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EXPLORATION LICENCE 27/86 - LYNDHURST

90-3109

<b>MINES</b>	
File Ref. E.L. 27	86
- 4 APR 1990	
Doc. Ref.	
Action Officer	Initials
Refer to Corro.	
2.4.90	
Resubmit to	Date

ANNUAL REPORT : YEAR 3

(1 April, 1989 - 31 March, 1990)

**MICROFILMED**

90-3109

K.C. MORRISON

V. HOFTO

March 1990

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## INTRODUCTION AND TENEMENT INFORMATION

Exploration Licence 27/86 is a 33 km<sup>2</sup> tenement in the Lyndhurst area, NE Tasmania (Figure 1 & Plan 1).

The licence was originally granted on 1 April 1987 for an area of 91 km<sup>2</sup>. In July 1989, the licencees submitted 58 km<sup>2</sup>, largely the southern portion of the EL, for relinquishment. The reduction in area was approved by the Minister for Mines on 29 May 1989.

The licence is owned 100% by Placeco Australia Pty. Ltd.

## EXPLORATION PHILOSOPHY AND OBJECTIVES

The primary objective is to explore for gold and silver mineralisation in quartz veins, stockworks and in the surrounding country rock. Such mineralisation is known to exist around previously worked areas, and may also exist in blind deposits beneath the superficial cover. The exploration philosophy and method in this area is based on the fact that several known gold occurrences are adjacent to or covered by a veneer of Quaternary sand and that airborne geophysics and satellite photography have potential to sense structural trends extending from known mineralisation, under this surficial cover. Correct analysis of the structural leads gained from these data should detect mineralised ground as there is a clear structural influence in the location of known deposits.

## SUMMARY OF WORK COMPLETED PRIOR TO CURRENT TERM

A 1450 line km aeromagnetic and radiometric survey was flown during Year 1. No direct relationship with the old workings was established but several prominent trends in magnetic character are present.

No regional or specific surveys were carried out on the EL in Year 2.

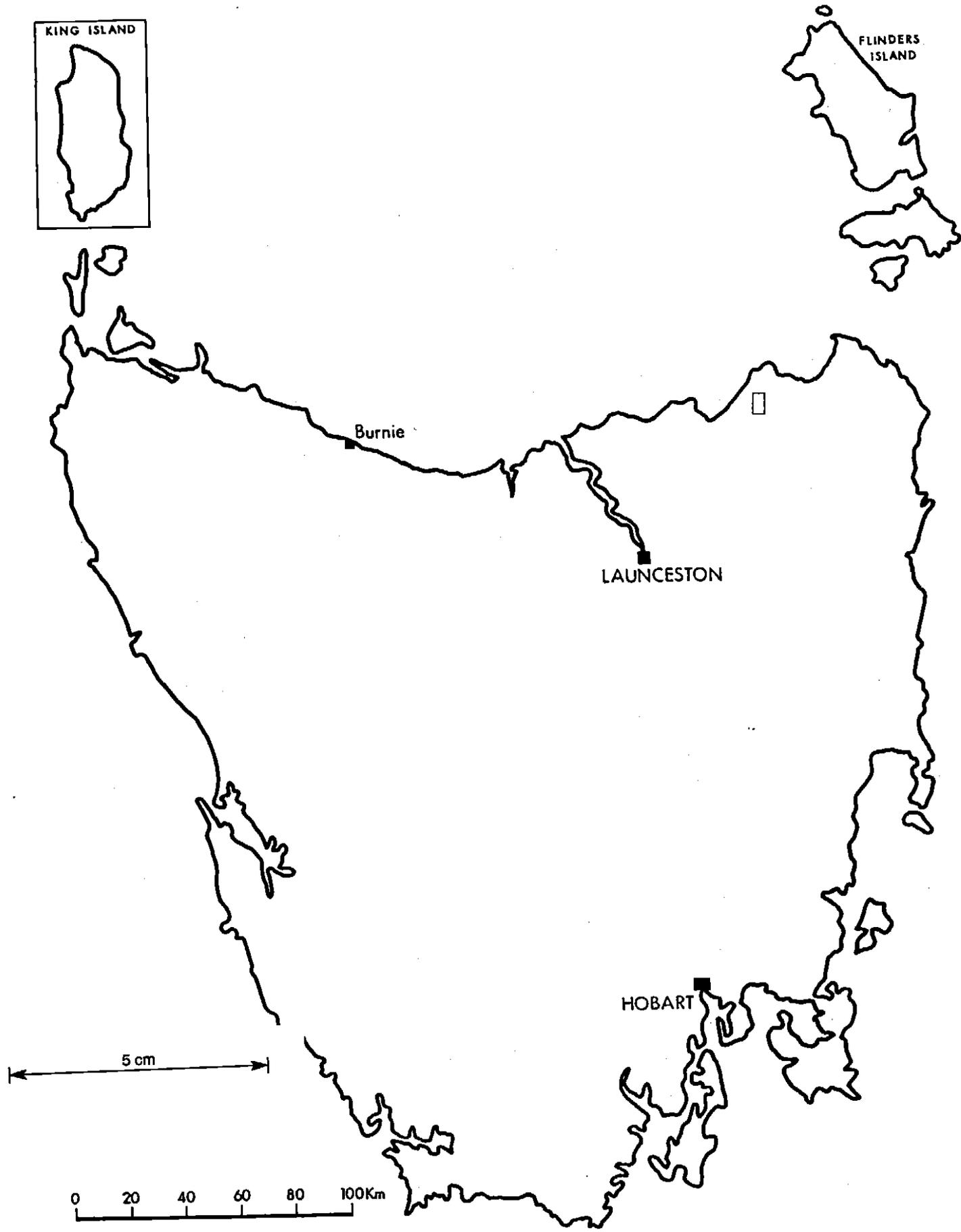


Figure 1. Location Map, EL 27/86 - Lyndhurst.

### SUMMARY OF WORK COMPLETED IN YEAR 3

Exploration focus concentrated on and around the area of the old Southern Cross workings.

A 1200m x 300m grid was established over the Southern Cross prospect.

A total of 53 composite rock-chip samples were taken over, and along strike from, the Southern Cross workings, and assayed for gold. 12 of these samples were also assayed for silver.

An initial comparison of gold, arsenic and lead concentrations in surface humic material against gold and arsenic values in augered soil samples resulted in the collection and *Huminex* assay of 322 surface soil samples taken on the grid.

### SPECIFIC SURVEYS

#### **Gridding**

A 1200m x 300m grid with crosslines every 50m was cut and pegged over the old Southern Cross workings. The grid baseline commences at (approx.) AMG 517 750mE, 5 465 000mN and extends grid northwards at 20° mag for 1200m (Plan 1) along a prominent photolinear which was predicted to be structurally related to mineralisation. The grid baseline was assigned an easting of 1000m and all grid co-ordinates in the following text, unless stipulated as AMG co-ordinates, refer to this grid.

#### **Rock-chip Sampling**

A total of 53 composite rock-chip samples were taken around and along strike from the workings and from veined Mathinna Beds sandstones adjacent to the workings. 12 samples (L1 - L3; SRC1 - SRC8; SRC12) were forwarded to the Department of Resources & Energy, Mines Division Launceston laboratories for assay for gold by Fire Assay Fusion/AAS and for silver by digestion/AAS. 41 samples were forwarded to Analabs, Burnie for assay for gold by Fire Assay Fusion/AAS.

The assay results, together with brief descriptions of the rock samples, are presented in Appendix 1.

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Gold values range from below detection level to 151.00 ppm (SRC23). Several quartz reef samples carry high gold values with 20 of the 53 composite samples showing > 1ppm gold. All of these samples:

Sample	Au ppm	Sample	Au ppm
LT1	78.00	SRC39	2.86
LT2	6.88	SRC41	18.80
LT3	1.70	SRC43	14.13
SRC26	3.11	SRC44	5.20
SRC27	11.37	SRC45	14.13
SRC33	1.17	SRC46	5.02
SRC34	11.70	SRC47	7.60
SRC35	151.00	SRC49	14.44
SRC36	2.07	SRC50	2.03
SRC38	40.30	SRC51	8.13

were taken from rock dumps around the old workings. Samples from adjacent outcrop did not exhibit any significant gold values.

The highest gold grades were obtained from vein quartz carrying visible base metal sulphide:

Sample	Au ppm
SRC 34	11.70
SRC 35	151.00
SRC 38	40.30
SRC 41	18.80
SRC 45	14.13
SRC 49	14.44

One sample (L1) of the 12 assayed for silver returned a significant value of 87 g/t.

A specimen of sphalerite-bearing banded quartz from a quartz dump at 987mE 850mN was submitted to the Geology Department, University of Tasmania, for petrographic description by Gary Davidson (Appendix 2).

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The rock is a foliated grey to white quartz, cut by a second angular, sulphide bearing quartz vein generation. Some specimens contain 5% sphalerite blebs, 2-3mm in diameter. Gold occurs as inclusions, between 3 and 35  $\mu$ m across within the fracture controlled blebs of sphalerite, and as larger grains (one 1.5mm across) in the host quartz gangue. Thin section analysis reveals that the quartz vein was sheared and faulted after formation and that the sulphides and gold were very likely present prior to deformation.

### Soil Survey

An orientation soil survey was conducted to enable a comparison of surface humic material, analysed by *Huminex* method for gold, arsenic and lead by the Mines & Mineral Resources Division, Department of Resources & Energy, and augered A + B + C horizon soil samples, analysed for gold and arsenic by Analabs, Burnie. A total of 45 sites were sampled on the baseline.

Results of the comparison survey (Appendix 3) demonstrated that gold tends to be concentrated in the humic plant litter material in the surface horizon of the soil profile. This, together with the relatively high sensitivity of the *Huminex* method, resulted in the survey being completed by taking samples every 25 metres and assaying each sample for gold, arsenic and lead by the *Huminex* method (Appendix 4).

Gold, arsenic and lead values are plotted on Plans 2a, 2b and 2c respectively. Overall, the distribution of values for the three elements is erratic and difficult to use as an exploration tool. The data for lead are the only values which allow sensible contouring (Plan 2c), although it is still difficult to interpret the data in terms of control over mineralisation. ✓

### CONCLUSIONS & RECOMMENDATIONS

Moderate to high grade gold values are obtained in quartz reef rocks residual to the early Southern Cross workings. Outcrop adjacent to the these workings shows no significant gold contents.

*Huminox* analysis for gold, arsenic and lead has not been successful in highlighting trends and anomalous zones in the Southern Cross prospect.

Further mapping, sampling and drilling is required to test for strike and depth extensions of the Southern Cross reefs.

### PROPOSED FUTURE EXPLORATION

In Year 4, Placeco proposes a continuation of the mapping and sampling of the Southern Cross prospect. This programme will be extended to cover the Alliance and Pioneer fields. On the basis of this investigation, a drilling programme, initially for the Southern Cross prospect, will be determined.

Joint venture opportunities for the tenement will also be investigated.

## APPENDIX 1

ROCK-CHIP SAMPLE DESCRIPTIONS  
AND ASSAY RESULTS

PLEASE NOTE: Sample numbers L1, L2 & L3 in Mines & Mineral Resources Division assay results refer to rock-chip samples SRC9, SRC10 and SRC11 respectively in sample descriptions and Analabs assay results.

## APPENDIX 1

## ROCK-CHIP SAMPLE DESCRIPTIONS

## SOUTHERN CROSS PROSPECT

NOTE: Co-ordinates of sample localities refer to a 1200m grid baseline assigned an easting of 1000m.

Sample No.	Co-Ords	Description
SRC1	1000E, 1075N	Milky vein-quartz float (dispersed mullock?). Minor limonitic and hematitic staining on internal fractures.
SRC2	1000E, 1075N	Blue-grey quartzite and white vein quartz, banded in part, brecciated in part. Hematitic deposits on break surfaces.
SRC3	1000E, 1040N	Quartz mullock from trench. Massive, milky white quartz +/- ferruginous alteration.
SRC4	1000E, 1048N	As above but sampled from different scratchings.
SRC5	1000E, 978N	Mixed quartz samples from shallow trench and prospect hole. Trace sulphides.
SRC6	996E, 975N	Small (1-5mm), blue-grey quartz veins in sandstone.
SRC7	1000E, 950N	Blue-grey quartz/quartzite +/- dense, grey-white vein quartz. Very fine red mica and ferruginous alteration.
SRC8	1000E, 873N	Dense grey-blue quartz +/- contorted, indurated blue-grey sandstone/quartzite. Abundant oxidation, ferruginous +/- hydrothermal alteration effects. Minor fine boxworks.
SRC8	990E, 850N	Composite quartz with alteration.
L <sub>1</sub> SRC9	970E, 860N	As for SRC9
L <sub>2</sub> SRC10	1000E, 820N	As for SRC9
L <sub>3</sub> SRC11		
L <sub>3</sub> SRC12	1120E, 850N	Mullock heap beside shaft. Mixed grey/white dense quartz. Trace sulphide +/- ferruginous alteration +/- very fine mica. Weak colour banding in quartz with minor patches of green alteration.
SRC13	1125E, -10N	Composite vein quartz and silicified sandstone from mullock and subcrop around cross-cutting trench.

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Sample No.	Co-Ords	Description
SRC14	1125E, ~10N	As for SRC13
SRC15	1133E, 00N	Ridge of silicified, semi-hornfelsed, micaceous, fine grained sandstone with stockwork of fine quartz veins +/- ferruginous staining.
SRC16	1130, 00N	As for SRC15
SRC17	1010E, 00N	Fine grained micaceous sandstone/siltstone and mudstone outcrop, in part silicified. Fine quartz vein stockwork +/- ferruginous (mainly hematitic) staining. Apparent cross bedding in float fragments of sandstone.
SRC18	920-925E, 50N	Composite sample of massive, white, vein quartz float and subcrop. Silicified sandstone with fine stockwork and ferruginous sandstone /quartz breccia. Soft sediment slump structures in sandstone fragments.
SRC19	1080E, 80N	Composite sample of float and subcrop fragment of silicified sandstone and stockwork, and vein quartz from an area of apparent shallow eluvial sluicing/digging.
SRC20	1078E 72N	Float. Vein quartz with dark banding and minor patches of chlorite(?).
SRC21	1092E, 92N	Outcrop. Silicified, micaceous fine-grained micaceous sandstone with quartz stockwork, locally with hematitic staining.
SRC22	1038E, 200n	Outcrop. Massive, heavily silicified hornfelsed sandstone, marbled with vein quartz.
SRC23	1010E, 296N	Silicified medium-grained sandstone marbled with vein quartz stockwork, hematitic staining.
SRC24	935E, 325N	Trench sample of mixed mullock slate with fine stockwork, and sandstone with small clots of quartz, fragments of vein quartz with banding and possibly oxidised sulphide veins.
SRC25	1045E, 575N	Sample from small pit with quartz mullock. Quartz with banding, layered with thin layers of metamorphosed country rock showing stockwork and oxidised alteration patches.

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Sample No.	Co-Ords	Description
SRC26	1035E, 555N	Quartz mullock heap on west side of diggings, north of dams. Quartz banded, ferruginous on planes. Evidence of clay FeOH alteration. Oxidised.
SRC27	965E, 531N	Quartz mullock around shallow pit in cluster of small workings. Quartz shows banding, vugs. Thin bands of Mathinna Beds rock with stockwork.
SRC28	921E, 547N	Outcrop sample of silicified sandstone marbled with vein quartz stockwork. No evidence of alteration.
SRC29	930E, 495N	Mullock. Orthoquartzite/quartzite vein quartz breccia. Heavy stockwork with hematite staining. Orthoquartzite hard, dense, white-dark blue/grey in colour.
SRC30	963E, 447N	As for SRC29
SRC31	1025E, 341N	Mullock. Composite quartz fragments.
SRC32	1000E, 343N	As for SRC29
SRC33	00E, 1200N	Quartz mullock around infilled workings. Massive quartz in sandstone +/- arsenopyrite alteration features.
SRC34	00E, 1200N	As for SRC33
SRC35	00E, 1200N	As for SRC33 but with 1-2% galena.
SRC36	1025E, 697N	Quartz mullock next to small shaft. Banded quartz +/- fine sulphide. Dark green pods of chlorite(?). Fragments of metamorphosed Mathinna Beds.
SRC37	968E, 653N	Dump of mainly fine-grained sandstone with minor quartz veining. Quartz banded, chloritic, ferruginous (sulphide?).
SRC38	998E, 650N	Quartz dump next to shaft in sandstone. Quartz banded, dark grey/blue - white in colour with abundant chlorite and fine sulphide near band boundaries. Underlying shaft dips to 120° on a line of workings striking 30°.
SRC39	998E, 650N	As for SRC38
SRC40	1018E, 675N	On trend with line of workings striking 30°. Massive quartz on a dump. Minor banding, common blebs of chlorite and fine sulphide.

Sample No.	Co-Ords	Description
SRC41	1025E, 615N	Quartz dump beside line of mullock heaps. Probably transported from main workings. Banded quartz with common arsenopyrite and arsenopyrite salts. Trace galena and visible gold (?).
SRC42	1055E, 605N	Large quartz dump. Mainly massive, plain white quartz. Minor portion banded with sulphide, chlorite etc.
SRC43	1000E, 600N	Centre of dump around main workings. Banded quartz with common pyrite, mainly on laminae planes. Wall rocks mainly grey shales and fine-grained sandstones with common yellow staining (oxidised sulphide?).
SRC44	987E, 843-850N	Assorted composite quartz from mullock around set of workings. Minor sulphide. Trace visible gold.
SRC45	978E, 862N	Quartz dump on small pit. Dense, hard, grey quartz with abundant sulphides (arsenopyrite, sphalerite, galena). Quartz mainly massive but occasionally vuggy. Trace visible gold.
SRC46	909E, 850N	Dump next to small working. Dark, massive quartz with no sulphides or evidence of alteration.
SRC47	1000E, 825N	Quartz dump on eastern side of substantial workings. Massive, grey-white quartz with minor vugs. Trace sulphide and chlorite.
SRC48	992E, 800N	Quartz from mullock around workings. Massive, light grey quartz with occasional streaks of chlorite and sulphides.
SRC49	1090E, 750N	Mullock next to shafts and pits on quartz reef. White-grey quartz with some banding and abundant sulphides (arsenopyrite, galena, sphalerite, pyrite).
SRC50	1084E, 745N	As for SRC49
SRC51	1100E, 785N	Quartz from 2 pits across line of reef. Quartz as for SRC49.
SRC52	1150E, 1025N	Composite quartz from mullock. Quartz as for SRC49.
SRC53	990E, 1002N	Composite quartz from dump. Quartz as for SRC49.



TASMANIA

Launceston Office:  
 Chemical and Metallurgical  
 Laboratory,  
 287 Wellington Street,  
 LAUNCESTON 7249

Enquiries: Placeco Aust. P/L  
 Phone: 11 Midland Highway  
 Your ref.: Brighton 7030  
 Our file: Tasmania

7.9.89

Reg. No 895445-57

Dear Sir,

Please find below results of samples submitted to this laboratory by Mr. Morrison, on the 21st Aug 1989.

<u>Reg. No</u>	<u>Description</u>	<u>Ag g/t</u>	<u>Au g/t</u>	50 gms.
895445	L 1	87	78	
895446	L 2	<10	6.88	
895447	L 3	<10	1.70	
895448	MF 1 ?	<10	0.03	
895449	SRC 1	<10	0.02	
895450	SRC 2	<10	0.02	
895451	SRC 3	<10	0.07	
895452	SRC 4	<10	0.45	
895453	SRC 5	<10	0.02	
895454	SRC 6	<10	0.05	
895455	SRC 7	<10	0.04	
895456	SRC 8	<10	0.71	
895457	SRC 12	<10	0.08	

Analyses by *J. L. James*

Yours faithfully,

(P.L. James)

Chief Chemist & Metallurgist

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# ANALABS

504016

Phone (09) 458 7999

A Division of MacDonal Hamilton & Co. Pty. Ltd.  
52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

ANALYTICAL REPORT No. 999.24.08.06521

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

K.C. Morrison Pty. Ltd.  
190 Macquarie Street  
Hobart  
Tasmania 7000

ORDER No. PROJECT  
DATE RECEIVED 19/09/89 RESULTS REQUIRED ASAP

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

2 25/09/89 1 41

SAMPLE	SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS				
		GRY	CRUSH	SPILT	PUL-VERISE	SEIVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD		
	SRC13/53										Au, AuChk/309		

RESULTS TO

K.C. Morrison Pty. Ltd.  
190 Macquarie Street  
Hobart  
Tasmania 7000

RESULTS TO

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
crushing CU	nitric acid A3	spectrophotometry SPEC
rock RO	aqueous regia A4	colorimetry COL
oil SO	nitric perchloric A5	chromatography CHR
slit SL	oil mixture A6	titration ETN
water WA	RF under pressure A7	other chemical means CHEM
slit SL	flush A8	miscellaneous MISC
from sediment		fluorescence
any general		inductively coupled plasma ICP

AUTHORISED OFFICER

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A Division of Indicate Inspection and Testing Services Australia Pty Ltd

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

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25/09/89

1 OF 2

TUBE No.	SAMPLE No.	Au	AuChk						
1	SRC13	0.027	0.025						
2	SRC14	0.052	-						
3	SRC15	0.023	-						
4	SRC16	0.043	-						
5	SRC17	<0.008	-						
6	SRC18	<0.008	-						
7	SRC19	0.012	0.017						
8	SRC20	<0.008	-						
9	SRC21	0.010	-						
10	SRC22	<0.008	-						
11	SRC23	<0.008	-						
12	SRC24	<0.008	<0.008						
13	SRC25	0.036	-						
14	SRC26	3.110	-						
15	SRC27	11.370	-						
16	SRC28	0.033	-						
17	SRC29	0.014	-						
18	SRC30	0.011	-						
19	SRC31	0.020	-						
20	SRC32	0.009	-						
21	SRC33	1.170	-						
22	SRC34	11.700	-						
23	SRC35	151.00	209.00						
24	SRC36	2.070	-						
25	SRC37	0.174	-						

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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*[Signature]*

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## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

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25/09/89

2 OF 2

TUBE No.	SAMPLE No.	Au	AuChk						
1	SRC38	40.300	-						
2	SRC39	2.860	6.270						
3	SRC40	0.148	-						
4	SRC41	18.800	-						
5	SRC42	0.920	-						
6	SRC43	4.300	-						
7	SRC44	5.200	-						
8	SRC45	14.130	-						
9	SRC46	5.020	-						
10	SRC47	7.600	-						
11	SRC48	0.144	-						
12	SRC49	14.440	-						
13	SRC50	2.030	2.400						
14	SRC51	8.130	-						
15	SRC52	0.231	-						
16	SRC53	0.027	0.029						
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

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0. 018

APPENDIX 2

Petrographic description of sphalerite-bearing vein-quartz by  
Mr G. Davidson, Geology Department, University of Tasmania.

Petrographic Descriptions

Reference: GD102

DATE: 19/11/89

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Sample LYNDHURST.....POLISHED BLOCK
-------------------------------------

SUMMARY DESCRIPTION: Sphalerite-bearing vein-quartz.

*Hand-specimen*

Foliated grey to white quartz, cut by a second angular, sulphide-bearing quartz vein generation. Some specimens contain ~5% sphalerite blebs.

*Reflected light description*

Mineralogy of reflected light minerals:	Sphalerite: 95%
	: Arsenopyrite: 4%
	: Pyrrhotite: < 1 %
	: Galena: trace
	: Chalcopyrite: trace
	: Chalcocite: trace
	: gold : 15 observed grains.

**Textures:** Sphalerite occurs as 2 to 3 mm fracture-controlled blebs in the field of view, although it is up to 1 cm across in handspecimen. All other sulphide constituents occur as inclusions within sphalerite, with the exception of arsenopyrite, which also occurs as fine sparsely-disseminated euhedra. The sulphide inclusions in sphalerite have the following relationships: pyrrhotite and chalcopyrite are exsolved as rods, blebs and euhedra on crystallographically-controlled planes. Galena replaces pyrrhotite in the three observed instances.

Gold was only observed in one of 6 sphalerite anhedral, but here 15 grains occurred in a 2 mm field of view. The grains ranged between 3 and 35  $\mu\text{m}$  across, occurring as

- 1) rods in contact with exsolved pyrrhotite
- 2) isolated blebs wholly enclosed by sphalerite, and
- 3) larger grains associated with silicate gangue, or with holes in the block.

No gold was observed in the quartz gangue hosting sphalerite, although it was found in the following slide description of the same rock, which is cut on a different plane.

Sample LYNDHURST.....POLISHED THIN-SECTION
--

**SUMMARY DESCRIPTION:** Strongly deformed and recrystallised gold-bearing quartz vein.

*Reflected Light*

Two grains of gold, one originally 1.5 mm across (partially plucked during sectioning), and several very fine arsenopyrite crystals, were the sole reflected light minerals in the section, hosted by the quartz gangue.

*Transmitted Light*

Mineralogy: Quartz: 98%  
Sericite: 2 %

Textures: The section is comprehensively and strikingly deformed. Remnant quartz grains with euhedral growth zones are apparent in 1 to 3 mm blocks, but the dominant texture is the structural overprint. This is manifested as 5 to 10 mm wide zones of marked grain-size reduction, universally crenulate grain boundaries, and strain lamellae development. Many crenulate boundaries exhibit advanced recrystallisation to form fine arrays of new grains on the margins. As a late ore second-stage of deformation, thin splaying faults cut and offset the older strained fabric: this may relate to the second vein-stage observed in hand-specimen.

**SUMMARY OF THE ROCK FABRIC**

This rock is a quartz vein which was sheared and faulted after formation. Unfortunately the thin-section does not clearly show the timing of sphalerite growth with respect to the deformation, but on the basis of the fractured nature of sphalerite grains, the sulphides and gold were very likely present prior to deformation.

This question would be worth further investigation.

## APPENDIX 3

Assay results of comparison survey of surface humic material, analysed by *Huminex* method for Au, As and Pb by the Mines & Mineral Resources Division, Department of Resources & Energy, and augered A + B + C horizon soil samples, analysed for Au and As by Analabs, Burnie.

DEPARTMENT OF RESOURCES AND ENERGY  
MINES - GEOCHEMICAL LABORATORY

PLACECO HUMINEX RESULTS

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
L1	53	3.4	277
L2	28	2.7	121
L3	10	4.0	114
L4	163	0.4	706
L5	26	3.0	83
L6	12	3.6	85
L7	7	1.0	49
L8	3	0.0	40
L9	9	0.2	36
L10	16	13.5	88
L11	16	5.7	67
L12	204	2.1	244
L13	13	0.5	97
L14	2	3.5	58
L15	11	0.0	108
L16	10	1.2	49
L17	8	10.0	43
L18	12	4.4	69
L19	23	0.7	102
L20	110	0.9	65
L21	26	0.5	95
L22	79	8.4	99
L23	11	2.2	20
L24	3	0.8	37
L25	82	93.9	394
L26	5	0.0	29
L27	5	0.4	71
L28	13	0.6	18
L29	2	1.6	37
L30	6	0.8	35
L31	9	13.9	52
SS32	86	3.1	45
L33	2	0.7	16
L34	1	3.4	35
L35	5	12.5	120
L36	3	1.2	0
L37	1	0.3	17

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Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
L38	1	1.3	25
L39	5	0.0	24
L40	2	1.3	43
L41	1	0.9	22
L42	1	0.8	28
L43	6	1.7	68
L44	2	1.4	54
L45	6	0.7	34

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FAX: 004 31 8890

Telex AA92560

**ANALYTICAL REPORT No.** 999.24.08.06433

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

Placeco Pty Ltd  
C/- K.C. Morrison Pty Ltd  
190 Macquarie Street  
Hobart Tasmania 7000

ORDER No.

PROJECT

Fax

DATE RECEIVED

RESULTS REQUIRED

18/08/89

ASAP

No. OF PAGES  
OF RESULTSDATE  
REPORTEDNo.  
OF COPIES

TOTAL No. OF SAMPLES

3

28/08/89

1

45

DATE OF SAMPLES	REFER LOW	SAMPLE NUMBERS	PRE-TREATMENT						ANALYSIS				
			DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD	
		SCS01/45									As/114		
		SCS01/45									Au/313		

REMARKS

RESULTS

TO

Placeco Pty Ltd  
C/- K.C. Morrison Pty Ltd  
190 Macquarie Street  
Hobart Tasmania 7000

RESULTS

TO

STATE OF SAMPLES		ANALYSIS — PREPARATION		ANALYSIS — METHOD
whole core	WC	perchloric acid	A1	atomic absorption
split core	SC	hydrochloric acid	A2	x-ray fluorescence
cutting	CU	nitric acid	A3	spectrophotometry
rock	RO	aque regia	A4	colorimetry
oil	SO	nitric-perchloric	A5	chromatography
slip	PU	HF mixture	A6	titration
water	WA	HF under pressure	A7	other chemical means
sludge	TI	fusion	A8	miscellaneous
beach sediment	SS			fluorescence
heavy mineral	HM			inductively coupled plasma
				ICP

AUTHORISED OFFICER

025

## ANALABS

504026

A Division of Macdonald Hamilton &amp; Co., Pty. Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

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Fax

1 OF 3

TUBE No.	SAMPLE No.	As	Au							
1	SCS01	57	0.024							
2	SCS02	51	<0.005							
3	SCS03	69	0.012							
4	SCS04	150	0.052							
5	SCS05	17	<0.005							
6	SCS06	12	<0.005							
7	SCS07	4	<0.005							
8	SCS08	2	<0.005							
9	SCS09	<1	<0.005							
10	SCS10	4	0.030							
11	SCS11	17	0.024							
12	SCS12	40	0.096							
13	SCS13	6	<0.005							
14	SCS14	<1	<0.005							
15	SCS15	6	<0.005							
16	SCS16	2	<0.005							
17	SCS17	<1	<0.005							
18	SCS18	<1	<0.005							
19	SCS19	1	<0.005							
20	SCS20	<1	<0.005							
21	SCS21	6	<0.005							
22	SCS22	1	<0.005							
23	SCS23	2	<0.005							
24	SCS24	<1	<0.005							
25	SCS25	66	0.854							

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

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ANALABS

A Division of Macdonald Hamilton &amp; Co. Pty Ltd

504027

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No

PAGE

999.24.08.06433

28/08/89

Fax

2 OF 3

TUBE No	SAMPLE No	As	Au							
1	SCS26	6	<0.005							
2	SCS27	<1	<0.005							
3	SCS28	<1	<0.005							
4	SCS29	5	<0.005							
5	SCS30	1	<0.005							
6	SCS31	44	<0.005							
7	SCS32	17	<0.005							
8	SCS33	21	<0.005							
9	SCS34	17	<0.005							
10	SCS35	<1	<0.005							
11	SCS36	<1	<0.005							
12	SCS37	5	<0.005							
13	SCS38	1	<0.005							
14	SCS39	3	<0.005							
15	SCS40	<1	<0.005							
16	SCS41	<1	<0.005							
17	SCS42	<1	<0.005							
18	SCS43	<1	<0.005							
19	SCS44	3	<0.005							
20	SCS45	2	<0.005							
21										
22										
23										
24										
25										

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

ANALABS  
 CHARTERED

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# ANALABS

504028

A Division of International Analytical Services, Inc.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06433

2B/08/89

Fax

3 OF 3

TUBE No.	SAMPLE No.	As	Au						
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19	Au/313 checks on sample nos. SCS01, SCS16, SCS18, SCS30, SCS31, SCS42, SCS44								
20	show results of <0.005PPM.								
21	Au/313 check on sample no. SCS25 shows the result of 0.803PPM.								
22	DETECTION	1	0.005						
23	UNITS	PPM	PPM						
24	METHOD	114	313						
25									

Results in ppm unless otherwise specified.  
 \* Element present but concentration too low to determine  
 \* Element concentration is below detection limit  
 \* Element not determined

AUTHORIZED  
 CAPTION



028

APPENDIX 4

*Huminex* assay results.

DEPARTMENT OF RESOURCES AND ENERGY  
MINES - GEOCHEMICAL LABORATORY

PLACECO HUMINEX RESULTS

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
L1	53	3.4	277
L2	28	2.7	121
L3	10	4.0	114
L4	163	0.4	706
L5	26	3.0	83
L6	12	3.6	85
L7	7	1.0	49
L8	3	0.0	40
L9	9	0.2	36
L10	16	13.5	88
L11	16	5.7	67
L12	204	2.1	244
L13	13	0.5	97
L14	2	3.5	58
L15	11	0.0	108
L16	10	1.2	49
L17	8	10.0	43
L18	12	4.4	69
L19	23	0.7	102
L20	110	0.9	65
L21	26	0.5	95
L22	79	8.4	99
L23	11	2.2	20
L24	3	0.8	37
L25	82	93.9	394
L26	5	0.0	29
L27	5	0.4	71
L28	13	0.6	18
L29	2	1.6	37
L30	6	0.8	35
L31	9	13.9	52
SS32	86	3.1	45
L33	2	0.7	16
L34	1	3.4	35
L35	5	12.5	120
L36	3	1.2	0
L37	1	0.3	17

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
L38	1	1.3	25
L39	5	0.0	24
L40	2	1.3	43
L41	1	0.9	22
L42	1	0.8	28
L43	6	1.7	68
L44	2	1.4	54
L45	6	0.7	34
SS 46	18	0.7	14
SS 47	4	0.5	7
SS 48	4	0.7	0
SS 49	7	0.6	9
SS 50	4	1.2	35
SS 51	21	2.5	56
SS 52	30	10.9	43
SS 53	11	1.0	34
SS 54	86	49.0	117
SS 55	14	0.6	14
SS 56	6	2.0	0
SS 57	5	1.6	7
SS 58	7	0.9	11
SS 59	9	1.6	34
SS 60	37	8.1	41
SS 61	103	25.3	77
SS 62	61	14.4	77
SS 63	40	6.9	48
SS 64	5	1.5	13
SS 65	34	7.5	42
SS 66	13	8.7	29
SS 67	36	31.0	87
SS 68	16	7.4	59
SS 69	17	4.2	15
SS 70	25	3.2	51
SS 71	17	9.5	81
SS 72	22	6.1	87
SS 73	9	4.7	31
SS 74	12	5.1	34
SS 75	31	4.3	44
SS 76	32	8.9	114
SS 77	22	4.0	34
SS 78	24	10.0	43
SS 79	28	7.2	65
SS 80	10	7.2	31
SS 81	7	6.8	37
SS 82	15	6.2	22
SS 83	6	3.5	23
SS 84	40	10.3	118
SS 85	74	7.5	35
SS 86	6	0.1	33
SS 87	7	0.3	17
SS 88	10	0.7	5
SS 89	4	0.0	10

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
SS 90	13	1.9	104
SS 91	11	2.7	54
SS 92	22	1.4	22
SS 93	24	3.9	70
SS 94	17	2.4	47
SS 95	17	1.8	22
SS 96	8	1.6	30
SS 97	7	0.4	15
SS 98	12	0.7	14
SS 99	16	7.1	79
SS 100	9	0.6	30
SS 101	7	3.3	25
SS 102	23	2.7	36
SS 103	8	1.9	40
SS 104	29	4.2	149
SS 105	10	1.0	143
SS 106	54	3.2	593
SS 107	9	1.2	38
SS 108	12	0.4	21
SS 109	10	0.3	39
SS 110	8	3.9	151
SS 111	16	1.9	75
SS 112	10	1.5	30
SS 113	22	3.2	206
SS 114	4	1.3	20
SS 115	11	2.6	45
SS 116	25	1.7	81
SS 117	7	2.0	49
SS 118	12	5.2	78
SS 119	10	2.5	47
SS 120	26	3.1	30
SS 121	12	2.3	23
SS 122	5	1.7	26
SS 123	8	4.6	43
SS 124	16	5.3	29
SS 125	9	1.3	24
SS 126	10	0.4	22
SS 127	8	0.3	35
SS 128	6	0.1	31
SS 129	28	0.4	39
SS 130	25	7.0	55
SS 131	5	0.2	17
SS 132	12	3.4	55
SS 133	41	8.6	55
SS 134	28	8.9	100
SS 135	44	10.6	49
SS 136	21	8.2	104
SS 137	5	0.8	16
SS 138	6	0.4	30
SS 139	20	1.6	61
SS 140	19	12.1	97
SS 141	51	0.0	76

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
SS 142	19	4.5	15
SS 143	21	1.4	7
SS 144	3	0.7	57
SS 145	4	0.4	21
SS 146	11	1.4	50
SS 147	28	1.2	96
SS 148	24	0.3	14
SS 149	10	0.0	11
SS 150	8	1.1	27
SS 151	9	0.1	0
SS 152	5	3.4	32
SS 153	18	0.9	9
SS 154	5	3.5	22
SS 155	8	2.0	34
SS 156	6	2.5	199
SS 157	4	1.2	4
SS 158	4	2.2	10
SS 159	19	2.5	0
SS 160	15	1.4	23
SS 161	4	2.0	5
SS 162	4	1.5	0
SS 163	8	2.7	13
SS 164	15	3.2	93
SS 165	9	2.8	48
SS 166	15	1.8	233
SS 167	4	1.7	25
SS 168	10	0.8	63
SS 169	30	1.9	46
SS 170	366	8.6	608
SS 171	80	13.2	160
SS 172	19	1.6	87
SS 173	9	2.2	28
SS 174	11	1.6	54
SS 175	7	3.4	30
SS 176	2	0.7	20
SS 177	2	0.8	29
SS 178	19	2.8	44
SS 179	55	7.4	74
SS 180	32	7.5	83
SS 181	20	13.3	22
SS 182	19	1.5	13
SS 183	128	5.6	58
SS 184	31	1.9	16
SS 185	920	160.0	637
SS 186	142	0.3	34
SS 187	43	4.4	113
SS 188	55	4.7	33
SS 189	12	1.4	48
SS 190	16	2.3	69
SS 191	13	3.3	56
SS 192	3	0.6	19
SS 193	9	0.4	52

033

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
SS 194	38	1.5	26
SS 195	89	17.6	80
SS 196	51	1.6	58
SS 197	3	2.0	17
SS 198	8	1.9	7
SS 199	10	1.8	26
SS 200	2	0.1	11
SS 201	3	1.3	0
SS 202	14	1.7	0
SS 203	423	53.6	185
SS 204	89	8.1	29
SS 205	7	1.0	17
SS 206	5	1.4	7
SS 207	3	0.9	0
SS 208	4	0.8	19
SS 209	0	2.0	22
SS 210	18	0.8	14
22 211	11	1.7	38
SS 212	5	2.1	45
SS 213	7	1.3	25
SS 214	10	1.9	21
SS 215	39	1.9	20
SS 216	24	2.0	39
SS 217	9	1.1	36
SS 218	18	3.9	56
SS 219	10	6.7	301
SS 220	4	1.5	9
SS 221	9	4.1	63
SS 222	3	0.8	10
SS 223	17	1.1	23
SS 224	3	1.0	11
SS 225	4	1.1	0
SS 226	11	0.2	0
SS 227	3	0.0	0
SS 228	2	0.3	0
SS 229	7	1.5	73
SS 230	57	1.4	60
SS 231	7	0.9	75
SS 232	8	3.8	34
SS 233	6	0.3	173
SS 234	7	1.7	33
SS 235	27	4.0	38
SS 236	11	2.5	62
SS 237	5	1.6	42
SS 238	15	9.6	70
SS 239	19	4.0	86
SS 240	16	2.2	54
SS 241	28	3.5	58
SS 242	9	2.8	38
SS 243	8	1.6	37
SS 244	10	3.6	63
SS 245	25	0.7	44

034

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
SS 246	6	0.8	47
SS 247	2	0.8	17
SS 248	5	0.8	21
SS 249	3	0.6	24
SS 250	2	0.9	37
SS 251	6	1.2	37
SS 252	42	1.3	57
SS 253	29	2.6	55
SS 254	6	0.7	11
SS 255	13	2.7	68
SS 256	7	1.4	16
SS 257	2	1.8	20
SS 258	21	3.4	43
SS 259	36	4.4	93
SS 260	21	3.9	65
SS 261	277	11.6	128
SS 262	52	3.2	52
SS 263	87	4.3	110
SS 264	9	1.5	31
SS 265	8	0.7	16
SS 266	3	0.0	0
SS 267	9	0.1	0
SS 268	3	0.9	38
SS 269	18	4.0	159
SS 270	4	1.1	0
SS 271	6	1.4	38
SS 272	4	2.0	14
SS 273	3	0.3	13
SS 274	4	0.1	16
SS 275	6	1.4	117
SS 276	7	0.7	17
SS 277	3	0.8	92
SS 278	20	1.3	27
SS 279	7	0.8	13
SS 280	16	2.9	82
SS 281	24	22.4	25
SS 282	24	0.9	26
SS 283	6	0.7	26
SS 284	14	3.4	44
SS 285	26	3.4	56
SS 286	17	2.5	69
SS 287	36	0.7	17
SS 288	9	6.0	13
SS 289	16	17.1	20
SS 290	10	1.0	20
SS 291	6	0.1	30
SS 292	39	1.9	13
SS 293	4	2.1	54
SS 294	18	2.0	58
SS 295	6	1.0	19
SS 296	3	0.8	58
SS 297	10	1.2	26

035

Sample/ Trav. No.	Gold (ppb)	Arsenic (ppm)	Lead (ppm)
SS 298	3	0.4	13
SS 299	3	1.0	17
SS 300	2	0.8	18
SS 301	2	0.4	20
SS 302	9	1.2	18
SS 303	3	0.5	23
SS 304	14	0.9	23
SS 305	5	1.0	6
SS 306	3	0.3	14
SS 307	7	0.5	28
SS 308	23	1.0	38
SS 309	3	1.4	18
SS 310	7	0.4	13
SS 311	8	0.3	13
SS 312	10	0.8	21
SS 313	7	1.3	41
SS 314	2	0.2	13
SS 315	2	0.2	4
SS 316	5	0.5	9
SS 317	3	0.5	44
SS 318	6	0.3	26
SS 319	35	0.1	18
SS 320	4	0.0	0
SS 321	5	0.0	0
SS 322	6	0.0	0

030

16:17:50

PLACECO GOLD

12/15/89

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Au Unit = PPB N = 322
Mean = 23.838 Min = 0.300 1st Quartile = 5.350
Std. Dev. = 64.648 Max = 919.700 Median = 9.800
CV % = 271.200 Skewness = 9.828 3rd Quartile = 20.850

Table with columns: %, cum %, cls int, (# of bins = 26 - bin size = 36.776). Rows show cumulative distribution data with asterisks representing observations.

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

16:16:40

PLACEDO GOLD

12/15/89

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Au PPB Unit = N = 322

Mean = 1.0363 Min = -0.5229 1st Quartile = 0.7283

Std. Dev. = 0.4792 Max = 2.9636 Median = 0.9912

CV % = 46.2401 Skewness = 0.4721 3rd Quartile = 1.3191

Anti-Log Mean = 10.873 Anti-Log Std. Dev. : (-) 3.607 (+) 32.776

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.1395)
0.00	0.15	0.255	-0.5926	
0.31	0.46	0.352	-0.4531	*
0.00	0.46	0.486	-0.3137	
0.31	0.77	0.670	-0.1742	*
0.00	0.77	0.923	-0.0348	
0.62	1.39	1.273	0.1047	*
2.17	3.56	1.755	0.2442	****
3.42	6.97	2.419	0.3836	*****
6.21	13.16	3.335	0.5231	*****
7.14	20.28	4.598	0.6625	*****
10.56	30.80	6.339	0.8020	*****
13.98	44.74	8.739	0.9415	*****
13.04	57.74	12.048	1.0809	*****
9.32	67.03	16.611	1.2204	*****
9.63	76.63	22.900	1.3598	*****
9.32	85.91	31.572	1.4993	*****
4.97	90.87	43.528	1.6388	*****
2.80	93.65	60.011	1.7782	*****
1.55	95.20	82.735	1.9177	***
2.17	97.37	114.064	2.0571	****
0.62	97.99	157.257	2.1966	*
0.62	98.61	216.806	2.3361	*
0.31	98.92	298.905	2.4755	*
0.31	99.23	412.092	2.6150	*
0.31	99.54	568.139	2.7545	*
0.00	99.54	783.278	2.8939	
0.31	99.85	1079.883	3.0334	*

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

\*\*\*\*\*

038

504039

15:25:02  
12/15/89

PLACEDU GOLD

LOGARITHMIC VALUES

=====

VARIABLE = Au PFB  
UNIT =  
N = 322  
N CI = 26

POPULATIONS

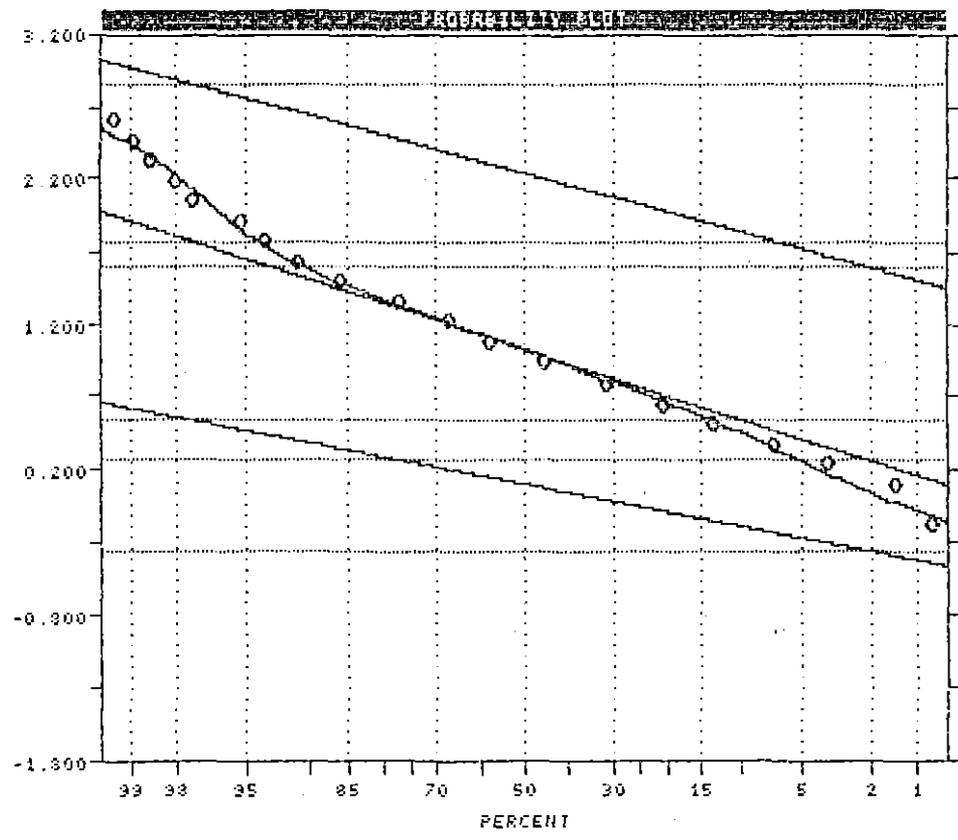
=====

Pop.	Mean	Std.Dev.	%
1	0.0836	0.2250	4.0
2	1.0197	0.5763	32.0
3	2.2230	0.9152	4.0

POP. THRESHOLDS

Pop.	Mean	Std.Dev.
1	-0.3664	0.5335
2	0.2571	1.7722
3	1.5385	2.8594

USERS VISUAL  
PARAMETER ESTIMATES



16:41:40

PLACECO GOLD

12/15/89

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = GOLD.DAT

Variable = Au PFB Unit = N = 322  
N CI = 26

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 0.

=====

Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	1.212	0.722	4.00
		2.035	
2	10.463	4.399	92.00
		24.884	
3	169.418	81.986	4.00
		350.091	

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	0.430 3.416
2	1.850 59.180
3	39.675 723.440

#####

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = As Unit = PPM N = 310

Mean = 4.129 Min = 0.100 1st Quartile = 0.800

Std. Dev. = 11.631 Max = 160.000 Median = 1.700

CV % = 281.662 Skewness = 9.799 3rd Quartile = 3.500

%	cum %	cls int	(# of bins = 25 - bin size = 6.663)
0.00	0.16	-3.231	
73.87	73.79	3.431	***** --> 115
19.68	93.41	10.094	*****
3.55	96.95	16.756	*****
0.97	97.91	23.419	**
0.32	98.23	30.081	*
0.32	98.55	36.744	*
0.00	98.55	43.406	
0.32	98.87	50.069	*
0.32	99.20	56.731	*
0.00	99.20	63.394	
0.00	99.20	70.056	
0.00	99.20	76.719	
0.00	99.20	83.381	
0.00	99.20	90.044	
0.32	99.52	96.706	*
0.00	99.52	103.369	
0.00	99.52	110.031	
0.00	99.52	116.694	
0.00	99.52	123.356	
0.00	99.52	130.019	
0.00	99.52	136.681	
0.00	99.52	143.344	
0.00	99.52	150.006	
0.00	99.52	156.669	
0.32	99.84	163.331	*

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

\*\*\*\*\*

16:45:44

PLACEDO ARSENIC

12/15/89

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

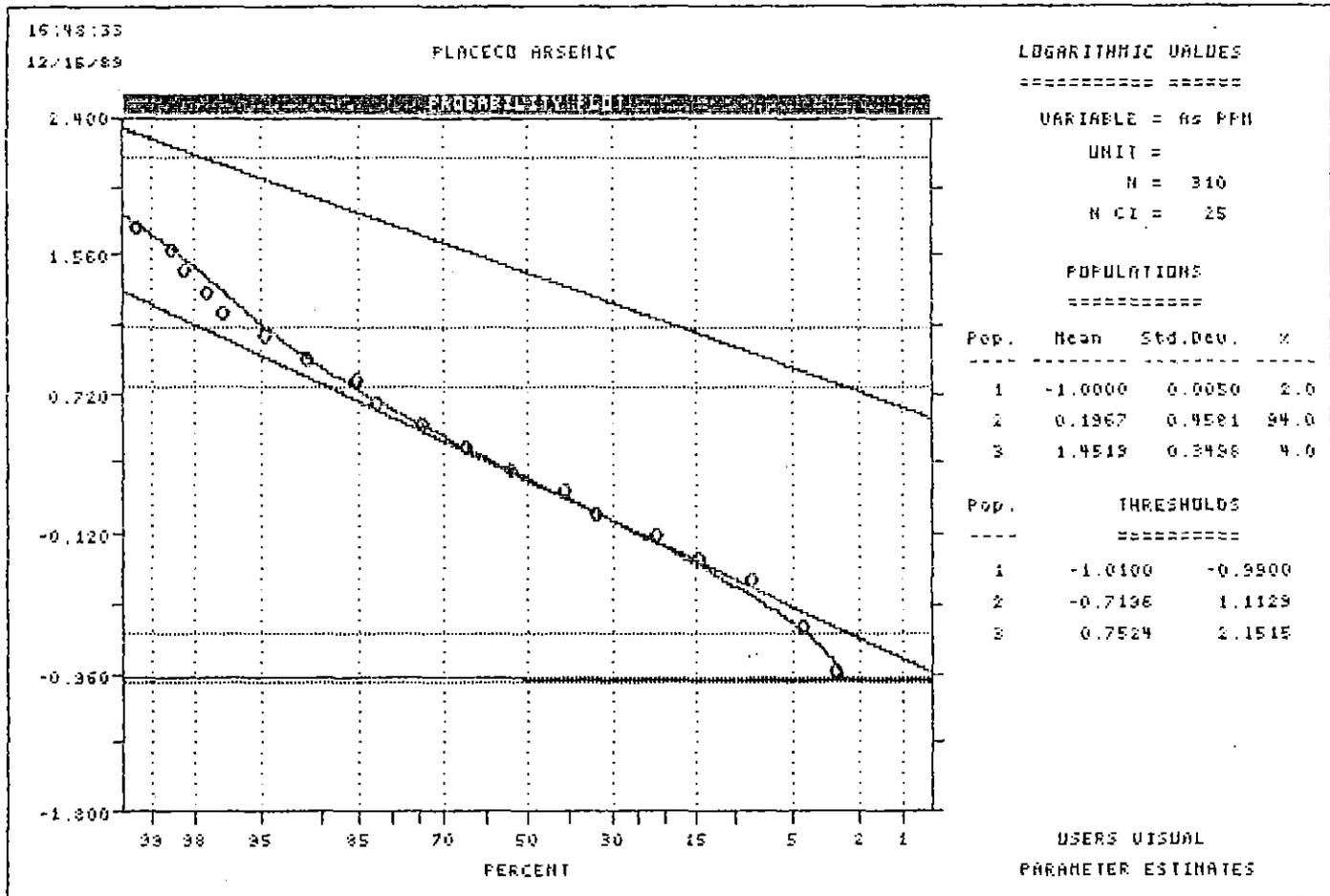
Variable = As FPM Unit = N = 310
Mean = 0.2463 Min = -1.0000 1st Quartile = -0.0969
Std. Dev. = 0.5172 Max = 2.2041 Median = 0.2304
CV % = 209.9732 Skewness = 0.2374 3rd Quartile = 0.5441
Anti-Log Mean = 1.763 Anti-Log Std. Dev. : (-) 0.536 (+) 3.801

Table with 5 columns: %, cum %, antilog, cls int, and (# of bins = 25 - bin size = 0.1335). Rows show cumulative distribution data for As FPM.

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

\*\*\*\*\*



16:56:15

PLACECO ARSENIC

12/15/89

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = ARSENIC.DAT

Variable = As PPM Unit = N = 310  
N CI = 25

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 12.

Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	0.100	- 0.099	2.00
		+ 0.101	
2	1.573	- 0.548	94.00
		+ 4.516	
3	28.309	- 12.652	4.00
		+ 63.342	

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	0.098 0.102
2	0.191 12.969
3	5.654 141.729

#####

16:57:57

PLACECO LEAD

12/15/89

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Pb Unit = PPM N = 303  
 Mean = 57.617 Min = 4.000 1st Quartile = 21.000  
 Std. Dev. = 82.228 Max = 706.000 Median = 37.000  
 CV % = 142.714 Skewness = 5.187 3rd Quartile = 63.000

%	cum %	cls int	(# of bins = 25 - bin size = 29.250)
0.00	0.16	-10.625	
20.79	20.89	18.625	*****
41.58	62.34	47.875	***** --> 63
19.47	81.74	77.125	*****
8.58	90.30	106.375	*****
3.63	93.91	135.625	*****
1.65	95.56	164.875	****
0.66	96.22	194.125	*
0.66	96.88	223.375	*
0.66	97.53	252.625	*
0.33	97.86	281.875	*
0.33	98.19	311.125	*
0.00	98.19	340.375	
0.00	98.19	369.625	
0.33	98.52	398.875	*
0.00	98.52	428.125	
0.00	98.52	457.375	
0.00	98.52	486.625	
0.00	98.52	515.875	
0.00	98.52	545.125	
0.00	98.52	574.375	
0.33	98.85	603.625	*
0.33	99.18	632.875	*
0.33	99.51	662.125	*
0.00	99.51	691.375	
0.33	99.84	720.625	*

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

\*\*\*\*\*

16:58:36

PLACECO LEAD

12/15/89

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Pb PPM Unit = N = 303

Mean = 1.5730 Min = 0.6021 1st Quartile = 1.3222

Std. Dev. = 0.3758 Max = 2.8488 Median = 1.5682

CV % = 23.8890 Skewness = 0.3660 3rd Quartile = 1.7993

Anti-Log Mean = 37.410 Anti-Log Std. Dev. : (-) 15.748 (+) 88.871

%	cum %	antilog	cis int	(# of bins = 25 - bin size = 0.0936)
0.00	0.16	3.591	0.5853	
0.66	0.82	4.455	0.6489	*
0.66	1.48	5.527	0.7425	*
0.33	1.81	6.856	0.8361	*
1.65	3.45	8.506	0.9297	***
2.31	5.76	10.552	1.0233	****
5.28	11.02	13.090	1.1169	*****
5.28	16.28	16.239	1.2106	*****
8.25	24.51	20.145	1.3042	*****
7.26	31.74	24.991	1.3978	*****
10.89	42.60	31.002	1.4914	*****
10.89	53.45	38.460	1.5850	*****
8.91	62.34	47.712	1.6786	*****
11.22	73.52	59.189	1.7722	*****
6.27	79.77	73.427	1.8659	*****
6.60	86.35	91.089	1.9595	*****
4.95	91.28	113.001	2.0531	*****
2.64	93.91	140.184	2.1467	****
1.98	95.89	173.905	2.2403	***
0.99	96.88	215.738	2.3339	**
0.66	97.53	267.633	2.4275	*
0.66	98.19	332.012	2.5212	*
0.33	98.52	411.878	2.6148	*
0.00	98.52	510.956	2.7084	
0.66	99.18	633.866	2.8020	*
0.66	99.84	786.343	2.8956	*

0 1 2 3 4

Each "\*" represents approximately 2.0 observations.

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

17:00:43  
12/15/89

PLACED LEAD

LOGARITHMIC VALUES

=====

VARIABLE = Pb PPM  
UNIT =  
N = 303  
R CI = 25

POPULATIONS

=====

Pop.	Mean	Std. Dev.	%
1	0.8159	0.1244	4.0
2	1.5610	0.2351	92.0
3	2.5076	0.2254	4.0

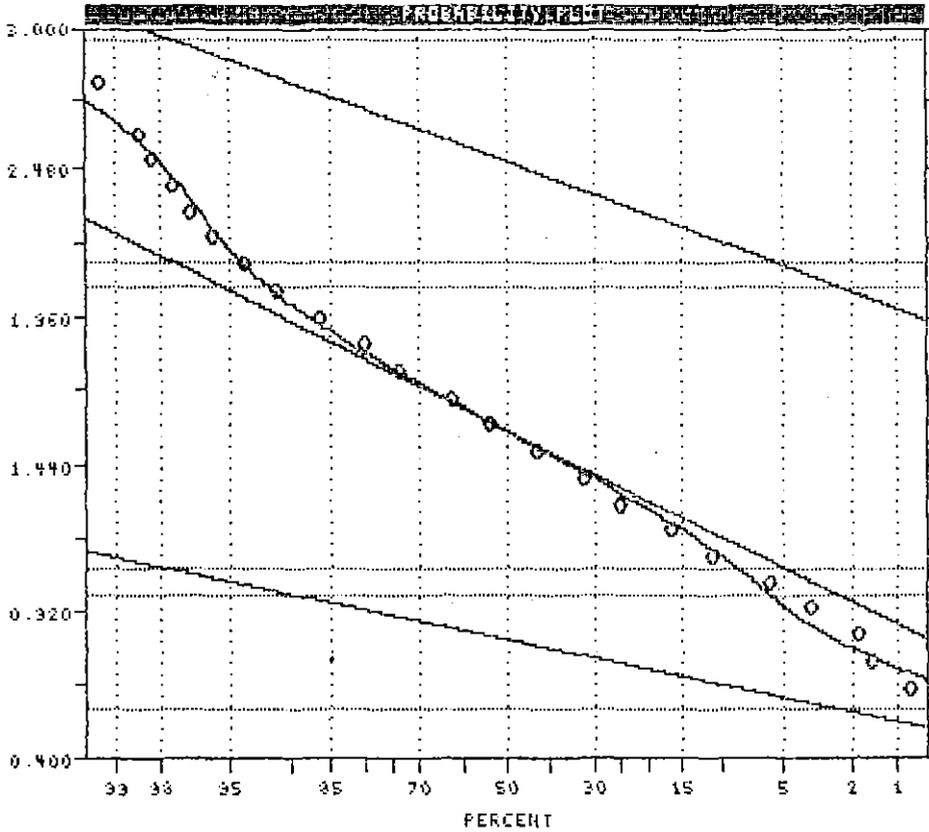
THRESHOLDS

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=====

Pop.	Mean	Std. Dev.
1	0.5672	1.0646
2	0.9708	2.1513
3	2.0568	2.9584

USERS VISUAL  
PARAMETER ESTIMATES



17:03:27

PLACEDO LEAD

12/15/89

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = LEAD.DAT

Variable = Pb PPM Unit = N = 303  
N CI = 25

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 19.

=====  
Users Visual Parameter Estimates

Population	Mean		Std Dev	Percentage
1	6.545	-	4.915	4.00
		+	8.715	
2	36.394	-	18.447	92.00
		+	71.803	
3	321.829	-	191.524	4.00
		+	540.787	

=====  
Default Thresholds.

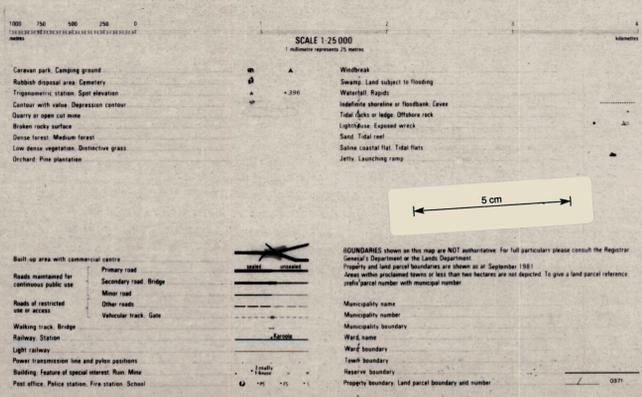
Standard Deviation Multiplier = 2.0

Pop.	Thresholds	
1	3.691	11.604
2	9.350	141.664
3	113.979	908.714

#####



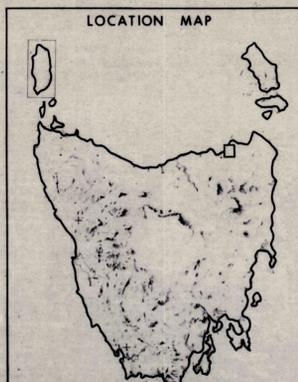
**LEGEND**



**PROJECTION** Universal Transverse Mercator (UTM)  
**HORIZONTAL DATUM** Australian Geodesic Datum 1984  
**VERTICAL DATUM** Australian Height Datum (Tasmania) excepting offshore islands whose datum is mean sea level  
 GRID 1000 metre intervals of the Universal Transverse Mercator Grid, Zone 55 Australian Mean Grid. Australian National Geodetic Grid values are shown in full at the south-west corner of the map  
**CONTOUR INTERVAL** 10 metres with 20 metre index contours

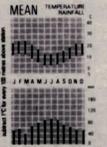
**WORLD GEODETIC SYSTEM 1972** To convert to ordinates from this system to Australian Geodesic Datum 1984, increase the value of ordinates by 0.7 and decrease the value of abscissae by 0.7. To obtain heights decrease sea-level heights by 3 metres.

**MAGNETIC VARIATION** True and Magnetic North are shown. Approximate for the centre of the map. Magnetic North is correct to 1981 and moves easterly about 0.1° every three years.

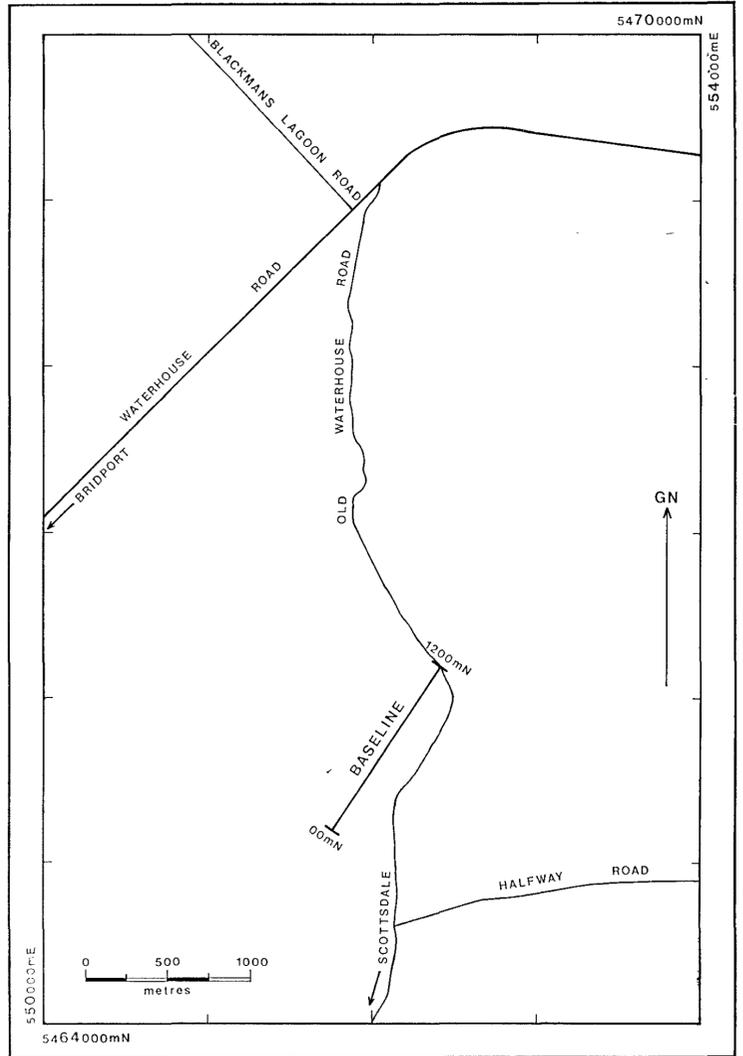
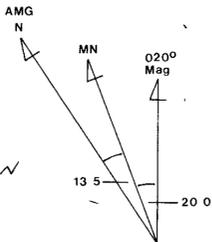


504049  
 90-3109

<b>PLACECO AUSTRALIA PTY LTD</b>	
<b>EL 27/86 - LYNDHURST</b>	
<b>LOCATION MAP</b>	
No.	Mar '90
DATE	COMPILED VH
DRAWN	VH JMT
TO ACCOMPANY: Year 3 Annual Report	
PLAN 1	



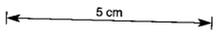
	800mE	900mE	1000mE	1100mE	1200mE									
1100mN	5	6	14	86	11	30	53	21	4	7	4	4	18	
							28							
	7	9	37	103	61	40	10	5	34	13	36	16	17	
							163							
1000mN	7	10	28	24	22	32	26	31	12	9	22	17	25	
							12							
	15	6	40	74	6	7	7	10	4	13	11	22	24	
							3							
900mN	10	29	8	8	7	9	9	16	12	7	8	17	17	
							16							
	54	9	12	10	8	16	16	10	22	4	11	25	7	
							204							
800mN	28	6	8	10	9	16	13	8	5	12	26	10	12	
							2							
	25	5	12	41	28	44	11	21	5	6	20	19	51	
							10							
700mN	18	5	9	8	10	24	8	28	11	4	3	21	19	
							12							
	5	6	6	4	4	19	23	15	4	4	8	15	9	
							110							
600mN	2	2	7	11	9	19	26	80	346	30	10	4	15	
							19							
	19	55	32	20	19	128	11	31	920	142	43	55	12	
							3							
500mN	3	2	10	8	3	51	82	89	38	9	3	13	16	
							5							
	14	423	89	7	5	3	5	4	0	18	11	5	7	
							13							
400mN	4	3	17	3	9	4	2	10	18	9	24	39	10	
							6							
	11	3	2	7	57	7	9	8	6	7	27	11	5	
							86							
300mN	3	5	2	6	25	10	2	8	9	28	16	19	15	
							1							
	2	6	42	29	6	13	5	7	2	21	26	21	277	
							3							
200mN	3	4	6	4	18	3	1	9	3	8	9	87	52	
							1							
	4	6	7	3	20	7	5	16	24	24	6	14	26	
							2							
100mN	10	3	6	18	4	39	1	6	10	16	9	36	17	
							1							
	3	3	2	2	9	3	6	14	5	3	7	23	3	
							2							
000mN	6	5	4	35	6	3	6	5	2	2	7	10	8	7



LOCATION MAP

504050

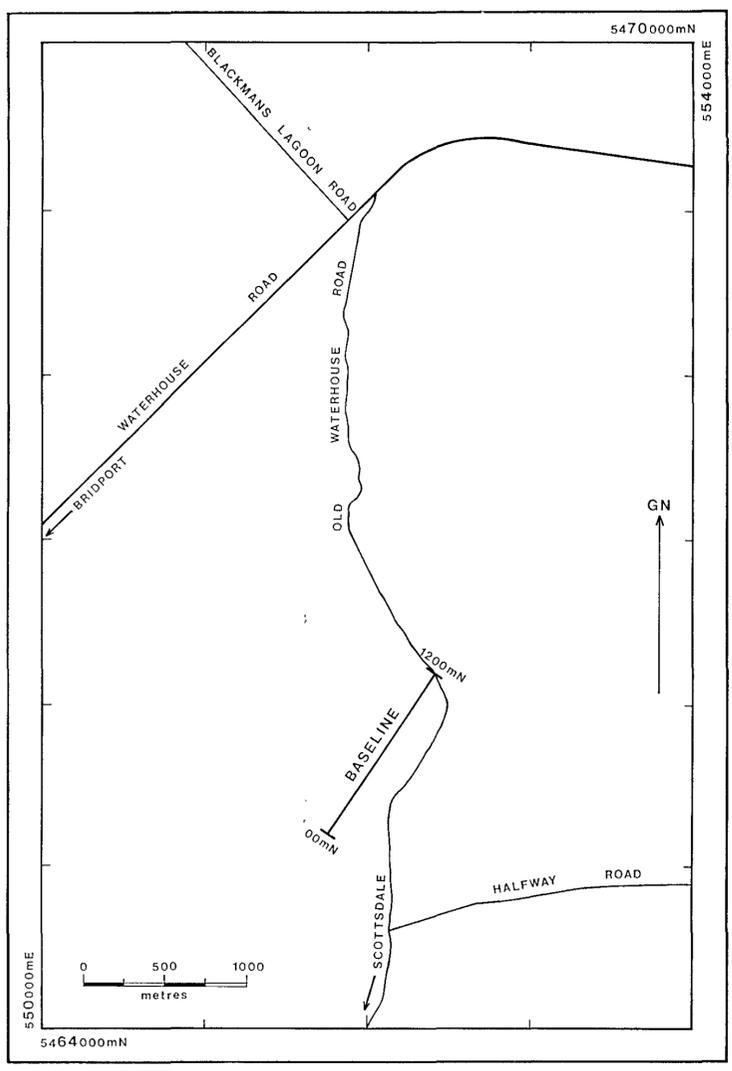
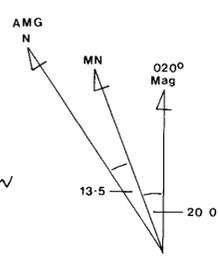
<b>PLACECO AUSTRALIA PTY. LTD.</b>	
EL 27/86-LYNDHURST	DATE Mar 1990
SOUTHERN CROSS PROSPECT	COMPILED KCM
HUMINEX SOIL GEOCHEMISTRY- Au (ppb)	DRAWN VH
TO ACCOMPANY: Year 3 Annual Report	SCALE 1:2,000
	PLAN 2a



90-3109

800mE 900mE 1000mE 1100mE 1200mE  
 BASELINE

1100mN	1.6	2.0	0.6	49.0	1.0	10.9	3.4	2.5	1.2	0.6	0.7	0.5	0.7
													2.7
	0.9	1.6	8.1	25.3	14.4	6.9	4.0	1.5	7.5	8.7	31.0	7.4	4.2
													0.4
1000mN	6.8	7.2	7.2	10.0	4.0	8.9	3.0	4.3	5.1	4.7	6.1	9.5	3.2
													3.6
	6.2	3.5	10.3	7.5	0.1	0.3	1.0	0.7	0.0	1.9	2.7	1.4	3.9
													0.0
900mN	1.0	4.2	1.9	2.7	3.3	0.6	0.2	7.1	0.7	0.4	1.6	1.8	2.4
													13.5
	3.2	1.2	0.4	0.3	3.9	1.9	5.7	1.5	3.2	1.3	2.6	1.7	2.0
													2.1
800mN	0.4	0.1	0.3	0.4	1.3	5.3	0.5	4.6	1.7	2.3	3.1	2.5	5.2
													3.5
	7.0	0.2	3.4	8.6	8.9	10.6	0.0	8.2	0.8	0.4	1.6	12.1	0.0
													1.2
700mN	0.9	3.4	0.1	1.1	0.0	0.3	10.0	1.2	1.4	0.4	0.7	1.4	4.5
													4.4
	3.5	2.0	2.5	1.2	2.2	2.5	0.7	1.4	2.0	1.5	2.7	3.2	2.8
													0.9
600mN	0.8	0.7	3.4	1.6	2.2	1.6	0.5	13.2	8.6	1.9	0.8	1.7	1.8
													8.4
	2.8	7.4	7.5	13.3	1.5	5.6	2.2	1.9	16.0	0.3	4.4	4.7	1.4
													0.8
500mN	1.3	0.1	1.8	1.9	2.0	1.6	93.9	17.6	1.5	0.4	0.6	3.3	2.3
													0.0
	1.7	53.6	8.1	1.0	1.4	0.9	0.4	0.8	2.0	0.8	1.7	2.1	1.3
													0.6
400mN	1.1	1.0	1.1	0.8	4.1	1.5	1.6	6.7	3.9	1.1	2.0	1.9	1.9
													0.8
	0.2	0.0	0.3	1.5	1.4	0.9	13.9	3.8	0.3	1.7	4.0	2.5	1.6
													3.1
300mN	0.6	0.8	0.8	0.8	0.7	3.6	0.7	1.6	2.8	3.5	2.2	4.4	9.6
													3.4
	0.9	1.2	1.3	8.6	0.7	2.7	12.5	1.4	1.8	3.4	4.4	3.9	11.6
													1.2
200mN	0.3	2.0	1.4	1.1	4.0	0.9	0.3	0.1	0.0	0.7	1.5	4.3	3.2
													1.3
	0.1	1.4	0.7	0.8	1.3	0.8	0.0	2.9	22.4	0.9	0.7	3.4	3.4
													1.3
100mN	1.2	0.8	1.0	2.0	2.1	1.9	0.9	0.1	1.0	17.1	6.0	0.7	2.5
													0.8
	0.4	1.0	0.8	0.4	1.2	0.5	1.7	0.9	1.0	0.3	0.5	1.0	1.4
													1.4
000mN	0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.5	0.2	0.2	1.3	0.8	0.4

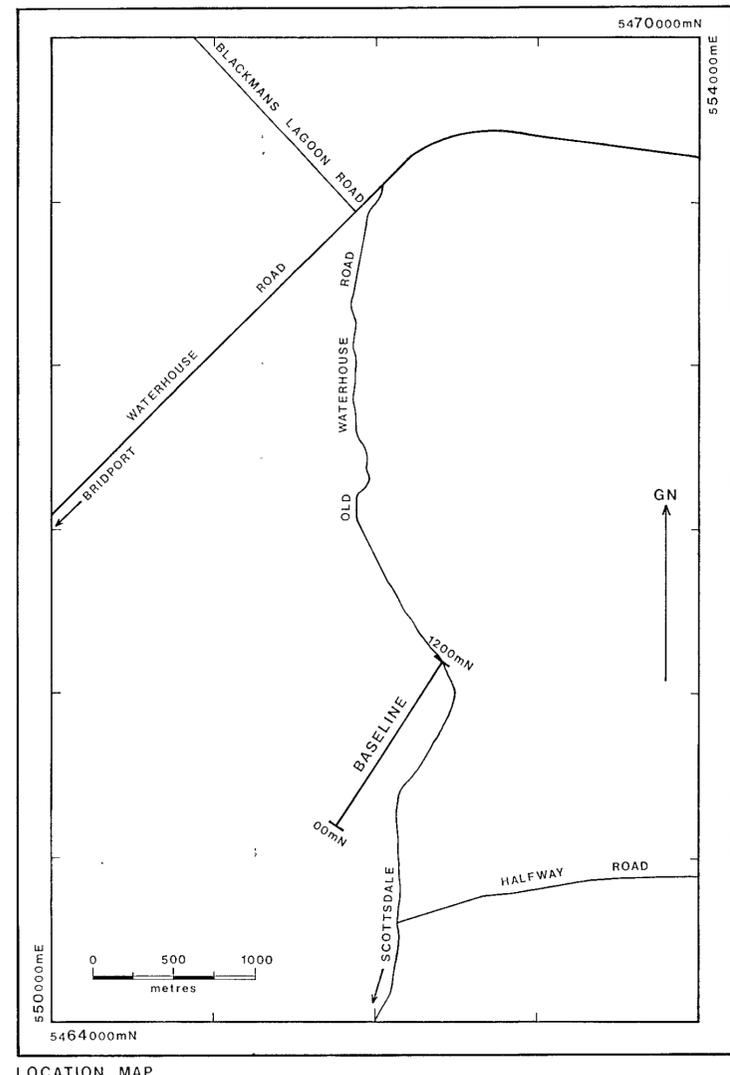
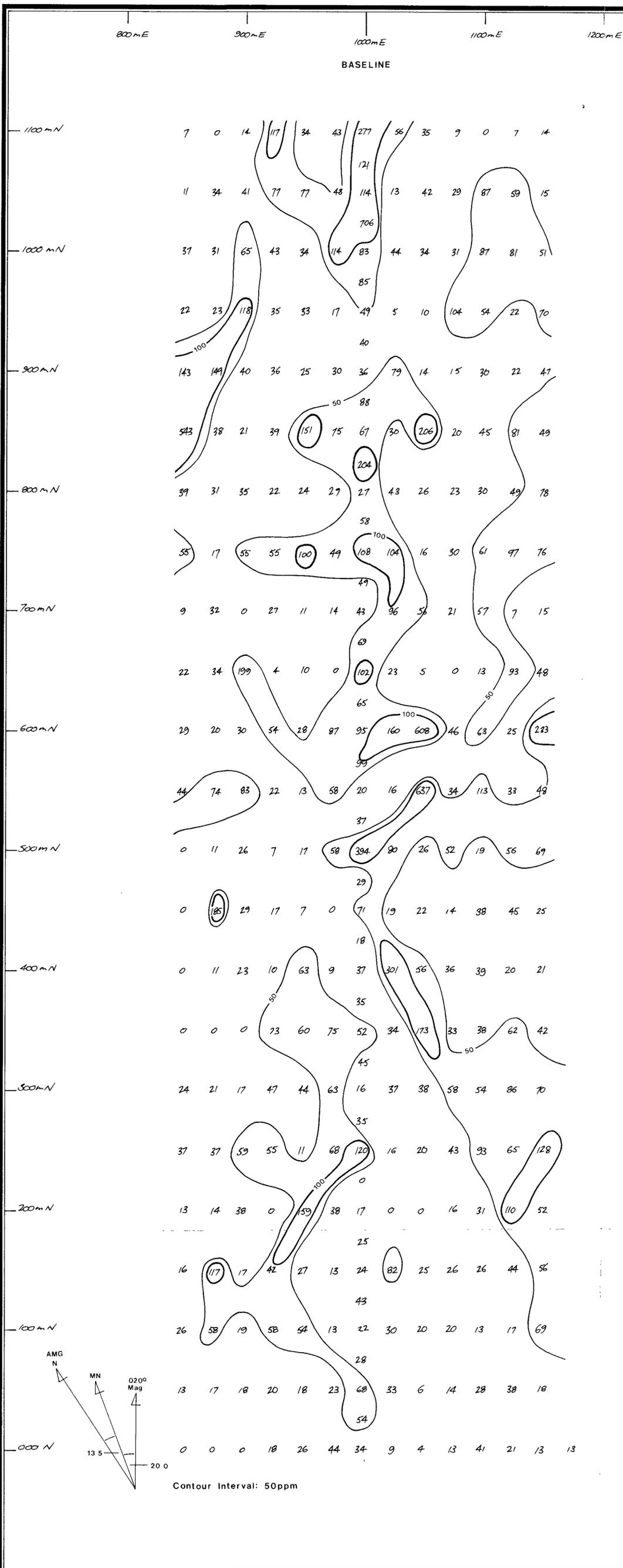


504051

<b>PLACECO AUSTRALIA PTY. LTD.</b>	
EL 27/86-LYNDHURST	DATE Mar 1990
SOUTHERN CROSS PROSPECT	COMPILED KCM
HUMINEX SOIL GEOCHEMISTRY - As (ppm)	DRAWN VH
TO ACCOMPANY: Year 3 Annual Report	SCALE 1:2,000
	F-LAN 2b

5 cm

90-3109



504052

<b>PLACECO AUSTRALIA PTY. LTD.</b>	
EL 27/86-LYNDHURST	DATE Mar 1990
SOUTHERN CROSS PROSPECT	COMPILED KCM
HUMINEX SOIL GEOCHEMISTRY-Pb (ppm)	DRAWN VH
TO ACCOMPANY: Year 3 Annual Report	SCALE 1:2,000
	PLAN 2c

5cm

90-3109