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CRA EXPLORATION PTY. LIMITED
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Second Annual Report
For The Period Ending 2 February 1997
EL 64/94 Swift Creek, Tasmania

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Date: February 1997

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Submitted to: Chief Geologist, South East District

Copies to: Mineral Resources Tasmania
CRAE - South East District
CRAE - Zeehan
CRAE - ETIG

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CRAE Report No. 22154

ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

Abstract

CRAE acquired EL 64/94 in 1994 to explore Gordon Group carbonates in the Swift Creek and Newall Creek areas for Irish-type, carbonate hosted zinc deposits.

A literature review indicated that the Gordon Group in the Swift Creek area (west of Mt Strahan) has received only cursory reconnaissance exploration due to access difficulties. Hence CRAE established a reconnaissance grid late in permit year one to allow foot access for mapping, rockchip sampling and wacker sampling.

To date, 14.3 line km of grid lines have been cut in the Swift Creek area to allow the acquisition of 504 wacker bedrock samples, 30 rockchip samples and 3 stream sediment samples. All samples have been assayed for Ag, Al, As, Ba, Ca, Cu, Fe, K, Mg, Mn, Pb, Zn using ICPOES (Analabs, Townsville). This work identified two target areas as summarised below:

Target Area 1

This area is associated with an interpreted fault between reconnaissance grid line 10800N and follow up grid line 10900N. The overall limestone thickness (320m in plan section) does not change across the fault however facies changes are apparent. A geochemically anomalous zone 25-50m wide, at least 100m strike extent, parallel to stratigraphy, with variably anomalous Pb, Zn, Fe, Mn, Ba and As may be related to the fault.

Target Area 2

This area is associated with a significant (reactivated) growth fault between follow up grid lines 20700N and 20800N. The carbonate sequence thickens from 60m to 150m (in plan section) across the fault and most significantly a thick sequence (at least 70m) of potentially mineralised, Zn anomalous black-clays is developed on the downthrown side of the fault. A rockchip sample of dolomite breccia from the middle of the carbonate sequence, adjacent to the fault, returned 0.7% Pb and 1.0% Zn.

Potentially mineralised units in Target Area 2 have similarities to the Irish-type, carbonate hosted zinc model and are analogous to the Grieves mineralisation near Zeehan.

A fence of five short diamond holes for 329m were drilled to test prospective stratigraphy and a zone of anomalous geochemistry on line 10800N (Target Area 1). The low grade mineralisation intersected in the wacker holes was not improved with drilling, and appears to be narrow and discontinuous. No further drilling is recommended in Target Area 1.

Exploration of the Swift Creek EL 64/94 is currently suspended whilst CRAE seeks a joint venture partner. If a partner is found, priority should be given to testing Target Area 2 with a 300m diamond drillhole. A second 300m diamond hole may be necessary to adequately test the area as the dip of the interpreted growth fault is unknown.

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Plans

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Tv 1075	EL 64/94 Swift Creek - Location Plan	1:100,000
Tv 1059	EL 64/94 Swift Creek - Summary Geology	1:100,000
Tv 1072	EL 64/94 Swift Creek Rockchip Sample Location Plan. Teepookana 1:25,000 Topographic Sheet.	1:25,000
Tv 1073	EL 64/94 Swift Creek Rockchip Sample Location Plan. Darwin 1:25,000 Topographic Sheet.	1:25,000
Tv 1071	Swift Creek Prospect Geology, Wacker, Stream Sediment and Rockchip Sample and Drillhole Location Plan	1:5,000
Tv 1076	Swift Creek Prospect: Wacker Bedrock Geochemistry Pb ppm	1:5,000
Tv 1077	Swift Creek Prospect: Wacker Bedrock Geochemistry Zn ppm	1:5,000
Tv 1078	Swift Creek Prospect: Rockchip Geochemistry Pb ppm	1:5,000
Tv 1079	Swift Creek Prospect: Rockchip Geochemistry Zn ppm	1:5,000
Tv 1080	Geological Sections for Planned Diamond Holes: Target Area 1	1:1,000
Tv 1081	Geological Sections for Short Diamond Holes drilled in April 1996: Target Area 1	1:1,000
Tv 1082	Geological Section for Planned Diamond Hole: Target Area 2	1:1,000

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1. Conclusion and Recommendation

- The fence of five shallow diamond holes has adequately tested the zone of anomalous geochemistry on line 10800N (Target Area 1). Mineralisation is low grade, very narrow, and apparently discontinuous. No further drilling is recommended in this area.
- Potentially mineralised units associated with the interpreted growth fault in Target Area 2 have similarities to the Irish-type, carbonate hosted zinc model and are analogous to the Grieves mineralisation near Zeehan. This area should be tested by at least one deep diamond hole. A second diamond hole may be necessary to adequately test the area as the dip of the interpreted growth fault is unknown.

2. Introduction

Swift Creek EL 64/94 was granted to CRA Exploration Pty. Limited (CRAE) on 3rd March 1995. The EL covers 56 sq km and lies predominantly within the Teepookana State Forest, approximately 7 km south-south west of Queenstown on the west coast of Tasmania (Plan Tv 1075)

CRAE acquired the licence area to explore for Irish-type zinc mineralisation in the Ordovician Gordon Group carbonates. CRAE's preceding exploration of the Gordon Group carbonates in the Zeehan area has resulted in several encouraging zinc intersections. Hence CRAE expanded efforts to other areas of poorly explored Gordon Group.

The Swift Creek licence area was considered particularly prospective as a large fault east of the licence area appears to be a reactivated, basin bounding growth fault (see Plan Tv 1059). Ordovician Denison Group clastics appear to thicken significantly across the fault (typically 200m in the Newall Creek area east of the fault, and $\geq 1500\text{m}$ in the Swift Creek area west of the fault). The interpreted basin bounding fault may have acted as a conduit tapping deep, mineralising fluids and feeding smaller syn-sedimentary faults in the Swift Creek area.

This report details all exploration activities conducted within EL 64/94 Swift Creek by CRAE during the first six months of the second permit year ending 2nd August, 1996.

Exploration of the Swift Creek EL 64/94 is currently suspended whilst CRAE seeks a joint venture partner to share exploration costs.

3. Review of Previous Work

3.1 Prior to Current Tenement

Exploration carried out prior to the current licence is briefly summarised below. See Appendix 1 for a detailed summary of previous exploration.

1970-72 Fimiston Minerals - Cyprus

- Small orientation stream sediment survey.

1983-85 EZ - Cyprus

- Geological mapping in the Swift Creek and Rinadeena areas
- Reconnaissance stream sediment (plus panned concentrate and rock chip) survey in the Swift Creek area.
- Grid based soil, rock chip, stream sediment, and ground magnetic surveys in the Rinadeena area.

1987-89 CRAE - Aberfoyle

- Patchy stream sediment (plus rock chip) survey in the Swift Creek and Rinadeena areas.
- Re-assay of EZ stream sediment pulps for Au.
- Grid based soil and rock chip surveys in the Rinadeena area.

1985-90 CRAE - Aberfoyle

- Geological mapping in the Newall Creek area.
- Reconnaissance stream sediment (plus rock chip) survey in the Newall creek area.
- GENIE EM traverse in the Newall Creek area.

3.2 During Current Tenement

A comprehensive literature review was carried out during permit year 1. The potential for carbonate hosted Pb-Zn mineralisation within EL 64/94 was concluded to be favourable given:

- Pb-Zn mineralisation occurs within the Gordon Group carbonates at Oceana and Grieves near Zeehan. Mineralisation is interpreted to be Irish-type.
- Carbonate hosted vein style galena-sphalerite mineralisation is noted in the NE of the licence area
- Ordovician growth faults are mapped in the NE of the licence area
- A major Ordovician basin bounding fault crosses the licence area
- No systematic bedrock sampling of Gordon Group has been undertaken within the licence area
- There is some evidence for deep weathering of Gordon Group carbonates (Genie EM data, seismic refraction data, absence of outcrop) particularly near the lower contact, suggesting a high sulphide content (comparable to the situation at Grieves near Zeehan)
- Detailed stream sediment data collected over Gordon Group carbonates indicates several areas with elevated Pb-Zn values that have not been adequately followed up
- The Gordon Group carbonates in the Swift Creek area have only received reconnaissance stream sediment and some rockchip sampling in the past (CRAE and EZ). CRAE's exploration experience in other Gordon Limestone areas suggests that stream sediment sampling is not always appropriate as the unit tends to form valleys with a variable thickness of transported cover.

4. Exploration Completed in the 6 Month Period Ending 2 August, 1996

4.1 Regional Rockchip Sampling

A total of nine rockchip samples were taken at various localities within the licence area during regional scouting exercises. These included:

- six samples from mapped outcrops of the Gordon Group along Lowana Road east of the Teepookana Bridge
- two samples from Gordon Group outcrops along a walking track in the Swift Creek area
- one sample from a quarry near a mapped Pb-Zn-Au occurrence in the Newall Creek area

The samples were sent to Analabs in Burnie and assayed for:

- Cu, Pb, Zn, Ag, Fe, Mn by aqua regia/perchloric acid digest and AAS
- Sn and W by XRF
- Au by fire assay.

No significant results were returned. Sample locations are plotted on plans Tv 1072 and Tv 1073. Sample ledgers and analyses are included as Appendix 1.

4.2 Swift Creek Prospect

The literature review carried out during permit year 1 indicated that the Gordon Group in the Swift Creek area (see plan Tv 1059) has only received cursory reconnaissance exploration in the past due to access difficulties. Hence CRAE established a reconnaissance grid late in permit year one to allow foot access for mapping, rockchip sampling and wacker sampling.

4.2.1 Grid Line Cutting and Wacker Bedrock Sampling

The initial 6.75 km of reconnaissance grid lines (centre base line with three cross lines at 800m spacing) were designed to enable sampling of a mapped north plunging syncline of Gordon Group sediments (see Plan Tv 1071).

Due to poor bedrock exposure and unknown thickness of alluvial/colluvial/glacial cover a wacker drill was used to acquire bedrock samples for geochemical analysis. 263 wacker bedrock samples were collected at 25m samples spacing along the grid lines. The samples were sent to Analabs in Townsville and assayed by ICPOES for Ag, Al, As, Ba, Ca, Cu, Fe, K, Mg, Mn, Pb, Zn.

Two areas for follow up work were defined by the reconnaissance wacker sampling. They were:

- the vicinity of 5275E on line 10800N where a coarse sphalerite nugget was retrieved in a wacker sample
- the eastern end of line 11600N where geochemical analyses indicated anomalous Zn in non-calcareous pyritic clays near the top and base of the Gordon Group sequence (a rockchip sample from the area also returned significant geochemistry as discussed in section 4.2.2)

Target Area 1

Four 500m grid lines at 100m spacing were cut to test strike extensions of the potential mineralisation on line 10800N. Wacker bedrock samples were acquired at 25m spacing on these lines and a further 8 samples were acquired from 5250E to 5330E at 5 to 10m spacing on line 10800N. 78 wacker bedrock samples were acquired.

This work defined a geochemically anomalous zone 25-50m wide and at least 100m strike extent, parallel to stratigraphy, with variably anomalous Pb, Zn, Fe, Mn, Ba and As (see Table 1). The zone appears to be related to an interpreted fault which offsets stratigraphy 40-50m (in plan section). The overall limestone thickness (320m in plan section) does not change across the fault; however facies changes are apparent.

GE	GN	Pb	Zn	Fe	Mn	Ba	As
5270	10800	3730	267	6.2	0.78	352	98
5295	10800	1540	137	8.7	1.21	1380	42
5200	10700	537	315	1.0	0.02	49	11
5225	10700	177	173	7.9	0.12	383	51
5250	10700	368	176	10.5	0.59	1150	34

Table 1: Geochemically anomalous results from follow up wacker sampling, Target Area 1 (note: Pb, Zn, Ba and As expressed as ppm, Fe and Mn expressed as %)

Target Area 2

Ten grid lines at 100m spacing (total 5.55 line km) were cut to test strike extensions of the potential mineralisation on line 11600N and test potentially mineralised carbonates between the two target areas. The grid orientation was changed from 069° AMG to 090° AMG so that follow up grid lines were approximately perpendicular to strike. 163 wacker bedrock samples were acquired at 25m sample spacing along the grid lines.

Geological logging of the wacker samples showed the anomalous geochemistry recorded previously for Target Area 2 is associated with an interpreted (reactivated) growth fault between lines 20700N and 20800N (see Plan Tv 1071). The carbonate sequence thickens from 60m to 150m (in plan section) across the fault and most significantly a thick sequence (minimum 70m) of potentially mineralised, Zn anomalous black-clays and interdigitating sands is developed on the downthrown side of the fault. Geochemically anomalous results from the potentially mineralised sequence developed on the downthrown side of the fault are summarised below:

GE	GN	Pb(ppm)	Zn(ppm)	Sample Description
5850	11600	65	578	Sandy, non calcareous, grey to black clay. Trace pyrite
5900	11600	91	104	Black, non calcareous, silty clay. Trace very fine disseminated pyrite
5600	20700	40	203	Grey to brownish grey, non calcareous, very sandy (fine grained quartz) clay

Table 2: Geochemically anomalous results from follow up wacker sampling, Target Area 2

Pb and Zn geochemistry maps are included as plans Tv 1076 and Tv 1077. Wacker bedrock sample ledgers and analyses are included as Appendix 2.

* Note:

AMG co-ordinates recorded in ledgers and on Plan Tv 1071 are correct in the south of the reconnaissance grid where line cutting commenced. However due to minor gridding errors calculated AMG co-ordinates are out by several 10's of metres further north ie. 5200E 20100N should be 375570mE, 5324400mN but is actually 375583mE, 5324460mN in AMG space.

No attempt has been made to correct the error in calculated AMG co-ordinates (local grid to AMG grid conversion) recorded in ledgers or on Plan Tv 1071. Creeks shown on Plan Tv 1071 are shown where they crossed grid lines on the ground. These can be related to creeks on the Teepookana 1: 25,000 topographic sheet for better control in AMG space.

4.2.2 Mapping, Rockchip Sampling and Stream Sediment Sampling

Geological mapping was restricted to cut lines and creeks as dense undergrowth prevented access elsewhere. Bedrock exposure was poor; however structural measurements were recorded at a few locations (see Plan Tv 1071).

30 rockchip samples and 3 stream sediment samples were acquired during grid mapping exercises.

Geochemically anomalous results were returned from three samples of mineralised (very fine pyrite, galena, sphalerite in fracture porosity) dolomite breccia acquired in a creek proximal to the interpreted growth fault in Target Area 2. One sample returned 0.7% Pb and 1.0% Zn. A stream sediment sample collected approximately 50m downstream of the mineralised carbonate did not return anomalous geochemistry.

An iron-manganese precipitate associated with a small spring on line 10700N returned anomalous Pb and Zn (426 and 775 ppm respectively), probably the result of metal scavenging by Mn. A spring generated iron-manganese precipitate also occurs on line 20800N proximal to the interpreted growth fault.

A rockchip and stream sediment sample location map and Pb and Zn geochemistry maps are included as plans **Tv 1071, Tv 1078 and Tv 1079**. Wacker bedrock sample ledgers and analyses are included as Appendix 2.

4.2.3 Drilling

Target Area 1

A fence of five shallow diamond drillholes (329m in total) were drilled on line 10800N to test wacker geochemical anomalies, and prospective horizons adjacent to an interpreted fault. Hole locations, depths, targets and mineralisation intersected are summarised in Table 3.

Correlation of holes DD96SW3 and DD96SW4 prior to the commencement of planned hole "E" showed that a fault between the two holes had offset stratigraphy by 15m (horizontal component). As the holes were drilled perpendicular to strike rather than directly beneath the geochemically anomalous wacker samples, potentially mineralised stratigraphy may have been untested. Hence DD96SW5 was drilled from the same location as DD96SW4 to intersect the sequence immediately beneath the anomalous wacker samples.

Drillhole ledgers and analyses are included as Appendix 4. Summary sections are included as plans Tv 1080 and Tv 1081.

Plan	Hole No.	GE	GN	TD	Target	Mineralisation
A	DD96SW1	5420	10800	73.5	Potential mineralisation developed at the base of the Gordon Group carbonates proximal to an interpreted fault	No mineralisation intersected. Hole abandoned 20m above Gordon Group-Moina Sandstone contact due to drilling difficulties
B	DD96SW2	5330	10800	81.2	Potential mineralisation developed below the "middle siltstone" unit	No mineralisation intersected
C	DD96SW3	5280	10800	61.6	0.15% Pb in wacker sample	No mineralisation intersected
D	DD96SW4	5250	10800	54.5	0.37% Pb, 0.15% Pb and sphalerite nugget in wacker samples	1.5m at 0.12% Pb from 12.2m
	DD96SW5	5250	10800	58.0	0.37% Pb, 0.15% Pb and sphalerite nugget in wacker samples	0.2m at 0.78% Pb from 16.2m
E		5220	10800		Potential mineralisation downdip of Hole D	Not Drilled

Table 3: Diamond holes, Target Area 1

5. Discussion of Results

- The fence of five shallow diamond holes has adequately tested the zone of anomalous geochemistry on line 10800N (Target Area 1). Holes DD96SW4 and 5 appear to have intersected the same low grade mineralisation as that intersected in the wacker hole at 5270E, 10800N (0.4% Pb). Holes DD96SW3, 4 and 5 did not intersect any other mineralisation indicating the mineralisation recorded in wacker holes at 5275E and 5295E is limited. No further drilling is recommended in this area.
- Potential mineralisation associated with the interpreted growth fault in Target Area 2 is untested. The area has similarities to the Irish-type, carbonate hosted zinc model and is analogous to the Grieves mineralisation near Zeehan as:
 - * mineralisation is associated with an interpreted growth fault
 - * the potentially mineralised units (dolomite breccia and Zn anomalous black clays with interdigitating sands) are developed on the downthrown side of the growth fault
 - * the Zn anomalous black clays and sands (minimum 70m thickness) occur between the Gordon Group carbonates and the Moina Sandstone, and are equivalent to the mineralised black clays, ferruginous clays, and clastics of the "silty transition unit" occurring at the base of Gordon Group at Grieves. The zincian clays at Grieves are interpreted to be the

weathering product of primary sulphide mineralisation

- Target Area 2 is also considered prospective as potential mineralisation is developed in an updip basin location as indicated by thickening of the Gordon Group carbonates to the SSE. The area is well positioned to receive mineralising fluids migrating updip from the deeper "kitchen" area.
- At least one 300m diamond hole should be drilled to test Target Area 2 (see plan Tv 1082). A second diamond hole may be necessary to adequately test the area as the dip of the interpreted growth fault is unknown. A small area has been cleared at 5500E, 20715N in preparation for drilling.
- The lamprophyre intersected on lines 20300N and 20400N is an interesting feature of the area and is probably related to the Devonian lamprophyres known in the Queenstown area. The lamprophyre has no direct relevance to mineralisation but does indicate deep structural disturbance in the area.

6. Rehabilitation

The following procedures were implemented to reduce environmental impact and enhance rehabilitation:

General

- Grid lines have been cut with strict adherence to the Mineral Exploration Code of Practice and will revegetate naturally with time
- A field camp (Camp Nikita) and helipad were established on the western end of line 20100N. The camp and helipad satisfy guidelines set out in the Mineral Exploration Code of Practice.
- All potentially soil contaminated equipment (camp equipment, wacker, wacker rods, diamond drilling equipment) was cleaned prior to entering the area to prevent the introduction of weeds or the vegetation fungus *Phytophthora cinnamomi*
- Wacker drill holes close over naturally

Drilling

- The small and lightweight 'Gopher' diamond drill rig was used to drill the five short diamond holes on line 10800N. The rig was heli-transported to a small slinging site at the first drill site and winched along the grid line to subsequent drill sites with minimal widening of the track. Drill sites are difficult to detect from the air and will revegetate naturally with time.
- To prevent the contamination of water courses:
 - * cuttings were contained by running returns into a polyweave bag and employing sand-bagging techniques
 - * oil absorbent matting was placed under fuel containers
 - * biodegradable hydraulic fluid was used
- On the completion of drillholes:
 - * water flows were plugged to prevent surface discharge of ground water, with the exception of DD96SW1. This hole could not be plugged in bedrock as surface casing moved off the hole (at 12m) during drilling operations and the hole could not be re-entered. Water flow from the hole is very minor at present and should cease as karstic clays collapse into the hole with time.

- * holes were cased with PVC or steel casing, and temporarily capped with tape and plastic wrap. Holes will be permanently capped with PVC caps in the near future.
- * cuttings trapped in polyweave bags were removed from site
- * all rubbish was removed from site
- An area approximately 10m x 15m (150 sq m) was cleared at 5500E, 20715N in preparation for a deep diamond hole to test potential mineralisation at Target Area 2. The area is significantly smaller than forested areas previously cleared for drill sites in the Zeehan programme, but was considered safe for slinging operations as:
 - * with a longline and wire-strop extension the Squirrel would be operating above tree level
 - * loads would be controlled such that the Squirrel was operating well within weight limits and flight access corridors would be unnecessary
 - * operations would be postponed if weather conditions were unfavourable

Larger slinging sites result in faster slinging operations (fewer loads) that can be carried out in poorer weather conditions, however environmental considerations are compromised. Smaller slinging sites do not compromise safety if the above guidelines are observed.

All cleared sites will be periodically monitored to ensure that hygiene measures have prevented weed infestation, and regeneration is proceeding.

A copy of an abstract for a poster presented at the CRA Environmental Workshop in May is included as Appendix 5. The section on Camp Nikita details measures taken to reduce environmental impact. Drill site environmental monitoring sheets are included as Appendix 6.

7. Expenditure

Expenditure during current term: 242,905.

Total Expenditure: 459,300

8. References

Menpes, S A and Maher, S 1996 First Annual Report for the Period
Ending 2 February, 1996, EL 64/94
Tasmania. CRAE Report No. 21978

9. Location

Queenstown	SK55-05	1:250,000
Cape Sorell	7913	1:100,000
Franklin	8013	1:100,000
Teepookana	3632	1:25,000
Strahan	3633	1:25,000

10. Keywords

Tasmania, Zinc, Lead, Gold, Ordovician, Carbonate Hosted, Irish-style, Soil Sampling, Rockchip Sampling, Stream Sediment Sampling, Geochemistry, Diamond Drilling.

11. DPO Register

Table 4
DPO Register

DPO Number	Lab Batch Number	Lab	Lab Location	DPO Date	Office	Geologist	Tenement Name	Tenement Number	Sample Type	Number of Samples	250 000 Mapsheet	100 000 Mapsheet
77186	104165.60.10848	Analabs	Cooee, TAS	11/4/95	Preston	S Menpes	Swift Creek	EL 64/94	Rockchip	6	Queenstown SK55-05	Cape Sorell 7913
77189	104165.60.11314	Analabs	Cooee, TAS	11/10/95	Preston	S Menpes	Swift Creek	EL 64/94	Rockchip	3	Queenstown SK55-05	Franklin 8013 Cape Sorell 7913
77395	104165.60.11432	Analabs	Cooee, TAS		Preston	S Tear	Swift Creek	EL 64/94	Wacker	127	Queenstown SK55-05	Cape Sorell 7913
77192	104165.60.11470	Analabs	Cooee, TAS	11/12/95	Preston	S Menpes	Swift Creek	EL 64/94	Wacker	136	Queenstown SK55-05	Cape Sorell 7913
77193	104165.60.11495	Analabs	Cooee, TAS	17/12/95	Preston	S Menpes	Swift Creek	EL 64/94	Wacker Rockchip	78 18	Queenstown SK55-05	Cape Sorell 7913
77316	104165.60.11734	Analabs	Cooee, TAS	12/3/96	Bundoora	S Menpes	Swift Creek	EL 64/94	Wacker Rockchip Stream Sed	163 12 3	Queenstown SK55-05	Cape Sorell 7913
82160	104165.60.11892	Analabs	Cooee, TAS	13/5/96	Bundoora	S Menpes	Swift Creek	EL 64/94	Half Core	68	Queenstown SK55-05	Cape Sorell 7913
82163	104165.60.11910	Analabs	Cooee, TAS	16/5/96	Bundoora	S Menpes	Swift Creek	EL 64/94	Half Core	44	Queenstown SK55-05	Cape Sorell 7913

ROCKCHIP AND DRILLING CODES

22/2/1994

BMR/LITHRock code as per published geological map
For time designation use:-

Q	Quaternary	M	Permian	P	Proterozoic
T	Tertiary	C	Carboniferous	A	Archaean
		S	Silurian		
K	Cretaceous	D	Devonian		
R	Triassic	O	Ordovician		
J	Jurassic	E	Cambrian		

FIELD ID

Field term for rock type
Broad groupings are:-

S	Sedimentary	I	Intrusive	C	Surficial
M	Metamorphic	E	Extrusive	O	Others

SEDIMENTARY

Sog	Conglomerate	Sls	Limestone	Sw	Wacke
Sss	Sandstone	Sdl	Dolomite	Sag	Agglomerate/mixtilite
Ssi	Siltstone				
Ssh	Shale	Sch	Chert	Sbx	Breccia
Sbs	Black shale	Sil	BIF		

METAMORPHIC

Msl	Slate	Mq	Quartzite	Mmg	Migmatite
Mph	Phyllite	Mm	Marble		
Msc	Schist	Ma	Amphibolite		
Mbs	Graphitic schist	Mcs	Calcsilicate	Msk	Skarn
Mgn	Gneiss	Mh	Hornfels		

INTRUSIVE IGNEOUS

If	Felsic undiff.	li	Intermed undiff.	Iu	Ultramafic
Ifp	Felsic porphyry	lip	Intermed porph	Ius	Serpentinite
Iap	Aplite	Im	Mafic undiff.		
Igr	Granite	ldo	Dolerite	Ipg	Pegmatite
Igd	Granodiorite	Igb	Gabbro		

EXTRUSIVE IGNEOUS

Ery	Rhyolite	Ean	Andesite	Et	Tuff undiff
Edc	Dacite	Eb	Basalt	Eft	Felsic tuff
				Emt	Mafic tuff

SURFICIAL (COVER) MATERIAL

Ca	Alluvium	Clt	Laterite	Csg	Gossan
Cco	Colluvium	Csp	Pisolites	Ccy	Clay
Cs	Sand	Csf	Ironstone	Cv	Vegetation/peat
Cbs	Black soil	Csi	Silcrete		
Cg	Gravel	Cd	Calcrete		

OTHERS

Ovq	Vein quartz	Omy	Mylonite	Oms	Massive sulphide
Ovc	Vein carbonate	Obx	Breccia	Oxc	Contamination
Ovs	Vein sulphide	OI	Fault gouge	Ox	Unknown

TEXTURAL CODES

WEATHERING/SURFICIAL FEATURES

We	Weathered	Fe	Ferruginous
Bf	Bleached	Fo	Fe ox in fract
Le	Leached		

MINERALISATION/ALTERATION FEATURES

Gs	Gossanous	Vs	Vein sulphide	Al	Altered
Vn	Veined	Ds	Dissem sulph	Si	Silicified
Vc	Vein carbonate	Fs	Fracture sulph		
Vq	Vein quartz	Bs	Banded sulph	Di	Disseminated

GEOLOGICAL FEATURES

Bd	Bedded	Fr	Fractured	Po	Porphyritic
Bn	Banded	lb	Interbedded	Sc	Schistose
Bx	Brecciated	Lm	Laminated	Sh	Sheared
F	Fissile (slaty)	Ma	Massive	Vu	Vuggy

DIAGNOSTIC MINERALOGY

PRIMARY MINERALISATION

Ga	Galena	Py	Pyrite	Ni	Ni sulphides
Sp	Sphalerite	Po	Pyrrhotite		
Cp	Chalcopyrite	Su	Unknown sulph		

SECONDARY MINERALISATION

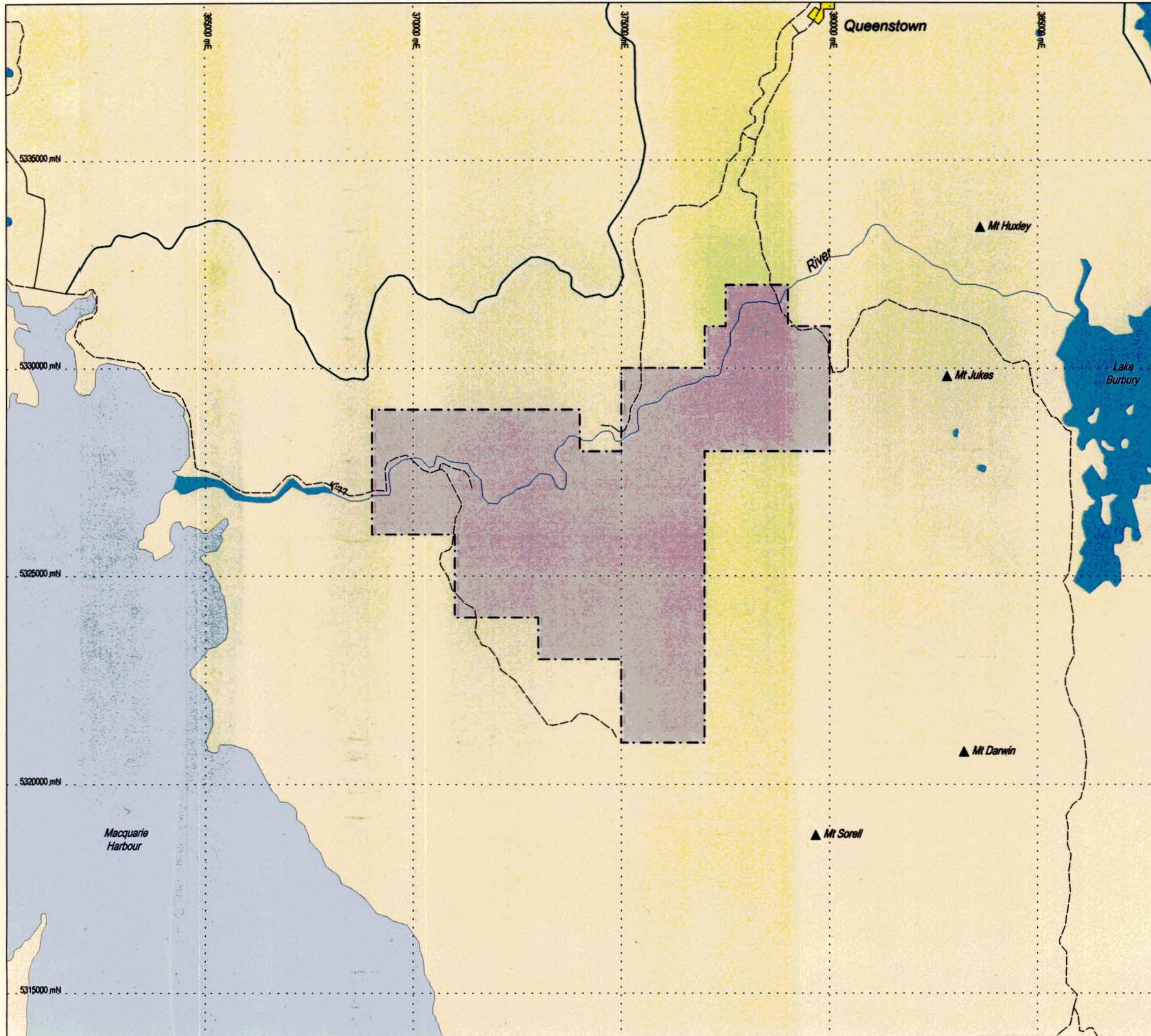
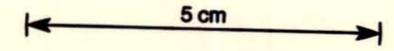
Ls	Lead secondaries	Cs	Copper sec.	Ni	Ni secondaries
Zs	Zinc "	Us	Uranium "		

ALTERATION/DIAGNOSTIC MINERALS

Cy	Clay	He	Haematite	Gt	Garnet
Ep	Epidote	Mt	Magnetite	Ky	Kyanite
Cc	Carbonate	Js	Jarosite	To	Tourmaline
Sd	Siderite/Ankerite	Mn	Manganese mins	Cl	Chlorite
Di	Dolomite				

COLOUR CODES

L	Light	A	Banded	M	Mottled
D	Dark				
N	Black	P	Purple	V	Green
G	Grey	R	Red	K	Pink
B	Brown	O	Orange	E	Blue
W	White	Y	Yellow	S	Silver

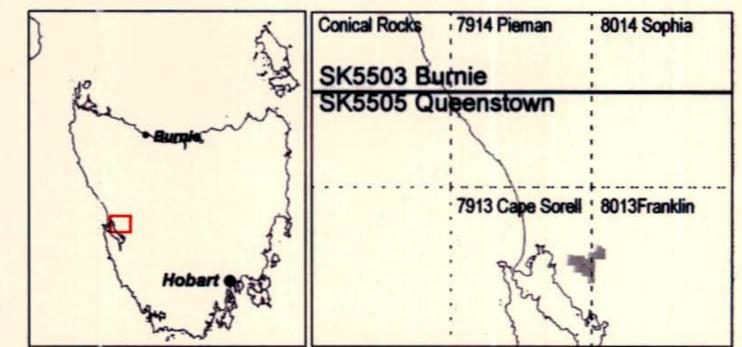
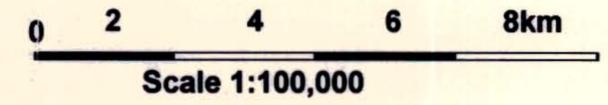


Key

- ▲ mountain
- main/secondary road
- - - minor road/track
- highway
- ++++ railway
- river (perennial)
- lake
- urban area
- EL64/94 Swift Creek

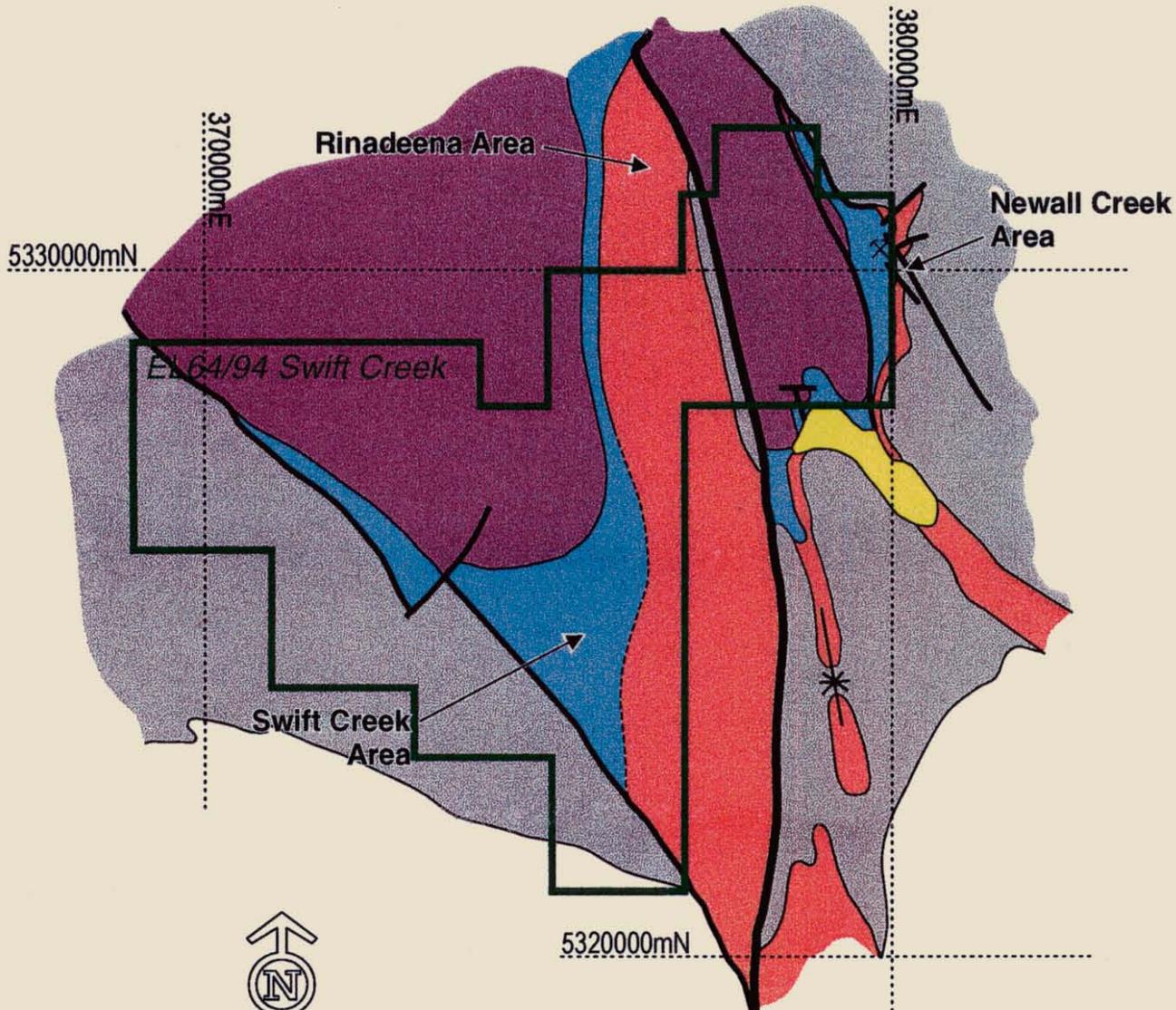
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ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

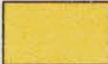
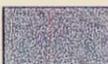


Location Diagram Map Sheet Reference

CRA EXPLORATION PTY. LIMITED	
EL64/94 Swift Creek	
Location Plan	
Author: Tony Sargeant	Reference: SK55-05 Queenstown
Drawn: Tony Sargeant	File Name: Tv1075.wor
Date: March 1997	Report No: 22154
Scale: 1:100,000	Plan No: Tv1075



Stratigraphy

-  Quaternary gravel-sand-clay
-  Undifferentiated Siluro-Devonian
-  Ordovician Gordon Group
-  Cambro-Ord. clastic sequences
-  Undifferentiated Cambrian
-  Fault
-  Interpreted basin bounding fault (reactivated growth fault)
-  Discordant Pb-Zn working

304018

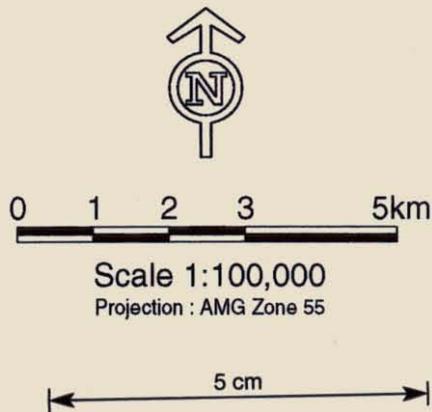
CRA EXPLORATION PTY. LIMITED

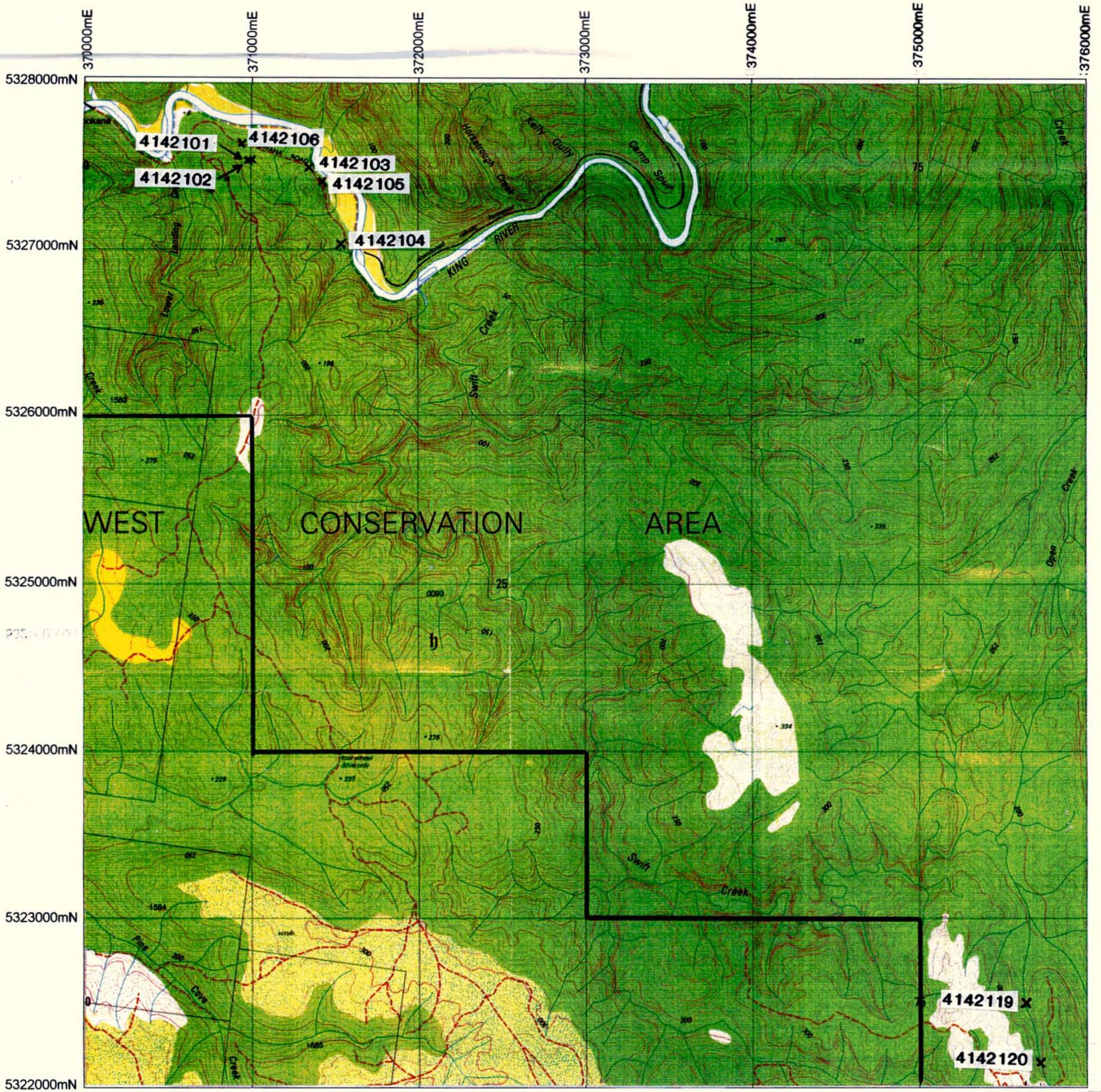
Swift Creek EL64/94
Summary Geology

97-4001

ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

Author: Sandy Menpes	Reference: SK55-05 Queenstown
Drawn: Tony Sargeant	File Name: Tv1059.cdr
Date: May 1996	Report No: 22154
Scale: 1:100,000	Plan No: Tv1059

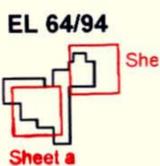




97-4001

5 cm

500 0 500 1000 1500
Scale 1:25,000 (metres)



ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
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x Rockchip Locations



Burnie SK5503	Arthur River 7915	Hellyer 8015
Sandy Cape 7815		
Conical Rocks 7814	Pieman 7914	Sophia 8014
	Cape Sorel 7913	Franklin 8013
Queenstown SK5504		

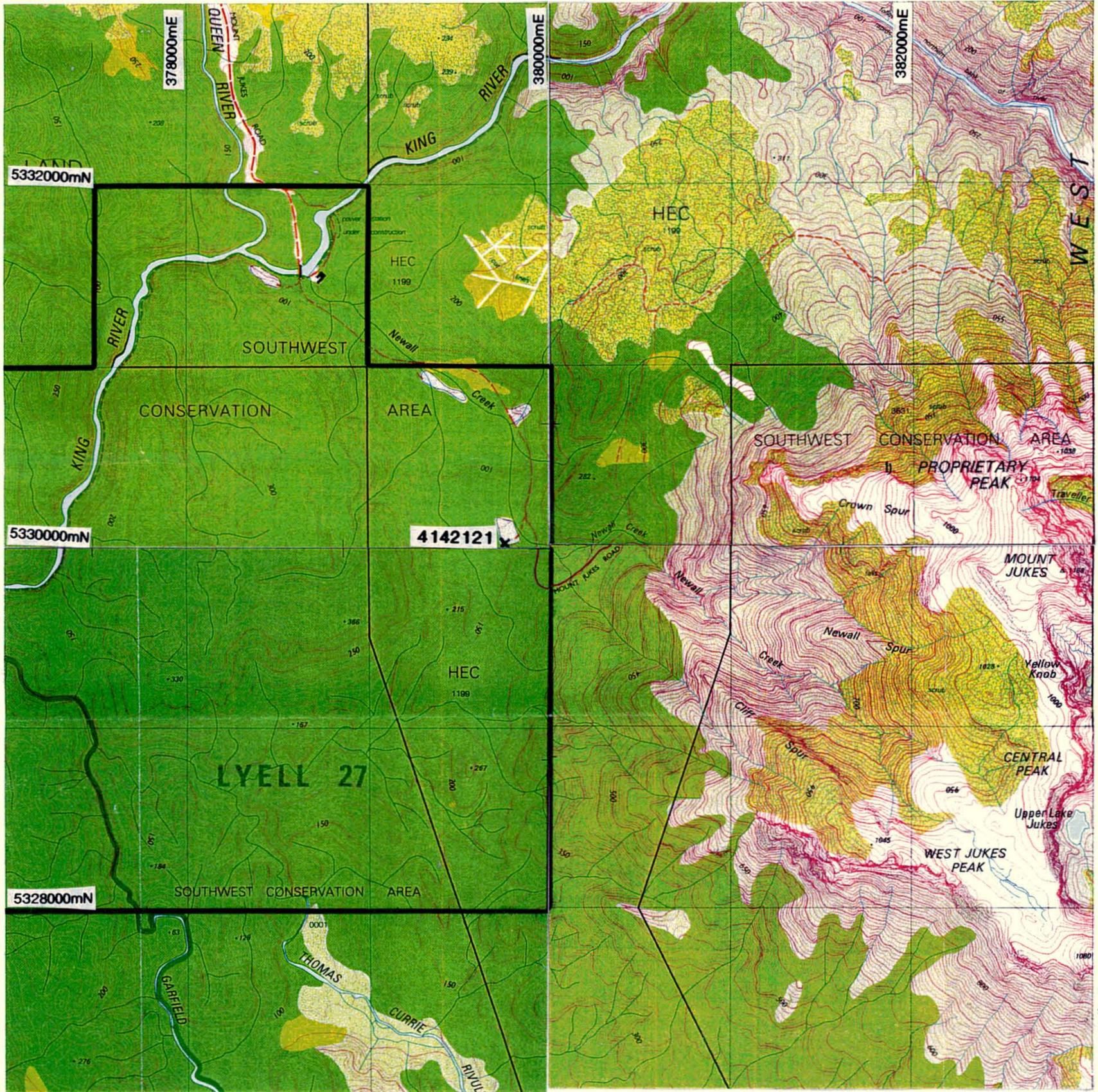
CRA EXPLORATION PTY. LIMITED

EL 64/94 Swift Creek Rockchip Sample Locations Sheet A

Author: S Menpes	Reference: Queenstown SK55-05
Drawn: N Waterman	File Name:
Date: March 1997	Report No: 22154
Scale: 1:25,000	Plan No: Tv1072

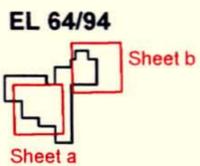
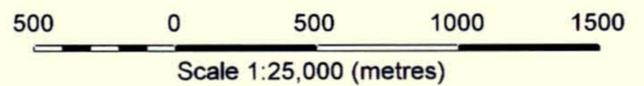
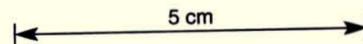
Topography from Tasmap 1:25000 published map

Location Diagram

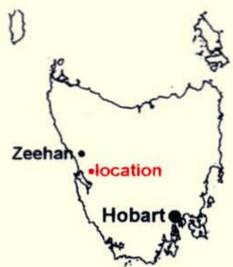


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ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES



✕ Rockchip Locations

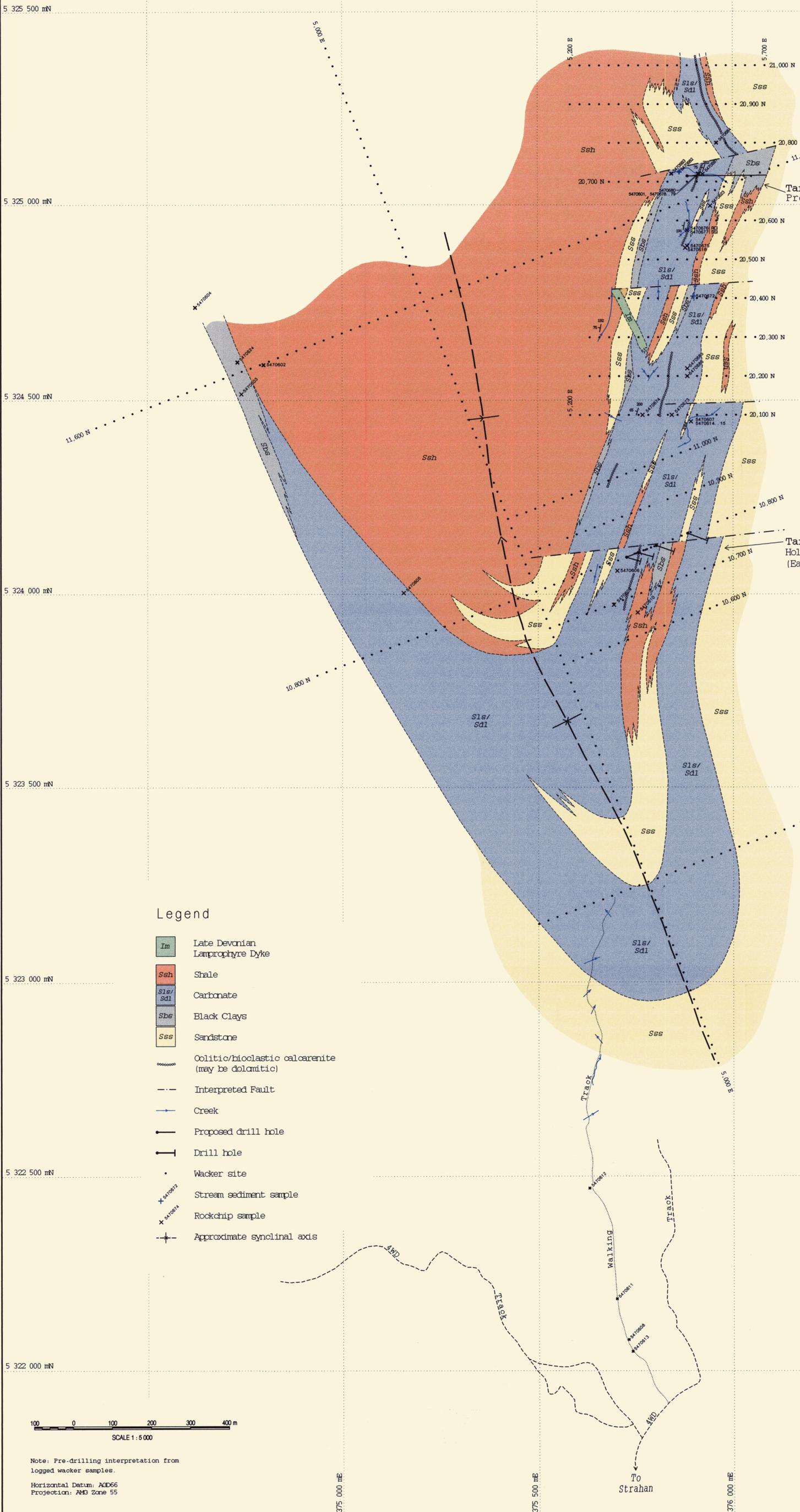


Location Diagram

Burnie SK5503		
Sandy Cape 7815	Arthur River 7915	Hellyer 8015
Conical Rocks 7814	Pieman 7914	Sophia 8014
Queenstown SK5504		
Cape Sorell 7913	Franklin 8013	

CRA EXPLORATION PTY. LIMITED	
EL 64/94 Swift Creek Rockchip Sample Locations Sheet B	
Author: S Menpes	Reference: Queenstown SK55-05
Drawn: N Waterman	File Name:
Date: March 1997	Report No: 22154
Scale: 1:25,000	Plan No: Tv1073

Topography from Tasmap 1:25000 published map

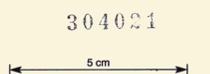


Legend

- Im Late Devonian Lamprophyre Dyke
- Ssh Shale
- S1s/Sd1 Carbonate
- Sbs Black Clays
- Sss Sandstone
- Colitic/bioclastic calcarenite (may be dolomitic)
- Interpreted Fault
- Creek
- Proposed drill hole
- Drill hole
- Wacker site
- Stream sediment sample
- Rockchip sample
- Approximate synclinal axis



Note: Pre-drilling interpretation from logged wacker samples.
 Horizontal Datum: AD66
 Projection: AMG Zone 55



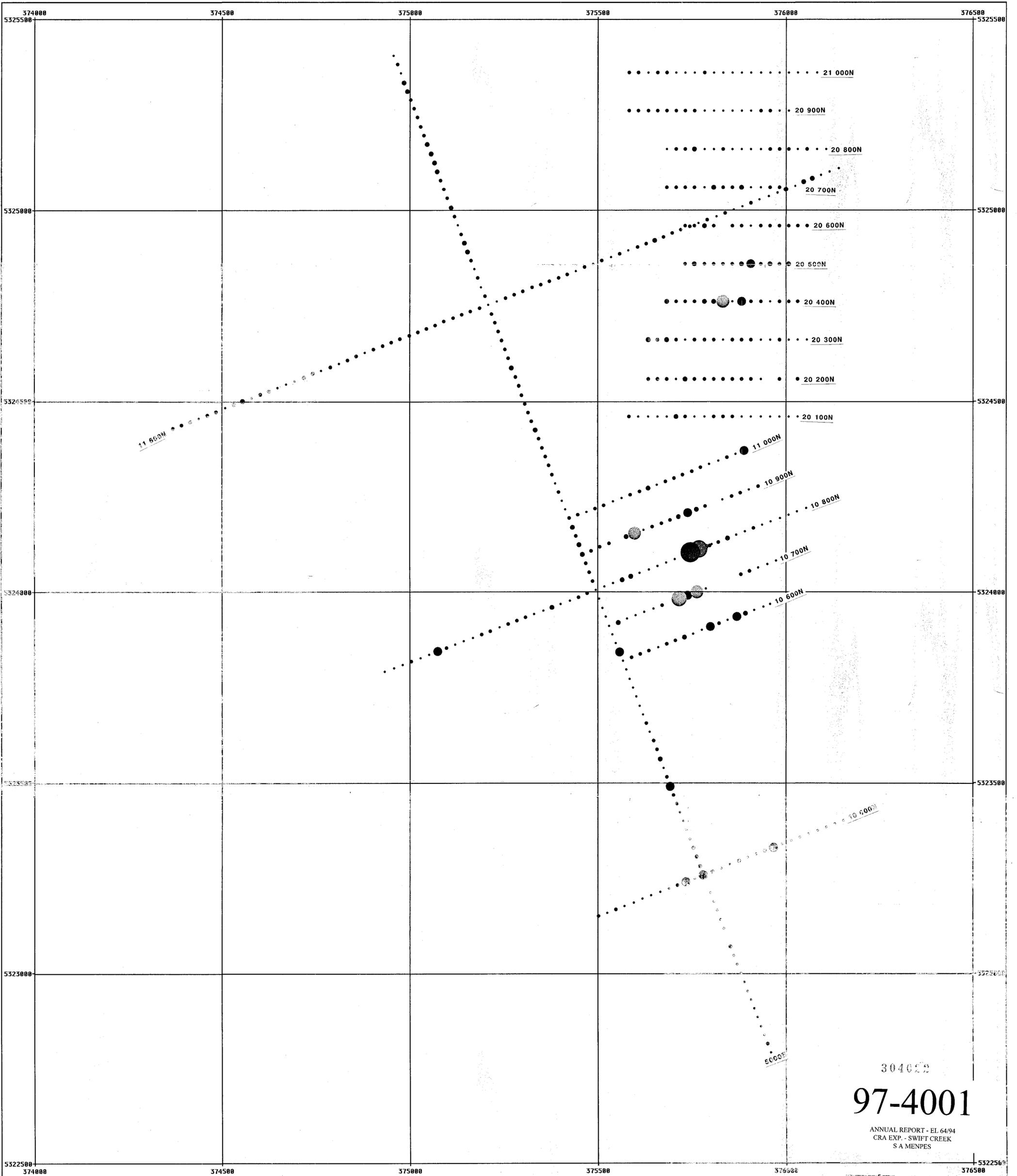
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ANNUAL REPORT - EL 64/94
 CRA EXP. - SWIFT CREEK
 S.A. MENPES

CRA EXPLORATION PTY. LIMITED

Swift Creek EL64/94
 Geology, Wacker, Stream Sediment, Rockchip Sample & Drill Hole Location Plan

Author: Sandy Menges	Ref: SK95-05 Queenstown
Drawn: Tony Sargeant	File Name: Tv1071.dgn
Date: June 1996	Report No: 22154
Scale: 1:5,000	Plan No: Tv1071

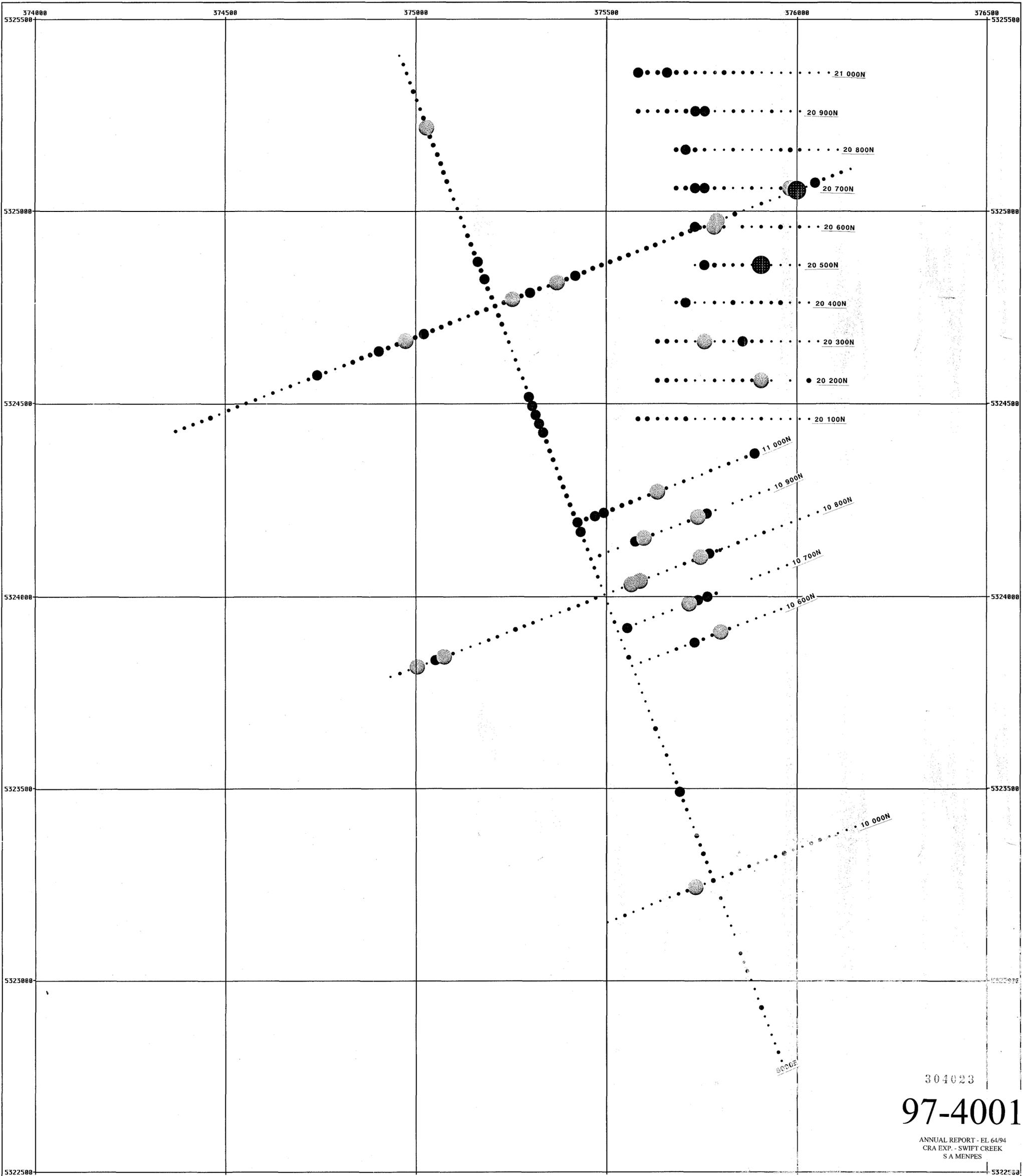


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ANNUAL REPORT - EL 64/94
 CRA EXP. - SWIFT CREEK
 S A MENPES



CRA EXPLORATION PTY. LIMITED	
EL 64/94 Swift Creek Swift Creek Prospect	
Wacker Bedrock Geochemistry 5th ppm	
Ref: Sumia SK55-03	Scale: 1:5000
Author: S. Menpes	Report No.: 97/34
Drawn:	Plan No.: 97/076



304023

97-4001

ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
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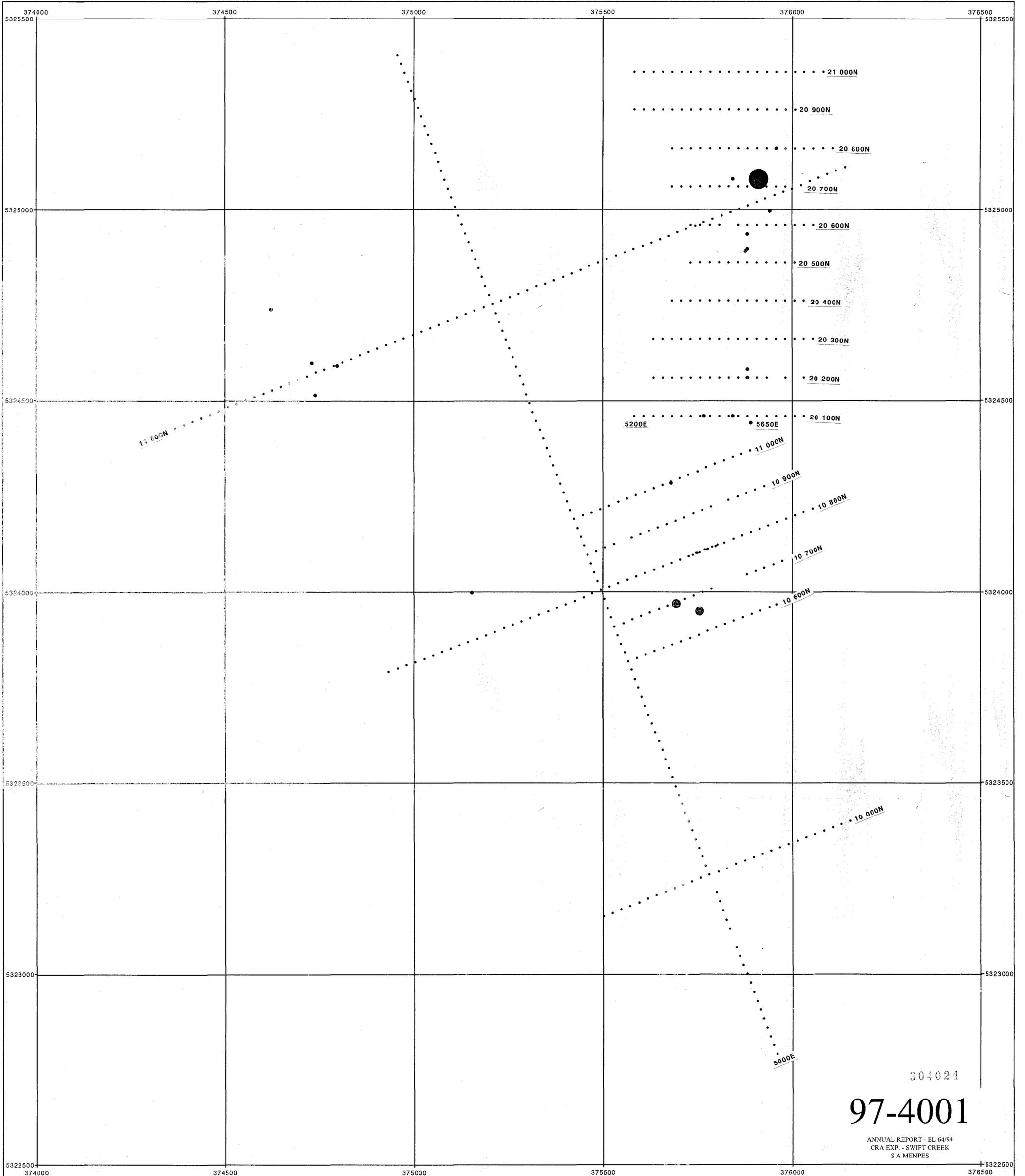


5 cm

jmap

100m

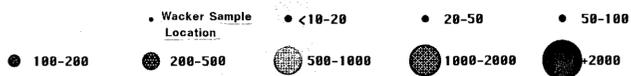
CRA EXPLORATION PTY. LIMITED	
EL 64/94 Swift Creek Swift Creek Prospect Wacker Bedrock Geochemistry Zn ppm	
Ref: Burnie SK55-03	Scale: 1:5000
Author: S. Menpes	Report No: 22154
Drawn:	Plan No: Tv1077



304024

97-4001

ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

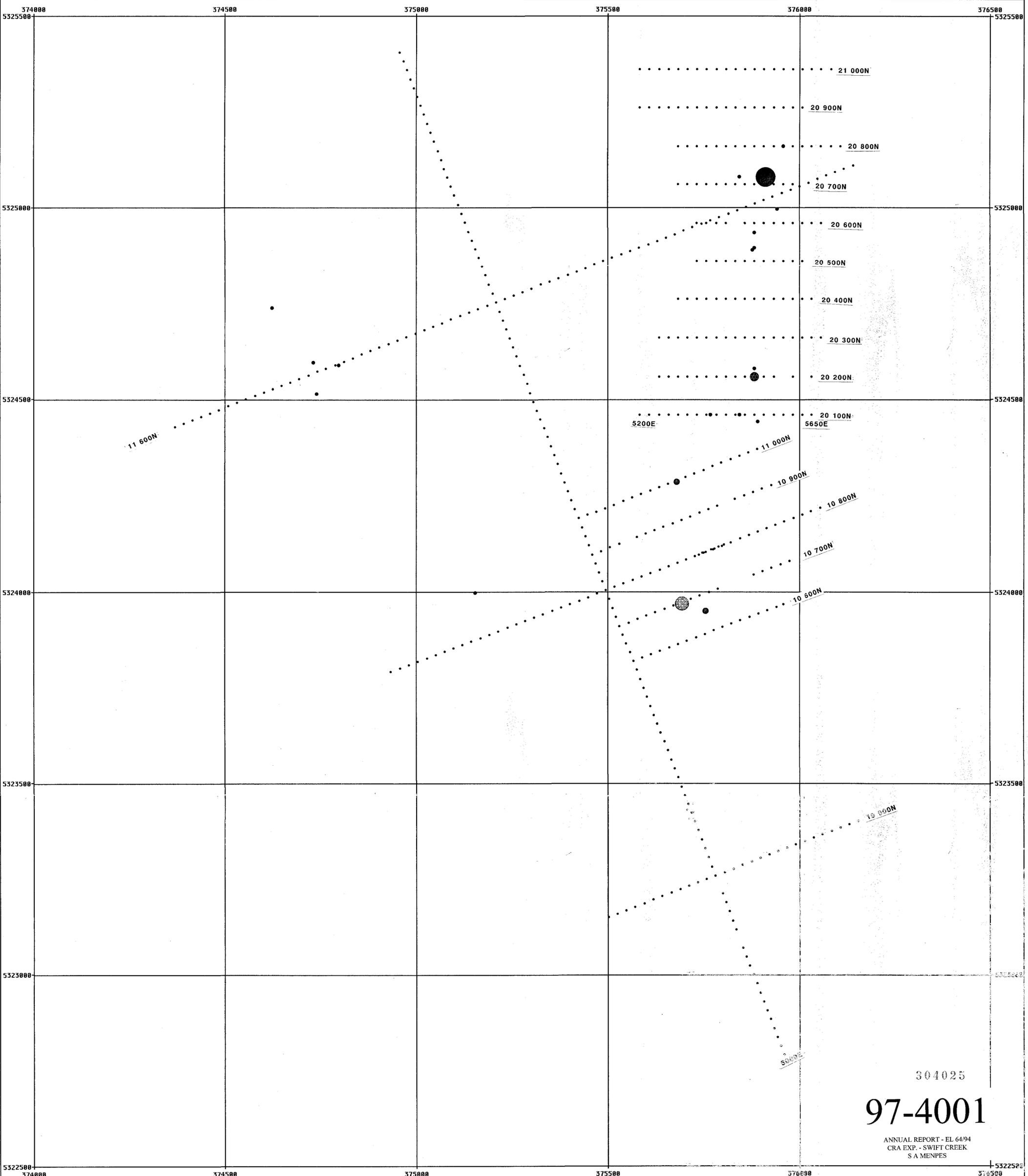


CRA EXPLORATION PTY. LIMITED	
EL 64/94 Swift Creek Swift Creek Prospect Rockchip Geochemistry Pb ppm	
Ref.: Burnie SK55-03	Scale: 1:5000
Author: S. Menpes	Report No.: 22154
Drawn:	Plan No.: Tv1078

jmap

100m

5 cm



304025

97-4001

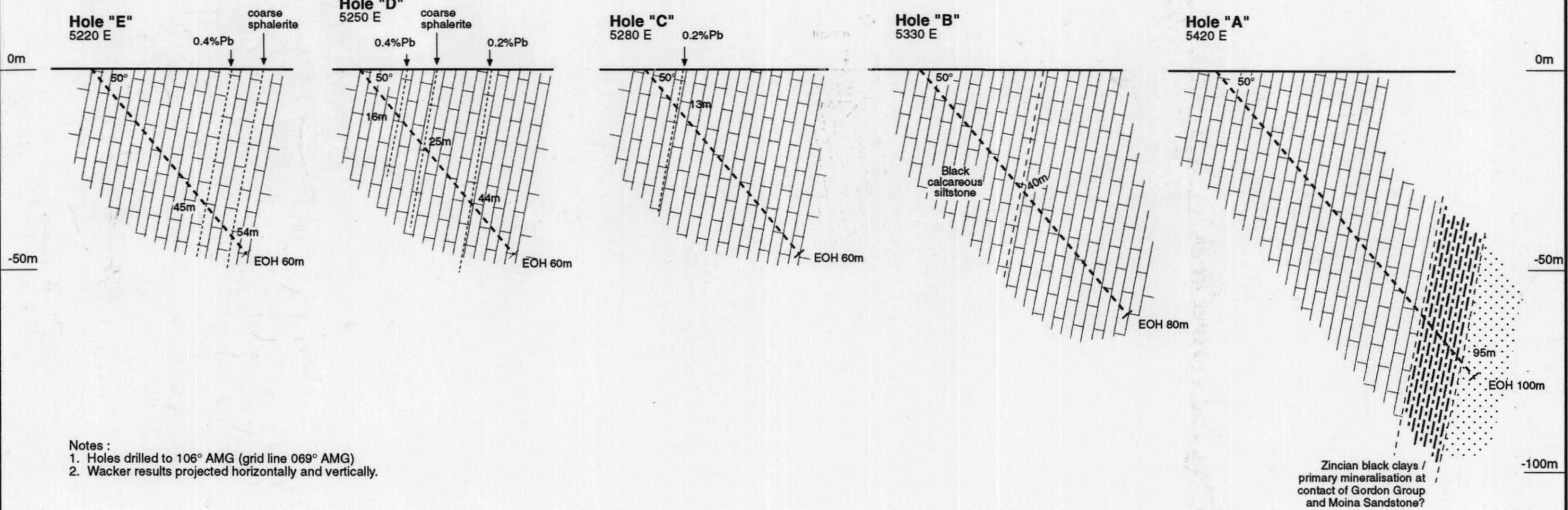
ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

- Wacker Sample location
- <10-20
 - 20-50
 - 50-100
 - 100-200
 - 200-500
 - 500-1000
 - 1000-2000
 - 2000

CRA EXPLORATION PTY. LIMITED	
EL 64/94 Swift Creek Swift Creek Prospect Rockchip Geochemistry Zn ppm	
Ref: Burnie SK55-03	Scale: 1:5000
Author: S. Manpes	Report No.: 22154
Drawn:	Plan No.: TV1079

5 cm

Line 10800 N



- Notes :
- Holes drilled to 106° AMG (grid line 069° AMG)
 - Wacker results projected horizontally and vertically.

Sc		Crotty Quartzite	Silurian
Ogud		Upper Dolomite Unit	Gordon Limestone
Ogsi		Siltstone Unit	
Ogul		Undifferentiated limestone	
Ogdl		Undifferentiated dolomite	
Ogmu		Laminated Micrite Unit	
Ogoo		Oolite Unit	
Ogsd		Siderite Unit	
Ogdc		Dark grey/black clay Unit	
Ogfc		Ferruginous Clay Unit	
Ogms		Massive Sulphide Unit	
Ogst		Silty Transition Unit	Ordovician
Ogfb		Fault zone	Cambrian
Ogbr		Carbonate breccia	
Om		Moira Sandstone	
Oo		Owen Conglomerate	
Ed		Dundas Group (undifferentiated)	

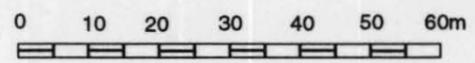
5 cm

- Deep overburden sampling (aircore EOH / wacker)
Hole no / Zn : ppm
- Strong siderite in aircore holes
- Moderate siderite in aircore holes
- Elevated Zn in aircore holes

304026

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CRA EXP. - SWIFT CREEK
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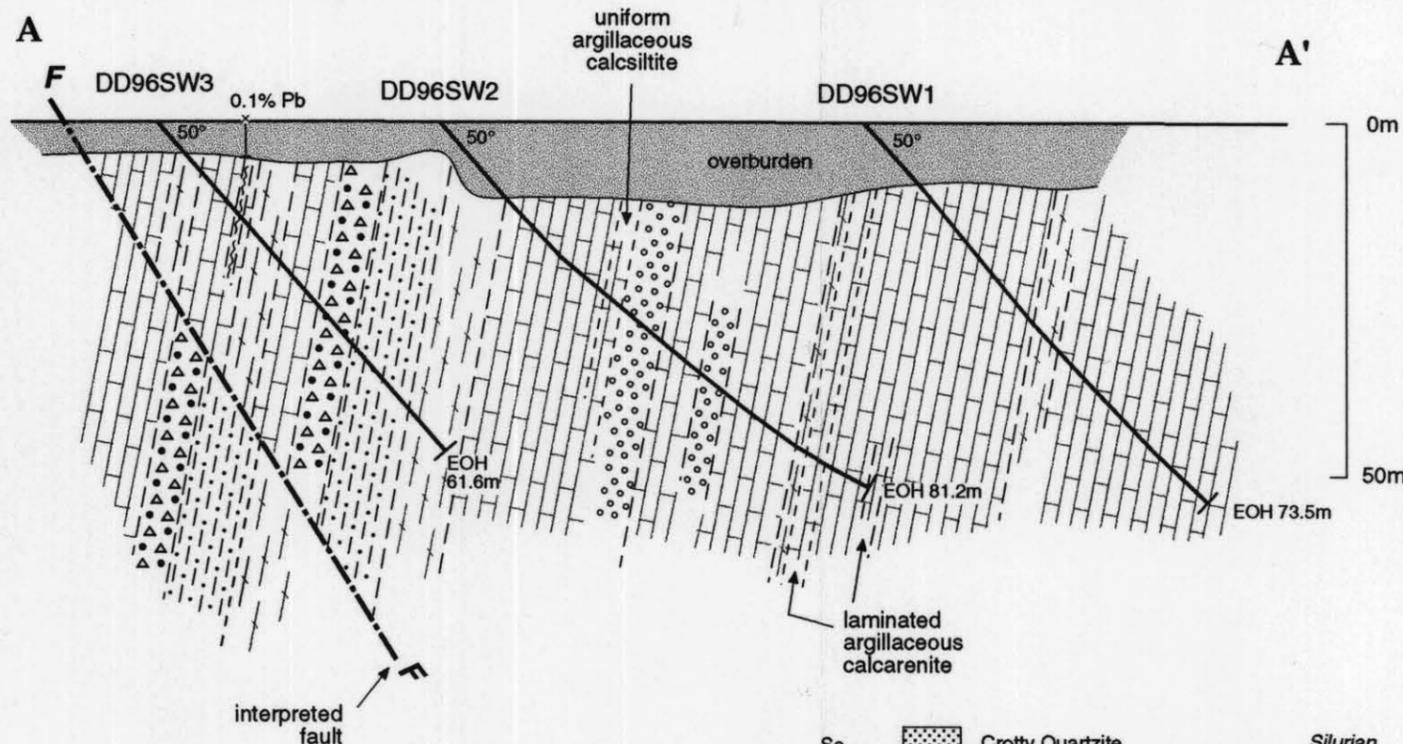
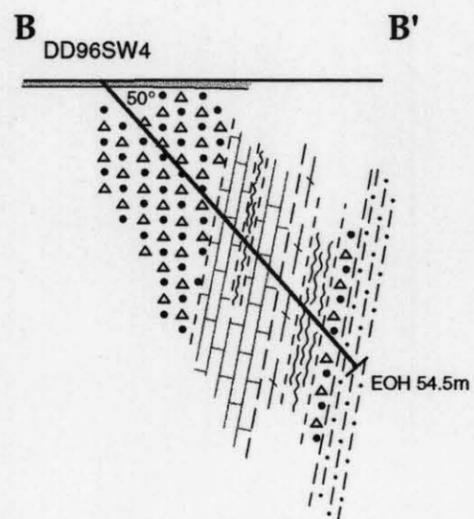
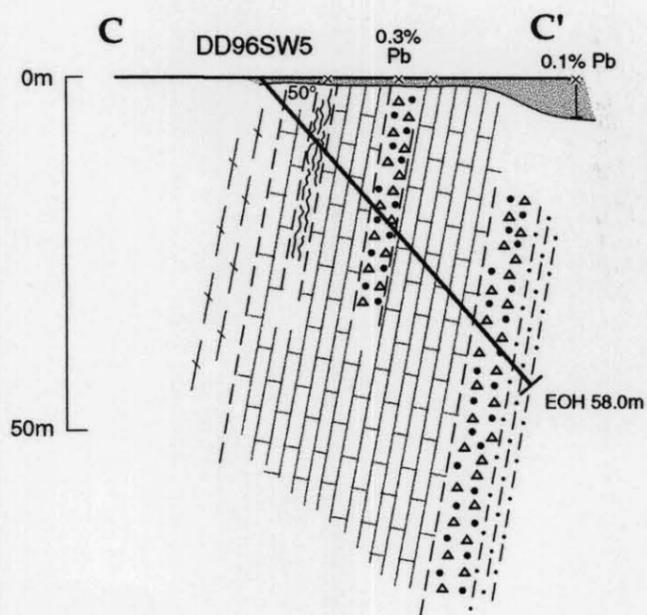


CRA EXPLORATION PTY LIMITED

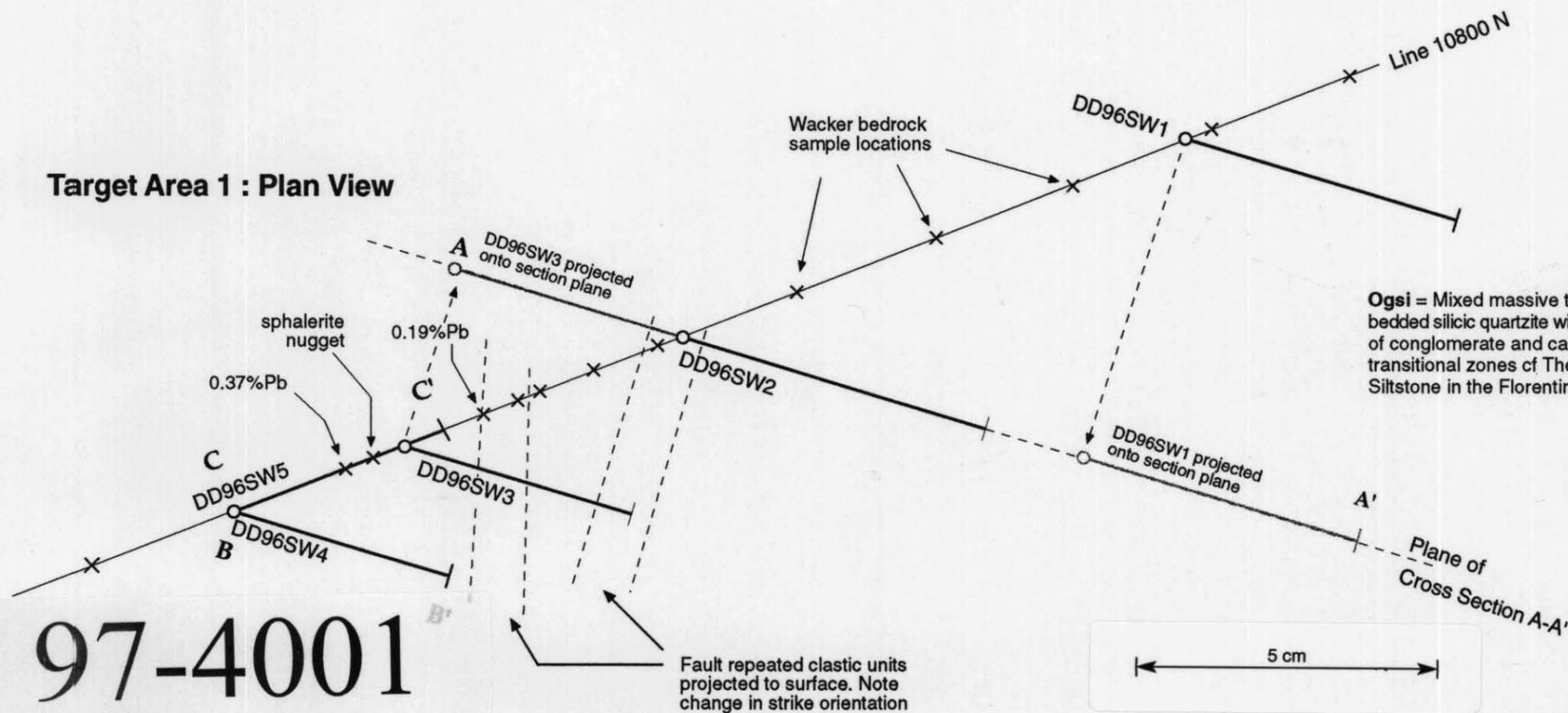
EL 64/94 - Swift Creek
Zeehan Carbonate
SWIFT CREEK PROSPECT
Target Area 1
Geological Sections
for Planned Diamond Holes

Author: S A Menpes	Reference: SK5505 Queenstown
Drawn: D Oliver	File Name: Tv1080
Date: August 1996	Report No: 22154
Scale: 1:1000	Plan No: Tv1080

Drillhole Sections



Target Area 1 : Plan View



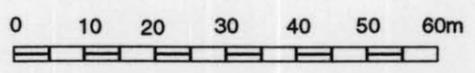
Sc		Crotty Quartzite	Silurian
Ogud		Upper Dolomite Unit	Gordon Limestone
Ogsi		Siltstone Unit	
Ogul		Undifferentiated limestone	
Ogdl		Undifferentiated dolomite	
Ogmu		Laminated Micrite Unit	
Ogoo		Oolite Unit	
Ogsd		Siderite Unit	
Ogdc		Dark grey/black clay Unit	
Ogfc		Ferruginous Clay Unit	
Ogms		Massive Sulphide Unit	
Ogst		Silty Transition Unit	Ordovician
Ogfs		Fault zone	
Ogbr		Carbonate breccia	Cambrian
Om		Moina Sandstone	
Oo		Owen Conglomerate	
Ed		Dundas Group (undifferentiated)	

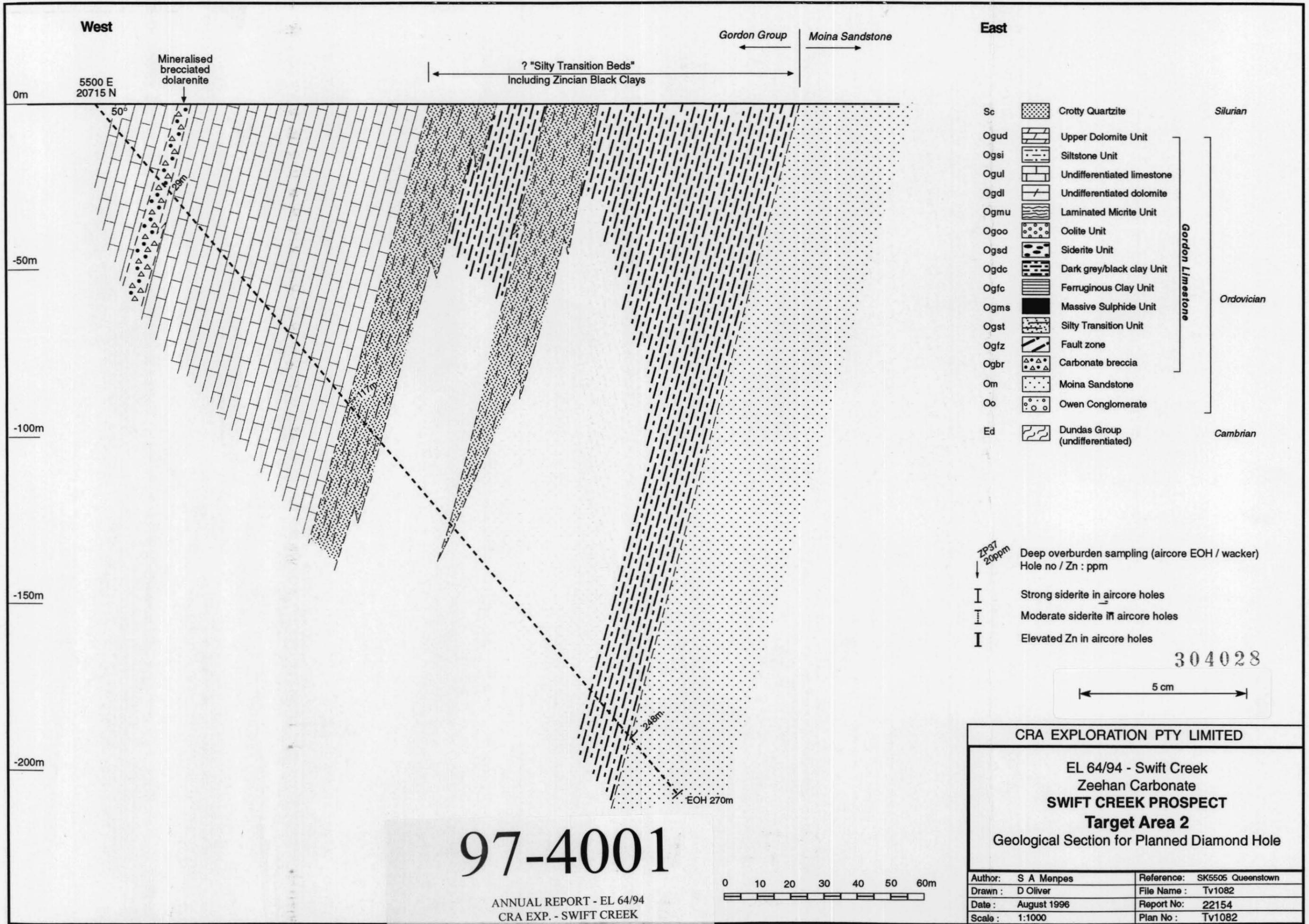
97-4001

ANNUAL REPORT - EL 64/94
CRA EXP. - SWIFT CREEK
S A MENPES

CRA EXPLORATION PTY LIMITED
304027
EL 64/94 - Swift Creek
Zeehan Carbonate
SWIFT CREEK PROSPECT
Target Area 1
Geological Sections
Short Diamond Holes - April 1996

Author: S A Menpes	Reference: SK5505 Queenstown
Drawn: D Oliver	File Name: Tv1081
Date: August 1996	Report No: 22154
Scale: 1:1000	Plan No: Tv1081





West

Gordon Group | Moina Sandstone

East

5500 E
20715 N
Mineralised
brecciated
dolarenite

? "Silty Transition Beds"
Including Zincian Black Clays

0m

-50m

-100m

-150m

-200m

- | | | | |
|------|--|---------------------------------|------------------|
| Sc | | Crotty Quartzite | Silurian |
| Ogud | | Upper Dolomite Unit | Gordon Limestone |
| Ogsi | | Siltstone Unit | |
| Ogul | | Undifferentiated limestone | |
| Ogdl | | Undifferentiated dolomite | |
| Ogmu | | Laminated Micrite Unit | |
| Ogoo | | Oolite Unit | |
| Ogsd | | Siderite Unit | |
| Ogdc | | Dark grey/black clay Unit | |
| Ogfc | | Ferruginous Clay Unit | |
| Ogms | | Massive Sulphide Unit | |
| Ogst | | Silty Transition Unit | Ordovician |
| Ogfb | | Fault zone | |
| Ogbr | | Carbonate breccia | |
| Om | | Moina Sandstone | |
| Oo | | Owen Conglomerate | |
| Ed | | Dundas Group (undifferentiated) | Cambrian |

- ZP37
20ppm
- Deep overburden sampling (aircore EOH / wacker)
Hole no / Zn : ppm
- I Strong siderite in aircore holes
- I Moderate siderite in aircore holes
- I Elevated Zn in aircore holes

304028

5 cm

97-4001

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CRA EXP. - SWIFT CREEK
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0 10 20 30 40 50 60m

CRA EXPLORATION PTY LIMITED

EL 64/94 - Swift Creek
Zeehan Carbonate
SWIFT CREEK PROSPECT
Target Area 2
Geological Section for Planned Diamond Hole

Author: S A Menpes	Reference: SK5505 Queenstown
Drawn: D Oliver	File Name: Tv1082
Date: August 1996	Report No: 22154
Scale: 1:1000	Plan No: Tv1082

Appendix 1

Swift Creek Regional Rockchip Sampling

Swift Creek EL 64/94
Regional Rockchip Sampling

Sample No.	DPO No	Type	AMG E	AMG N	Local E	Local N	Colour	Min	Alt	Texture	Field ID	Comments
4142101	77186	Rkchp	370990	5327540	-	-	DG			Vqc	Sls	Dark grey, argillaceous carbonate with boxwork quartz-carbonate veins. Sample along old grid line
4142102	77186	Rkchp	371000	5327530	-	-	DG			Bd	Sls	Dark grey, argillaceous, finely crystalline, sucrosic limestone. Sample along old grid line
4142103	77186	Rkchp	371340	5327480	-	-	VG			Fi Fr	Ssi	Olive to bluish grey, fissile siltstone. Sub-vertical ferruginous fractures cross-cut ?cleavage
4142104	77186	Rkchp	371540	5327040	-	-	VG			Ma	Ssi	Massive, olive grey siltstone
4142105	77186	Rkchp	371410	5327390	-	-	VG	Py		Sh	SssSsi	Greenish grey to olive grey, sheared, very fine grained quartz sandstone grading to siltstone, with coarse "augen". Trace fine, disseminated pyrite.
4142106	77186	Rkchp	370950	5327620	-	-	DGN			Vc	Sls	Soft, dark greyish black, argillaceous limestone with a fine network of cross-cutting, carbonate filled fractures
4142119	77189	Rkchp	375630	5322490	-	-	DG				Sls	Variably argillaceous limestone
4142120	77189	Rkchp	375720	5322130	-	-	G			Bx	Sdl	Dolomite breccia with stockwork of fine sulphide veins
4142121	77189	Rkchp	379750	5330100	-	-	G				Sls	Composite rock float sample from quarry near mapped Pb-Zn-Au occurrence

304031



Analabs Pty. Ltd.
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14 Thirrell St. DOGEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

104165.00.10848

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

CRA Exploration Pty Limited
P.O. box 8093
NORTHLAND CENTRE VIC 3072

ORDER No.

PROJECT

72186

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RESULTS REQUIRED

12/04/95

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No. OF COPIES

TOTAL No. OF SAMPLES

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03/05/95

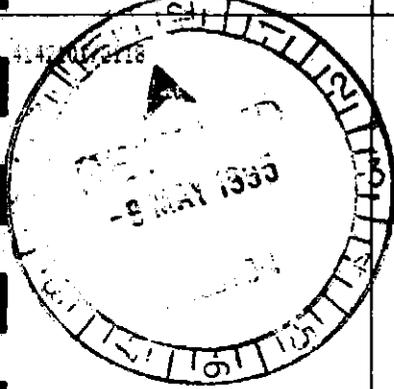
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18

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD



AG Prep : 8P033

Cu, Pb, Zn, Ag, Fe, Mn / GA140
Fe(I) / GA140
Au, Au(R), Au(S) / 66309
Sn, W / SX401

RESULTS TO

Mr S Mendes
CRA Exploration Pty Ltd
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS TO

Mr C Hayward
CRA Exploration Pty Limited
P.O. box 8093
NORTHLAND CENTRE VIC 3072

RESULTS TO

CRA Information Systems
P.O. Box 3709
MANUKA ACT 2603

REMARKS

Fe(I)/GA140 results are over the recommended analytical range.

AUTHORISED OFFICER

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

		104165.60.10848				03/05/95		77186		1 OF 2	
	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Fe(1)	Mn	Au	Au(R)	
METHOD		GA140	GA140	GA140	GA140	GA140	GA140	GA140	GG309	GG309	
1	4142101	8	136	16	<1	0.57	-	222	<0.008	-	
2	4142102	8	16	58	<1	0.81	-	233	<0.008	-	
3	4142103	38	16	52	<1	3.80	-	93	<0.008	-	
4	4142104	26	15	87	<1	3.32	-	109	<0.008	-	
5	4142105	20	9	36	<1	2.48	-	55	<0.008	-	
	4142106	11	9	15	<1	1.06	-	183	<0.008	-	
7	4142107	16	31	30	<1	1.23	-	89	<0.008	-	
8	4142108	13	16	25	<1	0.79	-	237	<0.008	-	
9	4142109	7	33	28	<1	0.40	-	366	<0.008	-	
10	4142110	7	23	27	<1	0.38	-	156	<0.008	-	
11	4142111	24	16	27	<1	1.73	-	24	<0.008	-	
12	4142112	54	5	95	<1	-	8.0	938	<0.008	<0.008	
13	4142113	6	18	24	<1	0.55	-	170	<0.008	-	
14	4142114	8	7	20	<1	0.26	-	73	<0.008	-	
15	4142115	7	17	31	<1	0.23	-	110	<0.008	-	
16	4142116	8	18	14	<1	0.42	-	113	<0.008	-	
17	4142117	24	8	22	<1	1.98	-	154	<0.008	-	
18	4142118	70	143	395	<1	-	11.0	4379	<0.008	-	
19											
20											
21											
22											
23											
24	DETECTION	2	3	2	1	0.01	0.1	3	0.008	0.008	
25	UNITS	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	

Results in ppm unless otherwise specified
 -- element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED
 OFFICER





ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

		104165.60.10B4B			03/05/95		77186		2 OF 2	
	SAMPLE No.	Au(S)	Sn	W						
METHOD		GG309	GX401	GX401						
1	4142106	<0.008	-	-						
2	4142117	-	11	13						
3	4142118	-	245	70						
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	0.008	3	5						
25	UNITS	ppm	ppm	ppm						

Results in ppm unless otherwise specified
 -- element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER



Phone (004) 316837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

104165.60.11314

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

ORDER No.

PROJECT

77189

DATE RECEIVED

RESULTS REQUIRED

12/10/95

ASAP

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OF COPIES

TOTAL No.
OF SAMPLES

3

27/10/95

1

16

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

142119-134

RD Prep : 6P033

Cu,Pb,Zn,Ag,Fe,Mn,Co,Ni,As,
Fe(1),Mn(1)/6A140 Cu,As/6A104,
Au,Au(R),Au(S)/66309 As/HA140
Sn,W/BX401

RESULTS
TO

Ms S Nempes
CRA Exploration Pty Ltd
P O Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS
TO

Mr C Hayward
CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS
TO

Exploration Technology & Information
Group
Information Resources
Private Bag 3 Bundoora MDC
Victoria 3083

REMARKS

Cu/6A104 results >5% and Fe(1),Mn(1)/6A140
results are over the recommended analytical
range and were obtained by dilution.

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

		104165.60.11314				27/10/95		77189		1 OF 3	
	SAMPLE No.	Cu	Cu	Pb	Zn	Ag	Fe	Fe(1)	Mn	Mn(1)	
METHOD		GA140	GA104	GA140	GA140	GA140	GA140	GA140	GA140	GA140	
1	4142119	9	-	71	29	1	1.01	-	139	-	
2	4142120	10	-	84	286	1	0.93	-	248	-	
3	4142121	6	-	112	545	<1	0.84	-	614	-	
4	4142122	44	-	53	6	1	-	18.3	45	-	
5	4142123	882	-	86	18	10	-	23.0	57	-	
6	4142124	414	-	28	39	<1	-	11.3	163	-	
7	4142125	120	-	36	409	1	-	7.1	445	-	
8	4142126	90	-	50	33	1	2.85	-	1407	-	
9	4142127	Near DD110 1767	-	122	23	2	-	20.8	20	-	
10	4142128	310	-	101	18	1	-	13.9	53	-	
11	4142129	-	3.09	35	38	2	-	9.1	26	-	
12	4142130	-	6.42	57	227	5	-	24.8	9	-	
13	4142131	-	1.78	8	10	2	2.53	-	19	-	
14	4142132	-	4.06	55	48	3	-	29.8	-	1.6	
15	4142133	-	8.93	86	57	6	-	32.4	-	1.0	
16	4142134	390	-	27	69	3	2.75	-	343	-	
17											
18											
19											
20											
21											
22											
23											
24	DETECTION	2	0.01	3	2	1	0.01	0.1	3	0.1	
25	UNITS	ppm	%	ppm	ppm	ppm	%	%	ppm	%	

Results in ppm unless otherwise specified
 - = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

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PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11314				27/10/95		77189		2 OF 3	
METHOD	SAMPLE No.	Co	Ni	Au	Au (R)	Au (S)	As	As	As	Sn	
		GA140	GA140	GG309	GG309	GG309	HA140	GA140	GA104	GX401	
1	4142119	23	23	0.016	-	-	3.8	-	-	<3	
2	4142120	22	30	<0.008	-	-	5.7	-	-	<3	
3	4142121	26	29	0.016	-	-	7.5	-	-	<3	
4	4142122	32	26	0.020	-	-	-	321	-	395	
5	4142123	28	12	0.016	-	-	-	1563	-	37	
6	4142124	26	45	<0.008	-	-	23.0	-	-	<3	
7	4142125	26	49	0.010	-	-	21.0	-	-	<3	
8	4142126	21	37	<0.008	-	-	17.0	-	-	<3	
9	4142127	22	17	<0.008	-	-	-	-	0.56	133	
10	4142128	16	9	0.022	-	0.016	-	3261	-	79	
11	4142129	21	41	0.050	-	-	-	300	-	196	
12	4142130	84	246	0.100	0.092	-	-	347	-	418	
13	4142131	4	11	0.019	-	-	8.9	-	-	70	
14	4142132	32	27	0.008	-	-	3.6	-	-	79	
	4142133	41	65	0.102	-	-	-	102	-	695	
16	4142134	9	12	0.053	-	-	-	112	-	120	
17											
18											
19											
20											
21											
22											
23											
24	DETECTION	3	3	0.008	0.008	0.008	0.5	50	0.01	3	
25	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT No.	REPORT DATE	CLIENT ORDER No.	PAGE
		104165.60.11314	27/10/95	77189	3 OF 3
	SAMPLE No.	W			
	METHOD	GX401			
1	4142119	10			
2	4142120	<10			
3	4142121	15			
4	4142122	<10			
5	4142123	20			
6	4142124	<10			
7	4142125	<10			
8	4142126	<10			
9	4142127	20			
10	4142128	55			
11	4142129	90			
12	4142130	10			
13	4142131	<10			
14	4142132	<10			
	4142133	50			
16	4142134	25			
17					
18					
19					
20					
21					
22					
23					
24	DETECTION	10			
25	UNITS	ppm			

Results in ppm unless otherwise specified
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Appendix 2

Swift Creek Prospect Wacker Sampling

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMGE	AMGN	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468751	77395	375688	5323222	4900	10000	4.2	6	LG			WeM		CsSsl	Weathered sandstone with bleached limestone interbedded with silty limestone. Sandstone may be colluvium
5468752	77395	375711	5323231	4925	10000	5.8	7	LG			Bl		Sls	Bleached limestone
5468753	77395	375735	5323240	4950	10000	1.6	8	GW	PyVs		Bl		Sls	Bleached limestone interbedded with silty limestone. Disseminated pyrite and sulphide veins
5468754	77395	375758	5323249	4975	10000	1.4	2	BLG			We		CsSls	Light and brown sandstone with mica, quartz, plagioclase (surface sands?). Silty grey limestone
5468755	77395	375781	5323258	5000	10000	2.8	6	BN			WeFh		CsSls	Brown micaceous sandstone (surface sands?) overlying black limestone
5468756	77395	375805	5323267	5025	10000	2.5	1	N					Sls	Black, laminated
5468757	77395	375828	5323276	5050	10000	6.4	4	G			BlWeFh		SlsCs	Weathered micaceous sandstone (surface sands?) and limestone
5468758	77395	375851	5323285	5075	10000	4	10	LGN			BlWe		SlsCs	Weathered, light coloured micaceous sandstone (surface sands?). Bleached grey to black limestone
5468759	77395	375875	5323294	5100	10000	7.2	7	LGN			Bl		Sls	Bleached silty limestone, crumbly, not competent
5468760	77395	375898	5323303	5125	10000	6.2	15	LG			We		Sss	Weathered, medium grained, micaceous sandstone with quartz pebbles. Colluvium?
5468761	77395	375921	5323312	5150	10000		3	LW			WeFh		Sss	Weathered to fresh micaceous sandstone with quartz pebbles
5468762	77395	375945	5323321	5175	10000	4.2	4	L			Fh		Sss	Dirty sandstone
5468763	77395	375968	5323330	5200	10000	4.8	2	LN			We		Sss	Light coloured quartzite overlain by black peat
5468764	77395	375991	5323339	5225	10000	13.4	4	G	Vs		Bl		Sls	Bleached grey limestone with vein sulphides
5468765	77395	376015	5323348	5250	10000	2.6	2	GN			Bl		SlsCs	Grey to black bleached limestone and coarse grained quartz sand
5468766	77395	376038	5323357	5275	10000	4.6	16	L			We		Sss	Light coloured weathered sandstone, medium to very coarse grained sands and pebbles
5468767	77395	376061	5323365	5300	10000	3	3	LW			Fh		Sss	White, medium grained, well sorted, well rounded sands. Weathered sandstone
5468768	77395	376085	5323374	5325	10000	2	5	L			Fh		Sss	Light coloured micaceous sandstone with quartz pebbles and gravels. Possibly colluvium

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Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468769	77395	376108	5323383	5350	10000	2	6	LB			We		Sss	Dirty light brown, sandstone, medium grained sands and quartz pebbles. Possibly colluvium
5468770	77395	376131	5323392	5375	10000	2.2	7	LW			Fh		Sss	White, well sorted, medium grained, micaceous sandstone
5468771	77395	376155	5323401	5400	10000	0	16	LGB	GaPy	Sd	FhLe		Sdl	Light grey to brown dolomitic limestone (rockchip)
5468772	77395	375960	5322791	5000	9500	3	9	LW			WeFh		Sss	Medium to coarse grained dirty micaceous sandstone
5468773	77395	375951	5322815	5000	9525	1.6	4	N			We		SssCv	Peat, ferruginous clays and quartz sands
5468774	77395	375943	5322838	5000	9550	2	9	LG			Fh		Sss	Light grey, micaceous sandstone.
5468775	77395	375934	5322861	5000	9575	2.4	12	L			Fh		Sss	Very fine grain micaceous sandstone and rich quartz veins
5468776	77395	375925	5322885	5000	9600	2.2	7	L			Fh		CsSss	Quartz sand with quartzite pebbles from 1mm to 15mm diameter.
5468777	77395	375916	5322908	5000	9625	2.5	7	L			Fu		Sss	Light micaceous sandstone and quartz sand
5468778	77395	375907	5322931	5000	9650	5.8	4	LGN	Su		Fh		Sss	Light coloured silty sandstone with lense of black mineral.
5468779	77395	375898	5322955	5000	9675	2.4	4	LG			Fh		Sss	Light grey, coarse grained micaceous sandstone.
5468780	77395	375889	5322978	5000	9700	1.5	1	LG			Fh		Sss	Poorly sorted, medium grained to granular micaceous sandstone
5468781	77395	375880	5323001	5000	9725	6.4	3	LG	VsGa		Fh		Sls	Light grey silty limestone with vein sulphide
5468782	77395	375871	5323025	5000	9750	12.4	4	LG			We		Ccy	Non-calcareous, soft silty clay - possibly weathered limestone
5468783	77395	375862	5323048	5000	9775	3.5	8	LB			We		Sss	Light coloured, coarse grained sandstone overlain by brown silty ironstone
5468784	77395	375853	5323071	5000	9800	11.6	3	LGN			We		SssSbs	Light coloured sandstone, coarse quartz sand and black claystone (non calcareous)
5468785	77395	375844	5323095	5000	9825									6 attempts - no sample
5468786	77395	375835	5323118	5000	9850	5	7	LG			We		SsiSss	Light weathered micaceous sandstone and crumbly grey siltstone
5468787	77395	375826	5323141	5000	9875	6.8	2	G	DiPy		BlWe		Sls	Bleached silty limestone with disseminated sulphide.
5468788	77395	375817	5323165	5000	9900	7	10	N	DiPy		WeLe		Sls	Weathered and leached black limestone with disseminated pyrite (non calcareous - "rotten limestone"?)
5468789	77395	375808	5323188	5000	9925	7	16	GN	Vs		WeLe		SlsCs	Micaceous sandstone overlying black leached limestone with vein sulphide and calcite veins

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468790	77395	375799	5323211	5000	9950	8.4	5	GN			WeFh		Sls	Grey to black limestone with disseminated sulphide.
5468791	77395	375790	5323235	5000	9975	9								No sample - dropped into hole
5468792	77395	375501	5323150	4700	10000	3.8	4				We		Sss	Medium grained micaceous sandstone with lenses of silty clay - non calcareous
5468793	77395	375525	5323159	4725	10000	16.4	4	GN	VsDiGa		Fh		Sis	Grey to black limestone with calcite and sulphide veins.
5468794	77395	375548	5323168	4750	10000	3		GN	DiGa		Fh		SdlSsi	Blackish grey silty limestone with disseminated sulphide. Euhedral calcite veins.
5468795	77395	375571	5323177	4775	10000	0.6		GN			Fh		Sdl	Dolomitic limestone
5468796	77395	375595	5323186	4800	10000	2.5	2	L	PyGa		WeBl		CsSdl	Light coloured sandstone and bleached limestone. Disseminated pyrite or galena
5468797	77395	375618	5323195	4825	10000	3	4	LG	Vs		FhBl		SdlSsi	Bedded silty limestone with disseminated pyrite
5468798	77395	375641	5323204	4850	10000	2	8				We		CsSdl	Weathered micaceous sandstone and coarse quartz sand overlying silty limestone
5468799	77395	375665	5323213	4875	10000	2.5	7	LG			We		SdlCs	Light coloured to grey silty limestone with some micaceous sands
5468800	77395	375772	5323281	5000	10025	7.5	6	LG			We		Ssh	Very weathered dolomitic limestone covered by thick laterite. Possibly slate with oxidised fractures
5468614	77395	375763	5323305	5000	10050	6								Sample not logged
5468615	77395	375754	5323328	5000	10075	1.5								Sample not logged
5468616	77395	375745	5323351	5000	10100	1.5								Sample not logged
5468617	77395	375736	5323375	5000	10125	2								Sample not logged
5468618	77395	375728	5323398	5000	10150	2.5								Sample not logged
5468619	77395	375719	5323421	5000	10175	2.8								Sample not logged
5468620	77395	375710	5323445	5000	10200	9.6								Sample not logged
5468621	77395	375701	5323468	5000	10225	12							Sis	Sample not logged
5468622	77395	375692	5323491	5000	10250	3							Sis	Sample not logged
5468623	77395	375683	5323515	5000	10275	2							Sis	Sample not logged
5468624	77395	375674	5323538	5000	10300	3							Sdl	Sample not logged
5468625	77395	375665	5323561	5000	10325	1.5							Sdl	Sample not logged
5468626	77395	375656	5323585	5000	10350	0							Sdl	Sample not logged
5468627	77395	375647	5323608	5000	10375	1							Sdl	Sample not logged
5468628	77395	375638	5323631	5000	10400								Sdl	Sample not logged
5468629	77395	375629	5323655	5000	10425	1.5							Sis	Sample not logged
5468630	77395	375620	5323678	5000	10450	4.5							SisSdl	Sample not logged
5468631	77395	375611	5323701	5000	10475	3							Sis	Sample not logged

304041

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468632	77395	375602	5323725	5000	10500	1								Sample not logged
5468633	77395	375593	5323748	5000	10525	1							Sls	Sample not logged
5468634	77395	375584	5323771	5000	10550	2.5								Sample not logged
5468635	77395	375575	5323795	5000	10575	3	3	BG			We		CsSls	Brown weathered sandstone (colluvium) overlying fresh limestone
5468636	77395	375566	5323818	5000	10600	3.5	2	G			Bl		Sls	Fractured with calcite veins. Weathered to clays
5468637	77395	375557	5323841	5000	10625	7	3	LG			We		SlsSsi	Sequence of bedded siltstone, silty limestone and limestone
5468638	77395	375548	5323865	5000	10650	10	13	LG	VsDiPySu		Bl		SlsSsi	Limestone interbedded with silty limestone with disseminated pyrite. Silty limestone bleached - contains black mineral (sulphide vein?)
5468639	77395	375539	5323888	5000	10675	5	6	BG			We		SssCs	Weathered sandstone - alluvium
5468640	77395	375530	5323911	5000	10700	1	12				WeFh		Sss	Coarse grained glassy quartz arenite. Sandstone fractured and oxidised. Some glauconite grains
5468641	77395	375521	5323935	5000	10725	3	20	LB			BdFh		Sss	Bedded medium to fine grained sandstone
5468642	77395	375512	5323958	5000	10750	14	11	Y			Fh		Sss	Medium grained, well sorted sands
5468643	77395	375504	5323982	5000	10775	1.5	12	W			Fh		Sss	White quartz sands overlying weathered and fractured sandstone
5468644	77395	375495	5324005	5000	10800	1.5	5	B			Fh		Sss	Brown, medium grained, well sorted sandstone and fine sand
5468645	77395	376055	5324220	5600	10800	9.5	4	W			Fh		Sss	White, fine to medium grained micaceous sandstone
5468646	77395	376031	5324211	5575	10800	3.5	11	W			Fh		Sss	White, fine to medium grained quartz sands
5468647	77395	376008	5324202	5550	10800	3.5	4	W			Fh		Sss	Micaceous quartz sands
5468648	77395	375985	5324193	5525	10800	1.5	7	B			Fh		Sss	Dirty brown micaceous quartz sands
5468649	77395	375961	5324184	5500	10800	2	7	W			Fh		Sss	Quartz sands
5468650	77395	375938	5324175	5475	10800	3	4	BN			We		Sss	Micaceous sandstone, ferruginous peaty clays and white sands
5468651	77395	375915	5324166	5450	10800	10	15	GW	DiVsPy		Bl		Sls	Grey to black limestone to bleached white limestone. Disseminated pyrite and vein sulphides
5468652	77395	375891	5324157	5425	10800	19	9	GN			We		Sdl	Weathered and fractured limestone with vein calcite. Grey to black colour

304042

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468653	77395	375868	5324148	5400	10800	1.5	8	W			WeFh		SssCsSls	Dirty silty sandstone overlying white sandstone. Possibly limestone at 3-4m from surface
5468654	77395	375845	5324139	5375	10800	6	0	LYG			We		SlsCcy	Grey weathered limestone overall in by light yellow clay
5468655	77395	375821	5324130	5350	10800	12	108	GN			We		Sls	Grey to black weathered silty limestone
5468656	77395	375798	5324121	5325	10800	8.5	6	GN	DiPyVs		We		Sdl	Greyish black, weathered limestone with disseminated pyrite, vein sulphide and white carbonate blebs
5468657	77395	375775	5324112	5300	10800	4.5	8	GN	PyVsDiGa		Fh		Sdl	Grey to black limestone with disseminated pyrite and galena?
5468658	77395	375751	5324103	5275	10800	1	7	GW	PyVsGa		Bl		SlsSdl	Bleached white limestone with disseminated pyrite and galena? Rock fresh at surface and hard to penetrate.
5468659	77395	375728	5324094	5250	10800	0	4	GN	PyGa		Fh		Sls	Grey to black fresh limestone with pyrite splash and disseminated galena (rockchip)
5468660	77395	375705	5324085	5225	10800	3	7	NGW			We		Sdl	Grey to black limestone, fractured and weathered. Also bleached white silty limestone
5468661	77395	375681	5324077	5200	10800	2.5	11				Fh		Sss	Micaceous sandstone
5468662	77395	375658	5324068	5175	10800		14	W			Fh		SssCs	Light coloured sandstone and white sands
5468663	77395	375635	5324059	5150	10800	6.5		LBG					Sls	Gritty clay. Calcareous.
5468664	77395	375611	5324050	5125	10800	11.8		WLB					Sss	Gritty clay. Possible conglomerate; white quartz clasts
5468665	77395	375588	5324041	5100	10800	10.1		BO			Lm		Ssh	Limonitic clay after shale
5468666	77395	375565	5324032	5075	10800	10.6		DGN					Ccy	Clay. Non calcareous
5468667	77395	375541	5324023	5050	10800	4.4		LBW					Sss	Sandy clay. Non calcareous sandstone?
5468668	77395	375518	5324014	5025	10800	3.8		BGWLG			Lm		Ccy	Sandy clay. Non calcareous, possibly hematitic
5468669	77395	374934	5323790	4400	10800	1		RLGW					Sss	Weathered pink/light grey sandstone
5468670	77395	374958	5323799	4425	10800	2.5		BOLB			Lm		Ccy	Limonite? Sericitic clay
5468671	77395	374981	5323808	4450	10800	3		RLGW					Sss	Weathered micaceous sandstone (pink/light grey)
5468672	77395	375004	5323817	4475	10800	6.9		GDCN					Ccy	Non-calcareous clay
5468673	77395	375028	5323826	4500	10800	3		LGW					Sss	Sandy clay. Micaceous with quartz clasts
5468674	77395	375051	5323835	4525	10800	5		LGW					CcyCsSdl	Gritty clay. Large quartz clasts
5468675	77395	375074	5323844	4550	10800	13.8		LBN					Ccy	Black clay and well banded cream/grey clays
5468676	77395	375098	5323853	4575	10800	9.5		DBNG	Py				CcySdl	Sideritic clays with disseminated pyrite?
5468677	77395	375121	5323861	4600	10800	5.2		G					Sdl	Gritty clay with dolomitic veins
5468678	77395	375144	5323870	4625	10800	1		G					Sdl	Gritty clay with dolomitic veins

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Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5468679	77395	375168	5323879	4650	10800	1		G					Sdl	Gritty clay with dolomitic veins
5468680	77395	375191	5323888	4675	10800	2.2		DGN					Sls	Gritty, dark grey to black clays
5468681	77395	375214	5323897	4700	10800	1.3		LGG					Sls	Gritty clay. Calcareous
5468682	77395	375238	5323906	4725	10800	2.1		GDG					Sls	Gritty clay. Calcareous
5468683	77395	375261	5323915	4750	10800	4.5		DGN					Sls	Gritty clay, possibly pyritic
5468684	77395	375285	5323924	4775	10800	8		DGG					Ccy	Very weakly calcareous clays
5468685	77395	375308	5323933	4800	10800	16		DG					Ccy	Non-calcareous clays
5468686	77395	375331	5323942	4825	10800	2.8		DB					Sss	Weathered/peaty looking sandstone
5468687	77395	375355	5323951	4850	10800	2.3		LBBO					Sss	Weathered sandstone
5468688	77395	375378	5323960	4875	10800	2.5		LBW					Ssh	Weathered, altered, sericitic shale
5468689	77395	375401	5323969	4900	10800	5.2		OLBW			Lm		Ssh	Weathered, limonitic sericitic shale
5468690	77395	375425	5323978	4925	10800	3		LGB			Lm		Ssh	Sericite shale with limonite blebs?
5468691	77395	375448	5323987	4950	10800	2.8		OLBW			Lm		Ssh	Limonitic sericite shale, weathered to clays
5468692	77395	375471	5323996	4975	10800	1.7		OLBW			Lm		Ssh	Limonitic sericite shale, weathered to clays
5468693	77192	375486	5324028	5000	10825	2.5		GW			Fh		Sss	Micaceous sandstone
5468694	77192	375477	5324052	5000	10850	2.3		YO			We		Ssh	Laminated gritty clay with rare interbeds of bleached very fine silt
5468695	77192	375468	5324075	5000	10875	1.5		OYR	Py		Lm		Ssh	Laminated, limonitic gritty clay. 2mm silty clay laminae with disseminated pyrite?
5468696	77192	375459	5324098	5000	10900	1.5		GOYR			WeLm		Ssh	Laminated gritty clay with limonitic fractures
5468697	77192	375450	5324122	5000	10925	1.5		ROYW			WeLm		Ssh	Laminated gritty, limonitic clay
5468698	77192	375441	5324145	5000	10950	1		ROYW			WeLm		Ssh	Laminated gritty, limonitic clay
5468699	77192	375432	5324168	5000	10975	5		NOYW			WeLm		Ssh	Laminated gritty clay
5468700	77192	375423	5324192	5000	11000	1		BGR			Lm		Ssh	Laminated, limonitic silty clay with shale fragments
5470401	77192	375414	5324215	5000	11025	1		G					Ssh	Laminated silty clay after shale
5470402	77192	375405	5324238	5000	11050	13		G			Lm		Ssi	Weathered, laminated, limonitic siltstone
5470403	77192	375396	5324262	5000	11075	1		GR			Cl	Lm	Ssh	Laminated silty clay
5470404	77192	375387	5324285	5000	11100	1.2		GY			Cl	WeLm	SsiSsh	Weathered siltstone and gritty clay
5470405	77192	375378	5324308	5000	11125	1		GY			We		Ssh	Gritty silty clay
5470406	77192	375369	5324332	5000	11150	1.1		YO			WeLm		Ssh	Weathered silty, limonitic clay
5470407	77192	375360	5324355	5000	11175	1.2		YOG			Cl	WeLm	Ssh	Gritty limonitic clay with shale fragments
5470408	77192	375351	5324378	5000	11200	1.3		YOR			WeLm		Ssh	Gritty limonitic clay. Weathered shale
5470409	77192	375342	5324402	5000	11225	1.2		GOLV			Cl	WeLm	Ssh	Weathered shale
5470410	77192	375333	5324425	5000	11250	1.4		VGO			WeLm		Ssh	Weathered, laminated shale
5470411	77192	375324	5324448	5000	11275	1.6		VGO			WeLm		Ssh	Laminated shale and gritty clay
5470412	77192	375315	5324472	5000	11300	1.5		VGOL			WeLm		Ssh	Laminated, gritty silty clay. Weathered shale
5470413	77192	375306	5324495	5000	11325	1		G			We		Ssh	Laminated shale
5470414	77192	375297	5324518	5000	11350	1.2		VGO			We		Ssh	Laminated shale

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Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470415	77192	375289	5324542	5000	11375	1		V		Q			Ssh	Shale
5470416	77192	375280	5324565	5000	11400	1		R			WeLm		SsiSsh	Limonitic silty clay
5470417	77192	375271	5324588	5000	11425	2		RYO			WeLm		Ssh	Silty, gritty clay and bleached shale
5470418	77192	375262	5324612	5000	11450	1.5		RYO			WeLm		Ssh	Laminated limonitic shale
5470419	77192	375253	5324635	5000	11475	1.7		GYO			WeLm		Ssh	Laminated shale and silty clays
5470420	77192	375244	5324658	5000	11500	2.2		VYO			WeLm		Ssh	Silty limonitic clays and shale
5470421	77192	375235	5324682	5000	11525	1.2		FO			WeLm		Ssh	Silty limonitic clays and shale
5470422	77192	375226	5324705	5000	11550	1		RLY			WeLm		Ssh	Silty limonitic clays and shale
5470423	77192	375217	5324728	5000	11575	1.5		ROV			WeLm		Ssh	Silty limonitic clays and shale
5470424	77192	375208	5324752	5000	11600	1.3		G			WeLm		SsiSss	Greyish sandy siltstone - very fine grained sandstone?
5470425	77192	375231	5324761	5025	11600	1		G			WeLm		Ssh	Grey shale, non calcareous, and laminated gritty clays
5470426	77192	375255	5324770	5050	11600	0.3		GYOV			WeLm		Ssh	Grey shale
5470427	77192	375278	5324779	5075	11600	1		RYG			WeLm		Ssh	Limonitic, silty clay and shale clasts
5470428	77192	375301	5324788	5100	11600	0.3		G			We		Ssh	Fractured shale
5470429	77192	375325	5324797	5125	11600	1		GV	Go		We		Ssh	Light green to grey fractured shale - non calcareous.
5470430	77192	375348	5324805	5150	11600	0.7		YOR			WeLm		Ssh	Gritty, limonitic silty clay. Weathered shale
5470431	77192	375371	5324814	5175	11600	1		G			We		Ssh	Fractured grey shale
5470432	77192	375395	5324823	5200	11600	1.5		WWYO			We		Ssh	Gritty clay. Weathered shale
5470433	77192	375418	5324832	5225	11600	1.2		B			We		Ssh	Brown ferruginous shale
5470434	77192	375441	5324841	5250	11600	1		GVY			We		Ssh	Gritty clay. Weathered and fractured shale
5470435	77192	375465	5324850	5275	11600	2		GVYR			WeLm		Ssh	Limonitic shale and clay
5470436	77192	375488	5324859	5300	11600	1.4		LG			We		Ssh	Grey shale
5470437	77192	375511	5324868	5325	11600	1		VGOY			WeLm		Ssh	Laminated, limonitic silty clay
5470438	77192	375535	5324877	5350	11600	1.2		G	Go		We		Ssh	Fractured shale
5470439	77192	375558	5324886	5375	11600	1.1		G	Go		We		Ssh	Fractured shale
5470440	77192	375581	5324895	5400	11600	2.5		GV			We		Ssh	Bleached clay. Minor limonite. Weathered shale?
5470441	77192	375605	5324904	5425	11600	1.5		RVOY			WeLm		Ssh	Bleached clay. Minor limonite. Weathered shale?
5470442	77192	375628	5324913	5450	11600	1.3		RVY			WeLm		Ssh	Gritty limonitic clay. Weathered shale
5470443	77192	375651	5324922	5475	11600	1.5		YFK			WeLm		Ssh	Gritty, laminated limonitic clay. Weathered shale
5470444	77192	375675	5324931	5500	11600	1		OYR			WeLm		Ssh	Gritty weathered limonitic clay
5470445	77192	375698	5324940	5525	11600	1.6		G	PyGa		We		Ssh	Fractured shale. Pyrite and galena?
5470446	77192	375721	5324949	5550	11600	1		ROVW			WeLm		Ssh	Limonitic clay with shale fragments
5470447	77192	375745	5324958	5575	11600	2.5		G			We		Ssh	Fractured shale

5470445

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470448	77192	375768	5324967	5600	11600	2.1		BW			We		Sss	Brown to white ferruginous sandstone and quartzite cobbles
5470449	77192	375791	5324976	5625	11600	6.7		N					Sbs	Very black, crumbly silty claystone
5470450	77192	375815	5324985	5650	11600	0.8		N					Sls	Limestone with calcite veins
5470451	77192	375838	5324994	5675	11600	1		N	Py		We		SlsSbs	Weathered limestone with pyrite
5470452	77192	375861	5325003	5700	11600	1.8		N	Py				Sls	Limestone with pyrite and calcite veins
5470453	77192	375885	5325012	5725	11600	0		N	DiPy				Sls	Limestone with disseminated pyrite and calcite veins
5470454	77192	375908	5325020	5750	11600	0.2		NGW					SdlCs	Fractured dolomite and clean white sand
5470455	77192	375931	5325029	5775	11600	1		W					Sss	White micaceous sandstone
5470456	77192	375955	5325038	5800	11600	0		N	PyAsPo				Sls	Limestone. Fractured with disseminated pyrite and pyrrhotite
5470457	77192	375978	5325047	5825	11600	3.5		W					Sss	Micaceous sandstone
5470458	77192	376001	5325056	5850	11600	8		NG	DiPy		We		Sbs	Sandy (very fine quartz) grey to black clay. Trace pyrite
5470459	77192	376025	5325065	5875	11600	4		W					Sss	Micaceous sandstone
5470460	77192	376048	5325074	5900	11600	5		N	Di		BlWe		Sbs	Black, non calcareous, silty clay. Trace very fine, disseminated pyrite.
5470461	77192	376071	5325083	5925	11600	3		N	DiPy		We		Sbs	Dark olive grey to black, non-calcareous silty clay. Possibly sideritic
5470462	77192	376095	5325092	5950	11600	3.5		W					Sss	Micaceous sandstone
5470463	77192	376118	5325101	5975	11600	3.7		W					Sss	Micaceous sandstone
5470464	77192	376141	5325110	6000	11600	2.8		W					Sss	Very fine grained micaceous sandstone
5470465	77192	375185	5324743	4975	11600	1.3		LGB			We		Ssh	Grey to black shale. Non calcareous
5470466	77192	375161	5324734	4950	11600	1.5		Y			WeLm		Ssh	Gritty limonitic clay. Weathered shale
5470467	77192	375138	5324725	4925	11600	1		YO			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470468	77192	375115	5324716	4900	11600	1		YVO			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470469	77192	375091	5324707	4875	11600	1		GOY			We		Ssh	Gritty limonitic clay. Weathered shale?
5470470	77192	375068	5324698	4850	11600	0.5		G			We		Ssh	Weathered shale
5470471	77192	375044	5324689	4825	11600	1		GO			We		Ssh	Shale
5470472	77192	375021	5324680	4800	11600	1		YOY			We		Ssh	Shale
5470473	77192	374998	5324671	4775	11600	1		YOVR			WeLm		Ssh	Limonitic gritty clay. Weathered shale?
5470474	77192	374974	5324662	4750	11600	0.7					We		Sss	Ferruginous sandstone
5470475	77192	374951	5324653	4725	11600	1		KORYV			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470476	77192	374928	5324644	4700	11600	1		ORYV			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470477	77192	374904	5324635	4675	11600	1.7		ROYV			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470478	77192	374881	5324626	4650	11600	1.3		YOY			We		Ssh	Gritty limonitic clay. Weathered shale?
5470479	77192	374858	5324617	4625	11600	1		ROYV			WeLm		Ssh	Gritty limonitic clay. Weathered shale?
5470480	77192	374834	5324608	4600	11600	0.8		GW					Ssh	Grey weathered and fractured shale

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Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470481	77192	374811	5324599	4575	11600	1.4		ROY			WeLm		Ssh	Gritty limonitic clay with shale fragments
5470482	77192	374788	5324590	4550	11600	1.2		ROY			WeLm		Ssh	Limonitic clay. Weathered shale?
5470483	77192	374764	5324581	4525	11600	0.8		LB					Sss	Silty micaceous sandstone
5470484	77192	374741	5324573	4500	11600	4		N	Py		We		Sbs	Olive grey, dark grey to black silty clay. Non calcareous. Very fine vein pyrite. Possibly sideritic
5470485	77192	374718	5324564	4475	11600	1		N			We		Sbs	Very dark grey to black, non calcareous, silty clay with trace very fine disseminated pyrite
5470486	77192	374694	5324555	4450	11600	3.5		ROY			WeLm		CcySsh	Gritty clay with quartz sand. Weathered shale?
5470487	77192	374671	5324546	4425	11600	3.5		ORY			WeLm		CcySss	Gritty limonitic clay and coarse grained micaceous sandstone
5470488	77192	374648	5324537	4400	11600	3.5		ORY			WeLm		CcySss	Limonitic clay and coarse grained micaceous sandstone
5470489	77192	374624	5324528	4375	11600	1.5		G	Py		WeLm		Ssi	Limonitic siltstone with disseminated pyrite
5470490	77192	374601	5324519	4350	11600	0.7							Sss	Dirty micaceous sandstone
5470491	77192	374578	5324510	4325	11600	1.5		GVO			WeBd		SshSsi	Thinly bedded micaceous siltstone and shale
5470492	77192	374554	5324501	4300	11600	0.9		GVO			WeBd		SshSsi	Thinly bedded siltstone and clay
5470493	77192	374531	5324492	4275	11600	1.5		GDR			WeLm		SshSsi	Gritty limonitic clay with coarser siltstone bands
5470494	77192	374508	5324483	4250	11600	1.3		ROY			WeLm		Ssi	Weathered limonitic siltstone
5470495	77192	374484	5324474	4225	11600	0.5		GO			We		Ssh	Greyish orange clay with shale fragments
5470496	77192	374461	5324465	4200	11600	1		W					Sss	Micaceous sandstone
5470497	77192	374438	5324456	4175	11600	1		W					Sss	Micaceous sandstone
5470498	77192	374414	5324447	4150	11600	1		YO					Ss	Yellow orange micaceous sandstone
5470499	77192	374391	5324438	4125	11600	1.5		YOR			WeLm		Ssh	Fractured silty shale
5470500	77192	374368	5324429	4100	11600	2		YO			WeLm		Ssh	Gritty clay. Weathered shale?
5470101	77192	375199	5324775	5000	11625	1.5		GWYO			WeLm		Ssh	Limonitic clay. Weathered shale?
5470102	77192	375190	5324798	5000	11650	1.2		VGRO			WeLm		Ssh	Limonitic clay. Weathered shale?
5470103	77192	375181	5324822	5000	11675	1.5		GV			We		Ssh	Laminated clay. Weathered shale?
5470104	77192	375172	5324845	5000	11700	1.4		VOR			WeLm		Ssh	Laminated limonitic clay. Weathered shale?
5470105	77192	375163	5324868	5000	11725	1.6		VOR			WeLm		Ssh	Gritty, limonitic clay
5470106	77192	375154	5324892	5000	11750	1.7		GO			We		Ssh	Fractured shale and clay
5470107	77192	375145	5324915	5000	11775	1.2		YWO			We		Ssh	Laminated clay. Weathered shale?
5470108	77192	375136	5324938	5000	11800	1.2		ROY			WeLm		Ssh	Gritty clay. Weathered shale?
5470109	77192	375127	5324962	5000	11825	1.2		RY			WeLm		Ssh	Red clay and gritty yellow clay. Weathered shale
5470110	77192	375118	5324985	5000	11850	1.5		OYV	Py		WeLm		Ssh	Limonitic clay with disseminated pyrite. Weathered shale?

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Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Mln	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470111	77192	375109	5325008	5000	11875	1.6		RY			WeLm		Ssh	Limonitic clay and shale
5470112	77192	375100	5325032	5000	11900	1.1		WRYGV	Py		We		SsiSsh	Limonitic clay with bleached siltstone. Disseminated pyrite
5470113	77192	375091	5325055	5000	11925	2.1		OY			We		Ssh	Very gritty dark yellow clay. Weathered shale?
5470114	77192	375082	5325078	5000	11950	1.5		RY			We		Ssh	Red silty clay. Weathered shale?
5470115	77192	375073	5325102	5000	11975	1.3		RY			FeFo		Ssh	Red and yellow silty clay. Weathered shale?
5470116	77192	375065	5325125	5000	12000	1.3		RYN			FeFo		Ssh	Red and yellow silty clay. Weathered shale?
5470117	77192	375056	5325148	5000	12025	5.7		OY			We		Ssi	Siltstone
5470118	77192	375047	5325172	5000	12050	2.3		YORN			We		Ssh	Ferruginous silty clay overlying reddish clay. Weathered shale?
5470119	77192	375038	5325195	5000	12075	1.8		YORN			WeLm		Ssh	Gritty laminated clay with black mineral filling cavities. Weathered shale
5470120	77192	375029	5325218	5000	12100	1.9		NG	Sp		We		Ssh	Laminated shale with pyrite and sphalerite
5470121	77192	375020	5325242	5000	12125	2.2		RYVO			We		Ssh	Laminated shale and clay
5470122	77192	375011	5325265	5000	12150	1.5		YOR			WeLm		Ssh	Laminated shale and clay
5470123	77192	375002	5325289	5000	12175	0.9		GV			We		Ssh	Slaty shale
5470124	77192	374993	5325312	5000	12200	2.9		RYO			WeLm		Ssh	Laminated shale with gritty clay
5470125	77192	374984	5325335	5000	12225	2.1		RVYO			WeLm		Ssh	Limonitic clay. Weathered shale?
5470126	77192	374975	5325359	5000	12250	2		KBO			WeBl		Ssh	Bleached limonitic clay with shale fragments
5470127	77192	374966	5325382	5000	12275	1.7		GVRN			WeBl		Ssh	Black, yellow and grey clay. Weathered shale?
5470128	77192	374957	5325405	5000	12300	1.6		YO			We		Ssh	Gritty silty clay. Weathered shale?
5470129	77193	375446	5324201	5025	11000	1.5		EG			We		Ssh	Weathered, laminated shale
5470130	77193	375470	5324209	5050	11000	1		EG			We		Ssh	Laminated shale
5470131	77193	375493	5324218	5075	11000	7		G			BdLmWeBl		Ssh	Thinly bedded and laminated shale
5470132	77193	375516	5324227	5100	11000	1.2		G			BdLmWeBl		Ssh	Limonitic shale, bleached and weathered
5470133	77193	375540	5324236	5125	11000	1.2		ORG			WeLm		Ssh	Limonitic clay. Weathered shale?
5470134	77193	375563	5324245	5150	11000	2.5		G			WeBlm		Ssh	Limonitic shale
5470135	77193	375586	5324254	5175	11000	3.8		LG			WeBdLm		Sls	Laminated limestone
5470136	77193	375610	5324263	5200	11000	5		GO			WeBdLm		Ssh	Bedded and laminated shale
5470137	77193	375633	5324272	5225	11000	6		N	Py		We		Sbs	Black clay. Decomposed limestone?
5470138	77193	375656	5324281	5250	11000	9.5		B					SssCs	Sandy gravel. Possibly cover?
5470139	77193	375680	5324290	5275	11000	2		G			We		Sls	Dark grey, coarse grained calcarenite
5470140	77193	375703	5324299	5300	11000								Sls	Sample not logged
5470141	77193	375726	5324308	5325	11000	1		G			We		Sls	Fractured limestone?
5470142	77193	375750	5324317	5350	11000	1.5		LOW			We		Sdl	Dolomite
5470143	77193	375773	5324326	5375	11000	6		GNB			We		CsSls	Brown to grey micaceous sandstone (cover?) overlying fractured limestone
5470144	77193	375796	5324335	5400	11000	1.5		W					Sss	Micaceous sandstone

304048

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470145	77193	375820	5324344	5425	11000	10.6		GW	Py		WeBl		SlsSdl	Limestone with dolomitic interbeds. Some pyrite
5470146	77193	375843	5324353	5450	11000	6.2		GW	Py		WeBl		Sls	Bleached silty limestone with pyrite
5470147	77193	375866	5324362	5475	11000	1.2		G	PyDi		We		Sdl	Weathered grey dolomitic limestone
5470148	77193	375890	5324371	5500	11000	2		GW	PyDi		Bl		Sls	Bleached silty limestone with disseminated pyrite
5470149	77193	375728	5324094	5250	10800	1		GW	PyDi		BIWe		Sdl	Weathered dolomite with disseminated pyrite
5470150	77193	375737	5324098	5260	10800	4		BGW			We		SlsCs	Dirty sandstone (cover?) overlying silty limestone
5470151	77193	375747	5324102	5270	10800	1		YOG	Py		WeFoLm		CvSls	Grey limestone and peaty, ferruginous clays
5470152	77193	375756	5324105	5280	10800	5.5		GW	Py		Bl		Sdl	Dolomite with disseminated pyrite
5470153	77193	375770	5324111	5295	10800	5.5		GB			WeFo		Ccy	Ferruginous clays
5470154	77193	375779	5324114	5305	10800	6.5		GW			BIWe		Ssi	Bleached grey to white crumbly siltstone
5470155	77193	375789	5324118	5315	10800	12		GW	Py		BIWe		Sdl	Dolomite with coarse pyrite
5470156	77193	375803	5324123	5330	10800	12.5		GW	Py		Bl		Ssi	Crumbly siltstone with pyrite veins
5470157	77193	375926	5324277	5500	10900	10		GW	Py		BIWe		Sdl	Dolomite with disseminated pyrite
5470158	77193	375902	5324268	5475	10900	3		GW					Sss	Micaceous sandstone. NB 6m elevation from last sample
5470159	77193	375879	5324259	5450	10900	1		GN	Py		BIWe		Sls	Dolomitic limestone
5470160	77193	375856	5324251	5425	10900	2.5		GW	Py		WeBl		Sls	Limestone
5470161	77193	375832	5324242	5400	10900	2.8		GMN	Py		Bl		Sdl	Dolomite with pyrite
5470162	77193	375785	5324224	5350	10900	2.5		G					Sdl	Dolomite
5470163	77193	375762	5324215	5325	10900	0.2		G					Sdl	Dolomite
5470164	77193	375739	5324206	5300	10900	5.4		ORV	GoMn		WeLm		Ccy	Gritty limonitic clay
5470165	77193	375715	5324197	5275	10900	3.5		EG					Sls	Fractured limestone
5470166	77193	375692	5324188	5250	10900	2		GW	Py		WeBl		Sls	Bleached silty limestone with pyrite grains
5470167	77193	375669	5324179	5225	10900	2		GV	Py		We		SlsSsi	Bleached limestone with pyrite
5470168	77193	375645	5324170	5200	10900	2.9		GW	Py		WeBl		Sls	Bleached silty limestone
5470169	77193	375622	5324161	5175	10900	2.5		LG			We		SssSls	Light coloured micaceous sandstone overlying grey limestone with calcite veins
5470170	77193	375599	5324152	5150	10900	5		GW	Py		WeBl		Sls	Silty limestone
5470171	77193	375575	5324143	5125	10900	5.9		OGV			WeLm		Ssh	Limonitic clay. Weathered shale?
5470172	77193	375529	5324125	5075	10900	1.5		ORV			WeLm		Ssh	Limonitic clay. Weathered shale?
5470173	77193	375505	5324116	5050	10900	1.5		ORV			WeLm		Ssh	Limonitic clay. Weathered shale?
5470174	77193	375482	5324107	5025	10900	2		KO			WeLm		Ssh	Limonitic clay. Weathered shale?
5470175	77193	375554	5323920	5025	10700	5.4		GW			WeBl		Ssh	Shale
5470176	77193	375577	5323929	5050	10700	1.4		WB					SssCs	Micaceous sandstone - possibly colluvium
5470177	77193	375600	5323938	5075	10700	4		W					SssCs	Micaceous sandstone - possibly colluvium
5470178	77193	375624	5323947	5100	10700	2		W					SssCs	Micaceous sandstone - possibly colluvium

304049

Swift Creek Regional Grid Wacker Sampling
November December 1995

Sample No.	DPO No.	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	FieldID	Comments
Note: Original logging by R Pagen. Field ID determined from logs and assays by S Menpes														
5470179	77193	375647	5323956	5125	10700	1.9		W					SssCs	Micaceous sandstone - possibly colluvium
5470180	77193	375670	5323965	5150	10700	7.9		GW	Py				SlsSdl	Dolomitic limestone
	77193	375694	5323974	5175	10700									No sample
5470181	77193	375717	5323983	5200	10700			GW					SlsSdl	Coarse grained, dolomitic calcarenite
5470182	77193	375740	5323992	5225	10700	6		GYVR					Ssh	Gritty limonitic clay. Weathered shale?
5470183	77193	375764	5324001	5250	10700	6		OYVR					Ssh	Limonitic clay. Weathered shale?
5470184	77193	375787	5324010	5275	10700	12		WG					Sdl	Dolomite
	77193	375810	5324019	5300	10700									No sample
	77193	375834	5324028	5325	10700									No sample
	77193	375857	5324037	5350	10700									No sample
5470185	77193	375880	5324046	5375	10700	0.2		W					Sdl	Dolomite
5470186	77193	375904	5324055	5400	10700	0.2		W					Sls	Limestone
5470187	77193	375927	5324064	5425	10700			G					Sls	Limestone
5470188	77193	375951	5324073	5450	10700	2.5		W					Sss	Micaceous sandstone
5470189	77193	375974	5324082	5475	10700	2.5		W					Sss	Micaceous sandstone
5470190	77193	375958	5323969	5420	10600	2		W					Sss	Micaceous sandstone
5470191	77193	375940	5323961	5400	10600	2.5		W					Sss	Micaceous sandstone
5470192	77193	375916	5323953	5375	10600	3		W					Sss	Micaceous sandstone
5470193	77193	375893	5323944	5350	10600	Rockchip		G					Sls	Limestone with calcite veins
5470194	77193	375870	5323935	5325	10600	2.5		G					Sls	Limestone
5470195	77193	375846	5323926	5300	10600	2.5		GW					Sls	Silty limestone
5470196	77193	375823	5323917	5275	10600	3.5		GWOR					CcySss	Limonitic clay overlying sandstone
5470197	77193	375800	5323908	5250	10600	9.8		BV	GaPy				SlsCcy	Weathered limestone with pyrite and galena. Yellow to orange clays
5470198	77193	375776	5323899	5225	10600	3.5		W					Sss	Micaceous sandstone
5470199	77193	375753	5323890	5200	10600	9.5		GV					Ssh	Limonitic greenish grey shale
5470200	77193	375730	5323881	5175	10600	12.9		BGW	Py				Sls	Brown silty weathered limestone with pyrite
5470617	77193	375706	5323872	5150	10600	10.8		G	Py				Sls	Limestone with pyrite
5470618	77193	375683	5323863	5125	10600	8		EG					Sdl	Coarse grained dolarenite with calcite veins and ferruginous fractures
5470619	77193	375660	5323854	5100	10600	12.6		GB					Sls	Silty limestone
5470620	77193	375636	5323845	5075	10600	9.4		GW					Sls	Weathered limestone
5470621	77193	375613	5323836	5050	10600	13		BV					Sls	Brownish green dolomitic limestone with calcite vein
5470622	77193	375590	5323827	5025	10600	9.8		BYG					Sls	Clay with limestone fragments

304050

Phone (004) 316807

14 Thirval St. DOONS TAS 7320

Fax (004) 316890

ANALYTICAL REPORT No.

104165.60.11432

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

CRG Exploration Pty Limited
 P.O. Box 8093
 NORTHLAND CENTRE VIC 3072

ORDER No.

PROJECT

77395

DATE RECEIVED

RESULTS REQUIRED

27/11/95

ASAP

No. OF PAGES
OF RESULTS

DATE
REPORTED

No.
OF COPIES

TOTAL No.
OF SAMPLES

10

01/12/95

1

127

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

58614, 592, 751/800

BR Prod : GP032/GP033

Ag, Al, As, Ba, Ca, Cu, Fe, K, Mg, Mn, Pb,
 Zn/G1211



RESULTS
TO

Mr G. Lear
 CRG Exploration Pty Limited
 P.O. Box 8093
 NORTHLAND CENTRE VIC 3072

RESULTS
TO

Mr J. Hayward
 CRG Exploration Pty Limited
 P.O. Box 8093
 NORTHLAND CENTRE VIC 3072

RESULTS
TO

Mr J. Hayward
 CRG Exploration Pty Limited
 P.O. Box 8093
 NORTHLAND CENTRE VIC 3072

REMARKS

Ca/G1211 results /20% are over the
 recommended analytical range and are
 reported to an accuracy of +/- 1%.

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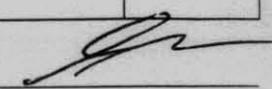
ANALYTICAL DATA

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		104165.60.11432				01/12/95		77395		1 OF 12	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5468614	<0.5	6.72	32	1170	<0.05	22	5.31	3.25	0.64	
2	5468615	<0.5	1.21	18	180	<0.05	10	1.03	0.62	0.11	
3	5468616	<0.5	2.40	17	272	<0.05	<5	0.58	1.24	0.20	
4	5468617	<0.5	7.93	<5	538	<0.05	6	2.59	3.53	1.34	
5	5468618	<0.5	0.68	10	61	<0.05	7	0.21	0.34	0.05	
	5468619	<0.5	0.66	12	67	<0.05	9	0.24	0.30	0.04	
7	5468620	<0.5	6.63	16	416	3.63	15	1.36	3.56	2.49	
8	5468621	<0.5	2.34	8	67	24.60	6	1.79	1.32	3.17	
9	5468622	<0.5	0.57	6	85	21.20	<5	1.03	0.28	2.04	
10	5468623	<0.5	2.23	17	38	23.50	6	1.48	0.95	3.68	
11	5468624	<0.5	0.20	<5	<5	20.20	5	0.93	0.11	12.20	
12	5468625	<0.5	0.34	9	7	22.40	<5	0.77	0.17	12.70	
13	5468626	<0.5	0.61	<5	12	21.40	7	0.59	0.30	11.40	
14	5468627	<0.5	2.37	20	62	18.10	10	1.22	1.29	10.20	
15	5468628	<0.5	1.82	<5	27	18.00	7	1.36	0.93	10.70	
16	5468629	<0.5	1.79	8	62	26.00	<5	0.95	0.99	1.70	
17	5468630	<0.5	0.62	<5	17	25.00	<5	2.48	0.28	5.14	
18	5468631	<0.5	0.52	6	9	32.40	<5	0.64	0.28	2.51	
19	5468632	<0.5	1.35	<5	156	0.07	<5	0.33	0.63	0.11	
20	5468633	<0.5	1.44	<5	45	30.70	<5	0.74	0.89	2.45	
21	5468634	<0.5	1.49	8	167	0.08	9	0.86	0.65	0.12	
22	5468635	<0.5	0.81	<5	26	22.00	<5	0.63	0.41	1.96	
23	5468636	<0.5	0.28	<5	<5	36.80	<5	0.34	0.16	1.60	
24	5468637	<0.5	4.24	13	139	16.50	11	1.22	2.28	1.32	
25	5468638	<0.5	1.09	<5	18	36.30	5	0.35	0.63	0.81	

Results in ppm unless otherwise specified
element not determined

IS = insufficient sample
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ANALYTICAL DATA

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REPORT No.

REPORT DATE

CLIENT ORDER No.

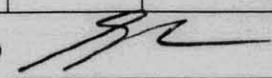
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SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11432				01/12/95		77395		2 OF 12	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5468639	<0.5	1.63	8	48	0.07	7	0.24	0.42	0.13	
2	5468640	<0.5	2.91	<5	118	<0.05	9	1.90	0.83	0.49	
3	5468641	<0.5	4.87	38	225	<0.05	38	4.25	1.53	0.99	
4	5468642	<0.5	1.73	25	93	<0.05	13	1.15	0.57	0.14	
5	5468643	<0.5	0.41	16	19	<0.05	10	0.27	0.12	0.05	
	5468644	<0.5	2.33	10	125	<0.05	<5	0.75	0.86	0.16	
7	5468645	<0.5	0.15	<5	13	<0.05	<5	0.20	0.06	0.01	
8	5468646	<0.5	0.13	10	17	<0.05	8	0.15	<0.05	0.01	
9	5468647	<0.5	1.34	17	118	<0.05	<5	0.33	0.67	0.08	
10	5468648	<0.5	1.87	9	192	<0.05	<5	0.36	0.92	0.11	
11	5468649	<0.5	0.09	12	15	<0.05	6	0.14	<0.05	<0.01	
12	5468650	<0.5	1.01	16	67	<0.05	8	0.23	0.43	0.08	
13	5468651	<0.5	3.19	30	237	23.00	13	1.54	1.71	0.94	
14	5468652	<0.5	1.28	<5	141	20.50	<5	1.85	0.70	10.30	
15	5468653	<0.5	0.74	16	45	0.06	<5	0.17	0.39	0.10	
16	5468654	<0.5	6.30	<5	360	0.09	29	0.45	2.58	0.54	
17	5468655	<0.5	4.26	16	334	<0.05	17	0.81	2.31	0.57	
18	5468656	<0.5	3.41	23	348	10.40	8	1.47	1.76	5.38	
19	5468657	<0.5	1.46	15	107	13.20	5	1.54	0.73	6.82	
20	5468658	<0.5	2.38	30	86	25.50	<5	1.22	1.26	4.19	
21	5468659	<0.5	0.33	17	<5	33.50	<5	0.39	0.20	3.34	
22	5468660	<0.5	0.07	<5	<5	21.20	<5	0.49	<0.05	11.60	
23	5468661	<0.5	1.64	15	102	0.08	<5	0.17	0.81	0.19	
24	5468662	<0.5	1.69	7	125	<0.05	<5	0.32	0.74	0.11	
25	5468663	<0.5	2.50	10	58	24.40	<5	1.46	1.39	0.59	

 Results in ppm unless otherwise specified
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ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

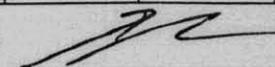
104165.60.11432 01/12/95 77395 3 OF 12

	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211
1	5468664	<0.5	1.64	18	93	0.06	5	0.44	0.68	0.12
2	5468665	<0.5	11.90	40	251	0.13	38	9.10	4.78	1.14
3	5468666	<0.5	9.26	27	313	<0.05	24	2.82	4.74	1.31
4	5468667	<0.5	2.37	21	127	<0.05	<5	0.68	0.88	0.29
5	5468668	<0.5	3.76	5	162	<0.05	<5	2.12	1.28	0.42
	5468669	<0.5	2.89	<5	193	<0.05	<5	0.42	1.21	0.18
7	5468670	<0.5	8.58	<5	550	<0.05	30	4.91	3.62	0.53
8	5468671	<0.5	5.88	12	344	<0.05	6	1.50	2.76	0.38
9	5468672	<0.5	5.06	30	144	0.06	<5	1.99	1.66	2.42
10	5468673	<0.5	4.22	12	250	<0.05	23	0.52	1.70	0.23
11	5468674	<0.5	3.96	15	230	4.07	17	0.83	1.51	2.47
12	5468675	<0.5	10.20	52	320	<0.05	25	2.41	4.34	1.87
13	5468676	<0.5	1.36	23	14	16.90	6	0.94	0.29	9.85
14	5468677	<0.5	0.64	13	<5	16.90	<5	0.88	0.07	10.30
15	5468678	<0.5	1.36	<5	34	16.90	5	1.20	0.23	10.90
16	5468679	<0.5	1.11	7	17	17.00	5	0.98	0.30	9.97
17	5468680	<0.5	4.34	11	159	8.44	8	3.62	2.16	2.00
18	5468681	<0.5	1.74	13	56	21.60	<5	5.09	0.70	1.03
19	5468682	<0.5	2.54	<5	115	22.50	<5	1.41	1.32	1.62
20	5468683	<0.5	6.32	14	184	13.30	10	2.12	2.79	2.41
21	5468684	<0.5	5.62	26	210	0.08	26	1.30	2.70	0.76
22	5468685	<0.5	3.28	15	138	0.06	24	1.26	1.63	0.42
23	5468686	<0.5	2.31	7	152	<0.05	<5	0.26	1.00	0.16
24	5468687	<0.5	1.65	<5	93	<0.05	<5	2.10	0.60	0.12
25	5468688	<0.5	10.80	<5	783	<0.05	6	1.64	4.70	0.71

Results in ppm unless otherwise specified
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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

104165.60.11432

01/12/95

77395

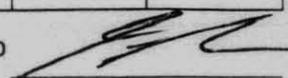
4 OF 12

METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211
1	5468689	<0.5	9.89	24	700	<0.05	20	3.21	3.97	0.52
2	5468690	<0.5	11.00	<5	797	<0.05	<5	2.18	4.51	0.94
3	5468691	<0.5	9.46	8	768	<0.05	32	6.73	4.36	0.66
4	5468692	<0.5	9.37	18	617	<0.05	20	7.33	4.15	0.62
5	5468751	<0.5	0.90	<5	47	13.40	<5	1.28	0.43	7.59
	5468752	<0.5	1.70	13	80	28.10	6	2.01	0.94	1.06
7	5468753	<0.5	0.63	<5	20	26.80	8	4.97	0.34	0.22
8	5468754	<0.5	1.71	15	115	6.63	<5	0.58	0.86	0.23
9	5468755	<0.5	4.64	35	389	5.00	18	5.63	2.30	0.93
10	5468756	<0.5	2.22	20	75	31.60	8	0.62	1.33	0.52
11	5468757	<0.5	0.67	20	26	33.00	6	0.67	0.39	0.79
12	5468758	<0.5	2.29	8	142	6.19	<5	0.51	1.21	0.47
13	5468759	<0.5	2.00	<5	82	26.80	9	1.19	0.99	2.35
14	5468760	<0.5	2.12	8	157	4.62	<5	0.56	1.05	0.41
15	5468761	<0.5	0.85	<5	73	0.08	<5	0.29	0.46	0.06
16	5468762	<0.5	4.91	16	173	0.06	21	0.71	2.52	0.52
17	5468763	<0.5	4.00	8	94	0.80	16	1.42	1.76	0.42
18	5468764	<0.5	0.43	18	18	27.80	<5	0.53	0.25	3.89
19	5468765	<0.5	1.11	11	99	<0.05	<5	0.21	0.55	0.07
20	5468766	<0.5	0.23	14	23	<0.05	<5	0.21	0.13	0.02
21	5468767	<0.5	1.24	<5	125	<0.05	7	0.21	0.67	0.10
22	5468768	<0.5	0.06	<5	15	<0.05	<5	0.15	<0.05	<0.01
23	5468769	<0.5	1.62	<5	98	<0.05	<5	0.43	0.92	0.12
24	5468770	<0.5	1.64	<5	154	<0.05	<5	0.33	0.89	0.10
25	5468771	<0.5	2.91	<5	299	<0.05	6	0.81	1.62	0.20

Results in ppm unless otherwise specified
element not determined

IS = insufficient sample
SNR = sample not received

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OFFICER



ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

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SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11432				01/12/95		77395		5 OF 12	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5468772	<0.5	0.25	<5	28	<0.05	9	0.20	0.12	0.02	
2	5468773	<0.5	2.95	<5	110	<0.05	11	0.27	1.26	0.29	
3	5468774	<0.5	1.76	<5	158	<0.05	<5	0.33	0.93	0.10	
4	5468775	<0.5	1.07	<5	121	<0.05	<5	0.24	0.55	0.07	
5	5468776	<0.5	1.12	<5	106	<0.05	<5	0.24	0.59	0.07	
	5468777	<0.5	1.33	<5	116	<0.05	5	0.26	0.71	0.09	
7	5468778	<0.5	2.88	<5	161	<0.05	6	0.92	1.32	0.21	
8	5468779	<0.5	2.27	<5	203	<0.05	<5	0.48	1.17	0.14	
9	5468780	<0.5	1.73	<5	149	0.63	<5	0.56	0.90	0.12	
10	5468781	<0.5	0.55	32	12	27.80	<5	0.38	0.31	1.78	
11	5468782	<0.5	8.78	<5	213	0.12	11	0.55	4.84	1.12	
12	5468783	<0.5	2.29	7	74	<0.05	<5	0.21	1.42	0.31	
13	5468784	<0.5	2.57	<5	75	0.19	9	1.47	1.28	0.27	
14	5468785	SNR	SNR	SNR	SNR	SNR	SNR	SNR	SNR	SNR	
15	5468786	<0.5	2.23	<5	78	<0.05	6	0.66	1.36	0.32	
16	5468787	<0.5	0.25	24	8	30.00	<5	0.26	0.17	0.98	
17	5468788	<0.5	1.26	22	35	24.90	<5	1.70	0.78	4.54	
18	5468789	<0.5	1.70	<5	96	13.40	<5	0.85	0.59	0.93	
19	5468790	<0.5	1.31	47	43	27.30	<5	1.47	0.79	0.75	
20	5468791	SNR	SNR	SNR	SNR	SNR	SNR	SNR	SNR	SNR	
21	5468792	<0.5	4.92	<5	556	0.06	117	0.58	2.45	0.28	
22	5468793	<0.5	1.10	15	30	29.50	<5	0.88	0.68	3.05	
23	5468794	<0.5	1.99	25	57	20.40	11	1.39	1.07	5.21	
24	5468795	<0.5	0.38	13	10	19.90	<5	0.61	0.21	11.00	
25	5468796	<0.5	0.12	<5	<5	21.60	<5	0.82	0.06	10.60	

Results in ppm unless otherwise specified
 = element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER



304057

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

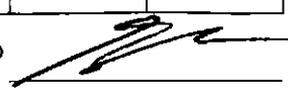
PAGE

		104165.60.11432				01/12/95		77395		6 OF 12	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5468797	<0.5	2.09	13	90	13.00	<5	1.11	1.06	3.59	
2	5468798	<0.5	1.46	<5	123	4.48	<5	0.36	0.72	2.51	
3	5468799	<0.5	1.06	<5	76	11.00	<5	0.38	0.50	6.21	
4	5468800	<0.5	9.55	<5	1640	0.24	<5	5.92	4.81	0.88	
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01	
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%	

Results in ppm unless otherwise specified
- element not determined

IS = Insufficient sample
SNR = sample not received

AUTHORISED OFFICER



304058

ANALYTICAL DATA

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	SAMPLE No.	Mn	Pb	Zn					
METHOD		GI211	GI211	GI211					
1	5468614	222	23	29					
2	5468615	56	30	80					
3	5468616	10	<10	20					
4	5468617	55	<10	63					
5	5468618	11	<10	6					
	5468619	13	<10	12					
7	5468620	180	45	46					
8	5468621	711	43	21					
9	5468622	910	142	157					
10	5468623	277	40	31					
11	5468624	1050	<10	<5					
12	5468625	974	51	11					
13	5468626	572	21	22					
14	5468627	457	22	19					
15	5468628	388	18	12					
16	5468629	212	23	59					
17	5468630	765	14	19					
18	5468631	334	18	16					
19	5468632	14	<10	14					
20	5468633	188	18	<5					
21	5468634	29	<10	14					
22	5468635	135	12	12					
23	5468636	98	13	<5					
24	5468637	358	130	93					
25	5468638	67	14	13					

Results in ppm unless otherwise specified
element not determined

IS = insufficient sample
SNR = sample not received

AUTHORISED OFFICER



ANALYTICAL DATA

SAMPLE PREFIX

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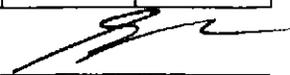
8 OF 12

	SAMPLE No.	Mn	Pb	Zn					
METHOD		GI211	GI211	GI211					
1	5468639	11	<10	11					
2	5468640	36	15	19					
3	5468641	44	<10	24					
4	5468642	13	12	12					
5	5468643	<10	<10	<5					
	5468644	11	<10	6					
7	5468645	<10	<10	6					
8	5468646	10	<10	8					
9	5468647	14	<10	<5					
10	5468648	16	<10	5					
11	5468649	<10	<10	14					
12	5468650	<10	16	11					
13	5468651	259	32	35					
14	5468652	1450	11	6					
15	5468653	<10	<10	<5					
16	5468654	18	66	30					
17	5468655	49	23	13					
18	5468656	1290	38	27					
19	5468657	4410	31	13					
20	5468658	587	40	13					
21	5468659	179	<10	<5					
22	5468660	924	<10	40					
23	5468661	10	12	12					
24	5468662	12	11	11					
25	5468663	529	14	12					

Results in ppm unless otherwise specified
element not determined

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ANALYTICAL DATA

SAMPLE PREFIX

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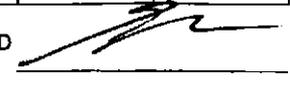
77395

9 OF 12

	SAMPLE No.	Mn	Pb	Zn					
METHOD	GI211	GI211	GI211						
1	5468664	28	<10	17					
2	5468665	365	82	321					
3	5468666	22	58	205					
4	5468667	27	10	18					
5	5468668	31	15	15					
	5468669	18	<10	9					
7	5468670	22	19	40					
8	5468671	10	<10	15					
9	5468672	67	43	230					
10	5468673	26	<10	11					
11	5468674	286	15	127					
12	5468675	14	108	272					
13	5468676	294	21	36					
14	5468677	361	18	14					
15	5468678	327	16	15					
16	5468679	219	14	15					
17	5468680	5890	35	44					
18	5468681	8470	29	24					
19	5468682	235	15	17					
20	5468683	211	31	71					
21	5468684	15	34	20					
22	5468685	25	23	20					
23	5468686	<10	<10	12					
24	5468687	<10	<10	6					
25	5468688	<10	54	19					

Results in ppm unless otherwise specified
element not determined

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AUTHORISED OFFICER 

ANALYTICAL DATA

SAMPLE PREFIX

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SAMPLE PREFIX		REPORT No.			REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11432			01/12/95		77395		10 OF 12	
METHOD	SAMPLE No.	Mn	Pb	Zn						
		GI211	GI211	GI211						
1	5468689	14	14	23						
2	5468690	28	12	41						
3	5468691	13	32	36						
4	5468692	14	28	27						
5	5468751	1680	14	25						
	5468752	1190	23	23						
7	5468753	18300	113	201						
8	5468754	386	<10	11						
9	5468755	12000	127	86						
10	5468756	120	20	7						
11	5468757	450	14	25						
12	5468758	87	<10	14						
13	5468759	222	31	39						
14	5468760	99	11	13						
15	5468761	17	<10	8						
16	5468762	24	28	20						
17	5468763	26	130	61						
18	5468764	363	15	<5						
19	5468765	11	<10	5						
20	5468766	13	<10	41						
21	5468767	<10	<10	23						
22	5468768	<10	<10	8						
23	5468769	12	<10	13						
24	5468770	13	<10	<5						
25	5468771	115	11	11						



ANALYTICAL DATA

304062

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

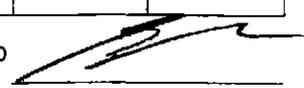
PAGE

		104165.60.11432			01/12/95		77395		11 OF 12	
	SAMPLE No.	Mn	Pb	Zn						
METHOD		GI211	GI211	GI211						
1	5468772	12	<10	12						
2	5468773	11	23	25						
3	5468774	12	<10	<5						
4	5468775	11	<10	<5						
5	5468776	10	<10	12						
	5468777	14	<10	8						
7	5468778	28	19	86						
8	5468779	14	<10	6						
9	5468780	30	<10	7						
10	5468781	79	<10	<5						
11	5468782	20	18	30						
12	5468783	<10	<10	6						
13	5468784	30	23	32						
14	5468785	SNR	SNR	SNR						
15	5468786	58	12	10						
16	5468787	67	<10	<5						
17	5468788	194	15	6						
18	5468789	176	12	8						
19	5468790	436	17	43						
20	5468791	SNR	SNR	SNR						
21	5468792	13	23	8						
22	5468793	211	14	<5						
23	5468794	299	32	35						
24	5468795	270	<10	<5						
25	5468796	347	<10	14						

Results in ppm unless otherwise specified
 - element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER



304063

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

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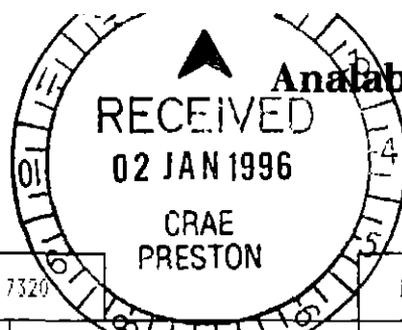
SAMPLE PREFIX		REPORT No.			REPORT DATE	CLIENT ORDER No.			PAGE	
		104165.60.11432			01/12/95	77395			12 OF 12	
	SAMPLE No.	Mn	Pb	Zn						
METHOD		GI211	GI211	GI211						
1	5468797	334	19	13						
2	5468798	88	<10	8						
3	5468799	252	<10	7						
4	5468800	603	31	33						
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	10	10	5						
25	UNITS	ppm	ppm	ppm						

Results in ppm unless otherwise specified
 element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER





304064

Phone (004) 318837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

104104 57 11470

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

ORDER No.

PROJECT

77192

DATE RECEIVED

RESULTS REQUIRED

12/12/95

ASAP

No. OF PAGES
OF RESULTS

DATE
REPORTED

No.
OF COPIES

TOTAL No.
OF SAMPLES

12

27/12/95

1

136

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

VARIOUS

BR Prep : SP032

Ag,Al,As,Ba,Ca,Cu,Fe,K,Mg,Mn,Pb,
Zn/G1211

RESULTS
TO

Mrs G Mendes
CRA Exploration Pty Ltd
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS
TO

Mrs C Hayward
CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS
TO

Exploration Technology & Information
Group
Information Resources
Private Bag 3 Gundocra NDL
Victoria 3083

REMARKS

Ca/G1211 results >20% are over the
recommended analytical range and are
reported to an accuracy of +/- 1%.

AUTHORISED OFFICER

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

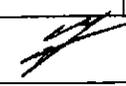
PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470				27/12/95		77192		1 OF 12	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5468693	<0.5	2.06	<5	142	<0.05	17	0.40	0.99	0.19	
2	5468694	<0.5	10.20	18	660	<0.05	34	6.32	4.51	0.75	
3	5468695	<0.5	10.50	20	734	<0.05	33	5.67	4.31	0.65	
4	5468696	<0.5	9.63	14	658	<0.05	28	6.54	3.75	0.56	
5	5468697	<0.5	7.31	41	480	<0.05	41	14.50	2.64	0.56	
6	5468698	<0.5	10.50	33	671	<0.05	23	4.78	4.19	0.82	
7	5468699	<0.5	9.62	12	625	<0.05	68	5.21	3.09	1.16	
8	5468700	<0.5	10.00	<5	726	<0.05	32	6.40	3.92	1.76	
9	5470101	<0.5	9.86	9	738	<0.05	5	4.44	3.47	1.66	
10	5470102	<0.5	9.97	12	745	<0.05	12	5.89	3.47	1.65	
11	5470103	<0.5	12.20	12	875	<0.05	8	6.82	4.31	2.14	
12	5470104	<0.5	12.20	13	884	<0.05	12	6.36	4.36	1.89	
13	5470105	<0.5	10.40	21	696	<0.05	57	5.38	3.53	1.72	
14	5470106	<0.5	10.90	6	803	<0.05	19	5.50	4.06	1.68	
15	5470107	<0.5	11.10	16	811	<0.05	30	4.81	4.00	1.55	
16	5470108	<0.5	10.80	15	803	<0.05	38	8.40	4.00	1.14	
17	5470109	<0.5	10.30	24	757	<0.05	36	4.84	3.74	0.55	
18	5470110	<0.5	9.58	6	649	<0.05	31	5.44	3.17	0.49	
19	5470111	<0.5	8.67	11	621	<0.05	38	5.43	2.88	0.44	
20	5470112	<0.5	10.20	20	796	<0.05	25	5.35	3.59	0.55	
21	5470113	<0.5	9.54	15	559	<0.05	42	3.90	2.88	0.48	
22	5470114	<0.5	10.10	<5	739	<0.05	39	5.29	3.73	0.56	
23	5470115	<0.5	11.70	13	769	<0.05	55	6.22	3.98	1.00	
24	5470116	<0.5	10.30	17	705	<0.05	45	7.75	3.80	0.61	
25	5470117	<0.5	6.24	<5	443	<0.05	16	3.77	2.18	0.44	

 Results in ppm unless otherwise specified
 - element not determined

 IS = insufficient sample
 SNR = sample not received

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304066

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

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27/12/95

77192

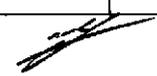
2 OF 12

	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211								
1	5470118	<0.5	7.69	<5	484	<0.05	22	4.04	2.76	0.52
2	5470119	<0.5	8.42	13	531	<0.05	31	4.15	2.89	0.50
3	5470120	<0.5	7.49	39	2450	<0.05	47	8.50	3.00	0.82
4	5470121	<0.5	9.47	<5	622	<0.05	40	7.13	3.49	0.60
5	5470122	<0.5	11.30	<5	684	<0.05	50	6.88	4.00	0.63
6	5470123	<0.5	10.90	<5	698	<0.05	33	2.90	3.93	0.58
7	5470124	<0.5	9.08	48	559	<0.05	57	11.30	3.39	0.63
8	5470125	<0.5	9.91	14	637	<0.05	31	6.35	3.76	0.56
9	5470126	<0.5	10.40	21	715	<0.05	49	9.82	4.06	0.57
10	5470127	<0.5	9.22	30	749	<0.05	28	8.96	3.56	0.62
11	5470128	<0.5	2.89	<5	118	<0.05	<5	2.34	0.69	0.18
12	5470401	<0.5	11.60	22	799	<0.05	<5	5.47	4.58	1.90
13	5470402	<0.5	10.60	15	789	<0.05	<5	6.29	4.38	1.64
14	5470403	<0.5	10.50	5	749	<0.05	37	8.86	3.97	1.37
15	5470404	<0.5	10.10	20	716	<0.05	16	5.12	3.93	1.58
16	5470405	<0.5	10.30	23	719	<0.05	29	6.41	3.91	0.87
17	5470406	<0.5	10.00	<5	751	<0.05	22	4.85	3.93	0.56
18	5470407	<0.5	9.62	23	698	<0.05	37	9.80	3.77	0.55
19	5470408	<0.5	9.44	24	603	<0.05	27	6.35	3.43	1.21
20	5470409	<0.5	11.10	24	737	<0.05	36	5.87	4.32	1.87
21	5470410	<0.5	10.90	19	728	<0.05	28	7.76	4.18	1.96
22	5470411	<0.5	10.20	30	663	<0.05	26	5.65	3.97	1.77
23	5470412	<0.5	10.70	<5	714	<0.05	27	5.97	4.12	1.81
24	5470413	<0.5	8.68	<5	579	<0.05	20	3.92	3.32	1.45
25	5470414	<0.5	9.40	<5	581	<0.05	30	6.52	3.40	1.39

 Results in ppm unless otherwise specified
 = element not determined

 IS = insufficient sample
 SNR = sample not received

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ANALYTICAL DATA

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77192

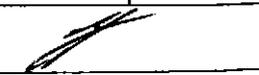
3 OF 12

	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211								
1	5470415	<0.5	11.00	<5	670	<0.05	37	4.99	3.70	0.65
2	5470416	<0.5	10.00	<5	677	<0.05	36	4.07	3.76	0.51
3	5470417	<0.5	8.68	37	546	<0.05	51	12.90	2.93	0.38
4	5470418	<0.5	9.82	14	706	<0.05	30	5.22	3.63	0.47
5	5470419	<0.5	5.54	<5	362	<0.05	25	3.87	2.12	0.25
6	5470420	<0.5	9.21	13	619	<0.05	55	16.50	3.34	0.42
7	5470421	<0.5	6.03	14	385	<0.05	32	6.41	2.10	0.28
8	5470422	<0.5	9.49	10	652	<0.05	21	5.21	3.45	0.43
9	5470423	<0.5	8.43	5	593	<0.05	36	5.17	3.16	0.64
10	5470424	<0.5	9.20	18	645	<0.05	<5	4.53	<0.05	1.68
11	5470425	<0.5	9.67	8	710	<0.05	10	3.32	3.76	1.63
12	5470426	<0.5	8.34	20	595	0.08	44	10.70	3.10	1.33
13	5470427	<0.5	9.30	12	647	<0.05	6	4.50	3.50	1.57
14	5470428	<0.5	9.67	12	707	0.09	39	4.63	3.71	1.83
15	5470429	<0.5	10.40	16	702	<0.05	17	5.49	3.91	1.78
16	5470430	<0.5	10.50	8	712	<0.05	20	4.13	3.79	0.92
17	5470431	<0.5	8.83	28	702	0.07	22	4.69	3.38	1.40
18	5470432	<0.5	9.42	21	682	<0.05	17	5.17	3.54	1.64
19	5470433	<0.5	9.25	7	560	<0.05	57	5.35	3.25	1.47
20	5470434	<0.5	10.00	6	728	<0.05	12	4.70	3.70	1.62
21	5470435	<0.5	8.75	28	552	<0.05	28	6.17	3.23	1.52
22	5470436	<0.5	8.92	6	522	<0.05	13	3.71	3.11	1.16
23	5470437	<0.5	9.81	25	653	<0.05	13	5.42	3.60	1.64
24	5470438	<0.5	9.33	10	636	<0.05	24	4.48	3.59	1.85
25	5470439	<0.5	9.68	16	706	<0.05	17	3.81	3.72	1.38

 Results in ppm unless otherwise specified
 = element not determined

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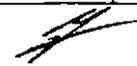
ANALYTICAL DATA

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470				27/12/95		77192		4 OF 12	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5470440	<0.5	10.20	<5	721	0.11	<5	2.28	3.88	1.18	
2	5470441	<0.5	9.90	11	673	<0.05	18	7.85	3.86	1.37	
3	5470442	<0.5	10.80	9	782	<0.05	31	6.92	4.00	1.12	
4	5470443	<0.5	11.00	<5	797	<0.05	26	4.30	3.98	0.65	
5	5470444	<0.5	9.04	<5	639	<0.05	20	4.89	3.25	0.66	
6	5470445	<0.5	10.70	<5	835	<0.05	9	5.49	4.03	1.73	
7	5470446	<0.5	10.00	<5	710	<0.05	12	5.75	3.72	1.71	
8	5470447	<0.5	9.94	<5	650	<0.05	22	3.58	3.85	1.52	
9	5470448	<0.5	3.66	<5	262	<0.05	<5	0.63	2.04	0.33	
10	5470449	<0.5	11.50	56	177	0.09	26	3.98	4.05	1.15	
11	5470450	0.7	1.61	40	18	27.80	<5	0.79	1.02	1.28	
12	5470451	<0.5	4.19	<5	80	0.90	22	1.91	1.68	0.60	
13	5470452	1.4	1.18	13	12	29.50	<5	0.56	0.65	0.38	
14	5470453	1.1	0.75	33	28	26.40	<5	0.38	0.46	1.79	
15	5470454	0.9	0.24	28	30	13.50	<5	0.91	0.10	8.22	
16	5470455	<0.5	0.71	<5	58	<0.05	<5	0.30	0.37	0.08	
17	5470456	2.3	1.05	29	54	25.90	<5	0.47	0.45	2.21	
18	5470457	<0.5	1.07	<5	74	0.06	<5	0.42	0.51	0.05	
19	5470458	<0.5	5.69	34	429	0.74	22	3.52	2.78	0.44	
20	5470459	<0.5	1.74	<5	99	<0.05	<5	0.51	0.85	0.08	
21	5470460	<0.5	7.18	33	368	<0.05	24	6.31	3.89	0.68	
22	5470461	<0.5	4.52	22	160	<0.05	90	2.26	2.56	0.52	
23	5470462	<0.5	0.34	6	22	<0.05	<5	0.42	0.14	0.02	
24	5470463	<0.5	6.18	<5	334	<0.05	<5	1.36	3.02	0.29	
25	5470464	<0.5	1.68	12	90	<0.05	<5	0.49	0.83	0.07	

Results in ppm unless otherwise specified
element not determined

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SNR = sample not received

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

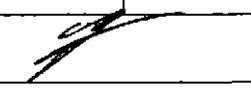
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SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470				27/12/95		77192		5 OF 12	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5470465	<0.5	6.67	7	514	<0.05	29	5.34	2.37	1.07	
2	5470466	<0.5	7.13	<5	596	<0.05	40	7.74	2.36	0.32	
3	5470467	<0.5	10.40	<5	796	<0.05	29	5.39	3.83	0.48	
4	5470468	<0.5	12.50	17	935	<0.05	49	5.65	4.53	0.55	
5	5470469	<0.5	10.40	<5	799	<0.05	51	4.80	3.80	0.45	
6	5470470	<0.5	9.35	23	724	<0.05	55	5.09	3.57	1.66	
7	5470471	<0.5	13.30	21	1060	<0.05	37	7.35	5.08	1.32	
8	5470472	<0.5	9.08	39	739	<0.05	33	5.19	3.62	1.64	
9	5470473	<0.5	10.60	20	775	<0.05	48	6.04	3.97	0.82	
10	5470474	<0.5	11.20	15	848	<0.05	51	4.67	4.16	1.11	
11	5470475	<0.5	10.50	11	841	<0.05	39	5.33	4.21	0.64	
12	5470476	<0.5	11.00	19	822	<0.05	37	7.72	4.24	0.54	
13	5470477	<0.5	12.80	30	922	<0.05	35	8.81	4.82	1.09	
14	5470478	<0.5	7.96	26	570	0.37	14	6.59	2.87	0.79	
15	5470479	<0.5	11.90	8	895	<0.05	15	6.82	4.87	1.35	
16	5470480	<0.5	11.30	10	857	<0.05	9	5.32	4.85	1.69	
17	5470481	<0.5	7.77	33	564	<0.05	26	7.19	3.35	0.48	
18	5470482	<0.5	8.51	<5	534	<0.05	7	2.84	3.37	0.49	
19	5470483	<0.5	3.31	66	157	<0.05	33	6.62	0.91	0.30	
20	5470484	<0.5	7.58	43	271	<0.05	17	7.19	3.54	0.88	
21	5470485	<0.5	6.27	13	259	0.10	14	2.62	3.31	1.02	
22	5470486	<0.5	7.56	55	501	<0.05	41	3.73	4.14	0.68	
23	5470487	<0.5	8.45	<5	644	<0.05	25	6.01	3.16	0.52	
24	5470488	<0.5	5.32	<5	283	<0.05	18	2.70	1.46	0.28	
25	5470489	<0.5	8.53	26	527	<0.05	13	3.67	3.06	0.98	

 Results in ppm unless otherwise specified
 element not determined

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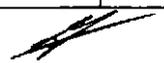
6 OF 12

METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
		GI211								
1	5470490	<0.5	6.50	8	529	<0.05	17	1.56	2.48	0.50
2	5470491	<0.5	7.81	30	517	<0.05	26	2.38	2.82	0.44
3	5470492	<0.5	7.95	14	654	<0.05	17	1.53	2.83	0.46
4	5470493	<0.5	8.48	13	625	<0.05	36	4.04	3.09	0.53
5	5470494	<0.5	8.38	6	683	<0.05	15	5.00	3.24	1.14
6	5470495	<0.5	7.02	<5	642	<0.05	23	3.07	2.83	0.46
7	5470496	<0.5	6.07	8	397	<0.05	14	5.75	1.80	1.24
8	5470497	<0.5	4.53	<5	331	<0.05	6	1.98	1.69	0.51
9	5470498	<0.5	4.88	31	217	<0.05	22	7.11	1.40	0.83
10	5470499	<0.5	8.30	28	660	<0.05	47	8.08	3.23	0.53
11	5470500	<0.5	7.25	49	574	<0.05	38	9.54	2.62	0.43
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%

Results in ppm unless otherwise specified
- element not determined

IS = Insufficient sample
SNR = sample not received

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

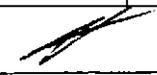
PAGE

SAMPLE PREFIX		REPORT No.			REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470			27/12/95		77192		7 OF 12	
METHOD	SAMPLE No.	Mn	Pb	Zn						
		GI211	GI211	GI211						
1	5468693	19	21	17						
2	5468694	17	24	41						
3	5468695	17	29	27						
4	5468696	18	77	48						
5	5468697	17	52	33						
6	5468698	18	28	29						
7	5468699	991	88	136						
8	5468700	194	42	116						
9	5470101	71	27	78						
10	5470102	65	16	75						
11	5470103	135	32	107						
12	5470104	102	19	90						
13	5470105	102	38	146						
14	5470106	96	78	82						
15	5470107	84	57	68						
16	5470108	47	49	51						
17	5470109	23	19	22						
18	5470110	32	28	29						
19	5470111	41	63	33						
20	5470112	13	22	22						
21	5470113	19	25	26						
22	5470114	226	40	72						
23	5470115	2710	175	85						
24	5470116	796	80	61						
25	5470117	197	51	67						

Results in ppm unless otherwise specified
element not determined

IS = insufficient sample
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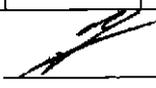
ANALYTICAL DATA

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SAMPLE PREFIX		REPORT No.	REPORT DATE	CLIENT ORDER No.	PAGE
		104165.60.11470	27/12/95	77192	8 OF 12
SAMPLE No.	Mn	Pb	Zn		
METHOD	GI211	GI211	GI211		
1	5470118	1630	56	61	
2	5470119	369	34	67	
3	5470120	20200	45	249	
4	5470121	46	34	88	
5	5470122	45	36	34	
6	5470123	21	26	29	
7	5470124	144	63	55	
8	5470125	15	63	20	
9	5470126	16	15	23	
10	5470127	34	35	24	
11	5470128	32	12	11	
12	5470401	116	15	92	
13	5470402	100	16	81	
14	5470403	83	36	78	
15	5470404	51	16	77	
16	5470405	47	42	82	
17	5470406	33	24	24	
18	5470407	25	21	81	
19	5470408	76	26	88	
20	5470409	63	23	99	
21	5470410	76	53	133	
22	5470411	55	34	117	
23	5470412	69	27	117	
24	5470413	58	30	193	
25	5470414	1350	35	110	

Results in ppm unless otherwise specified
element not determined

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ANALYTICAL DATA

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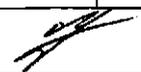
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SAMPLE PREFIX		REPORT No.			REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470			27/12/95		77192		9 OF 12	
METHOD	SAMPLE No.	Mn	Pb	Zn						
		GI211	GI211	GI211						
1	5470415	39	47	35						
2	5470416	14	31	22						
3	5470417	<10	50	30						
4	5470418	16	25	27						
5	5470419	33	34	12						
6	5470420	13	34	27						
7	5470421	12	24	33						
8	5470422	27	31	55						
9	5470423	126	38	51						
10	5470424	66	16	77						
11	5470425	44	11	90						
12	5470426	249	33	238						
13	5470427	59	38	74						
14	5470428	89	29	126						
15	5470429	108	31	99						
16	5470430	30	34	38						
17	5470431	2590	22	210						
18	5470432	72	22	77						
19	5470433	1470	25	186						
20	5470434	79	17	75						
21	5470435	53	23	75						
22	5470436	3680	13	80						
23	5470437	88	24	84						
24	5470438	81	18	90						
25	5470439	65	27	62						

Results in ppm unless otherwise specified
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	SAMPLE No.	Mn	Pb	Zn					
METHOD		GI211	GI211	GI211					
1	5470440	37	11	47					
2	5470441	83	22	64					
3	5470442	50	24	50					
4	5470443	139	73	29					
5	5470444	171	22	29					
6	5470445	83	27	79					
7	5470446	101	20	94					
8	5470447	41	38	95					
9	5470448	16	<10	9					
10	5470449	13	31	464					
11	5470450	122	<10	<5					
12	5470451	45	120	88					
13	5470452	62	14	8					
14	5470453	104	17	7					
15	5470454	268	31	24					
16	5470455	11	<10	<5					
17	5470456	165	14	13					
18	5470457	12	<10	<5					
19	5470458	43	65	578					
20	5470459	14	<10	7					
21	5470460	33	91	104					
22	5470461	24	77	25					
23	5470462	18	<10	24					
24	5470463	18	14	21					
25	5470464	11	<10	5					

Results in ppm unless otherwise specified
element not determined

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ANALYTICAL DATA

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REPORT No.

REPORT DATE

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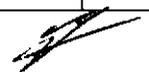
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SAMPLE PREFIX		REPORT No.			REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11470			27/12/95		77192		11 OF 12	
	SAMPLE No.	Mn	Pb	Zn						
METHOD		GI211	GI211	GI211						
1	5470465	90	47	65						
2	5470466	16	38	54						
3	5470467	80	45	47						
4	5470468	16	35	34						
5	5470469	12	26	61						
6	5470470	198	28	95						
7	5470471	67	25	81						
8	5470472	629	49	137						
9	5470473	37	25	74						
10	5470474	3180	36	233						
11	5470475	30	26	64						
12	5470476	71	30	63						
13	5470477	39	39	114						
14	5470478	31	16	60						
15	5470479	104	32	79						
16	5470480	106	23	87						
17	5470481	13	102	23						
18	5470482	22	37	15						
19	5470483	39	<10	41						
20	5470484	19	36	127						
21	5470485	59	45	39						
22	5470486	16	<10	19						
23	5470487	58	14	41						
24	5470488	14	12	16						
25	5470489	93	36	38						

Results in ppm unless otherwise specified
element not determined

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		104165.60.11470			27/12/95		77192		12	OF 12
	SAMPLE No.	Mn	Pb	Zn						
METHOD		GI211	GI211	GI211						
1	5470490	31	40	16						
2	5470491	21	15	21						
3	5470492	21	69	20						
4	5470493	26	44	26						
5	5470494	67	12	31						
6	5470495	24	49	18						
7	5470496	108	22	57						
8	5470497	50	<10	34						
9	5470498	74	30	45						
10	5470499	19	29	23						
11	5470500	17	22	22						
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	10	10	5						
25	UNITS	ppm	ppm	ppm						



304077

Phone (004) 316837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318990

ANALYTICAL REPORT No.

104163.60.11498

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

INVOICE TO:

OKA Exploration Pty Limited
P.O. Box 6093
NORTHLAND CENTRE VIC 3072

27195

DATE RECEIVED

RESULTS REQUIRED

18/12/95

ASAP

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

8

09/01/96

1

96

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

3470127-200.5470601-624

VA Prod : SP031,SP033

Ag,Al,As,Ba,Ca,Cd,Cr,Cu,Fe,K,Mg,Mn,Pb,
In/GI211 Mn/GA145

RESULTS TO

Ms & Mines
OKA Exploration Pty Ltd
P.O. Box 6093
NORTHLAND CENTRE VIC 3072

RESULTS TO

Mr J Hayward
OKA Exploration Pty Limited
P.O. Box 6093
NORTHLAND CENTRE VIC 3072

RESULTS TO

Exploration Technology & Information
Group
Information Resources
Private Bag 5 Bundora VIC
Victoria 3085

REMARKS

Ca/GI211 results >20% are over the recommended analytical range and are reported to an accuracy of +/-15.

PP *M.A. Good*
AUTHORISED OFFICER

304078

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

SAMPLE PREFIX		REPORT No.	REPORT DATE	CLIENT ORDER No.	PAGE					
		104165.60.11495	09/01/96	77193	1 OF 8					
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211
1	5470129 5075, 11, 900	<0.5	9.47	53	773	<0.05	12	5.06	4.33	1.43
2	5470130 5050	<0.5	10.20	48	773	<0.05	69	5.28	4.64	1.66
3	5470131 5075	<0.5	10.40	32	775	0.20	40	5.29	4.58	1.85
4	5470132 5100	<0.5	10.30	42	738	<0.05	6	5.36	4.33	1.72
5	5470133 5175	<0.5	6.09	6	297	0.11	16	6.33	2.41	0.97
6	5470134 5150	<0.5	5.90	8	293	<0.05	13	4.45	2.28	0.91
7	5470135 5175	1.2	2.64	21	99	28.40	5	0.59	1.71	1.10
8	5470136 5200	<0.5	11.40	18	714	0.05	8	1.18	4.67	0.78
9	5470137 5225	<0.5	7.29	37	288	0.06	33	3.06	4.11	1.04
10	5470138 5250	<0.5	1.97	<5	108	0.05	10	0.62	0.90	0.21
11	5470139 5275	1.8	1.98	<5	60	27.40	<5	0.88	1.33	2.86
12	5470140 5300	0.5	2.56	<5	91	22.10	5	1.79	1.52	1.27
13	5470141 5325	1.1	1.13	<5	83	29.40	<5	1.29	0.68	1.66
14	5470142 5350	1.1	1.06	6	10	18.60	<5	0.91	0.47	9.51
15	5470143 5375	0.8	1.34	9	30	23.30	7	0.56	0.75	1.55
16	5470144 5400	<0.5	0.52	<5	57	0.06	<5	0.28	0.29	0.06
17	5470145 5425	0.9	1.08	<5	66	22.50	<5	0.90	0.58	5.24
18	5470146 5450	0.7	1.40	<5	176	33.80	<5	0.99	0.86	0.91
19	5470147 5475	<0.5	2.27	27	207	7.30	<5	1.94	1.34	3.30
20	5470148 5500	<0.5	6.46	30	706	8.41	31	3.29	3.41	0.77
21	5470149 5550, 10800	0.9	1.22	<5	14	20.20	14	0.46	0.68	11.10
22	5470150 5560	<0.5	2.26	<5	68	13.00	29	0.36	1.25	0.70
23	5470151 5570	<0.5	7.21	98	352	8.67	53	6.20	3.22	1.50
24	5470152 5580	<0.5	1.83	<5	84	19.60	8	1.14	1.10	9.21
25	5470153 5595	<0.5	9.03	42	1380	0.11	63	8.67	4.47	0.69

Results in ppm unless otherwise specified
 * element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER

PP M. H. Good

304079

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11495				09/01/96		77193		2 OF 8	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5470154 5305, 10800	<0.5	0.72	39	1540	0.23	13	0.68	4.36	0.68	
2	5470155 5315	<0.5	8.17	40	880	1.45	42	0.65	2.78	1.08	
3	5470156 5330	<0.5	5.93	9	574	0.11	27	0.40	3.38	0.60	
4	5470157 5500, 10800	0.7	0.51	<5	112	21.50	9	1.43	0.29	11.50	
5	5470158 5475	<0.5	2.12	<5	282	<0.05	8	0.39	1.21	0.18	
6	5470159 5450	1.7	1.32	<5	329	29.50	<5	1.00	0.71	3.05	
7	5470160 5425	0.8	1.42	<5	232	28.80	<5	0.67	0.85	1.13	
8	5470161 5400	<0.5	1.05	<5	171	19.10	<5	2.31	0.63	9.48	
9	5470162 5350	<0.5	1.18	<5	108	16.10	<5	2.71	0.69	8.14	
10	5470163 5325	0.6	1.97	43	260	9.37	<5	7.45	1.00	2.76	
11	5470164 5300	<0.5	7.70	32	97	0.10	20	10.80	1.00	2.89	
12	5470165 5275	0.7	2.15	<5	93	24.80	7	1.77	1.18	1.76	
13	5470166 5260	1.2	2.36	<5	79	28.10	<5	0.77	1.53	0.65	
14	5470167 5225	1.3	1.18	<5	29	30.60	12	0.61	0.72	1.48	
15	5470168 5200	1.8	0.74	<5	17	31.60	<5	0.54	0.49	1.95	
16	5470169 5175	<0.5	3.02	16	165	4.73	10	0.79	1.58	1.26	
17	5470170 5150	<0.5	6.72	42	185	9.93	18	1.57	3.78	1.64	
18	5470171 5125	<0.5	7.60	138	151	0.16	61	21.00	2.44	0.61	
19	5470172 5075	<0.5	4.35	6	143	<0.05	10	2.05	1.13	0.36	
20	5470173 5050	<0.5	11.50	31	827	<0.05	25	7.12	4.70	0.66	
21	5470174 5025	<0.5	9.85	7	711	<0.05	46	9.97	4.06	0.54	
22	5470175 5025, 10700	<0.5	9.29	47	288	0.07	43	2.61	4.17	1.29	
23	5470176 5050	<0.5	1.44	<5	115	<0.05	6	0.54	0.66	0.12	
24	5470177 5075	<0.5	1.20	6	114	<0.05	<5	0.34	0.52	0.08	
25	5470178 5100	<0.5	1.33	12	112	<0.05	10	0.40	0.61	0.09	

Results in ppm unless otherwise specified
element not determined

IS = insufficient sample
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AUTHORISED OFFICER *PP M. H. B...*

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE		CLIENT ORDER No.		PAGE	
		104165.60.11495				09/01/96		77193		3 OF 8	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5470179 5175 10700	<0.5	1.15	6	116	<0.05	<5	0.37	0.59	0.09	
2	5470180 5150	1.2	1.39	<5	43	27.20	<5	2.35	0.81	4.77	
3	5470181 5200	<0.5	2.37	11	49	24.00	12	1.02	1.09	3.31	
4	5470182 5225	<0.5	7.01	51	383	0.32	38	7.93	2.98	0.59	
5	5470183 5250	<0.5	7.60	34	1150	0.14	42	10.50	3.24	0.58	
6	5470184 5275	<0.5	2.60	17	95	16.60	6	1.65	1.36	8.48	
7	5470185 5375	<0.5	2.60	<5	66	14.70	7	1.49	1.50	6.97	
8	5470186 5400	1.0	1.21	<5	119	32.60	5	0.49	0.72	1.09	
9	5470187 5425	1.3	1.22	<5	382	28.90	<5	0.60	0.75	1.95	
10	5470188 5450	<0.5	0.74	<5	99	0.08	11	0.29	0.35	0.06	
11	5470189 5475	<0.5	0.36	<5	43	<0.05	<5	0.38	0.20	0.04	
12	5470190 5420 10600	<0.5	0.53	<5	53	<0.05	<5	0.26	0.29	0.04	
13	5470191 5400	<0.5	0.85	<5	90	<0.05	<5	0.33	0.45	0.06	
14	5470192 5375	<0.5	0.60	13	60	<0.05	<5	0.26	0.32	0.04	
15	5470193 5350	1.2	0.20	<5	511	35.70	<5	0.89	0.15	0.36	
16	5470194 5325	1.0	2.65	<5	89	25.90	<5	2.44	1.49	1.57	
17	5470195 5300	0.5	3.19	16	162	16.80	<5	1.21	1.78	2.14	
18	5470196 5275	<0.5	5.67	<5	379	0.17	9	1.20	2.83	0.62	
19	5470197 5250	<0.5	5.88	26	260	2.65	66	2.32	3.19	0.67	
20	5470198 5225	<0.5	1.57	<5	74	0.09	<5	0.39	0.70	0.11	
21	5470199 5200	<0.5	11.20	<5	610	0.09	32	2.41	5.01	0.93	
22	5470200 5175	<0.5	3.93	30	534	0.25	18	2.35	2.10	0.36	
23	5470601	2.2	0.16	<5	33	22.20	10	1.05	0.11	9.98	
24	5470602	<0.5	4.17	21	325	0.77	14	2.66	1.90	0.56	
25	5470603	<0.5	0.93	23	27	20.10	<5	1.00	0.46	10.60	

304081

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

104165.60.11495

09/01/96

77193

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METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
		GI211								
1	5470604	<0.5	8.87	59	294	<0.05	21	7.68	4.44	1.61
2	5470605	0.9	0.73	<5	22	27.10	<5	1.32	0.46	6.10
3	5470606	<0.5	0.84	62	437	1.23	<5	25.30	0.11	0.05
4	5470607	<0.5	7.78	404	1330	0.16	57	3.43	4.16	0.58
5	5470608	<0.5	0.76	53	33	15.10	10	8.50	0.44	7.87
6	5470609	<0.5	2.15	26	3640	0.31	<5	8.42	0.30	0.08
7	5470610	<0.5	1.63	33	4810	0.30	<5	11.90	0.13	0.06
8	5470611	<0.5	5.87	54	158	<0.05	24	2.56	3.09	0.56
9	5470612	<0.5	2.41	19	142	7.93	<5	2.53	1.22	4.06
10	5470613	0.9	0.99	<5	15	21.30	5	1.05	0.53	11.30
11	5470614	<0.5	9.24	304	1670	0.24	75	3.20	4.91	0.83
12	5470615	<0.5	9.61	375	1980	0.16	41	3.19	5.18	0.72
13	5470616	1.7	0.15	<5	<5	34.00	<5	0.30	0.13	2.71
14	5470617 5150, 10600	0.6	0.49	<5	13	33.10	<5	0.66	0.28	1.58
15	5470618 5125	0.7	1.83	<5	59	18.10	<5	1.79	1.02	10.20
16	5470619 3100	1.6	0.26	<5	<5	31.30	<5	0.44	0.14	2.74
17	5470620 5075	0.6	2.22	12	70	26.60	6	1.89	1.31	0.84
18	5470621 5050	1.0	1.47	<5	35	26.10	<5	0.90	0.91	2.66
19	5470622 5025	0.6	3.00	<5	115	23.80	6	0.84	1.85	1.50
20	5470623	1.0	0.38	11	22	19.80	<5	0.84	0.21	11.30
21	5470624	0.5	1.86	20	59	0.60	5	2.88	0.34	0.54
22										
23										
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%

Results in ppm unless otherwise specified
- element not determined

IS = insufficient sample
SNR = sample not received

AUTHORISED OFFICER

PP M.A. Good

304082

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT No.				REPORT DATE	CLIENT ORDER No.			PAGE
		104165.60.11495				09/01/96	77193			5 OF 8
	SAMPLE No.	Mn	Mn	Pb	Zn					
METHOD		GI211	GA145	GI211	GI211					
1	5470129	68	-	49	83					
2	5470130	90	-	19	116					
3	5470131	105	-	22	174					
4	5470132	84	-	26	92					
5	5470133	86	-	11	53					
6	5470134	82	-	<10	56					
7	5470135	150	-	37	40					
8	5470136	16	-	32	32					
9	5470137	31	-	78	210					
10	5470138	20	-	17	35					
11	5470139	209	-	21	<5					
12	5470140	910	-	27	29					
13	5470141	485	-	25	11					
14	5470142	703	-	41	16					
15	5470143	228	-	39	20					
16	5470144	12	-	<10	7					
17	5470145	298	-	19	25					
18	5470146	628	-	32	<5					
19	5470147	641	-	19	28					
20	5470148	72	-	104	199					
21	5470149	712	-	25	34					
22	5470150	259	-	43	22					
23	5470151	7820	-	3730	267					
24	5470152	1690	-	58	24					
25	5470153	1.21%	-	1540	137					

Results in ppm unless otherwise specified
element not determined

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AUTHORISED OFFICER

PP M.A. Good

**ANALYTICAL DATA**

SAMPLE PREFIX

REPORT No.

REPORT DATE

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104165.60.11495

09/01/96

77193

6 OF 8

	SAMPLE No.	Mn	Mn	Pb	Zn				
METHOD		GI211	GA145	GI211	GI211				
1	5470154	33	-	44	19				
2	5470155	172	-	51	39				
3	5470156	21	-	18	18				
4	5470157	2250	-	22	9				
5	5470158	17	-	<10	10				
6	5470159	591	-	24	<5				
7	5470160	664	-	28	<5				
8	5470161	7950	-	16	7				
9	5470162	1.17%	-	21	9				
10	5470163	642	-	80	121				
11	5470164	1870	-	195	324				
12	5470165	2510	-	61	30				
13	5470166	272	-	23	<5				
14	5470167	197	-	26	<5				
15	5470168	253	-	25	<5				
16	5470169	161	-	15	36				
17	5470170	58	-	293	216				
18	5470171	174	-	93	111				
19	5470172	19	-	46	14				
20	5470173	<10	-	33	16				
21	5470174	33	-	37	40				
22	5470175	11	-	64	174				
23	5470176	12	-	<10	14				
24	5470177	<10	-	12	9				
25	5470178	11	-	<10	8				

Results in ppm unless otherwise specified
- element not determinedIS = insufficient sample
SNR = sample not receivedAUTHORISED OFFICER *PR M. A. Gosa*

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

		104165.60.11495				09/01/96	77193		7 of 8	
	SAMPLE No.	Mn	Mn	Pb	Zn					
METHOD		GI211	GA145	GI211	GI211					
1	5470179	<10	-	<10	<5					
2	5470180	1380	-	20	<5					
3	5470181	191	-	537	315					
4	5470182	1220	-	177	173					
5	5470183	5880	-	368	176					
6	5470184	4220	-	17	26					
7	5470185	1290	-	32	13					
8	5470186	918	-	38	17					
9	5470187	190	-	16	<5					
10	5470188	12	-	12	<5					
11	5470189	15	-	<10	<5					
12	5470190	<10	-	<10	<5					
13	5470191	<10	-	<10	<5					
14	5470192	<10	-	<10	<5					
15	5470193	1390	-	62	15					
16	5470194	3370	-	123	17					
17	5470195	317	-	18	8					
18	5470196	158	-	27	31					
19	5470197	86	-	166	255					
20	5470198	14	-	11	26					
21	5470199	48	-	14	49					
22	5470200	26	-	61	112					
23	5470601	964	-	7000	9600					
24	5470602	33	-	59	65					
25	5470603	242	-	27	9					

Results in ppm unless otherwise specified
 - element not determined

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AUTHORISED OFFICER *PP M.H. Good*



304085

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

104165.60.11495

09/01/96

77193

8 OF 8

	SAMPLE No.	Mn	Mn	Pb	Zn				
METHOD		GI211	GA145	GI211	GI211				
1	5470604	30	-	44	73				
2	5470605	307	-	14	<5				
3	5470606	2.31%	-	12	104				
4	5470607	31	-	12	29				
5	5470608	209	-	258	213				
6	5470609	-	15.7	426	775				
7	5470610	-	12.3	361	172				
8	5470611	354	-	135	488				
9	5470612	134	-	69	16				
10	5470613	467	-	29	104				
11	5470614	75	-	21	34				
12	5470615	49	-	16	74				
13	5470616	158	-	15	16				
14	5470617	291	-	35	7				
15	5470618	2270	-	38	38				
16	5470619	353	-	14	<5				
17	5470620	2070	-	24	11				
18	5470621	673	-	23	<5				
19	5470622	199	-	27	6				
20	5470623	357	-	25	<5				
21	5470624	154	-	<10	42				
22									
23									
24	DETECTION	10	0.1	10	5				
25	UNITS	ppm	%	ppm	ppm				

Results in ppm unless otherwise specified
element not determined

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AUTHORISED OFFICER

pp M. H. Good



Analabs

Analabs Pty. Ltd.

A.C.N. 004 591 664

304086

Phone (004) 316837

14 Thirkwell St. COOBE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

1041160011734

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

UKA Exploration Pty Limited
P.O. Box 8090
NORTHLAND CENTRE VIC 3075

ORDER No.

PROJECT

DP0 7316

DATE RECEIVED

RESULTS REQUIRED

15/05/96

ASAP

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

16

04/04/96

1

179

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

414/901/2060 & others

RC Prep : BP032

Ag, Al, As, Ba, Ca, Cu, Fe, K, Mg, Mn, Pb,

Zn/81211

414/901/2060 & others

RC Prep :

Au/88326

REMARKS

RESULTS TO

UKA Exploration Pty Limited
P.O. Box 8090
NORTHLAND CENTRE VIC 3075

RESULTS TO

UKA Exploration Pty Limited
P.O. Box 8090
NORTHLAND CENTRE VIC 3075

RESULTS TO

UKA Exploration Pty Limited
P.O. Box 8090
NORTHLAND CENTRE VIC 3075

1.001

AUTHORISED OFFICER

304087

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

104165.60.11734

04/04/96

DPO 77316

1 OF 16

	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211
1	4141901	<0.5	10.40	31	1020	0.23	30	3.43	4.60	1.37
2	4141902	<0.5	10.20	37	1010	0.25	75	3.28	4.75	1.09
3	4141903	<0.5	3.13	7	119	<0.05	9	1.28	1.44	0.41
4	4141904	<0.5	8.07	16	794	0.19	7	1.21	4.17	0.74
5	4141905	<0.5	2.07	10	90	<0.05	10	1.11	0.88	0.34
6	4141906	<0.5	5.25	40	100	4.81	18	2.32	2.25	0.84
7	4141907	<0.5	4.03	7	59	14.00	18	0.45	2.31	0.68
8	4141908	<0.5	1.31	<5	27	27.30	<5	0.55	0.89	0.53
9	4141909	<0.5	0.92	<5	21	29.20	<5	0.42	0.62	0.37
10	4141910	<0.5	0.90	<5	11	23.20	<5	0.88	0.55	2.05
11	4141911	1.0	0.36	<5	12	25.70	<5	0.44	0.22	1.05
12	4141912	<0.5	0.81	<5	20	8.76	<5	0.47	0.48	1.20
13	4141913	<0.5	1.07	7	61	<0.05	5	0.24	0.56	0.05
14	4141914	<0.5	1.16	<5	77	14.80	<5	0.66	0.68	3.83
15	4141915	<0.5	0.78	5	47	9.40	<5	0.50	0.46	3.24
16	4141916	<0.5	1.09	<5	37	7.07	<5	0.42	0.58	1.74
17	4141917	<0.5	0.52	<5	45	17.40	<5	1.11	0.28	1.81
18	4141918	<0.5	1.33	7	105	8.09	<5	0.52	0.76	0.92
19	4141919	<0.5	0.06	<5	<5	<0.05	<5	0.07	<0.05	0.01
20	4141920	<0.5	0.27	<5	<5	19.40	<5	0.22	0.17	0.13
21	4141921	<0.5	0.39	<5	<5	22.20	<5	0.65	0.23	1.88
22	4141922	<0.5	2.00	<5	59	0.08	6	0.25	1.24	0.27
23	4141923	<0.5	1.15	<5	40	<0.05	<5	0.15	0.67	0.12
24	4141924	<0.5	0.04	<5	<5	<0.05	<5	0.09	<0.05	0.01
25	4141925	<0.5	0.35	<5	20	<0.05	<5	0.14	0.19	0.03

Results in ppm unless otherwise specified
- = element not determined

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	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211								
1	4141926	<0.5	0.56	5	40	<0.05	<5	0.23	0.29	0.05
2	4141927	<0.5	0.49	<5	26	<0.05	<5	0.23	0.26	0.04
3	4141928	<0.5	0.50	<5	22	<0.05	<5	0.39	0.26	0.04
4	4141929	<0.5	4.57	12	405	0.06	15	3.78	1.96	0.29
5	4141930	<0.5	6.03	14	470	0.06	22	3.03	<0.05	0.39
6	4141931	<0.5	4.88	9	630	0.12	31	2.36	1.87	0.62
7	4141932	<0.5	6.27	21	464	0.09	23	4.66	2.42	0.36
8	4141933	<0.5	5.35	17	476	0.09	20	3.42	2.05	0.40
9	4141934	<0.5	4.60	15	479	0.09	8	2.43	1.90	0.81
10	4141935	<0.5	4.42	16	382	0.06	14	3.13	1.80	0.77
11	4141936	<0.5	5.05	20	579	0.12	20	2.92	2.15	1.09
12	4141937	<0.5	5.96	14	539	0.10	21	2.85	2.14	0.94
13	4141938	<0.5	7.42	22	779	0.14	7	4.33	3.52	1.57
14	4141939	<0.5	8.04	29	627	0.10	39	4.79	3.22	0.95
15	4141940	<0.5	8.52	22	807	0.15	30	5.49	3.83	1.80
16	4141941	<0.5	0.08	<5	6	<0.05	5	0.14	<0.05	0.01
17	4141942	<0.5	1.55	<5	36	6.72	<5	0.22	0.88	0.38
18	4141943	<0.5	1.52	<5	40	24.60	<5	0.95	0.99	4.17
19	4141944	<0.5	2.25	<5	63	<0.05	<5	0.17	1.44	0.28
20	4141945	<0.5	0.07	6	<5	<0.05	<5	0.09	<0.05	0.01
21	4141946	<0.5	0.86	6	47	<0.05	<5	0.15	0.33	0.04
22	4141947	<0.5	2.79	8	89	4.80	6	0.43	1.20	0.31
23	4141948	<0.5	6.16	18	327	<0.05	13	3.11	2.17	0.93
24	4141949	<0.5	1.47	<5	63	<0.05	<5	1.57	0.48	0.09
25	4141950	<0.5	3.67	19	199	<0.05	9	2.43	1.35	0.35

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SAMPLE PREFIX		104165.60.11734				04/04/96		DPD 77316		3 OF 16	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	4141951	<0.5	8.99	54	840	0.13	45	4.88	2.97	1.06	
2	4141952	<0.5	9.38	29	1010	0.16	27	5.00	3.02	1.47	
3	4141953	<0.5	7.47	35	966	0.18	15	4.10	2.49	1.05	
4	4141954	<0.5	8.41	27	888	0.14	12	4.02	2.86	1.17	
5	4141955	<0.5	8.97	43	902	0.13	8	4.28	2.95	1.35	
6	4141956	<0.5	6.59	26	587	0.07	23	4.06	2.19	0.39	
7	4141957	<0.5	7.01	19	585	0.07	6	2.93	2.32	0.81	
8	4141958	<0.5	7.89	27	861	0.15	<5	3.40	2.75	1.36	
9	4141959	<0.5	8.70	26	1170	0.24	<5	5.62	3.02	1.52	
10	4141960	<0.5	8.98	24	876	0.14	29	4.78	3.01	1.41	
11	4141961	<0.5	11.10	36	1300	0.24	<5	4.57	3.63	1.77	
12	4141962	<0.5	8.77	41	779	0.09	62	5.02	3.05	0.50	
13	4141963	<0.5	1.22	<5	51	0.07	<5	0.84	0.41	0.15	
14	4141964	<0.5	8.57	64	610	0.11	24	3.00	4.63	1.38	
15	4141965	<0.5	4.25	<5	189	<0.05	<5	2.26	1.29	0.57	
16	4141966	0.5	0.23	<5	6	<0.05	<5	0.09	<0.05	0.01	
17	4141967	<0.5	0.08	<5	<5	<0.05	<5	0.09	<0.05	<0.01	
18	4141968	<0.5	1.18	13	71	<0.05	<5	0.14	0.53	0.06	
19	4141969	<0.5	0.13	7	12	<0.05	5	0.10	0.06	0.01	
20	4141970	<0.5	1.28	<5	26	31.70	<5	0.96	0.68	3.41	
21	4141971	<0.5	2.31	<5	126	20.20	16	1.21	0.99	1.29	
22	4141972	<0.5	2.30	6	104	14.00	<5	0.96	1.11	2.23	
23	4141973	0.5	0.31	<5	25	<0.05	<5	0.33	0.13	0.02	
24	4141974	<0.5	1.27	<5	59	<0.05	10	0.26	0.57	0.09	
25	4141975	<0.5	0.63	6	38	<0.05	<5	0.11	0.29	0.04	

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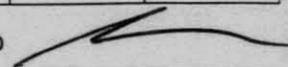
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SAMPLE PREFIX		104165.60.11734				04/04/96		DPD 77316		4 OF 16	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	4141976	<0.5	0.48	10	22	<0.05	<5	0.13	0.21	0.03	
2	4141977	<0.5	4.76	20	158	10.00	9	1.13	2.07	4.11	
3	4141978	<0.5	2.62	5	81	12.70	<5	0.54	1.27	3.84	
4	4141979	<0.5	1.85	6	109	12.10	<5	0.48	0.88	0.59	
5	4141980	0.6	0.54	<5	27	34.30	<5	1.10	0.27	2.06	
6	4141981	<0.5	8.30	30	670	0.38	26	1.11	3.61	0.48	
7	4141982	0.6	0.70	<5	19	27.80	<5	0.74	0.37	1.02	
8	4141983	<0.5	5.91	18	107	20.70	52	3.02	3.10	2.29	
9	4141984	<0.5	8.27	33	979	0.22	28	1.36	4.02	1.23	
10	4141985	<0.5	6.42	19	255	0.23	11	2.71	2.07	0.92	
11	4141986	<0.5	10.70	43	957	0.44	32	4.77	3.61	1.98	
12	4141987	<0.5	12.20	50	1140	0.16	62	7.52	3.97	1.37	
13	4141988	<0.5	11.70	56	1090	0.19	39	6.73	3.71	0.71	
14	4141989	<0.5	8.55	29	1490	0.16	32	7.44	4.32	0.70	
15	4141990	<0.5	7.40	35	1120	0.22	29	5.06	3.98	2.27	
16	4141991	<0.5	4.46	17	313	<0.05	10	2.04	1.93	0.42	
17	4141992	<0.5	5.57	43	768	0.20	79	2.78	4.50	1.17	
18	4141993	<0.5	3.28	13	102	22.70	22	0.95	1.72	1.28	
19	4141994	<0.5	1.58	<5	78	19.80	<5	0.75	0.92	2.22	
20	4141995	<0.5	0.25	<5	25	27.40	<5	0.67	0.14	5.57	
21	4141996	<0.5	0.32	<5	44	15.80	<5	0.51	0.13	9.26	
22	4141997	<0.5	1.39	17	101	16.30	<5	1.26	0.81	9.21	
23	4141998	<0.5	8.71	19	1730	0.20	13	2.38	5.39	1.04	
24	4141999	<0.5	2.64	<5	386	0.05	<5	0.31	1.44	0.16	
25	4142000	<0.5	6.28	8	730	0.06	8	0.72	3.14	0.47	

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	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211								
1	4142001	<0.5	4.69	10	428	<0.05	8	0.72	2.63	0.21
2	4142002	<0.5	0.52	<5	64	<0.05	<5	0.16	0.27	0.04
3	4142003	<0.5	2.17	6	142	<0.05	<5	1.25	0.83	0.24
4	4142004	<0.5	5.11	38	369	0.09	23	3.92	2.95	0.80
5	4142005	<0.5	1.67	7	68	25.80	5	0.62	0.67	1.17
6	4142006	<0.5	2.57	<5	108	17.90	7	1.51	1.70	1.51
7	4142007	0.7	1.89	<5	91	29.10	<5	0.67	1.24	0.72
8	4142008	0.8	1.73	<5	102	30.30	<5	0.63	1.15	0.75
9	4142009	<0.5	1.93	7	102	7.87	<5	0.85	1.11	0.52
10	4142010	<0.5	7.35	65	790	0.55	30	7.80	4.36	1.00
11	4142011	<0.5	0.49	<5	78	<0.05	<5	0.21	0.25	0.04
12	4142012	<0.5	0.08	<5	37	<0.05	9	0.12	<0.05	0.01
13	4142013	<0.5	3.17	12	385	0.08	10	2.20	1.56	0.17
14	4142014	<0.5	1.23	<5	115	<0.05	<5	0.23	0.67	0.09
15	4142015	<0.5	3.15	21	109	0.08	22	0.95	1.41	0.29
16	4142016	<0.5	4.51	10	177	14.40	7	1.22	2.73	5.37
17	4142017	<0.5	4.79	26	397	5.88	14	1.98	2.26	1.24
18	4142018	<0.5	7.24	18	1380	0.16	13	3.78	4.54	1.40
19	4142019	<0.5	2.40	<5	214	<0.05	<5	2.00	1.15	0.15
20	4142020	<0.5	2.55	<5	319	0.06	7	0.41	1.32	0.15
21	4142021	<0.5	0.27	<5	50	<0.05	7	0.16	0.12	0.02
22	4142022	<0.5	0.05	<5	27	<0.05	<5	0.13	<0.05	0.01
23	4142023	<0.5	6.26	15	720	0.18	12	0.88	4.47	1.12
24	4142024	<0.5	0.80	<5	25	16.80	<5	0.28	0.51	0.45
25	4142025	<0.5	2.61	<5	65	20.80	10	0.45	1.23	0.64

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ANALYTICAL DATA

SAMPLE PREFIX

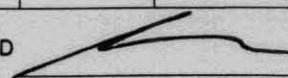
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SAMPLE PREFIX		104165.60.11734				04/04/96		DPD 77316		6 OF 16	
	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
METHOD		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	4142026	<0.5	0.48	7	32	0.09	<5	0.19	0.21	0.04	
2	4142027	<0.5	2.29	10	170	<0.05	<5	2.05	0.91	0.24	
3	4142028	<0.5	10.50	28	1880	0.38	31	5.24	2.07	3.17	
4	4142029	<0.5	9.56	29	761	<0.05	9	4.43	4.34	0.78	
5	4142030	<0.5	9.39	36	764	<0.05	21	6.26	4.07	1.42	
6	4142031	<0.5	8.15	24	842	<0.05	12	3.47	4.63	1.38	
7	4142032	<0.5	7.82	32	396	0.06	14	3.70	3.23	1.00	
8	4142033	<0.5	0.50	<5	41	<0.05	10	0.19	0.30	0.05	
9	4142034	<0.5	2.65	20	234	<0.05	<5	0.40	1.66	0.23	
10	4142035	<0.5	6.97	32	210	0.29	24	4.83	2.21	1.54	
11	4142036	<0.5	2.19	7	64	19.50	<5	1.03	1.38	1.30	
12	4142037	<0.5	5.14	15	159	0.05	29	0.29	3.59	0.75	
13	4142038	<0.5	0.03	<5	<5	<0.05	<5	0.08	<0.05	0.01	
14	4142039	<0.5	3.34	6	109	19.60	6	0.82	1.80	0.71	
15	4142040	0.9	1.35	<5	35	24.20	<5	0.69	0.84	5.15	
16	4142041	<0.5	5.21	109	255	15.60	<5	2.25	3.10	2.55	
17	4142042	<0.5	1.40	9	93	0.09	<5	0.19	0.81	0.15	
18	4142043	<0.5	0.50	8	64	0.08	<5	0.20	0.29	0.04	
19	4142044	<0.5	5.75	15	775	<0.05	<5	0.88	4.53	0.43	
20	4142045	<0.5	0.03	<5	6	<0.05	<5	0.18	<0.05	0.01	
21	4142046	<0.5	3.31	11	247	<0.05	<5	0.46	1.83	0.21	
22	4142047	0.5	0.12	<5	11	<0.05	<5	0.13	<0.05	0.01	
23	4142048	<0.5	1.11	<5	49	28.40	<5	0.61	0.75	2.79	
24	4142049	<0.5	1.52	<5	151	24.00	<5	0.84	0.96	6.28	
25	4142050	<0.5	0.20	<5	195	10.20	<5	0.35	0.15	0.70	

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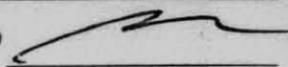
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	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
METHOD		GI211								
1	4142051	<0.5	1.38	10	184	9.67	<5	1.75	0.69	4.92
2	4142052	<0.5	1.70	12	215	0.05	8	0.65	0.65	0.09
3	4142053	0.5	1.38	7	46	27.30	6	0.74	0.78	1.67
4	4142054	0.8	0.17	<5	6	22.70	<5	1.08	<0.05	10.50
5	4142055	<0.5	6.47	21	213	9.63	20	1.46	3.61	1.00
6	4142056	0.6	2.44	<5	89	31.90	14	0.66	1.62	0.68
7	4142057	<0.5	0.98	<5	30	26.60	<5	0.69	0.69	1.02
8	4142058	<0.5	5.62	32	195	0.19	25	1.48	3.34	0.90
9	4142059	<0.5	5.82	12	478	<0.05	<5	2.98	3.74	0.69
10	4142060	<0.5	4.80	8	306	<0.05	<5	1.21	2.53	0.58
11	4142061	<0.5	8.71	27	712	<0.05	<5	7.92	4.73	1.53
12	4142062	<0.5	9.26	28	743	<0.05	27	4.77	4.23	1.28
13	4142063	1.0	1.41	<5	45	33.20	<5	0.68	1.01	1.35
14	5470672	<0.5	0.35	5	22	0.12	12	0.35	0.16	0.04
15	5470673	1.0	0.30	<5	22	36.10	<5	0.31	0.20	1.14
16	5470674	0.7	0.36	<5	14	27.60	<5	0.35	0.26	5.14
17	5470675	<0.5	1.56	8	60	21.70	<5	0.83	1.05	5.31
18	5470676	1.2	0.20	<5	7	31.80	<5	0.32	0.15	2.72
19	5470677	<0.5	0.22	<5	16	0.41	6	0.43	0.11	0.15
20	5470678	0.7	0.13	<5	33	23.70	<5	1.01	0.08	10.70
21	5470679	0.6	0.13	<5	32	23.50	<5	1.03	0.09	11.01
22	5470680	<0.5	3.78	14	350	15.80	7	1.37	2.43	5.70
23	5470681	<0.5	1.18	<5	193	23.20	<5	0.72	0.77	7.67
24	5470682	<0.5	0.19	5	15	0.10	<5	0.29	0.10	0.04
25	5470683	0.5	0.26	<5	9	30.80	<5	0.32	0.19	3.80

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		104165.60.11734				04/04/96		DPO 77316		8 OF 16	
METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg	
		GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	GI211	
1	5470684	<0.5	0.96	34	569	0.17	<5	31.60	0.07	0.05	
2	5470685	1.2	0.78	<5	54	30.40	<5	0.49	0.29	2.89	
3	5470686	<0.5	0.44	<5	40	31.20	<5	0.42	0.16	1.80	
4	5470301	<0.5	2.40	<5	309	0.21	7	0.73	1.21	0.12	
5											
6											
7											
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23											
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01	
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%	

Results in ppm unless otherwise specified
= element not determined

IS = insufficient sample
SNR = sample not received

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304095

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	SAMPLE No.	Mn	Pb	Zn	Au					
METHOD		GI211	GI211	GI211	GG326					
1	4141901	52	35	85	<0.001					
2	4141902	66	<10	66	0.003					
3	4141903	26	<10	28	0.001					
4	4141904	17	<10	22	<0.001					
5	4141905	47	<10	24	0.001					
6	4141906	49	58	73	0.001					
7	4141907	44	28	8	0.001					
8	4141908	186	17	13	<0.001					
9	4141909	117	<10	10	<0.001					
10	4141910	305	26	33	0.001					
11	4141911	139	28	31	<0.001					
12	4141912	82	20	<5	<0.001					
13	4141913	11	<10	7	<0.001					
14	4141914	607	<10	24	<0.001					
15	4141915	115	<10	8	<0.001					
16	4141916	59	<10	<5	0.003					
17	4141917	278	<10	13	0.002					
18	4141918	149	<10	<5	0.001					
19	4141919	<10	<10	<5	<0.001					
20	4141920	94	<10	21	0.001					
21	4141921	133	<10	8	0.005					
22	4141922	10	<10	6	0.001					
23	4141923	<10	<10	<5	0.002					
24	4141924	<10	<10	<5	0.001					
25	4141925	<10	<10	<5	0.002					

Results in ppm unless otherwise specified
= element not determinedIS = insufficient sample
SNR = sample not receivedAUTHORISED
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304096

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	SAMPLE No.	Mn	Pb	Zn	Au					
METHOD		GI211	GI211	GI211	GG326					
1	4141926	<10	<10	<5	<0.001					
2	4141927	<10	<10	<5	<0.001					
3	4141928	<10	<10	<5	0.001					
4	4141929	16	<10	24	0.001					
5	4141930	120	<10	32	<0.001					
6	4141931	439	13	70	<0.001					
7	4141932	41	25	40	0.002					
8	4141933	54	14	34	0.002					
9	4141934	40	<10	42	<0.001					
10	4141935	38	<10	82	<0.001					
11	4141936	504	28	99	0.001					
12	4141937	576	23	132	<0.001					
13	4141938	59	18	71	0.001					
14	4141939	33	39	93	<0.001					
15	4141940	74	25	116	<0.001					
16	4141941	<10	18	<5	0.001					
17	4141942	38	18	<5	<0.001					
18	4141943	423	33	20	<0.001					
19	4141944	<10	26	<5	<0.001					
20	4141945	11	<10	<5	<0.001					
21	4141946	<10	<10	<5	<0.001					
22	4141947	32	17	27	<0.001					
23	4141948	126	<10	46	<0.001					
24	4141949	15	<10	<5	<0.001					
25	4141950	31	12	14	<0.001					

Results in ppm unless otherwise specified
= element not determined

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304097

ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

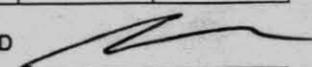
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SAMPLE PREFIX		REPORT No.				REPORT DATE	CLIENT ORDER No.			PAGE	
		104165.60.11734				04/04/96	DPO 77316			11 OF 16	
	SAMPLE No.	Mn	Pb	Zn	Au						
METHOD		GI211	GI211	GI211	GG326						
1	4141951	111	27	123	<0.001						
2	4141952	1780	21	125	<0.001						
3	4141953	53	31	54	<0.001						
4	4141954	68	26	49	<0.001						
5	4141955	94	28	59	0.002						
6	4141956	23	25	32	<0.001						
7	4141957	37	24	30	<0.001						
8	4141958	175	20	67	<0.001						
9	4141959	1850	11	98	<0.001						
10	4141960	75	31	119	<0.001						
11	4141961	132	37	83	<0.001						
12	4141962	32	53	27	<0.001						
13	4141963	25	16	9	<0.001						
14	4141964	11	<10	18	<0.001						
15	4141965	65	28	24	<0.001						
16	4141966	<10	17	<5	<0.001						
17	4141967	12	<10	<5	<0.001						
18	4141968	<10	14	<5	<0.001						
19	4141969	10	<10	<5	<0.001						
20	4141970	248	33	20	0.001						
21	4141971	196	44	88	0.001						
22	4141972	297	26	21	<0.001						
23	4141973	12	<10	<5	<0.001						
24	4141974	15	26	<5	<0.001						
25	4141975	<10	16	<5	<0.001						

Results in ppm unless otherwise specified
= element not determined

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304098

ANALYTICAL DATA

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METHOD	SAMPLE No.	Mn	Pb	Zn	Au					
		GI211	GI211	GI211	GG326					
1	4141976	<10	<10	<5	<0.001					
2	4141977	126	55	40	<0.001					
3	4141978	150	13	6	<0.001					
4	4141979	63	<10	<5	0.001					
5	4141980	770	21	23	<0.001					
6	4141981	32	40	203	0.004					
7	4141982	111	24	18	<0.001					
8	4141983	153	38	17	<0.001					
9	4141984	31	50	46	<0.001					
10	4141985	92	14	38	<0.001					
11	4141986	364	29	134	<0.001					
12	4141987	106	29	131	<0.001					
13	4141988	45	35	72	<0.001					
14	4141989	26	41	53	<0.001					
15	4141990	155	36	144	0.001					
16	4141991	22	25	24	<0.001					
17	4141992	16	72	229	<0.001					
18	4141993	96	45	22	<0.001					
19	4141994	91	30	26	<0.001					
20	4141995	232	20	19	<0.001					
21	4141996	273	14	23	<0.001					
22	4141997	443	28	15	<0.001					
23	4141998	46	25	55	<0.001					
24	4141999	<10	33	10	<0.001					
25	4142000	15	29	25	0.006					

Results in ppm unless otherwise specified
 = element not determined

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304009

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	SAMPLE No.	Mn	Pb	Zn	Au					
METHOD		GI211	GI211	GI211	GG326					
1	4142001	11	33	10	<0.001					
2	4142002	<10	23	7	<0.001					
3	4142003	<10	47	14	0.002					
4	4142004	18	76	105	0.001					
5	4142005	84	46	93	0.003					
6	4142006	88	44	28	0.002					
7	4142007	111	41	25	0.003					
8	4142008	165	35	23	<0.001					
9	4142009	132	54	10	<0.001					
10	4142010	321	176	614	0.003					
11	4142011	11	35	9	<0.001					
12	4142012	<10	51	11	<0.001					
13	4142013	33	32	18	0.001					
14	4142014	<10	55	15	0.001					
15	4142015	16	107	29	0.006					
16	4142016	195	42	30	<0.001					
17	4142017	399	22	30	<0.001					
18	4142018	78	18	76	<0.001					
19	4142019	<10	32	10	0.001					
20	4142020	14	47	12	<0.001					
21	4142021	<10	28	8	<0.001					
22	4142022	<10	17	7	<0.001					
23	4142023	<10	252	62	<0.001					
24	4142024	68	56	9	0.003					
25	4142025	67	79	38	<0.001					

Results in ppm unless otherwise specified
- element not determinedIS = insufficient sample
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304100

ANALYTICAL DATA

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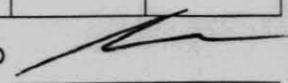
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	SAMPLE No.	Mn	Pb	Zn	Au					
METHOD		GI211	GI211	GI211	GG326					
1	4142026	<10	45	6	<0.001					
2	4142027	19	36	15	<0.001					
3	4142028	245	29	126	<0.001					
4	4142029	29	54	35	0.003					
5	4142030	35	92	69	<0.001					
6	4142031	44	49	67	<0.001					
7	4142032	44	65	48	0.001					
8	4142033	12	25	31	<0.001					
9	4142034	13	14	14	0.011					
10	4142035	294	45	220	0.001					
11	4142036	102	26	14	<0.001					
12	4142037	10	31	30	0.001					
13	4142038	<10	<10	<5	<0.001					
14	4142039	113	33	192	<0.001					
15	4142040	242	34	26	0.003					
16	4142041	480	36	20	0.003					
17	4142042	<10	12	<5	<0.001					
18	4142043	<10	11	<5	<0.001					
19	4142044	13	23	12	<0.001					
20	4142045	<10	14	<5	<0.001					
21	4142046	10	11	7	0.002					
22	4142047	<10	<10	<5	<0.001					
23	4142048	234	26	34	<0.001					
24	4142049	202	23	440	<0.001					
25	4142050	261	19	8	<0.001					

Results in ppm unless otherwise specified
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304101

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	SAMPLE No.	Mn	Pb	Zn	Au				
METHOD		GI211	GI211	GI211	GG326				
1	4142051	1340	29	18	<0.001				
2	4142052	<10	33	91	0.003				
3	4142053	200	32	35	<0.001				
4	4142054	1600	25	27	<0.001				
5	4142055	75	41	19	<0.001				
6	4142056	305	24	26	<0.001				
7	4142057	105	22	18	<0.001				
8	4142058	24	52	16	<0.001				
9	4142059	50	13	20	<0.001				
10	4142060	36	34	21	<0.001				
11	4142061	107	27	81	0.002				
12	4142062	55	30	71	0.002				
13	4142063	126	13	12	0.001				
14	5470672	53	16	20	<0.001				
15	5470673	151	23	17	<0.001				
16	5470674	105	22	10	<0.001				
17	5470675	172	15	8	0.001				
18	5470676	163	15	9	<0.001				
19	5470677	50	21	15	<0.001				
20	5470678	915	1080	57	<0.001				
21	5470679	933	1010	108	<0.001				
22	5470680	314	21	10	<0.001				
23	5470681	480	18	15	0.001				
24	5470682	46	17	22	0.003				
25	5470683	146	18	11	<0.001				

Results in ppm unless otherwise specified
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	SAMPLE No.	Mn	Pb	Zn	Au					
METHOD		GI211	GI211	GI211	GG326					
1	5470684	18500	35	95	<0.001					
2	5470685	175	19	21	0.004					
3	5470686	155	21	243	<0.001					
4	5470301	196	27	34	0.002					
5										
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22										
23										
24	DETECTION	10	10	5	0.001					
25	UNITS	ppm	ppm	ppm	ppm					

Results in ppm unless otherwise specified
 - element not determined

IS = insufficient sample
 SNR = sample not received

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Appendix 3

**Swift Creek Prospect
Rockchip and -80# Stream Sediment Sampling**

Swift Creek Prospect Rockchip and -80# Stream Sediment Sampling

Sample No.	DPO No	Type	AMG E	AMG N	Local E	Local N	Colour	Min	Alt	Texture	Field ID	Comments
5470601	77193	Rkchp	375913	5325080	5530	20720	LG	PySpGa		Bx	Sdl	Brecciated dolomitic calcarenite with very fine sulphide veins disseminated through sample
5470602	77193	Rkchp	374797	5324590	4560	11600	G				Ssi	Bioturbated siltstone. Non calcareous
5470603	77193	Rkchp	374740	5324515	4480	11550	DG	Py			Sdl	Bioclastic dolarenite
5470604	77193	Rkchp	374622	5324738	4450	11800		Py			Sbs	Pyritic black clays. Decalcified limestone?
5470605	77193	Rkchp	375153	5323999	4680	10920	LGDG	Py			Sdl	
5470606	77193	Rkchp	375679	5324286	5275	11000	B				Csf	Fe-Mn precipitate from small spring
5470607	77193	Rkchp	375892	5324443	5530	11070		Py			Ssh	Claystone with disseminated pyrite
5470608	77193	Rkchp	375730	5322080	-	-		Py		Bx	Sdl	Dolomite breccia with stockwork of thin vein sulphides
5470609	77193	Rkchp	375694	5323971	5175	10700	N				Csf	Fe-Mn precipitate
5470610	77193	Rkchp	375755	5323951	5225	10660	N				Csf	Fe-Mn precipitate
5470611	77193	Rkchp	375700	5322185	-	-		Py			Ssi	
5470612	77193	Rkchp	375630	5322470	-	-		PyGa			Sdl	Silty dolomite
5470613	77193	Rkchp	375740	5322050	-	-		Ga			Sdl	Dolomite with very fine galena in fracture
5470614	77193	Rkchp	375892	5324443	5530	11070		Py	Cl		Ssh	Silty claystone
5470615	77193	Rkchp	375892	5324443	5530	11070		Py	Cl		Ssh	Silty claystone
5470616	77193	Rkchp	375878	5324890	5495	20530	N	Py			Sls	
5470623	77193	Rkchp	375942	5324998	5775	11570		Py			Sdl	
5470624	77193	Rkchp	374730	5324597	4500	11630	VG				Sss	
5470672	77316	SS	375898	5324765	5515	20405						Minus 80 mesh SS. Predominantly siliciclastic material. Non calcareous. Gentle trickle in small valley formed by carbonate
5470673	77316	Rkchp	375843	5324460	5460	20100	GDG	Su			Sls	Interbedded fine grained calcarenite and darker grey, argillaceous limestone. Minor sulphide associated with the coarser beds. Partially recrystallised
5470674	77316	Rkchp	375768	5324460	5385	20100	GDG	Su			SlsSdl	Nodular fine grained dolomitic calcarenite and argillaceous limestone
5470675	77316	Rkchp	375883	5324895	5500	20535	GDG	Py			Sdl	Argillaceous dolomite
5470676	77316	Rkchp	375883	5324935	5500	20575		Su			Sls	Coarse grained, oolitic, bioclastic calcarenite. Sulphidic stylolites and trace very fine disseminated sulphide
5470677	77316	SS	375883	5324935	5500	20575						

Swift Creek Prospect Rockchip and -80# Stream Sediment Sampling

Sample No.	DPO No	Type	AMG E	AMG N	Local E	Local N	Colour	Min	Alt	Texture	Field ID	Comments
5470678	77316	Rkchp	375913	5325080	5530	20720	LGW	GaPySu		Bx	Sdl	Dolomitic breccia with white carbonate matrix. Originally coarse grained calcarenite? Stockwork of fine sulphide veins
5470679	77316	Rkchp	375913	5325080	5530	20720	LGW	GaPySu		Bx	Sdl	Dolomitic breccia with white carbonate matrix. Originally coarse grained calcarenite? Stockwork of fine sulphide veins
5470680	77316	Rkchp	375911	5325080	5528	20720	DG				Sdl	Argillaceous dolomite. 1 to 2m up stratigraphy from previous sample
5470681	77316	Rkchp	375923	5325080	5540	20720	G				Sdl	Grey dolomite with orthogonal fracture set filled with calcite
5470682	77316	SS	375863	5325085	5480	20725						
5470683	77316	Rkchp	375843	5325080	5460	20720	DG				SlsSdl	Dark grey argillaceous dolomite and lighter grey, fine grained calcarenite
5470684	77316	Rkchp	375958	5325160	5575	20800	DB				Csf	Fe-Mn precipitate near spring
5470685	77316	Rkchp	375883	5324580	5500	20220	GDG				Sls	Silty limestone with orthogonal fracture set filled with calcite
5470686	77316	Rkchp	375883	5324560	5500	20200	DGW				Sls	Argillaceous limestone and recrystallised? coarse grained calcarenite



Analabs

Analabs Pty. Ltd.

A.C.N. 004 591 664

ANALYTICAL DATA

Phone (004) 316837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318890

ANALYTICAL REPORT No.

104165.60.11495

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

VOICE TO:

CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

77193

DATE RECEIVED

RESULTS REQUIRED

18/12/95

ASAP

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OF RESULTS

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OF COPIES

TOTAL No.
OF SAMPLES

6

09/01/96

1

96

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

0129-200,5470601-624

VA Prep : 6P031,6P033

Ag, Al, As, Ba, Ca, Cu, Fe, K, Mg, Mn, Pb,
Zn/61211 Mn/6A145

RESULTS

Ms S Menpes
CRA Exploration Pty Ltd
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

REMARKS

Ca/61211 results >20% are over the
recommended analytical range and are
reported to an accuracy of +/-1.

RESULTS

Mr C Hayward
CRA Exploration Pty Limited
P.O. Box 8093
NORTHLAND CENTRE VIC 3072

RESULTS

Exploration Technology & Information
Group
Information Resources
Private Bag 3 Bundoora MDC
Victoria 3083

0.00	24	0.34	1.00	9.20
8.57	53	6.20	3.22	1.70
9.44	8	1.14	1.40	9.21
			1.47	0.45

PP *M.A. Good*

AUTHORISED OFFICER

Analabs

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

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METHOD	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
		GI211								
1	5470179 5175 10700	<0.5	1.15	6	116	<0.05	<5	0.37	0.59	0.09
2	5470180 5150	1.2	1.39	<5	43	27.20	<5	2.35	0.81	4.77
3	5470181 5200	<0.5	2.37	11	49	24.00	12	1.02	1.09	3.31
4	5470182 5225	<0.5	7.01	51	383	0.32	38	7.93	2.98	0.59
5	5470183 5250	<0.5	7.60	34	1150	0.14	42	10.50	3.24	0.58
6	5470184 5275	<0.5	2.60	17	95	16.60	6	1.65	1.36	8.48
7	5470185 5375	<0.5	2.60	<5	66	14.70	7	1.49	1.50	6.97
8	5470186 5400	1.0	1.21	<5	119	32.60	5	0.49	0.72	1.09
9	5470187 5425	1.3	1.22	<5	382	28.90	<5	0.60	0.75	1.95
10	5470188 5450	<0.5	0.74	<5	99	0.08	11	0.29	0.35	0.06
11	5470189 5475	<0.5	0.36	<5	43	<0.05	<5	0.38	0.20	0.04
12	5470190 5420 10600	<0.5	0.53	<5	53	<0.05	<5	0.26	0.29	0.04
13	5470191 5400	<0.5	0.85	<5	90	<0.05	<5	0.33	0.45	0.06
14	5470192 5375	<0.5	0.60	13	60	<0.05	<5	0.26	0.32	0.04
15	5470193 5350	1.2	0.20	<5	511	35.70	<5	0.89	0.15	0.36
16	5470194 5325	1.0	2.65	<5	89	25.90	<5	2.44	1.49	1.57
17	5470195 5300	0.5	3.19	16	162	16.80	<5	1.21	1.78	2.14
18	5470196 5275	<0.5	5.67	<5	379	0.17	9	1.20	2.83	0.62
19	5470197 5250	<0.5	5.88	26	260	2.65	66	2.32	3.19	0.67
20	5470198 5225	<0.5	1.57	<5	74	0.09	<5	0.39	0.70	0.11
21	5470199 5200	<0.5	11.20	<5	610	0.09	32	2.41	5.01	0.93
22	5470200 5175	<0.5	3.93	30	534	0.25	18	2.35	2.10	0.36
23	5470601	2.2	0.16	<5	33	22.20	10	1.05	0.11	9.98
24	5470602	<0.5	4.17	21	325	0.77	14	2.66	1.90	0.56
25	5470603	<0.5	0.93	23	27	20.10	<5	1.00	0.46	10.60

Results in ppm unless otherwise specified. IS = insufficient sample. SNR = sample not received.

AUTHORISED OFFICER *PP M. A. Good*

Analabs

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ITEM NO	SAMPLE No.	Ag	Al	As	Ba	Ca	Cu	Fe	K	Mg
		GI211								
1	5470604	<0.5	8.87	59	294	<0.05	21	7.68	4.44	1.61
2	5470605	0.9	0.73	<5	22	27.10	<5	1.32	0.46	6.10
3	5470606	<0.5	0.84	62	437	1.23	<5	25.30	0.11	0.05
4	5470607	<0.5	7.78	404	1330	0.16	57	3.43	4.16	0.58
5	5470608	<0.5	0.76	53	33	15.10	10	8.50	0.44	7.87
6	5470609	<0.5	2.15	26	3640	0.31	<5	8.42	0.30	0.08
7	5470610	<0.5	1.63	33	4810	0.30	<5	11.90	0.13	0.06
8	5470611	<0.5	5.87	54	158	<0.05	24	2.56	3.09	0.56
9	5470612	<0.5	2.41	19	142	7.93	<5	2.53	1.22	4.06
10	5470613	0.9	0.99	<5	15	21.30	5	1.05	0.53	11.30
11	5470614	<0.5	9.24	304	1670	0.24	75	3.20	4.91	0.83
12	5470615	<0.5	9.61	375	1980	0.16	41	3.19	5.18	0.72
13	5470616	1.7	0.15	<5	<5	34.00	<5	0.30	0.13	2.71
14	5470617 5150, 10600	0.6	0.49	<5	13	33.10	<5	0.66	0.28	1.58
15	5470618 5125	0.7	1.83	<5	59	18.10	<5	1.79	1.02	10.20
16	5470619 5100	1.6	0.26	<5	<5	31.30	<5	0.44	0.14	2.79
17	5470620 5075	0.6	2.22	12	70	26.60	6	1.89	1.31	0.84
18	5470621 5050	1.0	1.47	<5	35	26.10	<5	0.90	0.91	2.66
19	5470622 5025	0.6	3.00	<5	115	23.80	6	0.84	1.85	1.50
20	5470623	1.0	0.38	11	22	19.80	<5	0.84	0.21	11.30
21	5470624	0.5	1.86	20	59	0.60	5	2.88	0.34	0.54
22	5470625	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01
23										
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%

Results in ppm unless otherwise specified
- element not determined

IS = Insufficient sample
SNR = sample not received

AUTHORISED OFFICER: *PP M.A. Good*

ANALYTICAL DATA

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ME	OD	Na	Mn	Rb	Zn					
	SAMPLE No.	GI211	GA145	GI211	GI211					
1	5470179	<10	-	<10	<5					
2	5470180	1380	-	20	<5					
3	5470181	191	-	537	315					
4	5470182	1220	-	177	173					
5	5470183	5880	-	368	176					
6	5470184	4220	-	17	26					
7	5470185	1290	-	32	13					
8	5470186	918	-	38	17					
9	5470187	190	-	16	<5					
10	5470188	12	-	12	<5					
11	5470189	15	-	<10	<5					
12	5470190	<10	-	<10	<5					
13	5470191	<10	-	<10	<5					
14	5470192	<10	-	<10	<5					
15	5470193	1390	-	62	15					
16	5470194	3370	-	123	17					
17	5470195	319	-	18	8					
18	5470196	158	-	27	31					
19	5470197	86	-	166	255					
20	5470198	14	-	11	26					
21	5470199	148	-	14	49					
22	5470200	26	-	61	112					
23	5470601	964	-	7000	9600					
24	5470602	33	-	59	65					
25	5470603	242	-	27	9					

Units in ppm unless otherwise specified
element not determined

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ROD	SAMPLE No.	17	175	75	211	175	211	175	211	175	211
M	ROD	175	175	175	175	175	175	175	175	175	175
1	5470604	30	-	44	73						
2	5470605	307	-	14	<5						
3	5470606	2.31%	-	12	104						
4	5470607	31	-	12	29						
5	5470608	209	-	258	213						
6	5470609	-	15.7	426	775						
7	5470610	-	12.3	361	172						
8	5470611	354	-	135	488						
9	5470612	134	-	69	16						
10	5470613	467	-	29	104						
11	5470614	75	-	21	34						
12	5470615	49	-	16	74						
13	5470616	158	-	15	16						
14	5470617	291	-	35	7						
15	5470618	2270	-	38	38						
16	5470619	353	-	14	<5						
17	5470620	2070	-	24	11						
18	5470621	673	-	23	<5						
19	5470622	199	-	27	6						
20	5470623	357	-	25	<5						
21	5470624	154	-	<10	42						
22											
23											
24	DETECTION	10	0.1	10	5						
25	UNITS	ppm	%	ppm	ppm						



Analabs

Analabs Pty. Ltd.

A.C.N. 004 591 664

ANALYTICAL DATA

Phone (004) 316837	14 Thirkell St. COBEE TAS 7320	Fax (004) 316890
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ANALYTICAL REPORT No.

104165.60.11734

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

VOICE TO:	CRA Exploration Pty Limited P.O. Box 8093 NORTHLAND CENTRE VIC 3072
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DPD 77316

DATE RECEIVED	RESULTS REQUIRED
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15/03/96	ASAP
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No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
16	04/04/96	1	175

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
1901/2063 & others	RC Prep : 89032	Ag, Al, As, Ba, Ca, Cu, Fe, K, Mo, Mn, Pb, Zn/61211
1901/2063 & others	RC Prep :	Au/88326

RESULTS TO	Mr S Trompes CRA Exploration Pty Ltd P.O. Box 8093 NORTHLAND CENTRE VIC 3072
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RESULTS TO	Mr B Hayward CRA Exploration Pty Limited Pte Bag 3 BUNDOORA MDC VIC 3083
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RESULTS TO	Exploration Technology & Information Group Information Resources Private Bag 3 Bundoora MDC Victoria 3083
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REMARKS				
0.25	0.18	0.67	0.23	
0.05	0.09	<0.05	0.01	
0.03	<0.03		0.03	

AUTHORISED OFFICER

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ME. OD	SAMPLE No	As	Ca	Al	Fe	Sa	Cu	Pb	K	Mg
		GP211								
	4142051	<0.5	1.38	10	184	9.67	<5	1.75	0.69	4.92
2	4142052	<0.5	1.70	12	215	0.05	8	0.65	0.65	0.09
	4142053	0.5	1.38	7	46	27.30	6	0.74	0.78	1.67
4	4142054	0.8	0.17	<5	6	22.70	<5	1.08	<0.05	10.50
	4142055	<0.5	6.47	21	213	9.63	20	1.46	3.61	1.00
	4142056	0.6	2.44	<5	89	31.90	14	0.66	1.62	0.68
7	4142057	<0.5	0.98	<5	30	26.60	<5	0.69	0.69	1.02
	4142058	<0.5	5.62	32	195	0.19	25	1.48	3.34	0.90
9	4142059	<0.5	5.82	12	478	<0.05	<5	2.98	3.74	0.69
10	4142060	<0.5	4.80	8	306	<0.05	<5	1.21	2.53	0.58
11	4142061	<0.5	8.71	27	712	<0.05	<5	7.92	4.73	1.53
12	4142062	<0.5	9.26	28	743	<0.05	27	4.77	4.23	1.28
13	4142063	1.0	1.41	<5	45	33.20	<5	0.68	1.01	1.36
14	5470672	<0.5	0.35	5	22	0.12	12	0.35	0.16	0.04
15	5470673	1.0	0.30	<5	22	36.10	<5	0.31	0.20	1.14
16	5470674	0.7	0.36	<5	14	27.60	<5	0.35	0.26	5.14
17	5470675	<0.5	1.56	8	60	21.70	<5	0.83	1.05	5.31
18	5470676	1.2	0.20	<5	7	31.80	<5	0.32	0.15	2.73
19	5470677	<0.5	0.22	<5	16	0.41	6	0.43	0.11	0.15
20	5470678	0.7	0.13	<5	33	23.70	<5	1.01	0.08	10.70
21	5470679	0.6	0.13	<5	32	23.50	<5	1.03	0.09	11.00
22	5470680	<0.5	3.78	14	350	15.80	7	1.37	2.43	5.70
23	5470681	<0.5	1.18	<5	193	23.20	<5	0.72	0.77	7.67
24	5470682	<0.5	0.19	5	15	0.10	<5	0.29	0.10	0.04
25	5470683	0.5	0.26	<5	9	30.80	<5	0.32	0.19	3.80

Results are valid unless otherwise specified.

SNR - insufficient sample / sample not received

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METHOD	SAMPLE No.	Ag	B	AS	Ba	Ca	Cu	Fe	Mn	Pb
		GI211								
	5470684	<0.5	0.96	34	569	0.17	<5	31.60	0.07	0.05
2	5470685	1.2	0.78	<5	54	30.40	<5	0.49	0.29	2.89
	5470686	<0.5	0.44	<5	40	31.20	<5	0.42	0.16	1.86
4	5470301	<0.5	2.40	<5	309	0.21	7	0.73	1.21	0.12
5										
7										
9										
10										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	0.5	0.01	5	5	0.05	5	0.01	0.05	0.01
25	UNITS	ppm	%	ppm	ppm	%	ppm	%	%	%

Results in ppm unless otherwise specified
element not determined

IS - insufficient sample
ISR - sample not received

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ANALYTICAL DATA

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ETHOD	SAMPLE No	Wt	As	Zn	Al					
	4142051	1340	29	18	<0.001					
2	4142052	<10	33	91	0.003					
	4142053	200	32	35	<0.001					
	4142054	1600	25	27	<0.001					
5	4142055	75	41	19	<0.001					
	4142056	305	24	26	<0.001					
7	4142057	105	22	18	<0.001					
	4142058	24	52	16	<0.001					
	4142059	50	13	20	<0.001					
10	4142060	36	34	21	<0.001					
	4142061	107	27	81	0.002					
12	4142062	55	30	71	0.002					
	4142063	126	13	12	0.001					
14	5470672	53	16	20	<0.001					
15	5470673	151	25	17	<0.001					
	5470674	105	22	10	<0.001					
17	5470675	172	15	8	0.001					
	5470676	163	15	9	<0.001					
19	5470677	50	21	15	<0.001					
20	5470678	915	1080	57	<0.001					
21	5470679	933	1010	108	<0.001					
22	5470680	314	21	10	<0.001					
23	5470681	480	18	13	0.001					
24	5470682	46	17	22	0.003					
25	5470683	146	18	11	<0.001					

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IS = insufficient sample
SNR = sample not received

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LINE NO.	SAMPLE NO.	Ag	Cd	Cu	Pb	PCB	PCDD	PCDF	PCMX	PCNB	PCP	PCPB	PCPP	PCPN						
1	5470684	18500	35	95	<0.001															
2	5470685	175	19	21	0.004															
3	5470686	155	21	243	<0.001															
4	5470301	196	27	34	0.002															
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24	DETECTION	10	10	5	0.001															
25	UNITS	ppm	ppm	ppm	ppm															

304115

Results in ppm unless otherwise specified.
 - element not determined

IS = insufficient sample
 SNR = sample not received

AUTHORISED OFFICER

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Mln	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4141901	77316	375583	5324460	5200	20100	3.3	5	LYG				C	Ssh	Light yellowish grey clay with shale fragments. Non calcareous.
4141902	77316	375608	5324460	5225	20100	2	6	LYGO				C	Ssh	Light yellowish grey, minor orange, foliated clay. Weathered shale.
4141903	77316	375633	5324460	5250	20100	1.2	6	LVGW				C-Bdrk	Vq	Predominantly vuggy, milky vein quartz, some weathered shale adhering to fragments
4141904	77316	375658	5324460	5275	20100	2.4	2	BLGB				C	SshSsi	Weathered shale and argillaceous siltstone. Non calcareous.
4141905	77316	375683	5324460	5300	20100	2.3	8	LVGBW				Bdrk	SssSshVq	Fine to medium grained quartz sandstone with silica cement, vein quartz. Minor light greenish grey shale
4141906	77316	375708	5324460	5325	20100	2.6	0	LGOLYGBG				B-C	SsiSls	Sandy to silty clays (weathered siltstone?). Rare fragments silty grey limestone.
4141907	77316	375733	5324460	5350	20100	1.5	0	BLYGLG	PyGa			B-Bdrk	Sls	Predominantly brown, non calcareous silty clay and light yellowish grey, silty lime mud. Minor fragments light grey, silty limestone with very fine sulphide bands.
4141908	77316	375758	5324460	5375	20100	0.5	0	DG	Py			Bdrk	Sls	Dark grey, argillaceous limestone. Unusual "spotty" orange alteration in places - Fe carbonate? Trace very fine sulphide.
4141909	77316	375783	5324460	5400	20100	0.5	0	DG	Py			Bdrk	Sls	Blocky fragments dark grey, argillaceous limestone. Minor pyrite along fracture faces.
4141910	77316	375808	5324460	5425	20100	0.5	0	GLG	Py			Bdrk	Sls	Fine to medium grained, partly fossiliferous (pelloidal?) calcarenite. Minor vein sulphide (filling vugs, original porosity?)
4141911	77316	375833	5324460	5450	20100	0.5	0	DG				Bdrk	Sls	Dark grey, very fine grained calcarenite
4141912	77316	375858	5324460	5475	20100	1.5	0	G				C	Sls	Weathered, grey, sandy (very fine quartz) limestone
4141913	77316	375883	5324460	5500	20100	1.5	0	LG				Bdrk	Sss	Very fine to fine grained quartz sandstone with silica cement-Quartzite. Black flecks of biotite or clay fragments?
4141914	77316	375908	5324460	5525	20100	2.5	0	LG				C	Sdl	Light grey silty dolomite. Weathered, friable. No visible sulphide.
4141915	77316	375933	5324460	5550	20100	1.2	0	GOG	Py			Cover Bdrk	CcySdl	Greyish orange, sandy clays, overlying very fine to fine grained, brecciated, dolomitic calcarenite, minor fine sulphides as discontinuous veins.

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4141916	77316	375958	5324460	5575	20100	1.5	0	LGCTDG				B-C	Sls	Weathered limestone. Silty friable lime mud. Some contamination.
4141917	77316	375983	5324460	5600	20100	2.5	0	LGG				B-C	Sls	Sandy lime mud. Some contamination. Weathered bedrock.
4141918	77316	376008	5324460	5625	20100	2.5	0	LGG				B-C	Sls	Sandy to silty lime mud. Some contamination. Weathered bedrock.
4141919	77316	376033	5324460	5650	20100	1.5	0	W				Cover Bdrk	Sss Cg	Very fine to fine grained, silica cemented quartz sandstone. Cover gravel contamination
4141920	77316	375883	5325360	5500	21000	7.3	0	LYGG				B-C	Sls	Grey weathered limestone in light yellowish grey, gritty lime mud.
4141921	77316	375908	5325360	5525	21000	4.6	0	LGDG				C-Bdrk	Sls	Dolomitic, dark grey, medium grained ooids in light grey silty lime mud matrix. Also weathered carbonate (gritty, silty lime mud)
4141922	77316	375933	5325360	5550	21000	2.5	0	BDB				B-Cover	Ssi?	Brown, dark brown, silty, slightly micaceous clay.
4141923	77316	375958	5325360	5575	21000	2.8	2	WLBG				C-Bdrk	Sss	Very fine to fine grained quartz sandstone with argillaceous matrix. Trace mica.
4141924	77316	375983	5325360	5600	21000	2.8	0	W				C	Sss	Predominantly very fine grained silty quartz sand.
4141925	77316	376008	5325360	5625	21000	1.2	0	W				Bdrk	Sss	Very fine to fine grained, quartz sandstone with argillaceous matrix. Trace mica. Non calcareous.
4141926	77316	376033	5325360	5650	21000	2	0	WBO				Bdrk	Sss	Fine grained, micaceous quartz sandstone with black flecks (biotite or shale?). Non calcareous.
4141927	77316	376058	5325360	5675	21000	1.8	0	WBO				Bdrk	Sss	Very fine to fine grained micaceous quartz sandstone with black flecks. Non calcareous.
4141928	77316	376083	5325360	5700	21000	3.5	0	WLG				Bdrk	Sss	Very fine grained, very siliceous, slightly micaceous quartz sandstone Mq? Non calcareous.
4141929	77316	375858	5325360	5475	21000	1.8	1	LGOGO				C	Ssh	Crumbly, foliated, silty clays. Non calcareous. Weathered shale.
4141930	77316	375833	5325360	5450	21000	3.4	1	GOR				C	Ssh	Greyish orange, crumbly silty clay - weathered shale. Some hard siliceous nodules
4141931	77316	375808	5325360	5425	21000	3.5	5	LYG				C-Bdrk	Ssh	Light yellowish grey shale. Non calcareous
4141932	77316	375783	5325360	5400	21000	2.5	0	YO				C	Ssh	Yellowish orange, foliated silty clays. Weathered shale

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Mln	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4141933	77316	375758	5325360	5375	21000	2.2	5	YO				C	Ssh	Yellowish orange crumbly, silty clays. Weathered shale
4141934	77316	375733	5325360	5350	21000	1	5	GOG				C-Bdrk	Ssh	Silty clays and fragments of grey, fissile shale. Non calcareous
4141935	77316	375708	5325360	5325	21000	1.5	7	YOLYGLGO				C	Ssh	Foliated silty clays. Weathered shale. Non calcareous
4141936	77316	375683	5325360	5300	21000	1.5	6	LGOOG				C	Ssh	Light greyish orange silty clays with fragments of grey, fissile shale. Non calcareous
4141937	77316	375658	5325360	5275	21000	2.2	5	LYGG				C-Bdrk	Ssh	Non calcareous
4141938	77316	375633	5325360	5250	21000	1.8	9	LVG				C-Bdrk	Ssh	Light greenish grey foliated shale
4141939	77316	375608	5325360	5225	21000	1.5	1	YOOB				C	Ssh	Silty clays. Weathered shale
4141940	77316	375583	5325360	5200	21000	2.5	6	YGG				C	Ssh	Foliated silty clays. Weathered shale
4141941	77316	375883	5325260	5500	20900	0.5	0	W				C-Bdrk	Sss	White, very fine grained quartz sandstone. Non calcareous
4141942	77316	375908	5325260	5525	20900	4	0	BDBG				Cover B-C	Sls Ccy	Predominantly brown cover clays with sandstone gravel. Trace weathered limestone
4141943	77316	375933	5325260	5550	20900	4.8	0	GLG				C	SlsSdl	Silty, dolomitic lime mud with fragments of bedrock. Possibly oolitic unit
4141944	77316	375958	5325260	5575	20900	2.7	0	LBG				C	Ssi	Poorly consolidated sandy silt (silt sized quartz). Non calcareous
4141945	77316	375983	5325260	5600	20900	1.8	0	W				C-Bdrk	Sss	Loose, silty quartz sand and very fine to fine grained quartz sandstone with argillaceous matrix
4141946	77316	376008	5325260	5625	20900	1.5	11	LGGO				C-Bdrk	Sss	Slightly micaceous, very fine to fine grained, siliceous quartz sandstone with minor black flecks. ?Mq
4141947	77316	375858	5325260	5475	20900	3.3	1	GBG				Cover B-C	Sls	Gravelly brown clays (cover). Minor gritty, grey, lime muds
4141948	77316	375833	5325260	5450	20900	3.6	9	G				Bdrk	Sss	Very fine grained, siliceous quartz sandstone grading to siltstone. Non calcareous
4141949	77316	375808	5325260	5425	20900	2.1	2	YOW				C-Bdrk	Sss	Yellowish orange, argillaceous, very fine grained quartz band overlying very fine grained, siliceous quartz sandstone
4141950	77316	375783	5325260	5400	20900	1.4	5	W				Bdrk	Sss	Very fine to fine grained quartz sandstone with argillaceous matrix. Non calcareous.
4141951	77316	375758	5325260	5375	20900	1.7	5	YGYOYB				C	Ssh	Silty foliated clays. Weathered shale
4141952	77316	375733	5325260	5350	20900	1.8	6	LVGDB				Bdrk	Ssi	Silty, foliated clays. Weathered shale

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4141953	77316	375708	5325260	5325	20900	1.8	5	LYO				C	Ssh	Foliated siltstone grading to shale. Some dark Fe staining
4141954	77316	375683	5325260	5300	20900	2.3	5	LYGLYO				C	Ssh	Light yellowish orange, foliated, silty clays. Weathered shale
4141955	77316	375658	5325260	5275	20900	2.6	10	LYGYO				C	Ssh	Foliated silty clays. Weathered shale
4141956	77316	375633	5325260	5250	20900	1.4	4	LYOYOLVG				C	Ssh	Foliated silty clays. Weathered shale
4141957	77316	375608	5325260	5225	20900	1.3	2	LYOYO				C	Ssh	Foliated silty clays. Weathered shale
4141958	77316	375583	5325260	5200	20900	Rkchp	5	BG				Bdrk	Ssi	Brownish grey, quartz siltstone. Cleaved, foliated
4141959	77316	375683	5325160	5300	20800	Rkchp	10	LVG				Bdrk	Ssh	Phyllitic sheen
4141960	77316	375708	5325160	5325	20800	1.5	6	G				Bdrk	Ssi	Grey, slightly micaceous foliated siltstone grading to shale. Non calcareous
4141961	77316	375733	5325160	5350	20800	1.3	10	LYGO				C	Ssh	Foliated silty clays. Weathered shale
4141962	77316	375758	5325160	5375	20800	4	5	LVGOK				C	Ssh	Speckled, foliated silty clays. Weathered shale
4141963	77316	375783	5325160	5400	20800	3.5	4	LG				Bdrk	Sss	Fine grained, silica cemented quartz sandstone
4141964	77316	375808	5325160	5425	20800	11.2	0	LGOYO				C	Ssh	Foliated silty clays. Weathered shale. Non calcareous
4141965	77316	375833	5325160	5450	20800	2.3	4	LVGLYB				C-Bdrk	Sss	Light greenish grey, very fine to fine grained quartz sandstone with argillaceous matrix. Some light yellowish brown weathered sandstone and cover clays
4141966	77316	375858	5325160	5475	20800	1.9	0	W				C-Bdrk	Sss	Very fine to fine grained quartz sandstone with abundant white clay matrix Non calcareous
4141967	77316	375883	5325160	5500	20800	1.5	5	W				Bdrk	Sss	Very fine grained quartz sandstone with abundant white clay matrix. Non
4141968	77316	375908	5325160	5525	20800	5.8	0	W				Bdrk	Sss	Fine grained quartz sandstone with white clay matrix
4141969	77316	375933	5325160	5550	20800	2.4	5	W				Bdrk	Sss	Fine grained quartz sandstone with white clay matrix
4141970	77316	375958	5325160	5575	20800	4.8	0	G				C	Sls	Grey silty lime mud. Weathered limestone
4141971	77316	375983	5325160	5600	20800	6.8	0	LGG				B-C	Sls	Light grey to grey silty lime mud. Some gravel contamination. Originally oolitic unit?
4141972	77316	376008	5325160	5625	20800	7	3	LGG				B-C	Sls	Light grey to grey, silty, gritty lime mud. Some gravel contamination
4141973	77316	376033	5325160	5650	20800	7.8	0	LGOW				Bdrk	Sss	Fine grained litharenite. Micaceous, predominantly quartz, some weathered feldspars

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4141993	77316	375808	5324960	5425	20600	7.5	0	LG DGN	Py			B-C	Sls	Weathered, sandy to silty limestone. Very, very fine disseminated pyrite in carbonaceous layers
4141994	77316	375858	5324960	5475	20600	1.5	0	DG			Bx	Bdrk	Sls	Brecciated
4141995	77316	375883	5324960	5500	20600	2.5	0	LGW				C	SlsSdl	Sandy (very fine grained quartz) to silty, crumbly, weathered, dolomitic limestone
4141996	77316	375908	5324960	5525	20600	1.5	0	W	Py			Bdrk	SssSdl	Fine to medium grained quartz sandstone. Fine disseminated pyrite in places. Dolomite cement? Trace Vq/Cg
4141997	77316	375933	5324960	5550	20600	2.4	0	G				C-Bdrk	Sdl	Crumbly (fractured), dolomite. Sandy (very fine quartz)
4141998	77316	375958	5324960	5575	20600	1.8	4	LGLBG				C	Ssi	Weathered, foliated siltstone. Minor ferruginous quartz veins
4141999	77316	375983	5324960	5600	20600	1.6	0	WLGLBG				C-Bdrk	Ssi Sss	Fine to medium grained quartz sandstone and light grey to light brownish grey, foliated siltstone
4142000	77316	376008	5324960	5625	20600	12.6	3	LYG				B-C	Ssi	Weathered, argillaceous siltstone. Phyllitic sheen. Non calcareous
4142001	77316	376033	5324960	5650	20600	8	8	GB				C	Sss	Poorly consolidated, micaceous, silty sand (weathered sandstone). Very fine grained
4142002	77316	376058	5324960	5675	20600	5.5	5	W				Bdrk	Sss	White, very fine to fine grained quartz sandstone with abundant silica cement (opaque). Non calcareous
4142003	77316	375733	5324860	5350	20500	8	4	WLOG				C-Bdrk	Sss	Very fine to medium grained quartz sandstone. Non calcareous
4142004	77316	375758	5324860	5375	20500	2.5	0	N	Py			B-C	Sbs	Silty, pyritic (very fine grained, disseminated) black clay. Non calcareous
4142005	77316	375783	5324860	5400	20500	2	0	LG DGD B				B-C	Sls	Silty limestone. Significant contamination with dark brown, non calcareous clay
4142006	77316	375808	5324860	5425	20500	1.5	0	LG				C	Sls	Poor sample recovery (6 attempts). Sandy lime mud (weathered limestone)
4142007	77316	375833	5324860	5450	20500	3.4	0	LG					Sls	Light grey, sandy to silty (very fine quartz) limestone
4142008	77316	375858	5324860	5475	20500	2.8	0	G D G				Bdrk	Sls	Argillaceous limestone. Fractured, common very thin calcite veins
4142009	77316	375883	5324860	5500	20500	2	0	LYBLGDG				Cover Bdrk	Cs Sls	Non calcareous, argillaceous sand with some gravel overlying blocky dark grey, argillaceous limestone.
4142010	77316	375908	5324860	5525	20500	1.4	0	GOO				B-C	Ssi	Silty clay - Weathered argillaceous siltstone

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4142011	77316	375933	5324860	5550	20500	1.5	5	W				Bdrk	Sss	Very fine to fine grained quartz sandstone with abundant cement
4142012	77316	375958	5324860	5575	20500	1.4	0	W				Bdrk	Sss	Very fine to fine grained quartz sandstone with abundant kaolinite cement. Non calcareous
4142013	77316	375983	5324860	5600	20500	8	3	LGBLO				C	Sss	Very fine to fine grained, poorly consolidated sandstone with clay matrix. Non calcareous
4142014	77316	376008	5324860	5625	20500	3.5	0	LBG				C	Sss	Poorly consolidated, very fine grained, micaceous, silty quartz sandstone. Non calcareous
4142015	77316	375883	5324760	5500	20400	3.3	0	N	Su			B-C	Sbs	Non calcareous, black silty clay
4142016	77316	375908	5324760	5525	20400	1.5	0	LGG				C-Bdrk	Sdl	Light grey, sandy carbonate mud (weathered dolomite?). Minor grey, blocky carbonate fragments
4142017	77316	375933	5324760	5550	20400	6.3	0	EG				C	SlsSdl	Stiff bluish grey, silty to sandy lime mud. Weathered limestone/dolomite
4142018	77316	375958	5324760	5575	20400	5.4	5	GLG				C-Bdrk	Ssi	Non calcareous, grey, coarse grained quartz siltstone and light grey, argillaceous, foliated siltstone
4142019	77316	375983	5324760	5600	20400	2.2	2	O				C	Sss	Very fine grained, poorly consolidated, quartz sandstone with clay matrix (non calcareous)
4142020	77316	376008	5324760	5625	20400	3.7	5	LBG				C-Bdrk	Sss	Very fine to fine grained micaceous sandstone. Non calcareous
4142021	77316	376033	5324760	5650	20400	3.5	0	W				Bdrk	Sss	Fine to medium grained, well sorted and rounded, white quartz sandstone
4142022	77316	375858	5324760	5475	20400	2.5	0	W				Bdrk	Sss	White, fine grained quartz sandstone with silica cement
4142023	77316	375833	5324760	5450	20400	7.8	0	DB				B-C	Ssh	Dark brown, non calcareous silty clay
4142024	77316	375808	5324760	5425	20400	3.3	5	G				C-Bdrk	SlsCsyCg	Grey, sandy to silty limestone. Common calcite veins. Some cover contamination
4142025	77316	375783	5324760	5400	20400	7.5	0	LGG				C-Bdrk	Sls	Sandy lime mud (weathered limestone) and silty, fossiliferous limestone
4142026	77316	375758	5324760	5375	20400	3.2	5	W				Bdrk	Sss	Very fine grained, silty quartz sandstone
4142027	77316	375733	5324760	5350	20400	1.6	3	OW				C-Bdrk	SssSsh	Poorly consolidated, argillaceous very fine to fine grained quartz sand, with fragments white, very fine grained quartz sandstone. Minor orange silty clays after
4142028	77316	375708	5324760	5325	20400	1	0	LGLGOO				C	Im	Weathered lamprophyre dyke ? Very micaceous

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Mln	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4142029	77316	375683	5324760	5300	20400	?	0	LG00				C	Ssh	Foliated, argillaceous siltstone. Weathered shale. Non calcareous
4142030	77316	375633	5324660	5250	20300	2.3	5	LYGO				C	Ssh	Foliated, silty clay. Weathered shale. Non calcareous
4142031	77316	375658	5324660	5275	20300	Rckch	4	EG				Bdrk	Ssh	Bluish grey shale. Phyllitic sheen. Non calcareous
4142032	77316	375683	5324660	5300	20300	5m	4	LVGLGO				C	Ssh	Foliated silty clay. Weathered shale. Non calcareous
4142033	77316	375708	5324660	5325	20300	3	0	W				Bdrk	Sss	Very fine grained quartz sandstone with argillaceous matrix. Minor vein quartz in sandstone fragments. Non calcareous
4142034	77316	375733	5324660	5350	20300	2.2	0	LGBW				C?Bdrk	Sss	Light greyish brown sandy siltstone overlying white, very fine to fine grained quartz sandstone with argillaceous matrix. Non calcareous
4142035	77316	375758	5324660	5375	20300	6.2	5	DVGBO				C	Im	Very micaceous, silty clay, "speckled texture". Weathered lamprophyre dyke. Non calcareous
4142036	77316	375783	5324660	5400	20300	1.5	0	LGG	Py			CBdrk	Sls	Light grey, sandy lime mud with fragments of blocky, slightly sandy (very fine quartz) limestone. Trace very fine disseminated pyrite in limestone
4142037	77316	375808	5324660	5425	20300	2.2	0	DB				B?Cover	Ssi	Dark brown, argillaceous silt. No texture. Possibly cover? Non calcareous
4142038	77316	375833	5324660	5450	20300	3.4	0	W				Bdrk	Sss	White, very fine to fine grained quartz sandstone. Silica cement? Non calcareous
4142039	77316	375858	5324660	5475	20300	1.5	0	DG	Py			CBdrk	SlsSdl	Grey to dark grey platy fragments of dolomite (trace very fine disseminated pyrite) in sandy, calcareous mud
4142040	77316	375883	5324660	5500	20300	1	0	DG	Py	Bx		CBdrk	Sdl	Large grey to dark grey fragments of brecciated dolomite (trace very fine, disseminated pyrite). Possibly sandy. Sucrosic texture
4142041	77316	375908	5324660	5525	20300	1	0	DG	Py	Bx		CBdrk	SlsSdl	Large fragments, dark grey, brecciated, pyritic (minor, disseminated) dolomite with criss - crossing calcite veins. Also silty, calcareous mud (weathered bedrock)
4142042	77316	375933	5324660	5550	20300	3.3	10	W				CBdrk	Sss	Predominantly unconsolidated very fine grained quartz sand. Rare fragments very fine grained quartz sandstone

60
41
33
33

Swift Creek Prospect Wacker Sampling
March 1996

Sample No.	DPO No	AMG E	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4142043	77316	375958	5324660	5575	20300	2.3	0	W				CBdrk	Sss	Very fine to fine grained, micaceous (coarse flakes of yellow mica) quartz sandstone with white silica matrix. Predominantly unconsolidated quartz sand
4142044	77316	375983	5324660	5600	20300	6.2	0	LYGO				C	Ssi	Weathered, argillaceous siltstone
4142045	77316	376008	5324660	5625	20300	1.3	0	W				CBdrk	Sss	Very fine grained quartz sandstone with abundant silica cement (predominantly unconsolidated quartz sand, some cover clays). Non calcareous
4142046	77316	376033	5324660	5650	20300	1.7	0	W				CBdrk	Sss	Predominantly very fine quartz sand. Some fragments very fine grained quartz sandstone with abundant silica matrix. Non calcareous
4142047	77316	376058	5324660	5675	20300	1.2	0	W				CBdrk	Sss	Very fine grained quartz sandstone. Non calcareous
4142048	77316	375883	5324560	5500	20200	Rckch	0	DGG				Bdrk	SlsSdl	Grey to dark grey, argillaceous, ?dolomitic limestone. Carbonate veining. No visible sulphide
4142049	77316	375908	5324560	5525	20200	0.4	0	DG				Bdrk	Sdl	Dark grey, very fine grained, dolomitic calcarenite
4142050	77316	375933	5324560	5550	20200	0.2	0	W				Bdrk	SssSls	Fine grained quartz sandstone with silty, calcareous matrix.
4142051	77316	375983	5324560	5600	20200	2.6	0	GOBLBG				B-C	SshSdl	Brown and light brownish grey sandy clay overlying weathered greyish orange silty dolomite? (originally logged as shale)
4142052	77316	376033	5324560	5650	20200	6.3	0	LGBB				B-C	Sss	Poorly consolidated, very fine grained, micaceous quartz sandstone with silty matrix. Non calcareous
4142053	77316	375858	5324560	5475	20200	0.3	0	DGG				Bdrk	Sls	Grey, fine grained, oolitic calcarenite and dark grey, argillaceous limestone. No visible sulphide
4142054	77316	375833	5324560	5450	20200	0.4	0	LGG	Py			Bdrk	Sdl	Light grey and grey ("speckled"), medium grained, oolitic, bioclastic, dolomitic calcarenite. Minor sulphide (disseminated and fine, discontinuous veins). Possibly filling original porosity
4142055	77316	375808	5324560	5425	20200	2	0	GGO				B-C	SlsSsh	Grey, limey clay and greyish orange silty clay. Contact between weathered shale and argillaceous limestone? Alternatively clay cover over weathered limestone

Swift Creek Prospect Wacker Sampling
 March 1996

Sample No.	DPO No	AMGE	AMG N	Local E	Local N	Depth (m)	Mag Sus	Colour	Min	Alt	Texture	Horizon	Field ID	Comments
Samples logged by S Menpes														
4142056	77316	375783	5324560	5400	20200	0.8	0	LGG				C-Bdrk	Sls	Light grey to grey, cryptocrystalline, blocky limestone. No visible sulphides

Appendix 4

Drillhole Ledgers and Analyses

**CRA EXPLORATION PTY. LIMITED
DRILL-HOLE SUMMARY LOG**

304127

HOLE NAME: DD96SW1 AMG EAST 375886 NORTH 5324155 m N
 PROSPECT Swift Creek GRID EAST 5420 NORTH 10800
 EL: Swift Creek EL64/94 RL DEPTH 73.5

DATE DRILLED: _____
 LOGGED BY: Sandy Menpes
 DRILLING CO.: All Terrain Expl
 DRILL TYPE: Diamond BQTK
 DRILL RIG: Gopher
 LOC DRILL CORE: Zeehan Shed

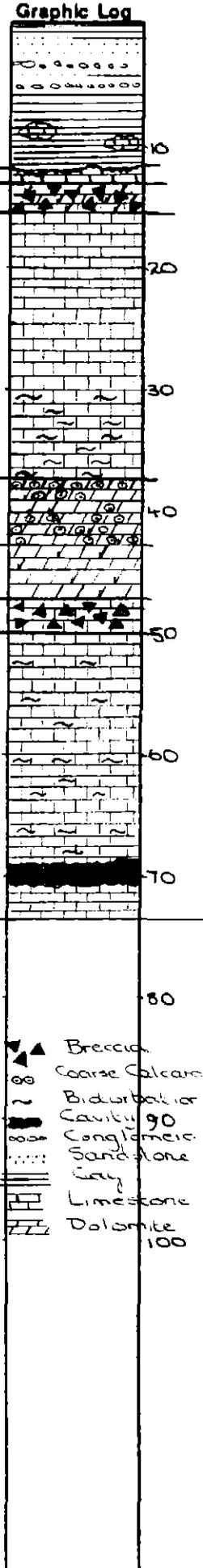
SURVEYS:					
DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
70.5m	107°	47.5°			
0m	106°	50°			

OBJECTIVES OF HOLE:
 Determine if mineralisation is developed at the base of the carbonate sequence near an interpreted fault

LITHOLOGICAL SUMMARY:			
FROM	TO	FORM CODE	COMMENTS
0	6	Ccy	Cover
6	12		Weathered bedrock (karst)
12	13.2	Ogul	Vfn grained calcarenite
13.2	15.7	Ogbr	Dolomite Breccia
15.7	37.3	Ogul	Lime mudstone (variably bioturbated)
37.3	42.6	Ogco	Dolarenite (fine to very coarse grained, equigranular)
42.6	47.0	Ogul	Vfn grained Dolarenite
47.0	49.9	Ogbr	Limestone breccia
49.9	73.5	Ogul	Lime mudstone (variably bioturbated)

MINERALISATION SUMMARY:
 FROM TO COMMENTS
 No significant mineralisation

CONCLUSIONS:
 Hole abandoned at 73.5m, 21.5m above interpreted Gordon Group - Moira Sandstone contact (casing not set in bedrock. Base casing moved off top of hole in solid bedrock). Hole objective not met.



CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 S420E 10800N
 CO-ORDINATES 532155 mE AZIMUTH 094° mag DRILLERS ATE COMMENCED 23/3/96 DEPTH 73.5m HOLE No. DD 96501
 RL COLLAR 532155 mN INCLINATION 50° DRILL TYPE Gopher COMPLETED 26/3/96 CASING LEFT 15mm P.V.C. to 21.5m DPO No(s) 82163

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery						
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %		
0	6			Clay	COVER					12.5	5	See page 2 for top hole recoveries						
					Poorly sorted silty quartz sands and clays					13.0	7							
										13.5	10							
										14.0	15	18.0	19.5	1.5	1.5			100
										14.5	7	48.5	51.0	1.5	1.5			100
6	12				WEATHERED BEDROCK					15.0	10	51.0	52.5	1.5	1.4			93
					(Karstic material). Fragments of decomposed carbonate in dark brown clay					15.5	15	52.5	54.0	1.5	1.5			100
										16.0	10	54.0	55.5	1.5	1.5			100
										16.5	8	55.5	57.0	1.5	1.5			100
										17.0	12	57.0	58.5	1.5	1.5			100
12	13.2			Ogyl	CALCARENITE					17.5	12	58.5	60.0	1.5	1.5			100
					Grey, very fine to fine grained with common calcite veins					18.0	15	60.0	61.5	1.5	1.5			100
										18.5	6	61.5	63.0	1.5	1.5			100
										19.0	15	63.0	64.5	1.5	1.5			100
										19.5	10	64.5	66.0	1.5	1.5			100
13.2	15.7			Ogyl	DOLOMITE BRECCIA	Thin veins/stylolites of white calcite matrix. Possibly reef talus	547340	13.2	15.6	20.0	2	66.0	67.5	1.5	1.5			100
						v. fn black sulphide and fn pyrite. Probably also graphite				20.5	2	67.5	69.0	1.5	1.5			100
										21.0	0	69.0	70.5	1.5	1.5			100
										21.5	0	70.5	72.0	1.5	1.5			100
										22.0	2	72.0	73.5	0.5	0.5			100
15.7	28.5			Ogyl	LIME MUDSTONE	As above	547351	15.6	18.0	22.5	0							
					Dark grey, graphitic, argillaceous lime mudstone and very fine grained grey calcarenite		547	22.5	25.0	23.0	1							
					Common fossiliferous horizons (bivalves, brachiopods etc)					23.5	3							
										24.0	4							
										24.5	5							
										25.0	4							
										25.5	2							
28.5	37.3			Ogyl	LIME MUDSTONE (BIOTURBATED)	Occasional sulphidic	544	21.5	32.0	26.0	2							
					Grey and dark grey, variably carbonaceous, argillaceous lime mudstone grading to v. fn grained calcarenite	graphitic stylolites	544	36.0	37.3	26.5	2							
										27.0	5							
										27.5	7							
										28.0	5							

304128

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5420 E 10800N
 CO-ORDINATES 275.286 ME AZIMUTH 094° Mag DRILLERS ATE COMMENCED 23/3/96 DEPTH 73.5 HOLE No. DD96SW1
 RL COLLAR 5924.55 MN INCLINATION 50° DRILL TYPE Gopher COMPLETED 26/3/96 CASING LEFT 15 mm P.V.S. to 150 PO No(s) 82163

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
37.3	42.6			Ogpl	<u>DOLARENITE</u> Fine to very coarse grained	Rare sulphidic zones (predom pyrite) and sulphidic stylolites	543	37.5	39.0	28.5	4	0	1.5	1.5	0.2	13
							546	39.0	40.5	29.0	5	1.5	3.0	1.5	0.6	40
							547	40.5	42.5	29.5	8	3.0	4.5	1.5	0.5	33
										30.0	5	4.5	6.0	1.5	0.5	33
42.6	47.0			Ogpl	<u>DOLARENITE</u> Very fine grained. Common calcite veining.	Common sulphidic, graphitic stylolites	548	42.5	45.0	30.5	5	6.0	7.5	1.5	0.4	27
							549	45.0	46.5	31.0	5	7.5	9.0	1.5	0	0
										31.5	4	9.0	12.0	3.0	0.7	23
										32.0	8	12.0	12.8	0.8	1.0	125
47.0	49.9			Ogpl	<u>LIDESTONE BRECCIA</u> White calcite matrix	Common sulphide veins and sulphidic graphitic stylolites (sulphide predom pyrite)	570	46.5	47.0	32.5	3	13.8	13.5	0.7	0.7	100
							571	48.0	49.9	33.0	10	13.5	15.0	1.5	1.5	100
										33.5	7	15.0	16.5	1.5	1.5	100
										34.0	5	16.5	18.0	1.5	1.5	100
										34.5	5	18.0	19.5	1.5	1.1	73
49.9	69.0			Ogpl	<u>LIME MUDSTONE</u> Laminated to bedded, grey and dark grey, variably carbonaceous lime mudstone. Variably bioturbated 5cm pod coarse grained, bioclastic calcarenite at 53.5m	Trace pyrite	572	49.9	52.5	36.0	7	19.5	21.0	1.5	1.3	87
							573	60.0	61.5	35.5	6	21.0	22.5	1.5	1.4	93
										36.0	5	22.5	24.0	1.5	1.4	93
										36.5	5	24.0	25.5	1.5	1.6	107
										37.0	5	25.5	27.0	1.5	1.5	100
										37.5	8	27.0	28.5	1.5	1.5	100
										38.0	12	28.5	30.0	1.5	1.3	87
										38.5	10	30.0	31.5	1.5	1.5	100
										39.0	7	31.5	33.0	1.5	1.5	100
69.0	70.5				<u>Cavity</u> Filled with decomposed gabby dolomite rubble	<u>Surveys</u> 70.5m : 095° Mag Azim 47.5° Dip	574	69.0	69.8	39.5	15	33.0	34.5	1.5	1.5	100
							575	69.8	70.5	40.0	10	34.5	36.0	1.5	1.5	100
										40.5	8	36.0	37.5	1.5	1.5	100
										41.0	6	37.5	39.0	1.5	1.4	93
70.5	73.5			Ogpl	<u>LIME MUDSTONE</u> As above		576	72.0	73.5	41.5	10	39.0	40.5	1.5	1.5	100
										42.0	12	40.5	42.0	1.5	1.4	93
										42.5	6	42.0	43.5	1.5	1.5	100
										43.0	7	43.5	45.0	1.5	1.5	100
										43.5	7	45.0	46.5	1.5	1.5	100
										44.0	10	46.5	48.0	1.5	1.5	100

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 3420E 10800N
 CO-ORDINATES 375556.00E AZIMUTH 094° Mag DRILLERS A.T.E. COMMENCED 23/3/96 DEPTH 73.5 HOLE No. DD96S01
 RL COLLAR 5374.75 m INCLINATION 50° DRILL TYPE Geopac COMPLETED 26/3/96 CASING LEFT 75m DPO No(s) 0213

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
										44.5	5	61.5	5			
										45.0	7	62.0	4			
										45.5	10	62.5	2			
										46.0	7	63.0	0			
										46.5	5	63.5	2			
										47.0	7	64.0	0			
										47.5	5	64.5	4			
										48.0	10	65.0	5			
										48.5	4	65.5	5			
										49.0	2	66.0	4			
										49.5	0	66.5	0			
										50.0	5	67.0	0			
								50.5	7	51.5	5	67.5	0			
								51.0	7	52.0	0	68.0	0			
										52.5	10	68.5	2			
										53.0	5	69.0	0			
										53.5	7	69.5	0			
										54.0	5	70.0	0			
										54.5	5	70.5	4			
										55.0	5	71.0	0			
										55.5	5	71.5	2			
										56.0	3	72.0	2			
										56.5	4	72.5	4			
										57.0	5	73.0	5			
										57.5	3	73.5	7			
										58.0	0					
										58.5	5					
										59.0	5					
										59.5	5					
										60.0	0					
										60.5	0					
										61.0	5					

304100

**CRA EXPLORATION PTY. LIMITED
DRILL-HOLE SUMMARY LOG**

304131

HOLE NAME: DD96SW2

AMG EAST 375803 NORTH 5324123

PROSPECT Swift Creek

GRID EAST 5330 NORTH 10800

EL: Swift Creek

EL4/14 RL _____ DEPTH 71.2 m

DATE DRILLED: 28/3/96-1/4/96

SURVEYS:

LOGGED BY: Sandy Menpes

DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0	106°	50°			
40	102°	40°			
81.2	105°	37 1/2°			

DRIILLING CO.: All Terrain Expl

DRILL TYPE: Diamond BQTK

DRILL RIG: Gopher

LOC DRILL CORE: Zeston shed

OBJECTIVES OF HOLE:

Determine if mineralisation is developed below the "middle siltstone" unit proximal to an interpreted fault

LITHOLOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	15	C	Gravels to 6m, underlain by weathered limestone (decomposed - Karatic)
15	25.9	Ogul	Lime mudstone.
25.9	30.0	Og00	Equigranular calcarenite
30.0	42.8	Ogul	Very fine grained, carbonaceous dolarenite
42.8	44.3	Og00/Ogbr	Dolarenite, brecciated in places
44.3	57.6	Ogul	Lime mudstone
57.6	61.5	Ogul	Poorly sorted, bioclastic calcarenite
61.5	68.1	Ogul	Lime mudstone
68.1	69.7	Og00/Ogbr	Brecciated dolarenite
69.7	81.2	Ogul	Lime mudstone

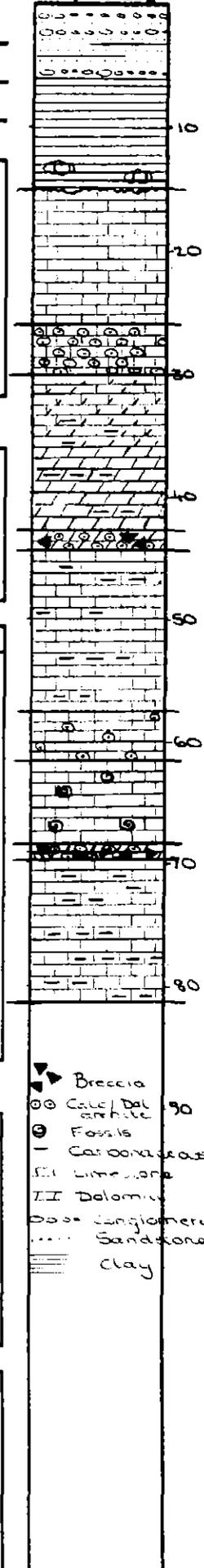
MINERALISATION SUMMARY:

FROM	TO	COMMENTS
		No significant mineralisation intersected

CONCLUSIONS:

No siltstone unit intersected. Clastic unit higher in sequence (intersected in DD96SW3, 4 and 5)

Graphic Log



CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5330E 10800N
 CO-ORDINATES 375203 mE AZIMUTH.....094° mag..... DRILLERS P.T.E..... COMMENCED 28/3/96 DEPTH 31.2m..... HOLE No. DD96SW2
 RL COLLAR.....5324123 mN..... INCLINATION.....5.0°..... DRILL TYPE Copher..... COMPLETED 11/4/96 CASING LEFT 75mm ENC. to 2m DPO No(s).....82160.....

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
0	15			C	<u>COVER</u> Sandstone gravels and boulders to 6m, then brownish black and grey gritty clays overlying non-calcareous olive grey "shale" - probably decomposed limestone (Koral)					15.5	3	0	1.7	1.7	0.1	6
							442083	6.2	9.2	16.0	4	1.7	2.2	0.5	0.1	20
							084	9.2	10.7	16.5	2	2.2	5.7	2.8	1.0	40
							085	10.7	12.2	17.0	1	4.7	6.2	1.5	0.3	20
							086	12.2	13.7	17.5	5	6.2	7.7	1.5	1.0	67
							087	13.7	15.2	18.0	4	7.7	9.2	1.5	0.6	40
										18.5	3	9.2	10.7	1.5	0.6	40
										19.0	2	10.7	12.2	1.5	1.0	67
15	25.9			Og1	<u>LIME MUDSTONE</u> Grey and dark grey, variably argillaceous, bioturbated. Occasional bioclasts	Sulphidic stylolites	088	15.2	16.7	19.5	5	2.2	12.7	1.8	0.3	20
										20.0	4	13.7	15.2	1.8	0.2	13
										20.5	9	15.2	16.7	1.5	1.9	100
										21.0	2	16.7	18.2	1.5	1.9	100
										21.5	4	18.2	19.7	1.5	1.9	100
25.9	30.0			Og2	<u>FINE GRANULAR CALCARENITE</u> Light grey, fine to medium grained. Bioclastic horizon at base of interval	Sulphidic stylolites	089	25.7	27.2	22.0	5	19.7	21.2	1.5	1.9	100
							090	27.2	29.5	22.5	5	21.2	22.7	1.5	1.9	100
										23.0	4	22.7	24.2	1.5	1.9	100
										23.5	5	24.2	25.7	1.5	1.9	100
										24.0	4	25.7	27.2	1.5	1.9	100
30.0	42.5			Og1	<u>FINE GRAINED DOLOBRENITE</u> Grey to dark grey, carbonaceous, very fine grained. Bioturbated in places. Calcareous at top of unit.	Sulphidic stylolites and fractures	091	34.7	36.2	24.5	5	27.2	28.7	1.5	1.9	100
							092	40.2	42.2	25.0	3	28.7	30.2	1.5	1.9	100
										25.9	4	30.2	31.7	1.5	1.9	100
										26.0	5	31.7	33.2	1.5	1.9	100
										26.5	3	33.2	34.7	1.5	1.9	100
										27.0	4	34.7	36.2	1.5	1.9	100
42.5	44.3			Og2	<u>DOLOBRENITE</u> Light grey, medium grained, brecciated in places	5-10% Sulphide replacement (pyrite) in upper brecciated zone	093	42.2	43.7	27.5	5	36.2	37.7	1.5	1.9	100
							094	43.7	45.0	28.0	3	37.7	39.2	1.5	1.9	100
										28.5	4	39.2	40.7	1.5	1.9	100
										29.0	4	40.7	42.2	1.5	1.9	100
										29.5	2	42.2	43.7	1.5	1.4	93
44.3	57.6			Og1	<u>LIME MUDSTONE</u> Variably carbonaceous, variably bioturbated. Laminated to banded. Dolomitic at top of unit		095	46.0	46.7	30.0	6	33.2	35.2	1.5	1.4	93
							096	52.7	54.2	30.5	6	35.2	36.7	1.5	1.9	100
							097	54.2	55.0	31.0	6	36.7	38.2	1.5	1.9	100

304132

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

CO-ORDINATES ^{Local} 5330 E 10800N 375 803 ME AZIMUTH 094 mag DRILLERS A.T.E. COMMENCED 28/3/96 DEPTH 81.2m HOLE No. DD96SW2
 RL COLLAR 5324.72m INCLINATION 50° DRILL TYPE Geopier COMPLETED 1/4/96 CASING LEFT 25m P.C. to 2m DPO No(s) 82160

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
57.6	61.5			Ogyl	<u>BIOCLASTIC CALCARENITE</u> Poorly sorted, bioclastic calcarenite	Sulphidic stylolites	442000	55.0	56.1	31.5	7	48.2	49.7	1.5	1.5	100
							079	56.1	57.6	32.0	5	49.7	51.2	1.5	1.5	100
							442100	57.6	58.7	32.5	5	51.2	52.7	1.5	1.5	100
										33.0	7	52.7	54.2	1.5	1.5	100
61.5	68.1			Ogyl	<u>LIME MUDSTONE</u> Predominantly light grey, with disrupted bands and laminae of dark grey, carbonaceous lime mudstone. Common Z-stromatoporoids in living position.		5473501	64.4	66.2	33.5	6	54.2	55.7	1.5	1.5	100
							502	66.2	68.2	34.0	6	55.7	57.2	1.5	1.5	100
										34.5	9	57.2	58.7	1.5	1.5	100
										35.0	7	58.7	60.2	1.5	1.5	100
										36.5	12	60.2	61.7	1.5	1.5	100
										36.0	12	61.7	63.2	1.5	1.5	100
										36.5	10	63.2	64.7	1.5	1.5	100
										37.0	11	64.7	66.2	1.5	1.5	100
										37.5	14	66.2	67.7	1.5	1.5	100
68.1	69.7			Ogyl Ogyl	<u>BRECCIATED DOLARENITE</u> Brecciated, recrystallised medium to coarse grained dolarenite	Sulphidic stylolites	503	68.2	69.7	38.0	9	67.7	69.2	1.5	1.5	100
										38.5	9	69.2	70.7	1.5	1.5	100
										39.0	9	70.7	72.2	1.5	1.5	100
										39.5	14	72.2	73.7	1.5	1.5	100
										40.0	10	73.7	75.2	1.5	1.5	100
69.7	81.2			Ogyl	<u>LIME MUDSTONE</u> Well laminated, dark grey, carbonaceous, argillaceous lime mudstone and more massive, grey, stylolitic lime mudstone.	Sulphidic stylolites	504	69.7	72.2	40.5	9	75.2	76.7	1.5	1.5	100
							505	76.7	78.2	41.5	8	76.7	78.2	1.5	1.5	100
										41.5	5	78.2	79.7	1.5	1.5	100
										42.0	8	79.7	81.2	1.5	1.5	100
										42.5	5					
										43.0	14					
										43.5	15					
										44.0	13					
										44.5	10					
										45.0	6					
										45.5	7					
										46.0	5					
										46.5	6					
										47.0	5					

Survey (Orientation)
 78.2m: Bedding dipping 78°W
 (Bedding to core angle at 74m = 52°. Confirms bedding dipping at 78°W)

304183

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

CO-ORDINATES ^{Local} 5330E 10800N AZIMUTH 094 mag DRILLERS. PTE COMMENCED 28/3/96 DEPTH 81.2m HOLE No. DD915W2
 RL COLLAR 375808 ME 5325E 123mN INCLINATION 50° DRILL TYPE. Copter COMPLETED 14/3 CASING LEFT 7.5m PYS 5.2m DPO No(s) 37160

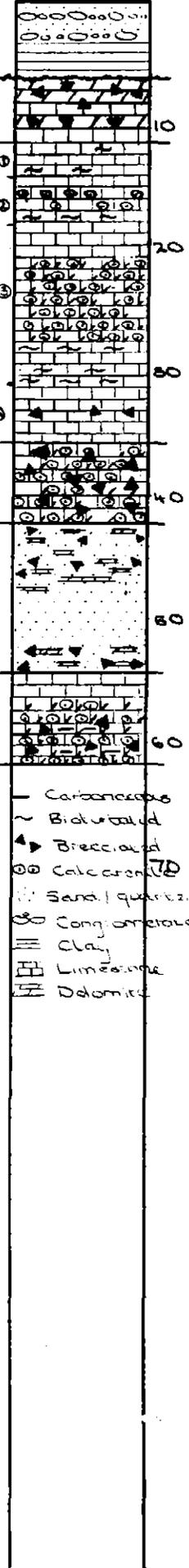
Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
										47.5	5	63.5	6		79.5	5
						<u>Downhole Surveys</u>				48.0	5	64.0	4		80.0	6
										48.5	7	64.5	4		80.5	7
						40m Azim 090 mag Dip 40°				49.0	5	65.0	5		81.0	10
						81.2m Azim 093 mag Dip 37.5°				49.5	8	65.5	6			
										50.0	6	66.0	5			
										50.5	5	66.5	9			
										51.0	5	67.0	7			
										51.5	5	67.5	7			
										52.0	7	68.0	6			
										52.5	5	68.5	14			
										53.0	4	69.0	15			
										53.5	4	69.5	14			
										54.0	6	70.0	10			
										54.5	5	70.5	10			
										55.0	5	71.0	8			
										55.5	9	71.5	10			
										56.0	9	72.0	4			
										56.5	5	72.5	1			
										57.0	9	73.0	4			
										57.5	7	73.5	4			
										58.0	8	74.0	3			
										58.5	6	74.5	5			
										59.0	7	75.0	4			
										59.5	5	75.5	4			
										60.0	5	76.0	4			
										60.5	10	76.5	3			
										61.0	4	77.0	9			
										61.5	5	77.5	6			
										62.0	3	78.0	5			
										62.5	4	78.5	6			
										63.0	5	79.0	6			

**CRA EXPLORATION PTY. LIMITED
DRILL-HOLE SUMMARY LOG**

304135

HOLE NAME: DD96BW3 **AMG** EAST 375796 **NORTH** 5324105
PROSPECT Swift Creek **GRID** EAST 5230 **NORTH** 10800N
EL: Swift Creek **EL** 6/94 **FL** _____ **DEPTH** 61.6m

Graphic Log



DATE DRILLED: 1/4/96 - 13/4/96
LOGGED BY: Sandy Meppes
DRILLING CO.: All Terrain Explor
DRILL TYPE: Diamond BQTK
DRILL RIG: "Gopher"
LOC DRILL CORE: Zeehan shed

SURVEYS:

DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0 m	106°	50°			
60.1m	111°	46 1/2°			

OBJECTIVES OF HOLE:
 Test Gordon Group along strike from wacker sample that returned 0.15% Pb. Predicted intersection at 13m

LITHOLOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	6	Cg	
6	11.3	Ogbr	Dolomite breccia with white calcite matrix, and micrite.
11.3	35.6	Ogul	Shallowing upward cycles ("PAC6")
35.6	42.1	Ogbr/Ogso	Variably dolomitised and silicified limestone breccia. Originally coarse grained, equigranular calcarenite
42.1	54.3		Quartzite. Brecciated in places. Dolomite cemented
54.3	61.6	Ogul	Shallowing upward sequence ("PAC")

MINERALISATION SUMMARY:

FROM	TO	COMMENTS
		No significant mineralisation intersected.

CONCLUSIONS:

- 12m dolomite cemented Quartzite possibly "Lords Siltstone" equivalent.
- No mineralisation developed below 12m elastic unit (inadequate seal - probably porous and permeable when mineralising fluids passed through)

Mineralisation recorded in wacker hole at 5295 E (0.15% Pb) is limited.

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5280E 10800N

CO-ORDINATES: 375756 mE AZIMUTH: 091° Mag. DRILLERS: A.T.E. COMMENCED: 11/1/96 DEPTH: 61.6 m HOLE No. DD96SW03
 RL COLLAR: 3324105 mN INCLINATION: 50° DRILL TYPE: Grapher COMPLETED: 13/1/96 CASING LEFT: PVC to 60m DPO No(s): 82160

Depth		Core			CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)	Rec %	Rock Quality	Form Code						Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
0	6			Cg	<u>COVER</u> Sandstone gravel and cobbles underlain by yellowish brown, gritty clay		547285	4.6	5.8	6.5	2	0	1.6	1.6	0.1	6
										7.0	0	1.6	3.1	1.5	0.35	23
										7.5	0	2.1	4.6	1.5	0	0
										8.0	0	2.6	6.1	1.5	1.3	27
										8.5	0	6.1	7.6	1.5	1.0	67
6	11.3			Ogr	<u>Dolomite Breccia and Micrite</u> Light grey dolomite breccia with white calcite matrix and light grey micrite with zooclastic (algal ball horizons	Minor patches of fine grained sulphide replacement (pyrite) associated with dolomite breccia	507	5.8	7.6	9.0	1	7.6	9.1	1.5	1.4	93
							508	7.6	9.1	9.5	2	9.1	10.6	1.5	1.5	100
							509	9.1	10.6	10.0	4	10.6	12.1	1.5	1.5	100
							510	10.6	11.4	11.0	2	13.6	15.1	1.5	1.5	100
										11.5	1	15.1	16.6	1.5	1.5	100
										12.0	3	16.6	18.1	1.5	1.5	100
11.3	35.6			Ogr	<u>SHALOWING UPWARD CYCLES ("PACK")</u> ① 11.3-14.0m Banded to nodular, grey and dark grey limestone (dolomitic) Minor bioturbation (horizontal burrows)	13.1m: Bedding to core angle (in banded unit) = 66° ⇒ Bedding = 64°W	511	11.4	12.6	12.5	1	18.1	19.6	1.5	1.5	100
										13.0	1	19.6	21.1	1.5	1.5	100
										13.5	3	21.1	22.6	1.5	1.5	100
										14.0	3	22.6	24.1	1.5	1.5	100
										14.5	5	24.1	25.6	1.5	1.1	73
										15.0	4	25.6	27.1	1.5	1.5	100
										15.5	6	27.1	28.6	1.5	1.5	100
										16.0	4	28.6	30.1	1.5	1.5	100
										16.5	3	30.1	31.6	1.5	1.5	100
										17.0	5	31.6	33.1	1.5	1.5	100
										17.5	7	33.1	34.6	1.5	1.5	100
										18.0	3	34.6	36.1	1.5	1.4	93
										18.5	4	36.1	37.6	1.5	1.6	94
										19.0	2	37.6	39.1	1.5	1.5	100
							512	19.6	21.1	19.5	8	39.1	40.6	1.5	1.5	100
							513	21.1	22.6	20.0	5	40.6	42.1	1.5	1.5	100
							514	22.6	24.1	20.5	12	42.1	43.6	1.5	1.5	100
							515	24.1	25.6	21.0	14	43.6	45.1	1.5	1.5	100
							516	25.6	27.7	21.5	20	45.1	46.6	1.5	1.5	100
										22.0	20	46.6	48.1	1.5	1.5	100

304106

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 CO-ORDINATES 5280E 10800N
 3.75155ME AZIMUTH 094° MAG DRILLERS RATE COMMENCED 11/1/96 DEPTH 41.6m HOLE No. DD96S103
 RL COLLAR 532405m INCLINATION 50° DRILL TYPE Graphite COMPLETED 14/1/96 CASING LEFT 75mm PVC to 6m DPO No(s) 82160

Depth		Core		Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)	Rec %	Rock Quality							Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
					equigranular calcarenite	Some patches of				22.5	23	48.1	49.6	1.5	1.5	100
					Also quite siliceous in places	pyrite replacement				23.0	21	49.4	51.1	1.5	1.5	97
					Common cross cutting					23.5	26	51.1	52.6	1.5	1.5	103
					calcite veining, minor quartz					24.0	26	52.6	54.1	1.5	1.5	100
					veining					26.5	21	54.1	55.6	1.5	1.5	100
					Dolarenite has interlocking					25.0	17	55.6	57.1	1.5	1.5	100
					crystal texture. Significant					25.5	10	57.1	58.6	1.5	1.5	100
					alteration					26.0	10	58.6	60.1	1.5	1.5	100
					Grades upward into					26.5	15	60.1	61.6	1.5	1.5	100
					light grey micrite with					27.0	10					
					dark grey cryptalgal laminae					27.5	11					
					and minor "birdseye" texture					28.0	9					
										28.5	9					
					⑩ 30.7-35.6m	Some patches of				29.0	11					
					Banded lime mudstone	pyrite replacement	513	31.1	31.8	29.5	4					
					overlain by variably	(zones upto 10cm, 10-20%				30.0	6					
					brecciated lime mudstone,	pyrite)				30.5	6					
					overlain by light grey micrite					31.0	2					
					with cryptalgal laminae					31.5	3					
										32.0	8					
35.6	42.1			Op	<u>CARBONATE BRECCIA</u>					32.5	5					
					Variably dolomitised and		518	35.6	37.6	33.0	4					
					silicified limestone breccia.		519	37.6	39.1	33.5	5					
					Some zones of coarse		520	39.1	40.6	34.0	6					
					grained, equigranular		521	40.6	42.25	34.5	7					
					Dolarenite recognised					35.0	5					
					where alteration less					35.5	9					
					intense					36.0	20					
										36.5	18					
42.1	48.8				<u>QUARTZITE</u>					37.0	25					
					Very siliceous, variably brecciated	Common sulphidic	522	42.25	43.75	37.5	15					
					quartzite (originally a fine silty	clay laminae and				38.0	14					
					sandstone) with dolomite	fractures										
					cement. Trace haematite staining											

304137

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local 5230E 10800N
 CO-ORDINATES 375.156 mE AZIMUTH 094° Mag DRILLERS A.T.E. COMMENCED 17/7/96 DEPTH 61.6 m HOLE No. DD9LSW3
 RL COLLAR 332405 m INCLINATION 50° DRILL TYPE Gopher COMPLETED 13/1/96 CASING LEFT 73 mm PVC to 10 m DPO No(s) B2160

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery							
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %			
43.8	44.6				<u>QUARTZITE</u> Extremely hard, very siliceous, non-calcareous, flecked with black mineral (2 biotite) and sparsely studded with fine grained pyrite	Sulphide in fractures	522524	43.75	45.1	38.5	9								
										39.0	12								
										39.5	15								
										40.0	7								
										40.5	10								
										41.0	6								
										41.5	11								
										42.0	14								
44.6	46.6				<u>QUARTZITE</u> Brecciated, siliceous, dolomite cemented (originally carbonate cemented, v fine quartz sandstone grading to siltstone) Calcite veining	Sulphidic clay laminae and fractures	524	45.1	46.6	43.0	8								
										43.5	15								
										44.0	8								
										44.5	6								
										45.0	19								
										45.5	11								
46.6	53.4				<u>QUARTZITE</u> Very siliceous, non-calcareous, black flecked (2 biotite) with sparse fine pyrite studs. Originally very fine grained to granular, lithic quartz sandstone. Quartz veins	Minor sulphide veins and fractures	525	49.6	51.1	46.0	9								
										46.5	19								
										47.0	5								
										47.5	5								
										48.0	4								
										48.5	8								
										49.0	6								
										49.5	8								
										50.0	5								
53.4	54.3				<u>QUARTZITE</u> Brecciated, dolomite cemented, common carbonate veins. Originally carbonate cemented, v fine quartz sandstone	Minor pyrite veins	526	53.3	54.3	50.5	6								
										51.0	6								
										51.5	7								
										52.0	6								
										52.5	5								
										53.0	5								
										53.5	20								
										54.0	20								

304133

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 CO-ORDINATES 5280 E 10800 N
 5280 E 10800 N AZIMUTH 099° Mag DRILLERS A.T.E. COMMENCED 14/96 DEPTH 61.6 m HOLE No. DD96543
 RL COLLAR 5324105 m INCLINATION 50° DRILL TYPE Grapher COMPLETED 21/96 CASING LEFT 75 mm to 6 m DPO No(s) 82160

Depth		Core		Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)	Rec %	Rock Quality							Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
54.3	61.6			Opal	<u>SHALLOWING UPWARD SEQUENCE ("PAC")</u>		527627	54.3	55.6	54.5	9					
					Light grey, laminated micrite		528	55.6	57.1	55.0	7					
					grading down to darker grey		329	57.1	58.6	58.5	17					
					possibly argillaceous, ? dolomitic	Minor patches of	320	58.6	60.1	56.0	8					
					limestones with coarse grained	replacement sulphide	521	60.1	61.6	56.5	3					
					dol. arenite horizons	(pyrite)				57.0	4					
					Quite brecciated in places					57.5	2					
										58.0	4					
										58.5	5					
										59.0	7					
						<u>Survey</u>				59.5	15					
						Depth Azim Incl				60.0	10					
						60.1m: 099° Mag 46.5°				60.5	9					
										61.0	11					
										61.5	12					

ORA EXPLORATION PTY. LIMITED
 DRILL-HOLE SUMMARY LOG

304140

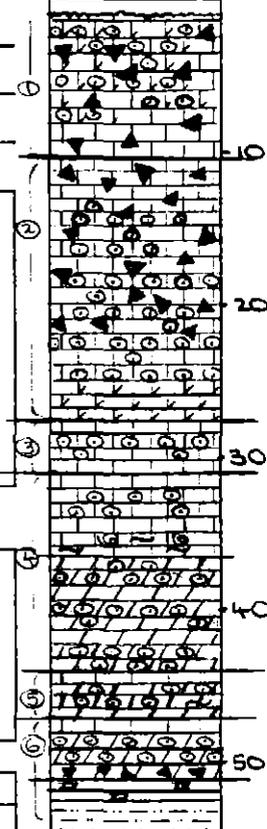
Graphic Log

HOLE NAME: DD96SW4 AMG EAST 275723.00E NORTH 5324094.00N
 PROSPECT Swift Creek GRD EAST 5250 NORTH 10800
 RL: Swift Creek EL64/94 RL DEPTH 64.5m

DATE DRILLED: 13/4/96 - 15/4/96
 LOGGED BY: Sandy Meapes
 DRILLING CO.: All Terrain Expl
 DRILL TYPE: BQTK Diamond
 DRILL RIG: Gopher
 LOC DRILL CORE: Zeehan Shed

SURVEYS:

DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0	106°	50°			
20m	108°	48°			
56m	109°	47°			



OBJECTIVES OF HOLE:
 To test Gordon Group sequence along strike from wacker samples that returned 0.37% Pb, sphalerite nugget and 0.15% Pb. Predicted intersections 16m, 25m and 44m respectively

LITHOLOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	1	C	Soil
1	27.5	Ogul	2 x "PAC's" (Punctuated, aggradational cycles). Brecciated, rubble to 22.7m
27.5	49.5	Ogul	4 x "PAC's". Minor thin "greisen" veins in coarse grained dolarenite 36.5-44.1m.
49.5	54.5		Clastic unit: Carbonaceous mudstone, siliceous siltstone and quartzite

* PACs should be thinner. Several truncated PACs probably missed by logger.

MINERALISATION SUMMARY:

FROM	TO	COMMENTS
12.2	13.7	0.12% Pb in laminated, mottled, light grey micrite. Same unit as returned
		0.37% Pb in wacker sample

CONCLUSIONS:
 • Mineralisation intersected in wacker hole at 5270 E (0.37% Pb) is very narrow and low grade
 • Mineralisation intersected in wacker holes at 5275 E and 5295 E has very limited extent (not intersected in this hole)

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5750E 10800N
 CO-ORDINATES 575.728 mE. AZIMUTH 094° Mag. DRILLERS A.T.E. COMMENCED 13/4/96 DEPTH 5.4 5m HOLE No. DD96SW4
 RL COLLAR 582.094 m INCLINATION 50° DRILL TYPE Geopet COMPLETED 15/7/96 CASING LEFT steel casing DPO No(s) 82163

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery					
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %	
0	1			C	COVER							0	1.7	1.7	0.3	18	
					Soil, tree roots etc							0.5	1.7	3.2	1.5	1.3	87
												1.0	3.2	4.7	1.5	0.8	53
1	27.5			Ox Qz	CARBONATE BRECCIA (2 x "PAC's")							1.5	4.7	6.2	1.5	1.4	93
												2.0	6.2	7.7	1.5	1.5	100
												2.5	7.7	9.2	1.6	1.4	93
					1-10.4m (Truncated)	Sulphidic stylolites and fractures	537	1.7	3.2	3.0	1	9.2	10.7	1.5	1.5	100	
					Very fine grained calcarenite with disrupted beds and laminae of argillaceous lime mudstone.		538	3.2	4.7	3.5	0	10.7	12.2	1.5	1.35	90	
					Overlain by fine to coarse grained, variably dolomitic calcarenite and dolarenite		534	4.7	6.2	4.0	CL	12.2	13.7	1.5	1.65	110	
							535	6.2	7.7	4.5	0	13.7	15.2	1.5	1.2	80	
							536	7.7	9.2	5.0	2	15.2	16.7	1.5	1.5	100	
							537	9.2	10.7	5.5	1	16.7	18.2	1.5	1.5	100	
												6.0	18.2	19.7	1.5	1.5	100
												6.5	19.7	21.2	1.5	1.5	100
					10.4-27.5m							7.0	21.2	22.7	1.5	1.5	100
					Very fine grained dolarenite with disrupted beds and laminae of argillaceous lime mudstone, overlain by the same, with interbedded medium to coarse grained calcarenite. Sequence is tapped by a laminated "marbled" light grey micrite		538	10.7	12.2	7.5	1	22.7	24.2	1.5	1.45	97	
							539	12.2	13.7	8.0	1	24.2	25.7	1.5	1.5	100	
							540	13.7	15.2	8.5	0	25.7	27.2	1.5	1.5	77	
							541	15.2	16.7	9.0	0	27.2	28.7	1.5	1.2	80	
							542	16.7	18.2	9.5	0	28.7	30.2	1.5	1.4	93	
							543	18.2	19.7	10.0	0	30.2	31.7	1.5	1.5	100	
							544	19.7	21.2	10.5	1	31.7	33.2	1.5	1.5	100	
							545	21.2	22.7	11.0	2	33.2	34.7	1.5	1.5	100	
							546	22.7	24.2	11.5	0	34.7	36.2	1.5	1.3	100	
							547	24.2	25.7	12.0	0	36.2	37.7	1.5	1.5	100	
					Very brecciated interval. core broken and rubble to 27.7m							12.5	37.7	39.2	1.5	1.5	100
												13.0	39.2	40.7	1.5	1.5	100
												13.5	40.7	42.2	1.5	1.5	100
												14.0	42.2	43.7	1.5	1.5	100
												14.5	43.7	45.2	1.5	1.5	100
												15.0	45.2	46.7	1.5	1.45	97
												15.5	46.7	48.2	1.5	1.5	100

304141

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5750E 10800N
 CO-ORDINATES 575128mE AZIMUTH 094° Mag DRILLERS...RTE COMMENCED 13/4/96 DEPTH 54.6 m HOLE No. DD96044
 RL COLLAR 5324094mN INCLINATION 50° DRILL TYPE Grapher COMPLETED 15/4/96 CASING LEFT Steel casing to 21.5 DPO No(s) 82163

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
27.5	49.6			Opal	<u>SHALLOWING UPWARD SEQUENCES ("PAC'S")</u>					16	0	48.2	59.7	1.5	1.5	100
										16.5	0	49.7	51.2	1.5	1.5	90
					③ 27.5-30.9m					17.0	0	51.2	52.7	1.5	1.5	100
					Banded dark grey, v fn grained calcarenite and light grey lime mudstone overlain by bioclastic calcarenite (tidal channels?) in turn overlain by light grey micrite with disrupted dk grey laminae	Some pyrite replacement of fossils				17.5	0	52.7	54.2	1.5	1.5	100
										18.0	0	54.2	55.0	0.3	0.3	100
										18.5	1					
										19.0	2					
										19.5	4					
										20.0	1					
										20.5	0					
										21.0	1					
					④ 30.9-36.5m					21.5	1					
					Bioturbated grey and dark grey lime mudstone with occasional fossiliferous horizons, overlain by grey, very fn grained calcarenite, overlain by poorly sorted bioclastic calcarenite.					22.0	2					
										22.5	0					
										23.0	4					
										23.5	6					
										24.0	6					
										24.5	5					
										25.0	5					
										25.5	5					
										26.0	4					
										26.5	4					
										27.0	5					
										27.5	7					
										28.0	5					
										28.5	4					
										29.0	4					
										29.5	3					
					36.5-47.6m					37.7	39.2	29.5	3			
					Interbedded very fine grained calcarenite (with bioclastic inclusions in places - intertidal?), and medium to coarse grained, recrystallised, equigranular arenite (dolomitic)	Minor thin "griseo" veins in sparse grained calcarenite. Also minor pyrite replacement around fractures	549	37.7	39.2	39.2	40.7	30.0	5			
							550	40.7	42.3	40.5	5					
							551	42.3	43.4	31.0	4					
							552	43.4	45.2	31.5	2					

304142

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

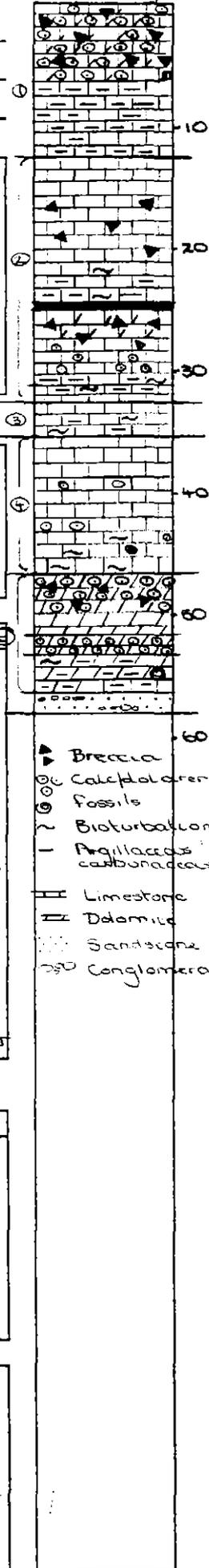
Local
 CO-ORDINATES 5250E 10800N
 5250E 10800N AZIMUTH 094° Mag DRILLERS ATE COMMENCED 13/4/96 DEPTH 54.5 m HOLE No. DD96844
 RL COLLAR 5224.92m INCLINATION 50° DRILL TYPE Gopher COMPLETED 19/4/96 CASING LEFT Steel casing 45.3m DPO No(s) 82163

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery							
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %			
					⑤ 42.6-45.6		5473593	45.2	46.7	32.0	3	48.5	16						
					grey lime mudstone overlain by bioturbated grey, very fine grained dolarenite and light grey medium grained, equigranular dolarenite overlain in turn by light grey micrite with darker grey laminae					32.5	5	49.0	10						
										33.0	5	49.5	13						
										33.5	4	50.0	11						
										34.0	5	50.5	14						
										34.5	5	51.0	5						
										35.0	5	51.5	5						
										35.5	5	52.0	4						
										36.0	6	52.5	1						
										36.5	5	53.0	2						
					⑥ 45.6-49.6		555	46.7	48.8	37.0	5	53.5	2						
					grey, very fine to fine grained, variably brecciated dolarenite, overlain by light grey partially silicified, recrystallized, medium to coarse grained dolarenite (above 50.3m) overlain in turn by light grey micrite with some dark grey, argillaceous laminae and zones of birdseye fenestration		556	48.8	50.2	37.5	5	54.0	2						
							557	50.2	51.6	38.0	11	54.5	0						
										38.5	4	55.0	10						
										39.0	10								
										39.5	20								
										39.5	4	50.0	10						
										40.0	16								
										41.0	12								
										41.5	22								
										42.0	10								
										42.5	5								
										43.0	2								
										43.5	6								
49.6	54.5				<u>CLASTIC UNIT</u>	<u>Surveys</u>				43.5	6								
					Laminated, variably carbonaceous dark grey mudstone with minor carbonate cement Also more massive, grey, siliceous siltstone and quartzite	Depth: 20m 096°mag 48°	558	51.6	52.7	44.0	12								
						56m 097°mag 47°	559	52.7	54.2	44.5	7								
										45.0	14								
										45.5	5								
										46.0	8								
										46.5	5								
										47.0	3								
										47.5	15								
										48.0	11								

001143

HOLE NAME: DD96SW5 AMG EAST 275728mE NORTH 5324094mN
 PROSPECT Swift Creek GRID EAST 5250 NORTH 10800
 L: Swift Creek EL64/94 RL DEPTH 58m

Graphic Log



DATE DRILLED: 16/4/96-18/4/96
 LOGGED BY: Sandy Menpes
 MILLING CO.: All Terrain Expl
 DRILL TYPE: Diamond BQTK
 DRILL RIG: "Grapher"
 LOC DRILL CORE: Zeehan Shed

SURVEYS:

DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0	069°	50°			
20m	066°	48°			
58m	068°	46 1/2°			

OBJECTIVES OF HOLE:

To test Gordon Group below location of wacker samples that returned 0.37% Pb, sphalerite nugget, and 0.15% Pb

LITHOLOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	0.2	C	Soil and gravels
0.2	51.7	Ogul	5 x PAC's (punctuated aggradational cycles)
51.7	53.2	Og00	Coarse grained dolarenite, partially silicified
53.2	56.3		Transition unit. Very fn grained dolarenite, light grey dolomitic, carbonaceous limestone and micrite.
56.3	58.0		Very fine grained quartz sandstone with argillaceous matrix. Includes poorly sorted gravelly conglomerate horizons

* PACs should thinner. Several truncated PACs probably missed by logger

MINERALISATION SUMMARY:

FROM	TO	COMMENTS
16.2	16.4	0.2m @ 0.78% Pb in light grey micrite. Same unit as returned 0.37% Pb in wacker sample, and 1.5m at 1.2% from 12.2m in DD96SW4

CONCLUSIONS:

- Mineralisation intersected in wacker hole (0.37% Pb) at 5270 E is very narrow and low grade.
- Mineralisation intersected in wacker holes at 5275 E and 5295 E has very limited extent (no mineralisation intersected downdip of anomalous samples)

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

CO-ORDINATES 375728mE AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No.....
 RL COLLAR 5324094mN INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery				
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %
					24.4 - 25.0m					16.0	0	4.5	5.5	1.5	1.5	83
					0.6m cavity					16.5	0	5.5	5.0	1.5	1.5	97
										17.0	0	5.0	5.2	1.5	1.5	100
				1-2BF	25.0 - 31.1m		417068	25.5	27.0	17.5	0	5.2	5.4	1.5	1.5	100
					Banded grey and dark grey, variably argillaceous & fine grained calcarenite grading to fine sandstone overlain by tidal channel sequences. ?Dolomite, ?bioclastic gravels grad. up to light grey micrite	Minor pyrite in fractures	069	27.0	28.5	18.0	0	5.4	5.5	1.5	1.5	100
							070	30.0	33.0	18.5	0	5.5	5.7	1.5	1.4	93
										19.0	0	5.7	5.8	1.0	0.9	90
										19.5	0					
										20.0	0					
										20.5	0					
										21.0	0					
										21.5	0					
										22.0	0					
										22.5	0					
										23.0	0					
										23.5	0					
										24.0	0					
										24.5	0					
										25.0	0					
				1-2B	31.1 - 32.7m					25.5	0					
										26.0	0					
										26.5	4					
										27.0	0					
										27.5	2					
										28.0	0					
										28.5	7					
										29.0	0					
										29.5	0					
										30.0	0					
										30.5	0					
										31.0	0					
										31.5	0					

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

CO-ORDINATES 375 228 60 E AZIMUTH DRILLERS COMMENCED DEPTH HOLE No.
 RL COLLAR 532 094 00 MIN INCLINATION DRILL TYPE COMPLETED CASING LEFT DPO No(s)

Depth		Core		Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	D from (m)	D to (m)	MagSus		Recovery							
From (m)	To (m)	Rec %	Rock Quality							Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %			
			2-3B		③ 32.7-35.3m	Minor pyrite				32.0	0								
					Variable bioturbated, very fine grained calcarenite					32.5	1								
					with darker grey argillaceous beds					33.0	0								
					Grades upward to more massive, light grey					33.5	0								
					very fine grained calcarenite					34.0	0								
					with occasional argillaceous laminae. Not bioturbated					34.5	0								
										35.0	0								
										35.5	0								
										36.0	0								
										36.5	0								
										37.0	0								
			1-2BF		④ 35.3-46.5		4142071	38.0	40.5	37.5	0								
					Banded, variably bioturbated, grey and dark grey, very fine grained calcarenite	Dolomite	072	40.5	43.4	38.0	0								
					Occasional fossiliferous and bioclastic horizons		073	42.4	45.0	38.5	0								
					Also beds of coarse grained equigranular calcarenite (? dolomitised)		074	43.0	46.5	39.0	0								
					Overlain by more massive, light grey, fine grained calcarenite					39.5	0								
					Overlain in turn by light grey, fine grained calcarenite and massive with dark grey argillaceous laminae					40.0	0								
										40.5	2								
										41.0	2								
										41.5	0								
										42.0	0								
										42.5	0								
										43.0	0								
										43.5	0								
										44.0	0								
										44.5	0								
										45.0	0								
										45.5	0								
										46.0	2								
										46.5	4								
										47.0	8								
										47.5	7								

CRA EXPLORATION PTY LIMITED
DRILL CORE LOG

CO-ORDINATES 375125mE AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No.....
 RL COLLAR 532494mN INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

Depth		Core		Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery							
From (m)	To (m)	Rec %	Rock Quality							Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %			
					⑤ 46.9-51.7 m					46.0	2								
					Fairly massive, dark grey, very fine grained dolarenite overlain by light grey, medium to coarse grained, recrystallised, equigranular dolarenite. Brecciated in parts.	Partially silicified in parts	4152075	46.5	48.7	46.5	8								
							076	48.7	49.7	49.0	3								
							077	49.7	51.7	49.5	6								
										50.0	5								
										50.5	0								
										51.0	2								
										51.5	2								
51.7	53.2		2F	Ogpe	<u>Coarse Grained Dolarenite</u>		078	51.7	53.25	52.0	15								
										52.5	18								
						Equigranular, partially silicified				53.0	11								
										53.5	7								
										54.0	5								
53.2	56.3		2BF	Ogdl	<u>Transition Unit</u>		079	53.25	54.15	54.5	5								
							080	54.15	55.6	55.0	6								
						Fine to very fine grained dolarenite with disrupted carbonaceous argillaceous laminae. Variably bioturbated				55.5	10								
						Fossiliferous (with brachiopod shells) bed at base of unit				56.0	6								
										56.5	5								
										57.0	10								
										57.5	12								
										58.0	2								
						Overlying laminated beds of dark grey, v. to grained dolarenite, light grey dolomitic, carbonaceous limestone, and micrite													
						Possibly significant clastic component													

304148

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

CO-ORDINATES 275128mE AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No.....
 RL COLLAR 537409.5m INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

Depth		Core Rec %	Rock Quality	Form Code	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	Dfrom (m)	Dto (m)	MagSus		Recovery							
From (m)	To (m)									Depth	Value	From (M)	To (M)	Cut (M)	Rec (M)	Rec %			
54.3	58.0		ZDF		<u>Clastic Unit</u>		442082	57.0	58.0										
					Very fine grained quartz sandstone with abundant dark grey and olive grey argillaceous matrix. Includes poorly sorted, gravelly conglomerate horizons. Subangular quartz and siltstone clasts.	Minor pyrite													
						<u>Surveys</u>													
						Depth Azim Incl													
						20m 054°Mag 48°													
						58m 056°Mag 46.5°													

304150

ANALYTICAL REPORT No.

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

ORDER No.

PROJECT

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TOTAL No. OF SAMPLES

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SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD

RESULTS TO

RESULTS TO

RESULTS TO

REMARKS

PP *M.A. [Signature]*
AUTHORISED OFFICER

**ANALYTICAL DATA**

REPORT NO.	REPORT DATE	CLIENT ORDER No.	PAGE
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104165.60.11892

23/05/96

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METHOD	Pb		Cu		Fe		K		Mg	
	61211	61211	61211	61211	61211	61211	61211	61211	61211	61211
1	4142054	0.0	0.15	0	25	21.77	0	0.49	0.42	2.00
2	4142060	0.0	0.83	0	41	26.85	0	0.40	0.47	2.00
3	4142065	0.7	0.40	0	38	27.30	0	0.43	0.23	2.00
4	4142067	0.1	0.67	0	50	21.37	0	0.50	0.47	2.00
5	4142068	0.5	1.04	0	71	20.00	0	0.89	0.55	2.00
6	4142069	0.9	0.80	0	32	22.47	0	1.77	0.43	2.00
7	4142070	0.9	1.21	0	55	27.77	0	0.54	0.57	2.00
8	4142071	0.0	1.15	0	38	29.30	0	0.70	0.80	2.00
9	4142072	0.7	0.55	0	54	28.00	0	0.70	0.25	2.00
10	4142073	0.0	1.77	0	100	17.15	0	0.70	1.90	2.00
11	4142074	0.0	0.15	0	169	10.70	0	0.90	0.70	2.00
12	4142075	0.0	0.15	0	30	11.00	0	0.00	0.00	2.00
13	4142076	0.0	0.15	0	40	11.00	0	0.00	0.00	2.00
14	4142077	0.0	0.15	0	104	11.00	0	0.00	0.00	2.00
15	4142078	0.0	0.15	0	0	10.00	0	0.00	0.00	2.00
16	4142079	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
17	4142080	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
18	4142081	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
19	4142082	0.0	0.15	0	104	10.00	0	0.00	0.00	2.00
20	4142083	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
21	4142084	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
22	4142085	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
23	4142086	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
24	4142087	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00
25	4142088	0.0	0.15	0	100	10.00	0	0.00	0.00	2.00

* - results in ppm unless otherwise specified
 - amount not determined
 ** - insufficient sample
 - sample not received

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ANALYTICAL DATA

304112

REPORT No. REPORT DATE CLIENT ORDER No. PAGE

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23/05/96

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METHOD	G1211	G1211	G1211	G1211	G1211	Ca	Cu	Fe	K	Mg
						G1211	G1211	G1211	G1211	G1211
1	4142087	0.5	0.45	0.5	0.5	29.12	5	0.71	0.23	0.17
2	4142080	1.9	0.12	0.5	0.5	29.45	5	0.40	0.07	0.11
3	4142091	10.5	0.36	0.5	0.5	19.94	7	1.06	0.20	0.11
4	4142072	0.5	1.55	0.5	0.5	22.08	5	0.89	0.5	0.11
5	4142093	0.5	0.75	0.5	0.5	20.30	10	2.45	0.41	0.11
6	4142094	0.5	0.70	0.5	0.5	18.14	5	1.40	0.37	0.11
7	4142095	0.9	1.29	0.5	0.5	24.20	5	0.79	0.68	0.11
8	4142090	0.7	1.35	0.5	0.5	27.57	5	0.50	0.57	0.11
9	4142097	1.4	0.20	0.5	0.5	34.35	5	0.50	0.57	0.11
10	4142070	10.5	0.4	0.5	0.5	28.07	5	0.50	0.79	0.11
11	4142077	0.5	1.53	0.5	0.5	30.54	5	0.75	1.00	0.11
12	4142070	0.5	0.45	0.5	0.5	30.30	5	0.70	0.80	0.11
13	4142070	0.5	0.40	0.5	0.5	31.85	5	0.70	0.80	0.11
14	4142070	0.5	0.40	0.5	0.5	31.57	5	0.70	0.80	0.11
15	4142070	0.5	0.35	0.5	0.5	31.77	5	0.70	0.80	0.11
16	4142074	0.5	0.30	0.5	0.5	30.35	5	0.50	0.80	0.11
17	4142070	0.5	0.35	0.5	0.5	31.00	5	0.50	0.80	0.11
18	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
19	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
20	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
21	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
22	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
23	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
24	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11
25	4142070	0.5	0.30	0.5	0.5	31.00	5	0.50	0.80	0.11

DD96-61033

data in part unless otherwise specified
element not determined

if insufficient sample
left = sample not analysed

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ANALYTICAL DATA

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METHOD	Sample ID	S		Ca		Cu		Fe		K	
		GI211									
1	5473514	0.77	1.33	0.75	1.70	17.00	0	3.02	0.74	0.11	
2	5473515	0.75	1.12	0.5	1.70	21.95	7	2.14	0.51	0.11	
3	5473516	0.5	0.77	0.5	1.67	21.21	0.5	1.69	0.43	7.7	
4	5473517	0.5	1.57	0.5	4.17	24.57	0.5	4.00	0.70	0.11	
5	5473518	0.15	0.83	0.5	1.61	15.95	0.5	2.35	0.45	0.11	
6	5473519	0.15	1.50	0.5	4.42	21.80	0.5	1.53	0.35	7.7	
7	5473520	0.5	0.49	0.5	2.19	25.23	0.5	0.99	0.35	0.11	
8	5473521	0.7	1.42	0.5	4.01	21.35	0.5	2.53	0.78	0.11	
9	5473522	0.5	2.21	0.5	7.10	19.17	0.5	2.71	0.37	0.11	
10	5473523	0.7	2.70	0.5	5.10	17.07	0.5	2.12	0.35	0.11	
11	5473524	0.15	1.97	0.5	1.66	15.08	0.5	1.80	0.52	0.11	
12	5473525	0.15	0.41	0.5	1.17	11.91	0.5	0.70	0.17	0.11	
13	5473526	0.15	1.33	0.5	1.66	14.03	0.5	1.12	0.17	0.11	
14	5473527	0.15	1.15	0.5	1.17	12.04	0.5	0.70	0.15	0.11	
15	5473528	0.15	0.74	0.5	1.17	10.06	0.5	0.61	0.15	0.11	
16	5473529	0.15	1.07	0.5	1.17	11.05	0.5	0.67	0.15	0.11	
17	5473530	0.15	1.43	0.5	1.17	12.04	0.5	0.70	0.15	0.11	
18	5473531	0.15	1.03	0.5	1.17	11.05	0.5	0.67	0.15	0.11	
19											
20											
21											
22											
23											
24	5473532	0.15	0.74	0.5	1.17	11.05	0.5	0.67	0.15	0.11	
25	5473533	0.15	0.74	0.5	1.17	11.05	0.5	0.67	0.15	0.11	

ANALYTICAL DATA

REPORT No. REPORT DATE CLIENT ORDER No. PAGE

104165.60.11892

23/05/96

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NO.	DESCRIPTION	UNIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	4142064	1000	10	10	10																						
2	4142065	1500	15	15	15																						
3	4142066	2100	21	21	21																						
4	4142067	3000	30	30	30																						
5	4142068	4000	40	40	40																						
6	4142069	5000	50	50	50																						
7	4142070	6000	60	60	60																						
8	4142071	7000	70	70	70																						
9	4142072	8000	80	80	80																						
10	4142073	9000	90	90	90																						
11	4142074	10000	100	100	100																						
12	4142075	11000	110	110	110																						
13	4142076	12000	120	120	120																						
14	4142077	13000	130	130	130																						
15	4142078	14000	140	140	140																						
16	4142079	15000	150	150	150																						
17	4142080	16000	160	160	160																						
18	4142081	17000	170	170	170																						
19	4142082	18000	180	180	180																						
20	4142083	19000	190	190	190																						
21	4142084	20000	200	200	200																						
22	4142085	21000	210	210	210																						
23	4142086	22000	220	220	220																						
24	4142087	23000	230	230	230																						
25	4142088	24000	240	240	240																						

16-2-16-4
5005

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ANALYTICAL DATA

REPORT NO.	REPORT DATE	CLIENT ORDER No.	PAGE
104155.50.11892	23/05/96	B2160	5 OF 5

ITEM NO.	DESCRIPTION	UNIT	QTY	PRICE	TOTAL	TAX	NET	GST	GRAND TOTAL
1	4142089	1420	18	87					
2	4142090	787	12	30					
3	4142091	2960	15	24					
4	4142092	1520	17	25					
5	4142093	6250	24	23					
6	4142094	4430	10	22					
7	4142095	494	25	17					
8	4142096	707	11	30					
9	4142097	1240	12	40					
10	4142098	415	24	12					
11	4142099	354	17	30					
12	4142100	305	17	24					
13	4142101	214	13	13					
14	4142102	200	17	8					
15	4142103	1040	14	11					
16	4142104	300	15	10					
17	4142105	1000	18	10					
18	4142106	800	17	10					
19	4142107	2000	17	10					
20	4142108	1000	17	10					
21	4142109	1000	19	10					
22	4142110	1000	17	10					
23	4142111	1000	17	10					
24	4142112	4000	17	10					
25	4142113	1000	17	10					

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ANALYTICAL DATA

REPORT NO.	104155.80.11892	REPORT DATE	23/05/96	CLIENT ORDER No.	82160	PAGE	5 OF 10
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METHOD	101	102	103	104	105	106	107	108	109	110
1	5473514	10000	14	24						
2	5473515	8850	14	24						
3	5473516	5990	14	24						
4	5473517	361	41	24						
5	5473518	9150	12	20						
6	5473519	6110	18	21						
7	5473520	2160	14	29						
8	5473521	1140	18	18						
9	5473522	2430	19	27						
10	5473523	1150	14	24						
11	5473524	4170	12	27						
12	5473525	1120	14	24						
13	5473526	1140	14	24						
14	5473527	1140	14	24						
15	5473528	1140	14	24						
16	5473529	1140	14	24						
17	5473530	1140	14	24						
18	5473531	1140	14	24						
19	5473532	1140	14	24						
20	5473533	1140	14	24						
21	5473534	1140	14	24						
22	5473535	1140	14	24						
23	5473536	1140	14	24						
24	5473537	1140	14	24						
25	5473538	1140	14	24						

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ANALYTICAL REPORT No.

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

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SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD

REMARKS

RESULTS TO

RESULTS TO

RESULTS TO

PP M.H. Good

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ANALYTICAL DATA

REPORT NO. 104165.60.11910 REPORT DATE 24/05/95 CLIENT ORDER No. 32153 PAGE 1 OF 4

METHOD	SAMPLE NO.	Ca				Cu		Fe		Mg	
		GI211									
1	5473534	0.5	0.59	0.5	13	23.84	0.5	0.55	0.25	9.0	
2	5473533	0.5	0.30	0.5	12	23.86	0.5	0.61	0.16	9.5	
3	5473534	0.5	0.89	0.5	21	20.65	0.5	0.59	0.37	10.4	
4	5473535	0.5	0.60	0.5	18	20.88	0.5	0.46	0.34	10.15	
5	5473536	0.9	0.82	0.5	36	26.96	0.5	0.41	0.48	6.0	
6	5473537	0.5	0.73	0.5	29	30.11	0.5	0.39	0.45	5.0	
7	5473538	0.5	0.83	0.5	25	31.06	0.5	0.42	0.30	2.0	
8	5473539	0.9	0.42	0.5	16	22.04	0.5	0.40	0.25	2.42	
9	5473540	0.7	0.64	0.5	20	31.09	0.5	0.43	0.37	1.0	
10	5473541	1.0	0.91	0.5	67	29.47	0.5	0.51	0.50	5.0	
11	5473542	1.0	0.51	0.5	41	31.40	0.5	0.51	0.31	4.0	
12	5473543	0.5	0.57	0.5	47	32.31	0.5	0.35	0.34	2.0	
13	5473544	1.0	0.57	0.5	4	24.37	0.5	0.21	0.25	1.0	
14	5473545	1.0	0.57	0.5	64	27.37	0.5	0.25	0.25	1.0	
15	5473546	0.5	0.95	0.5	19	22.17	0.5	0.50	0.25	2.0	
16	5473547	0.5	1.07	0.5	66	20.15	0.5	0.25	0.25	1.0	
17	5473548	0.5	0.72	0.5	204	20.20	0.5	0.27	0.25	1.0	
18	5473549	0.5	0.50	0.5	207	20.10	0.5	0.27	0.27	1.0	
19	5473550	0.5	0.70	0.5	120	20.17	0.5	0.28	0.25	1.0	
20	5473551	0.5	0.50	0.5	121	20.23	0.5	0.25	0.25	1.0	
21	5473552	0.5	0.61	0.5	134	22.47	0.5	0.25	0.25	1.0	
22	5473553	0.5	0.59	0.5	135	22.24	0.5	0.25	0.25	1.0	
23	5473554	0.5	0.50	0.5	137	22.14	0.5	0.25	0.25	1.0	
24	5473555	0.5	0.42	0.5	138	22.93	0.5	0.25	0.25	1.0	
25	5473556	0.5	0.50	0.5	139	22.67	0.5	0.25	0.25	1.0	

GI211 = 100% CaO, 100% Ca, 100% CaO
GI211 = 100% CaO, 100% Ca, 100% CaO
GI211 = 100% CaO, 100% Ca, 100% CaO

AUTHORISED OFFICER *PP 01.4. Good*



ANALYTICAL DATA

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METHOD	ELEMENT	UNIT	CONC	LIMIT	Ca		Cu		Fe		K		Mg	
					GI211									
1	5473559	0.5	2.20	10	287	2.77	10	2.81	2.23	
2	5473559	0.5	3.08	10	357	0.58	10	2.07	2.65	...	...	...	...
DO NOT SIGN!														
3	5473560	0.5	0.22	10	37	25.65	10	1.68	0.14	...	...	...	...
4	5473561	1.4	0.71	10	100	38.89	10	0.40	0.40	...	...	...	...
5	5473562	1.7	0.01	10	43	38.29	10	0.45	0.33	...	...	...	...
6	5473563	0.5	1.44	10	188	31.57	10	0.74	0.88	...	...	...	...
7	5473564	1.0	0.81	10	4530	29.49	10	0.90	0.47	...	...	...	...
8	5473565	1.2	0.53	10	3040	38.30	10	0.88	0.31	...	...	...	...
9	5473566	0.5	0.16	10	157	23.40	14	0.52	0.10	...	...	...	...
10	5473567	0.5	0.18	10	161	28.03	10	1.47	0.10	...	...	...	...
11	5473568	0.7	1.03	10	554	27.69	10	2.27	0.81	...	...	...	...
12	5473569	0.5	2.74	10	615	24.61	10	3.25	0.84	...	...	...	...
13	5473570	0.1	0.02	10	485	24.93	10	0.05	0.02	...	...	...	...
14	5473571	0.7	0.11	10	24	14.01	10	0.06	0.10	...	...	...	...
15	5473572	1.4	0.74	10	48	14.11	10	0.87	0.10	...	...	...	...
16	5473573	0.5	1.11	10	108	11.94	10	0.14	0.10	...	...	...	...
17	5473574	1.2	2.08	10	58	18.78	10	0.21	0.10	...	...	...	...
18	5473575	0.5	0.14	10	10	10.10	10	0.10	0.10	...	...	...	...
19	5473576	1.2	1.09	10	10	10.10	10	0.10	0.10	...	...	...	...
20														
21														
22														
23														
24	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	ppm	...	ppm	ppm	...	ppm	...	...	...	...	...	...

... ..
... ..
... ..

AUTHORISED OFFICER *ppm.A. Good*

ANALYTICAL DATA

TEST NO.	104165.60.11910	REPORT DATE	24/05/96	CLIENT ORDER No.	82163	PAGE	3 OF 4
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METHOD	TEST NO.	TEST RESULT							
1	5473532	58	21	39					
2	5473533	818	23	45					
3	5473534	511	16	36					
4	5473535	346	12	26					
5	5473536	209	27	31					
6	5473537	175	19	30					
7	5473538	145	14	30					
8	5473539	561	1180	34					
9	5473540	857	26	29					
10	5473541	405	41	32					
11	5473542	516	22	32					
12	5473543	257	16	31					
13	5473544	271	15	41					
14	5473545	271	24	41					
15	5473546	267	14	24					
16	5473547	281	14	66					
17	5473548	2837	26	76					
18	5473549	401	16	34					
19	5473550	442	17	37					
20	5473551	506	14	40					
21	5473552	554	17	33					
22	5473553	56	20	37					
23	5473554	56	14	29					
24	5473555	630	19	27					
25	5473557	5010	26	16					

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AUTHORISED OFFICER *PP M.A. Jones*



ANALYTICAL DATA

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METHOD									
1	5473558	2020	17	12					
2	5473559	138	10	13					
3	5473560	4710	10	27					
4	5473561	681	27	37					
5	5473562	170	21	36					
6	5473563	1030	24	33					
7	5473564	1580	22	32					
8	5473565	3670	19	28					
9	5473566	2650	17	28					
10	5473567	2610	19	27					
11	5473568	2680	21	25					
12	5473569	2700	18	25					
13	5473570	2670	18	28					
14	5473571	2620	14	24					
15	5473572	1160	11	26					
16	5473573	200	10	30					
17	5473574	410	30	417					
18	5473575	40	14	16					
19	5473576	100	11	17					
20									
21									
22									
23									
24									
25	GM 100	5000	5000	5000					

Results in grey indicate where sample was not analysed or where sample not determined

Results in white indicate where sample was analysed and sample received

AUTHORISED OFFICER *PP. M. I. [Signature]*

Appendix 5

**Abstract: Zinc Exploration in the Teepoonkana State Forest,
West Coast Tasmania**

ABSTRACT

Zinc Exploration in the Teepookana State Forest, West Coast Tasmania

S.A. Menpes, Senior Geologist
CRA Exploration Pty Limited

1. Challenges and Goals

CRAE is exploring for world class Irish-style zinc mineralisation within highly prospective carbonate rocks that underlie parts of the Teepookana State Forest, west coast Tasmania near Strahan. the forest was formerly incorporated in the South west Conservation Area and includes historically logged areas and virgin rainforest in more remote regions. Stands of valuable Huon, King Billy and Celery Top pine are preserved in the more remote regions.

The challenges we have faced include:

- ◆ to achieve minimal environmental disturbance in virgin rainforest containing protected tree species;
- ◆ adverse weather conditions, even during the summer months (2m average yearly rainfall);
- ◆ access difficulties;
- ◆ very poor bedrock exposure.

Our policy is to satisfy and wherever possible exceed the standards set by the Tasmanian Mineral Exploration Code of Practice, with due consideration to the health and safety of our employees and contractors. Achieving this goal in an environmentally sensitive and logistically difficult area has involved:

- ◆ careful planning;
- ◆ close liaison with the Environmental Field Officer from Industry, Safety and Mines Tasmania;
- ◆ the application of innovative exploration techniques.

2. Implementation

Line Cutting

Grid lines allow foot access to densely vegetated areas for mapping and geochemical sampling purposes. Grid lines are cut using chainsaws and slash hooks.

Specifications:

- ◆ cut grid lines do not exceed one metre in width;
- ◆ no saplings over 15cm diameter are felled unless imperative;
- ◆ track cutters recognise protected tree species (ie Huon, King Billy, Celery Top pine etc) and no seedlings, saplings or trees of these species are cut (living or fallen);
- ◆ biodegradable flagging tape and pine grid pegs are used for track marking.

Cut grid lines are generally not visible from the air. Vegetation regenerates naturally with time.

Geochemical Sampling

The prospective rocks generally occur in valleys with variable alluvial and colluvial cover. Hence a portable 'wacker' is used to drive small drill rods through the barren cover sequence and sample bedrock. Holes are drilled at regular intervals (ie 25m) along grid lines, and short 36mm diameter cores of weathered bedrock are retrieved. Samples are logged and assayed to create geological and geochemical maps.

All equipment is hand carried. The small holes created by sampling close over naturally.

Drilling

Diamond drillholes are used to test targets identified by the preceding mapping and geochemical sampling phase. Two options are available:

- ◆ A small and lightweight 'Gopher' diamond drill rig is used to drill 60-80m cored holes with minimal environmental disturbance. The rig is heli-transported to a small slinging site near the first drill site and then winched along the existing grid line to subsequent drill sites. The rig provides 8QTK sized core (41mm diameter) which is ample for geochemical sampling and geological purposes. However the depth capabilities of the lightweight Gopher are limited (<100m) by the difficult ground conditions generally associated with carbonates (ie caverns, significant water flow etc).
- ◆ Where deeper holes are required to test potentially mineralised targets, a larger diamond drill rig such as the Longyear is used. For safety and operational reasons, a drill site minimum 10m x 10m must be cleared to accommodate the rig and associated equipment. Larger clearings are necessary for safe helicopter slinging operations in areas of high vegetation or sloping ground. Hence careful planning is essential to minimise tree felling and avoid protected tree species, whilst satisfying the geological objectives of the drillhole.

Camp Nikita

The area being explored is particularly rugged, densely forested and remote. The only access is via a rough 4WD track and then a walking track - a minimum 1.5 hours one way travel time. Hence a semi-permanent camp has been set up near the centre of the exploration grid to improve exploration efficiency and effectiveness by reducing travel time and wear and tear of people and equipment.

An area 40m x 40m (1600sq m) was cleared to establish a multi-use helipad at Camp Nikita. In this instance environmental considerations were compromised for safety reasons, with the approval of Industry, Safety and Mines, and Forestry Tasmania. The helipad option was chosen over a much smaller 20m x 20m (400sq m) slinging site to enable timely helicopter emergency evacuations (medical/bushfire).

Camp Nikita is fully equipped with electric lights, water pressure pump and power outlets, gas operated cooking, heating, refrigeration and hot water facilities. Kitchen and recreational sheds, office tent, and individual sleeping tents. The camp has been designed to comfortably accommodate up to seven people.

Emergencies:

- ◆ Communication is via a portable satellite phone with fax attachment powered by a truck battery (1 spare) or the generator (direct connection or battery recharge). Backup communication is via a hand held UHF radio connected to a large aerial at camp.
- ◆ Stepwise emergency procedures are posted in the kitchen shed.
- ◆ A first aid kit, RFDS medical chest and lightweight Sked rescue stretcher are readily available.

- ◆ Confidential records detailing allergies and medical conditions of camp personnel are stored in the RFDS medical chest.
- ◆ A person with a minimum Senior First Aid qualification is the nominated First Aid Officer.
- ◆ The work location of camp personnel is recorded daily on a whiteboard.
- ◆ Tas Ambulance in Zeehan have been given topographic maps showing the camp's location and access.

General Safety:

- ◆ The generator has a circuit breaker that will trip with an amplitude spike;
- ◆ Electric leads from the generator to the camp are above head height, with weather proof housings at connections;
- ◆ All gas appliances and connections have been checked by a qualified gas fitter;
- ◆ Fire extinguishers and appropriate signs are present around all flammable agents and a fire blanket is attached to a wall in the kitchen shed. In addition a 200 litre water tank with fire fighting pump and hose is available on site;
- ◆ Stakes and stumps along walkways have been cut to ground level to prevent injury. Walkways are lined with shadecloth and chicken wire to provide a non-slip surface and prevent track deterioration in the ubiquitous wet conditions.

Environment:

- ◆ The camp is equipped with a fully sealed and ventilated, chemical free, long drop toilet operating on natural bacterial breakdown by methane producing anaerobic bacteria;
- ◆ All soaps, shampoos, hand de-greasers, detergents and disinfectants are biodegradable;
- ◆ Oil absorbent matting is used in all fuel dispensing areas and beneath the engines of water pumps and generators;
- ◆ Stakes and stumps away from walkways have been roped off to deter traffic and encourage regrowth;

- ◆ All potentially soil contaminated equipment is thoroughly washed prior to transport to site to prevent the introduction of the vegetation fungus *Phytophthora cinnamomi*;
- ◆ Where wire supports for electrical cords are attached to trees the wire is threaded through a protective hose sleeve.

Health, Safety and Environment inductions are carried out by a CRAE representative on the arrival of personnel at Camp Nikita. Inductions, equipment checks, and maintenance are recorded in the camp diary.

3. Rehabilitation Plan

Rehabilitation entails the removal of all equipment and rubbish, loosening of compacted areas, and the spreading of stockpiled vegetation over cleared areas. Stakes, stumps and seeds from cut vegetation will provide a basis for natural regeneration.

Sites will be periodically monitored to ensure that hygienic measures have prevented weed infestation, and regeneration is proceeding. Drill site and camp site inspections will be carried out at 1 month, 6 month and 12 month periods. All sites will be photographed and information recorded on Environmental Monitoring Sheets.

Appendix 6

Drill Site Environmental Monitoring Sheets

304169

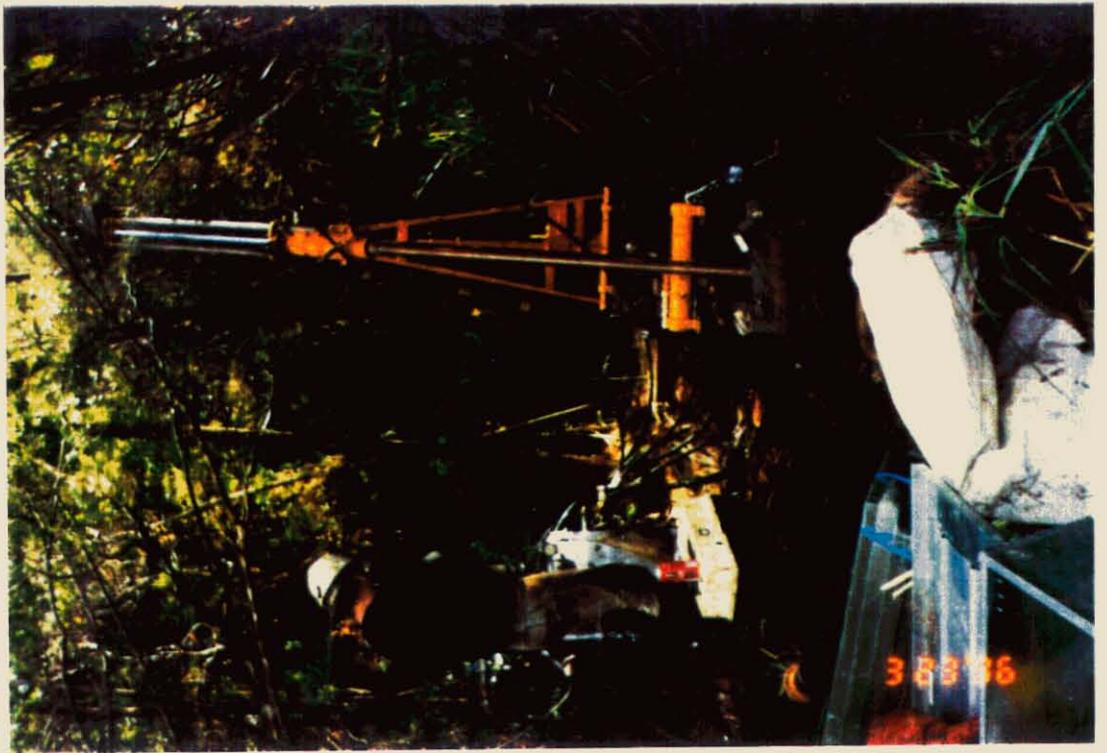
DD96SW1

23/3/96

'Gopher' rig

Looking approx

274° Mag



DD96SW1

23/3/96

View approx

Grid W

(237°)



DD96SW1

23/3/96



304170

DD96SW1

April '96

View approx

Grid West



DD96SW1

DD96SW1



Drill Site Environment Monitoring Sheet

Drill Hole & Site Details

Hole No: DD 96 SW 2

Location: Proposal No: EL No. & Name: EL 64/94 SWIFT CREEK
 AMG North: 5324123 AMG East: 375803 R.L.:
 AMG Zone: Mapsheet/s: TEEPOOKANA 3632 1:25,000

Landowner: N/A Property: N/A

Tenure: Freehold Leasehold Crown Land Other: State Forest

Topography: Flat Undulating Steep Very Steep

Vegetation: None Grassland Scrub Open Forest Dense Forest

Land Use: Grazing Cropping Forestry Mining Road/rail
 Recreation Residential Wilderness Heritage Conservation

Existing Disturbance Ref. to Environs: Undisturbed Minor Moderate Very disturbed

Soil Description: Soil pH: Soil salinity: Topsoil depth:

Photo taken: Date: April '96 Ref. Point: Looking GE along 10800N
Post drilling Bearing to Ref. Point: 069° AMG Distance: 5m

Comments:

Notifications & Approvals Prior to Drilling

Department of Industry, Safety and Mines Notification Date: Yes 13/3/96 Reference:
 Landowner Access Arrangement Date: Arranged by Dismt Valid till:
 Government Authority Approval Date: 21/3/96 6DJG 033.DOC INU

Land Tenure Check List

Exempted areas: Yes N/A Reserved Land: Yes N/A State Forest: Yes N/A
 Aboriginal culture / relics: Yes N/A Sensitive areas: Yes N/A Water licence: Yes N/A
 Endangered species: Yes N/A

Access & Site Preparation

Access track: Old track Cross country, compaction only Distance:m
Helicopter transported Vegetation cleared Area: 2 m x 90 m
rig. Winched 90m Topsoil removed & stockpiled Area:m xm
from SW1 site Track excavated / formed Area:m xm
 Drill pad: N/A Vegetation cleared Area: 4 m x 4 m
 Topsoil removed & stockpiled Area:m xm
 Pad excavated / levelled Area:m xm
 Sumps: N/A Vegetation cleared Number:
 Topsoil removed & stockpiled Number:
 Sump/s excavated Number:

Comments:

Drill Site Environment Monitoring Sheet

Drilling

Hole No: DD 96 - SW 2

Water Delivery: N/A Carted Piped or pumped

Water Source: Dam River/Creek Reticulated Bore Shaft

Ground Water: Dry Wet Flowing whilst drilling: Flowing when completed:

First water at (m): Water table at (m):

Ground Water Quality: Fresh Brackish Salty Very salty Unknown

Analysed: Yes No Details: DPO:

Minimization Measures: Biodegradable drill fluids Duck boards Bunds Ground sheets

Comments:
(including sump checks and fuel storage)

*Biodegradable hydraulic fluid - Biotec HYX (Castrol)
Oil absorbant matting beneath fuel drums
cuttings trapped by flowing returns into polyweave bags*

Rehabilitation

Hole backfilled: Yes No Backfilled with: Depth (m):

Hole plugged: Yes No Plug type: Depth (m):

Hole capped: Yes No Cap type: Depth (cms):

Hole sealed if flowing: N/A Yes No Details:

	N/A	Waste / Sludge removed	Landform restored	Topsoil replaced	Site ripped	Revegetated
Access Track:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drill pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump/s	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Details of Revegetation:

Date	Species	Details (seed/seedlings, quantity etc)

Comments: 75mm PVC casing to 2m

Post Drilling Monitoring & Photography

Date	Comments (include weed control)	Recorded by
1 month:		
6 month:		
12 month:		

Sign Off & Approvals

Geotech. or Rehab. Officer:..... Date:.....

Responsible Geologist:..... Date:.....

Landowner:..... Date:.....

304173

DD96502

April '96



DD96502

DD96502

DD96SW3

April '96

View looking

Grid East



DD96SW3

April '96

View looking

Grid West



304174



Drill Site Environment Monitoring Sheet

Drill Hole & Site Details

Hole No: DD96SW3

Location: Proposal No: EL No. & Name: EL64/94 Swift Creek
 AMG North: 5324105 AMG East: 375756 R.L.:
 AMG Zone: Mapsheet/s: Teepookana 3632 1:25,000

Landowner: N/A Property: N/A

Tenure: Freehold Leasehold Crown Land Other: State Forest

Topography: Flat Undulating Steep Very Steep

Vegetation: None Grassland Scrub Open Forest Dense Forest

Land Use: Grazing Cropping Forestry Mining Road/rail
 Recreation Residential Wilderness Heritage Conservation

Existing Disturbance Rel. to Environs: Undisturbed Minor Moderate Very disturbed

Soil Description: Soil pH: Soil salinity: Topsoil depth:

Photo taken: Date: April '96 Ref. Point: Photographed looking SE
Post drilling Bearing to Ref. Point: 069°AMD Distance: 7m

Comments:

Notifications & Approvals Prior to Drilling

Department of Industry, Safety and Mines Notification Date: 13/3/96 Reference:
 Landowner Access Arrangement Date: Arranged by Dism N/A Valid till:
 Government Authority Approval Date: 21/3/96 Ref GDTG033.DOC: NW

Land Tenure Check List

Exempted areas: Yes N/A Reserved Land: Yes N/A State Forest: N/A
 Aboriginal culture / relics: Yes N/A Sensitive areas: N/A Water licence: N/A
 Endangered species: Yes N/A

Access & Site Preparation

Grid line widened

Access track: Old track Cross country, compaction only Distance:m
 Vegetation cleared Area: 2.....m x 50.....m
 Topsoil removed & stockpiled Area:m xm
 Track excavated / formed Area:m xm

~~Site~~ Helicopter transported rig Winched 50m from SW2 site

Drill pad: N/A Vegetation cleared Area: 4.....m x 2.....m
 Topsoil removed & stockpiled Area:m xm
 Pad excavated / levelled Area:m xm

Sumps: N/A Vegetation cleared Number:.....
 Topsoil removed & stockpiled Number:.....
 Sump/s excavated Number:.....

Comments:

Drill Site Environment Monitoring Sheet

Drilling

Hole No: DD96303

Water Delivery: N/A Carted Piped or pumped

Water Source: Dam River/Creek Reticulated Bore Shaft

Ground Water: Dry Wet Flowing whilst drilling: Flowing when completed:

First water at (m): Water table at (m):

Ground Water Quality: Fresh Brackish Salty Very salty Unknown

Analysed: Yes No Details: DPO:

Minimization Measures: Biodegradable drill fluids Duck boards Bunds Ground sheets

Comments: (including sump checks and fuel storage)

Biodegradable oils (hydraulic fluid) - Biotec HVX (Castrol)
 Oil absorbant matting beneath fuel drums
 Returns (cuttings) trapped in polyweave bags. Water pumped into bags, cuttings settle, clean water flows over bag top

Rehabilitation

Hole backfilled: Yes **No** Backfilled with: Depth (m):

Hole plugged: Yes **No** Plug type: Depth (m):

Hole capped: Yes **No** Cap type: Depth (cms):

Hole sealed if flowing: **N/A** Yes No Details:

	N/A	Waste / Sludge removed	Landform restored	Topsoil replaced	Site ripped	Revegetated
Access Track:	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Drill pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Details of Revegetation:

Date	Species	Details (seed/seedlings, quantity etc)

Comments: Casing (PVC 75mm) to 6m

Post Drilling Monitoring & Photography

Date	Comments (include weed control)	Recorded by
1 month:		
6 month:		
12 month:		

Sign Off & Approvals

Geotech. or Rehab. Officer:..... Date:.....

Responsible Geologist:..... Date:.....

Landowner:..... Date:.....



Drill Site Environment Monitoring Sheet

Drill Hole & Site Details

Hole No: DD96SW4

Location: Proposal No:
AMG North: 5324094
AMG Zone:

EL No. & Name: 64/94 Swift Creek
AMG East: 375728 R.L.:
Mapsheet/s: Teepookana 3632 1:25,000

Landowner: N/A

Property: N/A

Tenure: Freehold Leasehold Crown Land Other: State Forest

Topography: Flat Undulating Steep Very Steep

Vegetation: None Grassland Scrub Open Forest Dense Forest

Land Use: Grazing Cropping Forestry Mining Road/rail
 Recreation Residential Wilderness Heritage Conservation

Existing Disturbance Rel. to Environs: Undisturbed Minor Moderate Very disturbed

Soil Description: Soil pH: Soil salinity: Topsoil depth:

Photo taken: Date: Ref. Point:
Bearing to Ref. Point: Distance:

Comments:

Notifications & Approvals Prior to Drilling

Department of Industry, Safety and Mines Notification Date: 13/3/96 Reference:
Landowner Access Arrangement Date: Arranged by DISH Valid till:
Government Authority Approval Date: 21/3/96 Ref LDTG 033.DOC: NW

Land Tenure Check List

Exempted areas: Yes N/A Reserved Land: Yes N/A State Forest: Yes N/A
Aboriginal culture / relics: Yes N/A Sensitive areas: Yes N/A Water licence: Yes N/A
Endangered species: Yes N/A

Access & Site Preparation

Access track: Old track Cross country, compaction only Distance:m
Helicopter transported rug Vegetation cleared Area: 30 m x 2 m
Winched 30m from SW3 Topsoil removed & stockpiled Area:m xm
 Track excavated / formed Area:m xm
Drill pad: N/A Vegetation cleared Area: 2 m x 4 m
 Topsoil removed & stockpiled Area:m xm
 Pad excavated / levelled Area:m xm
Sumps: N/A Vegetation cleared Number:
 Topsoil removed & stockpiled Number:
 Sump/s excavated Number:

Comments:

Drill Site Environment Monitoring Sheet

Drilling

Hole No: DD96SW4

Water Delivery: N/A Carted Piped or pumped

Water Source: Dam River/Creek Reticulated Bore Shaft

Ground Water: Dry Wet Flowing whilst drilling: Flowing when completed:

First water at (m): 26.0 m (approx) Water table at (m):

Ground Water Quality: Fresh Brackish Salty Very salty Unknown

Analysed: Yes No Details: DPO:

Minimization Measures: Biodegradable drill fluids Duck boards Bunds Ground sheets

Comments: (including sump checks and fuel storage)
Biodegradable hydraulic fluid - Biotec HVX (Castrol)
Oil absorbant matting beneath fuel drums
Cuttings trapped in polyweave bags

Rehabilitation

Hole backfilled: Yes No Backfilled with: Depth (m):

Hole plugged: Yes No Plug type: 2x wooden, rags etc Depth (m):

Hole capped: Yes No Cap type: Depth (cms):

Hole sealed if flowing: N/A Yes No Details:

	N/A	Waste / Sludge removed	Landform restored	Topsoil replaced	Site ripped	Revegetated
Access Track:	<input type="checkbox"/>					
Drill pad	<input type="checkbox"/>					
Sump/s	<input type="checkbox"/>					

Details of Revegetation:

Date	Species	Details (seed/seedlings, quantity etc)

Comments: Steel casing to 3m (couldn't be retrieved)
2x wooden plugs, several rags etc
3m and above.

Post Drilling Monitoring & Photography

Date	Comments (include weed control)	Recorded by
1 month:		
6 month:		
12 month:		

Sign Off & Approvals

Geotech. or Rehab. Officer:..... Date:.....

Responsible Geologist:..... Date:.....

Landowner:..... Date:.....

Drill Site Environment Monitoring Sheet

Drilling Hole No: DD96905

Water Delivery: N/A Carted Piped or pumped

Water Source: Dam River/Creek Reticulated Bore Shaft

Ground Water: Dry Wet Flowing whilst drilling: Flowing when completed:

First water at (m): 25m (approx) Water table at (m):

Ground Water Quality: Fresh Brackish Salty Very salty Unknown

Analysed: Yes No Details: DPO:

Minimization Measures: Biodegradable drill fluids Duck boards Bunds Ground sheets

Comments: (including pump checks and fuel storage)

Biodegradable hydraulic fluid - Biotec HVX (Castrol)
 Oil absorbant matting beneath fuel drums
 Cuttings trapped in polyweave bags

Rehabilitation

Hole backfilled: Yes No Backfilled with: Depth (m):

Hole plugged: Yes No Plug type: Several rags Depth (m):

Hole capped: Yes No Cap type: Depth (cms):

Hole sealed if flowing: N/A Yes No Details:

	N/A	Waste / Sludge removed	Landform restored	Topsoil replaced	Site ripped	Revegetated
Access Track:	<input type="checkbox"/>					
Drill pad	<input type="checkbox"/>					
Sump/s	<input type="checkbox"/>					

Details of Revegetation:

Date	Species	Details (seed/seedlings, quantity etc)

Comments: 75 mm PVC casing to 0.5m
Hole plugged 2.0-0.5m (top of BQTK hole)
with several rags

Post Drilling Monitoring & Photography

Date	Comments (include weed control)	Recorded by
1 month:		
6 month:		
12 month:		

Sign Off & Approvals

Geotech. or Rehab. Officer: Date:

Responsible Geologist: Date:

Landowner: Date:

Drill Site Environment Monitoring Sheet

Drilling

Hole No: DD96SW1

Water Delivery: N/A Carted Piped or pumped

Water Source: Dam River/Creek Reticulated Bore Shaft

Ground Water: Dry Wet Flowing whilst drilling: Flowing when completed:

First water at (m): Water table at (m):

Ground Water Quality: Fresh Brackish Salty Very salty Unknown

Analysed: Yes No Details: DPO:

Minimization Measures: Biodegradable drill fluids Duck boards Bunds Ground sheets

Comments: (including sump checks and fuel storage)
*Biodegradable hydraulic fluid - Biotech HVX (Castrol)
 oil absorbant matting beneath fuel drums
 cuttings trapped in polyweave bags. (Returns run through polyweave bag)*

Rehabilitation

Hole backfilled: Yes No Backfilled with: Depth (m):

Hole plugged: Yes No Plug type: Depth (m):

Hole capped: Yes No Cap type: Depth (cms):

Hole sealed if flowing: N/A Yes No Details:

	N/A	Waste / Sludge removed	Landform restored	Topsoll replaced	Site ripped	Revegetated
Access Track:	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Drill pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Details of Revegetation:

Date	Species	Details (seed/seedlings, quantity etc)

Comments: *75 mm PVC casing to 1.5m
 Hole making very minor fresh water (near surface) when completed*

Post Drilling Monitoring & Photography

Date	Comments (include weed control)	Recorded by
1 month:		
6 month:		
12 month:		

Sign Off & Approvals

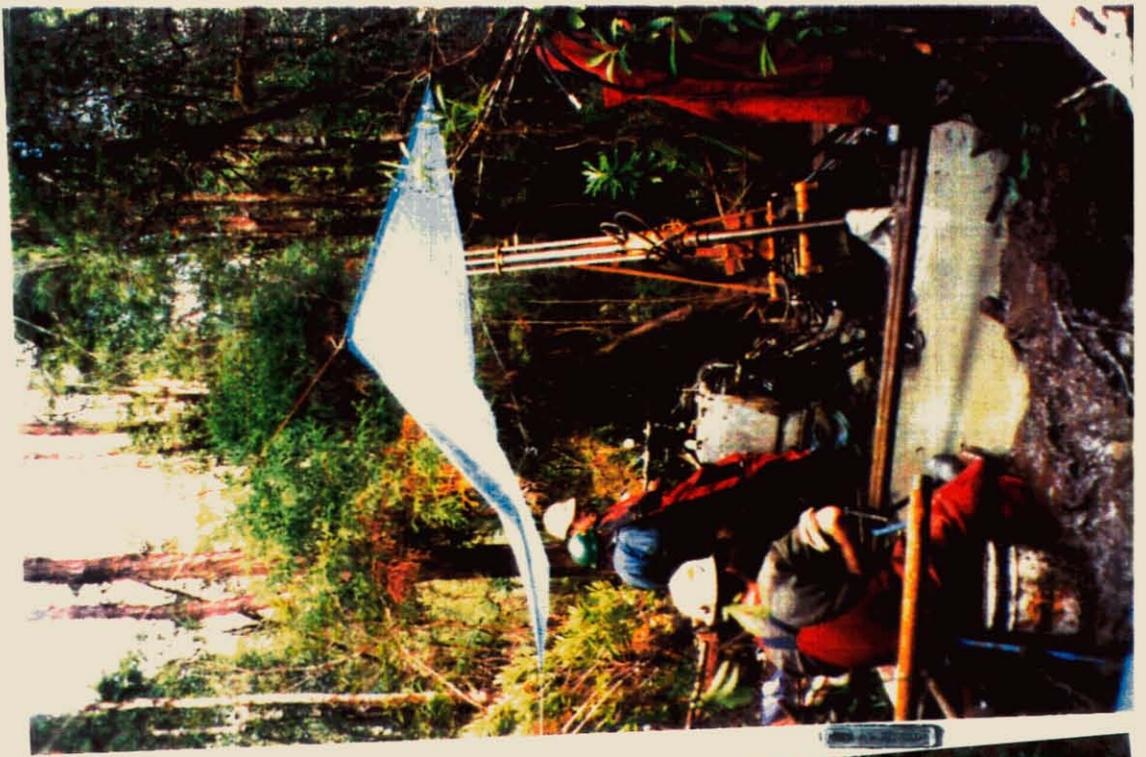
Geotech. or Rehab. Officer: Date:

Responsible Geologist: Date:

Landowner: Date:

DD96SW5
(Same site
as DD96SW4)
April '96
View to
Grid West

304183



DD96SW5
April '96
View to
Grid West

