

ROGER POLTOCK
GEOLOGICAL PTY. LTD.

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 - c) Rocks
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- IV) Micron Research (W.A) Size screening and magnetic separation of panned concentrates (chromite residues).

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| 1. Interpretive Geology | 1:25,000 |
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PLATES

1. View NW across Trial Harbour
 - Cambrian ultramafics, hill in the mid distance.
 - Devonian Heemskirk Granite in the distance.
 - Henty Peneplain, flat topped hills.
2. Nickel Reward workings in the ultramafic.
3. Brecciated ultramafic with carbonate alteration.
4. Laterite developed on the ultramafics.

REFERENCES

- BLISSETT A.H and GULLINE A.B Geological Survey
Explanatory Report
ZEEHAN
- GREEN T.H The Geology of the Trial Harbour District
Papers and Proceedings of the Royal Society
of Tasmania, Vol 100.
- WATERHOUSE L. 1916 The South Heemskirk Tin Field
Tasmania Department of Mines
Geological Survey Bulletin No 21

SUMMARY

This report details phase one of the exploration programme on E.L.19/86 in Western Tasmania. Work completed includes stream sediment, panned concentrate and rockchip geochemistry directed toward locating chromite, gold and platinum group mineralization in the Trial Harbour ultramafic.

Only one stream is possibly anomalous in osmium and iridium, platinum and gold are barely above detection limit.

High graded rockchip samples of pyrite magnetite mineralization from the Nickel Reward workings assayed a maximum of 0.08 ppm gold with platinum group elements <0.01 ppm.

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CONCLUSIONS AND RECOMMENDATIONS

Platinum and gold mineralization is not associated with the Trial Harbour ultramafic.

The stream draining the main body of the ultramafic is weakly anomalous in osmium and iridium, this drainage should be investigated in more detail.

In addition the sands on the northern end of Ocean Beach and stranded beach deposits overlying Ordovician limestones in Fen Creek should be investigated for their heavy mineral potential.

INTRODUCTION

E.L.19/86 is located at Trial Harbour on the West Coast of Tasmania, the licence covering an area of 21 km² and includes all the Trial Harbour ultramafic. The area was granted to R.W.Creasy on 27-10-1986.

The licence is accessed from Zeehan on an all weather gravel road which ends at Remine a holiday village at Trial Harbour. The ultramafic outcrops on the beach and extends inland for about 2.5 km to the Little Henty River. Most of the area is sparsely vegetated see Plate 1 & 2.

The ultramafic occurs within the Cambrian Crimson Creek Formation sediments, both rock types have been locally metasomatized and hornfelsed by the Devonian Heemskirk Granite Batholith which is located several hundred metres to the north.

Ordovician to Devonian sediments are exposed in the Little Henty Syncline in the SE.

NW trending faults have down faulted a block of Permian sediments and a Jurassic dolerite sill in the south.

Extensive Quaternary beach deposits blanket older lithologies in the coastal section of the licence.



PLATE 1. VIEW NW ACROSS TRIAL HARBOUR

- CAMBRIAN ULTRAMAFICS, HILL IN THE MID DISTANCE
- DEVONIAN HEEMSKIRK GRANITE IN THE DISTANCE
- HENTY PENEPLAIN, FLAT TOPPED HILLS



PLATE 2. NICKEL REWARD WORKINGS IN THE ULTRAMAFIC

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PREVIOUS EXPLORATION

The Trial Harbour ultramafic lies on the southern limit of the South Heemskirk Tin Field, the granite and enclosing rocks have been prospected for tin since the 1870's.

Nickel mineralization at Trial Harbour was explored in the early 1900's the workings were already abandoned when Waterhouse investigated the area in 1916.

Green carried out detailed geological mapping and a petrological study of the ultramafics and enclosing sediments in the contact metamorphic zone of the Heemskirk Granite at Trial Harbour.

Modern exploration by mining companies has focused on the tin tungsten potential of the granite and its metamorphic aureole. Contact tin gneisses are located in the northern part of E.L.19/86 and calcsilicate hornfels have been mapped in Crimson Creek Formation carbonates in the Little Henty River. Renison Ltd was the last company to hold the area as part of E.L 11/76.

WORK COMPLETED BY R.W.CREASY

1. Literature search

A brief review of historical data and more recent company exploration reports has been made.

2. Stream sediments and panned concentrates.

The three main streams draining the ultramafic have been sampled see Plan 2.

Active stream silts were sieved in the field to -80#, these samples were resieved at Analabs to -80# +150# and -150#. All samples were assayed for Cu,Pb,Zn,Ag,Au,Pt,As,Bi,Ni,Cr some were also assayed for Hg,Pd,Sb and Te see Appendices Ia) and IIa).

Panned concentrates were collected at all the stream sediment sites and an additional four locations. Upto 100 kg of gravels were dug from trap sites in the stream bed, these were sieved to -2 mm then panned to produce a chromite, precious metal concentrate weighing about 10 gm. The residue from this concentrate consisting mainly of chromite has been retained for analysis.

Grains of gold and PGM's in the concentrate have been identified by a mineralogist using a scanning electron microscope equipped with an xray energy dispersion spectrometer see Appendices III.

Three of the concentrate residues containing significant amounts of chromite have been processed at Micron Research see Appendices IV. The magnetic splits have been analyzed at Analytical Services (W.A.) for the following elements Au,Pt,Pd, Ru,Rh,Ir,OS see Appendices Ia) and IIa).

3. Rockchips

Seven rockchips of pyrite magnetite mineralization from the old Nickel Reward workings were assayed for Au,As,Ag,Cu,Pb,Zn,Ni, Cr,Co,Fe,Pt,Pd,Ru,Rh,Ir at Genalysis Laboratory Services Pty Ltd see Appendices Ic) and IIc).

DISCUSSION OF RESULTS GEOLOGY

The Trial Harbour ultramafic is interpreted to be a slightly transgressive sill like body that has intruded siltstones and subordinate basic volcanics of the Cambrian Crimson Creek Formation.

The ultramafic extends from the coast at Remine SE for 2.5 km to the Little Henty River.

The ultramafic has been petrologically described by Green as a serpentized dunite.

Nickel sulphide mineralization associated with pyrite magnetite veining in the ultramafic has been prospected by a series of shallow shafts and tunnels see Plate 2.

Small areas of laterite occur on the ultramafic, these may be remnants of a previously more extensive cover see Plate 4.

The Crimson Creek Formation is overlain in the SE by Ordovician to Devonian conglomerates, limestone, sandstone and shales. These sediments are exposed in the NW end of the Little Henty Syncline.

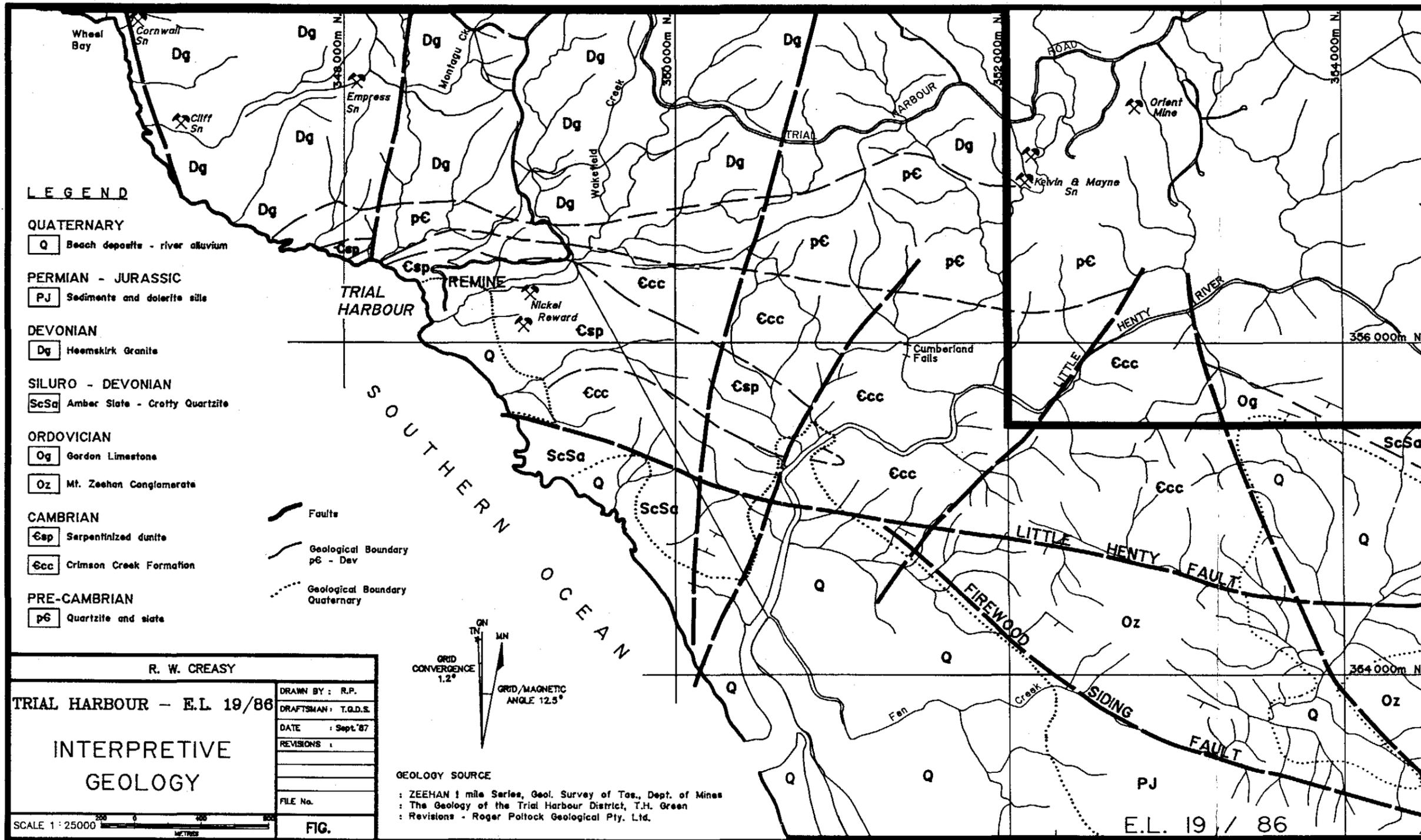
The Devonian Heemskirk Granite Batholith has intruded this sequence of Precambrian to Devonian sediments and ultramafics. Intrusive contacts exposed within the licence are with the Precambrian Oonah Quartzite and Slates.

Localized brecciation in the ultramafic associated with silicification and carbonate alteration see Plate 3 and quartz carbonate, magnetite veins are probably attributable to the granite intrusion.

A Jurassic dolerite sill in moderately dipping Permian sediments has been down faulted into the sediments of the Little Henty Syncline in the southern part of the licence.

Geomorphologically the licence is part of the Henty Penplain, an extensive wave cut platform see Plate 1. At Trial Harbour this plain has been cut by the Little Henty River.

Quaternary beach deposits blanket the SW coastal part of the licence, these sands may be prospective for industrial and precious minerals. In Fen Creek on the Gordon Limestone, heavy minerals may have been stranded and concentrated to the east of a bar formed by the Mount Zeehan Conglomerate.



5 cm



PLATE 3. BRECCIATED ULTRAMAFIC WITH CARBONATE ALTERATION



PLATE 4. LATERITE DEVELOPED ON ULTRAMAFICS

DISCUSSION GEOCHEMISTRY

No anomalies were detected in the stream sediments, all sites in both fractions assayed <0.01 Au ppm, <0.008 ppm Pt, with maximum 0.003 ppm Pd see Appendices Ia) and IIA)

In the stream draining the main bulk of the ultramafic Cr_2O_3 assayed 12.3% in the -150# and 2850 ppm Zn. 7 grains of osmiridium have been identified in panned concentrates from this site see Appendix III.

At other sites a maximum of 1 to 2 grains of osmiridium and 2 grains of gold have been identified in panned concentrates.

The magnetic splits of the chromite residues aren't anomalous. Pt 7 ppb, Au 34 ppb and Ru, Ir, Os occurring at the highest levels 26 ppb.

Only sites RP 1269 and 1318 with possibly anomalous osmiridium in panned concentrates warrants further exploration.

High graded pyrite magnetite rockchip samples from the Nickel Reward workings and dumps are anomalous in silver 5.2 ppm, nickel 4.3 % and zinc 0.28 %. Precious metals aren't anomalous, the maximum values gold 0.08 ppm, and palladium 0.012 ppm all other PGE's assayed <0.004 ppm.

012

APPENDIX I)

ANALYTICAL DATA SHEETS

a) -80# +150# -150# stream sediments

CODE

FUSION AAS

119 Be (1, 1%)	cost per determination	\$5.50
141 Cr (5, 1%)		\$5.50

VAPOUR GENERATION/AAS

114 As (1,100)	cost per determination or in conjunction with other 101 elements.	\$3.10
115 Se (0.1,25)	cost per determination	\$3.35
116 Te (0.1,25)		\$3.35
117 Sb (1,100)		\$4.00
122 Hg (0.005,1)		\$6.10

OTHER SPECIAL AAS TECHNIQUES

121 Mo (0.5,200)	modified 102 digest/solvent extraction or in conjunction with other 102 elements	\$3.45
135 Tl (0.5,50)	Special acid digest	\$4.00
143 Ba (5, 1%)	Mixed Acid Digest	\$4.00

UMPIRE AND SHIPMENT — CERTIFIED ANALYSIS — P.O.A.

ORE GRADE ANALYSIS — POA

OTHER DISSOLUTION PROCEDURES — P.O.A.

GEOCHEMICAL ANALYSIS BY
MISCELLANEOUS TECHNIQUES

CODE

COST PER
DETERMINATION

123 P (5,1000)	Perchloric Acid Digest 101/Colorimetry	\$ 5.00
124 W (0.5,200)	Total Acid Extraction/Colorimetry	\$ 4.60
126 U (0.1,100)	Total Digest 103 Fluorimetry	\$ 8.90
127 U (0.1,100)	Perchloric Acid Digest 101/Fluorimetry	\$ 6.00
129 F (100,1%)	Fusion/Specific Ion Electrode	\$10.00
130 Cl (100,1%)	Fusion/Specific Ion Electrode	\$15.00

Notes

SAMPLE PREPARATION

Satisfactory sample preparation procedures are best selected through consultation prior to analysis.

CODE

PRE-PREPARATION

- | | |
|---|---------------|
| 1. Weighing, boxing, sorting for large sample batches | Based on time |
|---|---------------|

COMPOSITING

- | | |
|------------------------|---------------|
| 2. Compositing samples | Based on time |
|------------------------|---------------|

CORE CUTTING

- | | |
|---------------------------------------|---------------|
| 3. Splitting of core with diamond saw | Based on time |
|---------------------------------------|---------------|

DRYING

- | | |
|---|-------------------|
| 4. Samples in geochemical paper bags less than 100g | \$0.35 per sample |
| 5. Samples up to 1Kg in calico bags | \$0.55 per sample |
| 6. Other samples | \$0.60 per Kg |

SIEVING

- | | |
|---|---------------|
| 7. Sieving to a specified screen size | \$1.10 per Kg |
| 8. Sieve analyses (including weighing)
Cost per sieve fraction | \$3.05 per Kg |

CRUSHING

- | | |
|---------------------------------------|-------------------|
| 9. Crushing sample up to 2Kg | \$1.40 per sample |
| 10. Crushing samples greater than 2Kg | \$0.55 per Kg |

COARSE PULVERISING

- | | |
|--|---------------|
| 11. Hammer milling to nominal 600 microns
(30 mesh) | \$1.45 per Kg |
| 12. Disc pulverising to nominal 180 microns
(80 mesh) | \$1.95 per Kg |

SPLITTING

- | | |
|------------------------------|-------------------|
| 13. Samples up to 2Kg | \$0.90 per sample |
| 14. Samples greater than 2Kg | \$0.45 per Kg |

FINE PULVERISING

- | | |
|--|-------------------|
| 15. Disc pulverising to nominal 150 microns
(100 mesh) | \$2.40 per Kg |
| 16. Ring mill pulverising to nominal 75 microns
(200 mesh) samples up to 150g | \$1.35 per sample |
| 17. Ring mill pulverising to nominal 75 microns
(200 mesh) samples up to 300g | \$1.85 per sample |
| 18. Ring mill pulverising to nominal 75 microns
(200 mesh) samples up to 1Kg | \$3.00 per sample |

STORAGE

- | | |
|--|-------------------|
| 19. Sample storage greater than 2 months
Minimum charge 1 cubic metre per month plus \$7.50 cage rental | \$35.00 per cu.m. |
| 20. Core storage
Cost per tray (three metalcraft racks)
Minimum charge thirty trays per month | \$1.65 per month |

HOURLY RATE FOR TIME DEPENDENT WORK	\$30.00
-------------------------------------	---------

Correct sample preparation procedures are essential for meaningful analytical data.

GEOCHEMICAL ANALYSIS BY AAS ATOMIC ABSORPTION SPECTROPHOTOMETRY

Rapid geochemical methods suitable for the analysis of rock, ore, soil and stream sediment samples.

Refer to Ore grade analysis for determinations outside ranges listed.

SEE SAMPLE PREPARATION FOR APPROPRIATE PROCEDURES AND COSTS

CODE

101 Perchloric Acid digestion — Trace Determination

Elements (range PPM, %)

Ag (0.5, 20)	Bi (10,1000)	Cd (0.5,1000)	Co (5, 1%)	Cu (5, 1%)
Fe (5, 1%)	Mn (5, 1%)	Ni (5, 1%)	Pb (5, 5000)	Zn (5, 1%)

Nitrous Oxide

As (100, 1%)	Cr (5, 1%)	Mo (20, 1000)	V (20, 1000)
--------------	------------	---------------	--------------

Dissolution	\$1.20 per sample
Elements	\$0.65 per element
Nitrous Oxide Extra	\$0.25 per element
Over Range Extra	\$0.25 per dilution

102 Perchloric Acid Digestion — Low Level Trace Determination — Soils Only Values outside recommended range may report low due to solubility problems.

Ag (0.1, 4)	Bi (1,200)	Cd (0.1,200)	Co (1,2000)	Cu (1,2000)
Ni (1,2000)	Pb (1,200)	Zn (1,2000)		

Dissolution	\$1.20 per sample
Elements	\$0.75 per element
Over Range Extra	\$0.25 per dilution

103 Perchloric, Nitric, Hydrochloric and Hydrofluoric Acid Digestion

Total Digestion of sample for trace determination

Ag (0.5,20)	Bi (10,1000)	Cd (0.5,1000)	Co (5,1%)	Cu (5,1%)
Fe (5, 1%)	Mn (5, 1%)	Ni (5,1%)	Pb (5,5000)	Zn (5,1%)

Nitrous Oxide

Mo (20,1000)	V (20,1000)
--------------	-------------

Dissolution	\$4.10 per sample
Elements	\$0.65 per element
Nitrous Oxide Extra	\$0.25 per element
Over Range Extra	\$0.25 per dilution

104 Perchloric, Nitric, Hydrochloric and Hydrofluoric Acid Digestion

Total Digestion of Sample

Ag (2.5, 250)	Bi (50,5%)	Cd (2.5,5%)	Co (25,5%)	Cu (25,5%)
Fe (25,5%)	Mn (25,5%)	Ni (25,5%)	Pb (25,5%)	Zn (25,5%)

Dissolution	\$4.60 per sample
Extra Elements	\$3.35 per element
Over Range Extra	\$0.65 per dilution

140 Aqua Regia/Perchloric Acid Digestion

Ag (0.5,20)	Bi (20,1000)	Cd (1,1000)	Co (5,1%)	Cu (5,1%)
Fe (10,1%)	Mn (5,1%)	Ni (10,1%)	Pb (5,1%)	Zn (5,1%)

Nitrous Oxide

As (100,1%)	Cr (5,1%)	Mo (5,300)	V (20,1000)
-------------	-----------	------------	-------------

Dissolution	\$1.55 per sample
Extra Elements	\$0.65 per element
Nitrous Oxide Extra	\$0.25 per element
Over Range Extra	\$0.25 per dilution

GEOCHEMICAL ANALYSIS BY ICP — INDUCTIVELY COUPLED PLASMA SPECTROSCOPY

ICP offers rapid, multi element determinations for a wide range of elements and sample matrices.

For whole rock analysis refer to appropriate section.

CODE

201 Perchloric, Hydrochloric and Hydrofluoric Acid Digestion

Element (D.L.)

Ag (5)	Al (100)	Ba (5)	Be (1)	Ca (50)
Ce (15)	Co (5)	Cr (10)	Cu (5)	Dy (5)
Er (2)	Eu (1)	Fe (100)	Gd (10)	Hf (10)
Ho (20)	K (500)	La (5)	Li (2)	Mg (15)
Mn (15)	Mo (5)	Na (50)	Nb (10)	Nd (20)
Ni (10)	P (100)	Pb (200)	Pr (20)	Re (10)
Sc (1)	Sm (5)	Sr (1)	Ta (10)	Tb (5)
Th (10)	Ti (10)	Tm (2)	U (200)	V (2)
Y (1)	Yb (2)	Zn (5)	Zr (5)	

First Element \$8.70 per sample
Extra Elements \$0.25 per element

202 Alkali Fusion

Al (200)	B (10)	Ba (10)	Ca (500)	Cr (50)
Fe (200)	K (2000)	Li (5)	Mg (20)	Mn (20)
Mo (20)	Si (1000)	Ta (20)	Th (20)	Ti (20)
W (25)	V (5)			

First Element \$10.75 per sample
Extra Elements \$0.25 per element

203 Alkali Fusion

Cr (50)	Mo (20)	Nb (20)	P (200)	Sn (100)
Ta (20)	W (50)			

First Element \$10.75 per sample
Extra Elements \$0.25 per element

205 Data Retrieval (Refers to samples analysed previously)

First Element \$2.45 per sample
Extra Elements \$0.25 per element

OTHER ELEMENTS AND SPECIAL DIGESTS — P.O.A.

PRECIOUS METALS ANALYSIS

GEOCHEMICAL

CODE	Sample Wt	Digestion	Element D.L.	Cost per element
329	30g	Aqua Regia/AAS	Au (0.020)	\$ 4.60
334	30g	Aqua Regia/Carbon Rod	Au (0.001)	\$ 6.60
335	50g	Aqua Regia/AAS	Au (0.012)	\$ 6.25
336	50g	Aqua Regia/Carbon Rod	Au (0.001)	\$ 8.25

OTHER WEIGHTS AND DETECTION LIMITS AVAILABLE ON REQUEST

ASSAY

309	30g	Fire Assay Fusion/AAS	Au (0.008)	\$ 9.20
310	30g	Fire Assay Fusion/GRAV	Au	\$11.85
313	50g	Fire Assay Fusion/AAS	Au (0.005)	\$10.00
326	30g	Fire Assay Fusion/Carbon Rod	Au (0.001)	\$12.00

SCREENED FIRE ASSAY

315		Assay Cost	Au (0.008)	\$23.00
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Weighted average gold value is reported for a 1000g sample.

Special preparation required — not included in above price — Please discuss requirements.

CYANIDATION

308	Up to 500g	Cyanide Extractable/Bottle Roll	Au (0.025-0.05)	\$10.00
328	5kg	Cyanide Extractable/Zinc Collector — Static	Au (0.00005)	\$33.00
340	2kg	Cyanide Extractable/Bottle Roll	Au (0.00001)	\$17.50
		Other elements on above		P.O.A.

CYANIDE PLANT LIQUORS

318	20mls	Solvent Extraction/AAS	Au (0.025)	\$ 4.00
320	20mls	Fire Assay/AAS — Denver	Au (0.012)	\$13.00

CARBONS

330	5g	Fire Assay Fusion/GRAV	Au	\$27.00 Duplicate
331	1g	Ash/AAS	Au	\$22.00 Duplicate

BULLION

317		Fineness of Gold Bullion		\$85.00
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OTHER PRECIOUS METALS

311	30g	Fire Assay/Carbon Rod	Pt (0.008) Pd (0.001) Pt or Pd Pt + Pd Pt + Pd + Au	\$11.00 \$16.50 \$18.50
312	30g	Fire Assay/Carbon Rod	Rh (0.001)	\$12.50
337	50g	Fire Assay/Carbon Rod	Pt (0.005) Pd (0.001)	
			One Element Two Elements	\$11.80 \$17.30
332	30g	Fire Assay/Grav Ag		\$11.70

OTHER METHODS

333	30g	Au by Neutron Activation Analysis (NAA) after preconcentration by Fire Assay.		P.O.A.
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ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.
52 Murray Road, West Hobart, W.A. 6105
TEL: 88-57224

ANALYTICAL REPORT No.

979. 16. 08. 0303

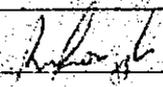
THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No. _____ SUBJECT _____	
DATE RECEIVED _____ ANALYSIS REQUIRED _____	
02/12/86 ASAP	
No. of COPIES OF REPORTS: 1	DATE REPORTED: 27/12/86
No. of COPIES: 1	TOTAL No. OF SAMPLES: 20

DATE OF SAMPLES	SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS		
		DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
Various		SS	Prep: 004, 016, 013, 018								Cu, Pb, Zn, Ag, Bi, Cu+, Pb+, Zn+, Ag+, Bi+/102, Cr, Cr+/1
Various		SS									Au, Au+/329
Various		SS									Hg, Hg+/122, Sb, Te, Sb+, Te+/402, Pt, Pd, Pt+, Pd+/311

RESULTS TO:	G.N. Creasy C/- Roger Pollock Post Office Wilsons Promontory Tasmania	REMARKS:
RESULTS TO:	(Empty)	(Empty)

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration TTN
water WA	HF under pressure A7	other chemical means CHEM
tissue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

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A Division of the Department of Geology and Mining

ANALYTICAL DATA

SAMPLE NUMBER

REPORT NUMBER

REPORT DATE

CLIENT'S REFERENCE

PAGE

999.10.08.04037

29/12/66

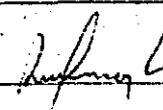
1

1

ITEM NO.	ANALYSIS	Cu	Cu+	Pb	Pb+	Zn	Zn+	Ag	Ag+
18	1268	2	2	19	3	2850	700	<0.1	<0.1
19	1271	9	3	14	6	470	320	0.1	<0.1
20	1281	7	5	40	25	330	390	<0.1	<0.1
21									
22									
23	DETECTION	1	1	1	1	5	5	0.1	0.1
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
25	METHOD	102	102	102	102	101	101	102	102

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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A Division of MacDonnell Laboratories Ltd. (Incorporated in Ontario)

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT SAMPLE NO.

PAGE

999.10.08.04037

29/12/86

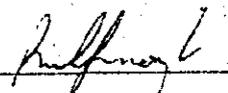
1 of 1

TUBE No.	SAMPLE No.	Bi	Bi+	Cr	Cr+	As	As+	Au	Au+

18	1268	<1	<1	84000 123	22500 33	8	1	<0.01	<0.01
19	1271	<1	1	20000 2.9	21000 31	10	3	<0.01	<0.01
20	1281	<1	<1	5300 -77	8700 127	12	8	<0.01	<0.01
21									
22									
23	DETECTION	1	1	5	5	1	1	0.01	0.01
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
25	METHOD	102	102	101	101	114	114	329	329

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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021

873023

ANALABS

A Division of MacDonald Hamilton & Co. Pty. Ltd.
52 Murray Road, Welshpool, W.A. 6106
TEL: AA 59224

ANALYTICAL REPORT No. 999.10.08.04705

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G.M. Dreasy
6 Luth Avenue
Daglish
Perth W.A. 6008

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26/08/87 ASAP

NO. OF ANALYSES OR SAMPLES	DATE REPORTED	NO. OF COPIES	TOTAL NO. OF SAMPLES
1	27/08/87	1	20

PRE-TREATMENT

ANALYSIS

TYPE OF SAMPLE	SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS		
		DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
Various		PU							Ni/102		

RESULTS TO

G.M. Dreasy
6 Luth Avenue
Daglish
Perth W.A. 6008

RESULTS TO

R. Fallock
C/- Post Office
Wilmot
Tasmania 7310

REMARKS

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration TTN
water WA	HF under pressure A7	other chemicals means CHEM
tissue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

AUTHORISED OFFICER *[Signature]*

ANALABS

A Division of Medconal (Thames) & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT REFERENCE

999.10.08.04705

27/08/87

RE 04037

1

1

TUBE No.	SAMPLE No.	Ni								
18	268	162								
19	271	102								
20	281	520								
21										
22										
23	DETECTION	1								
24	UNITS	PPM								
25	METHOD	102								

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

[Signature]

APPENDIX I)

ANALYTICAL DATA SHEETS

b) Panned Concentrates chromite residues



Reference Number 32092

15 JULY, 1987

Mr M G Creasy
*****8 Luth Avenue
DAGLISH WA 6008Analysis of Mineral Samples
*****Analysed By :
ANALYTICAL SERVICES (WA) PTY LTD
19 Augusta St
WILLETTON WA 6155
Telephone 354 1888
Telex AA 94767
Facsimile 457 2569

Authorised By : T.K.Chan



REFERENCE NUMBER 32092

Page 1

 SAMPLE Au Pt Pd Ru Rh Ir Os
 NUMBER ppb ppb ppb ppb ppb ppb ppb

MAGNETICS 1270	6	2.5	2.0	15	1.5	16	14
MAGNETICS 1273	34	7.0	5.0	26	3.0	26	14

MAGNETICS 1319	8	3.0	6.0	23	2.5	22	26
----------------	---	-----	-----	----	-----	----	----

HI MAGS 1319	6	1.0	2.0	14	1.5	9.0	6
--------------	---	-----	-----	----	-----	-----	---

REFERENCE NUMBER 32092

PAGE 3

Notes on Analysis of these Samples

An 'm' Suffix after a result implies results are expressed in ppm for this sample

Au Pt Pd Ru Rh Ir Os

have been determined by Fire Assay of the sample (in NEW pots) using Nickel Sulphide as the collection media. The Platinoids have been recovered from the Nickel Sulphide and analysed by ICP-Mass Spectrometry.

APPENDIX I)
ANALYTICAL DATA SHEETS
c) Rocks

ROCKS.

LABORATORY REPORT

2 DAVISON ST. MADDINGTON, W.A. 6109. P.O. BOX 144 GOSNELLS W.A. 6110
 TELEPHONE (09) 459 2272, 459 4343. TELEX GLS 96166

KALGOORLIE SAMPLE PREPARATION DIVISION 241 DUGAN ST. KALGOORLIE W.A. 6430
 P.O. BOX 388 KALGOORLIE W.A. 6430 TELEPHONE (090) 21 6057

028

JOB INFORMATION

JOB CODE : 202.0/870577
 NO. SAMPLES : 15
 ELEMENTS : 15
 CLIENT O/N : LETTER
 DATE RECEIVED : 03/03/87
 DATE COMPLETED : 23/04/87

LEGEND

'X' = LESS THAN DETECTION LIMIT
 'N/L' = SAMPLE NOT RECEIVED
 '*' = RESULTS CHECKED
 '()' = RESULTS STILL TO COME
 'I/S' = INSUFFICIENT SAMPLE FOR ANALYSIS

COMMENTS : ATTENTION : M. CREASY....
 COMMENTS : ROCK....

SAMPLE INFORMATION

ELEMENTS	Au	As	Ag	Cu	Pb	Zn	Ni	Cr	Co	Fe	Pt	Pd	Ru	Rh	Ir
UNITS	ppm	%	ppb	ppb	ppb	ppb	ppb								
DETECTION	0.01	5	0.1	1	1	1	1	1	1	0.01	1	1	1	1	1
METHOD	B/AAS	NIS/EA	NIS/EA	NIS/EA	NIS/EA	NIS/EA									

SAMPLE NUMBERS

7 1274	0.02	X	X	14	22	255	200	150	33	3.00	X	X	5	1	1
8 1275	0.01	X	X	5	50	420	3300	1300	170	17.50	X	X	2	1	1
9 1276	0.00	60	5.2	300	100	2875	4.302	245	900	12.50	X	12	4	1	1
10 1277	0.01	X	X	6	12	190	2750	390	116	15.00	X	X	4	1	1
1278	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L
11 1279	0.06	45	3.7	100	20	155	2.501	200	590	10.40	X	1	4	1	1
12 1280	0.01	5	1	4	9	112	1000	900	120	14.00	X	X	5	4	1
13 Ch.0001(1152)	0.01	60	0.8	52	145	52	94	430	21	2.50					
14 STD 1:SYN1	4.90	400	25.5	215	64	210	400	1700	210	3.60					
15 STD 2:SARN7											3600	1570	400	250	69

PLEASE NOTE: COARSE REJECTS AND PULPS WILL BE STORED FOR 60 DAYS WITHOUT CHARGE. AFTER THIS PERIOD ALL COARSE REJECTS AND PULPS WILL BE STORED AT A RATE OF \$25/cubic metre/month UNTIL YOUR ADVICE REGARDING COLLECTION OR DISPOSAL IS RECEIVED.

873030

10/06/87 01:02 P.M.

GENALYSIS LABORATORY SERVICES Information Sheet.

JOB NUMBER : 202.0/871784

M. CREASY
8 LUTH AVE
DAGLISH WA
AUSTRALIA

600B

ORDER NO. LETTER
PROJECT
DATE RECEIVED 08/06/87
RESULTS REQUIRED 15/06/87
NO. SAMPLES 83

MARK CREASY

KALGOORLIE JOB NUMBER :

RESULTS TO : M. CREASY-DAGLISH

INVOICE TO : DAGLISH

COMMENTS :

STORAGE CODE : 0011--3.0

Abbreviations used for Sample States :

BU : Bulk ; CR : Coarse Rejects ; CS : Costeans ; DC : Drill Core ; DU : Duap ;
D : Other ; PC : Percussion Chip ; PU : Pulp ; RB : RAB ; RC : Reverse Circulation ;
RK : Rock ; S : Soil ; SL : Solutions ; SS : Stream Sediments ; TR : Trench ;

Abbreviations used for Preparation codes :

CP : Course Pulverise ; CR : Crush ; DR : Dry ; DS : Diamond Saw ; FP : Fine Pulverise ;
HM : Hammer Mill ; KM : Keagor Mill ; MN : Mixer Mill ; MS : Mix & Split ; O : Other ;
NR : Not Required ; QZ : Quartz ; ZS : 2 Splits ; JS : 3 Splits ; AS : 4 Splits ;
SV : Sieve ;

020

873031

SAMPLE NUMBERS STATE PRETREAT. ELEMENTS METHOD

1152,1223,1225,1226 ROCK 1.5Kg,CR Au,As,Ag,Cu,Pb B/AAS
1233,1241,1254 MM Zn,Ni,Cr,Co,Fe
1274/B0 Pt, Ir NISETA

MISSING SAMPLES

1223,1278

030

873032

APPENDIX II)

SAMPLE RECORD AND ANALYTICAL DATA SHEETS

a) -80# +150#, -150# stream sediments

APPENDIX II)

SAMPLE RECORD AND ANALYTICAL DATA SHEETS

b) Panned Concentrates chromite residues

085

ROGER POLTOCK
GEOLOGICAL PTY. LTD.

873037

APPENDIX II)

SAMPLE RECORD AND ANALYTICAL DATA SHEETS

c) Rocks

ROGER POLTOCK GEOLOGICAL PTY. LTD.

.TD.

CLIENT M. G. CREAMY
PROJECT EN 19/86 TRIAN HARBOUR
PROSPECT

SAMPLE RECORD AND ANALYTICAL DATA SHEET
LABORATORY GENALYSIS
SAMPLE TYPE ROCK

COLLECTED BY: RP MGC
DATE DISPATCHED:
DATE RECEIVED:

ANALYTICAL DATA SHEET

COLLECTED BY:
DATE DISPATCHED:
DATE RECEIVED:

A 28305

SAMPLE NUMBER	LOCATION	DESCRIPTION	PPM	PPM	PPM	PPB	PPB	PPB	PPB	PPB	OS	%	ANALYSES								
			Au	As	Hg	Pt	Pd	Ku	Rh	Ir			Fe	PPM → Ni	Cr	Co	Cu	Pb	Zn	Mn	Bi
RP 1274		Carbonate alteration in ultramafic with actinolite / tremolite	.02	<5	<0.1	1	<1	5	1	1		3.0	280	150	33	14	22	255			
	NICKEN REWARD																				
RP 1275	"	Weathered serpentinite, manganeseiferous, with magnetite	.01	<5	<0.1	<1	<1	7	1	1		17.50	3300	1300	170	5	50	420			
1276	"	Serpentinite with segregations of pyrite magnetite	.08	60	5.2	<1	12	4	1	1		12.50	43000	245	900	380	180	2875			
1277	"	Serpentinite with magnetite	.01	<5	<0.1	<1	<1	4	1	1		15.00	2750	390	116	6	12	190			
1278	"	" " "																			
1279	"	Serpentinite chip sample from top adit	.06	45	3.7	<1	1	4	1	1		10.40	25800	200	590	100	20	155			
1280	"	Serpentinite with magnetite	.01	5	<0.1	<1	<1	5	4	1		14.0	1800	980	120	4	9	112			

APPENDIX III)

MINERALOGIST'S REPORT - GOLD AND PLATINUM GROUP
MINERALS IN PANNED CONCENTRATES

REPORT

on

MINERALOGICAL EXAMINATION

of pan concentrates from Tasmania

prepared for Messrs

M. G. CREASY

at their request by

Jiri Just

Mineralogist

Perth, 13th June, 1987

Dr. Jiri Just, Mineralogist, Petrologist,
30 Kay Street, SCARBOROUGH, W. A. 6019, tel. (09) 341 3778

REPORT ON MINERALOGICAL EXAMINATION OF PAN CONCENTRATES FROM
TASMANIA

Dr. J. Just, Mineralogist

INTRODUCTION

Twenty eight pan concentrates of heavy minerals were received for mineralogical examination. The aim of the investigation was to extract and identify minerals containing platinum group elements and determine approximate composition of gold particles present in the samples.

The samples carried the following identification numbers:

PR 1206	JOHN WYNEA	PR 1239	PR 1301	JAMES WYNEA	PR 1327	OTHER
PR 1209	18/86	PR 1251	PR 1304	12/86	PR 1329	AREAS
PR 1213		PR 1256	PR 1306		PR 1334	
PR 1216		PR 1262	PR 1314		PR 1345	
PR 1222		PR 1266	PR 1316		PR 1351*)	
PR 1231		PR 1269	PR 1318	TRIAL	PR 1355	
PR 1236		PR 1272	PR 1325	TRIAL HARBOR 19/86	PR 1358	

*) PR 1351 on paper slip, PR 1352 on the bag; PR 1351 taken for correct.

METHOD

Platinum group minerals (PGM) and PGM-like minerals were separated from the concentrates under a stereomicroscope and mounted on PERSPEX slides. The minerals were identified by means of GeoSEM 1, a scanning electron microscope equipped with x-ray energy dispersion spectrometer and specially modified for work on geological materials. The grains were mounted on the slides in horizontal rows, each row containing grains from only one sample. Mount A contains 6 rows, mount B 12 rows, and mount C 9 rows. The numbering of the grains goes from left to right. So although there are no numbers actually written on the slides any grain can be uniquely located.

RESULTS

The PGM were tentatively identified by their EDS spectra but no effort was made to quantify the proportions of the elements in the grains. This was in most cases sufficient for identification of the species, e.g. platinum, osmium, iridian osmium, etc. but in some cases an unequivocal identification has not been achieved. So Pt >> Fe could be ferroan platinum or one of the Pt - Fe intermetallic compounds. Pt - As is most likely sperrylite, PtAs₂, Ir - As - S is most likely irarsite, IrAsS, Ir As iridarsenite, IrAs₂, Ir (>Os) - S could be kashinite, Ir₂S₃, or the unnamed IrS₂, Os (>Ir) - S could be erlichmanite, OsS₂. The iridium - osmium alloys found in the samples usually contain a variable but mostly small amount of ruthenium.

The results of examination of the individual samples are summarised in Table 1. as number of grains of the individual species found in the samples.

Iridian osmium and osmian iridium are the major PGE minerals in almost all samples, the Pt>>Fe phase is abundant in samples PR 1222 and PR 1355. The samples from PR 1306 on (except PR 1314, PR 1316, PR 1325, and PR 1358) differ from the rest of the samples by presence of PGE sulphides and/or arsenides. This might imply shorter transport of the material, i.e. the locations of these samples might be closer to the primary source.

BRIEF CHARACTERISATION OF THE PGM IN THE INDIVIDUAL SAMPLES

PR 1269: four small grains of iridian osmium.

PR 1272: two grains of osmian iridium, largest 0.4 x 0.25 mm.

PR 1318: one grain of osmian iridium, three grains of iridian osmium, one composite iridian osmium + osmium - iridium sulphide + a ruthenium-rich phase grain, 0.2 x 0.2 mm; one grain of an iridium arsenide, 0.35 x 0.35 mm.

PR 1325: one grain of osmian iridium, 0.3 x 0.35 mm.

Table 1.

NUMBER OF GRAINS OF PLATINUM GROUP MINERALS
found in the individual samples

Mount A	row	Au	Pt	Pt>>Fe	Os>Ir	Ir>Os	Ru	Ru-Os	Ir-S	Ir-As-S	Ir-As
---------	-----	----	----	--------	-------	-------	----	-------	------	---------	-------

Sample

PR 1269	6	-	-	-	4	-	-	-	-	-	-
PR 1272	7	2	-	-	-	2	-	-	-	-	-

Mount C	row	Au	Pt	Pt>>Fe	Os>Ir	Ir>Os	Ru	Ru-Os	Ir-S	Ir-As-S	Ir-As
---------	-----	----	----	--------	-------	-------	----	-------	------	---------	-------

PR 1318§	1	-	-	-	3+1*	1	1*	-	-	-	1
PR 1325	2	-	-	-	-	1	-	-	-	-	-

* phases in one composite grain

composite grains Pt>>Fe + Rh-S and Pt>>Fe + Rh

\$ one composite grain Os>Ir + Os-Ir-S + Ru?

& + one grain of sperrylite, PtAs₂

APPENDIX IV)

MICRON RESEARCH (W.A.) SIZE SCREENING AND MAGNETIC SEPARATION OF
PANNED CONCENTRATES - CHROMITE RESIDUES

MICRON RESEARCH (W.A.)

(Proprietor: Dabas Pty. Ltd. Trustee for The Micron Unit Trust)

APPROVED RESEARCH
ORGANISATION No. 649

METALLURGICAL
SERVICES
LABORATORY



LABORATORY: Phone 446 8225
UNIT 7,

14 KING EDWARD ROAD,
OSBORNE PARK, W.A. 6017

26th March, 1987
AFG:ABG

Mr. M. Creasy,
8 Luth Street,
DAGLISH, W.A. 6008

re: Micron Report No. 1423
Heavy Minerals Separation

A total of three bags of samples were delivered to this laboratory with written instructions to process each separately as described in Micron Report No. 1398 and deliver certain samples to the external laboratory (Analytical Services Aust Ltd. Willetton) for detailed analyses at your instruction.

THE SAMPLES

The Heavy mineral samples contained in clear plastic bags - all were wet/damp. These were to be separated magnetically and the non magnetic fraction subject to TBE separation.

PROCEDURE

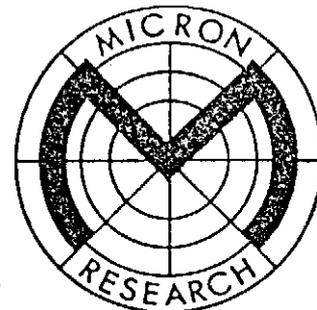
Preparation

Each sample was water washed with copious amounts of water to remove clays which were discarded. The residues were oven dried and weighed - this data being recorded in the accompanying Table No. 1. The whole of each dried sample was screened on a 2mm sieve. The O/S was bagged, the weights also recorded in Table No. 1.

Magnetic Separation.

The whole of each deslimed, dry sample was passed over the Reading Induced Roll Separator at zero amps and at approx 150 RPM. The Hi magnetic fraction was recovered (after a cleaning pass) and the non magnetic fraction repassed with the application of 3 amps of power (approx 14,000 gauss). The gap was increased to 1/8 inch as 3/32 inch gap caused some obstructions to flow between the rotor and pole piece. Both products were repassed through the magnet many times as much iron oxide grains had about the same magnetic response and separation in some cases was not clear cut requiring many passes.

2.



All the products were weighed and recorded in Table No. 1.

TBE Separation

All the non magnetic products (except (1) 1214, 1220, 1328, 1332 and 1360 as containing too much iron compounds - heavies and (2) 1346, 1350, 1352 being too small in weight) were separated into 'lights' and 'sinks' in separating funnels using TBE (SG 2.9). The lights were rejected to waste and the sinks alcohol washed, oven dried, weighed and bagged. These data are also shown in Table No. 1.

Sampling

Instructions being that a 200g. analytical sample was required.

1. Head sample
Each head was riffle sampled to produce a 200g. sample which is held in storage as requested (i.e. after removal of O/S). Six samples (1217, 1237, 1270, 1315, 1319 and 1352) unavoidably missed being sampled.
2. Hi Mags
Only 10 sample products were in excess of 200g. but those that were were riffle split - these are noted in Table No. 1 as (2) agreeing with the attached packing slip to Analytical Services.
3. Non Mags
Five of the non magnetic samples which were not subjected to TBE were also riffle sampled and these samples, marked (3) in Table No. 1 - were dispatched to Analytical Services.
4. Sink fractions
Only five sink fractions were in excess of 200g. and these were riffle sampled and re marked (4) in Table No. 1.

A.F. GRIFFIN



TABLE NO. 1

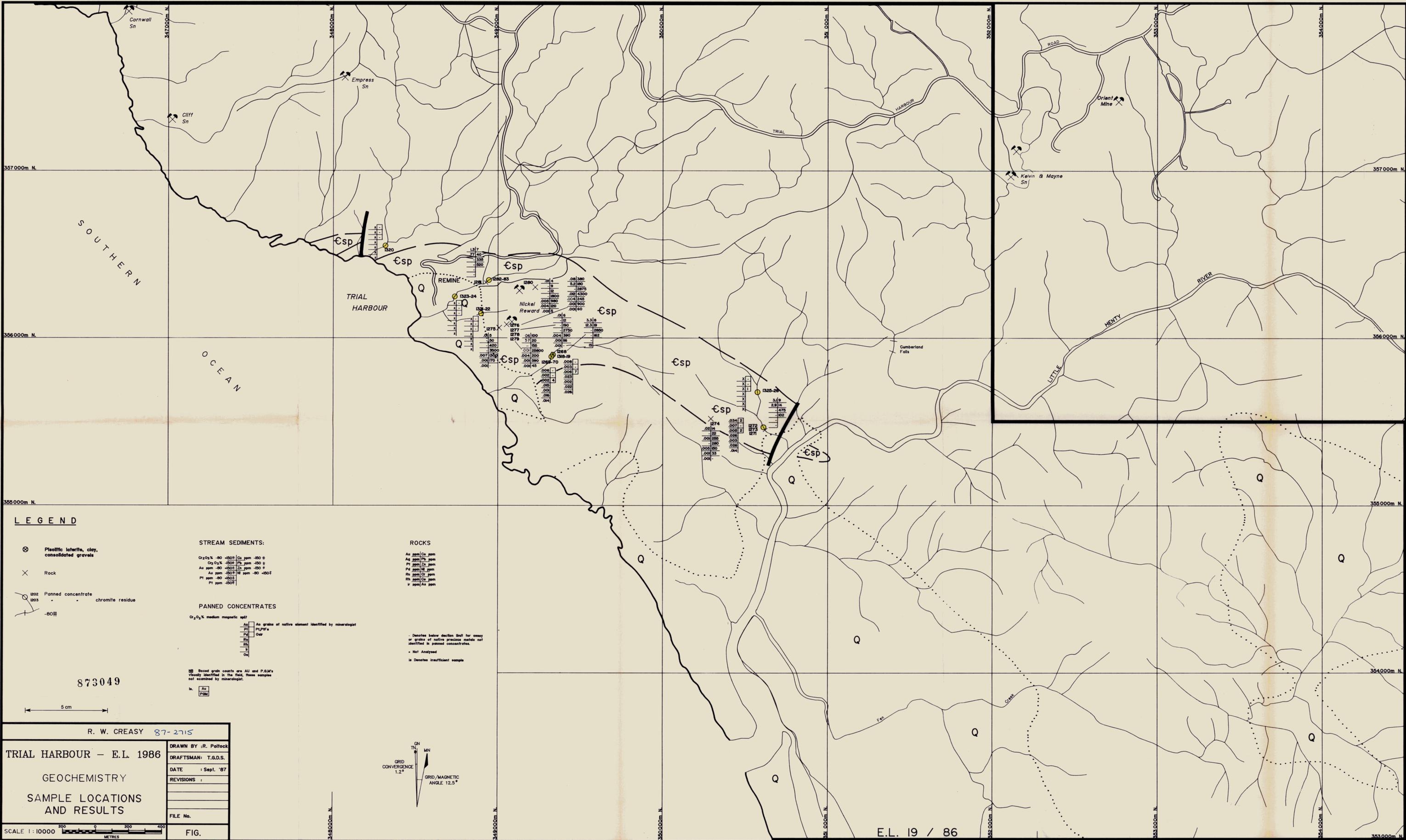
TYPE No. 1

MAGNETIC SEPARATION & HM TESTS

Client No.	Total Wt. gr.	O/S + 2mm g.	Hi Mags g.	Mags g.	N/Mags g.	Sink g.
---------------	------------------	-----------------	---------------	------------	--------------	------------

1270	2084	32	(2) 444	767	833	122
1273	750	10	6	224	293	50

1319	1746	32	(2) 246	645	820	3
------	------	----	---------	-----	-----	---



LEGEND

- ⊗ Plioftic laterite, clay, consolidated gravels
- × Rock
- ⊙ Panned concentrate
- ⊙ chromite residue
- 80#

STREAM SEDIMENTS:

Cr₂O₃% -80 +150# Cu ppm -150#
 Cr₂O₃% -150# Pb ppm -150#
 Au ppm -80 +150# Zn ppm -150#
 Au ppm -150# Ni ppm -80 +150#
 Pt ppm -80 +150#
 Pt ppm -150#

PANNED CONCENTRATES

Cr₂O₃% medium magnetic sp#
 Au As grades of native element identified by mineralogist
 Pt Pt/Pt#
 Ni Ni#
 Rh Rh#
 V V#

ROCKS

Au ppm Cu ppm
 Ag ppm Pb ppm
 Pt ppm Zn ppm
 Pd ppm Ni ppm
 Rh ppm Co ppm
 V ppm As ppm

Denotes below detection limit for assay or grade of native precious metals not identified in panned concentrates.
 - Not Analyzed
 is Denotes insufficient sample

Based grain counts are Au and PGM's visually identified in the field, these samples not examined by mineralogist.

is Au PGM

873049

5 cm

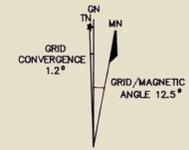
R. W. CREASY 87-2715

TRIAL HARBOUR - E.L. 1986
 GEOCHEMISTRY
 SAMPLE LOCATIONS
 AND RESULTS

DRAWN BY	R. Pollock
DRAFTSMAN	T.O.S.
DATE	Sept. '87
REVISIONS	
FILE No.	

SCALE 1:10000 METRES

FIG.



E.L. 19 / 86