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GEOPEKO LIMITED

FINAL REPORT ON A.P. 2559

by
A.R. Twiggs

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NOVEMBER, 1970.

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TENNANT CREEK, N.T.

NOVEMBER, 1970.

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INTRODUCTION

This area lies about 20 miles north of the Clay Pan Well on the old Tanami - Gordon Downs road, and again access is very difficult. The main feature is a large N.E.-S.W. trending ridge of blocky sandstone and quartzites making driving hazardous. Low limestone knolls occur in the valley floors in the southern part, and thick calga and gum patches occur, though no surface water is present. There is a broad radiometric high along the ridge with an anomaly at the centre as shown on the map, and the main objective of the work was to investigate the causes of it.

GENERAL GEOLOGY

The ridges in this area all appear to be of the younger sandstone sequence probably equivalent to members of the Kimberley group. They have uniform dips of $10-30^{\circ}$ to the north-west, and in places show well developed sets of joints. They are sandstones and quartzites, regularly bedded with occasional sedimentary structures, mainly current and graded bedding, though ripple-marks are found in some localities. The sandstones are well sorted, mainly rounded quartz grains about .5 mm, though grit beds are common and conglomerate facies occur also.

OUTLINE OF FIELD WORK

A field party visited the area with a scintillometer in June and located the anomaly as shown. The formation was also studied along and across the strike of the outcrop along the ridge where the anomaly occurs, and again several shallow holes were dug to test for surface enrichment. In July an auger drill was towed in to test fresh rock in the anomaly area. Six holes were drilled for a total footage of fifty feet, the deepest hole being 12 feet. These penetrated fresh rock below the laterite cover, but as the rock was extremely hard, good samples were difficult to obtain. The scintillometer probe was lowered down these holes.

RESULTS

The radioactivity was again found to be confined to laterite patches along the crest of the ridge, and no anomalous activity was recorded over outcrops away from the laterite. It appeared to be related to a possible fault zone perpendicular to the strike, but later detailed work showed the closer relationship to the laterite again. From background values of 40-50 counts per second, activity went up to 100-150 counts over the laterite and increased to 200-250 at about 2-3' in the auger holes. Below this, values dropped off again into the fresh rock at the bottom of the holes. These values were for total radiation and no significant results were obtained for Uranium and Thorium radiation. The auger samples were assayed for Uranium, but all gave values of less than 2 p.p.m., the lower limit of detection. The area appears unfavourable for other types of mineralization also.

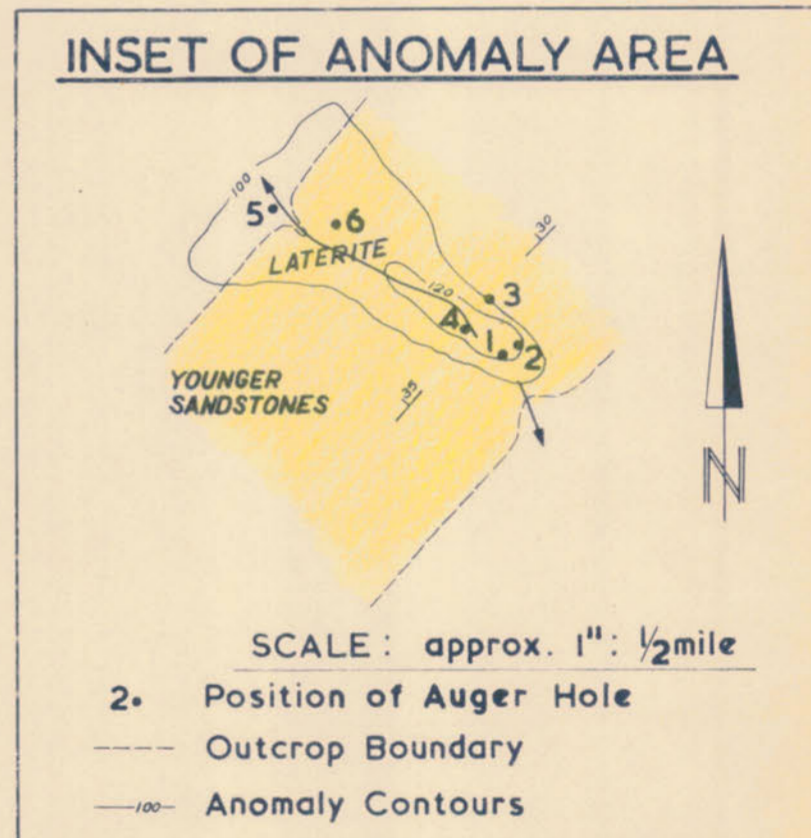
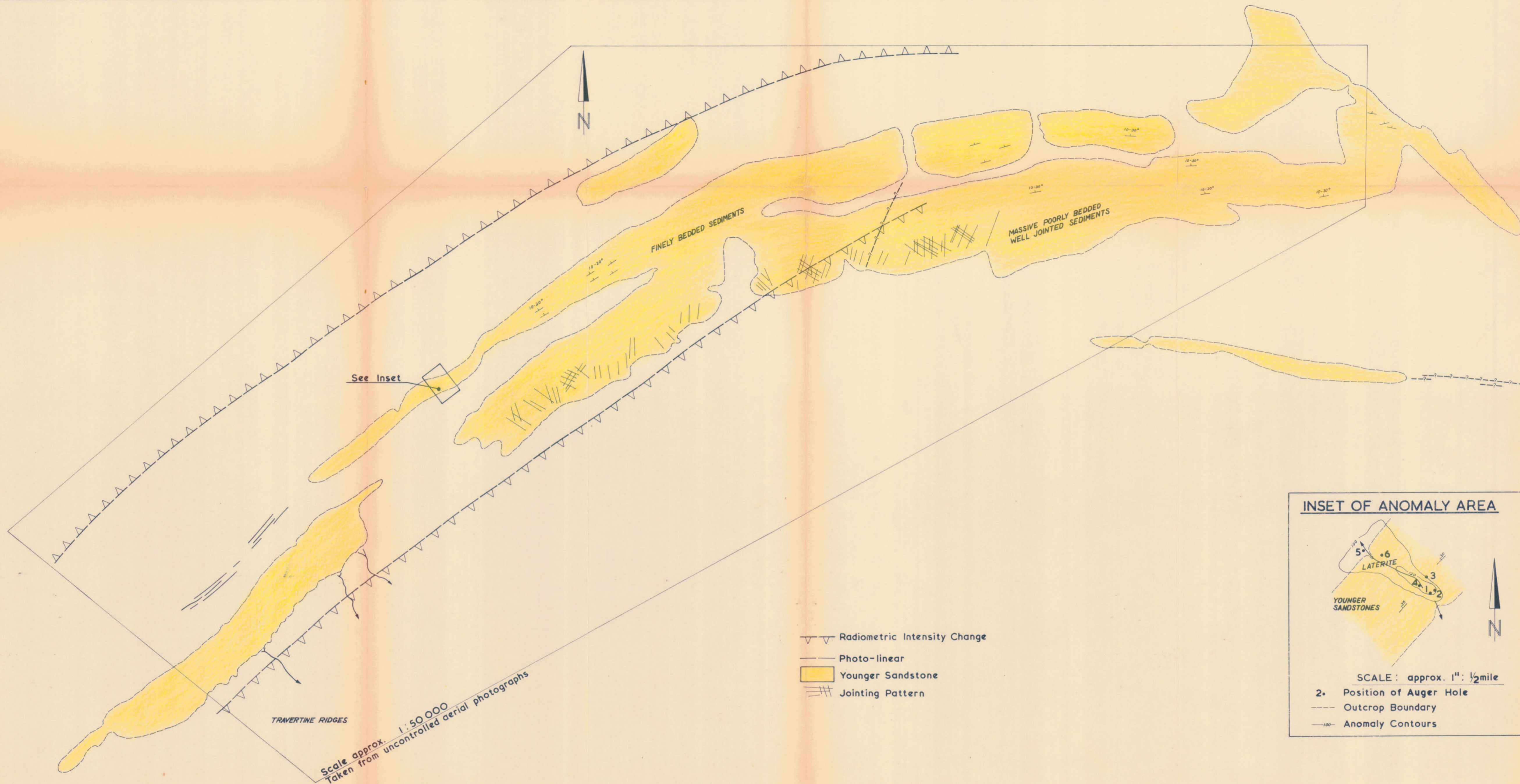
CONCLUSIONS

Again the radiometric anomaly appears to be caused by surface enrichment in the laterites and other laterite patches showed higher than background values. However, these laterites are anomalous when compared to some others with only background radioactivity. It was felt the anomalies may be caused by Uranium from a particular horizon within the sequence and this is probably the case, though it appears the laterite has concentrated the radioactive material from only trace or slightly higher values in the sedimentary rock. It would be virtually impossible to locate such a horizon (if any) with the weathering conditions prevalent in the area.

EXPENDITURE ON THE AREA

1.	Salaries, wages and oncosts	\$510
2.	Unallocated costs	\$1554
3.	Allocated administration costs	\$309
4.	Auger drilling	\$25
5.	Assaying and geochemistry	\$41
	Total:	<u>\$2439</u>

Arthur Feiggo.



NORTH WEST A.P. 2559 - GEOLOGICAL PLAN

TF 850

PEKO MINES NO LIABILITY.

PROGRESS REPORT.

ON PROSPECTING AUTHORITY No. 2559 in the Tanami locality
for the month of January, 1970.

Aerial photographs of the area have been obtained
and photointerpretation of the geology is in progress.

Expenditure for the period 1/1/70 to 13/1/70
was nil.

B. W. S.

PEKO MINES NO LIABILITY.

PROGRESS REPORT.

ON PROSPECTING AUTHORITY No 2559 in the TANAMI LOCALITY

for the PERIOD 1/2/70 to 10/3/70.

Photo interpretation of the geology of the area has been completed and details transferred to uncontrolled base plans. Several structures of interest for possible uranium mineralisation have been outlined. It is proposed to follow these up on the ground as soon as possible.

Expenditure for the period 14/1/70 to 10/3/70, is as follows:

Salaries Wages and Oncosts	\$ 36.00
Allocated field expenses	\$228.00
Allocated Admin. O'Heads	\$140.00
	<hr/>
	\$404.00
	<hr/>

B. J. W.

PEKO MINES NO LIABILITY.

PROGRESS REPORT.

ON PROSPECTING AUTHORITY NO. 2259 IN THE TANAMI LOCALITY
FOR THE PERIOD 8/4/70 TO 5/5/70.

Although the scintillometer was finally received, rains prevented commencement of work in the area.

Expenditure for the period was as follows:-

Salaries, Wages & Oncosts	\$154.00
Allocated Field Expenses	\$ 97.00
	<u>\$251.00</u>

BTW

PEKO MINES NO LIABILITY

PROGRESS REPORT

ON PROSPECTING AUTHORITY NO. 2559 IN THE TANAMI LOCALITY

FOR THE PERIOD 6.5.70 to 2.6.70

The planned radiometric reconnaissance work was again delayed due mainly to mechanical troubles in the vehicles bringing in the diamond drill to AP 2321 and the need for the vehicle planned for this survey to assist in the setting up of the drill.

The survey team is now prepared for an immediate start on this survey.

Expenditure for the period was Nil.

A handwritten signature in dark ink, consisting of a stylized 'B' followed by a series of loops and a long horizontal line ending in an arrowhead.

PEKO MINES NO LIABILITY

PROGRESS REPORT

ON PROSPECTING AUTHORITY NO. 2559 IN THE TANAMI LOCALITY
FOR THE PERIOD 3.6.70 TO 30.6.70

One radiometric anomaly was located on a fault zone but no surface mineralisation could be found. It may be possible to get the auger drill to the area to drill several shallow test holes.

Expenditure for the period is as follows :-

Salaries, wages and oncosts	\$ 184
Allocated Field Expenses	\$1155
Allocated Administration	\$ 110
	<hr/>
	\$1449

By [Signature]

PEKO MINES NO LIABILITY

PROGRESS REPORT

ON PROSPECTING AUTHORITY NO. 2559 IN THE TANAMI LOCALITY
FOR THE PERIOD 1/7/70 TO 28/7/70.

A radiometric anomaly located last period was drilled with the auger drill and tested with the scintillometer probe. Slightly above background values were recorded in the lateritic overburden but no significant values came from the bedrock.

Expenditure for the period was as follows:-

Auger Drilling	\$25.
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See report for period 29/7/70 to 25/8/70 for other expenses.

By [Signature]

PEKO MINES NO LIABILITY

PROGRESS REPORT

ON PROSPECTING AUTHORITY NO. 2559 IN THE TANAMI LOCALITY
FOR THE PERIOD 29/7/70 TO 25/8/70.

No work was undertaken during the period.

Expenditure for the period 1/7/70 to 25/8/70 is as follows:-

Salaries, Wages & Oncosts	\$136.
Allocated Field Expenses	\$ 74.
Allocated Administration	\$ 59.
	<u>\$269.</u>

