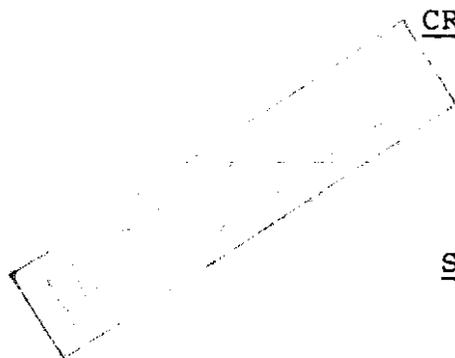


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MINES
EL 26/86
7 DEC 1988
LETTER
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REFERS.

CRA EXPLORATION PTY LTD



SWIFT CREEK EL 26/86

PROGRESS REPORT ON EXPLORATION FOR THE 12 MONTHS

TO 10TH DECEMBER 1987

Author: F R Funnell
Date: 10th December 1987
Submitted to: T W Dickson
Accepted by: 
Copies: CRAE Hobart
CRAE Canberra
Department of Mines,
Tasmania

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1. SUMMARY

A first pass reconnaissance geochemical sampling programme was carried out over the E.L. during the past twelve months. Assay results received to date have been disappointing with a peak of 1000 ppt Au being recorded in a cyanide leach sample. No significantly anomalous base metal levels were recorded in any of the drainages sampled. The extremely rugged topography and dense vegetation have hindered the testing of the Cambrian sequence.

2. INTRODUCTION

Exploration Licence 26/86, Swift Creek, was granted on the 13th January 1987 and is centred some 18 kilometres south-west of Queenstown. The E.L. covers an area of 76 square kilometres, most of which is comprised of heavily forested ridges and valleys. In the south of the E.L. a Tertiary peneplain has been deeply incised by the streams draining it and is typically covered by bauera scrub. A primitive road system gives access to the western and southern portions of the E.L. The remainder of the licence is only accessible by helicopter.

The E.L. was taken out in order to undertake a regional stream sediment geochemical sampling programme which it was hoped would define drainages with anomalous gold and base metal levels. The area is considered particularly prospective for structurally hosted gold mineralisation. Evaluation of the base metal potential of the Cambrian volcano-sedimentary sequences was also given a high priority.

2.

3. CONCLUSIONS

Results from the stream sediment sampling programme have been disappointing with none of the streams draining the Cambrian or major NW-SE trending shear returning significantly elevated levels of Au, Pb, Zn or Ba. The chances of locating a carbonate hosted lead zinc orebody are considered to be remote however the base metal potential of the Cambrian sequence has not yet been fully assessed.

As results for the follow up work on the Pine Cove Creek anomaly have not been received it is not possible to determine how much significance to place on the 1000 ppt Au cyanide leach result.

4. RECOMMENDATIONS

1. Swift Creek be traversed on foot and stream sediment samples collected from all the major tributaries.
2. Pulps from stream sediment samples collected by E-Z in 1983-84 be assayed for gold.
3. Traverse Pine Cove Creek should the initial follow up of the gold anomaly prove encouraging.
4. Reconnaissance sampling be carried out over the alluvial gold and antimony occurrences north of the Rinadeena grid.

5. REGIONAL GEOLOGY

The oldest rocks exposed in the E.L. are Cambrian in age and comprise a volcano-sedimentary sequence which is unconformably overlain by Tertiary sediments to the south. A major zone of faulting/shearing separates the Cambrian sequence in the south from a generally upwards younging group of rocks of Ordovician, Silurian and Devonian age in the north, see TASH 3397.

The Cambrian volcano-sedimentary sequence is dominated by siltstones, micaceous sandstones, graded greywacke, quartzite and minor siliceous conglomerate. On the very western margin of the E.L., horizons of acid volcanics were noted and these are thought to stratigraphically underly the predominantly sedimentary Cambrian sequences to the east.

Ordovician and younger rocks comprise the north eastern half of the E.L. and are separated from the Cambrian units by a major NW-SE trending zone sinistral faulting/shearing. The attitude of this faulting/shearing is not clear, however work carried out by the survey suggests it has a moderate dip and pre-dates the Tabberabberan orogeny. Correlates of the Mt Zeehan Conglomerates are the oldest Ordovician units exposed and are noted in the area of Mt Strahan. These are overlain by siliceous sandstones which are interpreted as being correlates of the Moina Sandstone. The siliceous sandstones are faulted up against a younger sequence grey slates, siltstones and limestones, correlates of the Gordon sub-group.

Conformably overlying the Ordovician silts and limestones are Silurian fine to coarse grained quartz sandstones, with minor mudstone beds and occasional granule conglomerate layers. A predominantly north-south trending fault

4.

separates these Silurian rocks from Devonian fine grained quartz sandstones which grade upwards into an interbedded sequence of fine grain quartz sandstones and mudstones.

The Ordovician to Devonian sequence is tightly folded about an NNW-SSE trending axis and locally bedding is overturned. Survey compilation of the Strahan 1:50 000 sheet indicates late non cylindrical folding, variation in fold plunge, tightness and intensity are common in this area.

Tertiary sediments unconformably overlies the Cambrian in the south-west of the E.L. and are dominantly comprised of interbedded sandstone, siltstone, clay and conglomerate. In the head waters of Swift and Pine Cove Creek dolerite boulder and cobble beds are present.

Quaternary alluvium, including pyritic sands derived from mine tailings are exposed in the vicinity of the King River in the north of the E.L.

6. PREVIOUS EXPLORATION

With the exception of alluvial gold recorded at Flannigans Creek, there is a total lack of known mineral occurrences south of 5328000 mN. This indicates either a total lack of mineralisation detectable by prospecting or a lack of prospecting effort. In modern times only 5 stream sediment samples have been collected to test the Cambrian rocks. Cyprus collected these from the Teepookana area in 1971. Peak values were 34/42/122 ppm Cu/Pb/Zn, no Au analyses were carried out. Stream sediment sampling southeast of Teepookana by E-Z did not test the Cambrian rock and again no Au analyses were carried out. Lead, zinc and barium assays for the -80# stream sediment sampling carried out by EZ are collated on plan TASH 3641 and were reported on by I.J.Mathison (1984).

North of 53228000 mN EZ exploration examined the Rinadeena area, see HOPTON et. al. (1985). Their aim was to test whether aeromagnetic anomalies present were related to "some form of mineralisation, especially Au". They identified the source of the magnetic anomalies as magnetitic tuffaceous conglomerates within Silurian sediments and obtained 0.4 ppm, 0.54 ppm and 1.1 ppm Au from 3 bedrock samples of vein quartz. Their follow up of these results was limited to reconnaissance soil sampling and additional rock sampling. No Au was detected from their stream sediment samples probably due to their selection of active sediment. E-Z did not check the areas of alluvial Au claims and the Antimony claim north of their gridded area. Examination of these occurrences could highlight additional targets west of their gridded area.

7. GEOCHEMISTRY

The collection of samples from streams draining the main belt of Cambrian rocks was hampered by the extremely rugged topography and dense vegetation cover. These constraints coupled with the fact that the Swift Creek drainage is characterised by a multitude of small tributaries draining into the main river make the drainage a very difficult one to adequately sample.

A total of eighteen sites were sampled during the past year. At each site a -80# and -4# stream sediment sample was collected, in some cases float samples were also collected, see TASH 3600. Assay results shown on plans TASH 3638, 3639 and 3640. Results for seven sample sites are still awaited.

The results received to date have been disappointing. One cyanide leach sample collected from Pine Cove Creek returned 1000 ppt Au. The accompanying -80# sample returned $x < 3$ ppb Au, see TASH 3638.

The fact that samples collected further upstream failed to return anomalous gold levels and that Pine Cove Creek drains Tertiary sediments downgrades the importance of the anomaly. Results from samples which were taken to follow up the anomaly are still awaited.

Base metal assays were also disappointing. The only elevated base metal assay was collected from a stream draining the Ordovician limestones which returned a zinc value of 125 ppm, however considering the detailed stream sediment survey carried out by E-2 in 1983-84, see TASH 3641, it is felt that the chances of locating an Irish-style carbonate hosted lead-zinc deposit within the E.L. are remote.

8. REFERENCES

- Mathison I.J. (1984) "Part of Explortion Licence No. 31/83 "Macquarie", Swift Creek Area Progress Report on Exploration Activity 1st October 1983 to 30th March, 1984."
- Hopton D.L., Mathison I.J. (1985) "Past Exploration Licence 31/83, "Macquarie" Rinadeena Area, Report on Work Completed 2nd October 1984 to 30th June 1985".

7.

9. LOCATION

Queenstown	SK5505	1:250 000
Franklin (8013) and Cape Sorell (7913)		1:100 000
Teepookana (3632) Strahan (3633)		1:25 000

10. KEYWORDS

Geochem Drainage, Gold, Lead, Zinc, Tertiary, Devonian, Silurian, Ordovician, Cambrian, Sediments, Fault.

11. LIST OF PLANS

<u>TASh</u>	<u>Description</u>	<u>Scale</u>	
3637	Swift Creek E.L. 26/86 Location Plan	1:1 000 000	✓
3397	Swift Creek E.L. 26/86 Geological Interpretation Plan	1:25 000	✓
3641	Swift Creek E.L. 26/86 E-Z -80# Stream Sediment Samples (1983-84) Pb-Zn-Ba Assays	1:25 000	✓
3600	Swift Creek E.L. 26/86 Stream Sediment and Rock Sample Number Location Plan	1:25 000	✓
3638	Swift Creek E.L. 26/86 Stream Sediment Sampling Au-Au-Ag Assays	1:25 000	✓
3639	Swift Creek E.L. 26/86 Stream Sediment Sampling Cu-Pb-Zn-Ba Assays	1:25 000	✓
3640	Swift Creek E.L. 26/86 Stream Sediment Sampling As-Fe-Mn Assays	1:25 000	✓

12. LIST OF APPENDICES

Appendix 1	Comments Justifying Application for Swift Creek Area.
Appendix 2	Geochemical Ledgers 1987.

APPENDIX 1

COMMENTS JUSTIFYING APPLICATION FOR SWIFT CREEK AREA

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C.R.A. EXPLORATION PTY. LIMITED

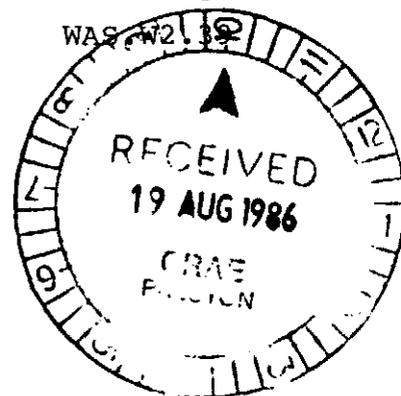
(INC. IN N.S.W.)

1207 TASMAN HIGHWAY, CAMBRIDGE, TASMANIA 7170

826012

P.O. BOX 138
 BELLERIVE 7018
 TELEGRAMS: CRAEX
 TELEX: AA57144
 TELEPHONE: 48 5499
 AREA CODE: (002)

IN REPLY PLEASE QUOTE



18 August 1986

Memorandum to: T W DICKSON
 From: W A SHEPPARD

COMMENTS JUSTIFYING APPLICATION FOR SWIFT CREEK AREA
(TENEMENT APPLICATION NO 8499)

The Swift Creek area (Fig 1), as defined in Application No 8499 contains two sub-areas each containing a potential for structurally controlled Au mineralisation within structures similar to those at Kalgoorlie or in the Archean deposits of Canada. Within Area 1 exploration for Au has been carried out in the Rinadeena area but follow-up of 3 bedrock samples with 0.5 to 1.0 ppm Au has been totally inadequate. Elsewhere in Area 1 and throughout Area 2 no modern Au exploration has been completed. Access to both areas is adequate to rapidly test the tenement for Au mineralisation using a combination of CN leach sampling, stream sediment sampling, reconnaissance rock chip sampling and geological study. The results of exploration for Au in this area in conjunction with the results from our Lynchford EL (47/83) will lead to a comprehensive understanding of the controls of Au mineralisation in the area south of Queenstown, thus our chances of major Au discovery in the area will be maximized.

AREA 1

Previous Exploration

The total lack of known mineral occurrences and of mineral claims indicates either a total lack of mineralisation detectable by prospecting or a lack of prospecting effort. In modern times only 5 stream sediment samples have been taken to test the Cambrian rocks by Cyprus Mines Corporation in 1971. Peak values were 34/42/122 ppm Cu/Pb/Zn, no Au analyses were carried out. Stream sediment sampling southeast of Teepookana by EZ did not test the Cambrian rock, again no Au analyses were carried out. Even if prospecting has been adequate to test for coarse Au then the possibility of fine Au or of thin layer Au discovery still exists.

Geology

The Cambrian volcano-sedimentary sequence of the Strahan-Teepookana-Swift Creek area is unconformably overlain by Tertiary sediments and is in faulted contact with younger rocks to the north and east. The sequence appears to young towards the northeast.

Basalts and andesitic rocks in the southwest pass up into the main volcanic sequence of felsic tuffs, sandstones and mudstones. These are overlain by a sequence of siltstones, sandstones, greywackes and minor tuffs. Within the application area, the upper sedimentary sequence predominates. Lithologies which indicate the prospective nature of the sequence include mass flow deposits, sheared sericitic volcanics containing pyritic nodules and embayed quartz grains, tuffs and pyritic shales containing chert horizon, one of which is 5m thick possibly indicative of fumarolic activity, calcareous siltstones and pyritic black shales. Structural features which highlight the potential for structurally controlled gold mineralisation include anastomosing domainal fabrics in fine sediments, the common occurrence of stretched lithic fragments, late non-cylindrical folding, and considerable variation in fold plunge, fold tightness and deformation intensity, all indicating deformation at the ductile/brittle boundary. The fault along the north and eastern boundary of the Cambrian rocks was originally interpreted as a thrust. Survey compilation of the Strahan 1:50 000 sheet indicates that it is of steeper dip and pre-dates the Tabberabberan orogeny. The main S_2 (?) fabric appears to rotate into this fault indicating sinistral shear. Either this major structure or associated shears could host Au mineralisation.

While the potential for structurally controlled mineralisation is stressed here, a potential for other types of Au mineralisation is recognised. Altered pyritic sericitized volcanics may be auriferous as may pyritic chert associated or calcareous sediments. This Cambrian volcano-sedimentary sequence is remarkably similar to that of the Ossa Moraina zone of Portugal both in age and lithological nature. Riofinex Au targets there include auriferous tourmaline breccias in felsic volcanics, arsenopyritic brecciated cherts, and haematitic stockworks with minor stibnite. While these targets are as yet uneconomic they were overlooked by early prospectors and give encouragement for Au

discovery in the Teepookana area. It is stressed that the Cambrian rocks both within the application area and west of it, towards Strahan, are considered prospective for Au thus early encouragement should prompt application for the area of Cambrian volcanics west of Teepookana.

Exploration Programme

The exploration programme envisaged would consist of a rapid initial phase relying heavily on CN leach sampling to test the application area for indications of Au mineralisation. Access to the area is relatively good. A geologist and a field crew working for one week could probably adequately test the application area and accessible creeks west of the area using CN leach and stream sediment sampling, together with outcrop and float study and sampling. This work would indicate whether exploration should continue within the application area to establish drill targets and whether application should be made for the area of Cambrian volcanics west of Teepookana.

AREA 2

Previous Exploration

EZ exploration examined the Rinadeena area to test whether aeromagnetic anomalies present were related to "some form of mineralisation, especially Au". They identified the source of the magnetic anomalies as magnetitic tuffaceous conglomerates within Silurian sediments and obtained 0.4 ppm, 0.54 ppm and 1.1 ppm Au from 3 bedrock samples of vein quartz. Their follow-up of these results was limited to reconnaissance soil sampling and additional rock sampling. No Au was detected from their stream sediment samples probably due to their selection of active sediment. EZ did not check the areas of alluvial Au claims and the Antimony claim north of their gridded area. Examination of these occurrences could highlight additional targets west of their gridded area.

Geology

The area contains Silurian and Ordovician siltstones and sandstones within a zone of prominent, largely strike parallel faulting. The distribution of alluvial & bedrock Au as shown on Fig 3 indicates that this fault zone may play a role in Au distribution within the area. The magnetitic conglomerate discovered by EZ may be prospective for thin layer Au. Examination of aeromagnetic data may identify lateral extensions of this horizon.

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Exploration Programme

The aim of exploration in Area 2 would be to rapidly assess the more accessible northern section using CN leach and geological study. The mineralized exposures would be visited and EZ stream sediment sites checked and sampled. Geological study would examine the nature of fault zones in a search for shearing, mineralisation and alteration. The extent of encouragement from this phase of exploration would dictate the amount of helicopter assisted reconnaissance exploration that would be carried out in the less accessible southern section of Area 2.

A geologist with one field crew working for one week could adequately evaluate the potential of Area 2 and assess the merits of further exploration within the area. Some helicopter support would be required.

Bill Sheppard.

BILL SHEPPARD

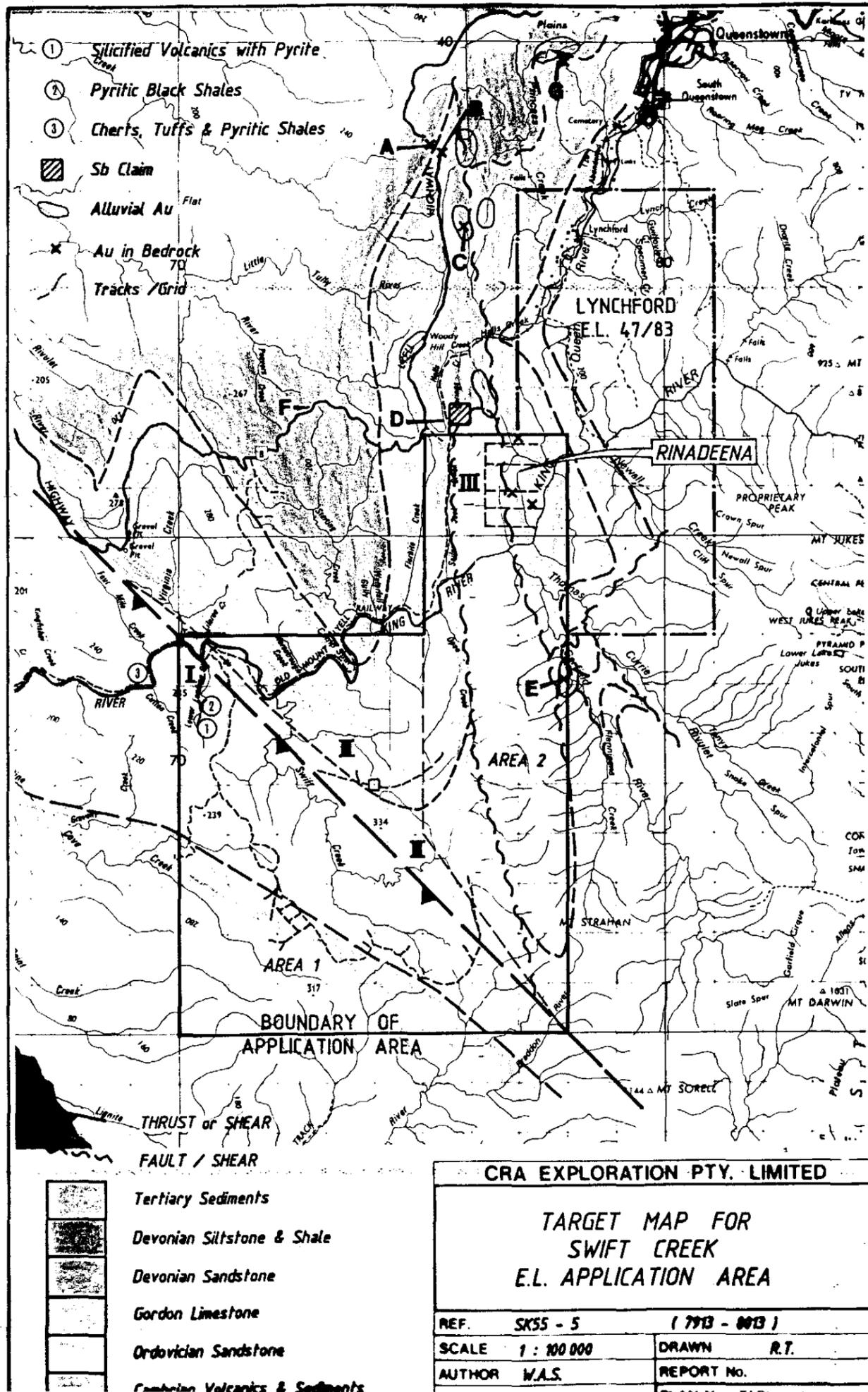


FIG 1

GEOLOGICAL FEATURES OF APPLICATION AREA

Predominantly Devonian Eldon Group sandstones and shales within a steeply plunging syncline with southwestern limb often overturned

Northeastern boundary of Cambrian volcano-sedimentary sequence marked by a zone of probably sinistral shearing

In east of area Ordovician rocks occur in a complex zone of north-south faulting or shearing

5 cm

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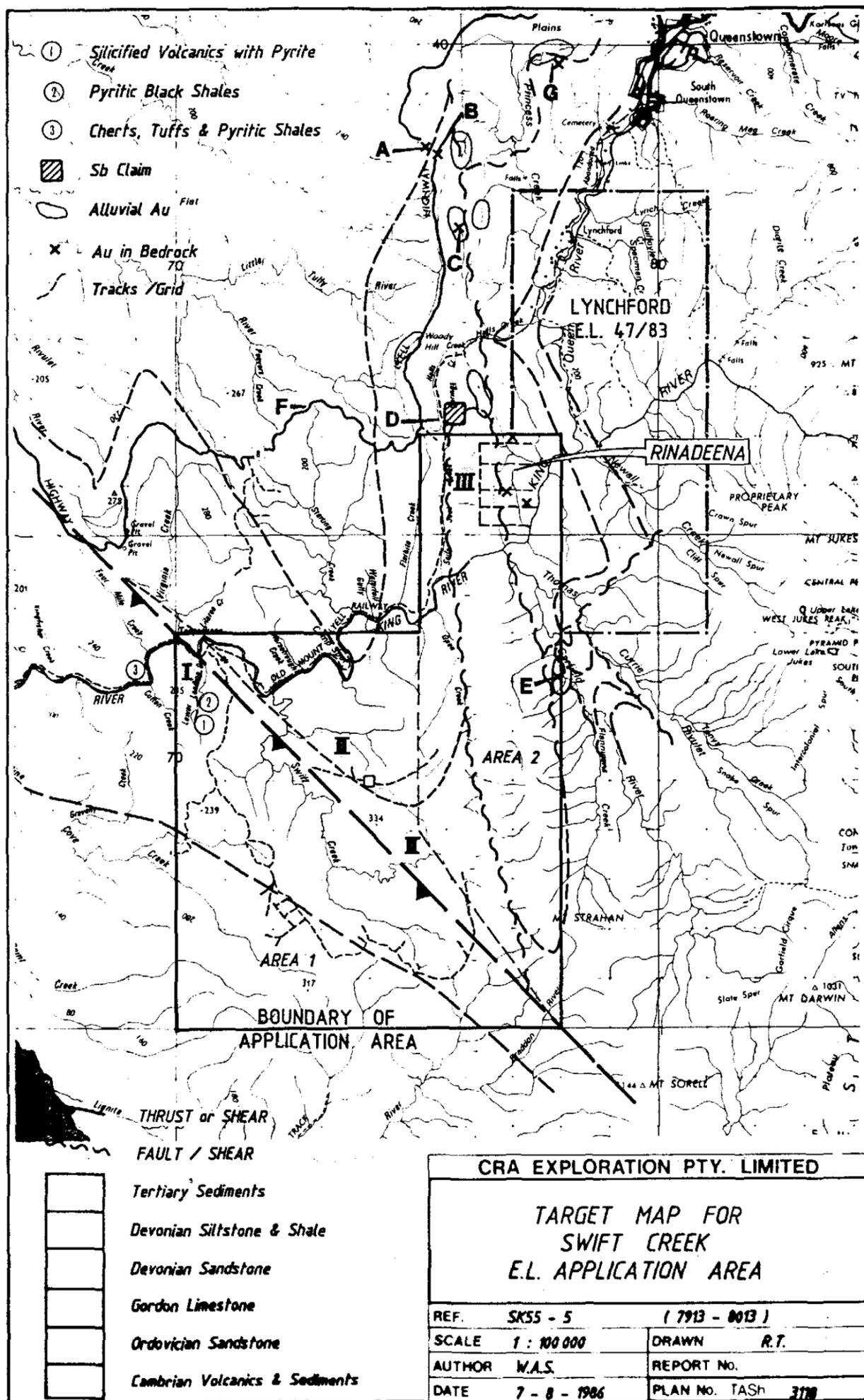


FIG 2

PREVIOUS EXPLORATION IN THE SWIFT CREEK AREA

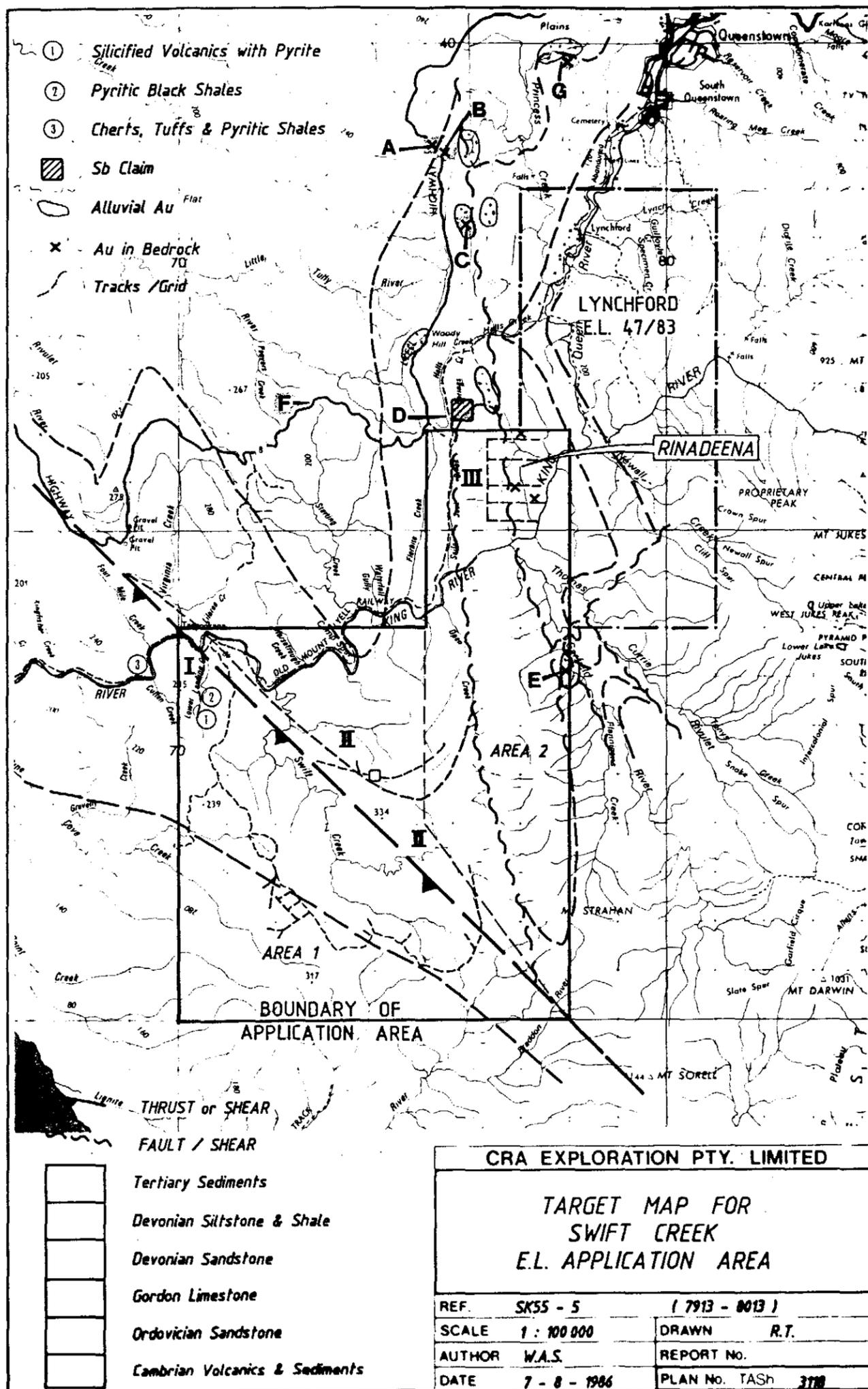
- I Five stream sediment samples and geological study by Cyprus Mines Corporation for Cu target
- II Stream sediment and rock chip sampling of Gordon Limestone area by EZ for Pb/Zn mineralisation
- III Stream sediment, soil and rock chip sampling, also ground magnetics of Rinadeena aeromagnetic anomaly for Au and base metal targets

CRA EXPLORATION PTY. LIMITED	
TARGET MAP FOR SWIFT CREEK E.L. APPLICATION AREA	
REF. SK55 - 5	(7913 - 8013)
SCALE 1 : 100 000	DRAWN R.T.
AUTHOR W.A.S.	REPORT NO.
DATE 7 - 8 - 1986	PLAN No. TASH 3788

FIG 3

MINERAL OCCURRENCES WEST OF LYNCHFORD

- A **MACQUARIE MINE**
Au in vein quartz.
- B **WOODY HILL MINE**
Early sampling of vein quartz gave 17.6 ppm however a programme of sampling in 1936 failed to return values in excess of 1.5 ppm.
- C **DAVIE P A**
Gossaniferous outcrop assayed 14 ppm. Also 150m adit driven on quartz reef. No records of production known.
- D **GORINGS CREEK**
Reward claim for Antimony. Stibnite nodules in black pug at surface (66.5% Sb). Pug intersected by 40m adit contained no mineralisation. Also Au claims on stream to east.
- E **FLANNIGAN'S CREEK**
Alluvial Au. Solomons map indicated a record of bedrock Au.
- F Exposure of Pb/Ag vein in rail cutting prompted numerous claims along Peevers Creek and the upper reaches of Starting Creek.
- G **QUEENSTOWN AIRPORT**
Alluvial Au. Also Madame Howard Gold Mine. Minor Au production from vein quartz stockworks.



APPENDIX 2

GEOCHEMICAL LEDGERS 1987

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826020

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5 cm

SAMPLE NUMBER	LOCATION			ANALYSES										Geological Observations	
	Easting	Northing	Sample Type	Cu	Pb	Zn	Fe%	Mn	Ag	As	Au	Ba			
1653501	370570	5327470	-4#SS											STREAM: 3m wide, moderate flow, alluvial banks. Sediment load: Silt 10%; Sand 70%; Conglomerate 20%. Float is composed of 20% sandstones and 80% phyllites. 1653503 is a strongly bleached quartz-feldspathic sandstone has a stock-work of quartz veining.	
1653502	"	"	-80#SS												
1653503	"	"	FL0AT												
1653504	370870	5322340	-4#SS											STREAM: 1.5m wide, Mod-slow flow rate, alluvial banks. Sediment load: Silt 5%; Sand 25%; Conglomerate 70%. Float is composed of Ordovician sandstones/gneiss. 1653506 is a haematitic sandstone, unveined.	
1653505	"	"	-80#SS												
1653506	"	"	FL0AT												
1653507	370800	5322330	-4#SS											STREAM: 2m wide, Mod-slow flow, 2km ² catchment. Sediment load: Silt 5%; sand 10%; Conglomerate 85%. 1653509 is a conglomerate with quartzite clasts 2-25mm diam set in a silt sized kaolinitized matrix. Float - 100% Tertiary sandstones/conglomerate.	
1653508	"	"	-80#SS												
1653509	"	"	FL0AT												
1653510	375440	5328460	-80#SS											STREAM: 3m wide, Moderate flow, alluvial banks. Sediment load: Silt 5%; Sand 30%; Cong 65%; Float dominantly siliceous sandstones.	
1653511	"	"	-4#SS												
DETECTION LIMIT				5	5	5	10ppm	5	1	1	0.01	10			
ANALYTICAL METHOD				← ICS 82 →								ppm	XRFL		
Project: REGIONAL AU				1: 250 000 Sheet: QUEENSTOWN				AMG Zone: 55				Sheet No.: 01			
Tenement: SWIFT CREEK				DPO's: 34264								Laboratory: ALS (BRIS)			
Area / Prospect:				1653501 - 1653511								Collected By: FF/DW		Date: 1-12-1987	

020

826021

CRA EXPLORATION PTY. LTD.

5 cm

SAMPLE NUMBER	LOCATION		Sample Type	ANALYSES								Geological Observations	
	Easting	Northing		Cu	Pb	Zn	Fe	Mn	Ag	As	Au		Ba
1653551	373320	5323250	-80#SS										STREAM: 1.5m wide, fast flow, mod incised, 6km ² catch Sediment load: silt 40%; sand 20%; conglom 40%.
1653552	"	"	-4#SS										
1653553	373220	5323240	-80#SS										STREAM: 1.5m wide, fast flow, alluvial banks, catch = 1.25km ² Sediment load: silt 10%; sand 30%; conglom 60%.
1653554	"	"	-4#SS										
1653599	377000	5329240	-80#SS										STREAM: 1m wide, very fast flow, outcrop same banks. Sediment load: silt 10%; sand 30%; conglom 60%.
1653600	"	5329240	-4#SS										Outcrop is interbedded conglomerate and sandstone.
DETECTION LIMIT				5	5	5	10ppm	5	1	1	0.01	10	
ANALYTICAL METHOD				← IC582 →								Pm 20g	XRF1
Project: REGIONAL Au				1: 250 000 Sheet: QUEENSTOWN AMG Zone: 55								Sheet No.: 02	
Tenement: SWIFT CREEK				DPO's: 34264								Laboratory: ALS (BRIS)	
Area / Prospect:				1653551 - 1653554 & 1653599 - 600								Collected By: FF/DW	
												Date: 1-12-1987	

021

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CRA EXPLORATION PTY. LTD.

5 cm

TASMANIA

SS

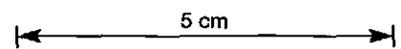
Sample Number	LOCATION		SAMPLE DESC.					SITE DESCRIPTION							ROCK TYPE	METAL CONTENT ppm / %										Geological Observations											
	AMG Co-ordinates		S. Type	Mesh	% Gravel	% Sand	% Silt	Organic	Width	Flow	Bank	Catchment	Vegetation	Staining	Contam.	Sit. Rating	Outcrop	Maj. Float	Min. Float	LOOK	Cu	Pb	Zn	As	Ag	Fe %	Mn	Au ppb	Au ppt								
	East	North																																			
990999	371510	5326900	-80	30	60	10		0.5	S						N	S	N				15	25	50	5	<1	1.70	160	<3									
991000	"	"	-4																													150					
GEOCHEMICAL STREAM SEDIMENT SAMPLING LEDGER										DETECTION LIMIT							2	5	5	1	1	0.01	5	3	50												
										ANALYTICAL METHOD							←		ICST80			→		Pm 205	Pm 216												
Tenement Name: SWIFT CREEK 26/86										Project: REGIONAL Au							AMG Zone: 55							Sheet No: 03													
Area / Prospect:										DPO's: 31992/31996,														Laboratory:													
Map / Photo Ref: TASH 3600										Sample No's:														Collected By: DP, CN, BFAE							Date 23-3-1987						

023

TASMANIA

826024

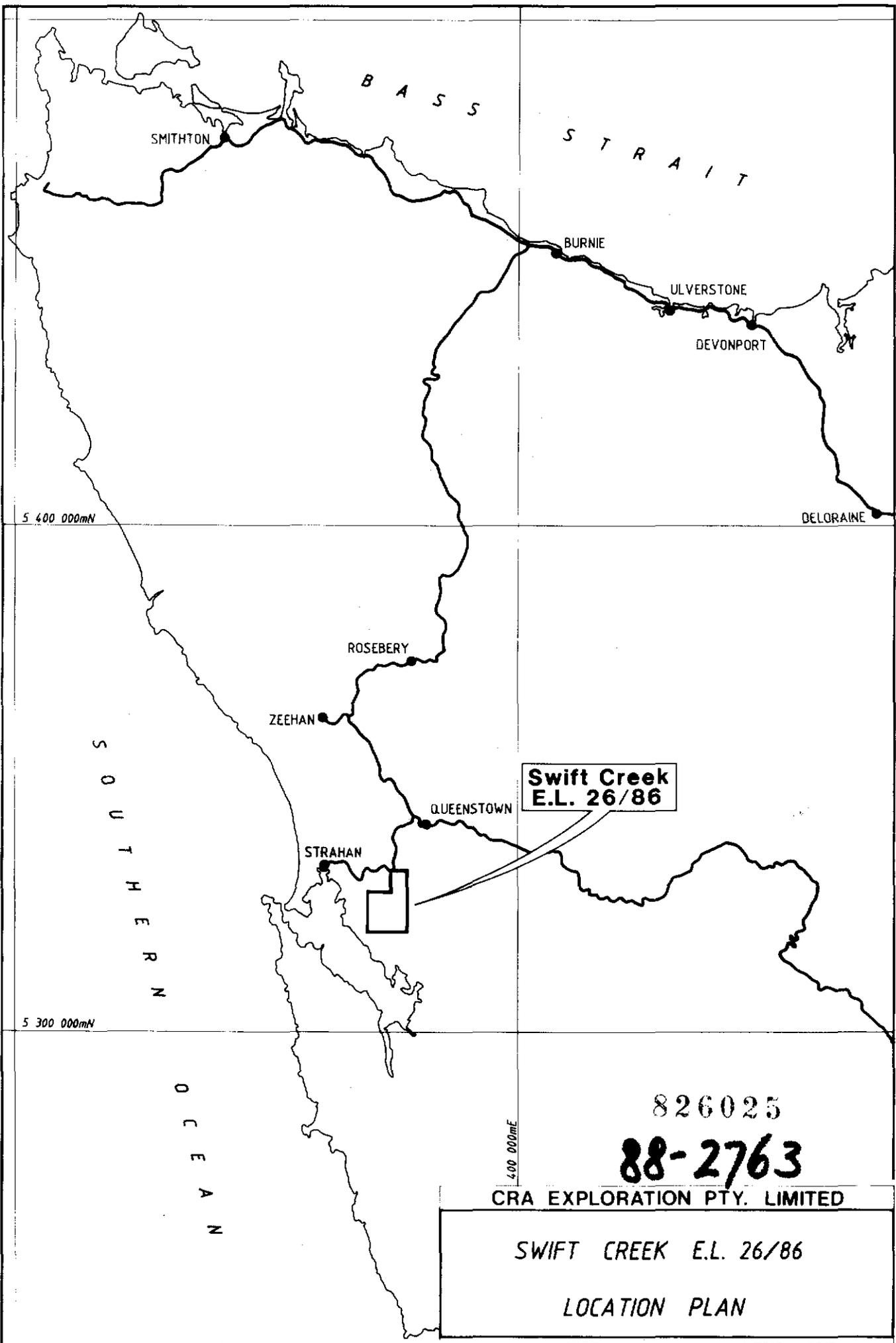
CRA EXPLORATION PTY. LTD.



SS

Sample Number	LOCATION		SAMPLE DESC.					SITE DESCRIPTION										ROCK TYPE										METAL CONTENT ppm / %												Geological Observations
	AMG Co-ordinates		S. Type	Mesh	% Gravel	% Sand	% Silt	Organic	width	Flow	Bank	Catchment	Vegetation	Straining	Contam.	Sit. Rating	Outcrop	Maj. Float	Min. Float	LOOK	Cu	Pb	Zn	Ag	As	Fe %	Mn	Pb	Ba	Au ppt	Au ppt									
	East	North																																						
1198553	369610	5323860	80	30	40	30	H	1	S												5	15	15	<1	4	1.03	120	4	240	3		Minor heavy min								
1198554	"	"	4																												500									

GEOCHEMICAL STREAM SEDIMENT SAMPLING LEDGER			DETECTION LIMIT													2	5	2	1	1	0.01	5	4	10	3	50
			ANALYTICAL METHOD													← ICS80 →					XRF1					205
Tenement Name: SWIFT CREEK EL. 26/86			Project: REGIONAL AU AMG Zone: SS													Sheet No.: 05										
Area / Prospect:			DPO's: 35017, 35019													Laboratory: ALS/AMDCL										
Map / Photo Ref: TASH 3600			Sample No's: 1198553-54													Collected By: BF/AE					Date 23-3-1987					



**Swift Creek
E.L. 26/86**

826025

88-2763

CRA EXPLORATION PTY. LIMITED

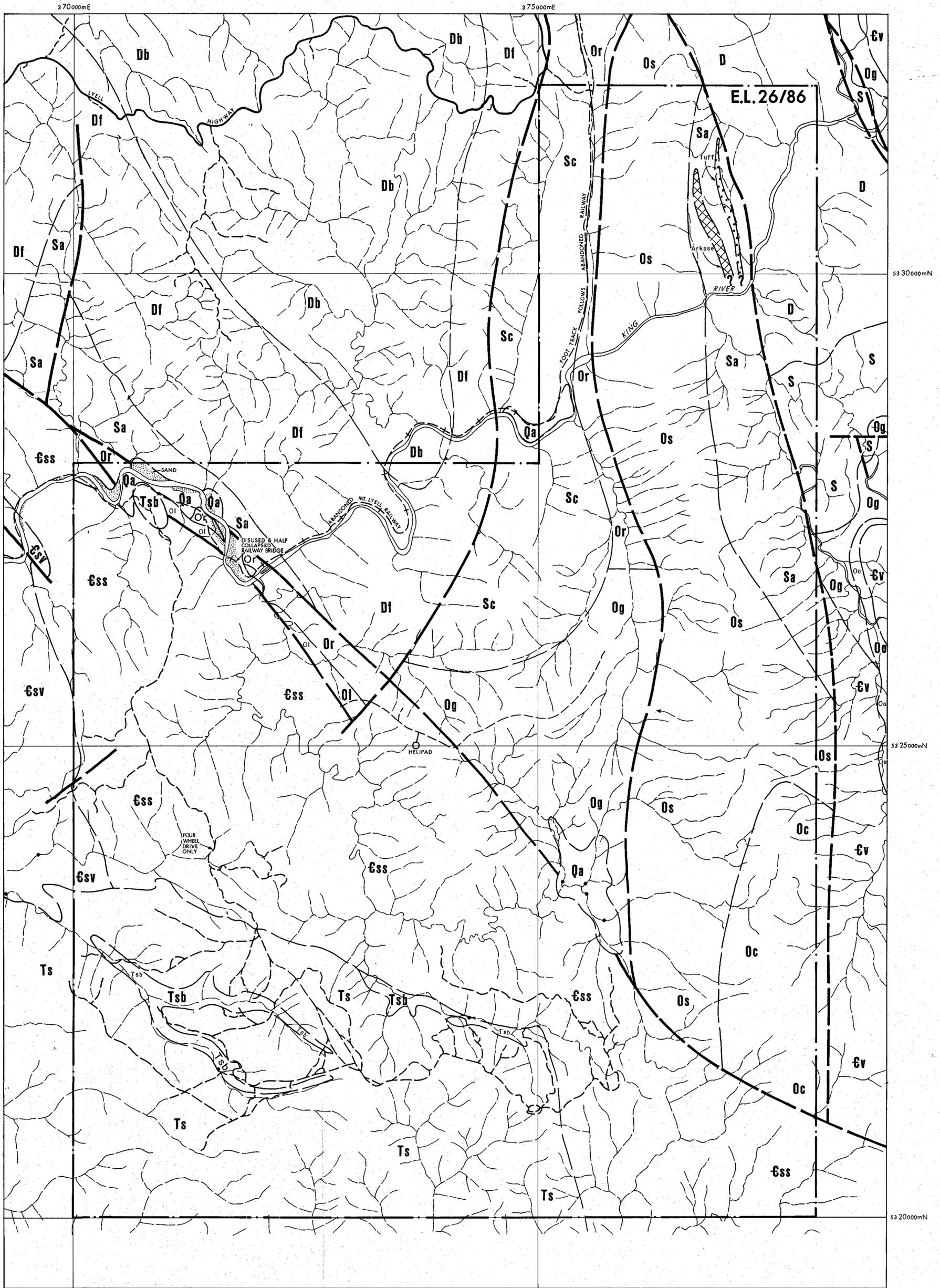
SWIFT CREEK E.L. 26/86

LOCATION PLAN

REF.	SK55 - 5	(7913 - 8013)
SCALE	1 : 1000 000	DRAWN R.T.
AUTHOR	F.R.F.	REPORT No. 14912
DATE	9 - 12 - 1987	PLAN No. TASH 3637

300 000mE

5 cm



REFERENCE

QUATERNARY
TERTIARY
DEVONIAN
SILURIAN
ORDOVICIAN

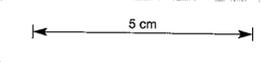
Qa	Marsh and swamp deposits; alluvium including mine waste pyritic sands (Qap).
Ts	Interbedded sandstone, siltstone, clay and conglomerate with lignite horizons; dolerite-bearing boulder and cobble beds indicated (Tsb).
Unconformity.	
D	Interbedded fine grained quartz sandstone and mudstone.
Db	Dominantly fine grained quartz sandstone sequences (correlate of Florence Quartzite).
Df	Dominantly grey mudstone and siltstone with some fine grained quartz sandstone horizons (correlate of Austral Creek Siltstone, Keel Quartzite, Amber Slate).
S	Fine to coarse grained quartz sandstone with minor mudstone beds and some granule conglomerate layers (correlate of Crotty Quartzite).
Or	Dominantly interbedded grey slate and siltstone with some impure limestone horizons.
Og	Limestone and impure limestone, variable texture with horizon of quartz sandstone and siltstone.
O	Quartz sandstone with minor siltstone (including correlative of Moira Sandstone).
Oo	Dominantly siliceous conglomerate (correlate of Mt Zeelan Conglomerate).

CAMBRIAN

εv	Undifferentiated Cambrian volcanic rocks.
εs	Interbedded laminated siltstone, micaceous sandstone, graded greywacke, quartzite, minor siliceous conglomerate and a tuffaceous horizon.
εsv	Interlayered laminated siltstone, sandstone, quartzwacke, pyritic slate with horizons of acid - intermediate volcanic rocks. Outcrops of hornblende and feldspar porphyry indicated (εsvh).

CORRELATE OF GORDON SUB-GROUP
CORRELATE OF OWEN CONGLOMERATE AND DENISON SUB-GROUP

826026



88-2763 7268

CRA EXPLORATION PTY. LIMITED	
E. L. 26 / 86	
SWIFT CREEK AREA	
GEOLOGICAL INTERPRETATION PLAN	
REF. SK55-5	(7913-8013)
SCALE 1: 25 000	DRAWN T.N R.T.
AUTHOR W.A.S	REPORT No. 14912
DATE 1-5-1987	PLAN No. TASH 3397

370000E

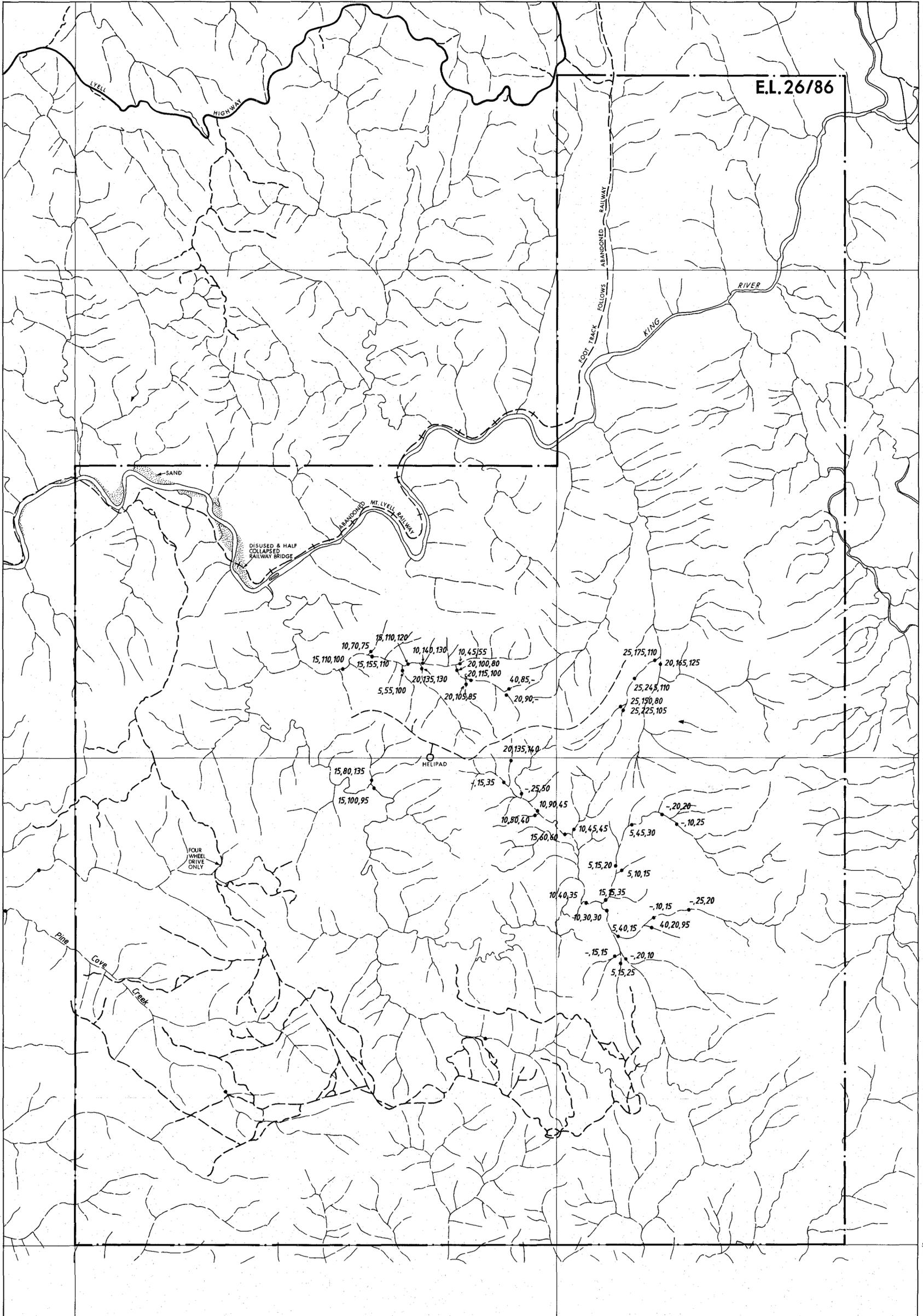
375000E

E.L. 26/86

53 30000mN

53 25000mN

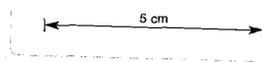
53 20000mN



826027

Data compiled from E.Z. plans : AO - 530 - 2001
 : AO - 530 - 2002
 : AO - 530 - 2003

All values expressed in ppm,
 (-) signifies less than 5 ppm.



88-2763 7289

CRA EXPLORATION PTY. LIMITED	
SWIFT CREEK E.L. 26/86	
E.Z. -80 mesh	
STREAM SEDIMENT SAMPLES	
(1983-84) Pb - Zn - Ba Assays,	
REF. SK55-5 (7913-8013)	
SCALE 1: 25 000	DRAWN R.T.
AUTHOR F.R.F.	REPORT No. 16912
DATE 9 - 12 - 1987	PLAN No. TASH 3641

370000mE

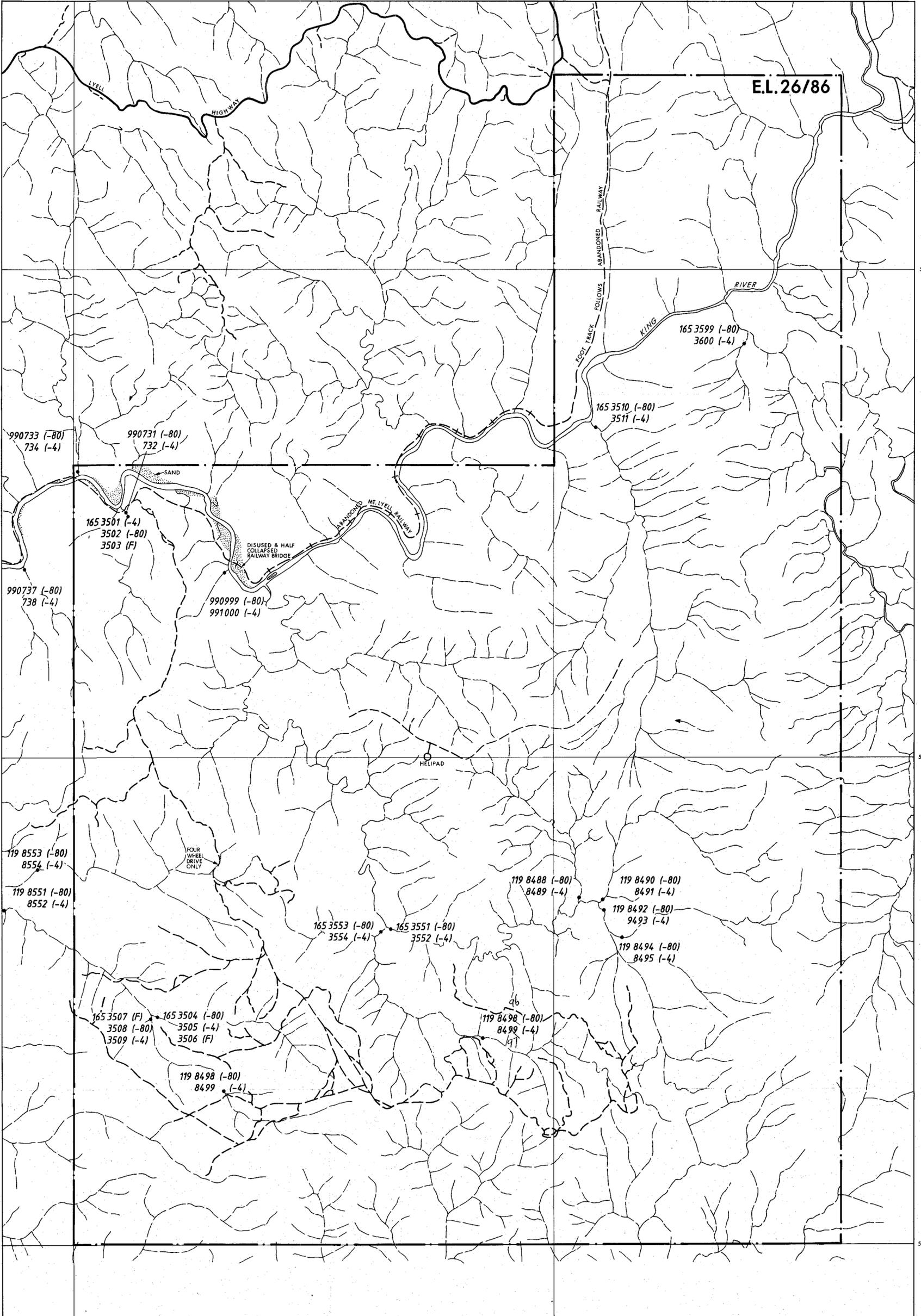
375000mE

E.L. 26/86

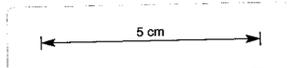
53 30000mN

53 25000mN

53 20000mN

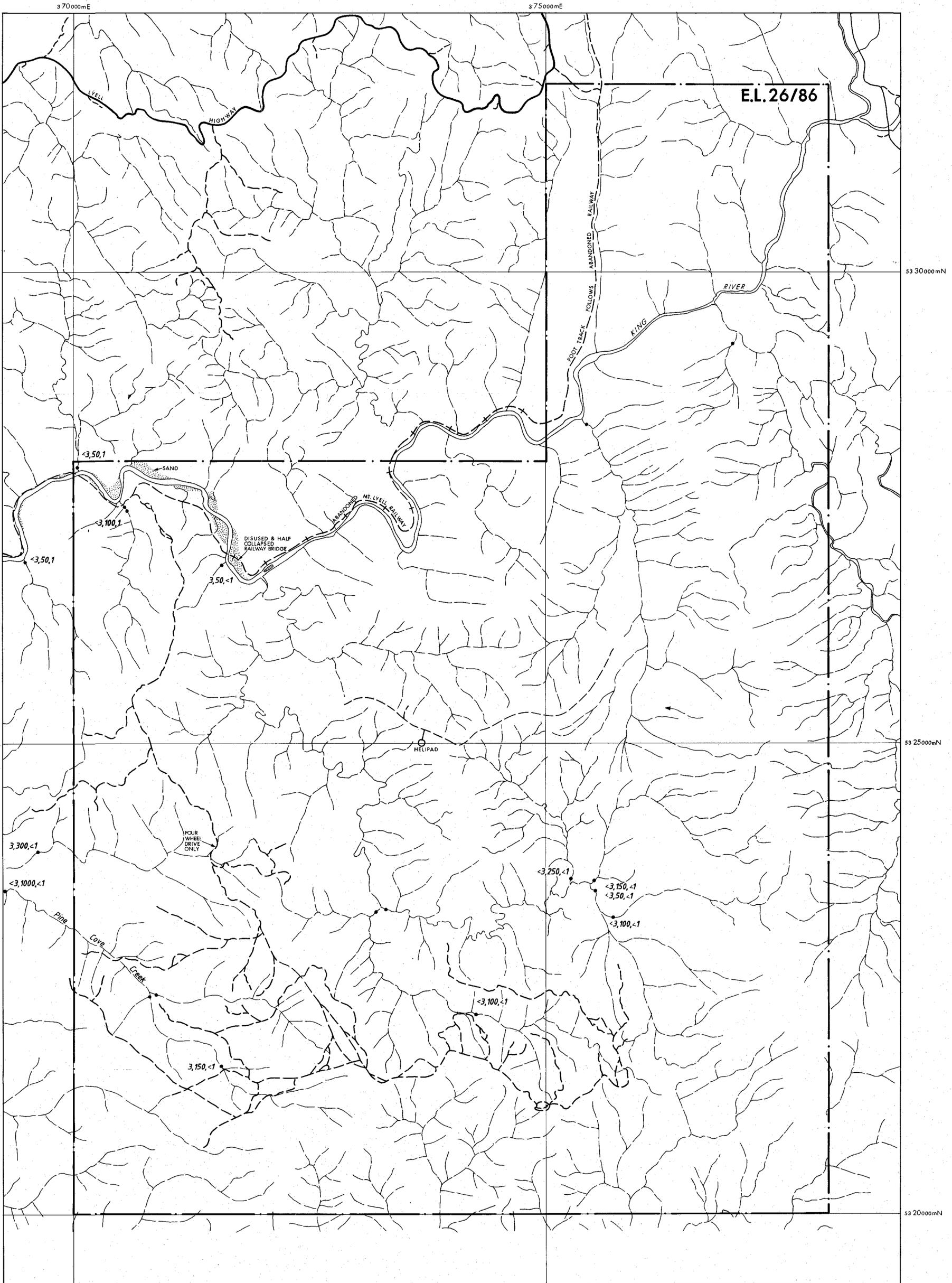


826028



88-2763 7270

CRA EXPLORATION PTY. LIMITED	
E.L. 26/86	
SWIFT CREEK AREA	
STREAM SEDIMENT & ROCK	
SAMPLE NUMBER LOCATIONS	
REF. SK55-5	(7913-8013)
SCALE 1: 25 000	DRAWN R.T.
AUTHOR F.R.F.	REPORT No. 14912
DATE 4-12-1987	PLAN No. TASH 3600



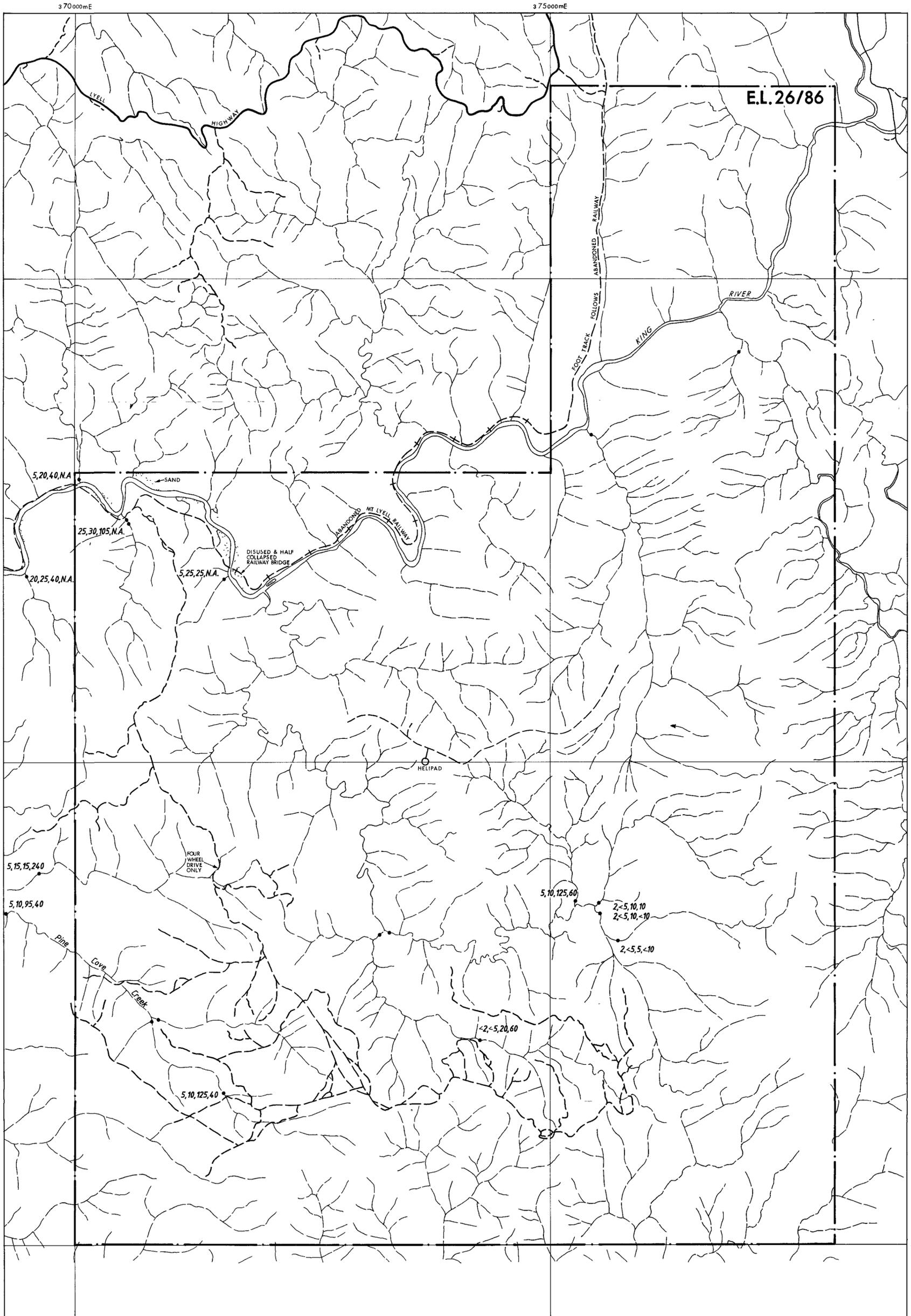
Au, Au, Ag — 80mesh sample, Results expressed in ppm.
 — 4mesh Cyanide leach sample, Results expressed in ppt.
 — 80mesh sample, Results expressed in ppb.

826029



88-2763 7271

CRA EXPLORATION PTY. LIMITED	
SWIFT CREEK E.L. 26/86 STREAM SEDIMENT SAMPLING Au - Au - Ag ASSAYS	
REF. SK55-5	(7913-8013)
SCALE 1:25 000	DRAWN R.T.
AUTHOR F.R.F.	REPORT No. 14912
DATE 9-12-1987	PLAN No. TASH 3638



826030

5 cm

All assay results expressed in ppm.

N.A. - Not Assayed For

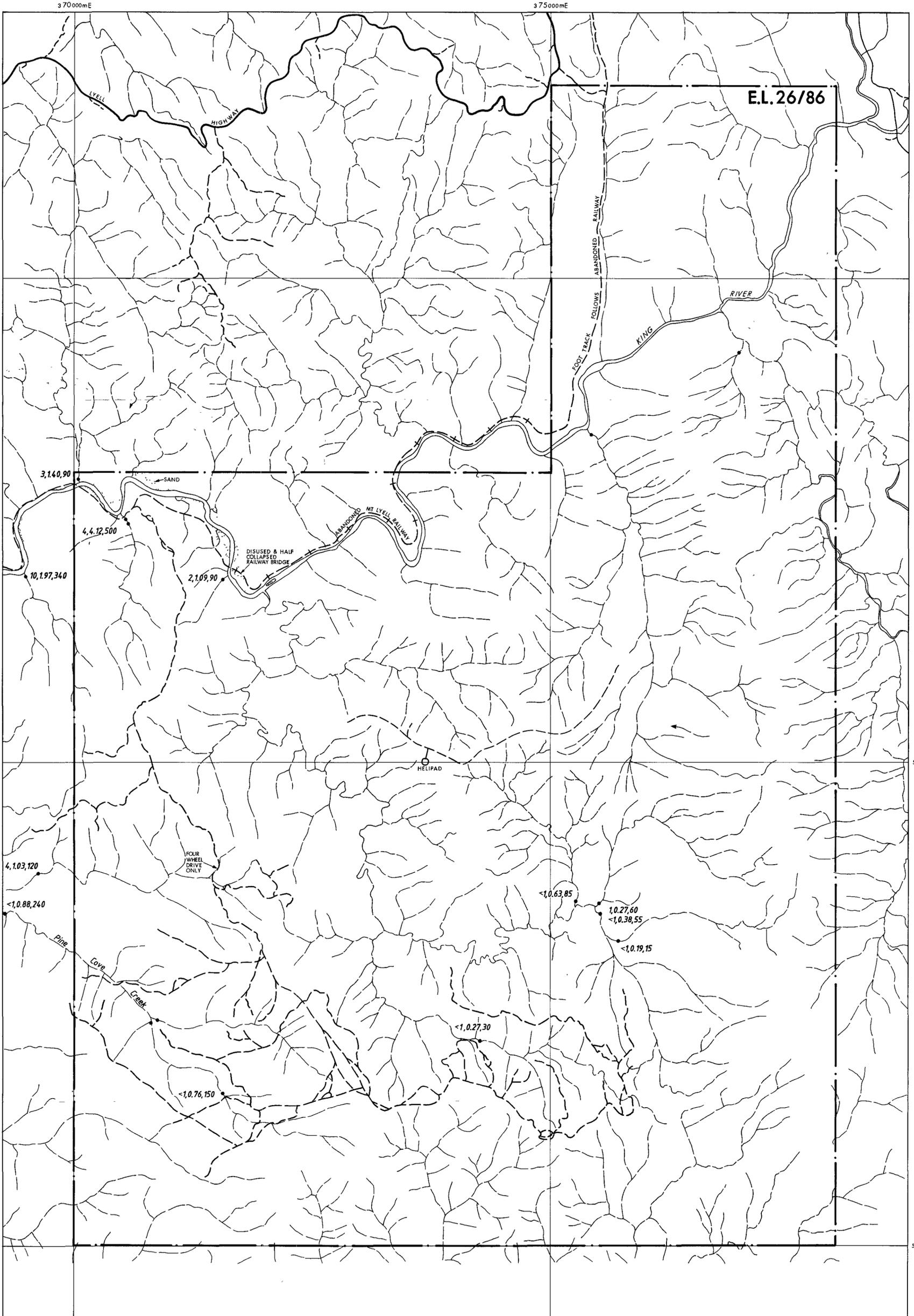
88-2763

7272

CRA EXPLORATION PTY. LIMITED

SWIFT CREEK E.L. 26/86
STREAM SEDIMENT SAMPLING
Cu - Pb - Zn - Ba ASSAYS

REF. SK55-5	(7913-8013)
SCALE 1:25 000	DRAWN R.T.
AUTHOR F.R.F.	REPORT No. 14912
DATE 9-12-1987	PLAN No. TASH 3639



E.L. 26/86

88-2763 7273

CRA EXPLORATION PTY. LIMITED

SWIFT CREEK E.L. 26/86
 STREAM SEDIMENT SAMPLING
 As - Fe - Mn ASSAYS

826031
 As and Mn expressed in ppm.
 Fe results given in %.

REF.	SK55-5	(7913-8013)
SCALE	1:25 000	DRAWN R.T.
AUTHOR	F.R.F.	REPORT No. 16912
DATE	9-12-1987	PLAN No. TASH 3640