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136001

OPEN FILE

ANNUAL REPORT 1990 - 1991

E.L.24/88 CHAMPION ROAD

by Vic Threader

for

MINERAL HOLDINGS AUSTRALIA PTY. LTD.

91-3303

MINES	
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15 OCT 1991	
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Resubmit to	Date

RESTORED

October 1991

Vic Threader and Associates Pty. Ltd.

Kingston Beach.

C O N T E N T S

Introduction

Exploration 1990-91

Exploration Programme 1991-2

Figures: 1. Location Map
2. Map of Prospect Area
3. E.L.24/88

Appendix:

AMG Co-ordinates of Test Pit

Logs of Test Pits Nos 8-14

Chemical Analyses of Test Pit Samples
(Analabs Report 109515.60.07752)

Chemical Analyses and Decrepitation
Test Report on Lithified Sand Samples
(Temco 2.3.91)

Chemical Analysis and Particle Size
Distribution of Test Pit Samples
(M.K.Silica 15.2.91)

Chemical Analysis and Particle Size
Distribution of Sand from Bulk
Sample Site (Gwalia Group 4.7.90)

Particle Size Distribution. Summary
of Screen Analyses

Comparative Analyses of Sand from
Champion Road and Cann Creek

Introduction

A fine sand resource is exposed in cuttings in Champion Road east of the Arthur River 10 km Northwest of West Takone.

As the result of the 1988-90 exploration programmes, a resource of 150-200 ^{x10³} t. in situ has been estimated (Annual Reports 1989 and 1990).

During the current year, another seven test pits have been dug to obtain 1) further samples of fine sand for analysis and 2) samples of recemented bottom sands for evaluation as furnace feed for ferrosilicon production.

A 150 t. sample of fine sand was extracted for bulk testing by the M.K. Silica plant at Heybridge. There was a change of ownership of the plant at that time, consequently the sample has not yet been tested; it remains stockpiled at the plant awaiting trials by the new owners.

Exploration 1990-91

Further test pitting was carried out as shown on figure 2. The pits were excavated to the limit of the machine or to the bottom of the deposit. Resilicified material from these pits was evaluated by Temco for chemical analysis and decrepitation testing (see Appendix). Samples designated C.R. are from the exploration licence and the C.C. samples came from the Cann Creek mineral lease which lies some 3 km to the East.

The test pit fine sand samples were analysed by M.K. Silica and Analabs (see Appendix). A comparative table of these results shows that:

1. The fines (-75 μ m) contain significantly lower levels of contaminants than the +250 μ m - except for TiO₂ which is the reverse.
2. Champion Road silica contains slightly lower levels of contaminants than Cann Creek. This trend was noted in previous reports:

	<u>Silica Content</u>	
	<u>Nos. 1-7</u>	<u>Nos. 8-14</u>
Champion Road	99.62	99.85
Cann Creek	99.06	99.28

3. Pit no.12 contains the highest grade of Silica (99.94%) and is the furthest south

Both of these trends (2 and 3) support the view that the Cann Creek magnesite is the source rock.

The presence of resiliified silica occurs at the bottom of the deposit in some parts and in others at different levels within it. It varies from lithified (opaline) silica to lumps of soft sandstone. It is only the former variety which would be acceptable as a furnace feed for ferrosilicon products. The proportion of aggregated material would be ≈10% but most of this would be unsuitable for the above purpose. A rough estimate would be ≈2000 t. as a by-product from mining the sand deposit.

A 150 t. bulk sample was taken in January 1991 from the roadside (fig.2) and was intended to be run through the M.K. Silica plant but is awaiting trials. Location of this sample is given on figure 2.

A grab sample was collected by the Gwalia Company from the full length of this sample face - chemical and sizing analysis given in appendix.

Mineral Holdings has summarised the results of numerous sizing analyses# which have been carried out on test pit samples and individually collected samples by independent companies. This summary gives the following breakdown:

µm	%
+250	37.8
*-250+75	14.7
-75	47.5
	100

* Size fraction which was marketed by M.K. as glass sand.

see Appendix

A sample subsequently taken by Gwalia from the bulk sample face gave:

(see Appendix)	μm	
	+250	5.7
	-250+75	46.9
	-75	47.4

This result shows a significantly higher proportion of glass sand than is indicated in the above summary.

Exploration Programme 1991-2

Further investigation of the deposit is unlikely to increase the reserve or add anything to the quality data. There is however the likelihood that further sampling for specific markets will be required. In this regard end uses other than glass making are currently being pursued and will be continued during the 1991-2 year.

Exploratory traverses with hand held augers are planned for the southwest corner of the licence area to search for a continuation of the deposit as far as the Arthur River which lies 1 km to the southwest.

PERKINS BAY

0005

THE NEW CIRCULAR HEAD

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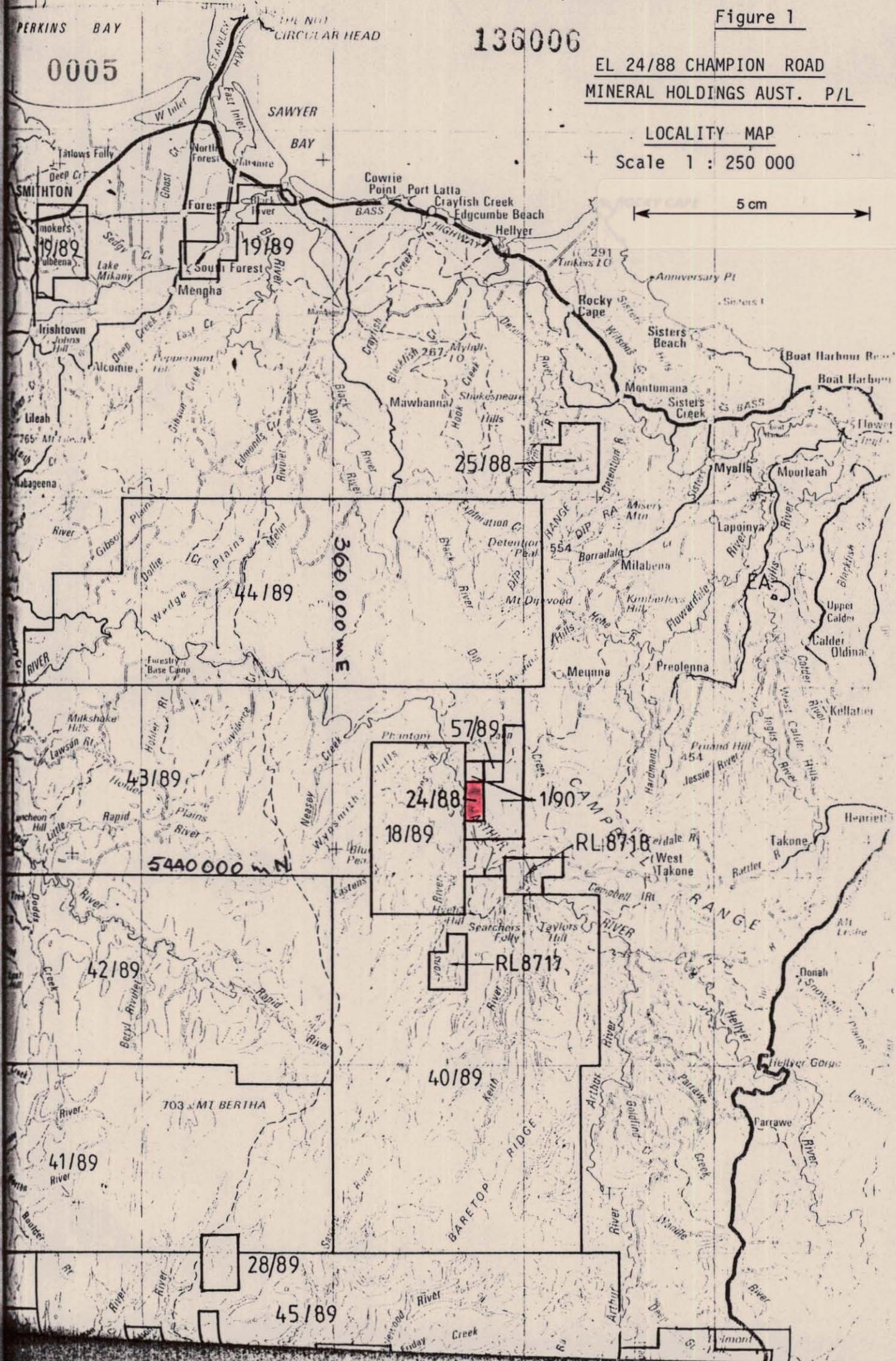
Figure 1

EL 24/88 CHAMPION ROAD
MINERAL HOLDINGS AUST. P/L

LOCALITY MAP

Scale 1 : 250 000

5 cm



SMITHTON

19/89

19/89

25/88

44/89

43/89

24/88

18/89

57/89

42/89

RL8717

40/89

41/89

28/89

45/89

RL8718

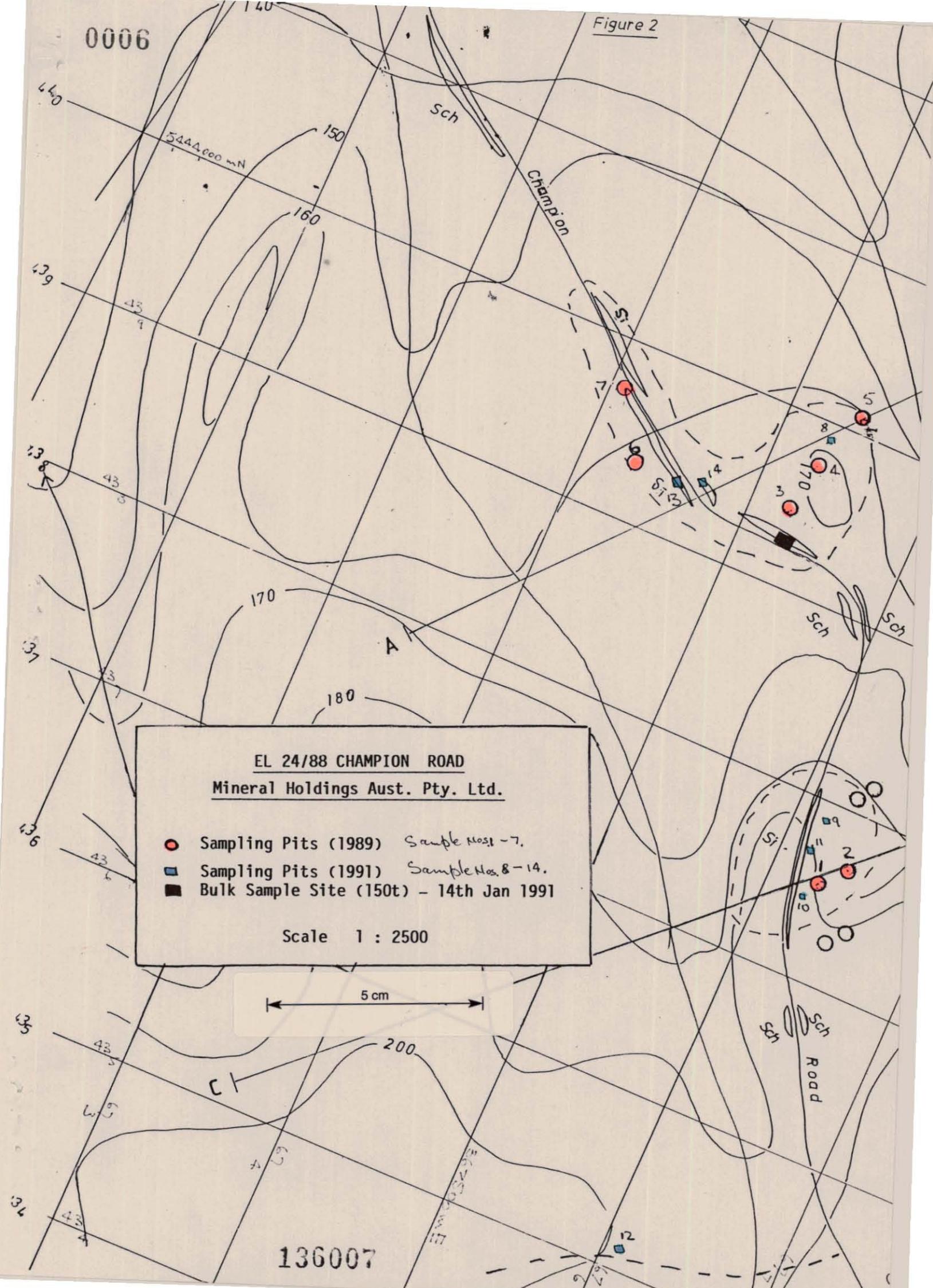
703 MT BERTHA

BARETOP RIDGE

CAMP RANGE

Figure 2

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EL 24/88 CHAMPION ROAD
Mineral Holdings Aust. Pty. Ltd.

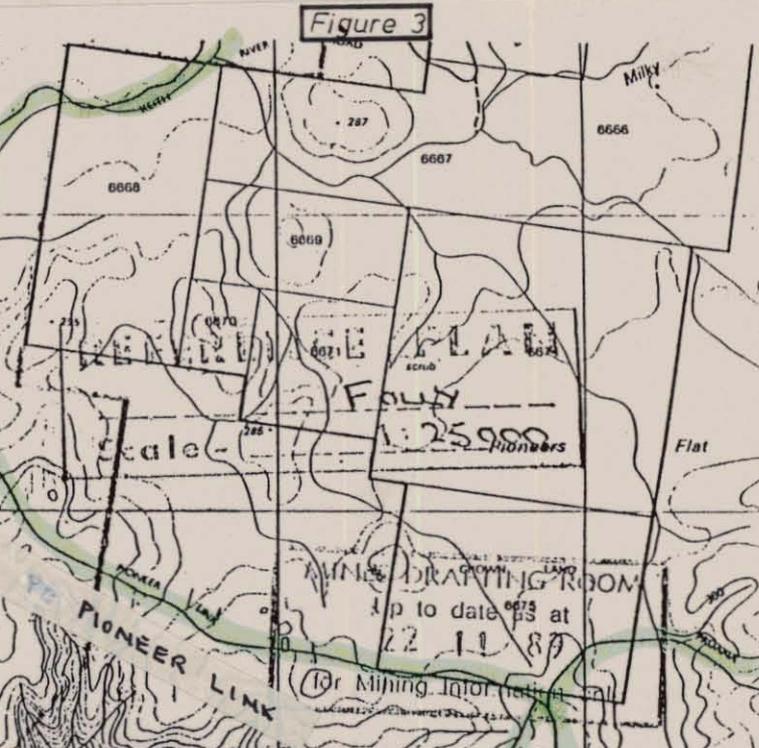
- Sampling Pits (1989) Sample Nos. 1-7.
- Sampling Pits (1991) Sample Nos. 8-14.
- Bulk Sample Site (150t) - 14th Jan 1991

Scale 1 : 2500

5 cm

136007

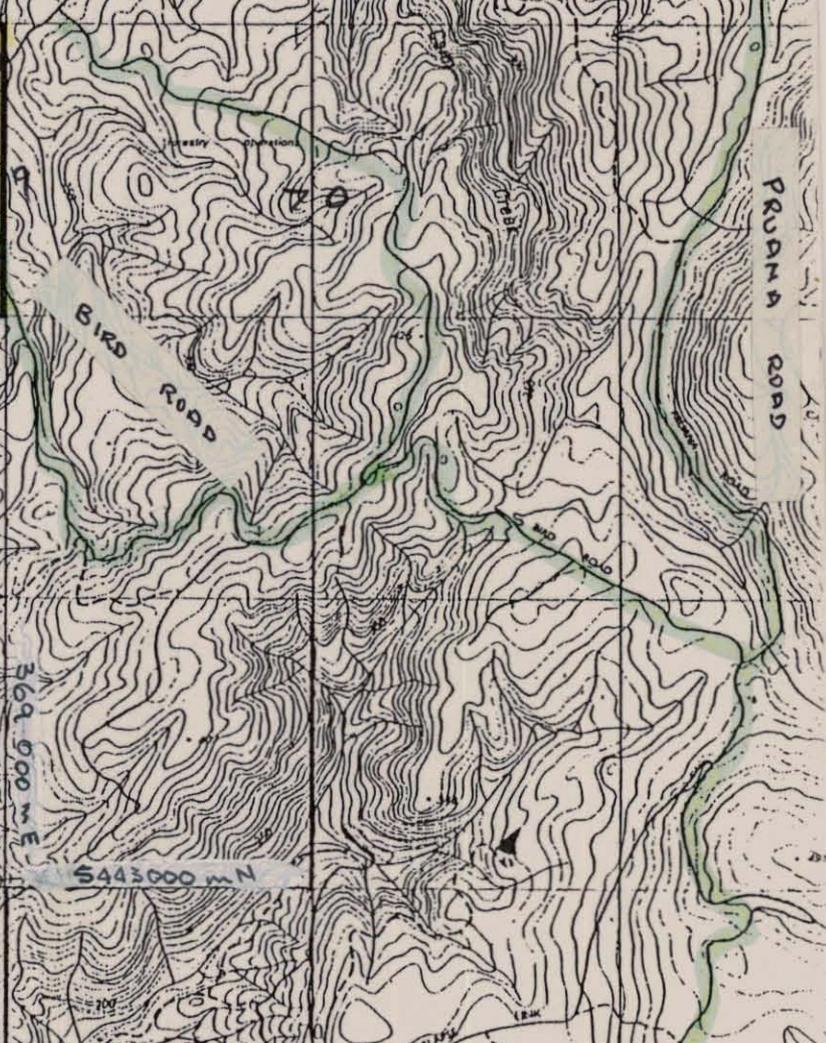
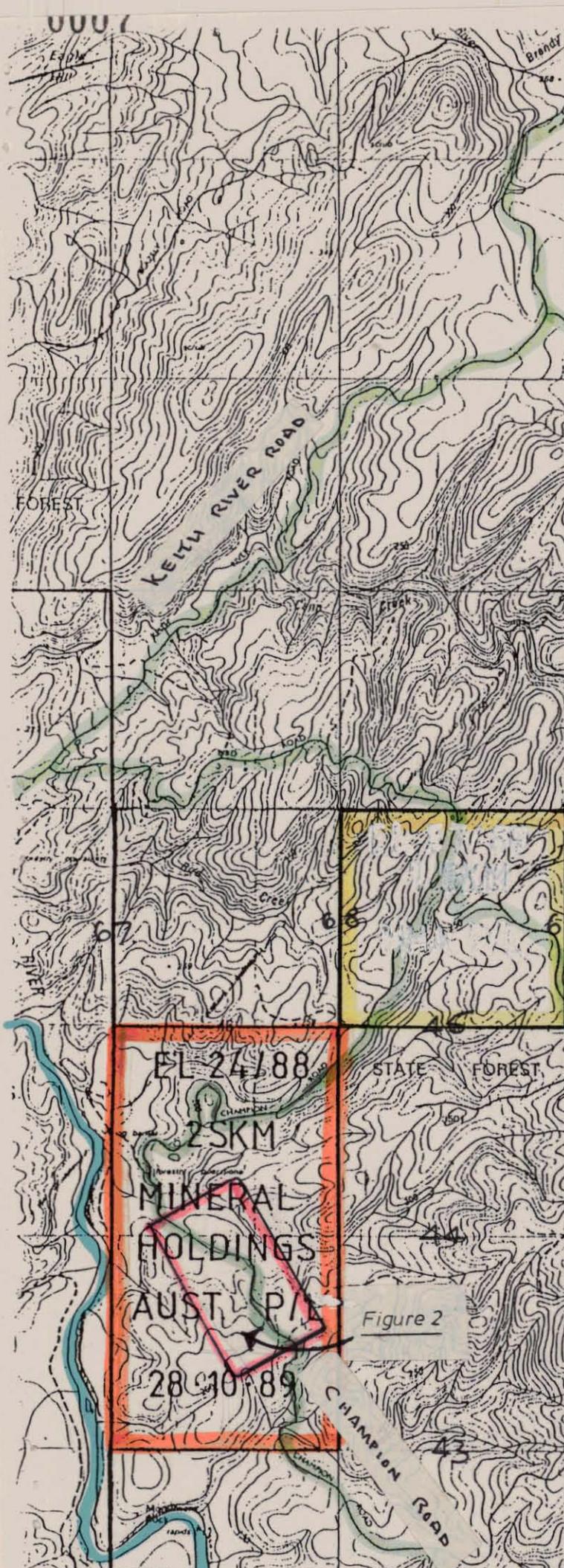
Figure 3



45M/89 - 29ha
**MINERAL HOLDINGS AUST
 PTY LTD**

Figure 2

EL 24788
 25KM
**MINERAL
 HOLDINGS
 AUST. PTY
 LTD**
 28/10/89



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APPENDIX

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136010

AMG Co-ordinates of Sample Sites

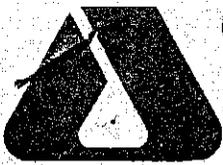
*30.1.91
A. D. ...*

	<u>mE</u>	<u>mN</u>
1	367 630	5 443 755
2	367 640	5 443 770
3	367 525	5 443 945
4	367 530	5 443 975
5	367 540	5 444 010
6	367 430	5 443 935
7	367 410	5 443 970
8	367 530	5 443 790
9	367 520	5 443 950
10	367 625	5 443 745
11	367 610	5 443 770
12	367 610	5 443 515
13	367 460	5 443 935
14	367 470	5 443 940
(150t bulk sample 14.1.91)	367 525	5 443 925

Re-Sampling of Silica Flour at Champion Rd (7 Feb.1991)

Seven pits were excavated and sampled and an additional six pits were excavated on the margins of the silica flour deposits but were not considered to be within the economic limits of the deposit and were not sampled. All these pits are shown on the attached map. Samples CR 8,9,10,11 and 12 were sent to M.K. Silica for analysis. Samples CR 8, 11 and 14 were sent to Analabs for check analysis and cemented or silicified material from samples CR 8, 9, 10, 11, 12, 13 and 14 were sent to Temco for evaluation.

Sample No.	Depth (m.)		Thickness (m)	Log	Cementation
	From	To			
CR 8	0	0.3	0.3	Soil	10%
	0.3	4.2	3.9	Silica flour	
	4.2	4.5	0.3	Brown clay	
CR 9	0	0.3	0.3	Soil	nil
	0.3	9.0	8.7	Silica flour (not bottomed)	
CR 10	0	1.0	1.0	Soil & silica flour (previously stripped)	20% hard
	1.0	3.0	2.0	Silica flour (variably ironstained 1000-3000mm)	
CR 11	0	0.5	0.5	Soil & silica flour (previously stripped)	35%
	0.5	5.5	5.0	Silica flour (abandoned due to caving)	
CR 12	0	0.3	0.3	Soil	20% hard
	0.3	2.0	1.7	Sand & silica flour	
	2.0	2.2	0.2	Clay	
CR 13	0	0.3	0.3	Soil	20% soft
	0.3	3.3	3.0	Silica flour (needed ripping)	
CR 14	0	1.0	1.0	Heaped soil (roadside)	20% soft
	1.0	3.5	2.5	Silica flour	
	3.5	3.7	0.2	Brown clayey sand	



0011

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

Analabs - A Division of Inchcape Inspection & Testing Services

ink 15
time 13
15/02/91
15/02/91

Phone (004) 31 683

14 Thirkell St. Cooea Tas 7320

Fax No. (004) 31 8890

ANALYTICAL REPORT No. 109515.60.0725R

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

INVOICE TO: Mr. Neil Thomas
 Mineral Holdings Australia Pty Ltd
 2nd Floor
 100 Collins Street
 Melbourne Vic. 3000

ORDER No. PROJECT
 Mr. Vic. Threader Ch. Rd. C. Crk.

DATE RECEIVED RESULTS REQUIRED
 15/02/91 c. ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES
3	07/03/91	1

TOTAL No. OF SAMPLES	
12	5
	7
	4

SAMPLE NUMBERS	SAMPLE DESCRIPTION	ELEMENT/METHOD
Various	PU	A1203, TiO2, Fe2O3, MgO, CaO, Na2O, P2O5, K2O, MnO/DA14
Various	PU	Mg, Ni, Mn/NT831, K2O, A1203/BA103

RESULTS TO Mr V Threader
 Vic Threader & Associates Pty Ltd
 43 Kingston Heights
 Kingston Beach
 Tas 7050

RESULTS TO Mr. Neil Thomas
 Mineral Holdings Australia Pty Ltd
 2nd Floor
 100 Collins Street
 Melbourne Vic. 3000

RESULTS TO

REMARKS

AUTHORISED OFFICER

0012

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

109515.60.07759

08/03/91

Mr. Vic. Thredwell

OF 3

TUBE No.	SAMPLE No.	Cr	Ni	Cu	Al2O3	Al2O3	K2O	K2O	SiO2
1	CR 8 -75u	<5	5	5	-	0.076	-	0.0034	99.4
2	CR 11 -75u	<5	5	5	-	0.034	-	0.0024	99.7
3	CR 15 -75u	<5	5	5	-	0.151	-	0.0020	99.6
4	CC 30 -75u	5	5	5	2.74	>1.0000	1.16	1.0000	92.9
5	CC 41 -75u	<5	5	5	-	0.113	-	0.0096	99.5
6	CC 50 -75u	5	5	5	-	0.094	-	0.0076	99.2
7	CR 8 -250+75u	<5	5	5	-	0.040	-	0.0021	99.1
8	CR 11 -250+75u	<5	5	5	-	0.032	-	0.0022	99.7
9	CR 13 -250+75u	<5	5	5	-	0.066	-	0.0046	99.3
10	CC 30 -250+75u	<5	5	5	-	0.812	-	0.2890	97.6
11	CC 41 -250+75u	<5	5	5	-	0.056	-	0.0066	99.5
12	CC 50 -250+75u	<5	5	<5	-	0.062	-	0.0064	99.3
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	5	5	5	0.01	0.001	0.01	0.0002	0.1
24	UNITS	ppm	ppm	ppm	%	%	%	%	%
25	METHOD	GA101	GA101	GA101	GA103	GA144	GA103	GA144	GA199

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

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136013

0013

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

ANALYTICAL DATA

a MK 75
 b Ann 75
 c MK 75
 d Ann 75

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

109515.60.07759

08/03/91

Mr. Vic. Threaded

OF 3

TUBE No.	SAMPLE No.	Mag	Nflag	CaO	Fe2O3	MgO	MnO	Na2O	P2O5
1	CR 8 -75u	<0.01	100.00	0.0180	0.0128	0.0364	0.0004 ₃	0.0054	0.0004
2	CR 11 -75u	<0.01	100.00	0.0070	0.0184	0.0200	0.0002	0.0034	0.0006
3	CR 13 -75u	<0.01	100.00	0.0230	0.0042	0.0680	0.0002	0.0121	0.0002
4	CC 30 -75u	<0.01	100.00	0.0062	0.5220	0.7620	0.0010 0.007	0.0430	0.0060
5	CC 41 -75u	<0.01	100.00	0.0146	0.0143	0.0320	0.0006 ₅	0.0047	0.0087
6	CC 50 -75u	<0.01	100.00	0.0084	0.0486	0.0250	0.0010 ₄	0.0088	0.0018
7	CR 8 -250+75u	0.02	99.98	0.0508	0.0186	0.0580	0.0005 ₄	0.0047	0.0009
8	CR 11 -250+75u	0.01	99.99	0.0210	0.0172	0.0250	0.0005 ₄	0.0034	0.0004
9	CR 13 -250+75u	0.01	99.99	0.1400	0.0143	0.1080	0.0016 0.001	0.0054	0.0009
10	CC 30 -250+75u	0.22	99.78	0.0076	0.1640	0.3320	0.0004 ₃	0.0094	0.0020
11	CC 41 -250+75u	0.08	99.92	0.0200	0.0172	0.0250	0.0004 ₃	0.0026	0.0025
12	CC 50 -250+75u	0.07	99.93	0.0216	0.0272	0.0300	0.0004 ₃	0.0054	0.0009
13									
14									
15				✓	✓	✓		✓	✓
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.01	0.01	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
24	UNITS	%	%	%	%	%	%	%	%
25	METHOD	MT831	MT831	OA144	OA144	OA144	OA144	OA144	OA144

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

136014

0014

ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

ANALYTICAL DATA

a mk -75
 b Ann -75
 c mk -75
 d Ann -75

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

109515.60.07759

08/03/91

Mr. Vic. Threade

OF 3

TUBE No.	SAMPLE No.	T102	LOI					
1	CR 8 -75u	0.117	0.35				3	
2	CR 11 -75u	0.033	0.18				1	
3	CR 13 -75u	0.063	0.12				1	
4	CC 30 -75u	0.867	1.05				0.007	
5	CC 41 -75u	0.150	0.11				5	
6	CC 50 -75u	0.334	0.25				7	
7	CR 8 -250+75u	0.057	0.32				4	
8	CR 11 -250+75u	0.020	0.22				4	
9	CR 13 -250+75u	0.040	0.33				0.001	
10	CC 30 -250+75u	0.334	0.48				3	
11	CC 41 -250+75u	0.043	0.30				3	
12	CC 50 -250+75u	0.200	0.36				3	
13								
14								
15				✓	✓	✓	✓	✓
16								
17								
18								
19								
20								
21								
22								
23	DETECTION	0.005	0.01					
24	UNITS	%	%					
25	METHOD	04144	04145					

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



136015

0015

TEMCO, CHAMPIONS RD & CANN CREEK

TASMANIAN ELECTRO METALLURGICAL CO. PTY. LTD.

BELL BAY - TASMANIA

136016

LABORATORY REPORT: DAVE Hassell

DATE: 2. 3. 91

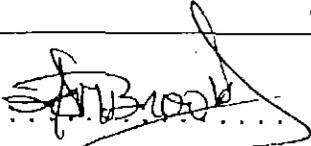
WORK NO:

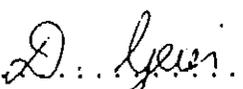
MATERIAL: Q.T.Z. (CANN CREEK) & (CHAMPIONS ROAD)

SAMPLE	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	TiO ₂	CaO	MgO	Na ₂ O	K ₂ O	H ₂ O	P ₂ O ₅	PHYSICAL
CF8	99.6	0.04	0.1	0.02	0.06	<0.01	0.1	<0.1	<0.1	0.03	0.03	TOO SOFT
CF9	99.5	0.01	0.1	0.01	0.04	<0.01	<0.1	<0.1	<0.1	0.02	0.03	"
CF10	99.7	<0.01	0.1	0.01	0.03	<0.01	<0.1	<0.1	<0.1	0.02	0.02	O.K. ?
CF11	99.7	0.02	0.1	0.01	0.02	<0.01	0.1	<0.1	<0.1	0.02	0.03	TOO SOFT
CF12	99.5	<0.01	0.2	0.02	0.05	<0.01	<0.1	0.2	<0.1	0.03	0.02	"
CC41	99.8	0.02	0.1	0.01	0.04	<0.01	<0.1	<0.1	<0.1	0.06	0.02	O.K.
CC42	99.8	<0.01	0.1	0.01	0.03	<0.01	<0.1	<0.1	<0.1	0.08	0.03	POSS. O.K.
CC50	98.6	0.07	0.2	0.02	0.02	<0.01	0.1	<0.1	<0.1	0.05	0.03	TOO SOFT
CC51	99.1	0.28	0.3	0.03	0.02	<0.01	<0.1	<0.1	<0.1	0.18	0.02	POSS O.K.

COMMENTS:

Fe₂O₃ OVERSTATED DUE TO Fe PICK UP ON GRINDING. ~~DAV~~


ANALYST.

N.B. Checked & 
Quartzite was deposited "agate"
CHEMIST.

0016

C10

136017

TASMANIAN ELECTRO METALLURGICAL COMPANY PTY. LTD.

DECREPITATION TEST

ABSTRACT: This test is designed to assess the physical properties and suitability of ore for smelting in submerged arc furnaces. The behaviour of some ores (particularly quartz ores) to thermal shock and high temperatures varies from crumbling to parting to explosive fracture. This test is based on "thermal stability of quartzite" elkem.

METHOD: Take approximately 500g of ore that lies within the usual range of material size feed as charge to the furnace and above 25mm. (for quartzite +25mm -150mm).

Initial mass ore 969.2 grams

Place the sample into a hollow brick or a stainless steel decrepitation box with a lid and then into a muffle furnace at 1000°C for 1 hour. After this time remove the sample from the muffle furnace and allow to cool to room temperature (danger tag the hot sample). When cool sieve the sample over a 25mm sieve.

MASS	+25mm	<u>929.1</u>	grams
MASS	-25mm	<u>11</u>	grams

Recombine the sieved fractions and place the sample into one side of the decrepitation test tumble drum. Rotate the drum for 100 revolutions (3 minutes and 40 seconds), then resieve the sample over a 5mm sieve.

MASS	+5mm	<u>891.8</u>	grams
MASS	-5mm	<u>17.4</u>	grams

Calculate the percentage +25mm after heating A and the percentage +5mm after tumbling B.

Good quartzite has a value of A equal to or greater than 80% and a value of B equal to or greater than 90%

$$A = 95.9 \%$$

$$B = 96.0 \%$$

OK Passes G

0017

CC41

136013

TASMANIAN ELECTRO METALLURGICAL COMPANY PTY. LTD.DECREPITATION TEST

ABSTRACT: This test is designed to assess the physical properties and suitability of ore for smelting in submerged arc furnaces. The behaviour of some ores (particularly quartz ores) to thermal shock and high temperatures varies from crumbling to parting to explosive fracture. This test is based on "thermal stability of quartzite" elkem.

METHOD: Take approximately 500g of ore that lies within the usual range of material size feed as charge to the furnace and above 25mm. (for quartzite +25mm -150mm).

Initial mass ore 1145.3 grams

Place the sample into a hollow brick or a stainless steel decrepitation box with a lid and then into a muffle furnace at 1000°C for 1 hour. After this time remove the sample from the muffle furnace and allow to cool to room temperature (danger tag the hot sample). When cool sieve the sample over a 25mm sieve.

MASS	+25mm	<u>1106.4</u>	grams
MASS	-25mm	<u>31</u>	grams

Recombine the sieved fractions and place the sample into one side of the decrepitation test tumble drum. Rotate the drum for 100 revolutions (3 minutes and 40 seconds), then resieve the sample over a 5mm sieve.

MASS	+5mm	<u>1029.1</u>	grams
MASS	-5mm	<u>79.6</u>	grams

Calculate the percentage +25mm after heating A and the percentage +5mm after tumbling B.

Good quartzite has a value of A equal to or greater than 80% and a value of B equal to or greater than 90%

$$A = 966\%$$

$$B = 89.8\%$$

OK Passed

sell
0018

CC 51

136019

TASMANIAN ELECTRO METALLURGICAL COMPANY PTY. LTD.

DECREPITATION TEST

ABSTRACT: This test is designed to assess the physical properties and suitability of ore for smelting in submerged arc furnaces. The behaviour of some ores (particularly quartz ores) to thermal shock and high temperatures varies from crumbling to parting to explosive fracture. This test is based on "thermal stability of quartzite" elkem.

METHOD: Take approximately 500g of ore that lies within the usual range of material size feed as charge to the furnace and above 25mm. (for quartzite +25mm -150mm).

Initial mass ore 650.2 grams

Place the sample into a hollow brick or a stainless steel decrepitation box with a lid and then into a muffle furnace at 1000°C for 1 hour. After this time remove the sample from the muffle furnace and allow to cool to room temperature (danger tag the hot sample). When cool sieve the sample over a 25mm sieve.

MASS	+25mm	<u>509.4</u>	grams
MASS	-25mm	<u>137.2</u>	grams

Recombine the sieved fractions and place the sample into one side of the decrepitation test tumble drum. Rotate the drum for 100 revolutions (3 minutes and 40 seconds), then resieve the sample over a 5mm sieve.

MASS	+5mm	<u>623.7</u>	grams
MASS	-5mm	<u>18.1</u>	grams

Calculate the percentage +25mm after heating A and the percentage +5mm after tumbling B.

Good quartzite has a value of A equal to or greater than 80% and a value of B equal to or greater than 90%

$$A = 78.3\%$$

$$B = 96.7\%$$

AMB

Failed. Could have been retested over ore

Ch Re
EL 24/88

0019

136020



Office:
Minna Road, Heybridge, Burnie, Tasmania
Postal Address:
P.O. Box 1102 BURNIE, Tasmania 7320 Australia
Telephone: (004) 31 3066 Facsimile: (004) 31 5769

FACSIMILE MESSAGE

TO: MIN HOLDINGS AUSTRALIA	DATE: 15-2-91
ATTENTION: NEIL THOMAS	PAGE: 1 OF 3
FROM: PITCOSE	FAX NO:
SUBJECT: CHAMP RD RESULTS	03 650 3855

Neil,
 The analysis results for CR 8-14
 follow. We do not believe that
 the samples labelled CC warrant
 further analysis.

Regards
Philip Brown

0021

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136022

PARTICLE SIZE DISTRIBUTION
CR 8-14 COMPOSITE.

SCREEN SIZE (MICRONS)	% RETAINED		
+ 425 μ	26.4	}	DISCARD (32.1%)
- 425 + 300 μ	3.7		
- 300 + 250 μ	2.0		
- 250 + 212 μ	1.2	}	COARSE (12.6%)
- 212 + 150 μ	3.1		
- 150 + 106 μ	3.5		
- 106 + 75 μ	4.8		
- 75 + 45 μ	21.1	}	FINES (55.3%)
- 45 μ	34.2		

0022

136023

THE GWALIA GROUP



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Date: 6/17/89	Time: 10.30	No. of pages includ. cover sheet: 3
To: Mr Neil Thomas		
Company: Mineral Holdings Aust Facsimile: (03) 650 3855		
From: Tim Monks	Facsimile: (09) 481 1271	

Sieve Analysis & analytical results
from a grab sample of silica flour
Champion Road deposit & Tlc XRD

Regards Tim Monks

This sample was taken by Tim Monks (GVALIA)
as representative over the whole
face of

-2-

0023

136024

WET SIEVE ANALYSIS

- CHAMPIONS ROAD SILICA FLOUR. -

SAMPLE	SIEVE SIZE (µm)	% Wt
GM 001	+ 2000	0.7
	+ 1000	0.6
	+ 710	0.3
	+ 500	0.4
	+ 250	3.7
	+ 180	2.8
	+ 150	3.0
	+ 125	11.3
	+ 75	29.8
	+ 53	6.3
- 53	41.1	

100%

This sample was taken by tin rakes (Gwalia) as representative over the whole

Face A.

MINERAL HOLDINGS AUSTRALIA PTY. LTD.CHAMPIONS ROAD SILICA FLOUR

10.5.91

PARTICLE SIZE DISTRIBUTION

<u>U.S.A. Sieve</u>	<u>Aperture</u>	<u>% Mass Retained</u>		<u>No. of Analyses</u>
		<u>Individual</u>	<u>Cumulative</u>	
4	4.75 mm	21.88	21.88	13
8	2.36 mm	3.57	25.45	16
10	2.00 mm	2.60	27.05	E
16	1.18 mm	2.74	29.79	18
18	1.00 mm	1.20	30.99	E
20	850 μ	1.03	32.02	E
30	600 μ	1.24	33.26	19
40	425 μ	0.05	33.31	19
50	300 μ	2.96	36.27	21
60	250 μ	1.22	37.79	21
70	212 μ	1.38	39.17	E
100	150 μ	3.05	42.22	21
140	106 μ	5.10	47.32	21
200	75 μ	5.22	52.54	21
400	38 μ	16.98	69.52	17

Source of Data

Analabs

- August 1989,
October 1990
Feb/March 1991

Tas. Dept. of Mines

- February 1990

(E : extrapolated from adjacent values)

Comparative analyses of Sand Samples from Champion Road & Cann Creek in p.p.m.

Sample No.	Fe ₂ O ₃	TiO ₂	Al ₂ O ₃	CaO	MgO	P ₂ O ₅	Na ₂ O	K ₂ O	Mn	Cu	Cr	Ni	Loi
CR8a	37	70	250	682	583	-			0.2	0.5	0.2	0.2	
b	186	570	400	588	580	9	47	31	4	5	<5	5	0.69
d	128	1170	760	190	364	4	54	34	3	5	<5	5	0.35
CR9a	64	90	145	294	264				0.4	0.3	0.2	0.3	
CR11a	83	59	193	265	252				0.3	0.6	0.2	0.4	
b	172	200	320	210	250	4	34	22	4	5	<5	5	0.22
d	186	330	340	90	200	6	34	24	1	5	5	5	0.18
CR12a	48	45	60	359	276				0.2	0.5	0.2	0.2	
c	39	91	99	130	120				0.2	0.7	0.3	0.2	
CR13a	34	83	366	1415	1108				0.3	0.2	0.2	0.3	
b	143	400	660	1400	1080	9	54	46	10	5	<5	5	0.33
d	42	630	1510	230	680	2	121	20	1	5	<5	5	0.12
CR14a	19	45	285	797	660				0.1	0.3	0.2	0.2	
c	9	35	300	230	320				0.1	0.8	0.2	0.2	
* CC30b	1640	3340	8120	76	3320	20	94	2890	3	5	<5	5	0.48
d	5220	8670	27400	62	7620	60	430	11000	7	5	5	5	1.03
CC41b	172	430	560	200	250	25	26	66	3	5	<5	5	0.3
d	143	1500	1130	146	320	87	47	96	5	5	<5	5	0.11
CC50b	272	2000	620	210	300	9	54	64	3	5	<5	5	0.36
d	485	3340	940	84	250	18	88	76	17	<5	<5	5	0.25
M.K. Silica Specn	20	100	40	400	200		10		0.5	0.5	<0.1		<0.1

a: M.K. Silica -250+75µm (7)

b: Analabs

c: M.K. Silica -75µm (13)

d: Analabs

* probable contamination by schist bedrock