

Crown Pastoral Land Tenure Review

Lease name: THE LARCHES

Lease number: PO 254

Public Submissions - Part 13

These submissions were received as a result of the public advertising of the Preliminary Proposal for Tenure Review.

November

08

21 August 2008

Tenure Review Contract Manager
Opus International Consultants Limited
Private Bag 1913
DUNEDIN

Attention: David Payton



Dear David

**THE LARCHES PASTORAL LEASE
TENURE REVIEW SUBMISSION BY CROWN MINERALS**

The Commissioner of Crown Lands has invited public submissions on the tenure review of The Larches Pastoral Leases which occupies an area of some 1,833 hectares in the Cardrona Valley in Otago.

An assessment of the area has shown that the lease area, and much of the surrounding land, is prospective for a range of metallic minerals and is currently overlain by a granted prospecting permit.

Please find enclosed a written submission on this tenure review proposal.

Yours sincerely

Barry Winfield
Senior Analyst, Petroleum and Minerals Policy

**Crown Pastoral Land Act 1998
Tenure Review
Preliminary Proposal**

Lease name: THE LARCHES

Lease numbers: PO 254

**Submission by Crown Minerals
Ministry of Economic Development**

August 2008

THE LARCHES PASTORAL LEASE PRELIMINARY PROPOSAL FOR TENURE REVIEW

SUBMISSION BY CROWN MINERALS TO COMMISSIONER OF CROWN LANDS

BACKGROUND

1. The Crown Pastoral Land Act 1998 provides a framework for the review of high country land in the South Island. In order to gain ownership of the all or part of the land leaseholders may request that their lease be considered for tenure review.
2. An invitation to undertake tenure review has been accepted for The Larches pastoral lease and the review has reached the stage where the Commissioner of Crown Lands has put a preliminary proposal to Leslie Stewart and Roger Macassey and James Robertson, Polson Higgs Nominees 2006 Limited and GCA Legal Trustee 2005 Limited, as lessees of The Larches. The Commissioner of Crown Lands has invited public submissions on this preliminary proposal for tenure review.
3. The Larches comprises some 1,833 hectares of land situated in the Cardrona Valley on the western flanks of the Criffel Range. The lease extends from the valley floor to the crest of the Criffel Range.
4. It is proposed that 857 ha be designated as a Conservation Area and 976 ha to be passed into freehold ownership subject to a number of protective mechanisms and qualified designations.

CROWN MINERALS

5. Crown Minerals, a group within the Ministry of Economic Development, is the government agency that manages New Zealand's state owned oil, gas, mineral and coal resources known as the Crown mineral estate. Crown Minerals is responsible for the efficient allocation of prospecting, exploration and mining rights, the promotion of the mineral estate to investors, and ensuring that the Crown receives a fair financial return for the use of its mineral estate.
6. The Crown (on behalf of all New Zealanders) owns all in-ground petroleum, gold and silver and approximately half of the in-ground coal, non-metallic and other metallic minerals including industrial rocks and building stones.

LAND TENURE REVIEW

7. The Associate Minister of Energy and Crown Minerals have previously registered their concern to both the Minister for Land Information and LINZ officials that the land tenure review process gives little consideration to the land's mineral value and potential for mineral development and that it does not recognise existing mineral permit and licence holders interest in the land. As a consequence of the ongoing review of pastoral leases, some land that is highly prospective for mineral development is passing into the

Conservation estate, or into private ownership, where it may become more difficult, if not impossible in some cases, for individuals and companies to gain access to this land for the purpose of exploration and mining. This represents a significant loss of economic development opportunity.

8. The objectives of tenure review are set out in section 24 of the Crown Pastoral Land Act and include "enabling reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under reviewable instrument".
9. The economic benefits from mineral development can be substantial and should not be overlooked. If the land has high mineral potential and/or significant mineral content, then consideration should be given to the mineral value when determining future ownership and use of such land.
10. The purpose of this submission is to bring to your attention the known and potential mineral wealth of the land subject to The Larches review and to request that this be taken into consideration when making a final decision on the review.

REGIONAL GEOLOGY

11. The area comprises schist of the Haast Schist group, which formed during the juxtaposition of Rakaia and Caples terrane rocks along a complex fault zone during the Jurassic to Cretaceous. The schistose parts of the Caples and Rakaia terranes are known collectively as the Haast Schist, and are divided into Otago, Alpine, Haast and Marlborough schists on the basis of geography. Caples and Rakaia terrane rocks become increasingly metamorphosed and deformed towards the centre of the schist belt.
12. The schist belt is unconformably overlain by Miocene fluvio-lacustrine sediments of the Manuherikia Group. Coarser fluvial sediments consist predominantly of mature quartz gravels which are auriferous. Subsequent erosion of these sediments resulted in local enrichment of rivers and streams and were the primary targets of the gold miners of the 19th and early 20th centuries.

KNOWN MINERALISATION AND CURRENT PERMITS

13. The alluvial fields of the Criffel diggings have previously been mined for gold. The alluvial workings represent the erosional products of extensive vein hosted mineralisation.
14. Glass Earth (New Zealand) Limited ('Glass Earth') holds prospecting permit 39322 which covers the entire area of The Larches pastoral lease. Activities under this permit, which covers some 18,050 km² of the Otago region, are targeting a wide range of metallic and non metallic minerals. A map of the permit area is appended.
15. Glass Earth has already completed an ultra-detailed magnetics, radiometrics, resistivity, altimetry, hi-map geoscan aerial geophysical survey. The majority of the region has been flown at a scale suitable to delineate significant mineralogical systems, and totalled approximately 25,000 line kilometres of flying. This has been followed by a programme of data retrieval, levelling, gridding, modelling and interpretation to identify anomalies.

16. Overall, the work being undertaken by Glass Earth in Otago involves a radically different approach to exploration in this region that has the potential to target specific gold permissive areas via a set of tools unreliant on geochemistry. The interpretation of these data sets should add substantially to:
 - the geological knowledge of the area;
 - the mineral potential of the area;
 - the structural understanding of the area;
 - the agricultural/forestry and horticultural knowledge of the area via specific landform delineations; and
 - the shallow aquifer/water resource potential of the area (specifically affecting the dairying and crop growing potential of the area).
17. Glass Earth are now assessing targets for delineation and further exploration, including drilling. This may include areas within or directly adjacent to The Larches tenure review area in order to fully explore the potential mesothermal gold resources.

COMMENT

18. Prospecting is a relatively high risk business and the very nature of mineral prospecting and exploration means that a company starts with a large area of land and with time it reduces the area after eliminating areas of no interest. Where early reconnaissance work under a prospecting permit justifies further exploration expenditure, a company will apply for an exploration permit. Progressively the size of the area will be reduced to only a fraction of the original area and more often than not, a company will fail to identify economic mineralisation and the ground will be surrendered or the permit will be allowed to expire. Modern day prospecting and exploration techniques present little threat to the environment and yet the ultimate outcome of exploration can be the development of a mine with numerous economic spin-offs for the local economy.
19. Crown Minerals acknowledges that the transfer of areas of The Larches lease to both the Department of Conservation ("DOC") and private ownership does not preclude access to the land for the purpose of prospecting, exploration and mining. Permit holders can apply to DOC and the private landowner for an access arrangement under section 61 of the Crown Minerals Act 1991. However, because the Minister of Conservation's consideration of an application for access largely relates to conservation objectives, it is fair to say that it becomes more difficult for an exploration or mining company to secure a workable access agreement on conservation land.

CONCLUSION

20. The current and proposed prospecting activity by Glass Earth, highlights the new interest being shown to assess the mineral potential of The Larches lease area and the surrounding region, and testifies to the economic mineral potential of the area.
21. The Larches pastoral lease area should be recognised as being prospective for minerals. To further assess the mineral potential of the area it is critical that exploration and mining companies get ongoing access to this land. Whatever the

outcome of this review, Crown Minerals would want to see provision made to allow for mineral prospecting activities to continue to be undertaken.

22. Crown Minerals requests that the Commissioner of Crown Lands takes notice of the mineral potential of The Larches pastoral lease. Consideration should be given to some form of transitional provisions to ensure that future explorers and developers have a right to access to Crown and freehold land on reasonable terms for the purpose of carrying out prospecting and exploration activities and also any development activities under subsequent permits granted in accordance with section 32 of the Crown Minerals Act.



Permit 39322 Report - 21/08/2008

Number:	39322
Commodity:	Minerals
Type:	Prospecting Permit
Owner(s):	Glass Earth (New Zealand) Limited
Status:	GRANTED
Granted:	30/11/2006
Commenced:	30/11/2006
Duration:	2 years
Expires:	29/11/2008
Area:	17200 SQKM
Location:	Otago
Operation Name:	Otago Initiative
Minerals:	Silver, Ironsand, Gold, Molybdenum, Magnesium, Zinc, Titanium, Aluminium, Osmium, Tantalum, Lead, Antimony, Magnetite, Nickel, Iridium, Bismuth, Palladium, Iron, Copper, Platinum Group Metals, Cassiterite, Tungsten, Rhodium, Rare Earths, Ilmenite, Ruthenium, Rutile, Tin

