

477

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

MAGNETOMETER SURVEY

K.T.I. No. 1 Claim Group  
KEN Claims No.'s 21, 22, 23 Fr, 24, 25, 26

One and Three-quarter Miles West of Gnawed Mountain  
Highland Valley Area  
Kamloops Mining Division  
British Columbia

50° 121° S.E.

92I/6E

By

R. W. Stevenson

October 19-23, December 20, 1962

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MAP

Plate No, 1      Magnetometer Survey

1" = 400' /

Department of Mines and Petroleum Resources ASSESSMENT REPORT	
NO. <b>477</b>	MAP

DISTRIBUTION OF WORK

<u>Claim Group</u>	<u>Claim</u>	<u>Record No.</u>	<u>Distribution of Work</u>
K.T.I. No. 1	KEN 21	31900	\$ 25.00
	KEN 22	31901	29.00
	KEN 23 Fr.	31902	66.00
	KEN 24	31903	60.00
	KEN 25	31904	57.00
	KEN 26	31905	57.00
			<u>\$294.00</u>

Work to be applied at rate of \$100 each on Mineral Claims KEN  
No.'s 25 & 26

INTRODUCTION

The claim group discussed in this report is one and three-quarter miles west of Gnawed Mountain, in the Highland Valley area of British Columbia. The magnetometer readings were taken on October 19 to 23, 1962 by D. MacKinnon and G. Stewart. The field work was done under the supervision of R.W. Stevenson. Reduction of field data prior to plotting was done by R.W. Stevenson on December 20, 1962.

The control survey lines were part of a previous survey grid which was cut in 1959. The lines and station markers were still in good condition and very little work was required on the lines, although a 100-foot surveyor's tape was carried during the magnetic survey to facilitate location of stations which could not otherwise be found.

LOCATION AND ACCESS

The property is located at Latitude  $50^{\circ}25'N$ , and Longitude  $121^{\circ}01'W$ . It is on the lower slopes of Gnawed Mountain, about one and three-quarter miles west of the summit. This is on the south side of the Highland Valley, about 24 miles south-east of Ashcroft, British Columbia. Elevation is about 5000 feet a.s.l. The topography is gently undulating, except for a well-defined, north-trending valley along the west boundary of the property. Most of the area is covered with open jackpine forest.

A good road extends to the Skeena Silver Mines camp, about three miles north of the claims. From there a jeep road connects with the north-central part of the property.

MAGNETIC SURVEY METHOD

An Askania torsion wire magnetometer was used to carry out magnetic measurements over lines previously cut for other surveys. This magnetometer is of the null-type that measures the vertical component of the earth's magnetic field. The scale value of the instrument used on this survey was set by the manufacturer at 264.5 gammas per degree. The smallest reading or sensitivity obtainable is approximately 3 gammas. The close agreement of repeat readings on various stations indicates that this theoretical sensitivity was closely approached by following the procedure outlined in the following paragraph.

In performing the magnetic survey using this instrument one base station was first established in the survey area. (Station 112+00W on Line 112+00N). The operator took readings at each 100-foot station on the survey lines. "Tie-in" was made at a base station several times during each day in order to establish diurnal variations and to check on any unusual magnetic activity due to magnetic storms. By arbitrarily assigning a magnetic value to the original base station (29,470 gammas) and knowing the difference in readings between the base station and each survey station, magnetic values are computed for each of these stations. The temperature was also taken at each station, and a correction was applied to each magnetic value in accordance with the temperature correction curve supplied by the manufacturer. The magnetic intensity in the survey area ranged from 29,174 gammas to 29,694 gammas; therefore, 29,000 gammas was subtracted from all readings so as to facilitate interpretation. The resultant data were then plotted and contoured on a map at a scale of 1 inch = 400 feet, (Plate 1), although the full gamma readings (29,100 to 29,700) were used in the legend. A total of 2.75 line miles was surveyed with readings taken at 100-foot intervals.

### INTERPRETATION

The purpose of the magnetometer survey was to determine whether the alteration which accompanies known mineralization could be traced and delimited under the extensive overburden which covers the property area. The underlying rock is a fairly uniform, medium coarse grained, light grey granodiorite. It contains only minor accessory magnetite, and thus it was realized that even if most of the magnetite were destroyed by alteration, the resulting difference in magnetic intensity would still be very slight. Great care, therefore, was taken in the field to approach as closely as possible the theoretical sensitivity of the instrument used (i.e. 3 gammas). Copper mineralization had previously been exposed in bulldozer trenches on fractional mining claim KEN No. 23; and it was noted that sericite and bleaching of biotite accompanied this mineralization. It was also known that magnetite content is sometimes reduced in alteration zones elsewhere in the Highland Valley.

The alteration zone is reasonably well delimited and is confined to the northeast half of the property. (Plate 1). This is shown by the general base level of 400 to 500 gammas in that area, as compared to the base level of 500 to 600 gammas on the southwest half of the property. Thus the area of interest is well enough defined to guide future exploration.

Another feature indicated by the magnetometer survey is the existence of north-south structural trends. These are particularly well defined on lines 72N. to 96N. They parallel a deep linear valley which coincides with the west boundary of the property. These weaker structures, indicated by the magnetics, were not previously suspected as they have no topographic expression.

The very low magnetic zone almost paralleling the west base line appears to be due to deeper glacial overburden along the upper edge of the deep linear valley mentioned in the previous paragraph.

Vancouver, B.C.

January 28, 1963

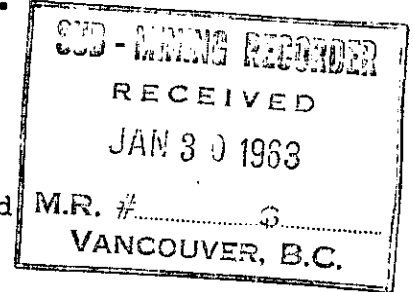
*R. W. Stevenson*  
R. W. Stevenson



DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

In the Matter of

Assessment work on K.T.I. Claim  
Group No. 1



I, R. W. Stevenson, Kennco Explorations, (Western) Limited  
of Vancouver

in the Province of British Columbia, do solemnly declare that the costs incurred on assessment work on the K.T.I. No. 1 Group are as follows:

Magnetometer Survey (Wages)

Reading Magnetometer:	D. MacKinnon	October 19-23	\$117.50
	G. Stewart	October 19-23	112.50
Supervision:	R.W. Stevenson	October 19	32.00
Calculating Data Corrections:			
	R.W. Stevenson	December 20	<u>32.00</u>
			\$294.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *30*  
day of *January*, 1963, A.D.

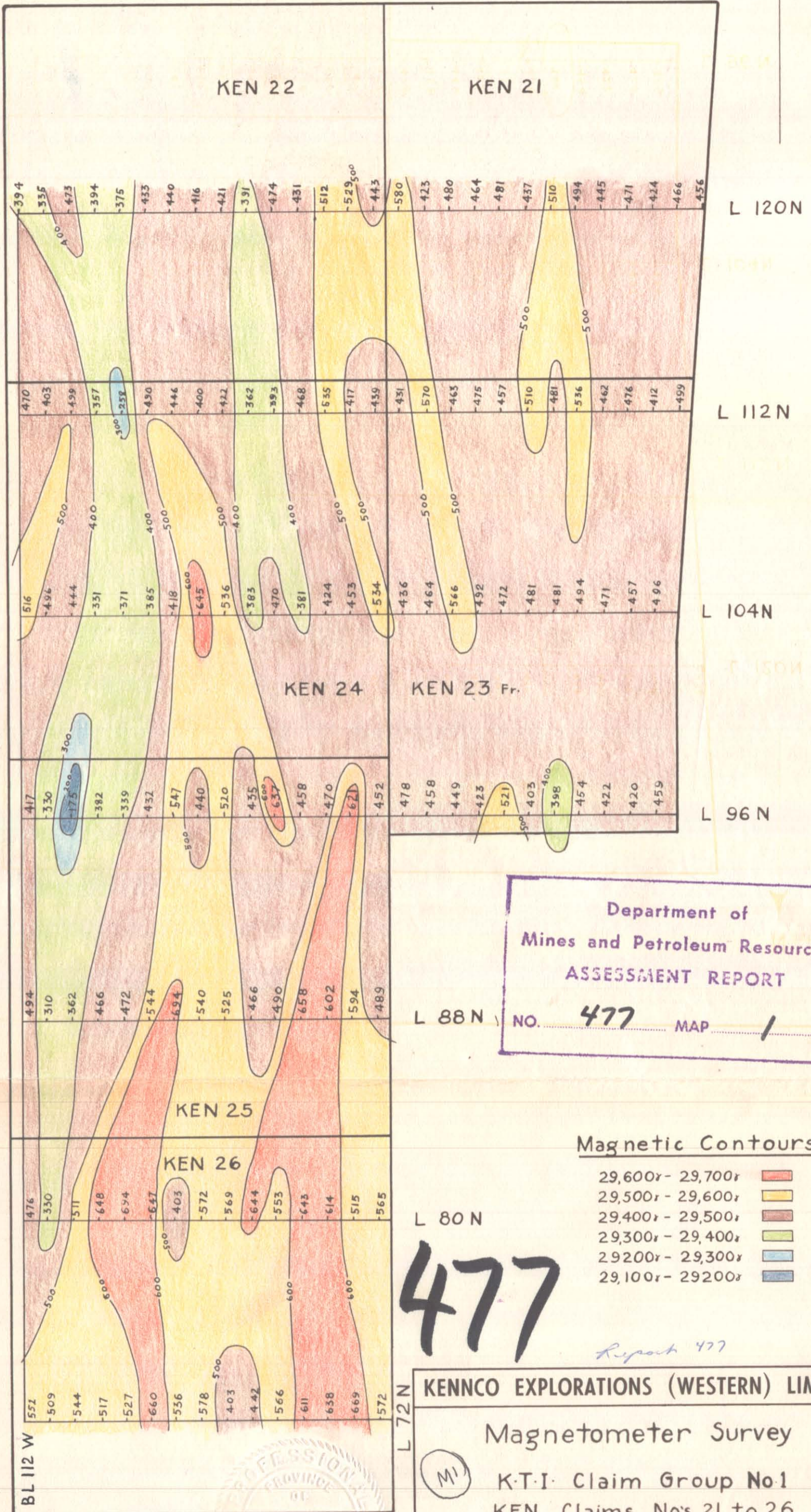
*R.W. Stevenson*

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

★0

Sub-Mining Recorder

N astr.



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **477** MAP **1**

Magnetic Contours

- 29,600r - 29,700r
- 29,500r - 29,600r
- 29,400r - 29,500r
- 29,300r - 29,400r
- 29,200r - 29,300r
- 29,100r - 29,200r

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**KENCO EXPLORATIONS (WESTERN) LIMITED**

Magnetometer Survey

K.T.I. Claim Group No.1

KEN Claims No's 21 to 26

Kamloops Mining Division, B.C.

DATE: Dec. 28, 1962 DRAWN BY: R.W.S. PLATE NO. 1

REVISED BY	DATE	SCALE: 1 inch = 400 feet
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**NOTE:** The magnetic data shown on this map were reduced by 29,000  $\gamma$  before plotting so as to facilitate interpretation.

