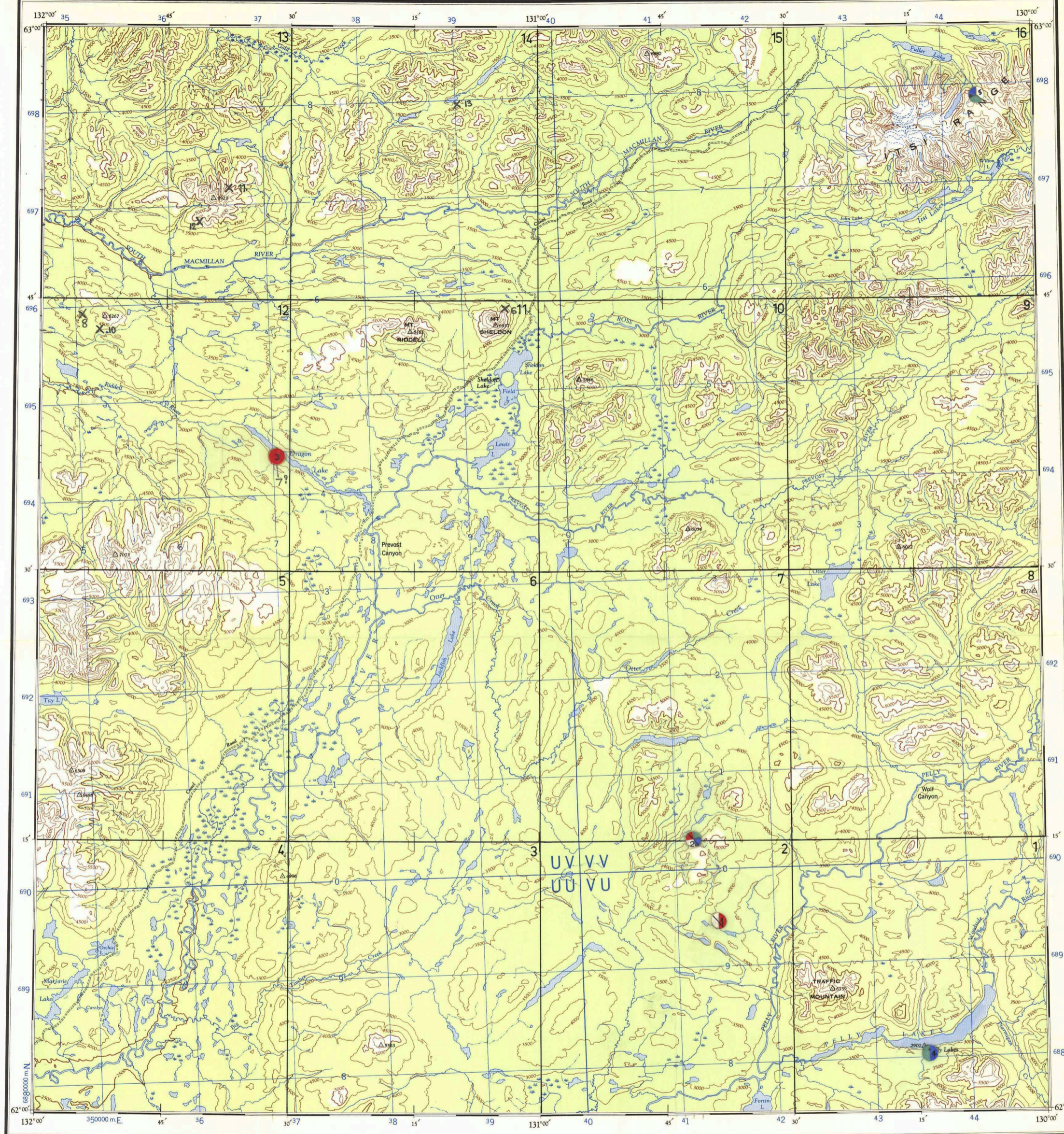
GOSMAN RIVER
SHELDON LAKE 1050

<u>NTS & Occur. Number</u>	<u>Reference</u>	<u>Name of Occurrence</u>	<u>Date</u>	<u>Lat. & Long.</u>	<u>Metals</u>	<u>Host Rock (with age)</u>	<u>Alteration, Gangue and Control</u>	<u>Remarks</u>
<u>SHELDON LAKE</u> <u>105-J</u>								
105J1-4		Pelly Lake (Atlas)	1966	62°03'N 130°14'W	Pb, Zn			
105J2-1	54 GSC P67-36	Pike Group (Atlas)	1966	62°11'N 130°39'W	Cu, Ag	Tertiary? Acidic intru- sives cutting Ord. & Silurian seds.	Along contact and in fract. margin rocks. Cherty green alt. of intrusion.	Aeromag, ground geoph. and Geoche trenching, pack sack dr.-outcrop is sparse. Sulph, Aspy, Cpy, Py, Gal, and Sphalerite. Western zone grab sample: 0.01 oz. Au; 0.81 oz. Ag; 0.01% Cu tr. Pb and Zn. Zone perhaps up to 2 mi. long - area trenched indicates 2,500 tons/vertical ft. of 0.61% Cu, and 2.44 oz/T Ag.
105J2-2	55 GSC P67-36	Can. Yukon Mining Co.	1962	62°15'N 130°42'W	Cu, Ag, Pb, Zn	Hornfels & argillite (Pre. C?)	Fractures Silicific.	.4600' d.d.h. (13) - little outcrop in area. Dissem. pyrr, py, cpy, Minor faults & folds elsewhere Galena as well. Anomalous zone 100' x 1000' (largely pyrr.)
105J12-3	57 GSC P67-36	Kennco	1960	62°37'N 131°32'W	Cu, W.	Skarn at or near small stock.	Repl. of calc. sediments at contact with stock.	Seds. NE/45°NW. Qtz, mica, schist & Lst. bands. Cpy, scheelite, po.
105J16-5	56 GSC P67-36	Jara Group	1967	62°56'N 130°07'W	Pb, Ag, Zn		Shear zone	10' wide shear zone x 800'. Fair Pb-Zn-Ag values. Probably small tonnage.
105J11-6		Hess Proj. #17	1968	62°44½'N 131°04'W	Cu	Slates	Feature zone	Lens shaped 12' x 6' - namely massive coarse grained po. with minor cpy. No economic importance.

<u>NTS & Occur.</u> <u>Number</u>	<u>Reference</u>	<u>Name of Occurrence</u>	<u>Date</u>	<u>Lat. & Long.</u>	<u>Metals</u>	<u>Host Rock (with age)</u>	<u>Alteration, Gangue and Control</u>	<u>Remarks</u>
<u>105-J</u> <u>Contd.</u>								
105J12-7		Hess Proj. #18	1968	62°37'N 131°32'W	Cu	(a)Skarn in Lst. near intrusion. (b)Qtzite.	(a)Shear at Rt.angles to Lst. (b)Shear breccia	Two occur. (a) Skarn-10-15' wide-po and cpy - Lst.80/90 (b) 1-2' wide po, py, cpy.
105J12-8		Hess Proj. #19,20	1968	62°44'N 131°56'W	Pb,Zn	Hornfelsed Argillite near contact of diorite dyke	Highly brecciated argillite	Sphalerite, Galena, traces Moly. repres. grab-0.90 oz.Ag; 10.15 Pb, 10.47 Zn; 0.02 Mo - 1.64 oz.Ag; 11.10 Pb, 8.20 Zn
105J12-9					Pb,Zn, Ag	Hornfelsed argillite near contact of diorite dyke	Shear zone	Galena sphalerite grab 2.78 oz.Ag; 18.4 Pb, 19.9 Zn 0.02 Cu.
105J12-10		Hess #21	1968	62°43'N 131°54'W	Cu	Hornfelsed argillite near contact of diorite dyke	Dissem. cpy-crest of minor fold	Cpy, grab- 1.78 oz. Ag; 0.02 Pb, 0.03 Zn 4.0% Cu.
105J13-11		Hess Nos. 22,23,24, 25	1968	62°51'N 131°38'W	Cu	Qtz. monzonite stock	Strongly jointed segment	Largest #22- 300'x20' on closely spaced joint planes.
105J13-12		Hess #26	1968	62°49'N 131°41'W	Ag,Pb, An,Cu	Rusty halo of satellite plug of Spearhead Mtn.	Veinlet	Galena, sphalerite. Low Ag, Pb, Zn, Cu, Ni, values.
105J14-13	GSC P67-36 (No number given)		1967	62°56'N 131°10'W	Ba			

SHELDON LAKE 105J :

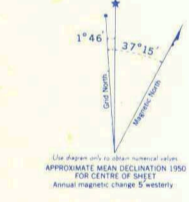
- a) 105J-4. Geochem sampling of low Area
(Specially if accessible from Canal Road)
As indicated by Air Photo Interpretation.
Units in general unfavorable.
- b) Spot check Area A. with regional leucite
samples and rock sample of unit 11. [Emphasis
on contact unit 11 and 5c. for Skarn with
associated mineralisation. Pb, Zn, Ag, Cu, W,
Be.
- c) 105J-5 Area B. Orientation along
creek because cross cuts units 3_# (of particular
interest), 5c and 14.



MINERAL SHOWINGS LOCATION MAP

LEGEND:

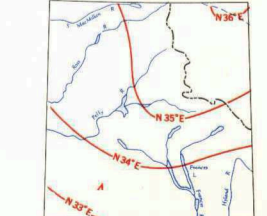
- LODE DEPOSITS**
- MINERAL PRODUCER (PAST, PRESENT OR FUTURE)
 - PROSPECT
 - MINERAL OCCURRENCE (SMALL OR NO INFORMATION AVAILABLE)
- COLOR CODE:**
- GOLD
 - SILVER
 - COPPER
 - LEAD
 - ZINC
 - TUNGSTEN
 - MOLYBDENUM
 - IRON
 - BARITE
 - NICKEL
 - ASBESTOS
- PLACER DEPOSITS**
- GOLD
 - TIN



GRID ZONE DESIGNATION 9 V	TO ONE 4-DIGIT REFERENCE ON THIS SHEET TO NEAREST 100 METRES
100,000 M. SQUARE IDENTIFICATION 690 UV VV UU VU	SAMPLE POINT TRIANGULATION STA. 1. Read letters identifying 100,000 metre square in which the point lies. 2. Locate first SHERMAN grid line to left of point and read LARGE figure labeling the line either on the top or bottom margin on the line itself. 3. Locate first SHERMAN grid line below point and read LARGE figure labeling the line either on the left or right margin on the line itself. 4. Combine these four grid line to point.
SCALE: 1:250,000 350,000	SAMPLE REFERENCE If reporting beyond 18' in any direction prefix Grid Zone Designation as: 9VVU2587

TEN THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9

THE DECLINATION OF THE COMPASS NEEDLE, 1951.



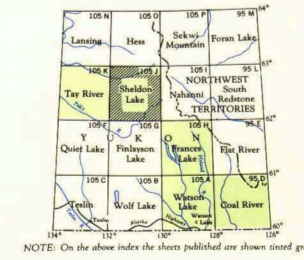
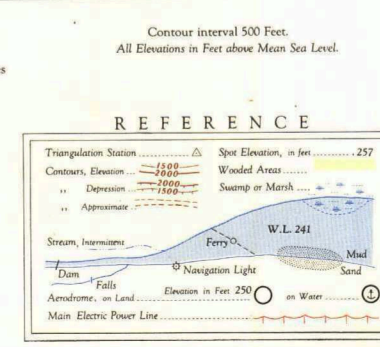
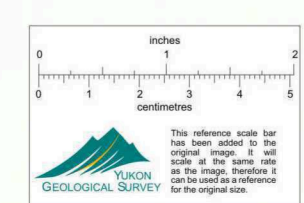
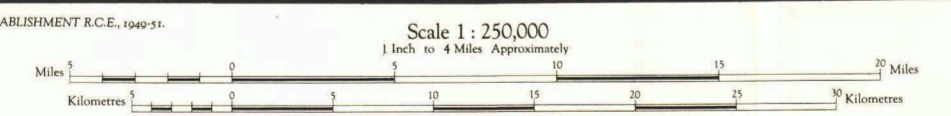
The declination of the compass needle at any place along a red line is the declination given on that red line. At all other places the declination is between those given on the neighboring red lines; that is, the place marked A, the declination is between N. 7° E. and N. 8° E. The easterly declinations of the compass needle are decreasing 5 minutes annually.

Surveyed, compiled, drawn and printed by the ARMY SURVEY ESTABLISHMENT R.C.E., 1949-51.
Aerial photography by R.C.A.F., 1949.

Universal Transverse Mercator Projection.

REFERENCE

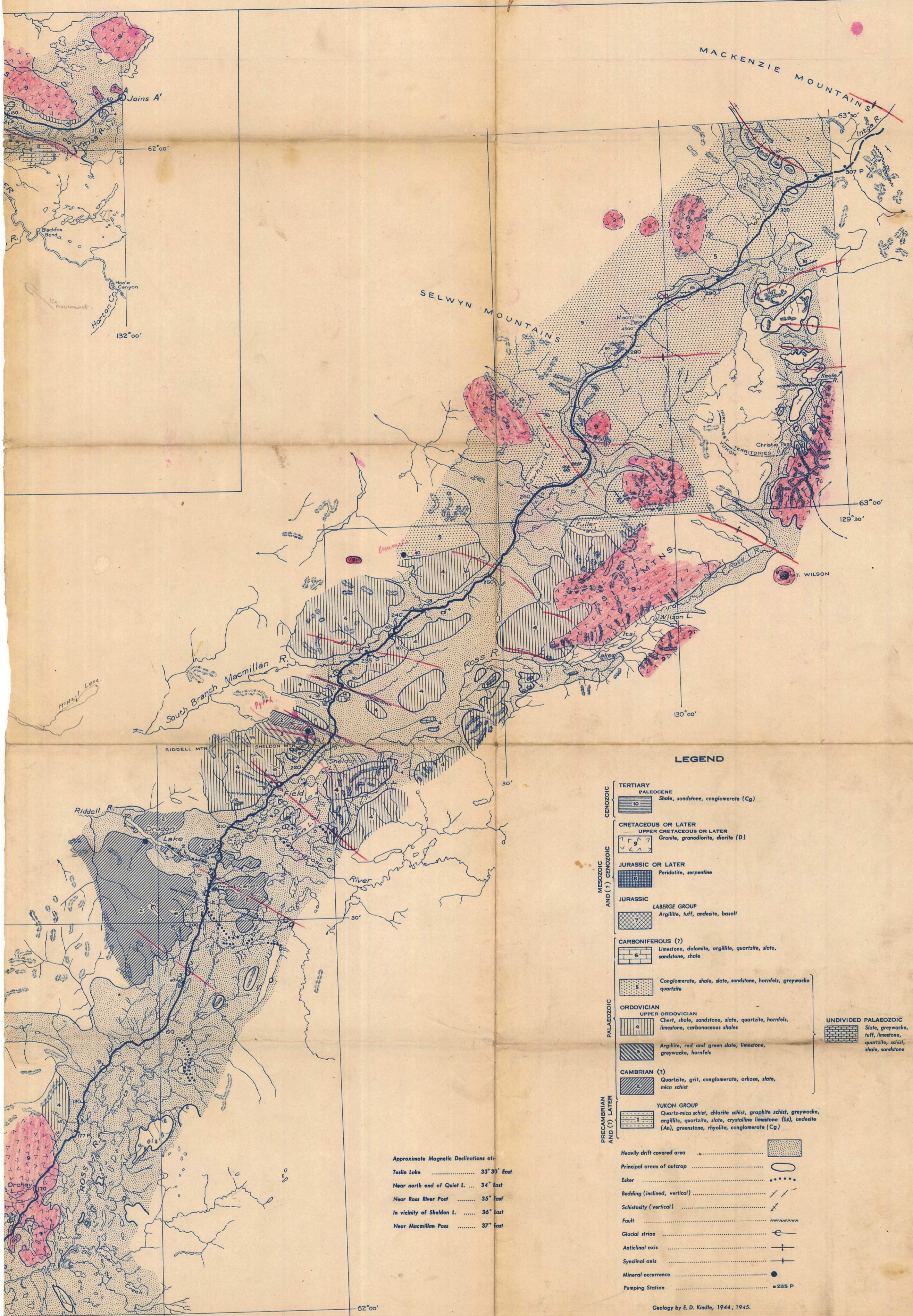
Road, Road Surface, All Washers	More than 3 Lanes	Partly Gravelled
Hand Surface, All Washers	Less than 3 Lanes	Gravelled
Low Surface, All Washers	More than 3 Lanes	All Lanes
Low Surface, Less than 3 Lanes	All Washers	All Lanes
Railways, Multiple Track	All Washers	All Lanes
Single Track	All Washers	All Lanes
Boundary, International		
Province or State		
County or District		
Reservations, Indian, Military, Park, etc.		



SHELDON LAKE
YUKON TERRITORY

SHEET 105 J FIRST EDITION

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LEGEND

CENOZOIC	TERTIARY	PALEOCENE	Shale, sandstone, conglomerate (Cg)	UNDIVIDED PALAEOZOIC	Slate, greywacke, tuff, limestone, quartzite, schist, shale, sandstone
	CRETACEOUS OR LATER	UPPER CRETACEOUS OR LATER	Granite, granodiorite, diorite (D)		
MESOZOIC AND (?) CENOZOIC	JURASSIC OR LATER	Peridotite, serpentine	CARBONIFEROUS (?)	Limestone, dolomite, argillite, quartzite, slate, sandstone, shale	
	JURASSIC	LABERGE GROUP		Argillite, tuff, andesite, basalt	
		5		Conglomerate, shale, slate, sandstone, hornfels, greywacke, quartzite	
PALAEOZOIC	ORDOVICIAN	UPPER ORDOVICIAN	Chert, shale, sandstone, slate, quartzite, hornfels, limestone, carbonaceous shales	CAMBRIAN (?)	Quartzite, grit, conglomerate, arkose, slate, mica schist
		2	Argillite, red and green slate, limestone, greywacke, hornfels		
PRECAMBRIAN AND (?) LATER	YUKON GROUP	Quartz-mica schist, chlorite schist, graphite schist, greywacke, argillite, quartzite, slate, crystalline limestone (Ls), andesite (An), gneiss, rhyolite, conglomerate (Cg)			

Approximate Magnetic Declinations of:

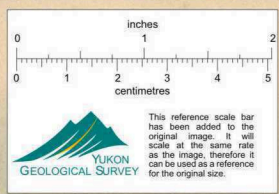
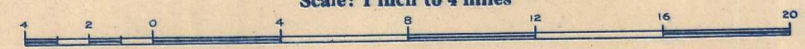
Teslin Lake	33° 30' East
Near north end of Quiet L.	34° East
Near Ross River Post	35° East
In vicinity of Sheldon L.	36° East
Near Macmillan Pass	37° East

Heavily drift covered area	[Pattern]
Principal areas of outcrop	[Symbol]
Esker	[Symbol]
Bedding (inclined, vertical)	[Symbol]
Schistosity (vertical)	[Symbol]
Fault	[Symbol]
Glacial striae	[Symbol]
Anticlinal axis	[Symbol]
Synclinal axis	[Symbol]
Mineral occurrence	[Symbol]
Pumping Station	[Symbol]

Geology by E. D. Kindle, 1944, 1945.

NOTE. Boundaries of outcrop areas as shown on the map were sketched mainly from air photographs. Only those outcrop areas visited are patterned, but some structural data were obtained from air photographs in outcrop areas that were not examined.

PRELIMINARY MAP 45-21A
Second Edition
CANOL ROAD
TESLIN RIVER TO MACMILLAN PASS
YUKON
Scale: 1 inch to 4 miles



105-5