Note: Analogue chart records filed separately as CR78/51B
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ANNUAL REPORT: E.L.1456 (Red Cliff)

PERIOD: April 1, 1977 – April 1, 1978

WORK UNDERTAKEN: included a systematic survey for uranium mineralisation using an airborne detector system.

AIRBORNE SURVEY - EQUIPMENT AND FLIGHT DETAILS

Aircraft: Cessna 182.
Line Spacing: 1 kilometre.
Aircraft Speed: 40-80 nautical miles per hour.
Mean Terrain Clearance: 400 feet.
Detector System: 4 crystal thallium activated sodium iodide sensor, total volume 452 cubic inches, (Scintrex GSA 64), linked to a four channel gamma ray spectrometer, (Scintrex GMG-4), and chart recorder.
Count Time: 1 count/second.

Data recorded: 4 channels - Total Count, Potassium, Uranium and Thorium. The compton stripping facility was not employed.

Navigation: Visual reference system using 1:84,000 scale air photos or 1:100,000 scale orthophotomaps. Reference points and corresponding fiducial numbers from a fiducial counter were marked on the appropriate flight line drawn on the air photography. A fiducial trace was recorded on the chart together with the radiometric data.

DATA PRESENTATION

Anomalies have been plotted onto plans reproduced from the survey flight patterns. Anomalies have been distinguished using three parameters, namely local total count in relation to total count regional background, uranium count in relation to local uranium background and uranium/thorium ratio. These parameters are shown in numerical form for each anomaly.

AIRBORNE SURVEY - RESULTS

Results of the survey, the anomalies, are shown in plan form. This plan accompanies a previously forwarded progress report. Nothing was known concerning the relationship between anomaly parameters and geochemical uranium/thorium concentrations at this stage in the survey work. A decision was made to plot all anomalies satisfying certain very minimal criteria, namely a total count response of at least 50% above background, \( 1 \frac{1}{2} ( - ) \), or alternatively a uranium channel response of at least 100% above background, \( -(2 -) \), assuming in both instances that the uranium/thorium ratio exceeds 1, e.g., \( 1 \frac{1}{2} (1 \frac{1}{2}:2/1) \). Note background in this exercise includes both geologic and non-geologic contributions.

/ Plate 1. Location Plan
/ Plate 2. Airborne Radiometric Anomaly Plan.
Aerial anomalies are largely confined to outcrops of orthogneiss in the S.W. of the licence. A Bureau of Mineral Resources aerial anomaly corresponds to an area of gneiss outcrop in the N.E. of the licence.
DETAILS OF EXPENDITURE TO ACCOMPANY ANNUAL REPORT: E.L. 1456 (Red Cliff)


Salaries and wages, including pilot .................................................. $ 849.62
Field Travel .......................................................................................... 245.00
Meals and Accommodation .................................................................. 106.74
Field supplies ..................................................................................... 309.77
Field office ......................................................................................... 120.45
Maps and drafting ................................................................................ 102.10
Aerial survey, fuel and plane lease ...................................................... 549.71
Motor vehicle insurance ....................................................................... 29.49
Equipment hire .................................................................................. 992.44
Assays ................................................................................................. 29.14
Licence rentals .................................................................................... 122.00
Consultant fees ................................................................................... 00.00
Vehicle hire ......................................................................................... 00.00

TOTAL $ 3456.46
CUTIER EXPLORATION
Red Cliff and Walden Knob E. L. S.
FLIGHT PLANS AND
PRELIMINARY RUTHEOMETRIC
RESULTS.
To accompany Annual Report.
Year ending April 1, '78.
KEY:
- (A) Anomaly including Total Count in relation to regional background.
- (B) Uranium (unstripped) in relation to local background and uranium.
- (C) Titanium ratio.

Elevation Point and Flight Line from Ortho. (Scale: 1:500,000).