GEOCHEMICAL SOIL SAMPLING SURVEY

EM and EMU Mineral Claims

SHELDON AREA

Watson Lake Mining Division

Yukon Territory

Latitude 62° 15' N.

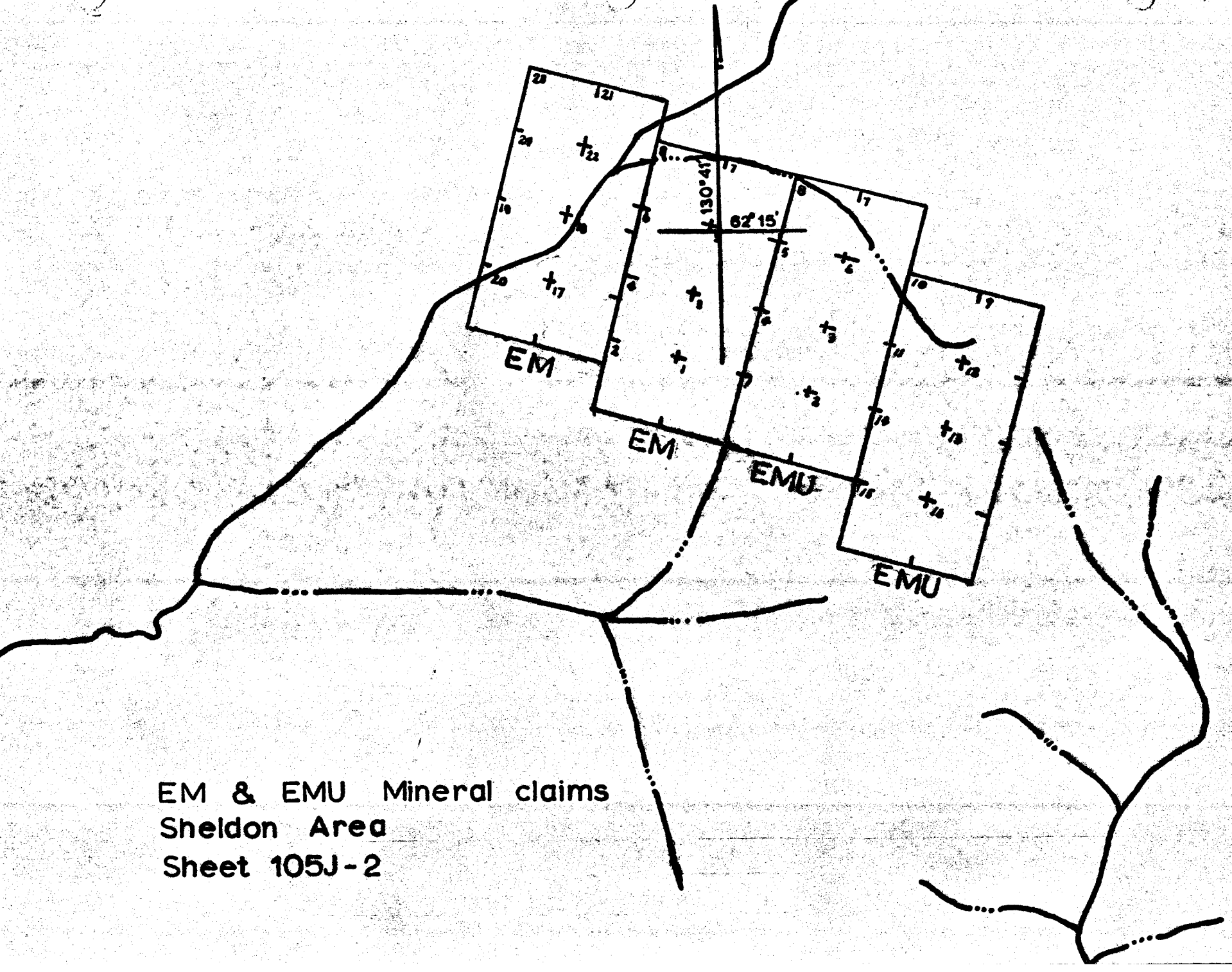
Longitude 130° 14' W.

September 20th - 27th, 1966

Atlas Explorations Limited

by:

John S. Brock



EM & EMU Mineral claims
Sheldon Area
Sheet 105J-2

LIST OF MINERAL CLAIMS

Mineral Claim	Grant Number	Date Recorded
EM 1	Y 7954	June 2,1966
EM 2	Y 7955	"
EM 3	Y 7956	"
EM 4	Y 7957	"
EM 5	Y 7958	"
EM 6	Y 7959	"
EM 7	Y 7960	"
EM 8	Y 7961	"
EM 17	Y 7462	
EM 18	Y 7463	
EM 19	Y 7464	
EM 20	Y 7465	
EM 21	Y 7466	
EM 22	Y 7467	
EM 23	Y 7468	
EM 24	Y 7469	
EMU 1	Y 7938	
EMU 2	Y 7939	
EMU 3	Y 7940	
EMU 4	Y 7941	
EMU 5	Y 7942	
EMU 6	Y 7943	
EMU 7	Y 7944	
EMU 8	Y 7945	
EMU 9	Y 7946	
EMU 10	Y 7947	
EMU 11	Y 7948	
EMU 12	Y 7949	
EMU 13	Y 7950	
EMU 14	Y 7951	
EMU 15	Y 7952	
EMU 16	Y 7953	

GEOCHEMICAL SOIL SAMPLING SURVEY

EM and EMU Mineral Claims

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EM and EMU Mineral Claims

INTRODUCTION

The EMU and EM Mineral Claim Groups were transfered to Atlas Explorations Limited by Herman Forst of Whitehorse under an option agreement between Forst and Atlas made in June of 1966. The mineral claims lie to the north of what is assumed to be an extensive belt of copper, lead-zinc, and silver mineralization in proximity to the Traffic Mountain area. It was proposed by Atlas Explorations that the claims under option from Forst be prospected, surveyed geochemically and covered with an aeromagnetic survey in order that their economic potential be assessed in relation to other ground held in the area by Atlas.

LOCATION AND ACCESS

The EMU and EM Mineral Claim Groups are located on the Sheldon 4 mile topographic sheet, some 60 miles east-northeast of Ross River and 12 miles northwest of Traffic Mountain. The claims are shown on Claim Sheet 105J-2, at 62° 15' north latitude and 130° 14' west longitude. The group lies over a south-southwest slope above timberline between elevations of 4400 to 5000 feet above sea level.

Access was gained to the property be helicopter from Pike Lake, some 7 miles to the south, where Atlas Explorations has a base camp for exploration of the Traffic Mountain area. Aircraft equipped with floats may land at Pike Lake, a small lake just north of the property is also suitable for fixed-wing aircraft. Expediting was done from the settlement of Ross River where communications were made with the base camp by single sideband radio.

PREVIOUS WORK

The showings were formerly held by Kennco Explorations Limited, in 1959 they were restaked and aquired by Canadian Yukon Mining Company Limited. Exploration done by them consisted of geological mapping, trenching and sampling. In 1961 electromagnetic and magnetic

surveys were made as well as further prospecting and trenching. By 1962, 4,600 feet of diamond drilling had been completed over a total of 13 holes. The area was re-staked by Forst and associates in 1966.

GEOLOGY

The property was examined by R.E. Gordon Davis in July, 1966. It was reported that the country rocks are Ordovician or Silurian thin-bedded argillites and quartzites that strike northwesterly and dip steeply. Disseminated sulphides are present in five or more showings in thin bedded argillites and quartzites, it is thought that enough disseminated pyrrhotite is present to explain the geophysical anomalies obtained by those who previously held the ground.

A number of the drill cores were examined, the most common rock types are a purlish-brown and green finely banded hornfels and a dark grey to black argillite. 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. The lithology of the drill core corresponds very closely to unit 1a as mapped in the Traffic Mountain area on the Sheldon Sheet.

TOPOGRAPHY AND GROUND CONDITIONS

The property is generally above timberline and is situated in typical Yukon sub-alpine terrain. Drainage is well defined, and flows year-round to the south west from two tributaries at the north and south ends of the claim group. At the eastern end of the group drainage is of the same character but flows to the south. Glaciation is generally from the northwest to the southeast and deposition of remnant till and overburden is negligible. Soils are generally of the lower 'B' horizon and 'C' horizon, in local depressions there is some accumulation of organic soils.

METHOD OF SURVEY

Soil samples were collected over six lines (profiles) striking across the property in a northerly direction. Samples were taken

at 300 foot intervals over lines of approximately 2000 foot spacing. The survey was considered as a regional geochemical survey and an extension of traverses over the Pike Mineral Claims (Atlas Explorations) to the south. Traverse lines were surveyed by pace and compass methods and control was aided by use of aerial photographs. A total of 105 samples were taken. All soils were collected from the 'B' horizon where possible, where soils were undeveloped, the 'C' horizon or parental material was sampled.

Collection was made with a prospectors grub hoe, about 10 grams of soil from each station was placed in a Kraft bag which was then labelled according to its location. The samples were then forwarded to the Atlas Explorations testing laboratory at Ross River where they were dried and screened to 80 mess. Each sample was then weighed out to 0.50 grams and digested in aqua regia solution (hot) after which their copper and zinc content was determined by Atomic Absorption Spectrophotometer analysis. In a few cases (8stations) lead content was also determined.

Results in parts per million (ppm.) were plotted on a plan of the claims to a scale of 1:1000. An interprative map showing geochemical trends was also compiled using the same scale (see map folder).

RESULTS

Three geochemical anomalies of possible significance have been outlined. The first, over claims EM 5,6,7, and 8, has coincident copper and zinc values that occur over the southern portion of an aeromagnetic 'high'. The copper has been contoured at 20 ppm intervals over 40 ppm, peak values in excess of 100 ppm copper are reached. The copper anomaly is about 4000 feet long and 1500 feet in width, it strikes in an easterly direction and does not appear to be influenced and/or distorted by drainage or topographic slopes. The zinc coincidence is slightly downslope and appears to have migrated due to drainage to the northwest. It has been outlined by contours over 100 ppm and reaches peak values in excess of 1000 ppm. The anomaly strikes in an east-west direction for approximately 6000 feet and is 2000 feet in width.

What is considered as being the most major anomalous area, lies over mineral claims EMU 13,14,15 and 16. A copper-zinc coincidence correlates in location with a well defined aeromagnetic 'high'. All geochemical and geophysical responses here strike for approximately 3000 feet east and are 1500 feet in width. Zinc reaches peak values in excess of 1400 ppm and copper over 360 ppm.

Two isolated geochemical responses between the two abovementioned have been delineated. They are not coindident and are low in response.

CONCLUSIONS AND RECOMMENDATIONS

The two major geochemical anomalies over EMU 13 to 16 and EM 5 to 8, occur near areas of known sulphide mineralization. It is probable that the magnetic anomalies can be attributed to pyrrhotite mineralization, however the geochemical anomalies appear to be well enough defined to warrant further investigation.

As the geochemical coverage is not complete enough to draw any further conclusions it is recommended that detailed grid type sampling be carried out on a 100 foot station interval and 400 foot line spacing coverage over EMU 13 to 16 and EM 5 to 8.

Respectfully submitted,

John S Brock

John S. Brock,
Assisstant Exploration Manager,
Atlas Explorations Limited

Appendix 1

PERSONNEL

C.L. Smith	Field Supervisor and Geologist 1760 Duchess Avenue, West Vancouver, B.C.
P. Teggart	Soil Sampler, C/O General Delivery, Salmo, B.C.
J. Hundere	Prospector, 1150 Harwood St., Vancouver, B.C.
J.S. Brock,	Assisstant Exploration Manager, Ross River, Yukon Territory

Appendix 2

SUMMARY OF COSTS

1) Wages:	Hundere and Tengart, September 20 - 27th 8 days at $50/day.....	$ 400.00
2) Subsistence:	16 man days at $12/day.....	192.00
3) Analysis:	105 samples by AA analysis at $2.60/sample	273.00
4) Mobilization and Demobilization:	by G3 B1 helicopter from Pike Lake.....	135.00
5) Supervision:	.....	200.00
6) Report:	compilation of data, interpretation, presentation.....	150.00
	TOTAL COST	$1200.00

Appendix 3

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, John S. Brock, Assisstant Exploration Manager, Atlas Explorations Limited, of Ross River, Y.T., do hereby swear that I believe the SUMMARY OF COSTS (Appendix 2) as presented in this report, 'Geochemical Soil Sampling Survey, EM and EMU Mineral Claims, is both true and correct to the best of my knowledge and belief.

John S. Brock

Sworn before me at Ross River)
Y.T., this date, Jan 8/81)

A Commissioner of Oaths in
and for the Yukon Territory

Appendix 4

BIBLIOGRAPHY

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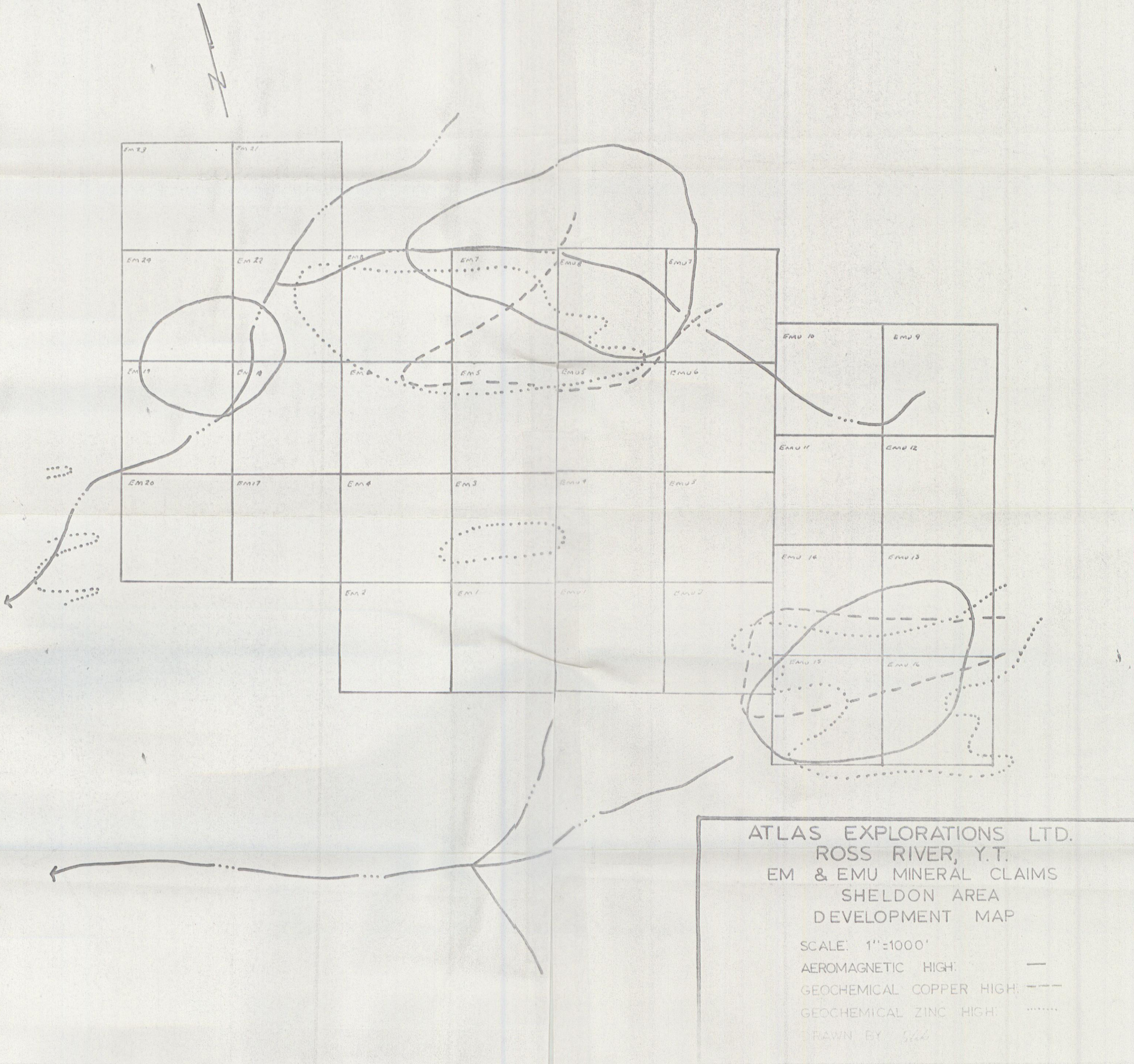
Sheldon Project Report, January 1967, (A private report to Atlas Explorations Limited) by C.L. Smith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EM 17
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EMU 4
EMU 3
EMU 16
EMU 15
EM 2
EM 1
EMU 1
EMU 2
EMU 14
EMU 13
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ROSS RIVER, Y.T.
EM & EMU MINERAL CLAIMS
SHELDON AREA
DEVELOPMENT MAP
SCALE: 1"=1000'
AERO MAGNETIC HIGH:
GEOCHEMICAL COPPER HIGH:
GEOCHEMICAL ZINC HIGH:
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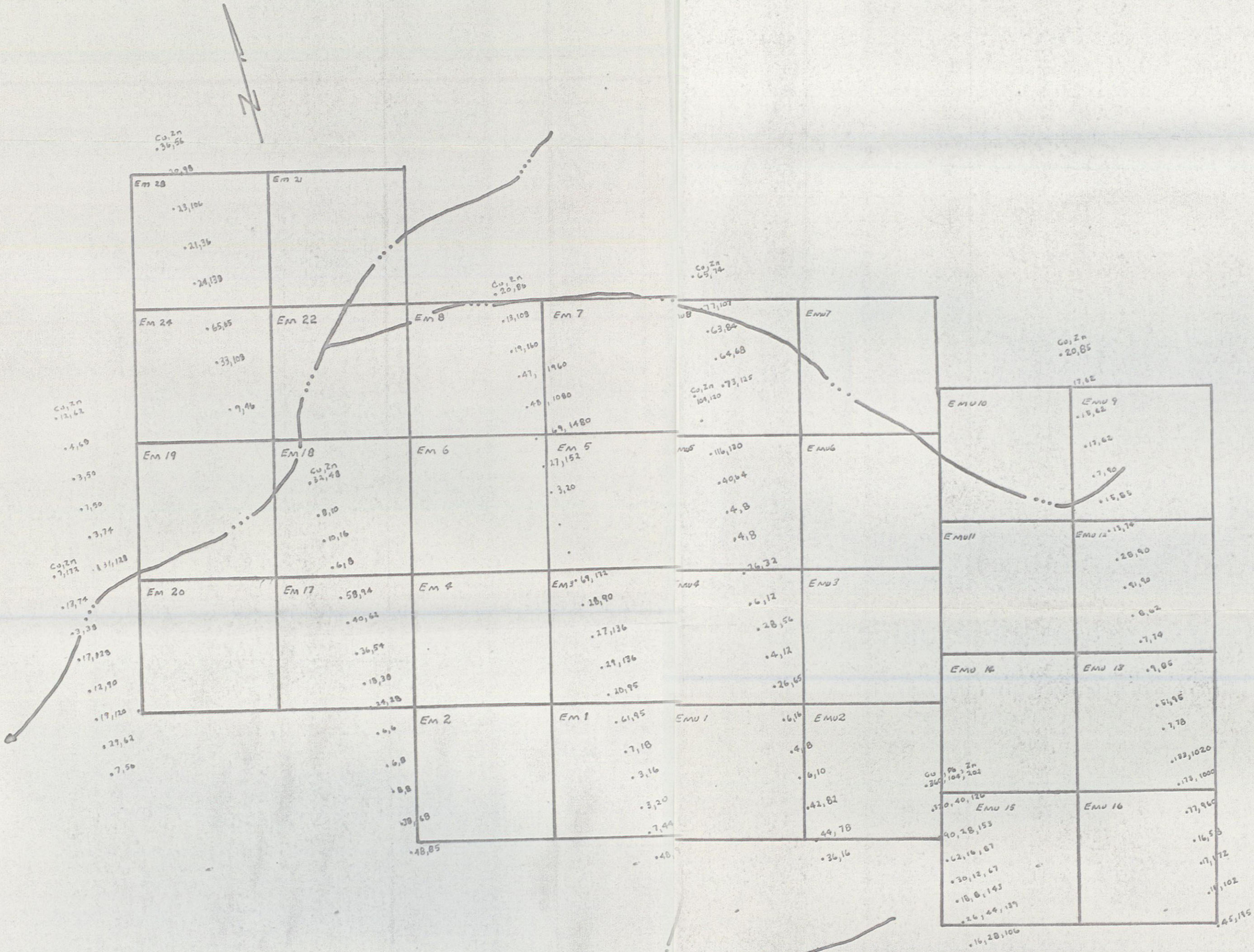

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EM & EMU MINERAL CLAIMS
SHELDON AREA
GEOCHEM. RECCONAISANCE
COPPER, ZINC

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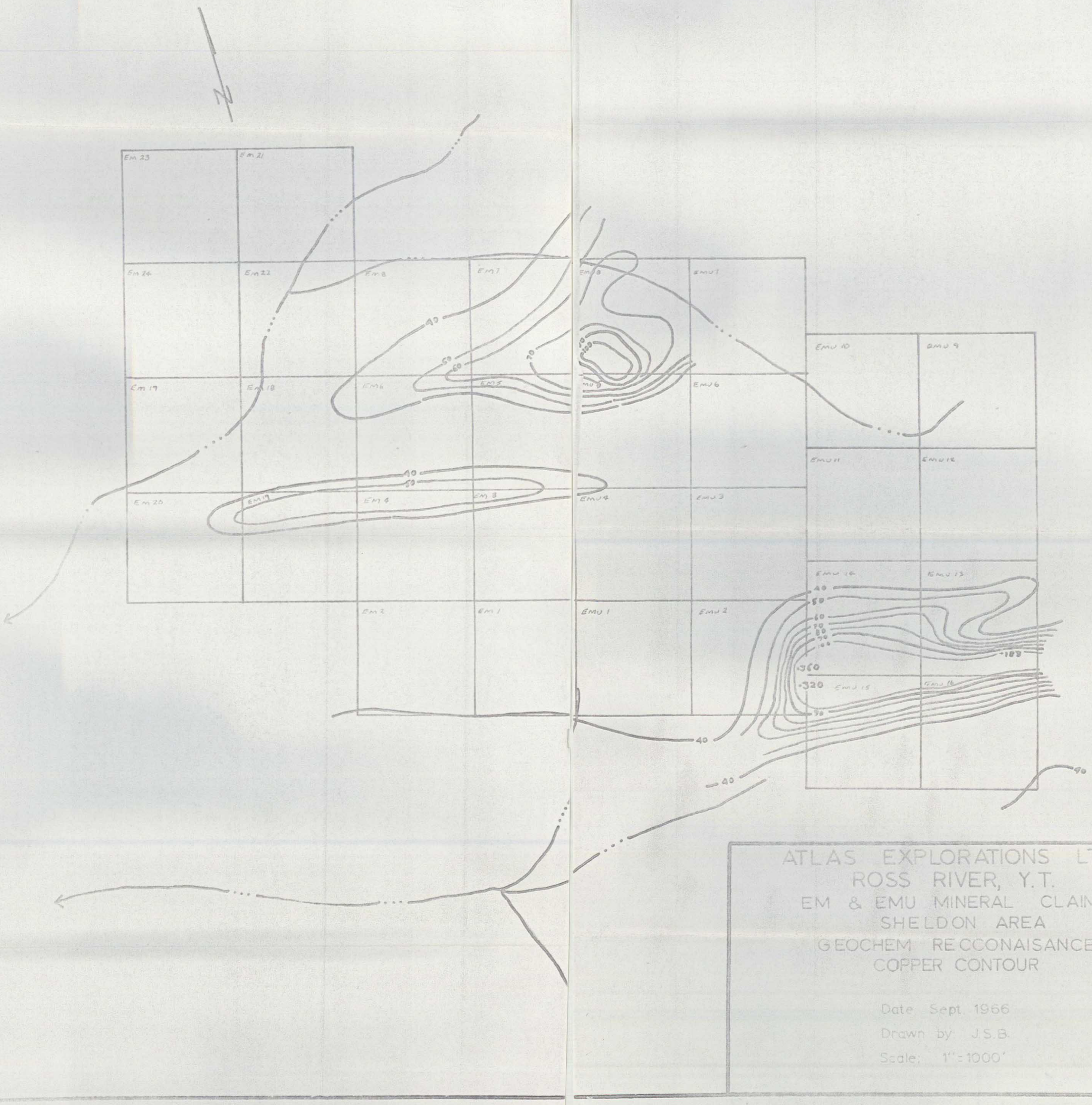
Scale: 1"=1000'



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GEOCHEM RECCONAISANCE
COPPER CONTOUR

Date Sept. 1966
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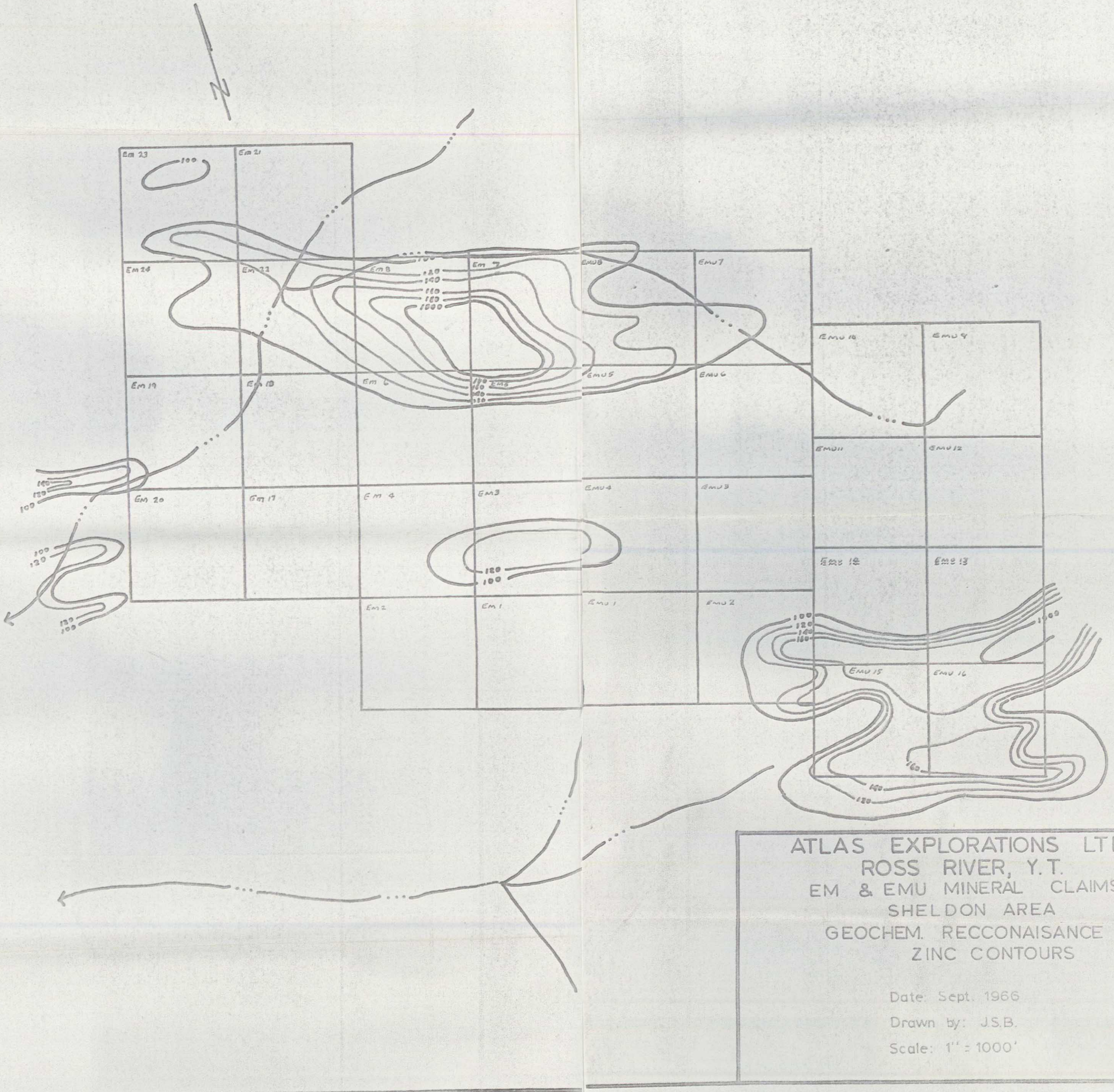

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GEOCHEM. RECCONAISANCE
ZINC CONTOURS

Date: Sept. 1966

Drawn by: J.S.B.

Scale: 1" = 1000'