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GROUND MAGNETOMETER SURVEY

METHOD:

Traverses were conducted along the baseline and all grid lines. A total of 9.4 miles was surveyed. Readings were taken at 100 foot intervals. Four base stations were established.

Lines 13500TN, 13000TN and 14000TN were surveyed during the course of one day and regular measurements were taken back at base station "A" to correct for diurnal variations.

On consecutive days, a similar procedure was adopted for lines 12500TN and 12000TN using base station "C"; for lines 14500TN, 15000TN and 15500TN using base station "B"; for lines 16000TN to 19000TN inclusive using base station "D"; and for the baseline utilising all base stations.

For each day, the reading at each station was corrected for diurnal variation. The base stations "B", "C" and "D" were tied in to base station "A", and thence all readings were corrected relative to the base station "A" reading of -120 gammas, which was measured to be equivalent to an absolute reading of -49,050 ( $\pm$  250) gammas. The project geologist conducted the survey.

RESULTS:

The magnetic anomaly map reflects fairly well the geology of Lynch Creek. As representative rock samples were taken, magnetite content is roughly known. In summary, acid volcanics and andesites contain minor quantities of magnetite as accessory minerals; acid tuffs contain a moderate amount and intermediate crystal tuffs contain magnetite as the predominant accessory mineral.

In interpreting the map, increasing negative values indicate an increasing magnetic intensity. Thus andesites and acid volcanics coincide with low readings of between -20 and -100 gammas. Acid tuffs give values of between 0 and -1500 gammas. High fluctuating values of up to -2000 gammas (with odd values reaching -5000 gammas) are obtained for the intermediate crystal tuffs. Variations from positive to negative, particularly near contacts with other rock types could be explained by the variable magnetite content of the individual volcanic extrusions.

The Lynch Creek Fault is identified by the change in the contour line pattern.