3120

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

MAGNETOMETER SURVEY

PINE NO. 6 & 7 GROUPS
(Pine Mineral Claims 13-18, 31-46, 65, 67-80, 85-88, 90, 93, 95, 129, 131, 135 Fr-142 Fr.)

Situated 13 miles northeast of Thutade Lake,
Omineca Mining Division,
British Columbia

Lat. 57°13'N, Long. 126°43'W

94E /2E

By

R. M. Stevenson, P. Eng.

June 14 to 16, 1971

July 9, 1971

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PLATES

Kennco Explorations, (Western) Limited

PINE CLAIMS

Situated 14 miles northeast of Thutade Lake

Omineca Mining Division,
British Columbia

57° 127° SE

LOCATION MAP

Scale:
1 : 250,000

R. A. Stevenson

INTRODUCTION

The mineral property discussed in this report is about 13 miles northeast of Thutade Lake, B. C., on the southeast side of the Finlay River. The survey work was done during the period June 14 to 16, 1971. The work was done by P.R. Archibald, C.P. Archibald, and G.J. Allen under the supervision of R.W. Stevenson, P.Eng.

The survey described in this report is an extension of a survey done in July of 1970, which was described in an assessment report by R.W. Stevenson, P.Eng., dated May 18, 1971.

LOCATION AND ACCESS

The property is situated at Latitude 57°13'N, Longitude 126°43'W, about 270 miles northwest of Prince George. This is about 13 miles northeast of Thutade Lake. It is on the south side of the Finlay River, in the Finlay valley, an area of subdued topography which is characterized by erratic drainage caused by numerous eskers and both lateral and terminal moraines. The elevation there is from 3400' to 4500' above sea level; and vegetation varies from good stands of mature Lodgepole pine to semi-open swamp areas. The southeast margin of the property borders on the Swannell Ranges, with elevations up to 6000'.

Access to the area is by fixed-wing aircraft from Smithers to Pine Lake, a distance of about 175 miles. This is a small lake, about 4000' long, which is situated 3 miles northeast of the Pine area. Local travel on the Pine property is fairly easy, except for the difference in elevation between the survey area and the river level. Access to the rugged southeast margin of the property is most economically achieved by helicopter.

MAGNETOMETER SURVEY

Magnetic Survey Method

The survey grid had been established previously, in 1968 and 1969, for use in soil sampling. The grid baseline has an azimuth of 45°, and is termed grid north-south. In a few places, local rechaining was required to re-establish the survey stations. Readings were taken at 100-foot intervals along 8.0 miles of line, as shown on Plate No. 1 at a scale of 1" = 400'.

This survey is an extension of a survey done in July of 1970, which was described in an assessment report by R.W. Stevenson, P.Eng., dated May 18, 1971. The magnetic contours (but not the individual station readings) from that survey are reproduced on Plate No. 1 from line 0+00N to line 16+00S east of the baseline, and from line 28+00N to line 12+00S west of the baseline, so as to give continuity to the two areas of the 1971 survey. The magnetometer was adjusted so as to give the same reading (1150 gammas) at 4+00N, 0+00E as was obtained in 1970.

A McPhar M-700 Fluxgate magnetometer was used to carry out the magnetic measurements. This measures the vertical magnetic field with a sensitivity of 20 gammas per scale division, and a resolution of 5 gammas, on the 1000-gamma scale. On the 3000-gamma scale, the sensitivity is 100 gammas per scale division, and the resolution is 25 gammas. This is sufficient resolution to distinguish between the two rock types being delimited.

The lines were run in loop patterns, with the maximum time between check stations being three hours. This information was used to make diurnal corrections, and check for any unusual magnetic activity caused by magnetic storms.

Interpretation

Two rock units can be distinguished by their magnetic response. A group of syenitic intrusives of probable Cretaceous age underlie most of the surveyed area. They have a magnetic intensity of about 800 to 1000 gammas, except in hybrid phases where the magnetic intensity may range up to about 1200 gammas. This is the case in the area from line 24+00N to line 68+00N.

The intrusives are in contact with Takla andesite of Upper Triassic age that underlies claims 33, 34, 35, and 36. The andesite has a magnetic intensity of 1600 to 2200 gammas, and displays more magnetic relief than the intrusives.

The area underlain by andesite is fairly well indicated by the magnetometer survey, but two problems were evident from comparison with outcrops. Anomalies up to 3000 gammas may develop at the hybrid syenite/volcanic contact due to magnetite stringers. These may occur in the syenite, and thus there may sometimes be an error of two or three hundred feet in delimiting the contact on the basis of the magnetic profile. Strongly silicified andesite underlying the north half of claim 32 is not distinguishable from hybrid syenite on the basis of magnetics, probably because some of the magnetite has been destroyed by alteration. Nevertheless, the magnetometer survey has been useful in extending geologic information beneath drift cover.

Vancouver, B. C.

R. W. Stevenson, P.Eng.

July 9, 1971

STATEMENT OF COSTS INCURRED

Pine Magnetometer Survey

Chaining lines, magnetic readings, supervision on Pine 6 and 7 groups.

Wages & Board:

R.W. Stevenson	June 14-16	$50.00 + $10.00	$180.00
P.R. Archibald	June 14-16	$19.00 + $10.00	87.00
C.P. Archibald	June 14,16	$16.00 + $10.00	52.00
G.J. Allen	June 15	$16.00 + $10.00	26.00
Magnetometer Rental:	3 days @ $10.00/day	=	30.00
Drafting & Typing:			45.00
			$420.00

Amount expended on Pine Group No. 6 = $280.00

Amount expended on Pine Group No. 7 = $140.00

$420.00

N

Finlay River

Pine Group No. 6

Pine Group No. 7

Pine Group No. 70

141 Fr.

142 Fr

140 Fr

139 Fr

138 Fr

137 Fr

Contours

	0	-	500 Gammas
	500	-	1000 Gammas
	1000	-	1500 Gammas
	1500	-	2000 Gammas
	2000	-	2500 Gammas
	2500	-	3000 Gammas
	3000	-	3500 Gammas

3120 M-2

To accompany, Magnetometer Survey Report
by R.W. Stevenson, P. Eng., on the Pine
No. 6 & No. 7 Groups, situated 15 miles
northeast of Thutade Lake (57° 10' SW),
in the Omineca Mining Division, dated July 8, 1971.

R.W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine Mineral Claims
Omineca M.D., B.C.
Magnetometer Survey

DATA BY: R.W.S.		N.T.S. 94 - E	Fig. NO. 1
DRAWN BY:	DATE	SCALE:	
TRACED BY: J.G.L.	DATE: (1971)	1" = 400'	
REVISIONS:			