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Preliminary exploration report
on the Mt. Macumber & Parsons Range
A.Ps. 1274 & 1301.

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PRELIMINARY EXPLORATION REPORT

ON THE MT. MARUMBA AND PARSON'S RANGE AREAS.

AUTHORITIES TO PROSPECT 1274 & 1301.

BY A. G. STURM.

CR1965/022

Introduction:

From October 21st. to November 29, 1965, a United Uranium field party explored part of the Company's two Authorities to Prospect in Eastern Arnhem Land. The author was not a member of this party and the following facts and impressions were obtained from discussions with the party on their return. A complete report on the expedition will be forthcoming from Mr. D. Rutledge, the Party Leader, when geochemical assays are received.

Purpose of the Expedition:

The initial object of the survey was a rapid ground reconnaissance of the A.P's. to collect data to assess which areas offered the greatest mineral potential for further detailed work. Unfortunately, only 4 weeks were available before the oncoming wet season to explore the 5,633 square miles contained within the two A.P's. and it was therefore necessary to concentrate on a number of selected target areas. These areas were determined by favourable rock types and structures obtained from government geological maps and previous aerial reconnaissance flights. Considerable emphasis was also placed on recommendations from the reports of C.R.A. geologists who had previously worked in the Mt. Marumba Area.

Methods Employed:

Stream sediment sampling was considered to be the fastest and most economical means of detecting mineralization in these areas and most of the time of the party was employed on attempting to sample as many drainage systems as possible. Geological mapping and general surface prospecting was also to be carried out to the extent possible while travelling throughout the area.

Personnel and Equipment Employed:

Personnel:-

Mr. R. Rutledge	-	Party Leader - geologist on contract from K. Mc.Mahon & Partners Pty. Ltd.
Mr. E. Kranjc	-	geologist
Mr. K. Janssen	-	field assistant
Mr. G. Pupos	-	" "
Mr. F. Marcsik	-	driver/mechanic
Aboriginal Tracker.		

../2.

Equipment:-

- 2 land-rovers.

- 1 4-wheel-drive - Bedford truck.

Discussion of Field Data Collected:

A total of 170 stream samples were collected during the survey. The distribution of the samples is discussed below under the respective Target Areas. (Refer to the attached location sketch map.)

Prior to the departure of the field party it was suggested that if time permitted 2 samples be taken a few hundred feet apart on each branching tributary to provide a reliability check on any single anomalous sample. While this almost doubles the number of samples to be taken and increases the time per unit area sampled especially in those streams where fine silt is scarce, it aids in assessing whether the mounting of costly follow-up programs based on a few high and possibly erratic samples is justified. Unfortunately time did not allow this to be done.

Target Area No. 1. - A.P. 1274.

No. of stream samples taken - 94

No. of days within the area - 9

The sampling density achieved within this area is satisfactory. All the major stream courses and most of their tributaries were sampled.

Much of this area is covered by chert and cherty dolomites, the host rock for the Bulman lead mineralization, but no gossans or other signs of mineralization were seen by the party.

Dolerite was found to be more extensive in parts of this area than shown on the B.M.R. geology map.

Target Area No. 2. - A.P. 1274.

No. of stream samples taken - 32

No. of days within the area - 4

Sampling of this area was not fully completed. However, the most important drainage channel, the West Branch of the Wilton River, which cuts through the heart of the area was adequately sampled. Passage through to the outlying creeks was prevented in the time available, by high cliffs and rough terrain.

This area encompasses the nose of a major anticlinal structure and numerous faults but no evidence of mineralization was noted. The acid intrusive to the immediate north-west of the area was not reached.

Target Area No. 3. - A.P. 1274.

No. of stream samples taken - 42

No. of days within the area - 4

Stream sampling coverage of this area is not completely adequate. Difficulty was encountered by the party in locating a number of the stream courses marked on the maps and also in travelling across rough country.

Choice of this Target Area was based primarily on the presence of the major Showell Creek Fault and the reported occurrence of Bulman-Type host rocks by G.W. Patterson of C.R.A. in his report on a helicopter survey between the Mannand Limmen Bight Rivers. No dolomitic host rocks or anything else of interest was sighted by the party.

Target Area No. 4. - A.P. 1301.

No. of stream samples taken - Nil

No. of days within the area - Nil

The party was unsuccessful in reaching this last area. On the 17th. of November and approximately 20 miles from the target considerable difficulty was encountered with bogging of the Bedford truck in soft ground conditions and when reconnoitring ahead with the land-rover revealed similar soft ground conditions, the party retreated.

Conclusion

1. In A.P. 1274, 3 areas totalling approximately 530 sq. miles were stream sampled. Target Area No. 1 has a sufficient sample density to satisfactorily cover the area. Target areas No. 2 & 3 are incompletely sampled but the major drainages are satisfactorily covered.

2. In A.P. 1301, Target Area No. 4 remains untested except for a few stream samples taken on a prior helicopter reconnaissance flight. These results were nil.

3. No conclusions can be drawn from the stream sampling campaign until the results are received but surface prospecting was unsuccessful in locating any sign of mineralization. Notice should be taken, however, of the short time spent in each area.

4. The total number of samples taken was much lower than had been anticipated. This was due in the main to:-

   rough terrain in places which considerably slowed progress particularly with the Bedford truck.

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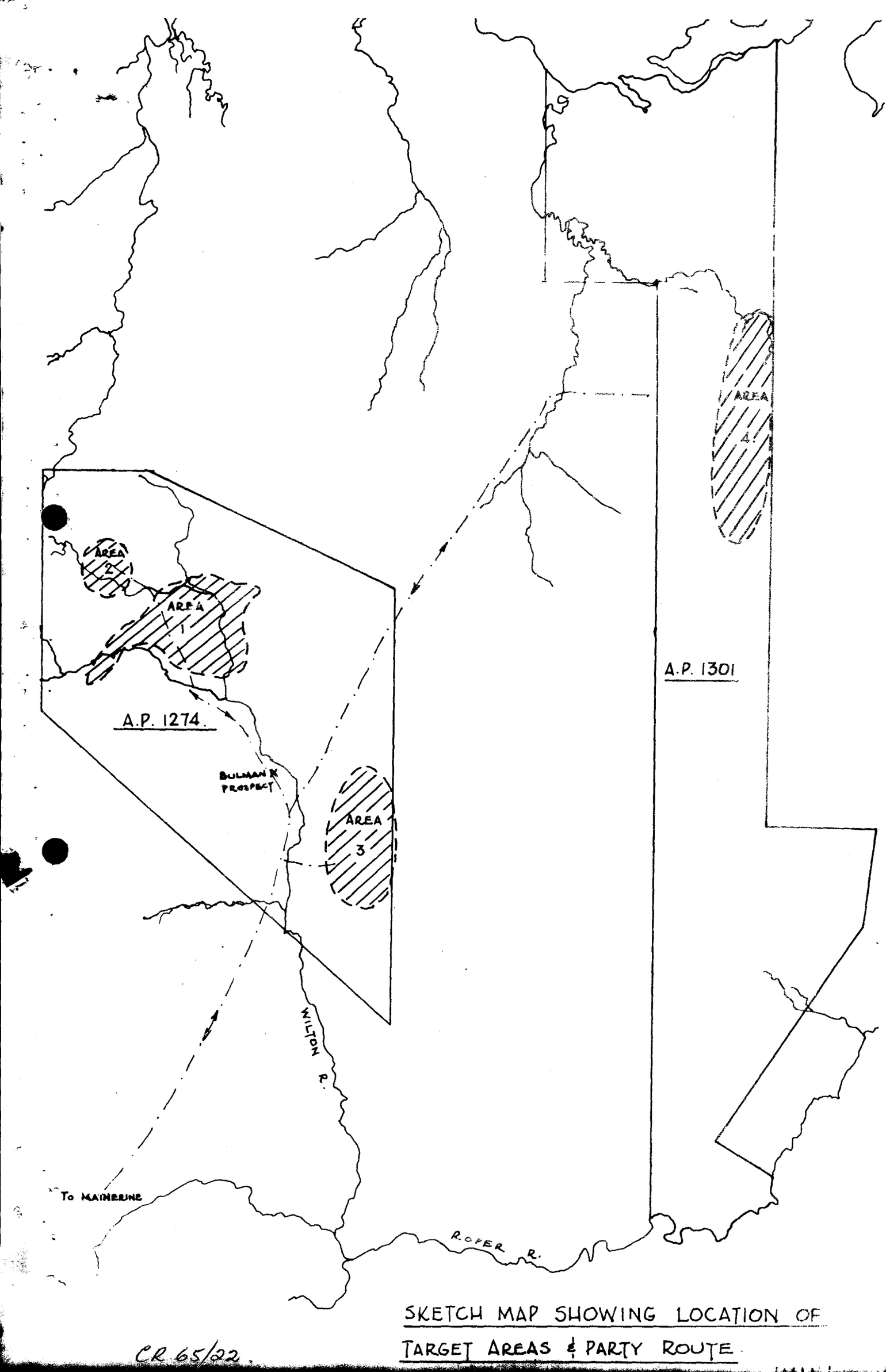
5. Future investigation into areas of this size should allow sufficient time for thorough work. Rapid excursions cannot be expected to produce good results. Of a total of 39 days in the field, only 17 days were actually spent in the target areas, the remainder was taken up primarily in travelling.

A. G. Sturm

A.G. Sturm.
Chief Geologist.

December 17, 1965.



SKETCH MAP SHOWING LOCATION OF TARGET AREAS & PARTY ROUTE

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