MINERAL HOLDINGS AUSTRALIA PTY LTD

EXPLORATION LICENCE 38/2002
DIP RANGE, NW TASMANIA

ANNUAL REPORT ON EXPLORATION
TO MARCH 2004

Compiled by

D McP Duncan
McPherson Duncan & Associates
18, Old Summerleas Rd
Kingston Tas 7050

For

Mineral Holdings Australia Pty Ltd
11, Kent Court,
Toorak Vic 3124
28TH March 2004

TABLE OF CONTENTS

EL 38/2002- DIP RANGE, NW TASMANIA- ANNUAL REPORT 2004

ABSTRACT

This report describes the work carried out by Mineral Holdings Australia Pty Ltd in Year One of the licence covering 78 sq km of the Dip Ranges, due west of Wynyard in NW Tasmania. The licence surrounds the CML 8M/1989 Thomas Mountain of 161 ha held by the same company.

The licence covers the Detention Quartzite of the Rocky Cape Group and the targets of exploration include silicon, silica sand and quartzite for the chemical, metallurgical, glass and petroleum exploration industries.

Previous exploration by Mineral Holdings Australia Pty Ltd and its Joint Venture partners, as reviewed in this report, has outlined a substantial inventory of potential silica products enclosed in the CML and this licence namely 0.35Mt of very hard, silicified sandstone, 1.55Mt of hard sandstone, 0.65Mt of poorly consolidated, soft sandstone and 2.45Mt of very soft sand. Some infill drilling would be required to raise this resource estimate to the Indicated Level (JORC Code).

Future exploration of these and other areas in EL 38/2002 such as Hebe River could add substantially to these resources. This licence is one of a number of tenements held by MHA for silica resources in NW Tasmania, the others being EL 10/2003 Cann Creek, RL 2/1996 Champion Road and RL 1/2001 Meunna.

EL 38/2002- DIP RANGE, NW TASMANIA- ANNUAL REPORT 2004

1.0 INTRODUCTION

EL 38/2002 was applied for by Mineral Holdings Australia Pty Ltd (MHA) on 2nd October 2002 and granted on 17th April 2003 for Category 3 and 5 Minerals. This is the annual report for Year One of the Exploration Licence.

The licence covers 78 sq km in the Dip Range area some 20km due west of Wynyard, North West Tasmania. It surrounds CML 8M/1989 Thomas Mountain and is one of a group of several tenements held by MHA in the area for silica products specifically RL 1/2001 Meunna, RL 2/1996 Champion Road and EL 10/2003 Cann Creek (Fig 1).

Potential exists to prove up several million tonnes of high-grade quartzite and sand at Thomas Mt and Hebe River in the Dip Ranges and the Meunna Hills. Thomas Mt is already held by MHA as CML 8M/1989 and the Meunna Hills as RL 1/2001.

EL 38/2002 covers the Detention Sub Group Quartzite which is highly prospective for additional sand and quartzite resources between Thomas Mt in the north and the Meunna Hills in the south of the tenement. While MHA has conducted exploration in the region for many years, the decision has been taken to re-evaluate this area in light of modern specifications for silica products and with the incentive provided by the new energy resources (gas and enhanced electricity output) potentially available at the Port Latta Industrial Site.

2.0 PREVIOUS EXPLORATION

Within the Proterozoic rocks of northern Tasmania, resources of high-grade quartzite had been reported in various government publications. The area is now covered by Mineral Resources Tasmania's Geological Atlas Sheets of Table Cape and Burnie at 1:63,360 scale and Smithton and Trowutta at 1:50,000 scale.

Gee (1971) described the Proterozoic sequence within the Rocky Cape Group from youngest to oldest as- the Jacob Quartzite (1130m thick) separated by the Irby Siltstone (760m) from the Detention Sub-group (1400m) with the underlying Cowrie Siltstone (2400m+). From his work on the coastal outcrops, Gee (1971) was able to deduce that the Detention Subgroup contained about 10% siltstone with the Port Slate as the thickest bed but that siltstone lenses from a few metres to 80m thick occur regularly. Within the Agreement area, the Detention Subgroup covers the largest area and forms the most prominent outcrops.

From a structural viewpoint, the Detention Quartzite is disposed in a series of tight, anticlines and synclines with NE trending and dipping axes with the folds becoming overturned in the east giving mostly NW dipping bedding at moderate values of 45 degrees or above.

Gee (1971) described the quartzites in the Detention Sub-group as uniformly fine-grained orthoquartzites with 99% quartz grains and a granular to glassy texture depending on the degree of cementation by silica. Turner (1989) prefers to call the mature, quartzose, sandy sediments throughout the Rocky Cape Group as quartz

arenites and attributes their variable physical character as mostly due to variable silicification and occasionally metamorphism.

As part of the initial investigations by MHA in EL 43/1970, a number of quartzite prospects had been identified based on the Detention Sub-group and the Jacob Quartzite of the Rocky Cape Group. These occupy the prominent NE trending Dip Ranges including the individual high points of Detention Peak (554m), Mt Dipwood (519m) and Quartzite Peak and the parallel, and lower, Meunna Hills (Jacob Quartzite).

Much of the terrain consists of rounded, steep sided hills with gullies and gorges showing quartzite cliffs. During the reconnaissance, investigations were limited to those areas with existing vehicle tracks or those with open button grass and thin scrub cover.

The area had been held by MHA from the 1960s and surface sampling had led to a JV with BHP to investigate the Maynes Creek prospect now known to be in the Jacob Quartzite. Percussion drilling and a bulk sample followed from the SW end but grain size and chemistry failed to meet the specifications required by BHP and they declined further involvement.

Under an agreement between Mineral Holdings Australia Pty Ltd and Kaiser Aluminium and Chemical Corp (Aust.) Pty Ltd covering part of **EL 43/1970**, work was carried out in 1981 by Longworth & McKenzie Pty Ltd in the Dip Ranges near Wynyard in northwestern Tasmania (TCR 81-1553). The target was a large (+2Mt) deposit of high-grade quartzite suitable for ferrosilicon production.

A preliminary visit by the operators identified the Dip Range No 1 area just west of Quartzite Peak as the prime prospect being a NE strike controlled ridge some 1.5km long with outcrops of hard white silicified quartzite dipping to the NW occurring in dissected valleys at either end of the prospect and intermittently along the crest.

Following the construction of an access track from Newhaven Road, field work was carried out in the period 11th March to 5th April, 1981 during which the area was subject to 5 costeans and 27 percussion drill holes. Surface samples were obtained from other sites by blister blasting and numerous quarry and other sites were inspected.

At No1 South near Hogarth Creek, two costeans were cut with three others along the ridge to No1 North. Drilling and blasting was carried out at sites 4 & 5 at the later locality for deeper samples. Samples were taken at all sites with bulk samples at 4 & 5. Percussion holes were also drilled at each site for the collection of deeper samples.

Samples were also blasted from three locations on Quartzite Peak, one on Dip Range No1 North and one on Mount Sunshine.

Quartzite Peak is some 100m above the highest point on Dip Range No 1 and is exposed from the Bass Highway. Because of its visibility, no costeaning was carried out. With a length of about 1km, it is the longest, most continuous outcrop in the area.

Further exploration by Longworth and McKenzie Pty Ltd was carried out between 8th April and 8th June 1981 to define physical and chemical variations with depth in the quartzites and to estimate a realistic resource base. This included a short, and eventually ineffective, program of hammer seismograph traverses.

To gauge the purity of the quartzite at depth and to help in the estimation of resources, four diamond drill holes were completed later in 1981 for a total of 126m with the deepest being about 36m (TCR 81-1573). One hole was in No1 North (36.12m) and a second near the top of Quartzite Peak (17.7m) while a third (36.12m) and fourth (36.01m) was aimed at the Shakespeare Quartzite bed or the overlying bed (Fig 3).

Chemical analyses of the surface, costean and bulk samples from the various areas showed the rocks to be of high quality (Table 1) with SiO2 being 98% + and Al2O3 being mostly less than 1% and sometimes less that 0.1%. However, deeper material from the one percussion hole (No 22, all others were judged contaminated) and from the two diamond holes analysed (Nos 1 and 3) showed a higher aluminium content (+ 2-3%) and a lower silica content with depth (Tables 3 & 4; Plans 4, 5 & 6).

The pure surface samples correspond with the leached, white, variably silicified zone of the weathering profile which normally reaches from 6 to 10m below the surface but may get deeper in places to 15m. Within the leached zone, the less competent, more permeable members have a marginally higher silica purity. Quartzite below the leached zone decreases in purity with depth and there is an increase in bedding plane mica and the number of thin micaceous beds.

Bulk samples (taken from No 4 costean) showed extreme physical variation with two of five samples breaking up during transportation. Of the remainder, two passed the abrasion testing and one failed and that sample also failed the decrepitation test (Table 2). From the limited number of physical test results so far, it is estimated that 30-50% of material may fail the Temco specifications (Plan 7, section of No 4 costean).

It was concluded that these units did not contain a large enough mineable tonnage of quartzite (2Mt) of the required chemical or physical purity.

Dip Range No 2 Prospect is located on the crest of the range some 3km SW of Quartzite Peak. Quartzite outcrops are discontinuous along the crest for up to 600m. Highly silicified rock with no sedimentary structures grades into sandstone with well defined bedding. This prospect is similar to the quartzite outcrops along the ridge at Dip Range No1 where depths of up to 15m of soft sandstone are adjacent to solid quartzite outcrops. Because of the access and lack of potential, no subsurface samples were collected.

Other prospects looked at in the reconnaissance phase were Maynes Creek, Pokes Road Quarry, Mt Sunshine, Misery Mountain and the Nye Silica Deposit.

The Maynes Creek Prospect is part of the Jacob Quartzite which has a width of up to 400m with a near vertical easterly dip and extends for about 5km in a NE direction from a bluff on Maynes Creek. The quartzite varies from a silicified fine grained massive quartz sandstone at the bluff, to a poorly cemented fine to medium grained sandstone with interbedded siltstone in the towards the centre of the prospect.

Reports of the percussion drilling and blasting by BHP at the Maynes Creek end indicated softening of the quartzite with depth. Physical testing by BHP was reported by Kaiser as proving that the material failed the specification on abrasion resistance. Quality of silica in the two percussion holes was good to 15m depth with SiO2 being better than 98.5%, Al2O3 better than 0.10% and Fe2O3 better than 0.45% (Bacon 1989, Longworth and McKenzie, 1987). On the basis of the physical properties, it was decided not to pursue this prospect. The Maynes Creek area is not within the present boundaries of EL32/2002.

Also on the Jacob Quartzite, the Pokes Road Prospect is in the Meunna Hills where two road metal quarries have been developed. The quarries are based on a well-silicified, thinly bedded, quartzite some 15m thick and dipping 30 to 55 degrees to the NW. The prospect was discounted as most exposures were of soft sandstone with only restricted silicification.

However, immediately to the NE of the quarries, and as a result of later exploration, the Jacobs Quartzite and derived sands and gravels are now held under RL 1/2001 by Mineral Holdings Australia Pty Ltd.

In the Milabeena area, two separate prospects in the Detention Sub-group are Mt Sunshine and Mt Misery. At Mt Sunshine, the quartzite consists of hard, massive silicified sandstone with minor, less silicified bands, dipping steeply to the SE. Due to its exposed nature and visibility, the prospect was not tested other than the blasting of a surface sample.

The Mt Misery prospect, on the other side of an anticline from the previous prospect, is formed by a large, silicified outcrop of sandstone dipping to the NW and enclosed in schistose quartzite. Once again, for environmental and visibility reasons and access problems being close to Detention River Falls Reserve, the prospect was not evaluated.

The Nye Silica Deposit is located well to the south of the present EL 32/2002 as well as the Agreement area part of the previous EL 43/70. It occurs at 369,400mE; 5,446,500mN on a small hill on the western side of Pruana Road. The deposit has been quarried for forestry road material and the faces expose some 6m depth by 60m length of silica flour, with angular quartzite fragments, ranging to quartzite bedrock. The origin is obscure but it may be a Tertiary fluvial or lacustrine deposit which has been partially silicified. It is now contained in **EL 10/2003** of Mineral Holdings.

In summary, the results of exploration showed that the quartzite within both target formations (Detention and Jacob) was more limited than first thought and that much of these units were poorly cemented sandstones with irregular silicification.

The results of physical and chemical testing of the near surface siliceous sediments indicate a weathering profile up to 15m thick derived from deeper quartzite units. While the quality of the silica in the upper zone is good, at least 50% would be physically unsuitable for the production of ferrosilicon based on Temco standards.

Below this zone, the quartzite is an extremely strong, light brown to blue grey, glassy rock, frequently thinly bedded and showing a trend of a decreasing silica content with depth so that only a small percentage would have less than 1% Al2O3.

On that basis, no further work was recommended in the EL and Kaiser withdrew from the Joint Venture.

Mineral Holdings continued its exploration in the area by securing the main ridge prospect Dip Range No1 with a mining lease **ML 8M/89** of 161ha and taking out **EL 25/1988** of 7 sq km surrounding the lease on 28th October 1988. Most of the previous exploration had been concentrated on the hard quartzite resources stretching from the cliffs of Hogarth Creek to ridge outcrops some 1300m to the NE. The exploration focus now included both lump quartzite and silica sand derived from the weathering and leaching of the bedrock to provide material for silicon metal, ferrosilicon and glass manufacture (Threader, 1989). Colluvial mantles of sand were to be expected on the slopes of the quartzite ridges.

In June 1987, three percussion holes were drilled along No 2 traverse just north of Hogarth Creek by Monier Ltd with depths recorded in silica sand of up to 12m. Samples were tested by that company and stated to be suitable as an export quality glass sand. An access road was constructed by MHA into the cliffs in Hogarth Gully which were thought to contain 0.5Mt of quartzite and a bulk sample was extracted for testing by Temco and Pioneer. Some testing of sand resources by excavator pitting in the NE portion of the licence and along the ridges of the lease bottomed on bedrock at 1-2m with negative results.

The excavator program continued the following year (Threader, 1990) with 16 pits dug on the ridge slopes south of Hogarth Creek mainly within the licence but also marginally on the lease. Up to 1.45m of sand was discovered in seven of the holes on the SE side of the quartzite ridges. Sizing analysis determined that compared with a fine sand specification provided by Monier, the Dip Range sand is slightly deficient in the medium to fine sand range (425-212um) and slightly excessive in the very fine sand range (-150um). The chemistry of the sand was of high purity giving SiO2 over 99.10% and both Al2O3 and Fe2O3 less than 0.05%. Testing by the Department of Mines laboratory determined that there was negligible –10um fraction of silica sand present at Dip Range (or Champion Road).

In 1991, despite the fact that quartzite from the Dip Range lease had been successful in trial runs at the Pioneer Silicon Plant at Electrona and the Temco Ferrosilicon Plant at Bell Bay, the closure of the silicon plant and the failure to secure sales with Temco had a discouraging effect on exploration in the area.

However, exploration was continued on the ridges striking SW in the licence, southwest of the un-named tributary of Hogarths Creek (Threader, 1991). Fifty hand auger holes were developed along the ridge crests and slopes. Most holes contained only shallow sand and bottomed on quartzite/sandstone. Two holes recorded 1.2m of soft sandstone while one drilled 2.4m of sand at the bottom of the slope but this was not repeated in the other holes in the area.

Much effort was put into testing the sand as a propping agent in oil drilling. Dip Range sand was tested by Stim Laboratories, Halliburton Services and Dowell Schlumberger all of the USA and Santos and Amdel in Australia. Tests were carried out on the 20/40 size range (US screen classification) which is the –850 to +420 um fraction. Dip Range sand is a fine/medium grained sand with a median value of about 250um and only about 25% is in the 20/40 size fraction. However, frac sand has a high unit value of some US$ 225-270/2000lb and so it may still be economic to pursue this usage.

As summarized by Stim, the Dip Range sample passed the sieve analysis, the acid solubility test, and the turbidity test but failed the shape factor, sand grain clusters and crush resistance tests. From the Amdel tests, it is found that the sand grains have a dramatic decrease in crush resistance at about 4000psi which would, according to Halliburton, restrict the use of this sand to shallow wells less than 1200m.

In the following year, MHA carried out an auger drilling and field screening program of sand just north of the sand mine on Site No 2 near Hogarths Creek in the CML (Threader, 1992). The program covered about 3,000 sq km and the mean depth of holes was 900mm. The results from holes 10-27 showed that about 2/3 of the area contained > 40% of the significant 20/40 size category compared with the mean result (25%) from previous laboratory based sizing analyses.

The results of a Temco diamond hole drilled for 102m depth from the quartzite quarry on the SE bank of Hogarth Creek are given in the report. The geological log of the hole and the chemical analyses every 1m are contained in the report also with a sketch map and section of the drill locality dated September 1990.

A 17m true width of mainly hard quartzite was selected by Temco as a possible mining target from 52 to 69m with an average grade of 98.9% SiO2 and 0.37% Al2O3. Even to the end of the hole at 102m, the silica grade was above 98.0% SiO2 and mostly less than 1.0% Al2O3. The sediments varied from hard quartzite to soft sandstone with even uncemented sand being found in short intervals throughout the hole. Quartzite from the near the collar position was trialled successfully in a furnace by Temco. The average grade of this 4,000t bulk sample was 98.7% SiO2 and 0.2% Al2O3.

A market survey for silica sand and flour is contained in the Appendix with numerous specifications for the various usages such as sodium silicate, fused silica, foundry sand, ceramics, refractories, plastics, adhesives and grouts as well as the glass sand and metallurgical quartzite uses already considered. The challenge is to secure sales contracts for material with a low unit price in a highly competitive market.

In October 1993, the EL was reduced to 2 sq km on the SW corner of the consolidated lease. In the following year, an extensive percussion drill hole program with surface sampling also was carried out on the exploration licence and the mining lease. Forty-two hammer drill holes were completed, 362m on the licence and 304m on the lease and 22 surface samples were taken, 8 in the licence and 14 in the lease (Threader, 1994).

The drill holes were developed along 8 sections and the drill samples were described by colour and hardness in the field and on that basis the material has been divided into- 0.35Mt of very hard, silicified sandstone, 1.55Mt of hard sandstone, 0.65Mt of poorly consolidated, soft sandstone and 2.45Mt of very soft sand. Some infill drilling would be required to raise this resource estimate to the Indicated Level (JORC Code).

The sand units could have a stratigraphic thickness of 60m and could extend to more than 50m vertical depth. More structural and drilling data are required to confirm this but if so a significant increase in the resource could be anticipated.

Sixteen of the forty-two holes have been excluded from the resource estimate because due to poor colour or high alumina content (> 1%). Chemical purity varies throughout the drilling but there is a tendency for the sand/soft sandstone to be purer (SiO_2 > 99.0% and Al_2O_3 < 0.2%) than the hard quartzite.

The surface sand samples (100-121) were mostly collected along traverses 3, 7 and Hogarth Creek and also had a high purity (SiO_2 98.9% and Al_2O_3 < 0.8%).

Some additional testing by screening was carried out on the drill and surface sand samples to determine the distribution of contaminants in the different size fractions but no consistent pattern was apparent.

Sand (5kg) from the Thomas Mountain sand pit was subject to beneficiation tests by Ammtec Ltd at the request of Gwalia Consolidated Ltd to try and lower the contaminants. Using flotation and sizing methods, there was no marked separation or impact on the head grade for Fe_2O_3, Al_2O_3 and TiO_2 (AMMTEC LTD, 1994).

EL 25/1988 was finally dropped in 1996 with most of the resources being held under CML 8M/89 (Threader, 1996).

The southern part of the Dip Range was covered by **EL 20/1993** (Hebe River) of 8 sq km issued to MHA in 20th May 1994 and the Meunna Hills by **EL 11/92** of 49 sq km issued on 25th September 1992.

The Meunna Hills EL has now expired but the quartzite and sand resources based on the Jacob Quartzite and discovered by MHA in the area are now held by that company under **RL 1/2001**. They have been described elsewhere and, as they are not encompassed by EL 32/2002, they will not be included in this report.

The incentive to explore in EL 20/1993 was a report by The Geological Survey (D. Seymour) that the Detention Quartzite was exposed in a steep gorge of the Hebe River (MR 372,000mE; 5,455,000mN). The aim of exploration continued to be sand and quartzite for the chemical and metallurgical industries. The main contaminants to be considered are aluminium, iron and titanium and the important physical properties are hardness in quartzite and grain size distribution in sand.

Chemical analysis was carried out on a discontinuous line of vitreous quartzite outcrops west of the river on a disused logging track leading to a gravel pit. The samples were of a high purity with SiO_2 >99.70%, Al_2O_3 <0.04%, Fe_2O_3 < 0.06%

and $TiO_2 < 0.02\%$. Rock chip sampling in the riverbed and on the valley slopes failed to replicate these values with SiO_2 mostly > 96% and Al_2O_3 mostly < 1%.

The vitreous quartzite outcrops were followed up by a percussion-drilling program of 5 holes totaling 74.5m. Saturated conditions prevented sample return or caused contamination of returned sample. A maximum vertical thickness of 5m of hard white quartzite was found in one hole near a 30m-strike length in outcrop of the same material.

A diamond drill was then employed to overcome the drilling difficulties with five holes being completed for a total of 109m. Three were developed over 50m along the vitreous quartzite traverse and two in and south of the old gravel quarry. After about 5-6m of hard quartzite of good purity, the core became soft sandstones with some schist in the traverse holes. The holes in and near the quarry drilled quartz schist or micaceous sandstone before going into hard white, some times micaceous, quartzite. It was proposed that silicification is restricted to the topography following the hill slopes and cliffs and gullies. Pure quartzite may only occur where silicification post dates leaching of the micaceous fraction of the sediments.

A significant proportion of the sandstone was found to be friable in the drilling and the area could host a sand deposit of economic extent provided it met specifications. The licence was eventually dropped in favour of exploration in other areas.

3.0 PRESENT EXPLORATION

Work carried out in the past year was a complete review of the previous exploration reports and literature on the area. Representatives of Unimin Corporation of North Sydney and Coburn Cement of WA were conducted over the area as part of an inspection and marketing effort covering the entire silica and carbonate inventory of MHA with a view to a joint venture. Samples of sand from Thomas Mt were sent to BFP Consultants, Melbourne for evaluation as bunker sand for golf courses.

Marketing letters have been sent out to a number of companies inviting them to inspect, or declare expressions of interest in, the various silica properties in the MHA ground holding with a view to developing extractive and processing industries in NW Tasmania. These companies are Cookson Plibrico Pty Ltd, Brussells; Sydney Gas Company, Sydney; Index Minerals, Burnie; Degussa Australia Ltd, Dandenong; and Terrane Minerals Ltd, New Zealand.

4.0 CONCLUSIONS

The evaluation of the resources revealed by the literature review suggests that there is an inventory of various silica resources in this licence covering the Dip Ranges. Combined in the lease and licence in the Thomas Mt area, there is at the very least 0.35Mt of very hard, silicified sandstone, 1.55Mt of hard sandstone, 0.65Mt of poorly consolidated, soft sandstone and 2.45Mt of very soft sand. Some infill drilling would be required to raise this resource estimate to the Indicated Level (JORC Code). Other areas in the licence such as Hebe River could add substantially to these resources.

Future exploration will be directed at drilling and bulk testing any areas deemed prospective for silica resources as continued marketing reveals new opportunities. The challenge is to match the known silica resources with new specifications as they become available from industry.

No ground disturbance was necessary in the past twelve months consequently there was no need for rehabilitation.

5.0 EXPENDITURE

Expenditure on the licence stood at $2,806 from the quarterly report to end December 2003. The literature research and renewal of the licence which has just been completed and which will be reported in future quarterlies is estimated at $6,399 which brings the total expenditure on the licence in Year one to $9,205.

6.0 REFERENCES

Anon, April 1981. Report on Stage 2- Geological Investigation of EL 43/1970 for Kaiser Aluminium. Longworth and McKenzie Pty Ltd. TCR 81_1553.

Anon, June 1981. Report on Stage 3- Preliminary Drilling of EL 43/1970 for Kaiser Aluminium. Longworth and McKenzie Pty Ltd. TCR 81_1573.

Anon, Aug, 1994. Treatment of A High Grade Silica Sand for Gwalia Consolidated Ltd, Dip Range. Ammtec Ltd. TCR 94_3652.

Bacon, C.A. 1989. Silica. Miner. Resour. Tasm. 12.

Gee, R.D, 1971. Table Cape, Tasmania. Tasm. Geol. Atlas 1 Mile Series Expl. Rep., Sheet 22 (8016S).

Threader, V.M. Nov, 1989. Annual Report, EL 25/1988 (Dip Range). Mineral Holdings Australia Pty Ltd. TCR 89_3047.

Threader, V.M. Oct, 1990. Annual Report EL 25/1988- Dip Range. Mineral Holdings Australia Pty Ltd. TCR 90_3193.

Threader, V. M. Oct, 1991. Annual Report EL 25/1988- Dip Range. Mineral Holdings Australia Pty Ltd. TCR 91_3307.

Threader. V. M. Oct, 1992. Annual Report for 1991-2. EL 24/1988 (Champion Road) and EL 25/1988 (Dip Range). Mineral Holdings Australia Pty Ltd. TCR 92_3395.

Threader. V.M. Oct, 1994. Annual Report for 1993-1994. EL 25/1988 (Dip Range). Mineral Holdings Australia Pty Ltd.

Threader. V. M. Aug, 1995. Annual Report for 1994-1995. EL 11/1992 (Meunna) and EL 20/1993 (Hebe River). Mineral Holdings Australia Pty Ltd. TCR 95_3765.

Threader. V. M. June, 1996. Relinquishment Report. EL 25/1988 Dip Range (Part). Mineral Holdings Australia Pty Ltd. TCR 96_3879.

Turner, N.J., 1989. in Geology and Mineral Resources of Tasmania. Special Publication Geological Society of Australia 15. Eds. Burrett, C.F., Martin, E.L.

7.0 KEYWORDS

Dip Range, Thomas Mountain, Detention Subgroup, Rocky Cape Group, Sand, Quartzite, Silica Resources.

PLANS 1- 7

TABLES 1- 4