

**Molyhil Mining Pty Ltd**

**Annual Technical Report**

**MLS77-MLS86**

**For Period 1/1/12-31/12/12**

HUCKITTA 1:250K MAP SHEET

- Distribution:
1. Molyhil Mining Pty Ltd  
(THOR Mining PLC, Level 1, 32 Richmond Road, KESWICK, SA, 5035,  
AUSTRALIA)
  2. Mining Titles Division & NT Geological Survey  
(NT Department of Resources – Darwin)
  3. Austwide Mining Title Management Pty Ltd, Darwin NT

<b>Titleholder</b>	Molyhil Mining Pty Ltd (100%)
<b>Operator (if different from above)</b>	
<b>Tenement Manager/Agent</b>	Austwide Mining Title Management Pty Ltd
<b>Titles/Tenements</b>	MLS77-MLS86
Mine/Project Name	Oorabra Reefs
<b>Report title including type of report and reporting period including a date</b>	Annual Group Report for period ending 31 December 2012
Personal author(s)	Dave Adams (Senior Exploration Geo)
<b>Corporate author(s)</b>	-
Company reference number	-
<b>Target Commodity or Commodities</b>	Fluorite and Barite
<b>Date of report</b>	6/2/2013
<b>Datum/Zone</b>	GDA94 Zone 53
<b>250 000 K map sheet</b>	Huckitta SF53-11
<b>100 000 K map sheet</b>	Jinka 6052
<b>Contact details</b>	PO Box 458 Marlestone 5033
Postal address	
Fax	(08) 8351 5169
<b>Phone</b>	(08) 7324 1935
<b>Email for further technical details</b>	<a href="mailto:dadams@thormining.com">dadams@thormining.com</a>
<b>Email for expenditure</b>	<a href="mailto:admin@thormining.com">admin@thormining.com</a>

## 1. Introduction

The Oorabra Reefs are a series of Quartz-Fluorite-Barite veins located approximately 11 km's north of Molyhil on E22349 and within the ten CPM mining leases (MLS77-MLS86), some 330kms by road north east of Alice Springs

The Oorabra reefs occur as two separate reef systems in a belt approximately 21kms long and 760m wide, consisting of 20 separate veins of various sizes.

The fluorite mineralisation occurs as hydrothermal fissure veins in the Jinka granite, previous detailed work in the early 1970's was completed by Central Pacific Minerals NL, the work included mapping, trenching and sampling, airtrack and diamond drilling which cumulated in a inferred resource at location E of 364,000 short tons at 39.66% CaF<sub>2</sub>.

Thor Mining PLC completed rock chip sampling in 2007 to validate the previous exploration work. A total of 162 rock chip samples were collected and sent to Genalysis and Ultra Trace in Perth.

Previous exploration work was completed by Central Pacific Minerals NL (CPM) from 1971 to 1973; work completed is detailed below;

- Regional and detailed mapping (1:250) of occurrences A to H.
- Channel sampling reefs A, C and E.
- Air track drilling reefs A,C and E, Reef K( Narbarloo North reefs) had 1 hole drilled and returned 3.5m @ 35.1%CaF<sub>2</sub>.
- Petrology.
- Beneficiation studies.
- Diamond drilling Reef E.
- Reef E mineral resource estimate.

### 1.1 Previous Resource Work

The resource estimate completed at location E totalled of 364,000 short tons at 39.66% CaF<sub>2</sub>, the average width of this reef is 3m and has a strike extent of 524m, and is open to the north. Seven diamond drill holes were used in this calculation, a total of 665m of NQ core drilling was completed and intersected the reef at depths of 19m to 137m.

The calculation was completed in 3 blocks; 460s to 280s, 537s to 641s and 40s to 280s, to depths of 75m, 100m and 50m respectively.

Intersections from diamond holes used in calculation;

Drill Hole Id	Depth From	Width (> 10% CaF <sub>2</sub> )	Grade % CaF <sub>2</sub>
DD1	90.3m	4.66m	43.5%
DD2	64.8m	3.78m	41.1%
DD4	122.0m	0.73m	52.5%
DD6	80.6m	1.71m	49.2%
DD7	49.7m	3.05m	35.8%
DD8	20.15m	3.41m	44.0%

### 3. Tenure

Lease	Application Date	Grant Date	Expiry Date	Area	Commitment	Rent	Holder
MLS77	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS78	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS79	6/09/1973	19/04/1974	30/12/2014	8.09 Hectares	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%),
MLS80	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS81	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS82	6/09/1973	19/04/1974	30/12/2014	8.09 Hectares	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%),
MLS83	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS84	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS85	6/09/1973	19/04/1974	30/12/2014	16.18 Hectares	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%),
MLS86	6/09/1973	19/04/1974	30/12/2014	8.05 Hectares	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%),

#### **4. Geology:**

The fluorite reefs form a hydrothermal vein system within the lower Proterozoic Jinka granite; there are two south easterly striking belts of mineralisation on the northern and southern side of the Elyuah Range. The northern belt is some 21kms long and 760m wide and has at least 16 separate occurrences including reefs A-H (CR72/013A). Strike directions vary between north-west, north-east and east south-easterly. The southern belt is 8kms in length and trends east south-easterly and contain 5 separate veins over a width of 600m. the dimension and grades of the reefs vary from 3m to 1800m in length and between 0.1m and 8m in width. Grades sampled range from 5%  $\text{CaF}_2$  to 70%  $\text{CaF}_2$ .

#### **5. Mineralisation:**

The Quartz–Fluorite-Barite reefs are hydrothermal fissure veins consisting of alternating bands from centimetres thick to several metres thick of quartz and fluorite forming typical ribbon structures', indicating multiple phases with comb and vugy textures noted with the quartz rich lenses.

Fluorite occurs as colourless and purple varieties with quartz intergrowths, traces of Cu, Pb and Au have been noted at various localities, quartz is the principal gangue material which forms some 50-65% of the reefs, barite is associated and occurs as cavity infillings it form small rosettes and crystalline aggregates up to 0.3m in length, CPM estimated that barite formed less than 5% of the reefs by volume.

The host rock granite is frequently altered, kaolinised and epidote alteration is noted, diamond drilling revealed that parts of the granite adjacent and within veins is also mineralised.



**Fluorite**

## **6. Work complete during the period:**

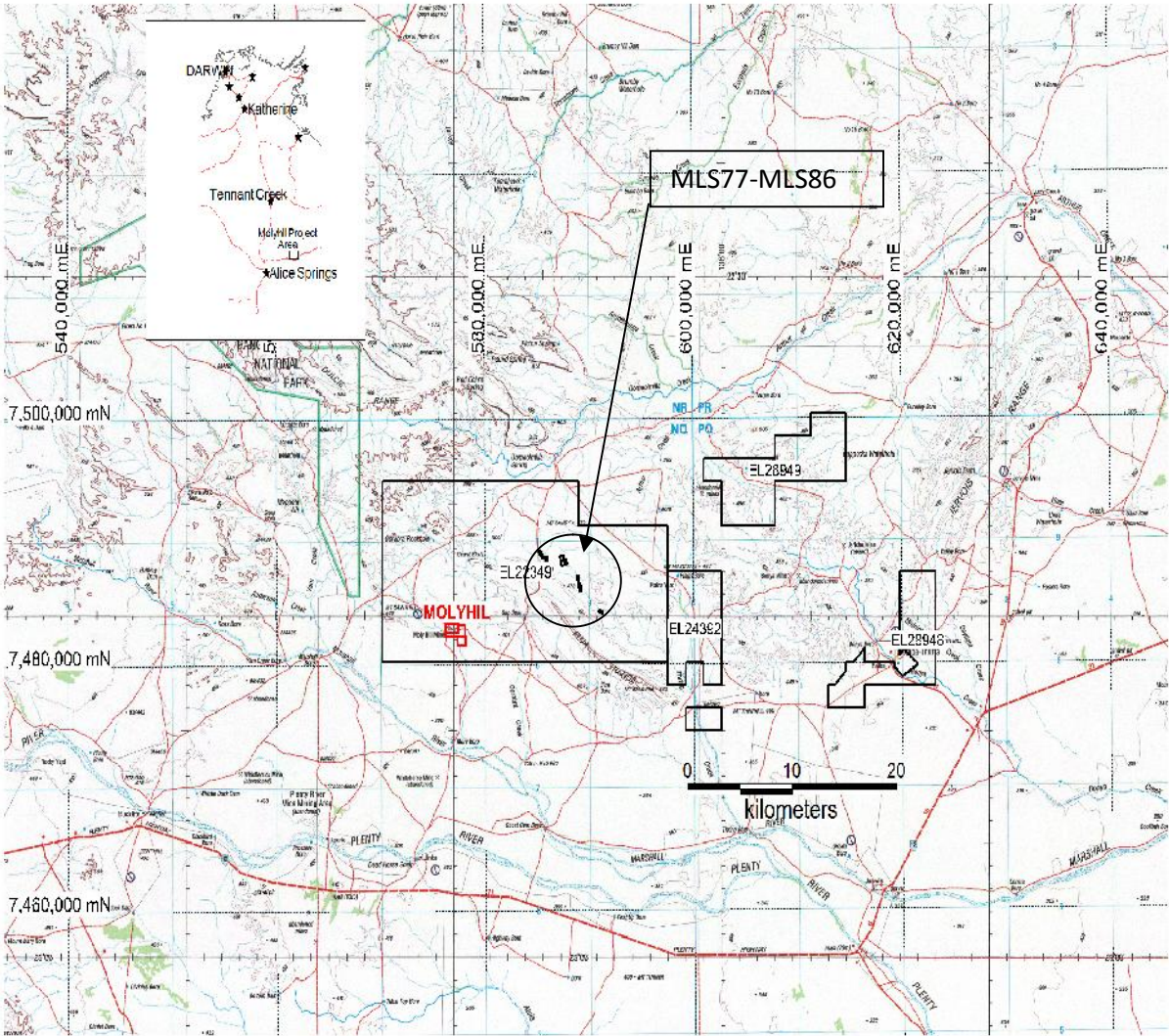
Apart from one reconnaissance field trip over these MLS's to assess potential, no exploration work was carried out during the period 1/1/12-31/12/12.

## **7. Conclusion & Recommendations**

Given the depressed commodity market at the time of writing, the resources contained within these mining leases remain unviable. Once operation is re-established at the nearby Molyhil mine, the viability of these resources will be enhanced and feasibility will be undertaken.



2. Map:



Map showing location of MLS77-MLS86.

