GREAT SOUTH LAND MINERALS LIMITED

ABN 54 068 650 386

2006 ANNUAL REPORT

FOR

MINERAL RESOURCES TASMANIA

SPECIAL EXPLORATION LICENCE 13/98

Dr Clive Burrett – Chief Geologist & Director
Ms Nicole Chesterman – Company Secretary
Mr Tim Bendall – Seismic Project Officer

31 August 2006

2006 Annual Report

Contents:

Statutory Declaration

I, Dr Clive Burrett

for Great South Land Minerals Limited

of Level 3, 65 Murray Street, Hobart Tasmania.

Declare that:

> The information herein pertaining to the 2006 Annual Report on Oil and Gas Exploration is true and I make this solemn declaration by virtue of Section 132 of the Tasmanian evidence Act 1910.

Declared at Hobart this ..... day of ..... 2006.

.....(signature), before a Justice of the Peace or a

Commissioner of Declarations (signature) .....

Executive Summary

Over the previous year, Great South Land Minerals Limited (GSLM) has focussed most of its efforts on the second Tasmania Basin Seismic Survey (TB02).

The first half of the period was dedicated towards seeking approvals, writing and distributing reports and formulating management plans. The second half of the period was spent executing the first part of the survey, evaluating results, planning for the next part of the survey and negotiating with JV partners.

During Autumn 2006 a total of 147 line kilometres of seismic survey data was acquired in Tasmania's Central Highlands. Analysis of the data showed evidence of a large anticlinal structure near the Florentine Valley and Mount Thunderbolt that could be a good trap for petroleum.

Delays and signal degradation were caused by the unusually cold conditions and it was decided not to continue the seismic survey in the winter conditions but to return in late spring – early summer (2006-2007).

Focus has now been drawn to the post-winter continuation of TB02. Further seismic lines have been planned for the Central Highlands, Northern and Southern Midlands and the Huon and Derwent Valley. The planned lines cover over 1200 kilometres and would make a significant contribution towards defining the underground structures of the state. With the addition of cross-lines, a number of suitable drill targets are expected to be found.

Planning is underway to drill several wells both within the main SEL and within a small JV area in the north-east of the SEL.

Exploration during the previous annum

Exploration Objectives

The exploration objective of Great South Land Minerals Limited (GSLM) is to discover commercial quantities of oil and gas onshore Tasmania.

GSLM's current exploration strategy is based on an extensive seismic and drilling program involving the acquisition of up to 4000 line kilometres of seismic data, and is designed to:

- determine the extent of the two petroleum systems that have been outlined;
- define potential petroleum targets;
- test potential targets through a drilling program.

Licence Details

GSLM currently holds Special Exploration Licence SEL 13/98, which covers most of the Tasmania Basin. The licence covers an area of 15,039 square kilometres.

Under Part 2, Division 4 section 44-(1) of the Mineral Resources Development Act 1995, SEL 13/98, was granted for an initial period of 5 years, with the ability to extend the licence for another 5 years at the discretion of the Minister. The initial period expired on 18 May 2004.

On 28 October 2004, Special Exploration Licence 13/1998 – reduction and extension of term, was granted for a period of 5 years to 30 September 2009.

Condition 21 of the reduction & extension of the License specified any significant shortfall in expenditure at the end of each year (1 October) will result in revocation of the licence, which is considered to be less than 80% of the cumulative expenditure as at this date.

Mandatory expenditures are listed as:

Year	$
1	$ 4,272,800
2	$ 6,688,800
3	$10,528,000
4	$15,752,000
5	$17,200,000

TB02 Seismic Survey

Planning, approvals and preparation

A total of 147 line kilometres of the "Tasmania Basic Seismic Survey" were completed over the previous annum.

Before commencing the survey, GSLM liaised with all relevant government bodies, private companies and private land owners. This included, the Department of Infrastructure, Energy and Resources (including Roads & Public Transport and Mineral Resources Tasmania),

Department of Primary Industries, Water and the Environment, Forestry Tasmania, Aurora Energy, Alinta, Telstra, Hydro Tasmania and the Aboriginal Land and Sea Council. In each case GSLM were able to receive approval or conditional approval for the first part of its seismic survey operations. Copies of these approvals can be found in the appendix.

In accordance with requirements from the Department of Infrastructure, Energy and Resources (DIER), GSLM engaged its consultants SEMF (Scientists, Engineers, Managers & Facilitators) in the formulation of an Environmental Management Plan (EMP) and Traffic Management Plan (TMP). These plans provide guidelines for GSLM and its contractors with which to adhere to during the undertaking of the seismic survey. The EMP is designed to preserve and ensure the safety of the Tasmanian environment through the enforcement of procedures for operations during the project. Similarly, the TMP is designed to ensure the safety of the Tasmanian public and of all those involved with the project through the enforcement of procedures for project operations. Approval for the TB02 seismic survey was granted by MRT, DPIWE and DIER after both the EMP and TMP were received and accepted.

GSLM also instigated a public contact program (PCB) to ensure that the public was provided with significant details and notified within a reasonable timeframe of the seismic operations. This involved the creation and distribution of public information pamphlets and the distribution of 'information packs' to each of the local councils that would be affected by the survey. A press release and media conference occurred on April 4th 2006 and GSLM's seismic project coordinator Geoff Squibb was interviewed by ABC local radio on April 23rd. A copy of the press release can be found in the appendix.

As in 2001, GSLM engaged the services of Terrex Seismic Pty Ltd (Terrex)to execute the TB02 seismic survey. Terrex has over 5 years experience in 2D and 3D seismic acquisition. In 2006, GSLM again used Terrex's seismic vibroseis trucks with accompanying support crew (including traffic management). Terrex also engaged Queensland based company Dynamic Satellite Surveys (DSS) on behalf of GSLM to carry out the surveying and pegging requirements of the TB02 seismic survey.

Commencement

Operations began on April 4th at Ouse with the induction of the DSS surveying crew and accompanying traffic management crew. All crew members were briefed on the Traffic Management Plan and Environmental Management Plan before commencing work that afternoon on the line designated TB02-BB. The surveying crew had arrived early in Tasmania so that the lines could be marked and measured one to two weeks ahead of the seismic crew.

Progress of the surveying crew was slow in the first weeks due to rain, snow and the displacement of markers due to sheep herding along roads. The extra lead time given to the surveyors meant that these events did not hinder the progress of the seismic operation itself.

A total of 4 seismic trucks arrived in Tasmania on April 19th along with all support vehicles. On April 23rd an induction was held at Waddamana with all 30 members of the seismic crew and accompanying traffic management team. All members were briefed on the contents of the Traffic Management Plan and Environmental Management Plan and were shown the planned

survey lines and schedule. The seismic crew began operations on the afternoon of April 23rd on the line designated TB02-BA at the top of the Great Western Tiers on Poatina Rd.

Project Execution

Progress during the first week was slow as the team acclimatised to the cold and wet weather. On occasions the crew members were put on stand-by when it was deemed by the traffic management crew to be too difficult to ensure the safety of the public whilst continuing operations.

On April 28th a two vehicle accident occurred between a log truck and a four wheel drive being driven by a member of the seismic traffic management crew. The driver of the four wheel drive had multiple injuries and was taken to Royal Hobart Hospital by Medavac. Recent reports suggest that the driver has made a slow but stable recovery. Both the seismic crew and surveying crew were put on stand-by for the duration of the following weekend.

Preliminary analysis of the seismic data showed that heavy rain and snowfalls had caused a significant degradation in data quality. In order to alleviate these problems a new set of vibration recording equipment was delivered from mainland Australia whilst the crew remained on stand-by following the vehicle accident.

Operations recommenced on May 10th from Waddamana and continued along TB02-BA on Victoria Valley Road towards Ouse. A decision was made to extend the line south west of Ouse along Dunrobin Road; a road that was previously assigned to the line TB02-BB. An extension to this line was also designed through the Florentine valley after seeking permission to use the roads from Forestry Tasmania. The seismic crew successfully completed this route and then moved to Strickland Road north of Ouse to commence the line designated TB02-AA2.

Inclement weather conditions had hampered the progress of both the surveying and seismic crews during the first 2 months of the operation. This not only reduced productivity (in terms of number of kilometres per day) but also the quality of the data. In the knowledge that weather conditions would continue to deteriorate the surveying crew was demobilized on May 27th and the seismic crew was demobilized on June 3rd.

GSLM anticipates a recommencement of seismic survey operations in late 2006, stretching into 2007. The summer weather conditions should allow for increased daily productivity and increased data quality.

Processing Results

The 147 line kilometres that have been surveyed during this leg of the Tasmania Basin Seismic Survey are being processed by the Western Australian Survey and Geoscience company Fugro Survey Pty. Ltd. Fugro have already sent through a set of preliminary results for each of the autumn 2006 seismic lines. These have allowed GSLM to begin performing seismic interpretation.

Involved Staff

The following GSLM staff have been actively involved with seismic operations over the previous annum:

Dr Clive Burrett	Managing Director, Senior Geologist
Miss Nicole Chesterman	General Operations Manager
Mr Geoff Squibb	Manager, Public and Government Liaison
Mr Tim Bendall	GIS and Planning
Mr Andrew Moy	Geology and Planning
Mr Andrew Stacey	Geophysics

SPIRT Grant

Mr Andrew Stacey (PhD candidate) has continuted with his study and interpretations of GSLM seismic data concentrating on the central plateau region. Combining critical lithological-depth information from Hunterston#1 and the Tunbridge DDH and with advice from Dr Mike Swift, Dr David Leaman, Dr Andrew Wakefield, Dr Mike Roach and Dr Ron Berry. Mr Stacey is expected to complete his thesis in early 2007.

Review of Results

TB02 Seismic Survey

GSLM has received preliminary readouts for each of the autumn 2006 seismic lines from Fugro Survey Pty Ltd. Interpretation of this data has allowed GSLM to define many of the underground features of the Tasmania Basin. Of particular interest is a large anticlinal structure that has been named the 'Thunderbolt Anticline'.

Preliminary seismic interpretation indicates a large buried anticlinal structure in the older Larapintine Paleozoic petroleum system. This anticline is parallel to similar structures within exposed Ordovician carbonates on the floor of the Florentine Valley, which were also recorded in the current survey. The structure may be as much as 20 km across and, based on surface geology, is possibly 50 km long, potentially forming another domal structure. Therefore, it may be comparable in size and shape to the adjacent Bellevue Anticline (dome). Other attractive anticlinal structures have been identified in the seismic data that are evident north of Ouse, both within the older (Larapintine) and younger (Gondwana) petroleum systems. The 'Thunderbolt Anticline' is situated near Lake Repulse just west of Ouse and east of Mount Thunderbolt and the Florentine Valley. It is possible that this structure contains considerable oil or gas reserves, however the structure will have to be better defined (for example, by a seismic cross-line) before a suitable drilling location may be determined.

SPIRT results

The work of the SPIRT team performed (to-date) has confirmed:

Gondwana Petroleum System (GPS)

- The existence of excellent source rocks (Tasmanite Oil Shale) very good to good source rocks (Quamby-Woody Is Fms) and good source rocks (middle and upper Permian coals and carbonaceous shales). However, from drilling at Hunterston and from seismic interpretation it is likely that the best (i.e. earliest Permian) source rocks have a restricted distribution under the Central Plateau region. However, they are almost certainly present in Permian palaeotopographic lows which are evident on the seismic profiles.
- The generative potential of these source rocks is very high and that in excess of 2 billion BOE may be recoverable ranking the Tasmania Basin as a potentially globally 'Significant' basin.
- Clear basin comparisons are with the producing glacimarine Permian basins in Oman, and the Cooper, Surat and Perth Basins onshore Australia.
- The maturity of the Permian and Triassic increases from north to south across the Tasmania Basin being slightly immature for oil in the north to possibly entering the wet-gas window in the south of the basin.
- The existence of a mid-Jurassic volcano-sedimentary sequence of 182Ma has been confirmed preserved in a small graben in the far south of the basin. This adds to the apatite fission track data that suggests a widespread, post-Triassic overburden for the Tasmania Basin and accounts for the unexpectedly high maturity of the Permian sequence.
- Modelling suggests that these sequences probably became mature during the Tertiary and that suitable petroleum migration fairways are present on dipping fault blocks particularly to the east of the Central Plateau.
- Computer modelling suggests that maturation and migration would have charged sealed traps existing within the Tasmania Basin.
- The Liffey Group is a potential reservoir across much of the basin particularly in the north and central areas. Liffey Group sandstone porosity is occluded by secondary calcite cement where close to thick dolerite sheets as at Hunterston#1.
- Other reservoirs are found in secondary vuggy porosity decalcified breccias at depth at Hunterston #1 and in Lower Triassic sandstones.
- The potential Liffey Group reservoir sandstones have a low seismic velocity which allows the group to be easily picked on seismic sections.
- All suggested reservoir rocks have overlying seals.
- Helium values up to 7% in wet gas found within the Permian of Shittim #1 on Bruny Island suggests high impedance of fluid flow within much of the Permian and that the thick Jurassic dolerite sheets are and were effective seals.
- Intra-basinal traps are most likely to be fault traps.
- The source rocks, reservoirs, seals and traps, as well as the dolerite sheets can be successfully imaged using vibroseis allowing predictions and modelling of the thermal, hydrothermal and diagenetic effects of the pervasive dolerite.
- The GPS is potentially the most prospective petroleum system and suitable areas are currently being delineated for detailed seismic exploration.

Larapintine Petroleum System (Ordovician-Devonian)

- A PhD thesis on the Precambrian-Ordovician of Tasmania by Mr Alan Chester has been submitted and is awaiting examination.
- Source rocks are present within the Ordovician Gordon Group Upper Limestone Member but their thickness has not yet been assessed.
- Back calculations of TOC's suggest high values existed in the Early Palaeozoic.

- Comparisons with the producing Ordovician of the Appalachians, Tarim Basin and the Amadeus Basin.
- Wet gas and oil have been confirmed within the Gordon Group limestone suggesting that generation has taken place.
- Most of the Gordon Group is in the wet gas to dry gas window.
- Paleokarst reservoirs are probably present but will be difficult to find.
- Other reservoirs have not been confirmed but may exist within reefs in the Late Ordovician and sandstones in the Siluro-Devonian Eldon Group.
- Very large anticlinal structures, very probably within the Ordovician to Devonian are obvious on the seismic lines and include the Bellevue Anticline and the Thunderbolt Anitcline.
- The Larapintine Petroleum System needs testing by a deep stratigraphic well but the LPS remains less prospective than the GPS on current knowledge.

Precambrian

- Proterozoic oil and gas occurs onshore Australia and is a major source in Oman. Oil stains have been reported on shales in Tasmania but this may have migrated from the GPS, as at Zeehan.
- Thermogenic wet gas was found in folded Proterozoic in Shittim #1 and may have migrated along shallow dipping faults from less deformed Proterozoic or from younger rocks.
- Recently sampled Proterozoic shales have high TOC and samples previously sampled have a surprisingly low maturity.
- The relatively unknown undeformed Proterozoic should be further investigated but remains an unlikely prospect at the present time.

Planned Exploration Work

Continuation of TB02

A further 1,100 kilometres are still planned for completion in late 2006/early 2007 and are spread widely across SEL 13/98. These lines have been designed to better define the structures identified as a result of the 2001 seismic survey, and to identify new structures in other parts of the Tasmanian Basin.

Stratigraphic Drilling Operations

Well plans have been developed and previously submitted to MRT for two additional stratigraphic wells. These and other well plans are currently being re-submitted.

A stratigraphic well, to be named Lachish #1, is planned at a location near the Valleyfield Road approximately 9 km west of Conara on a property named "Stockwell". The well Lachish #1 is situated close to the intersection of two seismic lines TB01-PT and TB01-TE and are planned to be drilled and cored to a depth of 2,000 metres. The location is believed to be approximately 14 km from the centre of the Hummocky Hills structure. Full details are included in the Lachish #1 well program submitted to MRT on 9 October 2002.

A second stratigraphic well, to be named Gezer #1, is planned at a location approximately 5 km off-structure on the Bellevue anticline and near to the Marlborough Highway. Full details are included in the Gezer #1 well program submitted to MRT on 18 May 2001.

Conditional approval has been granted by MRT for the drilling / coring of both wells.

Farm-in Drilling Operations

Negotiations are continuing with a number of potential farminees through EEGC.

GSLM's exploration program will be adjusted to include farminee work when negotiations reach the point where exploration programs are finalised and timelines for work commencement are definitive.

Expenditure

Exploration expenditure claimed by GSLM during the renewal period 01 July 2005 to 30 June 2006:

Geology	$ 2,272.73
Geochemistry	$ 0
Geophysics – Ground	$ 2,264,915.70
Feasibility Studies	$ 6,054.09
Drilling / Griding	$ 52,943.55
Other - Capitalised	$ 135,494.17
Expensed Costs & Admin.	$ 368,172.60
SUB TOTAL	$ 2,829,852.84
Expenditure (01/07/04 – 30/06/05)	$ 255,139.01
TOTAL	$ 3,084,991,85