

000

222001

PIEMAN

ADDITIONAL REPORT ON THE
SOILS GEOCHEMISTRY
OF THE NORTHERN AREA
OF EXPLORATION LICENCE 4/61
WEST COAST, TASMANIA
SUMMER FIELD SEASON, 1984-85

By

L. VANZINO
November 1984

AMG REFERENCE POINTS ADDED

Industrial and Mining Investigations Pty. Limited
Incorporated in the A.C.T.

DISTRIBUTION

1. Master - IMI Library
2. Department of Mines via DSA
3. J G Symons via DSA
4. Savage Office via DSA
5. P S Forwood via DSA
- 6.
- 7.
- 8.
- 9.
- 10.

002

TABLE OF CONTENTS

	<u>Page No.</u>
A. Table of Contents	1
B. Table of Appendices	2
C. Table of Plans	3
1. Introduction	4
2. Discussion	5
3. Arsenic	6
3.1 Greenschist Unit	6
a) The Eastern Greenschist	6
b) Dolomite Sub-Unit	7
c) The Western Greenschist	8
3.2 Pyroclastic Marker Unit	9
a) Grey-Green Shale/Phyllite	9
b) Pale Green Tuff/Volcanic Breccia	9
c) Green/Grey Cleaved Tuff	9
3.3 Black and Grey Slate	10
4. Silver	10
5. Nickel	10
6. Summary and Recommendations	11
7. References	12

003

222004

2.

TABLE OF APPENDICES

- A. Statistical Data for Each Lithology - Arsenic
- B. Statistical Data for Each Lithology - Copper
- C. Statistical Date for Each Lithology - Zinc
- D. Analabs Analytical Report No. 236.1 08 2505, 2506

004

TABLE OF PLANS

By Plan reference number

IMI - EL 4/61 - 11/84 - 1	Location of Sample Lines
IMI - EL 4/61 - 11/84 - 2	Lines 16.7W, 16.4W, As Analysis Values
IMI - EL 4/61 - 11/84 - 3	Lines 16.7W, 16.4W, Ni Analysis Values
IMI - EL 4/61 - 11/84 - 4	Lines 14.4W, 12.5W, As Analysis Values
IMI - EL 4/61 - 11/84 - 5	Lines 14.4W, 12.5W, Ni Analysis Values
IMI - EL 4/61 - 11/84 - 6	Central Copper Anomaly, As Analysis Values
IMI - EL 4/61 - 11/84 - 7	Central Copper Anomaly, Ni Analysis Values
IMI - EL 4/61 - 11/84 - 8	Central Copper Anomaly, As Contours
IMI - EL 4/61 - 11/84 - 9	Central Copper Anomaly, Interpretation of Copper Zones
IMI - EL 4/61 - 11/84 - 10	Southern Copper Anomaly, As Analysis Values
IMI - EL 4/61 - 11/84 - 11	Southern Copper Anomaly, Ni Analysis Values
IMI - EL 4/61 - 11/84 - 12	Southern Copper Anomaly, As Contours
IMI - EL 4/61 - 11/84 - 13	Pipeline Road Area, As Analysis Values
IMI - EL 4/61 - 11/84 - 14	Pipeline Road Area, Ni Analysis Values
IMI - EL 4/61 - 11/84 - 15	Specimen Reef, As Analysis Values
IMI - EL 4/61 - 11/84 - 16	Specimen Reef, Ni Analysis Values

NORTHERN AREA SOIL SAMPLING

Arsenic, Nickel, Silver Assays and Interpretation

1. INTRODUCTION

During the period October 1981 - June 1983 base metal exploration in the north of EL 4/61 has concentrated upon the follow up of magnetic targets, determined from data supplied by the Mines Department aeromagnetic survey of May 1981.

As a result of this work, 1489 soil samples, representing 47.78 kilometres of cut line (see Plan 10/84-1), have been collected and assayed for copper, lead and zinc. This work successfully delineated "The Central Copper Anomaly", a region of elevated geochemical values coincident with the magnetic features. This area is considered prospective for mineralisation. The anomalism is found in a longitudinal belt of greenstones that are interpreted as "basic metavolcanics, possibly largely pyroclastic" (Shannon 1984).

In response to new Mines Department guidelines, the 1983/84 summer field season took the form of a reconnaissance survey of the southern two thirds of EL 4/61. Anomalous values in arsenic and silver from this programme prompted a reappraisal of previous exploratory work in the north.

Subsequently, the entire stock of soil samples from the northern area programme were assayed for arsenic, silver and nickel by Analabs, Burnie. The motive behind assaying for arsenic is to identify potential gold prospects. Arsenic as a pathfinder element shows, "an exceptionally strong coherence with gold in practically all types of gold deposits." (Rose, Hawkes and Webb 1979). The Central Copper Anomaly does not constitute ore grade concentrations. However, "these values may, and probably do, indicate sulphide enrichment in the rocks, chiefly in pyrite, but with the occasional blebs of chalcopyrite, sphalerite or more rarely galena. Such zones are potential for gold." (Forwood 1984).

Silver was assayed as an indicator of potential gold anomalism as well as an indicator of its own mineralisation. As a guide to silver mineralisation, Rose et al express the view that lead and zinc would be of more use due to the lack of sensitivity of most analytical methods in detecting background silver.

Magmatic, layered copper-nickel deposits associated with ultra-mafic intrusions are a plausible exploration target within the greenstone belt, considering the volcanic exhalitive origin of the Savage River iron deposit. On this assumption, nickel was assayed in an attempt to pin point possible ultra-mafic bodies that had otherwise not been revealed by geological mapping due to poor outcrop.

2. DISCUSSION

Connor and Shacklette (1975) have cited the median value for arsenic in rocks as 1.5 ppm. Greater mobility due to co-precipitation with Fe oxides gives a median As value for soils of 7.5 ppm. Simply, arsenic anomalism could be defined by all data above this benchmark value of 7.5 ppm. A more accurate recognition of anomalism is that the geochemical distribution of data reflects lithological variation, with each lithological unit defining its own population set.

The pre-Cambrian geology in the northern section of EL 4/61 exhibits such variation and I refer the reader to Shannon (Part 1, 1982) for a description of the lithologies present. The lithological units studied for arsenic anomalism were:-

- 1. The Greenschist Unit -
 - 1a) Eastern Greenschist
 - 1b) Dolomite Sub-unit
 - 1c) Western Greenschist
- 2. Pyroclastic Marker Unit
 - 2a) Grey-Green Shale/Phyllite
 - 2b) Pale Green Tuff/Volcanic Breccia
 - 2c) Green Grey Cleaved Tuff
- 3. Black and Grey Slate

Anomalies were defined by:

- A. Collating the population set for each lithological unit and statistically calculating the anomaly threshold (mean + 2 standard deviations). Higher order anomalism was defined by the mean + 3 standard deviations, with the mean + 1 standard deviation defining weak anomalism or enveloping haloes. (For statistical data see Appendix A.) In order that the data remained normally distributed, very high values were removed prior to calculation.
- B. "Eyeballing" or recognition of clusters of anomalous samples.

Discussion of the results that follow highlights all anomalies present with each lithological unit. Furthermore, these results are to be read in conjunction with the accompanying plans.

007

3. ARSENIC

3.1 GREENSCHIST UNIT

a) The Eastern Greenschist

In the extreme north of the exploration licence close to its northern boundary, an elongate magnetic "high" (500nT) is found to be coincident with the trend of the central Donaldson magnetic "high". This area was sampled for possible mineralisation along strike from the Central Copper Anomaly. Lines 16.7 and 16.4 were cut in order to intersect this magnetic feature at right angles to the axis of the anomaly ridge (see Plan 10/84-2).

Strong arsenic anomalism is noted on Line 16.7 centred upon sample 49600 (280ppm). This cluster of high arsenic values, amongst a barren background, is located on the eastern shoulder of the magnetic high and receives good support in both copper and zinc. Minor strike extension exists 300m to the south on Line 16.4 with sample 49550 displaying an isolated value of 180ppm.

Also on Line 16.4, this time on the western shoulder of the magnetic high, a small arsenic anomaly exists with very good support in copper and zinc. (Samples 49200-49250.) No strike extension is evident.

At the eastern extremity of Line 16.4 amongst a cluster of erratic values, there are two spot highs of 90 and 120ppm (samples 50900 and 51000 respectively).

A weak zone of arsenic values, broadly vindicated by copper, is found at the start of Line 16.7. There is some evidence for strike extension of this anomaly south to Line 16.4 This anomaly has not been clearly defined due to the erratic values present and a few samples which could not be located by the laboratory.

An isolated "high" at Line 15.0/50150 has a value of 54ppm. There is moderate support in copper (see Plan 10/84-6).

A small cluster of moderate values is centred upon sample 14.8/50050. Potential for strike extension of this anomaly exists at 15.0/50025 with a spot high of 24 ppm.

A 150 metre wide zone of moderate anomalism is found centred upon 14.1/50175. Immediately adjacent to this zone are coincident peaks in copper and zinc values. No strike extension is possible due to a one kilometre "gap" to the next sample line.

A spot high of 28 ppm at 13.1/50375 is found within a region of peak copper and zinc. A "kick" in lead surrounds this arsenic value.

An isolated value of 50 ppm As is noted in Line 11.1/50425, occurring in mapped Permian tillites (see Plan 10/84-10). Immediately adjacent and inclusive of this sample site, zinc is

strongly anomalous (280 and 315 ppm) and lead especially so with a cluster of values (50, 55, 145 and 55 ppm) centre on this arsenic high. It can be assumed with a high degree of certainty that this anomaly represents a sample of sulphide enriched material within the transported glacial debris.

No major arsenic anomalism was detected in the sampling areas east of the pipeline road, which clearly verifies the poor Cu, Pb and Zn values encountered during prior work (see Plan 10/84-13). One exception is a spot high of 86 ppm at 15.0/52825 which is supported by proximal shoulder values of 21 and 10 ppm respectively. Tenuous support is obtained from an isolated copper value of 145 ppm at 15.0/52800 and an isolated Pb value of 50 ppm at 52900.

b) Dolomite Sub-unit

During the course of the 1981/82 stream sediment programme, an outcrop of pyritic quartz dolomite was noted in the bed of the Little Donaldson River at co-ordinates 49921380. Two and a half kilometres south along strike from this outcrop is a further pyritic dolomite in the upper reaches of McAullife Creek (co-ordinates 49551120).

Along the inferred southern trend of this dolomite bed, significant arsenic anomalism has been observed at three localities (for values see Plan 10/84-6).

- i) 250m south of the Little Donaldson outcrop at the eastern end of Line 13.6 there is a small assemblage of anomalous As values (Samples 49800-49850).
- ii) On Line R (IMI access track) in a topographic low, samples R 1150-R1225. Minor evidence for strike extension between these two points (i and ii) is an isolated value of 26 ppm at 13.1/49925.
- iii) 200m south east of the McAullife creek outcrop a "kick" in lead vindicates a highly anomalous arsenic zone on Line 11.1. (Samples 49625-675).10/84-10.

Arsenic anomalism is also noted north of the Little Donaldson outcrop. An elongate zone coincident with peaks in copper and zinc anomalism is found to have very good correlation along strike for a distance of 500m. A rock chip sample in the core of this anomaly (RC 1011) has revealed a value of 385 ppm lead.

Most soil sampling lines that penetrated the inferred trend of the Dolomite bed succeeded in registering arsenic anomalism. It appears that alluvium from the Little Donaldson river may have prevented suitable samples being obtained in the remainder of the soil lines. Further evidence for the existence of this non-outcropping dolomite bed is the uniform 75m width that all anomalies exhibit consistent with the bedded nature of carbonates.

c) The Western Greenschist

The stratabound nature of the arsenic anomalism is well demonstrated in the Central Copper anomaly.

The following points can be made regarding the pattern of arsenic distribution.

- i) Distinct arsenic rich pods form a narrow zone, the trend of which is NNE/SSW (see Plan 10/84-8)
- ii) This trend is coincident with the trend of the magnetics.
- iii) The trend of the arsenic rich zone is parallel to the Cu/Zn anomalies noted in the 1983 programme (see Plan 10/84-9). However, the As zone appears to stratigraphically underly those anomalies.
- iv) Outside of the As rich zone, anomalism can only be described as moderate. However, favourable support in Cu and Zn still exists.
- v) Lead values give sporadic support to the As anomalism

The following anomalies are observed south of the Central Copper anomaly.

- * Where the spine of the magnetic high intersects the IMI access road, the aeromagnetic data shows the 600nt contour pinching out and thinning into a saddle. At this point sampling has revealed an isolated high value in arsenic of 70 ppm (R0550), surrounded by a cluster of anomalous Pb values (65.95 and 75 ppm).
- * Adjacent to the lower boundary of the western greenschist, an arsenic anomaly can be shown to correlate over a distance of at least one kilometre (see Plan 10/84-12). This anomaly, which has a narrow, elongate shape, begins at Line 11.2/49075 and is supported by samples 11.1/49050 and 11.0/49050. (peak copper and zinc values are proximal to these samples). The inferred anomaly is "blind" over a distance of 900m and reappears as a broader zone, 126 metres wide at 10.1/49325. This zone which is strangely supported by peaks in Cu and to a lesser extent zinc, is open ended and needs to have any southerly extensions ascertained.
- * A smaller group of moderate arsenic values (34, 26 and 24 ppm) are recorded on line 11.1 at sample sites 49225-275. A possible strike extension exists one kilometre to the south where a solitary, extreme value of 100 ppm is found at 10.1/49575. An isolated high value of 49 ppm is located at 11.1/49400 which may merge with this zone or be a distinct stratigraphic horizon of its own.

3.2 PYROCLASTIC MARKER UNIT

a) Grey-Green Shale/Phyllite

A high order anomaly with a distinct haloe is centred upon 14.7/49125. The anomalism extends 100m to the south along strike and is supported by moderate values of copper and zinc with an isolated high lead value of 215 ppm (14.7 49075) (see Plan 10/84-6).

On line 13.6, two sample locations 49150 and 49225 exhibit low order anomalism. (17 ppm each). It is noted that these arsenic values stratigraphically underlie lead copper values.

Previous field work (1982/83) delineated an elongated zone of copper anomalism located south of the IMI access track and centred on lines 11.1, 10.9 and 10.8. The stratabound nature of the copper anomalism is reflected by arsenic which mimics its shape and trend. There is no elemental support from Pb or Zn.

An isolated high value of 38 ppm is located at 10.6/48750. There is moderate support in zinc proximal to this sample (see Plan 10/84-10).

A highly anomalous zone, approximately 200m wide is centred upon line 10.1/49100. This anomaly shows consistantly high order values and exhibits a distinct haloe. The anomaly lacks elemental support but does have minor extension along strike (see below).

An isolated high value of 34 ppm is registered at 9.6/49275. There is moderate support in zinc.

b) Pale Green Tuff/Volcanic Breccia

A high order anomaly with a distinct enveloping haloes, and a strike length of 200 m is centred upon 14.6/49025-050. This anomaly is supported by a "kick" in lead values (see Plan 10/84-6).

A small, strong anomaly with minor support in copper in centred on 14.0/49075-100.

c) Green/grey Cleaved Tuff

Within this unit there exists at 25-100m wide zone that exhibits moderate anomalism. This stratabound zone extends from 10.1/48475 through to 14.4/48725-775; with supporting arsenic values at:

13.1/48700 - 28 ppm (includes 280ppm Cu)
 11.6/48575 - 28 ppm (moderate zone of zinc)
 11.1/48400-425 - 23 and 20 ppm
 10.6/48275-375 - 26, 23, 11 and 19 ppm

Other elemental support is sporadic (see Plan 10/84-10).

011

3.3 BLACK AND GREY SLATE

At 11.1/48075 there exists an isolated high order value of 23 ppm with no other elemental support. This is best regarded as a spot high (see Plan 10/84-10).

Towards the top of this unit a moderate to weak stratabound anomaly can be correlated from Line 10.6/48175-255 North to Line 11.1/48225. There is no other elemental support.

An inferred dolomite unit west and stratigraphically lower than the black and grey slate was sampled during the 1982/83 field season (Line 12.5W). A cluster of three moderately anomalous samples centred on sample 12.5/48775 receive a minor "kick" in lead. However, support from Cu and Zn is absent.

4. SILVER

As noted in the introduction, Pb is a more useful guide for locating potential silver mineralisation. The 1981/82 soil sampling programme had located an extreme solitary lead value of 1.25%. Follow-up investigations by way of a small scale grid were implemented during the 1982/83 field season. Although the same result could not be duplicated, 5m to the east of the original sample spot a value of 135 ppm was recorded.

Pb as an indicator element for Ag is well justified in this case. Of the 1489 silver determinations carried out by the laboratory there were only 7 registrations above the detection limit of 0.5 ppm and all were within the small scale grid. Although these silver values are weak I draw the readers' attention to Penny et al (1984) who noted in the Timbs Creek silver anomaly "that a small silver value may be significant as two points less than 5 m apart yielded values of 240 and 1.5ppm".

5. NICKEL (Plans 10/84-3, 5, 7, 11 and 14)

The nickel values obtained failed to substantiate any possible ultra-mafic bodies within the stratigraphy of the greenstone belt. Most values were in the range of 160-200 ppm which Rose et al (1979) cite as being "indicative of Ni content in residual soils over mafic schist. However, the nickels values do suggest, rather latently, that the stratigraphically higher, sericite rich Eastern greenschist which lacks sericitic alteration is nickel rich.

6. SUMMARY AND RECOMMENDATIONS

The re-assaying of samples has been successful in defining three major arsenic anomalies for follow up investigations. They being:

1. The Central Copper Anomaly.
2. The cluster of high values on the eastern end of Line 16.7 have a low probability of occurring by chance and hence may reflect mineralisation.
3. The anomalism associated with the inferred dolomite bed.

It is recommended that further soil sampling of the strongly anomalous zones be conducted to ascertain if arsenic has a sympathetic relationship with gold. If significant Au is registered, the status of the other anomalies may be upgraded and further work envisaged.

7. REFERENCES

1. Rose, A.W., M.E. Hawkes, & J.S. Webb, Geochemistry in Mineral Exploration, 2nd Edition, Academic Press, London, 1979.
2. Connor, J.J. & H.T. Shacklette, Background Geochemistry of Some Soils, Plants and Vegetables in the Conterminous, US Geological Survey, Professional Paper, 574-S, 164 pp., 1975.
3. Penny, B.G., C.H.C. Shannon & L. Vanzino, "Report on Field Investigations Within Exploration Licence 4/61, West Coast, Tasmania, Summer Field Season 1983-84", Industrial and Mining Investigations Pty. Limited, Sydney, 1984.
4. Forwood, P.S., "Exploration Licence 4/61, West Coast Tasmania," Review of EL 4/61, "Executive Summary", 19 March 1984
A Summary, Review, Assessment and Recommendation of EL 4/61, North West Tasmania, February, 1984
5. Shannon, C.H.C., "Exploration Projects", Industrial and Mining Investigations Pty. Limited, Sydney, 23 January 1984.
6. Shannon, C.H.C., "Report on Field Investigations Within EL 4/61, West Coast, Tasmania, Summer Field Season 1981-82, Part I, Geochemical Programme Northern EL 4/61, 23 June 1982.

015

APPENDIX B

STATISTICAL DATA FOR EACH LITHOLOGY

COPPER

Pale Green Tuff - Volcanic Breccia

S.D. = 83.32, \bar{x} = 153, n = 77

\bar{x} + S.D. = 236.5
 \bar{x} + 2 S.D. = 319.5

Grey Green Shale - Phyllite

S.D. = 133, \bar{x} = 193, n = 312

\bar{x} + S.D. = 279.5
 \bar{x} + 2 S.D. = 371.77

Greenschist West

S.D. = 68.61, \bar{x} = 41.79, n = 126

\bar{x} + S.D. = 326
 \bar{x} + 2 S.D. = 459

Greenschist East

S.D. = 68.61, \bar{x} = 41.79, n = 126

\bar{x} + S.D. = 110
 \bar{x} + 2 S.D. = 179

APPENDIX C

STATISTICAL DATA FOR EACH LITHOLOGY

ZINC

Pale Green Tuff - Volcanic Breccia

S.D. = 41.1, \bar{x} = 103, n = 77

\bar{x} + S.D. = 144.1
 \bar{x} + 2 S.D. = 185.2

Green and Grey Shale - Phyllite

S.D. = 36.43, \bar{x} = 105.7, n = 113

\bar{x} + S.D. = 142
 \bar{x} + 2 S.D. = 178.6

Greenschist West

S.D. = 40.5, \bar{x} = 100.9, n = 312

\bar{x} + S.D. = 141.4
 \bar{x} + 2 S.D. = 182.0

Greenschist East

S.D. = 34.6, \bar{x} = 34.6, n = 126

\bar{x} + S.D. = 69.4
 \bar{x} + 2 S.D. = 104.0

01

222018

ANALABS

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

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

ANALYTICAL REPORT No. 236.1 08 2505

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

Industrial & Mining Investigations
Suite 3709
Australia Square
Sydney NSW 2000

ORDER No.	PROJECT
DATE RECEIVED	RESULTS REQUIRED
24.8.84	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
		3	1412

STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT						OTHER SEE REMARKS	NONE	ANALYSIS		
			DRY	CRUSH	SPLIT	PULVERISE	SEIVE	FREE TO ANALYSIS SECTION			PREPARATION	METHOD	
	PL	236.1 08 1099, 1239,1162,1994, 1129,1836,2043, 1146,1596,1801, 1836,1780,1817, 1874,1024,883, 1947,2031.							1	Ag, Ni As		101 114	

RESULTS TO

As Above

RESULTS TO

Copy 1. IMI Library
2. CMCS ✓
3. Savage River Office,

REMARKS

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AA3
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration TTN
water WA	HF under pressure A7	other chemicals means CHEM
tissue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

AUTHORISED OFFICER *[Signature]*

018

222019

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

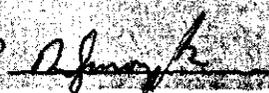
PAGE

Missed Samples	236.1 08 2506	29.8.84		1 OF 1
----------------	---------------	---------	--	--------

TUBE No.	SAMPLE No.	Pp	Ni	As					
1	11.3 49100	0.5	110	4					
2	14.1 49350A	X	100	15					
3	14.6 49200A	X	110	25					
4	14.1 50350	X	10	1					
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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



019

222020

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				
		236.1 08 2506E	29.8.84		1 OF 1				
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Pg				
1	15.0 50375	225	1.18%	375	X				
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	25	25	25	2				
24	DIGESTION								
25	METHOD	104	104	104	104				

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. ...*

020

222021

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

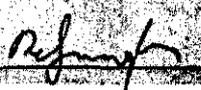
CLIENT ORDER No.

PAGE

LINE 11-3		236.1 08 2506C			15.8.84			1 OF 1	
TUBE No.	SAMPLE No.	Pg	N1	P5					
1	48975	X	65	1					
2	49025	X	45	5					
3	49050	X	95	5					
4	49075	X	65	11					
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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

222022

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11.2			236.1 08 2506<	15.8.84		1 OF 1
-----------	--	--	----------------	---------	--	--------

TUBE No.	SAMPLE No.	Ag	Ni	Pz					
1	48950	X	50	2					
2	48975	X	20	3					
3	49025	X	75	16					
4	49050	X	15	8					
5	49075	X	55	23					
6	49100	X	70	4					
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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

222023

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

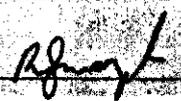
CLIENT ORDER No.

PAGE

LINE 11.1		236.1 03 25060			29.8.84				1 OF 7	
TUBE No.	SAMPLE No.	Rg	Ni	Rs						
1	47700	X	120	2						
2	47800	X	145	X						
3	48000	I/S	-	-						
4	48050	X	215	1						
5	48075	X	280	23						
6	48100	X	375	X						
	48125	X	280	X						
8	48150	X	195	X						
9	48200	X	230	X						
10	48225	X	110	12						
11	48250	X	125	8						
12	48275	X	125	5						
13	48300	X	130	12						
14	48325	X	85	12						
15	48350	X	175	12						
16	48375	X	210	10						
17	48400	X	145	23						
18	48425	X	175	20						
19	48450	X	200	13						
20	48475	X	205	12						
21	48500	X	200	14						
22	48525	X	155	8						
23	48500	X	220	5						
24	48575	X	130	10						
25	48600	X	180	12						

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

222024

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11.1			236.1 08 2506<	15.8.84						2 OF 7
TUBE No.	SAMPLE No.	Pg	Ni	Pb						
1	48625	X	160	12						
2	48700	X	180	7						
3	48725	X	95	X						
4	48750	X	75	X						
5	48775	X	85	X						
6	48800	X	90	X						
7	48825	X	95	17						
8	48860	X	115	10						
9	48875	X	70	11						
10	48900	X	55	X						
11	48925	X	35	X						
12	48950	I/S	-	-						
13	48975	X	55	4						
14	49025	X	85	23						
15	49050	X	65	50						
16	49075	I/S	-	-						
17	49100	X	30	3						
18	49125	X	55	4						
19	49150	I/S	-	-						
20	49175	I/S	-	-						
21	49200	X	190	3						
22	49225	X	235	34						
23	49250	X	70	26						
24	49275	X	115	24						
25	49300	X	145	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]

024

222025

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 111		236.1 08 2506C			15.8.84		3 OF 7		
TUBE No.	SAMPLE No.	Rg	Ni	Rs					
1	49325	I/S	-	-					
2	49350	X	125	1					
3	49375	X	100	5					
4	49400	X	105	49					
5	49425	I/S	-	-					
6	49450	X	85	X					
7	49475	X	80	X					
8	49500	X	115	2					
9	49525	X	100	1					
10	49550	X	145	X					
11	49575	X	35	2					
12	49600	X	85	X					
13	49625	X	45	52					
14	49650	X	45	68					
15	49675	X	90	390					
16	49700	X	25	4					
17	49725	X	15	X					
18	49750	X	15	X					
19	49775	X	15	X					
20	49800	X	20	X					
21	49825	I/S	-	-					
22	49850	I/S	-	-					
23	49875	X	25	4					
24	49900	X	30	X					
25	49925	X	35	1					

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]*

025

222026

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11-1		236.1 08 25060			15.8.84		4 OF 7		
TUBE No.	SAMPLE No.	Rg	N1	Rs					
1	49950	X	20	3					
2	49975	X	45	X					
3	50000	X	60	X					
4	50025	X	35	X					
5	50050	X	50	X					
6	50075	X	10	X					
7	50100	X	25	X					
8	50125	X	30	4					
9	50150	X	20	X					
10	50175	X	25	X					
11	50200	X	40	X					
12	50225	I/S	-	-					
13	50250	I/S	-	-					
14	50275	I/S	-	-					
15	50300	X	55	X					
16	50325	X	50	X					
17	50350	X	45	X					
18	50375	I/S	-	-					
19	50400	X	55	1					
20	50425	X	55	50					
21	50450	I/S	-	-					
22	50475	X	55	X					
23	50500	X	60	X					
24	50525	X	45	X					
25	50550	X	40	X					

Results in ppm unless otherwise specified

I = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED
OFFICER*[Signature]*

026

222027

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11-1		236.1 08 25060			15.8.84			5 OF 7	
TUBE No.	SAMPLE No.	Rg	Ni	Rs					
1	50575	I/S	-	-					
2	50600	X	50	X					
3	50625	I/S	-	-					
4	50650	I/S	-	-					
5	50675	X	15	X					
6	50700	X	15	X					
7	50725	X	15	2					
8	50750	X	60	28					
9	50775	I/S	-	-					
10	50800	X	65	X					
11	50825	X	100	1					
12	50850	X	20	X					
13	50875	I/S	-	-					
14	50900	X	90	5					
15	50925	I/S	-	-					
16	50950	I/S	-	-					
17	50975	X	55	3					
18	51000	I/S	-	-					
19	51025	I/S	-	-					
20	51050	X	40	4					
21	51075	X	55	3					
22	51100	I/S	-	-					
23	51125	X	25	2					
24	51175	X	40	X					
25	51200	I/S	-	-					

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



027

222028

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11-1		236.1 08 2506<			15.8.84		6 OF 7	
TUBE No.	SAMPLE No.	Rg	N1	R#				
1	51225	X	45	4				
2	51250	I/S	-	-				
3	51275	I/S	-	-				
4	51300	I/S	-	-				
5	51325	X	50	X				
6	51350	X	15	2				
7	51375	X	30	3				
8	51400	X	30	3				
9	51425	X	15	4				
10	51450	X	25	X				
11	51475	X	90	2				
12	51500	X	35	4				
13	51525	X	65	20				
14	51550	I/S	-	-				
15	51600	X	25	2				
	51625	X	35	3				
17	51650	X	40	X				
18	51675	X	45	2				
19	51700	I/S	-	-				
20	51725	X	35	X				
21	51750	X	35	X				
22	51775	X	40	X				
23	51800	X	45	86				
24	51825	X	40	9				
25	51850	I/S	-	-				

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*B. J. ...*

028

222029

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11.1		236.1 08 2506C			15.8.84		7 OF 7	
TUBE No.	SAMPLE No.	As	Ni	As				
1	51875	SAMPLE	NOT	LOCATE				
2	51900	SAMPLE	NOT	LOCATE				
3	51925	X	10	1				
4	51950	X	30	3				
5	51975	X	X	X				
6	52000	X	15	5				
7	52025	I/S	-	-				
8	52050	X	5	X				
9	52075	X	10	2				
10	52100	X	15	X				
11	52125	I/S	-	-				
12	52150	I/S	-	-				
13	52175	I/S	-	-				
14	52200	X	15	66				
15	52225	X	5	15				
	52250	I/S	-	-				
17	52275	I/S	-	-				
18								
19								
20								
21								
22								
23	DETECTION	0.5	5	1				
24	DIGESTION							
25	METHOD	101	101	114				

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*

020

222030

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11-0		236.1 08 2506K			15.8.84				1 OF 1	
TUBE No.	SAMPLE No.	As	Ni	As						
1	48900	X	100	4						
2	48925	X	85	2						
3	48950	X	65	11						
4	48975	X	110	2						
5	49025	X	110	7						
6	49050	X	115	20						
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

Refman

030

222031

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10.9		236.1 08 2506C			15.8.84				1 OF 1	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	48850	X	85	2						
2	48875	X	75	2						
3	48900	X	85	12						
4	48925	X	60	33						
5	48950	X	75	14						
6	48975	X	70	13						
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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. Wright

031

222032

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

LINE 11.0		236.1 08 25060			15.8.84			1 OF 1		
TUBE No.	SAMPLE No.	Pg	Ni	As						
1	48900	X	100	4						
2	48925	X	85	2						
3	48950	X	65	11						
4	48975	X	110	2						
5	49025	X	110	7						
6	49050	X	115	20						
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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]*

032

222033

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

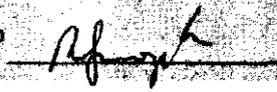
CLIENT ORDER No.

PAGE

LINE 10.8		236.1 08 2506K			15.8.84			1 OF 1		
TUBE No.	SAMPLE No.	Pg	Ni	As						
1	48800	X	120	3						
2	48825	X	120	2						
3	48850	X	90	2						
4	48875	X	110	3						
5	48900	X	130	2						
6	48925	X	110	25						
7	48950	X	85	7						
8	48975	X	125	7						
9										
10										
11										
12										
13										
14										
15										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



033

222034

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10-7		236.1 08 2506C			15.8.84				1 OF 1	
TUBE No.	SAMPLE No.	Rg	Ni	As						
1	48800	X	80	1						
2	48825	X	75	1						
3	48850	I/S	I/S	I/S						
4	48875	X	70	X						
5	48900	X	65	4						
6	48925	X	30	4						
7	48950	X	75	8						
8	48975	X	145	9						
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

Rh...

034

222035

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

LINE 10.6		236.1 08 2506C			15.8.84			1 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	48175	X	60	15					
2	48200	X	115	15					
3	48225	X	90	12					
4	48275	X	135	26					
5	48325	X	170	23					
6	48375	X	140	19					
7	48400	X	140	13					
8	48425	X	115	13					
9	48575	X	140	11					
10	48600	X	125	15					
11	48625	I/S	-	-					
12	48700	I/S	-	-					
13	48750	X	75	38					
14	48850	X	100	2					
15	48950	I/S	-	-					
16	49150	X	60	4					
17	48225	X	95	5					
18	48250	X	120	5					
19	48300	X	145	7					
20	48350	X	170	7					
21	48425	X	110	5					
22	48450	X	105	6					
23	48500	X	175	9					
24	48525	X	100	7					
25	48550	X	120	5					

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.

222036

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10.6

236.1 00 25060

15.8.84

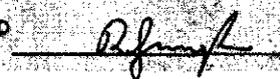
2 OF 2

TUBE No.	SAMPLE No.	Ag	Ni	As					
1	48650	X	110	2					
2	48675	X	105	3					
3	48725	X	175	1					
4	48800	X	105	X					
5	48825	X	110	X					
6	48875	X	120	2					
7	48900	X	120	3					
8	48925	X	65	5					
9	48975	X	40	19					
10	48000	X	190	4					
11	48025	X	145	X					
12	48050	X	135	X					
13	48075	X	165	1					
14	48100	X	155	3					
15	48125	X	165	1					
	48350	X	170	11					
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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



036

222037

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10-1		236.1 00 25060			28.8.84				1 OF 3	
TUBE No.	SAMPLE No.	Rg	Ni	Rs						
1	48425	X	110	8						
2	48450	X	115	8						
3	48475	X	135	44						
4	48500	X	130	14						
5	48525	X	135	8						
6	48550	X	125	8						
7	48575	X	140	2						
8	48600	X	105	4						
9	48625	X	90	5						
10	48650	X	95	5						
11	48675	X	110	2						
12	48700	X	100	2						
13	48725	X	115	4						
14	48750	X	120	X						
15	48775	X	95	1						
	48800	X	100	1						
17	48825	X	100	X						
18	48850	X	75	5						
19	48875	X	90	7						
20	48900	X	115	20						
21	48925	X	110	8						
22	48950	X	85	13						
23	48975	X	75	28						
24	49025	X	55	38						
25	49050	X	50	41						

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. ...*

037

ANALABS

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

222038

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10-1		236.1 09 25060			28.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49075	X	50	36						
2	49100	X	55	60						
3	49125	X	60	37						
4	49150	X	135	27						
5	49175	X	95	12						
6	49200	X	65	14						
7	49225	X	95	15						
8	49250	X	95	16						
9	49275	X	205	30						
10	49300	X	150	35						
11	49325	X	55	76						
12	49350	X	145	26						
13	49375	X	40	48						
14	49400	X	150	78						
15	49425	X	130	16						
	49450	X	110	9						
17	49475	X	65	17						
18	49500	X	60	11						
19	49525	X	100	16						
20	49550	X	105	12						
21	49575	X	55	100						
22	49600	X	60	12						
23	49625	X	40	9						
24	48800	X	210	6						
25	48825	X	135	2						

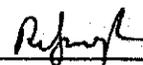
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

— = element not determined

AUTHORISED OFFICER



038

ANALABS

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

222039

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 10-1		230.1 08 25064			28.8.84				3 OF 3	
TUBE No.	SAMPLE No.	Pg	Ni	Rs						
1	48050	X	120	3						
2	48075	X	125	3						
3	48100	X	90	3						
4	48125	X	100	7						
5	48150	X	110	3						
6	48175	X	115	1						
7	48200	X	135	1						
8	48225	X	130	7						
9	48300	X	135	3						
10	48325	X	130	2						
11	48350	X	130	5						
12	48375	X	135	9						
13	48400	X	175	2						
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

Refuge

039

ANALABS

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

222040

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 9.6			236.1 03 258EC		28.8.84				1 OF 3	
TUBE No.	SAMPLE No.	Fig	NI	Fe						
1	48000	X	170	5						
2	48025	X	105	3						
3	48050	X	175	2						
4	48075	X	100	3						
5	48100	X	90	3						
6	48125	X	180	1						
7	48150	X	135	1						
8	48175	X	115	1						
9	48200	X	95	2						
10	48225	X	100	7						
11	48250	X	75	3						
12	48275	X	130	4						
13	48300	X	100	3						
14	48325	X	95	4						
15	48345	X	60	2						
	48350	X	115	X						
17	48375	X	75	X						
18	48400	X	275	3						
19	48425	X	120	5						
20	48450	X	270	1						
21	48475	X	235	6						
22	48500	X	215	2						
23	48525	X	145	4						
24	48550	X	135	5						
25	48575	X	225	2						

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

Alf J. Woznyk

040

ANALABS

222041

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

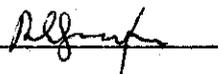
LINE 96		236.1 05 25050			28.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Pg	Ni	Pg						
1	48680	X	135	2						
2	48625	X	190	6						
3	48650	X	85	X						
4	48675	X	85	1						
5	48700	X	80	1						
6	48725	X	70	1						
7	48750	X	95	X						
8	48775	X	85	1						
9	48800	X	85	X						
10	48815	X	65	2						
11	48825	X	85	1						
12	48850	X	80	X						
13	48875	X	85	X						
14	48900	X	55	2						
15	48170	X	65	X						
	48925	X	95	9						
17	48975	X	150	9						
18	49000	X	130	7						
19	49025	X	270	6						
20	49075	X	55	2						
21	49100	X	190	11						
22	49125	X	150	9						
23	49150	X	55	9						
24	49175	X	20	12						
25	49200	X	85	12						

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

041

ANALABS

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

222042

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 96		236.1 08 25064			28.8.84		3 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As				
1	49225	X	120	15				
2	49250	X	85	13				
3	49275	X	115	34				
4	49300	X	50	9				
5	49325	X	105	8				
6	49350	X	120	16				
7	49375	X	120	9				
8	49400	X	155	8				
9	49425	X	55	2				
10	49450	X	95	18				
11	49475	X	10	4				
12	49500	X	160	13				
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23	DETECTION	0.5	5	1				
24	DIGESTION							
25	METHOD	101	101	114				

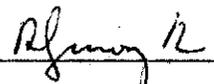
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

— = element not determined

AUTHORISED OFFICER



042

ANALABS

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

222043

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14.7			236.1 03 2506E		15.8.84				1 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49025	X	220	11						
2	49050	X	120	5						
3	49075	X	130	7						
4	49100	X	150	13						
5	49125	X	160	34						
6	49150	X	170	23						
7	49175	X	135	11						
8	49200	X	110	X						
9	49250	X	95	X						
10	49275	X	110	X						
11	49300	X	230	X						
12	49325	X	225	X						
13	49350	X	160	13						
14	49375	X	130	19						
15	49400	X	165	16						
	49425	SAMPLE	NOT	LOCATE						
17	49450	X	115	36						
18	49475	X	65	38						
19	49500	X	150	10						
20	49525A	X	70	14						
21	49525B	X	130	1						
22	49550	X	150	X						
23	49575	X	130	X						
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. J. St.*

043

ANALABS

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

222044

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14.7		236.1 08 2506B			15.8.84			2 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	DETECTION	0.5	5	1					
2	DIGESTION								
3	METHOD	101	101	114					
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*Refinery*

044

222045

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14.7		236.1 08 25060			29.8.84				1 OF 2	
TUBE No.	SAMPLE No.	Reg	Ni	As						
1	50250	X	55	1						
2	50275	X	65	4						
3	50300	X	55	3						
4	50325	X	60	5						
5	50350	X	100	5						
6	50375	X	45	4						
7	50400	X	40	1						
8	50425	X	85	7						
9	50450	X	20	1						
10	50475	X	10	1						
11	50500	X	20	3						
12	50525	X	20	2						
13	50550	X	10	1						
14	50575	X	30	X						
15	50625	X	25	3						
	50650	X	60	1						
17	50675	X	40	7						
18	50700	X	30	4						
19	50725	X	25	5						
20	50750	X	35	12						
21	50775	X	80	16						
22	50800	X	35	12						
23	50825	X	20	7						
24	50850	X	25	2						
25	50875	X	50	7						

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*Refugee*

045

222046

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14.7

236.1 00 2506C

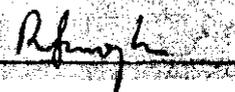
29.8.84

2 OF 2

TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49625	X	90	X						
2	49650	X	105	X						
3	49675	X	120	X						
4	49700	X	70	1						
5	49725	X	75	X						
6	49750	X	70	2						
7	49775	X	95	1						
8	49800	X	115	X						
9	49825	X	120	12						
10	49850	X	95	34						
11	49875	X	130	3						
12	49900	X	125	1						
13	49925	X	125	7						
14	49950	X	90	1						
15	49975	X	70	4						
	50000	X	140	1						
17	50025	X	75	2						
18	50050	X	35	11						
19	5075	X	140	10						
20	50100	X	15	1						
21	50125	X	30	2						
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

ANALABS

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

222047

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 15.0		236.1 08 2506B			29.8.84		1 OF 3		
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	49025	X	90	1					
2	49050	X	90	X					
3	49075	X	100	1					
4	49100	X	60	2					
5	49125	X	130	2					
6	49150	X	95	1					
	49175	X	120	2					
8	49200	X	170	1					
9	49225	X	95	1					
10	49250	X	135	2					
11	49275	X	120	0					
12	49300	X	110	6					
13	49325	X	115	7					
14	49350	X	150	0					
15	49375	X	100	6					
	49400	X	110	5					
17	49425	X	125	5					
18	49450	X	105	2					
19	49475	X	100	1					
20	49500	-	105	2					
21	49525	-	175	0					
22	49550	-	150	2					
23	49575	-	155	2					
24	49600	-	235	3					
25	49625	-	130	2					

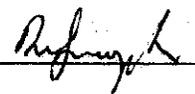
Results in ppm unless otherwise specified

T = element present; but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED OFFICER



047

ANALABS

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

222048

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 15.0		236.1 08 25068			29.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Rg	Ni	Rg						
1	49650	-	165	2						
2	49675	-	105	2						
3	49700	-	110	2						
4	49725	-	110	2						
5	49750	-	120	1						
6	49775	-	80	3						
7	49800	-	90	21						
8	49825	-	90	18						
9	49850	-	80	17						
10	49875	-	125	2						
11	49900	-	130	11						
12	49925	-	130	5						
13	49950	-	135	5						
14	49975	-	90	8						
15	50000	X	85	10						
	50025	-	70	24						
17	50050	X	75	13						
18	50100	I/S	-	-						
19	50150	X	20	54						
20	50200	X	18	3						
21	50250	I/S	-	-						
22	50300	I/S	-	-						
23	50350	X	15	2						
24	50400	X	15	29						
25	50450	I/S	-	-						

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

ANALABS

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

222049

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE		150			236.1 88 2506B		29.8.84		3 OF 3	
TUBE No.	SAMPLE No.	Ppt	Ni	As						
1	50450A	X	35	2						
2	50500A	X	20	2						
3	50550	X	10	1						
4	50600	X	5	1						
5	50650	I/S	-	-						
6	50700	I/S	-	-						
	50750	X	35	2						
8	50800	X	50	10						
9	50850	I/S	-	-						
10	50900	I/S	-	-						
11	52450	X	90	5						
12	52475	X	135	5						
13	52500	X	45	17						
14	52525	X	15	0						
15	52550	X	30	6						
	52575	X	X	7						
17	52600	X	X	4						
18	52625	X	X	2						
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



049

ANALABS

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

222050

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 15.0		236.1 08 2506A			15.8.84			1 of 1	
TUBE No.	SAMPLE No.	Pb	Ni	As					
1	52650	X	X	7					
2	52675	X	X	4					
3	52700	I/S	-	-					
4	52725	X	20	3					
5	52750	X	X	X					
6	52775	X	5	X					
	52800	X	110	21					
8	52825	X	X	86					
9	52875	X	X	10					
10	52900	X	5	3					
11	52925	X	15	4					
12	52975	X	20	X					
13	53000	I/S	-	-					
14	53025	I/S	-	-					
15	53050	X	355	X					
16	53075	X	185	X					
17	53100	X	265	X					
18	53300	X	80	X					
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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. A.*

050

ANALABS

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

222051

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

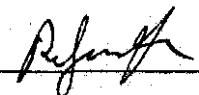
LINE 15.00		236.1 08 2506C			15.8.84		1 OF 1	
TUBE No.	SAMPLE No.	Ag	Ni	As				
1	50350	X	90	5				
2	50360	X	80	11				
3	50370A	0.5	10	1				
4	50370B	0.5	15	1				
5	50375	X	10	3				
6	50380	X	55	14				
	50390	0.5	25	10				
8	50400	X	15	2				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23	DETECTION	0.5	5	1				
24	DIGESTION							
25	METHOD	101	101	114				

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


051

222052

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

EASTINGS 49		236.1 08 25600			29.8.84				1 OF 8	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	9000	X	150	1						
2	9050	X	135	X						
3	9100	X	50	9						
4	9125	X	50	25						
5	9150	X	60	10						
6	9175	X	65	12						
	9200	X	75	7						
8	9225	X	90	8						
9	9250	X	90	10						
10	9275	X	95	6						
11	9300	X	155	4						
12	9325	X	145	6						
13	9350	X	160	4						
14	9375	X	175	5						
15	9400	X	165	6						
16	9425	X	200	4						
17	9475	X	205	5						
18	9500	X	190	11						
19	9525	X	215	16						
20	9575	X	205	9						
21	9625	X	305	8						
22	9675	1/3	-	-						
23	9500	-	165	5						
24	9600	-	155	6						
25	9650	-	185	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*R. J. ...*

052

222053

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

EASTING 49		236.1 08 25860			29.8.84		2 OF 8	
TUBE No.	SAMPLE No.	Pb	Ni	Pb				
1	9700	-	140	6				
2	9750	-	60	8				
3	9800	-	80	5				
4	9850	-	60	5				
5	9900	-	45	4				
6	9950	-	90	5				
7	10000	-	135	7				
8	10050	-	65	14				
9	10100	-	125	15				
10	10150	-	50	11				
11	10200	-	40	9				
12	10250	-	30	15				
13	10300	-	30	3				
14	10350	-	40	20				
15	10400	-	45	10				
16	10450	-	20	5				
17	10500	-	10	2				
18	10550	-	25	11				
19	10600	-	50	10				
20	10650	-	75	8				
21	10700	-	90	5				
22	10750	-	90	8				
23	10800	-	120	13				
24	10850	-	40	13				
25	10900	-	20	6				

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*Alfonso*

053

222054

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

EASTING 49		236.1 08 25860			29.8.84				3 OF 8	
TUBE No.	SAMPLE No.	Ag	Ni	Pb						
1	10950	-	35	14						
2	11000	-	40	5						
3	11050	-	70	7						
4	11100	-	75	11						
5	11150	-	115	3						
6	11200	-	90	3						
7	11250	-	60	2						
8	11300	-	50	10						
9	11350	-	50	2						
10	11400	-	60	3						
11	11450	-	60	2						
12	11500	-	70	2						
13	11550	-	50	3						
14	11600	-	60	4						
15	11650	-	80	13						
	11700	-	55	5						
17	11750	-	45	5						
18	11800	-	105	3						
19	11850	-	145	8						
20	11900	-	140	3						
21	11950	-	185	3						
22	12000	-	115	6						
23	12050	-	90	4						
24	12100	-	85	3						
25	12150	-	100	7						

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



054

222055

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

EASTING 49

236.1 00 25060

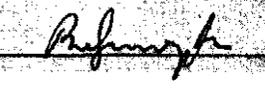
29.8.84

4 OF 8

TUBE No.	SAMPLE No.	Pg	Ni	As					
1	12200	-	160	6					
2	12250	-	75	5					
3	12300	-	65	3					
4	12350	-	70	4					
5	12400	-	75	3					
6	12450	-	70	3					
7	12500	-	95	2					
8	12550	-	70	X					
9	12600	-	65	1					
10	12650	-	55	X					
11	12700	-	55	X					
12	12750	-	60	1					
13	12800	-	80	X					
14	12850	-	100	X					
15	12900	-	110	X					
	12950	-	65	X					
17	13000	-	70	1					
18	13050	-	125	X					
19	13100	-	65	X					
20	13150	-	85	X					
21	13200	-	70	1					
22	13250	-	65	2					
23	13300	-	70	2					
24	13350	-	65	2					
25	13400	-	70	1					

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



055

222056

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

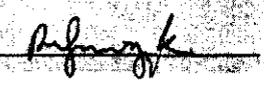
REPORT DATE

CLIENT ORDER No.

PAGE

EASTING 49		236.1 08 2506C			29.8.84				5 OF 8	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	13450	-	85	2						
2	13500	-	100	1						
3	13550	-	55	2						
4	13600	-	115	2						
5	13650	-	40	2						
6	13700	-	125	X						
7	13750	-	115	1						
8	13800	-	100	1						
9	13850	-	40	1						
10	13900	-	130	1						
11	13950	-	105	1						
12	14000	-	80	1						
13	14050	-	105	1						
14	14100	-	100	3						
15	14150	-	115	1						
	14200	-	105	5						
17	14250	-	115	4						
18	14300	-	125	5						
19	14350	-	100	2						
20	14400	-	65	2						
21	14450	-	115	5						
22	14500	-	65	4						
23	14550	-	105	7						
24	14600	-	105	4						
25	14650	-	125	2						

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 

056

222057

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

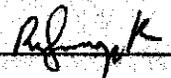
CLIENT ORDER No.

PAGE

EASTING 49		236.1 08 25060			29.8.84				6 OF 8	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	14700	-	170	2						
2	14750	-	140	2						
3	14800	-	75	X						
4	14850	-	60	X						
5	14900	-	70	2						
6	14950	-	85	1						
7	15000	-	85	1						
8	1505	-	120	3						
9	1510	-	115	2						
10	1515	-	95	2						
11	1525	-	105	1						
12	1535	-	40	1						
13	1540	-	60	2						
14	1550	-	135	1						
15	1555	-	75	1						
	1560	-	45	2						
17	1565	-	90	2						
18	1570	-	110	3						
19	1575	-	85	3						
20	1580	-	115	3						
21	1585	-	130	2						
22	1590	-	90	2						
23	1595	-	110	2						
24	1600	-	65	12						
25	1605	-	90	6						

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



057

222058

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

EASTING 49	236.1 08 25060	29.8.84		7 OF 8
------------	----------------	---------	--	--------

TUBE No.	SAMPLE No.	Pp	N1	Pp						
1	1610	-	75	6						
2	1620	-	45	5						
3	1625	-	20	X						
4	1630	-	20	X						
5	1640	-	25	7						
6	1645	-	15	1						
7	1650	-	55	15						
8	1655	-	220	13						
9	1665	-	20	13						
10	1670	-	90	9						
11	1675	-	70	4						
12	1680	-	135	1						
13	1685	-	75	3						
14	1690	-	70	1						
15	1695	-	70	1						
	1700	-	30	X						
17	9725	X	50	13						
18	9775	X	165	7						
19	9825	X	70	7						
20	9875	X	75	12						
21	9925	X	70	8						
22	9975	X	115	13						
23	10025	X	70	X						
24	10075	X	80	12						
25	11025	X	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

058

222059

ANALABS

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

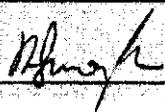
ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

49	236.1 08 25060	15.8.84		8 OF 8
----	----------------	---------	--	--------

TUBE No.	SAMPLE No.	Pg	Ni	As					
1	11075	X	105	14					
2	11125	X	120	8					
3	11175	X	155	X					
4	11225	X	80	1					
5	11275	X	75	X					
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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 

059

222060

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

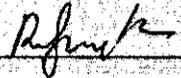
CLIENT ORDER No.

PAGE

LINES 15.025, 14.975	236.1 00 2506A	15.8.84		1 of 1
----------------------	----------------	---------	--	--------

TUBE No.	SAMPLE No.	Ag	Ni	As			
1	15.025 50350	0.5	20	1			
2	14.975 50350	X	25	10			
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
17							
18							
19							
20							
21							
22							
23	DETECTION	0.5	5	1			
24	DIGESTION						
25	METHOD	101	101	114			

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 

060

ANALABS

222061

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

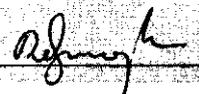
CLIENT ORDER No.

PAGE

LINE 15.05		236.1 08 25060			15.8.84			1 OF 1	
TUBE No.	SAMPLE No.	Rq	Ni	Rs					
1	50300	X	15	1					
2	50325	0.5	35	10					
3	50350	X	15	1					
4	50360	0.5	40	26					
5	50370	0.5	65	41					
6	50380	0.5	25	18					
7	50390	X	20	4					
8	50400	X	15	1					
9	50425	X	10	X					
10	50450	X	10	X					
11									
12									
13									
14									
15									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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



061

222062

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

TUBE No.	SAMPLE No.	Ag	Ni	As					
ROAD TRAV.		236.1 08 2506K			15.8.84		1 OF 3		
1	R 0000	X	90	3					
2	R 0025	X	85	3					
3	R 0050	X	80	3					
4	R 0075	X	115	11					
5	R 0100	X	100	3					
6	R 0125	X	85	12					
7	R 0150	X	40	11					
8	R 0175	X	115	2					
9	R 0200	X	70	10					
10	R 0225	X	55	1					
11	R 0250	X	70	2					
12	R 0275	X	110	1					
13	R 0300	X	100	2					
14	R 0325	X	90	3					
15	R 0350	X	75	1					
	R 0375	X	105	2					
17	R 0400	X	85	1					
18	R 0425	X	50	2					
19	R 0450	X	40	2					
20	R 0475	X	60	3					
21	R 0500	X	110	2					
22	R 0525	X	70	2					
23	R 0550	X	55	70					
24	R 0575	X	70	10					
25	R 0600	X	25	7					

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



062

222063

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	
Road Tray		236.1 08 2506C			15.9.84					2 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As							
1	R 0625	X	30	6							
2	R 0650	X	95	X							
3	R 0675	X	65	3							
4	R 0700	X	125	X							
5	R 0725	X	120	X							
6	R 0750	X	105	1							
7	R 0775	X	110	2							
8	R 0800	X	55	23							
9	R 0825	X	110	5							
10	R 0850	X	110	17							
11	R 0875	X	490	9							
12	R 0900	X	55	3							
13	R 0925	X	50	58							
14	R 0950	X	60	3							
15	R 1000	X	90	19							
	R 1025	X	130	23							
17	R 1050	X	90	15							
18	R 1075	X	270	15							
19	R 1100	X	190	10							
20	R 1125	X	105	2							
21	R 1150	X	25	37							
22	R 1175	X	115	27							
23	R 1200	X	45	38							
24	R 1225	X	80	22							
25	R 1250	X	20	11							

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. Smyth*

063

222064

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

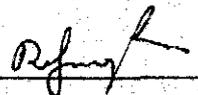
CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT NUMBER			REPORT DATE		CLIENT ORDER No.		PAGE	
ROAD TRAV.		236.1 08 2506<			15.8.84				3 OF 3	
TUBE No.	SAMPLE No.	Pg	Ni	Pb						
1	R 1275	X	10	4						
2	R 1300	X	30	3						
3	R 1325	X	25	4						
4	R 1350	X	60	3						
5	R 1375	X	60	9						
6	R 1400	X	20	4						
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



064

222065

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 16.7		236.1 00 25060			15.8.84		1 OF 5	
TUBE No.	SAMPLE No.	Pg	Ni	As				
1	49025	X	30	X				
2	49050	X	15	X				
3	49075	X	15	1				
4	49100	X	10	X				
5	49125	X	5	2				
6	49150	X	5	3				
7	49175	X	10	4				
8	49200	X	110	10				
9	49275	X	120	13				
10	49325	X	60	24				
11	49350	X	110	9				
12	49375	X	105	8				
13	49400	X	120	4				
14	49425	X	120	19				
15	49450	X	135	4				
	49475	X	175	4				
17	49500	X	180	4				
18	49525	X	140	3				
19	49550	X	165	3				
20	49575	I/S	-	-				
21	49600	I/S	-	-				
22	49625	X	140	5				
23	49650	X	125	2				
24	49675	X	85	X				
25	49700	X	130	5				

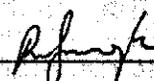
Results in ppm unless otherwise specified

T = element present, but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

AUTHORISED OFFICER



065

ANALABS

222066

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

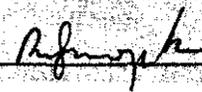
CLIENT ORDER No.

PAGE

LINE 16.7		236.1 00 2506<			15.8.84		2 OF 5	
TUBE No.	SAMPLE No.	Ag	Ni	As				
1	49725	X	130	6				
2	49750	X	200	4				
3	49775	X	75	3				
4	49800	X	145	X				
5	49825	X	130	X				
6	49850	X	105	2				
7	49875	X	125	X				
8	49900	X	115	X				
9	49925	X	120	X				
10	49950	I/S	-	-				
11	49975	X	130	X				
12	50000	X	205	X				
13	50025	X	125	4				
14	50050	SAMPLE	NOT	LOCATE				
15	50075	X	120	1				
16	50100	X	90	1				
17	50125	X	110	1				
18	50150	X	125	1				
19	50175	X	95	1				
20	50200	X	95	X				
21	50225	X	110	1				
22	50250	X	105	7				
23	50275	X	80	X				
24	50300	X	100	1				
25	50325	X	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



066

222067

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

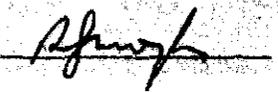
CLIENT ORDER No.

PAGE

LINE 16-7		236.1 08 25064			29.8.84				3 OF 5	
TUBE No.	SAMPLE No.	As	Ni	As						
1	50350	X	60	1						
2	50375	X	70	2						
3	50400	X	100	X						
4	50425	X	85	X						
5	50450	X	120	1						
6	50475	X	60	X						
7	50500	X	100	1						
8	50525	X	95	1						
9	50550	X	105	14						
10	50575	X	180	15						
11	50600	X	180	280						
12	50625	X	160	46						
13	50650	X	215	230						
14	50675	X	120	49						
15	50700	SAMPLE	NOT	LOCATE						
16	50725	X	90	67						
17	50750	X	120	100						
18	50775	X	40	48						
19	50800	SAMPLE	NOT	LOCATE						
20	50825	SAMPLE	NOT	LOCATE						
21	50850	X	110	4						
22	50875	X	95	3						
23	51700	X	200	3						
24	51800	X	240	2						
25	51900	X	225	5						

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



067

222068

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

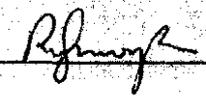
REPORT DATE

CLIENT ORDER No.

PAGE

LINE 16.7		236.1 08 2506<			15.8.84					4 OF 5	
TUBE No.	SAMPLE No.	Ag	Ni	As							
1	52000	X	140	7							
2	52100	X	135	6							
3	52200	SAMPLE	NOT	LOCATE							
4	52300	X	145	5							
5	52400	X	210	2							
6	52500	X	190	4							
7	52600	SAMPLE	NOT	LOCATE							
8	52700	X	85	4							
9	52800	SAMPLE	NOT	LOCATE							
10	52900	X	180	4							
11	52950	X	50	4							
12	52975	X	55	1							
13	53000	X	25	3							
14	53025	X	30	5							
15	53050	X	55	8							
	53075	X	20	X							
17	53100	X	25	2							
18	53125	X	40	1							
19	53150	X	45	5							
20	53175	X	40	6							
21	53200	X	10	2							
22	53250	X	15	X							
23	53300	0.5	35	4							
24	53400	X	15	1							
25	53500	X	10	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 

068

222069

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 1b.7		236.1 08 25060			15.8.84			5 OF 5	
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	53600	X	15	X					
2	53700	X	10	X					
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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

Refinery

069

222070

ANALABS

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

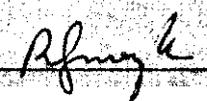
ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

LINE 14-8		236.1 08 2506<			15.8.84				1 OF 1	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49850	X	160	27						
2	49875	X	160	21						
3	49900	X	110	X						
4	49925	X	110	2						
5	49950	X	80	5						
6	49975	X	110	2						
7	50000	X	130	11						
8	50025	X	100	20						
9	50050	X	65	21						
10	50075	X	40	23						
11	50100	X	15	6						
12	50125	X	10	8						
13	50140	X	20	4						
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

AUTHORISED OFFICER



070

222071

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14 b

236.1 08 2506C

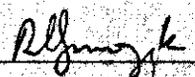
28.8.84

1 OF 2

TUBE No.	SAMPLE No.	Fe	Ni	Pb					
1	49025	X	115	22					
2	49050	X	115	24					
3	49075	X	180	12					
4	49100	X	165	12					
5	49125	X	120	X					
6	49150	X	115	21					
7	49175	X	110	4					
8	49200	X	80	16					
9	49225	X	90	16					
10	49250	X	90	16					
11	49275	X	95	X					
12	49300	X	110	X					
13	49325	X	80	X					
14	49350	X	70	5					
15	49375	X	115	8					
	49400	X	70	14					
17	49425	X	65	14					
18	49450	X	50	14					
19	49475	X	65	20					
20	49500	X	70	7					
21	49525	X	45	16					
22	49550	X	70	5					
23	49575	X	85	4					
24	49600	X	110	2					
25	49625	X	85	5					

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



071

222072

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

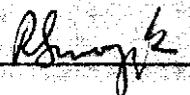
CLIENT ORDER No.

PAGE

LINE 14-b		236.1 08 2506C			28.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49650	X	75	4						
2	49675	X	105	3						
3	49700	X	115	5						
4	49725	X	95	4						
5	49750	X	110	4						
6	49775	X	80	2						
7	49800	X	135	37						
8	49825	X	285	51						
9	49850	X	135	52						
10	49875	X	105	5						
11	49900	X	115	2						
12	49925	X	105	4						
13	49940	X	80	6						
14	49950	X	85	8						
15	49975	X	70	10						
	50000	X	45	11						
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



072

222073

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14-5		236.1 08 2506C			15.8.84			1 OF 2		
TUBE No.	SAMPLE No.	Ag	Mi	As						
1	49025	X	250	16						
2	49050	X	130	7						
3	49075	X	110	3						
4	49100	X	115	2						
5	49125	X	110	3						
6	49150	X	200	1						
7	49175	X	220	1						
8	49200	X	180	2						
9	492250	X	265	1						
10	49250	X	100	1						
11	49275	X	85	1						
12	49300	X	155	1						
13	49325	X	110	1						
14	49350	X	105	1						
15	49375	X	105	2						
16	49400	X	115	4						
17	49425	X	275	54						
18	49450	X	95	26						
19	49475	X	135	2						
20	49500	X	110	2						
21	49525	X	65	4						
22	49550	X	95	10						
23	49575	X	100	9						
24	49600	X	180	1						
25	49625	X	115	1						

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



073

222074

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

LINE 14 b		236.1 08 2506			28.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Rg	Ni	Rs						
1	49650	X	75	4						
2	49675	X	105	3						
3	49700	X	115	5						
4	49725	X	95	4						
5	49750	X	110	4						
6	49775	X	80	2						
7	49800	X	135	37						
8	49825	X	285	51						
9	49850	X	135	52						
10	49875	X	105	5						
11	49900	X	115	2						
12	49925	X	105	4						
13	49940	X	80	6						
14	49950	X	85	8						
15	49975	X	70	10						
	50000	X	45	11						
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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. Brown

074

222075

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14.5		236.1 08 25060			15.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Fig	Ni	Rs						
1	49650	X	85	1						
2	49675	X	135	21						
3	49700	X	140	1						
4	49725	X	70	2						
5	49750	X	100	3						
6	49775	X	120	3						
7	49800	X	90	2						
8	49825	X	120	2						
9	52450	X	200	2						
10	52550	X	205	18						
11	52650	X	105	9						
12	52750	X	140	9						
13	52800	X	235	16						
14	52850	X	85	14						
15	52900	X	175	11						
	52950	X	15	16						
17	53100	X	230	X						
18	53200	X	120	3						
19	53250	X	135	18						
20	53350	X	145	21						
21	53450	I/S	-	-						
22	53550	X	20	11						
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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. ...

075

222076

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

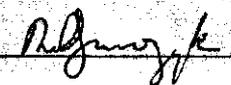
CLIENT ORDER No.

PAGE

LINE 144		236.1 08 25060			15.8.84					1 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As							
1	48050	X	70	2							
2	48075	X	65	12							
3	48100	X	80	3							
4	48125	X	35	5							
5	48150	X	100	1							
6	48175	X	95	13							
7	48200	X	105	6							
8	48225	X	170	5							
9	48250	X	235	2							
10	48275	X	165	12							
11	48300	X	185	2							
12	48325	X	165	4							
13	48350	X	185	11							
14	48375	X	170	4							
15	48400	X	200	X							
16	48425	X	165	5							
17	48450	X	165	4							
18	48475	X	175	4							
19	48500	X	85	3							
20	48525	X	80	6							
21	48550	X	80	2							
22	48575	X	115	4							
23	48600	X	100	4							
24	48625	X	200	3							
25	48650	X	105	5							

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



076

222077

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

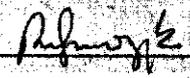
CLIENT ORDER No.

PAGE

LINE 14-4		236.1 08 2506C			15.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	Pz						
1	48675	X	155	5						
2	48700	X	90	10						
3	48725	X	100	18						
4	48750	X	130	18						
5	48775	X	90	24						
6	48800	X	85	11						
7	48825	X	140	2						
8	48850	X	125	4						
9	48875	X	105	4						
10	48900	X	210	10						
11	48925	X	215	15						
12	48950	X	150	2						
13	48975	X	80	1						
14	49025	X	115	5						
15	49050	X	75	1						
16	49075	X	75	5						
17	49100	X	95	1						
18	49125	X	65	1						
19	49150	X	105	1						
20	49175	X	105	1						
21	49200	X	120	X						
22	49225	X	105	2						
23	49250	X	110	1						
24	49275	X	130	1						
25	49300	X	120	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



077

222078

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

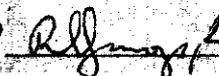
LINE 144		236.1 00 2506C			15.8.84		3 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As				
1	49325	X	120	1				
2	49350	X	130	X				
3	49375	X	85	6				
4	49400	X	85	4				
5	49425	X	95	4				
6	49450	X	70	3				
7	49475	X	85	22				
8	49500	X	80	4				
9	49525	X	120	1				
10	49550	X	90	2				
11	49575	X	115	1				
12	49600	X	145	X				
13	49625	X	85	X				
14	49650	X	95	1				
15	49675	X	100	1				
16	49700	X	100	3				
17	49725	X	105	2				
18	49750	X	125	4				
19	49850	X	140	1				
20	49875	X	95	1				
21	49900	X	60	1				
22								
23	DETECTION	0.5	5	1				
24	DIGESTION							
25	METHOD	101	101	114				

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

078

222079

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX REPORT NUMBER REPORT DATE CLIENT ORDER No. PAGE

LINE 14.3 236.1 08 25060 15.8.84 1 OF 2

TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49025	X	165	4						
2	49050	X	120	3						
3	49075	X	145	3						
4	49100	X	110	1						
5	49125	X	90	1						
6	49150	X	80	1						
7	49175	X	95	1						
8	49200	X	90	1						
9	49225	X	80	1						
10	49250	X	85	1						
11	49275	X	50	X						
12	49300	X	70	X						
13	49325	X	90	1						
14	49350	X	100	3						
15	49375	X	95	4						
16	49400	X	85	4						
17	49425	X	65	31						
18	49450	X	160	1						
19	49475	X	80	1						
20	49500	X	105	1						
21	49525	X	130	1						
22	49550	X	120	1						
23	49575	X	105	2						
24	49600	X	100	7						
25	49625	X	90	2						

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 *Allymore*

079

222080

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

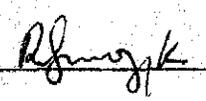
CLIENT ORDER No.

PAGE

LINE 14-3		236.1 08 2506C			15.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Pg	Ni	As						
1	49650	X	95	4						
2	49675	X	110	8						
3	49700	X	175	X						
4	49725	X	100	3						
5	49750	X	170	2						
6	49775	X	95	2						
7	49800	X	85	4						
8	49825	X	90	3						
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



080

222081

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14-2		236.1 00 2506C			29.8.84				1 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	Pb						
1	49025	X	130	5						
2	49050	X	160	5						
3	49070	I/S	-	-						
4	49100	X	145	3						
5	49125	I/S	-	-						
6	49150	X	95	2						
7	49175	X	70	4						
8	49200	X	50	5						
9	49225	X	85	2						
10	49250	X	95	1						
11	49275	X	85	2						
12	49300	X	110	1						
13	49325	X	95	2						
14	49350	X	75	4						
15	49375	I/S	-	-						
6	49400	X	75	15						
17	49425	X	65	6						
18	49450	X	110	2						
19	49475	X	120	1						
20	49500	X	70	1						
21	49525	I/S	-	-						
22	49550	X	130	1						
23	49575	X	85	1						
24	49600	X	125	X						
25	49625	X	50	22						

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*Refroyk*

081

222082

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

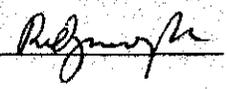
CLIENT ORDER No.

PAGE

LINE 14-2		236.1 08 25060			15.8.84			2 OF 2		
TUBE No.	SAMPLE No.	Ppt	Ni	As						
1	49650	I/S	-	-						
2	49675	X	110	X						
3	49700	X	80	21						
4	49725	X	60	25						
5	49750	X	85	2						
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



08-

222083

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

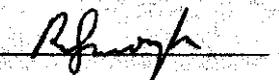
LINE 14.1		236.1 00 25060			29.8.84		1 OF 3		
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	49025	X	150	11					
2	49050	X	110	8					
3	49075	X	130	9					
4	49100	X	110	7					
5	49125	X	95	4					
6	49150	I/S	-	-					
7	49175	X	75	12					
8	49225	X	90	X					
9	49250	X	95	12					
10	49275	X	65	X					
11	49300	X	105	X					
12	49325	X	85	X					
13	49350	X	100	X					
14	49400	X	90	8					
15	49425	X	115	30					
	49450	X	70	6					
17	49475	X	75	X					
18	49500	X	75	18					
19	49525	X	80	X					
20	49550	X	95	18					
21	49575	X	120	17					
22	49600	X	25	X					
23	49625	X	175	22					
24	49650	X	105	X					
25	49675	X	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

083

222084

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

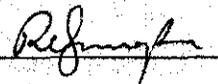
LINE 14-1		236.1 00 25060			15.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49700	X	90	8						
2	49725	X	65	2						
3	49750	X	75	11						
4	49775	X	80	19						
5	49825	X	65	8						
6	49850	X	100	7						
7	49875	X	60	6						
8	49900	X	100	5						
9	49925	X	50	11						
10	49950	X	100	6						
11	49975	X	70	3						
12	50000	X	30	6						
13	50025	X	30	4						
14	50050	X	80	5						
15	50075	X	55	9						
	50100	X	55	20						
17	50125	X	X	32						
18	50150	X	X	8						
19	50175	X	5	21						
20	50200	X	35	27						
21	50225	X	10	30						
22	50250	X	5	24						
23	50275	X	10	4						
24	50300	X	5	11						
25	50325	X	15	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

084

222085

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 14-1		236.1 08 25060			15.8.84				3 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	50375	X	X	7						
2	50400	X	10	X						
3	50425	X	25	2						
4	50450	X	X	5						
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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



085

222086

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

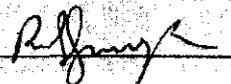
LINE 14-0		236.1 08 25060			15.8.84			1 OF 2	
TUBE No.	SAMPLE No.	Req	Ni	Rs					
1	49025	X	90	3					
2	49050	X	110	12					
3	49075	X	110	21					
4	49100	X	60	18					
5	49125	X	110	2					
6	49150	X	90	2					
7	49175	X	160	3					
8	49200	X	100	2					
9	49225	X	145	2					
10	49250	I/S	-	-					
11	49275	X	110	2					
12	49300	X	80	2					
13	49325	X	50	2					
14	49350	X	125	2					
15	49375	X	100	2					
	49400	X	90	10					
17	49425	X	165	6					
18	49450	X	130	16					
19	49475	X	95	6					
20	49500	X	125	10					
21	49525	X	95	17					
22	49550	X	100	2					
23	49575	I/S	-	-					
24	49600	X	120	3					
25	49625	X	140	3					

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

086

222087

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

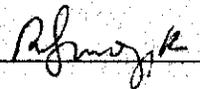
CLIENT ORDER No.

PAGE

LINE		14.0			236.1 00 25060		15.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As								
1	49650	X	120	6								
2	49675	X	110	2								
3	49700	X	145	4								
4	49725	X	65	14								
5	49750	X	80	8								
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23	DETECTION	0.5	5	1								
24	DIGESTION											
25	METHOD	101	101	114								

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



087

222088

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 13-b		236.1 08 2506C			15.8.84				1 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	48925	X	90	2						
2	48950	X	85	4						
3	48975	X	100	3						
4	49025	X	95	1						
5	49050	X	105	1						
6	49075	X	145	3						
7	49100	X	100	7						
8	49125	X	90	12						
9	49150	X	70	17						
10	49175	X	115	12						
11	49200	X	100	1						
12	49225	X	85	17						
13	49250	X	85	3						
14	49275	X	135	2						
15	49300	X	60	4						
	49325	X	50	2						
17	49350	X	50	3						
18	49375	X	45	6						
19	49400	X	65	7						
20	49425	X	170	7						
21	49450	X	115	2						
22	49475	X	100	4						
23	49500	X	85	3						
24	49525	X	75	4						
25	49550	X	100	5						

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. ...

088

222089

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 13.6		236.1 08 2506<			15.8.84			2 OF 2	
TUBE No.	SAMPLE No.	Pg	Ni	Pb					
1	49575	X	50	4					
2	49600	X	125	5					
3	49625	X	50	8					
4	49650	X	50	8					
5	49675	X	30	8					
6	49725	X	40	4					
7	49750	X	20	X					
8	49775	X	35	5					
9	49800	X	40	32					
10	49825	X	40	66					
11	49850	X	100	21					
12	49875	X	80	14					
13	49900	X	70	7					
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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. ...*

089

222090

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

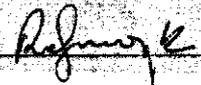
LINE 13.1		236.1 08 25064			28.8.84		1 OF 4	
TUBE No.	SAMPLE No.	Ag	Ni	As				
1	48175	X	10	X				
2	48250	X	75	9				
3	48275	X	105	11				
4	48300	X	70	16				
5	48325	X	50	9				
6	48350	X	45	11				
7	48375	X	50	8				
8	48400	X	65	11				
9	48425	X	45	15				
10	48450	X	65	11				
11	48475	X	95	10				
12	48500	X	135	8				
13	48525	X	135	8				
14	48550	X	85	10				
15	48575	X	100	7				
	48600	X	145	12				
17	48625	X	60	20				
18	48650	X	110	8				
19	48675	X	80	6				
20	48700	X	160	28				
21	48725	X	125	7				
22	48750	X	105	5				
23	48775	X	75	5				
24	48800	X	60	3				
25	48825	X	105	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

090

222091

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

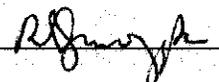
CLIENT ORDER No.

PAGE

LINE 13.1		236.1 08 2506C			28.8.84				2 OF 4	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	48850	X	105	7						
2	48875	X	80	2						
3	48900	X	105	2						
4	48925	X	85	2						
5	48950	X	100	1						
6	48975	X	110	1						
7	49025	X	100	7						
8	49050	X	80	9						
9	49075	X	120	2						
10	49100	X	45	10						
11	49125	X	90	6						
12	49150	X	50	6						
13	49175	X	115	8						
14	49200	X	95	2						
15	49225	X	85	4						
	49275	X	90	4						
17	49300	X	70	8						
18	49325	X	55	6						
19	49350	X	75	18						
20	49375	X	55	14						
21	49225	X	10	4						
22	49475	X	80	2						
23	49500	X	75	6						
24	49525	X	100	4						
25	49550	X	70	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



091

222092

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 13.1		236.1 08 2506C			28.9.84				3 OF 4	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	49575	X	60	5						
2	49600	X	60	7						
3	49625	X	110	18						
4	49650	X	145	14						
5	49675	X	155	16						
6	49700	X	75	13						
7	49725	X	150	16						
8	49750	X	115	16						
9	49775	X	70	15						
10	49800	X	105	2						
11	49825	X	100	2						
12	49850	X	80	2						
13	49875	X	70	1						
14	49900	X	65	1						
15	49925	X	75	26						
	49950	X	55	4						
17	49975	X	70	1						
18	50000	X	10	3						
19	50025	X	50	4						
20	50050	X	60	5						
21	50075	X	10	10						
22	50100	X	30	7						
23	50125	X	15	10						
24	50150	X	30	3						
25	50175	X	30	5						

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



092

222093

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE		B:1			236.1 08 25060		26.8.84		4 OF 4	
TUBE No.	SAMPLE No.	Pg	Ni	Pb						
1	50200	X	40	6						
2	50225	X	45	3						
3	50250	X	35	4						
4	50275	X	25	3						
5	50300	X	15	X						
6	50325	X	30	1						
7	50350	X	80	9						
8	50375	X	60	28						
9	50400	X	45	5						
10	50425	X	60	8						
11	50450	X	10	5						
12	50475	X	25	8						
13	50500	X	10	20						
14	50525	X	20	X						
15	50550	X	5	31						
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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 *Refroyk*

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 12.5		236.1 08 2506C			15.8.84		1 OF 2		
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	47050	X	65	5					
2	47075	X	105	15					
3	47150	X	105	6					
4	47175	X	140	11					
5	47200	X	115	10					
6	47225	X	135	14					
7	47250	X	115	17					
8	47275	X	115	20					
9	47300	X	150	11					
10	47325	X	160	12					
11	47350	X	120	13					
12	47375	X	55	6					
13	47400	X	75	11					
14	47425	X	110	10					
15	47450	X	90	7					
6	47475	X	180	6					
17	47500	X	145	11					
18	47525	X	440	8					
19	47550	X	105	7					
20	47575	X	240	8					
21	47600	X	195	5					
22	47625A	X	170	7					
23	47625B	X	175	7					
24	47650	X	170	7					
25	47675	X	230	5					

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. ...*

094

222095

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 12.5		236.1 88 25060			15.8.84			2 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	47700	X	105	23					
2	47750	X	55	25					
3	47775	X	30	20					
4	47800	X	25	13					
5	47850	X	340	8					
6	47875A	X	255	14					
7	47875B	X	375	14					
8	47900	X	250	3					
9	47950	X	35	4					
10	47975	X	80	14					
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.5	5	1					
24	DIGESTION								
25	METHOD	101	101	114					

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 *Alfred H*

090

222096

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

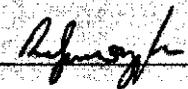
CLIENT ORDER No.

PAGE

LINE		236.1 08 2506C			29.8.84		1 OF 2		
TUBE No.	SAMPLE No.	Ag	Ni	As					
1	51225	X	10	12					
2	51250	X	30	16					
3	51275	X	5	3					
4	51300	X	20	4					
5	51325	X	20	2					
6	51350	X	10	1					
7	51375	X	20	1					
8	51400	X	20	1					
9	51425	X	5	7					
10	51450	X	60	3					
11	51475	X	5	5					
12	51525	X	15	3					
13	51550	X	5	5					
14	51600	X	45	7					
15	51625	X	5	X					
	51650	X	10	3					
17	51675	X	15	10					
18	51700	I/S	-	-					
19	51725	X	20	4					
20	51750	X	55	4					
21	51775	X	30	11					
22	51800	X	35	33					
23	51825	X	35	2					
24	51850	X	50	2					
25	51900	X	X	11					

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



096

222097

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

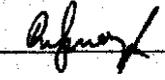
REPORT DATE

CLIENT ORDER No.

PAGE

LINE 12.0		236.1 00 2596C			29.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	51925	X	30	11						
2	51950	X	30	9						
3	51975	X	10	5						
4	52000	X	15	12						
5	52025	X	60	1						
6	52050	X	55	13						
7	52075	X	30	20						
8	52100	X	50	69						
9	52125	X	35	27						
10	52150	X	10	20						
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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 

09.

222098

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

LINE 11.6		236.1 00 2506C			28.8.84				1 OF 2	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	48125	X	115	10						
2	48150	X	110	9						
3	48175	X	155	8						
4	48200	I/S	-	-						
5	48225	X	150	10						
6	48250	I/S	-	-						
7	48275	X	165	9						
8	48300	X	115	7						
9	48325	X	150	11						
10	48350	X	160	10						
11	48375	X	145	8						
12	48400	X	150	9						
13	48425	X	110	10						
14	48450	X	85	9						
15	48475	X	145	10						
	48500	X	135	12						
17	48525	X	90	13						
18	48550	X	80	13						
19	48575	X	170	28						
20	48600	X	110	10						
21	48625	X	130	14						
22	48650	X	85	17						
23	48675	X	205	4						
24	48700	X	115	12						
25	48725	X	135	10						

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

AUTHORISED OFFICER



098

222099

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

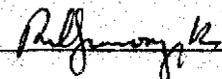
CLIENT ORDER No.

PAGE

LINE 116		236.1 08 2506C			28.8.84				2 OF 2	
TUBE No.	SAMPLE No.	Fig	Hi	As						
1	48750	X	115	12						
2	48775	X	110	12						
3	48800	X	90	11						
4	48825	X	120	12						
5	48850	X	80	9						
6	48875	X	95	18						
7	48900	X	85	11						
8	48925	X	75	8						
9	48950	X	95	8						
10	48975	X	40	2						
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	0.5	5	1						
24	DIGESTION									
25	METHOD	101	101	114						

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

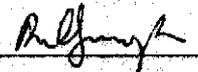
CLIENT ORDER No.

PAGE

LINE 115		236.1 08 25060			28.8.84				1 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	51100	X	20	26						
2	51125	X	20	14						
3	51150	X	35	11						
4	51175	X	75	4						
5	51200	X	45	2						
6	51225	X	30	X						
7	51250	X	100	2						
8	51275	X	60	4						
9	51300	X	70	71						
10	51325	X	30	4						
11	51350	X	35	1						
12	51375	X	50	1						
13	51400	X	65	4						
14	51425	X	45	X						
15	51450	X	15	2						
16	51475	X	35	3						
17	51500	X	70	X						
18	51525	X	30	X						
19	51550	X	45	89						
20	51575	X	40	1						
21	51600	X	30	1						
22	51625	X	40	X						
23	51650	X	30	X						
24	51675	SAMPLE	NOT	LOCATE						
25	51700	X	40	7						

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



100

222101

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

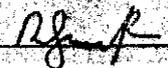
CLIENT ORDER No.

PAGE

LINE 11.5			236.1 08 2506C		28.8.84				2 OF 3	
TUBE No.	SAMPLE No.	Ag	Ni	As						
1	51725	X	30	5						
2	51750	X	35	8						
3	51775	X	40	8						
4	51800	X	30	6						
5	51825	X	35	8						
6	51850	X	55	10						
7	51875	X	20	13						
8	51900	X	10	6						
9	51925	X	25	8						
10	51950	X	20	9						
11	51975	X	45	98						
12	52000	X	25	20						
13	52025	X	35	11						
14	52050	X	35	2						
15	52075	X	35	6						
6	52100	X	35	12						
17	52125	X	20	2						
18	52150	X	20	13						
19	52175	X	30	6						
20	52200	X	105	14						
21	52225	X	20	1						
22	52250	X	X	1						
23	52275	X	X	X						
24	52300	X	5	1						
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



101

224104

ANALABS

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

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

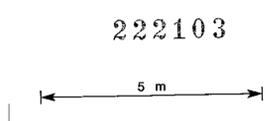
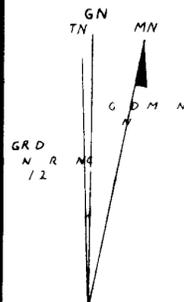
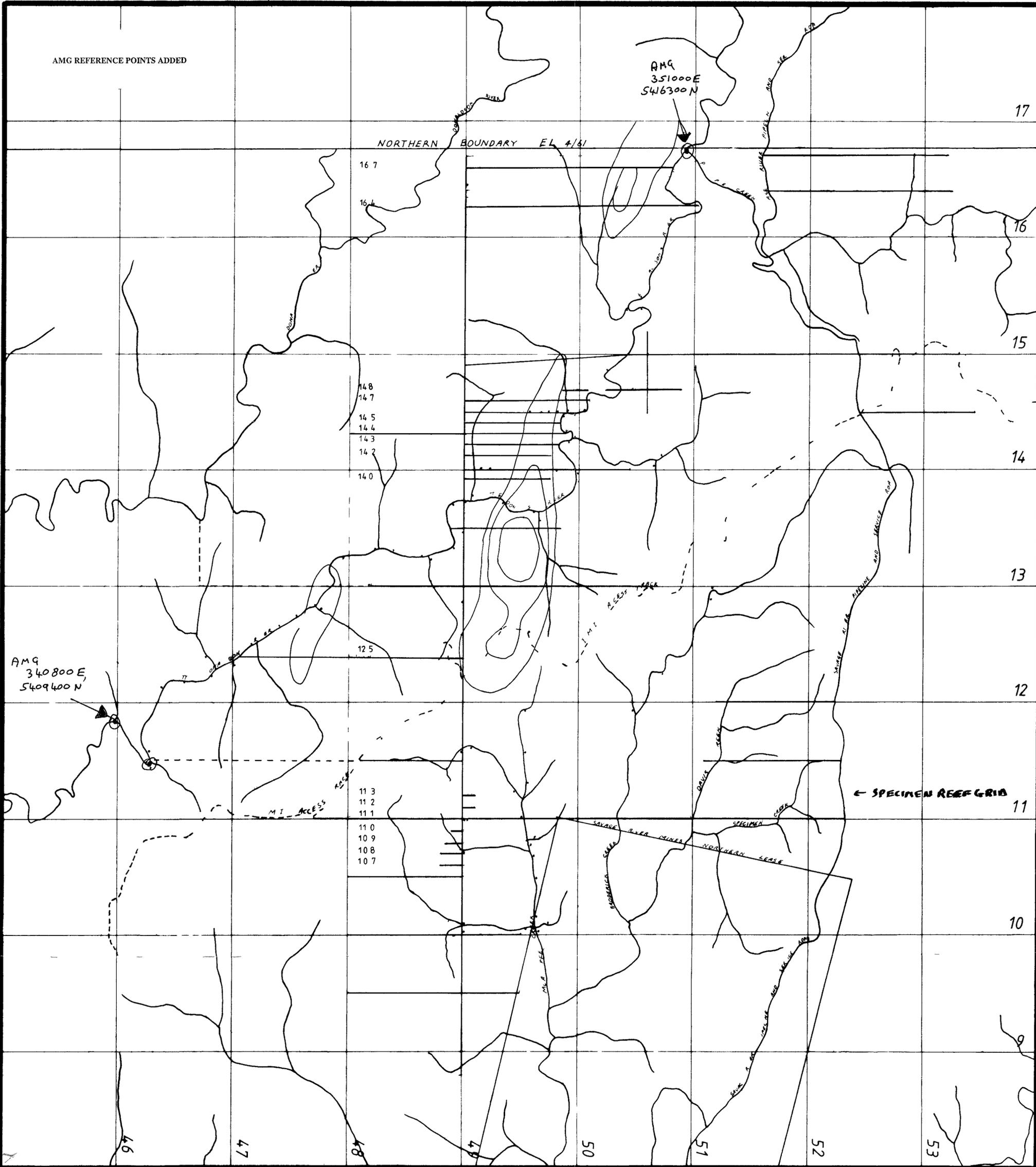
PAGE

LINE 115		236.1 08 25060			28.8.84		3 OF 3	
TUBE No.	SAMPLE No.	Fig	Ni	Rs				
1	DETECTION	0.5	5	1				
2	DIGESTION							
3	METHOD	101	101	114				
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 *Ref...*

AMG REFERENCE POINTS ADDED



INDUSTRIAL & MINING INVESTIGATIONS PTY LTD
 McAULIFFE CK LITTLE DONALDSON RIVER AREA
 PIPELINE ROAD AREA LOCATION OF SAMPLE LINES
 SCALE 1 20 000

Plan Ref - IMI-EL4/61-10/84-1 001
 85 2343

1
3
4
9
13
13
15
1
7
x
5
6
6
12
49
2
2
2
3
3
3
2
2
1
1
2
1
2
2
3

LINE 16 7

LINE 16 4

DONALDSON RIVER

LITTLE

50

TN GN MN



Grid Magnetic Angle 11 0
Grid Convergence 1 2

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

SOIL GEOCHEMISTRY LINES 16 4W, 16 7W

As analysis values

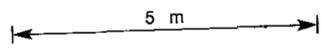
DATA COLLECTED BY H SHANNON, J WOODMAN 81/82
M EDWARDS L VANZINO 82/83
COMPILED L VANZINO
DRAWN L VANZINO

22/101

OCTOBER 1984



1 5 0 0 0



002

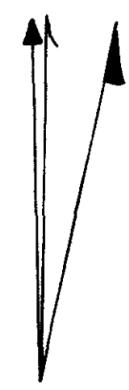
70
75
135
70
90
20
220
55
15
25
20
45
75
90
65
49
110
90
130
115
85
110
90
45
75
135
60
40
105
95
115
120

30 15 10 5 5 10 110 120 60 110 105 120 120 135 175 180 140 165 / / 140 125 85 130 130 200 75 145 130 105 125 115 120 / 130 205 125 / 120 90 110 125 95 95 110 105 80 100 70 60 70 100 85 120 60 100 95 105 180 180 160 215 120 90 120 40

LINE 16 7

LINE 16 4

TN GN MN



Grid Magnetic Angle 11 0
Grid Convergence 1 2

50

17

DONALDSON RIVER

16

LITTLE

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

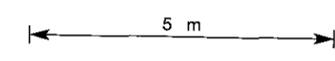
SOIL GEOCHEMISTRY LINES 16 4 U, 16 7 U

Ni analysis values

DATA COLLECTED BY H SHANNON, J WOODMAN 81/82
M EDWARDS L VANZINO 82/83
COMPILED L VANZINO 222105
DRAWN L VANZINO OCTOBER 1984



1 5 0 0 0



003

15

85 2343

Plan ref IMI EL 4/61 10/84 3

Line 144(W)

48

2 12 3 5 7 13 6 5 2 12 2 x 11 x + 5 x x 3 6 2 x x 3 5 5 10 18 18 24 11 2 x x 10 15 2 1

49



L DRIV

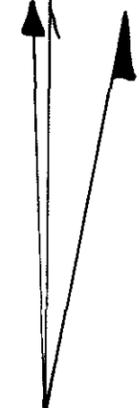
5 11 10 14 11 20 11 12 13 6 11 10 7 6 11 8 7 8 5 1 1 1 5 23 25 20 13 8 14 14 3 x 14

Line 125(W)

12

IMI Access Track

TN GN MN



G d M g e t c A g l e 110
G d e g e c 12

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

SOIL GEOCHEMISTRY LINES 144W, 125W

As analysis values

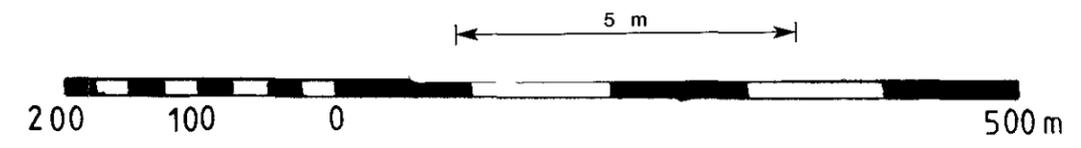
DATA COLLECTED BY M EDWARDS L VANZINO 82/83

DRAWN H SHANNON

COMPILED L VANZINO

222106

OCTOBER 1984



004

1 5 0 0 0

85 2342

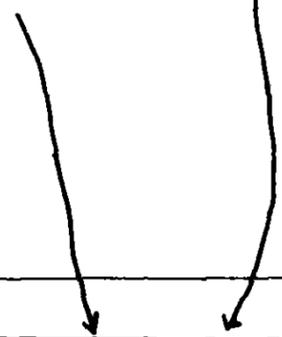
Planref IMI EL4/61 10/84 4

Line 14 4(W)

48

70 65 80 35 100 95 105 110 235 165 185 165 185 170 200 165 165 175 85 80 80 115 100 200 105 155 90 100 130 90 85 140 125 105 210 215 150 80

49



DRIV

105 140 115 135 115 115 150 160 120 55 75 110 90 180 145 140 105 140 195 115 170 230 105 55 30 25 340 375 250 35 80

Line 12 5(W)

12

IMI Access Track

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

SOIL GEOCHEMISTRY LINES 14 4W, 12 5W

Ni analysis values 22-107

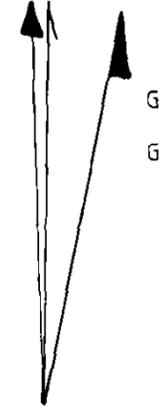
DATA COLLECTED BY M EDWARDS L VANZINO 82/83

DRAWN H SHANNON

COMPILED L VANZINO

OCTOBER 1984

TN GN MN



Grid Magnet Angle 110

Grid Longitude 12

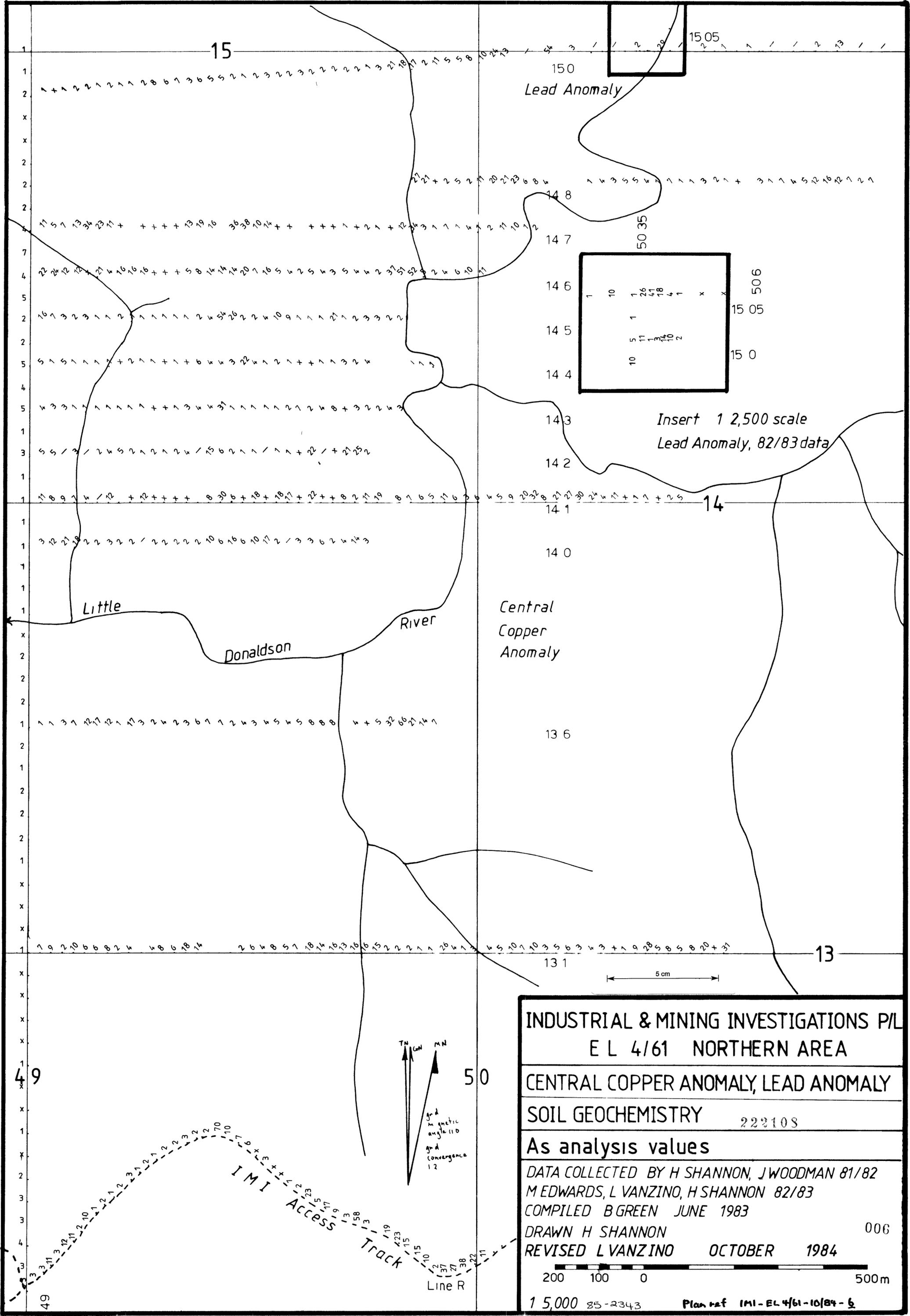
5 m



1 5 000

85 23 43

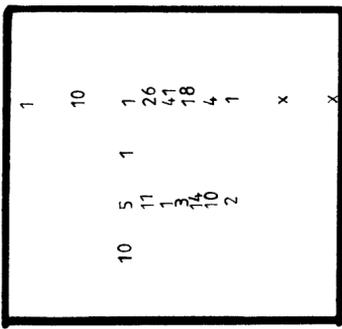
Plan ref IMI-EL 4/61-10/84-S



15

15.05

150
Lead Anomaly



Insert 1 2,500 scale
Lead Anomaly, 82/83 data

Little

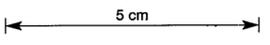
Donaldson

River

Central
Copper
Anomaly

14

13



IMI Access Track

Line R

INDUSTRIAL & MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

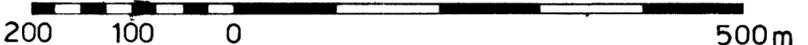
CENTRAL COPPER ANOMALY, LEAD ANOMALY
SOIL GEOCHEMISTRY 222108

As analysis values

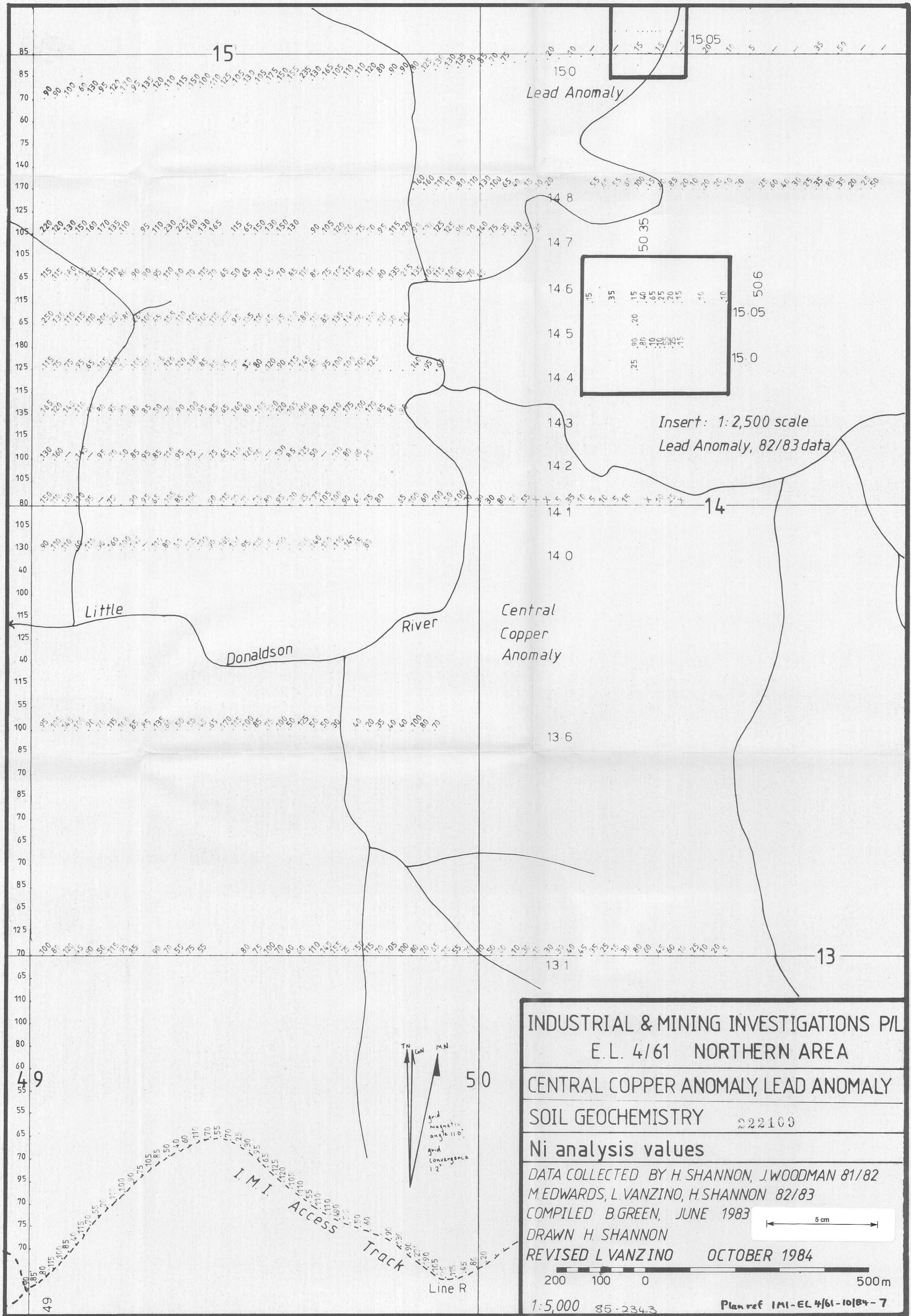
DATA COLLECTED BY H SHANNON, J WOODMAN 81/82
M EDWARDS, L VANZINO, H SHANNON 82/83
COMPILED B GREEN JUNE 1983

DRAWN H SHANNON
REVISED L VANZINO OCTOBER 1984

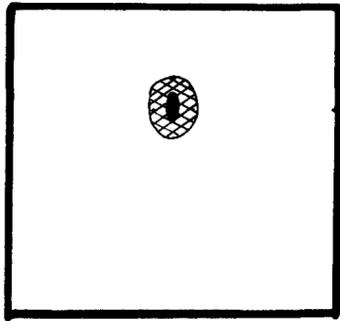
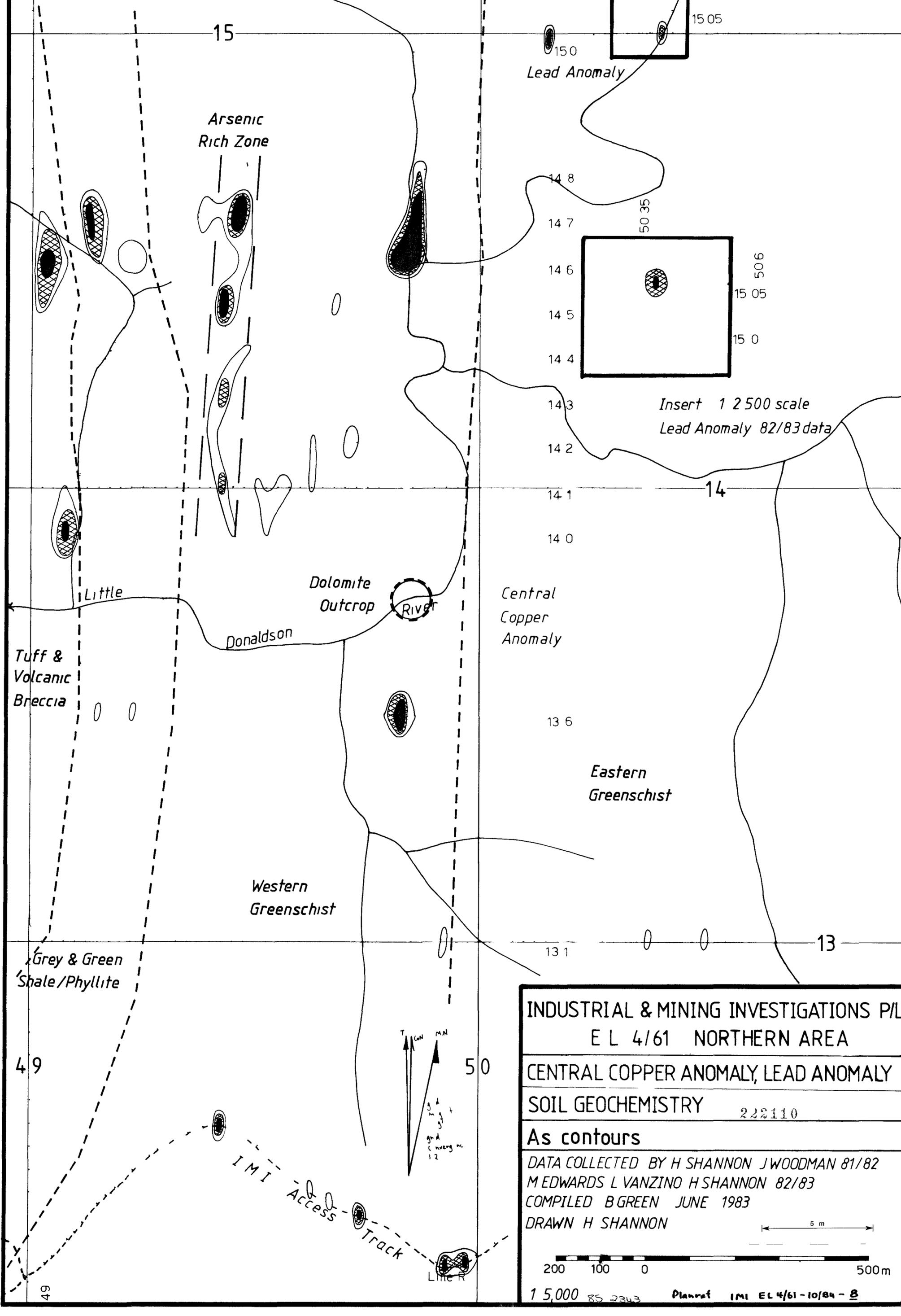
006



1 5,000 85-2343 Plan ref IMI-EL 4/61-10/84-6

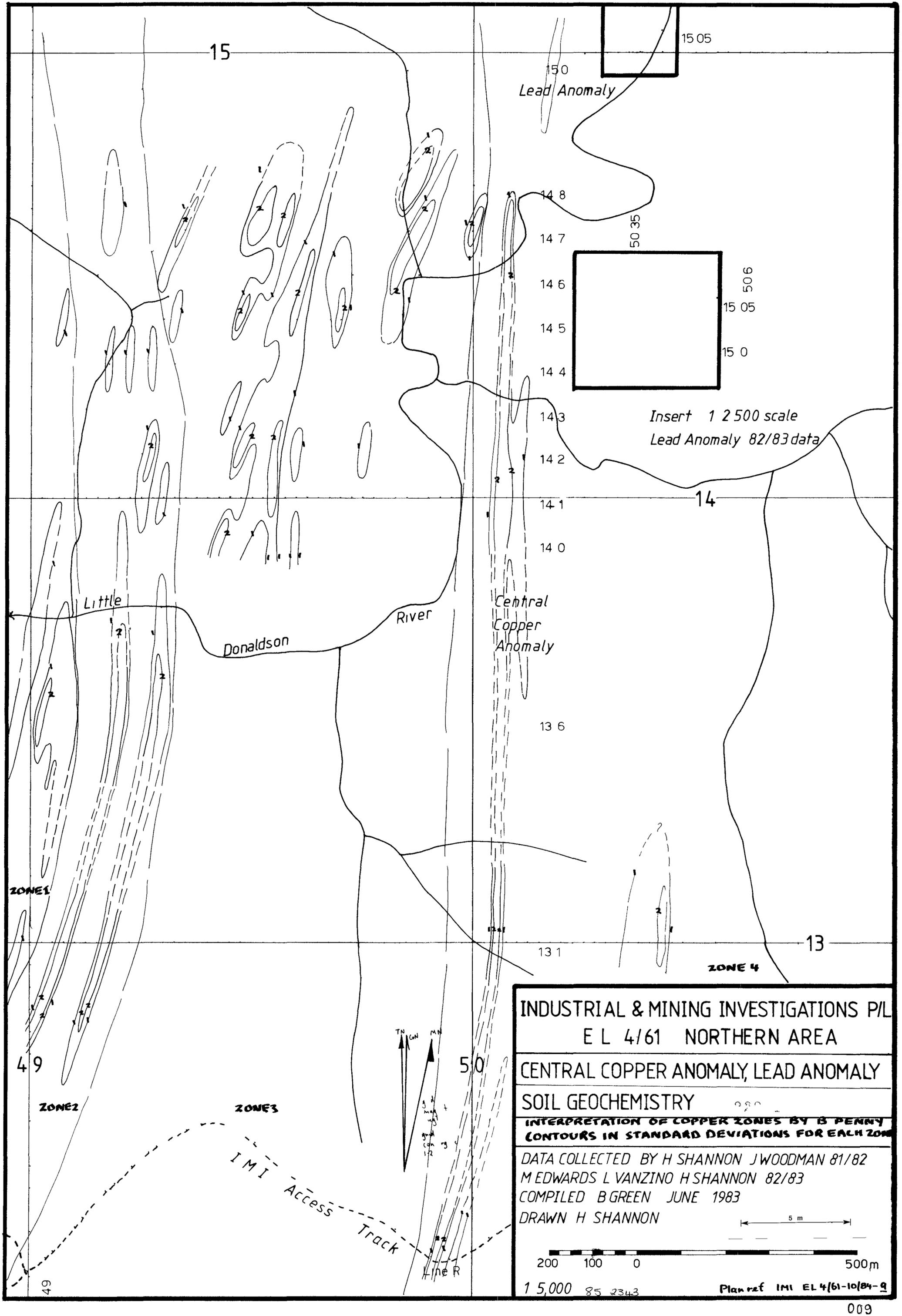


INDUSTRIAL & MINING INVESTIGATIONS P/L
 E.L. 4/61 NORTHERN AREA
 CENTRAL COPPER ANOMALY, LEAD ANOMALY
 SOIL GEOCHEMISTRY 222109
 Ni analysis values
 DATA COLLECTED BY H. SHANNON, J. WOODMAN 81/82
 M. EDWARDS, L. VANZINO, H. SHANNON 82/83
 COMPILED B. GREEN, JUNE 1983
 DRAWN H. SHANNON
 REVISED L. VANZINO OCTOBER 1984
 1:5,000 85-2343 Plan ref IMI-EL 4/61-10/84-7



INDUSTRIAL & MINING INVESTIGATIONS P/L
 E L 4/61 NORTHERN AREA
 CENTRAL COPPER ANOMALY, LEAD ANOMALY
 SOIL GEOCHEMISTRY 222110
 As contours
 DATA COLLECTED BY H SHANNON J WOODMAN 81/82
 M EDWARDS L VANZINO H SHANNON 82/83
 COMPILED B GREEN JUNE 1983
 DRAWN H SHANNON

Scale: 1:5,000
 Planref: IMI EL4/61-10/84-8

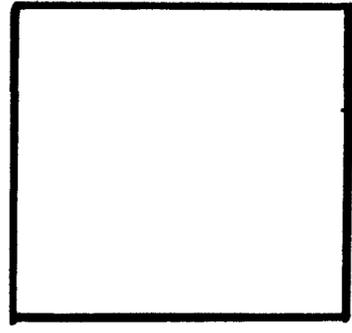


15

15.05

15.0
Lead Anomaly

50.35



Insert 1 2 500 scale
Lead Anomaly 82/83 data

14.8

14.7

14.6

14.5

14.4

14.3

14.2

14.1

14.0

14

Central
Copper
Anomaly

Donaldson

Little

River

13.6

ZONE 1

13

ZONE 4

13.1

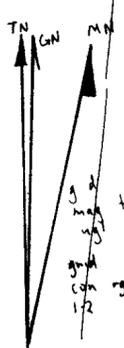
4.9

ZONE 2

ZONE 3

5.0

IMI Access Track



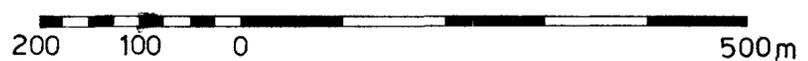
INDUSTRIAL & MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA

CENTRAL COPPER ANOMALY, LEAD ANOMALY

SOIL GEOCHEMISTRY

INTERPRETATION OF COPPER ZONES BY B PENNY
CONTOURS IN STANDARD DEVIATIONS FOR EACH ZONE

DATA COLLECTED BY H SHANNON J WOODMAN 81/82
M EDWARDS L VANZINO H SHANNON 82/83
COMPILED B GREEN JUNE 1983
DRAWN H SHANNON



1 5,000 85 2343 Plan ref IMI EL 4/61-10/84-9

48

49

50

13

TN GN MN

Grid Magnetic Angle 11 0
Grid Convergence 1 2

Line 131

IMI Access Track

IMI Access Track

Line 116

Line 113

Line 112

Line 110

Line 109

Line 108

Line 107

Line 106

Line 111

Broderick Creek

Hall Creek

Line 101

10

McAuliffe Creek

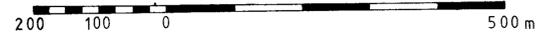
Line 96

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA
SOUTHERN COPPER ANOMALY, M'CAULIFFE CK

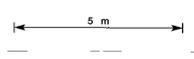
SOIL GEOCHEMISTRY

As analysis values 22112

DATA COLLECTED BY H SHANNON J WOODMAN 81/82
M EDWARDS L VANZINO H SHANNON 82/83
COMPILED L VANZINO OCTOBER 1984
DRAWN P COVER L VANZINO



1 500



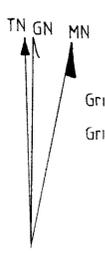
010

48

49

50

13



Line 131

IMI Access Track

12

IMI Access Track

Line 116

Line 113

Line 112

Broderick Creek

11

Line 111

Line 110

Line 109

Line 108

Line 107

Line 106

Hall Creek

10

Line 101

McAuliffe Creek

Line 96

INDUSTRIAL AND MINING INVESTIGATIONS P/L
E L 4/61 NORTHERN AREA
SOUTHERN COPPER ANOMALY, M'CAULIFFE CK

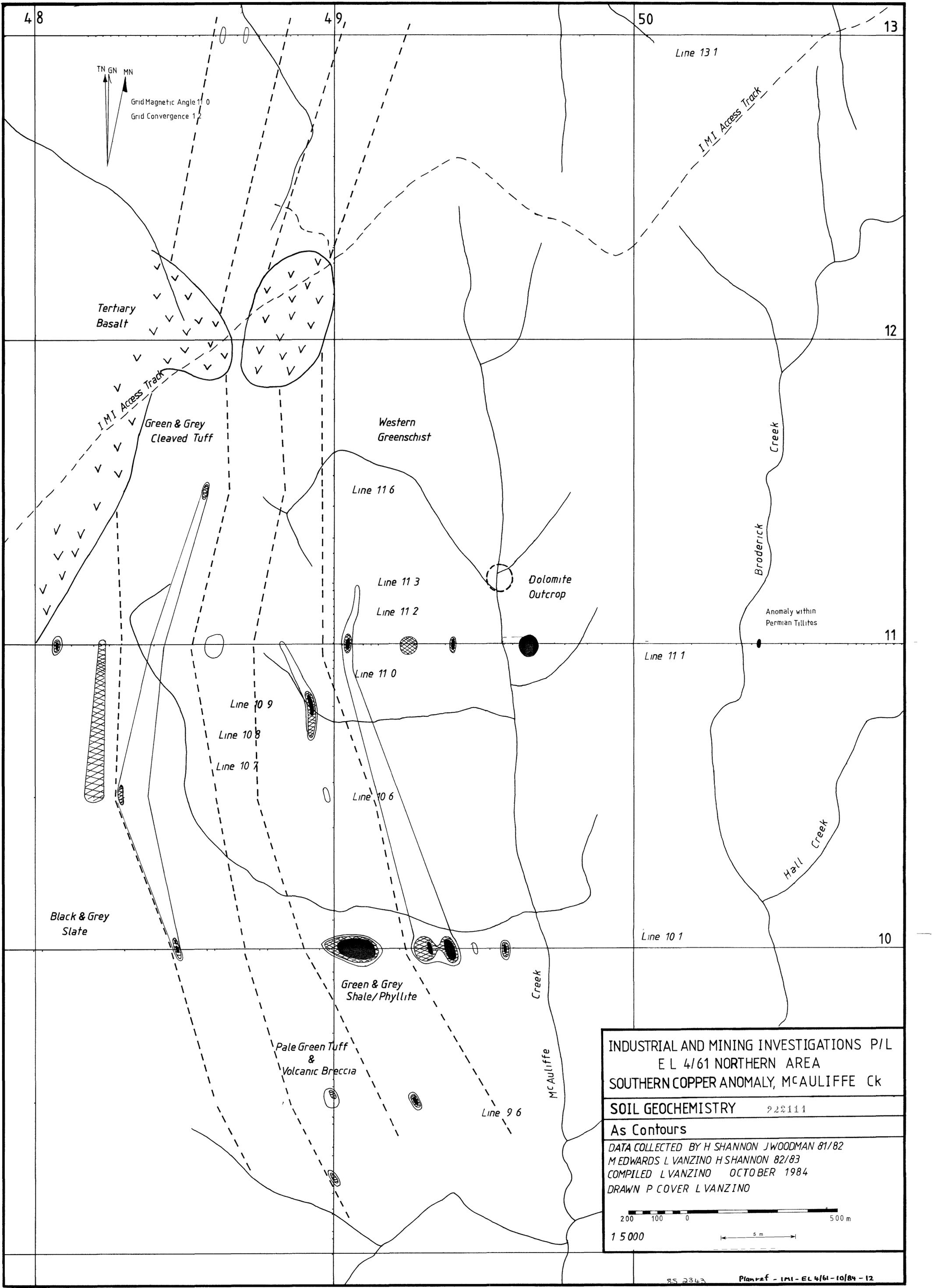
SOIL GEOCHEMISTRY 229113

Ni analysis values

DATA COLLECTED BY H SHANNON J WOODMAN 8/1/82
M EDWARDS L VANZINO H SHANNON 82/83
COMPILED L VANZINO OCTOBER 1984
DRAWN P COVER L VANZINO

200 100 0 500 m

1:5000 5 m



TN GN MN
 Grid Magnetic Angle 11.0
 Grid Convergence 1.2

Tertiary
 Basalt

Green & Grey
 Cleaved Tuff

Western
 Greenschist

Dolomite
 Outcrop

Black & Grey
 Slate

Green & Grey
 Shale/Phyllite

Pale Green Tuff
 &
 Volcanic Breccia

Line 13 1

IMI Access Track

IMI Access Track

Line 11 6

Line 11 3

Line 11 2

Line 11 1

Line 10 9

Line 10 8

Line 10 7

Line 10 6

Line 10 1

Line 9 6

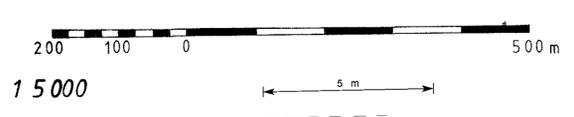
Broderick
 Creek

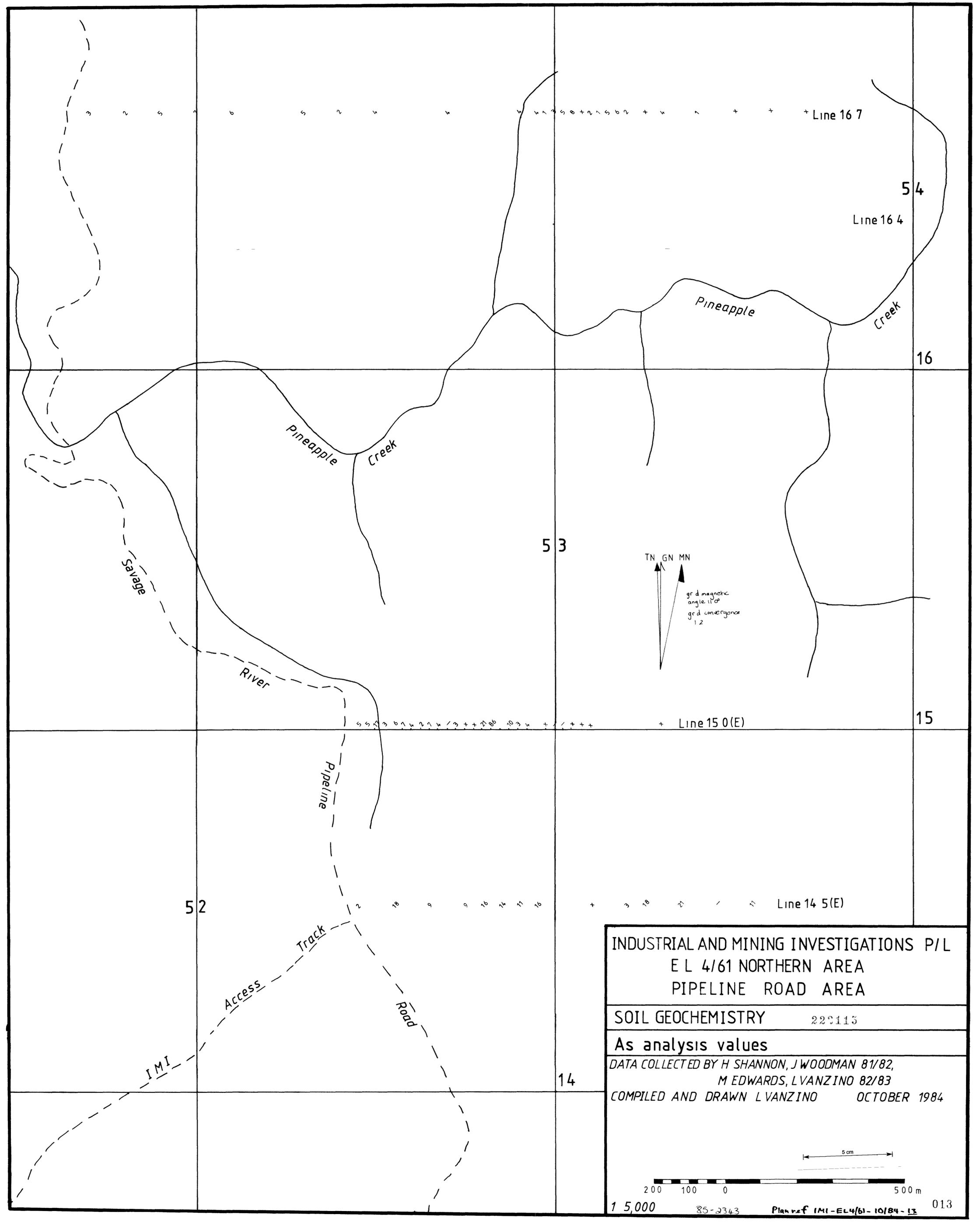
Anomaly within
 Permian Tillites

Hall
 Creek

McAuliffe
 Creek

INDUSTRIAL AND MINING INVESTIGATIONS P/L
 E L 4/61 NORTHERN AREA
 SOUTHERN COPPER ANOMALY, M^CAULIFFE CK
 SOIL GEOCHEMISTRY 222111
 As Contours
 DATA COLLECTED BY H SHANNON J WOODMAN 81/82
 M EDWARDS L VANZINO H SHANNON 82/83
 COMPILED L VANZINO OCTOBER 1984
 DRAWN P COVER L VANZINO



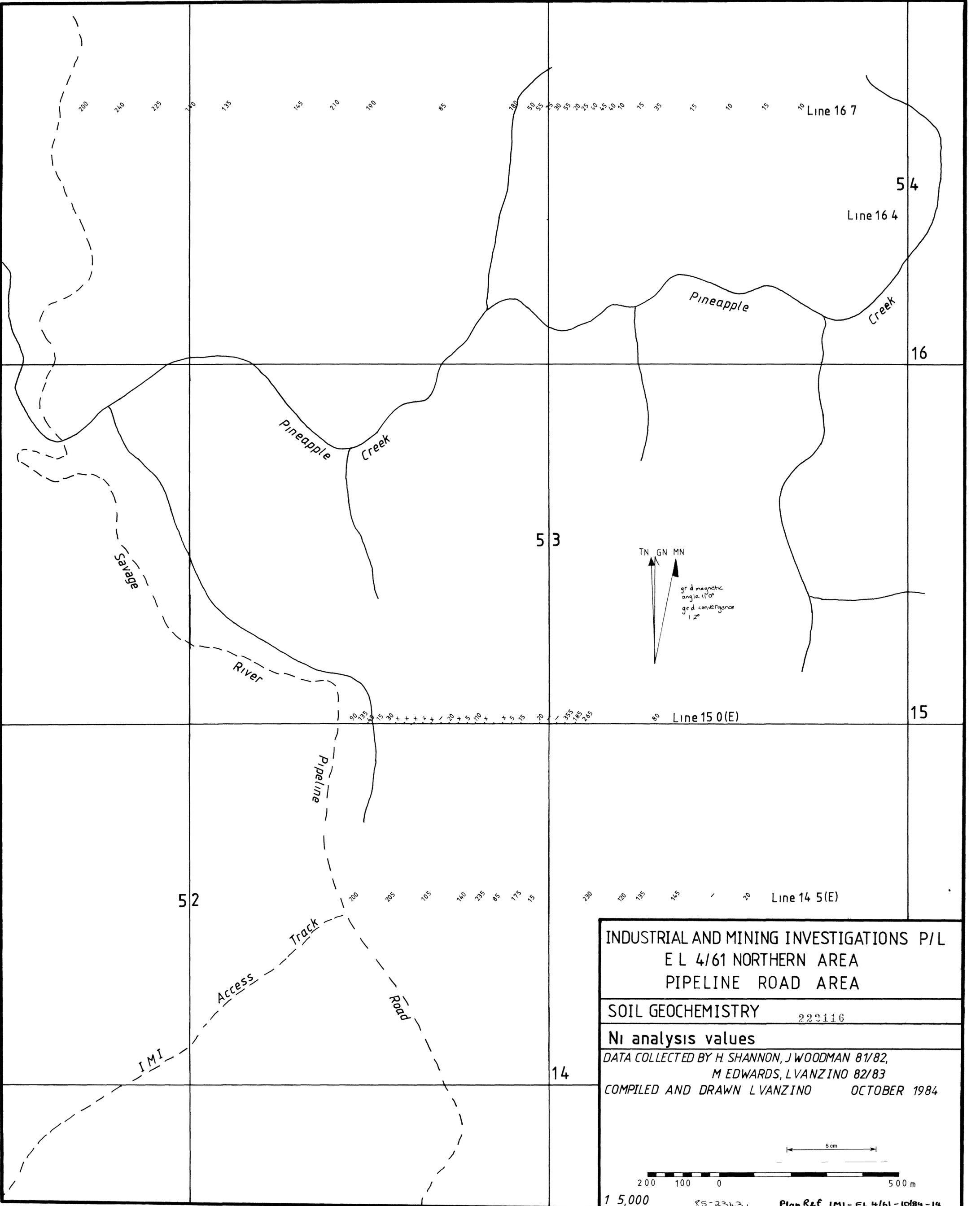


INDUSTRIAL AND MINING INVESTIGATIONS P/L
 E L 4/61 NORTHERN AREA
 PIPELINE ROAD AREA

SOIL GEOCHEMISTRY 220115

As analysis values

DATA COLLECTED BY H SHANNON, J WOODMAN 81/82,
 M EDWARDS, L VANZINO 82/83
 COMPILED AND DRAWN L VANZINO OCTOBER 1984



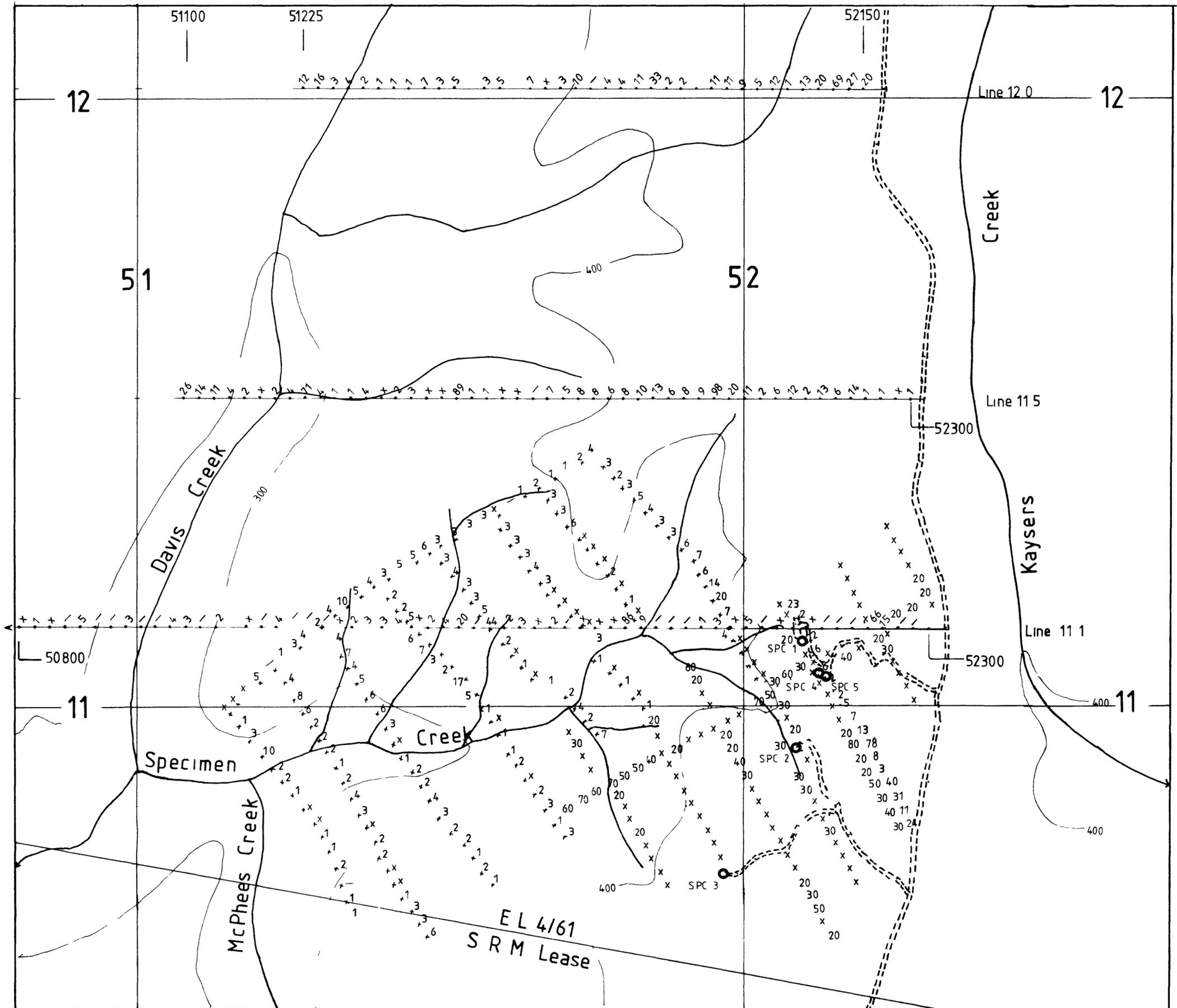
**INDUSTRIAL AND MINING INVESTIGATIONS P/L
 E L 4/61 NORTHERN AREA
 PIPELINE ROAD AREA**

SOIL GEOCHEMISTRY 223116

Ni analysis values

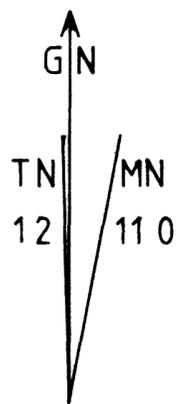
DATA COLLECTED BY H. SHANNON, J. WOODMAN 8/1/82,
 M. EDWARDS, L. VANZINO 8/2/83
 COMPILED AND DRAWN L. VANZINO OCTOBER 1984

1:5,000 85-2343 Plan Ref IMI-EL 4/61-10/84-14



LEGEND

- x soil sample 1980 - 81
- " " 1981 - 82
- " " 1982
- tenure boundary
- 11 — grid lines AMG
- ↙ creek
- - - road
- ~ contour
- SPC 1 drillhole



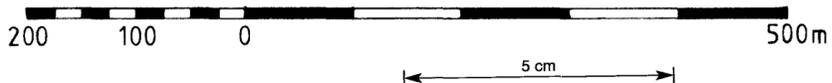
INDUSTRIAL AND MINING INVESTIGATIONS PTY LTD
E L 4/61 SAVAGE RIVER

SPECIMEN REEF
GEOCHEMICAL SAMPLING
ARSENIC ANALYSIS VALUES PLAN

DATA COLLECTED J Wall 1980-81, E Dubowski 1981-82
 H Shannon, J Woodman 1982

COMPILED H Shannon, E Dubowski
 DRAWN H Shannon

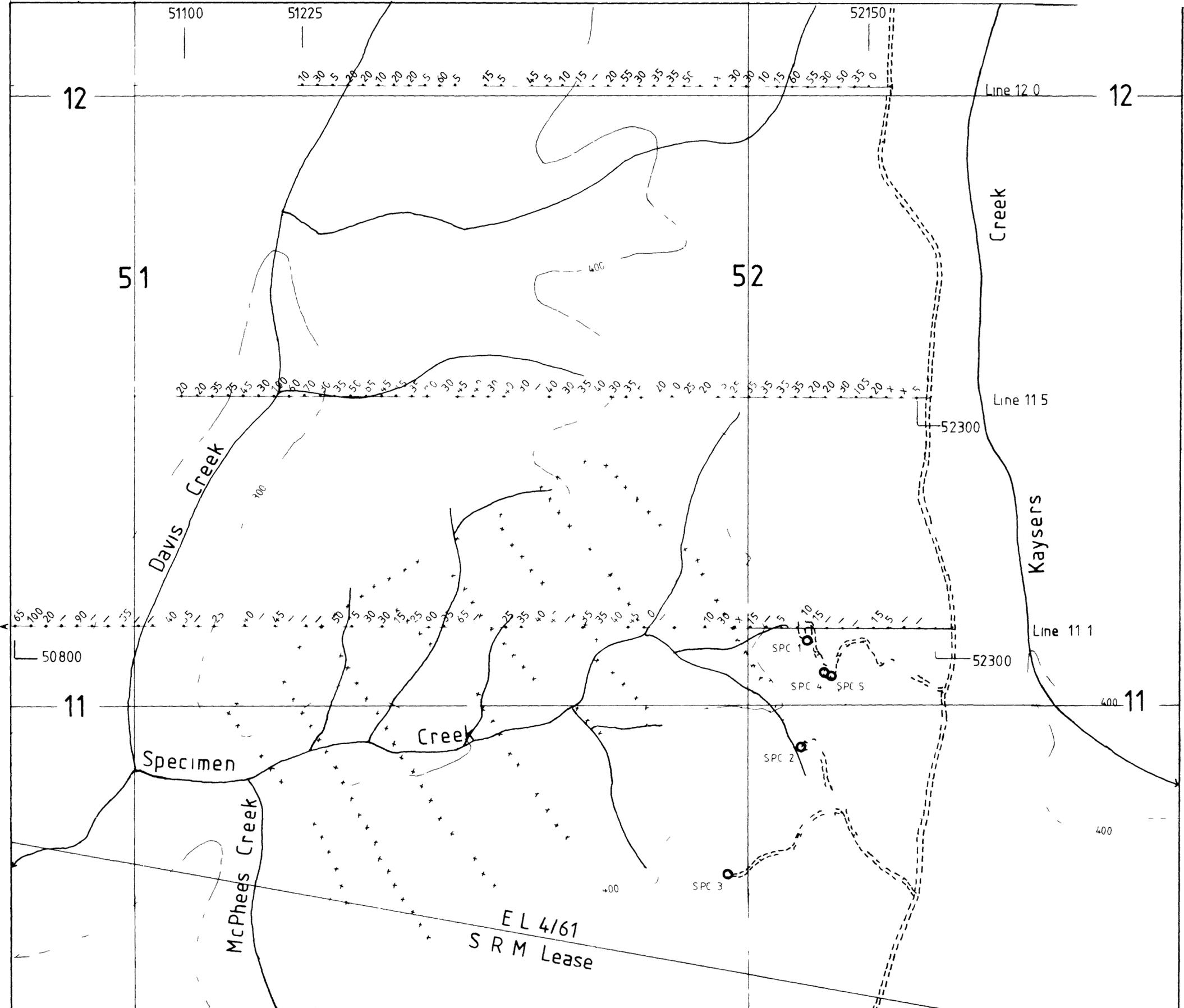
229117



Scale 1 5,000 85-2343

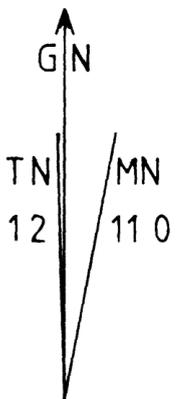
June 1984

Plan Ref IMI - EL 4/61 - 10/84 - 15



LEGEND

- x soil sample 1980 - 81
- " " 1981 - 82
- " " 1982
- tenure boundary
- 11 — grid lines AMG
- ↙ creek
- road
- ~ contour
- SPC 1 drillhole



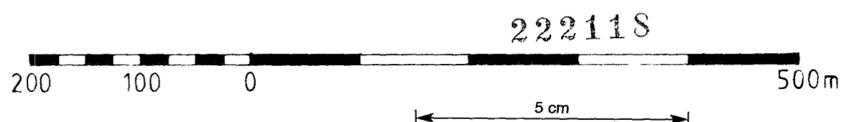
INDUSTRIAL AND MINING INVESTIGATIONS PTY LTD
E L 4/61 SAVAGE RIVER

SPECIMEN REEF GEOCHEMICAL SAMPLING NICKEL ANALYSIS VALUES PLAN

DATA COLLECTED J Wall 1980-81, E Dubowski 1981-82
H Shannon, J Woodman 1982

COMPILED H Shannon, E Dubowski
DRAWN H Shannon

026



Scale 1 5,000 85-2343

June 1984

Plan ref - IMI-EL 4/61-10184-16