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Report No: 87/78

PANCONTINENTAL MINING LIMITED

NORTH PINNACLES PROSPECT, A PART OF THE E.L. 12/72 BULGOBAC, TASMANIA

ANNUAL REPORT
26 DECEMBER 1986 TO 25 DECEMBER 1987

Compiled by:

Pancontinental Mining Limited
Sydney, November 1987

K.O. Airas,
Manager of Pancon-Outokumpu Joint Venture

Distribution

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Copy 4: Electrolytic Zinc Co.
Copy 5: Little River Resources
Copy 6: Department of Mines, Tasmania

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1. INTRODUCTION

This report describes the work carried out on the North Pinnacles prospect only, during the year of tenure from 26 December 1986 to 25 December 1987. North Pinnacles is a part of the E.L. 12/72, Bulgobac (Figure 1). A separate final report has been compiled referring to the major part of the E.L. outside of North Pinnacles.

The work has been conducted by Pancontinental Mining Limited as operator, on behalf of the Bulgobac Joint Venture, where the parties are Electrolytic Zinc Co, Little River Resources and Pancontinental Mining/Outokumpu Oy of Finland.

2. LOCATION

The North Pinnacles prospect is located in the south-western corner of the E.L., 14km north of the Rosebery Mine in Western Tasmania (Figure 1).

3. TITLE

The exploration Licence No 12/72, covering a total area of 94 square kilometres, was granted to EZ in 1972. The licence will expire on 25 December 1987 and the major part of the area will be relinquished. However, an application will be lodged for an extension of the tenure to the North Pinnacles prospect, an area of about 4.5 square kilometres.

4. SUMMARY OF THE WORK CARRIED OUT

The aim of the exploration on the Bulgobac EL area has been the discovery of VMS ore deposits of the Rosebery and Que River/Hellyer types.

The geological setting of North Pinnacles consists of feldspar-phyric rhyolitic lavas (Burns Peak Rhyolite) as the core of a NNE-plunging anticline flanked by a sequence of sandstone, greywacke, siltstone and shale to the west and east.

The previous exploration conducted by Electrolytic Zinc Company included three diamond drill holes to evaluate geochemical and geophysical targets. Minor Pb/Zn mineralisation was intersected, mainly in sediments, but also in volcanics. The exploration potential of the North Pinnacles prospect was reviewed in May 1987 (Report No: 87/33 by W. Herrmann). A conclusion was drawn that the mineralised drill intersection in rhyolite, comprising 41m at 0.25 g/t Au in drill hole NPP 215, could indicate a distal part of a VMS system (like the distal pyritic mineralisation at the edges of sphalerite - galena - pyrite mineralisation in Rosebery (Huston et. al. 1986) or the footwall precious metal zone at Que River (Mc Goldrick et. al. 1986).

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A silica-sericite-carbonate alteration zone with low grade Zn, Pb values and geochemically anomalous gold appeared to be restricted to one particular brecciated rhyolitic lava unit in the hole. The potential for a massive sulphide basemetal deposit was checked by a EM-37 geophysical survey and by re-mapping over the rhyolite ridge.

Both the survey and the mapping were conducted in October by the current operators.

5. RESULTS OF THE SURVEYS CONDUCTED

The EM survey did not detect any conductors that might represent a massive sulphide orebody, (Report Number: 87/79 by D.R. Wilson)? 87-2742. The resistive geology and large loop size should have achieved excellent depth penetration for a large target.

Geological mapping has not led to any revision of the previous geological structural interpretation.

However, outcrop rock chip sampling has led to the recognition of anomalous gold values in brecciated rhyolite, of similar mineralisation style and locally higher gold grade to the auriferous intersection in previous drill hole NPP 215, located some 200m north of the latter. A memorandum on the mapping is attached as Appendix 1.

6. CONCLUSIONS AND RECOMMENDATIONS

The results of the EM-37 survey downgrade the possibility of a major massive sulphide deposit occurring down to a depth of several hundred metres.

The gold content of rock chip samples taken from outcrops together with the anomalous gold values in previous drill results are considered highly encouraging. Further exploration is recommended to follow-up this auriferous zone.

7. SUMMARY OF THE PROPOSED FUTURE EXPLORATION

A rock chip geochemical survey will be carried out over the North Pinnacles ridge, together with a bedrock soil geochemical survey using a Wacker drill. If the results of these surveys are sufficiently encouraging, a drilling program will be conducted to evaluate the size and grade of the anomalous gold zone.

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8. REFERENCES

1. Airas, K.O., 1987: On the Petrology and Chemistry of some handspecimens from Bulgobac EL 12/72, Unpublished company (Pancontinental) Report Number 87/47.

2. Herrmann, W., 1987: Exploration Potential of North Pinnacles and East Bulgobac Areas, E.L. 12/72 Tasmania, Unpublished company (Pancontinental) Report No: 87/33.

3. Huston, D.L. and Large R.R., 1986: Gold Mineralisation in the Rosebery North Lodes, in Large R.R. (ad). The Mount Read Volcanics and associated ore deposits. Geological Society of Australia Tasmania Division, Hobart.

4. McGoldrick, Peter and Large, Ross, 1986: Preliminary report on the footwall precious metal zone, Que River, in a confidential AMIRA progress report of the project: Controls on Gold and Silver Grades in Volcanogenic Sulphide Deposits (84/P210), University of Tasmania.

5. Wilson, D.R., 1987: Report on an EM37 Survey North Pinnacles Prospect Bulgobac E.L. 12/72 Tasmania, Unpublished company (Pancontinental) Report Number: 87/79.

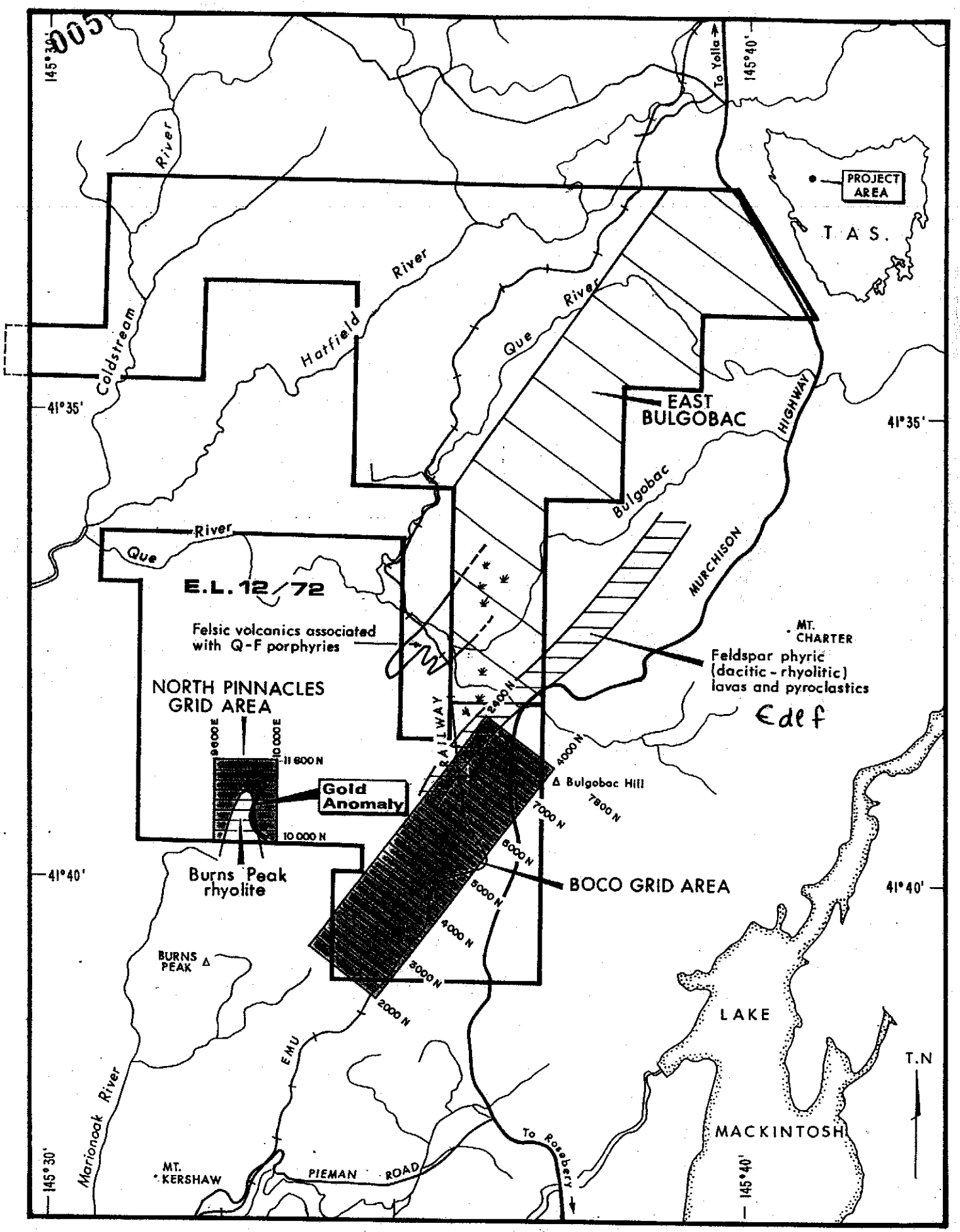

FIGURE 1

BULGOBAC PROJECT

E.L. 12/72 - TASMANIA

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MEMORANDUM

TO: K.O. Airas (PANCONTINENTAL-OUTOKUMPU J.V., Sydney)

FROM: W. Herrmann (Contract Geologist, RSD 1066 Devonport, 7310)

DATE: 26/10/87

SUBJECT: **Geological Mapping and Rock Chip Sampling of North Pinnacles Grid E.L. 12/72 TASMANIA.**

SUMMARY:

Geological mapping of the new SIROTEM grid at North Pinnacles has not led to any revision of the previous geological/ structural interpretation.

Outcrop rock chip sampling has led to the recognition of anomalous gold values in brecciated rhyolite, of similar mineralization style to the auriferous intersection in previous drill hole NPP 215, located some 200m north of the latter. This suggests that the zone (or zones?) of gold mineralization may be of greater extent and grade than previously realized.

On the basis of some similarities to the Precious Metal Zone Stringer occurring in parts of the footwall of the Que River massive sulphide deposit, the North Pinnacles gold occurrence is regarded as a favourable indicator for VMS prospectivity of the area and refloats the possibility of a low grade-high tonnage gold deposit.

GEOLOGY:

Geological mapping along the 200m spaced grid lines re-cut for the recent SIROTEM geophysical, survey, was carried out during 29/9 - 2/10/87.

The results, portrayed on the enclosed Figure 1 at 1:5000 scale are essentially similar to previous E.Z. Co. mapping and the geological/structural interpretation remains as described in my report of 19/5/87 (Section 3.3, p15-16).

Really, the only geological surprise is the near absence of exposure away from the bulldozed access tracks. The E.Z. Co. map (reproduced as Pancontinental Dwg. No. 108/E/3 at 1:10000 Scale) shows fairly good geological detail on all lines even in the north eastern part of the grid where I could locate no outcrops. I assume that this implies that the E.Z. data was obtained from logging of rock chips from C-Horizon geochemical sample holes although I do not recall any specific mention of this in the E.Z. Co. reports.
In the absence of outcrop information I have used the E.Z. Co. boundary to show the rhyolite-sediment contact on Figure 1.

The exact nature of the rhyolite-sediment contact is still a little uncertain. It is evident that:

(a) Bedding plane orientations in the sediments are generally parallel to the plane of contact.

(b) Facing (or younging) direction is everywhere away from the contact; ie sediments overly the rhyolite.

008

(c) Sedimentary lithologies are similar on both eastern and western flanks of the rhyolite ridge with quartzo-feldspathic epiclastic sandstone units prominent close to the contact but diminishing up sequence as finer grained siltstones and shales become dominant.
Corbett (1986) reported successive onlapping of sedimentary units against the "North Pinnacles palaeo ridge" but the outcrop in the SIROTEM grid area is insufficient to substantiate this.

(d) Small assymmetric folds in bedded sediments near the western contact near 11000N and the eastern contact near 10200N have a vergence suggesting a major anticlinal axis along the North Pinnacles ridge and plunge consistently to NNE-NE which is parallel to the regional axial direction.

It seems likely that the contact is essentially a depositional boundary. Due to the massive nature of the underlying rhyolite it is difficult to determine if the boundary is conformable or otherwise.
It is very likely that the contact has been folded such that the rhyolite of the North Pinnacles ridge represents the core of a shallow to moderately NNE plunging anticline.

GEOCHEMISTRY:

Rock chip samples were collected from a few outcrops either showing signs of alteration/mineralization or as a source of background data and also from some zones of Pb, Zn anomalous C-Horizon geochemistry to provide a check of the soil sampling data.

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Sample locations (E 101516-101535) are shown on the 1:5000 Geological Plan.
Samples were analysed by ANALABS, Burnie for Cu,Pb,Zn,Fe,Mn,Ag (method 101), As (method 114), Au (method 309) and the results presented in analytical reports No 109.5.08.04803 and 109.5.08.04836.

The analytical results presented two surprises:

(1) Anomalous Pb, Ag, Au (Sample No E101519) from an outcrop near 10400N/10280E of weakly silicified rhyolite with patchy siliceous stockwork veining and (gossanous) traces of disseminated sulphide (probably mainly pyrite) to about 3% of volume. Subsequent resampling of five locations upon the outcrop by K. Airas (Sample Numbers E101527-101531) indicated lead values in the range 515-1100ppm, silver: <0.5-4.5g/t, arsenic: 170-670ppm and gold: 0.15-2.2g/t.
The relative distribution of these five samples (representing virtually the full extent of the outcrop) are shown on Figure 1 (in set) with corresponding gold values.

This auriferous outcrop is situated about 200m north of NPP 215 which intersected a 20.3m (down hole) zone grading 0.2 g/tAu within brecciated rhyolite cemented by fine grey silica with disseminated pyrite, galena, sphalerite and rare chalcopyrite, arsenopyrite mineralization (Herrmann 19/5/87, Section 3.2, 3.3).

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Although the outcrop does not contain significantly anomalous zinc (this may be due to weathering ?) the levels of lead, arsenic and gold are broadly comparable to those in drill hole NPP 215 and the style of mineralization appears to be identical. This suggests that the zone (or zones?) of gold mineralization within the rhyolite are of greater extent and higher gold grade than previously recognized.

Due to the finely disseminated nature of associated sulphides and therefore possibly also gold, I think bedrock geochemical sampling (in the general absence of outcrop) would be a useful method of defining the surface extent of this type of mineralization. One would expect lead and arsenic to be useful pathfinder elements. Due to the fairly low sulphide content (average 2-3%?) it is unlikely that the mineralization will be detected by SIROTEM. Induced Polarization may be more appropriate and a geophysical review of the data quality and results of the previous(Scintrex for E.Z. Co.) dipole-dipole IP surveys would be worthwhile.
(NPP 215 was targetted on co-incident Pb geochemistry and IP anomaly. Another "significant" IP anomaly was reported (Mollison, 1980) at 5387 300N/379 080E which would lie 50m east of the auriferous outcrop on 10400N).

The style of mineralization appears to have some similarities with the precious metal stringer zone (PMZ) occurring in the footwall of part of the Que River base metal sulphide deposit as discussed by McGoldrick and Large (1987). These authors note the importance of broad dispersed stringer zones in rocks of high porosity or permeability as controls

on development of PMZ mineralization in the peripheral (sea water mixing) parts of VMS related hydrothermal circulation systems.
They also indicate that feldspar is a prominent alteration mineral associated with the PMZ at Que River, probably reflecting lower temperature and moderate pH.
Geochemical and petrographic data, reported by Airas (1987), for three core specimens from drill hole NPP 215 indicate strong sodium depletion, potassium enrichment and K-feldspar development in Sample No. 19848 from within the gold anomalous brecciated rhyolite zone.

The PMZ analogy also appears to align with Gregory's (1986) report of an extensive envelope of sphalerite-galena veining surrounding a pyrite-chalcopyrite feeder zone underlying a massive sulphide lens near Brown's Tunnel at the Pinnacles.

The recognition of possibly extensive gold mineralization at North Pinnacles, which is perhaps analogous to the PMZ of Que River, is a favourable indicator for VMS prospectivity of the area and may present potential for a low grade-high tonnage gold deposit.

2. Anomalous lead in chip/channel samples across the the northwestern rhyolite-sediment contact where it is crossed by The Silver Falls Road near 11000N. The sample locations are shown on Figure 1. Sample numbers, locations and significant assays are listed below:

(Representative chip samples were obtained over approx. 25m sections from weathered rocks exposed along the road. The zero datum for these samples is the rhyolite-sediment contact, ie: 25-50W is in sediments in the interval 25 to 50 metres generally west or north west from the contact.)

Sample No	Rock type	Location	Pb	Zn	Mn	(in ppm)
E101523	Rhyolite	0-25E	280	50	310	
101522	Sediments	0-25W	2700	125	6250	
101533	Sediments	25-50W	1500	210	4750	
101534	Sediments	50-75W	820	190	4100	
101535	Sediments	75-100W	315	95	1050	

Sample No. E101524 containing 740Pb, 405Zn, 50Mn, 15Ag and 0.1Au was from a loose (but probably very locally derived) floater consisting of brecciated feldspar phyric rhyolite with interbreccia spaces filled with grey siliceous material containing abundant fine pyrite estimated at 5-10% per volume. The floater was located on the roadside about 2m east of the rhyolite-sediment contact. The style of mineralization resembles that in NPP 215 (discussed above) and the anomalous silver and gold also suggests an affinity. There are some patches of moderate iron staining within the weathered rhyolite exposed in the road for some 50m east of the contact. Sample E101524 could represent a less weathered kernel from one of these patches but chip sample E101523 does not suggest any extensive development of this mineralization close to the contact here.

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The high lead values in the sediments to the west of the contact are surprising and the source is not obvious. It is possible that some unnoticed "epigenetic" vein style mineralization similar to that logged in drill holes NPP 213, 214 by Mollison (1980) occurs here, perhaps concentrated by structural factors related to the folding of the rhyolite-sediment contact.

On the other hand there is quite striking correlation between lead and manganese values in the sediments west of the contact, levels of both elements decreasing away from the contact. As pointed out by Kari Airas (pers. comm. in field) ground water is rising to the surface in the vicinity of the contact exposed in The Silver Falls Road. This water then drains along the road downhill to the west and north-west. Since the rock chip samples were from weathered rocks exposed in washouts in the road it seems possible that these anomalies are derived by secondary surficial precipitation of metals from the rising ground water.

Although geochemically interesting neither of these possible modes of origin would appear to warrant follow up in an exploration programme designed to discover VMS deposits. A line of bedrock (Wacker) geochemical sampling parallel to and (say) 20m south of the road might help the interpretation, if the sampling equipment is in the area.

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GRIDDING:

On Figure 1 the baseline of the SIROTEM grid is located within a few metres of accuracy in relation to the bulldozed tracks.

The cross lines seem to essentially follow the old E.Z. Co. grid lines and there is satisfactory correlation between old and new eastings so that previous geochemical and geophysical data can be confidently transposed if required. For instance on line 10600N the position of 10610E corresponds with old grid co-ordinate 5387 500N/379 360E and lies within a few metres of this position scaled off the AMG 1km grid shown on the base plan for Figure 1. Likewise 11400N/10580E (new grid) corresponds to position of 5388 300N/379 360E (old grid) which plots within 20m of its "theoretical" position with respect to the AMG 1km grid base.

I did notice, whilst measuring along the eastern and western "loop" lines (9600E and 10800E), that distances between the ends of the cross lines varied by as much 40m from the desired 200m. This has no doubt arisen due to line errors in the old grid.

Since my 'survey' measurements are incomplete I have not tried to "adjust" the bearings of the cross lines and these are portrayed on Figure 1 as being in the "theoretical" true east-west direction.

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REFERENCES:

1.	Airas, K.O.	1987	"On the petrology and chemistry of some hand specimens from the Bulgobac E.L. 12/72". PANCONTINENTAIL MINING LTD. Exploration Div. Report No. 87/47.
2.	Corbett,K.D.	1986	"Geological setting of mineralization in the Mt Read Volcanics". Abstracts: Mt Read Volcanics and associated ore deposits. A Symposuim, Burnie Nov. 1986.
3.	Gregory, P.W.	1986	"Some geological aspects of massive and disseminated base metal mineralization in the Pinnacles area, NW Tasmania". Abstracts: Mt Read Volcanics and associated ore deposits. A Symposuim, Burnie Nov. 1986.
4.	Herrmann, W.	May 1987	"Exploration Potential of North Pinnacles and East Bulgobac Areas. E.L. 12/72 TASMANIA". PANCONTINENTAL MINING LTD. Exploration Div. Report No. 87/33.
5.	McGoldrick, P.J. and Large, R.R.	1987	"Final Report on the footwall Precious Metal Zone, Que River. AMIRA PROJECT 84/P210. Controls on gold and silver grades in volcanogenic sulphide deposits. 2nd Annual Report. Aug.1987.
6.	Mollison, A.J.	1980	"E.L. 12/72 Progress Report on Activity Oct. 1979-June 1980". E.Z. Co. WEST COAST MINES. Geological Dept. Report No. 132.

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ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.
Phone (09) 458 7999
52 Murray Road, Welshpool, W.A. 6106
FAX: 004 31 8890
Telex AA92560

ANALYTICAL REPORT No. 109.5.08.04803

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

Kari Airas
Pancontinental Mining Ltd.
2nd Floor, 9-13 Young St.
Sydney
N.S.W. 2000

ORDER No.	PROJECT
51537	

DATE RECEIVED	RESULTS REQUIRED
06/10/87	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
1	13/10/87	1	11

STATE OF SAMPLES (REFER BELOW)	SAMPLE NUMBERS	PRE-TREATMENT: DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	ANALYSIS: REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	E101516/526	RC	Prep: 005	009,011	012,013	016			Cu,Pb,Zn,Fe,Mn,Ag/101,As/114		
	E101516/526	RC							Au/309		
	E101516/526	RC							AuChk/309		

RESULTS TO
Kari Airas
Pancontinental Mining Ltd.
2nd Floor, 9-13 Young St.
Sydney
N.S.W. 2000

RESULTS TO
W. Herrmann
Pancontinental Mining Limited
R.S.D. 1066
Devonport
Tasmania 7310

REMARKS

NORTH PINNACLES
EL 12/72 TAS.

STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	109.5.08.04803	13/10/87	51537	1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Fe	Mn	Ag	As	Au	AuChk
1	E101516	5	340	40	0.47	65	1.0	160	<0.008	-
2	E101517	5	45	30	0.68	110	1.0	16	<0.008	-
3	E101518	<5	20	20	0.39	75	0.5	10	<0.008	-
4	E101519	25	1750	120	1.25	30	4.5	720	1.900	1.510
5	E101520	40	260	330	4.05	1250	2.0	100	<0.008	-
6	E101521	25	475	60	7.50	20	2.5	3100	0.040	-
7	E101522	55	2700	125	3.00	6250	1.0	410	<0.008	-
8	E101523	40	280	50	2.25	310	1.0	100	<0.008	-
9	E101524	85	740	405	3.00	50	15.0	340	0.100	-
10	E101525	40	400	130	3.75	90	0.5	69	<0.008	-
11	E101526	5	321	55	1.25	30	1.0	180	<0.008	-
12										
13										
14										
15										
16	-						NORTH PINNACLE			
17										
18										
19										
20										
21										
22										
23	DETECTION	5	5	5	0.05	5	0.5	1	0.008	0.008
24	UNITS	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM
25	METHOD	101	101	101	101	101	101	114	309	309

Results in ppm unless otherwise specified
T = element present, but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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ANALYTICAL REPORT No. 609.5.08.04836

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

W. Herrmann
Pancontinental Mining Limited
R.S.D. 1066
Devonport
Tasmania 7310

ORDER No.	PROJECT

DATE RECEIVED	RESULTS REQUIRED
19/10/87	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
2	23/10/87	1	13

STATE OF SAMPLES	PRE-TREATMENT								ANALYSIS			
REFER BELOW	SAMPLE NUMBERS	DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE		REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	B101527/39	RC	Prep: 006	010,011	,012,013,016				Cu,Pb,Zn,Ag,Fe,Mn/101,As/114			
	B101527/39	RC							Au,AuChk/309			
	B101527/39	RC	Prep: 006	010,011	,012,013,016				Pb,Zn/104			

RESULTS TO: W. Herrmann
Pancontinental Mining Limited
R.S.D. 1066
Devonport
Tasmania 7310

RESULTS TO:

REMARKS

9/13 : North Pinnacles EL 12/92 TAS

4/13 : Beatrice, Hursley West Coast Range Exempt Area. Tas

STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	109.5.08.04836	23/10/87		1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Pb	Zn	Zn	Ag	Fe	Mn	As
1	E101527	15	655	–	55	–	<0.5	1.15	30	270
2	E101528	15	900	–	100	–	4.5	1.30	35	500
3	E101529	25	515	–	170	–	1.5	0.59	30	170
4	E101530	15	950	–	60	–	3.0	1.10	100	670
5	E101531	15	1100	–	165	–	1.5	1.10	45	210
6	E101532	5	80	–	5	–	0.5	0.56	45	4
7	E101533	40	1500	–	210	–	<0.5	4.70	4750	28
8	E101534	50	820	–	190	–	<0.5	4.05	4100	68
9	E101535	25	315	–	95	–	<0.5	3.25	1050	14
10	E101536	30	–	3250	–	12600	1.5	4.55	<5	23
11	E101537	30	365	–	205	–	<0.5	9.80	2100	50
12	E101538	75	–	10600	–	5100	<0.5	11.80	8	22
13	E101539	20	720	–	2050	–	<0.5	8.95	<5	8
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	5	5	25	5	25	0.5	0.05	5	1
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM
25	METHOD	101	101	104	101	104	101	101	101	114

North Pinnacles

9/12 NORTH PINNACLES EC 12/92 RTS

Results in ppm unless otherwise specified
T = element present, but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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020

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848021

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	109.5.08.04836	23/10/87		2 OF 2

TUBE No.	SAMPLE No.	Au	AuChk								
1	E101527	0.750	–	NORTH							
2	E101528	2.200	–								
3	E101529	0.160	–								
4	E101530	1.270	1.230	PINNACLES		See 1:5000 map for Location					
5	E101531	0.150	–								
6	E101532	<0.008	–								
7	E101533	<0.008	<0.008								
8	E101534	<0.008	–								
9	E101535	0.010	–								
10	E101536	0.020	–	BEATRICE: Blk slate, clarty sediment and silicified fine ht ± disseminated Py 100 m. NW of Collar MS3.							
11	E101537	<0.008	–	" Pyritic blk slate in Host Ch. 2-3% diss. Py.							
12	E101538	<0.008	–	HUXLEY: Massive gossan near 1N/290E							
13	E101539	<0.008	–	" : Stringy fe stain ± minor boxworks in sericitic chloritoide and chlorite near 1ON/200E							
14											
15											
16											
17											
18											
19											
20											
21											
22											
23	DETECTION	0.008	0.008								
24	UNITS	PPM	PPM								
25	METHOD	309	309								

Results in ppm unless otherwise specified
T = element present, but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER

021

5 389 000m N

5 388 000m N

5 387 000m N

378 000m E

379 000m E

380 000m E

9800E

10200E

10800E

11600N

11400N

11200N

11000N

10800N

10600N

10400N

10200N

10000N

7800

5075E

5750E

550

600

650

500

Lynch Creek

John Creek

No outcrops

massive arkosic sst

lam. grey slst/slate

lam. grey slst, c: lm. bed arkosic sst.

graded arkosic sst.

Rhy. lithic tuff

Glacial erratics

"Owen Congl."

Rhy. volc. breccia

Glacial Erratic boulder of "Owen Congl."

Vein Quartz float?

740Pb 405Zn 15Ag 0·1Au

E101524

E101523

E101522 0·27%Pb

E101520

101534

101535

101533

101521

101517

101532

101516

SEE INSET

101527-101531

101519 0·18%Pb 4·5gt Ag 1·9gt Au

101518

<0·5% Ox. Py.

Brecc./qtz. veined Rhyolite. Traces oxidised Pyrite.

Weathered Rhyolite

NPP 215

E101526

E101525

fs phyric Rhyolite ~0·2% Py.

NPP 213

NPP 214

BHP GRID ?

Py

INSET

LINE 10400N

101530 1·27

101527 0·75

101528 2·2

101531 0·15

101529 0·16

KEY Sample No g/t Au

0 5 metres

RELATIVE DISTRIBUTION OF ROCK CHIP SAMPLES E 101527-101531

LEGEND

- 5 389 000 m N — A.M.G Co-ordinates
- Creek
- Track
- 600 — Topographic contours in metres
- SIROTEM Grid (1987)
- Bedding
- Bedding with facing direction
- Cleavage
- ? — Geological boundary, approximate, inferred(?)
- Plunge of minor fold axis
- E101537 — Rock chip sample location

DUNDAS GROUP : Mid Middle - Mid Late Cambrian?

- €se — Thick bedded quartzo-feldspathic tuffaceous - epiclastic sandstone.
- €ss — Thinly bedded greywacke, siltstone, grey to black shale.

CENTRAL VOLCANIC SEQUENCE ? : Late Early - Mid Middle Cambrian?

- €vr — Massive feldspar (quartz) phyric rhyolite, probably extrusive.

5 cm

EL 12/72

T.N

PROJECT AREA

Rosebery

LAUNCESTON

QUEENSTOWN

HOBART

848022

LOCATION PLAN

87-2741

PANCONTINENTAL MINING LIMITED
EXPLORATION DIVISION

BULGOBAC PROJECT
EL 12/72 - TASMANIA
NORTH PINNACLES PROSPECT
GEOLOGICAL PLAN

SCALE 1:5000

0 50 100 200 300 metres

Compiled: W.H.	Date: OCTOBER, 1987	Dwg. No.: 108/D/10
Report No.:	Map Ref.: SK 55-3	PLATE 1