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FIRST QUARTERLY REPORT ON EL 33/83 (PALOONA)
FOR THE PERIOD
21st SEPTEMBER, 1983 TO 20th DECEMBER, 1983

R. M. Vivian

January, 1984

Project No: 604
Sheet Index: SK 55-3
Commodity: MS
Document No: 0067t

Copies:

Tasmanian Mines Dept.
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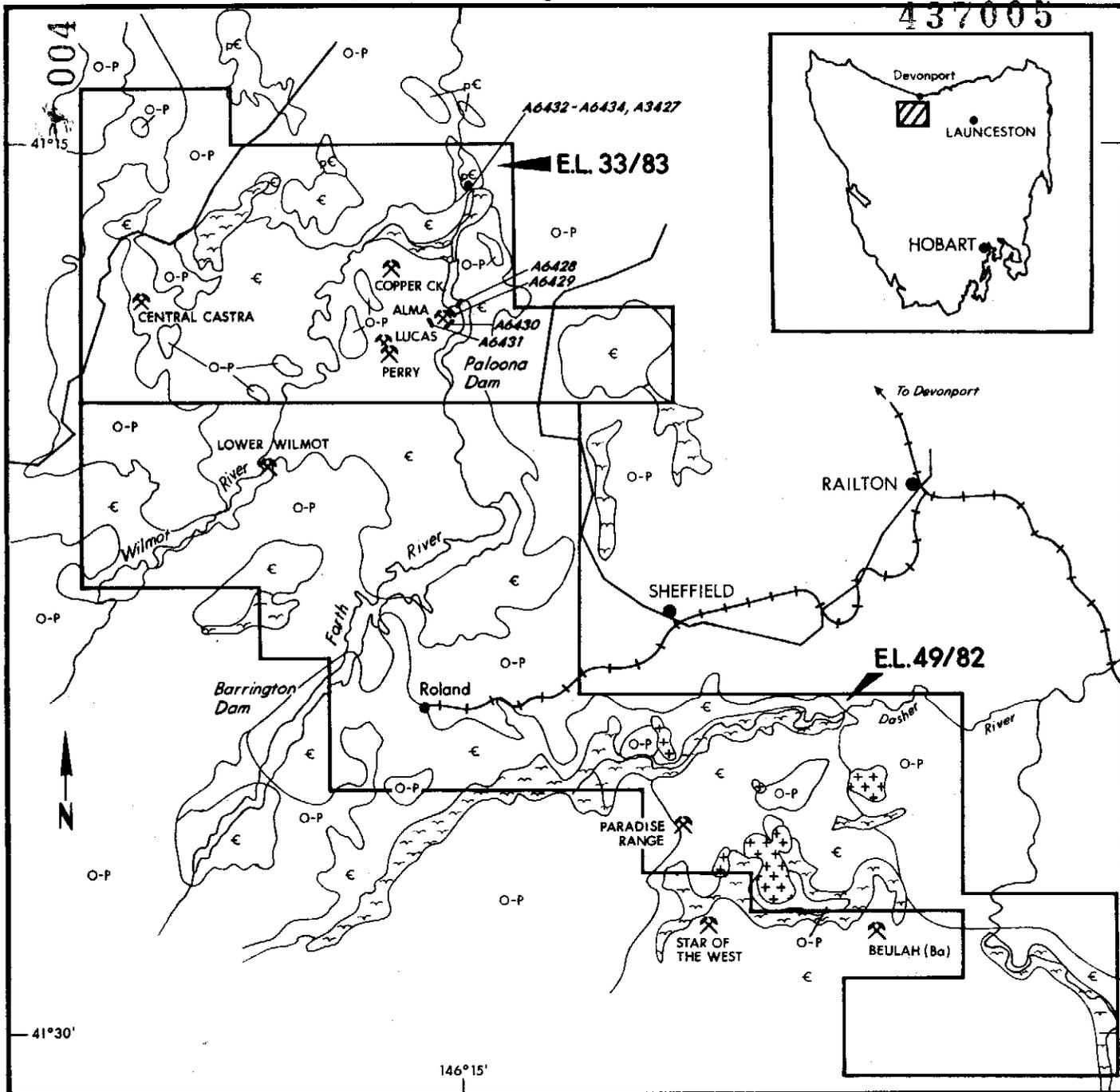
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1. INTRODUCTION

The exploration licence was applied for to search for massive sulphide occurrences within Cambrian volcanic sequences. The licence was granted on 21st September, 1983.

2. LOCATION AND ACCESS

The location of the licence is shown on Figure 1. Access is via bitumen road from Sheffield. The licence area is predominantly covered by native forest over moderate to steep topography with local dense undergrowth.



0 ————— 10km

5 cm

- QUATERNARY  Recent alluvium
- DEVONIAN  Granites
- POST-CAMBRIAN  Undifferentiated sediments and volcanics
- CAMBRIAN  Undifferentiated sediments and volcanics
- PRE-CAMBRIAN  Sediments
-  Stream sediment samples
-  Rock chip samples

EL.33-PALOONA
GENERAL GEOLOGY AND SAMPLE LOCATIONS

3. ACTIVITIES

A review of available pertinent geological and geophysical data held at the Mines Department's Library, Hobart was undertaken. This data is mainly limited to reports on exploration programmes undertaken by B.H.P. and C.R.A.E. in the late 1960s and mid 1970s.

The review indicated that past regional geochemical stream sediment surveys were comprehensive in coverage. No anomalous drainages were defined by these surveys within E.L. 33/83. Thus any geochemical expression of concealed base metal mineralisation is assumed to be subtle. Stream sediment samples taken during this reporting period, immediately downstream from old base metal mines and prospects marked on geological maps returned low assay results (Table 1) supporting the above assumption. The results of rock chip samples taken from selected locations are recorded in Table 2. The location of all samples taken are shown on Figure 1. Aeromagnetic coverage conducted by B.H.P. in 1965 is currently being re-evaluated.

In the next reporting period exploration activities will be directed towards the detailed geological mapping (augmented by geochemical sampling and petrology where appropriate) of the prospective Cambrian volcanic units within the E.L. area.

ANALYTICAL RESULTSTABLE 1STREAM SEDIMENTS SAMPLE RESULTS

Sample No.	Au	Pb	Zn (ppm)	Ag
A 6428	30	25	150	x
A 6429	10	30	125	x
A 6430	15	85	230	x
A 6431	30	20	250	x

Pb?!!!

X not detected?

ANALYTICAL RESULTS

TABLE 2

ROCK CHIP SAMPLE RESULTS & DESCRIPTIONS

Sample No	Description	Cu	Pb	Zn	Ag	Ba	Au	Fe%
A 6432	Hematite rich float rock near Iron Mine	50	50	65	0.5	25	x	14.0
A 6433	Outcrop of hematite rich rock near an alluvial gold (iron) mine	30	45	20	x	40	x	13.5
A 6434	Outcrop of black shale near A6433	55	220	50	x	105	x	1.40
A 3427	Rock chips from percussion drill hole near an existing mine. Blue grey shale containing an estimated 1% disseminated pyrite	80	30	165	<u>22</u>	N/A	N/A	N/A

N/A. not analyzed ?!

437008

STATUTORY DECLARATION

I, Robin Michael Vivian of 5 Osborne Avenue, Trevallyn in the State of Tasmania do solemnly and sincerely declare that this is a true statement of expenditures for Palooa E.L. 33/83 from the period of inception to 20th December, 1983.

	\$
Publication, Maps, Reports & Memb	250
Assaying and Analysis	121
Office Rent	468
Telephone, Postage	100
Stationery and Office Supplies	30
Car Hire and Taxis	150
Field Materials	101
Air Travel	198
Lodgings, Meals & Entertainment	375
Vehicles - Maintenance	500
Allocated Salaries Incl. Fringe	3,631
Allocated Overheads	1,481
	<hr/>
Expenditures for the Period Ending 20th December, 1983	<u>\$7,405</u>

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act.

Subscribed and declared at Launceston)
this nineteenth day of January)
One thousand nine hundred and)
eighty four)
before me:)



W.H. Callaghan

A Justice of the Peace J.P.

19-1-84

OPEN FILE

DATE	A.O.	REG. NO.
S. O. R.	9 APR 1984	E & IL
	DEPT. OF MINES	
FILE No.	3956	84

SECOND QUARTERLY REPORT ON
E.L. 33/83 (PALOONA)
FOR THE PERIOD
21st DECEMBER, 1983 TO 21st MARCH, 1984

R.M. Vivian

March, 1984

Project No: 617
Sheet Index: SK.55-3
Commodity: MS
Document No: 0107T

Copies:

Tasmanian Mines Department
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1. ACTIVITIES

Exploration activities within the current reporting period were directed towards the appraisal of volcanic rocks within the Paloona E.L. These comprised geochemical analyses and some petrographic studies of rock samples collected during creek and road traverses. Details are given below.

1.1 Lake Isandula Area

The Wilsonia Volcanics crop out over a distance of 400 metres downstream from the Isandula Dam spillway and comprise two rock types. One is a white siliceous fine-grained rock showing orientated wisps of green ferromagnesian minerals and large, partly chloritised feldspar phenocrysts. This rock is probably an ashflow tuff. The other rock type is dark grey and medium-grained, with a prominent green mineral (? fuchsite) and feldspar phenocrysts in a groundmass of chloritised hornblende laths and quartz. Minor fresh disseminated pyrite is present. Compared with most volcanics in the Fossey Mountain Trough, analytical results in Table 1, (Samples A 6508 and A 6509) indicate that the first described rock is anomalous in arsenic and possibly zinc values.

Two nearby copper prospects, the Fork of the Gawlers and the Duncans - McClarens prospects, were investigated. No evidence of previous mining activity was found. Both appear

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1.1 (Cont)

related to weak sulphide mineralisation associated with faults located on lithological boundaries. At the former prospect a one metre wide fault filled with gouge and sparsely disseminated pyrite and arsenopyrite occurs between chert and siltstone with interlaminated sandstone.

At the Duncans - McClarens a brown, weathered siltstone is in faulted contact with a well weathered volcanic. Ragged narrow quartz veining, iron oxide and manganese oxide staining characterise the fault zone. Assay results from both prospects (Samples A 6510, A 6510A:- volcanic and vein quartz material from Duncans - McClarens. Sample A6511:- fault material from Fork of the Gawler) are shown in Table 1.

1.2 East Gawler Area

The reconnaissance programme in this area was concerned with geochemical sampling along the East Gawler River between Upper Castra and Lake Isandula. The samples have been submitted for geochemical analysis and petrographic examination, but results are not yet to hand. Two mineral occurrences, the McPhersons Copper prospect and a barite deposit are located in the area.

1.3 Wilmot River Area

Massive rhyolitic pyroclastics and minor intrusives were investigated in an area between Osbert Creek and Farmers Creek. Rock chip samples were taken for geochemical analysis.

1.4 Paloona Bridge Area

Vesicular lava and thin beds of agglomerate occur near Paloona Bridge. The lavas are porphyritic with phenocrysts of sericitised plagioclase and chlorite pseudomorphous after hornblende in an aphanitic groundmass.

Barite occurs as fracture fillings adjacent to a fault between the lavas and chert. The rocks are correlated with the Kerrison Volcanics. Samples of the different rock types found in the Paloona Bridge area have been submitted for geochemical analysis.

1.5 Barrington (Alma) Cu Mine

Located at 363 278 Castra 1:25,000 topographical sheet on Barrington Creek, the mine consists of workings sunk on sulphide mineralisation reputedly consisting of chalcopyrite, native copper, pyrite, siderite and secondary malachite in quartz - barite veins confined to two pebble sandstone/mudstone units. A gossanous ironstone is irregularly developed on the pebbly sandstone.

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1.5 (Cont)

A geochemical soil survey conducted by Cromer in 1973 indicated a general low tenor of base metal values. Reappraisal of their data confirmed this suggestion which was supported by limited assay results. For example, gossanous material (Sample A 6503) assayed 400 ppm Cu, 115 ppm Zn, 0.5 ppm Ag, 10 ppm As, 5850 ppm Ba and no detectable Pb. *As*

Work will continue in appraising the remaining volcanics in the forthcoming reporting period with the Paloona E.L.

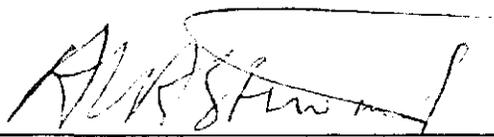
STATUTORY DECLARATION

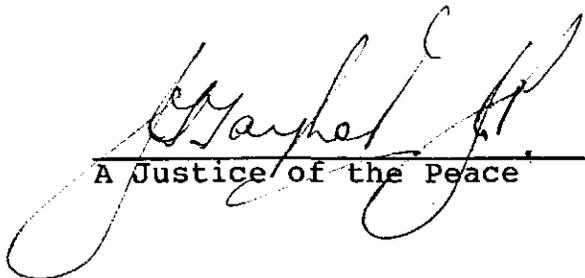
I, Alan Ian Alistair Stewart of 55 Macquarie Street, Sydney in the State of New South Wales do solemnly and sincerely declare that this is a true statement of expenditures for Palooa E.L. 33/83 from the period 21st December, 1983 to 20th March, 1984.

Publication, Maps, Reports & Memb	\$	13
Assaying & Analysis		5
Office Rent		468
Telephone, Postage, Freight		293
Stationery & Office Supplies		29
Field Materials		38
Lodgings & Meals		74
Vehicles - Maintenance		334
Allocation Salaries Incl. Fringe		1,501
Allocated Overheads		<u>251</u>
Expenditures for the Period 21st December, 1983 to 20th March, 1984		<u>\$3,006</u>

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act, 1900.

Subscribed and declared at)
 Sydney this fourth day of)
 April One thousand nine)
 hundred and eighty four)
 before me:)





 A Justice of the Peace

- 6 -

Table 1
Analytical Results

Sample No	Cu	Pb	Zn	As	Fe	Mn	Au	Ag
A 6508	25	35	120	20	1.45	100	x	0.5
A 6509	10	20	55	11	1.50	125	x	0.5
A 6510	10	25	40	8	5.10	115	x	x
A 6510A	130	20	85	30	6.55	255	x	0.5
A 6511	70	50	40	31	5.40	425	x	0.5
A 6503	400	x	115	10	19.0	545	x	0.5

x - not detected