

John Paul

C.R.A. EXPLORATION PROPRIETARY LIMITED

Ref. No. N.T. 112
HUCKITTA

OPEN FILE

SUBJECT:

LEAD/ZINC SEARCH - MT. HOGARTH AUTHORITY
TO PROSPECT 3183, NORTHERN TERRITORY.

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AUTHOR:

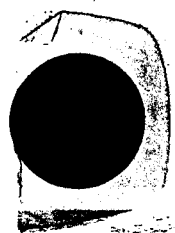
G. H. P. Tham

OPEN FILE

18th August, 1971.

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CR 71/21



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C.R.A. EXPLORATION PTY. LIMITED

18th August, 1971.

Memorandum to : F.E. HUGHES
Copy to : C.L. Knight
From : G.H.P. Tham

Lead/Zinc Search - Mt. Hogarth

Authority to Prospect 3183

Northern Territory

INTRODUCTION

In the search for lead-zinc, the company decided to investigate the Cambro-Ordovician carbonate sequences in the Tobermory-Sandover River area, mainly because of previous work at a lead-zinc prospect in the Arrinthrunga Formation (Turkey Creek, Huckitta area, Northern Territory), probably of Upper Cambrian age.

In December 1970 the company applied for an A. to P. area covering 3,950 square miles of the Tomahawk Beds in the Tobermory/Sandover River 4 miles sheet area.

The total area was, however, reduced to 385 square miles, called Mt. Hogarth A. to P. 3183, in August 1971.

The initial investigation covering the total application area was carried out between December, 1970 and July, 1971 when the final compilation and evaluation of the results was submitted by the Alice Springs Office.

PROCEDURES.

The initial work may be subdivided as follows:

1. Literature studies of the Arrinthrunga Formation, Tomahawk Beds and Ninmaroo Formation (1 geologist).
2. Photo interpretation.

3. Bore investigation from BMR records (obtained at the Mines Branch - Alice Springs).
4. Field reconnaissance (2 geologists, 1 field assistant).
5. Sampling program : soil sampling
stream "
rock "
bore water "
6. Liaison with Argadargada and Tarlton Downs homestead owners.

RESULTS.

There is no known prospect in the area. Near Tarlton Downs homestead one bore log indicates one minor occurrence of arsenopyrite, probably in the Ninmaroo Formation. Some detrital copper mineralisation has been traced in calcareous quartz-siltstone in bores near Argadargada homestead.

The geochemical results of stream and soil samples did not give any indication of mineralisation present in the area. Nor did the reconnaissance work (including chip sampling - Table 1) show up anything of interest.

The analysis of bore water samples gave values below what is considered anomalous (Table 2).

CONCLUSIONS

In spite of no detailed field work being carried out no further work has been recommended. Therefore, the application was withdrawn in August, 1971.

G.H.P. Tham

GHPT:vaw

Attach: Rock Sample Report - C.M.S. 70/12/53.
Geochemical Drainage
Sampling Ledger

KEYWORDS

Lead, zinc, Tomahawk Beds, Ninmaroo Formation, Cambro-Ordovician, geochemical stream sampling, final report.

Locality: Tobermory SF53-12 1:250,000 map sheet.

PLANS

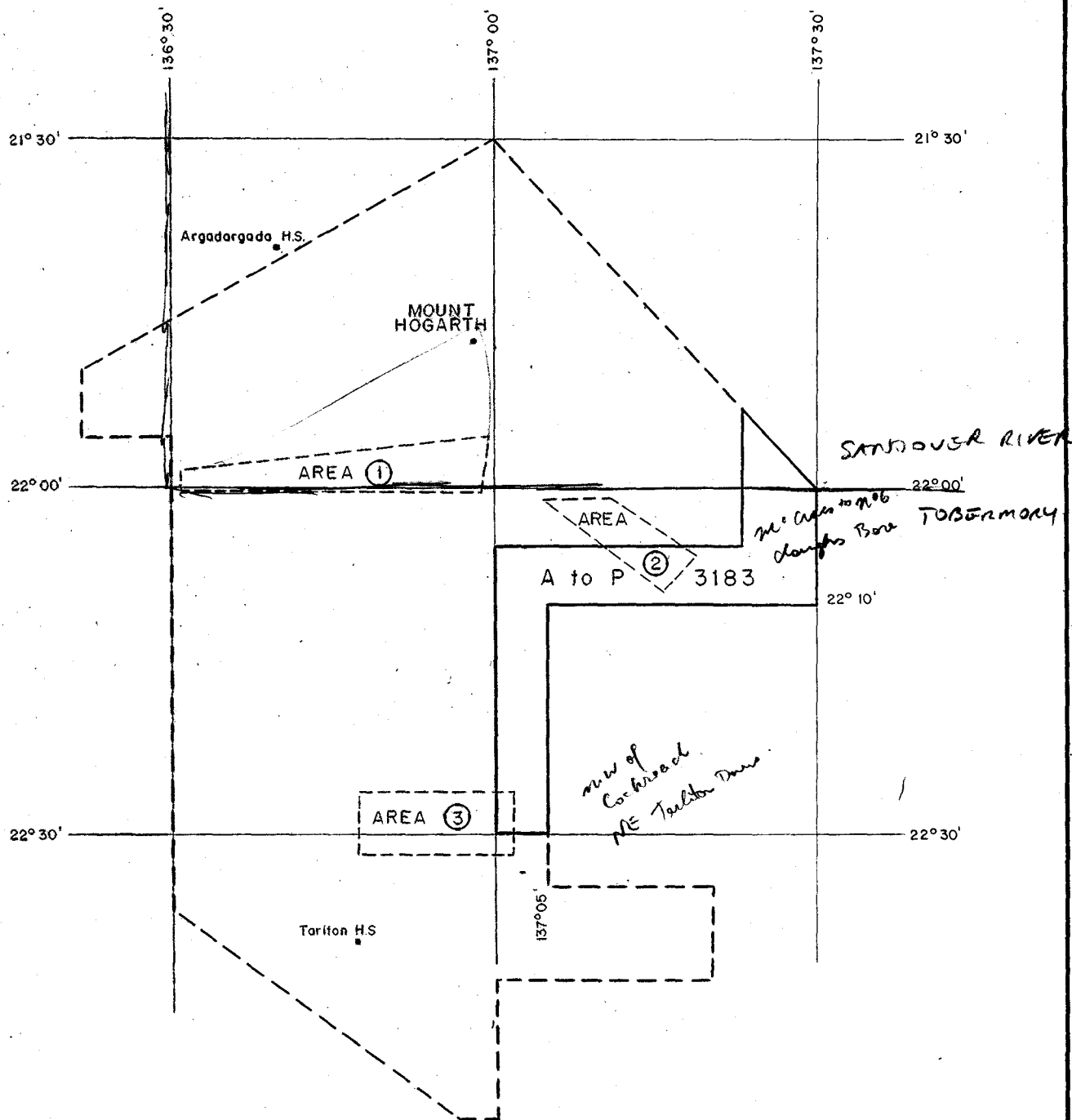
<u>Plan No.</u>	<u>Title</u>	<u>Scale</u>
✓ N.T.796	A. to P. Mt. Hogarth. Locality Plan showing Areas Sampled.	1" = 15.67 miles
✓ N.T.797	Mt. Hogarth - Area 1. Sample Number Plan showing U Value in ppm.	1:250,000
✓ N.T.798	Mt. Hogarth - Area 1. Assay Plan for Cu and Ni.	1:250,000
N.T.799	Mt. Hogarth - Area 1. Assay Plan for Pb and Zn.	1:250,000
N.T.800	Mt. Hogarth - Area 1. Assay Plan for Ag, Mo and As.	1:250,000
N.T.801	Mt. Hogarth - Area 2. Sample Number and Assay Plan showing Pb, Zn, Cu, Ni, Ag, Mo, As and U Values.	1:250,000
N.T.802	Mt. Hogarth - Area 3. Sample Number Plan showing U Value in ppm.	1:250,000
N.T.803	Mt. Hogarth - Area 3. Assay Plan for Cu and Ni.	1:250,000
N.T.804	Mt. Hogarth - Area 3. Assay Plan for Pb and Zn.	1:250,000
✓ N.T.805	Mt. Hogarth - Area 3. Assay Plan for Ag, Mo and As.	1:250,000

TABLE 1



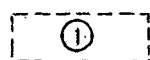
Rock Samples from the Tomahawk Beds/Ninmaroo Formation
in the Tobermory-Sandover River 4 Miles Sheet Area.

(Analysed by Central Mineralogical Services, South Australia,
Sample Report CMS 70/12/53)

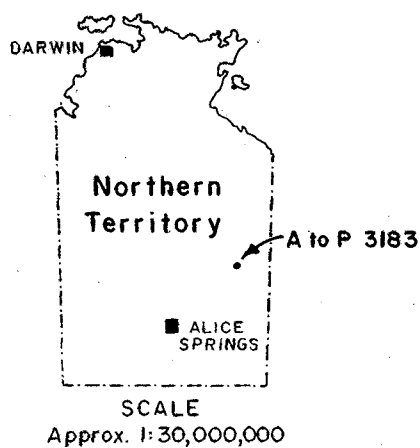
<u>Sample Nos.</u>	<u>Identification</u>	<u>Remarks</u>
192239	Partially dolomitised quartz sandstone.	No trace of mineralisation.
192240	Dolomitised fine grained sandstone.	No trace of mineralisation.
192241	Dolomitic fine grained sandstone.	Traces of blue/green tourmaline.
192242	Fine grained feldspathic sandstone.	Traces of zircon, tourmaline.
192244	Fine grained feldspathic sandstone.	Traces of zircon, tourmaline.
192250	Dolomite.	No trace of mineralisation.
192243	Bedded fine grained sandstone with clay content.	Traces of tourmaline.
192249	Bedded fine grained sandstone with clay content.	Traces of tourmaline.
192245	Fine grained quartz sandstone cemented by iron oxides or hydroxides.	(?)Goethite.
192248	Fine grained quartz sandstone cemented by iron oxides or hydroxides.	(?)Goethite.



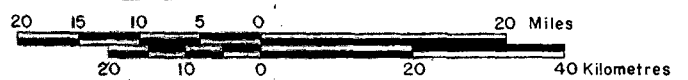
LEGEND:-

-  A to P Area Applied For.
-  Area Granted, A to P 3183
-  Areas Sampled

LOCALITY DIAGRAM



SCALE :- 1:1,000,000 approx.

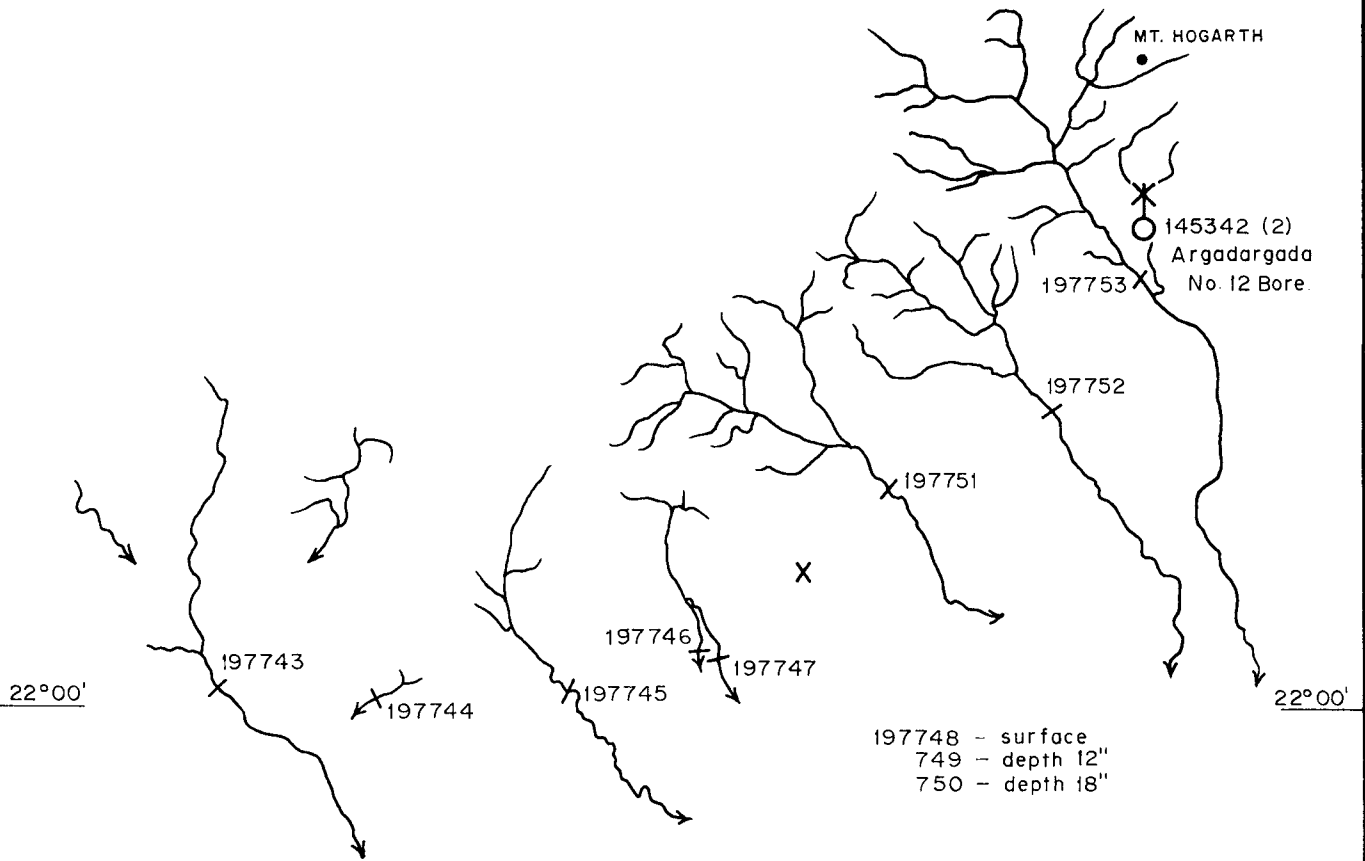


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**A to P 3183 MT. HOGARTH,
LOCALITY PLAN showing
AREAS SAMPLED.**





136°45'

137°00'

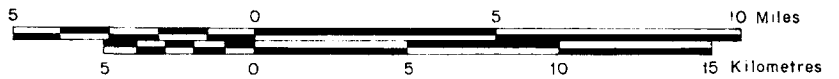


197748 - surface
 749 - depth 12"
 750 - depth 18"

LEGEND:

-  197743 Stream sample number
-  197748 Soil sample number
-  (2) U.-content (in p.p.m.)
-  145342 Bore water sample number

SCALE : 1:250,000



137°00'

C R A EXPLORATION PTY LIMITED

MT. HOGARTH — AREA 1.
 NORTHERN TERRITORY

SAMPLE NUMBER PLAN
 showing U. value in p.p.m.

136°45'

G.H.P. THAM. AUG '71

1:250,000

PLAN No. NT 797

136° 45'

137° 00'



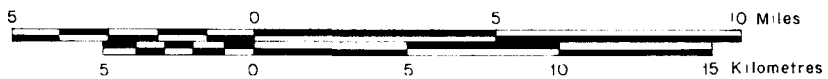
22° 00'

22° 00'

LEGEND :

- STREAM SAMPLE (-80 mesh).
- ↘ $\left. \begin{matrix} <1 \\ 4 \end{matrix} \right\} \begin{matrix} \text{Cu.} \\ \text{Ni.} \end{matrix} \right\}$ Values in p.p.m.
- SOIL SAMPLE (-80 mesh).
- X $\left. \begin{matrix} 6 \\ 10 \end{matrix} \right\} \begin{matrix} \text{Cu.} \\ \text{Ni.} \end{matrix} \right\}$ Values in p.p.m.

SCALE : 1 : 250,000



137° 00'

136° 45'

C R A EXPLORATION PTY LIMITED

MT. HOGARTH — AREA 1.
NORTHERN TERRITORY

ASSAY PLAN for Cu. & Ni.

G.H.P. THAM. AUG '71

1 : 250,000

PLAN No NT 798

136° 45'

137° 00'



LEGEND:

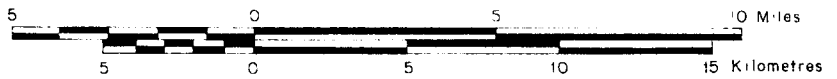
STREAM SAMPLE (-80 mesh).

X	10	Pb.	} Values in p.p.m
/	7	Zn.	

SOIL SAMPLE (-80 mesh)

X	76	Pb	} Values in p.p.m
	15	Zn	

SCALE 1:250,000



137° 00'

C R A EXPLORATION PTY LIMITED

MT. HOGARTH — AREA 1.
NORTHERN TERRITORY

ASSAY PLAN for Pb. & Zn.

GHP THAM, AUG '71

1:250,000

PLAN No. NT 799

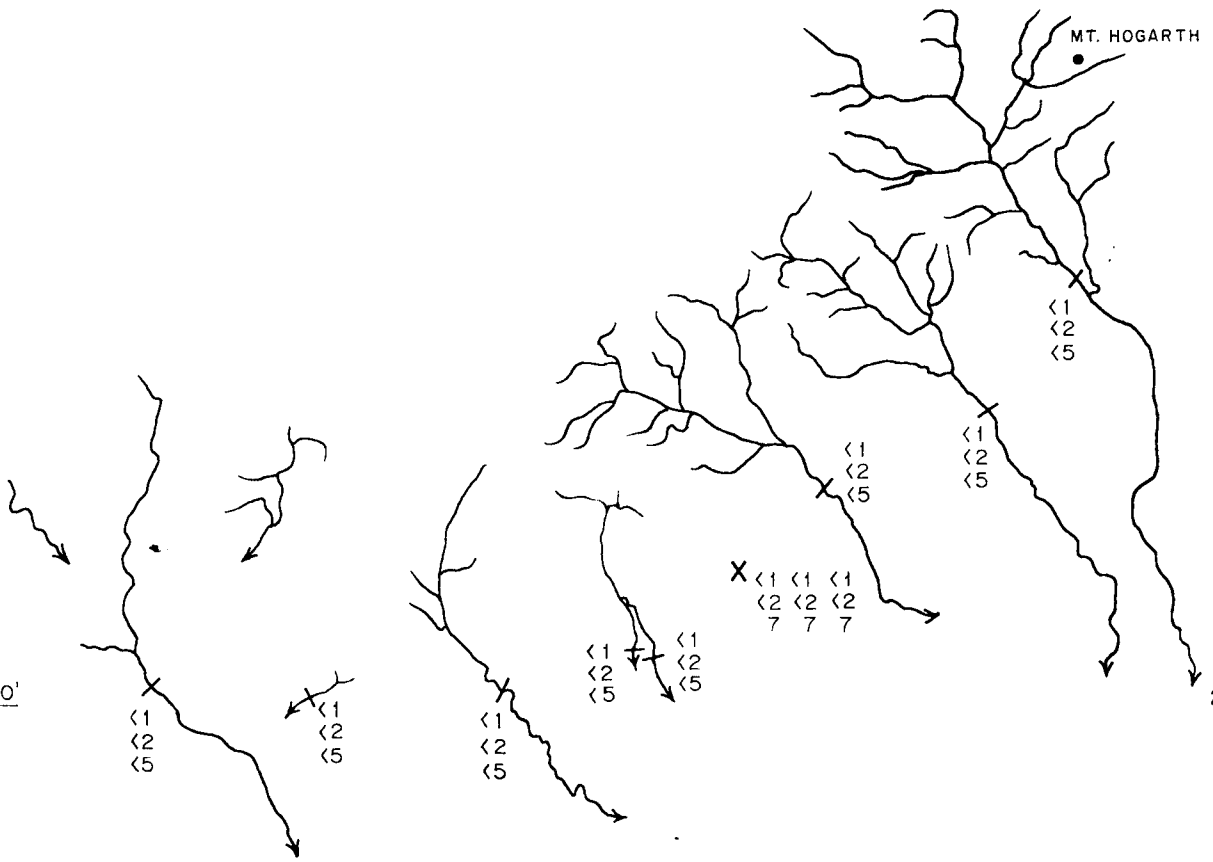
136° 45'

136° 45'


137° 00'

22° 00'

22° 00'

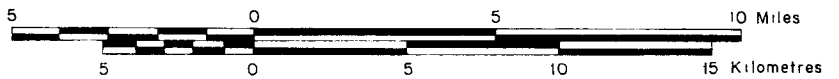


LEGEND:

 STREAM SAMPLE (-80mesh)
 <1 Ag.
 <2 Mo } Values in ppm.
 <5 As }

SOIL SAMPLE (-80mesh).
 X <1 Ag.
 <2 Mo } Values in ppm.
 7 As }

SCALE : 1:250,000



137° 00'

136° 45'

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MT. HOGARTH — AREA 1.
NORTHERN TERRITORY

ASSAY PLAN
for Ag, Mo. and As.

G.H.P. THAM. AUG. 71

1:250,000

PLAN No. NT. 800

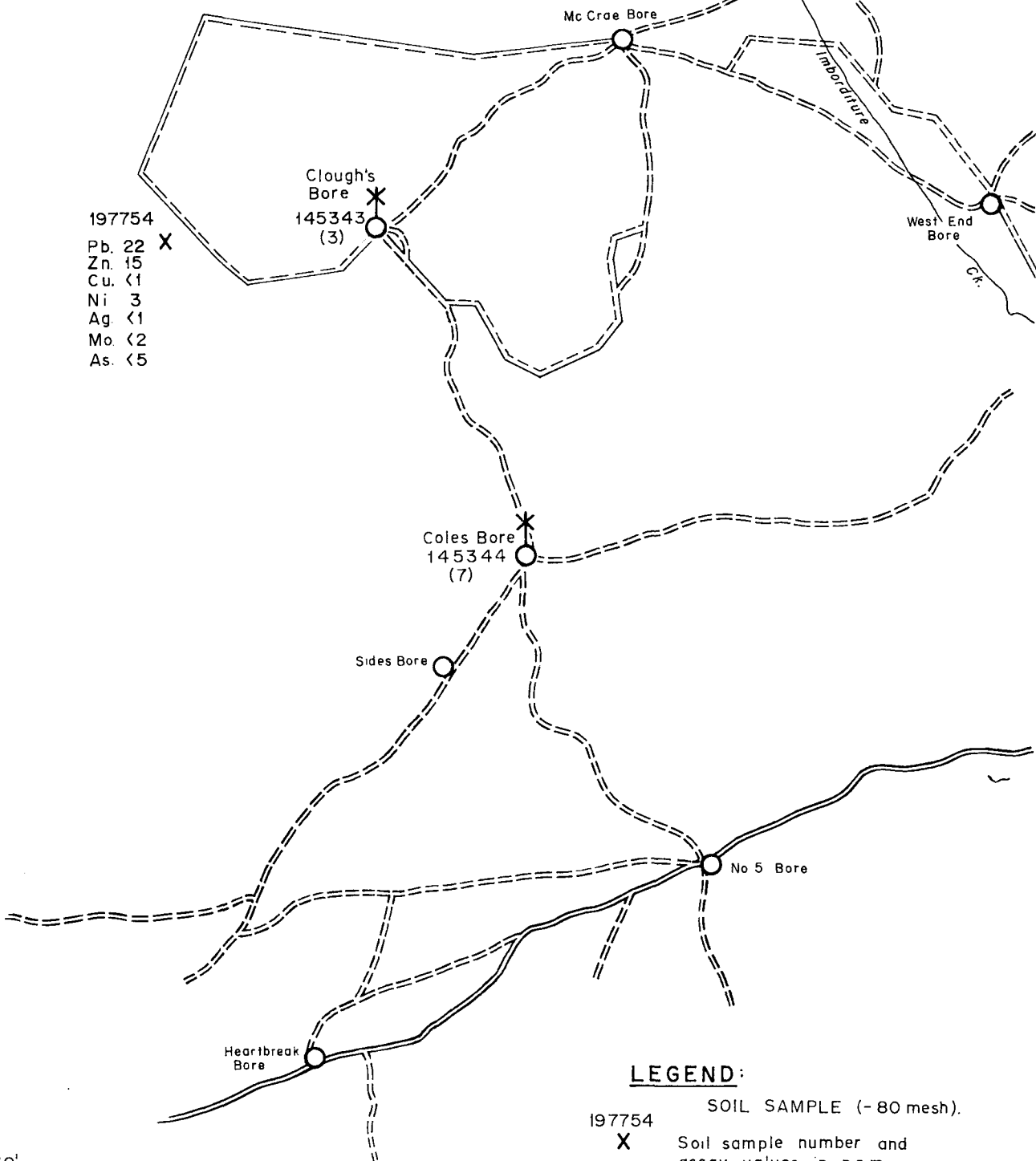
22°00'

137°15'

137°30'

22°00'

197754
 Pb. 22 X
 Zn. 15
 Cu. <1
 Ni. 3
 Ag. <1
 Mo. <2
 As. <5



LEGEND:

197754 SOIL SAMPLE (- 80 mesh).

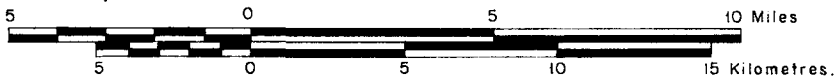
X Soil sample number and assay values in ppm

* (7) U.- content (in ppm)
 O 145344 Bore water sample number

22° 30'

22° 30'

SCALE : 1:250,000



137°30'

C R. A. EXPLORATION PTY LIMITED

MT. HOGARTH — AREA 2.
 NORTHERN TERRITORY

Sample Number & Assay Plan
 showing

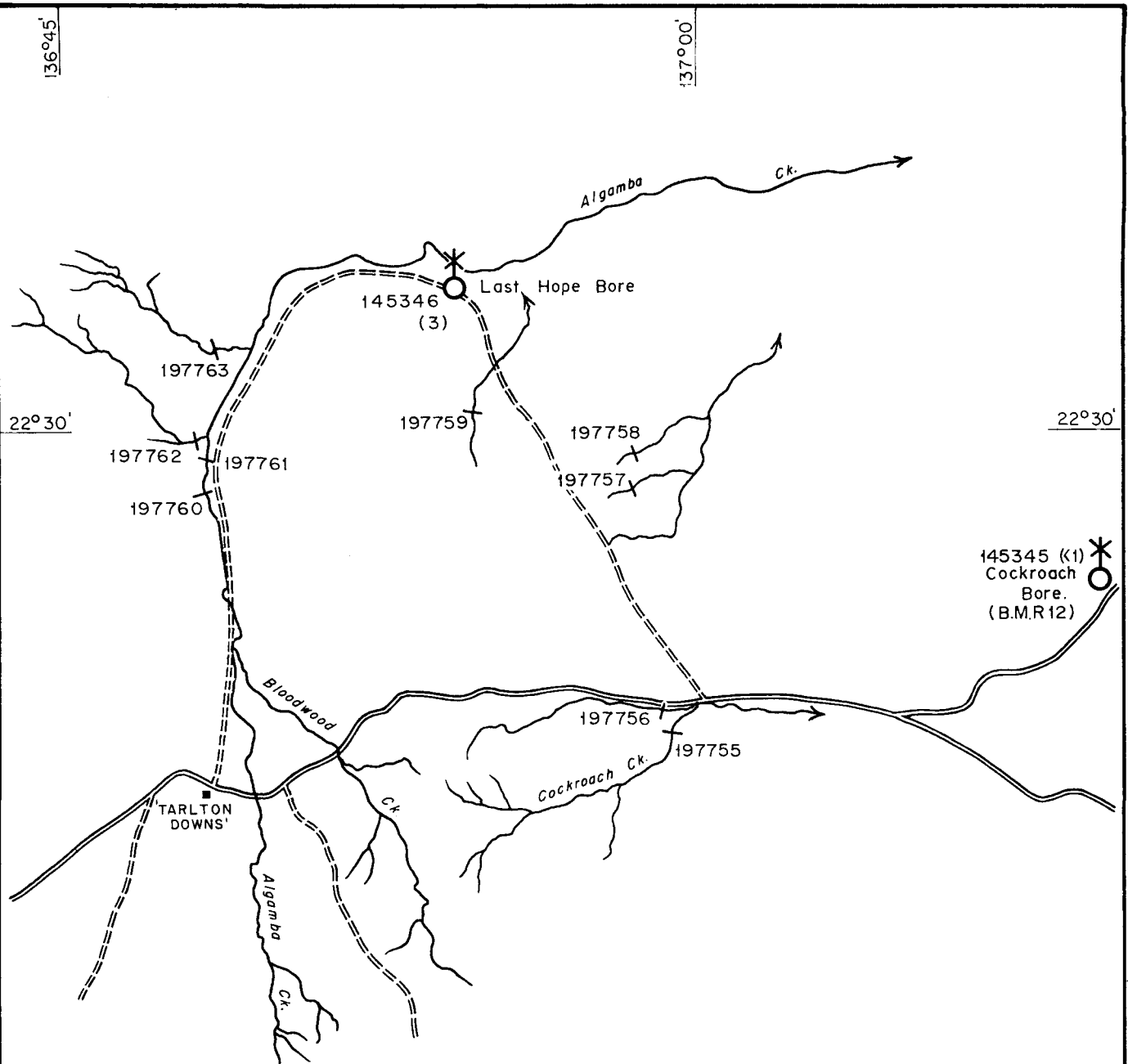
Pb, Zn, Cu, Ni, Ag, Mo, As & U. Values

GH.P THAM, AUG. 71



1:250,000

PLAN No. N.T. 801

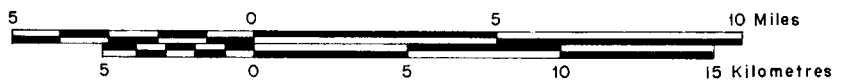
137°15'



LEGEND:

- 
Stream sample number and location
 197759
- 
Bore water sample number and U. content (in ppm.)
 145345 ((1))

SCALE : 1:250,000



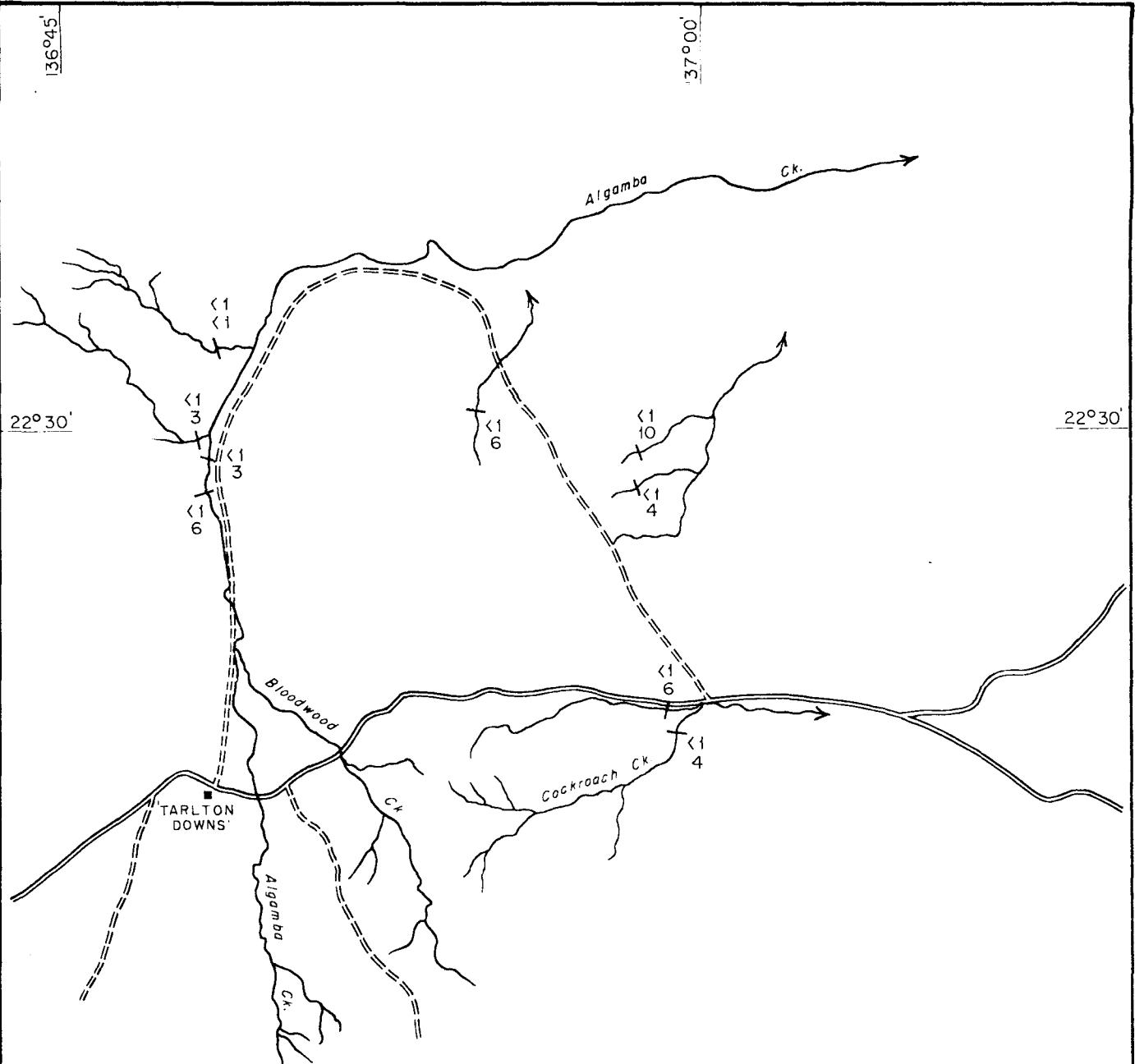
23°00'

23°00'


137°00'

136°45'

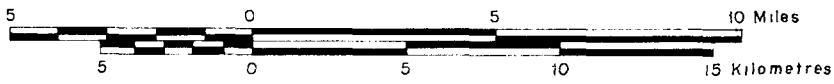
C R. A. EXPLORATION PTY LIMITED	
MT. HOGARTH — AREA 3. NORTHERN TERRITORY	
SAMPLE NUMBER PLAN showing U. value in p.p.m.	
G.H.P. THAM. AUG. 71	1:250,000
PLAN No. N.T. 802	



LEGEND:


 STREAM SAMPLE (-80mesh).
 <1 Cu. } Values in p.p.m.
 4 Ni }

SCALE: 1:250,000



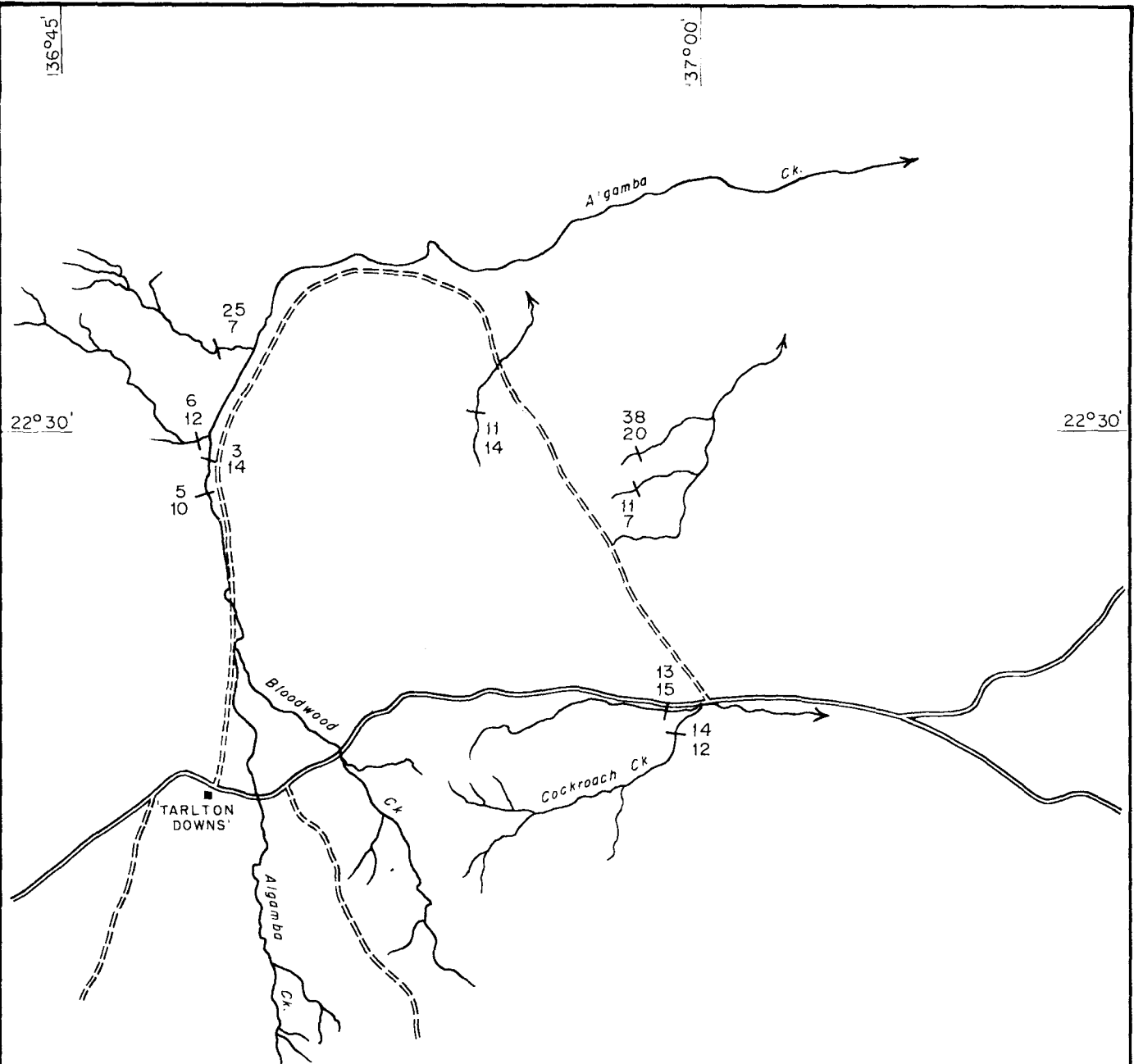
23°00'

23°00'

C.R.A. EXPLORATION PTY. LIMITED		
MT. HOGARTH — AREA 3. NORTHERN TERRITORY		
ASSAY PLAN for Cu. & Ni.		
G.H.P. THAM. AUG. 71	1:250,000	PLAN No NT 803

136°45'

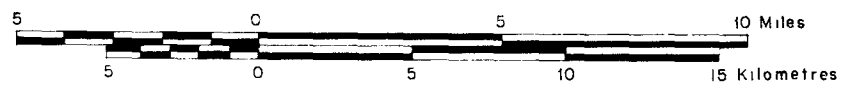
137°00'



LEGEND:

STREAM SAMPLE (- 80 mesh)
 ↙ 14 Pb. } Values in ppm.
 12 Zn. }

SCALE : 1 250,000



23°00'

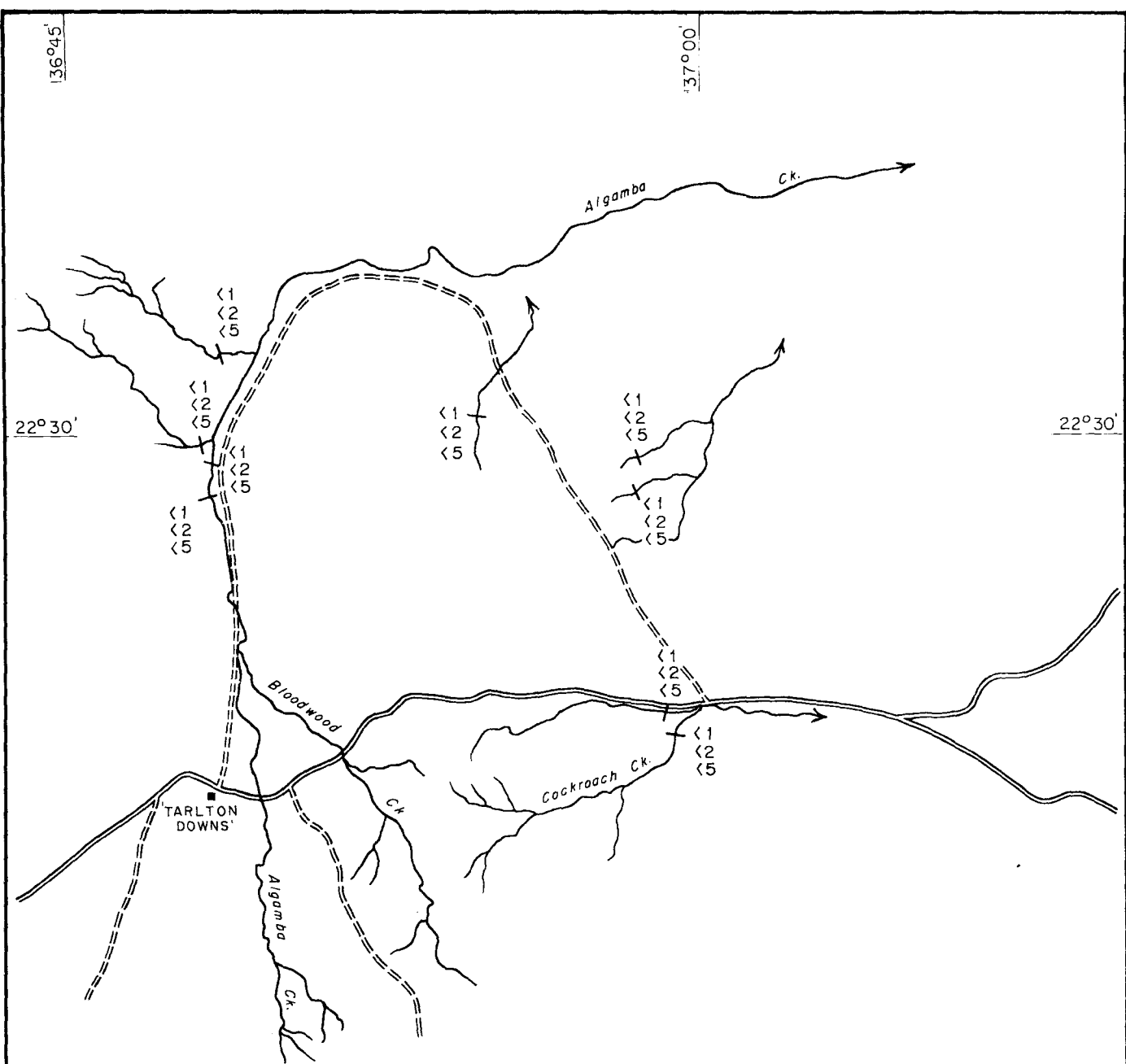
23°00'

C R A EXPLORATION PTY LIMITED


MT. HOGARTH — AREA 3.
NORTHERN TERRITORY

ASSAY PLAN for Pb. & Zn.

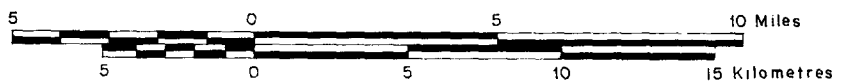
G.H.P. THAM. AUG. 71 1:250,000 PLAN No. N.T. 804



LEGEND :

- 
 STREAM SAMPLE (-80 mesh).
 { <1 Ag.
 <2 Mo.
 <5 As. } Values in p.p.m.

SCALE : 1:250,000



23°00'

23°00'

C R A EXPLORATION PTY LIMITED

MT. HOGARTH — AREA 3.
NORTHERN TERRITORY

ASSAY PLAN
for Ag, Mo. and As.

G.H.P. THAM. AUG'71

1:250,000

PLAN No. N.T. 805

C.R.A. EXPLORATION PTY. LIMITED

GEOCHEMICAL DRAINAGE SAMPLING LEDGER

AREA AP-3183

SAMPLE Nos. 197743 - 763

COLLECTED BY G.T/E.K.

SHEET No. 1

MAP OR PHOTO REFERENCE SANDOVER RIVER - TOBERMORY N.T.

ANALYSED BY ZINC CORPORATION LTD. JPO.6876

DATE 19-8-71

Map or photo No.	No. Sample	Sediment				Channel				pH	Metal content, p. p. m.							PPb	Geological observations			
		Gravel	Sand	Silt/mud	Organic	Flow	Width	Alluvial	Colluvial		Pb	Zn	Cu	Ni	Co	Cr	Mn			Ag	Mo	As
	197743										10	7	<1	4				<1	<2	<5		
	744										31	10	<1	2				<1	<2	<5		
	745										41	5	<1	2				<1	<2	<5		
	746										20	7	<1	3				<1	<2	<5		
	747										20	10	<1	7				<1	<2	<5		
	748										76	15	6	9				<1	2	7		} SOIL SAMPLES
	749										59	12	6	10				<1	<2	7		
	750										58	15	6	7				<1	<2	7		
	751										14	5	<1	4				<1	<2	<5		
	752										8	13	<1	4				<1	<2	<5		
	753										17	19	<1	9				<1	<2	<5		
	754										22	15	<1	3				<1	<2	<5		
	755										14	12	<1	4				<1	<2	<5		
	756										13	15	<1	6				<1	<2	<5		
	757										11	7	<1	4				<1	<2	<5		
	758										38	20	<1	10				<1	<2	<5		
	759										11	14	<1	6				<1	<2	<5		
	760										5	10	<1	6				<1	<2	<5		
	761										3	14	<1	3				<1	<2	<5		
	762										6	12	<1	3				<1	<2	<5		
	197763										25	7	<1	<1				<1	<2	<5		
	145342																				2	} BORE WATER SAMPLES
	343																				3	
	344																				7	
	345																				<1	
	346																				3	

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