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AUSTRALIA AND NEW ZEALAND EXPLORATION COMPANY

FINAL REPORT ON
EXPLORATION LICENCE 1/69
FOR THE PERIOD
SEPTEMBER 1973 TO JUNE 1974

by
R.T. BRANDT
BURNIE, TASMANIA
JULY, 1974.

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FINAL REPORT ON EXPLORATION LICENCE 1/69
FOR THE PERIOD SEPTEMBER 1973 TO JUNE 1974

INTRODUCTION

A full report on the work done in Exploration Licence 1/69 by Australia and New Zealand Exploration Company, from the commencement of operations up to September 1973, was presented on 19th November, 1973. The conclusion drawn at that time was that a potential for skarn-type tungsten mineralization did not exist except possibly at two localities where investigations were not yet complete. The localities in question were the Highclere Iron Prospect and the Sulphur Creek Syncline, a structure inferred to exist under basalt in the area between Camena and Riana. Further investigations in these two localities have since been carried out and are described in this Final Report, which covers the period from September 1973 to June 1974.

THE HIGHCLERE IRON PROSPECT

The Highclere Iron Prospect, situated approximately two kilometres south-east of the village of Highclere, consists of a group of small outcrops of massive hematite-magnetite confined to a small area about 400 metres long and 80 metres wide. Outcrops of Devonian granite are present about 50 metres to the east, but most of the surrounding country is covered by Tertiary basalt, which obscures the contact relations of the granite and the iron ore. A map showing the surrounding geology was enclosed with our report of 19th November, 1973.

The prospect was surveyed magnetically by the Bureau of Mineral Resources in 1959, and again by the Tasmanian Department of Mines in 1964. Four diamond holes were then drilled on the sites of the highest magnetic anomalies (R. Jack, Tasmanian Department of Mines Technical Report No.9, 1964, page 37). The drillholes revealed that the magnetic anomalies were due to small bodies of high-grade iron ore enclosed in unidentifiable metamorphic rocks weathered to limonitic clays to a depth of more than 100 feet. In 1972, the drillhole cores, made available to this Company by the Director of Mines, were examined and the sample residues were analysed for tungsten. The rocks containing the iron ore appeared similar to the weathered skarns of the Kara Prospects and the analyses showed anomalous tungsten in the residues from drillholes Nos. 2 and 3. The logs of these holes and the tungsten values obtained are given in Appendix A to this report. Drillholes Nos. 1 and 4 did not yield any anomalous values.

Regional geological mapping, stream-sediment sampling and further magnetic surveys, carried out in mid-1973, failed to disclose any other occurrences similar to that of Highclere, and no magnetic evidence was found of any sub-surface extensions of the Highclere iron ore beyond the area of outcrops. It was concluded, therefore, that the occurrence was small and probably represented a local pocket or roof pendant of weathered magnetite-skarn rocks within granite.

Power auger drilling was undertaken in December 1973. Thirty-three holes, totalling 1252 feet, were drilled and were sufficient to demonstrate the low

grade and very localised character of the tungsten mineralization. The positions of the auger holes and the local geological picture revealed by the drilling are shown in the accompanying Plate 1. Logs of the holes, with analyses, are attached to this report. Some holes were stopped by hard rock at shallow depths and only one succeeded in reaching the maximum depth of 120 feet. The auger sludges were geochemically sampled at 3-foot intervals and the samples were sent for tungsten analysis. Samples from the later holes, Nos. 127-133, were also analysed by means of a portable Minilab XRF analyser, but at such low values the results obtained by this method are somewhat unreliable.

The auger holes were sited initially on a 400-foot grid pattern, starting at the site of Mines Department drillhole No. 2. As the area of possible mineralization was narrowed down, the interval was reduced to 200 feet and then to 100 feet. It was established that the weathered skarn-type rocks penetrated by the diamond drillholes are restricted to a narrow zone within granite. Of the 33 holes drilled, only 7 intersected skarn rocks, 3 were stopped by hard basalt, and the remainder entered weathered granite at shallow depth, usually after passing through a layer of hematite-rich soil.

Anomalous tungsten occurs locally in the skarn and is also present in small concentrations of hematite in the granite. The highest values, of more than 2000 ppm W, were encountered in auger hole No.1, but such values are obviously confined to a very small area indeed. In view of its small size, deep weathering, and the unlikelihood of any worthwhile concentration of scheelite existing at depth, the prospect was considered of no further interest.

THE CAMENA-RIANA AREA

This largely basalt-covered area forms part of the marginal zone of the Blythe River granite pluton. Conglomerates and quartzites dated as lower Ordovician appear in outcrop to the north-west of Camena and again to the south-east of Riana (Plate 2), apparently forming the two limbs of a broad syncline, the axial region of which is concealed under basalt. Further evidence of this structure, which has been called the Sulphur Creek Syncline, can be found in the coastal area, where the distribution and attitudes of the Precambrian and Ordovician sediments suggest a syncline plunging S.S.W. and cut off by the Blythe River granite between Camena and Riana. The nature of the rocks within the unexposed axial region of the syncline is not known, but should these be calcareous formations of the Upper Ordovician, there would be a definite possibility of tungsten-bearing skarns existing under the basalt near the granite margin.

To test this possibility, a brief geological, geochemical and magnetic survey of this area was carried out. An examination of the incised stream courses failed to reveal any "windows" in the basalt cover or any evidence of the nature of the rocks below. Panned stream sediment samples from the principal creeks did not show any anomalous tungsten. The magnetometer readings throughout the area (Plate 2) are remarkably consistent and show a very subdued magnetic "topography" characteristic of granite or siliceous rocks under basalt. At one point north-west of Camena, there is a small occurrence of hematite with anomalous tungsten, in the form of veins within the Ordovician conglomerate. The hematite was found to be entirely non-magnetic and any concealed deposits of this mineral would not be detectable by the magnetometer.

As a result of this survey, it can be said that the presence of calcareous rocks and skarns under the basalt has not been disproved, but is highly unlikely because of the absence of any indication of magnetite, which would be expected as an accompaniment to skarn formation.

CONCLUSION

No further exploration for skarn-type tungsten deposits within Exploration Licence 1/69 is warranted at this time.

R.T. Brandt

Attachments

Appendix A - Logs of Mines Dept. Drillholes 2 and 3.

Appendix B - Logs of Auger Holes 1-25 and 127-133

Plate 1 - Geological Plan of the Highclere Iron Prospect

Plate 2 - Camena-Riana Area, Geology and Magnetometry

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Appendix A

HIGHCLERE IRON PROSPECT
MINES DEPARTMENT DRILLHOLE NO.2

Footage	Core Recovery	Assay ppm W	Log	SLUDGES	
				Footage	Assay ppm W
0'- 10'	80%	190	Limonitic Clay	0'- 8'	180
10'- 21'	68%	530	Mixed limonitic clay, magnetite crystals and bands of magnetite	8'- 12'	150
21'- 31'	52%	750		12'- 17'	340
31'- 38.5'	93%	860		17'- 22'	460
38.5'- 43'	72%	250		22'- 27'	410
43'- 52'	20%	400		30'- 37'	1800
52'- 62'	35%	390	Mainly magnetite	37'- 47'	640
62'- 72'	76%	430		47'- 52'	480
72'- 82'	17%	100		52'- 54'	450
82'- 87'	25%	140		54'- 62'	370
87'-118'	Nil	-		Limonitic clay with scattered magnetite crystals	62'- 67'
				67'- 77'	400
				77'- 82'	380
				82'- 95'	280
				95'-100'	570

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Appendix A (continued)

HIGHCLERE IRON PROSPECT
MINES DEPARTMENT DRILLHOLE NO.3

Footage	Core Recovery	Assay ppm W	Log	SLUDGES	
				Footage	Assay ppm W
0'- 6'	75%	65	Limonitic clay with hematite nodules	67.5'-74.5'	340
6'-13'	68%	130			
13'-19.5'	69%	310			
19.5'-29.5'	65%	200			
29.5'-39.5'	70%	250			
39.5'-47'	27%	75	Limonitic clay with hematite nodules and small crystals of magnetite		
47'-56'	55%	80			
56'-66'	35%	90	Clay and highly weathered rock with hematite nodules and small crystals of magnetite		
66'-76'	38%	170			
76'-85.5'	61%	180			
85.5'-91'	27%	-	Limonitic clay		

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AUGER HOLE REPORT

HOLE NO. 1

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH 57 feet SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
	0-3'	170	0'-9'	Dark brown soil with many frags
	6'	150		H. x M.
	9'	170	9'-12'	As above. Some frags weathered skarn
	12'	390	12'-18'	As above, with less H x M. Some frags
	15'	360		weathered skarn.
	18'	690	18'-27'	Brown clay with little fine M. No
	21'	1200		recognizable rock frags. Probably skarn.
	24'	2100		
	27'	2310		
	30'	2260	27'-48'	Brown clay sludge.
	33'	1910		
	36'	1570		
	39'	1550		
	42'	1750		
	45'	1580		
	48'	550	48'-57'	Dark brown clay sludge.
	51'			
	54'	570	57'	Hard rock.
	57'			

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AUGER HOLE REPORT

HOLES NOS. 2,3 x 4

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH Hole 2-11', Hole 3-5', Hole 4-45' SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
HOLE NO. 2	0-3'	40	0-6'	Dark brown soil with limonitic rock frags.
	6'	15		
	9'	10	6'-11'	Brown soil with frags fresh basalt.
	11'	10	11'	Hard basalt.
HOLE NO. 3	0-3'	20	0-5'	Brown limonitic soil with frags basalt.
	3-5'	30	5'	Hard basalt.
HOLE NO. 4	0-3'	10	0-15'	Brown soil with frags weathered granite
	6'	<2		
	9'	5		
	12'	2		
	15'	<2		
	18'	2	15'-21'	Brown soil with many rounded granite pebbles.
	21'	2		
	24'	<2	21'-33'	Brown clay with limonite and frags quartz and kaolinized feldspar.
	27'	2		
	30'	5		
33'	15			
36'	15	33'-45'	Light brown clay sludge	
39'	20			
42'	10			
45'	10		45' Hard rock, probably granite.	

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AUGER HOLE REPORT

HOLES NOS. 5, 6, 7

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH Hole 5-17', Hole 6-11', Hole 7-17' SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
HOLE NO. 5	0-3'	2	0-17'	Light brown clay soil with frags weathered granite.
	6'	<2		
	9'	2		
	12'	<2		
	15'	<2		
	17'	<2		
HOLE NO. 6	0-3'	30	0-9'	Reddish brown hematitic soil with frags basalt.
	6'	20	9'-11'	Weathered basalt.
	9'	2		
	11'	2		
HOLE NO. 7	0-3'	5	0-17'	Light brown clay soil with frags weathered granite.
	6'	70		
	9'	<2		
	12'	2		
	15'	40		
	17'	5		

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AUGER HOLE REPORT

HOLES NOS 9, 10, 11.

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT EL. 1/69 DRILLER P. McCormick
 TOTAL DEPTH Hole 9-27', Hole 10-30', Hole 11-8' SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
HOLE No. 9	0-3'	2	0-3'	Dark brown soil with frags H.
	6'	<2	3'-27'	Light brown clay with numerous
	9'	2		frags weathered granite
	12'	<2		
	18'	5		
	21'	<2		
	24'	5		
	27'	2	27'	Hard granite
HOLE No. 10	0-3'	30	0-9'	Brown soil with frags weathered granite.
	6'	2		
	9'	2		
	12'	2	9'-30'	Light brown clay with frags quartz and
	18'	<2		weathered granite.
	21'	<2		
	24'	<2		
	27'	<2		
	30'	<2	30'	Hard granite
HOLE No. 11	0-3'	<2	0-8'	Light brown soil with frags weathered
	6'	<2		granite
	8'	<2	8'	Hard granite.

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AUGER HOLE REPORT

HOLES NOS. 12, 13 & 14

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH HOLE 12-16', HOLE 13-21', HOLE 14-24' SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
HOLE No. 12	0-3'	2	0-16'	Light brown clay soil with frags
	6'	<2		weathered granite.
	9'	<2		
	12'	<2		
	15'	<2		
	16'	<2	16'	Hard granite.
HOLE No. 13	0-3'	20	0-3'	Red-brown soil with some frags H.
	6'	2	3'-12'	Brown soil with frags weathered granite.
	9'	<2		
	12'	2		
	15'	<2	12'-21'	Brown sludge with granitic debris.
	18'	2		
	21'	<2	21'	Hard granite.
HOLE No. 14	0-3'	80	0-6'	Brown soil with some frags H and
	6'	20		weathered granite.
	9'	5	6'-18'	Light brown clay with frags weathered
	12'	5		granite.
	15'	2		
	18'	<2		
	21'	2	18'-24'	Light brown sludge
	24'	2	24'	Hard granite.

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AUGER HOLE REPORTHOLE NO. 16

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH 62 feet SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
	0-3'	50	0-15'	Brown soil with few frags weathered
	6'	<20		granite
	9'	30		
	12'	<20		
	15'	<20		
	18'	<20	15'-33'	As above, but soil redder with a
	21'	<20		few frags H.
	24'	60		
	27'	40		
	30'	<20		
	33'	<20		
	36'	<20	33'-36'	Reddish-brown sludge with grains H.
	39'	-	36'-45'	No samples recovered.
	42'	-		
	45'	-		
	48'	30	45'-57'	Brown sludge with grains H and
	51'	30		some quartz.
	54'	35		
	57'	35		
	60'	180	57'-62'	Reddish-brown sludge with fine H.
	62'	150	62'	Hard rock.

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AUGER HOLE REPORTHOLE NO. 21

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH 72 feet SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
	0-3'	<20	0-6'	Dark red-brown soil with frags. H.
	6'	70		
	9'	<20	6'-12'	Light brown soil with frags limonitized granite.
	12'	<20		
	15'	<20	12'-18'	Brown soil with granitic debris and some rounded pebbles of gray-pink granite.
	18'	<20		
	21'	<20	18'-24'	Dark brown soil with some cherty rock frags.
	24'	<20		
	27'	60	24'-33'	Dark reddish-brown soil with some M.
	30'	170		
	33'	200		
	36'	-	33'-36'	No sample.
	39'	220	36'-48'	Brown sludge with some M.
	42'	230		
	45'	210		
	48'	190		
	51'	190	48'-54'	Light brown sludge with very little M.
	54'	270		
	57'	390	54'-72'	Light brown sludge with no visible M.
	60'	380		

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AUGER HOLE REPORT

HOLE NO. 22

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH 81 feet SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
	0-3'	370	0-3'	Red-brown soil with frags H.
	6'	200	3'-30'	Brown clay soil with frags H, M, and weathered skarn.
	9'	300		
	12'	160		
	15'	250		
	18'	120		
	21'	110		
	24'	130		
	27'	120		
	30'	150		
	33'	60	30'-81'	Light brown clay sludge with occas. frags M.
	36'	140		
	39'	150		
	42'	150		
	45'	170		
	48'	150		
	51'	260		
	54'	320		
	57'	320		
	60'	370		

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AUGER HOLE REPORT

HOLE NO. 23

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT 1/69 DRILLER P. McCormick
 TOTAL DEPTH 93 feet SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
	0 - 3'	40	0 - 3'	Brown soil with frags H & M.
	6'	110	3' - 6'	Light brown soil with frags H & M.
	9'	190	6' - 12'	Light brown soil with frags H and
	12'	190		limonitized granite.
	15'	170	12' - 30'	light grey-brown soil with frags
	18'	270		weathered granite and some H.
	21'	160		
	24'	180		
	27'	270		
	30'	370		
	33'	350	30' - 36'	Light brown soil with grains quartz
	36'	300		and some H & M.
	39'	190	36' - 78'	Light brown sludge with fine quartz
	42'	210		and few dark minerals.
	45'	180		
	48'	170		
	51'	190		
	54'	200		
	57'	210		
	60'	170		

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AUGER HOLE REPORT

HOLES NOS. 24 & 25

LOCATION HIGHCLERE PROSPECT DATE Dec. 1973
 PROJECT 1/69 DRILLER P. McCormick
 TOTAL DEPTH Hole 24-34', Hole 25-18' SAMPLER R. Miller
 DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION	
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description
HOLE NO. 24	0 - 3'	<20	0 - 6'	Dark red-brown soil with frags H and some weathered granite.
	6'	<20		
	9'	<20	6' - 24'	Dark brown soil with frags weathered granite.
	12'	<20		
	15'	<20		
	18'	<20		
	21'	<20		
	24'	<20		
	27'	<20	24' - 34'	Brown clay with grains quartz and kaolinized feldspar.
	30'	<20		
33'	<20			
	34'	<20	34'	Hard granite
HOLE NO. 25	0 - 3'	40	0 - 3'	Dark red-brown soil with frags H.
	6'	60	3' - 18'	Brown clay soil with frags weathered granite.
	9'	<20		
	12'	<20		
	15'	<20		
	18'	<20	18'	Hard granite.

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AUGER HOLE REPORT

HOLE NO. 127

LOCATION HIGHCLERE PROSPECTDATE March 1974PROJECT FL 1/69DRILLER P. McCormickTOTAL DEPTH 70 feetSAMPLER J. SmithDESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION		PORTABLE XRF WO ₃
Sample No.	Interval (feet)	ppm W (H ₂ O Phos)	Interval (feet)	Description	
	0-3'	<20	0-9'	Red-brown soil with frags H.	<20
	6'	<20			<20
	9'	<20			<20
	12'	<20	9'-30'	Brown clay soil with occas. frags	<20
	15'	<20		H and a little weathered Ta.	<20
	18'	<20			<20
	21'	<20			<20
	24'	<20			<20
	27'	<20			<20
	30'	<20			<20
	33'	<20	30'-36'	Red-brown clay with H and	<20
	36'	<20		occas. frags weathered Ta	<20
	39'	20	36'-48'	Red-brown clay sludge	<20
	42'	70			<50
	45'	180			100
	48'	480			<50
	51'	560	48'-70'	Brown clay sludge.	150
	54'	500			50
	57'	560			50
	60'	430			600

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AUGER HOLE REPORT

HOLE NO. 130

LOCATION HIGHCLERE PROSPECT

DATE March 1974

PROJECT E.L. 1/69

DRILLER P. McCormick

TOTAL DEPTH 120 feet

SAMPLER J. Smith

DESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION		PORTABLE XRF W ₀₃
Sample No.	Interval (feet)	ppm W (McPhar)	Interval (feet)	Description	
	0 - 3'	<20			<20
	6'	<20	0-6'	Red-brown soil with numerous	<20
	9'	<20		frags H.	<20
	12'	<20			<20
	15'	40	6'-15'	Mainly friable H with some M.	150
	18'	<20			<20
	21'	30	15'-21'	Clay and H with numerous	<20
	24'	<20		frags weathered granite.	20
	27'	30			<20
	30'	20			<20
	33'	<20	21'-24'	Mainly H with some M.	<20
	36'	<20			<20
	39'	20	24'-39'	Reddish-brown clay with some	500
	42'			H & M and occas. weathered	<20
	45'			granite.	<20
	48'				<20
	51'				<20
	54'		39'-90'	light brown clay with occas.	<20
	57'			grains of qtz and feldspar.	<20
	60'				850
	63'		90'-120'	light brown clay sludge with	650
	66'			occas qtz grains. Probably	<20
	69'			weathered granite, to bottom	<20
	72'			of hole. No hard rock.	150
	75'				100
	78'				700
	81'				<20
	84'				<20
	87'				<20
	90'				<20
	93'				<20
	96'				<20
	99'				<20
	102'				<20
	105'				20
	108'				<20
	111'				<20
	114'				<20
	117'			End of rods.	<20
	120'				<20

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AUGER HOLE REPORT

HOLE NO. 131LOCATION HIGHCLERE PROSPECTDATE March 1974PROJECT E.L. 1/69DRILLER P. McCormickTOTAL DEPTH 57 feetSAMPLER J. SmithDESCRIPTION BY R.T.B.

ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION		PORTABLE XRF WO ₃
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description	
	0 - 3'		0 - 24'	light pinkish-brown soil with	225
	6'			frags weathered granite.	20
	9'				<20
	12'				<20
	15'				50
	18'				<20
	21'				20
	24'				100
	27'		24' - 57'	light brown clay with scattered	450
	30'			quartz grains and granitic frags.	1400
	33'				250
	36'				200
	39'				<20
	42'				275
	45'				700
	48'				500
	51'				450
	54'				100
	57'				75
	B.H.S.		57'	Hard granite.	<20

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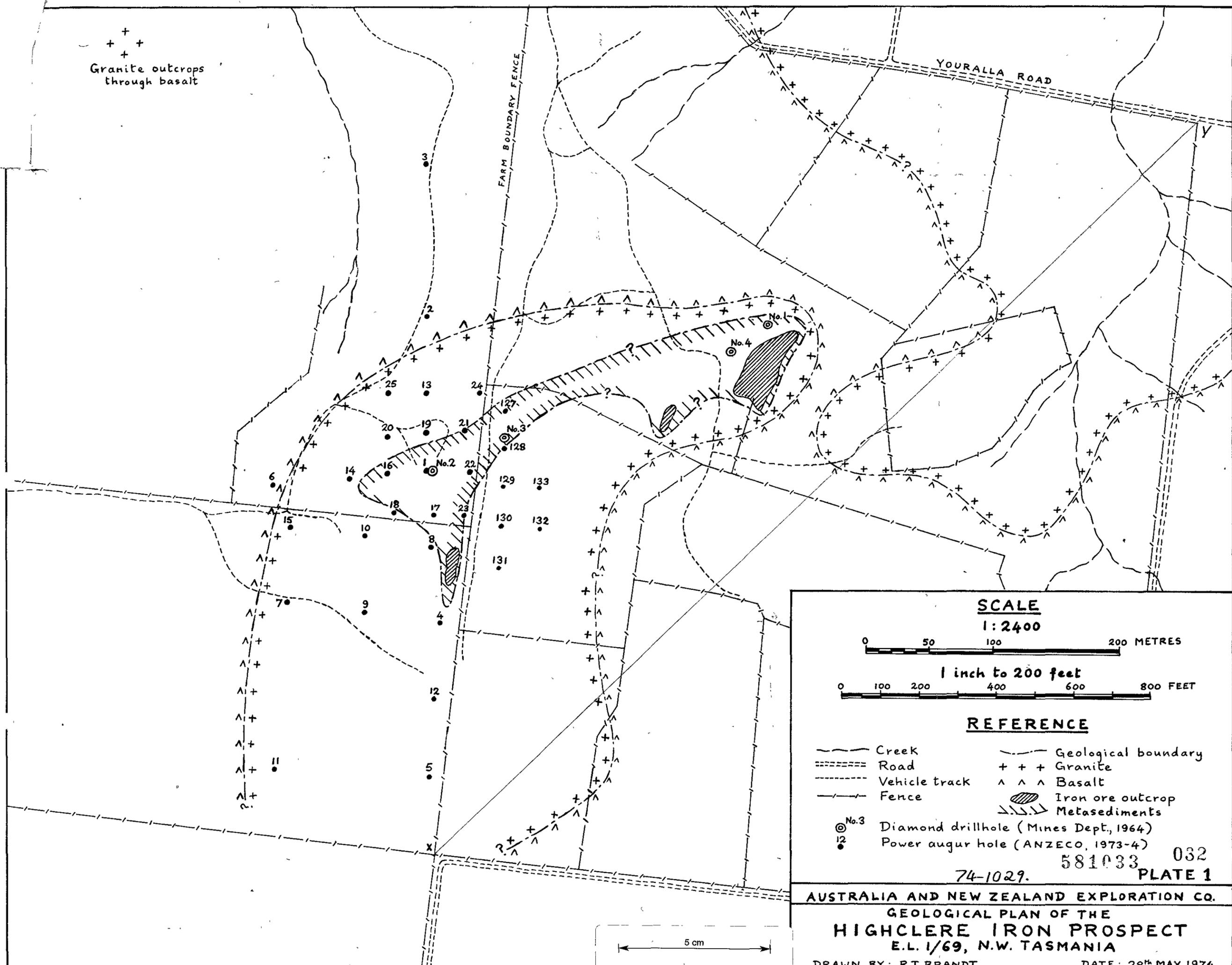
AUGER HOLE REPORT

HOLE NO. 132

LOCATION HIGHCLERE PROSPECT DATE March 1974
 PROJECT E.L. 1/69 DRILLER P. McCormick
 TOTAL DEPTH 105 feet SAMPLER J. Smith
 DESCRIPTION BY R.T.B.

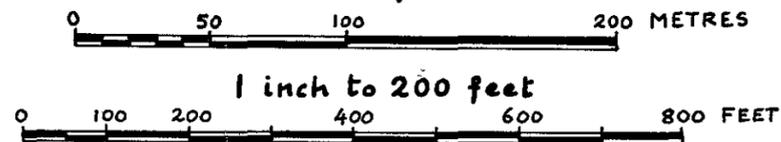
ANALYTICAL RESULTS			LITHOLOGIC DESCRIPTION		PORTABLE XRF WO ₃
Sample No.	Interval (feet)	ppm W	Interval (feet)	Description	
	0 - 3'		0 - 6'	Brown limonitic soil with occas. frags H and weathered granite.	<20
	6'				<20
	9'				25
	12'				<20
	15'		6' - 39'	Dark brown soil with limonite and occas. frags H.	150
	18'				<20
	21'				200
	24'				250
	27'				<20
	30'				<20
	33'				<20
	36'				<20
	39'		39' - 51'	Dark brown clay sludge.	<20
	42'				<20
	45'				<20
	48'				200
	51'		51' - 105'	Light brown clay sludge with granitic frags	1750
	54'				600
	57'				1000
	60'				700
	63'				1200
	66'				800
	69'				400
	72'				450
	75'				475
	78'				550
	81'		775		
	84'		1250		
	87'		800		
	90'		400		
	93'		525		
	96'		100		
	99'		300		
	102'		600		
	105'		105'	Hard granite.	750

+ + +
Granite outcrops
through basalt



SCALE

1:2400



1 inch to 200 feet

REFERENCE

- Creek
- ==== Road
- - - - Vehicle track
- - - - Fence
- ⊙ No.3 Diamond drillhole (Mines Dept., 1964)
- No.12 Power augur hole (ANZECO, 1973-4)
- - - - Geological boundary
- + + + Granite
- ^ ^ ^ Basalt
- ▨ Iron ore outcrop
- ~ ~ ~ Metasediments

74-1029. 581033 032
PLATE 1

AUSTRALIA AND NEW ZEALAND EXPLORATION CO.

**GEOLOGICAL PLAN OF THE
HIGHCLERE IRON PROSPECT
E.L. 1/69, N.W. TASMANIA**

DRAWN BY: R.T. BRANDT

DATE: 28th MAY 1974

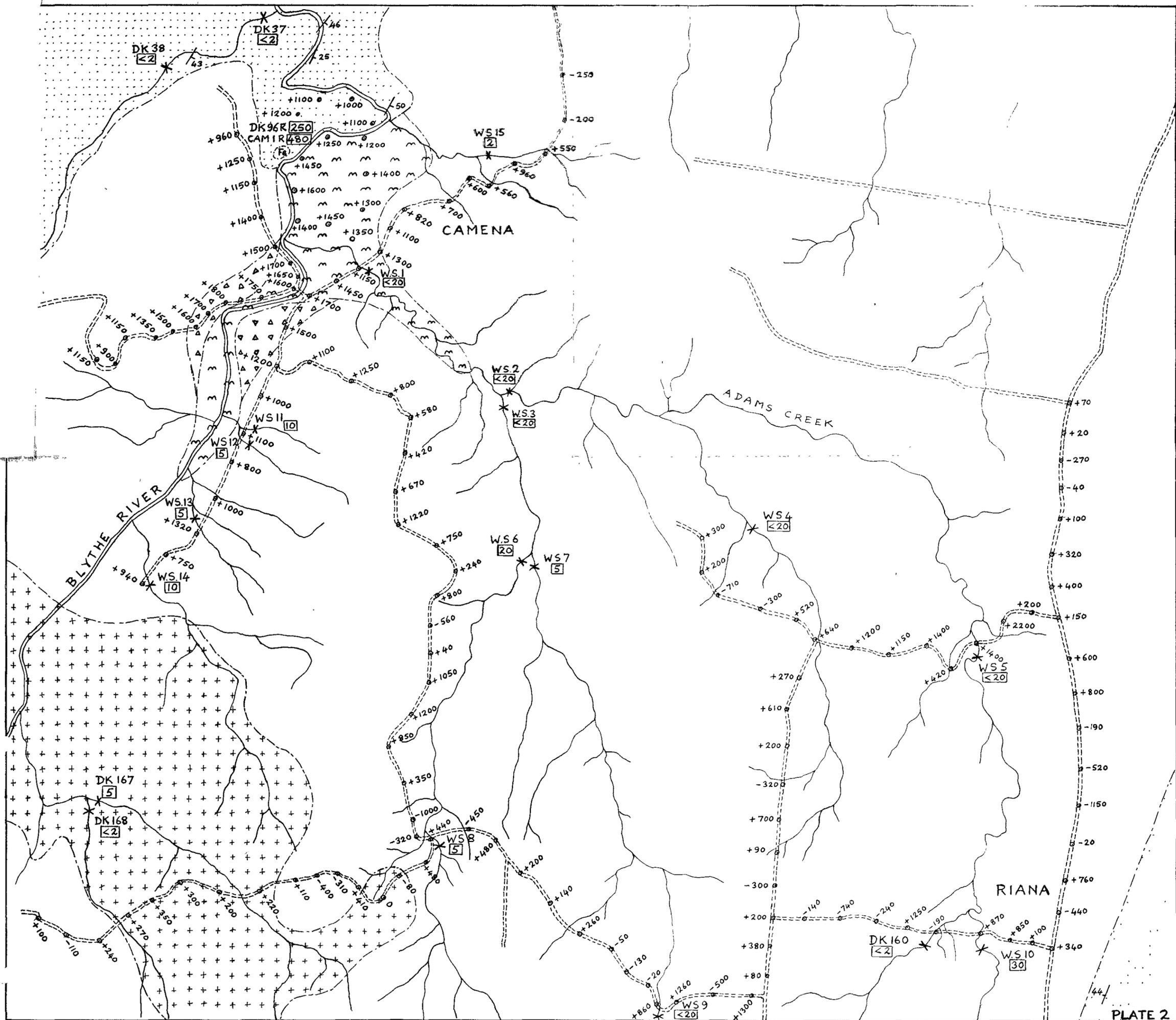


PLATE 2

GEOLOGY		REFERENCE	SCALE	AUSTRALIA AND NEW ZEALAND EXPLORATION COMPANY		
RECENT	Alluvium	River	1:15,000 0 500 1000 METRES	581034 EXPLORATION LICENCE 1/69 CAMENA-RIANA AREA GEOLOGY & MAGNETOMETRY		
TERTIARY	Basalt	Creek				
TERTIARY?	Conglomerates	Road	1 INCH TO 1250 FEET 0 500 1000 2000 3000 4000 FEET	Prepared by R.T.B. Drawn by R.T.B.		
DEVONIAN	Granite	Geological boundary		Scale 1:15,000 Date 21/5/74 Proj. No X827-016		
ORDOVICIAN	Conglomerates and quartzites	Area of hematite float	Dwg No Rept No Lib. No.			
		Hematite sample value in ppm W	5cm			
		WS3 Stream sediment sample site & number				
		Panned stream sample value in ppm W				
		Magnetometer reading in gammas				

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