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EL 313

WAITPINGA

PROGRESS AND FINAL REPORTS TO LICENCE EXPIRY/SURRENDER FOR THE PERIOD 22/4/1977 TO 21/4/1978

Submitted by CRA Exploration Pty Ltd 1978

© 10/5/1978

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Minerals and Energy Resources

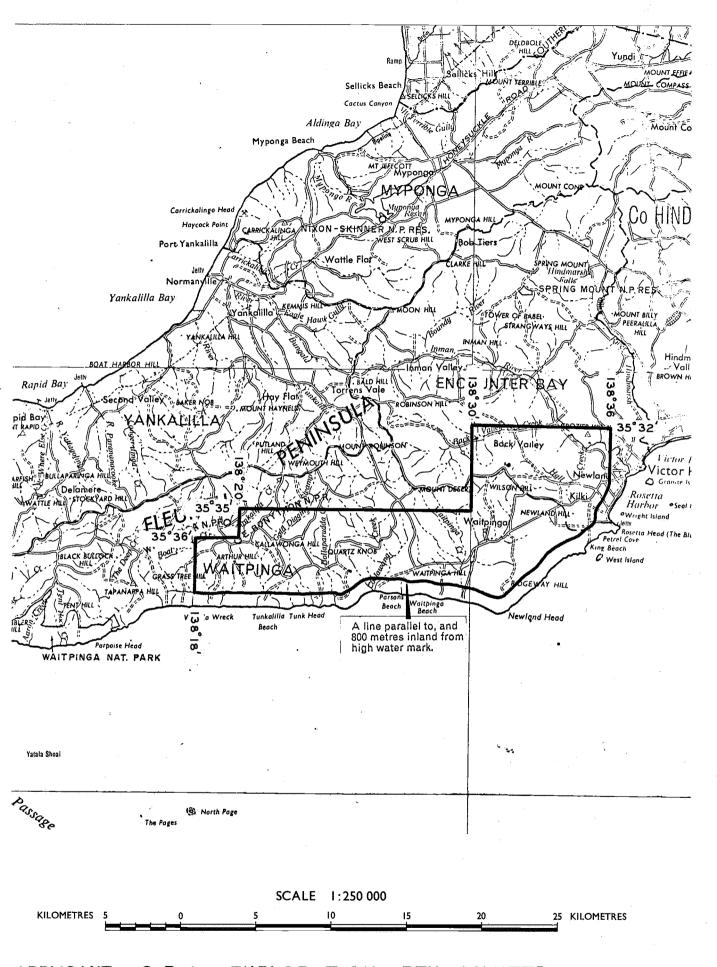
7th Floor

101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000 Facsimile: (08) 8204 1880



SCHEDULE A



APPLICANT: C.R.A. EXPLORATION PTY LIMITED

D.M.: 681/76

AREA: 171

Square kilometres

1: 250 000 PLANS:

BARKER

EXPIRE

LOCALITY: FLEURIEU PENINSULA AREA

EXPIRY DATE: 21.4.78 EXPIRED

E.L. No.: 313

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C.R.A. EXPLORATION PTY. LIMITED

(INC. IN N.S.W.)

95 COLLINS STREET, MELBOURNE, AUSTRALIA 3001

P.O. BOX 384D

TELEPHONE: 63 0491

TELEGRAMS: "CONRIO"

TELEX AA 30108

16th September, 1977.

The Director of Mines, P.O. Box 151, EASTWOOD, S.A. 5063

Dear Sir,

E.L. 313 - Fleurieu, S.A. Report for the Quarter Ended 21st July, 1977

Please find attached a report by D. O. Mason entitled "First Quarterly Report on Fleuirieu E.L. 313, South Australia" dated 22nd August, 1977.

Exploration results are much as expected to date.

Expenditure for the period ended 31st July, the nearest accounting period, amounted to \$798 comprising:

Salaries	\$151
General Supplies	176
Travel and Accommodation	232
General Overheads	239
	\$798

Yours faithfully,

SAF: jm

for:

J. Collier

General Manager

Attach.



C.R.A. EXPLORATION PTY. LIMITED

FIRST QUARTERLY REPORT ON FLEURIEU E.L. 313 SOUTH AUSTRALIA

Author:

D.O. Mason

Date:

22th August, 1977

Submitted to:

G.D. Klingner

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1. SUMMARY

Work carried out during the first quarter consisted of an appraisal of previous work in the area and the completion of a regional soil sampling programme over pyritic units previously mapped.

Assay results are not yet to hand, however, previous wide-spaced soil sampling by B.J. Morris of the S.A. Department of Mines showed that the pyritic units of the Brukunga Formation do contain higher base metal values than the surrounding rocks in E.L. 313. Base metal values appear relatively lower than those encountered in pyritic units North of Strathalbyn.

2. INTRODUCTION

On the basis of the encouraging results from work carried out in the Mt. Torrens area(CRAE Reports 8775,8953) all available ground containing pyritic units of the Brukunga Formation was obtained under Exploration Licences. The southern area containing outcropping Brukunga Formation, west from Victor Harbor to Tunkalilla Beach, is now held under E.L. 313.

To date soil samples have been taken over and along strike from all previously mapped pyritic units within the E.L. Access is difficult in the rugged southern parts of the E.L. but traverses are roughly at 500 metres spacings. The length of traverses is variable with a minimum coverage of 250 metres either side of any pyritic unit. Assay results are awaited.

3. CONCLUSIONS

Previous work within E.L. 313 boundaries by Comstock Minerals, and the S.A. Mines department gives evidence to the fact that pyritic units of the Brukunga Formation do contain higher concentrations of base metals than the surrounding rocks. It should be noted that although the base metal values within the pyritic units appear to be lower than values in corresponding pyritic units north of Strathalbyn, the values in the surrounding units are also correspondingly lower than those to the north.

Thus the relatively higher values in the pyritic units compared to those of the surrounding rocks gave the encouragement to conduct a regional soil sampling programme.

4. RECOMMENDATIONS

Any anomalous area outlined by the regional soil sampling programme should be followed up by close-spaced soil sampling and possibly stream sediment sampling. Percussion drilling will further test promising areas.

5. GEOLOGY

For a detailed geological picture of the rocks contained in E.L. 313 reference is made to the Barker 1:250,000 sheet, B.P. Thomson's description of the Kanmantoo Trough in the recently published Economic Geology of Australia and Papua New Guinea, Metals Volume, and B. Daily and A.R. Milnes' detailed description of the Kanmantoo Group type section east of Tunkalilla Beach. The stratigraphic sequence used by B.P. Thomson has been used throughout the report because of its simplicity and ease of extrapolation to other areas and because it has been utilized on published geological maps of the area.

E.L. 313 covers part of the southern portion of the Kanmantoo Trough which is a deep, partly fault-controlled Cambrian basin. This basin was formed by rapid subsidence during the Early-Mid Cambrian, as seen in the abundant sedimentary slump structures and the general lack of sorting in the sediments. The Kanmantoo Group sediments were probably mainly derived from the Proterozoic sediments of the Adelaide geosyncline located directly to the west of the rapidly sinking Kanmantoo Trough. The trough sediments are comprised in the main of greywacke, quartzite, arkose, black pyritic shale, and minor limestone units.

The Inman Hill Formation, the coarsest unit of the Kanmantoo Group sediments, outcrops mainly along the western and north-western sections of E.L. 313.

The Brukunga Formation, which is generally a fine grained sequence that contains the pyritic units of interest occurs in the central and eastern portions of the E.L. It should be noted that the best out-cropping units of pyritic formations occur largely within 800 metres of the southern coast and as such are reserved from the operation of the Mining Act(1971-1975). Permian glacial and fluvioglacial deposits, and Tertiary ferruginised sands and gravels also occur in parts of E.L. 313 and overly Kanmantoo Group sediments.

A regional N.E.-S.W. trending syncline occurs through the centre of E.L. 313. The Metamorphic grade of the sediments tends to rise towards the coast, being particularly noticeable near the Victor Harbor-Encounter Bay granites where and alusite and staurolite schists are common.

6. SOIL SAMPLING

To date 25 traverses of soil samples have been completed over the pyritic units and their possible extensions within the E.L. The traverses are roughly 500 metres apart and samples were taken on 25-metre spacing. Samples were taken to at least 250 metres either side of any pyritic unit, or its extrapolated position where there was no outcrop. Traverse positions were plotted on 1:50,000 scale photomosaics(see Plan No. SAa 94)

D. O. Mason

D.O. MASON

REFERENCES

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KEYWORDS

Locality:

Barker S1 54-13

Cambrian, Kanmantoo Group, Lead, Zinc, Copper, Pyrite, Black shale, Metasediments, Soil Sampling

LIST OF ATTACHMENTS

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SAa 99

Location Map. Scale 1:250,000

SAa 94

Geological Maps showing traverse locations.

Scale 1:50,000

Appendix 1:

Soil Sample Logs.

APPENDIX 1.

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	Fleurien														IG LEI			D.P.O. No	Page No.
	PECTEleuer								E Nos.	6	971	23	-> 6	97133	3				E.M. DATE 1/8/77 Zince Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition	· · · · · · · · · · · · · · · · · · ·		Sa	mple		Bedroc	k		N	letal Con	tent in p	opm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Encounter	647123	0	0	C	40	60	C	50	B-		1	100						Decomp.	sitt.tone(?)
Barg	24	30	0	0	40	30	C	30	Br	_	/	60						Ditto	
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	27	100	-	_	_	_		_	Gr-Br	V	-	-					<u> </u>	Ditto	<u> </u>
	28	190	-	_	-	-	_	-	Br64	V		~					ļ	Kwthod	carbonaceous siltetone with te stain
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	31	20	0	0	46	40	C	30	B-	_		100						Decomp.	Fe-stained siltstone
	32	10	0	0	1	50	C	30	Br	_	/	50					ļ	Decomp	siltstone
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Grid Co-ordinate	Sample		Soil	Compo	osition			Sar	nple	• •	Bedroc	k		N	fetal Con	tent in pp	m.	
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Traverse 2	35	100		_	<u> </u>	<u> </u>	_	_	B-	1		_						Extremaly without arkose.
E-W	36	160		_		_	_	-	Br	1	_	_				7		Extremely welled arkose. Extremely welled to stained seltitore
Simple interval	37	100	_	-					Grey	1		_	,					Grow waske
= 25m	38	100	_	_	-			-	Grosy	1	-	-						Ditto
	34	40	0	0	40	20	C	30	Brown		1	50			<u></u>			Decomp. silectone
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	57	100		-	<u>} </u>		-		Grey	V	-	-							Fine grained graywacke
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Eucounter	697/61	0	0	St		1	1	30	Grey	_	1	60							Decomp arkose (?)
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AREA/PROS	PECTFlaur	Tim.	Len	in.s.v.	da		S	AMPL	E Nos.	<i>t</i>	971	74	-> 6	9718	4				DGIST TEM DATE 2/8/77
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	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Си	Ag			Geological observations
Encounter	697174	100			-			_	Crey	v		-			-				Grannacke
Encounter Bay	75	100	_	-	-		-	-	Comen	v		-							Craywacke Ditto
Traverse 5	76	100	-	-	-	-	-	-	Corey	1		-							6
SE -NW	77	10	C	60	10	20	C	20	Brown	_		50							Decomp. greenwacke.
Sample Interval	78	100			-	-	-	-	Grlbr	1	-								Decomp. greywacke. Greywacke with win or Fe Stain
= 25m.	79	100		_		-			бтец	1		-			ļ <u> </u>				Arkose
	697180	100	-	-	-	-	-	-	Crey	V		-	<u>.</u>						Arkog with minor Fe stain
	81	100	-			-			Correy	V		-		ļ					Gregora de
	82	100	-	-	-		-		Grey	V									Ditto
	83	100	-	_	-	-	-	-	R-grey	Í.		-							V. without partly Fe-strained graymacke
	697.184	16C	ļ~	-		_	-		Grey	V	-								V. which partly Fe-strand greyworks Coreguacks
<u>-</u>									<i>y</i>						ļ . <u></u>				<u></u>
<u></u>											-								
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	4"	-	<u> </u>					<u> </u>					· · · · · · · · · · · · · · · · · · ·				1		
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AREA/PROS	EA/PROSPECT Floring Peningula SAMPLE Nos. 697185 7697195 GEOLIAN REFERENCE Encounter 1 50000 Sheet ANAL															Page No. 6 No. DATE 2/8/77 YSED BY Zinc Corporation			
Grid Co-ordinate	Sample			Compo	osition			Sa	mple		Bedroo	:k		īv	fetal Con	tent in p	pm.		
co-o: amate	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Encounter Bay	697185	100	1		-	-	-	-	Gr-Br	1	_	-							V wthod graywacke
Traverse 6	36	20	0	20	40	20	C	20	R-grey	-	V	50							Decomp partly Fe-stained sindy siltisten
SE -> NW	87	100	-	-	-	,	-	-	Grey	U	-	-							Arkoce
Sample Interval	83	100	1	-	_	_			Grey	V	_	-							Greywacke
= 25m	39	100	_			_	-	-	Grey	V.		-							Ditto
	697190	100		-	-	_	-	_	Gray	<i>\</i>	سد.	_							Tr .
	91	100	_	_	-	_			Grebe	✓.	~	-							V. wthod, partly Fe-stained grannack
	12	100	-	-		-	-	-	GraBo	Ų	-	-							V. wthod, partly Fe-stained graywack Willed arkose, partly Fe-stained. Ditto
	93	100		_		-		-	Greter	1	_	-							Ditto
<u>-</u>	94	C	0	C	50	50	(20	R-Br	_	J	50			<u> </u>				Decomp. Fe-stained silt stone (?) Dittor
	697195	0	0	C	40	60	C	20	R-4	-	1	50							Ditto
•																			
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TENEMENT.	Fleurieu	E.L.	31.	.3		elean eliste serge	:		GEOC	HEN	/IICA	L SO	IL SA	MPLIN	IG LEI	OGER		D.P.O	Page No
AREA/PROS								AMPL	E Nos.		69	7.196	(- 69	7206				OGIST T.E.M. DATE 2/5/77
PLAN REFER															**********				YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sar	mple		Bedroo			N	Aetal Con	tent in p	pm.		
	No.	Rock %	Organic %	Sand %	% H:S	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Encounter &	697196	0	0		: 5€			2.0	A-Br			1 -							Decomo Fe-strined silesters (?)
Traverse N	97	C	С	C	50	50	С	20	Br	-	1	50	,						Decomp Fe - string silesters (?)
SE -NW	98	10	10	c	40	40	C	20	Br	-	1	50							Decomp. siltstone (?)
Sample Internal	99	0	0	0	<u> ځن</u>	60	C	30	Br	_	1	50							Ditto
= 25n	697200	0	0	0	έθ	40	С	30	Br	-	1	50							н
	201	0	0	0	140	60	C	20	Br		Ĭ	50							ν
	202	10	0	0	40	50	С	20	R	-	1	50							Decomp silestone with some of to rock chips
	203	20	0	1	4c	1	C	20	Br-R	-	1	50							be comp to stained sultitions
	204	0	0	20	40	+	C	20	Grey	-	1	50							De comp sandy silistone
	205	100	-	_		-	_	_	Gray	V	_	-							Decomp sandy silistone Greynacke
	697206	100	<u> </u>	,-	4	_	-		Corray	1	-	-			ļ				Graywaske.
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					1						<u> </u>				ļ		ļ		
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AREA/PROS	Fleurieu SPECT Fleur RENCE E	Tille.	Pe	ning	ule		S	AMPI	LE Nos.	********	647	207	<u>ج</u> (MPLIN	7218	• • • • • • • • • • • • • • • • • • • •	·····	GEOL	Page No. 8 No. OGIST T.E.M. DATE 2/8/77 YSED BY Zix Corporation
Grid				·	sition			1	mple	1	Bedroo	<u> </u>	<u> </u>	 ·	`	ntent in p	pm.		
Co-ordinate	Sample No.	lock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Calour	Outcrop	Con- cealed	Est. Depth to	РЬ	Zn	Cu	Ag			Geological observations
Encounter	697207	+	1	-	-		-	-	R-are	i	_	-							Extremely wthod Fe-stained sillistone
Bar	7.08	100			_		_	_	Grey	1	-	-							Gilt stone
Traverse 8	209	100		_	_	_	_	_	R-gree	1		-							Extremely wthod Fe-stained silvitine
SE-PNW	1697210	100			-	_	_	_	Grey	1		-							Partly Fe-stained gillstone
Sample Interval	11	100	_	_	-	_		_	Gray	V		-							
= 25m	12	ice	_	-	_	_	_	-	R-grey	1	-	-							Extend to stained gramade with things ve Extend yethor For stained silestone
	13	100		_	-	_	_	_	R-grey	_	_	-							Dito /
	14	100	_	-	_		_	-	R-grey	1		-							Ditto with thin ots veins
	15	100	_		_		-	_	Red	1	_	-							Ditto with thin gts veins.
	16	100	_	-	-	-	-	-	B-grey	1	-	-							I without Fe-stained graywacke
· · · · · · · · · · · · · · · · · · ·	697217	100	-		-				Gre.	1	-	_							Covernacke))
	697218	100		-		-	•••	-	Gray	1/		-	<u> </u>						Gregorike.
· · · · · · · · · · · · · · · · · · ·									10										T. Control of the con
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AREA/PROS	Fleurien														IG LEI			D.P.O	Page No 9
PLAN REFER A 9006	PECTT. lead RENCEE	ren	nte.	n.141.52	ula Li	0000	S	AMPL et							30		••••• •••••		OGIST TEM. DATE 2/8/77. YSED BY Zinc Corporation.
Grid Co-ordinate	Sample		Soil (Compo	osítion			Sar	nple		Bedroc	k		٨	Metal Con	tent in p	pm.		
Co-ordinate	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag		* .	Geological observations
ncounter	697219	0	0	I	}	60	1	30	Br	-	1	100							Decomo silestero (?)
Bay	697220	0	0	-[1	50		30	Br		1	100							Decomp. siltistano (?)
averes 9	21	0	10	0	50	40	C	30	Br	_	1	100							k
E-W	22	20	0	20	30	30	C	30	Grey	-	1	100		ì					Decomp. sandy silestone
mple Interval	23	20	0	0	40	40	C	20	By		1	100		<u> </u>					Decomp siltistorie with some attaching. Decomp. Fe-stained siltistone
= 25,n.	24	0	0	0	;	60			R-Br	_	/	100		<u> </u>					Decomp. Fe-stained silestone
	25	0	0	1	1	60			R-B-	-	/	100		ļ			-		Ditto
-	26	0	0	į.		50			R-B	-	1	100					ļ	<u> </u>	lt.
··· <u> </u>	27	, -							Grey	_	1	100					<u> </u>	ļ	Decomp sandy silestone with minor of to
		20		i		20				-	<i>-</i>	50			ļ				Decomp sandy silestone with aimor ata Decomp sandy silestone
		30			1	20			CorealR		<i>J</i>	50	 						Ditto with some gts rock chips.
	697230	40	0	0	40	20	С	30	Yed Br		>	50							Decomp. Fe-stained silestone.
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	<u> </u>																		
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TENEMENT.	Floures	ΕI	313	3					GEO	CHEN	ЛІСА	L SO	IL SA	MPLIN	IG LEI	OGER			Page No. 10
1 '	PECT. Flee																		No
1	RENCE <i>⊆</i> ≽									··········							*****		YSED BY Zine Corporation
Grid			Soil	Comp	osition			Sar	mple		Bedroo	k		, , , , , , , , , , , , , , , , , , ,	Aetal Cor	tent in p	pm.		
Co-ordinate	Sample No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Waitzinga	697231	0	Ī	7 -		4 .	C	20	.1	_	1	100							Recome sundy silt stone
Traverse i	32	0	0	40	40	20	C	1	Sandy are	_	1	100							Dotto
SE -NW	33	0	0	10	50	40	C		Br	-	1	100							"
Sample Interval	34	0	0	20	40	40	c	20	B	_	1	100							И
= 25m	35	0	0	0	40	60	C	20	R-B-	_	1	100	. •						Decomp. silkstone with some Fe stain
	36	0	0	0	50	50	C	20	R-Br	_	1	50							Ditto
	_37	0	0	0	40	60	C	20	Orange	_	~	50							q.
	38	100	_	_	_	-		-	White	1	0	_							Etzite Subonlaron.
	39	20	0	0	40	40	C	20	B		V	50							Decomo Fi - stringed wilt stano
	697240	0	0	0	40	60	C	20	Br	-	1	50							Gtrite subonterop. Decomp. Fi-stained siltstone Ditto
	697241	0	0	10	50	40	C	20	Br	-	1	50							Decomp. sandy silestone
																		7	
•																			
· · · · · · · · · · · · · · · · · · ·												8	<u> </u>						
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TENEMENT. AREA/PROS PLAN REFEI	PECT Flou	rieu	Pe	nins	ula	*********	S	AMPL							NG LED 55		••••	GEOL	Page No. 1. No. OGIST T. E. M. DATE 3/3/77 YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sai	nple		Bedro	ck		1	Metal Con	tent in p	pm.		
	No.	Rock %	Organic %	Sand %	811.8	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	₽b	Zn	Cu	Ag			Geological observations
WAITPINGA	697242	40	0	0		20	C	ł.	Br	_	1	50							Decomo. Fo-stained wilt stone
Traverse 2	43	4	0	0	50	40	С	20	Br	_	1	30							Decomp. Fe-stained silestone Ditto
SE > NW	44	0	0	60	20	20	С	20	Sand Bi	_	/	50							Decomp. arkose (?) with some Fo stain
Sample Interval	45	20	0	0	5c	30	C		Br	-	1	50							Decomp. arkose (?) with some Fe stain
= 25m	46	0	0	10	5c		C	20	Br	_	1	50							Ditto
· · · · · · · · · · · · · · · · · · ·	47	0	0	0	50	50	<u>C</u>	20	Red		1	50							Decomp Fe-stained silt stone
	48	0	0	10	40	50	C	20	Red	_	1	50		ļ	<u> </u>				Decomp Fe-stained silt store Ditto
	49	0	10	1	50	40	(20	Br	_	V	50	<u> </u>						Decomp. siltistone
	697250	10	0	0	50	40	C	20	Br	-	V_	50				_		1	Ditto
	51	C	10	0	50	40	Ċ	20	Br	-	1	50	· · · · · · · · · · · · · · · · · · ·	_					11
	52	0	0		50	50	C	20	β_{Γ}	-	1	50	<u> </u>					-	<i>y</i>
· <u>*</u>	53		1	10	40		<u>C</u>	20	Br	-	/	50	· · · · · ·	-					li .
	54	100	-	_	-	-	_		Red	1	_	-	· · · · · ·					<u> </u>	Gossanous (?) graywacke suboutcrop Gossanous siltstore suboutcrop.
•	55	100	-		`		_	-	Red	V		-						1	Gossamus siltstook Suboutcrop.
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TENEMENT.	Flouri	eu	E.L	_ 3	13	*	****								G LED			Page No/ 2
AREA/PROS PLAN REFEI A 9006	PECT Flee	reng	Val	un 51 e 1	50 c	0e 5 k	s leet	AMPL	E Nos.	6	(/ 2	56 -		7/27			•••	GEOLOGIST TEM DATE 3/8/77 ANALYSED BY Zine Corporation
Grid Co-ordinate	Samala		Soil	Compo	sition			Sar	nple	1	Bedroc	k		M	etal Cont	ent in pp	om.	
Co-ordinate	Sample No.	Rock %	Organic %	Sand %	Silt %.	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Си	Ag		Geological observations
Vaitpinga	697256	100		_	-	_	_		Corey	1	_	-						Crenulated schiet
raverse 3	57	60	0	0	30	10	c	20	Gren	-	✓	50						De comp. 5 chist
V->5	58	0	0	0	30	20	C	30	Br		1	50						De comp. 5 chist Ditto
rample Interva	59	100		_		-	_		Grey	/	1	ĵ						Silty schist
= 25ma	697260	100	_	-	_		,	-	Gray	1	ļ	-						Siltstone
	61	100		į	-	-		-	Citaly	1	-	-				. :		Sandy silts tone
	62	100		_		-sair	-	,-	Gren	1	•	ĵ						Silt schigt
	63	100	-	_	-	٠.,	-	-	Regres	<i>y</i>	-	-	. <u>_</u>					
	64	160						-	Partigrey	1	,	-						Darkgrey corbonaceous sitt stone with se
	65	100		-	u des.		,	~	Grey	1	,	_	ŕ					Gree gandy gillstone
	66	100			-	-	1	_	Grey		•	-						Grey sandy siltstone Micaceous sandy siltstone
	67	100			-	~	,	· ·	Corey	1	-	_						Sandy siltistorie
	68	50	0	\mathcal{C}	30	20	C	20	Br	-	1	50			·	<u></u>		Iccomp schiet with minor Fe.
	<u>£9</u>	100	-	-	-	-	•-		Gr-Br	1		_						Arkose
	697270	100	-	-	-	_ \	-	ا بنیوز د	Grey	/	-							
_	697271	100			-	-	_		Gray	/		_						Coreywacke.
									J				_					J
					no galante					•								
ني			Ì															

TENEMENT. AREA/PROS PLAN REFEI A 9006	PECTF.	mie	uP.) Bowlard	enta.		s	AMPL	E Nos.	. 6	972	72-	> 6	9728	IG LEI	••••••		GEOL	Page No. 13 No. OGIST TEM DATE 3/8/77 YSED BY Zine Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedroc	:k		ħ.	Metal Cor	ntent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	РЬ	Zn	Cu	Ag			Geological observations
Weitzinger	697272	100		-	_	,	-	-	Gray		_	-							Schigt
Traverse 4	73	100	_		_	-	-	-	Corpy	1	_	-							Schigt
N->5	74	100		-	-		-	-	Grey	1	_	-							Schiet
Simple Interval	75	100	_		-	-	_	-	Gren	1	_	-							Silectone
= 25 m	76	40	0	0	40	20	(30	Br		1	50		·					Decomp. schist
	77	100		_	_	-	_	_	Grey	1	-	_							Decomp. schist Silt store
	78	100		_			_		Correy	1	_	_]			Siltistone
	79	100	-	-	-	_	_	-	Gr-81	/	-	_							Arkose
	697280	0	0	C	60	40	C	30	Br-	_	1	50			<u> </u>				Decomp Silestone
	81	60	0	0	30	10	Ċ	20	Br	_	/	50							Ditto
<u> </u>		0	0	0	60	40	C	30	B-	_	1	50		ļ	· .		1		n
	83	100	-	-	-	-	-	-	Grey	/	-	_							Corey wacke
	84	100	<u> </u>	-	-	-	-		Corey	V		-						ļ	Ditto Decomp. silestone Schiet.
	85	0	0	0	60	40	C	30	Br	~	1	50				<u> </u>			Decomp. silestone
	697286	100	-	-	-		-	-	Grey	\checkmark	-	-							Schist.
		<u> </u>		<u> </u>					0										
	 																		
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EA/PROSF N REFER 06	PECT Floure	eu. rens	Va.	eule le		50 6	S	AMPL 5Xee	E Nos.		69	728	7.—	> 697.	307	•••••••••••••••••••••••••••••••••••••••	GEO ANA	LYSED BY Zinc Corporation
Grid ordinate	Comple		Soil (Compo	sition			Sa	mple		Bedroc	k		М	etal Con	ent in ppm		
Ordinate	Sample No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag		Geological observations
oinga	697287	100		-		_	-	_	Grey	V	_							Greywacke
verse 5	38	100	_	-			-	-	Rorea	V	_	-						
→ 5	89	40	0	С	40	20	C	30	Br	_	1	50						Webrd carbonaceous sitestone with binomite proud Decomp. silestone
ple Interval	697290	40	O	C	40	20		20	Br-		/	50						Ditto
25m	91	0	0	С	70	30	<u> </u>	30	B-	-	<u> </u>	60						n
_	92	0	0	C	40	60	<u></u>	30	Br	-	/	60						n (2)
	93	100	_			-	_		Grey	1	_	-						Creywarke
	. 94	100					-	-	Crrey	1	_	-						Ditto
· · · · · · · · · · · · · · · · · · ·	95	100		_	_		-		Grey		_	-						3c
	96	100		-				-	Gray	1	-	-						11
	97	100		-		-			Grey	1		-	- <u> </u>					μ
	98	100		_		_			Coren	1		-						ii ii
	99		0	Ì	60	40		20	Gr.Br		V	50						Decomp. greywacke (?)
	697300	190		-		-	_		Grey	<u>/</u>	-	~			-			Gregwacke dith minor Fe stain
		100	-	-	_				Corney	<i>,</i>								Greywacke
	302	100	-	-	- 1	-	-		Grey	1								Arkosc
	303	- I		1					Crrey	*	-	-	· · · · · · · · · · · · · · · · · · ·					Gregoracke with minor Fe stain
	304	1	-	-]	-	-			Br	V	-	_						Without grapmate with some Fe stain
	305	i		- 1	-				R-gray			-					-	What gostanous grey carbonaceous silestone me Arkose Without greywacks
	306 697307				_			_	Br	/	_							Arkose

TENEMENT. AREA/PROS	PECT <i>Fleu</i>	rien	Pen	4251	le		s								NG LE			D.P.C GEOI	Page No. 15 D. No
PLAN REFE	RENCETo	rens	Va	le	11.	50 oc	0				••••••								LYSED BY Zine Corporation
Grid Co-ordinate	Sample		Soil (Compo	osition			Sa	mple		Bedro	ck	T	 -	Metal Cor	ntent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Vaitzinga	697308	100			1		-	-	Gray	~	-	_						 	Arkone
Traverse E	309	100	_	_	-	_	_	-	Grey	1	-	_							
N->5	697310	100	1	_	-	_	_		Grey	1		_							Micaceous sandy silestone Graywacke
<u> </u>	11	100	_	-	<u> </u>	-		-	Grey	V		_							Ditto
	12	<i>c</i>	0	C	60	40	(30	Br	_	1	50							Decomp. Silistone
<u></u>	13	100	_	_		-	-	-	Gr-Br	V	_			<u> </u>	ļ				What sandy silestone sub o/c wish minor to
·	14	100	_	-	- -	-	-	-	Gr. Br	/		-		ļ		ļ			Sandy silestone
	15	40	0	0	40	20	C	30	Br		1	50	1			,			Decomp. Carbonaceous (?) siltstone
	16	100	~	_		_	-		Grey	1	-	-	ļ		<u> </u>		<u> </u>		Corenwacke
	17	100			-	_)		Grey	7	-	-	-		ļ			<u> </u>	Ditto
	18	100	_				-	_	Corey	V		-		<u> </u>					11
<u> </u>	19	30	0	0	40	30	C	30	R-Br	_		50			 	 		-	Decomp. Fe-stained silt stone
	697320	100	-	-	-			-	Grey	~					<u> </u>	<u> </u>	ļ .	 	Decomp. Fe-stained silt stone Greywacke.
			-															-	U
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TENEMENT.															IG LED			D.P.O. No.
AREA/PROSI	PECT <i>F. L</i> e.	nieu	Pe	nin	zula.		S	AMPL	E Nos.	69	173	2/ -	-> 6	9734	1			GEOLOGIST TEM DATE 4/8/77
PLAN REFER	RENCETo	rren	.s. k	ale		50	000				*********			······································	************		••••	ANALYSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil (Compo	osition			Sai	nple		Bedroc	k		M	letal Con	tent in p	opm.	
	No.	Rock %	Organic 9	Sand %	811.8	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag		Geological observations
Waitpinga	697321	100	-	-	-	-	_	-	Grey	1	-	_						Consywacke
Traverse 7	2.2	20	0	0	50	30	C	30	Br		V	50						Decomp. partly Fe-stained siltitore.
N->5	23	100	-		_	_	-	-	Grey	1	-	-						Silestone sabouterop.
Sangle Interval	24	100	_	_	-	-	_	-	Pinkara	1	-							Micacons silestone with minor to star
= 25m	25	50	0	0	25	25	C	30	Br	-	1	50						Ditto, decomp.
	26	60	0	0	20	20	C	40	Br		V	50						Decomp Fe-stained schist.
	27	20	0	1	<u> </u>	40	C	30	Br		1	50						Ditto
	28	0	0	ł .	à	40	<u>C</u>	30	Br	-	✓ <u> </u>	50						Decomp. Schist
	29	0	0		50	,		30	Br	-	1	50						Ditto
	697330	0	0	0	60	40	С	30	Br	-	/	50	<u></u>					n (?)
	31	100	-		-	-			Cosey	~	-							Sandy silestone
-	32	20	0	0	40	40		30	BA	-	1	50			<u> </u>			De comp. Fe-stained silestone
	33	30	0		40			30	Br	-	1	50						Decomp. siltstone
	34	40	0		46		C	20	Br	_	/	50						Decomp. Phyllite with minor Fe stain.
	35	0	C		40			20	Br	-	V	50						Decomp. Phyllite with minor Fo stain. Decomp. gardy Siltitone
	36	20	0		to		<u> </u>	20	B-	-	/	50						Decomp. graywheke
	37	100	-	_	-			-	Grey	/		_						Gregwacke
	i	100	-		_			-	Grey	~	-					<u> </u>		Godywacke
	39	100	_			-		_	or for	V		-				_		Micaceous greywacke with minor Fe stain
		100		- 1	-	_		-	Grey	./	-	-				·. <u>.</u>		Coramacke
*	697341	100		- 4				-	Grey							· · · · · ·		Greywacke.

그는 이번에 내려가 있는 사람들이 되었다면 하고 살아왔다.

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TENEMENT	T)	E	, 2	/2											G LED				Page No. <u>(.7</u>
AREA/PROSE		,													•			D.P.O.	No
PLAN REFER																************		ANAI	YSED BY Zine Corporation
A 9006		1	2.44				K												1
Grid Co-ordinate	Sample		Soil (Compo	sition	· ·		Sai	nple		Bedroc	k o		М	etal Con	tent in pr	om.	1	
	No.	Rock %	Organic	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Waitpinga	697342	100		_	-		-	_	Grey	1		-							Coragovacke
Towarse 8	43	100	_	_	_		_	_	Grey	1									Ditto
N->5	44	100		_				-	Cor Br	/	_	-							Whod grannacke
Songole Interval	45	100	_		_				Grey	<i>V</i>	_	-							Craynacke
= 25m	46	100	-	_		_	-	_	Grey	1		_							Ditto
<u> </u>	47	100	_	-	-	_	-	-	Gren	V		-					·	ļ.,	Sandy Sile stone
	48	100		-	-	~	_	_	Grey	/		-							Gregwacke
	49	100	_	-	_	-	-	_	Coney										Ditto
	697350	100		~	-		-	_	Coney			-				-			Arkose.
	<u> </u>	-																	
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EA/PROSI	PECTFleur RENCETa	ieu	Pe	min.s	ula		S	AMPL	E Nos.	***********	697	35/		697	361		·····	GEOL	OGIST TEM DATE 4/8/77 LYSED BY Zinc Corporation
Grid Fordinate	Sample		Soil (Compo	sition			Sar	nple	1	Bedroc	k		M	letal Con	tent in p	pm.		
rordinate	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
itpinga	617351	100		-	_	J	-		Gray	1	-	-			S. Carlo				Grey carbons pand? without phullite
rerie 9	5 2	100		_	_	_		,	Grey	1		-							Phyllite Phyllite
75	53	100		-	-		_		Grey	√	_	-							Phyllite
de Interval 25 m	54	100			_				Grey	/	-	_	· · · · ·						Phyllite
25n	55	60	0	0	30	10	C	30	B-	*	✓	50							
	56	100	-	-	-		•	-	R-grey	V		-							Gossanous braceiated silestone
	57	100	~		_	_	•		Green	V									Greywacke
	. 58	100				-			Grey	√									Ditto
	59	100	-	-	-	-		-	Gray	V		-							4
	697360	100	-	-	-		_		Grey	/	-	-					<u> </u>		u
	697361	100	-	-	-		-		Coney	1		-							н
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TENEMENT AREA/PROSI	PECTFle	urie	e j	Peni	rsul	4	S	AMPL	E Nos.	6	97	362	ئـــــ	69	7369		·······		Page No. 19 No
PLAN REFER	RENCE	reve	. Va	le_	1.3	50 c	00		······································	••••••		· · · · · · · · · · · · · · · · · · ·		••••••••••					YSED BY Zine Corporation.
Grid Co-ordinate		Soil Composition						Sa	Sample		Bedrock			٨	Aetal Cor	ntent in p	opm.		
		Rock %	Organic 9	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag		Geological observations	
Waitpinga	697362	100	_	_				_	Gray	1	-								Phyllite with a nethod Fe disseminations
Traverse 10	63	100	<u> </u>	_	<u> </u>		_	_	Gray	✓	_		<u> </u>						Phyllite Ditto
NN→SE		100	<u></u>	-	1-		_	_	Corey	1	_	_	<u> </u>			ļ			Ditto
Sample literal	65	100	_	_	-	_	_		Grey	/						<u> </u>			"
= 25m	66	0	10	0	40	50	B		Br'	-	V	80		ļ			ļ. <u></u>		Decomp. Phyllite (?)
	67	0	0	0	50	50	B	20	Br	_	V	80			<u> </u>	-		ļ	Ditto
	68	100		-	-	<u> </u>	-	-	Coney	/	-	-					-	-	breywaske
	697369	100	-	_	-	-	_	-	Grey	V		-			-	<u> </u>	-		Coneywacke.
	<u> </u>	ļ		-	<u> </u>	<u> </u>			-				<u> </u>	-		-	-	 	
														<u> </u>	 -	<u> </u>		<u> </u>	
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AREA/PROS	AREA/PROSPECT. Flourieu Peringula SAMPLE Nos. 697370 7 697380 GEOLOG PLAN REFERENCE Torrers Vale 1: 50 000 ANALYS															Page No. 20 No			
Grid Co-ordinate	Sample	Soil Composition						Sai	mple		Bedroc	:k		N	fetal Cor	ntent in p	opm.		
	No.		Organic %	Organic % Sand % Sift %		Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con-	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Waitpinga	697370	20	1	0	40		1	30		-	V	50							Decomp sile stone with minor Fe stain
Traverse 11	71	100	1	-	-	_	-		Grey	V	_	_							Graywacke
SE -NW	72	0	0	0	30	70	C	30	B		U	80							De comp. silestone (?)
Sample Interval	73	100	-	_		_	_		Rever	V	_	_							Micacous sile stone with some Fe stain
= 25m	74	0	0	0	40	60	C	30	Bo-	_	1	60							De como silestone
	75	0	0	0	50	50	C	30	R-R-		J	60							Decomp. silestone
	76	20	0	O	40	40	(30	Br-R	_	1	60							Ditto with Fe stain.
	• 77	10	0	С	40	50	۲.	30	Br	_	J	50			<u> </u>				Decomp sikstone
	78	100	-	-	-		_		Grey	/					ļ <u></u>				Decomp sikstone Greywacke
	79	10	0	10	50	30	<u>C</u>	40			J	80		ļ					De lomp. grænnacke
	697380	0	0	20	60	20	C	30	Pale gray	-	J	50		ļ					Ditto.
	<u> </u>	-							0								ļ		·
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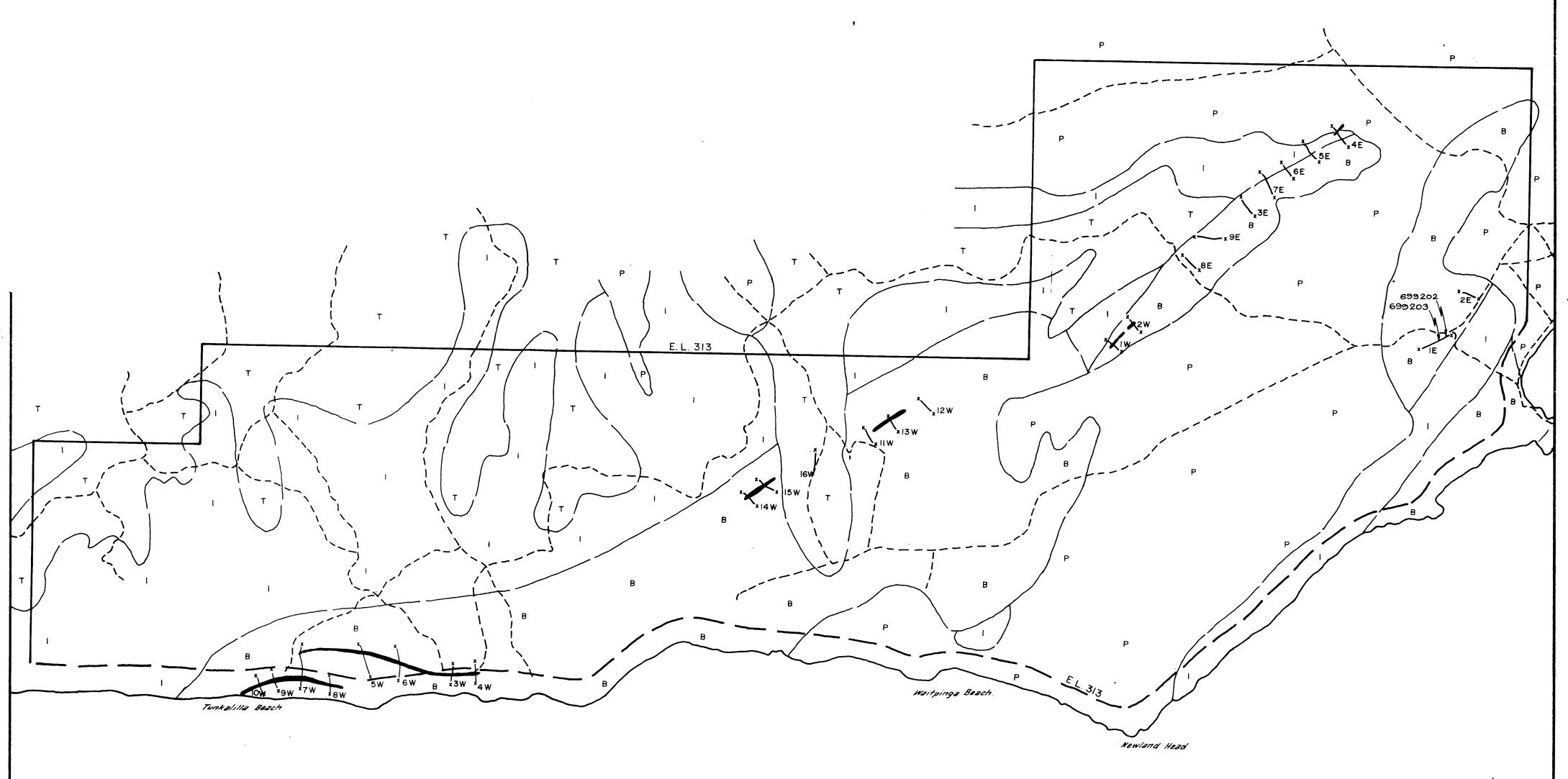
AREA/PROS	LAN REFERENCE Torrens Vale 1: 50 19006 Grid Soil Composition							SAMPLE Nos. 697381 -> 697391 Sheet										Page No. 2! D.P.O. No. GEOLOGIST T.E.M. DATE 5/8/77 ANALYSED BY Zinc Corporation			
Grid Co-ordinate	Sample		Soil	Comp	osition			Sai	mple		Bedroo	k.		N	đetal Con	tent in p	pm.				
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations		
Waitpinga	697381	0	0	0	60		1	20	R-B-	1	V	120							De comp. Fe-stained giltstone		
Traverse 12	82	10	0	0	40	50		20	R-B-	-	1	100							Ditto with some ste och chias.		
SE -> NW	83	0	0	0	40	60	C	20	R.B.	-	1	100							Decomp Fe-stained site stone (?) Decomp sile stone (?)		
Sample Interval	84	0	0	0	40	60	C	20	Br	-	1	100							Decomp. sile stone (?)		
= 25 m	85	10	0	0	+0	50	C	20	Br	_	1	100							Detto with some at rock whips		
	86	0	0	0	60	40	C	20	85	_	1	100							Detto with some gts rock chips Decomp. gilt & Lone (4)		
	87	10	0	0	40	50	C	20	R-Br		1	100							Ditto with Festain and some of chips.		
	38	20	0	0	7	40	C	20	R-Br	-	1	100							Ditto		
	89	0	0			30	C	20	Grey	_	/	100							Decomp sandy sile stone (?)		
	697390	20	1	ľ	,	30			Grey	-	/	160					ļ		Decomp sandy sile stone (?) Dittor wich some ofter rock chips. Decomp. sandy silestone.		
	697391	0	0	10	40	50	C	20	Br		/	100	<u> </u>	ļ					Decomp. sandy silestone.		
•	<u> </u>														<u> </u>				' 0		
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TENEMENT.	Flower	u 1	E.L	CEOCHEMICAL SOIL SAMPLING LEDGER Peningula SAMPLE Nos. 697392 -> 697402									Page No. 22						
PLAN REFE	RENCE7	6112	n.s	Vale		: 50	000	5he	et	*********			<u> </u>	6.9	1702			GEOLOGIST T.E.M. DATE 5/3/77 ANALYSED BY Zinc Composition	
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedroc	k		N.	Aetal Con	tent in p	opm.		-
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag		Geological observations	
Waitpinga	697342	0	10	0				1.	Orango									Decome Giftstone (?)	_
Traverse 13	93	20	0	0	40	40	C	20	Brown									Decomp. Silestone (?) Ditto with some qto rock chips Decomp. silestone Recomp Fe stained greywarke Decomp silestone	
5E->NW	94	0	10	0	40	1		20	Or-B									Decomo. silestone	
Sample Interval	95	30	0	0	40	30	C	20	Brown									Recomp Fe stained graywacke	
= 25m	96	0	0	0	40		C		Grey							ļ <u>.</u>		Decomo siltetone	
	97	0	10	0	40		c	1	Brown									Ditto	
	98	0	0	0	40		С	30						-	-			Decomp. schiet	
	99	0	10	0	i	50	<u>c</u>	20							-		<u> </u>	Ditto	
	697400	0	0	0	40		C		Or-Br				- <u> </u>		ļ		ļ	Decomp sitistone (?)	
·	401		0	0	40			ŀ	Cr-Br					ļ			-	Decomp. Fe-stained graywacke	
	697402	0	10	0	40	50	С	30	0r - Br						-		1	Decomp. Fe-stained grayworke. Decomp. Fe-stained silestone?	
													· ·		<u> </u>				
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TENEMENT.	NEMENT Fleurieu E.L. 313 GEOCHEMICAL SOIL SAMPLING LEDGER JEA/PROSPECT Fleurieu Peningula SAMPLE Nos. 697403 -> 697413													D.P.O	Page No. 23				
AREA/PROS	PECTF	euric	zu.	Peni	ngul	a	S	AMPL	E Nos.		69%	740	3 —	~ 6	974	43	****	GEOL	OGIST 7. E.M. DATE 5/8/77
PLAN REFE A 9006	RENCE Ter	reng	Va	le.	1:5	0 000	2 5	leet									••••	ANAL	YSED BY Zine Corporation
Grid Co-ordinate	Sample		Soil	Compo	osition			Sai	mple		Bedro	ck		ħ	Metal Co	ntent in p	ppm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Sail Harizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag			Geological observations
Waitping a	697403	0	0	0		· ·		20	ł	_	1	100							Decomp. silt stone
Traverse 14	404	0	10	0	40	50	0	20	Br		V	100							Ditto
SE >NW	405	0	0	0	40	60	C	20	or fr		1	100							*
Sample Interval	406	0	0	20	40	4.0	C	20	Br	_	1	100							De some sandy silts tone
= 25m	407	0	0	0	40	60	C	20	Change	-	/	100							Decomp sandy silts tone Decomp. Fe-stained silestone
	408	40	0	20	20	20	C	20	Gray		1	50							Decomp graynacke with some Fe stain
	409	0	0	0	40	1 -	C	30	Grange	_	1	60			ļ				Decompt Fo stained sitts tone (?)
·	697410	0	0	0		60	C	30	Crange	-	1	100			<u> </u>				Ditta
		0	0	0	40	60	C	30	Grange	-	V	100			ļ				l.
	12	0	0	0	40	60	C	30	Crango	-	V	100							4
· · · · · · · · · · · · · · · · · · ·	697413	100	-	-	-		-	·	Correy	1	_	-							Hipose.
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TENEMENT	ENT Flewieu E.L. 313 GEOCHEMICAL SOIL SAMPLING LEDGER PROSPECT Flewieu Peninsula SAMPLE Nos. 697414 -> 697426														Page No. <u>244</u>			
APEA/PROG	DECT Flo		: 		ا													D.P.O. No
PLAN REFE	DENOS			Lene	1.	د م	S	AMPL	.E Nos.		2.1	7.7	**********	6.7	426		••••	GEOLOGIST TEM DATE 5/8/77
A 9006	HENCE	ren	S(/.A	<u> </u>				znee						**********			*****	ANALYSED BY Zinc Corporation,
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedroc	k	I	٨	Metal Cor	ntent in p	opm.	
ov or arrive	No.	*	nic %	8		%	5	_		g	-	ot						Geological observations
		Rock	Organic %	Sand	Silt %	Clay	Soil Horiz	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth	Pb	Zn	Cu	Ag	in the section of	Secretarion Secretarions
Waitpinga	697414	100	2	_	_	_	-	-	Grey		-	-						Grown oke
Traverse 15	15	100	_	_	_	_	_		Grzy	1		_						Ditto
SE-NW	16	100	-	_	_	_	-	_	Gren	1	_	_						Micaceous gilt stone
Emple Interval	17	100			_	_		_	Corey	1	-	_						Ditto
= 25m	18	100	_	_	_		-	-	Correy	1		-						Siltstone with minor Fe stain
·	19	100	-	_			-	_	Circy	V	1	-						Graywacke
<u> </u>	697420	100	_	_	_		-	-	Grey	1	-	_						Ankose
	21	100	_						Grey	V	_	-						Ditto
	22	100	_		_	-	~	-	Grey	Ú		-					<u> </u>	1. wthrd friable greywacks
<u></u>	23	100	-		-	*******	-	-	Coney	V				ļ			ļ	1. wthrd friable greywacke Ditto
<u></u>	24	0	10	0	40	50		30	Br	-	V	50	<u> </u>	-		ļ		Decomp. greynacke " with some Fe stein
	25	100	~	~		-	-		R-gray	V	-		•					Goossandus siltstone suball assoc with gts
	697426	100	_	-	-	_	-	-	R-gray	V						ļ		Gossenous atteite sub o/c associated with att vein
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T Ferruginised sands and grave!

P Glacial and fluvioglacial deposits, cross-bedded sills and sands

B Brukunga Formation - Pyritic phyllites and schists including the Nairne Pyrite Member.

Inman Hill Formation - Coarse grained impure arkose.

x 12W Traverse 12 in Hundred of Waitpings

x 4E Traverse 4 in Hundred of Encounter Bay

6eological boundary - approximate

, - ROZO

Exploration Licence boundary.

3050-1

C.R.A. EXPLORATION PTY LIMITED.

FLEURIEU E.L. 313 — GENERALISED GEOLOGY Regional geology after B.P. Thomson (Barker I: 250 000) and B. Morris (1974).

SHEET REFERENCE BARKER SI 54-13

Geologist: D.O.M. Scale: 1:50 000 Drawn C.MCL.

Report No.: 9016, 9223 Date July, 1977 Plan No: SAa 94

FINA



C.R.A. EXPLORATION PTY. LIMITED

(INC. IN N.S.W.)

95 COLLINS STREET, MELBOURNE, AUSTRALIA 3001

P.O. BOX 384D

TELEPHONE: 63 0491

TELEGRAMS: "CONRIO"

TELEX AA 30108

1st December, 1977.

The Director of Mines, P.O. Box 151, EASTWOOD, S.A. 5063

Dear Sir,

E.L. 313 - Fleurieu, S.A. Report for the Quarter Ended 21st October, 1977

Please find attached a report by D. O. Mason entitled "Second Quarterly Report on Fleurieu E.L. 313, South Australia" dated 21st October, 1977.

Results have proved disappointing to date, compared with other results obtained in the Kanmantoo Trough.

Expenditure for the period ended 31st October, the nearest accounting period, amounted to \$4,143 comprising:

Salaries	\$699
Wages	462
General Supplies	445
Vehicles	419
Travel and Accommodation	250
Contractors	750
Assaying	90
General Overheads	1,028
	67. 17.3
9	74, 143

SAF:jm

ាំ afor:

J. Collier

General Manager

Yours faithfully,

C.R.A. EXPLORATION PTY. LIMITED

SECOND QUARTERLY REPORT ON

FLEURIEU EL 313, SOUTH AUSTRALIA

Author:

D.O. Mason

Date:

21st October, 1977

Submitted to:

G.D. Klingner

CONTENTS

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1.	SUMMARY	.1.
2.	INTRODUCTION	1
3.	CONCLUSIONS & RECOMMENDATIONS	1
4.	GEOLOGY	2
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6.	S.A. MINES DEPARTMENT STREAM SEDIMENT SAMPLING	6
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1. SUMMARY

Work conducted during the second quarter consisted of a further review of previous work (including some unreported and unpublished stream sediment sampling conducted by the S.A. Mines Department in 1969) and an appraisal of geochemical assay results from the regional soil sampling programme conducted over pyritic units of the Brukunga Formation.

Results from the soil sampling programme are not highly encouraging with non coincident peak values of 440 ppm Pb, 380 ppm Zn and 140 ppm Cu. These results are lower than values expected and received over pyritic units to the north of EL 313. No major statistical treatment has yet been attempted for these results.

Results of a stream sediment sampling programme for Cu, Pb, Zn, conducted by the S.A. Mines Department are not promising.

2. INTRODUCTION

EL 313 covers an area of 171 square kilometres from Victor Harbour west to Tunkalilla Beach and incorporates most of the known outcrop of Brukunga Formation in the district.

This report discusses results received from a regional geochemical soil sampling programme and also reviews results of an unpublished and unreported stream sediment sampling programme conducted by the S.A. Mines Department.

3. CONCLUSIONS & RECOMMENDATIONS

The results from the regional soil sampling programme were much as expected and not highly promising. However there are several results received from the area that stand out from the rest of the results. The two most outstanding results were collected from traverses 1 and 2 in the Hundred of Encounter Bay.

The results were:

Traverse (1)	440 ppm Pb	134 ppm Zn	55 ppm Cu
- /ai			pp oa
Traverse (2)	420 ppm Pb	380 ppm Zn	43 ppm Cu

Further sampling in EL 313 will concentrate within the area of the two above samples near Newland Hill NW of Victor Harbour. Results from a stream sediment survey conducted by the S.A. Mines Department in late 1969 - early 1970 are very uniform from streams within EL 313 and no areas could be considered anomalous in Cu, Pb or Zn.

Further work within EL 313 will include follow-up sampling of the better results produced from the regional soil sampling programme and possibly incorporate percussion drilling in some areas. A major statistical review will be conducted on results from all C.R.A.E. EL's in the Kanmantoo Trough which should help indicate the most promising areas or environments for base metal mineralisation.

4. GEOLOGY

EL 313 covers part of the southern portion of the Kanmantoo Trough, which was a deep, partly fault-controlled, Cambrian basin. This basin was formed by rapid subsidence during the Early-Mid Cambrian, as seen in the abundant sedimentary slump structures, and in the general lack of sorting of the sediments. The Kanmantoo Group sediments were probably mainly derived from the Proterozoic sediments of the Adelaide geosyncline located directly to the west of the rapidly sinking Kanmantoo Trough. The trough sediments are comprised in the main of greywacke, quartzite, arkose, black pyritic shale, and minor limestone units.

The Inman Hill Formation, possibly the coarsest unit of the Kanmantoo Group sediments outcrops mainly along the western and north western sections of EL 313. The Brukunga Formation, which contains the pyritic units of interest occurs in the central and eastern portions of the EL.

The pyritic units of interest that occur within the EL are generally fine grained carbonaceous siltstones or grey-wackes with usually only a weak iron staining evident on the surface. This lack of the common yellow-red-purple weathered pyrite colours found in the strongly pyritized units to the north is noticeable within the EL.

5. SOIL SAMPLING

A regional soil sampling programme has been completed covering all pyritic units and possible strike extensions within EL 313. Traverses were approximately 500 m apart and samples were collected on a 25 m spacing. The samples were taken to approximately 250 m either side of the expected position of any pyritic unit.

Orientation soil surveys over pyritic units elsewhere in the Kanmantoo Trough (see C.R.A.E. Report 8953) indicated that a fast efficient and effective method of shallow soil sampling discovered high base metal contents in soil over known mineralisation. Soil samples were taken 10 - 50 cm below the surface, which because of the relatively shallow soil horizon over the pyritic units and the surrounding rocks of the Brukunga Formation, were generally collected from the 'C' horizon. Where soil cover was deep, samples were collected from the 'B' horizon, and where there was good outcrop, rock chips within 5 - 10 m radius of the sample site were collected. Care was taken when collecting samples from ploughed paddocks that the collection depth was below the area of surface soil disturbance. The samples were then totally crushed and sent to The Zinc Corporation for assaying. The sample was not sieved as the orientation samples showed that all pyritic units were picked out using a total crush method. Elements selected for assay were Pb, Zn, Cu, Ni, Co, Cr, Mn, Ag with every 10th sample (i.e. at least one per traverse) being assayed for Au, U, Sn, W, Mo, As.

As yet no statistical treatment of the soil sample results has been attempted. However, previous work by B. Morris of the S.A. Mines Department on soil samples collected between Mt. Barker and Cape Jervis indicate base metal values of various Kanmantoo Group Formations (B. Morris 1974). Morris determined cumulative frequency curves, frequency distribution curves, median (Me), and the lower limit of an anomaly (A) for each element. The 'Me' and 'A' values were calculated using the method of Yufa and Gurvich (1964). Any samples with results above the 'A' value were taken as anomalous. The 'Me' and 'A' values of the Kanmantoo Group metasediments calculated from Morris' samples are listed below:-

	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
BROWN HILL GREY- WACKE MEMBER				**************************************
Median 'A'	15 61	12 72	35 143	5 17
PYRITIC PHYLLITES SCHISTS OF BRUKUI FORMATION				
Median 'A'	12 54	13 61	30 126	6 36
INMAN HILL FORMATION				
Median 'A'	12 54	11 71	27 159	5 55
STRANGWAY HILL FORMATION	w.			
Median 'A'	15 87	9 45	30 156	3 15

Twenty five traverses totalling 315 soil samples have been crushed and assayed. The results calculated by Morris for values in the pyritic phyllites and schists of the Brukunga Formation are used here to indicate the number of samples regarded as 'anomalous'.

Number	of	samples	with	Pb	> 61	ppm	. =	9
Number	of	samples	with	Zn	>126	ppm	=	2
Number	of	samples	with	Cu	>54	ppm	=	3

Only one sample gave coincident 'A' values for Cu, Pb and Zn and only one other gave coincident 'anomalous' Pb and Zn values. The others gave only single element values that were greater than 'A'.

Peak non-coincident values were 440 ppm Pb, 380 ppm Zn and 140 ppm Cu. These values are relatively low compared with values received from sampling over pyritic units elsewhere within the Kanmantoo Trough and vindicate the statement made by Thomson, B.P. (1964) that "the same sediments, (Brukunga Formation) although including pyritic black

shales equivalent to the Nairne Pyrite horizon, are low in heavy metals between Strathalbyn and the South Coast."

It should be noted that the best base metal values were located on traverses 1 and 2 in The Hundred of Encounter Bay (see plan S.A.a 94 in First Quarterly Report, C.R.A.E. report no. 9016). No pyritic units have been mapped in this area but some iron stained units were noted in a road cutting in the vicinity. Peak coincident values for the best samples on these traverses 1 and 2 are 440 ppm Pb, 134 ppm Zn, 55 ppm Cu and 420 ppm Pb, 380 ppm Zn and 43 ppm Cu respectively. Further soil sampling and possibly rock chip sampling within EL 313 will concentrate within the area of these two traverses.

For comparison with the values calculated by Morris, the values for mean, standard deviation and total of mean plus two standard deviations are presented for Cu, Pb, Zn for all samples collected.

	<u>Pb</u>	Zn	<u>Cu</u>
mean	18.95	52.88	16.73
standard deviation	44.91	32.53	11.95
mean + 2 standard deviat	ions 108.77	117.94	40.63

These statistically produced results are somewhat misleading and all samples with values of greater than 109 ppm Pb, 118 ppm Zn and 41 ppm Cu are not necessarily anomalous. The convention is to assume that the top 2½% of the samples collected are anomalous. It should be remembered that the samples were collected from two main lithological types - the pyritic phyllites and the surrounding quartz-feldsparmica schists, both of the Brukunga Formation. Some samples may even have been collected over arkoses and feldspathic sandstones of the Inman Hill Formation.

A more realistic selection of anomalous samples would involve statistical treatment of only those results from samples collected over the pyritic phyllites. However, samples collected from areas of no outcrop make it difficult to select such specific samples. A major statistical review incorporating results from soil sampling programmes within all C.R.A.E. EL's in the Kanmantoo Trough will be conducted when the sampling has been completed and results received. This should help eliminate or highlight only differences in regional, base metal concentrations, in past and present weathering conditions and topographical features, throughout the various EL's on Fleurieu Peninsula and the eastern Mt. Lofty Ranges.

6. S.A. MINES DEPARTMENT STREAM SEDIMENT SAMPLING

This survey apparently conducted in late 1969 - early 1970 covered parts of the Cape Jervis, Torrens Vale and Encounter Bay 1:50,000 sheets. No details of who conducted the survey, how the sample was collected or what size fraction was analysed has been noted. There appears to be no report to cover the work. The maps, and sheets with the assay results for Cu, Pb and Zn indicate no strikingly anomalous areas.

Of the results from streams sampled within EL 313 Pb results range from 5 - 35 ppm, Cu from <5 - 35 ppm and Zn from 5 - 110 ppm. Average assays (eyeball estimate only) would be 15 ppm Pb, 15 ppm Cu and 40 ppm Zn.

As no single result within the EL appear to be related to a Pb-Zn-Cu bearing pyritic unit no further action will be undertaken to analyse the results.

D. D. Mason

D. O. MASON

DOM: CAR

REFERENCES:

Morris, 1974 A regional soil sampling of B.J. the Kanmantoo Group Metasediments, Mt. Barker to Cape Jervis. S.A. Mines Department Report Book No. 74/202. Yufa, B. Ye. & 1964 The use of the median and Gurvich, Yu. N. quartiles in estimating normal and anomalous values of a geochemical field. Geochem. Internat. pp 801-807 1977 Nichol. I. Notes for C.R.A.E. Geochemical

Unpublished S.A. Mines Department Stream Sediment Sampling Fleurieu Peninsula 1969 - 70. Dm 1165/69.

Workship (unpublished).

KEYWORDS

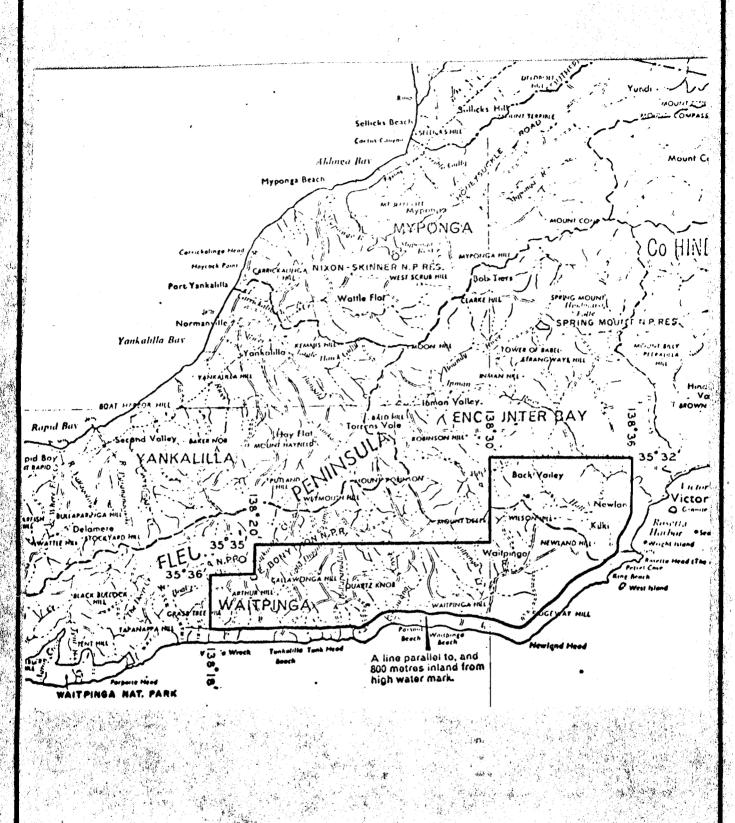
Locality: Barker SI 54-13

Cambrian, Kanmantoo Group, lead, zinc, copper, pyrite, black shale, siltstone, greywacke, metasediments, soil sampling, stream sediment sampling.

LIST OF ATTACHMENTS

S.A.a 99 Location Map 1:250,000

Appendix 1 Geochemical Soil Sampling Ledgers.



C.R.A. EXPLORATION PTY LIMITED

FLEURIEU E.L: 313. LOCATION MAP.

SHEET REFERENCE BARKER SI 54-13

Geologist: D.O.M. Scale: 1:250 000 Drawn: C.McL.

Report No. 9016 Date: August, '77 Plan No. SAa 99

C. R. A. EXPLORATION PTY. LIMITED GEOCHEMICAL ANALYSIS

SUIL SAMPLES.

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Beaker Tray No						••••
Date Weighed					******	****

Determin Checked	ations by	Tray checked i										
Checked												
	by											
		Co ppm	M _∧	ppm	ppm	ppm	ppm	ppm	ppm			
97247		6	90		 							
48		4	50									
4 ٦]	The state of the s	9	50									
50		5	50		•				1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1			
s,		6	30									
52		4	50									
<u>53</u>	And the state of t	6	50									
S4		9	30				3 2 3					
55	14 m jog (16) 1 m jer (20 m j	9	20	***************************************					700			
SŁ	waitpings 3	25	780									
57	1930 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 -	21	280		3.							
58	the state of the s	17	Soo	************************************					1			
59		21	790	-								
60		24	640									
61	talik kalika katan da kan akan pangan masaran mananan manan mangan manan manan manan kan manan manan manan man	18	610									
62	And the state of the comment of the state of	23	7550				2.					
63	18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 9	490	······································			nintrinsipaliti (Salakatana					
64	and the second section of the second	3	40					ott vej qualita se a a a a a a a a a	(******************************			
. 65		20	570									
66	ikan penginan gapada an manana ma	14	420					violentary morning and a	, 51 			
67	eringgan da akketan da		220	·					#19-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			
68	alipopisejimenteimejinkonovatinasmassas sinomeneemitein sii	10	280				angana an	oportungsamo, representativos espera	***********			
. 69	alkanin ningga ayan an a	14	440				and the second second second second		isaa da Linera jagiga ta agaga saj			
70	man tama ing mga mga mga mga mga mga mga mga mga mg	/2	440		, isp., is a a a series a ser		various and a special state of		i adi taran er era eratum fifezio			
- 7/		14	490			*******************************						
72	Waitpriga 4	24	7570						•••••••••••			
73		26	750			P			ndinadan perjadi alda			
74	freigher getraj freigenthe jegen freigen.	2.5	660		·	er in termina desperansasser i mentantantan			and the second s			
ক্র	ing ing the contraction of the c	19	370	·····		***************************************						
76	and the same of th	19	370			***************************************						
77	a de la companya de l	19	380									

C. R. A. EXPLORATION PTY. LIMITED GEOCHEMICAL ANALYSIS

6 052

Sample Tray No	. Storage Box No	. Locality	Flen	ien			
	.Weighed by						
이 선생님이 가게 되는 것이 되었다. 그 아이들은 그는 그들은 그는 그들은 그들은 그들은 그들은 그들은 그들은 그를 받는 것이다.	. Date Completed			******	********	 	A POST

			Ţ	ray checked	d in L			
Determinations by								
Checked by								
	(0	MA						
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
6972.78	15	150						
	24	520					***************************************	*
80	15	300						***************************************
81	19	440				· · · · · · · · · · · · · · · · · · ·		
82	15	330						
83	19	570						
84	17	140						
es	18	440	***************************************		***************************************			*************************************
86	2)	580		3.				
87 Waitpuga 5	14	460		***************************************				
88	6	20	:				100000000000000000000000000000000000000	A
89	15	320		h				
90	12	230		1			1	
	14	210				3/4 1		
42	21	230		·····				
93	18	370			1.0			
	16	460		***************************************	***************************************			
	15	600						
	15	520	***************************************					januaria (kajing mililika)
45	17	490					<u> </u>	
40	18	520		***************************************				······································
99	11	260						h
77300	13	370		h,ree-state blacetal fire rejege; ,			dancing gailte a há staobha fraigh a gir an cei	Marioner-oyalasta pira anada piza
1	/1	390						M
2	11	390						······································
3	15	400						
4	15	400						
5	4	40						
6	15	420						
?	17	750			,			
8 Waitpuga 6	12	580						***************************************
		390						

Sample Tray No	. Storage Box No	. Locality	Fleurien	
	.Weighed by			The state of the s
	Date Completed			

							Т	ray checked	d in [
Determi	nations by				25				
Checked	l by								
		(0	Mn						
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
97309		13	420						
10	The state of the s	12	370						
1		1	910						
12	Promise and the second	9	210	***************************************					
13	and the state of t	13	390						
14	and the second section of the second section s	15	420						
15		21	350						
16		14	390						
17		13	320						
VE		18	490						
19		15	300						
,la		17	460					······································	****
21	Watterga >	16	460	:					*···**********************************
22		20	300						Correction organization and companies
23		18	520						
						,	Ye .		
24		21	540	· :					
25		24	660						
26		22	490					······································	
27		13	280						A CANADA
28		22	370					<u> </u>	himining managaran
29		18	350				7	7.0097.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
30		9	260				······································	eredierus eres eres eres eres eres eres	**************************************
31		13	350			henri de la reconstante de la companya de la compan	errotikerritijs gangsan glauj	(Arrived many states meaning)	
32		11	300.						**************************************
33		(0	230						
34		12	240						***************************************
35		6	130						······································
36		15	450					h.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************
37		14	500				***************************************		101110111111111111111111111111111111111
367		(7	2002						
39	,	17	510						
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Sample Tray No	Storage Box No	Locality F	eurieu	
·	Weighed by			
	Date Completed			
			Tray checked in	
Determinations by				
Checked by				

Determin	nations by					T	T	ray checked	
Checked	a an /del>				ļ	 		<u> </u>	
CHECKEU	Uy			·			ļ	1	
		ە	Mr						
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
697340	4	70 (5	370						
41		≥=12	600						
42	Waitprga 8	<u>7€/4</u>	400						
43		20 13	500						
44		\$214	450						***************************************
45	3	. (5	450					***************************************	
46		15	440				,		- International
47		13	390						***************************************
48		13	370	,					
49		18	490				136.2		ļ.
50	e de la companya de l	15	470						
	weitpinge 9	25	740				<u> </u>		
52		26	770		,				
53)	24	770	***************************************			erren britani, inclusione		
54		29	520						
			320						
\$\$		24	330						
					······································				<u> </u>
S ₄		12.	380						
		10	?50						
58		10	480			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			19-1
59		13	420						······································
60		13	200					.)	
ы	and the transfer and the contract of the state of the sta	15	430	ar seenayaaaa qoo ah seelaayaa ah		ann a an a	o-entines - legisagons and	anning the suppression and an execution	alkiner out applicate developed.
1 1 1	waitpuga 10	21	570						
63		28	820					·	
64	2 	2.5	8တ			***************************************	; = 1 V - 1 V 1 V 1 V 1 V 1 V 1 V 1 V 1 V 1	***************************************	
65		20	680)·····			
66		14	400						
67		14	350						7
68		14	420					***************************************	**************************************
6ÿ		12	400					***************************************	***************************************
- 4	waitpings 11	9	110						
	\ \ J							***************************************	

*Sample	selected	for
routine	check	assay

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1	U	t)	

Sample Tray No	Storage Box No	Locality Fleurieu
		D.P.O.
· "		. A/c. No

						7	Т.	ray checked	ı in L
	nations by		ļ ·						
Checked	by	<u> </u>							
		(co	M√ ppm	ppm	ppm	ppm	ppm	ppm	ppm
697371		14	500						
72		14	220						
73		15	450						
74	terregion service segmentation of the service segments and the service segments and the segments and the segments are segments.	17	240	·					
75	andren andre andre services and an arrangement and an arrangement and arrangement arrangement and arrangement arrangem	4	130	***************************************					
26		3	110						
77		10	180						
<u> 7₽</u>		15	430						
		3	130						
જિ		2	110						
e _l	Waitpinga 12	10	220						
FZ		8	210	***************************************					
83		15	290						
84	de la companya de la Companya de la companya de la compa	12	240						
23		9	220			,-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			
						k Line State			
86		10	200		····	Valvata 41444, 17444, 1844 0), 184 44, 1844			
87		10	220						
88		S	110						
89		4	90						
90		3	110						
91	Mandratiqui (competino) de la competina del la compe	8	130	e françoiste, a françois posseçois no complete	Parter Designation - American				
92	Waitpinga 13	9	70	to calify an altageness plan and	to the act was	en single and a series			page and constitutions
93	nagana di pagana ang manana ang m	8	90			*************			The state of the s
94	ista in many transport in the contract of the	>	110		:				
95		11/	180						
96	ariagen principal mentre and principal and a second principal and a	19	220						
97		12	180						,
98		17	170			······································			
99		14	110						THE POST OF THE PARTY OF THE PARTY OF
97400	web) and a construction of the construction of	10	130						***************************************
1		12	220						
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÷.		v	v	U
1	0			

	e check assay		HEMIC							
	Tray No								********	
Beaker	Tray No	Weighe	d by	***********		D.P.O)		*********	
Date We	pighed									
					····		, Т	ray checke	d in	
	nations by									
Checked	by								4	
		C _o	M ∼ ppm	ppm	ppm	ppm	ppm	ppm	ppm	
697402	and the state of t	10	180							
3	Waitpinga 19	15	160			100				
4	a girinanan innagan inna a ka mininan managan inna ang mininan ang mininan innagan managan managan managan man	15	100				**************************************			
<u> </u>		8	40							
6	greek in grape are spen to be referenced as a grape of a surface of a subsequence of a subs	4	20						1	
2	antiqui and a construction of the state of t	P	20							
8		8	20							
9		10	20					***************************************		
10	Recording to the second state of the second st	9	40					***************************************		
	1919 yanusi a 1974 ka 1984 ka	12	100					en inference and inference and in		
12		14	110							
\3	radingles van monden need and de verste van de verste v	,,2	440							
14	waterga 15.	18	550							
Œ	uniteriori de la companio de la comp	18	570						1-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
16		14	300							
			1 1						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	ti digina da aya a da aya da aya da aya aya aya	18	440							
18	and the state of t	16	490							
19	and the state of t	15	630							
20		12	460							
21		10	300							
12		17	320							
23	and the second s	14	350						hanner for a track to the group of the spin dense of	
24		9	40	-				**************************************	The state of the s	
- 3≥		1	0</td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
26	A	1	<10							
2)	Watpung 16	14	20							
28		/4	20					***************************************	******************************	
29	reputarional and transfer and t	12	20							
<u> 3</u> c		10	20							
31	and the last terms and the last terms are the last terms and the last terms are the last	/2	20							
32		11	20							

Sample Tray No	Storage Box No	Locality Flewiew
		D.P.O.
	Date Completed	
		Tray checked in

	/eighed								
Determ	ninations by		1				1	ray checke	d in L
Checke		<u> </u>					+		
		(o ppm	M _A	ppm	ppm	ppm	ppm	ppm	ppm
69743	3	1)	20				-		
		12	20						+
		10	م2						
Tiplomakana makan		9	2.0	••••••				• · · · · · · · · · · · · · · · · · · ·	
1890	and application of the state of	12	20.						
			the compression is receiving	***************************************	7-17-18-18-18-18-18-18-18-18-18-18-18-18-18-	***************************************		diference (in the compare	***************************************
	A CAMPAGE TO A CAM					*** ***********************************			-

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			V. 9	***************************************			To the state of th	#*************************************	
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	The second secon								birmingadi minata

dealerstein in moreone	and the second s							7-1-7-1-7-1-7-1-7-1-7-1-7-1-7-1-7-1-7-1	***************************************
						No. of the control of	and the state of t	p, and ggisters was increasible to the term of	er en

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									*** PATEL
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TENEMENT	Fleurien	E.L.	. 3	13		********	*****		GEQ(CHEN	AICA	L SC	DIL SA	MPLIN	IG LEI	DGER		~ ^ ^	Page No
AREA/PROS	SPECTFleur	iris	Peni	insul	p.		S	AMPI	F Nos	,	3971	73	> '{	107127					No.
PLAN REFE A 9006	RENCE	~ C.O.10	untea	l.	: 50	000	Sheer	<u>(</u>	•			44444444444444444444444444444444444444	***********	e i ette e e e e e e e e e e e e e e e e					OGIST TEM DATE 1/8/77 YSED BY Zine Corporation
Grid Co-ordinate	Sample		1 %	Comp	osition			Sa	mple		Bedro	:k		N	fetal Cor	tent in p	pm.		
	No.	Rock %	Organic	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	e-	Geological observations
Enmeter	647123	0	0	0	40	60	C	50	Br	<u> </u>	/	100		69	32	-1	39	90	Decomp. sittitone (?)
Brig	24	30	0	0	40	30	c	30	Br	_	/	60	18	62	19	<	33	90	Ditto
Traverse 1.	25	100	 -	-	<u> </u>	<u> </u>		_	6-8	~	_	<u> -</u>	17	83	34	١.	41	70	Corey brown silestone in road cutting
E-7W	26	100		-	 -	<u> </u>	-	_	Grey	V			17	48	11	د)	12	60	board arkose in cutting
	27	100		<u> </u>	 -		_		6- Br	V	_	_	12	74	24	د ا	26.	70	Ditt
·	28	100	-	<u> </u>	-	-	-		B165			_	440	134	55	41	8	50	V. whod carbonaceous giltations with Fe stain
	29	100		<u> </u>	-	-	-		Re Gr	V	-		190	23	44	()	4	30	Extremely will gossenous sitistone 5
	697130	10		0	50	40	C	40	8-		/	100	10	26	11	4)	12.	20	Decomp siltstone
	3 ₁	20		0	40	40	С	30	B-			100	10	38	13	٤)	17	30	Decomp. Fe-stained sitestone
	697133	10	0	0	40	50		30	Br	-	<u> </u>	50	2)	68	18	د]	30	70	Decomp sitistone
	69-7153	0	0	0	40	60	C	30	Br-	-	V	50	30	56	13	<	34	90	De comp Siltstone (?)
			7 -				\dashv								-				
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TENEMENT	Elemen E	L,	313 Pen	insul	la			AMDI	GEO!	CHEN	AICA	NL SC	AS LIK	MPLIN	NG LE	DGER			. No
PLAN REFE A 9006	RENCE 6	aou	rter.	1	50	000	Strat	t		· ····· W						***********			OGIST TEM DATE 1/8/77 YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	ositian			Şar	nple		Bedro	ck		N	Aetal Cor	itent in p	opm,		Charles All Charles And Charles
	No.	Rock %	Organic %	Sand %	Sift %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	N,	C-	Geological observations
Encounter Boy	697134	0	0	10	40	50	C		Br	_	/	100	13	21	7	41	10	10	Decomp. siltstone
Traverse 2	35	100	_	_	<u> </u>		_		B	1	_	_	12	48	15	<	26	20	Extremely willed arkose.
E-W	36	100	_	-	_			-	Br	V	_	_	27	38	50	<) ·	8	30	Extremely worked Fe-stained sellistence
Sample interval	37	100	_		-	_		-	Grey	1		_	10	86	24	<	30	50	Gray wacke
= 25m	- 18	100	-	-	-		-		Gray	1	_	-	17	83	16	< 1	36	70	Dittor
	39	40	0	0	40	20	C	30	Brown		V/	50	38	68	58		34	90	Decomp gilectone
in the second se	697140	10	0	0	30	60	_C	30	B	_	/	50	420	380	43		35	80	Ditto with some Fa stain
	41	100	-	_	_			-	Grey	V		-	ל	65	15	< 1	30	70	Grzywacke
	42	100	-					-	Gray	· /	_	-	7	56	15	41	24	50	Greywacke
	43	100		•••			-		60-B-	V		-	14	62	22	<	28	70	V. without greywacks
	44	100			-		$\overline{}$	-	Correy	/		-	10	88	25	د)	37	70	V. without sitistance
	697145	0	0	0	40	60	<u> </u>	30	Br	-	· /	50	30	73	32	1	39	90	Decomp silestone
														-					
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REA/PROS	Fleuriau PECT Fleur RENCE En	neu.	Pen	rin sk	Щ.,	••••••••	eet.	SAMP	LE Nos.	69	2714	6 .	 €		NG LE			GEOL	NO
Grid Co-ordinate	Sample			Comp	osition			Sa	mple		Bedro	.k		,	Metal Cor	tent in p	pm.		
	No.	Rock %	Organie %	Sand %	Silt %	Cfay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con. cealed	Est. Depth to		Zn	Cu	Ag	N:	Cr	Geological observations
counter bay	697146	100		_	-	-	-	-	Grey	1	-	-	7	94	21		26	70	
werse 3	47	100		_	_	_	-	-	Greek	1	-	-	17	70	8	1	30	70	Greywake
-> NW	48	100	_	-	_	_	-	-	Grey	V	-	_	3 46	76	15	1	32	70	Greywacke
ple internal	49	100		_	_		1		Gr-Br	1	-	_	16	65	8	<	32	70	Greymacke
25 m.	697150	10	0	0	40	50	C	30	Brown	-	1	50	19	36	13	4	26	70	D. J. W. 15
-	51	0	0	0	60	40	٧	30	B-		1	50	19	38	12	(1	34	90	De comp. silestone, part by Fe-staine
	52	160		_			-	•	Br gree	1	_		6	62	9	< \	26	70	Graywacke with miner Fe stain
	53	100	-	_		-	-	-	Grey	>		-	5	69	9	e1	32	70	Gregoracke with more to stain
	54	100		_	_	-		-	Grey	V			4	62	6		34	60	Gregoracke
	55	100		-	_	-			Grey	1	•	-	7	67	10	4)	32	70	Graywacke
	56	100		-	-	-		-	Gray	V	-	J	6	59	4	دا	30	50	Codynacka
	57	100		-				:-	Grey	V	_	-	_ 5	70	17	4	38	50	Fine grained grayworks
	58	C	0	0	40	60	C	40	Br	_	V	60	14	28	9	١	30	60	Decomp. silectore (?)
	59	100					_		Grey	V		_	7	70	13	1	32	70	Commacke
	697160	100		+		-			Gr. Br	V	_		320	56	17	4	28	40	Greywacks with grite interbeds.
							[Jone Manuer.
				-															
				37 30 30 30 30 30 30 30 30 30 30 30 30 30						gn.									
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	Flourieu						••••		GEO	CHE	MICA	L SC	DIL SA	MPLII	VG LEI	DGER		D.P.O	Page No
AREA/PROS PLAN REFE A 9006	SPECTFless RENCE <i>Gi</i>	nien Actor		enim. T	s.vle 1:50	2.000	She	AMPI et	444 A. C.	4 1 TO 1			to the second	4.7	17.3			GEOL	OGIST T.E.M. DATE 2/8/77 YSED BY Zinc Conformation
Grid Co-ordinate	Sample		Soit	Comp	osition	l e		Sa	mple		Bedro	ck			Metal Con	tent in p	pm.		
	No.	Rock %	Organic 9	Sand %	Siit %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con-	Est. Depth to	Pb	Zn	Cu	Ag	Ni	C-	Geological observations
Encounter	697/61	0	0	80	10	10	1	30	Grey	_	1	60	9	(0	6	4	1	(0	Decomp arkose (?)
Bay	62	0	0	0	40	60	Ċ	40	Br		1	60	41	41	12	۷,	28	50	Decomp sillistone
Traverse 14	63	0	0	80	10	10	C	40	Correy	_	1	60	7	12	8	4	4	20	Dicomp. arkose(?)
E-W	64	0	0	80	10	10	C	30	Grad	_	1	60	7	12	9	د ا	2	10	Ditte
Sample Interval	65	0	0	80	10	10	C	30	Grey		1	60	20	19	9	< \	7	10	"
= 25 m	66	0	0	60	30	10	C	30	Grey	_	1	60	13	14	8	4	4	10	a
*	67	100	-	-	_	-	-	-	Grey	V	_	_	14	76	8	4	28	70	Gregwacke with miner Fe stain.
1	68	40	0	0	30	30	<u>C</u>	20	Br	_	/	50	170	31	67	4	9	60	De cong. Fe-stoined silt stone
	69	100	-	<u> </u>		-	_	-	Grey	J			7	94	17	1	37	70	Covergnacke
ele Seguina	697170	100	-		<u> </u>	-	-	_	Grey	1	-	-	8	64	16	٤(26	50	Detta
	71	100	-	-	_	-	-	-	Grey	1	_	-	7	67	17	-۱	30	80	и
	72.	100	-	-	-		_		Grey	V		-	6	76	8	1	32	70	- II
	697173	100	-	-			<u> -</u>	_	Grey	~		-	6	46	4	1_	30	סל	Gregoraske with minor Fe stain.
									-										
							-				-								
				73. Walion 19.										100 m					
			-1				3-1									10	7		
		9,4 <u>9</u>	+																
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PLAN REFE	RENCE En	rikai. Kawa	Ker ter	uns:	ula 50 01	90 5	heet									*******************************	****	GEOL	OGIST TEM DATE 2/8/77 YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition)		Sai	mple		Bedroo	k		1	Aetal Co	ntent in p	pm.		
	No.	Rock %		Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
Tresentor	697174	100	Ţ	-	-			_	Grey	1	-	_	7	64	4		30	70	
Bay	75	100	<u> </u>			_	_		Coren	V		_	7	82	19	4	30	50	Ditto
Favere 5	76	100	_	-	ļ-	-	-		Correy	1	_	-	5	77	17	1	28	50	"
OF - INW	77	10	C	60	10	20	C	20	Brown	_	/	50	11	19	6	دا	11	30	De comp. greywacke.
ingli literal		100	-	-	-	-	_		GrlBr	V	-		-8	68	7	<	30	70	Gregoracke with minor to stain
= 25,	79	100	-		-		-		втец	V			5	80	9	c	34	50	
		100	-	-		_	-	-	Cores	V		-	5	65	7	-1	30	50	Arkogs with minor Fe stain
	81 82	100		_				-	Corky	V	-		_7_	72	12	-1	32	70	Greyworks
	83	100		-					Grey	0	=-	-	30	74	12	<	34	70	Date
		100	-	-			_		1-9.29	v	_		7	16	3	6	19	30	V. without partly Fe-strained grayword
							_		Trey			-		70	10	<)	32	60	Gregoricke.
												- 							<i>y</i>
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TENEMENT.	PECTF.L	urie	u Î	enin	sula.	••••••	S	AMPL	GEO(.E Nos.	HEN	MICA 17	L SC 185	IL SA	MPLIN 697/	IG LEI	DGER			Page No. 6 No
PLAN REFEI A 9006	RENCEEA	cou	rter	f.:	50	000	Sheet	******		41, <i>-</i>	•••••••	********		********			****	ANAL	YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedroc	:k		N	letal Con	tent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Рь	Zn	Cu	Ag	Ni	Cr	Geological observations
ncounter Bay	647185	100		_		-	_	-	Gr. Br		-	_	7	62	11	1	32	50	V wthod graywacke
Traverse 6	36	20	0	20	40	20	C	20	R-grey	-	1	50	12	19	3	4	11	30	Decomp. partly Fo-stained sandy silts
E->NV	87	100	_	<u> </u>	_		_		Grey	/	_	-	5	68	3	ا	30	50	Arkose
rample Interval	88	100	_	_		_	_	_	Grey	✓	_	_	7	83	7	1	37	70	Granwacke
= 25m	89	100	_	_	-		<u> </u>	_	Grey	/	_	_	10	62	7	4	30	70	Ditto
·	697190	100	_	_~		_	_		Grey	<u> </u>			7	59	3	(۲	26	60	io .
	91	100		-		-	-		Grater	<i>y</i>	-	-	1)	56	2	۷	28	80	Virtherd, partly Fe-stained graym
	92	100	_				_		Grass		_	-	2	40	2	4	25	50	Wilned arkose partly Fe-sturned
	93	100				-	_		Grlfr	V		-	7	56	4	-1	30	30	Ditto
	94	0	0	0	50		(20	R-Br		1	50	22	49	17	1	36	90	Decomp. Fe-stained silestone (?)
	697195	C	0	0	40	60	C	20	R-B	_	-/-	50	16	38	12	-1	30	70	Ditto
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TENEMENT.	Fleurian	E.L.	31	3	*********				GEO	CHEN	NICA	AL SC	IL SA	MPLIN	IG LE	DGER		DPO	Page No
AREA/PROS	PECTFks	uries	n P	enin	sula	k	S	SAMPL	_E Nos	•	69	719	ć —,	- 69	7206				OGIST T.E.M. DATE 2/8/77
PLAN REFE	RENCE	<u> con</u>	ntes	<i>1</i>	50	000	Shee	t	****		4			**********	(***********************			ANAL	YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition	r .		Saı	mple		Bedroo	ck		N.	Aetal Cor	ntent in p	pm.		
	No.	Rock %	Organic 9	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
Encousierbe	697196	0	0	0	50		C	20	R-B-		1	50	14	45	14	۲)	28	So.	Decomp Fe-stained silestone (?)
Traverse 7		0	C	0	50	1	С	20	Br	<u> </u>	1	50	12	42	10	×1	25	30	Ditto
SE -> NW	98	10		C	40	1	C	20	Br	 	1	50	15	40	9	< 1	21	20	Decomp. siltstone (?)
Sample Internal	99	0	0	0	40	60	C	30	β_r	-	0	50	24	50	15	د) .	23	40	Ditto
= 25m	697200	0	0	0	60	40	С	30	Br	 	1	10	24	45	17	41	26	40	rt.
	201	0	0	0		60	C	20	Br	 -	1.2	50	19	69	15	< 1	39	60	ν
	202	10	C	0	40	50	C	20	2		1	50	14	37	10	٤)	19	30	Decomp silestone with some gto rockchips
	203 204	20	0	10	40	30	C	20	Br-R	-	1	50	15	28	6	<u> </u>	17	30	Decomp Fe stained siltstone
		0	-	20	40	40	C -	3 1	Gren	-	-	50	12	21	8	۲)	10	10	Decomp sandy silestone
	205 697206	100 100	-	-	-		_		Grey				7:	61	6	۲)	28	30	Greynacke
	61/206	100	<u> </u>				-		Groy				7	67	8	۲)	30	40	Graywacke.
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AREA/PROS	Flewmen SPECT Flew RENCE E	rieu.	Pe	ning	ule		S	AMPI	LE Nos		697	207	DIL SA	69	7218			GEOL	Page No. 8 No. OGIST T.E.M. DATE 2/8/77 YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple	T	Bedro	ck		<u> </u>	Metal Con	tent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Sail Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	N.	C-	Geological observations
Encounter	697207	100		_			_	-	R-gre		_	_	24	19	9	<	11	40	Extremely wthod Fe-stained gillstone
Bar	708	100	_	_	_	_	_	_	Grey	1/		-	37	76	9		38	50	Silt stone
Traverse 8	209		_	-	_	_	_	_	R-gre	y /	_	-	65	28	35	4	8	50	Extremely without Fe-stained silvitone
SE-NW	697210	100	_	_	-	<u> </u>			Grey	1		-	12	77	8	<1	33	30	Partly Fe stained gillistone
Sample Interval	i .	100	-	-	ļ-	-			Grey	V.	<u> </u>	-	24	129	17	<u> </u>	28	50	Visited Fe-stained graywade with this gt v
= 25,2	12	100	-	-	-	-		-	R-grey	1	_	 -	24	56	S	<1	21	40	Extremely what Fel-stained silestone
	13	100	-	-	-	_	-	-	R-gray	1	_	-	22	72	33	e	33	50	Ditto
	14	100	-	_	_			_	R-gray	1	_	-	12	64	33	4	27	50	Ditto with thin gtz veins.
<u> </u>	15	100	-	_		_			Red		-	-	12	55	9	4	23	50	Ditto
	697217	(co		_	_				Br-grey		-	-	29	28	21		25	100	V. wethod Fe-stained granuacke
·		100	_					<u> </u>	Grey			<i>-</i> :	9	53	8	-	27	40	Greywacke))
	697218	100						<u> </u>	Gray	1	_	-	10	55	16	<	27	40	Greynoricke.
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TENEMENT. AREA/PROS PLAN REFEI A 9006	PECTFleu	rieu	. P	ensia:	sula		s	AMPL	E Nos.		69.7	219		MPLIN .697.2	30	DGER		GEOL	Page No. 9 No. OGIST TE.M. DATE 2/8/77 YSED BY Zinc Corporation.
Grid Co-ordinate	Sample		Soil	Comp	osition	negati.		Sa	mple		Bedro	zk .		N	fetal Cor	itent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to		Zn	Cu	Ag	N;	C+	Geological observations
Encounter	697219	0	0	1	1	1	C	30	Br	=	1	100	19	61	13.	1	36	80	Decomp. siltstone (?)
Bay	697220	0	0	0	50	50	C	30	Br		1	100	12	23	8	21	29	30	Ditto
Traverse 9	21	0	10	0	+	 	C	30	Br	-	/	100	19	52	16	E]	27	60	*
ENW	22			20		1	C	30	Grey	-	/	100	7	16	6	[c]	9	20	De comp. sandy giltstone
Sample Interval	23			1 -		40	C	20	BU	_	/	100	14	32	12	<	19	40	Decomp siltistorie with some attachips.
= 25,n.	24	0	0	0				30	R-Br	_	/	100	16	30	13	e	20	60	Decomp. Fe-stained sitestone.
	25	0	0	0	40		C	30	R-B-	_		100	16	50	15	1	32	90	Ditte
	26	0	0	0	50		С	30	R-B	-	1	100	22	28	21	21	38	100	tt .
	27 28	20		10			C		Grey		/	100	9	14	8	c	11_	30	Decomp sandy silestone with amor gto
		30	100	10				30			7	50	<u> </u>	14	9	<	В	10	Decomp sandy silestone
	697230			0		20 20		20	Great R		<i>J</i>	50	フフ	14	10	<1	34	10	Ditto with some gto rock chips.
	611270	TU	-	U	40	20		70	Tell-Br			50		18	32	-	34	50	Decomp. Fe stained sillstone.
A A																			
21 19												75.							

TENEMENT	Flennen	E.L.	313	3	*********	*********									IG LEI			DPD	Page No
AREA/PROSP												100						GEOL	OGIST TEM DATE 3/8/77 YSED BY Zine Corporation
A 9006 Grid Co-ordinate	Sample		Soil	Comp	osition			 	mple	T	Bedro				letal Con				
COOldinate	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Sail Hörizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Mi	(r	Geological observations
Waitpinga	697231	0	0	10		T	С	20		=	1	100	9	14	14	</td <td>5</td> <td>10</td> <td>Brome sardy silestone</td>	5	10	Brome sardy silestone
Traverse 1	32	0	0	40	40	20	C	20	Sorange		1	100	7	16	16	د ا	3	10	Ditto
SE -NW	33	0	0	10	50	40	С	20	Br	_	1	100	.16	45	20		26	70	"
Simple Interval	34	0	0	20	1		С		B	_	1	100	14	14	12	4	8	50	В
=25m	35	0	0	0		60	C	20	R-B-	-	0	100	9	35	15	دا	25.	60	Decomp siltistone with some Fe stain
	36	0	0	0	1 -	50	<u>C</u>		R-Br	_	1	50	16	11	12	<	5	40	Ditto
	37	0	0	0	40	60	C	20	Stonge		~	50	/2	13	9	<	9	20	И
	38	100	-	-			-		White	1	0	-	5	14	20	4	1	0</td <td>Grate Subonterop</td>	Grate Subonterop
	39	20	0	0	40	40	Ċ	20	fr 0		1	50	12	25	7	<	14	<i>3</i> 5	Decomp. Fe-stained sult stone
	697240	0	0		40	60	((20	Br	_	1	50	7	42	17	د ا	2.5	50	Ditte
	57/241	0	U	io	50	40		20	Br			50	5	21	24	۲	5	-10	Decomp. sandy silestone
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TENEMENT.	Fleurie	u E	<i>-</i>	313	**********				GEO	CHE	MICA	L SC	IL SA	MPLIN	IG LE	OGER		D P O	Page No
AREA/PROS	PECT. Fles	rieu	Pe	nins	ule		S	AMPL	E Nos.		697	242		6972	55				OGIST T. E.M. DATE 3/8/77
PLAN REFE	RENCE	rcou	nter		50 00	0 5	heet	•••••••	******	••••••	********		***************************************	**********	*******		••••	ANAL	YSED BY Zinc Corperation.
Grid Co-ordinate	Sample		Soil	Comp	osition			Sai	nple		Bedro	ck		,	fetal Con	tent in p	pm.		
	No.	Rock %	Organic %	% pues	Sit %	Clay %	Soil Horizon	Depth cm.	Colour	Outerop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
WAITPINGA	697242	40	0	0	40	20	C	20	品	_	/	50	9	23	15	4	13	20	Decomp Fe-stained silestone
Traverse 2	43	10	0	0	50	40	C.	20	Br	_	1	50	8	13	14	<)°	6	20	Ditto
SE -> NW	44	0	0	60	20	20	C	20	Sand Br	_	1	50	7	16	17	e [4	10	Decomp arkose (?) with some Fe stain
Sample Interval	45	20	0	0	50	30	C	20	Br	-	1	50	7	18	19	دا	5	10	Decomp siltstone with some Fe stein
= 25m	46	C	0	10	50	40	C	20	Br	-	1	50	12	28	8	4	18	50	Ditto
	47	0	0	0	50	50	C	20	Rod		1	50	21	18	8	د (8	40	Decomp. Fe-stained silt store
	48	0	0	10	40	50	C	20	Red	-	1	50	19	11	12	4	5	30	Ditto
·	49	C	10	0	50	40	(20	Br	-	✓	50	14	16	17	41	4	30	Decomp. siltatone
	697250	10	e	0	50	40	C	20	Br	-	V	50	14	13	13	۷ ا	6	40	Ditte
	51	C	10	0	50	40	<u>C</u>	20	Br	_	1	50	24	14	14	د ا	8	70	W .
	<u>52</u>	Ø	0	0	50	50	C	20	β ₋	•	1	50	9	9	6	4	5_	30	V
	5 <u>3</u>	10	C	10	40	40	<u> </u>	20	Br	+		50	19	11	11	4	6	90	4
	54	100		-	-			_	Red	1	-	. —	56	18	14	1	8	190	Gossanous (?) greywacke suboutcrop Gossanous siltitore suboutcrop.
	55	100	_		•		-		Red	V	_		45	16	16	_1	8	160	Gossarous silt store suboutcrop.
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AREA/PROS	Fleur PECT Fle RENCE Tor	uriei	e le	nin 5	ula	********	S	AMPI	LE Nos	6	972	56 -	7	MPLIN 69727	?/	DGER		GEOL	Page No. 12 No. OGIST TEM DATE 3/8/77 YSED BY Zine Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedra	:k		N	letal Con	tent in p	opm.		
7	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Рь	Zn	Cu	Ag	Ni	(r	Geological observations
Waitpinga	697256	100	_	-	_	_	_	_	Correy	1	-	-	5	85	26	< 1	56	50	Crenulated schiet
Travarse 3	57	60	0	0	30	10	c	20	Gren	_	1	50	7	61	8	c)	56	50	Decomp. 5 chist
N->5	58	0	0	0	80	20	C	30	Br	_	1	50	11	61	13	c (40	70	Ditte
Sample Intern	59	100	-	_		_		_	Grey	/	_		5	61	30	۲)	50	70	Silty schist
= 25m	697260	100		_	_				Gray	1	-	_	5	82	17	4	50	80	Silfstone
	6/	100	_	_	_		_	_	Grey	1		_	4	67	9	e	40	70	Sandy silts tone
-	62	100	_	_	_	-	-	-	Grey	1	-	_	7	79	1/7	<1	55	90	Silt schigt
	63	100		_=				-	Refre	<u> </u>	_	-	12	66	33	<1	10	70	Fe stained darkgray carbonaceous (1) with st
	64	100	_	-	_		-	_	Partigion		~	-	45	21	10	c	4	20	Darkgrey a bonaceous siltitine with some to
	65	100	-	-		-	_	-	Grey	1	_	-	5	220	10	1	28	90	Grey sandy giltstone
	66	100	-	_	-	-		<u> </u>	Grey	1	-	~	7	65	8	c	28	50	Micaceous sandy sellstone
·	67	100			-			-	Corey	1	-	-	7	86	13	د }	32	70	Sandy gilestone
· · · · · · · · · · · · · · · · · · ·	68	50	O	C	30	20	<u></u>	20	Br		\checkmark	.50	100	52	39	< 1	12	70	Decomp sohist with minor FE.
v	69	100	·	-	-	-	-		Gr-B-	1	-	-	7	63	9	<	29	Sa	Arkose
	697270	100	-	-	-	` `	_		Grey	1	-	-	5	69	6	c)	30	70	Greywacke
	697271	100		-	_	-		-	Gray	/	-	-	7	74	14	د	25	70	Corywacke.
Are a second				4 12	35 (4)				J										
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REA/PROSI LAN REFEI 9006	PECT FA	rren	u K	emins le 1	inda : 50	€00	s جمری	AMPL Æ	E Nos.	6	972	72-	······································	9728	6	*************	***		OGIST TEM. DATE 3/8/77 YSED BY Zine Corporation
Grid o-ordinate	Sample		Soil	Comp	osition			Sa	mple	1	Bedroc	k		М	etal Con	tent in p	om.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	N;	Cr	Geological observations
itzinga	697272	100	_	_	_		-	-	Grey		_	-	9	86	24	دا	54	70	Schiet
verse 4	73	100	_	_	_	_	-	-	Groy	1	_	-	6	74	18	<1	54	90	Schigt
-> 5	74	100	-	_		_	_		Grey	1	_	-	6	54	2.3	c)	52	70	Schict
aple Interval	75	100	-	-	<u> </u>			-	Grey	/	-	_	5	34	6	e i	41	70	Sillatore
= 25 m	76	40	0	0	40	20		30	Br	_	1	50	7	46	13	-1	38	60	Decomp. schist
· · · · · · · · · · · · · · · · · · ·	77	100		_	-	_	-	-	Grey	/	_	-	5	34	5	د ا	42	80	Siltistone
	78	100	-	-	-	-			Corey	1	-		5	16	8	<	46	90	Silestone
<u> </u>	79	100	-	_	-	1	-		Gr - 81	/	-	-	7	68	22	<u>دا</u>	48	70	Arkose
	697280	0	0	0	1	40	<u> </u>	30	Br	_	/	50	9	39	10	د)	34	70	Decomp. Silt Stone
		60	0	0	30	10	<u> </u>	20	Br		√	50	_7	39	8	<	38	70	Ditto
	\$2	0	0	0	60	40	C	30	B		√.	50	11	36	9	د)	32	70	H. Carlotte and the second second
	83	100	-				_		Grey	<i>V</i>		-	5	77	6	١	36	90	Greywacke
	84	100	_		10				Correy			, -	7	24	9	< 1	36	60	Ditto
	85 697286	0		0	60	40	<i>C</i>	30 -	Br'	-	_	50	10	44	13	حا	32	70	Decomp. silestone
	07/206	100						-	Correy	V			7	80	26	د ا	40	60	Soligt.
												-1							
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				J. 100	;														
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REA/PROS	PECT Fleur PENCE To	eu.	Penin	eulo	ţ	*******	S	Shei	E Nos	CHEN	69	1 SC 722	77 —	MPLII > 697	NG LEI <i>307</i>	DGER		GEOL	Page No. 4 No. OGIST TEM DATE 3/3/77 YSED BY Zinc Corporation
Grid O-ordinate	Sample		Soil	Comp	osition			Sa	mple .		Bedro	:k		٨	fetal Con	itent in p	pm.		
, , , , , , , , , , , , , , , , , , , ,	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Mi	Cr	Geological observations
ritpinga	697287	100	_	_			_		Grey	~	_	_	10	68	10	<u>-1</u>	28	70	Greywacke
averse 5	88	100	_	_	_	_	_		Rarea	V	_	_	64	12	47	4	4	30	Without carbonaceous sitestone with binomite pounds
->5	89	40	0	0	40	20	C	30	Br	_	/	50	11	77	14	4	34	70	Decomp. sittstone
uple laternal	697290	40	C	C	40	20	<u> </u>	20	Br		✓ <u></u>	50	15	69	17	4	20	50	Ditto
25m	91	0	C	0	70	30		30	Br		✓	60	15	59	19	c)	24.	90	D. Comments of the Comments of
	92	0	<u>C</u>	<u>C</u>	40	60	C	30	Br	-	V	60	29	68	26	د ۱	38	70	" (3)
	93	100	_					-	Grey	1	~	-	10	7/	10	4	31	70	Creywacks
	94	100		_					Corey	1		-	5	75	15	<	27	80	Ditto
	95	100		-					Grey	1		-	7	66	7	د ا	30	80	ie.
	96 97	100		-		_	-		Gray	1			7	74	9	<	28	80	
	98	100	_	_		_			orey	1	-	-	6	68	9	د	31	80	<u> </u>
		100	c						Coren			-	8	رد	39	< 1	23	90	H
	1000	190	_	0	60	40	C	20	Gr.Br	-	<u> </u>	50	12	44	23	c.	17	<i>5</i> 0	Decomp. grzywacke (?)
		100			_		_	-	Grey	<u> </u>			5	63	8	دا	27	70	Gregoracko dith minor Fe stain
		100	_	_	-1		_	-	Gorsey			_	5	60	18	دا	13	50	Codywacke
	303	100		-	-				Grey	1	_		<u>ン</u>	63	36	<u>دا</u>	81	50	Hrkosc
	. 304			-			-	_	Br			-1		7/	17		28	70	Crogwacke with minor Fe stain
	305		_	2-1	-	-	-	- 1	R-grey	1	-	-	350	86	11 44	c 	28	60	Withou granade with some Fe stain
	306	,	-1	-	-	_	_		70	1	_	=	7	19 96		6	3 27		Without gostanous grey carbonaceous substone with
	697307		_	-	-	-	-		B-	1	_	-	7	76	17	۷ ا	28	60	Without gramacke

AREA/PROS	Fleurieu PECT Fleu RENCE To	rieu	Per	nırşı	de		S								NG LEI 7 <i>320</i>	DGER		GEOL	Page No. 15 No
A 9006	TENCE	· · · · · · ·	7V.A		lf		······	······································		,	*********		************	************		••••••		ANAL	YSED BY Zine Corporation
Grid Co-ordinate	Sample	<u></u>	Soil	Compo	osition			Sa	mple		Bedroo	:k		٨	Metal Con	tent in p	ipm.		
	No.	Rock %		Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
Waitpinga	697308	100	_		_	_		_	Gray	V	-	_	6	54	14	<)	20	70	Arkone
Traverse (309	100		_	_	_	_	-	Grey	1	_	-	7	63	15	د ا	30	50	
N->5	697310	100	-	<u> </u>	-			_	Grey	1	_	-	7	63	17	< 1	18	50	Misseon sandy silestone
		100		-	 -		_	-	Grey	1	_	-	9	60	17	<u>-1</u>	27	70	Dieto
	12	C	C	C	60	40	(30	Br	-	V	50	12	29	21	د ا	15.	50	Decomp 5 lestone
	13	100		_	-		<u>-</u>	_	6-8	1	-	-	7	60	19	c	29	70	What sandy silestone sub of with minor Fe st
	15	100		-				 	Gr-Er		-	-	5	63	12	c)	30	70	Sondy gilestone
	16	40		C	40	20	С	30	Br	-		50	11	86	35	د)	41	70	Decomp. Contonaceous (?) siltstone
	/E	100		-	_	-		_	Grey	7		-	7	68	13	۲	29	50	Corenacke
	18	100		_	-	_		_	Grey	~		-	2	66	20	<u> </u>	24	50	Ditto
	19	100 30	0	0		-			orey.	V			10	80	15	دا :	34	70	,
	697320		1	-	40	30	<i>C</i>		R-R	7		50	10	54	17	(2)	29	50	Decomp Fe-stained siltstone Grzywacke
·	0 1 1 120	/00					-		Grey		_		7	77	15	د ا	30	70	Grzywacke.
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AREA/PROS	Fleurieu SPECTFle RENCETo	ucies	u Pa	enio	sula	5.50	000	SAMPL	The State of the Control of the Cont	The same of the sa		1000			IG LEI			GEOL	Page No. 16 No. OGIST TE.M. DATE 4/8/77 YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sa	mple		Bedroc	:k		N	Metal Con	itent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
Waitpinga	697321	100	<u>' </u>	_	_	-	_	-	Grey		-	-	4	71	19	41	30	70	Corrywacke
Traverse 7	22	20	O	0	50	30	(30	Br	_	1	50	10	55	20	٤١	34	70	Decomp, partly Fe-stained wiltstone.
N->5	23	100	_	-			_	-	Grey	/		-	5	74	64	c	36	93	Silt stone saboutcrop.
Sample Interne	24	100	<u> </u>	_	_	_	_		Pint gre	V	_	_	5	68	18	(ع	42	70	Micaceons silestone with minor to star
= 25m	25	50	0	0	25	25	C	30	Br	<u> </u>	1	50	lo	83	25	د ۱	50.	90	Ditto, decomp.
	26	60	6	0	20	20	C	40	Br	L	1	50	15	72	34	e	48	70	Decomp . Fe - stained schiet.
-	27	20	0	0	40	40	C	30	Br		1	50	10	46	17	4	23	30	Ditto
	28	0	0	0	60	40	6	30	Br	_	~	50	12	68	19	د ا	42	90	Decomp schist
	29	0	0	0	50	7	C	30	Br	_	1	50	15	80	24	4	36	90	Ditto
	697330	0	0	0	60	40	c	30	Br	-	1	50	28	52	13	د ا	17	30	n (3)
	31	100	-	-	I	_	-	_	Corsey	~	_	-	״	63	13	e	25	70	Sandy Silestone
	32	20	0	0	40	40	C	30	BJ	_	1	50	26	63	28	c)	1)	90	Dr comp Fie-stained silestone
V :	33	30	0	0	40	30	C	30	Br	_	1	.50	15	42	12	<1	2]	30	Decomp siltstone
	34	40	0	0	40		С	20	Br	-	/	50	15	23	2)	-(27	50	Decomp Phyllite with minor Fe stain.
	35	0	0	10	40		C	20	Br		1	50	15	25	10	* 1	13	30	Decomp. I gardy silestone
	36	20	0	10	40	30	C	20	B-		V	50	10	72	26	د١	36	70	Decomp. graywacke
	37	100	+			-	•	-	lovey	1	+	-	7	79	17	* 1	34	70	Gregwarke
	. 38	100	-	است			_	-	Grey	✓	-	-	7	70	17	` (۷	33	70	Grozwaske
	39	100		الاستقالة		-	- -	= 1	or for	· V		-	6	64	14	دا	34	70	Microsony greenacke with minor Fe stain
	697340	100	-	· • •	•				Grey	1	-	_ [7	56	<i>2</i> 2	۱۷	34	70	Coremacke
	697341	100	_	-			-		Grey	1	-	- 1	6	68	15	دا	34	70	Greywacke.

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Grid Co-ordinate	Sample		Soi	I Comp	oosition			Sa	mple	Π	Bedro	ek	F		Metal Cor	tent in p	pm,		
oo o o o o o o o o o o o o o o o o o o	No.	Book &	Organic %	Sand %	Siit &	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- ceated	Est. Depth to	Pb	Zn	Cu	Ag	N,	C _r	Geological observations
Waitpinga	69734	2 10	v -			_	_	_	Grey	1	<u> </u>	-	11	110	17	4	34	70	Coraywacke
Traverse 8	4	3 100	2 -	1-	<u> </u>		_	_	Grey	/	_	-	10	61	17	<u> </u>	25	70	Pitto
N→5	44		0 -	- -	 -	_	_		Cor Br	/	_	-	10	64	13	<	32	50	Whod graywacke
Sangele Interval	45			+-	 -	-		_	Grey	1	-	-	7.	67	14	<u> </u>	32	50	Whod graywacke.
= 25m	46	1		+-	-	-	-	1	Grey	1	-	<u> </u>	7	64	17	4	27	50	Ditto
- , -	48	100		+	-				Grey	1	-	_	7	61	19	c)	27	80	Sandy sile stone
	49				+-	-	_	-	Grey	-	=	_	7	61	15	- c	27	50	Gresmacke
	697350				1-	_		_	Corsey	1	_	-	10	72	21	<u> </u>	36	50	Ditto
	<i>- 1 10</i>								Corsey							-1-	30	70	Arkose.
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AREA/PROS	PECTF.len	rier	<u>. 74</u>	min.	sula	·	., S									an Dar Melek			No
PLAN REFE A 9006	RENCETa	ar.Po	2 b	ale	1:	50	000	5ke	et		•••••••					************	••••		YSED BY Zine Cosporation
Grid Co-ordinate	Sample		Soil	Comp	osition	1		Sa	mple		Bedro	sk		N	1etal Con	tent in p	pm.		
	No.	Rock %	Organic 9	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outerop	Con- cealed	Est. Depth to	Pb	Zn	Си	Ag	Ni	Cr	Geological observations
Waitpinga	617351	100	_	_	-	-	_	-	Gray	1	_	-	14	94	29	<	54	20	Gran Contract count?) with at whethite
Faverge 9	52	100	_		_	_		-	Grey	1	_	-	10	98	30	۲)	52	90	Brey carrona cound? without phyllite
N75	53	100		_	_	_	_	-	Grey	1	_	_	7	100	22	< 1	50	110	Phyllite
Sample Interval	34	100				_	-		Grey	V	_	_	10	48	14	e)	56	90	Pla llita
$=25_{\rm m}$	55	60	0	0	30	1.0	c	30	Br	#	✓	50	(8)	56	24	د	45	60	Decomp. Phyllite
	56	100	<u> </u>	_	<u> </u>	_	-	_	R-grey	1		***	52	82	140	4	16	70	Gossanous beceived silt stone
	57	100	_	_	_		-	-	Gren	1		_	12	64	21	4	20	60	Gregnacke
<u> </u>	58	100	_	<u> </u>	-		-	-	Grey	V		_	15	67	15	<]	25	70	Ditto
 	59	100	_	_	-			-	Gray	V		-	10	76	22	دا	2)	50	A
	697360	100	_	-			-		Grey	/		-	5	31	13	С	25	So	(f
	697361	100	-	-	-	_	-		Corey	1		-	12	91	3>	c)	32	70	n.
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PLAN REFEI	RENCE Tex	7.9.1.5	Va	le		50 O	S	AMPL	E Nos.		I.d.,:	20.4.		67	/ 2.07 	*******	·····	GEOL ANAL	OGIST T.E.M. DATE 4/8/77 YSED BY Zine Corporation.
Grid Co-ordinate	Samole		Soil	Compi	osition		<u> </u>	Sa	mple		Bedroc	:k		- N	fetal Con	tent in p	pm,		
	No.	Rock %	Organic %	Sand %	SII &	Clay %	Sail Horizon	Depth cm.	Colour	Outcrop	Con. cealed	Est. Depth to	Pb	Zn	Cu	Ag	N:	e.	Geological observations
Waitpinga	697362	100	L	_	-	_	-	-	Grey	Į	_	1	6	64	20	~1	52	90	Phyllite with a whole For disseminations
Traverse 10	63	100	_		_	_	-	_	Gray	4	-	,	9	85	44	c	54	70	
NW-SE	64	100			_	_	-		Corey	1	-	_	9	103	34	د ا	34	110	Phyllite. Ditto
Sample luterval	65	100	_	_	-	-	-	-	Grey	<i>V</i>	_		7	72	28	دا_	48	70	u .
= 25m	66	0	10	0		50	В	20		-	V	80	12	56	15	=	26.	30	Decomp Plyllite (?)
	67	0	0	0		50	В	20		-	· V	80	15	64	15	-1	26	40	Decomp. Plythite (?) Dittor
		100		-	-	-	-	-	Correy	/			8	76	19	=1	26	50	Greywacko
	697369	160	-	_	-		-	-	brey	V		-	10	70	16	<	23	60	Coreywacke.
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90,48 of 700 * 100 #																			
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A 9006		ren	s Va	erun	sula 1: 1	50 000	S		.E Nos.	6	97	370	<u> -> ر</u>	6973	80	DGER	······	GEOL	No
Grid Co-ordinate	Sample		Soil	Comp	osition			Sai	mple		Bedroc	k			fetal Con	tent in p	pm,	-	,
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	con-	Est. Depth to	Pb	Zn	Cu	Ag	N.	C.	Geological observations
Waitpinga	697370	20	0	0	1 .	1	C	30	Pr	_	1	50	18	18	16	4/	1.6	50	Decomp silectone with minor Fe stain
Traverse 11	71	100	_	↓-		-	_	-	Correy	V	_	-	7	88	20	< 1	32	70	Greywacke
SE + NW	72_	0	0	0	30	70	C	30	B	_=	Ų.	80	20	43	19	٠	25	20	De somp silestone (?)
Sample Insural	73	100	_	_	<u> </u>		_	_	Reney	V	-	_	7	72	18	-1	30	70	Micacous sile stone with some Fe stain
= 25,	74	0	0	0	40	60		30	R-	-		60	23	53	22	4	27	90	De comp. silestone
	75	0	0		50	7	C		R-Br		J	60	15	13	13	c	7	30	Ditto
	76	20	C	0	40		(30	Br-R		v.	60	14	18	13	<u>- </u>	6	10	Ditto with Festain.
	77	10	O	0	40	50	6	30	Bo		J	50	14	32	9	c)	19	50	Decomp. silestone
	78 79	100			-	_			Grey		-	-	7	82	22	41	34	70	Greywacke
		10	0	10	50			40		-	- / l	80	12	16	13	-1	5	(0	De lomp grannacke
	697380	0	C	20	60	20	C	30	hle ga		<u> </u>	50	6	21	20	4	3	ಎ	Ditto
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TENEMENT Fleurien E. L. 313 GEOCHEMICAL S AREA/PROSPECT Fleurien Peringula SAMPLE Nos. 6973													IL SA	MPLIN	IG LÉC	OGER		D P O	Page No. 21
AREA/PROS	PECTFlee	ula		S	AMPL	E Nos.		697	138	, 	6973	391				No			
PLAN REFE A 9006	RENCETo	r Pr	y Va	rle	15	50 00	e 5	heet	•••••••••••		•		•		*************	······································	••••		YSED BY Zinc Corporation
Grid Co-ordinate	Sample		Soil	Comp	osition			Sar	mple		Bedroo	.k		٨	letal Con	tent in pr	om.	-	
	No.	Rock %	Organic 9	Sand %	Silt %	Clay %	Soil Horizon	Depth cm,	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	Cr	Geological observations
Waitpinga	697381	0	0	0	60	40	C	20	R-Br	_	V	100	15	40	12	4	22	50.	Decomo Fo-stained giltstone
Traverse 12	82	10	0	0	40	50	C	20	R-B-	_	1	100	11	35	14	د ا	14	<i>3</i> °	Pitto with some ste rock chips.
SE -NW	83	0	0	0	40	60	C	20	R.B.		1	100	25	82	22	<	30	70	Decomp Fe-stained site stone (?)
Sample Interval	84	0	0	0	40	1	<u>C</u>	20	Br	_	1	100	31	72	35	c	23	70	Decomp gilestone (?)
= 25 m	85	10	0	0	40	50	C	20	Br		1	100	15	48	19	4	16	30	Ditto with some gle rock ships
	86	0	0	0	60	40	(20	Bo		1	100	12	50	17	دا	2.3	30	Decomp gilt stone (4)
	87	10	0	0	40	50	<u>C</u>		R-B-	_	1	100	26	So	16	-	21	50	Ditto with Festain and Gome ate chips.
	88	20	0	0		40	<i>C</i>	20	R-br	-		100	14	32	22	e í	9	10	Ditto
	89	0	0	30	40	30	· C		Grey		/	100	10	23	77	دا	5	10	Decomp sandy silt stone (?)
	697390	2.0		20		30	C.	20	- 1		/	100	20	40	36	د	_7	10	Ditto wich some gts rock chips. Decomp sandy silkstone.
	697391	0	0	10	40	50	C	20	Br		/	100	23	32.	25	د)	11	30	Decomp sandy silestone.
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Grid Co-ordinate	Sample		Soil	Comp	ositian	•		Sa	mple	Γ	Bedro	ck			Metal Cor	itent in c	oom.		
oo or dimate	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Си	Ag	Mi	Cr	Geological observations
Waitpinga	697392	1	10	0	30	60	C		Orango	-	/	100	18	21	11	<1	11	60	Decomp. Silvstone (?)
Traverse 13	93	20	0	0	40	40	C	20	Brown		/	100	31	23	17	4	13	90	Ditto with some ofte rock chips
SE-NW	94	0	10	0	40	50	C	20	Or-Br	_	/	100	16	25	19	< 1	12	30	Decomp. silestone
Sample Interval	95	30	0	0	40	30	C	20	Brown		/	100	12	40	9	4	21	50	Decomp Fe stained graywacke
= 25m	96	0	0	0	40	60	c	20	Grey	_	/	100	18	61	20	cj	30	70	Decomp silestone
· · · · · · · · · · · · · · · · · · ·	97	0	10	0	40	50	c	20	Brown	-	/	100	12	35	12	<	21	30	Ditto
·	98	0	0	0	40	60	C	30	Br		/	100	18	42	30	e/	30	70	Decomp. schiet
·	99	0	10	0		50	C	20	Br	-	V	100	12	30	13	٤)	30	50	Ditto
	697400	0	0	0	40		C		OB-		/	100	1)	32	15	=}	2)	40	Decomp sitestone (?)
	401		0	0	40		C.		Or-Br		<i>J</i>	80	12	50	15	4	28	42	
	697402	0	10	0	40	50	C	30	Or-B	-	/	ios	11	42	20	<	18.	30	Decomp Fe-stained grayworke Decomp Fe-stained silestone(?)
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Grid Co-ordinate	Sample		Soil	Comp	osition			Sai	mple		Bedroc	k		IV	letal Con	tent in p	pm,		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con- cealed	Est. Depth to	Pb	Zn	Cu	Ag	N:	er	Geological observations
Waitpinga	697403	0	0	0	40	60	C	20	1	_	1	100	15	42	14	٤1	26	90	Decomp. siltstone
Traverse 14	404	0	10	0	40	50	<u>C</u>	20	B	_	V	100	22	46	23	ţ	25	90	Ditto
SE >NW	405	0	0	0	40	60	C	20	or br	_	1	100	15	12	3	c	1)	50	н
Sample Interval	406	0	0	20	40	40	C	20	Br	_	1	100	12	11	11	41	6	40	De como sandy silts tone
= 25m	407	0	0	0	40		C		Orange	-	/	100	18	13	9	c	9	90	Decomp sandy silts tone Decomp. Fe-stained silestone
	408		0	20			C	20	Gray		1	50	36	11	8		11	210	Decomp graymacke with some Fe stain
	409		0	0	40	60	C		Grange	_	. 🗸	60	14	16	8	e)	12	90	Decompo Fo- stained gilt & tone (?)
	697410	0	0	0	40		C	30	Crange	- -	V	100	20	16	10	د)	9	90	Ditto
	11	0	0	0	40	60	<i>c</i>	30	Grange	-	V	100	28	29	9	1	21	90	16
	12	0	0	0	40	60			Crango	- /	V	100	22	39	15		25	70	"
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Grid Co-ordinate	Sample		Soil	Comp	osition		$\overline{\Gamma}$	Sa	mple	7	Bedro			 -	Aetal Cor	itent in c	opm.	ANAL	13EU BY -one Corporation.
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outcrop	Con.	Est. Depth to	Рь	Zn	Cu	Ag	N.	Cr	Geological observations
Waitpingar	697414	100		-	_		_		Grey	1	-		7	74	25	<1	35	90	Corennacke
Travesse 15	15	100	_	_	_	_	_	-	Conzy	1	_		2	86	34	<	34,	70	Ditto
SE-NW	16	100	-	_		_			Gray	1	ļ —	-	15	49	14	e/	30	70	Micaceous gilt stone
Simple Interval	17	100			-			-	Correy	1	_	-	10	86	21	e/	37	70	Ditto
= 25m	19	100	_	-	-		_		Gray	V	 -		10	68	18	e/	28	80	Siltstone with minor Fe stain
	697420	100		_	_	_		-	Grey				7	80	26	- 21	3)	70	Gragwacke
	21				_				Trey	-	 			60	19	()	21	70	Arkose
	22	100					_		Grey	V		-	7	57	24	د ا	17	70	Ditto
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	25	100	10	0	40	70	<i>C</i>	20	or		V	50	12	21	13	41	17	70	Decomp greywacke? with some Fe stein
	697426	100		_			_		R-gray	V		_	2	2)	28	- 41	3	10	Gossandus situtone 3 us DE assoc vid 9 to
		160						<u> </u>	R-grey					14	10.	دا	3	10	Gossanous affaite sub of associated with offer vein
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Grid Co-ordinate	Sample		Soil	Comp	osition	1		Sa	mple		Bedro	:k		N	fetal Con	tent in p	pm.		
	No.	Rock %	Organic %	Sand %	Silt %	Clay %	Soil Horizon	Depth cm.	Colour	Outerop	Con- sealed	Est. Depth to	Pb	Zn	Cu	Ag	Ni	C+	Geological observations
ut pinga	697427	0	0	0		70	C	30	Vell-Be	-	V	100	17	19	10		20	90	D. Chat (2)
w2-52 16	28	0	0	0	30	70	C		Vell-Br		V	100	17	19	9	2)	22	90	De comp Silt stone (?!
= 5 →N	29	0	0	0	30	70	C	1	Vell-Br	1	1	100	17	20	/2	1	20	 	
mple Interval	697430	10	0	0	30	60	C				/	100	19	9	4	cl	14	100	" with some q to chips De comp silt stone (?) Ditto
25m	31	0	0	0	40	60	C	30	Vell-Br	-	V	100	15	16	8	-1	17	90	De come que chips
	32	0	0	0	40	60	(V M-Br		V	100	17	1/	6	د)	13	90	Ditta
	33	0	0	0	40	60	C		Yell-Br		V	100	16	14	6	c1	15	90	ii ii
	34	10	0	0	30	60	C	30	R-164	-	1	100	15	14	6	e	17	90	u .
	35	0	0	0	40	60	C	30	Yellow	-	V	100	15	16	8	41	15	90	4
	36	a	0	0	40	1	C		Yellow	-	/	100	15	14	10	4	12	80	6
	697437	0	0	0	40	60	C	30	Kell-Br	-	V	100	18	12	3	دا	15	90	· ·
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(INC. IN N.S.W.

95 COLLINS STREET, MELBOURNE, AUSTRALIA 3001

P.O. BOX 384D

TELEPHONE: 63 0491

TELEGRAMS: "CONRIO"

TELEX AA 30108

28th February, 1978.

The Director of Mines, P.O. Box 151, EASTWOOD, S.A. 5063

 \bigvee

Dear Sir,

E.L. 313 - Fleurieu, S.A. Report for the Quarter Ending 21st January, 1978

Please find attached a report by D. O. Mason entitled "Third Quarterly Report on Fleurieu E.L. 313, South Australia" dated 17th January, 1978.

Results in this exploration licence are disappointing to date. The prospective pyritic horizons within the Brukunga Formation are not well developed and the results of our geochemical survey are, for the most part, disappointing.

Expenditure for the period ended 31st January, the nearest accounting period, amounted to \$3,547 comprising:

Salaries	\$736
Wages	144
General Supplies	182
Assaying	2,108
General Overheads	377
	\$3,547

Yours faithfully,

SAF: jm

for:

J. Collier

General Manager

QUARTERLY REPORT ON FLEURIEU E.L. 313
SOUTH AUSTRALIA FOR PERIOD ENDING 21.1.78

AUTHOR:

D. O. MASON

DATE:

17TH JANUARY 1978

SUBMITTED TO:

G. D. KLINGNER

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		Page
1.	SUMMARY & INTRODUCTION	1
2.	CONCLUSIONS & RECOMMENDATIONS	1
3.	GEOCHEMICAL SOIL SAMPLE STATISTICS	1
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1. SUMMARY & INTRODUCTION.

This report summarizes the work conducted on Fleurieu E.L. 313 during the quarter ending 21st January 1978. This work largely comprised a statistical treatment of results from the regional soil sampling programme conducted over pyritic units of The Brukunga Formation within E.L. 313.

The statistical treatment pinpointed the only promising area near Newland Hill as previously reported. Further soil sampling will be conducted within the area.

2. <u>CONCLUSIONS & RECOMMENDATIONS</u>.

Statistical treatment of the soil sampling results confirmed the visual examination that suggested overall low base metal values in the Brukunga Formation metasediments in E.L. 313. Two samples in The Hundred of Encounter Bay appear to be the most promising with peak base metal values of 440 ppm pb, 134 ppm Zn, 55 ppm Cu, and 420 ppm Pb, 380 ppm Zn and 43 ppm Cu. These values are the best obtained in E.L. 313 but are low compared with base metal values over pyritic units elsewhere in the Kanmantoo Trough.

It is recommended that further soil sampling be done in the vicinity of these traverses to try to improve upon these base metal values.

3. GEOCHEMICAL SOIL SAMPLE STATISTICS

A statistical treatment has been conducted on the results of soil samples collected during the regional soil sampling programme. It was found that every second sample could be used in this treatment and give very similar results to those received when every sample was used.

Where histograms of the raw data were highly skewed, more meaningful results were achieved by converting all data to a logarithmic base. This method gave results showing approximately normal distribution of data on the histogram and thus a realistic mean and standard deviation could be calculated. The data

was classified into groups based on standard deviation values.

The mean, standard deviation, and the five groupings of values have been calculated for Pb, Zn, Cu, Ni, Co, Cr and Mn. (Table 1.)

The distribution of all samples grouped in these five intervals has been examined within the area of the Fleurieu E.L. The only pattern that emerged as being anomalous was in the Hundred of Encounter Bay where base metal highs occur on traverses 1. and 2. This area will be followed up by further soil sampling.

REFERENCES

Nichol I. 1977 Notes for C.R.A.E. Geochemical Workshop.

KEYWORDS

Locality Barker Sl 54-13.

Kanmantoo Group, lead, zinc, copper, metasediments, geochemistry soil sampling, statistics.

LIST OF ATTACHMENTS

Table 1.

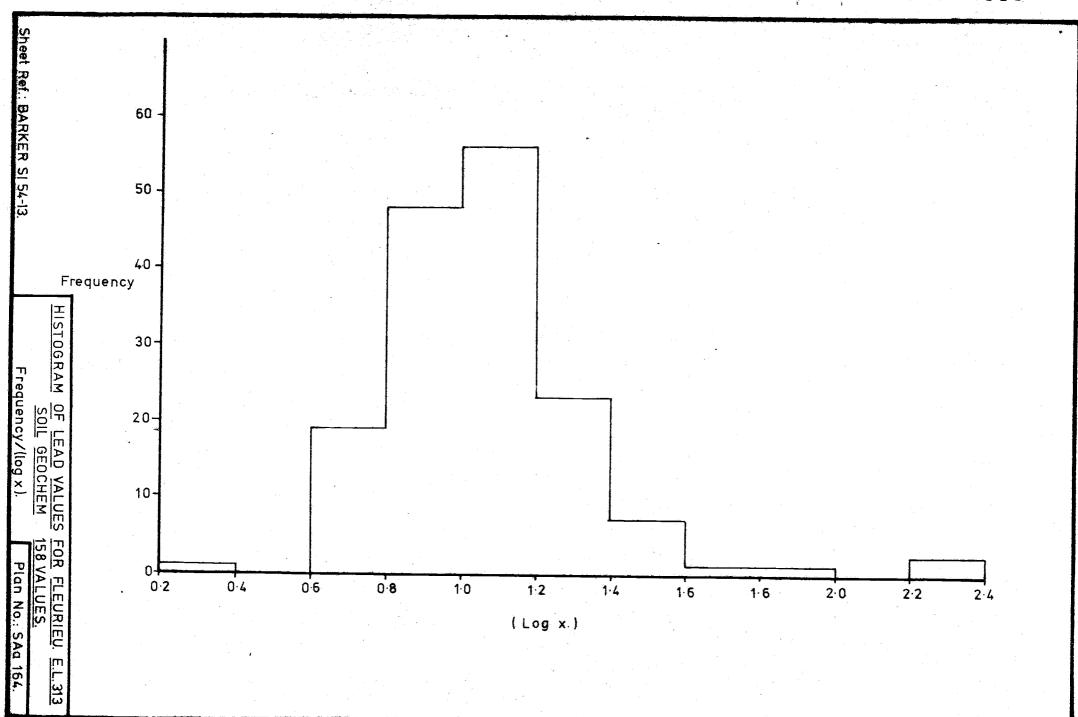
Plan	No.	SAa	164 -	Lead Histo	gram
			165	Zinc	Ŭ#
*			166	Copper	11
			167	Nickel	11
			168	Cobalt	31
			169	Chromium	11
			170	Manganese	

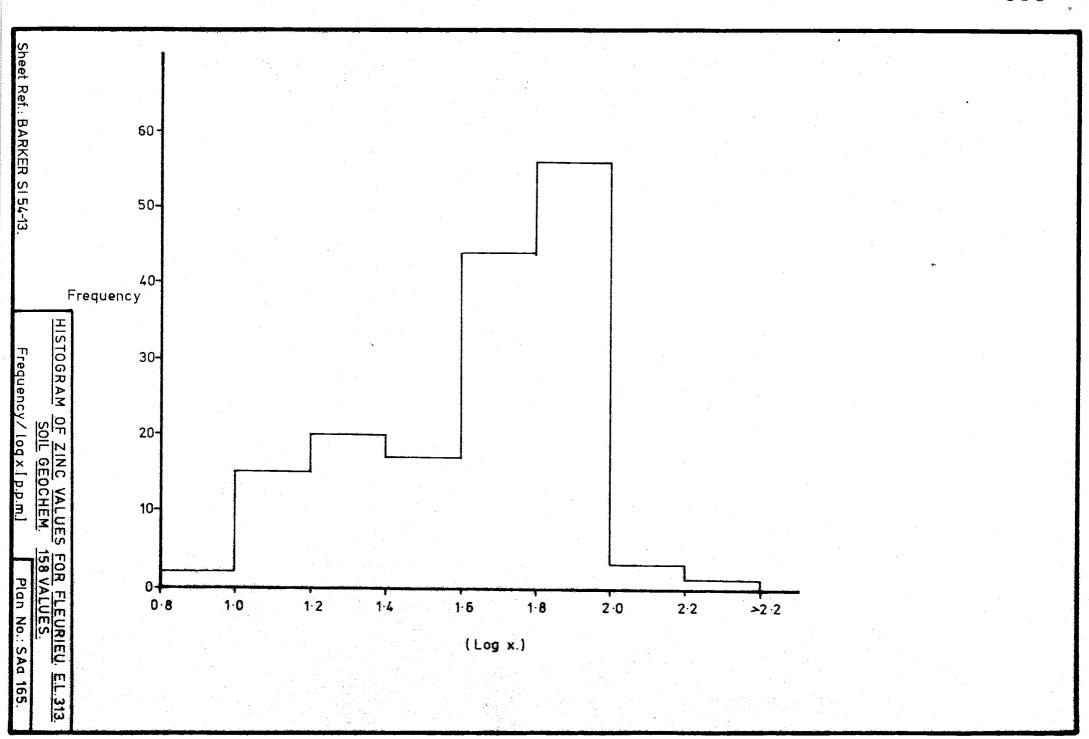
D.O. Moron

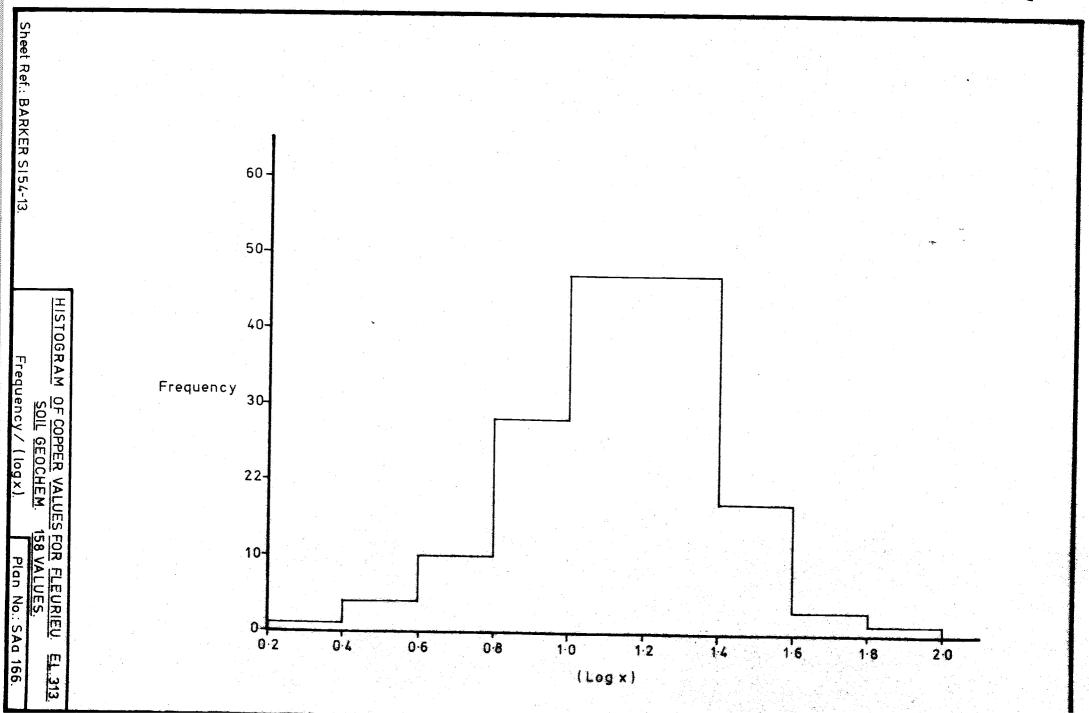
D. O. MASON

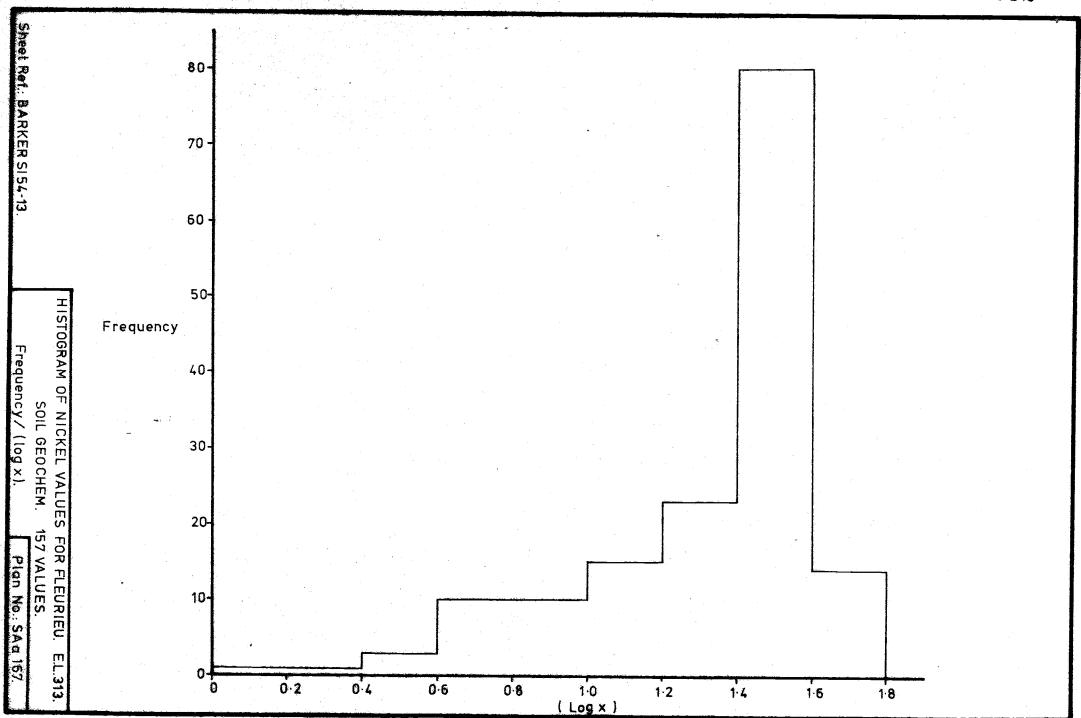
TABLE 1.

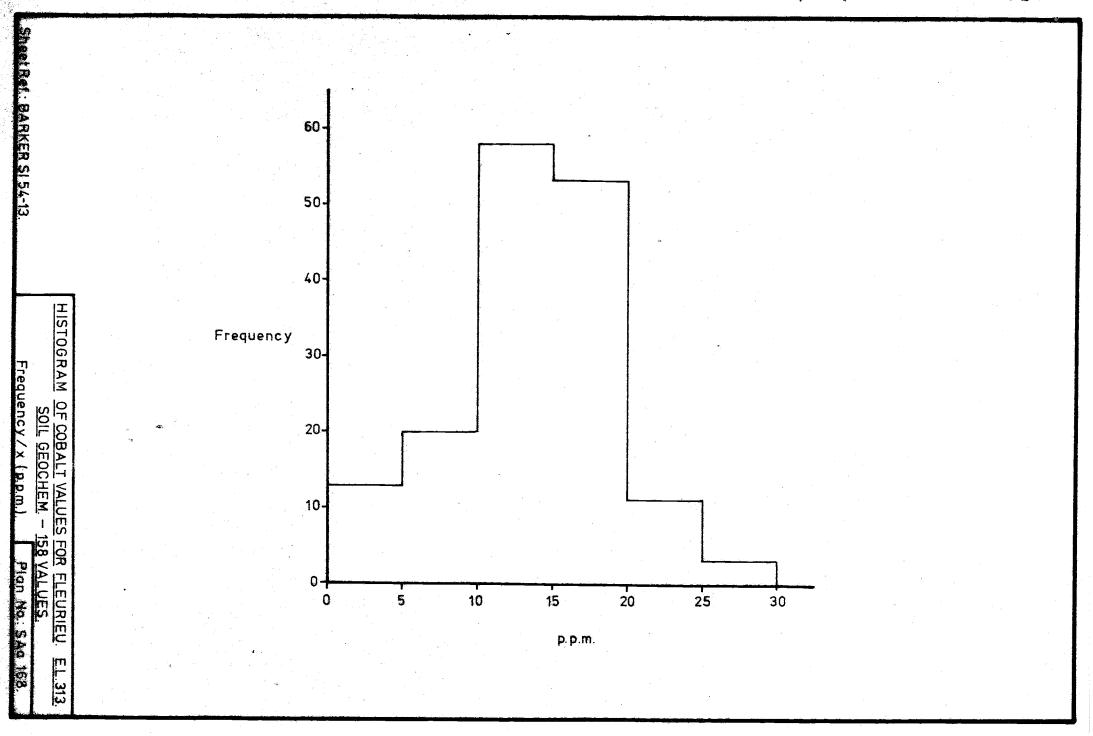
	Pb		Zı	Zn		Cu		Ni			Cr		Mr	1
	log	ppm	log	ppm	log	ppm	log	ppm	log	ppm	log	ppm	log	ppm
Mean	1.04		1.64		1.14		1.33			13.7	1.72		2.37	
"S.D.	0.27		0.29		0.27		0.31			5.45	0.25		0.43	
x - 2SD.	0.50	3	1.06	11	0.60	4	0.71	5	1	3	1.22	17	1.51	33
\bar{x} - S.D.	0.77	6	1.35	22	0.87	7	1.02	10		8	1.47	30	1.94	87
x	1.04	11	1.64	44	1.14	14	1.33	21		14	1.72	52	2.37	234
$\bar{x} + S.D.$	1.31	20	1.93	85	1.41	26	1.64	44		19	1.97	93	2.80	6.31
$\bar{x} + 2SD$.	1.58	3 8	2.22	166	1.68	48	1.95	89		25	2.22	166	3.23	1698

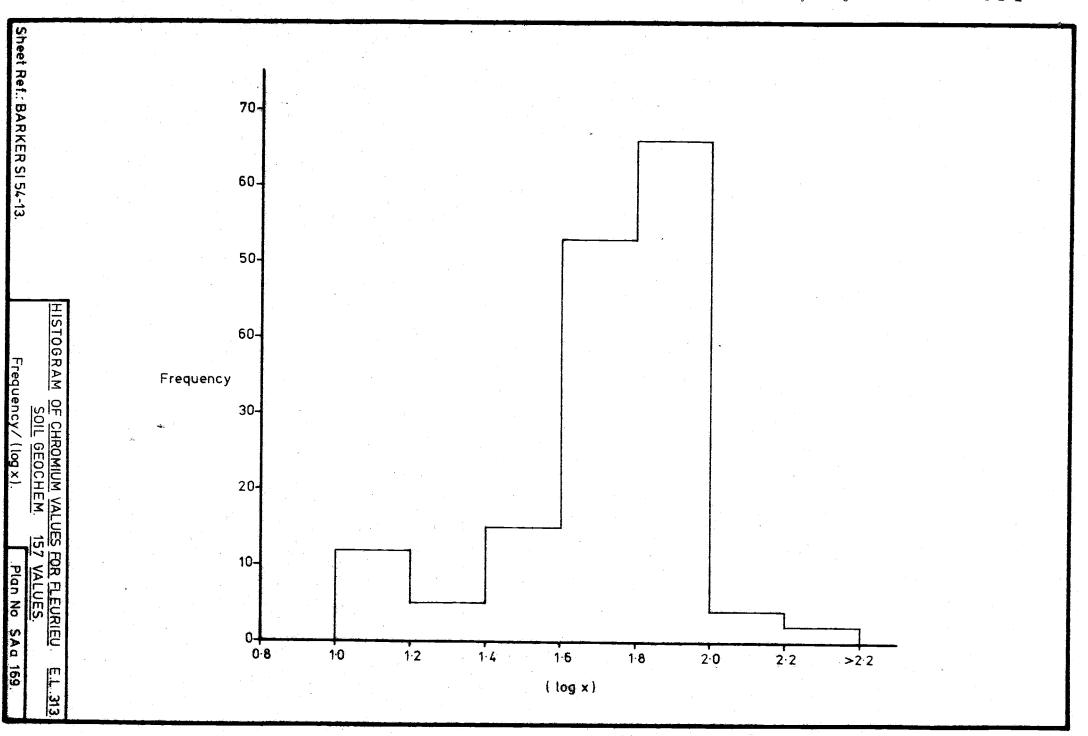


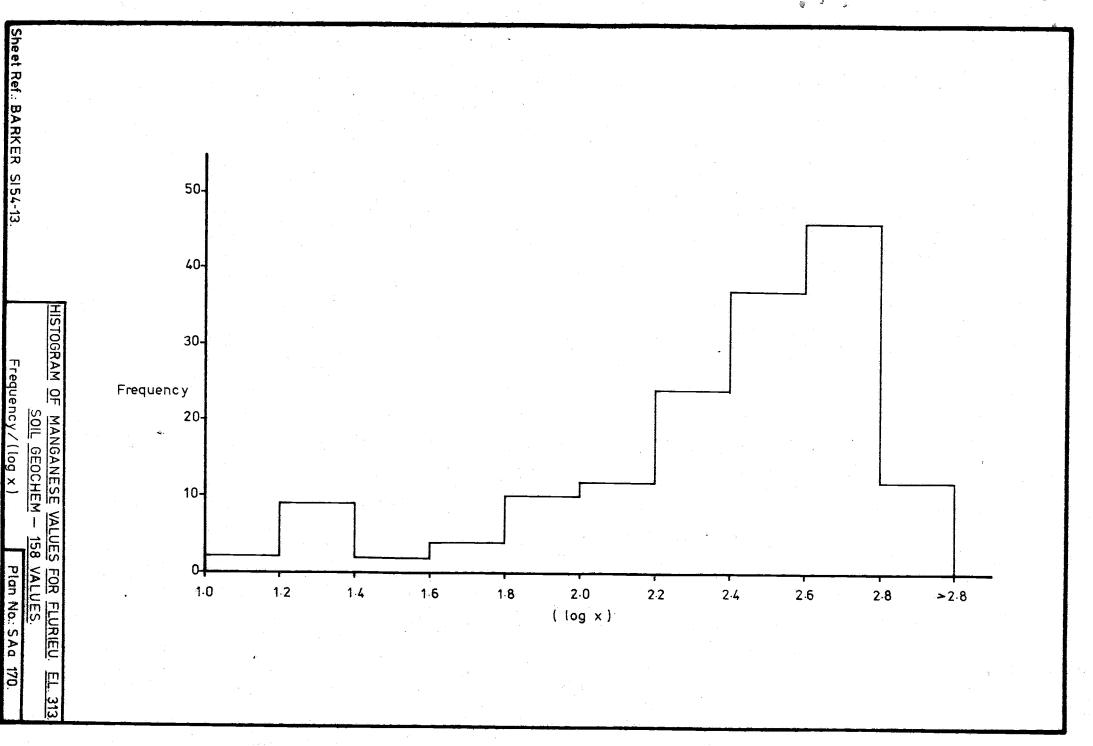












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O. BOX 384D

TELEPHONE: 63 0491

TELEGRAMS: "CONRIO"

TELEX AA 30108

11th April, 1978.

The Director of Mines, P.O. Box 151, EASTWOOD, S.A. 5063

9

Dear Sir,

E.L. 313 - Fleurieu, S.A. Final Report

Enclosed is a report by D. O. Mason entitled "Final Report on Fleurieu E.L. 313, South Australia" dated 8th March, 1978.

Final expenditure to 28th February, 1978 amounted to \$8,519 comprising:

Salaries	\$1,586
Wages	606
General Supplies	805
Vehicles	44 8
Travel and Accommodation	482
Contractors	750
Assaying	2 ,19 8
General Overheads	1,644
	\$8,519

This E.L. is part of a group of E.L.'s held by CRAE in the Kanmantoo Trough in which the target of pyrite associated base metals is identical in each case. Exploration is therefore being pursued as a single project rather than on an E.L. by E.L. basis, with the consequence that, although the total amount spent is in excess of the total required commitment, there may be underexpenditure on some titles and overexpenditure on others.

Yours faithfully,

SAF: jm

for:

J. Collier General Manager

FINAL REPORT ON FLEURIEU E.L. 313. SOUTH AUSTRALIA.

AUTHOR:

D.O. MASON

SUBMITTED TO:

G. D. KLINGNER

DATE:

8 MARCH 1978.

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1.	SUMMARY	1.
2.	INTRODUCTION	1.
3.	CONCLUSIONS	1.
4.	GEOCHEMICAL SOIL SAMPLING PROGRAMME	2.
REFE	RENCES	4.
KEYW	ORDS	4.
LIST	OF ATTACHMENTS	4.

1. SUMMARY

Work conducted during the year of tenure of E.L. 313 comprised a review of all exploration carried out in the area, and the completion of a regional soil sampling programme over all known pyritic units within the Brukunga Formation.

The geochemical results were not encouraging. A simple statistical analysis was conducted on these results and the only area of interest was revisited. This field inspection and the results of rock chip samples reaffirmed the conclusion that no results were highly anomalous in base metal values and that no further work should be conducted in the area.

Following this conclusion it was recommended that E.L. 313 be relinquished.

2. INTRODUCTION

On the basis of encouraging results from work carried out by C.R.A.E. elsewhere in the Kanmantoo Trough, E.L. 313 was applied for, in order to be able to explore for base metal orebodies associated with the pyritic units of the Brukunga Formation. E.L. 313 was granted to C.R.A.E. on 21/4/77 and covered an area of 171 square kilometres from Victor Harbour west to Tunkalilla Beach.

3. CONCLUSIONS

Stream sediment sampling by Comstock Minerals Ltd. in 1971, plus rock chip, soil, and stream sediment sampling programmes by the S.A. Mines Department did not produce any anomalous area. However it was found that the pyritic units of the Brukunga Formation contained higher base metal values than the surrounding rocks.

The results from the regional soil sampling programme conducted by C.R.A.E. during the last year were much as expected and not very encouraging. Traverses were spaced 500~m apart over the strike length of the pyritic units with samples every 25~m extending to 250~m either side of the mapped pyritic units.

The maximum non-coincident soil rock chip values received were 440 ppm Pb and 380 ppm Zn. Maximum non-coincident values taken from the promising zone were of much the same order of magnitude - 450 ppm Pb and 154 ppm Zn. This lack of upgrading of the assay values from follow-up sampling downgraded the prospectivity of the whole E.L. and thus its relinquishment was recommended.

4. GEOCHEMICAL SOIL SAMPLING PROGRAMME

Soil samples have been taken over and along strike from all previously mapped pyritic units within the E.L. Access was relatively difficult in the rugged, southern portions of the E.L. but traverses are roughly at 500 metre spacings. length of traverses was variable with a minimum coverage of 250 metres either side of any mapped pyritic unit. sample spacing was 25 metres. Orientation soil sampling elsewhere in the Kanmantoo Trough had indicated that shallow soil sampling was sufficient to pick up dispersion haloes of base metals associated with pyritic units of the Bruktinga The samples were collected 10-50 cm below the surface which, because of the relatively shallow soil horizon in the south eastern Mt. Lofty Ranges, was often within the 'C' Where outcrop was good, rock chip samples were horizon. Care was taken when collecting samples from ploughed paddocks that the collection depth was below the area of surface soil disturbance. The samples were then totally crushed and assayed for Pb, Zn, Cu, Ni, Co, Cr, Mn by A.A.S. by the Zinc Corporation. One sample in every traverse was also assayed for Au, U, Sn, W, Mo and As.

A total of 315 soil samples were collected and subjected to statistical analysis. It was found that every second sample could be used in this treatment and give very similar results to those received when every sample was used.

Where histograms of the raw data were highly skewed as it was with most elements, more meaningful results were achieved by converting all data to a logarithmic base. This method gave results showing approximately normal distribution of data on the histogram and thus a realistic mean and standard deviation could be calculated. The data was classified into groups based on standard deviation values.

The mean, standard deviation, and the five groupings of values have been calculated for Pb, Zn, Cu, Ni, Co, Cr, Mn (see Table 1.).

The distribution of all samples grouped in these five intervals has been examined within the area of the Fleurieu E.L. The only interesting area produced from the statistical analysis was the Newland Hill area traversed on Traverses 1 and 2 in The Hundred of Encounter. This area was inspected again, rock chip samples were taken of the 3-5 m wide weakly ironstained fine-grained siltstone/phyllite, but the assay values received did not upgrade the area at all, and thus no further work was recommended within E.L. 313.

D.O. Mason.

D. O. MASON

REFERENCES

Mason D. O. First, Second & Third Quarterly Reports on Fleurieu E.L. 313 South Australia.

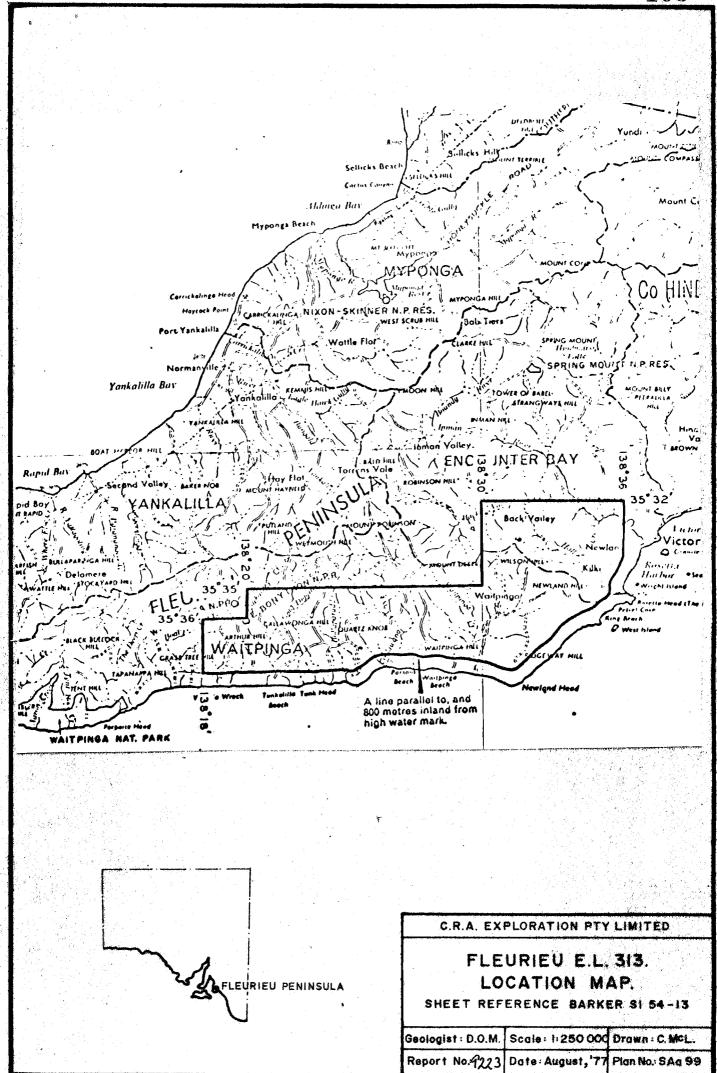
KEYWORDS

Locality Barker S1 54-13.
Kanmantoo Group, lead, zinc, copper, pyrite, black shale, metasediments, soil sampling, rock chip sampling, stream sediment sampling.

LIST AT ATTACHMENTS

SAa 99 Location Map 1:250,000 SAa 94 Geological map showing rock chip and soil traverse locations. 1:50,000

Appendix 1. Rock chip sample logs
Appendix 2. Extra Element analyses soil sample logs.
Table 1.



APPENDIX 1.

GEOCHEMICAL

			1 to 4 to 2							P SAMPLING Page No.
										9202 - 3 Analysed by: 26
Plan Refer	ence:				D.P	0. No	. 1		(Collected by D.O. MASON Date:
		1		Conter	it in p	p.m				
Sample No.			Cu	NI	Mn	Ag				Remarks
699202	100	Sec. 18.	-			1				3-5- will weakly fe stained sillition
6 99 203.	450	7)	57			-1				A A CONTRACTOR OF THE PARTY OF
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	Just 1	e es								by Day 12 (1992)
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	94. VP 45.									
	677.5				100					
			7.4			**				
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		N. IZ								
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还 。250 强力。							A			
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Con Cont. 1 this rate of										
the state of the s										
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"《自我们的成为》,与"特别"。(1117年)。		\Box								
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	2									

APPENDIX 2.

ti.	Sample Tray No	. Storage Box No	Locality	Flewien	EL 3/3
		.Weighed by			
		. Date Completed			

	LXTRA	ELEMENT	ANAW	yses -	SOIL	SAMP	LES.	T	ray checker	n t
Determi	nations by						1			
Checked	by									 -
			(6	Mn	S_	W	Mo	Au	As	1 4
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
597123	Exounter	· Bay 1	21	210		 		********************		
24			17	230					***************************************	
25			18	350			4			
26	A		9	290						***************************************
27			13	350						
28		- Paragraphic Communication and Association and Association (Association of Association (Association (Association))	8	190				***************************************		
29		2	6	10						
30			8	120						
31	**************************************		10	200					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
32	······································		15	310			•••••••) ng ginda manina mananana da pag	Pa
33	*		19	210	***************************************		***************************************			
34	Encounte	- Bay 2_	9	170			***************************************)
35	a da como de como con contrato con constituido de constituido de constituido de constituido de constituido de c		14	270						
36			10	90			anti-anti-anti-anti-anti-anti-anti-anti-	-pr	andre outsides of particular of	- 21 - After donates
3>			18	400					tinga bitanggapatan awayaya	Marie and an
							1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			***************************************
38	, <u>, , , , , , , , , , , , , , , , , , </u>		19	550					ing and a second of the second	
37		- pro-	19	230						
යුර	·		19	170						·
્રા		4)	12	500						***************************************
42			13	270					**************************************	***************************************
43			14	310						North Congression and St.
44			20	380					***************************************	3
22			24	290						Harman Marian Marian
46	Encounter	Bour 3	13	520					***************************************	
42			13	440					4-40	
ur	and the second s	y	1)	500						***
49			17	500						
مک	an and and a second		13	210						
្ស			18	230						
52	411		13	500						****************
53			15.	420						
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and the second of the second o	SEUCHEMICAL ANALYSIS	•			
Sample Tray No	. Storage Box No	Locality	E.L.	2)3	*******
Beaker Tray No	Weighed by	.D.P.O			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

						Tr	ay checked	d in
Determinations by								
Checked by								
	Co ppm	M ~	S'~ ppm	⇔ ppm	Mo ppm	Au ppm	As ppm	CA ppm
697154	15	400						
55	17	460						
5%	15	380						**************************************
57	18	330	*		,,,			<u> </u>
39	18	170				•		
57	17	550				***************************************	***************************************	
60	13	350			orași de la casta			1997 marranagana nagana
61 Encounter Boay 4	1	70						- Commence of the Commence of
62	22	250						
63	4	90						
64	3	130						
65	6	160	this to make the second			*************		
	5	150		***********************				
67	14	400					A TOTAL	
68	9	50	······································			-1)	******************************	
67	17	460					****************************	
70 30 30	16	500			·			
21	18	500		,	,			
	17	490						
73	17	640						
7 Encounter Ray 5	15	440	ti				eron Saranna albarar, commenda	
75	12	420						
7	13	370		,	······································		ericalismon and seminarismos	Tanahira saharah dada an an ana as
77	6	120						
	15	400						
27	15	420						
80	14	420						
8/	15	440	and the second s					
82	14	550		terre and a substitute			<u></u>	
87	1//	270						
84	15	370						
			j				-	

Sample Tray No	Storage Box No	Locality		
Beaker Tray No				
Date Weighed	. *	A/a Na	**************	***************************************

		· · · · · · · · · · · · · · · · · · ·	_			,	Tı	ray checked	l in
	nations by								
Checked	by		- A A						
		Co ppm	M~ ppm	S∼ ppm	ppm	M ₀ ppm	Au.	AS ppm	ppm
697185	Encounter Bay 6	15	270		-				
86		6	110						
67		15	350					,	
ક્કે		17	420		,		•		
81		14	420					······································	
90		14	400			***************************************	***************************************	***************************************	d
91		14	330					***************************************	
92		1/	270						
93		15	320						
94		18	190						
95		15	170				-	•	
96	Encounter Boy >	13	200			·	* 1000, 141, 1009, 137, 100, 141, 151, 151, 151, 151, 151, 151, 151	***************************************	
12		1/	200						
99		1)	340	The officers of the second sec			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	gentest arremajada basa nesamina	
99		10	200	er erroranista armana praesi	1 -6176-16-162 proba-tag-regist6-	ook in tale sylveniariograp	:	et of and trong down barren 1917 June - or distributed	9 71 ATTICLE
							***************************************		***************************************
97200		13	190						
,		17	300						
Z		10	190						h
3	- Marian Marian	8	160						f
4		5	100						·
ء		18	390					· · · · · · · · · · · · · · · · · · ·	
6		14	610						
	Encounter lay 8	8	8-0						
8		()	280			, *	- 1		W-11-111
9		8	80					(1.00.00 mg 1.00 mg 1.00 mg 1.00 mg	
10		10-	250					***************************************	***************************************
10		1/	320						
12		/2	190						
ני		17	210						
14		13	310						
15		/1	220		:				·
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Sample Tray No	Storage Box No	Locality	EL	713	
	Weighed by				
	Date Completed				

	Determi	inations by		1				1	ray checked	
Co		territoria de la companya de la comp						**************************************		
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17 13 350 18 19 17 18 13 270 17 18 20 18 19 22 21 19 19 25 21 10 130 24 11 120 25 27 28 17 190 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20				1 .		1				ppm
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17 Encompler Boy 9 19 220 20 6 120 21 14 250 22 4 110 23 10 130 24 11 120 25 17 190 26 8 120 27 18 120 28 120 29 18 120 21 18 120 21 18 120 22 18 120 23 17 190 24 170 25 17 190 26 17 190 27 18 120 28 120 29 18 120 20 18 120 21 18 18 120 21 18 15 70 22 18 18 15 70 23 18 17 100 24 17 18 18 18 18 18 18 18 18 18 18 18 18 18	17		13	350					4 1,000 1971 0171 (42) 1,40,41 1,000,110 1.	
17 Encounter Ray 9 19 220 20 6 120 21 19 250 22 9 110 23 10 130 24 17 190 25 17 190 26 19 180 27 8 120 28 120 29 10 4 70 20 10 150 20 10 150 21 10 150 21 10 150 22 10 17 190 23 10 19 180 20 19 180 21 19 180 22 10 19 180 23 10 10 10 10 10 10 10 10 10 10 10 10 10	le	of price a transmitter temperature by the second	1	270		, , , , , ,				
20 21 21 22 31 32 32 32 31 32 32 32 32 33 34 34 35 35 36 37 36 38 39 39 31 30 31 31 32 32 33 34 35 35 36 37 37 38 38 39 39 39 30 31 31 31 31 31 31 31 31 31 31 31 31 31	17	Encounter Boy 9	19	220	•					
22	20		6	120		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	***************************************	**************************************	**************************************
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24	22		- 1	110	,			The second second		***************************************
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30	28	To format to be within the majority of the state of the s	±95	פר					***************************************	in the second section of section
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32	30	ninemanilian relativisti mitari manini m	£18	120						
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32	31	Waitpage 1	1254	80						
34 6 100 35 13 153 36 5 50 37 6 70 38 1 30 39 8 110 40 14 250 41 2 30 42 Wait ang. 2 7 90 43 44 2 50 44 4 50			₩3	70						
34 6 100 35 13 153 36 5 50 37 6 70 38 1 20 39 8 110 40 14 250 41 2 50 42 wait ang 2 7 90 42 47 4 90 44 2 50	33		14	170				,		
36	34		1	100						***************************************
37 6 70 38 1 30 39 8 110 40 14 250 41 2 50 41 42 490 44 2 50	35		13	150						
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9 110 40 14 250 41 3 50 42 Wait progr 2 7 90 43 49 2 50 44 4 50	37		6	70						
40 14 250 41 2 50 42 Wait prop 2 7 90 43 47 4 90 44 2 50	30		1	30						
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	44		2	50						
46 9 150.	45			50						***************************************
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Sample Tray No	Storage Box No	Locality EL 313
	Weighed by	
	Date Completed	

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	nations by								
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697140		6	90						
_પ દુ		4	50				enertenistrope Decerto, 11-6 Margada	***************************************	
49		4	۶٥						
Se		5	So						
51	40,000,000,000,000,000,000	6	30	:					
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53		6	ەك					***************************************	
54		9	30		:				
5 5	andan seja makepan negambangan menganantah simu nye semeny	9	20						
56	Waitprogs 3	25	780						
57		21	580						
2.8		12	500					* 12 ba 65 - y 4 ca 100 7 *	
59	in a same transfer and the same same same same same same same sam	21	790					200 - 200 -	
60	Organis primingamina (article), spirita i mongolish da article (article) (article) (article) (article) (article)	24	640						
61		18	610						
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62		23	750			***************************************			
63		9	490						
64		3	40						
65		20	570						
66	The second secon	14	uro						
67		17	550						
68	and the state of t	10	280						
67	Annual managements, months and months and managements and months a	14	440						
70	nger cyalatat na nga malalan nyang ang manaka na pang manaka na ang manaka na ang manaka na ang manaka na ang	17	440	<i>}</i>					
71		14	490						
72	Waitpuga 4	.24	750						
73	-	26	750						
74		25	660						
75		19	270						
26		19	370						
77		19	380						
-									

Sample Tray No	Storage Box No	Locality 区上 3,3	
		D.P.O.	
Date Weighed			

		ن برنسین در اب		-	s di		Tr	ray checked	i in
	nations by	His reason participation of the contract of th							
Checked	by								
		Co ppm	M ←	S _~	い ppm	M _o	⊖ ppm	A _S ppm	U ppm
697278		15	150		*		1		
29		24	520			- Section 1			
₽		15.	300						
81		19	440						*
82		15	370						
83	and the state of t	19	570			u			
84		17	140	-					
85		38	440		Sec	1	<u> </u>		
86		2/	580			- 1			
<i>F</i> 7	Waitpuga 5	14	460					<u> </u>	<u> </u>
88	and the state of t	6	20						
97		15	320		<u></u>				
90	Anglaria (Analysis) of a september o	/2	2.70						<u> </u>
- 21		14	2,0		E				
92		21	230	ļ	\$				
						alem ran			
93	ender manufacture and proper and an analysis of the second	(8	370	······································		18 Jan			
94	And the same of th	16	460	<u> </u>					
95		15	600						
96		15	520						
97		17	490						
98	20. <u>alijusas iras sastas sa</u>	18	520						
79		11	260			<u> </u>	146		3
92 3∞		13	370						4
		1	390		,				
2	siingamma napi saa, aa ay ga maa iy maa ay maa a		390						na capanan ama
3	- de maniero de la companiera de la comp	- 15	400		·	<u> </u>			
U		15	400	,		<u> </u>			
	<u> </u>	4	40						
6	Salaman and the salaman and th	15	420			<u> </u>			
	to the second se	17	750					P.5	
8	Wait props 6	12	580		<u> </u>				
		1	1 1			, * *			

C. R. A. EXPLORATION PTY. LIMITED GEOCHEMICAL ANALYSIS

113 7

	Tray No								
Beaker 1	Fray No	Weighed	by	**********	••••••	D.P.C)		
Date We	ighed	Date Co	mpleted		************	A/c, I	Vo,		************
								ray checke	
Determi	nations by								
Checked	by								
		6	MA	8,	w	Mo	Au	As	u
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
69730 9	Againtige and the second and the sec	13	420						
Jø		12	370		***************************************		1.	***************************************	***************************************
11		1,	910		***************************************	· · · · · · · · · · · · · · · · · · ·		,	
12		9	210	•					
13		13	390				-		
14	and handware the same of the s	15	420		***************************************	***************************************			and and any any and any and any
15	n kina na n	21	350					P. Tong (1974) - 1974	,
15	po tipoti na manda da para paga paga paga paga paga paga pag	14	390			***************************************		***************************************	
17	ayan gaginin tera	13	320						
(8	·	18	490					4-1,,: F2-1,,11-1	
19		1,5	300						***************************************
20	No. 1 (44 - 1915)	17	460	,		***************************************	,	434 1444 1744 1777 1811 1814 1814 1814 181	***************************************
21	Wait pinga)	18	460					***************************************	To the transition of the trans
22		20	300						with the manufacture of the same of the sa
23		18	520	. :					Vichelies Vigini Company
							4		
24	and the second s	21	540						
25	19.00 / 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00 19.00	24	660					The state of the s	
*		22	490				THE THE PERSON NAMED IN COLUMN		
		13	280						
28		22	370						
29		18	350						
30		9	260						
3)		,3	350						
32	and the standard in the state of the state o	1).	300						
33		10	230						
34		1.2	240						
35		6	130						
36		15	450						The state of the s
37		14	500						
		17	500						etroto ar molycay attace ameng
39		17	510						

Sample Tray No	. Storage Box No	. Locality	EL	313	
	.Weighed by				
	Date Completed				

Determin	nations by						· · · · · · · · · · · · · · · · · · ·	ray checke	T ==
Checked				(
		C ₂	M~ ppm	S_ ppm	₩ ppm	M _o	A	As ppm	رر ppm
27340		15	370	:					1
34)	termination, training agency and training and an arrange of the second s	12	600					Anthorophilated recommence on an and gapes of	***************************************
,	Waitpurga 8	14	400				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		•
43		13	500	•					
44		19	450						
ىپ		7.5	450			***************************************	,		
46		15	440					***************************************	
47		13	390					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
49	Maria Vanda de la Carta de	13	370						
49		18	490						
ত	······································	15	470				***************************************		
57	Wattprage 9	25	740						
52	Он «Монту оправления подоружения учеству в монту в принципа	26	770			Monthlytary and high a squarescent	VIII C C C C C C C C C C C C C C C C C C	entradodes designing discussor as	Material States and the second
23	Name and the state of the state	24	770				·	***************************************	ļ
54		29	520				\$.		ļ
S2		24	330			***************************************		:	
SL		12	380					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
57	y	10	350						
28		10	480						
59	anni kanangan nggodhadan ngarakan na n	13	420						
60	dana dana dana dana dana dana dana dana	13	200						
61		15	430						
62	Wait puga 10	21	570						
63		28	820						
64		25	800						
65		20	680						
66		14	400						
62		14	350						
19	Philipping and Commission of the Commission of t	14	420						
69		12	400						
70	Waitpuga 11	9	1/0						

Sample Tray No	Storage Box No	Locality EL 213	
Beaker Tray No			
Date Weighed			

Dotormi	nations by	7			1		7	ray checked	<u>''' </u>
Checked	**************************************	 		· 			 	ļ	ļ
		Co	M _~	2~ ppm	₩ ppm	Ma	A	As ppm	CA ppm
677371		14	500						
72			220						- \$13674444.1131144411441144144
73	and the second s	14	450						
74		17	240						
75	terror terror transfer and the second transfer and transf	4	130	derger i statigktight veta vagasiana					***************************************
76		3	110				1		
77		10	180	***************************************					
78		15	430						
79	Nation and State of the Control of t	3	130		• • • • • • • • • • • • • • • • • • • •				
80	Market and the state of the sta	2	110	·					
81	Waitproga 12	10	220					·	
82		8	210				-	***************************************	
83		15	290	······································					***************************************
84	The state of the s	12	240						
85		9	220			······		***************************************	
86	diaming pages and an analysis	10	200	**************************************		***************************************		-	hanan i na hanaban ann an a
£?	Company of the Compan	10	220					***************************************	
ક્ક	and the state of t	5	110	·			. ,,.,.,.,.,.,.,.,.,.,.,.,.,.,.,.,.,		
89		4	90						
90		3	110	<u>.</u>				-0	
91		8	130	**************************************					
92	mr.tbress 1,7	9	70	***************************************		***************************************			Talan hympromytas cope
93 e.	OD) (Benedita)	8	90	<u>,</u>					engeneters, namenings.
94		7	110					1888 188 W. Cong 1	
95			180	Mederic bernalar ect.					
96	on the state of th	14.	220						
98	in the state of th	12	180						· · · · · · · · · · · · · · · · · · ·
29		14	170			······			»
97400		10	110		*** >** (** ***) 11.				or to retain and a real section of the section of t
,,400		12	2.20						
		14	1.20		VI				a
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Sample Tray No	Storage Box No	Locality	EL 313	
Beaker Tray No	Weighed by	D.P.O.		
Date Weighed	Date Completed	A/a Na		****************

Datam:	nations by		7				4.	ray checke	a in [
Checked	by							4.	
		Co ppm	ppm	S ∼ ppm	က _က	M ₀ ppm	A	A _S	ppm
697402		10	180						
3	Waitpuge 14,	15	160			***************************************		***************************************	
		15	100						
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6	The state of the s	4	20			, , , , , , , , , , , , , , , , , , ,	ell ise, ejeriaen, na pjenje rya pistos		
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8		8	20					***************************************	
	the state of the s	10	20						
70		9	40						
		12	100						
12		14	110			·			
13	4	12	440	***************************************				*****************************	····
15	Waitpuga 15	18	550					l forto Digital del de proprieta que e passe qui accesa	64 pagis mareta, resistences
16	and and the state of the state	18	570					······································	*****
		14	300						
17		18							
18		***************************************	440						
15		16	630						ar eje eige valg sometreke meng
20	and the second s	15	460						
21		10	300						·····
22	in control of the con	177	320						
23	······································	14	350						
24	<u> </u>	9	40						
25		,	210						
26		1	۷,0						
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21		14	ટ૦						
29		12	20						
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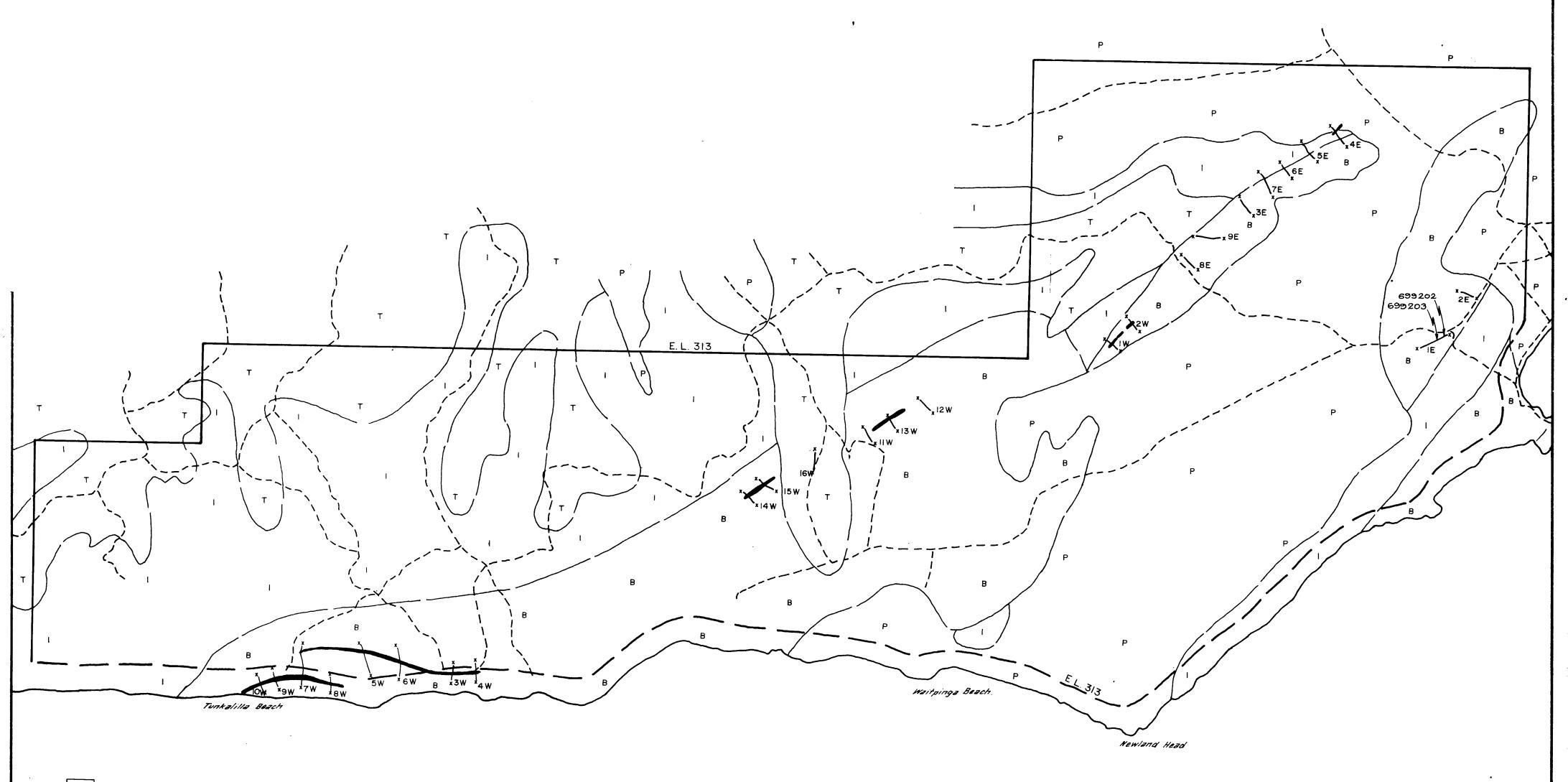
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TABLE 1.

	` Pb		Pb Zn		C1	Cu		Ni	Co	Cı		Mr	1
	log	ppm	log	ppm	gol	ppm	log	ppm	log ppm	Log	ppn	log	ppm
ean	1.04		1.64		1,14		1.33		13.7	1.72		2.37	
.D. T	0.27		0.29		0.27		0.31		5.45	0.25	Links of the		
- 2SD.							0.71	-	3	1.22	17	1.51	3.
- S.D.	0.77	. 6	1.35	22	0.87	7	1.02	10	. 8	1.47	⊹.30	1.94	87
	1.04	11	1.64	44	1.14	14	1.33	21	14	1.72	52	2.37	234
+ S.D:	1,31	20	1.93	85	1.41	26	1.64	44	19	1,97	93	2.80	6.3
+ 2SD.	1.58	38	2.22	166	1.68	48	1.95	89			图2000年1	3.23	100
	9 John J										30 As		



T Ferruginised sands and grave!

P Glacial and fluvioglacial deposits, cross-bedded silts and sand

B Brukunga Formation - Pyritic phyllites and schists including the Nairne Pyrite Member.

Inman Hill Formation - Coarse grained impure arkose.

x 12W Traverse 12 in Hundred of Waitpings

x 4E Traverse 4 in Hundred of Encounter Bay

6eological boundary - approximate

, - ROZO

Exploration Licence boundary.

3050-1

C.R.A. EXPLORATION PTY LIMITED.

FLEURIEU E.L. 313 — GENERALISED GEOLOGY Regional geology after B.P. Thomson (Barker I: 250 000) and B. Morris (1974).

SHEET REFERENCE BARKER SI 54-13

Geologist: D.O.M. Scale: 1:50 000 Drawn C.MCL.

Report No.: 9016, 9223 Date July, 1977 Plan No: SAa 94

FINA