

**RETENTION LICENCE 2/1996  
CHAMPION ROAD**

**REPORT ON EXPLORATION  
MARCH 2010 to MARCH 2011**

**For  
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## **ABSTRACT**

RL 2/1996 was granted to Mineral Holdings Australia Pty Ltd on 28th March 1997 over an area of 2 sq km on the west side of the Arthur River approximately 6 Km south west of Meunna in North West Tasmania. The Licence is current to 28<sup>th</sup> March 2012 and is a flow on title from EL 28/1988. It covers exploration for Category 3 construction materials and Category 5 Industrial minerals and semi precious stones. The Licence covers Tertiary, fine grained, quartz sand and silica flour deposits overlying Precambrian schist bedrock. Previous exploration by MHA based on excavator pitting and bulk sampling has established a resource of 220,000 tonnes of silica sand for marketing for possible optical glass and fibre, fused silica and ferrosilicon production.

In 1999, a second bulk sample of 200 tonnes of silica flour was taken from the deposit by Index Minerals by arrangement with MHA for processing and testing in their Heybridge plant. For various reasons, this remains in stockpile and except for 20-40 tonnes, has not been processed.

Promotional work was carried out by Index Minerals with Champion Road silica sand as one component of a blend being offered to the South East Asian – USA n market but no contracts were realized.

In 2001, an option agreement was negotiated between MHA and Cominex Pty.Ltd., the operators of the Corinna silica flour deposits, for testing, marketing and development of the Champion Road deposits.

The planned bulk testing did not take place due to commercial reasons as Cominex failed to purchase or otherwise get access to the Heybridge plant for the purpose of processing Champion Road material. The Option is still in force and recent settlements promise to clear the impediments to testing.

Cominex and MHA continue to study the silica market with the possibility of blending the two products and so enhancing the yield from both deposits. The markets are changing for high quality silica with the emphasis moving from optical lenses and fibres to liquid crystal displays (LCD) in the computer industry and to solar panels.

There is increased interest in the availability of high quality silica sands and on that basis MHA has applied for an extension of the term of RL 2/1996 to allow further study and possible development. Information has been sent to and meetings arranged with Dow Corning Corporation, Haliburton and Cominex Pty Ltd.

## **1.0 INTRODUCTION**

RL 2/1996 was granted to Mineral Holdings Australia Pty Ltd on 28th March 1997 over an area of 2 sq km on the west side of the Arthur River approximately 6 Km south west of Meunna in North West Tasmania. The Licence was renewed in March 2000, March 2003, March 2006 and March 2009 for successive periods of 3 years to 28th March 2012. The Licence is a flow on title from EL 24/1988 and covers exploration for Category 3 construction materials and 5 Industrial minerals and semi precious stones. MHA is now applying for a further renewal of the Retention Licence.

The Licence covers Tertiary, fine grained, quartz sand and silica flour deposits overlying Precambrian schist bedrock. Previous exploration by MHA based on excavator pitting and bulk sampling has established a resource of 220,000 tonnes of silica sand for marketing for possible optical glass and fibre, fused silica and ferrosilicon production.

## **2.0 PREVIOUS EXPLORATION**

Duncan (2003) outlines previous exploration at Champion Road as follows—

“ An account of the discovery and evaluation of the silica deposits on Champion Road by MHA is contained in the series of annual reports by Threader (1989-1995). The deposits are believed to have been derived from replacements after carbonates in the Cann Creek area and transported southwards into their present position (Plan2).

Prior to 1988, in the decade of the 1970s exploration on EL 43/70 had located outcrops of silica sand along Champion Road south of the Cann Creek magnesite and silica prospect.

In 1988-89, nine excavator pits returned silica flour in seven and outlined two deposits – Northern and Southern – at 3.5 m and 6.5 m thickness and volumes of 42,000cu m and 52,000 cu m respectively, overlying Precambrian schists.

In 1989 – 90, reconnaissance sampling attempted to extend the prospectivity of the licence by outlining alluvial areas for further test pitting. Two possible sites for bulk sampling were selected. For marketing purposes, samples were dispatched to Australian and Overseas clients for testing. Accumulating data on sizing and chemistry suggested that Champion Road silica flour had a 50% better yield at the minus 75µm grain size than Corinna flour but was slightly less pure. The target material came into focus as fine silica sand or flour with greater than 50% of minus 75µm grain size for optical glass, optical fibre and fused silica.

Further test pitting was carried out in 1990-91 with excavation of seven additional pits spread over the two deposits to provide more fine sand samples for analyses and to access the recemented bottom sand to test that material as a furnace feed for ferrosilicon production at Temco. The fine grained samples were analysed by Analabs and M.K.Silica and it was confirmed that Champion Road material had slightly lower levels of contaminants than the sand from Cann Creek. The resiliified silica varied from lithified opaline silica to lumps of soft sandstone with the former performing well in decrepitation

tests at Temco but liable to be present in commercially insignificant amounts in the deposits.

A bulk sample of 150 tonnes of fine sand was excavated from the North Deposit by M.K.Silica in January 1991 and stockpiled at Heybridge, Burnie for processing for the overseas market but this was delayed until 1994 due to closure of the plant. Meanwhile, a grab sample across the cutting prior to bulk sampling by the Gwalia Group gave a significantly higher proportion of glass sand (-250 to +75 um ) than the material tested to that date.

Hand augering and test pitting was carried out in 1991-92 in the SW of the licence mainly with negative results although a small area of 10,000 cu m of sand per metre depth was indicated. A market study of silica sand from both Champion Road and Thomas Mountain was carried out by MHA and test reports accumulated from Comalco, Unimin (USA), Santos and Stim-Lab (USA).

In 1992-93, there was no field work but the previously taken bulk sample was processed in the plant at Heybridge, now taken over by Index Minerals. In 1993-94, power auger drilling in the SW confirmed the small deposit as a potentially viable resource.

In 1994-95, eleven excavator pits were dug in the SW deposit with five unbottomed in +6 m of silica flour giving at least 30,000 cu m or 50,000 tonnes (SG factor 1.69) as an indicated resource. The deposit may continue further to the south west.

In 1996, MHA successfully applied for Retention Licence 2/1996 which was granted on an insitu resource of 220,000 tonnes of silica sand (Plan 3).”

### **3.0 EXPLORATION ON RL 2/1996**

During the first term of the licence from 1977 to 2000, a bulk sample of 200 tonnes was taken from the same position in the North Deposit as the 1991 bulk sample. The sample was taken by Index Minerals at the end of 1999 at their cost under an arrangement with MHA using Hazell Bros as contractors. The sample was dug on the edge of the forestry road using an excavator, was loaded directly onto trucks and was transported to the Heybridge plant to stockpile. At completion, the pit was filled in and the land surface recontoured .

For various reasons, not the least due to the imminent sale of the plant, the sample was not tested except for about 20-40 tonnes which were processed with generally similar results to the previous bulk sample.

Promotional work continued by Index Minerals including Champion Road silica sand as one component of a blend being offered to the South East Asian / USA market but no contracts were realized.

In June 2001, Cominex Pty. Ltd, the operator of the Corinna silica flour deposits, entered into an option agreement with MHA on the Champion road deposits. The purpose was to allow Cominex to investigate their commercial potential by further bulk sampling and processing through the Heybridge plant which Cominex was negotiating to buy. The purchase did not eventuate and the plant became embroiled in litigation with the result that no further processing of champion Road material was achieved

#### **4.0 FUTURE PROGRAM**

The option with Cominex is still in force as indicated by the letter attached as Appendix 1 and Cominex have continued ,and will continue, with their market research into end use demand, customer specifications and pricing (Nolan, 2002).

MHA have continued their own marketing studies as part of full range of silica products at Thomas Mountain, Muenna, Cann Creek and Champion Road deposits. Industrial companies with suitable expertise have been approached for potential joint venture with down stream processing as part of any future development. During the past 12 months approaches have been made to Dow Corning Corporation, Haliburton and Cominex Pty Ltd. Information meetings and /or site visits have been held with Dow Corning, Doral, Metals Ex. and the Index Group.

#### **5.0 ENVIRONMENT**

All pits and drill sites have been backfilled immediately following logging and sampling. The surface was recontoured and slash and litter distributed around as appropriate.

#### **6.0 REFERENCES**

Duncan, D. McP. 2003. Retention Licence 2/1996 Champion Road, NW Tasmania. Report on exploration March 1997 to March 2003. Mineral Holdings Australia Pty.Ltd.

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Threader, V.M.1989. Annual Report (1988-89). EL 43.70 Cann Creek, EL 24/88 Champion Road. Mineral Holdings Australia Pty Ltd. TCR 89-3030

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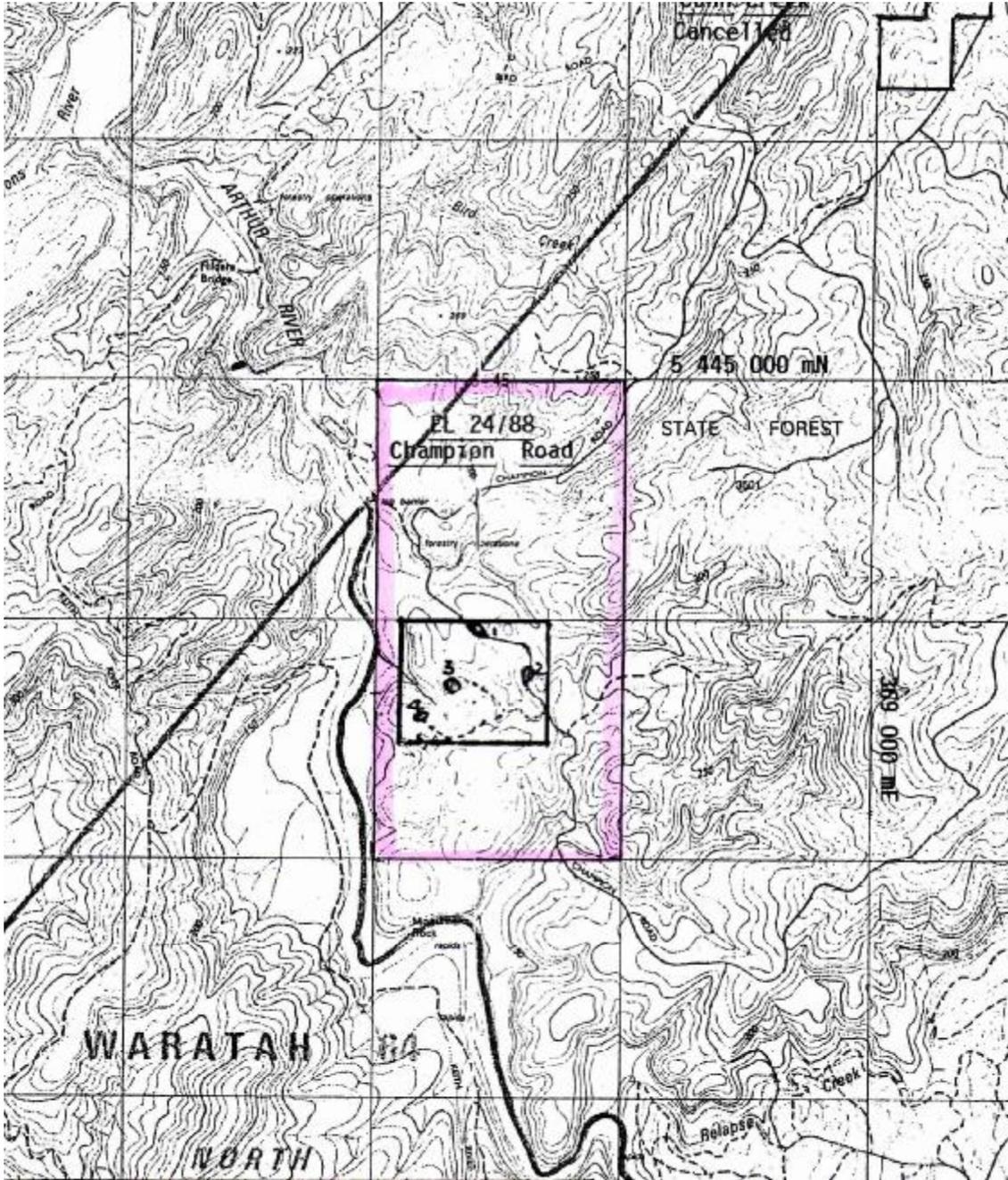
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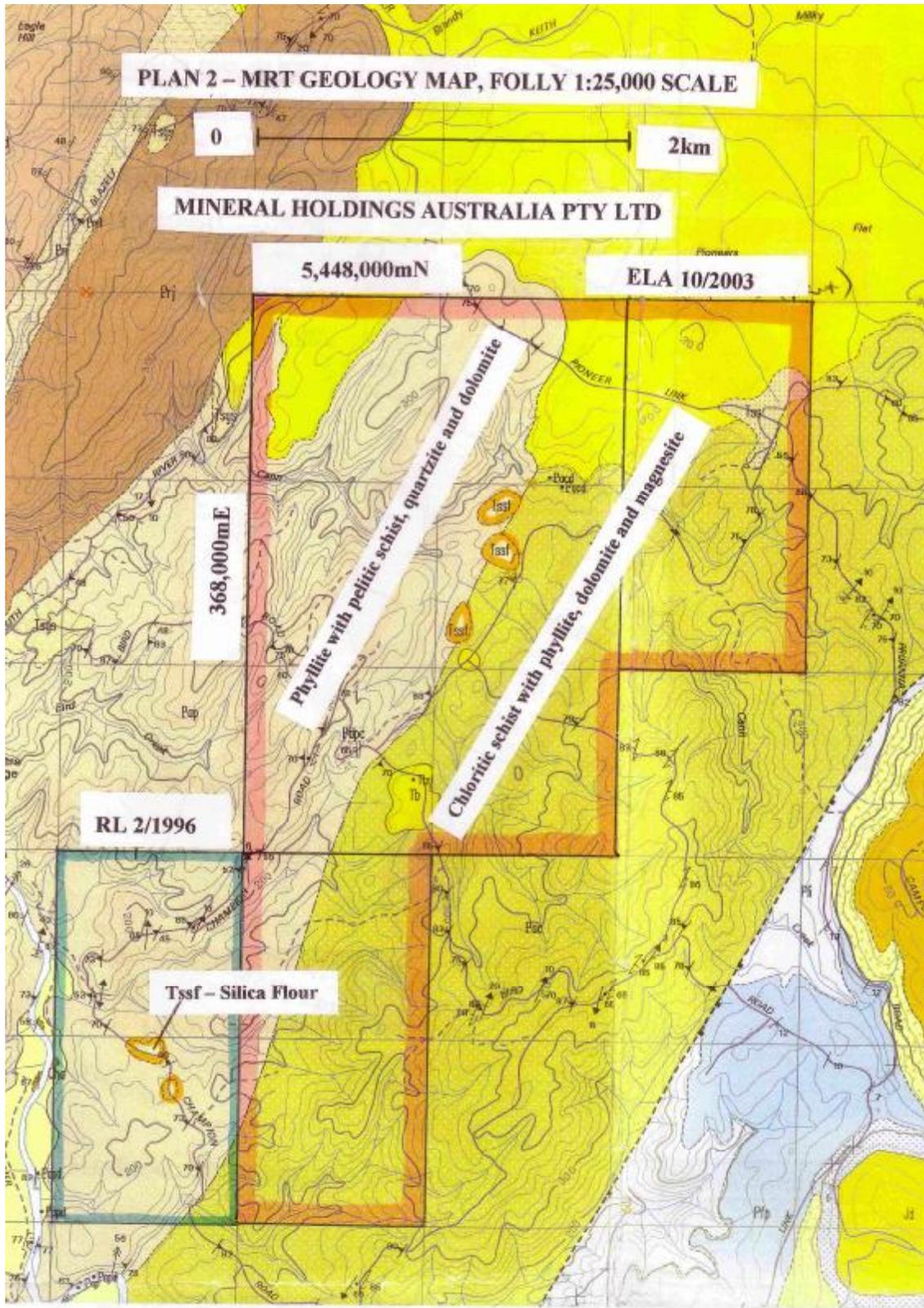
Threader, V.M.1995. Annual Report 1995. EL 24/88 Champion Road. Mineral Holdings Australia Pty Ltd. TCR 95-3799

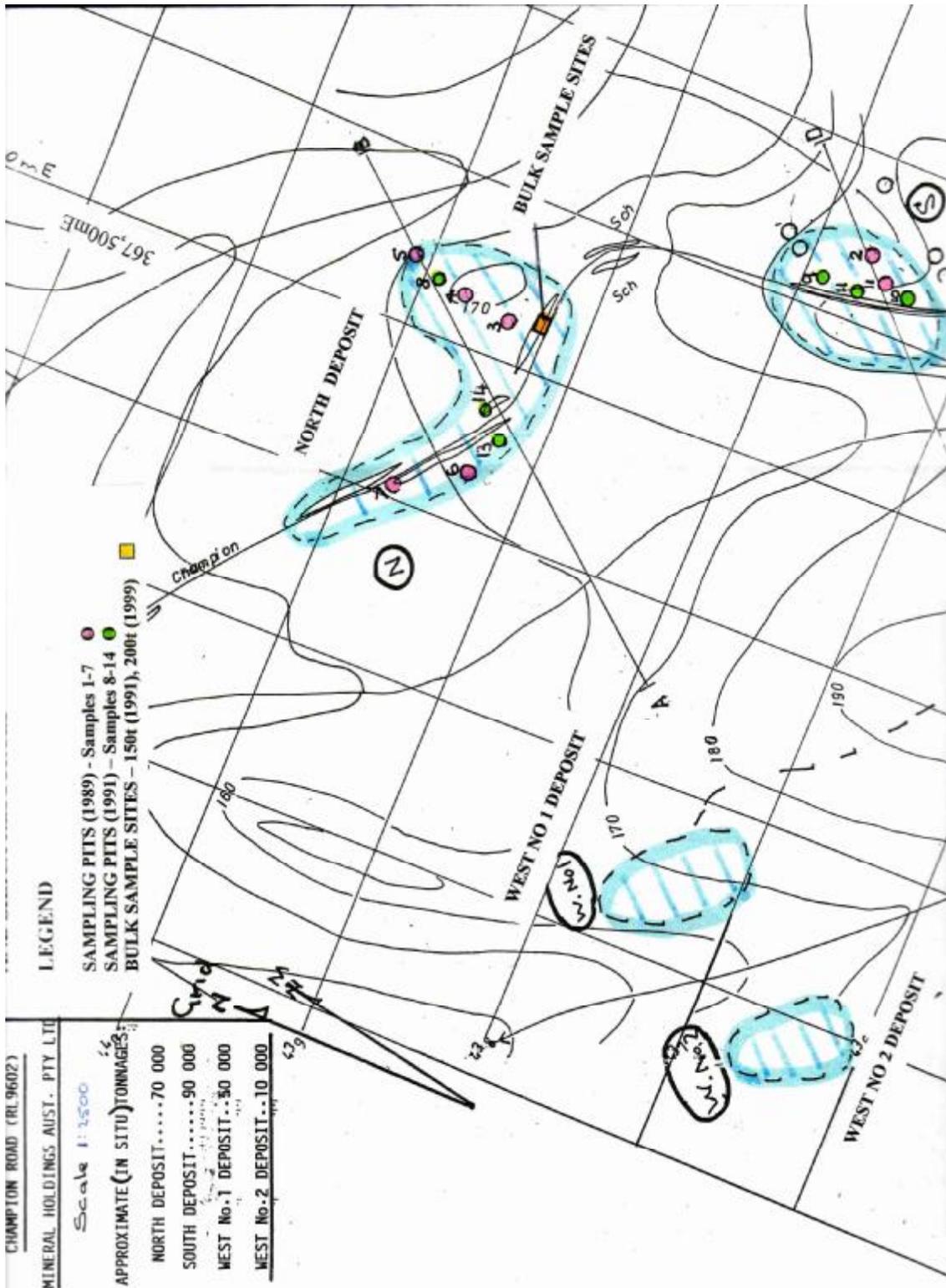
## **7.0 KEYWORDS**

Champion Road, Corinna, Silica Sand, Silica flour, lenses, Fibres, LCD.



**PLAN 1. Location Diagram RL 2/1996 Champion Road**





PLAN 3. RL 2/1996 Sample Sites and Silica Resources

# **APPENDIX 1**

**RL2/1996 Champion Road Letter from  
CominexPty Ltd.**

12:52 +61-3-0948-1400

**COMINEX** PTY LTD

ABN: 50 093 545 718  
PO Box 77 Sorell Australia 7172  
Ph 03 6265 8291, Fax 03 6265 8922

RECEIVED 30 JAN 2006

**CORINNA SILICA MINE**  
Ph/Fax 03 6446 1433

Mr Neil Thomas  
Mineral Holdings Australia Pty Ltd  
11 Kent Court  
Toorak Vic. 3142 via Fax: 9824 7617

30 January 2006

*A 1/2/06*

Dear Neil RL 2/1996 CHAMPION ROAD

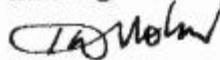
I apologize for not formally responding to your earlier correspondence however as explained in our telephone conversations, the situation has been quite fluid. Index, who process our silica, have given numerous undertakings to upgrade their plant to a standard capable of producing in specification "course" and "finer" products. Unfortunately this has not eventuated.

When Cominex took out the option on RL2/1996 it was anticipated that blending of the Cominex Corinna material with the M.H.A. Champion Rd. material would provide a suitable raw feed for processing into the "finer" product. Champion Rd. providing a greater percentage of fines and Corinna elevating the chemical purity. This opportunity evaporated when "finer" customers Corning Japan and Samsung Corning Korea abandoned Index.

Cominex decided to maintain the option agreement with Mineral Holdings Australia when Sumitomo Australia Limited announced their intention to construct a new processing facility at Wynyard in Tasmania.

A new processing plant, capable of meeting customer expectations of quality and quantity will have an excellent chance of recovering the lost Corning business. Should this be the case, the potential for blending Champion Rd. and the Corinna material would be reinstated.

Kind regards



Hugh Nolan

Copy: Mr D Burgess Registrar of Mines M.R.T.

# **APPENDIX 2**

## **ASSAY RESULTS SAMPLING BY INDEX GROUP**



**MINERAL PROCESSORS**

**Index Group of Companies Pty Ltd A.B.N. 87 719 417 630  
T/as Index Mineral Processors**

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Internet Site:  
<http://www.indexgroup.com.au>



Quality Endorsed Company  
ISO 9001  
Lic QEC 22638  
SAI Global

**Certificate of Analysis:**

**Champion's Road Samples by Cut Multi - Acid**

**Received: 2008**

**Assayed: 28<sup>th</sup>. May 2008**

**Product Name:** Exploration Silica Sand

Sample ID	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Mn	Cu	Cr 267	Ni	Na <sub>2</sub> O
C.Rd - Sample - 1	99.9%	66	71	352	465	407	0.7	3.2	0.3	0.09	41
"	"	"	"	"	"	"	"	"	"	"	"
C.Rd - East at Cutting	"	17	96	156	340	312	0.2	1.4	0.2	0.03	29
"	"	"	"	"	"	"	"	"	"	"	"
C.Rd - 30m off Cutting	"	86	114	331	551	465	1.2	1.7	0.3	0.10	39
"	"	"	"	"	"	"	"	"	"	"	"
C.Rd - East POD	"	14	78	259	88	134	0.1	1.9	0.3	0.08	35
"	"	"	"	"	"	"	"	"	"	"	"
C.Rd - East at Road	"	17	78	138	349	320	0.2	1.1	0.2	0.03	27
"	"	"	"	"	"	"	"	"	"	"	"
Cann Creek	"	36	714	327	249	227	0.5	1.8	1.3	0.12	36
"	"	"	"	"	"	"	"	"	"	"	"

**Applications:** Feed to plant at Heybridge.

Roy Gilbert,  
Plant Chemist  
Index Mineral Processors  
Tasmanian Plant

**Works Office:** Minna Road  
Heybridge, Burnie  
TASMANIA 7320  
**Phone Number:** 61 (03) 6431 3066  
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**Certificate of Analysis:**

**FACSIMILE**

**Champion's Road Samples by Fusion**

**Received:** 2008

**Assayed:** 28<sup>th</sup>. May 2008

**Product Name:** Mine Silica Sand

Sample ID	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	Mn	Cu	Cr 267	Ni	
C.Rd – Sample - 1	99.9%	53	102	464	319	353	0.6	0.6	0.7	0.12	
"	"										
C.Rd – East at Cutting	"	31	259	404	233	285	0.3	0.8	1.2	0.09	
"	"										
C.Rd – 30m off Cutting	"	56	171	458	308	336	0.7	0.4	1.0	0.17	
"	"										
C.Rd – East POD	"	16	102	309	49	125	0.2	0.6	0.6	0.08	
"	"										
C.Rd – East at Road	"	29	265	427	228	280	0.3	0.5	0.8	0.07	
"	"										
Cann Creek	"	63	1491	582	152	242	0.6	0.7	3.4	0.08	
"	"										

**Applications:** Feed to plant at Heybridge.

Roy Gilbert,  
Plant Chemist  
Index Mineral Processors  
Tasmanian Plant

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