

D of M	A.O.	G.G.	E.O.	D.S.M. E.
				Registrar
D. DIR.	- 7 MAY 1984			E & IL
	DEPT. OF MINES			
REF. No.	4465/84			

EL 32/79 HUSKISSON RIVER - TASMANIA
PROGRESS REPORT OF EXPLORATION FOR PERIOD
DECEMBER, 1982 TO JANUARY, 1984.

OPEN FILE

GETTY OIL DEVELOPMENT COMPANY LIMITED

I. McNaught.

March, 1984.

C O N T E N T S

	<u>Page No.</u>
1. INTRODUCTION	1.
2. EXPLORATION LICENCE 32/79	1.
2.1. Location and Access	1.
2.2. Description of Tenement	1.
3. PREVIOUS EXPLORATION	1.
3.1. BHP Report 3309 "Progress Report on Exploration to 15th January, 1982."	2.
3.2. BHP Report 3536 "Report for Six Months Ended 31st July, 1982."	2.
4. EXPLORATION UNDERTAKEN BY GETTY OIL DEVELOPMENT COMPANY LIMITED	3.
4.1. December, 1982 - January, 1983.	3.
4.1.1. Work Completed	3.
4.1.2. Results Received	3.
4.1.3. Conclusions	4.
4.2. October, 1983 - January, 1984.	4.
4.2.1. Work Completed	4.
4.2.2. Results Received	6.
4.2.3. Conclusions and Recommendations	8.

APPENDICES

Appendix 1.	Sample Results Stream Sediments 001 - 009
Appendix 2.	Sample Results Soil Samples 24,101 - 24,851

FIGURES

1.	Location Map	1:500,000
2.	Sample Locations Stream Sediments 001 - 009	1:10,000
3.	Sample Locations - Soils. Sheet B.	1:2,500
4.	Sample Locations - Soils. Sheet C.	1:2,500

1. INTRODUCTION

This report covers work on Exploration Licence 32/79 granted to Broken Hill Proprietary Company Limited (BHP) on 16th July, 1980. It has been subject to a joint venture with Getty Oil Development Company Limited (GODC) since September, 1983.

The report contains details of GODC's involvement in the exploration licence and covers initial field reconnaissance in January, 1983 and subsequent detailed exploration from October, 1983 until 15th January, 1984.

2. EXPLORATION LICENCE 32/792.1. Location and Access

EL 32/79 is located on the Huskisson River, a tributary of the Pieman River, 15km north of Renison Bell in Western Tasmania. (See Figure 1.)

Access is by a private, well used, all weather gravel logging road into the north end of the EL, from a turn-off on the Murchison Highway, immediately north of the Hatfield River. Access to the southern end of the EL is by an old exploration track established by Comstaff Pty. Ltd. which runs west of the Boco Railway Siding via their Pinnacles Pb/Zn prospect.

2.2. Description of Tenement

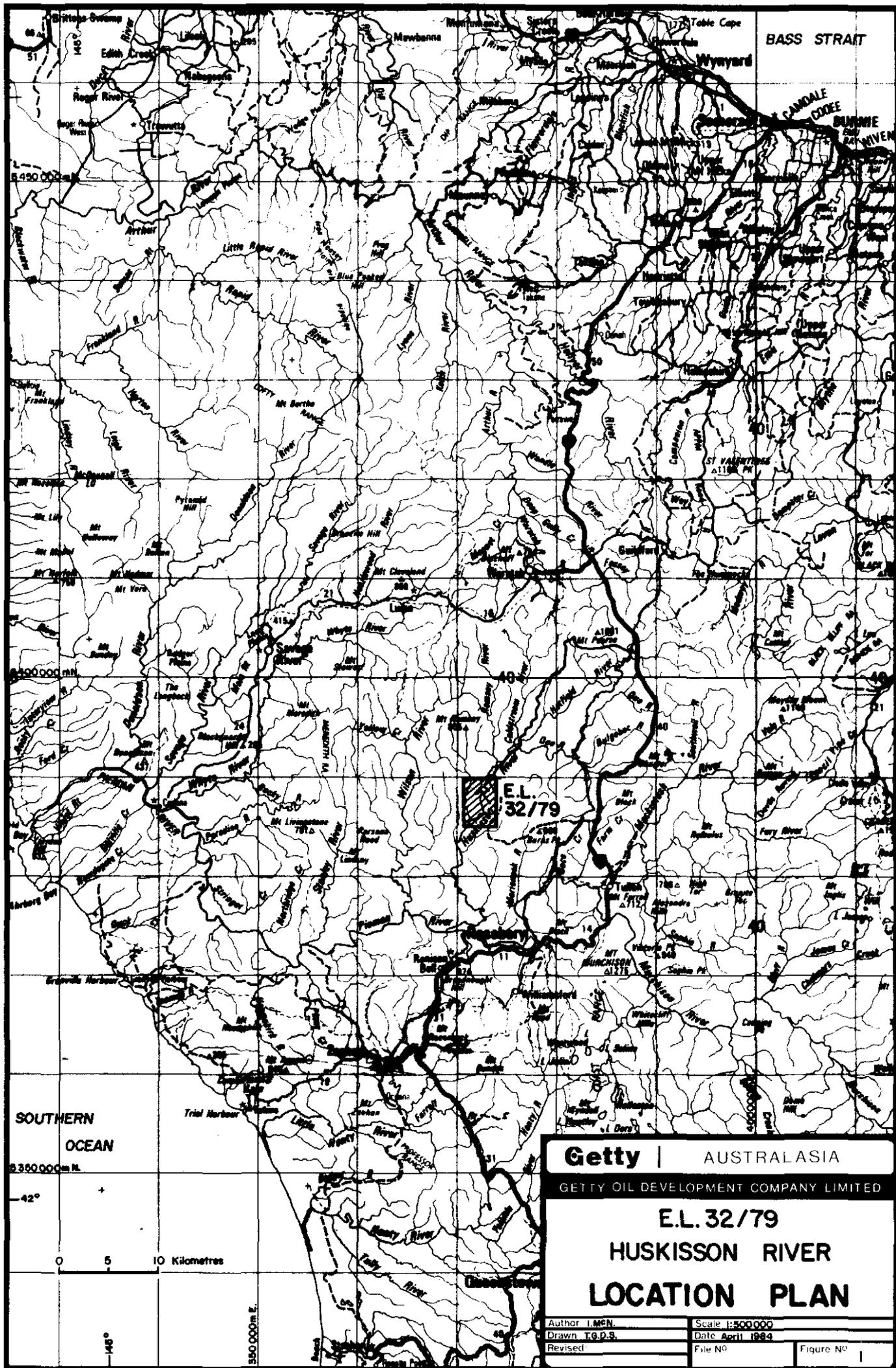
EL 32/79 comprises 17km² within a rectangular shape with the following corners:

S.E. corner	5385005mN	374015mE	(Datum)
S.W. corner	5384965mN	370635mE	
N.W. corner	5389720mN	370580mE	
N.E. corner	5389760mN	373960mE	

3. PREVIOUS EXPLORATION

Within the current tenure, BHP have prepared two six-monthly reports containing details of exploration since the granting of the EL.

003



3.1. BHP Report 3309 "Progress Report on Exploration to 15th January, 1982"

The report contains details of an initial stream sediment/reconnaissance geology program over the whole of the EL, at an average density of 3.5 samples/km². The 59 stream sediment samples were field sieved variously to -20 mesh or -40 mesh prior to submittal for geochemical analysis for Sn, W, Cu, Pb, Zn, Ag, Au, Sb, Ba, Ni, Co, Cr, Mo, Mn on a -80 mesh fraction. Nine rock samples from the geological reconnaissance during the sampling were submitted for petrography and, with four other rocks, for geochemical analysis for Cu, Pb, Zn, Ag, Ni, Co, Cr, Sn, W, Au. All analyses were performed by A.L.S. Laboratory in Brisbane and the results presented in both plan and tabulated form.

A helicopter borne EM-magnetic survey (DIGHEM II) was completed during January - March, 1981. The survey of 100 line km comprised 23 east-west lines at a mean spacing of 200m. Results of this survey were presented in 1:15,000 scale Analog and 1:20,000 scale photo plan form.

3.2. BHP Report 3536 "Report for Six Months Ended 31st July, 1982"

The report presents the follow-up of the stream sediment program using both fill-in stream sediment sampling and ridge and spur soil sampling to produce 35 stream sediment, 3 panned sediment heavy mineral and 56 soil samples from the southern part of the EL.

Follow-up of the DIGHEM II survey occurred in the more accessible north east corner and involved three ground magnetic traverses totalling 3.3km and geochemical analyses of nine rock samples.

The fill-in stream sediment and soil samples were analysed geochemically and the panned sediment heavy mineral samples were described petrographically. Modifications to the previously prepared geological map were made on the basis of new observations recorded during the follow-up phase, particularly recognition of the North Huskisson Serpentinite.

4. EXPLORATION UNDERTAKEN BY GETTY OIL DEVELOPMENT COMPANY LIMITED4.1. December, 1982 - January, 19834.1.1. Work Completed

A visit to the Tasmanian Mines Department and to the BHP Regional Office in Hobart resulted in the obtaining of all relevant previous reports and logistical data over the EL area.

In January, 1983, reconnaissance exploration was undertaken to sample anomalous drainage and local lithologies in the north east of the EL, whilst establishing the extent of vehicular access in the north of the EL.

A total of 9 stream sediment samples (001 - 009) were collected from sites of active sedimentation, sieved to -20 +80 mesh and -80 +200 mesh (Tyler) by Analabs, Burnie. Both fractions were analysed geochemically by Analabs for Cu, Pb, Zn, Fe, Ag, As (AAS) and Sn (XRF). Sample locations are presented in Figure 2. and the results in Appendix 1.

Seven rock chip samples were collected both along roads, and within the drainage area covered by the stream sediment sampling.

4.1.2. Results Received

Analysis of the stream sediment samples indicated uniformly low results, particularly for Sn. The peak value was 15ppm Sn in both fractions, although in different samples. Significant development of Mn oxide coatings on pebbles and cementing pebbles were observed at several sites - particularly towards the Cambrian - Precambrian contact to the east.

Lithologies observed included mafic derived arenites and ? tuffs, lavas and intrusives of the Crimson Creek Formation. Acid tuffs? or less mafic arenites are subsequently overlain by chocolate coloured shales and arenites to the west, towards the Huskisson River. Prominent outcrops of grey-black phyllite and off-white micaceous quartzite are recognised east of the Crimson

Creek Formation and represent the Precambrian basement. Near stream sediment sites 006 and 007, subcrop of an agatized-looking cherty lithology, with associated silicified and bleached shales occur, at a stratigraphic position above the ? Precambrian phyllite and below the Crimson Creek Formation.

The mafic units observed, particularly the gabbros, may be part of the cause of the DIGHEM II aeromagnetic anomalies.

Access in the northern part of the EL is ideal - with a gravelled road extending some 2km south into the EL on the north eastern side. Recent logging activity has felled and burnt most of the myrtle forest adjacent to the road. There appears to be little probability of gaining vehicular access to the southern part of the EL, via an old Comstaff Pty. Ltd. road just beyond the eastern margin of the Licence. The Precambrian quartzite - phyllite ridge here is steep and any pre-existing tracks are now impassable due to large boggy sections.

4.1.3 Conclusions

The low Sn values agree with those established by BHP in their follow-up sampling, however they are still at variance with the original samples which were validated by reassaying. It has been established that the geological contractor (R. Poltock) who took the original BHP samples may have used a field sampling technique which resulted in some upgrading of the sample (ie. sieve to -20 or -40 mesh to condense for transport via canoe).

The agatized-looking cherty lithology was thought to be a transgressive feature, possibly related to Devonian granitic emplacement. This was later brought into doubt by the recognition of extensive lateral development of this lithology along the probable regional strike.

4.2. October, 1983 - January, 1984.

4.2.1. Work Completed

A total of 22.8km of grid and baseline cutting and pegging was completed. Along the 4.6km surveyed baseline, a total of 18.2km

007

of cross lines were cut and pegged every 25m on a slope corrected basis.

A grid datum was established at AMG 5389000mN 373000mE (90N 3000E), about 1km south west of the north east corner of the EL. The baseline was planned to run 000° - 180° AMG, however, after cutting and checking with known topography, ran straight at 002° - 182° AMG - the error being due to inaccurate plotting of temporary Forestry datums R4 and R5. Cross lines were turned off at 200m intervals at 092° - 272° AMG. A gap in the centre of the grid from 68N - 76N (800m) occurs as designed, over an area of subdued aeromagnetic response. The baseline was surveyed and cut by GODC personnel and the cross lines cut and pegged by contractors.

Power auger soil sampling of the grid at 25m stations, to C horizon or to a maximum depth of 2 metres at each sample site yielded 751 samples (24101 - 24851) taken from an average of over 1 metre depth. These samples were sieved to -80 mesh (Tyler) and submitted to Analabs Burnie for geochemical analysis of Cu, Pb, Zn, Fe, Mn, Ag, Cr, As, (AAS) and Sn (XRF). Results are presented in Appendix 2. and sample sites in Figures 3. and 4. The +80 mesh fraction was retained for possible identification of lithologies if required. Sampling was carried out by contractors who operated as a two man crew. Productivity ranged up to 62 samples per day with an average of 35 samples per day. Typically the samples were dry with a varying degree of weathered rockchips. Duplicate and internal check samples were prepared. The internal check samples (N1 - N50) were selected from the field samples at a frequency of 1 in 20 samples, preferably from the prospective contact zone.

A ground magnetic survey was completed over the 18.2km of cross lines, reading every 12.5m. A base station magnetometer was established and daily calculation and correction of diurnal drift was carried out with a micro-computer and the results plotted on 1:5,000 scale cross-sections.

Drainage controlled geological mapping was completed on all significant creeks within the area gridded.

Grid controlled and access controlled geological mapping has commenced.

4.2.2. Results Received

Values for Sn, the target element, ranged from below level of detection (3ppm) to 16ppm, with only 54 samples recording Sn \gg 3ppm. The distribution of values was neither grouped nor did it define any stratigraphic control. Similarly, As was random in its distribution, with 31 values \geq 100ppm, ranging up to 500ppm. Only 2 As samples had a coincident Sn value. Cu, Zn, Cr, Mn, Fe all show a crude stratigraphic control, displaying uniformly higher background values within the Crimson Creek Formation. The contrast is best illustrated in the table below using visual averages:

<u>Element</u>	<u>Peak Value</u>	<u>Visual Average Crimson Creek Formation</u>	<u>Visual Average Precambrian</u>
Cu	550ppm	100 - 150ppm	20ppm
Pb	580ppm	40ppm	40ppm
Zn	1200ppm	100 - 150ppm	20ppm
Fe	24.0%	8' - 10%	1%
Cr	445ppm	100ppm	25ppm
Mn	6300ppm	1000ppm	20ppm

Using Mn, Fe, Cu, Zn, the agreement stratigraphically is particularly good - even to the extent of agreement in areas of anomalously low values with the Crimson Creek Formation.

The ground magnetic survey indicated a noisy magnetic field within the Crimson Creek Formation compared with a relatively flat profile over the Precambrian. The distribution of the magnetic anomalies shows good agreement with the DIGHEM II enhanced magnetics flown in 1981. Values ranged from 62000 nT to 64500 nT over the grid with the Precambrian quartzites and phyllites forming a plateau of about 62800 nT. The peak 64500 nT occurs over known mafic volcanics and intrusives and is centred on line 92N 3200E where it is locally nearly 200m wide. It trends south south west on to line 88N however dissipates into a lower noisy zone south of there. Lithologies throughout this peak zone respond positively to a pencil magnet. The 1:5,000 scale profiles require some modification prior to any inclusion in a report, due to computer malfunction in plotting coordinates.

Geological mapping on both a drainage and a grid controlled basis has commenced with all the significant drainage east of the baseline being completed. Grid mapping has commenced and only slightly enhances the geological picture in the southern area, whilst contributing greatly to the interpretation in the northern area.

The eastern-most unit consists of a discontinuous grey-black, weakly pyritic phyllitic lithology with minor quartz bands and veins carrying disseminated pyrite. Structurally the unit is complexly folded although a dominant north-south strike is evident, with dips both steep west and east. Above this unit, and possibly enclosing it, is a grey-white micaceous sandstone unit which forms more prominent outcrops than the phyllite. The micaceous sandstone now is silicified and occasionally quartz veined and carries rare disseminated and nodular pyrite.

Above these older units is a very discontinuous unit of gossanous Mn - Fe oxide material with ? associated agatized and silicified sediments, particularly shales. This unit is centred on line 86N and was located prior to line cutting. Float from this unit occurs over a large portion of the gridded area, seen usually as chert float. An area of intense Mn oxide veining was located on a road east of the silicified shale zone and of the Mn - Fe oxide zone. At least portion of this zone is CaCO_3 bearing with a caliche zone developed locally near line 88N, 3250E.

Overlying this zone and covering most of the grid is the Crimson Creek Formation - a sequence of basic volcanic extrusives?, intrusives and tuffs, orange-red-yellow weathered arenites and mudstones which have been contorted structurally although they tend to strike approximately north-south and dip steeply west.

In two locations, on the northern part of the grid and near the "big bend" on the Huskisson River, felsic intrusives, best described as granites, intrude the Crimson Creek Formation. There appears to be little hornfelsing as a result of this intrusion, despite it being well exposed in road cuttings. The granites themselves are deeply and thoroughly weathered and altered with the biotite and corroded feldspars being poorly preserved.

4.2.3. Conclusions and Recommendations

Despite the presence of an outcropping granite in the north of the grid and a pre-existing subtle Sn - magnetic anomaly in the south of the grid, the sampling program of 751 soil samples detected little Sn in the area gridded. The distribution of values was neither grouped nor did it define any stratigraphic control. There is an overall correlation of Cu-Fe-Mn-Zn in soil within the broad geological formations mapped.

The ground magnetic data has not yet been interpreted to establish any correlation between magnetic anomalism and geology, however, more mafic units within the Crimson Creek Formation show an anomalous magnetic response.

The drainage controlled geological mapping is complete. Grid controlled geological mapping has commenced to enable interpretation of geochemistry and geophysics, however, the lack of Sn anomalism precludes the selection of any areas for immediate follow-up as Sn targets.

o o o o o

APPENDIX 1.

Sample Results Stream Sediments 001 - 009

012

434013

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

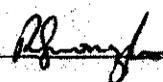
CLIENT ORDER No.

PAGE

			29.5 08 1759			11.1.83		55		1 OF 2	
TUBE No.	SAMPLE No.		Cu	Pb	Zn	Fe	Pg	As			
1	-20#+80#	001	40	25	225	7.90%	0.1	X			
2	-20#+80#	002	115	40	350	16.5%	0.1	X			
3	-20#+80#	003	75	50	355	11.0%	0.2	X			
4	-20#+80#	004	30	45	195	4.85%	0.1	X			
5	-20#+80#	005	35	35	160	5.30%	0.2	X			
6	-20#+80#	006	5	35	35	1.45%	0.2	X			
7	-20#+80#	007	5	35	40	4100	0.2	X			
8	-20#+80#	008	25	240	305	3.75%	0.9	X			
9	-20#+80#	009	20	40	140	3.60%	0.2	X			
10	-80#+200#	001	50	40	245	8.15%	0.2	X			
11	-80#+200#	002	110	30	345	12.0%	0.1	X			
12	-80#+200#	003	65	35	305	7.80%	0.2	X			
13	-80#+200#	004	35	35	215	4.30%	0.1	X			
14	-80#+200#	005	35	130	275	5.10%	0.6	X			
15	-80#+200#	006	5	30	40	1.20%	0.3	X			
16	-80#+200#	007	5	30	55	4900	0.2	X			
17	-80#+200#	008	25	180	270	3.25%	0.6	X			
18	-80#+200#	009	45	630	820	3.05%	1.5	X			
19											
20											
21											
22											
23											
24											
25											

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



013

434014

ANALABS

A division of MacDonal Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

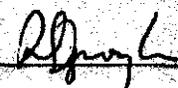
CLIENT ORDER No.

PAGE

			29.5 08 1759B	17.1.83	55	1 OF 1	
TUBE No.	SAMPLE No.		Sn				
1	-20#+80#	001	5				
2	-20#+80#	002	10				
3	-20#+80#	003	5				
4	-20#+80#	004	7				
5	-20#+80#	005	15				
6	-20#+80#	006	6				
7	-20#+80#	007	X				
8	-20#+80#	008	3				
9	-20#+80#	009	4				
10	-80#+200#	001	15				
11	-80#+200#	002	10				
12	-80#+200#	003	5				
13	-80#+200#	004	6				
14	-80#+200#	005	I/S				
15	-80#+200#	006	X				
16	-80#+200#	007	5				
17	-80#+200#	008	5				
18	-80#+200#	009	I/S				
19							
20	NOTE: I/S - Insufficient Sample						
21							
22							
23	DETECTION		3				
24	DIGESTION						
25	METHOD		402				

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



APPENDIX 2.

Sample Results Soil Samples 24,101 - 24,851 and
internal checks N1 - N50.

015

434016

ANALABS

A Division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2238R

9.1.84

4010

1 OF 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Mn	Cr	As	Fe	Sn
1	24101	75	10	130	0.5	955	20	X	6.60%	X
2	24102	160	15	90	X	615	65	X	13.0%	X
3	24103	125	10	130	X	1450	40	X	9.85%	X
4	24104	125	20	105	0.5	250	85	X	9.25%	X
5	24105	200	40	125	1.0	2050	115	X	14.0%	X
6	24106	120	20	100	0.5	1700	45	X	17.0%	X
7	24107	165	10	90	X	2550	35	X	12.5%	X
8	24108	65	20	60	0.5	370	55	X	9.60%	X
9	24109	95	10	95	0.5	1000	45	X	11.5%	X
10	24110	80	15	135	X	245	65	X	13.0%	X
11	24111	70	30	85	X	135	30	X	12.5%	X
12	24112	210	70	210	X	120	80	X	13.0%	X
13	24113	125	30	80	X	115	65	X	12.5%	X
14	24114	110	5	115	X	2650	25	X	14.0%	X
15	24115	150	5	190	X	2400	30	X	16.5%	X
16	24116	70	5	210	X	1650	20	X	16.5%	X
17	24117	145	X	80	X	1450	110	X	16.0%	X
18	24118	110	X	90	X	1150	65	X	13.0%	X
19	24119	125	35	135	0.5	530	65	X	13.0%	X
20	24120	125	5	100	X	965	60	X	13.5%	X
21	24121	145	10	125	X	930	60	X	13.0%	X
22	24122	125	10	105	X	630	75	X	14.0%	X
23	24123	160	10	125	X	1450	105	X	14.5%	X
24	24124	145	25	125	X	740	95	X	14.0%	X
25	24125	140	40	110	X	650	70	X	14.0%	X

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

R. J. ...

016

434017

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2238R

9.1.84

4010

2 OF 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Mn	Cr	As	Fe	Sn
1	24126	155	10	95	X	455	70	X	15.5%	X
2	24127	125	40	90	X	325	110	X	11.0%	X
3	24128	125	35	95	X	485	90	X	14.5%	X
4	24129	145	20	110	X	885	65	X	14.0%	X
5	24130	145	25	160	X	1750	65	X	13.5%	X
6	24131	150	25	165	X	1550	55	X	12.0%	X
7	24132	140	30	150	X	1500	55	X	12.0%	X
8	24133	145	25	165	X	1400	50	X	9.65%	X
9	24134	140	15	135	X	1350	35	X	15.5%	X
10	24135	100	35	110	X	445	80	X	15.5%	X
11	24136	105	20	90	X	325	55	X	12.0%	X
12	24137	90	5	115	X	1350	35	X	9.85%	X
13	24138	70	25	130	X	515	40	X	11.5%	X
14	24139	145	10	230	X	755	115	X	12.0%	X
15	24140	125	10	270	X	1900	45	X	9.65%	X
16	24141	185	15	200	X	1750	95	X	13.0%	X
17	24142	165	10	160	X	1350	50	200	12.0%	X
18	24143	160	10	150	X	1700	45	X	14.0%	X
19	24144	150	10	150	X	1300	50	X	11.5%	X
20	24145	140	15	130	X	890	115	X	17.0%	X
21	24146	315	10	380	X	1500	130	X	13.0%	X
22	24147	200	5	180	X	950	45	200	9.0%	4
23	24148	265	10	180	X	1150	50	X	9.0%	X
24	24149	160	20	100	X	1200	85	X	13.0%	X
25	24150	160	15	170	X	1750	160	X	15.5%	X

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

R. J. ...

017

434018

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2238R

9.1.84

4010

3 OF 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Mn	Cr	Pb	Fe	Sn
1	24151	120	30	300	X	2850	135	X	13.5%	X
2	24152	150	30	240	X	1850	65	X	9.65%	X
3	24153	210	50	95	X	1000	80	X	14.0%	X
4	24154	90	15	95	0.5	695	95	X	14.5%	X
5	24155	155	25	95	X	370	135	X	18.5%	X
6	24156	125	40	100	X	520	95	X	14.5%	X
7	24157	150	35	95	X	175	100	X	17.5%	X
8	24158	155	15	130	X	1450	70	X	18.5%	X
9	24159	155	20	180	X	880	60	X	16.0%	X
10	24160	150	50	130	X	820	90	X	16.0%	X
11	24161	175	45	220	0.5	1700	70	X	14.5%	X
12	24162	140	35	130	X	1350	65	X	15.0%	X
13	24163	160	310	605	1.0	1850	60	X	9.75%	X
14	24164	165	335	690	1.0	1700	60	X	14.0%	X
15	24165	150	45	160	X	1800	55	X	9.65%	X
16	24166	170	70	215	X	1350	85	X	14.0%	X
17	24167	170	70	165	X	900	60	X	15.5%	X
18	24168	100	30	290	X	1050	55	X	9.10%	X
19	24169	110	15	530	X	895	75	X	15.0%	X
20	24170	190	25	350	X	520	55	X	8.40%	X
21	24171	160	580	1200	X	1150	170	X	9.25%	X
22	24172	140	40	195	X	1250	65	X	9.15%	X
23	24173	140	140	135	X	980	75	X	17.0%	X
24	24174	110	30	125	X	455	70	X	9.40%	X
25	24175	205	160	375	X	1450	80	X	15.5%	X

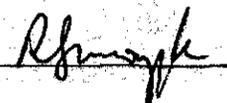
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

— = element not determined

AUTHORISED OFFICER



ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 2238R				9.1.84		4010		4 OF 7	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Mn	Cr	As	Fe	Sn	
1	24176	165	30	275	X	1850	75	X	13.5%	X	
2	24177	180	25	265	X	2200	95	X	15.5%	X	
3	24178	195	20	165	X	1650	45	X	16.5%	X	
4	24179	180	15	350	X	1300	85	X	14.5%	X	
5	24180	145	30	110	X	665	100	X	14.5%	X	
6	24181	150	10	185	X	1950	85	X	11.0%	X	
7	24182	140	20	240	X	1950	80	X	8.60%	X	
8	24183	145	35	150	0.5	1650	60	X	9.70%	X	
9	24184	150	25	170	0.5	1850	75	X	9.60%	X	
10	24185	140	20	170	0.5	2150	60	X	9.30%	X	
11	24186	120	30	175	X	1800	85	X	8.85%	X	
12	24187	120	25	200	X	1050	120	X	8.50%	X	
13	24188	115	25	195	0.5	1400	140	X	7.75%	X	
14	24189	110	30	180	0.5	850	95	X	7.15%	X	
15	24190	75	110	235	0.5	6550	140	X	9.60%	X	
16	24191	105	35	210	X	950	100	X	8.85%	X	
17	24192	40	50	105	0.5	120	60	X	2.90%	X	
18	24193	35	55	25	0.5	50	30	X	2.90%	X	
19	24194	25	40	55	0.5	50	25	X	2.60%	X	
20	24195	50	55	375	0.5	90	15	X	2.35%	X	
21	24196	25	30	20	X	40	35	X	1.70%	X	
22	24197	35	50	35	X	50	35	X	2.10%	X	
23	24198	15	30	20	0.5	20	25	X	1.50%	X	
24	24199	10	40	15	1.0	10	10	X	3550	X	
25	24200	5	20	15	0.5	10	20	X	4400	X	

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*Ref...*

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

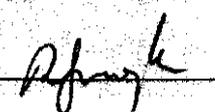
		29.5 08 2238R				9.1.84		4010		5 OF 7	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Mn	Cr	As	Fe	Sn	
1	24201	15	65	25	1.0	10	30	X	7000	X	
2	24202	5	10	10	0.5	5	5	X	900	X	
3	24203	10	35	25	0.5	15	30	X	1.50%	X	
4	24204	25	25	30	0.5	20	35	X	7.60%	X	
5	24205	10	20	35	0.5	25	30	X	2.45%	X	
6	24206	40	30	30	1.0	60	40	X	1.75%	X	
7	24207	25	35	20	0.5	15	40	X	1.80%	X	
8	24208	130	45	200	0.5	805	100	X	9.05%	X	
9	24209	125	30	115	X	850	70	X	9.25%	X	
10	24210	125	40	120	0.5	890	60	X	9.90%	X	
11	24211	125	35	120	X	770	90	X	9.35%	X	
12	24212	110	30	190	X	1000	95	X	9.60%	X	
13	24213	135	420	230	X	800	150	X	8.60%	X	
14	24214	180	20	200	0.5	1500	80	X	9.25%	X	
15	24215	125	110	140	X	425	90	X	13.0%	X	
16	24216	110	35	90	X	920	130	X	17.5%	X	
17	24217	100	35	85	0.5	455	130	X	14.0%	X	
18	24218	95	20	65	X	205	135	X	13.0%	X	
19	24219	55	15	65	0.5	400	75	X	12.0%	X	
20	24220	130	20	65	0.5	405	145	X	9.5%	X	
21	24221	95	20	130	X	375	20	X	6.65%	X	
22	24222	200	10	155	X	1100	80	X	15.0%	X	
23	24223	195	25	180	X	1450	50	X	14.5%	X	
24	24224	165	30	165	X	1300	60	X	13.5%	X	
25	24225	160	30	165	X	1250	60	X	14.5%	X	

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


020

434021

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2238R

9.1.84

4010

6 OF 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Mn	Cr	As	Fe	Sn
1	24226	190	10	180	X	1250	55	X	14.5%	X
2	24227	170	10	160	X	760	40	X	13.0%	X
3	24228	175	10	175	X	1500	30	X	12.5%	X
4	24229	170	X	190	X	2250	35	X	13.0%	X
5	24230	145	15	170	X	880	20	X	9.50%	X
6	24231	155	75	205	X	960	15	X	12.5%	X
7	24232	150	10	145	X	1850	25	X	13.5%	X
8	24233	160	10	145	X	1550	30	X	12.0%	X
9	24234	130	15	135	X	950	20	X	12.0%	X
10	24235	125	15	135	X	590	30	X	11.5%	X
11	24236	175	90	195	X	1250	35	X	12.5%	X
12	24237	145	25	180	X	710	55	X	12.0%	X
13	24238	105	5	170	X	1100	40	X	13.0%	X
14	24239	145	25	185	X	450	55	X	13.0%	X
15	24240	70	30	115	X	70	10	X	5.55%	X
16	24241	40	30	90	X	100	5	X	2.35%	X
17	24242	50	95	105	X	70	X	X	3.50%	X
18	24243	50	100	100	X	155	X	X	3.00%	X
19	24244	105	130	175	X	1700	5	X	6.10%	X
20	24245	50	155	95	X	70	X	X	2.90%	X
21	24246	50	85	110	X	80	X	X	2.75%	X
22	24247	130	25	240	X	5150	45	X	13.5%	X
23	24248	125	85	205	X	3400	25	X	13.0%	X
24	24249	110	20	225	X	1200	30	X	11.5%	X
25	24250	130	20	180	X	905	25	X	9.70%	X

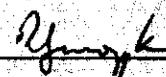
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED OFFICER



021

434022

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2238R

9.1.84

4010

7 OF 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Mn	Cr	As	Fe	Sn
1	24251	170	30	260	X	700	15	X	9.00%	X
2	24252	180	30	200	X	560	15	X	9.55%	X
3	24253	165	20	170	X	525	15	X	12.0%	X
4	24254	120	20	145	X	900	50	X	11.5%	X
5	24255	125	10	145	X	1100	55	X	8.10%	X
6	24256	185	10	125	X	680	65	X	8.75%	X
7	N 1 24219	85	140	305	X	300	50	X	12.0%	X
8	N 2 24220	160	55	135	X	565	130	X	12.0%	X
9	N 3 24145	155	140	350	X	940	130	X	14.5%	X
10	N 4 24101	95	20	140	X	845	25	X	8.20%	X
11	N 5 24169	135	20	530	X	760	65	X	13.5%	X
12	N 6 24198	30	30	90	X	25	30	X	1.60%	X
13	N 7 24239	150	30	185	X	250	90	X	12.5%	X
14	N 8 24248	125	95	225	X	3050	55	X	13.5%	X
15	N 9 24248	130	90	235	X	3100	50	X	14.0%	X
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	5	5	5	0.5	5	5	100	50	3
24	DIGESTION									
25	METHOD	101	101	101	101	101	101	101	101	402

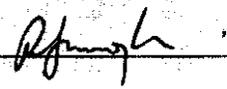
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED OFFICER



022

434023

ANALABS

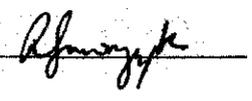
A division of MacDonal Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

		29.5 08 2242B				9.1.84		4011		1 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24257	100	20	65	X	12.0%	445	50	X	X	
2	24258	85	15	60	X	9.90%	495	45	X	X	
3	24259	170	10	160	X	9.40%	910	75	X	X	
4	24260	110	30	70	X	7.60%	95	60	X	X	
5	24261	110	25	85	X	11.8%	230	115	X	4	
6	24262	115	25	75	X	12.5%	365	85	X	X	
7	24263	120	15	75	X	12.3%	245	95	X	X	
8	24264	185	15	235	X	9.30%	1950	100	X	X	
9	24265	140	25	135	X	9.05%	5350	65	X	X	
10	24266	95	55	85	X	8.80%	655	95	X	5	
11	24267	110	50	110	X	11.7%	705	85	X	X	
12	24268	220	20	255	X	11.0%	1650	70	X	X	
13	24269	160	35	260	X	9.95%	5350	85	X	X	
14	24270	155	35	125	X	11.2%	1450	80	X	X	
15	24271	190	5	290	X	11.6%	1500	65	X	X	
16	24272	125	10	210	X	9.50%	1350	55	X	X	
17	24273	150	20	205	X	9.65%	1700	75	X	X	
18	24274	170	15	210	X	9.25%	1400	115	X	X	
19	24275	100	15	260	X	7.80%	2100	40	X	X	
20	24276	125	20	235	X	8.30%	870	105	X	X	
21	24277	135	10	250	X	9.35%	1150	65	X	X	
22	24278	150	20	265	X	9.75%	2200	150	X	X	
23	24279	215	X	260	X	11.7%	1200	110	X	X	
24	24280	110	10	90	X	6.85%	500	40	X	5	
25	24281	45	55	25	X	2.80%	40	25	X	4	

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 

023

434024

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 2242B				9.1.84		4011		2 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Fe	Mn	Cr	Pb	Sn	
1	24282	105	205	715	X	15.5%	715	45	X	X	
2	24283	175	50	340	X	11.9%	3550	45	X	X	
3	24284	160	25	170	X	9.50%	2050	30	X	X	
4	24285	145	30	235	X	9.90%	1800	55	X	X	
5	24286	140	25	230	X	9.40%	1500	70	X	X	
6	24287	150	25	285	X	12.0%	2000	55	X	X	
7	24288	165	75	445	X	12.3%	6700	50	X	X	
8	24289	80	160	210	X	5.25%	2050	25	X	X	
9	24290	135	80	170	X	11.8%	965	60	X	X	
10	24291	100	15	105	X	12.1%	930	55	X	X	
11	24292	80	15	80	X	9.30%	650	45	X	X	
12	24293	85	20	80	X	9.75%	915	40	X	X	
13	24294	80	15	75	X	9.80%	970	35	X	X	
14	24295	95	15	65	X	12.5%	380	40	X	X	
15	24296	75	10	50	X	12.1%	345	40	X	X	
16	24297	110	15	85	0.5	12.3%	1350	65	X	X	
17	24298	145	10	115	X	9.00%	1050	60	X	X	
18	24299	160	10	130	0.5	9.25%	940	55	X	X	
19	24300	100	10	90	0.5	9.15%	425	50	X	X	
20	24301	90	5	65	0.5	11.4%	355	80	X	X	
21	24302	165	20	140	0.5	12.6%	1600	100	X	X	
22	24303	165	X	320	1.0	12.4%	1600	130	X	X	
23	24304	190	10	210	0.5	12.3%	1500	120	X	X	
24	24305	130	30	110	1.0	13.6%	685	115	X	X	
25	24306	140	200	260	1.0	12.1%	1600	95	X	X	

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*R. J. ...*

024

434025

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 2242B				9.1.84		4611		30F	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24307	135	225	245	1.0	12.3%	1350	90	X	X	
2	24308	180	10	230	0.5	14.4%	1400	50	X	X	
3	24309	110	230	185	1.0	9.35%	780	55	X	X	
4	24310	100	40	105	1.0	8.85%	560	40	X	X	
5	24311	35	75	100	0.5	8.10%	710	25	X	X	
6	24312	105	5	120	0.5	11.6%	830	35	X	X	
7	24313	150	5	95	1.0	13.1%	660	55	X	X	
8	24314	80	20	75	0.5	5.90%	585	30	X	X	
9	24315	110	45	110	0.5	11.5%	215	170	X	X	
10	24316	50	30	80	X	115	25	X	17	X	
11	24317	25	20	40	X	1.55%	40	15	X	X	
12	24318	15	20	15	X	1.85%	15	10	X	X	
13	24319	35	25	25	0.5	7.45%	10	10	X	X	
14	24320	25	10	25	X	2.05%	20	5	X	X	
15	24321	20	30	15	X	2.00%	15	5	X	X	
16	24322	45	60	30	X	2.50%	25	15	X	X	
17	24323	90	10	65	0.5	9.75%	240	55	X	X	
18	24324	140	10	90	0.5	15.8%	755	155	X	X	
19	24325	95	10	85	0.5	14.4%	1050	95	X	X	
20	24326	60	15	90	0.5	12.8%	250	50	X	X	
21	24327	125	10	60	0.5	9.25%	590	30	X	X	
22	24328	115	25	85	0.5	12.1%	400	75	X	X	
23	24329	55	25	50	0.5	5.30%	65	25	X	X	
24	24330	30	10	25	X	3.45%	25	10	X	X	
25	24331	30	30	20	X	2.40%	15	10	X	X	

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*R. J. ...*

025

434026

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

29.5 08 2242B

9.1.84

4011

4 of

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	Pb	Sn
1	24332	40	30	20	0.5	4.05%	15	15	X	X
2	24333	30	30	20	X	3.20%	10	5	X	X
3	24334	25	25	25	X	1.95%	15	10	X	4
4	24335	50	55	105	1.0	2.80%	90	15	X	X
5	24336	30	30	50	X	1.35%	65	X	X	X
6	24337	40	60	205	X	6850	35	30	X	X
7	24338	25	25	10	X	9100	10	25	X	X
8	24339	40	30	10	X	2.50%	5	35	X	X
9	24340	10	25	10	X	5750	10	25	X	X
10	24341	25	60	10	X	9200	10	40	X	X
11	24342	10	10	30	X	6250	10	20	X	X
12	24343	15	20	10	X	5550	5	35	X	X
13	24344	10	20	10	X	9850	5	15	X	X
14	24345	10	35	10	X	9700	10	20	X	X
15	24346	15	20	35	X	1.55%	5	20	X	X
16	24347	15	30	20	X	1.40%	10	25	X	X
17	24348	95	15	60	1.0	8.50%	150	135	X	X
18	24349	80	20	115	0.5	12.6%	1000	275	X	X
19	24350	85	20	60	0.5	8.75%	875	80	X	X
20	24351	110	30	85	1.0	9.25%	540	100	X	X
21	24352	110	10	115	X	8.45%	1050	70	X	3
22	24353	80	15	75	X	6.25%	1050	75	X	X
23	24354	70	15	165	X	8.20%	955	65	X	X
24	24355	85	25	95	1.0	8.95%	815	50	X	X
25	24356	95	10	100	0.5	9.10%	1450	75	X	X

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

Almnyk

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 00 2242B

9.1.84

4011

5 of

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24357	100	15	125	1.0	9.00%	840	95	X	X
2	24358	115	15	110	1.0	8.90%	970	75	X	X
3	24359	105	20	95	0.5	9.85%	925	65	X	X
4	24360	80	35	200	1.0	7.90%	730	105	X	X
5	24361	70	35	130	0.5	7.05%	1300	90	X	X
6	24362	55	35	125	X	5.65%	735	145	X	X
7	24363	55	40	130	X	5.70%	670	80	X	X
8	24364	30	30	115	X	3.55%	515	70	X	X
9	24365	45	45	145	1.0	5.75%	810	75	X	X
10	24366	50	35	120	X	5.70%	810	110	X	X
11	24367	50	40	125	X	5.75%	635	145	X	X
12	24368	55	45	120	0.5	5.65%	910	100	X	X
13	24369	65	35	115	1.5	6.15%	830	80	X	X
14	24370	100	20	125	1.5	7.65%	700	65	X	X
15	24371	100	25	100	1.0	7.55%	580	70	X	X
16	24372	120	30	110	1.5	7.50%	255	95	X	X
17	24373	70	125	105	X	5.20%	750	35	X	X
18	24374	70	35	55	X	4.55%	880	30	X	X
19	24375	70	20	80	0.5	8.90%	370	70	X	X
20	24376	90	20	110	1.5	9.90%	1600	60	X	X
21	24377	175	5	615	2.0	10.9%	1700	130	X	X
22	24378	80	15	170	2.0	10.8%	345	80	X	X
23	24379	110	360	225	2.0	11.2	2650	60	X	X
24	24380	155	145	310	2.0	11.2%	735	115	400	16
25	24381	160	35	305	2.5	13.2%	310	205	X	X

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*R. J. Smyth*

027

ANALABS

A division of MacDonold Hamilton & Co. Pty. Ltd.

434028

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

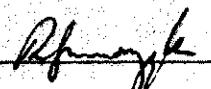
CLIENT ORDER No.

PAGE

		29.5 00 22420				9.1.84		4011		6 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	As	Sr	
1	24382	110	20	90	2.0	15.1%	250	260	X	X	
2	24383	85	10	160	2.5	11.5%	910	50	X	X	
3	24384	160	5	180	2.5	13.7%	1300	165	X	X	
4	24385	65	35	75	2.0	4.95%	120	55	X	X	
5	24386	80	25	75	2.5	7.40%	130	00	X	X	
6	24387	15	25	35	0.5	1.30%	30	25	X	X	
7	24388	20	25	20	1.5	2.15%	10	15	X	X	
8	24389	25	25	15	1.5	2.25%	20	25	X	X	
9	24390	35	10	20	1.5	2.35%	20	20	X	3	
10	24391	5	5	10	1.5	4050	5	20	X	X	
11	24392	35	20	20	1.0	4.25%	10	30	X	X	
12	24393	30	25	20	1.5	7400	15	25	X	X	
13	24394	10	X	25	0.5	1150	5	15	X	X	
14	24395	50	25	20	1.5	2.90%	10	25	X	X	
15	24396	20	20	20	1.0	1.95%	10	25	X	X	
16	24397	10	10	15	1.5	2750	10	15	X	X	
17	24398	25	5	30	2.0	3.40%	15	15	X	3	
18	24399	35	35	40	2.5	2.45%	55	20	X	X	
19	24400	20	25	55	1.5	3.60%	75	20	X	X	
20	24401	40	35	25	1.5	2.00%	10	30	X	X	
21	24402	10	25	15	1.0	7000	10	20	X	X	
22	24403	5	30	10	1.0	3550	5	15	X	X	
23	24404	15	5	20	1.0	7250	10	15	X	X	
24	24405	5	X	10	1.0	900	5	10	X	X	
25	24406	10	30	15	2.0	7850	10	15	X	X	

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



028

434029

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE		CLIENT ORDER No.		PAGE	
		29.5 00 2242B				9.1.84		4011		7 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24407	10	5	15	1.0	1050	5	10	X	X	
2	24408	105	25	110	2.0	3.80%	110	45	X	X	
3	24409	90	20	140	2.0	7.10%	580	50	100	X	
4	24410	125	20	160	2.5	7.85%	600	75	X	X	
5	24411	90	15	200	2.0	8.05%	405	85	X	X	
6	24412	70	40	95	2.5	6.60%	395	60	X	X	
7	24413	50	35	100	2.0	3.85%	145	55	100	X	
8	24414	115	45	165	1.5	11.7%	500	80	X	X	
9	24415	100	85	155	2.5	7.35%	1600	55	100	X	
10	24416	30	30	40	2.0	1.85%	190	15	100	X	
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

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

R. [Signature]

029

434030

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 22420				9.1.84		4011		1 of 3	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pb	Fe	Mn	Cr	Pb	Sn	
1	24417	70	35	105	X	5.15%	250	70	X	X	
2	24418	55	45	85	X	5.00%	95	65	100	X	
3	24419	70	30	175	X	8.65%	250	90	100	X	
4	24420	65	30	105	X	5.70%	435	65	200	X	
5	24421	85	55	135	X	8.75%	670	55	X	X	
6	24422	80	30	100	X	9.70%	200	120	100	X	
7	24423	160	30	185	X	11.0%	1300	405	X	X	
8	24424	75	50	100	X	6.20%	205	90	100	X	
9	24425	75	40	155	X	6.20%	560	100	X	6	
10	24426	65	30	140	X	6.00%	670	130	X	X	
11	24427	55	35	130	X	5.85%	390	110	100	X	
12	24428	110	25	135	X	11.0%	420	60	100	X	
13	24429	115	20	295	X	8.95%	1550	95	100	X	
14	24430	120	20	230	X	9.65%	840	85	X	3	
15	24431	110	145	175	X	5.40%	160	85	X	X	
16	24432	140	10	365	X	10.5%	1200	50	100	X	
17	24433	110	265	150	X	5.25%	200	125	X	X	
18	24434	130	280	110	X	9.95%	1150	65	100	X	
19	24435	110	410	110	X	8.95%	1200	55	X	X	
20	24436	105	400	100	X	7.85%	205	50	100	X	
21	24437	50	45	15	X	1.45%	10	15	X	X	
22	24438	55	75	50	X	4.25%	45	35	X	X	
23	24439	20	30	30	X	2.90%	20	20	100	X	
24	24440	35	15	20	X	2.15%	5	15	100	X	
25	24441	25	20	25	X	2.15%	15	20	100	X	

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

Rf yf

030

434031

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 22420

9.1.84

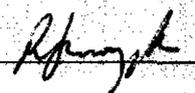
4811

2 of 3

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24442	25	25	15	X	1.40%	5	20	100	X
2	24443	35	20	50	X	4.35%	10	25	100	X
3	24444	30	25	25	X	1.70%	10	20	100	X
4	24445	25	40	30	X	2.65%	10	25	100	X
5	24446	25	25	20	X	2.00%	10	20	X	X
6	24447	15	25	15	X	8650	10	20	X	X
7	N 10 24408	110	30	135	X	4.90%	165	55	X	X
8	N 11 24291	105	15	110	X	11.0%	960	70	X	X
9	N 12 24310	120	35	120	X	11.0%	610	65	100	X
10	N 13 24336	35	30	60	X	15.5%	75	30	100	X
11	N 14 24355	115	15	85	X	7550	860	65	X	X
12	N 15 24378	90	10	170	X	1.45%	365	65	X	X
13	N 16 24366	50	35	125	X	5.30%	370	145	X	X
14	N 17 24427	55	30	120	X	5.80%	420	150	100	X
15	N 18 24408	110	25	130	X	4.35%	140	50	X	X
16	N 19 24267	100	55	115	X	10.5%	560	110	X	X
17	N 20 24391	5	10	10	X	5400	15	15	100	X
18	N 21 24444	40	25	15	X	2.15%	10	15	X	X
19										
20										
21										
22										
23										
24										
25										

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



ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 2252				9.1.84		4013		1 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24448	85	45	40	0.5	4.30%	75	145	X	X	
2	24449	20	65	35	X	1.60%	25	30	X	X	
3	24450	40	25	55	X	2.30%	120	15	X	X	
4	24451	30	50	40	X	4.65%	40	35	X	5	
5	24452	15	50	25	X	2.75%	40	35	X	X	
6	24453	35	60	45	0.5	3.75%	135	30	X	X	
7	24454	105	190	145	X	2.90%	1500	45	X	X	
8	24455	60	100	50	X	2.35%	900	80	X	X	
9	24456	50	385	50	X	3.20%	250	35	X	3	
10	24457	135	25	105	X	10.2%	1800	45	X	X	
11	24458	90	60	65	X	6.55%	770	35	X	X	
12	24459	145	40	145	X	10.2%	710	75	X	X	
13	24460	130	290	530	X	12.9%	980	55	X	X	
14	24461	75	20	75	X	7.70%	390	25	X	X	
15	24462	105	60	110	X	7.45%	155	85	X	4	
16	24463	55	115	35	0.5	3.60%	40	40	X	X	
17	24464	50	55	25	X	3.15%	35	30	X	X	
18	24465	30	25	40	X	2.25%	35	15	X	3	
19	24466	10	15	15	X	5750	20	15	X	X	
20	24467	60	55	55	X	5.95%	155	50	X	X	
21	24468	30	25	15	X	8550	20	15	X	X	
22	24469	30	65	20	0.5	1.70%	20	20	X	X	
23	24470	15	45	10	X	6200	15	15	X	X	
24	24471	15	40	15	X	6250	10	10	X	X	
25	24472	30	25	15	X	1.20%	15	15	X	8	

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*R. J. ...*

032

434033

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 08 2252				9.1.84		4813		2 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	As	Sn	
1	24473	15	20	15	X	1.30%	10	15	X	X	
2	24474	15	15	15	X	1.60%	10	10	X	X	
3	24475	10	25	15	X	1.45%	10	10	X	X	
4	24476	5	30	10	X	1.60%	10	10	X	X	
5	24477	80	15	80	X	3.65%	1000	15	X	3	
6	24478	80	25	75	X	6.40%	530	25	X	X	
7	24479	65	50	80	X	3.55%	170	25	X	4	
8	24480	75	60	90	0.5	4.35%	215	30	X	3	
9	24481	85	25	105	X	5.30%	950	55	X	X	
10	24482	150	35	95	X	8.90%	1550	65	X	X	
11	24483	105	15	285	X	11.1%	4150	55	X	X	
12	24484	125	35	80	X	8.20%	420	55	X	X	
13	24485	200	15	280	X	10.9%	2050	65	X	X	
14	24486	155	10	380	X	9.70%	985	115	X	X	
15	24487	55	15	155	X	7.40%	995	15	X	X	
16	24488	130	5	95	X	9.00%	790	130	X	4	
17	24489	110	10	65	X	9.50%	325	105	X	3	
18	24490	45	10	50	X	4.95%	130	90	X	4	
19	24491	145	5	100	X	5.70%	85	445	X	X	
20	24492	110	15	80	X	9.85%	875	110	X	X	
21	24493	130	5	75	0.5	8.50%	1050	140	X	X	
22	24494	235	X	85	X	14.6%	4400	165	X	X	
23	24495	135	5	85	X	19.5%	940	250	X	X	
24	24496	125	25	95	X	13.5%	1250	115	X	X	
25	24497	120	30	90	X	13.2%	1050	130	X	X	

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

Rhodes

033

434034

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

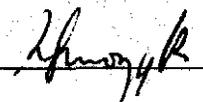
PAGE

		29.5 00 2252				9.1.84		4013		3 OF	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24498	155	X	100	X	10.5%	7000	210	X	X	
2	24499	80	10	100	X	9.60%	870	50	X	X	
3	24500	135	X	100	X	7.05%	210	70	X	X	
4	24501	125	X	30	X	2.25%	35	105	X	0	
5	24502	35	50	20	1.0	1.60%	20	70	X	X	
6	24503	105	20	85	X	7.60%	115	165	X	X	
7	24504	165	5	40	X	6.75%	95	175	X	X	
8	24505	45	25	15	0.5	3.15%	25	85	X	5	
9	24506	50	15	40	X	6.40%	55	195	X	X	
10	24507	85	25	60	X	6.75%	655	130	X	X	
11	24508	45	10	60	1.0	4.65%	50	90	X	X	
12	24509	35	25	30	0.5	3.00%	30	210	X	X	
13	24510	65	60	105	X	4.45%	760	85	X	X	
14	24511	85	65	135	X	7.40%	290	105	X	X	
15	24512	10	X	15	0.5	4450	45	25	X	X	
16	24513	20	15	25	X	1.55%	30	45	X	X	
17	24514	35	55	20	X	2.90%	20	45	X	X	
18	24515	55	10	105	X	5.45%	625	80	X	X	
19	24516	25	30	15	X	1.95%	15	55	X	X	
20	24517	30	40	20	X	1.85%	10	60	X	X	
21	24518	15	25	10	X	1.15%	10	25	X	X	
22	24519	20	5	25	X	1.80%	10	40	X	X	
23	24520	35	30	15	X	2.00%	10	45	X	X	
24	24521	40	55	35	X	1.15%	55	60	X	X	
25	24522	10	15	50	X	5450	25	15	X	X	

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



034

434035

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

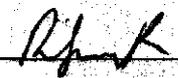
PAGE

			29.5 08 2252			9.1.84		4010		4 of	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24523	40	85	175	X	4.75%	295	60	X	X	
2	24524	10	X	15	X	1600	15	5	X	X	
3	24525	65	95	80	X	4.45%	25	50	X	X	
4	24526	20	20	15	X	1.35%	10	40	X	X	
5	24527	5	X	15	X	3250	10	20	X	X	
6	24528	30	10	15	X	1.00%	10	15	X	X	
7	24529	10	10	15	X	5450	10	10	X	X	
8	24530	45	10	40	X	7.70%	60	240	X	X	
9	24531	70	20	60	X	14.0%	145	235	X	X	
10	24532	190	5	110	X	14.5%	220	185	X	0	
11	24533	160	X	135	X	20.5%	505	190	X	X	
12	24534	145	150	260	X	16.5%	320	115	X	X	
13	24535	95	X	70	X	6.15%	245	40	X	X	
14	24536	70	X	170	X	6.40%	660	30	X	X	
15	24537	135	10	140	X	5.70%	4000	45	X	X	
16	24538	125	30	90	X	7.45%	835	65	X	X	
17	24539	150	15	100	X	7.75%	1100	80	X	X	
18	24540	100	20	125	X	9.10%	1000	70	X	5	
19	24541	160	15	110	X	8.45%	940	75	X	X	
20	24542	145	15	100	X	8.20%	1100	75	X	X	
21	24543	140	15	100	X	7.75%	1400	65	X	X	
22	24544	100	5	95	X	6.25%	2350	75	X	X	
23	24545	120	5	175	X	5.85%	2500	60	X	X	
24	24546	85	10	165	X	4.65%	1000	25	X	X	
25	24547	85	15	110	X	5.10%	1200	45	X	X	

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



035

434036

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

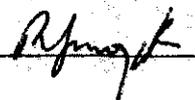
CLIENT ORDER No.

PAGE

		29.5 08 2252				9.1.84		4813		5 OF	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24548	110	X	155	X	7.95%	2650	90	X	4	
2	24549	125	5	110	X	6.95%	1200	65	X	X	
3	24550	115	10	105	X	7.55%	1300	80	X	X	
4	24551	125	X	165	X	8.10%	625	65	X	X	
5	24552	115	X	190	X	9.20%	820	105	X	X	
6	24553	125	5	80	X	6.05%	1350	30	X	X	
7	24554	135	5	105	X	8.50%	750	80	X	X	
8	24555	15	X	25	X	1.10%	65	65	X	X	
9	24556	160	5	90	X	4.35%	380	15	X	X	
10	24557	45	35	40	X	5.35%	65	5	X	X	
11	24558	15	55	20	X	1.25%	15	15	X	X	
12	24559	50	95	30	X	2.60%	15	10	X	X	
13	24560	165	125	1300	X	24.0%	1000	90	X	X	
14	24561	25	240	105	X	3.10%	90	65	X	X	
15	24562	10	20	20	X	1.40%	15	25	X	X	
16	24563	120	X	170	X	8.70%	1050	185	X	X	
17	24564	35	10	40	X	3.50%	60	55	X	X	
18	24565	80	25	200	X	5.00%	1300	80	X	X	
19	24566	165	5	130	X	8.35%	865	50	X	X	
20	24567	205	10	90	X	8.10%	2150	45	X	X	
21	24568	100	25	70	X	6.65%	1000	50	X	3	
22	24569	105	30	75	X	6.10%	1000	55	X	X	
23	24570	100	70	130	X	9.80%	1000	70	X	X	
24	24571	300	90	190	X	11.9%	1250	60	X	X	
25	24572	240	105	170	X	11.2%	1100	45	X	X	

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



ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2252

9.1.84

4013

6 OF

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24573	225	90	155	X	10.9%	1050	60	X	X
2	24574	260	40	150	X	10.0%	1150	70	X	X
3	24575	305	50	175	X	11.0%	1100	60	X	X
4	24576	365	155	260	X	12.7%	1800	50	X	X
5	24577	350	90	200	X	12.2%	1700	50	X	X
6	24578	305	75	145	0.5	11.5%	775	60	X	X
7	24579	385	35	315	X	10.8%	940	50	X	X
8	24580	395	X	160	0.5	14.2%	1450	50	X	3
9	24581	95	15	80	0.5	8.40%	900	295	X	X
10	24582	105	X	60	0.5	9.95%	225	90	X	X
11	24583	115	10	95	0.5	8.10%	255	60	X	X
12	24584	110	X	105	0.5	7.75%	1650	65	X	X
13	24585	110	20	95	0.5	6.85%	245	55	X	X
14	24586	120	10	70	0.5	9.75%	200	130	X	X
15	24587	85	10	55	1.0	9.50%	100	130	X	X
16	24588	20	5	15	1.0	1.90%	45	65	X	X
17	24589	10	10	15	0.5	1.20%	30	20	X	X
18	24590	10	30	10	0.5	1.85%	15	10	X	X
19	24591	15	70	10	1.0	1.20%	10	5	X	X
20	24592	5	X	5	1.0	1250	10	5	X	X
21	24593	20	45	5	1.0	1.45%	5	5	X	5
22	24594	40	20	155	1.0	8400	35	5	X	X
23	24595	15	10	10	0.5	2050	5	5	X	X
24	24596	125	X	155	0.5	7.85%	685	90	X	X
25	24597	95	10	75	X	8.05%	830	45	X	X

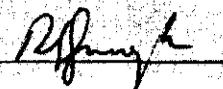
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED OFFICER



037

434038

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		29.5 00 2252B				9.1.84		4013		1 OF	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn	
1	24598	115	15	100	X	9.15%	710	70	X	X	
2	24599	215	10	275	X	9.50%	2250	105	X	X	
3	24600	160	30	155	X	9.90%	1400	50	X	X	
4	24601	115	30	75	0.5	7.35%	665	50	X	X	
5	24602	115	70	100	X	8.15%	150	50	X	X	
6	24603	90	20	55	X	6.05%	180	45	X	X	
7	24604	170	20	110	X	8.35%	710	100	X	X	
8	24605	100	5	60	X	8.85%	275	50	X	X	
9	24606	110	5	55	X	10.0%	495	60	X	7	
10	24607	115	30	75	X	9.65%	190	95	X	X	
11	24608	95	25	75	0.5	7.70%	420	40	X	X	
12	24609	210	180	165	0.5	9.95%	350	40	X	5	
13	24610	240	455	205	X	12.5%	770	45	X	X	
14	24611	250	110	190	0.5	13.5%	715	30	X	4	
15	24612	240	325	150	X	13.0%	680	45	X	X	
16	24613	250	145	150	X	11.0%	835	95	X	X	
17	24614	125	30	90	X	7.75%	880	65	X	X	
18	24615	90	20	50	X	7.60%	115	120	X	X	
19	24616	175	360	140	X	3.95%	225	50	X	X	
20	24617	70	455	125	0.5	6.35%	55	25	X	X	
21	24618	45	30	35	0.5	3.40%	30	65	X	X	
22	24619	10	X	10	0.5	6450	10	25	X	X	
23	24620	5	X	5	0.5	700	X	10	X	X	
24	24621	5	15	5	0.5	1700	X	10	X	X	
25	24622	5	50	10	0.5	6800	X	25	X	X	

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*R. J. King*

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2252B

9.1.84

4613

2 of

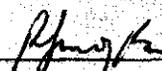
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24623	30	20	10	X	2.10%	X	25	X	X
2	24624	15	85	10	0.5	1.25%	X	25	X	X
3	24625	15	15	30	0.5	1.80%	X	20	X	X
4	24626	10	10	55	0.5	1.80%	X	15	X	X
5	24627	10	35	10	X	5650	X	30	X	X
6	24628	10	40	10	0.5	1.90%	X	40	X	X
7	24629	145	5	95	0.5	11.0%	300	70	X	3
8	24630	125	20	75	0.5	8.85%	140	125	X	X
9	24631	110	X	75	0.5	9.15%	805	75	X	X
10	24632	175	X	175	X	11.0%	1700	205	X	X
11	24633	165	40	195	X	14.5%	1900	85	X	4
12	24634	140	X	50	X	5.30%	65	105	X	X
13	24635	120	X	125	0.5	7.55%	165	125	X	X
14	24636	120	30	130	X	4.65%	35	100	X	X
15	24637	65	10	45	0.5	4.35%	480	30	X	8
16	24638	215	30	65	X	8.10%	35	140	X	X
17	24639	80	10	60	0.5	6.10%	700	50	X	X
18	24640	135	X	285	0.5	7.35%	610	85	X	3
19	24641	130	X	145	0.5	9.80%	375	125	X	X
20	24642	100	45	65	0.5	7.65%	80	155	X	X
21	24643	125	80	90	0.5	9.25%	100	95	X	4
22	24644	100	75	80	0.5	8.35%	95	90	X	7
23	24645	145	100	110	X	9.55%	130	65	X	X
24	24646	20	X	15	0.5	8150	45	20	X	X
25	24647	150	260	410	2.0	9.00%	45	50	X	X

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

039

434040

ANALABS

A division of MacDonal Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE		CLIENT ORDER No.		PAGE	
		29.5 08 22528				9.1.84		4013		3 OF	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Fe	Mn	Cr	As	Sn	
1	24648	35	10	60	X	3.85%	50	65	X	X	
2	24649	5	X	40	X	7600	20	30	X	4	
3	24650	X	X	5	X	550	20	10	X	X	
4	N 22 24465	25	5	30	X	1.55%	30	45	X	X	
5	N 23 24486	155	X	485	X	8.80%	830	155	X	3	
6	N 24 24503	110	10	85	X	8.40%	110	160	X	X	
7	N 25 24520	40	25	10	X	2.30%	5	40	X	4	
8	N 26 24542	130	5	90	X	8.60%	1150	110	X	X	
9	N 27 24565	75	5	170	X	5.65%	1650	95	X	X	
10	N 28 24585	110	10	105	X	7.50%	220	125	X	4	
11	N 29 24604	155	5	105	X	8.30%	905	250	X	X	
12	N 30 24621	10	5	5	X	1500	10	15	X	X	
13	N 31 24640	130	X	265	X	7.85%	550	140	X	X	
14	N 32 24650	5	X	5	X	700	25	10	X	X	
15	N 33 24585	110	10	105	X	7.70%	240	120	X	X	
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

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 Rfk

040

434041

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2269

9.1.84

4014

Of 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	As	Sn
1	24651	5	15	15	X	2550	15	10	X	X
2	24652	5	40	30	X	2900	15	15	X	X
3	24653	15	25	30	X	1750	5	15	X	X
4	24654	20	30	25	0.5	1950	10	10	X	X
5	24655	10	35	20	X	5500	10	10	X	X
6	24656	X	15	15	X	1400	5	10	X	X
7	24657	5	15	20	X	1550	5	10	X	X
8	24658	15	35	75	X	6650	5	10	X	X
9	24659	30	25	40	X	2.65%	10	10	X	X
10	24660	20	15	15	X	2.50%	10	15	X	X
11	24661	30	40	45	X	5.45%	5	25	X	X
12	24662	15	20	15	0.5	7200	10	10	X	3
13	24663	25	20	55	0.5	2.95%	10	15	X	X
14	24664	10	50	20	X	1.25%	5	15	X	3
15	24665	5	10	10	0.5	4000	5	20	X	X
16	24666	5	10	10	0.5	4200	5	20	X	X
17	24667	5	30	10	X	3950	5	15	X	X
18	24668	5	30	10	X	4600	5	20	X	X
19	24669	5	15	10	X	2400	5	15	X	X
20	24670	15	20	15	X	1.15%	5	20	X	3
21	24671	5	40	15	X	5050	5	20	X	3
22	24672	5	45	15	X	1800	5	15	X	X
23	24673	X	25	15	0.5	2450	10	20	X	X
24	24674	10	30	30	X	3700	35	25	X	X
25	24675	10	30	35	X	1.80%	15	10	X	X

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

R. [Signature]

041

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

434042

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2269

9.1.84

4014

2 of 7

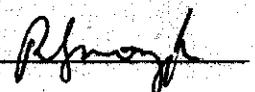
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	As	Sn
1	24676	10	X	85	0.5	3.78%	60	15	X	X
2	24677	X	10	40	X	2900	10	50	X	X
3	24678	40	15	60	0.5	2.38%	75	40	X	0
4	24679	30	10	90	X	2.85%	55	40	X	0
5	24680	120	30	135	X	11.8%	85	140	X	3
6	24681	445	245	400	X	8.60%	890	40	X	X
7	24682	535	55	365	X	14.0%	1450	50	X	X
8	24683	270	145	380	X	14.5%	1600	45	X	X
9	24684	320	90	365	X	13.5%	1100	70	X	X
10	24685	10	10	65	X	7050	45	20	X	X
11	24686	95	90	150	0.5	6.05%	125	145	X	X
12	24687	35	30	60	0.5	1.40%	70	40	X	5
13	24688	10	15	20	X	8050	20	30	X	X
14	24689	10	30	30	X	6750	30	35	X	X
15	24690	125	10	110	X	8.00%	470	190	X	X
16	24691	155	55	320	X	17.0%	175	55	X	X
17	24692	105	5	210	X	7.90%	710	30	X	X
18	24693	75	15	160	X	8.25%	980	35	X	X
19	24694	90	15	90	X	9.75%	140	65	X	3
20	24695	105	10	95	X	15.5%	1250	60	X	X
21	24696	135	50	120	X	11.5%	480	35	X	X
22	24697	45	10	70	X	9.55%	220	15	X	X
23	24698	65	15	65	X	10.0%	235	35	X	X
24	24699	45	25	70	X	10.5%	360	20	X	X
25	24700	130	25	135	X	9.55%	1150	60	X	5

Results in ppm unless otherwise specified

Y = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED
OFFICER


ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 03 2269

9.1.84

4014

3 of 7

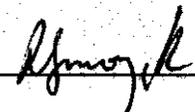
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Hg	Fe	Mn	Cr	Pb	Sn
1	24701	20	15	130	X	9.35%	465	115	X	X
2	24702	60	15	195	X	12.0%	2100	40	X	X
3	24703	100	30	185	X	11.0%	2650	115	X	X
4	24704	140	10	170	X	8.40%	465	50	X	X
5	24705	140	20	120	X	9.60%	1100	105	X	X
6	24706	30	15	160	X	11.5%	1500	15	X	X
7	24707	105	50	275	X	16.0%	2650	20	X	X
8	24708	220	60	205	X	15.5%	640	65	X	X
9	24709	360	30	290	X	7.15%	850	50	X	X
10	24710	460	40	265	X	14.0%	815	55	X	X
11	24711	65	5	75	X	3.25%	65	40	X	X
12	24712	75	65	75	X	4.25%	215	25	X	X
13	24713	30	25	75	X	2.65%	65	20	X	X
14	24714	20	35	35	X	2.10%	25	15	X	X
15	24715	5	20	25	X	7500	15	15	X	X
16	24716	15	20	30	0.5	1.10%	X	10	X	X
17	24717	15	25	15	X	9700	5	10	X	X
18	24718	10	25	30	X	7650	5	10	X	X
19	24719	5	25	25	X	4950	5	10	X	X
20	24720	10	25	10	X	1.15%	5	5	X	X
21	24721	20	25	20	X	1.95%	5	10	X	X
22	24722	5	15	30	X	1.20%	10	5	X	X
23	24723	10	20	30	X	1.55%	20	10	X	X
24	24724	5	15	25	X	1.00%	10	10	X	X
25	24725	10	40	25	X	2.00%	10	5	X	X

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


043

434044

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

29.5 08 2269 9.1.84 4814 4 of 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pb	Fe	Mn	Cr	Pb	Sn
1	24726	10	25	20	X	1.70%	10	10	X	X
2	24727	10	20	15	X	7300	10	10	X	X
3	24728	10	15	10	X	1.65%	5	10	X	X
4	24729	5	25	10	X	9800	5	5	X	X
5	24730	5	20	20	X	4700	5	5	X	X
6	24731	20	55	40	X	1.65%	5	25	X	X
7	24732	15	55	15	X	7950	5	15	X	X
8	24733	10	45	35	X	5500	5	10	X	X
9	24734	15	15	30	X	3750	10	20	X	X
10	24735	550	40	90	X	1.25%	5	15	X	X
11	24736	30	25	260	X	4950	5	20	X	X
12	24737	10	25	140	X	5200	5	15	X	X
13	24738	60	120	25	X	3500	5	40	X	X
14	24739	70	160	70	X	8.70%	80	115	X	4
15	24740	5	10	5	X	2900	5	15	X	X
16	24741	85	85	105	X	2.05%	145	190	X	X
17	24742	150	120	155	X	4.20%	55	45	X	X
18	24743	115	40	95	X	7.75%	55	45	X	X
19	24744	200	95	70	X	14.5%	75	120	X	X
20	24745	225	15	75	X	17.5%	200	75	X	6
21	24746	230	20	85	X	16.0%	735	85	X	X
22	24747	130	30	110	X	12.5%	175	40	X	X
23	24748	45	25	40	X	6.35%	320	25	X	X
24	24749	70	20	65	X	10.5%	690	40	X	X
25	24750	130	25	100	X	11.0%	1150	70	X	X

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]*

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2269

9.1.84

4014

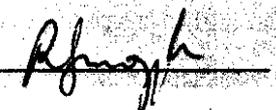
5 of 7

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24751	110	25	230	X	8.80%	615	85	X	X
2	24752	170	55	130	X	11.5%	895	60	X	X
3	24753	90	45	70	X	6.50%	740	35	X	X
4	24754	210	85	195	X	13.0%	1350	25	X	X
5	24755	95	10	70	X	12.5%	690	110	X	X
6	24756	70	15	55	X	11.0%	190	105	X	X
7	24757	125	15	85	X	10.5%	630	50	X	X
8	24758	105	20	100	X	13.5%	920	80	X	X
9	24759	180	10	160	X	22.0%	6300	75	X	X
10	24760	310	15	265	X	13.0%	2300	85	X	X
11	24761	185	10	250	X	13.5%	935	190	X	X
12	24762	75	10	75	X	12.5%	1300	70	X	X
13	24763	150	5	135	X	13.5%	1350	105	X	X
14	24764	155	15	110	X	13.0%	650	70	X	X
15	24765	135	50	120	X	12.5%	365	80	X	X
16	24766	120	10	65	X	9.90%	355	45	X	X
17	24767	100	25	150	X	8.65%	1900	120	X	X
18	24768	50	40	50	X	3.05%	45	155	X	X
19	24769	65	25	55	X	2.90%	40	150	X	X
20	24770	45	40	65	X	2.95%	45	100	X	X
21	24771	40	55	70	X	2.88%	70	130	X	X
22	24772	160	40	75	X	5.90%	130	35	X	X
23	24773	95	45	105	X	9.90%	270	110	X	X
24	24774	205	15	120	X	11.5%	2100	50	100	X
25	24775	110	15	60	X	11.5%	1250	95	X	X

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



ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2269

9.1.84

4014

EOF 7

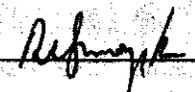
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	24776	90	15	95	X	9.75%	485	65	X	X
2	24777	285	25	110	X	9.20%	195	45	X	X
3	24778	355	185	305	X	11.0%	270	60	X	X
4	24779	105	190	115	X	1.70%	50	30	X	X
5	24780	60	20	120	X	4.85%	325	215	100	X
6	24781	5	10	20	X	3750	15	10	X	X
7	24782	5	20	30	X	6750	15	10	X	X
8	24783	20	65	15	X	2.40%	10	20	X	X
9	24784	35	60	95	X	3.20%	215	50	200	X
10	24785	5	15	15	X	3950	10	15	X	X
11	24786	5	20	10	X	3650	10	10	300	X
12	24787	5	20	15	X	2000	10	15	100	X
13	24788	5	25	10	X	7650	10	20	X	X
14	24789	5	45	10	X	4650	10	15	X	X
15	24790	5	30	10	X	3000	15	15	X	X
16	24791	5	40	15	X	3300	15	20	200	X
17	24792	30	30	10	X	1.35%	15	15	X	X
18	24793	5	5	15	X	700	30	10	X	X
19	24794	5	10	10	X	4850	10	15	X	X
20	24795	15	40	10	X	2.50%	10	15	X	X
21	24796	15	5	10	X	6150	5	25	X	X
22	24797	10	40	10	X	1.90%	10	15	X	X
23	24798	5	15	15	X	1.60%	10	15	X	X
24	24799	5	20	15	X	2.40%	10	15	X	X
25	24800	5	35	10	X	3250	5	20	X	X

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


046

434047

ANALABS

A division of MacDonal Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

			29.5 08 2269			9.1.84		4014		7 of 7	
--	--	--	--------------	--	--	--------	--	------	--	--------	--

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Fe	Mn	Cr	As	Sn
1	DETECTION	5	5	5	0.5	50	5	5	100	3
2	DIGESTION									
3	METHOD	101	101	101	101	101	101	101	101	402
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

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



047

434048

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

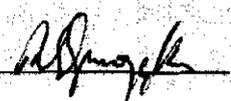
SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

			29.5 00 2269B			9.1.84		4014		10F 4	
--	--	--	---------------	--	--	--------	--	------	--	-------	--

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Fe	Mn	Cr	As	Sn
1	24801	10	15	10	X	9300	10	15	X	X
2	24802	10	20	10	X	1.20%	10	20	X	X
3	24803	5	25	15	X	2900	30	15	X	X
4	24804	5	15	15	X	2150	10	25	500	X
5	24805	25	10	20	X	1550	10	135	X	X
6	24806	5	255	45	X	3000	20	65	X	X
7	24807	5	40	35	X	3050	35	65	X	X
8	24808	10	110	45	X	9150	25	130	X	X
9	24809	40	35	80	X	5.30%	115	165	100	X
10	24810	40	60	75	X	6.70%	80	110	X	X
11	24811	30	45	25	X	5.00%	20	200	X	3
12	24812	50	135	55	X	12.5%	70	200	X	X
13	24813	65	65	115	X	9.05%	215	140	X	X
14	24814	270	5	115	X	10.0%	830	40	X	X
15	24815	120	65	100	X	10.0%	570	80	X	X
16	24816	290	30	110	X	13.0%	1400	130	X	X
17	24817	585	5	70	X	12.0%	1100	215	X	X
18	24818	85	55	90	X	8.40%	150	65	X	X
19	24819	95	10	75	X	8.55%	95	165	X	X
20	24820	40	20	40	X	2.25%	65	100	X	X
21	24821	150	5	90	X	12.0%	200	75	X	X
22	24822	145	5	105	X	13.0%	890	95	X	X
23	24823	135	X	100	X	12.5%	2300	115	X	X
24	24824	110	20	75	X	13.0%	355	130	X	X
25	24825	160	10	90	X	13.0%	605	355	X	X

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



048

434049

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 2269B

9.1.84

4014

ZDF 4

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Fe	Mn	Cr	Pb	Sn
1	24826	125	165	175	X	10.0%	175	220	X	X
2	24827	80	25	75	X	10.5%	85	200	X	X
3	24828	120	45	85	X	10.5%	240	115	X	X
4	24829	140	10	120	X	10.5%	260	65	X	X
5	24830	165	55	125	X	8.60%	665	150	X	X
6	24831	180	60	130	X	11.0%	765	140	X	X
7	24832	165	50	120	X	10.5%	795	95	X	X
8	24833	165	50	115	X	10.5%	620	100	X	X
9	24834	190	40	140	X	11.0%	685	75	X	X
10	24835	240	5	160	X	10.5%	1400	80	X	X
11	24836	150	85	120	X	9.95%	1700	65	X	X
12	24837	305	5	170	X	12.5%	1350	60	X	X
13	24838	75	5	95	X	8.90%	1250	55	X	X
14	24839	180	40	75	X	9.45%	125	50	X	X
15	24840	145	5	80	X	8.20%	110	70	X	X
16	24841	175	70	85	X	8.05%	350	110	X	X
17	24842	150	5	55	X	6.35%	45	170	X	X
18	24843	30	X	15	X	3.85%	10	30	X	X
19	24844	5	130	10	X	5500	10	20	X	X
20	24845	5	X	10	X	3050	5	15	X	X
21	24846	20	10	15	X	2.05%	5	30	X	X
22	24847	5	15	15	X	7150	10	25	X	X
23	24848	20	5	35	X	1.75%	180	35	X	X
24	24849	10	5	30	X	1.90%	30	25	X	X
25	24850	10	40	25	X	1.25%	15	20	X	X

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 

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

29.5 08 22698

9.1.84

4014

30F 4

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg	Fe	Mn	Cr	As	Sn
1	24851	40	35	35	X	2.30%	35	40	X	X
2	N 3424691	140	55	285	X	14.5%	175	50	X	X
3	N 3524731	25	60	15	0.5	1.60%	15	15	X	X
4	N 3624380	170	170	370	0.5	12.0%	610	90	X	15
5	N 3724650	5	X	10	0.5	2150	40	205	X	X
6	N 3824680	125	30	165	0.5	12.0%	95	150	X	X
7	N 3924700	120	20	135	X	10.0%	1250	75	X	X
8	N 4024714	30	45	25	X	2.65%	30	15	X	X
9	N 4124736	45	20	210	0.5	5800	15	25	X	X
10	N 4224755	100	15	65	X	14.5%	770	150	X	X
11	N 4324770	50	30	45	0.5	2.95%	90	95	X	X
12	N 4424789	10	50	10	X	5900	15	20	X	X
13	N 4524810	45	60	265	0.5	7.60%	90	120	X	X
14	N 4624831	190	85	135	X	13.5%	980	55	X	X
15	N 4724851	35	35	20	0.5	2.00%	30	45	X	X
16	N 4824380	170	170	390	0.5	13.0%	625	85	X	16
17	N 4924425	100	35	160	X	9.25%	600	105	X	X
18	N 5024147	190	10	170	X	10.0%	1200	35	X	X
19										
20										
21										
22										
23										
24										
25										

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]

371 E

373 E

EL32179

Webb's Creek

Ross Creek

HUSKISSON RIVER

5388 N

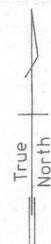
5386 N

Getty | AUSTRALASIA
 GETTY OIL DEVELOPMENT COMPANY LIMITED
 E.L.32/79 HUSKISSON RIVER ⁸⁴⁻²¹²¹
SAMPLE LOCATIONS
STREAM SEDIMENTS 050

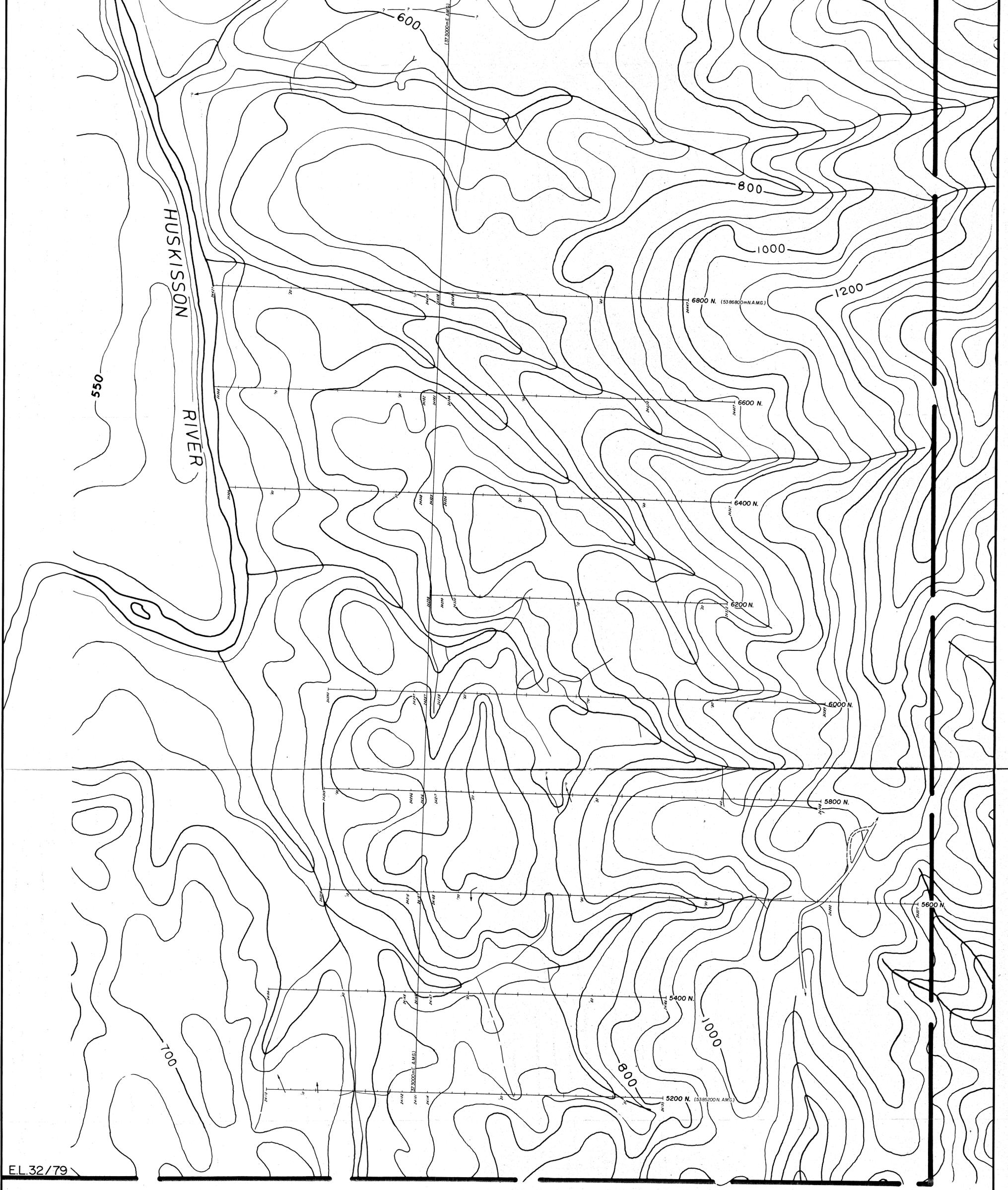
Author: J.M.N.	Scale: 1:10,000
Drawn: T.G.D.S.	Date: April 1984
Revised:	File No:
	Figure No. 2

5 cm

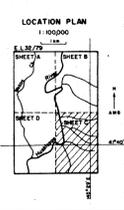
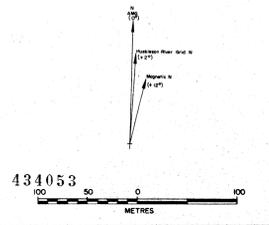
SCALE 1:10,000
0 100 200 300 400 500 metres



434051



EL.32/79



Getty AUSTRALASIA	
GETTY OIL DEVELOPMENT COMPANY LIMITED	
EL.32/79 HUSKISSON RIVER	
SAMPLE LOCATIONS - SOILS	
052	
SHEET C	
Author: L.M.C.	Scale: 1:2500
Drawn: T.G.S.	Date: APRIL 1983
Revised:	File No:
	Figure No: 4