

**RETENTION LICENCE 2/1996
CHAMPION ROAD**

**REPORT ON EXPLORATION
MARCH 2011 to MARCH 2013**

**For
Mineral Holdings Australia Pty Ltd
11 Kent Court
Toorak
Melbourne VIC 3142**

**Compiled by
T W Dickson
5 Crouch Court
Doncaster VIC 3108**

TABLE OF CONTENTS

	Page No
ABSTRACT	3
1.0 INTRODUCTION	4
2.0 PREVIOUS EXPLORATION	4
3.0 EXPLORATION ON RL2/1996	5
4.0 FUTURE PROGRAM	6
5.0 ENVIRONMENT	6
6.0 REFERENCES	6
7.0 KEYWORDS	7
Plan 1 - Location diagram RL 2/1996	8
Plan 2 MRT Geology Champion Road	9
Plan 3 RL2/1996 Sample sites and Silica Resources	10

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 28th 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.

There is increased interest in the availability of high quality silica sands. Samsung and Sibelco have taken several 5 Kg samples for testing and evaluation. Their results are pending.

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, March 2009 and March 2012 for successive periods of 3 years to 28th March 2015. 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.

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.

1.0 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 75um 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 75um 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 Samsung, Sibelco, Australian Resources and an Indian sand mining/processing company, Mangalore Minerals Private Ltd. Sibelco have visited the site, and both Samsung and Sibelco have obtained a number of 5kg samples for testing in their laboratories. Full details of their results are awaited.

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.

Nolan, H.D., Annual Report 2002, RL2/1996 Champion Road, Cominex Pty Ltd. TCR 02_ 4662.

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

Threader, V.M.1990. Annual Report (1989-90). EL 24/88 Champion Road. Mineral Holdings Australia Pty Ltd. TCR 90-3194.

Threader, V.M.1991. Annual Report (1990-91). EL 24/88 Champion Road. Mineral Holdings Australia Pty Ltd. TCR 91-3303

Threader, V.M.1992. Annual Report (1991-92). EL 24/88 (Champion Road) Mineral Holdings Australia Pty Ltd. TCR 95-3687

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

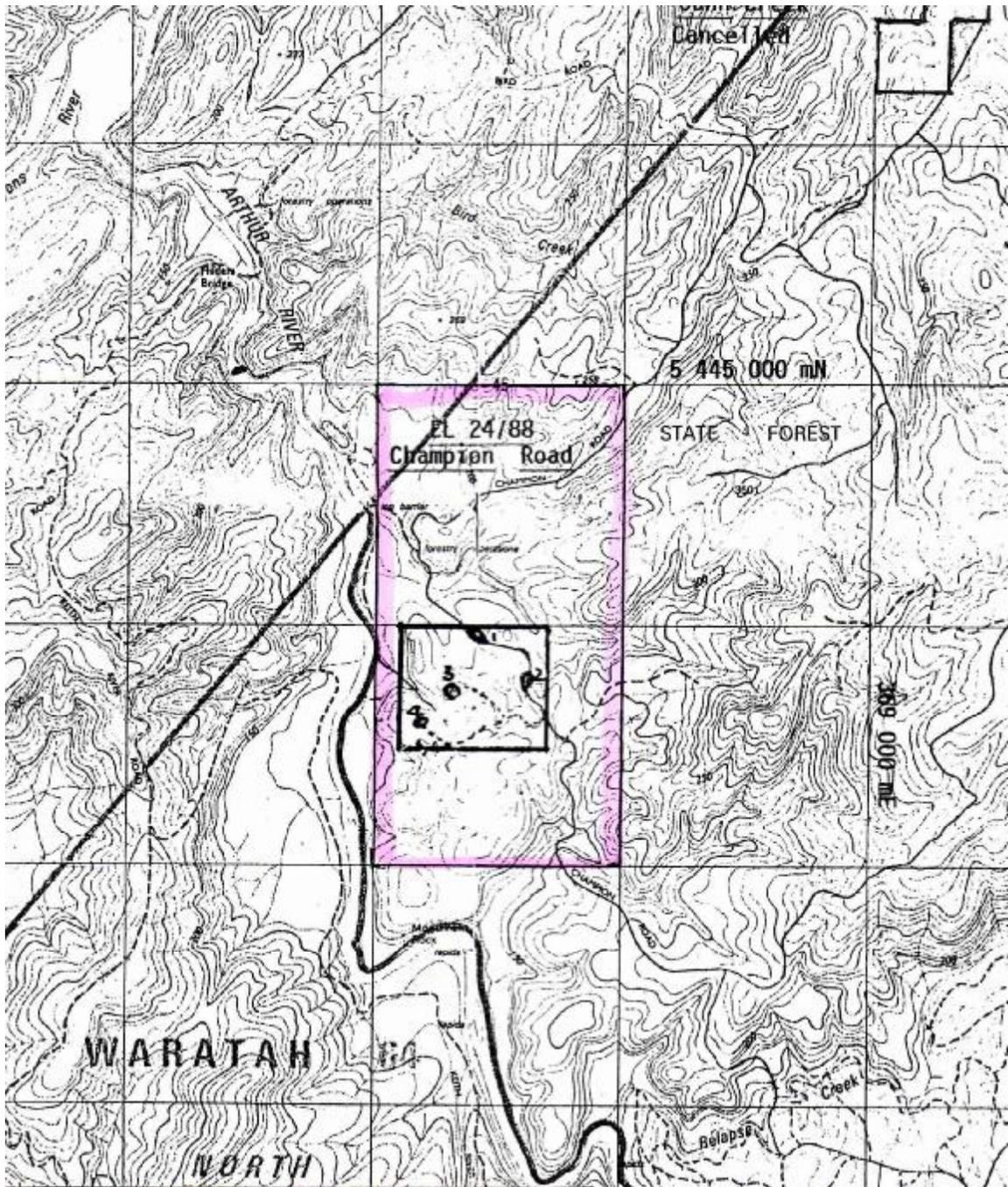
T. W. Dickson 2009 Retention Licence 2/1996 Report on exploration March 2008 to March 2009 for Mineral holdings Australia Pty. Ltd.

T. W. Dickson 2010 Retention Licence 2/1996 Report on exploration March 2009 to March 2010 for Mineral holdings Australia Pty. Ltd.

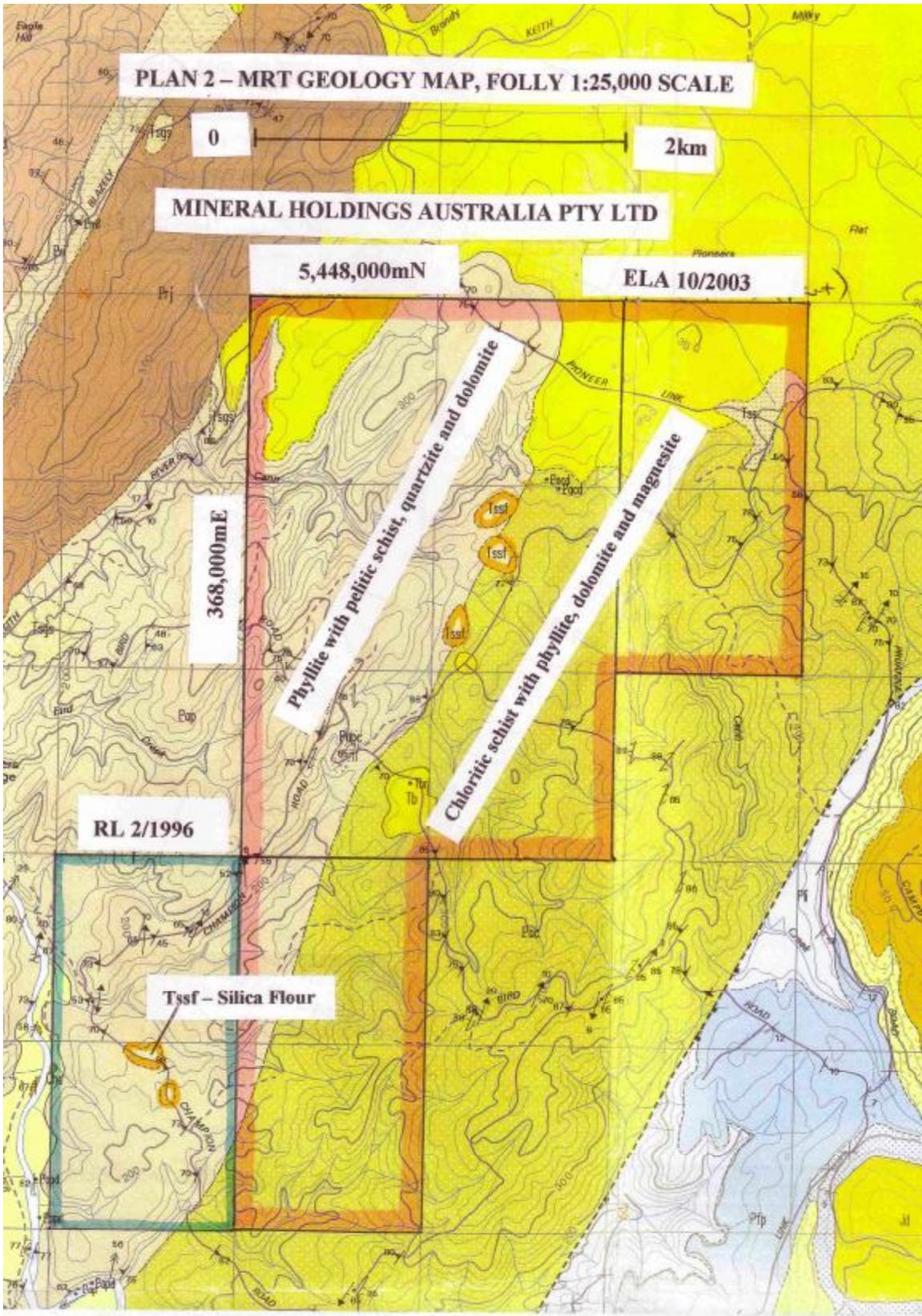
T. W. Dickson 2011 Retention Licence 2/1996 Report on exploration March 2010 to March 2011 for Mineral holdings Australia Pty. Ltd.

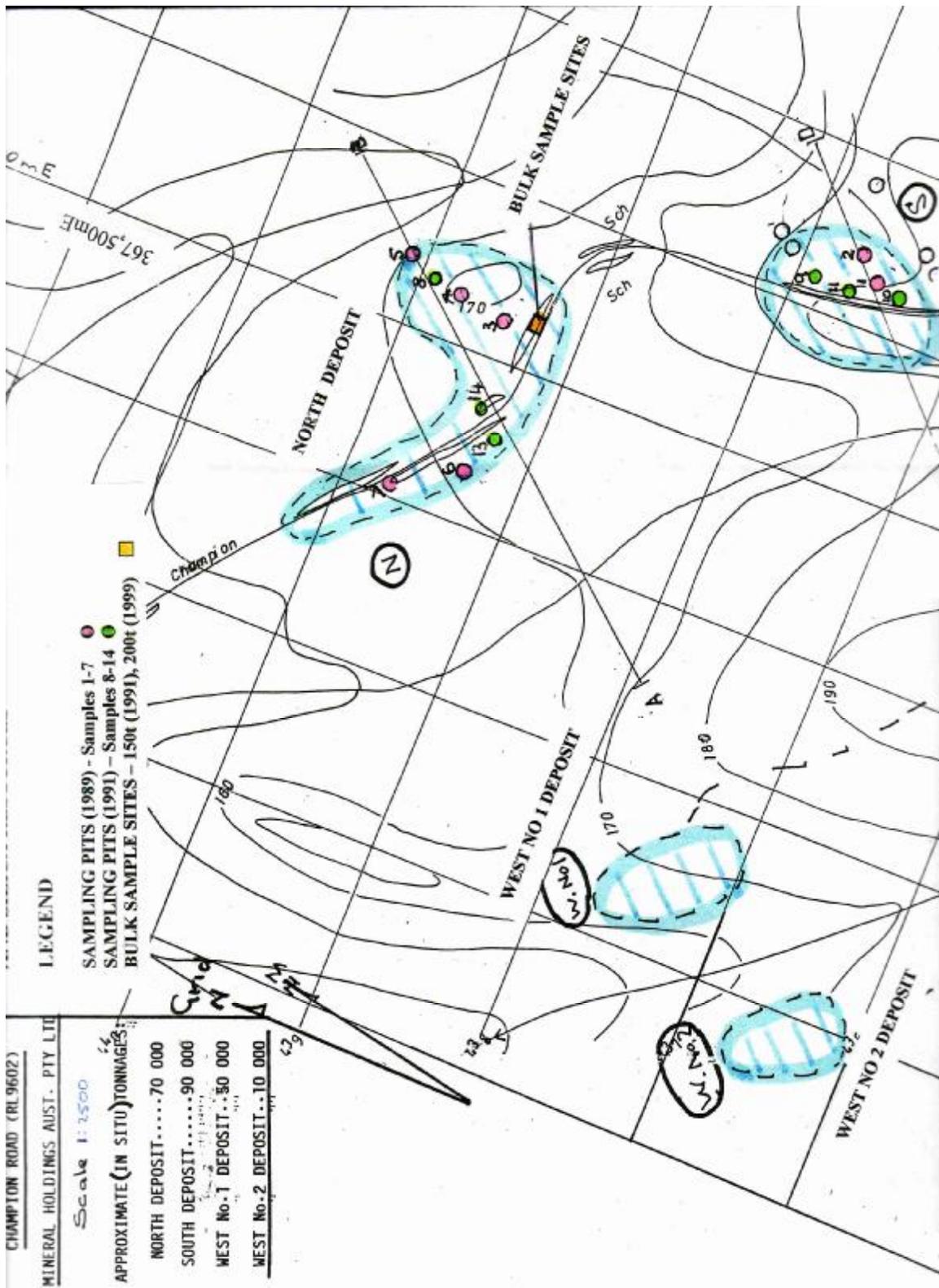
7.0 KEYWORDS

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