Due Diligence Report

March 2010

EMPIRE Energy

Great South Land Minerals Limited

Due Diligence Report

CEO Malcolm Bendall on new GEFCO SS-1100 Rig

EXECUTIVE SUMMARY

Empire Energy Corporation International (Empire), through its wholly owned subsidiary Great South Land Minerals Limited (GSLM), has performed a very significant amount of research leading to the discovery of at least twelve (12) previously unknown, potential petroleum structures within Special Exploration License (SEL) 13/98 over the past 10 years proving the existence of three petroleum systems.

Empire and GSLM have expended in excess of AU$50 million of capital investment in Tasmania, meeting all the license conditions set by Mineral Resources Tasmania (MRT) for SEL13/98.

In December 2009, RPS Energy Ltd (RPS), one of the world's leading independent experts on oil and gas resource/reserve evaluations, prepared a Competent Persons Report detailing their independent analysis of geological data obtained from GSLM's US$50.71 million research investment over the past 33.3 years. Their report indicated that the undiscovered prospective oil and gas resource contained within the structures identified by GSLM was 668 million barrels. (See Appendix for reports and an overview of RPS' qualifications and clients)

After extensive due diligence, WHK Denison (WHK), a major Australian accounting firm, gave Empire an undiscovered prospective resources valuation of US$3.3 billion. This value was derived by discounting the then current US$70 per barrel (AUD$80 per barrel) market price of oil down to US$5 per barrel. The discount was based on the comparative value between the land within which GSLM's seismically defined structures lie and the sale value of land on the Australian mainland market containing similar potential for and quantities of undiscovered prospective resources. (See Appendix for reports and an overview of WHK's qualifications)

GSLM and Empire intend to prove the validity of the RPS report and WHK valuations regarding the existence of commercial quantities of onshore oil and gas in Tasmania. RPS's undiscovered prospective resource of 668 million barrels, calculated by using "probabilistic" methods, which if verified and produced at today's price of US$80 per barrel, could represent potential revenue of US$53 billion contained in structures discovered by GSLM's 1,149km of seismic work based on gravity, magnetic and stratigraphic wells.

These two independent valuations represent an asset backing per share today of US$10. Empire's current market capitalization and share price are more than 200 times less than the current asset value's comparative market value. As a point of clarification, Empire believes that part of the disparity between the current share price and the asset value, may be a result of previously having Special Exploration License (SEL 13/98), however, only being able to obtain a valuation at the expiry of that license. The granting of Exploration License 14/2009 will represent the first time since then that Empire Energy will be in possession of both a valuation as well as a license.

On March 17th 2010, the Director of Mines for Tasmania publically advertised in Australia's Mercury and Examiner newspapers, his recommendation for the issuance of Exploration License

14/2009 covering 3,180 km2 (785,800 acres) to Empire's wholly owned subsidiary, Great South Land Minerals, Ltd. (GSLM). This represents one of the final steps in the statutory process required for the formal issuance of an exploration license to GSLM on or about April 13th 2010, at the close of a mandated 28-day public notice objection period. Empire expects no objections will be raised, as per statutory requirements, only persons "claiming an estate or an interest in any land within the area advertised" may lodge an objection. Therefore, the company believes the license will be promptly issued on or about April 13th 2010, with drilling commencing soon after.

Currently, Empire has signed a conditional contract with Enid, Oklahoma based GEFCO to purchase their new state-of-the-art 15,000 foot hydraulic drilling rig. The new rig will soon finish production and be ready to ship to Tasmania to resume drilling.

Note: Contrary to American property laws, the Tasmania State Government reserves all rights to subterranean oil and gas deposits. Individual landholders have NO legal claim to any oil and/or gas under their property and furthermore lack standing to prevent oil and/or gas drilling on their property. The government transfers the rights to drill and extract oil and/or gas through the issuance of exploration licenses conditioned with a 12% State royalty on all oil and/or gas extracted. Thus, Empire and GSLM are not obliged to negotiate with Tasmanian property owners. However, GSLM has aided landowners by drilling water wells or constructing access roads, at minimal cost, as a measure of good will and gratitude.

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COMPANY DESCRIPTION

Empire Energy Corporation International (Empire Energy) is an international oil and gas exploration company, focusing on developing assets in one of the world's last large virgin petroleum basins and intends to become a leading low-cost finder of hydrocarbons. The Company is currently operating in Tasmania's centre and north through its wholly-owned subsidiary, Great South Land Minerals, Limited (GSLM). Great South Land Minerals (GSLM) operates pursuant to licenses issued by the Tasmanian Minister for Infrastructure, Energy and Resources, which licenses are subject to minimum expenditures over its term as well as additional terms as determined by the Minister. Failure to meet the license terms or minimum expenditure benchmarks can result in forfeiture of the license. Thus far, GSLM has completed 1,350 line kilometers of 2D seismic over the licensed premises on and off-shore and incurred significant costs. Additionally, the contractual terms of the previous Special Exploration License SEL 13/1998, we believe, entitle us to a subsequent Exploration License 14/2009. On 17 March 2010, Mineral Resources Tasmania publicly advertised its intent to issue GSLM Exploration License 14/2009 on or about 13 April 2010 covering an area of 3,180 km2 (785,000 acres).

Name:	*Empire Energy Corporation International* *Great South Land Minerals, Limited*
Ticker Symbol:	*EEGC.OB*
US Address:	*4500 College Boulevard* *Suite 230* *Leawood, Kansas USA 66211*
US Phone:	*877-663-2310 (toll-free)* *913-663-2310 (local)* *913-663-2239 (fax)*
Australia Address:	*Level 3* *65 Murray Street* *Hobart, Tasmania, Australia*
Australia Phone:	*+61-3-6231-3529 (local)* *+61-3-6234-9075 (fax)*
Website:	*http://www.empireenergy.com*

INVESTMENT HIGHLIGHTS

A business model capitalizing on Tasmanian oil and gas potential

EEGC is pursuing oil and gas exploration and development projects in Tasmania. To date, there have been no commercial oil or gas discoveries in the Tasmania Basin although oil seeps have been found in Tasmania. Data from the Company's exploration program indicates that commercial quantities of hydrocarbons may be present in the Larapintine and Gondwanan Systems of the Tasmania Basin.

Onshore Tasmania may yield as much as 3 billion barrels of oil equivalent

It is estimated that one square meter (10 square feet) of surface area of the Tasmania Basin may contain as much as nine barrels of oil. Taking into account source rock distribution, loss to the system due to leakage, faulting and metamorphism and recovery suggests there is a potential resource of as much as three billion barrels of oil. Using the Zeta Ware program, and conservative assumptions regarding source rock distribution and recovery factors, EEGC estimates onshore Tasmania could yield as much as 346 million barrels of recoverable oil plus 6 trillion cubic feet of methane or a possible aggregate recoverable resource of 1.346 billion BOE.

Potential Revenue in Excess of US$53 Billion

RPS Energy, one of the world's leading independent experts on oil and gas resource/reserve evaluations, estimated the undiscovered prospective oil and gas resources contained within the structures identified by GSLM to be 668 million barrels. If verified and produced at today's price of US$80 per barrel, this could represent potential revenue of US$53 billion.

Rising oil demand and prices spurs exploration activity

Despite slowed economic growth, worldwide oil consumption is forecast to continue to rise in 2010 and 2011. The Organization of the Petroleum Exporting Countries (OPEC) predicts worldwide oil demand to grow by 0.9 million barrels per day. US investment banks Morgan Stanley and Goldman Sachs both predict 2010 oil prices to surge, with a potential to top $100 per barrel in 2011. Despite recent price volatility, the long-term outlook for oil suggests rising demand and higher prices. EEGC estimates it can maintain production costs at approximately $15 per barrel.

OPEC Predicts Oil Demand Increases

The Organization of the Petroleum Exporting Countries (OPEC) in its latest, March 2010, Monthly Oil Market Report expects world oil demand to grow by 0.9 million barrels per day (mb/d) in 2010, following a contraction of 1.4 mb/d in the previous year. This represents an upward revision of 0.1 mb/d from the previous assessment. Oil demand has been highly dependent upon the pace of the global economic recovery.

Furthermore the report predicts Australia's oil supply to grow by a minor 0.01 mb/d over a year earlier to average 0.55 mb/d in 2010, unchanged from the previous month. On a quarterly basis, Australian supply is expected to average 0.53 mb/d, 0.53 mb/d, 0.56 mb/d, and 0.57 mb/d respectively.

- Mainland Australia's only two oil producing basins are currently 80% depleted. Although, oil has recently, in 2010, been found offshore Tasmania in the Bass Basin, Australian production of crude oil dropped to its lowest level in 2009 down from 121 million bbls (2008) to 99.5 bbls.
- In 20 years, Empire/GSLM's seismically proven structures could be supplying 90% of Australia's oil demand.
- Empire/GSLM's seismically proven structures may contain equal quantities of oil to that remaining in Texas onshore.

Investment Banks Predict Higher Oil Futures Prices

Investment Banks, Goldman Sachs and Morgan Stanley's 2010 price forecasts both anticipate higher oil futures prices.

- On 03 December 2009, Goldman Sachs maintained its previous $90-a-barrel 2010 price forecast for West Texas Intermediate crude futures, but predicted the NYMEX crude futures would rise to $110-a-barrel in 2011, on rising demand from emerging markets.
- On 14 July 2009, Morgan Stanley published statements predicted crude oil traded in New York would average $85 a barrel in 2010 and could reach prices of $100 a barrel.

Tasmania

Tasmania, the southern island state of Australia, is approximately the same size as Ireland or West Virginia and covers an area of 68,332 square kilometers or about 26,383 square miles. Australia is an advanced industrialized western democracy, a close ally of the USA and has a rapidly expanding population. Tasmania has a population of about half a million people and has good road, industrial, rail, Internet, electricity, air and seaport infrastructure. The University of Tasmania is rated among the elite in Australia and the Tasmanian population is generally well educated and skilled.

Duke Energy Gas Pipeline

In 2002, Duke Energy, a U.S. company, constructed a 445 mile pipeline to bring natural gas from petroleum fields offshore Australia to Tasmania. The section that crosses the Bass Straight cost US$250 million to build and the entire pipeline cost US$2.6 billion. Gas is now supplied to the industrial centers of northwest Tasmania and to the population centers of Launceston in the north, and Hobart in the south. This pipeline provides a built infrastructure that can connect newly discovered onshore Tasmanian gas to the entire eastern seaboard gas pipeline network.
The Company is required to pay a 12% royalty on the well-head value to the state government and a 30% corporate tax rate on profits to the Australian federal government.

Exploration Activities

Empire Energy and its predecessor companies have invested substantial amounts in exploration activities. Over 1,350 line km of 2D seismic have already been acquired, processed and interpreted. Magnetic, gravity and geochemical data have been acquired and down hole velocity tests have been conducted in deep stratigraphic wells. Six stratigraphic wells were drilled in the south and center of the basin. As a result, the Company has a good understanding of the existing geotechnical and drilling environment.

Although Tasmania is regarded as a frontier basin, it is now geologically and geophysically well understood and progress has been made mapping the petroleum systems. Mineral Resources

Tasmania (MRT) has geologically mapped much of the state, and EEGC and MRT have both drilled several stratigraphic wells. Many hundreds of studies, including numerous major theses and monographs, have been written on the geology of the Tasmania Basin rocks, including its stratigraphy, geochemistry, paleogeography, sedimentology and paleontology. In 2002, the Australian government (with $300,000 of matching funds from the Company) awarded a $400,000 grant to the University of Tasmania to study the petroleum systems onshore Tasmania. The results of that study have helped substantially reduce exploration risk in the Tasmania Basin.

Tasmania Basin Major Petroleum Systems

Two major petroleum systems have been identified in the Tasmania Basin: the Larapintine Petroleum System and the Gondwanan Petroleum System. A third system, the Centralian Petroleum System, may exist in the Precambrian rocks which have been proven to be resources of dry gas and oil where exposed at surface both within and outside of the Tasmania Basin.

Gondwanan Petroleum System

The Permian to Triassic Gondwanan Petroleum System is well studied and consists of: tasmanite (glacialmarine algal source and the world standard of type I kerogen); Triassic coals type II and III kerogen; Permian coals type II and III kerogen; Pelionite (fresh water algae) type I kerogen and Quamby Mudstone (200 meters thick) types I, II and III kerogens.

Source - Early Permian carbonaceous shales (Quamby Fm in the north and Woody Island Fm in the south) including tasmanite oil shale plus mid-and-late-Permian shales and coals. An oil seep at Lonnavale in southern Tasmania is derived from the oil shale and is a migrated low sulfur, heavy crude. The tasmanite was quarried in outcrop in northern Tasmania in the 1920s and 1930s and was distilled into a wide variety of petroleum products from 250,000 gallons of production.

It has been estimated that one square meter (10 square feet) of surface area of the Tasmania Basin could yield as much as nine barrels of oil. Given conservative estimates regarding source rock distribution, loss to the system due to leakage, faulting and metamorphism and recovery, this suggests a total undiscovered potential resource of about three billion barrels of oil.

Based on the widely-used Zeta Ware program, and conservative assumptions regarding source rock distribution and recovery factors, experts estimate that onshore Tasmania could contain as much as 346 million barrels of recoverable oil plus 6 trillion cubic feet of methane or a possible total recoverable potential resource of 1.346 billion BOE. Non-tasmanite-derived bitumen and oil occurs within Permian sandstones in western Tasmania and is geochemically similar to other sampled seeps found near Hobart, indicating generation from another, as yet unknown, source rock. Inclusions of oil are found in Permo-Triassic sandstones in western, central, and eastern parts of the Tasmania Basin.

Maturation **–** The Basin is immature for oil (0.5 vitrinite reflectance equivalence) in the north of the state where outcrops of oil shale were quarried in the 1920s to 1930s to mature over the remainder of the Basin (0.5 to 1.5 vitrinite reflectance equivalence).

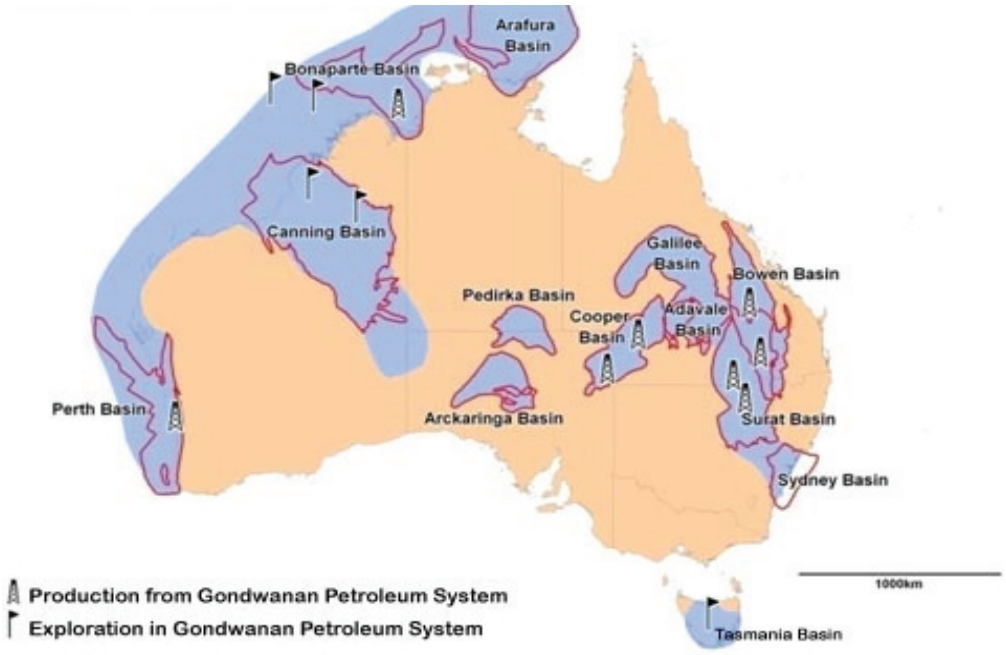
Reservoir **-** Consists of about 20 to 30 meters of mid-Permian terrestrial sandstones, some thinner late- Permian sandstones and 200 meters of early-Triassic terrestrial sandstones.

Seals **-** Fine grained mudstones of the late Permian Ferntree Fm and correlates are widespread and constitute a regional seal. Jurassic dolerite (diabase) intrusive sheets are also very effective seals as evidenced by their very high seismic velocities.

Traps **-** These consist of gentle domal structures draping over the Devonian domes within the fold-thrust belt, plus numerous flower structures, fault blocks and some anticlines. Many of the fault blocks were formed after the most likely time for migration. As a result, timing of traps and migration times remain a risk factor. Re-mobilization and secondary migration are possible scenarios. However, EEGC has recently identified several early Jurassic (pre- dolerite) age traps which were formed well before the peak oil generation in the Cretaceous/Early Tertiary.

Analogues - The Gondwanan Petroleum System of the Tasmania Basin resembles petroleum systems of the producing Australian onshore Cooper, Bowen and Perth Basins and the Middle Eastern, South Oman Basin.

Distribution of Gondwanan Basins



The Larapintine Petroleum System (Ordovician to Devonian):

Platform Ordovician to early Devonian formations shape the Larapintine Petroleum System. Essentially, onshore Tasmania consists of a Devonian fold-thrust belt containing thick tropical platform, Ordovician limestones overlain by Siluro-Devonian siliciclastic formations, unconformably overlain by glacimarine Permian and terrestrial Triassic siliciclastics.

Source **-**The Larapintine Petroleum System of onshore Tasmania is less well-studied than the Gondwanan System. For many years, a petroliferous odor has been noted from the mile-thick Gordon Group limestones. Recently, wet gas has been extracted from the limestone in central

Tasmania. The limestone in central Tasmania is in the wet to dry gas windows whereas, in western Tasmania, association with Devonian granites has led to metamorphic temperatures of over 300 degrees centigrade. However, studies by mining companies in western Tasmania have shown that substantial oil was generated and reservoired within the Ordovician limestone after Devonian orogeny. This oil is now represented by very abundant bitumen in good porosity in the Gordon Group limestone. Further away from the granites in central Tasmania, the Ordovician remains in the wet to dry gas windows.

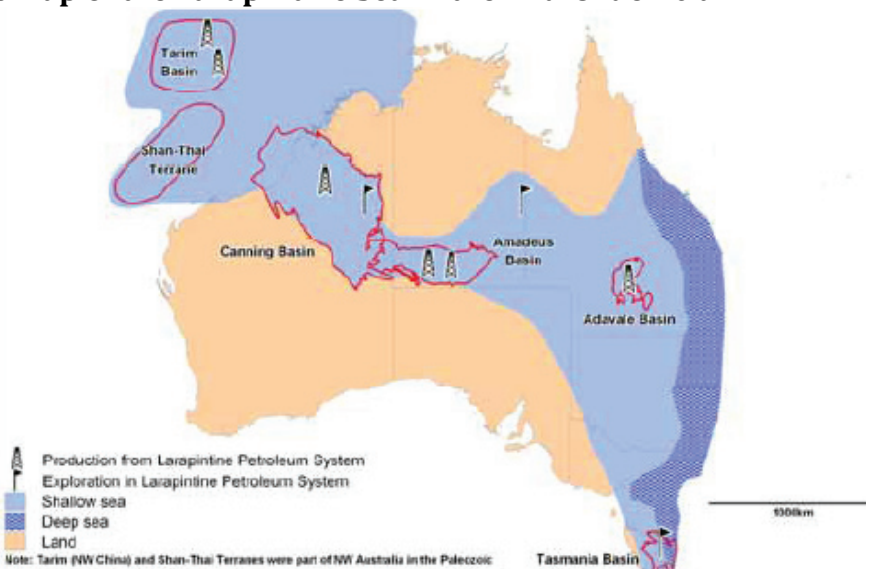
Maturation of Reservoirs - Good porosity may be found in coarse carbonate sands and within reef develop- ments and within dolomitized zones. Devonian karsting (cave formation) of the Ordovician limestone has been demonstrated in several parts of Tasmania and may be detected on the seismic sections. Paleokarst is therefore a major drilling target for the Company. Sandstone formations within the overlying Siluro-Devonian Eldon and Tiger Range Groups may also have reservoir potential at depth.

Seals - Seals are developed as thick fine grained units within the Ordovician limestone and as shale formations within the Silurian and Devonian. Permian tillite constitutes a topseal for the paleokarst reservoirs of the Ordovician limestone.

Traps - Large anticlines have been identified seismically under the Permo-Triassic of the Tasmania Basin infill. These were formed by Devonian orogeny and constitute an Appalachian-style 'valley and ridge' province that merges eastwards into a more strongly thrusted zone. The overlying Permian and Triassic and the intrusive Jurassic follow the same fold trends but with shallower dips than in the unconformably underlying Early Paleozoics. This allows both petroleum systems to be targeted by one drill hole.

Analogues – Productive, biologically similar sequences of Ordovician limestones are found in eastern North America such as the Trenton Limestone and the Viola Formation and in the Tarim Basin of NW China and both East and West Texas.

Paleogeographic Map of the Larapintine Sea in the Mid-Ordovician



OPERATIONAL & DRILLING PLAN

Currently, GSLM and Empire Energy have expended in excess of US$50 million (AUD$56 million) in exploration costs in Tasmania, Australia. The Company has completed 1,350 line kilometers of 2D seismic on and off-shore. This seismic work was completed in 2007 with additional processing in 2008. GSLM began exploratory drilling operations in 2008, beginning with the Bellevue #1 structure, but operations were suspended when expected funding was interrupted. The Company intends to resume operations as funding is available. The Company anticipates the cost for drilling both the Bellevue and Thunderbolt structures to be approximately US$8 - 10 million. As a result of the significant costs expected to be incurred, Empire is currently committed to a US$9 million Rights Issue capital raising for existing shareholders, set to close on or around 12 April 2010. Additionally, the company may enter into a joint venture type of arrangement with a driller/operator in addition to additional capital raising activities. We have a day-rate contract with a drilling company in support of this program.

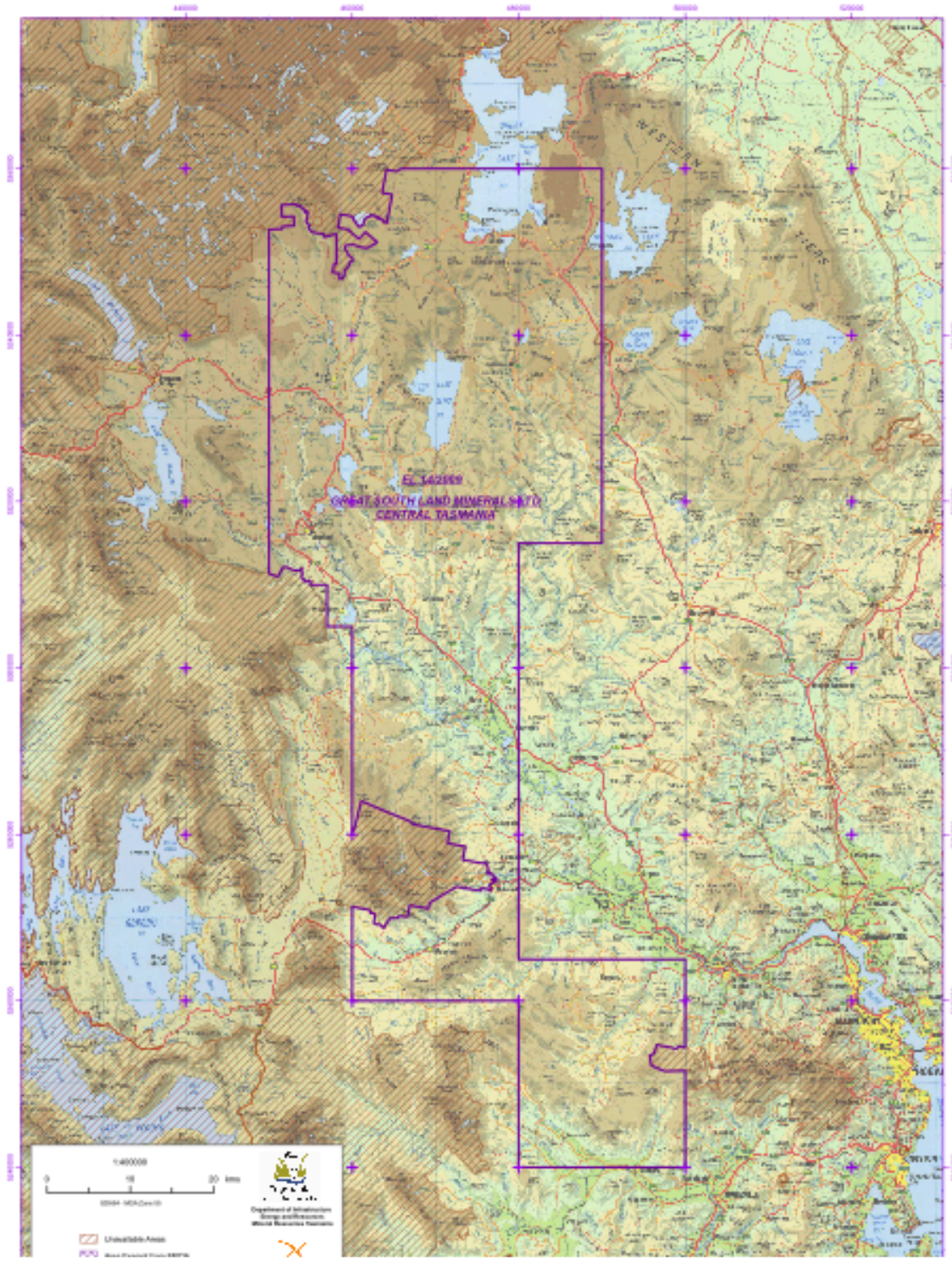
The company has submitted two applications for Exploration Licenses, one of which, Exploration License 14/2009, is on track to be issued on or around 13 April 2010. Award of the Exploration License is at the discretion of the Minister but the Company believes its performance over past years support the issuance of the new license. Empire has entered into a conditional contract to purchase a new state-of-the-art 15,000 foot hydraulic drilling rig and auxiliary equipment (GEFCO SS-1100 Rig) and is readying transfer to the Australian mainland. Subject to further approvals and financial and personnel resources, the Company intends to drill all 12 seismically defined structures, beginning with the Bellevue and Thunderbolt structures, as soon as practical.

Wellbore Estimates

Wellbore Name	Bellevue #1	Thunderbolt#1
Surface Co-Ordinates^ (AMG 66, Zone 55)	465660E 5338904N	466,844 E 5287200 N
Total Depth^	2,800 meters	2,600 meters
Petroleum System/Age (source)#	GL*/Ordovician, Permian (450 Ma, 280Ma)	GL/Ord.Permian (450Ma,280 Ma)
Expected Hydrocarbon Type#	Oil/Gas/Condensate	Oil/Gas/Condensate
Trapping Mechanism/Closure^	Anticline/4 way	Anticline/4 way
Prospective STOOIP (MMbbls)– MeanEstimate#	1318 (Combined Upper & Lower Unit)	61

Source: #RPS Energy (August 2008), ^GSLM Drill Applications (2008) * G= Gondwanan L=Larapintine

Exploration License 14/2009 Area



Oil and gas resource estimates were obtained using a probabilistic method. Through this exercise, RPS Energy compiled the following estimates of unrisked oil and gas resources:

Unrisked oil volumes of Upper Unit of the Bellevue Prospect

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	160	587	1732	808
Prospective Resource (MMbbls)	38	151	484	220

Source: RPS Energy Report

Unrisked oil volumes of Lower Unit of the Bellevue Prospect

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	100	368	1094	510
Prospective Resource (MMbbls)	24	95	307	139

Source: RPS Energy Report

Unrisked oil volumes of Lower Unit of the Bellevue Prospect

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	49	206	717	61
Prospective Resource (MMbbls)	12	53	198	88

Source: RPS Energy Report

An extensive drilling program to confirm these estimates is scheduled to commence after the issuance of Exploration License 14/2009.

Typically, the hydrocarbon discovery will be either gas or oil but not both so it is not appropriate to add the prospective gas and oil resources. RPS Energy estimates unrisked prospective oil resources to include 668 million barrels and natural gas resources in the range of 347 to 799 billion cubic feet. EEGC estimates, that, at current energy prices, the value of the Company's prospective resources could exceed US$54 billion. Going forward, increasing worldwide energy demand and depleting fossil fuel resources should continue to push oil and gas prices higher and increase the value of Empire's energy resources.

For valuation purposes we estimate the gross value of the Company's energy resources at $3.3 billion. This is based on RPS Energy's estimated 668 million barrels of oil at WHK Denison's discounted price of US$5/barrel for undiscovered prospective resources. Empire's current $9.75 million market capitalization represents a 1/200th of the estimated value of prospective oil and gas resources. As a result, we believe a higher valuation is warranted for Empire.

Empire Energy Corporation International
(an exploration stage company)
CONSOLIDATED BALANCE SHEETS

	September 30, 2009	December 31, 2008
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 1,227	$ 53,885
Receivables	2,239	12,785
Prepayments and other current assets	17,252	2,123,416
TOTAL CURRENT ASSETS	20,718	2,190,086
MARKETABLE SECURITIES	—	1,152,638
NOTE RECEIVABLE	—	523,821
OIL AND GAS PROPERTIES UNDER DEVELOPMENT	9,352,851	4,441,716
PROPERTY AND EQUIPMENT, NET	92,973	170,427
DEPOSITS	65,468	—
TOTAL ASSETS	$ 9,532,010	$ 8,478,688
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Trade and other payables	$ 4,501,665	$ 2,348,354
Trade and other payables—related party	1,013,080	570,419
Short term debt	3,633,658	44,437
Short term debt—related party	1,036,300	2,305,502
Accrued interest payable	315,000	247,500
TOTAL CURRENT LIABILITIES	10,499,703	5,516,212
NOTES PAYABLE	1,160,199	4,183,910
TOTAL LIABILITIES	11,659,902	9,700,122
COMMITMENTS AND CONTINGENCIES	—	—
STOCKHOLDERS' DEFICIT		
Class A Common stock, (599,000,000 authorized) issued with a par value of $0.001, 278,543,190 and 267,215,423 shares issued and outstanding respectively	278,543	267,215
Class B Common stock, (1,000,000 authorized) issued with a par value of $0.001, 100,607 and 100,874 shares issued and outstanding respectively	101	101
Additional paid-in capital	34,378,321	33,108,372

Deficit accumulated during the exploration stage	(37,229,610)	(33,015,864)
Accumulated other comprehensive income (loss)	444,753	(1,581,258)
TOTAL STOCKHOLDERS' DEFICIT	(2,127,892)	(1,221,434)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$ 9,532,010	$ 8,478,688

Empire Energy Corporation International
(an exploration stage company)
STATEMENT OF CASH FLOWS

	2009	2008 (Restated)	March 15, 1995 (Inception) to September 30, 2009
	$	$	$
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	(4,213,746)	(4,770,648)	(37,229,610)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share based payments	478,100	1,970,050	9,838,715
Discontinued operations	—	(73,476)	20,476
Depreciation	50,727	69,000	202,191
Amortization of debt discount	181,378	—	181,378
Stock options vested (forfeited)	—	(105,466)	674,680
Loss on disposal of fixed assets	—	—	207
Loss on equity investment	100,000	—	829,000
Loss on extinguishments of debt	610,326	—	610,326
Realized gain on marketable securities and note receivable	(1,443,403)	—	(1,496,459)
Impairment loss on marketable securities	1,276,667	—	1,277,336
Foreign currency transaction loss (gain)	794,925	—	(131,679
Changes in operating assets and liabilities:			
Receivables	10,546	(106,163)	(2,239)
Prepaid expenses and other assets	438,133	(649,410)	(17,252)
Trade payables and accrued expenses	1,110,292	(173,093)	7,767,478
NET CASH USED IN OPERATING ACTIVITIES	(606,055)	(3,839,206)	(17,475,452)
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of equity investments	—	—	7,519,084
Investment in brands	—	—	(80,000
Purchase of property and equipment	(2,398)	(29,122)	(2,034,622)
Proceeds from sale of property and equipment	29,126	—	1,771,093
Oil and gas properties under development	(1,622,794)	(1,931,902)	(6,064,510)
Proceeds (cost) of marketable securities	154,837	(8,978)	(33,199)

Proceeds from collection of note receivable	—	—	320,178
Deconsolidation of subsidiary, net of proceeds	25,000	—	(10,603)
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES	(1,416,230)	(1,970,002)	1,387,421
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from issuance of notes payable	644,642	5,049,208	12,196,252
Proceeds from issuance of common shares, net of $328,142 of direct issuance costs	—	—	6,656,459
Principal payments on notes payable	(42,282)	(20,788)	(4,348,947)
Proceeds from the sale of non-controlling interests	—	300,000	1,140,741
NET CASH PROVIDED BY FINANCING ACTIVITIES	602,360	5,328,420	15,644,505
EFFECT OF EXCHANGE RATE CHANGES ON CASH	1,367,267	630,410	444,753
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(52,658)	(944,754)	1,227
CASH AND CASH EQUIVALENTS – beginning of period	53,885	1,228,903	—
CASH AND CASH EQUIVALENTS – end of period	1,227	284,149	1,227
CASH PAID FOR:			
Taxes	—	—	—
Interest	9,509	19,755	524,501
NON-CASH INVESTING AND FINANCING TRANSACTIONS			
Prepaid expense paid with Empire stock		2,550,000	
Acquisition of marketable securities with Empire stock		1,276,667	
Debt settled with Empire stock	—	842,810	
Issuance of stock for acquisition of Grand Monarch Holdings	125,000	—	
Debt settled with marketable securities	1,945,555	—	
Accrued capitalized exploration costs	1,606,127	—	
Fair value of warrants issued with debt	428,557	—	

KEY MANAGEMENT

The directors of the Company are elected each year at the annual meeting of shareholders for a term of one year. Each director serves until the expiration of his term or until the earlier of his death, resignation, or removal, or until his successor has been qualified. Executive officers of the Company are appointed by the board of directors on an annual basis and serve until their successors are appointed by the board of directors. Currently, our directors are not compensated for their Board services, although their expenses in attending meetings are reimbursed.

NAME	AGE	POSITION
Malcolm R. Bendall	51	Chief Executive Officer and Director
Dr. Clive F. Burrett	61	Director and Chief Geologist
John C. Garrison	57	Chief Financial Officer, Secretary and Director
Tad M. Ballantyne	53	Director

Malcolm R. Bendall

Malcolm Bendall was a founding director of Great Southland Minerals Limited (GSLM) and was appointed Chief Executive Officer and Board Chairman of Empire Energy on June 4, 2004 for the purpose of progressing the merger between GSLM and Empire Energy and served in that capacity until August 2007 and was reappointed in March 2008. He has been involved in organizations investigating the viability of petroleum resources in Special Exploration License 13/98 since 1977. Mr. Bendall has worked as a mine manager and drill supervisor and has been published in four international petroleum journals. He is a fellow of the Institute of Company Directors, Tasmania and was Tasmanian Businessman of the year in 1989.

Dr. Clive F. Burrett

Dr. Clive Burrett of Hobart, Tasmania, was appointed to the board of directors in October 2005. Dr. Burrett was a founding member of the Board of Directors of Great South Land Minerals Limited which is a wholly owned subsidiary of Empire. Dr. Burrett received his Bachelor of Science with honors from the University of London in 1970, and a PhD from the University of Tasmania in 1978. He was a Professor of Geology in the School of Earth Sciences in the University of Tasmania. He previously served as Chairman of the Department of Geology from 1998 to 2002. He has published over 100 scientific papers and edited the standard volume on the "Geology of Tasmania." He has also supervised many graduate studies focusing on basin evolution in Tasmania and Asia. Dr. Burrett has consulted on applied aspects of basin evolution, petroleum, lead and zinc deposits to companies such as Shell, CRA, Oxiania and BHP in Australia, Oman, Laos, China and Thailand.

John C. Garrison

John C. Garrison has been a director of the Company since April 1999. Mr. Garrison is a certified public accountant with over thirty years of experience in accounting, auditing and financial management. He served as corporate secretary, director and chief accounting officer of Infinity, Inc., a publicly traded oilfield service and oil and gas exploration and development company from April 1995 to August 1999. He is also a director of Quest Resource Corporation, a publicly traded energy company. He has been involved in an active practice of public accountancy since 1976. Mr. Garrison received a degree in business administration and accounting from Kansas State University in 1974.

Tad M. Ballantyne

Tad M. Ballantyne, was appointed as an independent member of the board of directors in October 2005 and served as President of our former subsidiary Pacific Rim since March 2006. Mr. Ballantyne has been CEO of Hoopeston Foods, Inc. since March of 2004. Mr. Ballantyne is a director and chairman of the audit committee of Life Partners Holdings, Inc., and is an officer and director of several private companies including BR Industries, Inc, Hoopeston Foods, Inc., L.C. Thomson Inc., Jilin Jimei Foods, Ltd., Pacific Rim, and other companies engaged in manufacturing and food processing industries as well as real estate acquisition. During 2003, Texas Steel Partners Inc., a Texas-based steel foundry, filed for reorganization and was liquidated pursuant to a bankruptcy Chapter 7 conversion. Mr. Ballantyne was an officer and director and 50% shareholder of Texas Steel Partners. During the last 15 years, Mr. Ballantyne has been, on a global basis, in the business of acquiring and operating troubled companies or assets being divested by public and private companies. In addition, he has been both an officer and director of a public company, Amacan Resources Corporation, previously engaged in the oil and gas business on the production and refining side. He holds a Bachelor of Arts degree in business management from the University of Wisconsin.

TASMANIA OFFICE PERSONNEL

Paul Health – Chief Operations Officer
Dr. Clive Burrett – Chief Geologist
Diego Gonzalez –Seismic Interpretation
Nicole Chesterman – Business Consultant, MBA
Todd Geobhe –Down Hole Geophysicist
Dr. Mohammed Adabi – Ancient Carbonate Geologist
Dr. Zohreh Amini – Recent Carbonate Geologist
David Dunsby – Drilling Supervisor
Gerry Murrel – Accountant
Peter Woodhouse– Accountant
Mike Stockle - Accountant
Alan Barnett – Shareholder Liaison

INVESTMENT RISKS

1. ***Special Exploration License 13/98 expired September 30, 2009 and continuing Exploration License applications have yet to be issued.***

By its terms, Special Exploration License 13/98 expired September 30, 2009. The Company, with and through its subsidiary, Great South Land Minerals, LTD lodged an application for an Exploration License covering the significant identified prospective areas included in the SEL 13/98 effort and lodged an additional application for a Special Exploration License for additional land and offshore areas of Tasmania. These license applications have not yet been formally awarded by Mineral Resources Tasmania. However, on 17 March 2010 the Director of Mines publically advertised his recommendation for the issuance of Exploration License 14/2009. This represents one of the final steps in the statutory process required for the formal issuance of an exploration license to GSLM.

The contractual terms of Special Exploration License 13/1998 between Mineral Resources Tasmania (MRT) and GSLM detailed in a letter from former Deputy Premier Paul Lennon of 23 December 1998 states *"at the end of the licence period, the more prospective areas must be converted to exploration licences with appropriate conditions, if continued tenure is required."*

The company believes it has a right to the award of the exploration license over selected areas covered by that license and continues to work for and plan for the reissuance. Should Mineral Resources Tasmania issue a smaller Exploration License that what was originally applied for and/or excludes any of Empire/GSLM's seismically defined structures, the Companies are prepared to take legal action to recover the excluded licensed area and/or obtain financial compensation for exclusion of prospective, seismically defined structures.

2. ***We may not be able to meet our substantial capital requirements.***

Our business is capital intensive. We must invest a significant amount in development and exploration activities. We are currently making and intend to continue to make substantial capital expenditures to find, develop and produce natural gas and oil reserves. If our capital resources diminish, we may not be able to meet the exploration expenditure requirements of our petroleum licenses – thus voiding the licenses.

The Companies are prepared to employ a great variety of capital raising instruments including hypothecation, debt and/or equity financing, joint ventures etc. to meet our capital requirements.

3. ***We may not be able to effectively manage our growth, which may harm our profitability***

Our strategy envisions expanding our business. If we fail to effectively manage our growth, our financial results could be adversely affected. Growth may place a strain on our management systems and resources.

In anticipation of the Companies' substantial and rapid growth, on 05 March 2010, Empire/GSLM announced its extension of invitations to Mr. James H. Leach of Newport

Rhode Island to Join Empire Energy's Board of Directors and Mr. Mark Cowan of law firm Patton Boggs, of Washington, D.C. to join as an Advisor to Empire's Board, after the scheduled completion of its ongoing Rights Offering.

With the combination of financial, political as well as legal skills these two outstanding professionals harbor, Empire has never been more expertly equipped to undertake the development of the Tasmania Basin nor more well advised to manage the more vigorous requirements of corporate governance, finance and structure demanded by the size of the project the company is now undertaking.

**Note: Mr. Leach and Mr. Cowan's Resumes are included as Appendix A and B, respectively.

4. *A decline in natural gas and oil prices may adversely affect our financial results*

Revenues we generate from future operations would be highly dependent on the price of, and demand for, natural gas and oil. Even relatively modest changes in oil and natural gas prices may significantly change those revenues, results of operations, and cash flows. Historically, the markets for natural gas and oil have been volatile and are likely to continue to be volatile in the future.

The Organization of the Petroleum Exporting Countries (OPEC)'s Monthly Oil Market Report for March 2010 predicts World oil demand is expected to grow by 0.9 mb/d in 2010, following a contraction of 1.4 mb/d in the previous year. This represents an upward revision of 0.1 mb/d from the previous assessment. Oil demand has been highly dependent upon the pace of the global economic recovery. Moreover, Australia's oil supply is foreseen to grow by a minor 0.01 mb/d over a year earlier to average 0.55 mb/d in 2010, unchanged from the previous month. On a quarterly basis, Australian supply is expected to average 0.53 mb/d, 0.53 mb/d, 0.56 mb/d, and 0.57 mb/d respectively.

Additionally, on 03 December 2009, U.S. investment bank Goldman Sachs maintained its previous $90-a-barrel 2010 price forecast for West Texas Intermediate crude futures but predicted the NYMEX crude futures would rise to $110-a-barrel in 2011.

CAPITAL TABLE

Preliminary		Shares	Options	Total	Outstanding	Treasury
Shares 12/31/07					206,046,456	
Additions	Q1				14,765,843	
	Q2				8,938,732	
	Q3				25,511,111	
	Q4				11,953,281	267,215,423
	Q1				7,500,267	
	Q2 April				12,677,500	
					287,393,190	278,543,190
Malcolm Bendall		33,639,434	11,400,000	45,039,434	287,393,190	
		-	-	-	287,393,190	
Mark Callaway		-	-	-	287,393,190	
John Garrison		2,022,288	2,000,000	4,022,288	287,393,190	
Tad Ballantyne		1,500,000		1,500,000	287,393,190	-
Clive Burrett		565,632	600,000	1,165,632	287,393,190	
	13%	**37,727,354**	14,000,000	51,727,354	287,393,190	-
Other options			2,000,000	2,000,000	287,393,190	
Phil Simpson		6,984,579	7,400,000	14,384,579	287,393,190	
Kingdom Securities		8,050,000	-	8,050,000	287,393,190	
Graham Rogers			-	-	287,393,190	
	18%	52,761,933	23,400,000	76,161,933	287,393,190	
Pacific Rim		-	-	-	287,393,190	-
RAB Special Situations		14,075,000	42,478,571	56,553,571	287,393,190	
Libertas		21,757,777	-	21,757,777	287,393,190	
Wind City			-	-	287,393,190	
	31%	88,594,710	65,878,571	154,473,281	287,393,190	
					0	
					43,108,979	

				Max Case Shares		Potential Proceeds $
Total shares outstanding 6/30/09				287,393,190	R	
Potential sale		2,000,000 BPS		-		-
				287,393,190		-
Reserved for rights issue, based on 1 for 2 rate			267,215,423	133,607,712	R	9,352,540
				421,000,902		9,352,540
Shares reserved for warrants and options						
RAB warrants and note				29,383,333	R	1,473,500
potential increase for repricing to $.07				13,095,238	R	
Simpson Options				7,000,000	R	490,000
Director options - Expired 12/31/09			9,000,000	-		-
				470,479,473		11,316,040
Shares held in escrow						
Spalding				3,000,000	R	450,000
Hunt, sent to First Global				20,000,000	R	
Hunt reissued				24,000,000		1,680,000
Hunt additional				1,000,000		70,000
First Global 2/23/09				20,000,000		
Smart Win		Disputed		32,000,000		4,800,000
				570,479,473		18,316,040
Total shares committed				570,479,473		18,316,040
Debt recorded						
Bendall	Registered	518,000	0.07	7,400,000	R	
Garrison	not registered	500,000	0.07	7,142,857		
				14,542,857		-
Total potential shares committed				**585,022,330**		**18,316,040**

EXIT STRATEGY

After completion of drilling of both the Bellevue and Thunderbolt structures the Company intends to seek a joint venture partnership with a larger established oil company to complete the development and extraction of oil and gas in the Tasmania Basin.

Issuance of Special Exploration License 13/1998 to GSLM
Terms Entitle GSLM to Exploration License for Prospective Areas

COPY

561046

Tasmania

DEPUTY PREMIER

23 DEC 1998

Mr Henry Askin
Chairman
Great South Land Minerals Ltd
Level 3, 65 Murray Street
HOBART TAS 7000

Dear Mr Askin

GRANTING OF SPECIAL EXPLORATION LICENCE 13/98

I have been advised by Mineral Resources Tasmania that you have agreed to a number of conditions which are a prequisite to my granting of an application for a Special Exploration Licence over a large portion of the Tasmania Basin.

These conditions are:

----------*Continued from Page 2*----------

SEL 13/98

- the licence shall be issued for five years. At the end of the licence period, the more prospective areas must be converted to exploration licences with appropriate conditions, if continued tenure is required;
- rental to be paid at prescribed rates;
- written acknowledgment by Great South Land Minerals Ltd of these licence conditions.

It is my intention at the appropriate time, subject to due process, to grant the licence for a period of five years.

It is my understanding that the licence will be publicly advertised on Saturday, 9 January 1999.

Yours sincerely

Paul Lennon
Deputy Premier

Public Advertisement of Exploration License 14/2009 for GSLM

Tasmania
Explore the possibilities

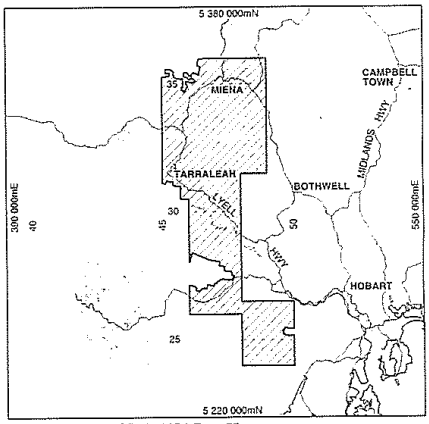
Public Notices

DEPARTMENT of INFRASTRUCTURE, ENERGY and RESOURCES

Mineral Resources Development Act 1995

Notice of Application for Exploration Licence

Notice is given that I, Michael Leonard, Director of Mines, intend to recommend to the Minister for Energy and Resources that he grant the following exploration licence over the area shown hatched on the plan below:



Coordinate datum - GDA94 MGA Zone 55

0 25 50 75 100km

Reference No: EL14/2009 **Area:** 3180 km²

Category of Mineral: 4 – Petroleum Products.

Applicant: Great South Land Minerals Ltd.

ACN: 068 650 386

Address: 3/65 Murray Street, Hobart 7000.

Vicinity: Central Tasmania

The application excludes existing mining leases, National Parks and reserved or other lands exempted from the *Mineral Resources Development Act 1995*.

Consent is required from the Director of Mines prior to any exploration activity. An explorer must provide 14 days notice prior to accessing private land. Security deposits are held against each licence in the event that the explorer fails to meet their rehabilitation obligations.

Any person who claims an estate or interest in any land within the application area may object to the granting of the application. Objections must be in writing and lodged with the Registrar of Mines, PO Box 56, Rosny Park 7018 within 28 days of advertisement and must be accompanied by the prescribed fee of $26.60 for each objection.

For further information in relation to the application, including the effect on private land within an application area, please contact Mineral Resources Tasmania, Rosny Park at the above address or phone (03) 6233 8377.

Michael Leonard
Director of Mines

www.publicinfo.tas.gov.au

Source: The Mercury Newspaper – 17 March 2010 – Pg. 41

Inquiries 1300 300 630

Issue date 16 Mar 10

Company Statement

CORPORATE KEY: **43907396**

Extract of particulars – s346A(1) *Corporations Act 2001*

Check this statement carefully

You are legally obligated to ensure that all your company details listed on this company statement are complete and correct. This is required under s346C(1) and/or s346B and s346C(2) of the *Corporations Act 2001*.

You must check this statement carefully and inform ASIC of any changes or corrections immediately. **Do not return this statement.** You must notify ASIC within 28 days after the date of change, and within 28 days after the date of issue of your annual company statement. Late lodgement of changes will result in late fees. These requirements do not apply to the **Additional company information**.

ACN 068 650 386

FOR GREAT SOUTH LAND MINERALS LTD

REVIEW DATE: **15 March 10**

You must notify ASIC of any changes to company details — Do not return this statement

www.asic.gov.au
Use your Corporate Key to log in.

Use Form 484 to make changes to company details or if any information is missing or incomplete.
Use Form 492 to amend any incorrect information that you have previously lodged with us.

Phone if you've already notified ASIC of changes but they are not shown correctly in this statement.
Ph: 1300 300 630

Use your agent.

Company statement

These are the current company details held by ASIC. You must check this statement carefully and inform ASIC of any changes or corrections immediately. Late fees apply. **Do not return this statement.**

1 Registered office

LEVEL 3 65 MURRAY STREET HOBART TAS 7000

2 Principal place of business

LEVEL 3 65 MURRAY STREET HOBART TAS 7000

3 Officeholders

Name: MALCOLM ROY BENDALL
Born: LAUNCESTON TAS
Date of birth: 09/12/1958
Address: 37 NICHOLAS DRIVE SANDY BAY TAS 7005
Office(s) held: DIRECTOR, APPOINTED 31/03/2008

Name: JOHN GARRISON
Born: ST LOUIS UNITED STATES
Date of birth: 29/08/1951
Address: 7211 HIGH DRIVE PRAIRIE VILLAGE KANSAS 66211 UNITED STATES
Office(s) held: DIRECTOR, APPOINTED 31/03/2008

These details continued on the next page

GREAT SOUTH LAND MINERALS LTD ACN 068 650 386

009734/009734/1X077B445

ASIC Company Statement (continued)

Company Statement continued

4 Company share structure

Share class	Share description	Number issued	Total amount paid	Total amount unpaid
ORD	ORDINARY	62426782	$7313276.60	$0.00

You must notify ASIC within 28 days of the date of change, and within 28 days of the issue date of the annual company statement. Late lodgement of changes will result in late fees.

End of company statement

This concludes the information to which the company must respond (if incorrect) under s346C of the *Corporations Act 2001*.

Additional company information

This information is optional under the *Corporations Act 2001*. Late lodgement fees or late review fees do not apply to this information. To add, remove or change a contact address, see www.asic.gov.au/addresses.

5 Contact address for ASIC use only

Address: GPO BOX 1603 HOBART TAS 7001

CGU Insurance Limited ABN 27 004 478 371
73-75 St. John St. Launceston, Po Box 867, Launceston 7250
Telephone:(03) 6345 3500 Facsimile:(03) 6331 8933

RAF

24/09/09

LOGAN GROUP
ATT: KELLIE WILLIAMS

CERTIFICATE OF CURRENCY

The policy referred to is current as at the date of issue of this certificate and whilst a due date has been indicated it should be noted that the policy may be cancelled in the future. Accordingly, reliance should not be placed on the expiry date.

Policy Number: 15T 0857960 00
Type of Policy: BUSINESS PACK
Expiry Date: 24/09/10
Insured: SEE BELOW

Mortgagee/Interested Party:

Situation of Risk: ANYWHERE IN AUSTALIA

050

PROPERTY/SUM INSURED:
INSURED NAME: EMPIRE ENERGY CORPORATION INTERNATIONAL (EEGC.OB)
&
GREAT SOUTH LAND MINERALS LIMITED
PUBLIC LIABILITY SUM INSURED: $10,000,000

This is to certify cover has been granted in terms of the Company's Standard Policy, a copy of which is available on request. This certificate is not a substitute for the Policy of Insurance issued to you. The Policy, not this certificate, details your rights and obligations and the extent of your insurance cover.

ALICIA ASHLIN
Authorised Official

REV4 11/07

COPY

Form 251

GREAT SOUTH LAND MINERALS PTY LTD
LVL 3
65 MURRAY ST
HOBART TAS 7000

remove this top section if desired before framing

Certificate of Registration on Conversion to a Public Company

AUSTRALIAN SECURITIES COMMISSION

Corporations Law Sub-section 168 (3)

This is to certify that

GREAT SOUTH LAND MINERALS PTY LTD

Australian Company Number 068 650 386

on the twenty-seventh day of May 1998 converted to a **public** company.

The name of the company is now

GREAT SOUTH LAND MINERALS LTD.

Australian Company Number 068 650 386

The company is registered under the Corporations Law of Tasmania and the date of commencement of registration is the fifteenth day of March, 1995.

CERTIFICATE

Given under the seal of the
Australian Securities Commission
on this twenty-seventh day of May, 1998.

AUSTRALIAN SECURITIES COMMISSION COMMON SEAL

Alan Cameron
Chairman

APPENDIX A

JAMES H. LEACH

P: 401.952.3700
E: jleach@natltrust.com

Professional Summary

NATIONAL TRUST, LLC – Senior Managing Director
1985 – Present *Providence, Rhode Island*
National Trust, LLC a subsidiary of the Leach Family Trust., Rhode Island's oldest name in real estate development and investment firm. The Leach Family pioneered the conversion of idle mill buildings in Rhode Island in the 1930's for industrial reuses. Since the 1930's the Leach name had become one of New England's largest developers with over 2.5 million square feet under development.

The Leach holdings have included shopping centers, office buildings, golf courses, and parking garages located in four New England states. One of our most significant projects is the largest clean up ever undertaken by EPA of a Super Fund Site, located in Stratford, Connecticut. In 1997 James Leach was recognized by EPA as a pioneer in the reuse of a Super Fund Site for retail. This was the first time EPA in it's history incorporated a private developers plans into a Super Fund reuse which today serves as the nation wide model for EPA's Super Fund Program.

Corporate Boards

THE OSTER GROUP – Board of Directors
1992 – Present *Greenwich, Connecticut*
The Oster Group is a privately owned investment banking operation specializing in providing capital and business management to emerging companies. The principals of The Oster Group were formally engaged in one of the largest metal operations in the northeast. The A. J. Oster Company is formally a subsidiary of Cookson Group PLC based in London.

KENNY MANUFACTURING COMPANY – Board of Directors
2005 – Present *Warwick, Rhode Island*
Kenney Manufacturing Company is a leading manufacturer and distributor of household consumer products. Kenney was established in 1914 by the Kenney family and is one of the largest private employers in Rhode Island, the company is to this day family owned and operated.

Community Activities

PROVIDENCE CITY PLANNING COMMISSION – **Acting Chairman** (2003) & **Vice-Chairman** (1994-2003)
PROVIDENCE PUBLIC LIBRARY – Trustee (1999-2008)
MIRIAM HOSPITAL – Board of Governors (2000-2005)
RHODE ISLAND PUBLIC TELECOMMUNICATIONS AUTHORITY – Board Member (2000 – Present)
JEWISH SENIOR AGENCY – Board Member (2001-2006)
GROW SMART RHODE ISLAND – Board Member (2002 – Present)
THE RHODE ISLAND PHILHARMONIC – Board Member (2004 – Present)
PROVIDENCE ZONING COMMISION – [Created in 2004] (2004 – Present)
PROVIDENCE CHILDREN'S MUSEUM – Board Member (2004 – Present)
TOURO SYNAGOGUE FOUNDATION – Vice Chairman (2004 – Present)
PRESERVE RHODE ISLAND – Board Member (2006 – Present)
RHODE ISLAND HERITAGE HALL OF FAME – Board Member (2006 – Present)

Memberships

AURORA CIVIL ASSOCIATION (AURORA CLUB)	Providence, Rhode Island
UNIVERSITY CLUB	Providence, Rhode Island
LEDGEMONT COUNTRY CLUB	Seekonk, Massachusetts
THE POLYTECHNIC CLUB	Hartford, Connecticut
RHODE ISLAND COMMODORES	Providence, Rhode Island

PATTON BOGGS LLP
ATTORNEYS AT LAW
www.pattonboggs.com

MARK D. COWAN

Partner

International Practice
Public Policy and Lobbying
Federal Marketing
Latin America Practice
China Practice
Africa Practice

2550 M Street, NW
Washington, DC 20037
T: 202-457-6401 F: 202-457-6315
mcowan@pattonboggs.com

Education

- Catholic University of America, Columbus School of Law, J.D., , 1977
- University of Minnesota, B.A., 1971

Bar Admissions

- District of Columbia
- Virginia

As a partner at Patton Boggs, Mark Cowan draws on more than 35 years of experience working on complex domestic and international public policy issues to counsel a broad range of clients. He advises corporations, government entities, and foreign sovereigns on a wide array of business, regulatory, and trade issues. Mr. Cowan coordinates and oversees client growth and development for the firm.

Mr.Cowan joined Patton Boggs after a long and successful career in the Washington public affairs and government relations industry. He served as president of Columbus Public Affairs and as chief executive officer of Newmyer Associates, a public affairs and strategic intelligence firm. He was vice chairman of Cassidy & Associates, and a founder and chief executive officer of The Jefferson Group. Earlier, Mr. Cowan served at Gray & Company and Hill & Knowlton Public Relations, counseling numerous domestic and international clients.

Before entering the private sector, Mr. Cowan held presidential appointments in three administrations. During the first Reagan administration, he served as Deputy Assistant Secretary of Labor for Occupational Safety and Health until his appointment as Chief of Staff and Counselor to the Secretary of Labor in 1982. Later, President George H.W. Bush appointed him as a Commissioner on the National Commission on Employment Policy. More recently, President George W. Bush appointed him as a Member of the President's Council on the 21st Century Work Force.

In addition to his presidential appointments, Mr. Cowan has held several other government posts. He was Counsel to the Committee on Standards of Official Conduct (ethics) of the U.S. House of Representatives. He also served at the Central Intelligence Agency (CIA) as an operations officer, serving abroad and as a country desk chief in the agency's Directorate of Operations, and later held the position of Assistant Legislative Counsel to the Director of Central Intelligence. In the U.S. Air Force, Captain Cowan flew in the back seat of the F-101 fighter interceptor.

Professional Affiliations:

- Board of Visitors, Catholic University of America, Columbus School of Law
- Member, Committee on the Future of the Workplace, President's Council on the 21st Century Work Force
- Vice-Chairman of the Board, Center on Congress, Indiana University
- Chairman, Board of Advisors, Virginia Military Institute's International Studies

Program
- Lecturer, University of Texas Executive MBA Program
- National Defense Executive Reserve, Department of Homeland Security
- Association of Former Intelligence Officers
- Board of Directors, America Scores, nationwide inner-city youth program
- Board of Advisors, Ideassociates, Pty, Ltd., Sydney, Australia
- Board of Advisors, Diligence, LLC
- Board of Directors, Duluth Metals Limited – Toronto, Canada
- Senior Advisor, Plainfield Asset Management, Wydown Associates, Greenwich, Connecticut
- Board Member, United for D.C.

ARTICLES

Gulf Nations Are Open for Business
March 2005

Sales Training, Business Development and the Legal Profession
March 20, 2003

- Contributor, "Gulf Nations Are Open for Business," *Counsel to Counsel* (March 2005)
- "Patton Boggs' Rain Man," *Legal Times*, February 9, 2004 (Interview)
- Author, "Sales Training, Business Development and the Legal Profession," (March 20, 2003)

www.pattonboggs.com

GSLM Seismic/Exploration Plan - Budget

				Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Drilling Exploratory Wells	Geological work			$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
	Bellevue #1 & Bellevue #2	Drilling	~ $4 Million per Well	$ 3,000,000	$ 1,000,000	$ -	$ -	$ 3,500,000	$ 7,500,000
	Thunderbolt #1 & Thunderbolt #2			$ -	$ 3,000,000	$ -	$ -	$ 3,500,000	$ 6,500,000
	Lonnavale #1			$ -	$ -	$ 3,000,000	$ -	$ -	$ 3,000,000
	Stockwell #1			$ -	$ -	$ -	$ 2,500,000	$ -	$ 2,500,000
Geophysics / Geochemistry				$ -	$ 500,000	$ -	$ -	$ -	$ 500,000
	SUB-TOTAL			$ 3,025,000	$ 4,525,000	$ 3,025,000	$ 2,525,000	$ 7,025,000	$ 20,125,000
Onshore Seismic Survey Tasmania	Environmental	Planning		$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
	Permiting			$ -	$ -	$ 10,000	$ -	$ -	$ 10,000
	Mobilization/Demob	Acquisition		$ -	$ -	$ 500,000		$ -	$ 500,000
	Surveying	Acquisition		$ -	$ -	$ 200,000	$ -	$ -	$ 200,000
	Traffic Management			$ -	$ -	$ -	$ 250,000	$ -	$ 250,000
	Recording			$ -	$ -	$ -	$ 2,500,000	$ -	$ 2,500,000
	Processing	Processing		$ -	$ -	$ -	$ -	$ 200,000	$ 200,000
	Terra Insight Services	Processing		$ -	$ -	$ -	$ -	$ 300,000	$ 300,000
	SUB-TOTAL			$ -	$ -	$ 740,000	$ 2,750,000	$ 500,000	$ 3,990,000
GSLM / Empire Expenditure	TOTAL			$ 3,025,000	$ 4,525,000	$ 3,765,000	$ 5,275,000	$ 7,525,000	$ 24,115,000
Minimum Exploration Expenditure * Based on figures from an email from Mineral Resources Tasmania 28 September 2009 (Attachment G3)	TOTAL		7513 sq kms	$ 1,502,600.00	$ 2,253,900.00	$ 3,756,500.00	$ 5,259,100.00	$ 7,513,000.00	$ 20,285,100

MRT Minimun Exploration Expenditure for first two years **$3,756,000**

GSLM proposed Exploration Expenditure for first two years **$7,550,000**

APPENDIX C

Two Year Cash Flow
2010 - 2011 (end)

EMPIRE Energy

Great South Land Minerals Limited

Fiscal Year Begins: Jan-10

(USD) - Exploration Expenditure converted USD/AUD 1.1103 rate	B'FWD from 30/09/09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Total Item EST YR 1
		year 1	year 1	year 1	year 1	year 1	year 1	year 1	year 1	year 1	year 1	year 1	year 1	
Cash on Hand (beginning of month)	1,227	561,186	3,297,143	2,582,771	1,868,399	7,154,027	6,439,655	5,725,283	5,010,909	4,746,865	4,482,822	4,218,779	3,954,736	561,186
EMPIRE CASH RECEIPTS (consolidated)														
Cash Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash / cash equivalents, receivables and prepayments	19,491	0	0	0	0	0	0	0	0	0	0	0	0	0
Deposits	65,468													0
Loans / Line of Credit Facilities		0	0	0	0	0	0	0	0	0	0	0	0	0
Registered shares - interim capital (First Global & others)	500,000		0	0	0	0	0	0	0	0	0	0	0	0
Capital Raising from Rights Issue: TOTAL ANNUAL USD $3,000,000 @ $0.07; and USD $6,000,000 @$0.07;	0	3,000,000	0	0	6,000,000	0	0	0	0	0	0	0	0	9,000,000
TOTAL CASH RECEIPTS	584,959	3,000,000	0	0	6,000,000	0	0	0	0	0	0	0	0	9,000,000
Total Cash Available (before cash out)	586,186	3,561,186	3,297,143	2,582,771	7,868,399	7,154,027	6,439,655	5,725,283	5,010,909	4,746,865	4,482,822	4,218,779	3,954,736	9,561,186
EMPIRE CASH PAID OUT (consolidated)														
***Costs & Expenses, Selling General & Administrative	0	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	384,000
Payables (monthly av. Payments)**	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Employment expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GSLM EL14/2009 - Exploration Activities commencing 2010								3						
Driling Exploratory Wells														
Geology	0	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	22,697
Bellevue #1 & Bellevue #2	0	0	450,329	450,329	450,329	450,329	450,329	450,329	0	0	0	0	0	2,701,972
Thunderbolt #1 & #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Geophysics / Geochemistry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wages Owed, Sundry Creditors	0	13,548	13,548	13,548	13,548	13,548	13,548	13,548	13,548	13,548	13,548	13,548	13,548	162,572
Wages, normal, monthly (ave)	0	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	432,316
Taxation Payable ATO	0	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	89,770
Superannuation Payable	0	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	87,652
Loan Westpac Mercedes	0	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	19,876
Loan Derek Bendall	0	465	465	465	465	465	465	465	465	465	465	465	465	5,577
Non-current creditors	0	13,780	13,780	13,780	13,780	13,780	13,780	13,780	13,780	13,780	13,780	13,780	13,780	165,361
Total Creditors Monthly repayable recycling credit over 2 years	0	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	929,479
P&L (GSLM Overhead - 12 months avg)	0	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	569,219
												0		
SUBTOTAL	25,000	264,043	714,372	714,372	714,372	714,372	714,372	714,375	264,043	264,043	264,043	264,043	264,043	5,870,490
Loan, notes, lines of credit repayments	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CASH PAID OUT	25,000	264,043	714,372	714,372	714,372	714,372	714,372	714,375	264,043	264,043	264,043	264,043	264,043	5,870,490
Cash Position (end of month)	561,186	3,297,143	2,582,771	1,868,399	7,154,027	6,439,655	5,725,283	5,010,909	4,746,865	4,482,822	4,218,779	3,954,736	3,690,693	3,690,696
Minimum Exploration Expenditure 7,513 Sq Km x $200 1st year p/sqkm	1,353,328												1,353,328	5,062,037

Applied USD/AUD exchange 1.1103

Rights Offering No of available shares @ USD $0.07 each		133,607,712
TOTAL RIGHTS OFFERING PROCEEDS AVAILABLE (USD)	**$**	**9,352,539.84**
Less conversion of existing GSLM liabilities to shares	$	169,344.80
Less advances from rights issue to fund exploration program - yr 1	$	3,000,000.00
Less advances from rights issue to fund exploration program - yr 1	$	6,000,000.00
Less advances from rights issue to fund exploration program - yr 2	$	183,195.04
Lines of Credit - Abbey International - yr 2	$	3,500,000.00

Empire Projections

**Payables to unrelated parties are approximately 600,000, payable over two years is 25,000 per month.

Related payables can be considered converted to equity, approximately 1,000,000

***Operating costs from cash including office, audit and legal, investor accounting and organization costs should be USD$32,000 per month.

Compensation to Malcolm and Garrison can be converted to equity

Notes at Empire to all be convertible to equity using shares included in the September 22, 2009 resale registration.

Other expenses recorded at Empire in 2009 were share transactions or involved warrant or note discount valuations, not cash expenses.

Additional registration of Empire shares can be lodged at any time, or shares can be registered after sale of the shares.

Additional funding (IPO) to complete after commercial discovery will be possible.

Other Assumptions:

Assumes exploration commences in January 2010; and granting of EL during that month.

EMPIRE Energy — Great South Land Minerals Limited

Fiscal Year Begins: Jan-11

(USD) - Exploration Expenditure converted USD/AUD 1.1103 rate

	B'FWD	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Total Item EST YR 1
	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	year 2	
Cash on Hand (beginning of month) '000'	3,690,693	3,690,693	2,962,144	2,050,400	823,426	46,781	2,770,136	1,993,491	1,667,175	1,430,924	1,194,673	958,423	722,172	3,690,693
EMPIRE CASH RECEIPTS														
Cash Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash / cash equivalents, receivables and prepayments	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deposits	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loans / Line of Credit Facilities - Abbey International (draw down/MR Bendall)		0	0	0	0	3,500,000	0	0	0	0	0	0	0	3,500,000
Registered shares - interim capital (First Global & others)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rights Issue: USD $183 195 @ US $0.07	0	183,195	0	0	0	0	0	0	0	0	0	0	0	183,195
TOTAL CASH RECEIPTS	0	183,195	0	0	0	3,500,000	0	0	0	0	0	0	0	3,500,000
Total Cash Available (before cash out)	3,690,693	3,873,888	2,962,144	2,050,400	823,426	3,546,781	2,770,136	1,993,491	1,667,175	1,430,924	1,194,673	958,423	722,172	7,190,693
EMPIRE CASH PAID OUT														
Costs & Expenses, Selling General & Administrative	0	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	384,000
Payables (monthly av. Payments)	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Employment expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GSLM EL14/2009 - Exploration Activities commencing 2011														
Driling Exploratory Wells														
Geology	0	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	1,891	22,697
Bellevue #1 & Bellevue #2	0	225,164	225,164	450,329	0	0	0	0	0	0	0	0	0	900,657
Thunderbolt #1 & #2	0	450,329	450,329	450,329	450,329	450,329	450,329	0	0	0	0	0	0	2,701,972
Geophysics / Geochemistry	0	0	0	90,066	90,066	90,066	90,066	90,066	0	0	0	0	0	450,329
Wages Owed, Sundry Creditors (expire after 12 months)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wages, normal, monthly (ave)	0	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	36,026	432,316
Taxation Payable ATO	0	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	89,770
Superannuation Payable	0	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	7,304	87,652
Loan Westpac Mercedes	0	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	19,876
Loan Derek Bendall (expired after 12 months)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-current creditors (expired after 12 months)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trade Creditors Monthly repay	0	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	77,457	929,479
P&L (GSLM Overhead - 12 months avg)	0	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	47,435	569,219
SUBTOTAL	0	911,744	911,744	1,226,974	776,645	776,645	776,645	326,316	236,251	236,251	236,251	236,251	236,251	6,887,966
Loan / notes principal payment														
TOTAL CASH PAID OUT	0	911,744	911,744	1,226,974	776,645	776,645	776,645	326,316	236,251	236,251	236,251	236,251	236,251	6,887,966
Cash Position (end of month)	3,690,693	2,962,144	2,050,400	823,426	46,781	2,770,136	1,993,491	1,667,175	1,430,924	1,194,673	958,423	722,172	485,921	302,726
Minimum Exploration Expenditure 7,513 Sq Km x $300 2nd year p/sqkm	2,229,377												2,229,377	2,149,005

Expiring liabilities & Operational O'head schedule (forecast for next 12 months)

GREAT SOUTH LAND MINERALS LIMITED ABN 54 068 650 386

All amounts in AUD

GREAT SOUTH LAND MINERALS LIMITED	TOTAL OWED to 21/12/09 (12 months)	SCHEDULE MONTHLY p/mnth 12 months	TOTAL		Total estim. Monthly cash outflows, AUD
Wages Owed, Sundry Creditors	$ 180,497.53	$ 15,041.46	$ 15,041.46	itemised, line by line	
Wages, normal, monthly (ave)	$ 40,000.00		$ 40,000.00	itemised, line by line	
Taxation Payable ATO	$ 99,666.17	$ 8,305.51	$ 8,305.51	itemised, line by line	
Superannuation Payable	$ 97,308.76	$ 8,110.00	$ 8,110.00	itemised, line by line	
Loan Westpac Mercedes	$ 45,954.50	$ 1,838.18	$ 1,838.18	itemised, line by line	
Loan Derek Bendall	$ 6,180.68	$ 516.00	$ 516.00	itemised, line by line	
Non-current creditors	$ 182,988.04	$ 15,300.00	$ 15,300.00	itemised, line by line	
Trade Creditors Monthly repay - over 24 months	$ 2,274,373.30	$ 190,000.00	$ 190,000.00	itemised, line by line	
P&L (GSLM Overhead - 12 months avg)					
Administration	$ 17,000.00	$ 1,416.67	$ 1,416.67		
Communications and IT (estimate)	$ 120,000.00	$ 10,000.00	$ 10,000.00		
Other operational costs, inc. consultancy	$ 250,000.00	$ 20,833.33	$ 20,833.33		
Superannuation - Staff (est)	$ 45,000.00	$ 3,750.00	$ 3,750.00		
Occupancy	$ 100,000.00	$ 8,333.33	$ 8,333.33		
Fundraising and other expenses (est)	$ 100,000.00	$ 8,333.33	$ 8,333.33		
		$ 52,666.67	$ 52,666.67		$ 331,777.82

						AUD	USD	No of Shares	Exchange
Loan DJ Bendall Family Trust	$ 65,249.08	may be converted to equity	Not repayable in cash	$ 65,249.08	may apply rights issue entitlement - may be converted to equity	$ 65,249.08	$ 58,050.10	829,287	0.8897
Loan Allan Barnett	$ 78,096.63	will be converted to equity	Not repayable in cash	$ 78,096.63	may apply rights issue entitlement - may be converted to equity	$ 78,096.63	$ 69,480.20	992,574	0.8897
Loan Francis Cole	$ 27,000.00	will be converted to equity	Not repayable in cash	$ 27,000.00	may apply rights issue entitlement - may be converted to equity	$ 27,000.00	$ 24,021.10	343,159	0.8897
Interest Expense and payable, Terralinna	$ 400,000.00	will be converted to equity	Not repayable in cash	$ 400,000.00	will be converted to equity through 3rd party transfer or other equity issue	$ 400,000.00	$ 355,880.00	5,714,286	0.8897
Shareholders to be issued shares, Empire	$ 20,000.00	will be converted to equity	Not repayable in cash	$ 20,000.00	rights issue entitlement or Empire registered shares	$ 20,000.00	$ 17,793.40	254,191	0.8897
							$ 525,224.80	8,133,497	
Loan Empire	$ 23,948,097.86	may be converted to equity	Not repayable in cash	$ 23,948,097.86	*quasi equity, not required to be repaid, except from eventual earnings.				
Empire Secured Debt @ 10%	$ 89,924.45	may be converted to equity	Not repayable in cash	$ 89,924.45	*quasi equity, not required to be repaid, except from eventual earnings.				
Loan Dewberry Holdings	$ 100,000.00	may be converted to equity	Not repayable in cash	$ 100,000.00	may apply rights issue entitlement - may be converted to equity				
Empire Loan from Smart Win	$ 3,885,783.00	may be converted to equity	Not repayable in cash	$ 3,885,783.00	may apply rights issue entitlement - may be converted to equity				
				$ 28,614,151.02					

Expiring liabilities & Operational O'head schedule (forecast for next 12 months) EMPIRE ENERGY CORPORATION INTERNATIONAL (EEGC)

	USD (over 2 years)	USD SCHEDULE MONTHLY p/mnth 12 months	USD TOTAL	
Trade and Other payables (as at 30/09/09) - repayment schedule (unconsolidated)	$ 600,000.00	$ 25,000.00	$ 25,000.00	Schedules implemented in US as agreed with creditors
Trade and other payables, related party	$ 1,013,080.00	$ -	$ -	Will be converted to equity (not necessarily with rights issue, entitlements, but registered shares)
Short - term debt related party	$ 1,036,300.00	$ -	$ -	Will be converted to equity (not necessarily with rights issue, entitlements, but registered shares)
Short term debt	$ 3,633,658.00	$ -	$ -	Smart Win loan is in default on their part; may not be repayable in cash; likely converted to equity.
Accrued interest payable	$ 315,000.00	$ -	$ -	Will be converted to equity (not necessarily with rights issue, entitlements, but registered shares)

Goldman keeps 2010 oil price forecast at $90/BBL

Thu, Dec 3 2009

NEW YORK, Dec 3 (Reuters) - U.S. investment bank Goldman Sachs <GS.N> maintained on Thursday its previous $90-a-barrel 2010 price forecast for West Texas Intermediate crude futures, but predicted the NYMEX crude futures would rise to $110 a barrel in 2011, on rising demand from emerging markets.

In a research report, Goldman Sachs lowered its 2010 price forecast for NYMEX natural gas futures to $6 per million British Thermal Units (MMBTU), down from a previous forecast of $7.30. The bank expects natural gas prices to rise to $6.50/MMBTU in 2011.

"Overall, we leave our 2010 WTI crude oil forecasts largely unchanged at an average price of $90/bbl, but with lower prices at the start of the year and higher prices at the end," the bank said in a report.

(Reporting by Matthew Robinson and Joshua Schneyer.) ((Email: joshua.schneyer@thomsonreuters.com; +1 646-223-6051; Reuters Messaging: joshua.schneyer.reuters.com@reuters.net)) ((For help: Click "Contact Us" in your desk top, click here [HELP] or call 1-800-738-8377 for Reuters Products and 1-888-463-3383 for Thomson products; For client training: training.americas@thomsonreuters.com ; +1 646-223-5546))

Bloomberg NEWS

Morgan Stanley Raises 2010 Oil Forecast to $85 (Update2)

Morgan Stanley

By Christian Schmollinger and Dinakar Sethuraman

July 14 (Bloomberg) -- Crude oil traded in New York will average $85 a barrel in 2010, Morgan Stanley said, 31 percent higher than its previous estimate of $65 a barrel, as demand recovers and supplies decline.

Commodities will rise as investors' appetite for risk revives along with the global economy, Morgan Stanley analysts, led by **Hussein Allidina**, said in a report yesterday. At the same time, oil production will drop as much as 6.3 percent a year among suppliers outside the Organization of Petroleum Exporting Countries and by 3.5 percent within the group, the bank said.

Oil **demand** is expected to rise 1.4 million barrels a day, or 1.7 percent, in 2010, led by emerging markets outside the Organization for Economic Cooperation and Development, the International Energy Agency said on July 10. Crude prices have climbed 35 percent this year on optimism that government stimulus will overcome the worst recession in six decades.

"Global demand will likely increase as the economy recovers into 2010, while supply has reached a plateau," the Morgan Stanley analysts said. "As green shoots take root, investors will position for improving growth, which will contribute to a softer U.S. dollar, at the same time that oil market fundamentals start to improve, providing a power lift to oil prices."

Crude oil for August delivery gained as much as 69 cents, or 1.2 percent, to $60.38 a barrel on the New York Mercantile Exchange today. The contract was at $60.29 a barrel at 1:57 p.m. Singapore time. Yesterday, it fell 20 cents to $59.69 a barrel, the lowest settlement since May 19.

'Bear' Case

West Texas Intermediate oil traded on the New York Mercantile Exchange will average $55 a barrel in the third quarter of 2009, up 15 percent from earlier forecasts, Morgan Stanley said. Fourth-quarter prices will be $60 a barrel, up 9.1 percent from earlier projections, the analysts said.

Crude may average $50 a barrel in the second half and $55 next year in a "bear" case scenario, and reach $90 a barrel in the second half of 2009 and $100 in 2010 if the global economy recovers rapidly, the report said.

"We expect the next leg in crude prices to be lower, with the fundamentals poised to worsen," the analysts said. "The world is facing a glut of oil."

To contact the reporter on this story: **Christian Schmollinger** in Singapore at **christian.s@bloomberg.net**.

Last Updated: July 14, 2009 05:52 EDT

RPS Energy

QUALIFICATIONS

Founded in **1972**, RPS is one of the **world's leading suppliers of independent oil and gas evaluations**. Their more than **4,500 employees** deliver global, multi-disciplinary energy consultancy from offices in **Europe, North and South America, Australia and Asia**. The firm provides formal reserves reports, independent reporting for a variety of internal and external purposes and Competent Persons Reporting to appropriate standards for IPO, project finance or other requirements. Their annual portfolio includes well over **1,000 projects**, in over **100 countries**, for more than **300 clients** of which include financial institutions, IOCs, NOCs, government agencies as well as public and private companies.

The company is listed on the **London Stock Exchange** under the ticker symbol **RPS** and is a constituent of the **FTSE 250 Index**. Last year, RPS reported **£444 million (US$661 million)** in revenue. In 2009 the firm was ranked in the **top three employers in the UK**. (CFR Institute)

RPS' wealth of diverse experience and internationally recognized reliability has resulted in their involvement in the following projects:

- Management of one of the world's largest Environmental Impact Assessments, linked to the commercialization of untapped gas fields representing 25% of Australia's gas reserves on the north west shelf.
- Appointed as an Expert Witness to the Appeal Court of The Hague with regard to the Logger Field Dispute offshore Netherlands.
- Appointed to undertake the Environmental Impact Assessment for the world's first co-development of offshore gas and wind energy, in the East Irish Sea. When complete, Ormonde will have ability to provide up to 150MW of electricity.
- Appointed to develop the athletes village and rail infrastructure as well as provide oversight of business relocations, planning, transport and building design for the 2012 London Olympics.
- Overcoming seven international rivals to win the role of lead consultant and masterplanner for the transformation of six square kilometers of desert outside Abu Dhabi city into an industrial park.
- Selected to provide compliance support for the GreenHunter BioFuels production facility in Houston, Texas. This is the largest biodiesel production facility in the United States.
- Assisting Heyco Energy in an evaluation of 600,000 acres of unconventional resource potential in northern Spain, through the provision of geological and petrophysical assistance.
- Appointed by Deloitte to advise on the planning of its new headquarters building in Rotterdam. When completed it will be the highest building in the Netherlands.
- Appointed by Dong/Nunaoil to perform an offshore development evaluation in Greenland for the potential development of offshore oil reserves.

In the United States, RPS' client list includes the following oil and gas firms:

- BP America
- Exxon
- Halliburton
- Chevron Phillips
- Origin Energy
- Raytheon Company
- Valero Refining
- Basis Petroleum
- Burlington Resources
- Coastal
- Global Santa Fe
- Mobil Paulsboro
- Motiva Enterprises
- Orion Norco
- Spheros Technologies
- Shell Anacortes
- Tenaska Gateway
- Trans-Global Solutions

RPS Energy

Competent Persons Report
Assets of Great South Land Minerals Limited, Tasmania

Prepared for

Empire Energy Corporation International (Leawood, Kansas, USA) and its wholly owned subsidiary Great South Land Minerals Limited of Hobart.

Date: 23rd October 2008

RPS Energy

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Competent Persons Report
Assets of Great South Land Minerals Limited, Tasmania.

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Empire Energy Corporation International (Leawood, Kansas, USA) and its wholly owned subsidiary Great South Land Minerals Limited of Hobart.

	REPORT NUMBER:	REPORT TITLE Competent Person Report Assets Of Great South Land Minerals Limited, Tasmania	
DATE	**October, 2008**	**PROJECT REFERENCE: GSL-1224**	
	PREPARED:	**CHECKED:**	**APPROVED:**
NAME	**Brian Diamond**	**David Guise**	**David Guise**
SENT	**EDITION**	**DESCRIPTION**	**COMMENT**
	Rev_B.doc	**First Draft**	**Client review**
	Rev_0.doc	**Final Draft**	**For issue to Client**
	Rev_2.doc	**Final**	**For issue to Client**
FILE LOCATION:		CPR_GSLM_rev2.doc	

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1. EXECUTIVE SUMMARY

Great South Land Minerals Limited requested that RPS Energy (RPS) provide a Competent Persons Report on the Special Exploration License SEL 13/98, Tasmania. Great South Land Minerals Limited (GSLM) holds 100% interest in the Special Exploration License SEL 13/98 which covers a portion of the Tasmania Basin. The permit area is approximately 15,410 square kilometres and covers approximately 25% of the island of Tasmania. The permit will expire on 1 October, 2009. No petroleum wells have been drilled in the permit area to date.

Seismic coverage is approximately 1300 kilometres of 2D (TB01-2001; 775 km, TB02-2006; 175 km and TB02b-2007 345km). To date, only stratigraphic tests and mineral holes have been drilled in the Tasmania Basin. Drilling between 1997 and 2001 was conducted by GSLM using diamond coring mineral exploration rigs to establish stratigraphy.

Following the integration of the 2007 gravity and seismic data in to the existing database, GSLM have identified more than 15 potential drill sites targeting prospects and leads of various sizes. To date, the interpretation of all the acquired seismic data has identified several fault block traps and anticlines with shallow targets in the Gondwana Petroleum System, and deeper targets have been identified in the Larapintine Petroleum System. In the Central Highlands, these are mainly Devonian anticlinal structures, which contain Ordovician targets. Twelve of the located targets have been evaluated within this report. A drilling program of the primary targets is planned by GSLM. The first exploration well to test the Bellevue prospect was spudded on 17th Sept 2008, with the completion of a pilot hole through the basalt. The remaining well will be completed by the Hunt rig #3 expected on site in October 2008. Also permission has been given to drill the Thunderbolt prospect during 2008.

To date, there have been no oil or gas fields discovered in the Tasmania Basin although several oil seeps have been reported. Oil seeps can be valuable in signifying the occurrence of mature source rocks in frontier exploration. In order for a seep to be authentic and considered part of a petroleum system, it must be correlated to a source rock. Currently, the seeps reported in the Tasmania Basin have had limited correlations made to petroleum systems, however, there is a seep in a recently used quarry at Lonnavale, to the southwest of Hobart, that has been correlated with the Permian Tasmanite Oil Shale. The seep indicates that an active and significant petroleum system may exist in the Tasmania Basin. Two potential petroleum systems could be present in the Tasmania Basin. These are the Pre-Carboniferous System (Larapintine) and the Permian System (Gondwana).

The first petroleum system is referred to in this document as the Pre-Carboniferous System and is based on an Ordovician source. Structures formed in the Tabberabberan Orogeny have the potential to form large traps. Seismic coverage is not yet dense enough to fully define such traps. The Ordovician Limestone and Silurian Siliciclastic Formations are suggested reservoirs. The reservoir quality of these formations is not known.

The second possible petroleum system is the Permian System, the source of which is expected to be the Early Permian Woody Island Formation and its member the Tasmanite Oil Shale. The potential reservoir for the system is a relatively well understood fluvial formation called the Liffey/Faulkner Group. This formation has modest permeability in most locations (<10 mD). It is hoped that the intra-formational seals in the Liffey Group can either provide seal for structural traps or set up stratigraphic traps. The play has good source rock presence as evidenced by the Tasmanite Oil Shale, which has been typed to the Lonnavale seep. The maturity level and therefore the timing of expulsion is not well understood. The identification of potential source rocks is an encouraging aspect of this play.

The Prospective Resources for the seven primary prospects and leads within the SEL 13/98 block are summarised in Table 2. "Risk Factor" for Prospective Resources means the chance or probability of discovering hydrocarbons in a sufficient quantity for them to be tested to the surface.

Asset	Operator	% Interest	Status	Licence Expiry Date	Licence Area Km^2	Comments
Tasmania SEL 13/98	GSLM	100%	Exploration	1st October 2009	15,410	Exploration interpretation and drilling

Table 1 - Tasmania Assets of Great South Land Minerals

Prospect / Lead	Gross Prospective Resources Oil (mmbbls)				Risk Factor	Operator
	Low Estimate	Best Estimate	High Estimate	Mean Estimate	COS %	
Bellevue Upper Unit	38	151	484	220	2.0	GSLM
Bellevue Lower Unit	24	95	307	139	2.0	GSLM
Bracknell Dome	3	18	90	37	1.2	GSLM
Butlers Rise	2	14	63	25	0.77	GSLM
Interlaken	2	10	40	17	0.47	GSLM
Cressy	3	12	48	21	1.2	GSLM
Hummocky Hills	5	30	138	58	1.2	GSLM
Thunderbolt	12	53	198	88	0.72	GSLM
Macquarie River	3.52	13.1	42.4	19.7	0.58	GSLM
Nile River	3.52	13.1	42.4	19.7	0.81	GSLM
Quamby	0.405	1.52	4.95	2.28	0.63	GSLM
Steppes	1.96	7.39	24	11.1	1.3	GSLM
Stockwell	2	7.4	23.6	11	0.75	GSLM

Table 2 - Prospective Resources

Source: RPS Energy
Chance of Success (COS): Chance or probability of discovering hydrocarbons in sufficient quantity for them to be tested to the surface

2. PERMIT DESCRIPTION

The Tasmania Basin is a frontier basin which covers around 25% of the island of Tasmania, a state of the Commonwealth of Australia. GSLM holds 100% interest in the Special Exploration License SEL 13/98 which covers the potential prospective portion of the basin. The permit expires on 1 October, 2009. The permit area is 15,410 square kilometres and covers most of the basin as illustrated in Figure 1.

Figure 1 - Permit location and major boreholes

Onshore petroleum permits in Australia are administered by the relevant state government. In general, Australian petroleum permits of any jurisdiction are governed by an agreed work programme system with terms of five “permit” years. The anniversary of the permit year is usually the formal award date. The Tasmanian State Government has chosen to define the agreed work programme for Special Exploration Licence SEL 13/98 in terms of mandatory

expenditure targets. The proposed and mandatory expenditure per year is shown in Table 3 and the respective activities in Table 4.

Permit Year Ending	Expenditure Proposed by GSLM	Cumulative Expenditure Proposed by GSLM	Mandatory Expenditure (80%)* (AUD)
1/10/2005	$5,341,000	$5,341,000	$4,272,800
1/10/2006	$3,020,000	$8,361,000	$2,416,000
1/10/2007	$4,799,000	$13,160,000	$3,839,200
1/10/2008	$6,530,000	$19,630,000	$5,224,000
1/10/2009	$1,810,000	$21,500,000	$1,448,000

*The mandatory spend is 80% of the value of the programme proposed by the operator

Table 3 - SEL 13/98 expenditure-based programme agreed with regulator

Year Ending	Activity	Status
1/10/2005	2D seismic survey TB02, seismic interpretation, and drilling	TB02 suspended (175 km acquired and processed)
1/10/2006	152 km 2D seismic	Completed
1/10/2007	270.5 km 2D seismic. Interpretation and integration of seismic. Extensive gravity survey.	Completed
1/10/2008	1 Well	Bellevue#1 Spudded, Top hole drilled and cased to 274 metres
1/10/2009	7 wells 400km 2D Seismic	Planned

Table 4 - SEL 13/98 planned activities

3. REGIONAL OVERVIEW, TASMANIA BASIN

3.1 Exploration Drilling History

No petroleum wells have been drilled in the permit area. To date, only stratigraphic tests and mineral holes have been drilled in the Tasmania Basin. Between 1997 and 2002, GSLM drilled five stratigraphic tests, all with hard rock diamond core rigs. None of these wells were drilled on a defined structure. The results of these wells are summarised in Table 5.

Borehole	Operator	Type	Spud Year	Total Depth (mKB)	Purpose	Hydrocarbon Indications (gas % corrected for air, nitrogen and CO_2 contamination)[2]	Formation at TD	Age
Shittim-1	GSLM	Diamond core	1997	1751	Stratigraphic Test	Methane max. 31%, ethane max. 2.12% traces C3-C6. Helium up to 4.8%.	Phyllite and quartzite	Proterozoic
Jericho-1[1]	GSLM	Diamond core	1997	640	Stratigraphic Test	Methane max. 10%, ethane max 1.26% traces C3-C6. Helium detected.	Bundella Fm	Permian
Lonnavale-1	GSLM	Diamond core	1997	557	Stratigraphic Test	Methane max. 1.8% ethane max. 0.35 % traces C3-C6.	Ferntree Fm	Permian
Pelham-1	GSLM	Diamond core	1997	503	Stratigraphic Test	Methane max. 1%	Bundella Fm	Permian
Hunterston-1[3]	GSLM	Diamond core	2002	1324	Stratigraphic Test	Methane and ethane and traces C3-C6.	Dolomitic siltstone	Proterozoic

Table 5 - GSLM stratigraphic boreholes

1 Isotopic analysis of the methane at Jericho-1 showed it to be thermogenic in origin.

2 All gas measurements are air, nitrogen and CO_2 corrected. The estimation of CO_2 content may result in error. Samples were collected in various ways and sent to a laboratory for gas chromatograph analysis. The amounts above are subject to error and should be treated as qualitative.

3 All the wells were drilled with a mineral rig with BOP attached, all were mud logged.

3.2 Seismic and Gravity Data

GSLM acquired 659 kilometres of seismic reflection data in 2001 across the Central Highlands and in the Northern Midland and Southern Midland areas of Tasmania. In 2006, GSLM recorded 152 kilometres of 2D seismic data across the Central Highlands and in 2007 a further 345 kilometres of 2D seismic data was acquired across the Central Highlands and was interpreted and integrated into the seismic database.

GSLM also acquired a ground gravity survey in the Tasmanian Central Highlands. This data was incorporated with the state gravity database to produce the Bouger Anomaly and Residual Bouger Anomaly maps over the permit.

The current seismic basemap overlying the residual Bouger Anomaly map is shown in Figure 2, and the Seismic basemap with the borehole locations is shown in Figure 3.

The quality of the seismic data set is highly variable and coherent events across sections are rare. The line spacing and geometry is also problematic for defining individual structures and prospect mapping. The spatial geometry of the surveys is currently dictated by being mainly restricted to main roads. This is due to seismic acquisition logistics.

Generally the Permian to present day section on most seismic lines are of reasonable quality. The Pre-carboniferous sections tend to be particularly difficult to interpret due complex structural styles and poor imaging on most lines.

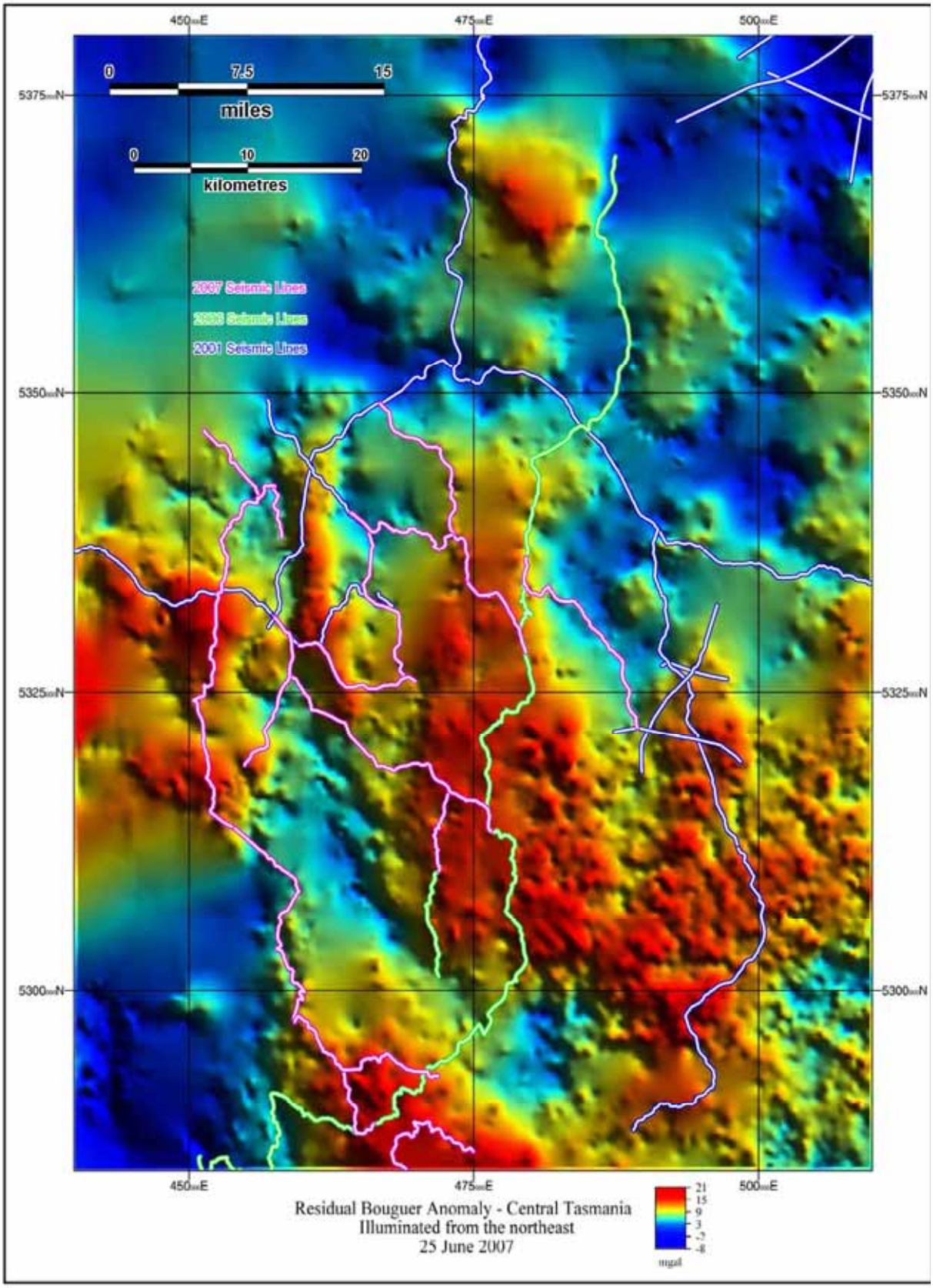


Figure 2 - Seismic Coverage Block SEL 13/98

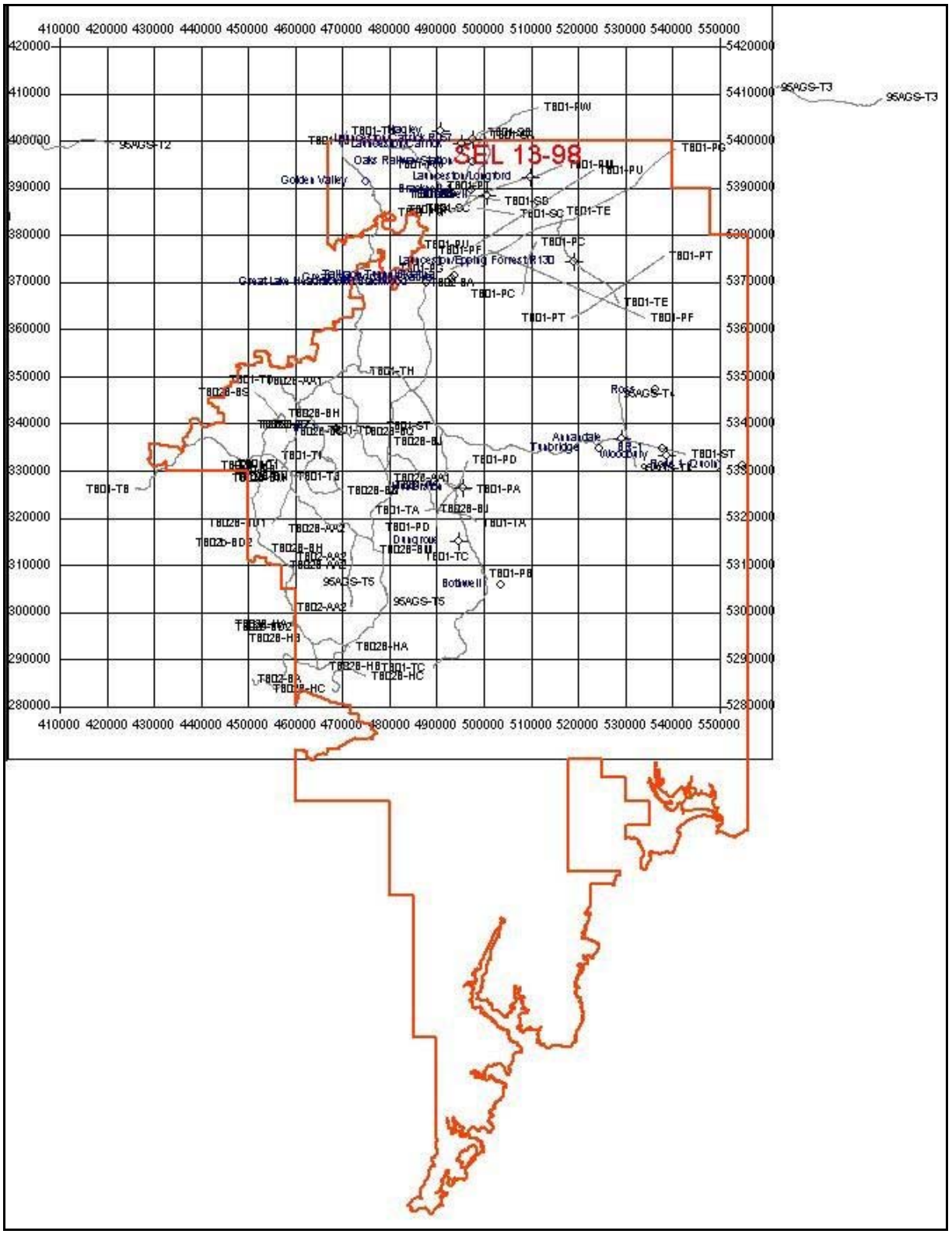


Figure 3 – SEL 13/98 Permit Map showing Seismic Lines and Wells

3.3 Structural Setting

The island of Tasmania is situated off the southeast coast of the Australian continent. The Tasmania Basin is an erosional remnant of a foreland basin (Collinson *et al,* 1987) that covers most of central and eastern Tasmania. A regional seismic line through the central part of the Tasmania Basin is shown in Figure 5.

The oldest basement consists of Proterozoic rocks which are exposed on the western half of Tasmania. Later basement rocks of Cambrian to Early Devonian age are known as the Wurawina Supergroup. All of these rocks were deformed by the mid Devonian tectonic event called the Tabberabberan Orogeny, which was a major Australian event.

Following a long hiatus, a succession of predominantly flat lying sedimentary rocks of Carboniferous to Late Triassic age were deposited (Bacon *et al*, 2000). In the Jurassic, dolerite intruded this succession as thick sheets, resulting in bodies with thicknesses of up to 600 metres. The total known maximum thickness of the Carboniferous to Late Triassic succession (excluding the dolerite) is 1.7 kilometres (Bacon *et al*, 2000). This is assumed that this estimate is based on the integration of drilling and outcrop data. The present boundaries of the basin are erosional and the original basin extent was probably much greater (Bacon *et al*, 2000).

Today there is no strongly defined depocentre in the epicratonic sediment layer, which makes up the basin. The basin was uplifted at the end of the Cretaceous, probably associated with the Australian-Antarctic plate margin break-up. Erosion of approximately two kilometres of sediment is interpreted to have occurred. No further sediment was deposited until the Cenozoic. Cenozoic deposits are only a few hundred metres thick.

The Tasmania Basin can be divided into three major structural elements (Figure 6). The Longford Sub-basin (onshore extension of the Bass Basin) effectively divides the rest of the basin into a large western half called the Central Lakes-Huon Block, and an eastern half called the Douglas River Block (block names modified after Wakefield, 2000). All of these areas are underlain by folded Palaeozoic rocks of Cambrian to Devonian age.

Over much of the basin, the Earlier Palaeozoic is covered by generally flat-lying Jurassic Dolerite and Permian to Triassic sediments. The Longford Sub-basin is evident at the surface in a region called the “Lowlands”. It formed due to extension in the Latest Cretaceous to Early Cenozoic (Stacey and Berry, 2004) but contains only a few hundred metres of Cenozoic sediments. A densely faulted zone, which may be a wrench zone, lies between the Longford Sub-basin and the Highlands (Blackburn, 2004). The Tiers Fault is an obvious cliff at the present day and it delineates the western edge of this zone (Figure 6).

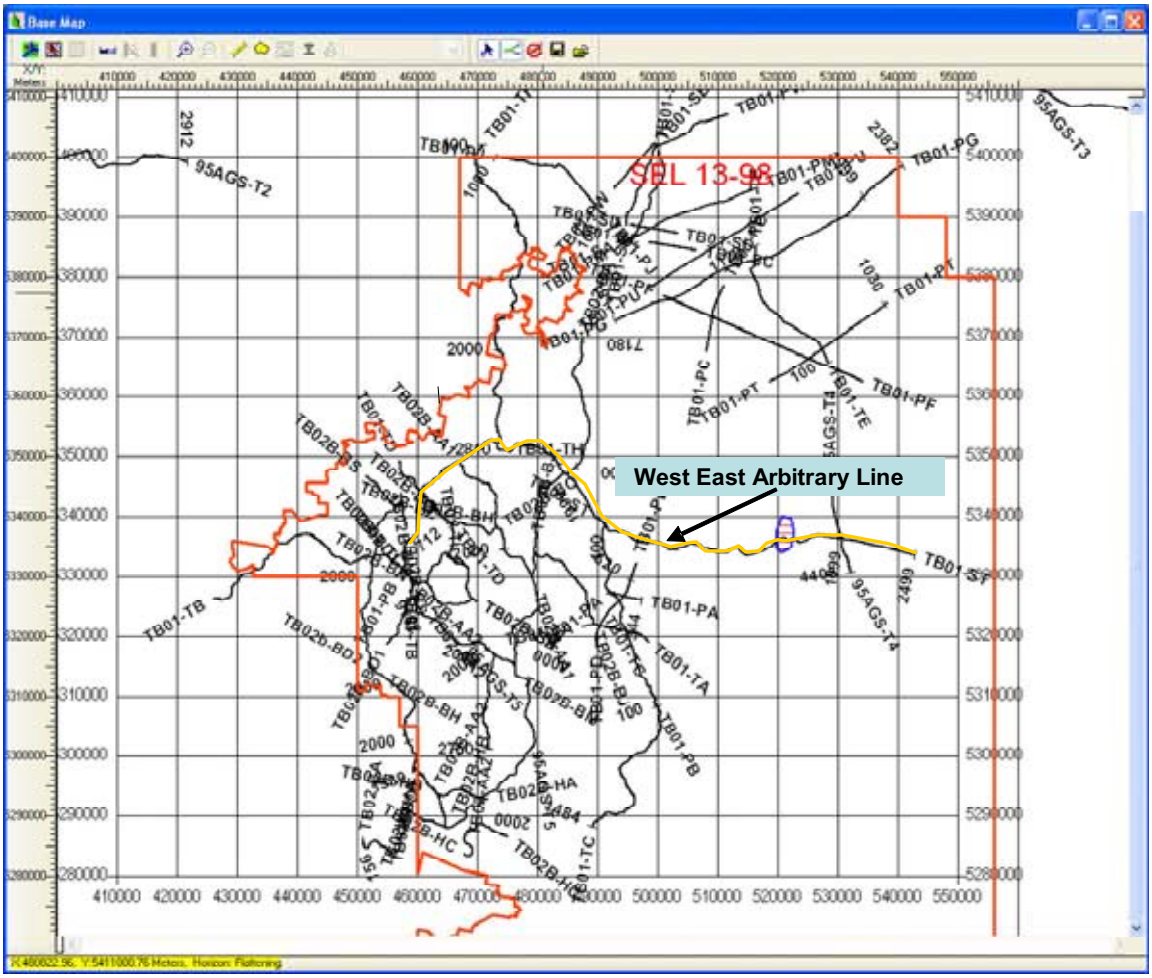


Figure 4 - West - East arbitrary line location map

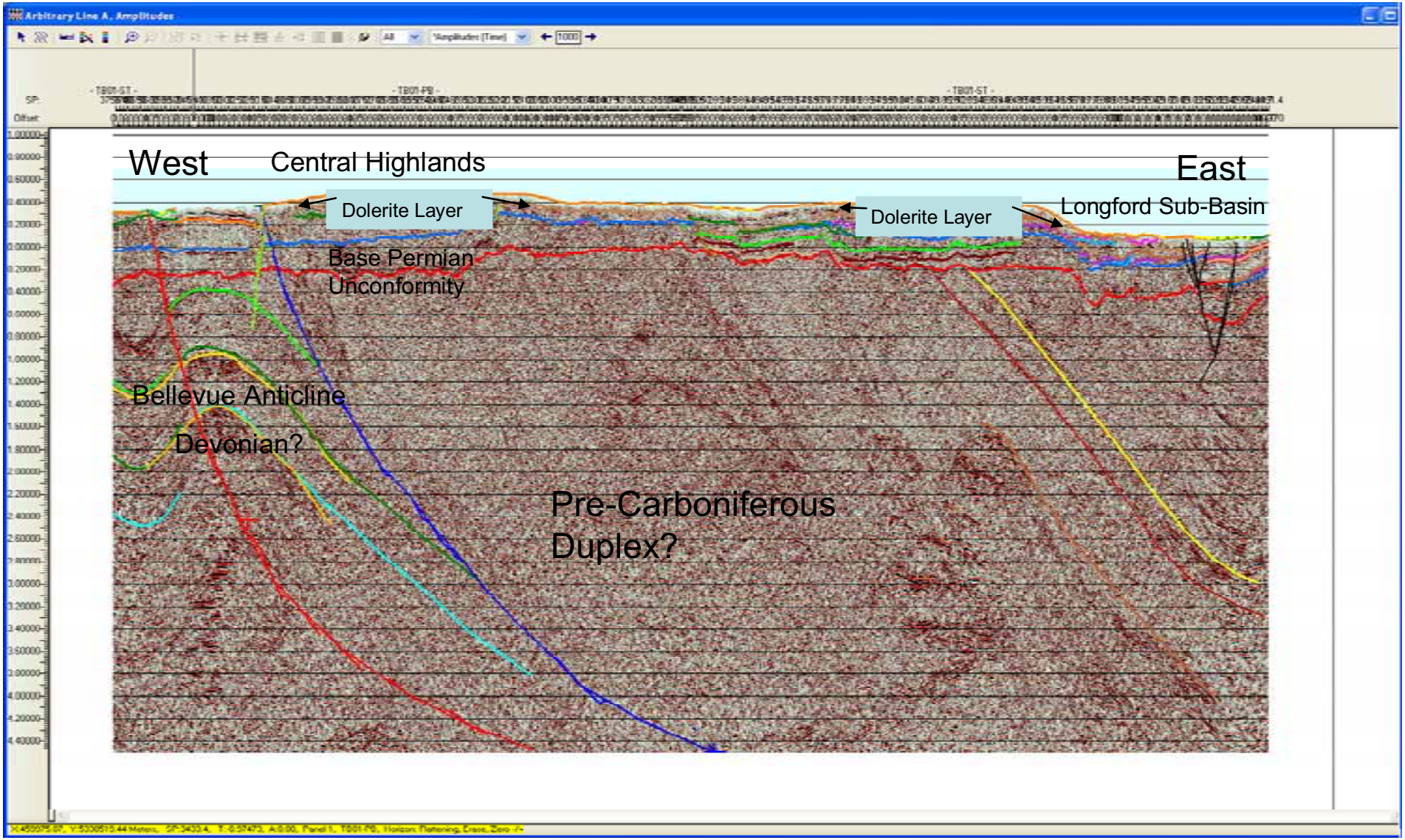


Figure 5 - Arbitrary seismic line through the central part of the Tasmania Basin. For line location, see Figure 4

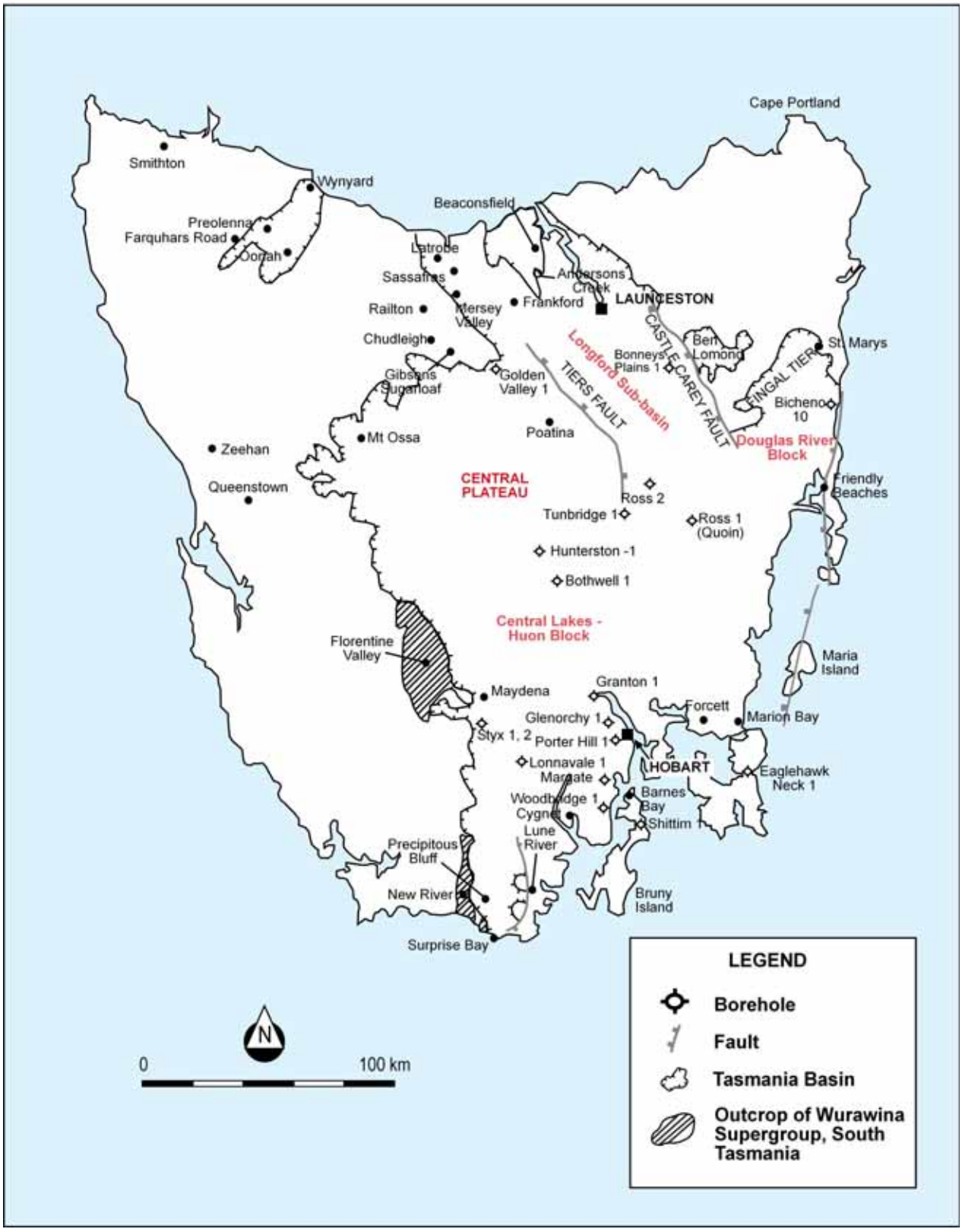


Figure 6 - Tasmania Basin major structural elements (modified from Seymour and Calver 1995a, and Wakefield, 2000)

3.4 Stratigraphy

The generalised stratigraphy of the Tasmania Basin is summarised in Figure 7. The stratigraphy of the basin is understood mainly as a result of the outcrop and the stratigraphic diamond bore holes (Table 5). The following stratigraphic summary is based on Bacon *et al*, (2000). A more detailed discussion can be found in Clarke and Forsyth (1989).

The sediments are separated into two supergroups; the Wurawina Supergroup of Early Palaeozoic age and the Parmeener Supergroup of Late Palaeozoic to Early Mesozoic age. These are separated by a major angular unconformity, associated with the Tabberabberan Orogeny. Each of the supergroups are sub-divided into a number of lower rank lithostratigraphic units (Figure 7).

The Wurawina Supergroup is a Late Cambrian to Early Devonian shelf carbonate and clastic succession (Bacon *et al,* 2000). The supergroup consists of Late Cambrian to Early Ordovician, shallow marine to fluvial siliciclastic rocks (Denison Group) overlain by 1.5 kilometres of predominantly micritic, shallow marine, warm water Ordovician limestone (Gordon Group), then up to 5 kilometres of shallow marine Silurian to Early Devonian siliciclastic rocks (Tiger Range Group) (Bacon *et al*, 2000).

Results from a regional conodont alteration index (CAI) study on the Gordon Group carbonates, performed by Burrett, (1992), indicate that these rocks are mature for hydrocarbon generation in southern Tasmania, showing a CAI typically between 1.5 and 4 (Bacon *et al*, 2000). The results of this work are summarised in Figure 8.

A major orogenic event occurred in the Devonian. This resulted in considerable folding of the Early Palaeozoic strata and was followed by a long hiatus, lasting approximately 80 million years (Figure 7).

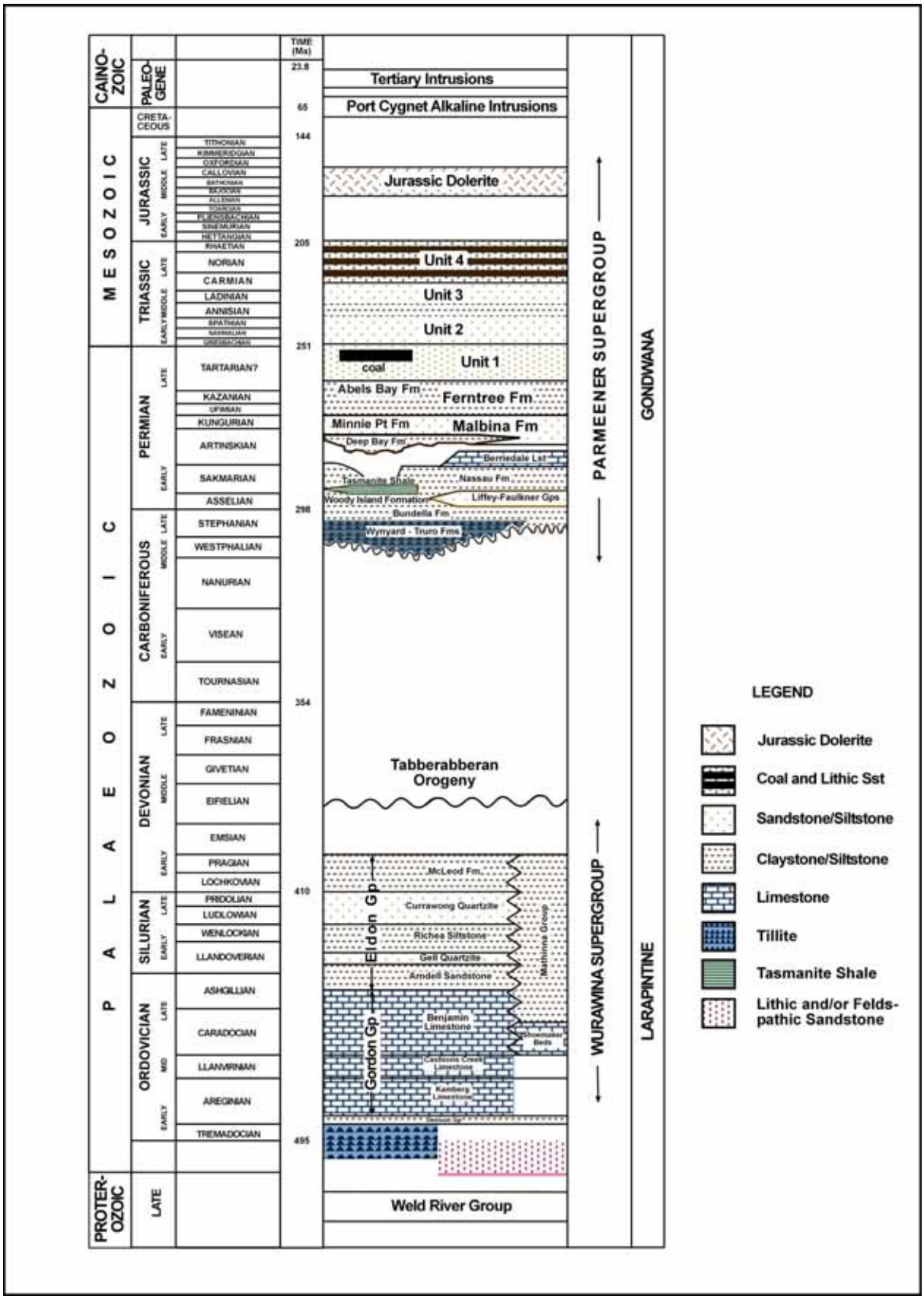


Figure 7 - Stratigraphy detail of the Tasmania Basin (modified from Seymour and Calver 1995b)

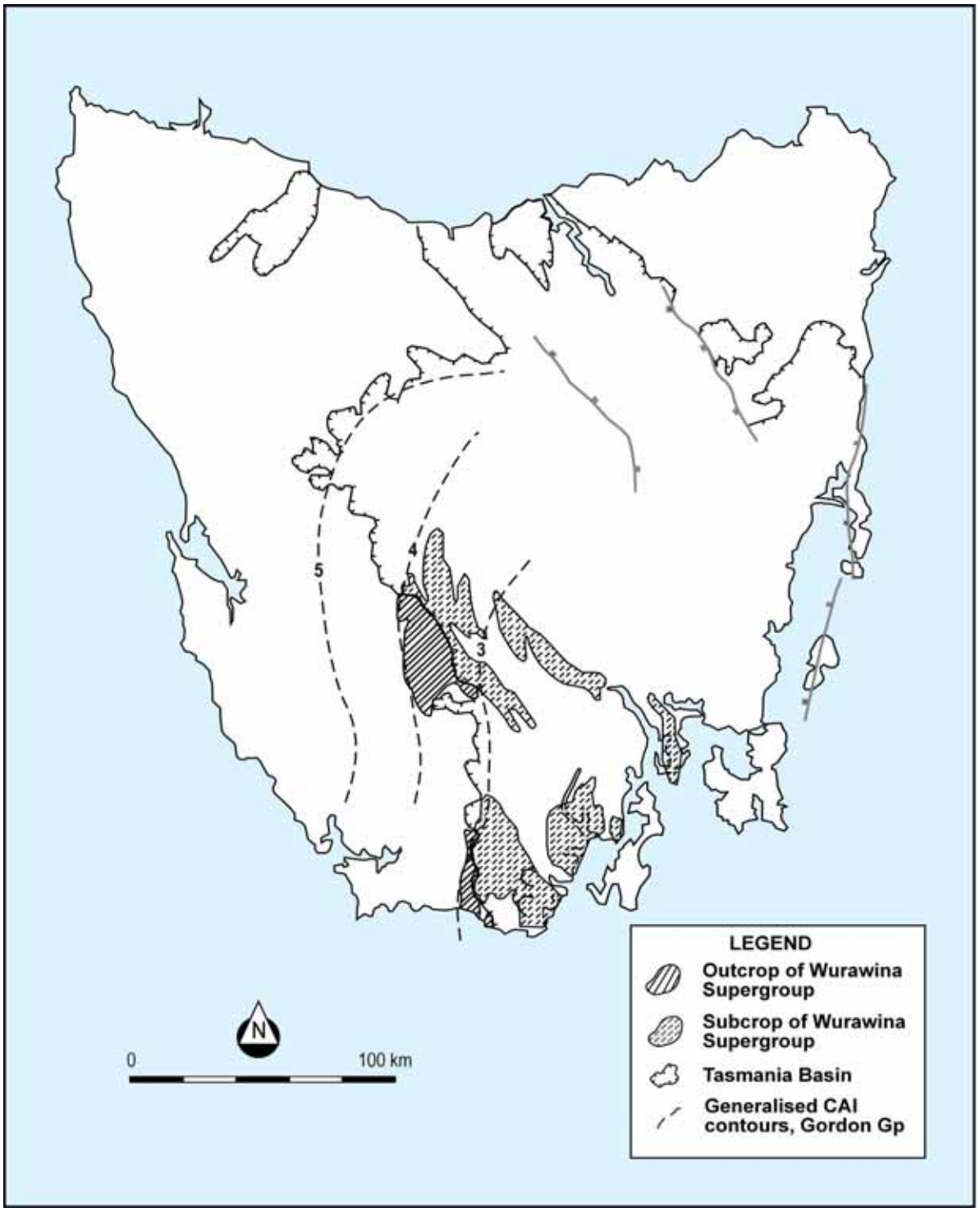


Figure 8 - Generalised CAI contours (modified from Burrett, 1992) with outcrop and inferred subsurface extent of Ordovician - Devonian basement rocks that may be mature for oil and gas generation (Leaman, 1996)

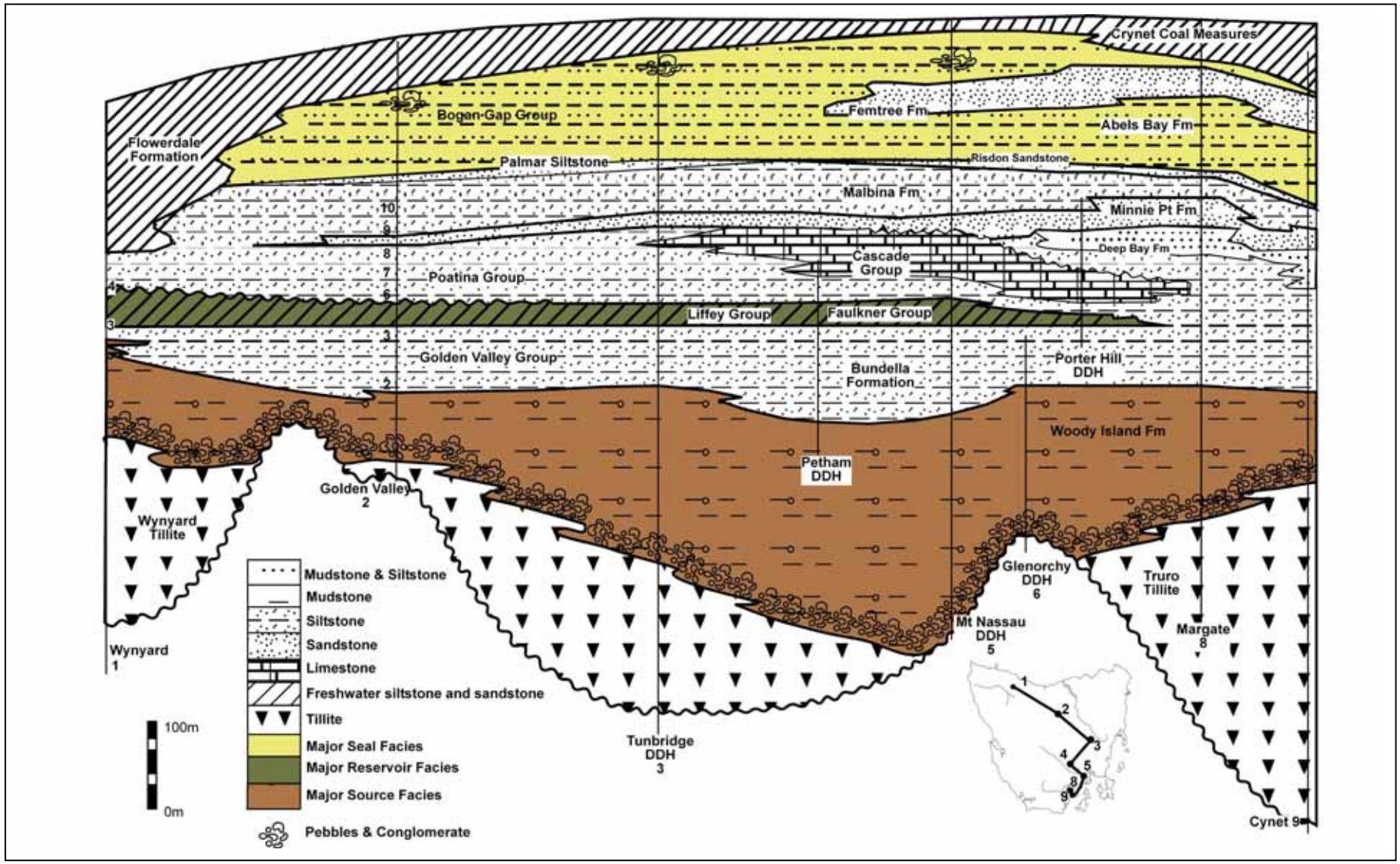


Figure 9 - Time-space diagram of the Lower Parmeener Supergroup (modified from Reid, 2004)

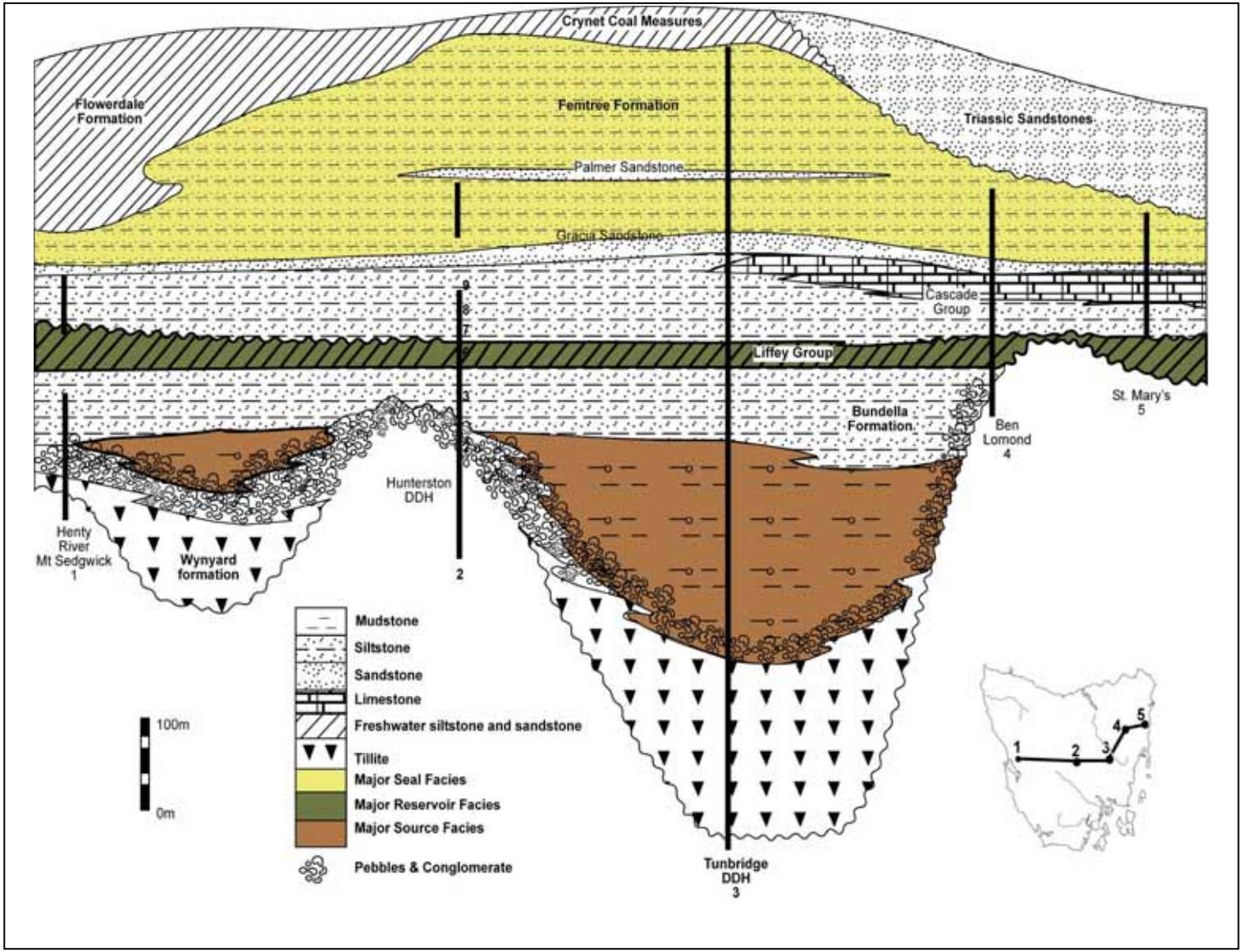


Figure 10 - Time-space diagram of the Lower Parmeener Supergroup (modified from Reid, 2004)

Deposition recommenced in the Carboniferous and the sediments of the Parmeener Supergroup were accumulated (Figure 7, Figure 9 and Figure 10). A flattened stratigraphic section comprised of well and outcrop data, provides an indication of formation thicknesses and depths (Figure 11).

Carboniferous to Permian tillite deposits occur at the base of the supergroup and are widespread throughout the entire basin (Stockers, Wynyard and Truro Tillites, see Figure 7). These are followed by the Woody Island Formation, a 100 to 200 metre thick dark grey monotonous siltstone. In the base of this formation, beds of the alga *Tasmanites punctatus* occur. The Woody Island Formation and the Tasmanite Oil Shale beds are the main potential source rocks and are discussed in Section 3. The distribution of the Woody Island Formation source facies and Tasmanite Oil Shale distribution is shown in Figure 12.

The Woody Island Formation is overlain by the Bundella Formation, a muddy siltstone with little potential as a source rock. These are overlain by the Faulkner Group, consisting of well sorted, laminated, fine to medium sands (Reid and Burrett, 2004). The sandstone beds are generally 6-50 metres thick and modally 21-25 metres and are interbedded with carbonaceous siltstones.

Permian palaeogeography of the Tasmania Basin is presented in Figure 13, and has been modified from Clarke, (1989). The thickness and distribution of the Liffey-Faulkner Group is shown in Figure 14. The facies become more marine to the south, suggesting regression in that direction. Recent work has identified a zero edge near Cygnet, which was established by Mineral Resources Tasmania (MRT) from outcrop and several stratigraphic diamond core holes.

The Liffey-Faulkner Group is overlain by silt/clay marginal marine to marine formations, namely the Malbina and Ferntree Formations.

The terrestrial environment of deposition becomes dominant around the end of the Permian. The Lower Parmeneer Supergroup was deposited from the Late Carboniferous to Late Permian. The Upper Parmeener Supergroup was deposited from the Late Permian to Late Triassic, in a non marine environment (Bacon *et al*, 2000). Within the Late Permian to Late Triassic sequence, four stratigraphic units have been defined (Leaman, 1971, and Forsyth, 1989). The following summary is derived from Bacon *et al,* (2000).

Unit 1 is dominantly felspathic with micaceous sandstones. Thin coal is seen in the south on Bruny Island and at Cygnet and is known as the Cygnet Coal Measures. The entire section is generally 20-108 metres thick and is very thin or absent across the northeast of Tasmania.

Unit 2 is 200 to 300 metres thick and was deposited by a fluvial system which flowed from the north-west to the south-east.

Unit 3 is generally 80 metres thick and consists mainly of sandstones with minor conglomerates and rare thin coals.

Unit 4 is mainly lithic sandstone with minor claystone and contains most of Tasmania's economic coal reserves, located mainly in the north-east.

The Upper Parmeener Supergroup (mainly Triassic in age) appears to be a series of fluvial deposition cycles. There is no major marine influence on this group or in the time following, so a widespread regional seal for these sediments seems unlikely.

In the Early Jurassic, 400 to 600 metre thick intrusions of dolerite were emplaced into the existing Permo-Triassic sequences, essentially parallel to bedding. In any given section of the basin, one to three of these bodies may be present. Outcrop observations indicate that each of these bodies is a composite emplacement consisting of several sheets (Burrett, 1992).

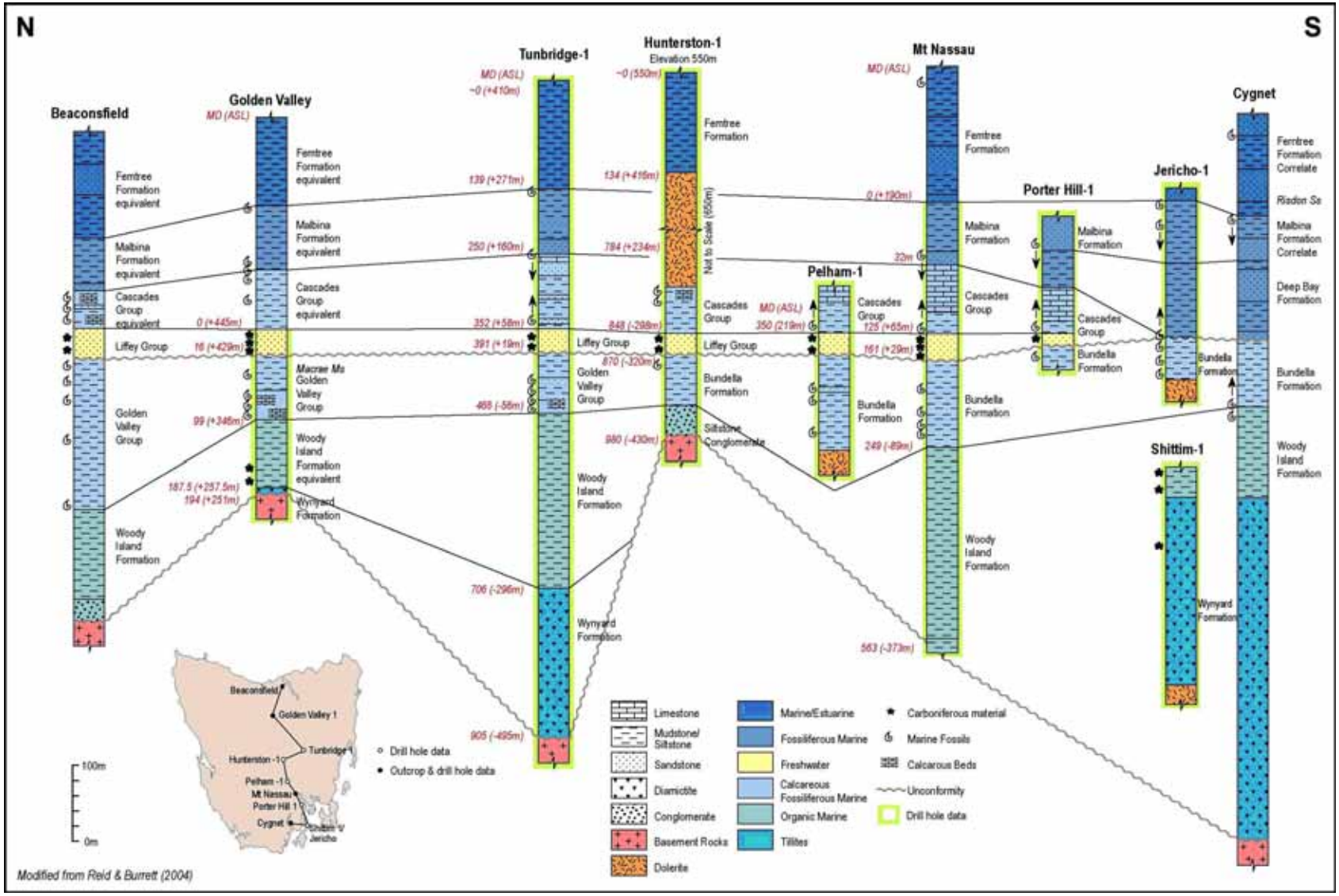


Figure 11 - Stratigraphic cross-section of the Tasmania Basin (modified from Reid and Burrett, 2004)

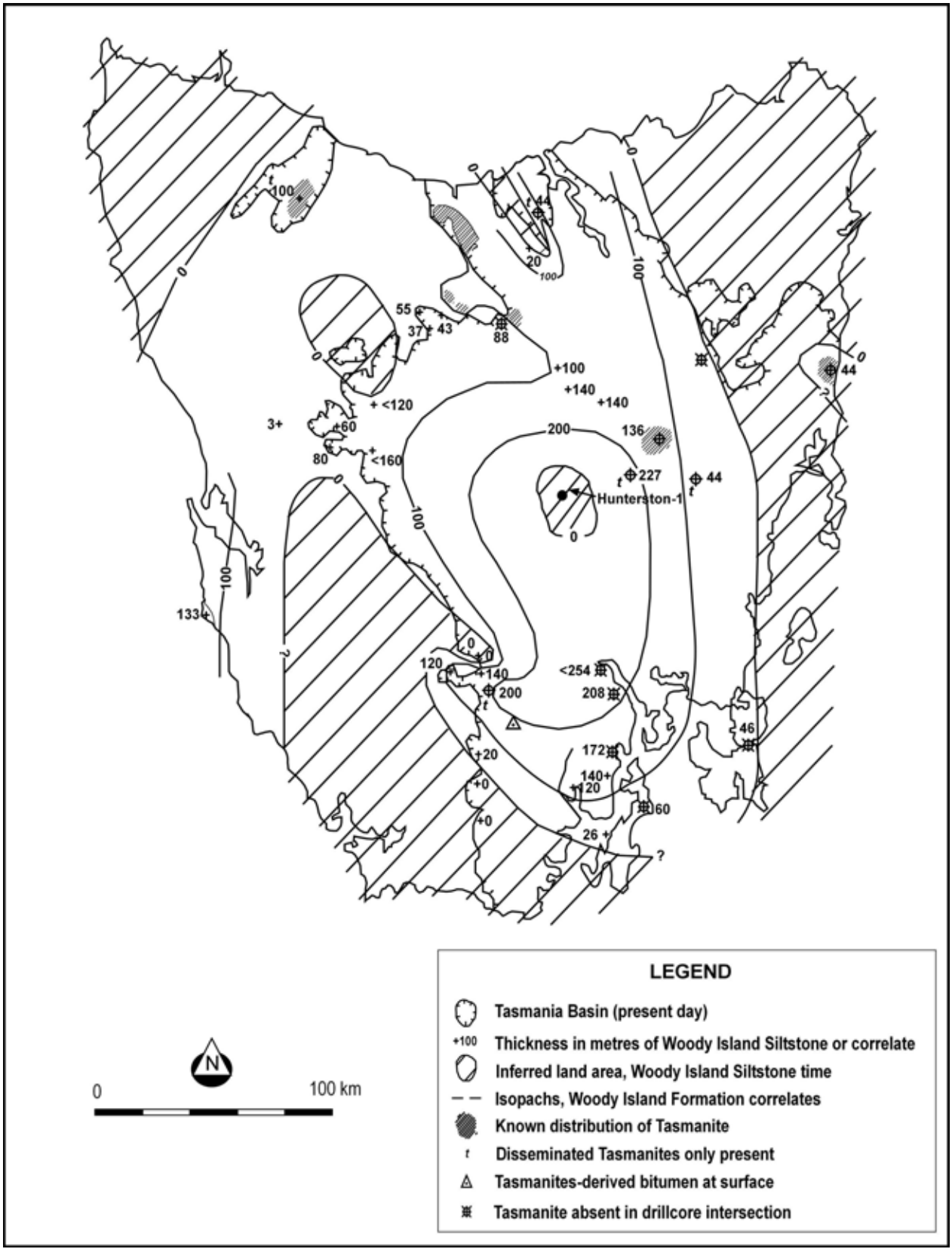


Figure 12 - Known distribution of the Tasmanite Oil Shale with an isopach of the Woody Island Formation (modified from Bacon *et al*, 2000)

The dolerite presents several challenges for petroleum exploration, including the reduction of seismic signal, variations in seismic velocity, hard drilling, localised over-maturation of vitrinite and source rocks and possibly the reduction of reservoir quality.

At the present day, there are no Cretaceous sedimentary rocks in the basin. An apatite fission track study (O'Sullivan and Kohn, 1995) suggests that the basin was uplifted somewhere between 100 and 50 Ma (Late Cretaceous to Early Tertiary) and approximately three to four kilometres of previously deposited Jurassic to Middle Cretaceous rocks were completely eroded. Bacon *et al* (2000) suggests two kilometres of section is more likely, and points out the work of Sutherland (1977) who suggested that zeolites within the Jurassic dolerite indicated a possible burial depth of two kilometres.

Bacon *et al* (2000) suggest that the Mesozoic sediments of the Tasmania Basin were once more widespread. The western margin of the basin is defined by Permian formations truncated by outcrop. This erosion and reduction in basin sediments is inferred to have occurred between Late Cretaceous and Middle Tertiary time.

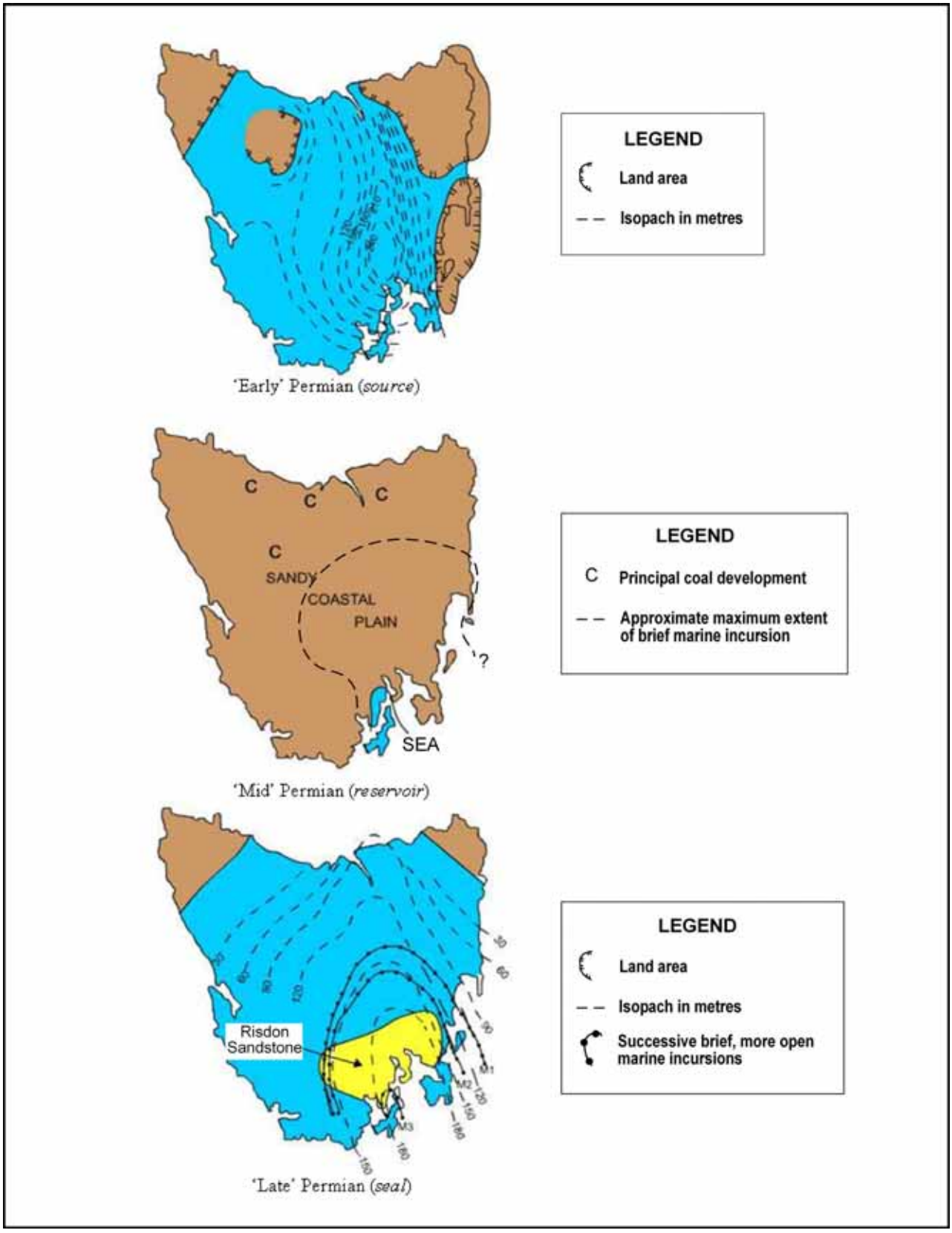


Figure 13 - Permian palaeogeography development of the Tasmania Basin (modified from Clarke, 1989)

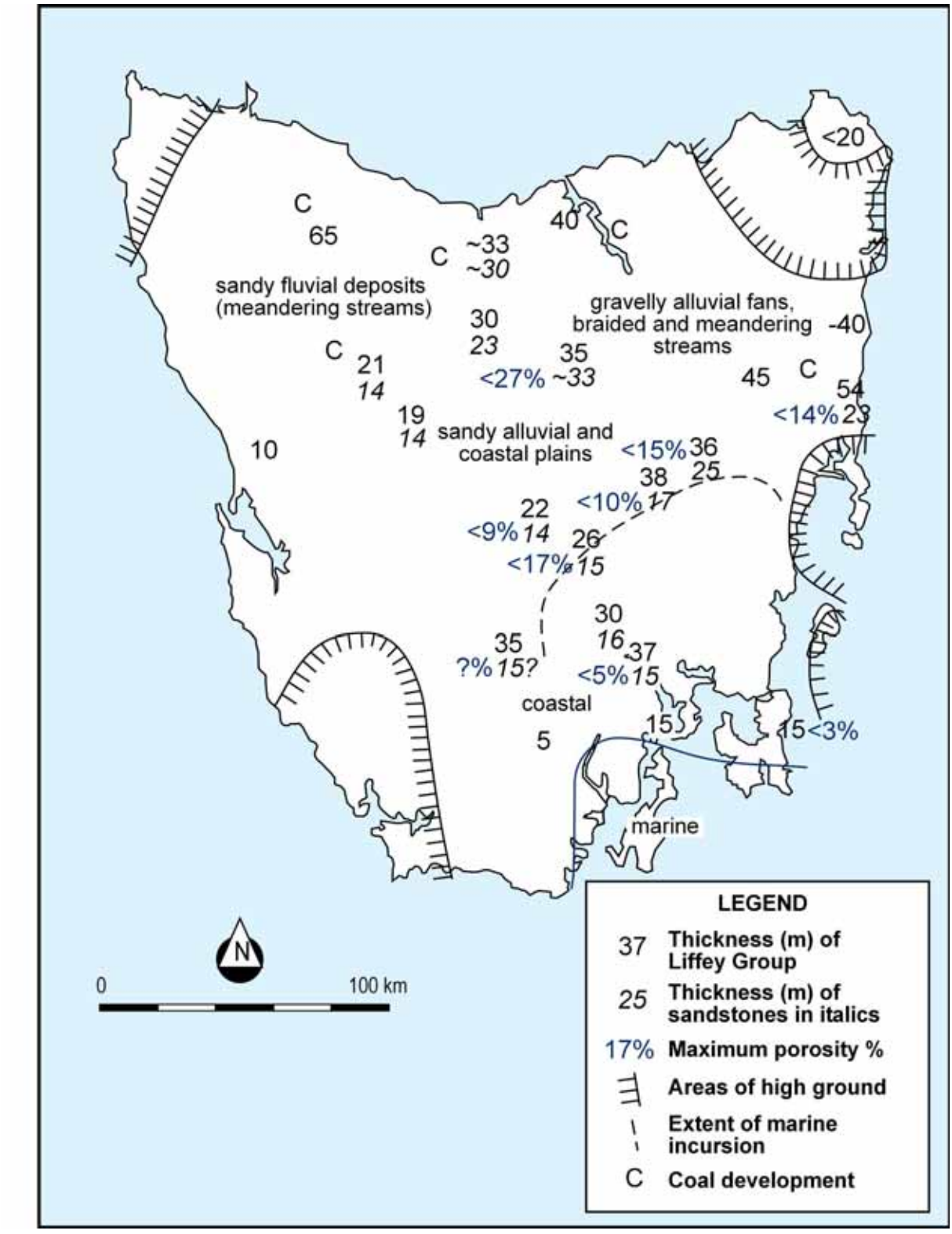


Figure 14 - Thickness and distribution of the Liffey-Faulkner Group. Total thickness of sandstone beds and cycles (black) and some upper porosity values (blue) are also shown (modified from Reid and Burrett, 2004, after Clarke 1989 and Martin and Banks, 1989).

4. PETROLEUM SYSTEM ANALYSIS

To date, there have been no oil or gas fields discovered in the Tasmania Basin although several oil seeps have been reported in Tasmania. Oil seeps can be valuable in signifying the occurrence of mature source rocks in frontier exploration. Currently, the seeps reported in the Tasmania Basin have had limited correlations made to petroleum systems, however, there is a seep in a recently active quarry at Lonnavale, to the southwest of Hobart, that has been correlated with the Permian Tasmanite Oil Shale and is the best indication yet that a significant petroleum system possibly exists in the basin. Two potential petroleum systems could be present. These are the Pre-Carboniferous System (Larapintine) and the Permian System (Gondwana). These two systems are discussed below and schematics are provided in Figure 15 and Figure 16.

4.1 Hydrocarbon Occurrences

Hydrocarbon indications have been reported to the Tasmanian government over the past century. A tabulation of all of these shows and their assessments are provided in Bacon *et al* (2000).

According to Wakefield (2000), over 130 reports of oil and gas seeps have been registered with Mineral Resources Tasmania (MRT). Approximately 10% of these reports have confirmed the presence of naturally occurring hydrocarbons in the form of seeps, tars and bitumens. To date, no bore hole has ever yielded core or cuttings that contained macroscopic hydrocarbon fluorescence although very few wells have been drilled to specifically explore for oil and gas. Of these wells, including those drilled since 1997 by GSLM, none have been drilled on a trap defined by modern seismic.

Mud gas was detected in several of the GSLM wells. Most samples were contaminated with significant amounts of air but, after adjusting for this, levels of C6 up to 50 ppm were detected in Shittim-1 and Jericho-1. Isotopic analysis of the gas at Jericho-1 shows it is thermogenic. Results at Shittim-1 range from biogenic to possible mixed biogenic/thermogenic. However, traces of C3-C9 are encouraging and indicate that there are rocks with the capacity to produce wet gas in the basin.

Low yields of hydrocarbon extracted from a Proterozoic core sample from 1,676 metres in Shittim-1 on Bruny Island and a hydrocarbon extract from a Gordon Group limestone from a quarry were compared by Burrett (1997). The Gordon Group traces are similar in the dominance of n-C18 alkane. The pristane to phytane ratios are reported to be approximately 1 in both (Bacon *et al,* 2000). The Shittim-1 sample seems biodegraded or water washed but, surprisingly, the quarry sample does not appear biodegraded. It has been interpreted that this extracted hydrocarbon probably originated in Ordovician rocks down dip.

Oil and bitumen in Permian sandstone outcrops near Zeehan, Tasmania, have been reported by Cook (2003), who examined samples from these Permian outcrops. One sample of a carbonaceous shale grading to a shaly coal and two sandy samples were thought to have contained possible bitumens. The silty sandstone contained prominent oil inclusions within the sand grains and abundant brightly fluorescing oil, presumably being originally part of the same petroleum system as the bitumens (Cook, 2003).

Cook (2003) also observed that the presence of gas bubbles indicates that the oil to gas ratio of the system was originally relatively high. The Permian sandstones' maturation level is best estimated at 0.7% and may be as high as 0.8% (Cook, 2003) which is consistent with the findings from the previous geochemical reports. Another study by Revill *et al*, (1994), which represented the first organic geochemical comparison of thermally mature and immature Tasmanite Oil Shale samples in relation with a geological evaluation of the sedimentary setting, concluded that at least some deposits of the Tasmanite Oil Shale in Tasmania are near the "oil window".

Rare (< 0.1%) microscopic oil inclusions, in fractures in samples from Hunterston-1, were also observed by Cook (2003). These inclusions apparently appear on fractures through cements in the Liffey Group. They could have emplaced at any point post deposition (i.e. post-Permian). No inclusions have been extracted to determine their source (Reid 2004). An occurrence of oil inclusions < 0.1% does not indicate a breached oil column or migration.

This assessment is based on empirical limits developed by CSIRO in their oil inclusion counting studies GOI™ (Eadington *et al*, 1996). The very low occurrence of inclusions (<0.1%) and the proximity to an intrusion suggests localised maturation of a very small amount of organic matter to the point of expulsion. Oil inclusions of <2% were also observed in the samples of the Liffey Group from Ross-1 where maturity is VR% 0.57 (Reid, 2004).

Rare oil inclusions were also observed in the Liffey Group samples from the Douglas River with a mean maturity of VR% 0.55 (range VR% 0.48-0.64), just barely at the oil window.

4.1.1 The Lonnavale Seep

The hydrocarbon show at the Lonnavale quarry is a bitumen found within joints, in the Jurassic Dolerite. The quarry is based on Jurassic dolerite which has a possible contact with a Permian mudstone, exposed in a nearby quarry, and is known, in other areas of Tasmania, to contain the Tasmanite Oil Shale (Revill, 1996). Geochemical studies were undertaken at the request of Tasmanian Development and Resources (TDR) in 1996. Two samples of possible hydrocarbons were studied. One sample was a swab of what appeared to be hydrocarbon staining and the second was a bitumen from within a fracture in the dolerite.

Seeps were examined at a quarry in Lonnavale (personal observation by P. Vytopil, 2007). The rock is a fractured dolerite, with one section of the quarry showing good oil shows with strong petroliferous odour along the fracture planes. The oil effortlessly smeared when samples were handled and left a dark reddish streak. In areas where samples were not fresh, there was a dark bituminous stain and some samples had a faint odour of H_2S.

The presence of oil shows at Lonnavale has been previously recorded by numerous authors. Bottrill (1996) provides a detailed description of oil shows along two generations of fractures within the dolerite. These factures were filled with calcite and minor globules and flecks of bitumen. The bitumen was dark brown to black, vitreous, soft and sticky on fresh surfaces, as well as hardened and dark on exposed surfaces.

Geochemical analysis indicates that the n-alkane profile from the swab sample is characteristic of a light oil or a petroleum fraction such as diesel. The sample was a stain and had a more liquid character than the bitumen sample taken (Revill, 1996). There are maturity differences between the liquid (oil) and solid (bitumen) although hydrocarbons in both samples share a similar source (Revill, 1996).

Conclusions from the geochemical reports indicate that the seep appears to have been subjected to light biodegradation and the samples taken are likely to have undergone some migration since generation from the source rock. Aromatic maturity indicators indicate that the seep was generated and expelled from a moderately mature source interval (Vitrinite Reflectance (VR_{equiv} = 0.80%) and saturated biomarker maturity indicators support this level of maturity (Wythe and Watson, 1996). Revill (1996) classifies maturity of between 0.57–0.62% for the swab sample and 0.61-0.70% for the bitumen sample.

Revill (1996) states that the source is likely to be a Permian mudstone containing Tasmanite Oil Shale and Wythe and Watson (1996) indicate that the oil seep is likely to have been derived from a mixed algal/terrestrial source containing abundant *Tasmanites* alga that was deposited in an anoxic, marine environment.

The value of VR_{equiv} = 0.80% given by Wythe and Watson (1996) is not anomalous and does fit the regional maturity trend. However, it is still difficult to assess whether this hydrocarbon was expelled as a result of localised heat from dolerite emplacement or from a more widespread burial maturation.

The models put forward by Wythe and Watson (1996) and Revill (1996) suggest that the oil seep consisted of a low sulphur oil derived from a moderately mature *Tasmanite*-rich source rock. The oil then migrated into the late stage dolerite joints when they were open. This can be supported by the data.

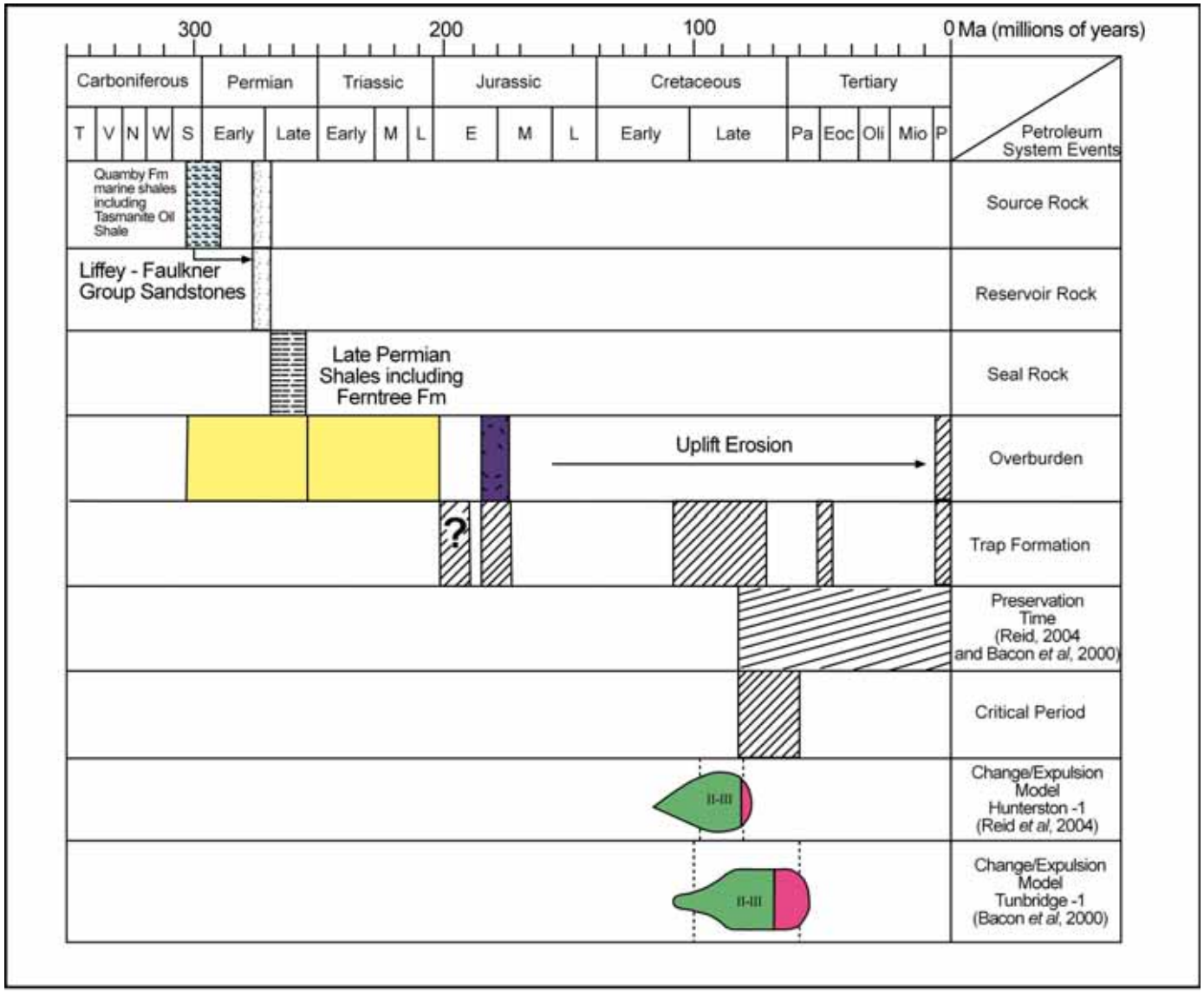


Figure 15 - Hypothetical Permian Petroleum System (modified from Wakefield, 2000)

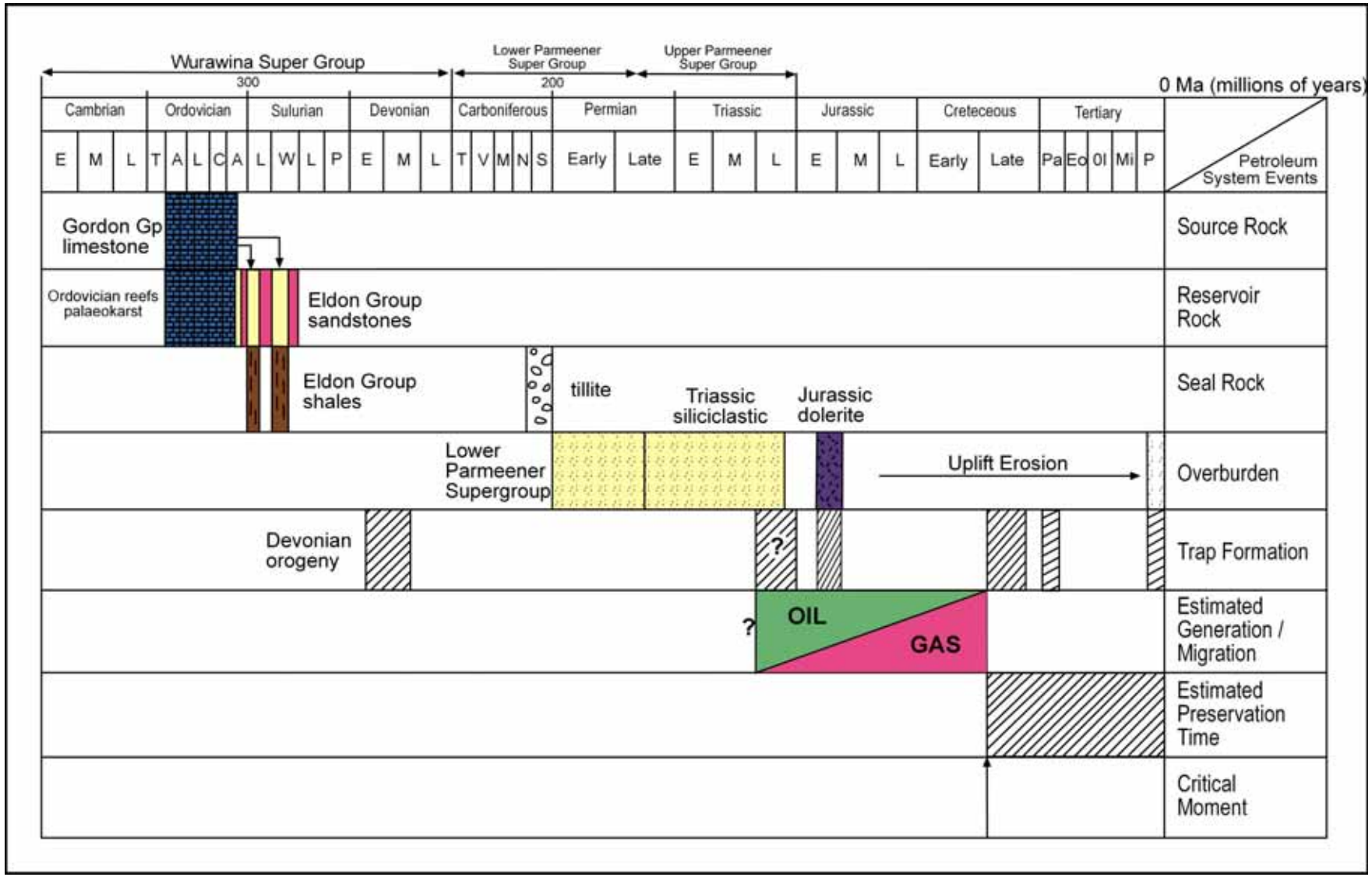


Figure 16 - Hypothetical Pre-Carboniferous Petroleum System (modified from Wakefield, 2000)

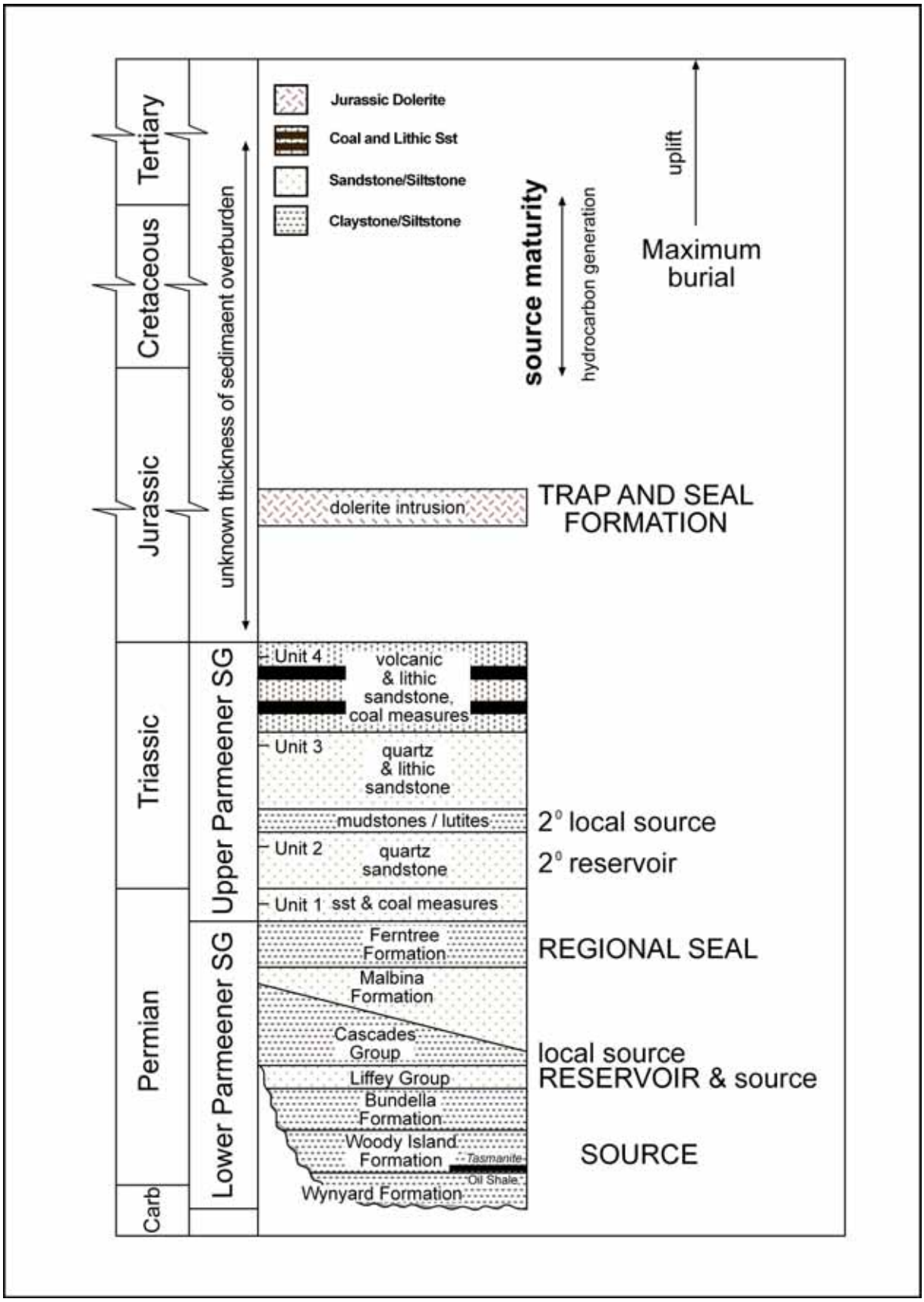


Figure 17 - Stratigraphic model of Permian plays (modified from Reid and Burrett, 2004)

4.2 Source Rocks

4.2.1 Pre-Carboniferous (Larapintine) Source Rocks

The oldest potential source in the Tasmania Basin is Ordovician, however, organic richness data has yet to be adequately verified. Measurements of total organic carbon (TOC) and Rock-Eval (RE) have previously been made on a few samples of limestones within the Gordon Group but these data do not indicate that these limestones have any viable source potential (Reed and Beauchamp, 2001). However, more recent analyses of the shalier Gordon Group facies indicates higher TOC values, some above 1.0%, suggesting the possibility of source rocks in this interval.

Two samples, one from Queenstown and one from Ida Bay (Volkman ,1989; Bendall *et al,* 1991), were analysed and the distribution of n-alkanes was typical of mature hydrocarbons (Bacon *et al*, 2000). Ordovician aged rocks provide a source in other parts of Australia (Amadeus and Canning Basins) and other parts of the world.

Sediments in the Gordon Group are reported to have a petroliferous odour when struck by a hammer, and bituminous films have been seen along stylolites, providing evidence of generation and migration (Chester, 2003). Further occurrences of pyrobitumen have been sighted at road cuttings within and proximal to the limestones east of Queenstown. A sample of upper Gordon Limestone from the Florentine Valley liberated gas on crushing.

Black shales of the Benjamin Formation have poor to good source potential. TOC in these rocks ranged from 0.43 to 1.83 (poor to fair), averaging 0.78%, with 80% of the samples below 1%. T_{max} ranged from 439° to 546° and averaged 490°. Most of these samples (66%) were in the oil window and the remainder were in the gas generation window (Chester, 2003).

4.2.2 Permian (Gondwana) Source Rocks

4.2.3 Early Permian Tasmanite Oil Shale (Basal Woody Island Formation)

The Permian aged Tasmanite Oil Shale is the best known source rock in Tasmania. It has been previously documented as having TOC content ranges from good to very good, containing from 2.5% to over 30% (Burrett and Reid, 2004) and a hydrogen index between 700-1000mgHC/gTOC. These high measurements come from thermally immature sediments and represent the hydrocarbon potential of Tasmanites-rich source rock within Tasmania.

S_1+S_2 levels are high (from 10 to 900 mg/gm of rock) and although these bands are thin they can produce up to 3.7 bbls/m² (Demaison and Huizinga, 1991).

The distribution of the Tasmanite Oil Shale, as known at present, is shown in Figure 12. It is only known to occur in the north and eastern areas of the basin. The Tasmanite Oil Shale was not present in several wells in the south of the Tasmania Basin. It appears that several parts of the basin were sufficiently low in oxygen for some algal beds to be preserved.

The Tasmanite Oil Shale is a rich concentration of alga type kerogens present in the lower part of the Woody Island Formation. The individual algal bands range from 3 to 30 centimetres thick. The Tasmanite Shale was mined in the 1920's and 1930's from immature outcrops in the north of the basin. Various petroleum products were distilled, with a total production of over 1000 bbls of heavy crude with an API averaging 20°.

4.2.4 Early Permian Woody Island Formation Siltstone

The Woody Island Formation is present over a wide area as shown in Figure 12. Most of the Woody Island Formation is a carbonaceous siltstone, deposited in the proximity of retreating glaciers and contains glacial pebble dropstones. The formation has poor to fair source potential with TOC values of 0.5 to 2% and contains Type III gas prone kerogens. Most of the siltstones have a low to fair S_1+S_2 (0.2 to 2) (Reid, 2004).

Organic rich shale show a higher TOC of >2 to over 10, with HI correspondingly higher (Reid and Burrett, 2004).

In Bicheno 10, ten source rock quality samples have been tested. Of the ten samples, three rank as good potential (TOC 1-2 %) Type III source rock, one ranks as good potential Type II/III (TOC 1.72%, HI 300) and one ranks as very good potential Type II (TOC 2.42%, HI 433). Another four samples rank as fair (0.5 -1% TOC) Type III. This implies a mixed gas/oil source with a generally higher proportion of gas-prone source.

It is clear that the basin produced marine organic matter and it was preserved in thin highly concentrated beds, eg. Tasmanite Oil Shale beds. The quality of the Woody Island siltstone at Bicheno 10 and other locations suggest that the basin had favourable conditions for the preservation of other organic matter.

T_{max} for the majority of the Woody Island Formation samples analysed varies from approximately 430°, which is below the oil window, and up to 465° which is well within the oil window. Similarly, vitrinite reflectance is shown to range from Ro=0.55% (marginal) in the north east at Bicheno, to Ro=0.8% at Lonnavale and Ro=1.3% (gas and condensates) at Styx Valley in the southwest (Reid, 2004).

4.2.5 Permian Liffey-Faulkner Group

The Liffey-Faulkner Group is a non marine sequence within the overall marine sequences of the Lower Parmeener Supergroup. It consists of carbonaceous siltstone and sandstones and also includes coal horizons in northern Tasmania.

The carbonaceous siltstones have less than 5% TOC, whereas the coal horizons have up to 65% TOC. The majority of the disseminated organic matter contains Type III kerogens. The disseminated carbonaceous material shows a similar characteristic and level of maturity to the underlying Woody Island Formation. However, the calculated yield from this potential source is three times lower at 0.87 bbls/m², primarily due to the thinner interval (Reid and Burrett, 2004).

A study of the Liffey-Faulkner Group samples from Hunterston-1 showed the presence of total organic matter of 0.22 to 2.9%. Some coal is present. The HI (hydrogen index) is < 78 in all cases, indicating that there is gas potential. As the Liffey-Faulkner Group at Hunterston-1 has been over matured by contact metamorphism and perhaps burial maturation, the full potential of these rocks may not be indicated by these results.

4.2.6 Late Permian to Triassic Coal Measures

The Upper Parmeener Subgroup contains up to 600 metres of fluvial sandstone, including significant coal measures. These include the Cygnet Coal Measures in the northeast, and equivalents (Unit 1), and the Late Triassic lithic sandstones and coal measures (Unit 4).

The Cygnet interval comprises carbonaceous sandstones with interbedded cross-bedded and ripple-laminated channel sands that lie between the underlying Lower Parmeener Supergroup and the overlying massive sandstones of Triassic age. In southern Tasmania, the sandstones are feldspathic and grade into mudstones and thin coal seams. The interval varies in thickness and is restricted in extent, but is reported to be up to 100 metres thick.

The upper most Triassic coal measures are up to 300 metres thick and are dominated by volcanic lithic sandstones and minor claystones. These also contain commercial coal reserves in north-eastern Tasmania.

The following results are extracts from Bedi (2003). Five samples were taken from drill cores from Unit 4. Three were from the northeast of which one was a carbonaceous sandstone (Dalmayne); two were from 2 metre thick coal seams (Mt. Nicholas and Dalmayne) and two samples were of carbonaceous sandstone and siltstone from the south (Catamaran).

The TOC values are good to high ranging from 1.28 and 3.70 to 27.40 in the clastics and 25 and 63 in the coal seams. HI values are generally very low, below 100, but with one of the samples it is up to 188. This indicates Type III kerogens with a dominance of inertinite.

Vitrinite Reflectance from Catamaran, in the south, is in the wet gas to dry gas window ranging from 1.18% to 1.41%. T_{max} values of 523°C and 535°C show that these are over-mature for oil generation.

Vitrinite Reflectance from the samples taken in the northeast have Rv_{max} ranging from 0.59 to 0.93 and the corresponding T_{max} values from 438°C to 491°C. The high valves are from one of the coal samples and represent maturity within the transition from the oil to wet gas window.

4.3 Maturity Indicators and Burial History

In summary, understanding the maturity and expulsion timing of the basin is difficult due to the influence of dolerite on vitrinite maturity, the scarcity of easily identified vitrinite, the mixture of maturity indicators and the apparent major uplift and erosion or "unroofing" across the basin.

4.4 Permian Maturity Indicators

Bacon *et al,* 2000, observe an obvious bimodal distribution in VR data due to the over maturity of many samples due to heat from Jurassic intrusions. Reid (2004) produced a basin-wide maturity map (Figure 18). The main feature of this map is the lower maturity in the north of the basin and the very reliable low maturity in the east at Douglas River. Confidence in the maturity of samples at Hunterson-1 and Styx Valley is qualified due the presence of dolerite at these locations.

4.5 Timing of Maturity

Bacon *et al* (2000), following on from the apatite fission track (AFT) work of O'Sullivan and Kohn (1997) and Sutherland (1977), suggest the maximum burial of the basin occurred just before 100 Ma. This puts useful constraints on any attempt to model the burial history and the maturity of the source rocks.

The burial history was modelled at Tunbridge-1 and Douglas River (Bacon *et al,* 2000) and at Hunterston-1 and the Styx Valley (Reid, 2004). In the Tunbridge-1, Hunterston-1 and Styx Valley models, it was suggested that a peak maturity of 1.2 to 1.3 VR% was reached during the second half of the Cretaceous. In all models, a constant 35 degrees C/km has been assumed from the Permian to the present, for useful simplification. Models presented in Reid *et al* (2004) were described by the author as "best case" and were similar to those in Bacon *et al,* (2000) but indicated a charge later in the Cretaceous. The timing of both models is illustrated in Figure 16.

The fundamental feature of these models is the maximum burial in the Cretaceous, which is constrained by the AFT data. This implies expulsion at around the Middle Cretaceous just before the entire basin began to uplift and perhaps tilt in various directions while expulsion was occurring. This timing implies the risk that hydrocarbons were formed before traps, or before traps were stabilised. However, the uplift may have been very gentle, preserving the existing traps. The very limited structuring of the Carboniferous to Jurassic seems to give support to this idea. Extension in the Middle Tertiary and compression at the close of the Tertiary presents some trap preservation risk. Long preservation times are of course possible in Palaeozoic basins (e.g. Amadeus Basin in Central Australia, and the Appalachian Basin in the USA).

Recent surface heat flow data released from the Tasmanian Geothermal tenement to the east of the SEL13/98 block, suggests that a higher than previously modelled geothermal gradient could exist in Tasmania. Whilst this data may not be directly indicative of the thermal history expected within the central part of Tasmania. It does throw some doubt on the timing

of Permian source rock maturity, and could be encouraging for any late maturation and expulsion. For example Cenozoic deposition in the order of hundreds of metres occurred in the Longford Sub-basin. This deposition combined with the recent high heat flows recorded in eastern Tasmania, could place any immature Permian source rocks back in the oil window.

4.6 Pre-Carboniferous

Not all of the Pre-Carboniferous section in southern Tasmania is over matured at the present day (Burrett, 1992) (Figure 8). However, there is still a risk that Pre-Carboniferous rocks were expelled before the stabilisation of traps during the Tabberabberan Orogeny.

No models of this concept have been made because there was not enough constraining data available. However, we can infer from the burial models of Bacon *et al* (2000) in Figure 19 and Reid (2004) that these rocks (lying some kilometres deeper than the Permian) could have re-entered the oil gas window in the Mesozoic to Cenozoic.

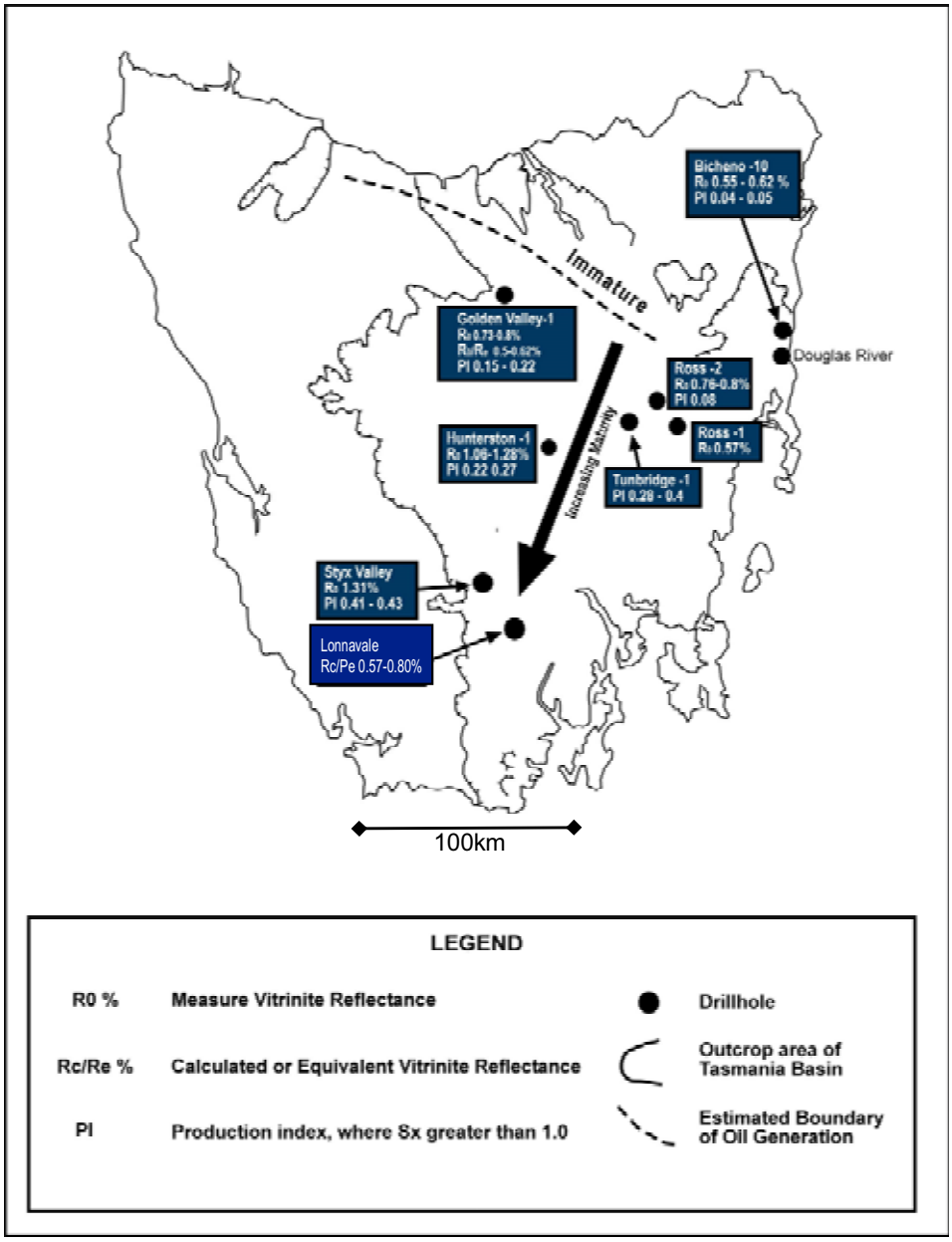


Figure 18 - Maturity of the Lower Parmeener Super-group (modified from Reid, 2004)

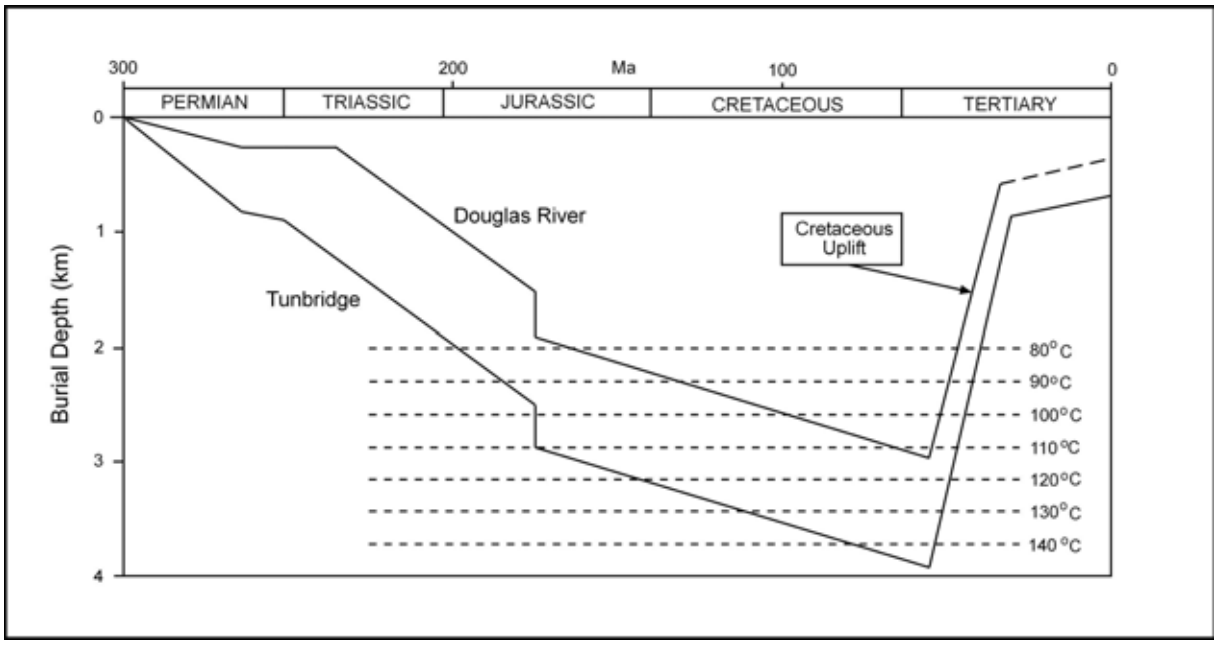


Figure 19 - Burial model modified (from Bacon *et al*, 2000)

4.7 Reservoirs

4.8 Pre-Carboniferous (Larapintine) Reservoirs

The primary reservoirs within the Larapintine Petroleum System are carbonates of the Gordon Group and the Arndell Sandstones of the Tiger Range Group. Leached and dolomitised limestones, as well as reefal and fractured reservoirs could be anticipated but not much is known about these sequences. Likewise, the overlying sandstones of lower Eldon Group are potential reservoirs but to date, no accurately documented information is available (Chester, 2003. P159-160).

Palaeokarst features have been reported within the Gordon Group at various locations including Eugenana, Florentine Valley, Tyenna, Ida Bay, Lake Sydney and Moina. This implies that any Gordon Group limestone sub-aerially exposed before Parmeener Supergroup deposition may also have developed karst features. An Ordovician carbonate reservoir perhaps karstified with cavernous porosity and enhanced with fractures is also a Pre-Carboniferous reservoir possibility. There is no porosity/permeability data on such a rock in the Tasmania Basin. The notion of a karst reservoir preserved “at depth” is speculative at this stage. However, GSLM is proposing to drill one or two wells in 2008 to target the Gordon limestones, which could greatly improve the knowledge of the Pre-Carboniferous.

The Arndell Sandstone conformably overlies the Gordon Group limestone, in the Tiger Range area. The sandstone sequence is approximately 250 metres thick, but is a very fine-grained sandstone with a poor porosity of only 5%.

The expected depths of burial and temperatures in the Pre-Carboniferous section would severely reduce porosity and permeability in any siliciclastic reservoir (e.g. Eldon Group). Given the deformation of the section during the Devonian, it is reasonable to postulate that fractures are present and could enhance reservoir quality and aid hydrocarbon recovery. Recovery from such a reservoir, typically will be less than 25%. Gas recovery would be

much higher. To date, there is no core or log from these intervals “at depth” to support these ideas.

4.9 Permian to Triassic (Gondwana) Reservoirs

4.10 Lower Parmeener Supergroup “Freshwater Facies”

Within the Lower Parmeneer Supergroup, there are a number of sandstone intervals with good reservoir characteristics. These sandstones are considered to be extensive and porosities vary, but can be over 20%.

The potential reservoirs in the Lower Parmeneer Supergroup are summarised in Table 6.

	Formation	Porosity (%)	Thickness (m)	Environment
Lower Parmeener Supergroup	Risdon Sandstone	13.7- 14.7	4 - 8	barrier complex shallow marine shelf.
	Minnie Point Formation	14.1- 16.6	5 – 180	shallow marine shelf
	Rayner Sandstone	3.97	30 – 100	? basal conglomerate
	Liffey / Faulkner Group	12.8 - 27	6 – 50	coastal channel
	Bundella Formation	7.4- 22.3	70 - 135	shallow, marine shelf

Table 6 - Porosity of sandstone units within the Lower Parmeener Supergroup (modified from Woods, 1995)

The Risdon Sandstone is prevalent throughout the study area, with a thickness of usually 4 metres to 8 metres. The Rayner Sandstone and Malbina Formation samples exhibit a relatively immature mineralogy compared to the more porous samples. The Rayner Sandstone is highly bioturbated and poorly sorted in comparison to the very well sorted, channel facies of the Faulkner Group.

The Minnie Point and Malbina Formations are also extensive throughout the south east of the study area, but become much thinner further to the south. Well to moderately sorted sandstone units occur at the base and top of the formation. Porosity varies markedly between sandstone units, which are up to several metres in thickness.

The Permian Liffey/Faulkner Group reservoirs are widespread. The depositional environment of the Liffey/Faulkner Group (Maynard, 1996) includes glacial, fluvial, coastal and marine depositional environments. The section is about 30 metres thick within the basin. In southern Tasmania around Granton, it exceeds 40 metres. In central Tasmania, it is divided into 7 units with a total thickness of 20-35 metres, with varying reservoir porosity (Table 7). Continuity is undetermined and the reservoir potential is poorer for the deeper parts of the basin.

The mature mineralogy of the high energy channel sand facies occurs with coastal plain facies and consists primarily of very well sorted, fine to medium-grained sandstone. Good primary porosity and permeability may be expected. Reid and Burrett (2004) report that porosity for the Liffey Group ranges up to 27%. The sandstones are often laterally extensive

point bars within a braided stream environment. These facies often grade or pinch-out into well consolidated siltstone and shale, thus providing stratigraphic traps for the accumulation of hydrocarbons (North, 1985).

The available permeability data (Reid, 2004), suggests Permian formations are marginal oil reservoirs. In several wells, namely Hunterston-1 and Shittim-1 this may be attributed (in some part) to the influence of intrusions. Petrography at Hunterston-1 indicates the presence of silica overgrowth and secondary carbonate cement. Wells without obvious influence from intrusions on reservoir quality are Ross-1 and Tunbridge-1 (Reid, 2004 and Maynard, 1996). These wells do not show very high permeability. It is very likely that the reservoir is generally poor to fair quality and the presence of dolerite can reduce it even further. The best permeability by far, of 166 mD, is from the far eastern side of the onshore basin at a shallow depth in the Douglas River area. The next highest permeability is 8.8 mD at Ross-1. This suggests that low permeability (1 to 10 mD) is quite likely. Data from Hunterston-1 suggests the presence of intrusions can cause permeability to be below 1 mD. The Permian sequence as sampled does not represent a very effective oil reservoir.

This poor reservoir quality is consistent with the explanation for the AFT measurements that suggest kilometres of overburden were eroded between 100 and 50 Ma. The models of Reid (2004) and Bacon *et al* (2000) suggest the Permian reservoirs were buried to a depth of 4,000 plus kilometres and exposed to temperatures over 100 degrees C for almost 100 Ma. Silica overgrowth occurs at temperatures over 100 degrees C. This aside, there is the risk of direct and/or indirect reduction of reservoir quality by intrusions. There may be a higher risk in areas where carbonates are present in the Ordovician, as a thin section examination of the Liffey Group from Hunterston-1 indicated carbonate cements. The source of this carbonate is thought to be the carbonates intersected in the Precambrian section of the well.

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
Lithology	white-grey sandstone	interbedded white-grey sandstone, dark grey mudstone	white-grey sandstone	heavily bioturbated sandstone to mudstone	white-grey sandstone	interbedded white-grey sandstone, and dk grey mudstone	heavily bioturbated sandstone
Composition	qtz (75%), feldspar, mica, clay		qtz (>75%), feldspar mica, clay	qtz (70%), feldspar mica, clay	qtz (>70%), feldspar mica, clay		qtz (70%), feldspar mica, clay
Grain Size	medium to very fine	medium to silt	fine to very fine	medium to very fine	coarse to very fine	medium to silt	medium to very fine
Grain Morphology	sub-angular to sub-rounded		sub-angular to sub-rounded	sub-angular to sub-rounded	sub-angular to sub-rounded		sub-angular to sub-rounded
Sorting	well sorted		well sorted	Mod-poorly sorted	well sorted		Mod-poorly sorted
Framework	close packed		close packed	relatively open	close packed		relatively open
Cement	minor silica		minor silica	minor silica (mainly clay matrix)	minor silica & some carbonate		minor silica (mainly clay 1 matrix)
Porosity	10 -15% (1-5% at Poatina)	variable	2 -5% at Poatina, up to 25% at Ross	9 -27%	10 -25%	variable	5-7%
Thickness	10m (Golden V.) to 1m	1 to 11m	5 to 11 m	3 to 9m	ave 11 m	I to 3m	3 to >7m

Table 7 - Summary of the characteristics of units in the Liffey/Faulker Group reservoirs (modified from Maynard, 1996)

In central Tasmania, the Liffey/Faulkner Group was intersected in several drill holes around central Tasmania near the axis of the Tiers Fault including Golden Valley, Great Lake Tail Race Tunnel, Great Lake Penstock at Poatina, Ross, Tunbridge Tier and Bothwell.

Fissile and non-fissile siltstones comprise the Bundella Formation. These have a consistent thicknesses and the sandstones exhibit fair to good porosity. The Bundella Formation was deposited on a shallow, low energy marine shelf.

4.11 Upper Parmeener Supergroup "Fluvial Sequences"

The Upper Parmeener Supergroup contains up to 600 metres of terrestrial fluvial sandstones. Substantial coal measures occur within Upper Triassic sandstones in the northeast of the basin and the Cygnet Coal Measure of late Permian age.

The Upper Parmeener Supergroup has been divided into four potential reservoir units. The Upper Permian carbonaceous sandstone, Unit 1 (equivalent to Cygnet Coal Measures), is up to 50 metres thick and has poor to moderate porosity (10%) (Bedi, 2003).

The Triassic quartzose sandstone, Unit 2, has the best potential reservoir. It is up to 250 metres thick and has excellent porosity (23%) but only fair permeability (9.8 mD). These quartzose sandstones are characterized by authigenic quartz overgrowths with reduced porosity and lowered permeabilities. The sandstones were deposited in a braid plain environment resulting in thickly bedded clean sandstones, largely free of heterogeneities (Bedi, 2003).

The volcanic lithic sandstones with coal measures, Units 3 and 4 have poor porosity and permeability (0.08mD). Sandstones in these units are characterized by mechanical

compaction and alteration of lithic grains to a clay matrix. The volcanic lithic sandstones were deposited in a meandering fluvial environment resulting in abundant lutite intervals, which may act as seals (Bedi, 2003).

4.12 Seals

4.12.1 Jurassic

By the early Jurassic the Parmeener Supergroup formed in a shallow basin, plunging towards the south-southeast, with some gentle folding in an otherwise sub-horizontal succession (Hergt *et al*, 1989). Large volumes of tholeiitic dolerite intruded as sills into the Tasmanian crust during the Early Jurassic.

The dolerite is exposed over an area of 30,000 square kilometres and has an estimated average thickness of 500 metres (Hergt *et al,* 1989). Most dolerite intrusions have the form of a flattened cone connected to a source or sources at the deepest point. The limbs are concordant or approximately concordant with abrupt transgressions when rising to higher levels (Leaman, 1976). The metamorphic effects resulting from dolerite intrusion are usually confined to within a few metres of the intrusion margin, with the effect being more severe at the roof of the intrusions.

In the Hobart area, two or three dolerite sheets are commonly present. These sheets range from less than one metre to 300-400 metres thick. The thicker sheets in the middle or lower Permian rocks are typically 30 square kilometres in area, while in Triassic rocks, they are more extensive (Leaman, 1975). In contrast, only a single sheet, intruding the Upper Parmeener Supergroup, has been recognized in the northern part of the basin (Central Plateau, Ben Lomond and the Fingal Tier) (Bacon *et al*, 2000). A composite, 650 metre thick dolerite sheet was intersected near the Upper-Lower Parmeener Supergroup boundary in Hunterston-1 (Reid *et al*, 2003). From the interpreted seismic this sheet appears to cover many hundreds of square kilometres.

There is limited well data, fault and fracture information at depth to ascertain whether the dolerite can be classed as a regional seal. At depth, in areas away from major faults where significant fractures are not expected and the dolerite is tight, it would be considered to be a reasonable seal. Jurassic dolerite intrusive sheets can also be classed as effective seals based on their very high velocity of approximately 6500 m/s.

4.12.2 Permian

There is no quantitative seal data, such as Mercury Capillary Injection Pressure (MCIP), for any formation. Bacon *et al* (2000) observed that “muddy lithologies” dominate the Lower Parmeener Group. The Liffey Group is generally described as a non-marine sand in a dominantly muddy marine section. This implies a basin-wide low stand event. In a study of Liffey Group cores, Maynard (1996) interpreted inter-bedded sandstone and silt/mudstone.

Intra-formational seals are likely to be present. Like any intra-formational seal in a fluvial section, it is moderately high-risk due to limited lateral extent. The Malbina and Cascades Group Formations are also marine mudstone formations (Figure 7 and Figure 17). Potential seal units occur above the Liffey Group sandstones as siltstone in the lower part of the Cascades Group as 1-5 centimetre thick volcanic ash layers within this group (Burrett and Reid, 2004).

These Permian formations are not homogeneous and there is the possibility they are waste zones (non-commercial, extremely low permeability reservoirs). The potential for waste zones could not be assessed from the current data available. The Ferntree Formation is the result of widespread marine conditions that mark the top of the Lower Parmeener Group. It is not composed of a highly plastic clay but it seems to be a reasonable candidate for a regional seal. Unfortunately, it does not directly overlie the targeted Liffey Group (Figure 17).

4.12.3 Pre-Carboniferous

Currently, there is no quantitative data on seal quality. In deformed Palaeozoic rocks such as these, it is expected that permeability will be quite low in general.

Effective fine-grained seal lithologies are possible in the marine Gordon Group limestones. As discussed previously, some form of intra-formational seal would need to be invoked in the Tiger Range Group for the Eldon Formation.

Early Permian Tillites were widely deposited on the Devonian unconformity of the Tabberabberan Orogeny. If a Mesozoic to Cenozoic charge from hypothetical Ordovician sources is supposed, the Stockers Tillite could provide a seal to sub unconformity traps.

4.13 Play Types

Two main plays have been identified in the Tasmania Basin. These are the Permian/Triassic/ Cenozoic sections and the Pre–Carboniferous.

The Pre-Carboniferous Play is an untested concept. There are few boreholes that have intersected more than a few hundred metres past the Base Permian Unconformity. The seismic resolution is poor and the structural styles are complex at this level. Reservoirs would probably rely on fracture porosity to be present to enhance either the Eldon Group sandstone or karstified Ordovician limestones. The potential source rocks would be Ordovician algal-rich sediments, capable of producing oil and gas, however depth of burial and subsequent erosion is unclear.

The play elements of the Permian Play are better defined. The section seems to be quite unstructured in a regional sense and bedding has quite low dips. This lack of structure supports the idea that the regional Cretaceous uplift was gentle, thus preserving any hydrocarbon accumulations existing at the time. However, the basin is quite flat-lying, so identifying the location of a high confidence closure on the existing sparse 2D seismic data in the post unconformity sections is quite difficult.

Normal faults are more prominent in the Longford Sub-basin. These could represent Cenozoic extension which post dates the expected Mid Cretaceous charge event. Regardless of this issue, the visible faults run right to the surface, indicating recent movement, and suggesting that the fault dependent closures have a risk of being breached. These sections have a high percentage of shales, so shale smear is possible to create a fault seal. Some of these normal faults have undergone a reverse re-activation during Late Cenozoic wrench movement. However, the timing of trap formation and possible hydrocarbon expulsion would still be an issue.

A potential Triassic play has been proposed by Reid (2004) (Figure 17). There is no porosity, permeability or seal integrity data published. Coals are proposed as the source. There is minor coal which is stratigraphically low in the Upper Parmeener Group (Cygnet and Adventure Bay Coal Measures) occurring in the south-eastern, western and northern edges of the basin (Anon, 2005). The Coal Measures generally contain two seals less than 1 metre thick, with ash contents of 25 to 30% (Anon, 2005). The invoking of a wide spread "lutite" seal in the Mid Upper Parmeener (Figure 16) seems to be difficult to justify in a supergroup which consists of four cycles of fluvial to minor swamp deposition.

The best developed coal by far is at the top of the Triassic (Anon, 2005 and Bacon *et al*, 2000), making charge and seal problematic (Figure 16). As noted earlier, if the Ferntree Formation is an effective regional seal, then Permian charge will not reach the Triassic. A Triassic play would rely on fluvial intra-formational seals with their intrinsic risk.

Stratigraphic plays and traps are a theoretical possibility at any level but pursuit of them is impractical, given the limited 2D seismic coverage and variable seismic image quality.

Larger scale stratigraphic plays/traps (i.e. zero edge traps) are limited. The southern zero edge of the Liffey/Faulkner Group has been defined by MRT to be in the Cygnet area. It appears that no indications of hydrocarbons were located in any of the several bore holes

drilled. The zero edge of the Liffey Group is eroded in the west and probably in the east. The proximal portion of the Liffey Group in the north of the basin does not present a viable zero edge play, being very likely to have poor top seal. Once again, such plays are inherently high risk, and require a very sharp transition from reservoir to good seal rock. Helium was detected in the Jericho-1 and Shittim-1 wells. There is no known structure at either of these wells. It is assumed this gas has made its way, along with hydrocarbon gases, from Pre-Carboniferous rocks down dip.

4.14 Petroleum Prospectivity

Seismic coverage is approximately 1300 kilometres of 2D data (TB01-2001; 775 km, TB02-2006; 175 km and TB02-2007 345km). To date, only stratigraphic tests and mineral holes have been drilled in the Tasmania Basin. Drilling between 1997 and 2001 was conducted by GSLM using diamond coring mineral exploration rigs to establish stratigraphy. No borehole has been drilled on a seismically defined structure.

Following integration of the 2007 gravity and seismic data into the existing database, GSLM have identified more than 15 potential drill sites targeting prospects and leads of various sizes. To date, interpretation of all the acquired seismic data has identified several fault block traps and anticlines with shallow targets in the Gondwana Petroleum System and deeper targets have been identified in the Larapintine Petroleum System. These are mainly Ordovician anticlinal structures in the Central Highlands. A total of twelve targets have been selected and evaluated within this report and are shown in Figure 20. A drilling program of the primary targets is planned by GSLM.

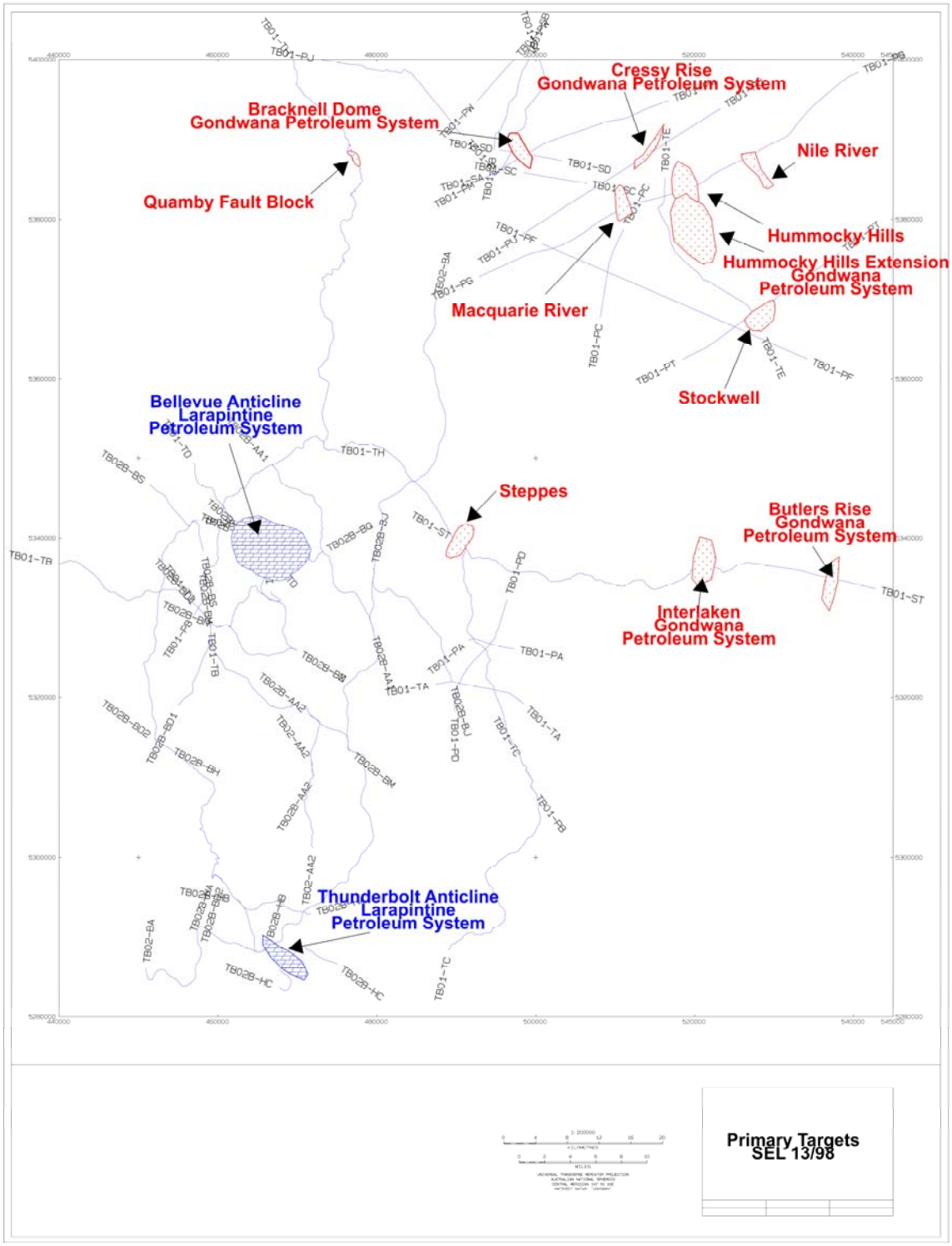


Figure 20 - Primary Targets Block SEL98

All resources are classified as Prospective Resources under the SPE/WPC/AAPG/SPEE resources classification system (Figure 21) taken from the Petroleum Resources Management System document (2007).

The risking has been calculated using a play risk and a prospect specific risk.

The play risk pertains to essential conditions (Reservoir, Seal, and source/maturity/migration timing) existing within the basin as a whole. Two play type risks have been calculated. These are the Pre-Carboniferous and the Post-Permian unconformity sequences.

The prospect specific risk is based on individual risks pertaining to the specific trap definition, reservoir, charge/migration and seal competence and is dependent on the play working.

The overall geological Chance of Success (COS) is the product of the play and the prospect specific risk.

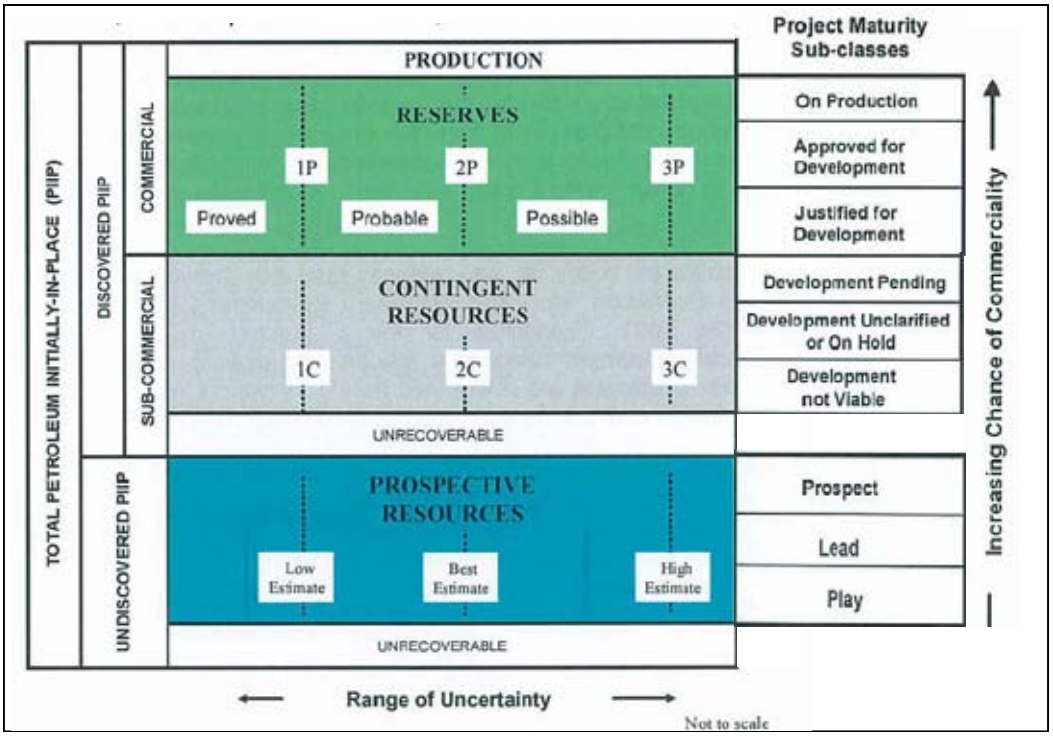


Figure 21 - SPE/WPC/AAPG/SPEE Resources Classification System

5. SEL 13/98 PROSPECT AND LEAD VOLUMETRICS AND RISK ANALYSIS

5.1 Bellevue Prospect

The Bellevue Prospect is located in the Central Plateau in central Tasmania (Figure 22). It is constrained by five 2D lines. Mapping of the upper and lower limestone units is shown in Figure 23 and Figure 24, respectively.

The approximate depth from the surface to the crest of the upper limestone unit is 2,200 metres with the lower unit crest at approximately 3,350 metres.

The gross structure is interpreted as a large compressional fold caused by a deep seated detachment. Figure 25, Figure 26 and Figure 27 show seismic examples through the Bellevue anticline.

Two potential reservoirs have been mapped with 4-way closure. As no well control exists at these levels, the interpretation of the potential reservoirs are based on seismic character.

Silurian-Devonian, Triassic and Permian reservoirs are also possible at this location and should be considered as an upside potential, however, mapping of the structural closure at these shallower levels is not possible on the current data set.

The volumes of unrisked oil for each level are presented in Table 8 and Table 9, with the full volumetric inputs presented in Appendix B
The chances of success for each level of the Bellevue Feature is presented in Table 10.

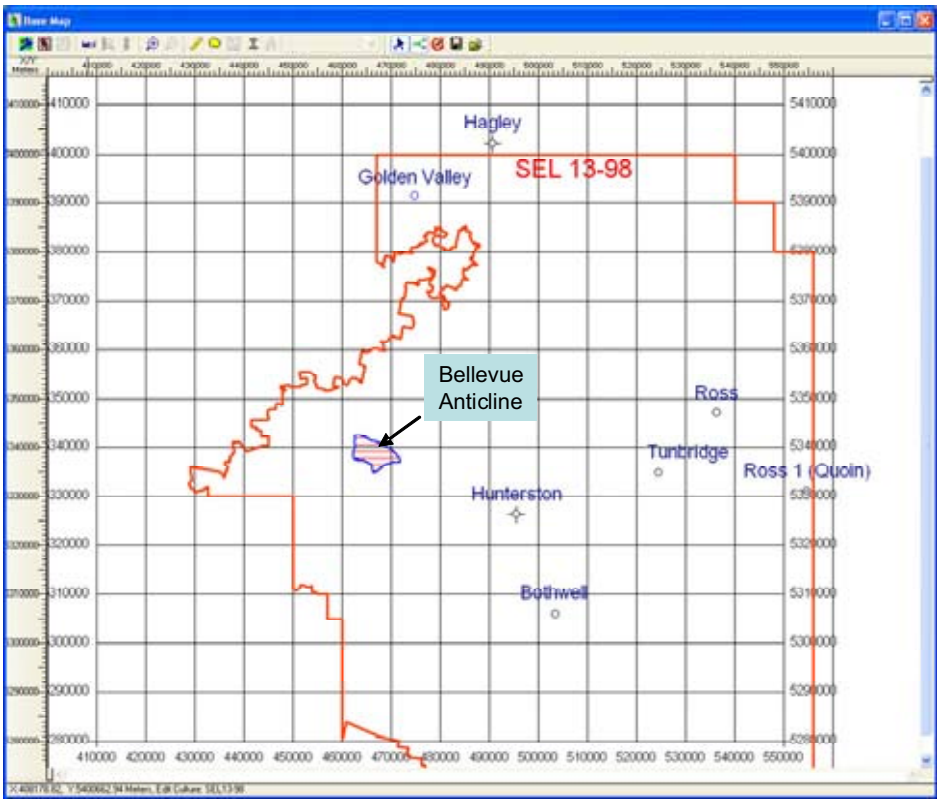


Figure 22 - Bellevue Anticline Location

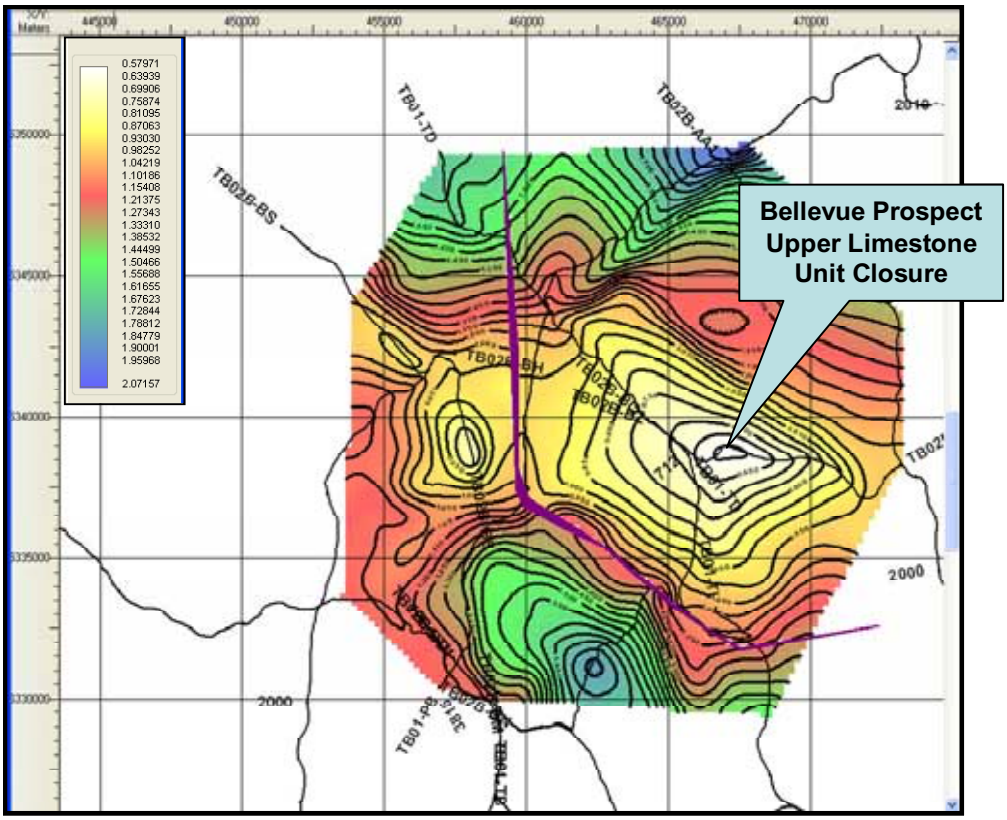


Figure 23 – Bellevue Prospect : Upper Limestone Unit Two way Time Map

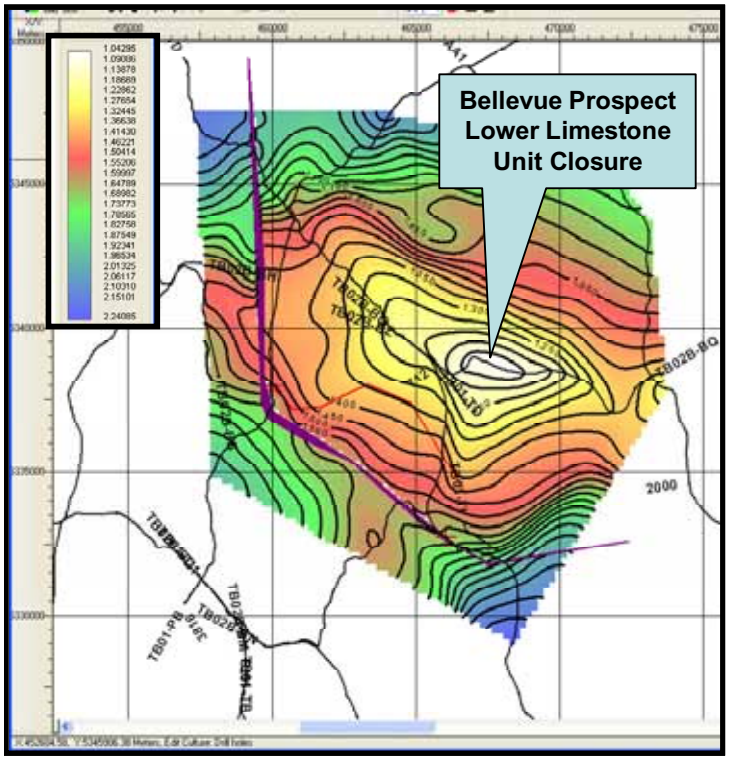


Figure 24 - Bellevue Prospect : Lower Limestone Unit Two way Time Map

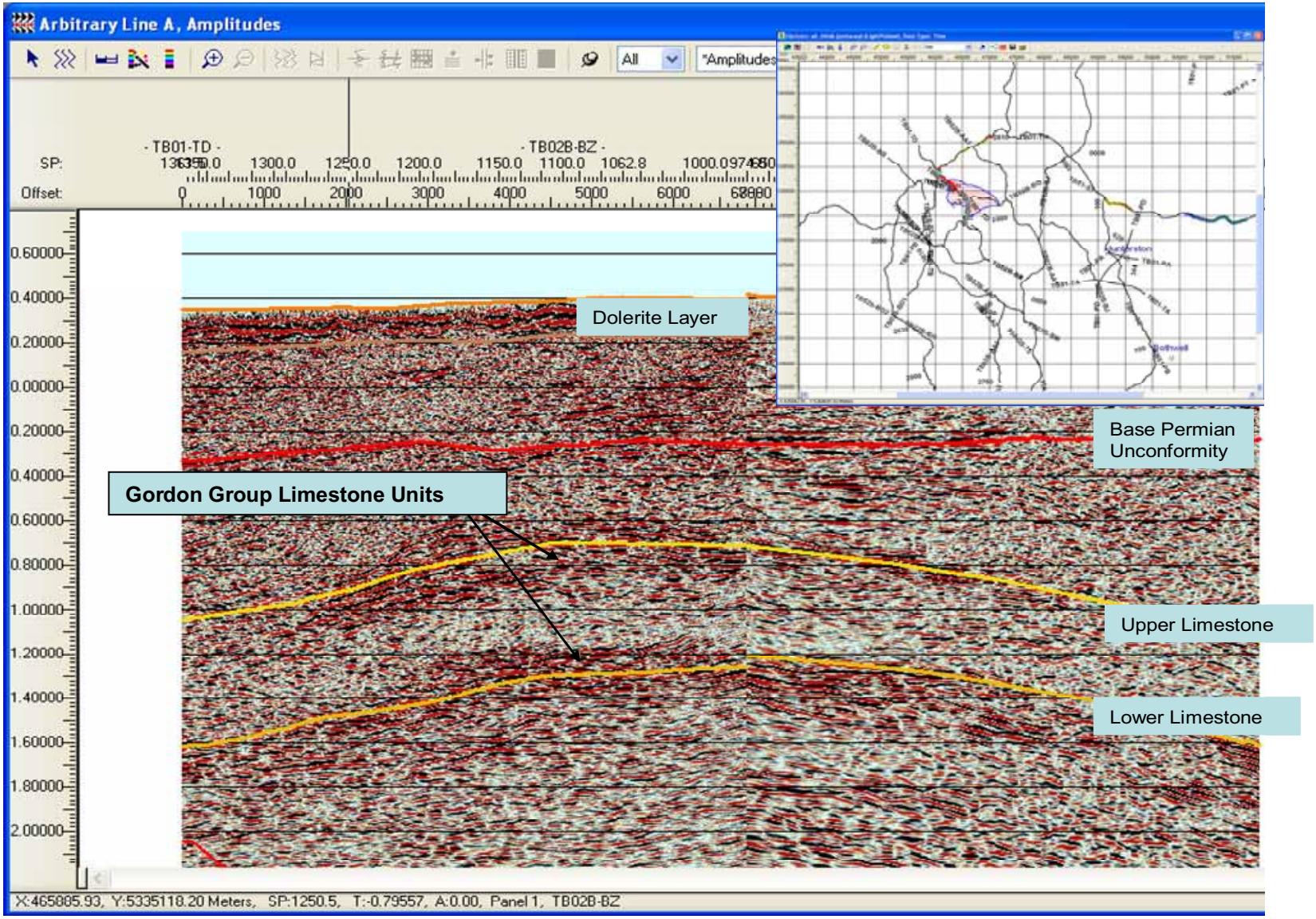


Figure 25 – Arbitrary Line North-South through Bellevue anticline

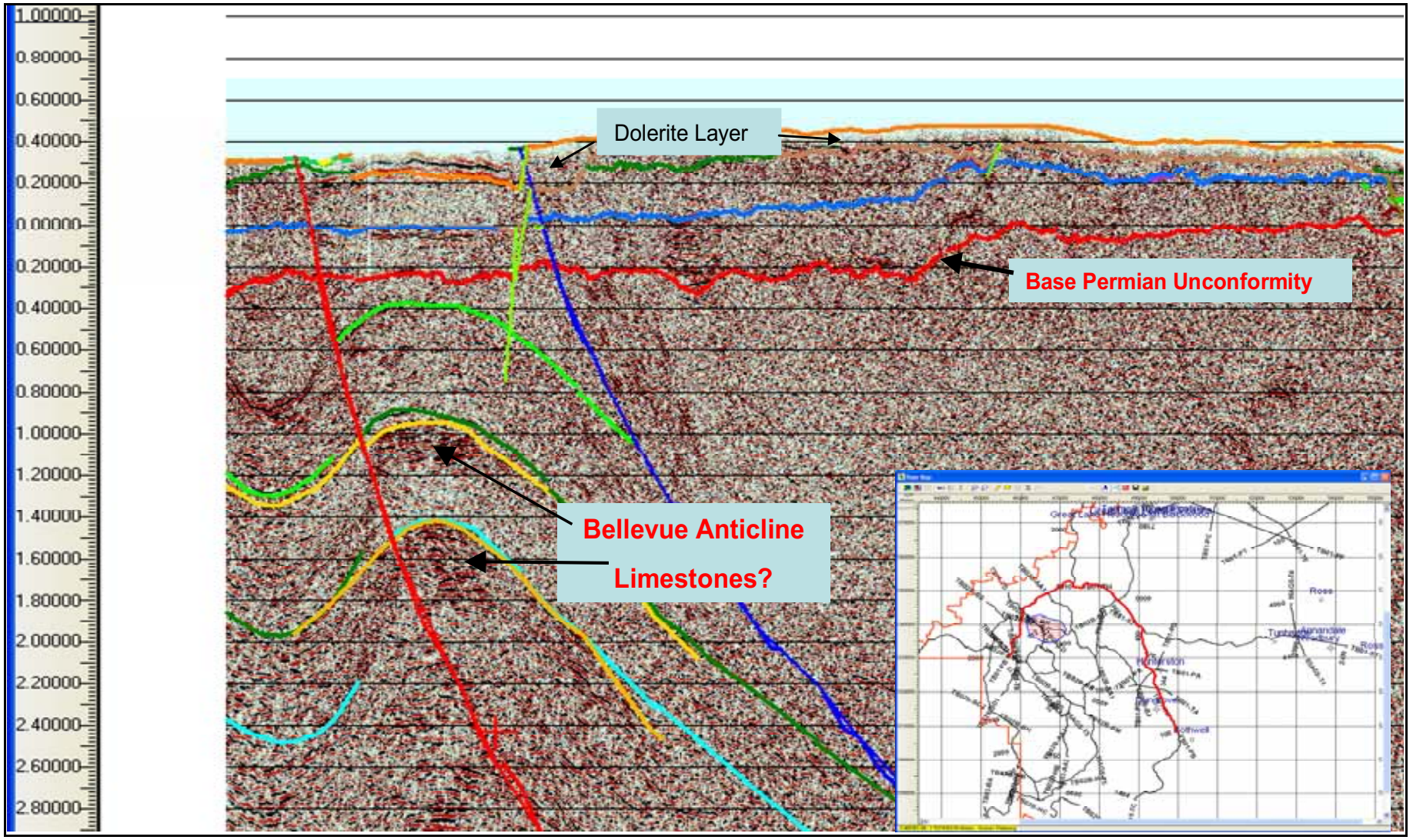


Figure 26 - Seismic line TB01-PB through the Bellevue anticline, North of Closure

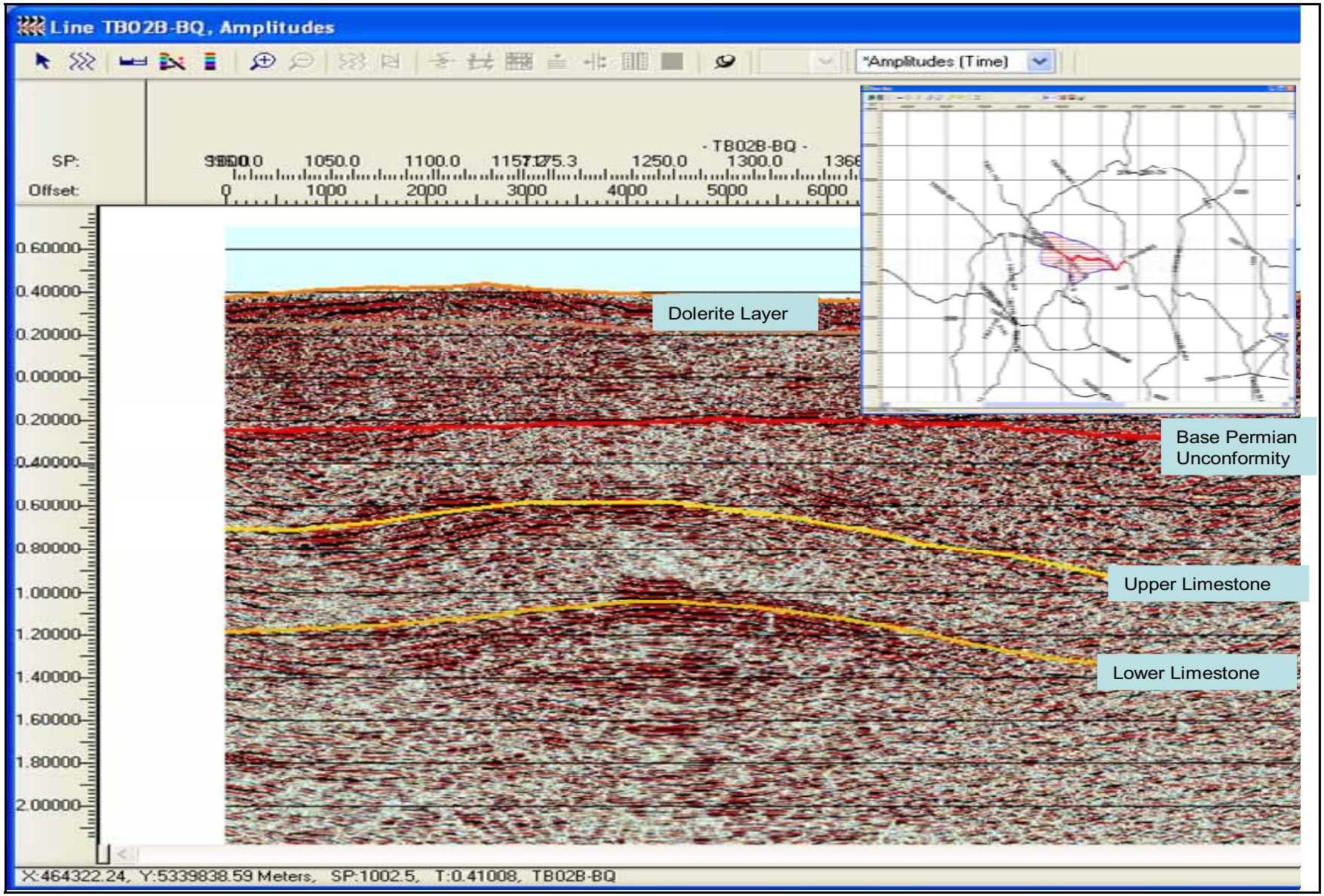


Figure 27 – Seismic line TB02b-BQ through the Bellevue Anticline

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	160	587	1732	808
Prospective Resource (MMbbls)	38	151	484	220

Table 8 - Unrisked oil volumes of Upper Unit of the Bellevue Prospect

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	100	368	1094	510
Prospective Resource (MMbbls)	24	95	307	139

Table 9 - Unrisked oil volumes of Lower Unit of the Bellevue Prospect

Play Chance	Percent
Reservoir	48
Seal	100
Source / Migration	25
Play Chance Total	12
Prospect Specific Chance	**Percent**
Trap	70
Charge	80
Reservoir	60
Seal	50
Prospect Specific Chance Total	17
Overall Chance of Success	**2.0**

Table 10 - Chance of success of the Bellevue Prospect

5.2 Hummocky Hills Lead

The Hummocky Hills Lead is located in the northern part of the block (Figure 28). The lead is defined on one 2D seismic line, (Figure 29). This line depicts an Early Cenozoic rotated fault block, possibly forming an up-thrown fault closure. The potential reservoirs are within the Triassic and Permian, namely Unit2, Unit1, Palmer Sandstone, Garcia Sandstone and Liffey Group. The surface geology suggests that the rotated fault block may also be present below the outcropping dolerites of the Hummocky Hills, (Figure 30). It is unclear if the Dolerite section thickens towards the Hummocky Hills outcrop or is conformal to the underlying reservoir units. If the dolerite is a consistent thickness then the crest of the lead could be under the present day topographical high and make the structure relatively large. It is likely that forward modeling of the gravity data or further seismic acquisition over the main outcrop could refine the structure.

The volumes of unrisked oil based on the likely size and geometry of the trap are presented in Table 11, with the full volumetric inputs presented in Appendix B
The chances of success for the Hummocky Hills Lead is presented in Table 12.

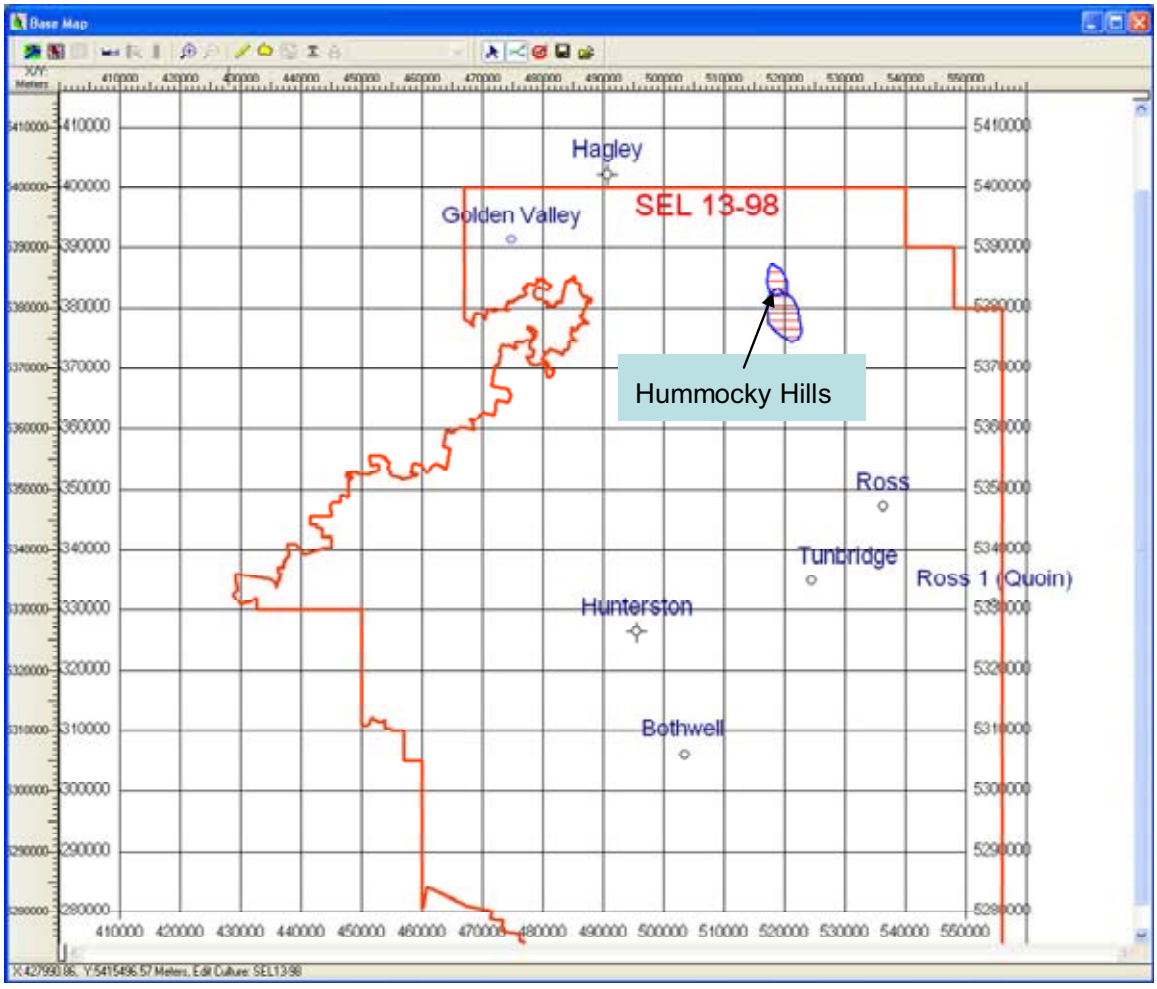


Figure 28 - Hummocky Hills Location

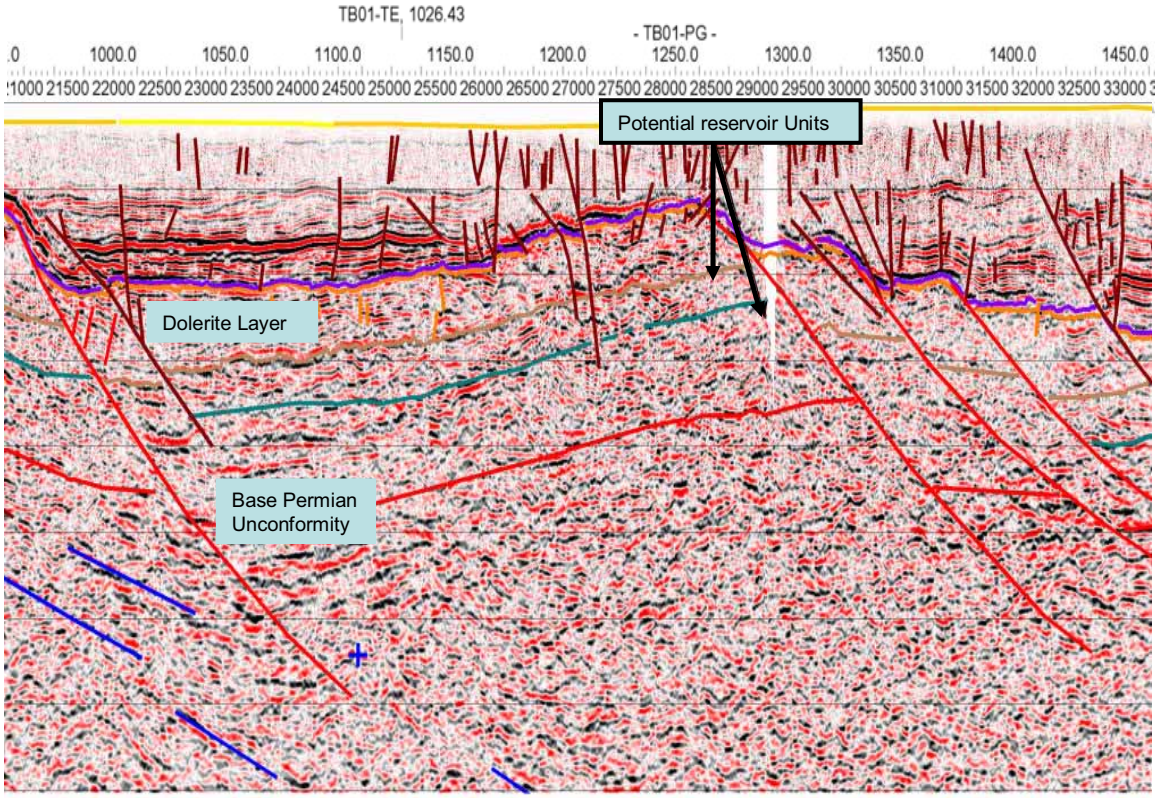


Figure 29 - Seismic Line TB01-PG, Hummocky Hills

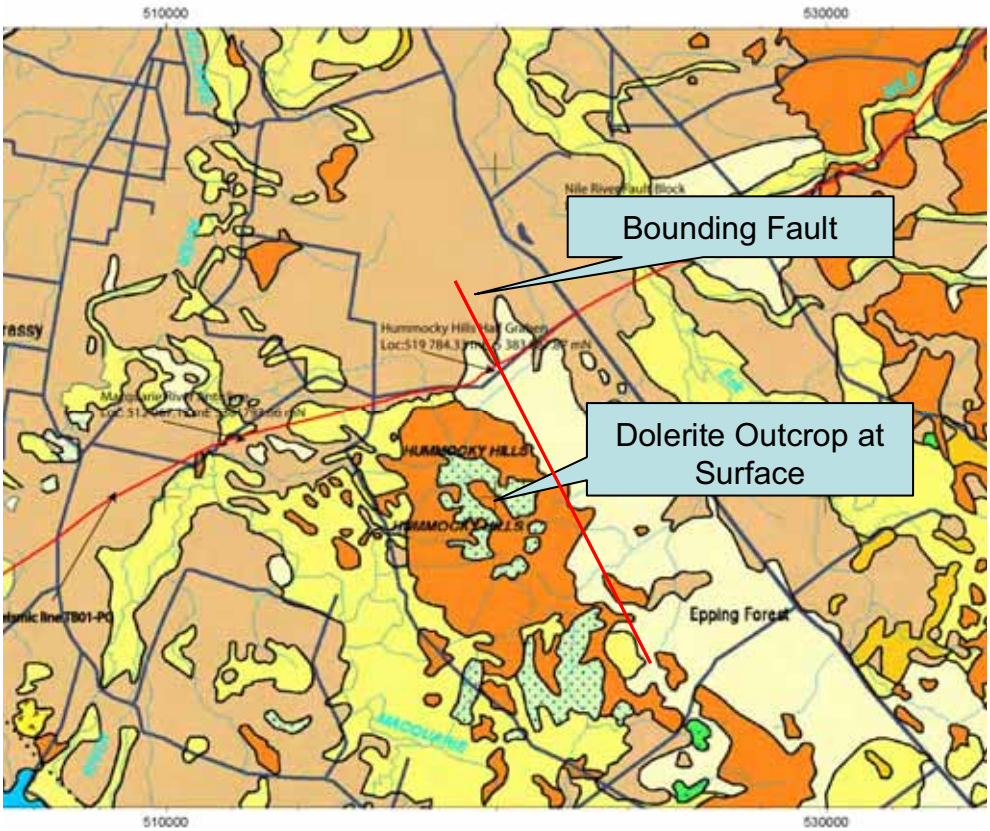


Figure 30 - Surface Geology at Hummocky Hills

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	22	115	501	213
Prospective Resource (MMbbls)	5	30	138	58

Table 11 - Unrisked oil volumes of Hummocky Hills Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	40
Charge	80
Reservoir	48
Seal	40
Prospect Specific Chance Total	7.7
Overall Chance of Success	**1.2**

Table 12 - Chance of success of the Hummocky Hills Lead

5.3 Thunderbolt Lead

The Thunderbolt Lead is located in central Tasmania (Figure 31). It is constrained by two 2D lines. The gross structure is interpreted as a large compressional fold similar to the Bellevue structure and is also caused by a deep seated detachment. The area immediately to the west appears very complex with possible back-thrusting and duplexing of the Ordovician and older rocks to such an extent that the Ordovician section is outcropping.

In general the feature is poorly defined with potential limestones based solely on limited seismic character as the target reservoirs. Figure 32 - Seismic line TB02-BA through Thunderbolt Lead shows the potential structure.

The volumes of unrisked oil for each level are presented in Table 13, with the full volumetric inputs presented in Appendix B.

The chances of success for each level of the Thunderbolt lead is presented in Table 14.

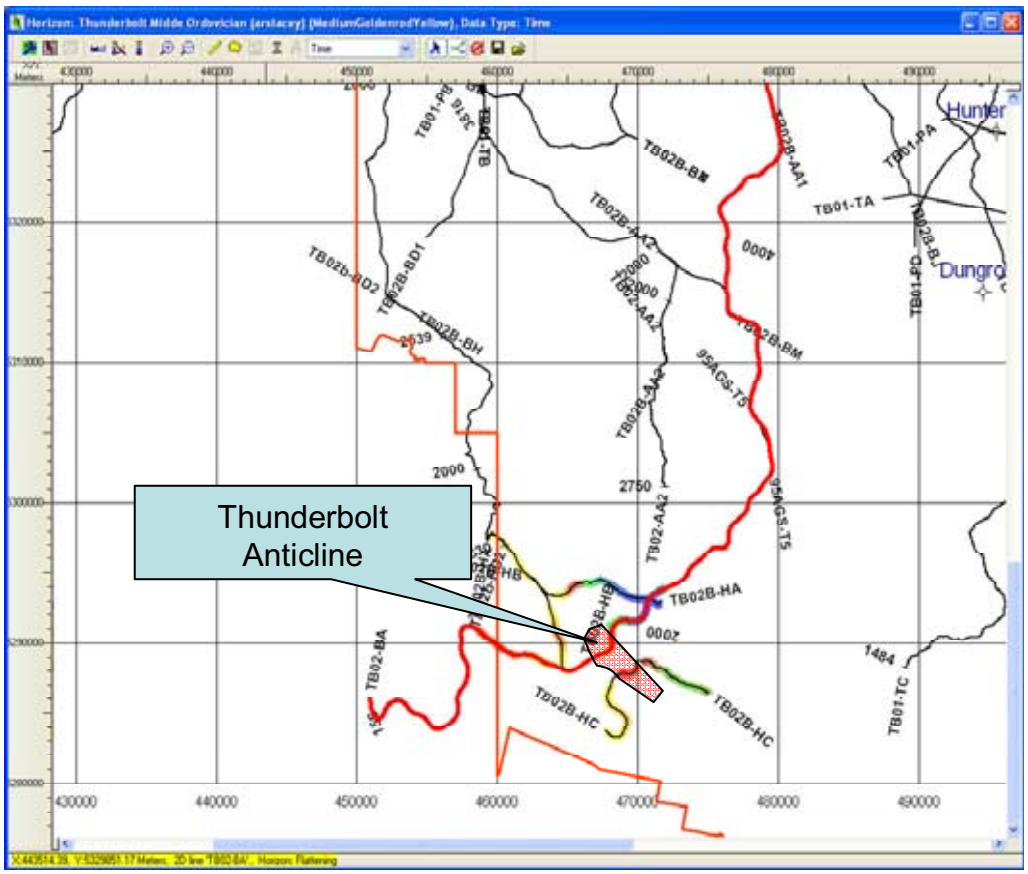


Figure 31 - Thunderbolt anticline location

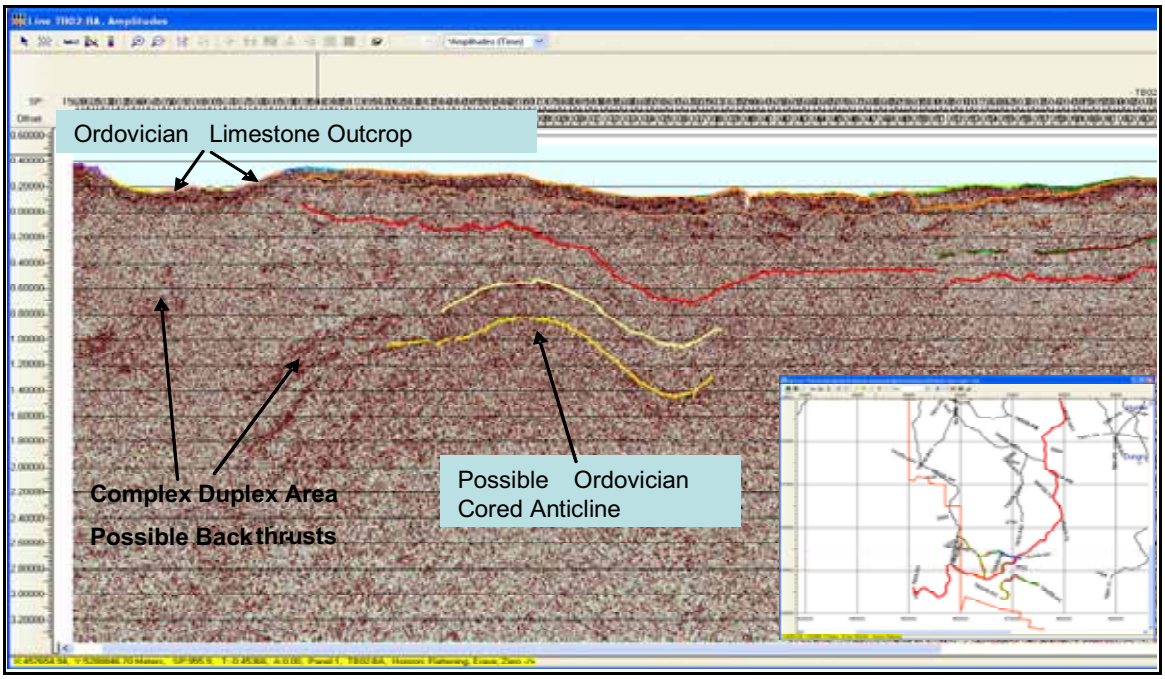


Figure 32 - Seismic line TB02-BA through Thunderbolt Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	49	206	717	61
Prospective Resource (MMbbls)	12	53	198	88

Table 13 – Unrisked oil volumes of Thunderbolt Lead

Play Chance	Percent
Reservoir	48
Seal	100
Source / Migration	25
Play Chance Total	12
Prospect Specific Chance	**Percent**
Trap	50
Charge	80
Reservoir	60
Seal	25
Prospect Specific Chance Total	6
Overall Chance of Success	**0.72**

Table 14 - Chance of success of the Thunderbolt Lead

5.4 Bracknell Dome Lead

The Bracknell Dome Lead is located in the north-eastern part of the block, (Figure 33) and features a Late Cenozoic inversion of an Early Cenozoic faulted graben (Figure 34). Possible reservoir targets are Mid–Tertiary clastic units and earlier Triassic and Permian units. Structural closure has been mapped at the Mid-Tertiary level and closure is likely at deeper levels, See Figure 35.

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in Table 15, with the full volumetric inputs presented in Appendix B.
The chances of success for the Bracknell Dome Lead is presented in Table 16.

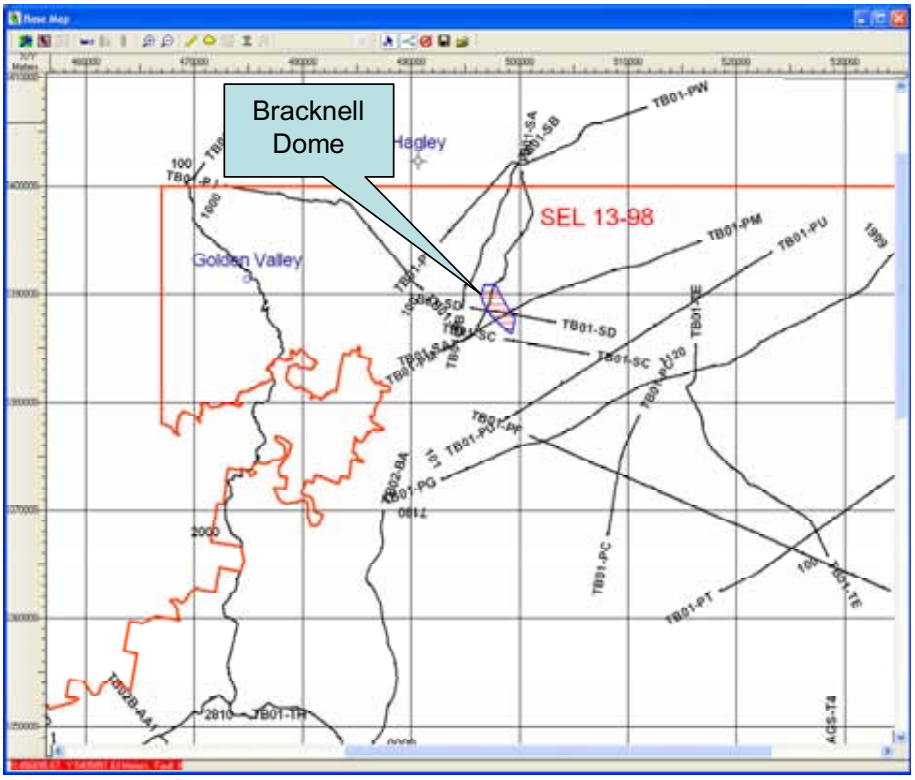


Figure 33 - Bracknell Dome Lead Location map

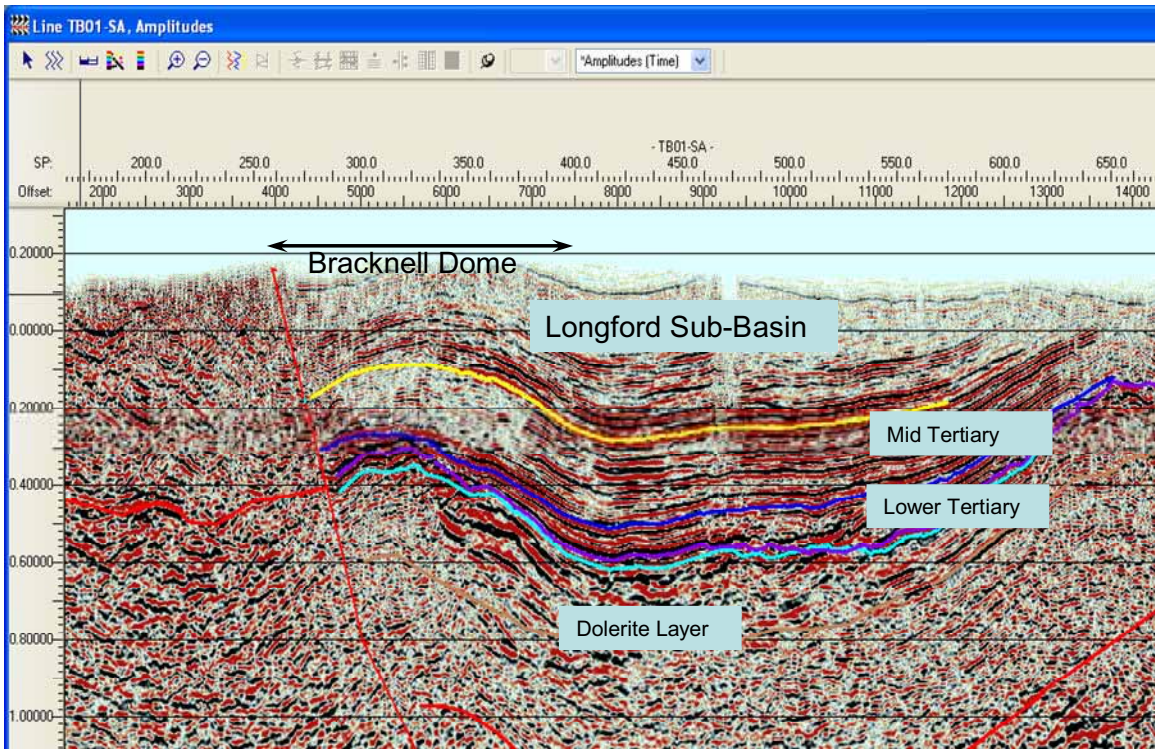


Figure 34 - Seismic Line TB01-SA through the Bracknell Dome Lead

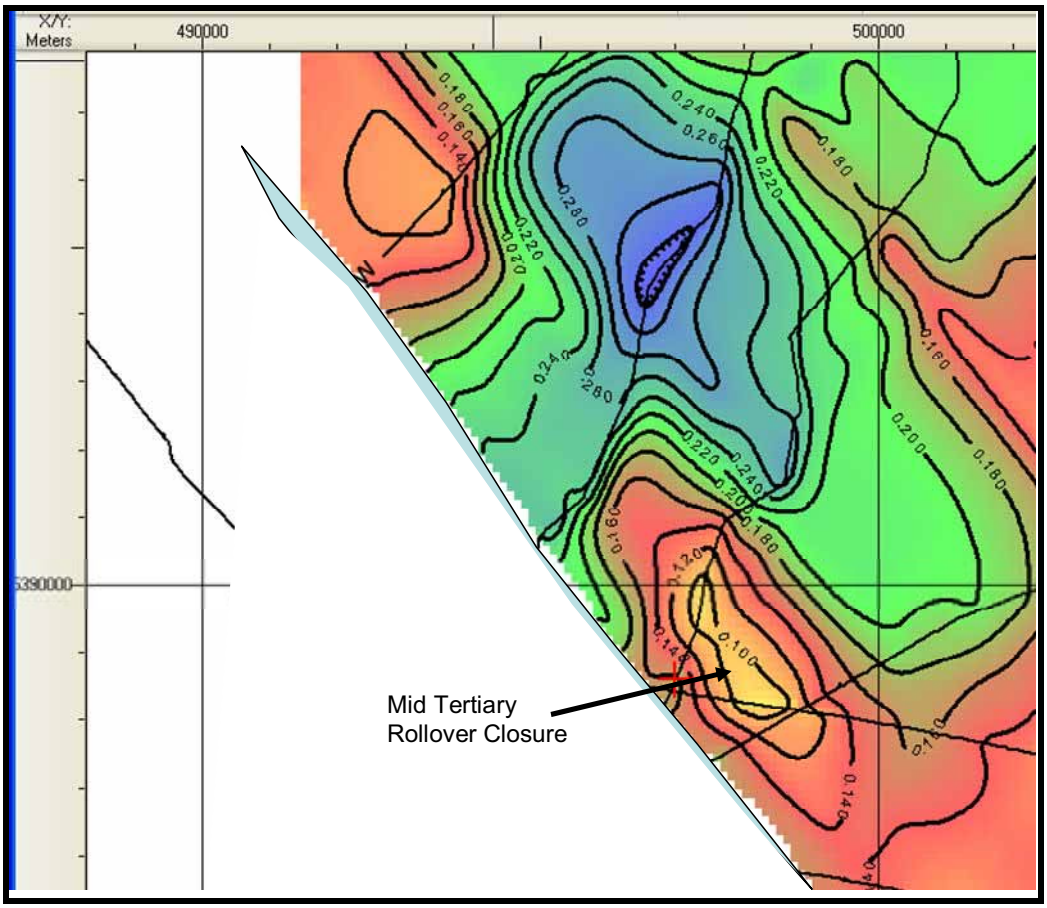


Figure 35 - Mid-Tertiary Two-Way-Time Map : Bracknell Dome Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	11	67	328	137
Prospective Resource (MMbbls)	3	18	90	37

Table 15 - Unrisked oil volumes of Bracknell Dome Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	50
Charge	80
Reservoir	60
Seal	30
Prospect Specific Chance Total	7.2
Overall Chance of Success	**1.2**

Table 16 - Chance of success of the Bracknell Dome Lead

5.5 Butlers Rise Lead

The Butlers Rise Lead is located in the Central Eastern part of the block, (Figure 36). The lead is identified only on a single west–east seismic line, and is therefore poorly defined. The seismic cross section is shown in Figure 37. The lead is interpreted to be a wrench controlled inverted flower structure forming a potential closure along the eastern fault. Potential reservoirs are expected in the Triassic and Permian sections.

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in Table 17, with the full volumetric inputs presented in Appendix B.
The chance of success for the Butlers Rise Lead is presented in Table 18.

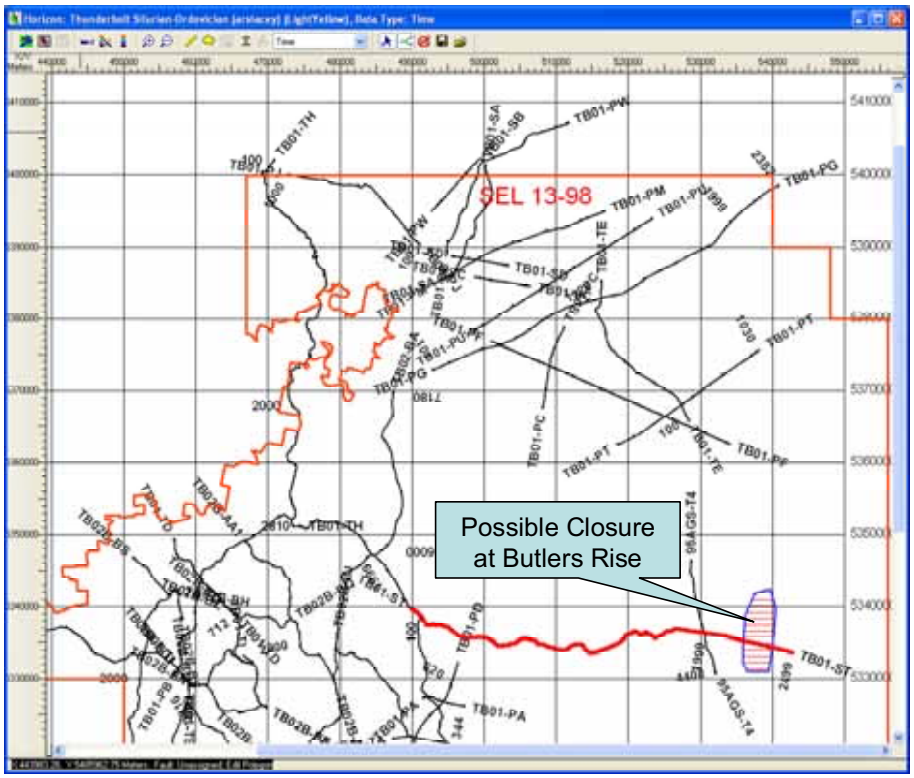


Figure 36 - Butlers Rise Lead Location

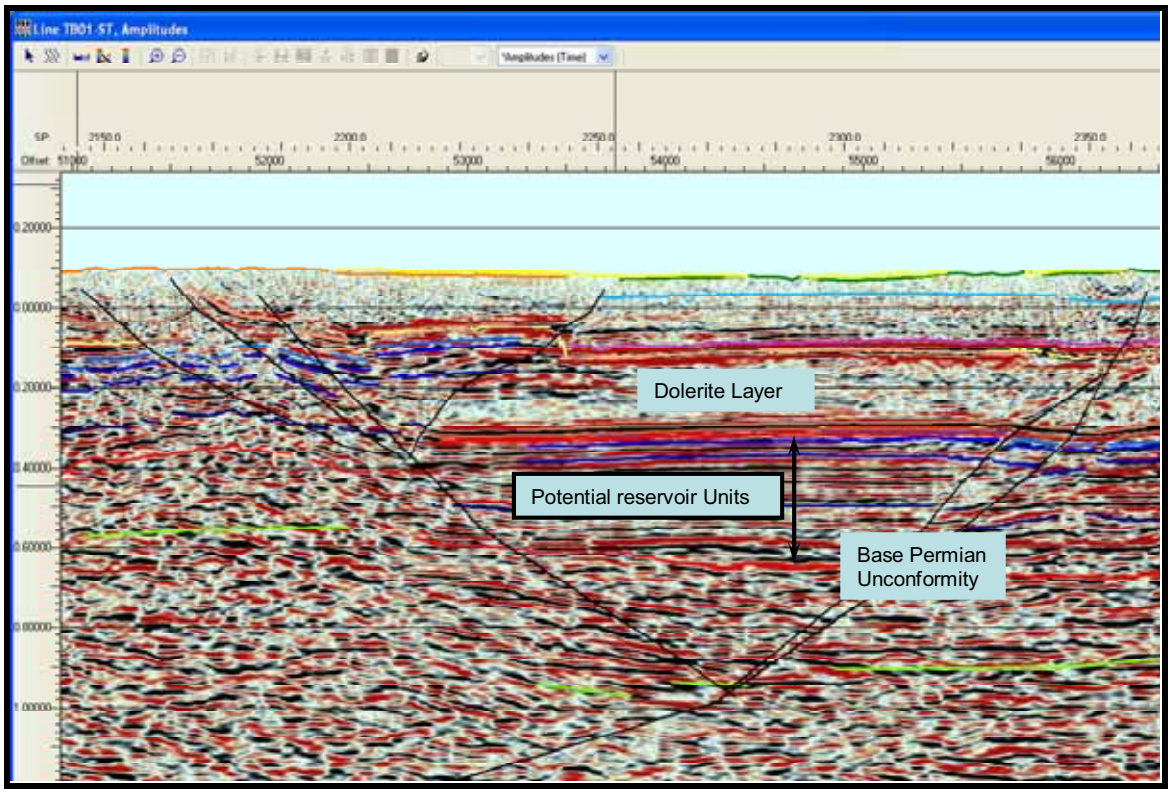


Figure 37 - Seismic Line TB01-ST through Butlers Rise Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	8	55	229	93
Prospective Resource (MMbbls)	2	14	63	25

Table 17 - Unrisked oil volumes of Butlers Rise Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	50
Charge	80
Reservoir	48
Seal	25
Prospect Specific Chance Total	4.8
Overall Chance of Success	**0.77**

Table 18 - Chance of success of the Butlers Rise Lead

5.6 Cressy Lead

The Cressy anticlinal lead is located in the northern part of the block, (Figure 38) and is based on a single seismic line shown in Figure 39. This line shows a deep seated flower structure with a central anticline. The potential target reservoirs are within the Triassic and Permian sections. Although poorly defined seismically, the general structure and geometry can be inferred from the surface geology map, (Figure 40). This shows that the inverted dolerite section now outcropping probably gives a reliable indication of the crestal structure trend.

The volumes of unrisked oil, based on a likely size and geometry of the trap are presented in Table 19, with the full volumetric inputs presented in Appendix B.

The chances of success for the Cressy anticline Lead is presented in Table 20.

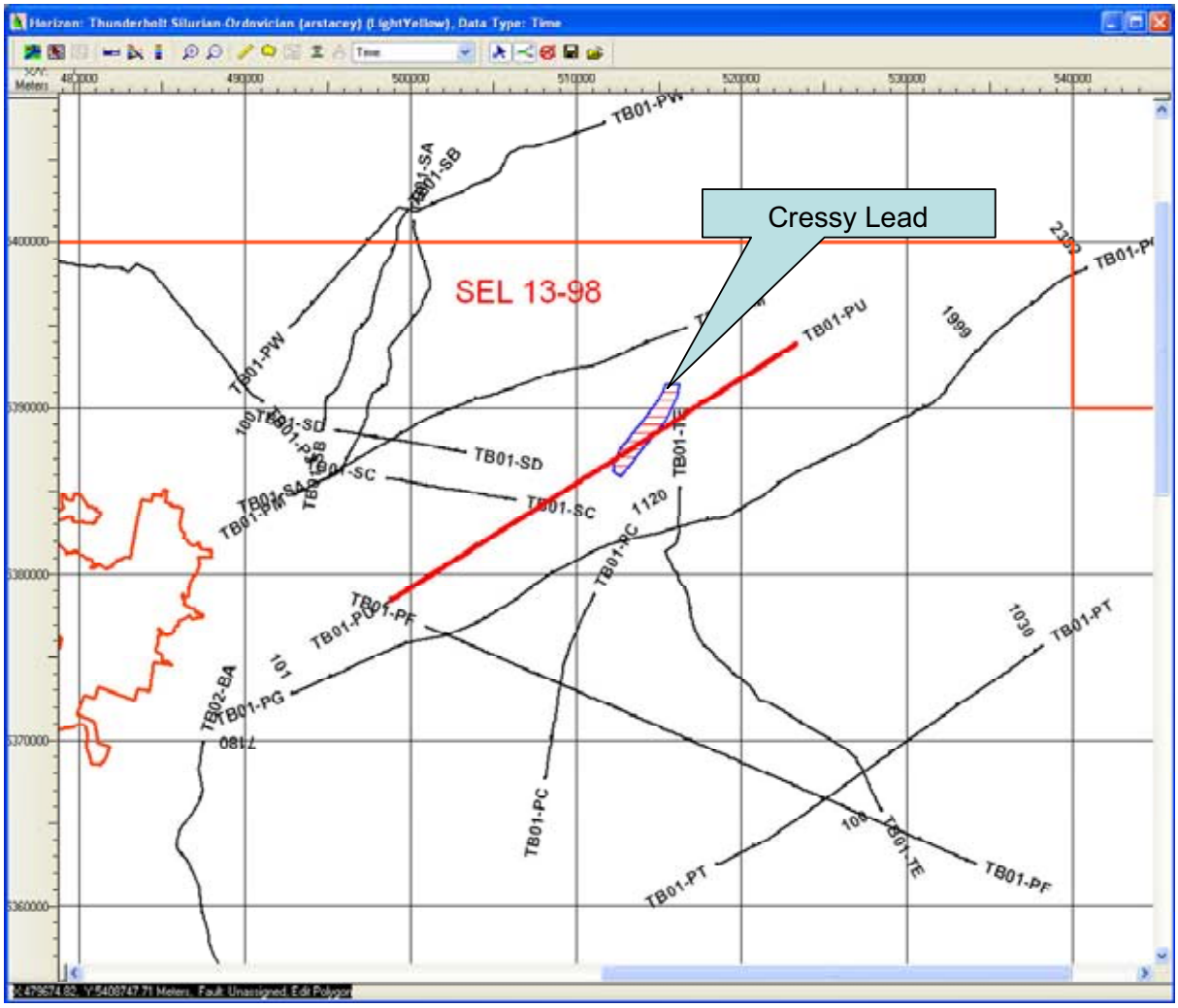


Figure 38 - Location Map Cressy Lead

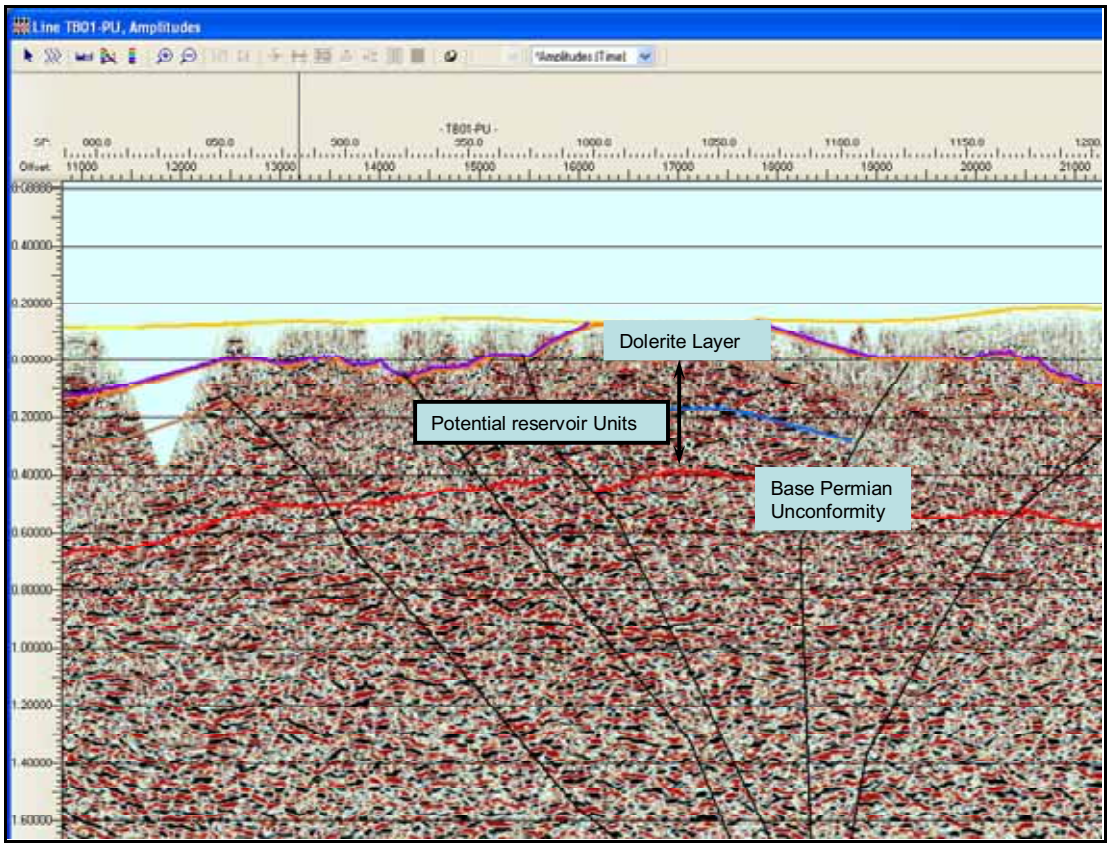


Figure 39 - Seismic line TB01-PU

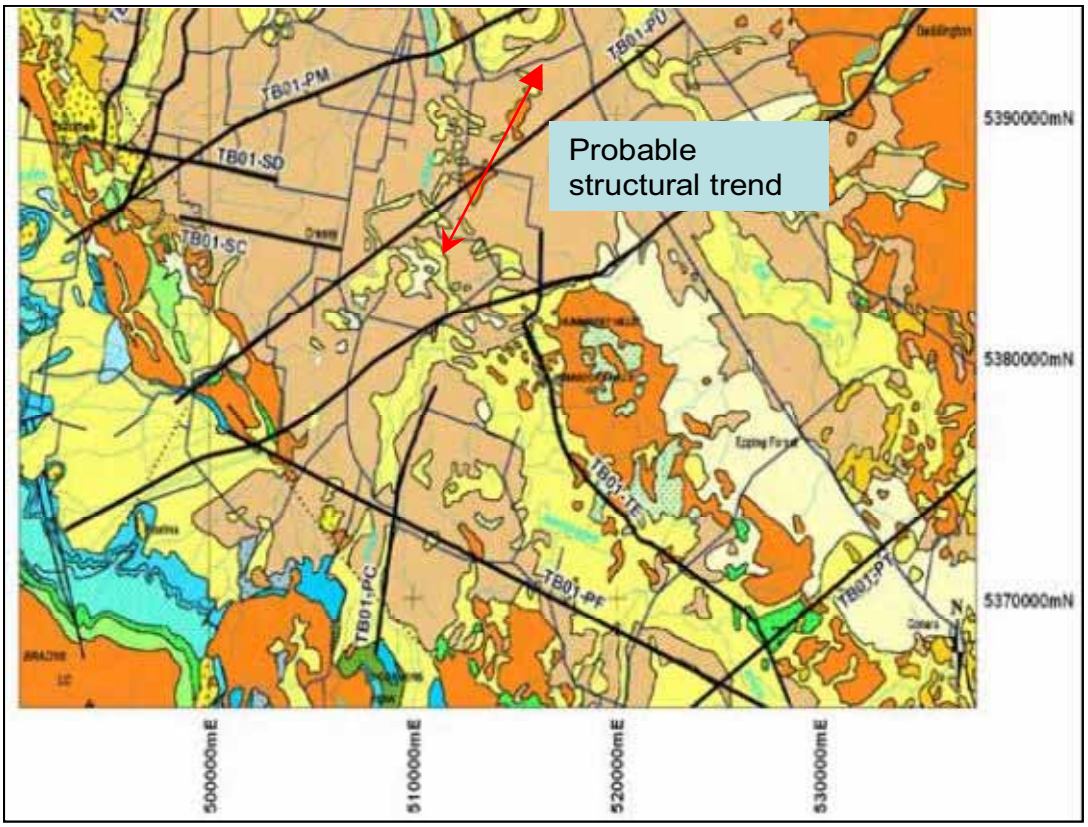


Figure 40 - Surface Geology at Cressy anticline

	Low Estimate	Best Estimate	High Estimate	Mean
Prospective STOIIP (MMbbls)	12	48	172	78
Prospective Resource (MMbbls)	3	12	48	21

Table 19 - Unrisked oil volumes of Cressy Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	50
Charge	80
Reservoir	60
Seal	30
Prospect Specific Chance Total	7.2
Overall Chance of Success	**1.2**

Table 20 - Chance of success of the Cressy Lead

5.7 Interlaken Lead

The Interlaken Feature is located to the east of the permit area (Figure 41). It is a tilted fault block intruded by dolerite, probably above the Liffey Group reservoir. The feature is poorly defined on a single seismic line which crosses the feature (Figure 42).

The unrisked volumes of oil and gas are tabulated in Table 21, with the full volumetric inputs presented in Appendix B.

The chances of success of the Interlaken Feature are presented in Table 22.

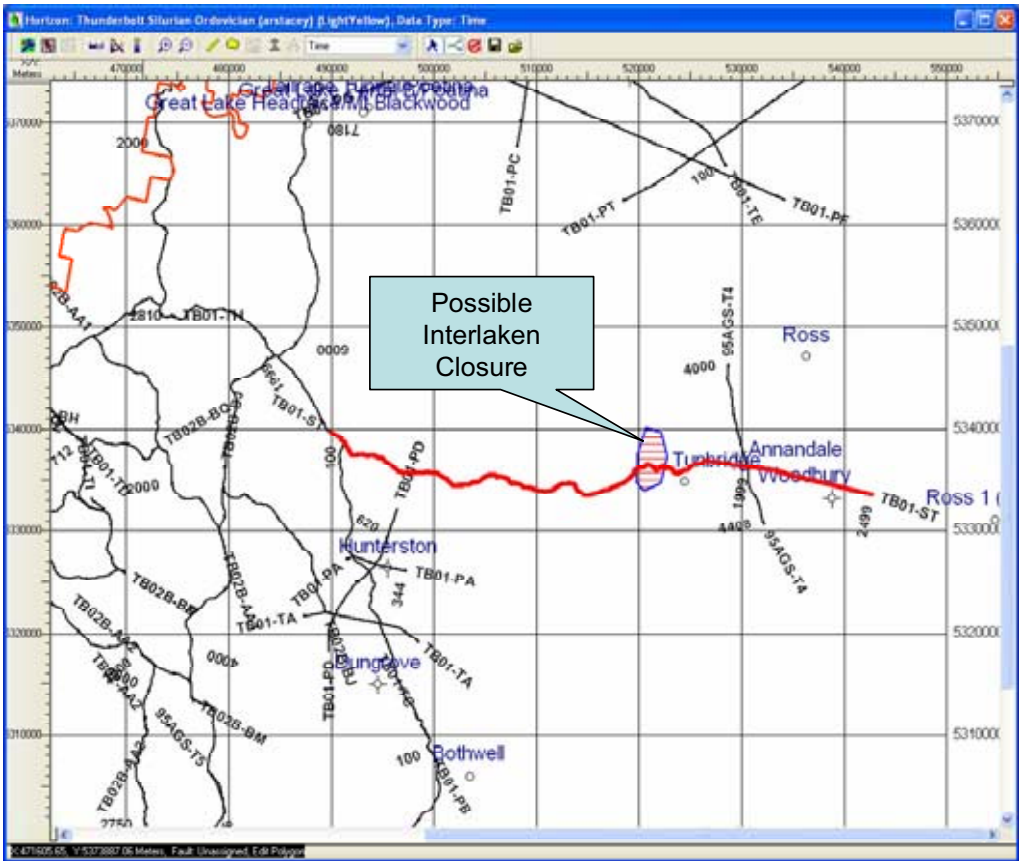


Figure 41 - Interlaken Lead Location

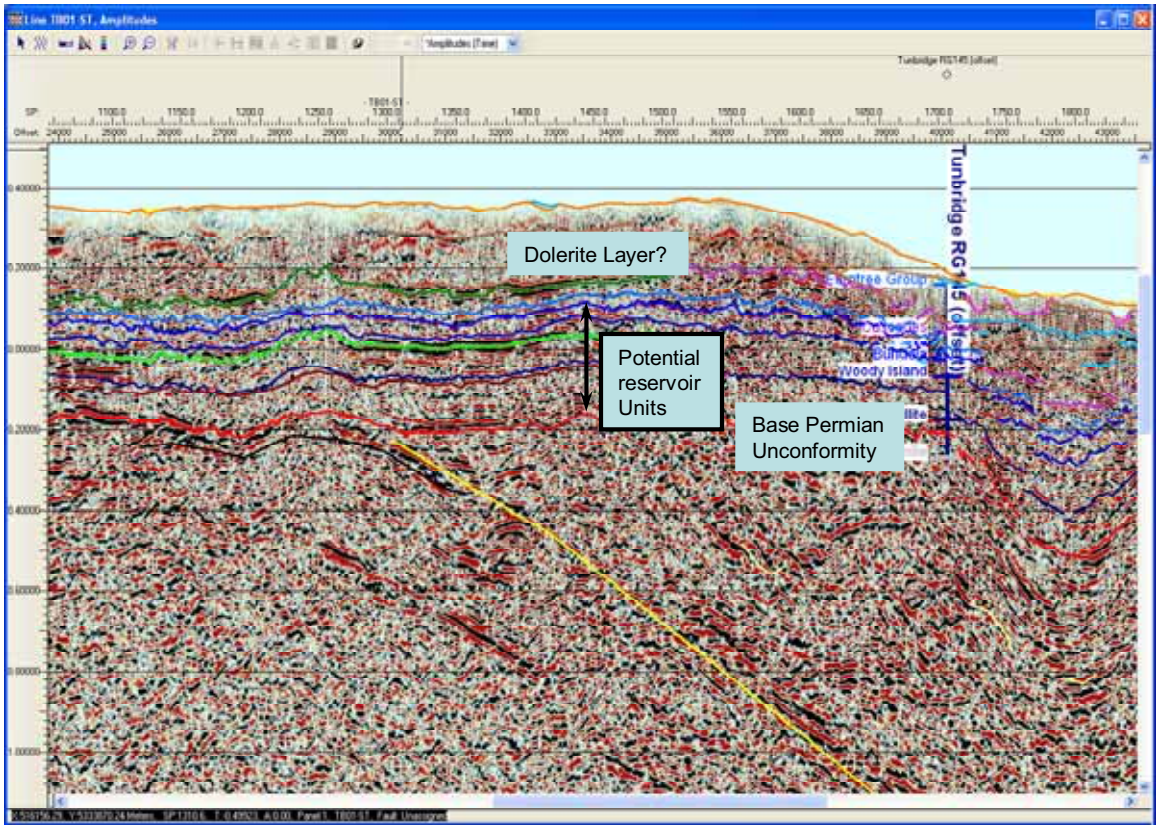


Figure 42 - Seismic line TB01-ST through the Interlaken Lead.

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	7	40	144	61
Prospective Resource (MMbbls)	2	10	40	17

Table 21 – Unrisked oil volumes of the Interlaken Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	28
Charge	80
Reservoir	48
Seal	28
Prospect Specific Chance Total	3
Overall Chance of Success	**0.47**

Table 22 - Chance of success of the Interlaken Lead

5.8 Macquarie River Lead

The Macquarie River Lead is located in the northern part of the block (Figure 43). The lead is depicted by only one southwest–northeast seismic line, and is therefore poorly defined. The seismic cross section is shown in Figure 44. The lead is interpreted to be an Cenozoic anticline bounded to the NE by an Early Cenozoic Fault and to the SE by a Later Cenozoic Fault. The Bouger Anomaly map depicts clearly the eastern closure of the anticline where the transition from green to blue colour indicates the limit between the Macquarie River anticline and its adjacent syncline (Figure 43). West of the lead the gravity data reflects the slightl thinning of the sedimentary column interpreted also in the seismic line.

Multiple potential reservoirs are expected in the Triassic and Permian sections.

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in Table 23, with the full volumetric inputs presented in Appendix B.
The chance of success for the Macquarie River Lead is presented in Table 24.

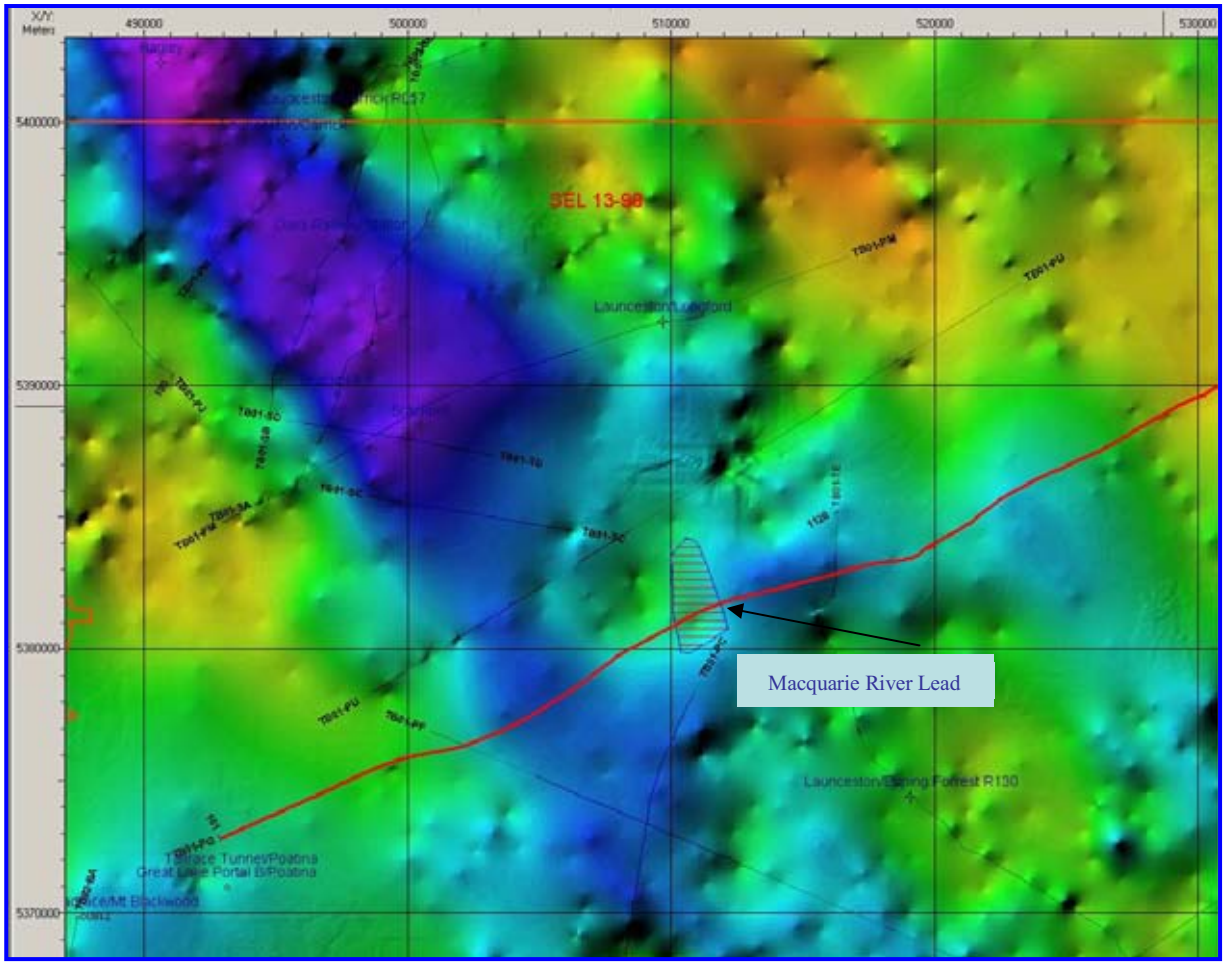


Figure 43 - Macquarie River Lead Location

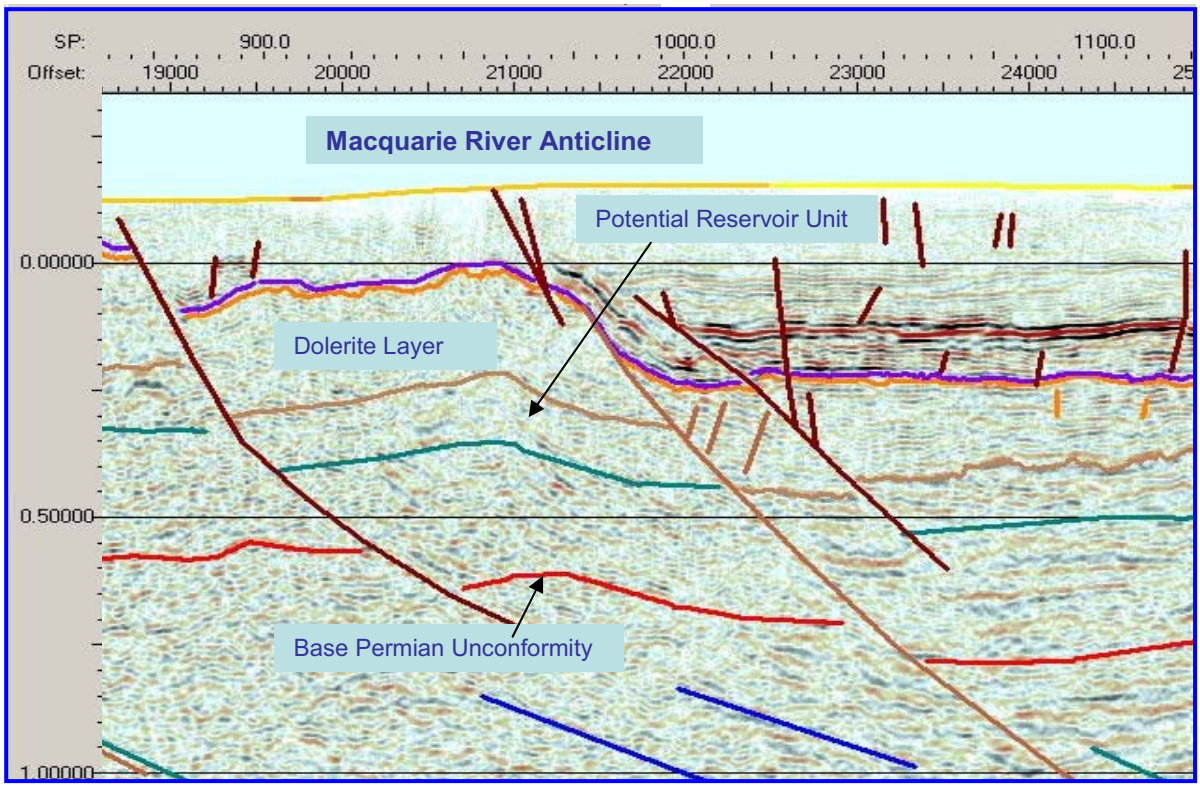


Figure 44 - Seismic Line TB01-PG through Macquarie River Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	17.6	56	157	75.7
Prospective Resource (MMbbls)	3.52	13.1	42.4	19.7

Table 23 - Unrisked oil volumes of the Macquarie River Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	30
Charge	60
Reservoir	50
Seal	40
Prospect Specific Chance Total	3.6
Overall Chance of Success	**0.58**

Table 24 - Chance of success of the Macquarie River Lead

5.9 Nile River Lead

The Nile River Lead is located in the northern part of the block (Figure 45). The lead was interpreted on the same southwest–northeast seismic line that crosses the Macquarie River Lead. This seismic cross section is shown in (Figure 46). The Nile River Lead was interpreted as a fault wedge block located east to the edge of the half graben and involves potential Permian reservoirs. However the quality of the seismic line is poor in that area and this lead was interpreted in base of an only one seismic line, implying that the risk associated in the lead is high. The Bouger Anomaly map depicts the presence and the northwest-southeast trend of this structure but does not illustrate the exact extension of it (Figure 45).

The volumes of unrisked oil based on a likely size and geometry of the trap are the same as for the Macquarie River Lead and are presented in Table 25 with the full volumetric inputs presented in Appendix B.
The chance of success for the Nile River Lead is presented in Table 26.

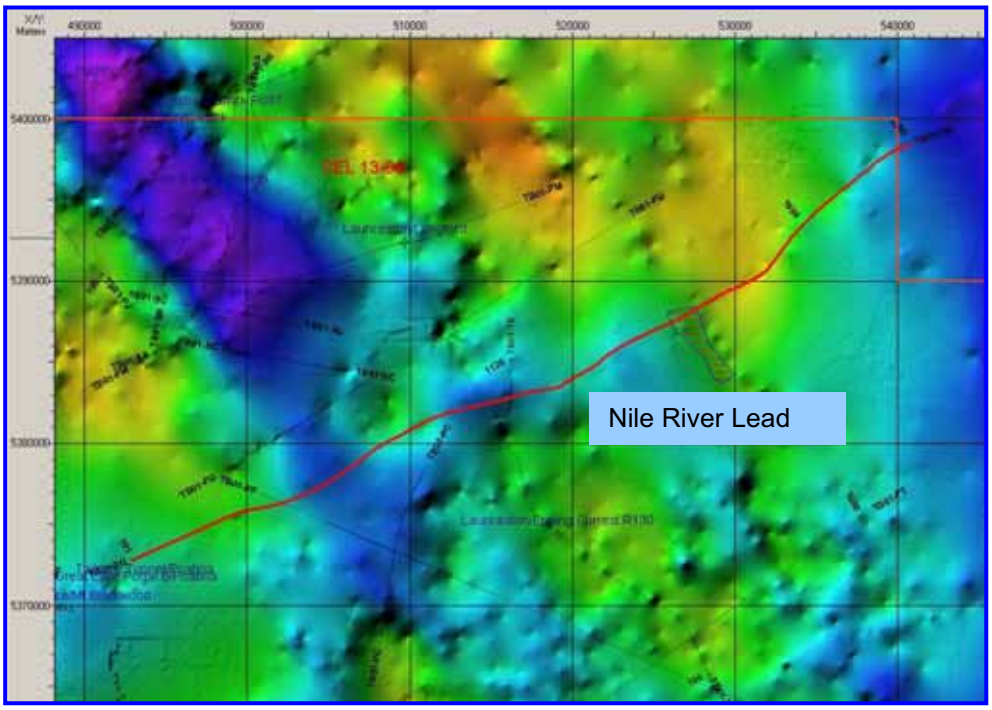


Figure 45 - Nile River Lead Location

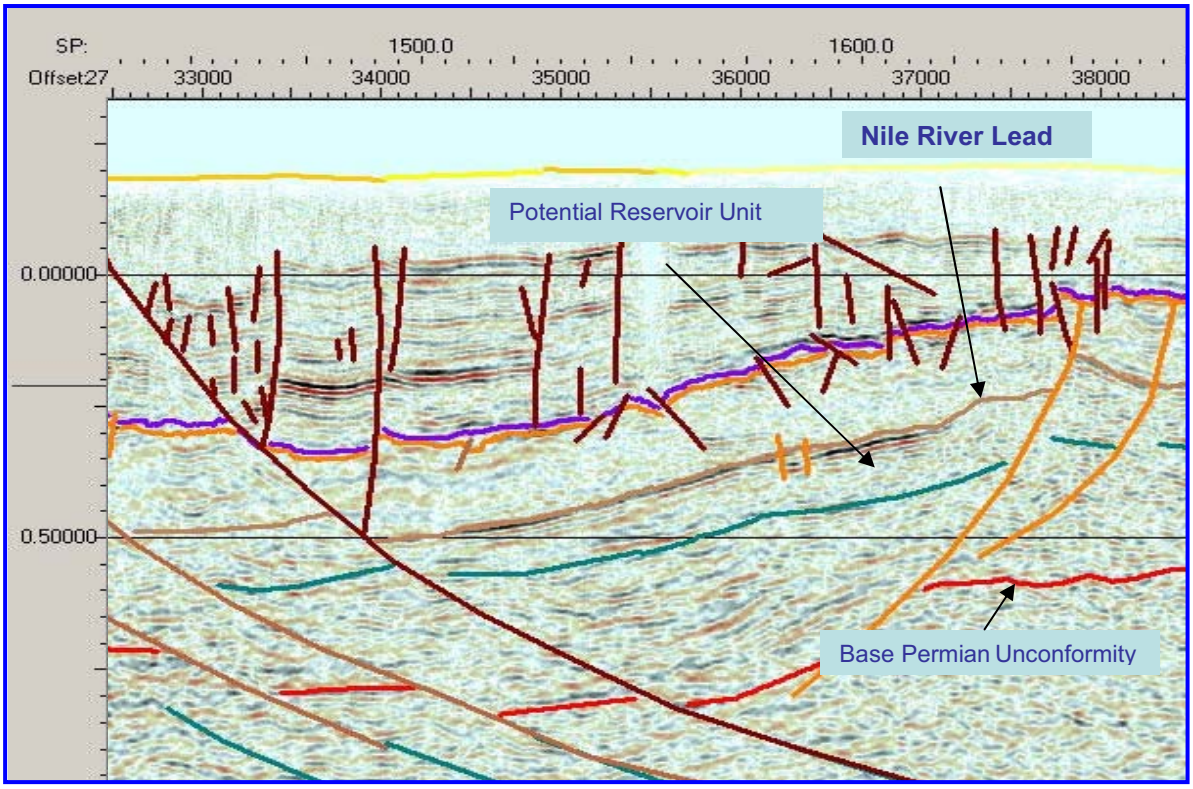


Figure 46 - Seismic Line TB01-PG through Nile River Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	17.6	56	157	75.7
Prospective Resource (MMbbls)	3.52	13.1	42.4	19.7

Table 25 - Unrisked oil volumes of the Nile River Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	33
Charge	60
Reservoir	50
Seal	52
Prospect Specific Chance Total	5.1
Overall Chance of Success	**0.81**

Table 26 - Chance of success of the Nile River Lead

5.10 Quamby Fault Block Lead

The Quamby fault block Lead is located in the north-west part of the block (Figure 47). The lead was interpreted in one north-south seismic line as a drag fold over a reverse fault (Figure 48). The presence of this small anticline is depicted by the Bouger Anomaly map (Figure 47).

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in Table 27 with the full volumetric inputs presented in Appendix B.
The chance of success for the Nile River Lead is presented in Table 28.

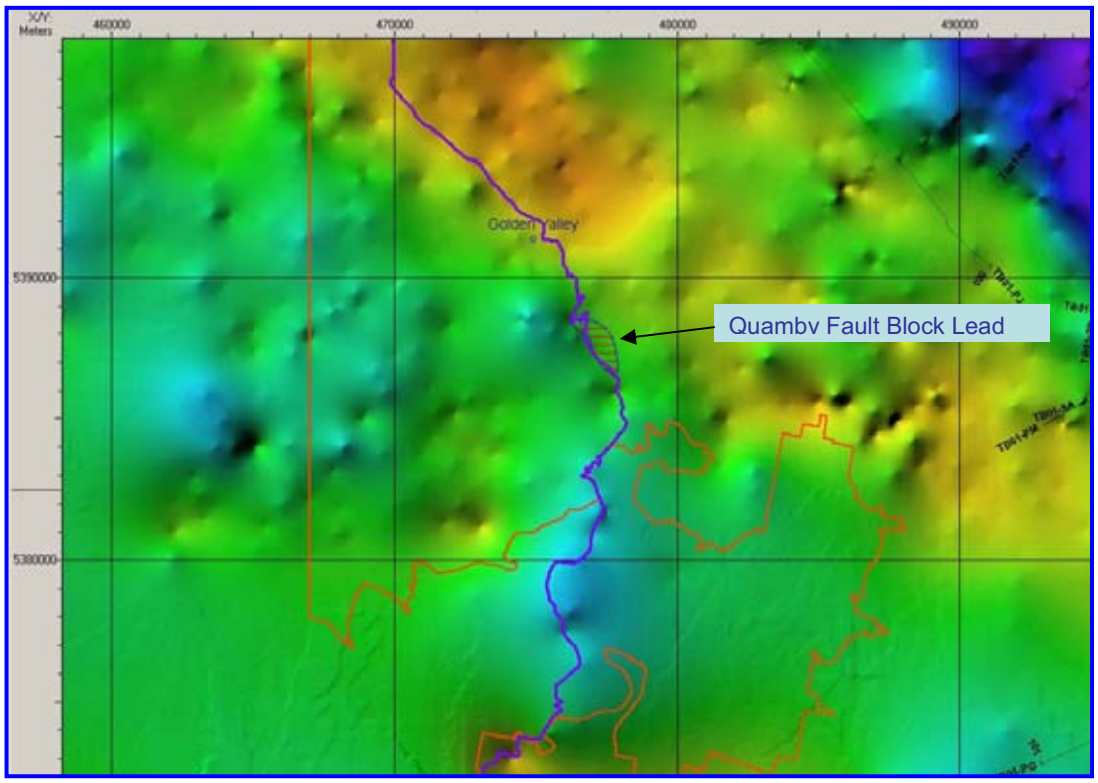


Figure 47 - Quamby Fault Block Lead Location

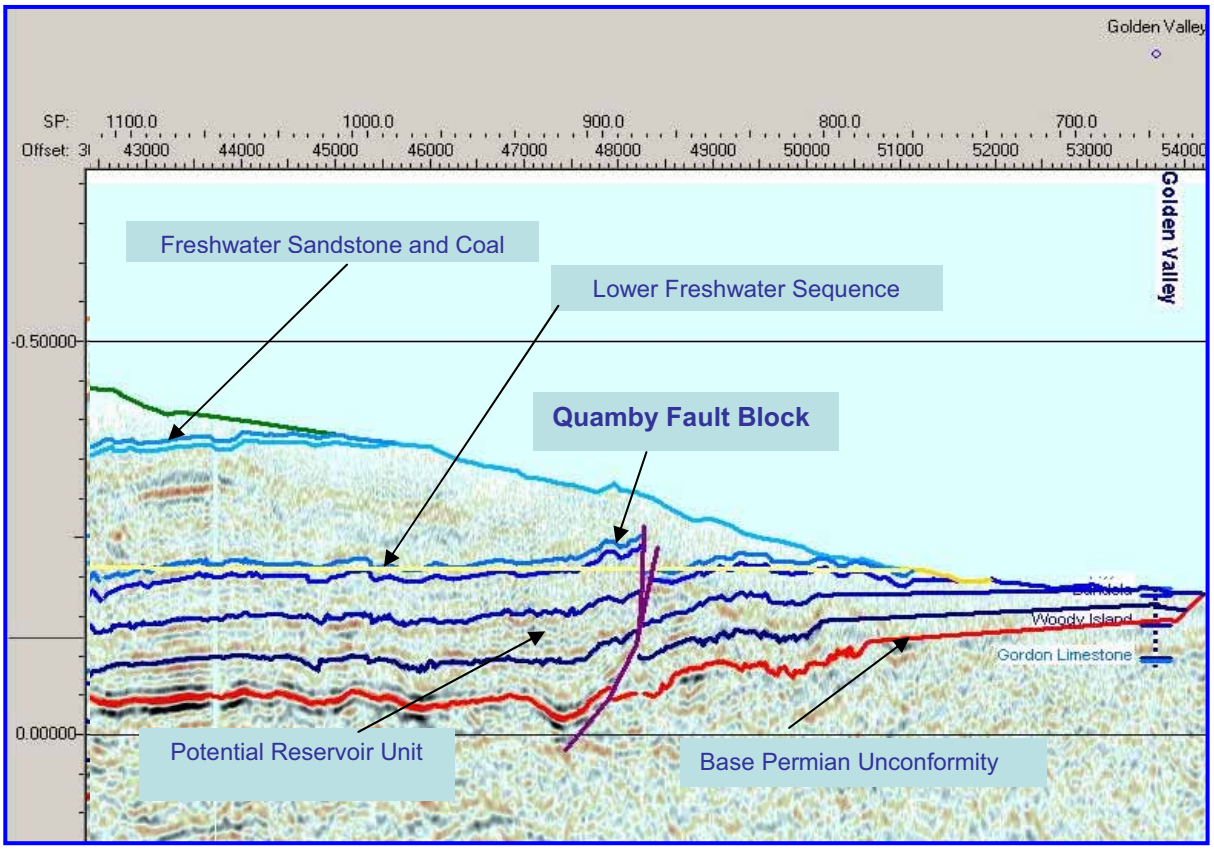


Figure 48 - Seismic Line TB01-TH through Quamby Fault Block Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	2.01	6.45	18.3	8.78
Prospective Resource (MMbbls)	0.405	1.52	4.95	2.28

Table 27 - Unrisked oil volumes of the Quamby Fault Block Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	30
Charge	60
Reservoir	50
Seal	44
Prospect Specific Chance Total	4
Overall Chance of Success	**0.63**

Table 28 - Chance of success of the Quamby Fault Block Lead

5.11 Steppes Lead

The Steppes Lead is an anticline located in the central part of the block (Figure 49). The anticline is poorly illustrated by only one seismic line and the structure may not be real, see Figure 50. Also the north-south extent of the anticline is not depicted by the Bouger Anomaly Gravity map. The base of the dolerite is not parallel to Parmeener Supergroup indicating folding prior to the intrusion of the dolerite. Early Permian reservoir is expected to be present in this area.

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in Table 29 with the full volumetric inputs presented in Appendix B.
The chance of success for the Steppes Lead is presented in Table 30.

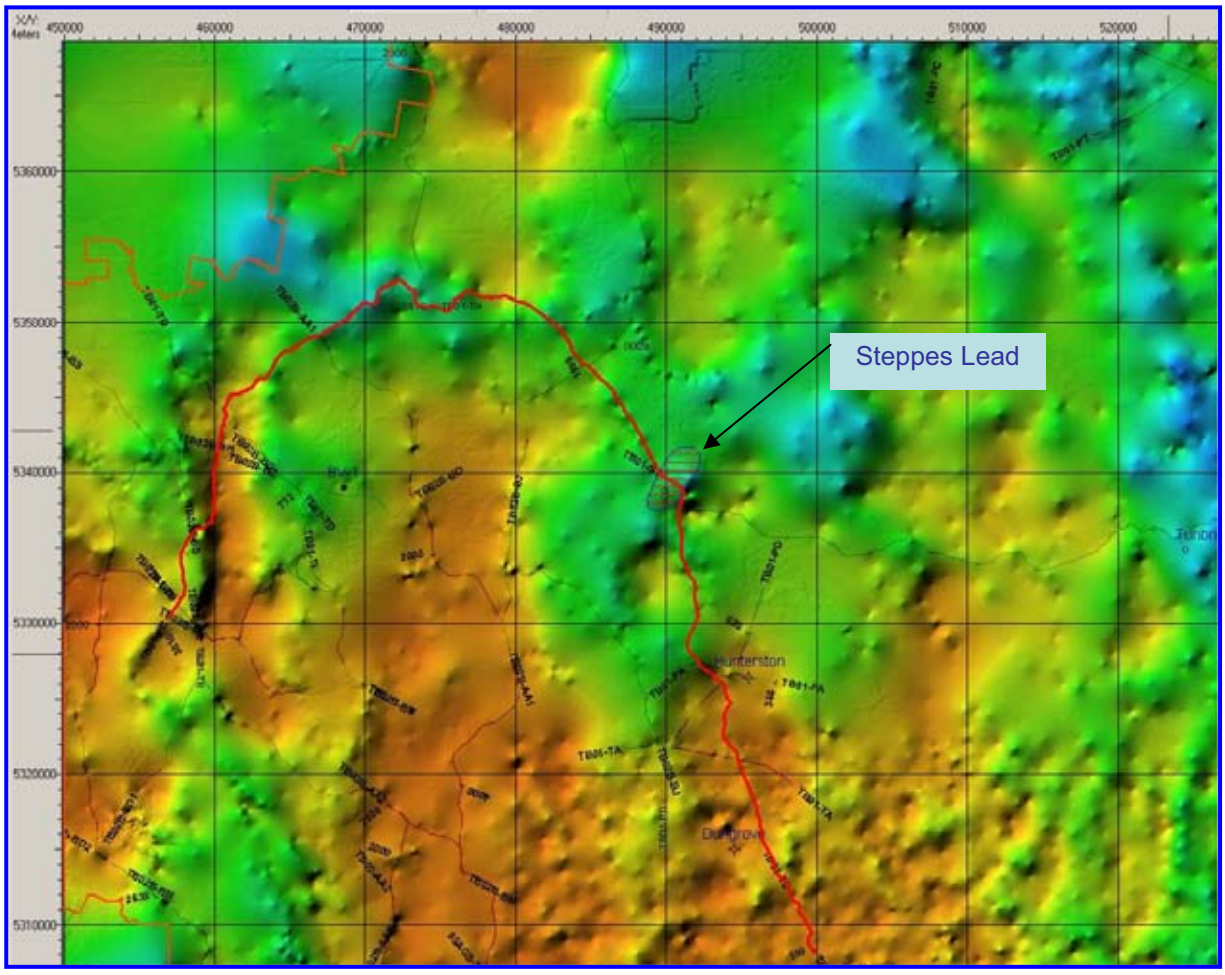


Figure 49 - Steppes Lead Location

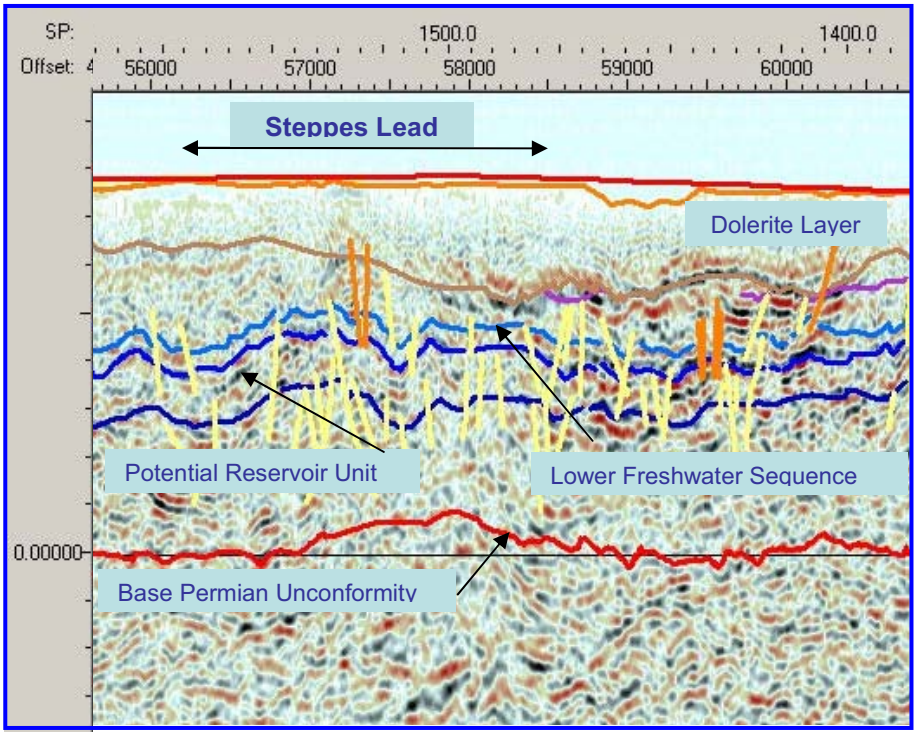


Figure 50 - Seismic Line TB01-PB through Steppes Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	9.74	31.3	89.2	42.6
Prospective Resource (MMbbls)	1.96	7.39	24	11.1

Table 29 - Unrisked oil volumes of the Steppes Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	45
Charge	60
Reservoir	50
Seal	60
Prospect Specific Chance Total	8
Overall Chance of Success	**1.3**

Table 30 - Chance of success of the Steppes Lead

5.12 Stockwell Lead

The Stockwell Lead is defined by two seismic lines and is located in the northeast part of the block (Figure 51). The lead is a fault block bounded to the northeast by an Early Cenozoic Fault and to the southwest by a Later Cenozoic Fault (Figure 52). Multiple Triassic and Permian reservoirs are expected to be involved in this structure.

The volumes of unrisked oil based on a likely size and geometry of the trap are presented in the Table 31 with the full volumetric inputs presented in Appendix B.
The chance of success for the Stockwell Lead is presented in Table 32.

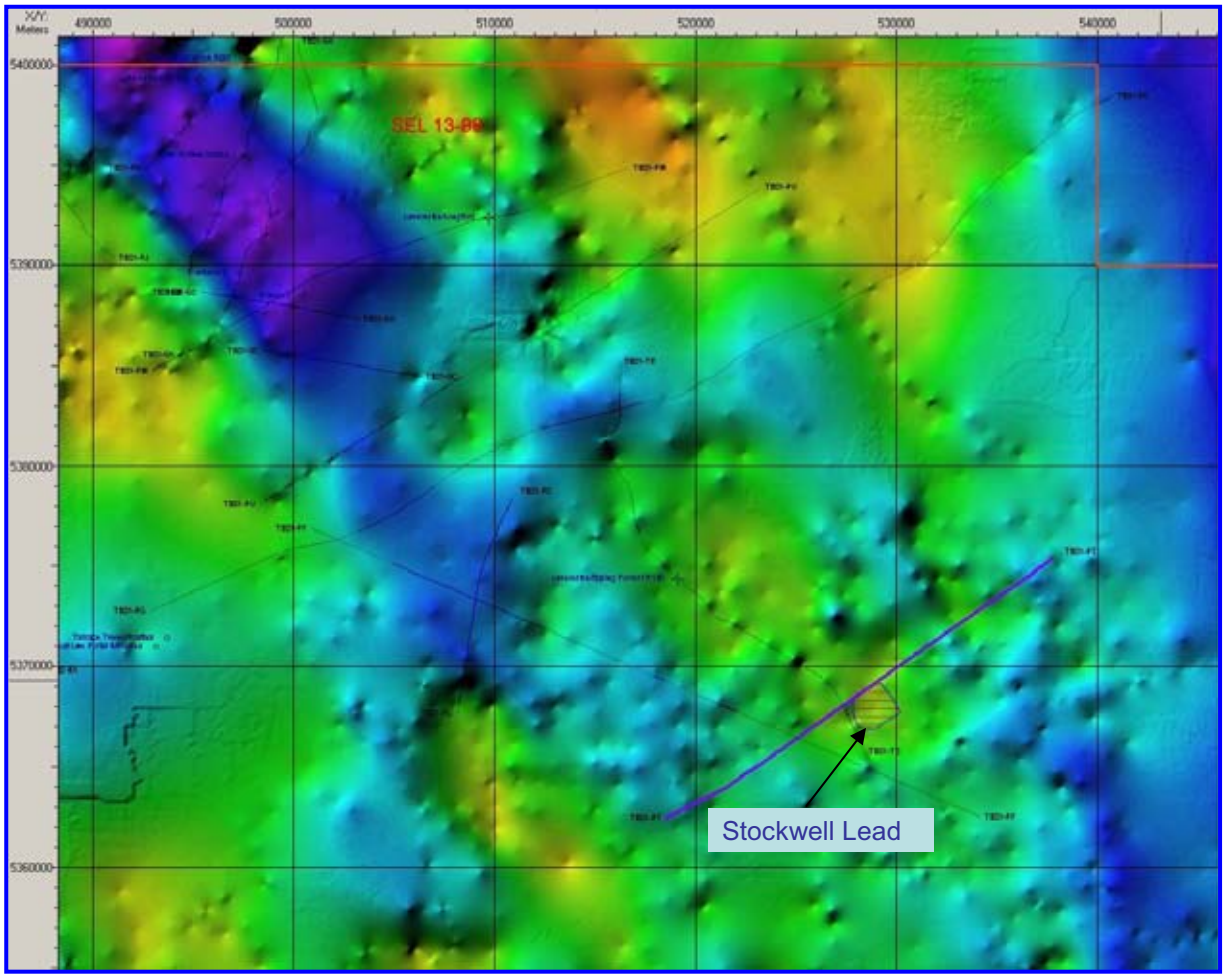


Figure 51 - Stockwell Lead Location

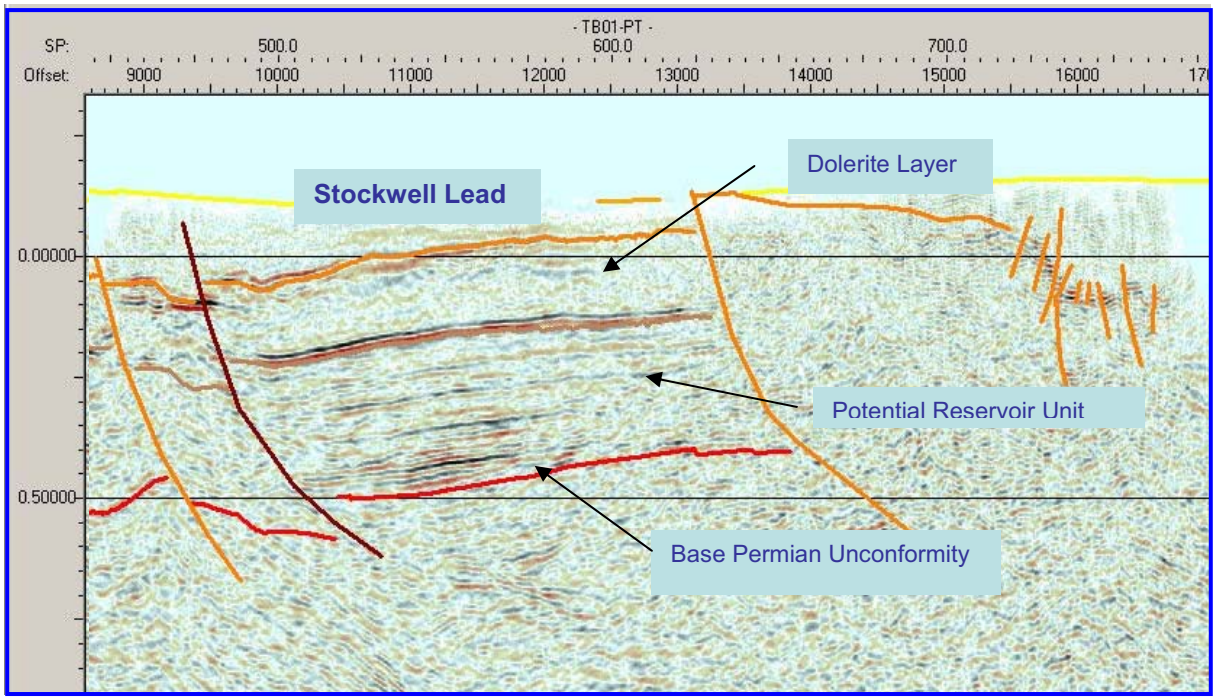


Figure 52 - Seismic Line TB01-PT through Stockwell Lead

	Low Estimate	Best Estimate	High Estimate	Mean
Undiscovered Oil Initially-in-Place (MMbbls)	9.97	31.5	87.6	42.3
Prospective Resource (MMbbls)	2	7.4	23.6	11

Table 31 - Unrisked oil volumes of the Stockwell Lead

Play Chance	Percent
Reservoir	64
Seal	100
Source / Migration	25
Play Chance Total	16
Prospect Specific Chance	**Percent**
Trap	49
Charge	60
Reservoir	50
Seal	32
Prospect Specific Chance Total	4.7
Overall Chance of Success	**0.75**

Table 32 - Chance of success of the Stockwell Lead

6. QUALIFICATIONS

RPS Energy is an independent consultancy specialising in petroleum reservoir evaluation and petroleum geology. Except for the provision of professional services on a fee basis, RPS Energy does not have a commercial arrangement with any other person or company involved in the interests that are the subject of this report. David R. Guise, Managing Director - Consulting Australia/ S.E. Asia at RPS Energy, has supervised the evaluation.

David is a registered Professional Engineer with over 30 years of domestic and international experience in both onshore and offshore operating environments. He has substantial experience and knowledge of field development planning, optimization and reserve estimating as well as new venture identification and evaluation. David has also acquired significant commercial and team management skills in an operating production environment. Operating companies that he has worked for as an employee include Nexen Australia, Gulf Indonesia, Energy Equity, Asamera Oil, Delhi Petroleum and Texaco Canada. He also worked in a consulting role as an independent consultant for several companies in Australia and Indonesia prior to joining RPS Energy as Petroleum Engineering Manager in January, 2006. He was appointed to the position of Managing Director – Consulting, Australia and South East Asia in 2007.

7. BASIS OF OPINION

The evaluation presented in this report reflects our informed judgement based on accepted standards of professional investigation but is subject to generally recognised uncertainties associated with the interpretation of geological, geophysical and engineering data. The evaluation has been conducted within our understanding of petroleum legislation, taxation and other regulations that currently apply to these interests. However, RPS Energy is not in a position to attest to the property title, financial interest relationships or encumbrances related to the property.

It should be understood that any evaluation, particularly one involving exploration and future petroleum developments, may be subject to significant variations over short periods of time as new information becomes available.

8. REFERENCES

Anon., 2003. Petroleum Systems Modeling Onshore Tasmania: An interim report of work completed up to May ,2003, for the ARC linkage grant between the Federal Government, the University of Tasmania and Great South Land Minerals Ltd, School of Earth Sciences University of Tasmania.

Anon., 2005. Tasmania Special Exploration Licence SEL 32/2003; Final Report on Relinquished Lands. OME Resources & MBA Petroleum Consultants.

Bacon, C.A., 1991. The Coal Resources of Tasmania. Bulletin Geological Survey Tasmania 64.

Bacon, C.A., Calver, C.R., Boreham, C.J., Leaman, D.E., Morrison, K.C., Revill, A.T. and Volkman, J.K., 2000. The petroleum potential of the onshore Tasmania: a review. Mineral Resources Tasmania Geological, Bulletin 71, 93.

Baillie, P.W., 1989. Jurassic-Cainozoic in Burrett, C.F., and Martin, E.L., (Eds), 1989. Geology and Mineral Resources of Tasmania. Geological Society of Australia, Special Publication 15, 339-345.

Bedi, J.C.S., 2003. Reservoir and source rock potential of the Upper Parmeener Supergroup, Tasmania Basin. Unpublished Honors Thesis University of Tasmania.

Bendall, M.R., Volkman, J.K., Leaman, D.E. and Burrett, C.F., 1991. Recent developments in exploration for oil in Tasmania, APPEA Journal, v. 31, 74-84.

Bendall, M.R., Burrett, C.F. and Askin, H.J., 2000. Petroleum systems in Tasmania's frontier onshore basins, APPEA Journal, v.40, 26-38.

Blackburn, G., 2004. Summary Seismic Interpretation Onshore Tasmania SEL 13/98 for Great South land Minerals Ltd., Terratek Petroleum Consultants Pty Ltd.

Bottrill, R.S., 1996. The Lonnavale oil seep. Tasmanian Geological Survey record 1996/14.

Burrett, C.F., 1992. Conodont geothermometry in Palaeozoic carbonate rocks and its economic implications. Australian Journal of Earth Sciences 39, 61-66.

Chester, A., 2003. Report on investigations into the petroleum systems hosted by the Wurawina Supergroup Late Cambrian Middle Devonian onshore Tasmania. Petroleum Systems Modelling Onshore Tasmania. Annual Report. School of Earth Sciences, University of Tasmania.

Chester, A., 2003. Onshore Tasmania. Petroleum Systems Modelling Onshore Tasmania. Annual Report. School of Earth Sciences, University of Tasmania.

Chester, A., 2003. Biomarkers from Gordon Limestone. Petroleum Systems Modelling Onshore Tasmania. Annual Report. School of Earth Sciences, University of Tasmania.

Clarke, M.J. and Forsyth, S.M., 1989. Late Carboniferous – Triassic in Burrett, C.F. and Martin, E.L. (Eds), 1989. Geology and Mineral Resources of Tasmania. Geological Society of Australia, Special Publication 15, 293-338.

Cook, A.C., (2003). Organic Petrology of some core samples from the Permian of Tasmania – Prepared for C.M. Reid, Keiraville Konsultants Pty Ltd.

Demaison, G. and Huizinga, B.J., 1991. Genetic classification of petroleum systems, AAPG Bulletin, v.75, 1,626 – 1,643.

Eadington, P.J., Lisk, M. and Krieger, F.W., 1996. Identifying oil well sites. United States Patent Number 5,543,616.

Forsyth, S.M., 1989. Upper Parmeener Supergroup in Burrett, C.F. and Martin, E.L., (Eds), 1989. Geology and Mineral Resources of Tasmania. Geological Society of Australia, Special Publication 15, 309-333.

Leaman, D.E., 1971. Geology and underground water resources of the Coal River Basin. Underground Water Supply Paper Tasmania 7.

Leaman, D.E., 1975. Form, mechanism and control of dolerite intrusion near Hobart, Tasmania. Journal Geological Society Australia 22:175-186.

Leaman, D.E., 1976. Geological Atlas 1:50,000 series. Sheet 82 (8312S). Hobart. Explanatory Geological Survey, Tasmania.

Leaman, D.E., 1996. Rocks at/near base Parmeener unconformity – Tasmania Basin. Comprehensive Regional Assessment Tasmania Regional Forest Agreement. Mineral Resources Tasmania.

Leaman, D.E., 2003. Discussion. Shaping the Australian crust over the last 300 million years; insights from fission track thermal imaging and denundation studies of key terranes. Australian Journal of Earth Sciences, v.50, 645-646.

Lewan, M.D., 1987. Petrographic study of primary petroleum migration in the Woodford Shale and related rock units. In: Doligez, B., (Ed), Migration of hydrocarbons in sedimentary basins. Paris, Editions technip, 113-130.

Magoon, L.B. and Dow, W.G., 1994. The Petroleum System in Magoon, L.B. and Dow, W.G. (Eds), 1994. The petroleum system – from source to trap. AAPG Memoir 60, 3-24.

Martini, I.P. and Banks, M.R., 1989. Sedimentology of the cold-climate, coal bearing, Lower Permian “Lower Freshwater Sequence” of Tasmania. Sedimentary Geology, v. 64, 25-41.

Maynard, B.R., 1996. Reservoir Characterisation of the Liffey/Faulkner Group, Tasmania, Unpublished B.Sc. Honours Thesis, University of Tasmania.

O’Sullivan, P. B. and Kohn, B.P., 1997. Apatite fission track thermochronology of Tasmania. Australian Geological Survey Organisation, Record 1997/35.

Peters K.E., and Cassa, M.R., 1994. Applied Source Rock Geochemistry in Magoon, L.B. and Dow, W.G. (Eds), 1994. The petroleum system – from source to trap. AAPG Memoir 60, 93-120.

Reed, J. and Beauchamp, W., 2001. Review of the Exploration Potential of the Tasmania Exploration License 13/98. Great South Land Minerals Pty Ltd. By Weinman Geoscience.

Reid, C.M., 2004. Petroleum Modeling Onshore Tasmania. The Tasmania Basin – Gondwana Petroleum System. Final Report June, 2004. School of Earth Sciences University of Tasmania.

Reid, C.M. and Burrett C.F., 2004. Geology and Hydrocarbon potential of the Lower Parmeener Supergroup – Tasmania in Boult, P., Johns, R. and Lang, S. (Eds). PESA Eastern Australian Basins Symposium II, Special Publication Petroleum Exploration Society of Australia, 265-275.

Revill, A.T., 1996. Hydrocarbons isolated from Lanna Vale (Lonnavale) seep. Swab and bitumen samples. Report CSIRO Division of Oceanography, TDR-1.

Seymour, D.B. and Calver C.R., 1995a. Stratotectonic Elements Map. Mineral Resources Tasmania.

Seymour, D.B. and Calver C.R., 1995b. Time Space Diagram of Tasmanian Geology. Mineral Resources Tasmania.

Stacey, A.R. and Berry, R.F., 2004. The structural history of Tasmania: a review for petroleum explorers in Boult, P., Johns, R., & Lang, S. (Eds). PESA Eastern Australian

Basins Symposium II, Special Publication Petroleum Exploration Society of Australia, 151-161.

Sutherland, F.L., 1977. Zeolite minerals in the Jurassic dolerites of Tasmania: their use as possible indicators of burial depth. Journal Geological Society of Australia 24:171-178.

Wakefield, L.L., 2000. The Exploration Prospectivity of the Onshore Tasmania Basin. Independent Geologist's Report for Great South Land Minerals Ltd, Melbourne, 2000.

Woods, T.J., 1995. Petroleum prospectivity of the Palaeozoic, south east of Tasmania. Appendix 2 in SLOT, J. 1996. Annual Report EL1/88, 1995, Bruny Island. Great South Land Minerals [TCR 96-3846CF].

Woodward, N.B., Gray, D.R. and Elliott, C.E., 1993. Repeated Palaeozoic thrusting allochthoneity of Precambrian basement, Northern Tasmania. Australian Journal of Earth Science v. 40.

Wythe, S. and Watson, B. 1996. Geochemical evaluation of an oil seep sample from Lonnavale, Tasmania. Amdel Limiteds Petroleum Services Report LQ4496. Appendix 9 in SLOT, J. 1996. Annual Report EL1/88, 1995, Bruny Island. Great South Land Minerals [TCR 96-3846CF].

Volkman, J.K. and Holdsworth, D.G., 1989. Hydrocarbons in a lower Permian mudstone from Poatina, Tasmania. Report CSIRO Marine Laboratories 89-HC2 [TCR 91-3239].

Young, R., 1996. Potential of oil and gas in the Tasmanian onshore basin. Appendix 5 in SLOT, J. 1996. Annual Report EL1/88, 1995, Bruny Island. Great South Land Minerals [TCR 96-3846CF].

9. APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

AAPG	American Association of Petroleum Geologists
AFT	apatite fission track
API	American Petroleum Institute
asl	above sea level
B	billion
bbl(s)	barrels
bbls/d	barrels per day
Bcm	billion cubic metres
B_g	gas formation volume factor
B_{gi}	gas formation volume factor (initial)
B_o	oil formation volume factor
B_{oi}	oil formation volume factor (initial)
B_w	water volume factor
bopd	barrels of oil per day
Bscf	billions of standard cubic feet
bwpd	barrels of water per day
CO_2	Carbon dioxide
condensate	liquid hydrocarbons which are sometimes produced with natural gas and liquids derived from natural gas
ft	feet
ftSS	depth in feet below sea level
GRV	gross rock volume
H_2S	hydrogen sulphide
KB	Kelly Bushing
km	kilometres
km^2	square kilometres
LNG	liquefied natural gases
LPG	liquefied petroleum gases
Ma	Million years ago
M	thousand
MM	million
MD	measured depth
mD	permeability in millidarcies
m^3	cubic metres
m^3/d	cubic metres per day
MMscf/d	millions of standard cubic feet per day

m/s	metres per second
msec	milliseconds
NTG	net to gross ratio
P_c	capillary pressure
Petroleum	A naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase. Petroleum may also contain non-hydrocarbon compounds, common examples of which are carbon dioxide, nitrogen, hydrogen sulphide and sulphur. In rare cases, non-hydrocarbon content could be greater than 50%.
phi	porosity fraction
ppm	parts per million
Prospective Resources	Those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. Prospective resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.
PVT	pressure volume temperature
rb	barrel(s) of oil at reservoir conditions
rcf	reservoir cubic feet
RFT	repeat formation tester
RKB	relative to Kelly Bushing
rm^3	reservoir cubic metres
SCAL	special core analysis
scf	standard cubic feet measured at 14.7 pounds per square inch and 60° F
scf/d	standard cubic feet per day
scf/stb	standard cubic feet per stock tank barrel
SPE	Society of Petroleum Engineers
SPEE	Society of Petroleum Evaluation Engineers
stb	stock tank barrels measured at 14.7 pounds per square inch and 60° F
stb/d	stock tank barrels per day
STOIIP	stock tank oil initially-in-place
S_w	water saturation
t	tonnes
Tscf	trillion standard cubic feet
TVDSS	true vertical depth (sub-sea)
TVT	true vertical thickness

TWT	two-way time
Undiscovered Petroleum initially-in-place	That quantity of petroleum which is estimated, as of a given date, to be contained in accumulations yet to be discovered. The estimated potentially recoverable portion of Undiscovered Petroleum initially-in-place is classified as Prospective Resources, as defined below.
V_{sh}	shale volume
WPC	World Petroleum Council
ϕ	porosity

10. APPENDIX B: PROBABILISTIC RESERVES INPUT DATA

BellevueUpper_OIL_DLS

REP for Windows

Country:	**Australia**	Prospect/Field:	**BellevueUpper_OIL_DLS**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**4545420**	**160**	**38.0**	**38.0**
P50:	**7399917**	**587**	**151**	**151**
P10:	**0.117E+08**	**1732**	**484**	**484**
Mean:	**7845211**	**808**	**220**	**220**
Risked mean:			**4.44**	**4.44**

Chance of Geological Success GPOS: **2.0%**

Overall Chance of Success EPOS **2.0%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\bellevue_upper_ls_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

BellevueUpper_OIL_DLS

REP for Windows

Country:	**Australia**	Name:	**BellevueUpper_OIL_DLS**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	39.9	50.0	59.2	70.0	87.7	58.2
Thickness	m	Lognor	126	200	283	400	637	263
Shape factor	%	Normal	19.9	40.0	55.0	70.0	90.1	55.0
Deg. of fill	%	Rect	10.0	19.0	55.0	91.0	100	55.0
Net-to-gross	%	Normal	[0]	20.0	50.0	80.0	[100]	50.0
Porosity	%	Normal	[0]	4.00	9.00	14.0	20.7	9.00
Sw	%	Normal	3.18	30.0	50.0	70.0	96.8	50.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

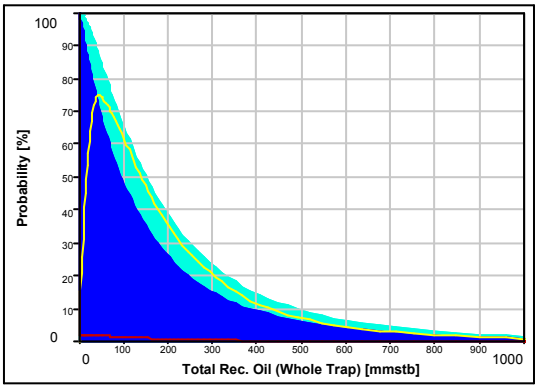
Risk Factors

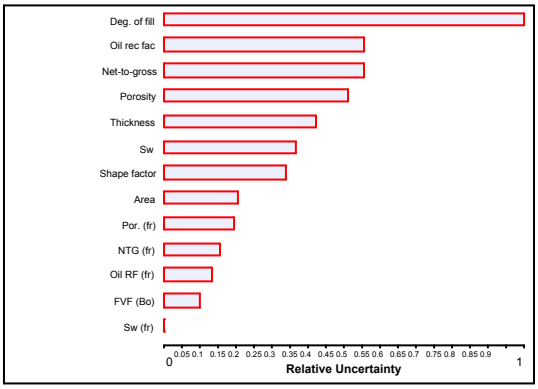
Play Chance:	**12%**	Prospect Specific Chance:	**17%**
Reservoir:	48%	Trap:	70%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	50%
		Charge:	80%

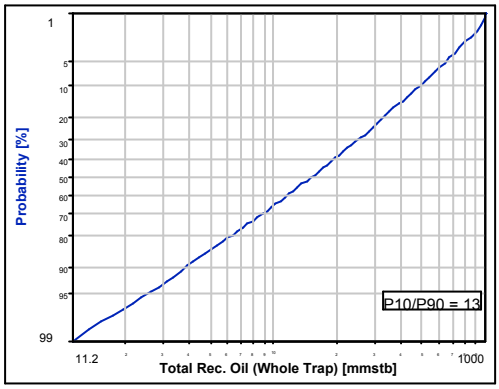
Chance of Geological Success GPOS: **2.0%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\bellevue_upper_ls_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Bellevue_LOwer_OIL_DLS

REP for Windows

Country:	**Australia**	Prospect/Field:	**Bellevue_LOwer_OIL_DLS**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**2800974**	**99.5**	**23.6**	**23.6**
P50:	**4640503**	**368**	**94.9**	**94.9**
P10:	**7473712**	**1094**	**307**	**307**
Mean:	**4951547**	**510**	**139**	**139**
Risked mean:			**2.80**	**2.80**

Chance of Geological Success GPOS: **2.0%**

Overall Chance of Success EPOS **2.0%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\bellevue_lower_ls_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Bellevue_LOwer_OIL_DLS

REP for Windows

Country:	**Australia**	Name:	**Bellevue_LOwer_OIL_DLS**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	22.5	30.0	37.1	46.0	61.3	36.1
Thickness	m	Lognor	126	200	283	400	637	263
Shape factor	%	Normal	19.9	40.0	55.0	70.0	90.1	55.0
Deg. of fill	%	Rect	10.0	19.0	55.0	91.0	100	55.0
Net-to-gross	%	Normal	[0]	20.0	50.0	80.0	[100]	50.0
Porosity	%	Normal	[0]	4.00	9.00	14.0	20.7	9.00
Sw	%	Normal	3.18	30.0	50.0	70.0	96.8	50.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

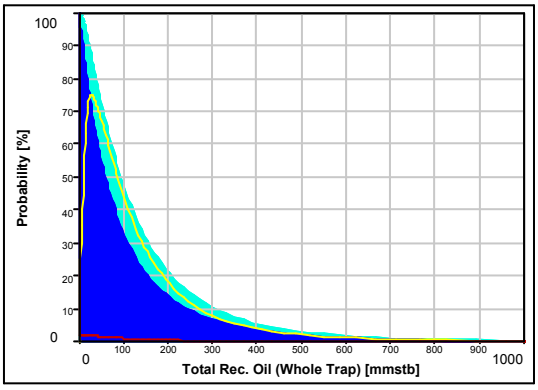
Risk Factors

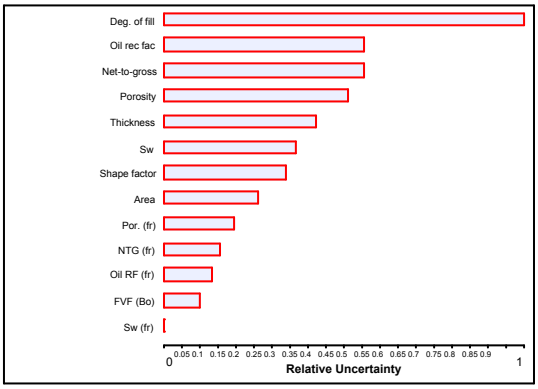
Play Chance:	**12%**	Prospect Specific Chance:	**17%**
Reservoir:	48%	Trap:	70%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	50%
		Charge:	80%

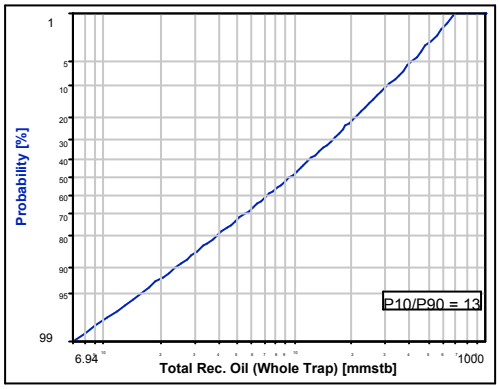
Chance of Geological Success GPOS: **2.0%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\bellevue_lower_ls_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Bracknell_OIL

REP for Windows

Country:	**Australia**	Prospect/Field:	**Bracknell_OIL**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**84812**	**11.6**	**2.84**	**2.84**
P50:	**430975**	**67.4**	**17.5**	**17.5**
P10:	**1839732**	**328**	**89.6**	**89.6**
Mean:	**771737**	**137**	**37.4**	**37.4**
Risked mean:			**0.431**	**0.431**

Chance of Geological Success GPOS: **1.2%**

Overall Chance of Success EPOS **1.2%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\bracknell_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Bracknell_OIL

REP for Windows

Country:	**Australia**	Name:	**Bracknell_OIL**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.312	2.00	8.00	32.0	[40.0]	2.48
Thickness	m	Lognor	15.0	50.0	122	300	997	75.1
Shape factor	%	Normal	36.6	50.0	60.0	70.0	83.4	60.0
Deg. of fill	%	Rect	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

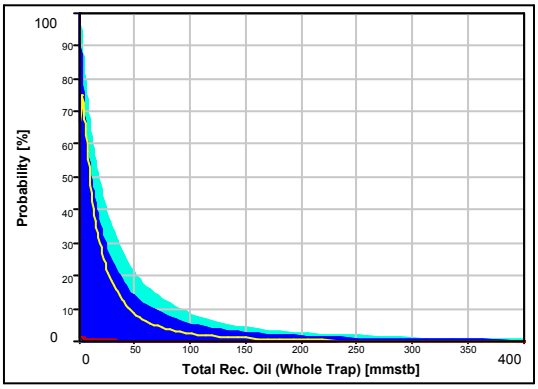
Risk Factors

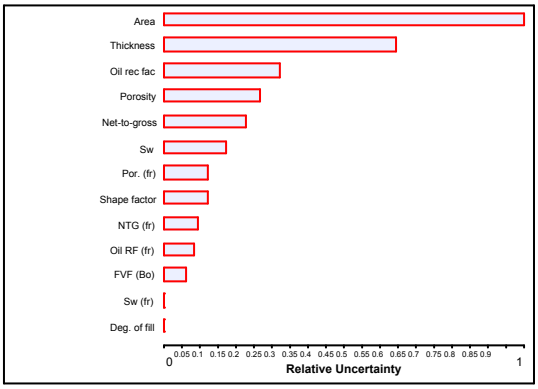
Play Chance:	**16%**	Prospect Specific Chance:	**7.2%**
Reservoir:	64%	Trap:	50%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	30%
		Charge:	80%

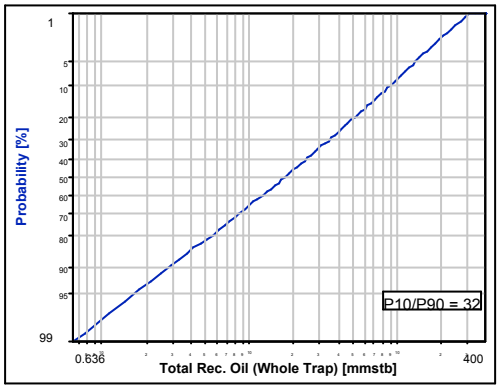
Chance of Geological Success GPOS: **1.2%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\bracknell_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Hummocky_OIL

REP for Windows

Country:	**Australia**	Prospect/Field:	**Hummocky_OIL**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**162606**	**22.4**	**5.40**	**5.40**
P50:	**733675**	**115**	**29.8**	**29.8**
P10:	**2774329**	**501**	**138**	**138**
Mean:	**1201071**	**213**	**58.4**	**58.4**
Risked mean:			**0.717**	**0.717**

Chance of Geological Success GPOS: **1.2%**

Overall Chance of Success EPOS **1.2%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\hummocky_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Hummocky_OIL

REP for Windows

Country:	**Australia**	Name:	**Hummocky_OIL**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.736	4.00	14.1	50.0	[50.0]	5.36
Thickness	m	Lognor	15.0	50.0	122	300	997	75.1
Shape factor	%	Normal	36.6	50.0	60.0	70.0	83.4	60.0
Deg. of fill	%	Rect	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

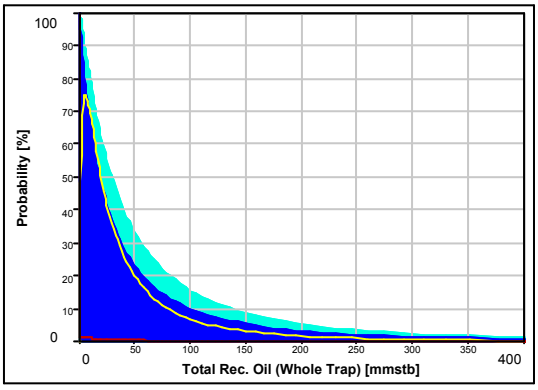
Risk Factors

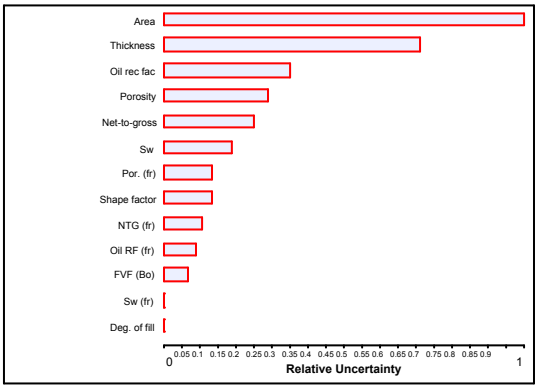
Play Chance:	**16%**	Prospect Specific Chance:	**7.7%**
Reservoir:	64%	Trap:	40%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	40%
		Charge:	80%

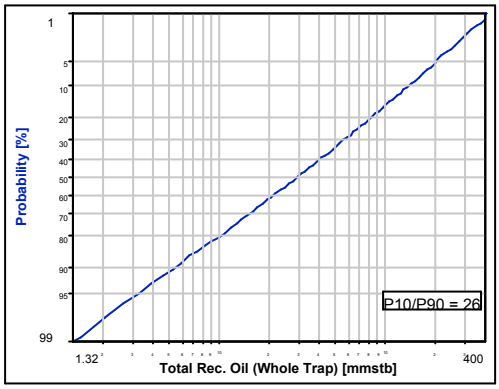
Chance of Geological Success GPOS: **1.2%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\hummocky_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Cressy_OIL

Country:	**Australia**	Prospect/Field:	**Cressy_OIL**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**95920**	**12.5**	**2.97**	**2.97**
P50:	**299686**	**47.9**	**12.3**	**12.3**
P10:	**929492**	**172**	**47.5**	**47.5**
Mean:	**440961**	**78.1**	**21.4**	**21.4**
Risked mean:			**0.247**	**0.247**

Chance of Geological Success GPOS: **1.2%**

Overall Chance of Success EPOS **1.2%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\cressy_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Cressy_OIL

REP for Windows

Country:	**Australia**	Name:	**Cressy_OIL**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.987	2.50	5.00	10.0	25.3	3.73
Thickness	m	Lognor	15.0	50.0	122	300	997	75.1
Shape factor	%	Normal	36.6	50.0	60.0	70.0	83.4	60.0
Deg. of fill	%	Rect	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

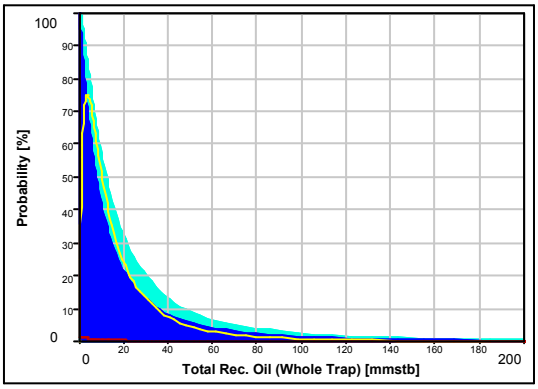
Risk Factors

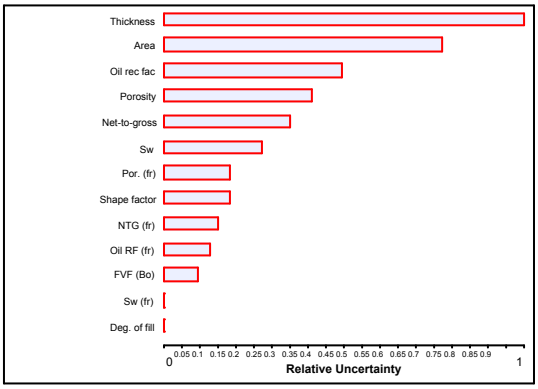
Play Chance:	**16%**	Prospect Specific Chance:	**7.2%**
Reservoir:	64%	Trap:	50%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	30%
		Charge:	80%

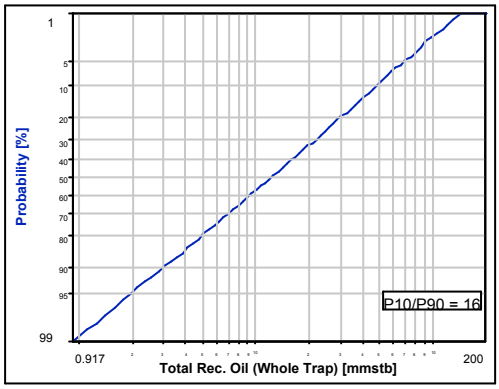
Chance of Geological Success GPOS: **1.2%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\cressy_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Butlers_Rise_OIL

REP for Windows

Country:	**Australia**	Prospect/Field:	**Butlers_Rise_OIL**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**39079**	**8.62**	**1.83**	**1.83**
P50:	**273015**	**55.1**	**13.7**	**13.7**
P10:	**947977**	**229**	**62.6**	**62.6**
Mean:	**397178**	**93.6**	**25.0**	**25.0**
Risked mean:			**0.192**	**0.192**

Chance of Geological Success GPOS: **0.77%**

Overall Chance of Success EPOS **0.77%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\butlers_rise_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Butlers_Rise_OIL

REP for Windows

Country:	**Australia**	Name:	**Butlers_Rise_OIL**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.0912	2.00	20.0	200	[40.0]	0.793
Thickness	m	Lognor	31.4	50.0	70.7	100	159	65.7
Shape factor	%	Normal	43.3	50.0	55.0	60.0	66.7	55.0
Deg. of fill	%	Rect	100	100	100	100	100	100
Net-to-gross	%	Normal	3.18	30.0	50.0	70.0	96.8	50.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

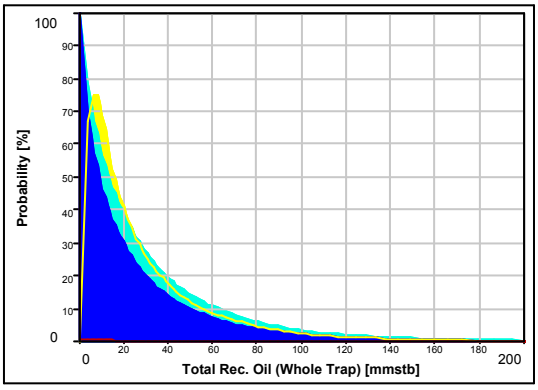
Risk Factors

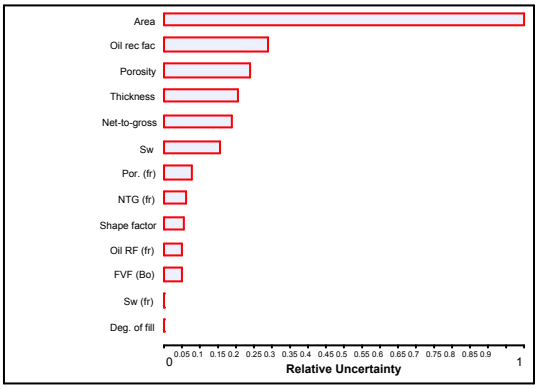
Play Chance:	**16%**	Prospect Specific Chance:	**4.8%**
Reservoir:	64%	Trap:	50%
Source:	25%	Reservoir:	48%
Regional Seal:	100%	Seal:	25%
		Charge:	80%

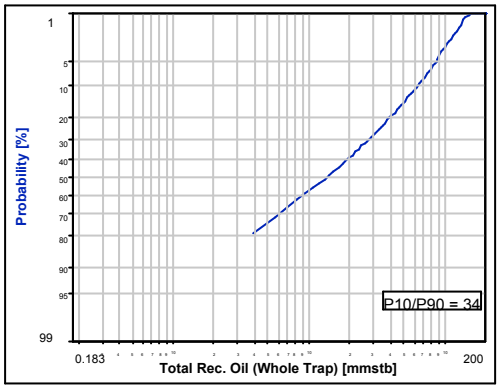
Chance of Geological Success GPOS: **0.77%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\butlers_rise_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Interlaken_OIL

REP for Windows

Country:	**Australia**	Prospect/Field:	**Interlaken_OIL**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**49902**	**7.17**	**1.85**	**1.85**
P50:	**229077**	**39.7**	**10.0**	**10.0**
P10:	**697383**	**144**	**39.6**	**39.6**
Mean:	**311465**	**61.2**	**16.6**	**16.6**
Risked mean:			**0.0786**	**0.0786**

Chance of Geological Success GPOS: **0.47%**

Overall Chance of Success EPOS **0.47%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\interlaken_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Interlaken_OIL

REP for Windows

Country:	**Australia**	Name:	**Interlaken_OIL**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.231	2.00	10.0	50.0	[30.0]	2.07
Thickness	m	Lognor	31.4	50.0	70.7	100	159	65.7
Shape factor	%	Normal	43.3	50.0	55.0	60.0	66.7	55.0
Deg. of fill	%	Rect	100	100	100	100	100	100
Net-to-gross	%	Normal	3.18	30.0	50.0	70.0	96.8	50.0
Porosity	%	Normal	[0]	4.00	8.00	12.0	17.4	8.00
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

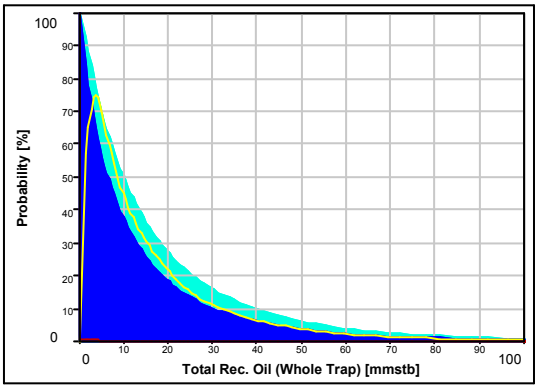
Risk Factors

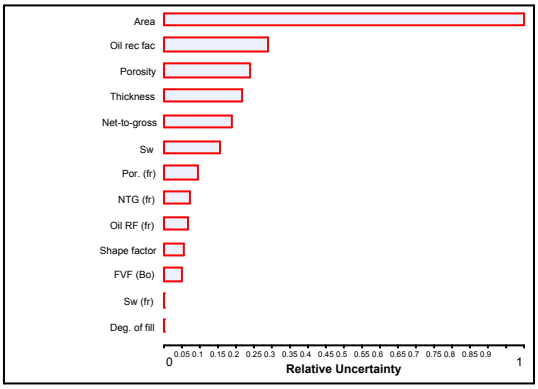
Play Chance:	**16%**	Prospect Specific Chance:	**3.0%**
Reservoir:	64%	Trap:	28%
Source:	25%	Reservoir:	48%
Regional Seal:	100%	Seal:	28%
		Charge:	80%

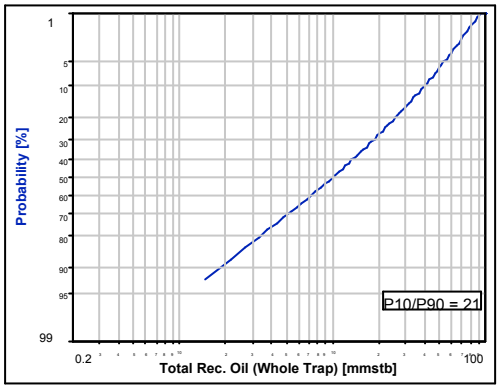
Chance of Geological Success GPOS: **0.47%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\interlaken_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Thunderbolt_OIL_DLS

REP for Windows

Country:	**Australia**	Prospect/Field:	**Thunderbolt_OIL_DLS**
State:		Reservoir:	
Block:	**SEL 13/1998**	Hydrocarbons:	**Oil**
Basin:	**XXX**	Prospect class:	
Play:	**XXX**	Reserve class:	**Unspecified**
Licence:	**XXX**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	
Exploration Interest:	**100.00**	Facilities @:	km
		Target depth:	m
Operator:			

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**1211099**	**49.5**	**12.0**	**12.0**
P50:	**2630954**	**206**	**53.4**	**53.4**
P10:	**5625606**	**717**	**198**	**198**
Mean:	**3125457**	**322**	**88.1**	**88.1**
Risked mean:			**0.634**	**0.634**

Chance of Geological Success GPOS: **0.72%**

Overall Chance of Success EPOS **0.72%**

Comments:

REP file: t:\gsl-1224_cpr_update\volumetrics\thunderbolt_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Thunderbolt_OIL_DLS

REP for Windows

Country:	**Australia**	Name:	**Thunderbolt_OIL_DLS**
Block:	**SEL 13/1998**	Segment:	**4-way closure**
Basin:	**XXX**		
Play:	**XXX**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	3.30	8.00	15.5	30.0	72.8	11.9
Thickness	m	Lognor	213	300	387	500	704	372
Shape factor	%	Normal	19.9	40.0	55.0	70.0	90.1	55.0
Deg. of fill	%	Rect	10.0	19.0	55.0	91.0	100	55.0
Net-to-gross	%	Normal	[0]	20.0	50.0	80.0	[100]	50.0
Porosity	%	Normal	[0]	4.00	9.00	14.0	20.7	9.00
Sw	%	Normal	3.18	30.0	50.0	70.0	96.8	50.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	0.566	0.700	0.800	0.900	1.03	0.800
FVF (Bo)	vol/vol	Normal	0.966	1.10	1.20	1.30	1.43	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

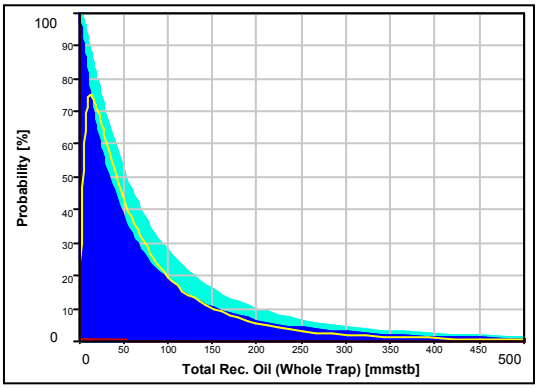
Risk Factors

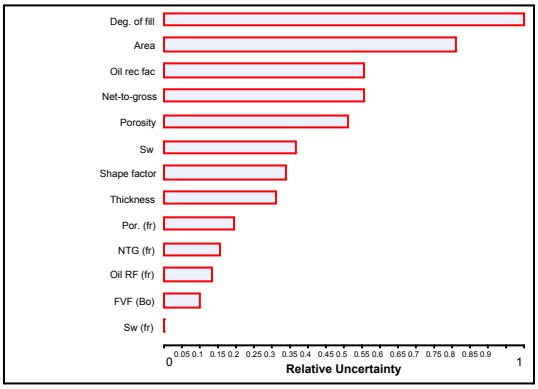
Play Chance:	**12%**	Prospect Specific Chance:	**6.0%**
Reservoir:	48%	Trap:	50%
Source:	25%	Reservoir:	60%
Regional Seal:	100%	Seal:	25%
		Charge:	80%

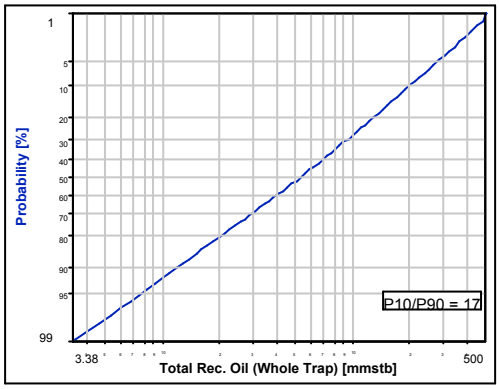
Chance of Geological Success GPOS: **0.72%**

Economic Criteria

No economic minima applied







REP file: t:\gsl-1224_cpr_update\volumetrics\thunderbolt_oil.ppr

Author: User Name Date: 25/06/08 Appraiser: Reference:

Stockwell

REP for Windows

Country:	**Australia**	Prospect/Field:	**Stockwell**
State:	**Tasmania**	Reservoir:	**Post Permian**
Block:	**SEL 13/98**	Hydrocarbons:	**Oil**
Basin:	**Tasmania**	Prospect class:	**Frontier**
Play:	**Post Permian**	Reserve class:	**Lead**
Licence:	**SEL 13/98**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	**Mountainous**
		Facilities @:	km
Exploration Interest:	**100.00**	Target depth:	m
Operator:	**GSLM**		

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**118853**	**9.97**	**2.00**	**2.00**
P50:	**250228**	**31.5**	**7.40**	**7.40**
P10:	**516177**	**87.6**	**23.6**	**23.6**
Mean:	**292920**	**42.3**	**11.0**	**11.0**
Risked mean:			**0.0827**	**0.0827**

Chance of Geological Success GPOS: **0.75%**

Overall Chance of Success EPOS **0.75%**

Comments:

REP file: t:\active\gsl-1224_cpr_update\volumetrics\stockwell.ppr

Author: User Name Date: 18/08/08 Appraiser: Reference:

Stockwell

REP for Windows

Country:	**Australia**	Name:	**Stockwell**
Block:	**SEL 13/98**	Segment:	
Basin:	**Tasmania**		
Play:	**Post Permian**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.711	1.80	3.60	7.20	18.2	2.69
Thickness	m	Lognor	75.2	99.2	122	150	198	119
Shape factor	%	Triang	60.0	64.5	70.0	75.5	80.0	70.0
Deg. of fill	%	Single	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	56.6	70.0	80.0	90.0	[100]	80.0
FVF (Bo)	vol/vol	Triang	1.02	1.10	1.20	1.30	1.38	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

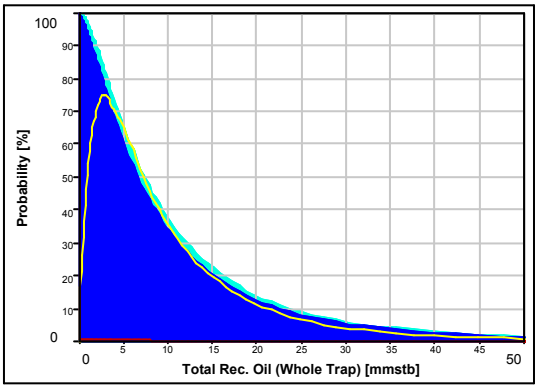
Risk Factors

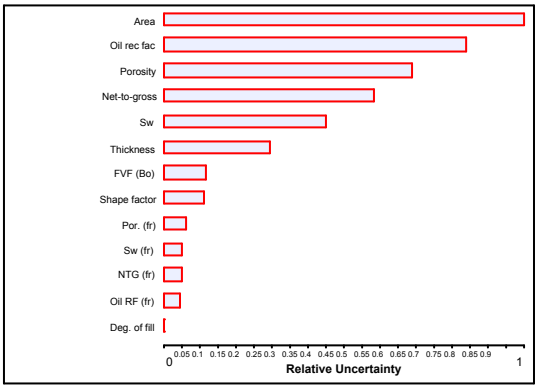
Play Chance:	**16%**	Prospect Specific Chance:	**4.7%**
Reservoir:	64%	Trap:	49%
Source:	25%	Reservoir:	50%
Regional Seal:	100%	Seal:	32%
		Charge:	60%

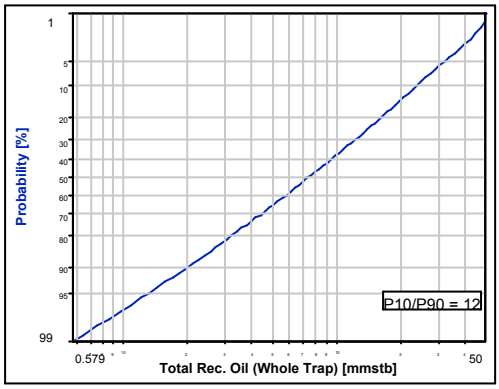
Chance of Geological Success GPOS: **0.75%**

Economic Criteria

No economic minima applied







REP file: t:\active\gsl-1224_cpr_update\volumetrics\stockwell.ppr

Author: User Name Date: 18/08/08 Appraiser: Reference:

Steppes

Country:	**Australia**	Prospect/Field:	**Steppes**
State:	**Tasmania**	Reservoir:	**Post Permian**
Block:	**SEL 13/98**	Hydrocarbons:	**Oil**
Basin:	**Tasmania**	Prospect class:	**Frontier**
Play:	**Post Permian**	Reserve class:	**Lead**
Licence:	**SEL 13/98**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
Exploration Interest:	**100.00**	Terrain:	**Mountainous**
Operator:	**GSLM**	Facilities @:	km
		Target depth:	m

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**115238**	**9.74**	**1.96**	**1.96**
P50:	**249478**	**31.3**	**7.39**	**7.39**
P10:	**528192**	**89.2**	**24.0**	**24.0**
Mean:	**295314**	**42.6**	**11.1**	**11.1**
Risked mean:			**0.142**	**0.142**

Chance of Geological Success GPOS: **1.3%**

Overall Chance of Success EPOS **1.3%**

Comments:

REP file: t:\active\gsl-1224_cpr_update\volumetrics\steppes.ppr

Author: User Name Date: 12/08/08 Appraiser: Reference:

Steppes

Country:	**Australia**	Name:	**Steppes**
Block:	**SEL 13/98**	Segment:	
Basin:	**Tasmania**		
Play:	**Post Permian**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	1.68	4.25	8.50	17.0	43.1	6.34
Thickness	m	Lognor	30.6	45.0	60.0	80.0	118	57.1
Shape factor	%	Triang	50.0	54.5	60.0	65.5	70.0	60.0
Deg. of fill	%	Single	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	56.6	70.0	80.0	90.0	[100]	80.0
FVF (Bo)	vol/vol	Triang	1.02	1.10	1.20	1.30	1.38	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

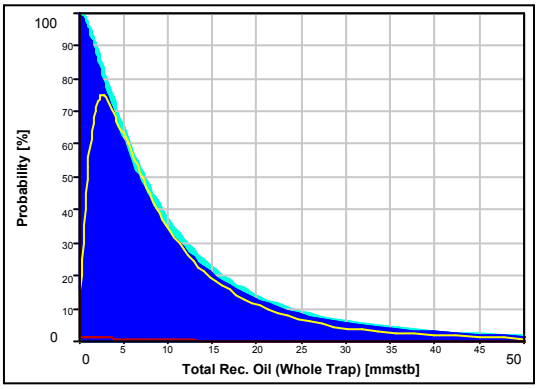
Risk Factors

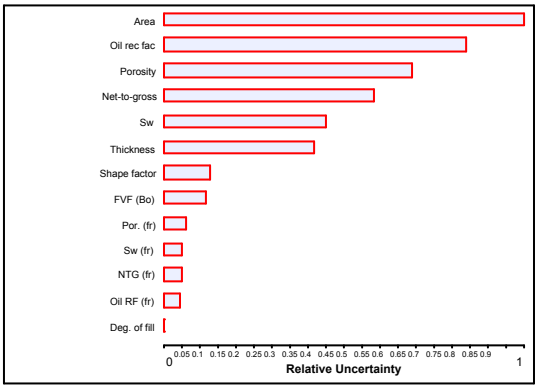
Play Chance:	**16%**	Prospect Specific Chance:	**8.0%**
Reservoir:	64%	Trap:	45%
Source:	25%	Reservoir:	50%
Regional Seal:	100%	Seal:	60%
		Charge:	60%

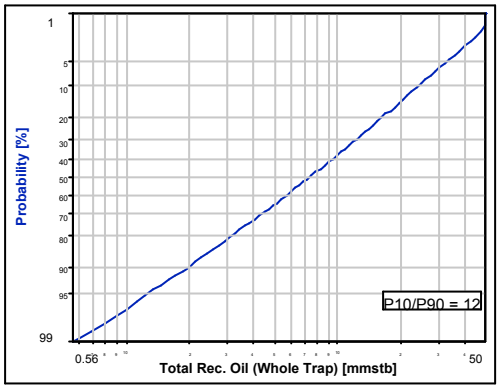
Chance of Geological Success GPOS: **1.3%**

Economic Criteria

No economic minima applied







REP file: t:\active\gsl-1224_cpr_update\volumetrics\steppes.ppr

Author: User Name Date: 12/08/08 Appraiser: Reference:

Quamby Fault Block

Country:	**Australia**	Prospect/Field:	**Quamby Fault Block**
State:	**Tasmania**	Reservoir:	**Post Permian**
Block:	**SEL 13/98**	Hydrocarbons:	**Oil**
Basin:	**Tasmania**	Prospect class:	**Frontier**
Play:	**Post Permian**	Reserve class:	**Lead**
Licence:	**SEL 13/98**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	**Mountainous**
		Facilities @:	km
Exploration Interest:	**100.00**	Target depth:	m
Operator:	**GSLM**		

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**23787**	**2.01**	**0.405**	**0.405**
P50:	**51396**	**6.45**	**1.52**	**1.52**
P10:	**108720**	**18.3**	**4.95**	**4.95**
Mean:	**60798**	**8.78**	**2.28**	**2.28**
Risked mean:			**0.0144**	**0.0144**

Chance of Geological Success GPOS: **0.63%**

Overall Chance of Success EPOS **0.63%**

Comments:

REP file: t:\active\gsl-1224_cpr_update\volumetrics\quamby_fault_block.ppr

Author: User Name Date: 12/08/08 Appraiser: Reference:

Quamby Fault Block

Country:	**Australia**	Name:	**Quamby Fault Block**
Block:	**SEL 13/98**	Segment:	
Basin:	**Tasmania**		
Play:	**Post Permian**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	0.296	0.750	1.50	3.00	7.60	1.12
Thickness	m	Lognor	30.6	45.0	60.0	80.0	118	57.1
Shape factor	%	Triang	60.0	64.5	70.0	75.5	80.0	70.0
Deg. of fill	%	Single	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	56.6	70.0	80.0	90.0	[100]	80.0
FVF (Bo)	vol/vol	Triang	1.02	1.10	1.20	1.30	1.38	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

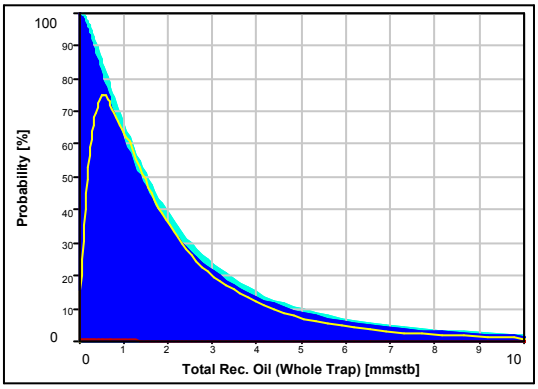
Risk Factors

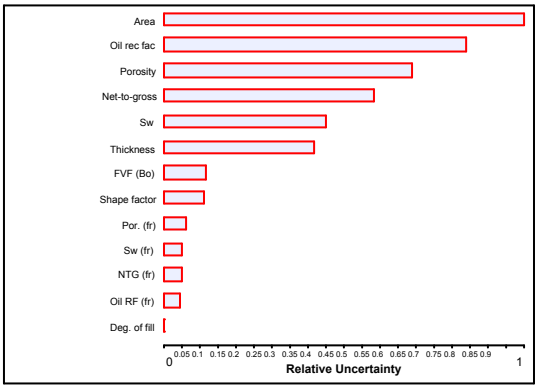
Play Chance:	**16%**	Prospect Specific Chance:	**4.0%**
Reservoir:	64%	Trap:	30%
Source:	25%	Reservoir:	50%
Regional Seal:	100%	Seal:	44%
		Charge:	60%

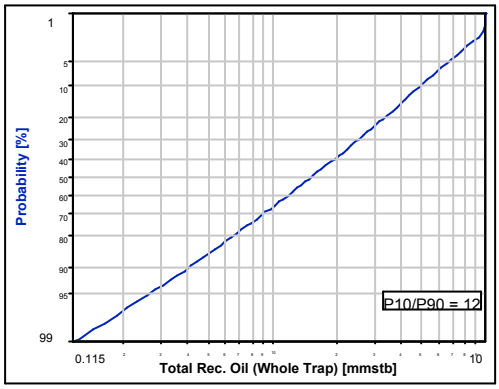
Chance of Geological Success GPOS: **0.63%**

Economic Criteria

No economic minima applied







REP file: t:\active\gsl-1224_cpr_update\volumetrics\quamby_fault_block.ppr

Author: User Name Date: 12/08/08 Appraiser: Reference:

Nile River

Country:	**Australia**	Prospect/Field:	**Nile River**
State:	**Tasmania**	Reservoir:	**Post Permian**
Block:	**SEL 13/98**	Hydrocarbons:	**Oil**
Basin:	**Tasmania**	Prospect class:	**Frontier**
Play:	**Post Permian**	Reserve class:	**Lead**
Licence:	**SEL 13/98**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	**Mountainous**
Exploration Interest:	**100.00**	Facilities @:	km
Operator:	**GSLM**	Target depth:	m

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**208121**	**17.6**	**3.52**	**3.52**
P50:	**445118**	**56.0**	**13.1**	**13.1**
P10:	**931294**	**157**	**42.4**	**42.4**
Mean:	**524174**	**75.7**	**19.7**	**19.7**
Risked mean:			**0.159**	**0.159**

Chance of Geological Success GPOS: **0.81%**

Overall Chance of Success EPOS **0.81%**

Comments:

REP file: t:\active\gsl-1224_cpr_update\volumetrics\nile_river.ppr

Author: User Name Date: 12/08/08 Appraiser: Reference:

Nile River

Country:	**Australia**	Name:	**Nile River**
Block:	**SEL 13/98**	Segment:	
Basin:	**Tasmania**		
Play:	**Post Permian**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	1.22	3.15	6.40	13.0	33.6	4.71
Thickness	m	Lognor	75.2	99.2	122	150	198	119
Shape factor	%	Triang	60.0	64.5	70.0	75.5	80.0	70.0
Deg. of fill	%	Single	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	56.6	70.0	80.0	90.0	[100]	80.0
FVF (Bo)	vol/vol	Triang	1.02	1.10	1.20	1.30	1.38	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

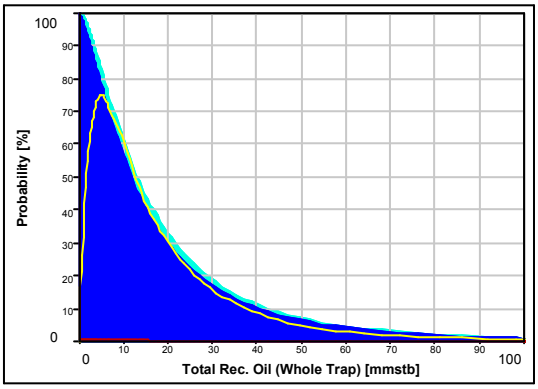
Risk Factors

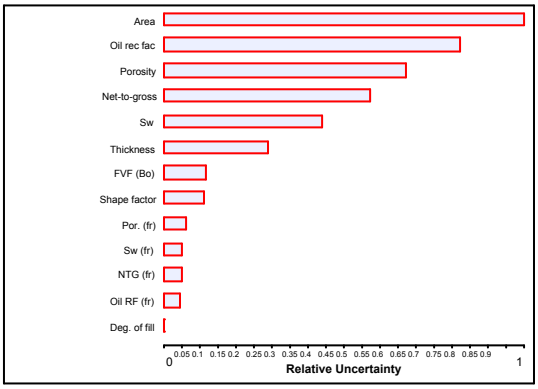
Play Chance:	**16%**	Prospect Specific Chance:	**5.1%**
Reservoir:	64%	Trap:	33%
Source:	25%	Reservoir:	50%
Regional Seal:	100%	Seal:	52%
		Charge:	60%

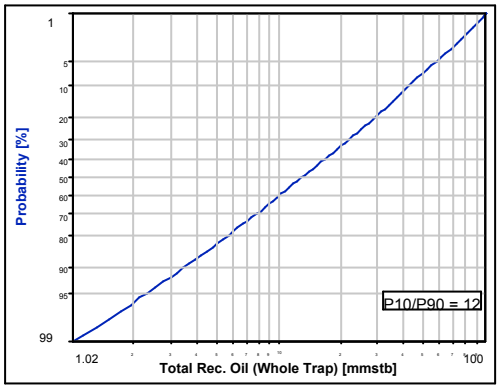
Chance of Geological Success GPOS: **0.81%**

Economic Criteria

No economic minima applied







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Author: User Name Date: 12/08/08 Appraiser: Reference:

Macquarie River

Country:	**Australia**	Prospect/Field:	**Macquarie River**
State:	**Tasmania**	Reservoir:	**Post Permian**
Block:	**SEL 13/98**	Hydrocarbons:	**Oil**
Basin:	**Tasmania**	Prospect class:	**Frontier**
Play:	**Post Permian**	Reserve class:	**Lead**
Licence:	**SEL 13/98**	On/offshore:	
Production Interest:	**100.00**	Depth datum:	
		Terrain:	**Mountainous**
Exploration Interest:	**100.00**	Facilities @:	km
Operator:	**GSLM**	Target depth:	m

Summary of Results

	GRV	Oil-in-Place	Total Rec. Oil	
	Whole Trap acre-ft	Whole Trap mmstb	Whole Trap mmstb	NRI mmstb
Technically successful				
P90:	**208121**	**17.6**	**3.52**	**3.52**
P50:	**445118**	**56.0**	**13.1**	**13.1**
P10:	**931294**	**157**	**42.4**	**42.4**
Mean:	**524174**	**75.7**	**19.7**	**19.7**
Risked mean:			**0.113**	**0.113**

Chance of Geological Success GPOS: **0.58%**

Overall Chance of Success EPOS **0.58%**

Comments:

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Author: User Name Date: 12/08/08 Appraiser: Reference:

Macquarie River

Country:	**Australia**	Name:	**Macquarie River**
Block:	**SEL 13/98**	Segment:	
Basin:	**Tasmania**		
Play:	**Post Permian**	Hydrocarbons:	**Oil**

Input Data

Variable	Unit	Shape	min	P90	P50	P10	max	mode
Area	km2	Lognor	1.22	3.15	6.40	13.0	33.6	4.71
Thickness	m	Lognor	75.2	99.2	122	150	198	119
Shape factor	%	Triang	60.0	64.5	70.0	75.5	80.0	70.0
Deg. of fill	%	Single	100	100	100	100	100	100
Net-to-gross	%	Normal	[0]	20.0	35.0	50.0	70.1	35.0
Porosity	%	Normal	[0]	5.00	10.0	15.0	21.7	10.0
Sw	%	Normal	[0]	20.0	40.0	60.0	86.8	40.0
NTG (fr)	%	Normal	[0]	26.0	50.0	74.0	[100]	50.0
Por. (fr)	%	Normal	[0]	0.500	1.25	2.00	3.01	1.25
Sw (fr)	%	Normal	56.6	70.0	80.0	90.0	[100]	80.0
FVF (Bo)	vol/vol	Triang	1.02	1.10	1.20	1.30	1.38	1.20
Oil rec fac	%	Normal	[0]	10.0	25.0	40.0	60.1	25.0
Oil RF (fr)	%	Triang	10.0	20.0	32.6	47.8	60.0	30.0

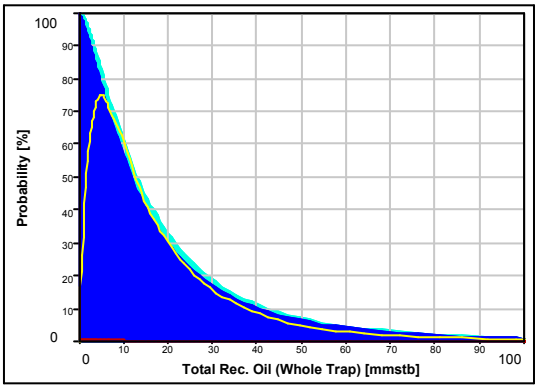
Risk Factors

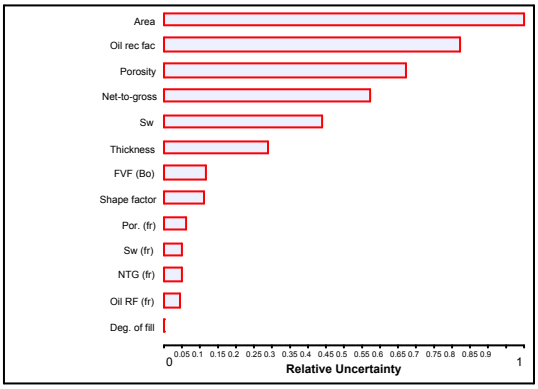
Play Chance:	**16%**	Prospect Specific Chance:	**3.6%**
Reservoir:	64%	Trap:	30%
Source:	25%	Reservoir:	50%
Regional Seal:	100%	Seal:	40%
		Charge:	60%

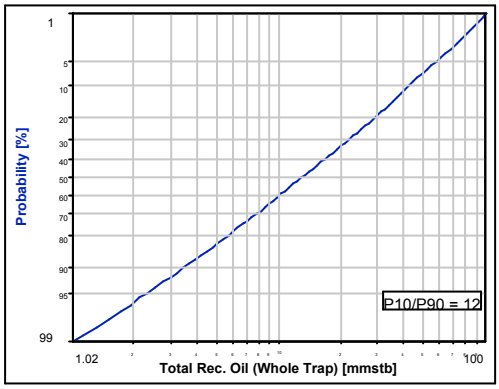
Chance of Geological Success GPOS: **0.58%**

Economic Criteria

No economic minima applied







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Author: User Name Date: 12/08/08 Appraiser: Reference:

RPS

Economic Evaluation of the Bellevue and Thunderbolt Prospects in SEL-13/98, Australia

Prepared for
Great South Land Minerals Limited

Date: Dec 2009

RPS Energy Pty Limited

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WA 6005, Australia
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Economic Evaluation of the Bellevue and Thunderbolt Prospects in SEL-13/98, Australia

Prepared for

Great South Land Minerals Limited

	REPORT TITLE: Economic Evaluation of the Bellevue and Thunderbolt Prospects in SEL-13/98, Australia		
DATE	**22 Dec 2009**	**PROJECT REFERENCE:**	ACI02813
	PREPARED:	**CHECKED:**	**APPROVED:**
NAME	**Otto Aristeguieta**	**Prady Chaliha**	**David Guise**
SENT	**EDITION**	**DESCRIPTION**	**COMMENT**
22/12/2009	**Rev. 0**	**Final**	**For Issue to Client**
18/12/2009	**Rev. C**	**Draft**	**For Client Review**
14/12/2009	**Rev. B**	**Draft**	**For Internal Review**

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1. EXECUTIVE SUMMARY

Great South Land Minerals Limited (GSLM), a wholly owned subsidiary of Empire Energy Corporation, requested that RPS Energy (RPS) provide an economic valuation of the Bellevue and Thunderbolt Prospects located in Special Exploration Licence SEL 13/98, Tasmania.

GSLM holds 100% interest in the Special Exploration Licence SEL 13/98 which covers a portion of the Tasmania Basin. The permit area is approximately 15,410 square kilometres and covers approximately 25% of the island of Tasmania. SEL 13/98 expired on the 30th of September 2009. GSLM have advised RPS that a five year renewal of the exploration licence has been submitted and is likely to be granted. The new exploration licence will be called EL 14/2009. No petroleum wells have been drilled in the permit area to date.

The valuation presented in this report adopts an Expected Monetary Value (EMV) approach using a probability tree methodology to model the range of possible outcomes for the assumed developments. The conceptual development plan and corresponding production forecast were generated by GSLM based on the mean case Prospective Resource volumes reported by RPS in "Competent Persons Report on Assets of Great South Land Minerals Limited, Tasmania" dated 23rd October 2008[1,2]. RPS has reviewed these profiles and believes they are reasonable based on the un-risked mean Prospective Resource volumes.

The capital and operating cost were generated by RPS using "QUE$TOR"™, a cost and technical database covering all the producing regions of the world. When available, cost data specific to the asset in question was used. The calculated base case and commodity price sensitivities with corresponding EMV's for Special Exploration Licence SEL 13/98 is presented in Table 1.

Special Exploration Licence SEL 13/98 Bellevue and Thunderbolt Prospects	EMV10 (US$ million)
Base Case Oil: US$83.75/bbl	50.9
Oil Price Sensitivities: EMV10 (US$ million)	
Low Case Oil: US$65/bbl	24.5
High Case Oil: US$110/bbl	87.7

Table 1 – Calculated EMV10 of the Bellevue and Thunderbolt Prospects, as of 1 December 2009

[1] Great South Land Minerals Limited, 22nd December 2009; "Bellevue Prospect PoD Rev1"

[2] Great South Land Minerals Limited, 22nd December 2009; "Thunderbolt Prospect PoD Rev1"

2. ECONOMIC VALUATION

2.1 Methodology

The valuation presented in this report adopts an Expected Monetary Value (EMV) approach using a probability tree methodology to model the range of possible outcomes for the assumed developments.

Each prospect has two initial possible outcomes, success or failure. The chance of success (COS) is equal to the prospect specific Geological Probability of Success (GPoS). In PRMS this is referred to as the Chance of Discovery. The chance of failure (dry hole) is therefore always equal to (1 – COS).

Discrete production and cost profiles were generated for the mean success case resources for each of the prospects evaluated. These discrete cases were then used to estimate the value of the success case of each prospect. This value is assumed to be the Net Present Value of the cash flow associated with each prospect using a ten percent discount rate. The evaluation includes failure cases that are represented by the discounted value of total exploration commitment related to each of the prospects evaluated.

Additionally, the probability tree approach allows the inclusion of partial dependencies between prospects within the same basin. As a result, in addition to the prospect specific chance of success, an overall "play" chance of success that represents the existence of an oil play in the area under study has been also included in the evaluation. Figure 1 displays the probability used to estimate the value of the Bellevue and Thunderbolt Prospects.

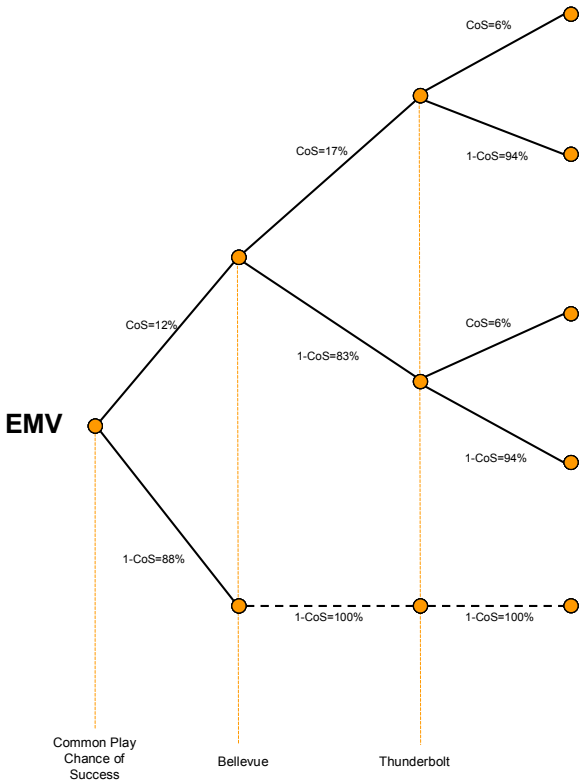

Figure 1 – Probability Tree Used to Estimate the EMV of the Bellevue and Thunderbolt Prospects

2.2 General Economic Assumptions

2.2.1 Evaluation date and discount rate

All net cash flows have been discounted at a rate of 10% (nominal) per year. The valuation date is 1 December 2009.

2.2.2 Pricing Assumptions

The valuation is based on RPS's view of the long term forecast for Brent Crude as shown in Figure 2. It is assumed that all crude is sold with no discount to the Brent Price. The base price case assumes a six year forward curve and US$83.75 per barrel flat real thereafter. The low price case and high price case assume a five year forward curves, US$65 per barrel and US$110 per barrel flat real thereafter, respectively. All crude price estimates had been escalated at 2% per annum (Figure 3).

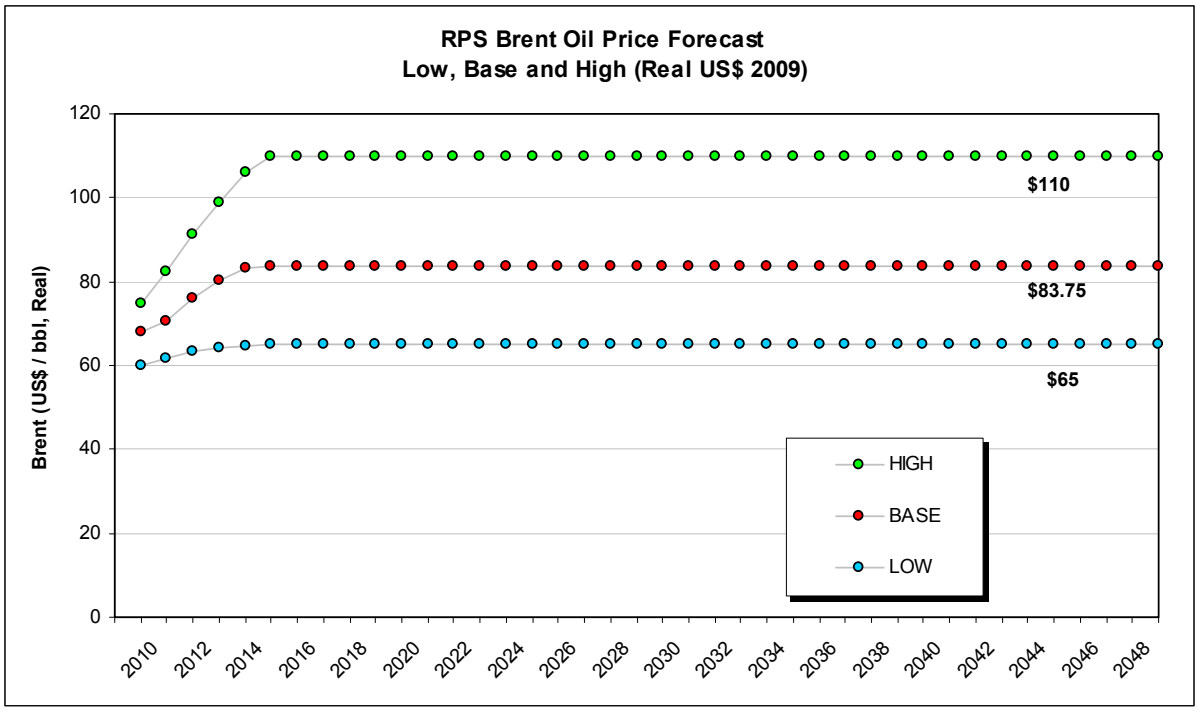

Figure 2 – RPS Brent Crude Price Forecast in Real Terms

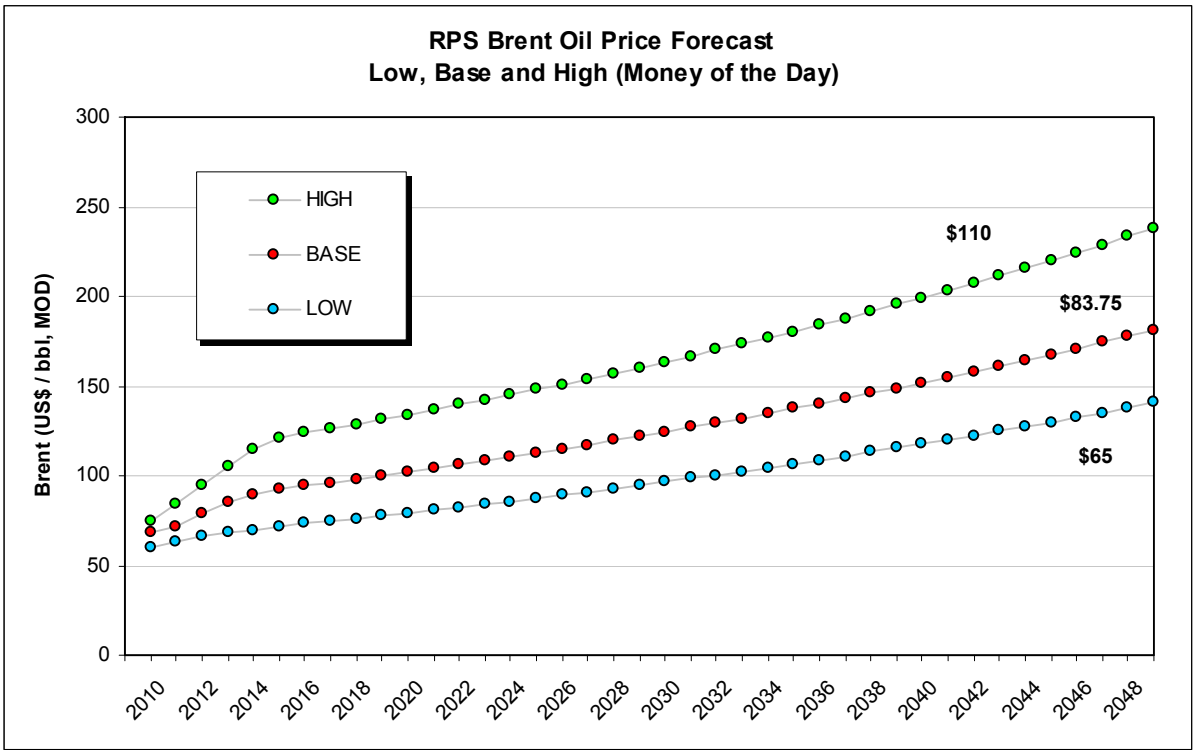

Figure 3 – RPS Brent Crude Price Forecast in Nominal Terms

2.2.3 Inflation

An annual inflation of 2.5% has been built into the valuation. This inflation rate has been applied to all cost estimates to adjust them to Money of the Day (MOD) terms.

2.2.4 Fiscal terms

The fiscal terms included in the evaluation are as follows:

Royalty:

- 12% of gross revenue.

Corporate Tax:

- 30% of taxable income.
- Taxable income assumes 15 year straight line depreciation for capital costs.
- It is assumed that excise tax is deducted from the corporate tax taxable income.

Excise Tax:

- Applicable on a field basis.
- First 30 MMstb of crude oil exempt from excise tax.
- Excise Rate applicable to gross revenue on an incremental sliding scale basis as shown in Table 2.

Annual Production MMstb			Excise Rate
0.000	to	0.315	0%
0.315	to	0.629	0%
0.629	to	1.259	0%
1.259	to	1.888	0%
1.888	to	2.517	0%
2.517	to	3.146	0%
3.146	to	3.776	10%
3.776	to	4.405	15%
4.405	to	5.034	20%
	>	5.034	30%

Table 2 – Excise Tax Rates

2.3 Development Assumptions

The conceptual development plan and corresponding production forecast were generated by Great South Land Minerals Limited based on the mean case Prospective Resource volumes reported by RPS in "Competent Persons Report on Assets of Great South Land Minerals Limited, Tasmania" dated 23rd October 2008. RPS has reviewed these profiles and believes they are reasonable based on the un-risked mean Prospective Resource volumes.

2.3.1 Bellevue Assumptions

The Bellevue Prospect contains a Mean Case Prospective Resource volume of 359 MMstb (un-risked) in the Upper and Lower Units of the Gordon Limestone. Assuming the Bellevue Prospect contains a medium gravity crude of approximately 30 deg API with a moderate water drive, an average drainage area per well is expected to be 40 acres. Therefore, using the mean area of the reservoir of 58 sq km, 360 vertical wells are required to drain the reservoir, equivalent to 1.0 MMstb per well.

Initial production rate per well is expected to be 910 stb/day declining at 30% per annum with a 10% downtime. This will recover the Prospective Resource volume in less than 30 years. An average gas-oil ratio of 200 scf/stb is assumed over the life of the project. This gas will be utilised as fuel gas to power facilities and artificial lift and remain cash neutral over the life of the project. The average field production rate and wells drilled is illustrated in Figure 4.

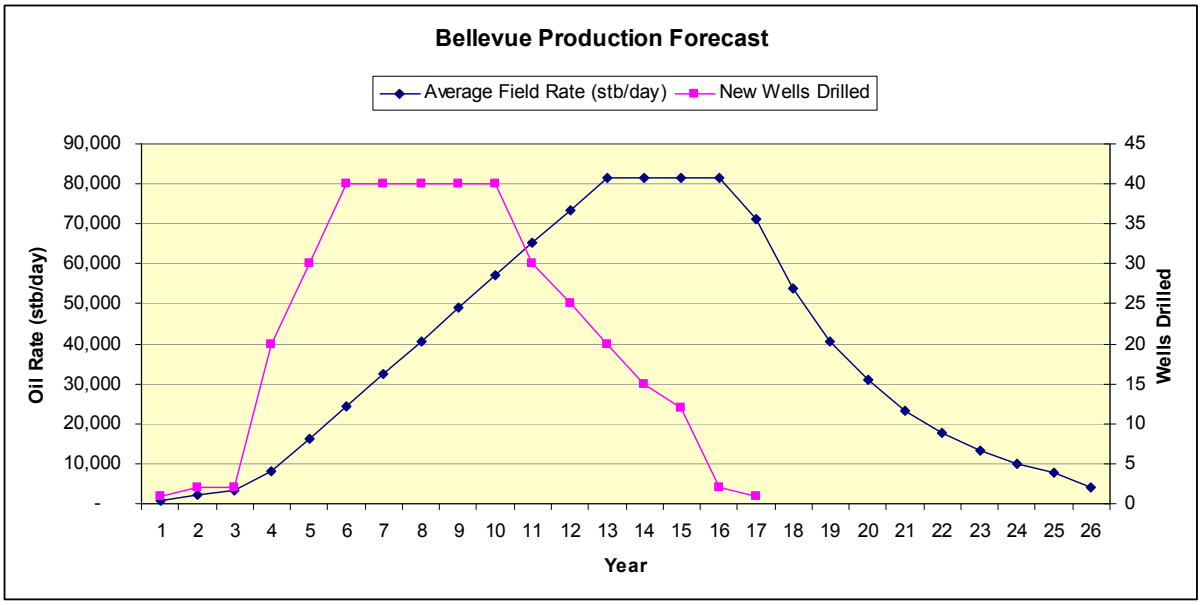

Figure 4 – Bellevue Production Forecast

2.3.2 Thunderbolt Assumptions

The Thunderbolt Prospect contains a Mean Case Prospective Resource volume of 88 MMstb in the Gordon Limestone. Assuming the Thunderbolt Prospect contains a medium gravity crude of approximately 30 deg API with a moderate water drive, an average drainage area per well is expected to be 40 acres. Therefore, using the mean area of the reservoir of 12 sq km, 74 vertical wells are required to drain the reservoir, equivalent to 1.2 MMstb per well.

Initial production rate per well is expected to be 875 stb/day declining at 24% per annum with a 10% downtime. This will recover the Prospective Resource volume in less than 30 years. An average gas-oil ratio of 200 scf/stb is assumed over the life of the project. This gas will be utilised as fuel gas to power facilities and artificial lift and remain cash neutral over the life of the project. The average field production rate and wells drilled is illustrated in Figure 5.

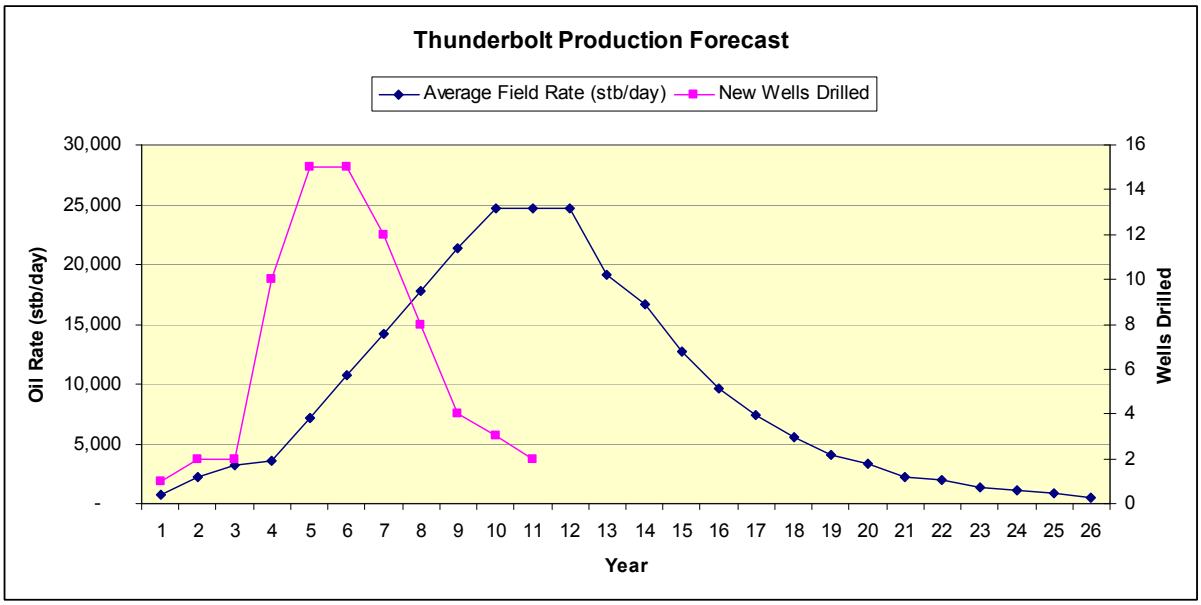

Figure 5 – Thunderbolt Production Forecast

2.4 Project Expenditures

The capital and operating cost were generated using "QUE$TOR"™, a cost and technical database covering all the producing regions of the world (when available, cost data specific to the asset in question was used). These databases are updated every six months with costs gathered from actual projects, fabricators, vendors, and service companies. A summary of exploration, development, operating and abandonment costs are provided in Table 3. All costs are in United States Dollars (US$) and are pre-inflation.

Cost	Bellevue Prospect	Thunderbolt Prospect
	US$ million	US$ million
Exploration Well	4.0	4.8
Appraisal Wells	31.4	18.8
Other G&G	13.5	8.1
Total Exploration/Appraisal Costs	**48.8**	**31.7**
Development Drilling	2292.6	512.6
Facilities	445.5	183.6
Pipelines	391.5	206.6
Total Development Expenditures	**3129.6**	**902.7**
Total Operating	**2653.1**	**1091.4**
Total Abandonment	**380.6**	**133.8**

Table 3 - Exploration, Development, Operating and Abandonment Costs

Projected exploration costs at Bellevue include seven exploration/appraisal wells and five wells for Thunderbolt. Other exploration costs include Geology and Geophysical (G and G) for sample analysis, G and G studies, environmental studies and if permitted, 3D seismic.

The Bellevue and Thunderbolt Prospects are located relatively close to infrastructure such as sealed roads, deep water ports and shipping lanes while transport distances or pipeline lengths are approximately 150km to the north coast of Tasmania. RPS has included an 18 inch pipeline for Bellevue and a 12 inch pipeline for Thunderbolt which will transport the oil 150km to a custody transfer terminal in northern Tasmania, near Devonport, for tanker transport to refinery.

Facilities required for gathering, testing, processing and handling gas, oil and water are designed and costed using the QUE$TOR model and database.

Operating costs include the cost of consumables like chemicals, utilities (power and water), salaries and wages, administrative overheads, repairs and maintenance. The QUE$TOR model was used to estimate the total operating costs which are made up of Fixed and Variable costs. The operating costs established by QUE$TOR were used for the initial, peak production and initial decline years, however, for the later years of decline the costs were adjusted down to better reflect the decline of the operation. QUE$TOR did not reduce the costs in later years resulting in unreasonably high costs that would not be maintained under normal operation. These costs were adjusted to reflect "most likely" cost reductions to maintain operations.

The abandonment costs include well abandonment, land reclamation, facilities decommissioning and salvage.

3. RESULTS

The NPV and EMV results of the valuation, based on RPS's long term base price forecast for Brent Crude, is presented in Table 4. Each row of Table 4 represents a different outcome of the probability tree for the assumed developments. The EMV is the sum of the risked NPV's.

Results based on commodity price sensitivities are presented in Table 5 (RPS Low Brent Forecast) and Table 6 (RPS High Brent Forecast)

					NPV10 (MM US$)			
Play Chance	Well 1	Well 2	Branch Probability		Bellevue	Thunderbolt	Total	Risked NPV
12%	17%	6%	0.12%		2972.9	990.6	3963.5	4.9
12%	17%	94%	1.92%		2972.9	-8.6	2964.3	56.8
12%	83%	6%	0.60%		-8.6	990.6	982.0	5.9
12%	83%	94%	9.36%		-8.6	-8.6	-17.1	-1.6
88%	100%	100%	88.00%		-8.6	-8.6	-17.1	-15.1
							EMV	**50.9**

Table 4 – RPS Base Price Case Valuation Results, as at 1 December 2009

					NPV10 (MM US$)			
Play Chance	Well 1	Well 2	Branch Probability		Bellevue	Thunderbolt	Total	Risked NPV
12%	17%	6%	0.12%		1824.1	583.4	2407.5	2.9
12%	17%	94%	1.92%		1824.1	-8.6	1815.5	34.8
12%	83%	6%	0.60%		-8.6	583.4	574.8	3.4
12%	83%	94%	9.36%		-8.6	-8.6	-17.1	-1.6
88%	100%	100%	88.00%		-8.6	-8.6	-17.1	-15.1
							EMV	**24.5**

Table 5 – RPS Low Price Case Valuation Results, as at 1 December 2009

					NPV10 (MM US$)			
Play Chance	Well 1	Well 2	Branch Probability		Bellevue	Thunderbolt	Total	Risked NPV
12%	17%	6%	0.12%		4577.4	1555.3	6132.7	7.5
12%	17%	94%	1.92%		4577.4	-8.6	4568.9	87.6
12%	83%	6%	0.60%		-8.6	1555.3	1546.7	9.2
12%	83%	94%	9.36%		-8.6	-8.6	-17.1	-1.6
88%	100%	100%	88.00%		-8.6	-8.6	-17.1	-15.1
							EMV	**87.7**

Table 6 – RPS High Price Case Valuation Results, as at 1 December 2009

APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

B	Billion
bbl(s)	Barrels
bbls/d	barrels per day
bopd	barrels of oil per day
BTU	British Thermal Unit
Bscf	billions of standard cubic feet
condensate	liquid hydrocarbons which are sometimes produced with natural gas and liquids derived from natural gas
EMV	Expected Monetary Value
ft	Feet
G and G	Geology and Geophysical
GIP	Gas in Place
GIIP	Gas Initially in Place
LNG	Liquefied Natural Gases
LPG	Liquefied Petroleum Gases
M	Thousand
MM	Million
M$	thousand US dollars
MM$	million US dollars
MMscf/d	millions of standard cubic feet per day
Mt	thousands of tonnes
MMt	millions of tonnes
NGL	Natural Gas Liquids
NPV	Net Present Value
petroleum	deposits of oil and/or gas
scf	standard cubic feet measured at 14.7 pounds per square inch and 60° F
scf/d	standard cubic feet per day
scf/stb	standard cubic feet per stock tank barrel
stb	stock tank barrels measured at 14.7 pounds per square inch and 60° F
stb/d	stock tank barrels per day
STOIIP	stock tank oil initially in place
US$	United States Dollars
Tscf	trillion standard cubic feet

APPENDIX J

QUALIFICATIONS

WHK is the **5th largest accounting business in Australasia** (source: BRW) and is the **largest provider of accounting and related services to small medium enterprises** and high net worth clients. The firm and its more than **3,000 employees** services in excess of **200,000 clients** in its network of more than **100 offices** located throughout **six Australian states** and both islands of **New Zealand**. WHK is a member of **Crowe Horwath International**, one of the **top 10 global accounting affiliations**.

WHK

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WHK Pty Ltd
ABN 84 006 466 351

F:\BS\Hbt\G\GREAT SOUTH LAND MINERALS LIMITED\Accountants Confirmation Letter to Director of Mines 30.09.09 UPDATED 2nd License.doc

30 September 2009

Director of Mines
Mineral Resources Tasmania
PO Box 56
ROSNY TAS 7018

To Whom It May Concern:

Re: Great South Land Minerals Ltd –
Application for an Oil and Gas exploration license – Onshore & Offshore Eastern Tasmania

We are writing after meeting with representatives of Great South Land Minerals Ltd on the 28th September 2009 and the 30th September 2009, and receipt of subsequent information. We have been requested to review your records and make the following representations.

OWNERSHIP OF GREAT SOUTH LAND MINERALS LIMITED

After review of the draft prospectus of Empire Energy Corporation International (a reporting company in the USA under the Securities Exchange Act 1934), and the websites of both Great South Land Minerals Ltd and Empire Energy Corporation International, we can confirm those documents indicate that Great South Land Minerals Ltd is a wholly-owned subsidiary of Empire Energy Corporation International. We were unable to confirm the shareholding on the Australian Securities and Investment Commission database, as the website did not provide these details.

ABILITY TO RAISE FUNDS

We understand that the initial commitment under this license will be approximately $10 million in the first twenty four months.

Shareholder Rights Offer

The first source of fund raising is a Shareholder Rights Offer for US$9,352,240 (AUD$10,682,170 on the 29th September 2009 Exchange Rate). We reviewed a draft prospectus for Empire Energy Corporation International on the U.S Securities and Exchange Commission (SEC) website, lodged on the 3rd September 2009. The draft prospectus details a Shareholder Rights Offer of 133,607,712 shares at 7 cents per share (approximately 1 share for every 2 shares on issue), totalling US$9,352,540. This prospectus is not yet complete and has not been approved by the SEC, but we have been advised that this will occur shortly.

ABILITY TO RAISE FUNDS CONT.

Shareholder Rights Offer cont.

We have been advised that in the event the Rights Offer is approved by the SEC that the vast majority, if not all rights will be taken up. This includes Mr Malcolm Bendall, the CEO of Empire Energy Corporation International, taking up his full entitlement of shares under the Rights Offer. Mr Bendall's intention to take up all of his shares is also detailed in a press release issued on the 2nd September 2009 listed on the Great South Land Minerals Limited website and various other financial websites.

Further, it was indicated in an earlier press release issued on the 12th June 2009 that Mr Bendall had received written notice of approval to provide him with US$50 million for the purpose of providing finance to Empire Energy Corporation International. This release indicated that these funds were to be initially applied to finance Mr Bendall's share acquisitions under this particular Rights Offer. We also sighted a letter offering the US$50 Million funding from Abbey International Holdings Limited.

Please note that from our review of the documentation available on the SEC website that all such documents had been lodged within the last six months.

We have been advised by Mr Paul Heath, the Chief Operations Manager of Great Southern Land Minerals Limited that the majority of the funds raised from the issue of shares under the Rights Offer will be spent on the Bellevue # 1 Exploration Well and the Thunderbolt Exploration Well drilling programs that the application relates to.

This is consistent with press releases from Empire Energy Corporation International that we reviewed on the Yahoo Finance website, and further releases on the Empire Energy Corporation International website itself.

Value of Assets

After discussions with Mr Malcolm Bendall – CEO of Empire Energy Corporation International and various other representatives on the 30th September 2009, we make the following observations and comments with regards to the Asset Values of Great South Land Minerals Limited:

RPS Energy Competent Persons Report

We reviewed a Competent Persons Report completed by RPS Energy on the 23rd October 2008. RPS Energy is described on their website as follows:

"RPS Energy is a global multi-disciplinary consultancy, providing integrated technical, commercial and project management support services in the fields of geoscience, engineering and HS&E to the energy sector. We operate from regional offices in Europe, North America, Australia and Asia."

This report is extremely detailed, including a Regional Overview of the Tasmanian Basin, a Petroleum Systems Analysis, and an Prospect and Lead Volumetrics and Risk Analysis. It was supervised by Mr David R Guise, the Managing Director – Consulting Australia/S.E Asia. The following table summarises the findings, which were extracted from the Executive Summary of this report:

RPS ENERGY FINDINGS

Prospect/ Lead	**Gross Productive Resources Oil (millions of Barrels)**				**Risk Factor**	**Operator**
	Low Estimate	**Best Estimate**	**High Estimate**	**Mean Estimate**	**COS % a)**	
Bellevue Upper Unit	38	151	484	220	2.0%	GSLM
Bellevue Lower Unit	24	95	307	139	2.0%	GSLM
Bracknell Dome	3	18	90	37	1.2%	GSLM
Butlers Rise	2	14	63	25	.77%	GSLM
Interlaken	2	10	40	17	.47%	GSLM
Cressy	3	12	48	21	1.2%	GSLM
Hummocky Hills	5	30	138	58	1.2%	GSLM
Thunderbolt	12	53	198	88	.72%	
Macquarie River	3.52	13.1	42.4	19.7	.58%	GSLM
Nile River	3.52	13.1	42.4	19.7	.81%	GSLM
Quamby	.405	1.52	4.95	2.28	.63%	GSLM
Steppes	1.96	7.39	24	11.1	1.3%	GSLM
Stockwell	2	7.4	23.6	11	.75%	GSLM
TOTALS	**100.405**	**425.51**	**1505.35**	**668.78**		GSLM

a) Chance of Success (COS): Chance of probability of discovering hyrdrocarbons in sufficient quantity for them to be tested to the surface.

For example, based on the low estimate of 100,405,000 barrels at $70 per barrel, this would result in $7,028,350,000 ($7.02835 billion) in oil in the prospect areas. This value is also mentioned in a Beacon Equity Research Analysis completed on the 29th October 2008.

RPS Energy Competent Persons Report cont.

We spoke to Mr David Guise in an attempt to gain indicative value of the barrels. He advised that approximately $5 per barrel was a figure from a recent transaction. Based on this, the value would be:

Low Estimate - $502,025,000 ($502.025 million)
Mean Estimate - $3,343,900,000 ($3.3439 billion)

SEL 13/98 Expenditure thus far

Per a press release on the 20th August 2009 and discussions with Mr Peter Woodhouse, the accountant for Great South Land Minerals Limited, expenditure exceeding AUD $50 million has been incurred thus far on SEL 13/98. So far the exploratory work has lead to at least 15 identifiable domes being discovered (per the RPS Energy report above). The executives of Great South Land Minerals believe the valuation prepared by RBS Energy is conservative, and are confident that the value of the domes, in terms of future potential revenue, may be in fact far greater than what has been outlined in the report.

Other Factors

The following assertions have been made by Mr Malcolm Bendall:

- Mirabaud, an international stockbroker, has agreed to act as stockbroker for the Group;
- Various other joint venture and investment negotiations are currently underway, all for significant terms. Further details could not be given due to confidentiality, but from we have seen and have been told, these parties would not be discussing these figures if the projects were not likely to be profitable.

CONCLUSION

The executive strongly believe due to numerous factors, many detailed above, that the assets of Great South Land Mining based on potential future earnings would far exceed the $50 million minimum required for non-verification of assets. This is indicated by the low estimate of $7,028,350,000 in the RPS Energy Report outlined above. Additionally, also outlined above, the value of the barrels would be $502,025,000 using the low estimate or $3,343,900,000 using the mean estimate.

From the documentations and discussions our firm has had with the executive of Great South Land Minerals Limited, this would certainly appear to be a reasonable conclusion.

Please do not hesitate to contact this office should you wish to discuss this matter further.

Yours sincerely,
WHK

for **Peter Muckridge**
Principal

Review and Valuation of the Petroleum Assets

of

Great South Land Minerals Limited

Prepared for

PKF Corporate Advisory Services (Vic) Pty Ltd

by

Anderson & Schwab Australia Limited

This report has been prepared at the request of PKF Corporate Advisory Services (Vic) Pty Ltd. The purpose of this report is to provide information to PKF Corporate Advisory Services (Vic) Pty Ltd to assist it in providing an analysis and view to the Directors, management and ordinary shareholders of Great South Land Minerals Limited relating to that Company's in principle decision to accept an all-stock tender offer from Empire Energy Corporation International, Inc., a United States company that is listed on the NASDAQ exchange. The report, prepared by Anderson & Schwab Australia Limited, has determined a range of values for the petroleum assets of Great South Land Minerals Limited. The value range is based on information supplied by management, directors and staff of, and consultants to, the company; consultants reports based on investigations into the assets belonging to the company; publicly available information and reviews of data collected, collated and assessed by consultants to the company. This report may accompany commentary provided by PKF Corporate Advisory Services (Vic) Pty Ltd on their opinions with regard to the transaction. The report has been completed in accordance with the terms and conditions described herein and set forth in our agreement with PKF Corporate Advisory Services (Vic) Pty Ltd.

9 November 2004

CONTENTS

1. INTRODUCTION

1.1. BACKGROUND AND PURPOSE OF THE REPORT

Great South Land Minerals Limited ("GSLM") is an unlisted public company. The principal activities and assets of GSLM are the evaluation and potential development of Special Exploration Licence 13/1998 located entirely onshore, Tasmania, Australia.

GSLM has agreed in principle, subject to documentation and shareholder approval, to sell the company to Empire Energy Corporation International ("Empire"), a NASDAQ-listed company. The deal would result in the shareholders of GSLM acquiring 95% of Empire and allow GSLM to access the funds needed to continue its work to confirm and exploit the oil and gas potential of Tasmania.

An extension to the Special Exploration Licence 13/1998 is being sought by GSLM in exchange for a commitment to the Government to spend a minimum of $21.5 million over five years on an accelerated exploration program.

Empire has secured a US$380 million equity line of credit to allow this program to commence once the merger of the two companies has been achieved. While the Boards of directors of both companies have approved the transaction, the renewal of the exploration licence is a condition to closing the acquisition of GSLM.

GSLM has engaged PKF Corporate Finance (Aust) Pty Ltd ("PKF") to prepare an Independent Expert's Report ("IER") in relation to the proposed transaction with Empire. PKF does not possess the scientific or technical knowledge necessary to competently evaluate the petroleum assets of GSLM. PKF has therefore requested that Anderson & Schwab Australia Limited ("A&S") act as a Specialist and undertake an independent review of these petroleum assets for attachment to its report to GSLM.

2. SUMMARY AND VALUATION

2.1. EXECUTIVE SUMMARY

- We have assessed the value of GSLM's Special Exploration Licence, SEL 13/98, to be in the range $23.763 million to $30.100 million.
- The Tasmanian Basin is by petroleum exploration standards a "frontier basin". Despite having been explored in one manner or another for over 120+ years it is only during the last twenty years, since GSLM and its predecessor companies acquired leases in the basin, that a systematic programme of exploration discovery has been carried out in an attempt to discover commercial accumulations of hydrocarbons.
- Since GSLM and its predecessor companies acquired exploration leases to explore for hydrocarbons inexcess of A$22 million has been spent on exploration activities. These activities have so far established the presence two petroleum systems, which they have named; the Larapintine Petroleum System and the Gondwana Petroleum System.
- In identifying these petroleum systems GSLM has proved the presence of good quality source rocks that are thermally mature for the generation of gaseous and liquid hydrocarbons. It has determined that hydrocarbons have been generated, expelled and migrated into potential reservoir units and established the presence of reservoir and seal units within the basin. In recent years reflection seismic data has been acquired to complement earlier gravity and magnetics data with the ultimate aim being to determine the presence of petroleum trapping mechanisms.
- This seismic data has shown that potential exists to discover trapping mechanisms but that significantly more seismic acquisition and interpretation work needs to be undertaken to enable the company to identify potential drill targets.
- The renewal of SEL 13/1998 is critical to the value of the company. The application for the extension was made on 6 May, 2004 and contained an extensive programme of exploration for the next five years that included committed expenditures amounting to some A$21.5 million.
- Company management is very competent and has the ability to continue to develop the exploration programme going forward. A greater number of specialist technical staff will be required to undertake the proposed work programmes but given the proximity of the exploration licences to major commercial and residential areas and the lifestyle opportunities available in Tasmania we do not envisage that the company will have any difficulties in recruiting competent staff.

2.2 VALUATION

We have undertaken an assessment of GSLM's special petroleum licence and reviewed, in as much detail as was practical, the value of this asset. Our valuation, as at the date of this report, is estimated to be between $23.763 million and $30.100 million.

Table 2.2-1 provides our valuation estimates and valuation method for SEL 13/1998. Each of the valuation methods is discussed in detail in Section 3.2.

Table 2.2-1: Valuation of GSLM Tenement – Summary

Asset	Valuation Method	Value	
		Low	High
SEL 13/98	Multiple of Exploration Expenditure	$23.763m	$30.100m
	Joint Venture Method	$22.5m	$22.5m
Preferred Value		**$23.763m**	**$30.100m**

3. METHODOLOGY AND APPROACH

3.1. INTRODUCTION

The purpose of this report is to provide a technical assessment and valuation of GSLM's SEL 13/98 petroleum asset. In providing our valuation we have complied with the provisions of the Valmin Code of the Australasian Institute of Mining and Metallurgy ("The AusIMM") in undertaking our assessment.

In general, a valuation is derived by considering a technical value, reflecting the assessed future net economic benefit of the project, which can be adjusted by way of premium or discount for given market and other conditions presently applicable to determine a fair market value. With this in mind, the application of standard valuation methodologies, while possible, may not indicate a realisable value, as the ability of a potential purchaser to utilise the asset for commercial advantage or otherwise gain from its ownership, may not be achievable.

All references to dollars within this report are to Australian Dollars except where specifically identified.

A&S has not been engaged to provide independent verification of any Resources figures that may be quoted in relation to this tenement. Instead, for the purposes of this report and in considering that the GSLM SEL 13/98 asset has been known and documented for some considerable time within the public realm it was determined that a site visit was not necessary. GSLM has supplied us with considerable information for which we express our gratitude.

3.2. VALUATION METHODS

3.2.1. SUMMARY

The commonly used valuation methods for mineral assets that we have considered, and/or adopted where considered appropriate, to determine the value of SEL 13/98, include:

- The Orderly Realisation Of Assets method
- The Net Present Value Of Future Cash Flows method
- The Multiple Of Exploration Expenditure method
- Joint Venture Terms
- In Situ Values Method
- Comparable Transactions method
- The Alternative Acquirer method
- The Capitalisation Of Future Maintainable Earnings method

3.2.2. ORDERLY REALISATION OF ASSETS METHOD

The value achievable in an orderly realisation of assets is based on an assessment of the net realisable value of a business or asset, assuming its orderly realisation. Costs associated with the sale of the business or assets are included in the assessment. This technique is appropriate for minerals and petroleum businesses, which typically have individually definable assets, with relatively high values compared to earnings and cash flows and in which individual properties and interests in individual properties are frequently bought and sold. We considered that this method is inappropriate for GSLM as: the company only holds one property and this property is held as a "Special" Exploration Licence which does not allow the property to be transferred to another party other than by the method currently proposed by the company. As such, the capacity to realise a value in an orderly manner is not appropriate.

3.2.3. NET PRESENT VALUE OF FUTURE CASH FLOWS METHOD

The Discounted Cash Flow (DCF) valuation method is based on the premise that the value of a business is the net present value of its future cash flows. In the mining business, this method requires assessment of:

- mineral reserves and resources;
- the appropriate mining and processing methods to exploit and market those reserves; and
- an analysis of future production, production costs, market prices, cash flows, capital requirements and capital costs for the life of the potential reserves.

This technique is particularly appropriate for a minerals investment with defined reserves and is the most common approach to valuation in the minerals industry. A&S regard this methodology as being inappropriate for valuing SEL 13/98 as the development of the asset is not yet at the stage where a definable Resources figure can be provided.

3.2.4. MULTIPLE OF EXPLORATION EXPENDITURE METHOD

We have used the "Multiple of Exploration Expenditure" method to estimate the realisable (market) value of GSLM's SEL 13/98 exploration property. This method is most often used to assess value for a "grass-roots" exploration property. In this method, the total historical costs of acquiring and exploring the property up to the present point in time, plus committed and approved future exploration expenditure, is taken as the base. To this is applied an "exploration effectiveness multiplier", a measure of the usefulness of the expenditure to the development of future exploration programmes and the effective equity interest.

The result is adjusted by applying a "prospectivity enhancement multiplier" (PEM) representing the valuer's opinion of the company's potential success (or otherwise) in upgrading the prospectivity of the property. This factor would normally lie in the range of 0 to 3, with zero representing a complete write-off, and a value greater than one applying where exploration had successfully upgraded the property. The selection of the appropriate enhancement factor is subjective and dependent on the valuer's experience and judgement.

3.2.5 JOINT VENTURE TERMS

The terms of a joint venture agreement or proposed agreement indicate the value placed on a property by a (usually) knowledgeable incoming partner who is prepared to invest in the property to earn an interest and the value placed on the property by the vendor. This method has to take into consideration the full details of the agreement, particularly the terms under which the incoming partner can withdraw.

3.2.6 IN SITU VALUES METHOD

Where some data on Resources and Reserves exists, a discounted subjective profit margin per unit of production is sometimes used based on the valuer's experience and judgement. This works best for simple situations such as gold or petroleum deposits. With deposits such as coal and iron ore, which may have several process options and for which there is likely to be a very heavy capital influence to project economics this method is of doubtful validity. A&S has determined that this method is inappropriate in this instance as no petroleum Resource figures of any credibility have been provided and so this method has not been used.

3.2.7 Comparable Transactions Method

Comparable transactions relate to the values of reasonably recent transactions for other properties that are judged to be similar and / or in the same region as the property in question. As such transactions are often of a joint-venture nature, it is necessary to discount the apparent value for time and for the probability of the earning expenditure being completed or adjust them for other payments such as royalties to be triggered by successful exploration.

Since no recent or even modern transactions involving the sale or trade of petroleum properties have taken place in this basin we have not used this methodology.

3.2.8 Alternative Acquirer Method

The "Alternative Acquirer" valuation method considers the premium price that an alternative acquirer is prepared to pay for a business to gain entry into a business, or to achieve economies of scale, reductions in competition and synergies with existing operations, or other factors. We have not applied this method to SEL 13/98 as we are unaware of any other potential acquirers and the value of the property is specific to an individual acquirer.

3.2.9 Capitalisation Of Future Maintainable Earnings Method

The "Capitalisation of Maintainable Earnings" methodology, which values an entity based on an empirically derived multiple of maintainable earnings, is appropriate where the earnings of a business are stable and sufficient to justify a value exceeding the value of the underlying assets. A&S has not used this method to provide a value for SEL 13/98 as it is purely an exploration company and has no stable earnings profile.

3.3 Material Issues

The following issues have been considered by A&S during the valuation process as they are regarded as being material to this assessment.

They are GSLM's :-

- reliance on being granted a renewal of SEL 13/98 by Mineral Resources of Tasmania;
- financial and technical ability to continue to successfully appraise its exploration property;
- proven ability to extract value from its exploration programmes and the knowledge gained from these works;
- knowledge of the industry in which it operates;
- access to future capital that will enable them to undertake the proposed work programmes.

3.4 Other Matters

This report has been prepared in accordance with the principles outlined in ASIC Policy Statement 74, "Independent Expert Reports to Shareholders". It also conforms to the requirements of the Australasian Institute of Mining and Metallurgy's VALMIN Code.

4. GREAT SOUTH LAND MINERALS LIMITED

4.1 DESCRIPTION

Great South Land Minerals Limited (GSLM) is an unlisted public company incorporated in Tasmania in 1995 for the specific purpose of exploring for oil and gas onshore Tasmania.

GSLM holds one exploration licence SEL 13/98, which currently covers almost half of the onshore Tasmania Basin. The licence covers an area of 15,035 square kilometres and GSLM holds the exploration rights for all gas and liquid petroleum.

The exploration objective of GSLM is to find and extract commercial quantities of oil and/or gas from onshore Tasmania.

4.2 SPECIAL EXPLORATION LICENCE 13/1998

Special Exploration Licence 13/1998 (SEL 13/98) was granted to GSLM on 18 May 1999. The licence covered an area of 30,356 square kilometres and replaced three licences held by GSLM. These licences EL 1/88, EL 9/95 and EL 21/95 were originally held by GSLM's predecessor companies.

Modern exploration in the Tasmanian Basin commenced when the Broken Hill Proprietary Company (BHP) was awarded Exploration Licence 30/1980 (EL 30/80) on April 15, 1981, to explore for coal. The licence was granted for a period of 12 months and consisted of an area of 12,900 square kilometres, which was reduced to 2,480 square kilometres in four parts on April 15, 1983. Mobil Energy Australia then farmed in and worked the licence until April 15, 1984 at which time the licence was relinquished as the area was regarded as not appearing to contain any coal measure lithologies.

In June 1984, the recent phase of oil and gas exploration commenced when Conga Oil Pty Ltd, the earliest predecessor of GSLM acquired part of the D'Entrecasteaux Region of Southern Tasmania in order to verify old hydrocarbon reports. This licence was designated EL 10/84 and covered an original area of 50 square kilometres. During the following years up until 1988 it continued to acquire exploration rights to a large part of Southern Tasmania. During 1987 Condor Oil Investments joined Conga Oil as a joint venture partner.

In 1988, EL 10/84 was incorporated into a new permit EL 1/88, which covered an area of 3500 square kilometres. Conga Oil continued to explore this area until 1995 when it formed Great South Land Minerals Pty Ltd. Exploration Licence 1/88 was assigned to GSLM Pty Ltd and two other licences, Exploration Licence 9/1995 (EL 9/95) covering and area of 3700 square kilometres and Exploration Licence 21/ 1995 (EL 21/95) covering an area of 6000 square kilometres, were granted. GSLM Pty Ltd now held a total area of 13,200 square kilometres. All licences expired in 2001. In March 1998 GSLM Pty Limited changed from a private to a public company, GSLM Limited, by way of a special resolution approved by shareholders. A new, enlarged exploration licence SEL 13/98 was formed from these three exploration licences and GSLM continued to explore these areas until the permit officially expired on 18 May 2004.

The submission to the Minister to renew SEL 13/98 was dated 6 May 2004. The submission requested the new area to be approximately 15,000 square kilometres centred dominantly on the central and northern parts of the Tasmanian Basin. A work programme covering full five years, detailed and costed was included in the application for the licence renewal. The work programme will be modified to take into account exploration results as they become available.

4.3 EXPLORATION RESULTS AND PROSPECTIVITY

No information on the work programme undertaken by the Broken Hill Proprietary Company (BHP) has been made available to A&S although we are aware that it was primarily focused on the coal potential of the basin. We have reviewed the results of work carried out by Mobil Energy Australia, which comprised an initial, extensive literature research followed by field mapping in numerous isolated areas within the Licence. The literature studies indicated that a great deal was still unknown regarding the coal potential over much of the central Tasmanian Basin and it was, in effect, relatively poorly explored. Additional aims of the field-mapping programme were to enable a ready identification of Permian strata to be made for future drilling operations and to assist in the selection of drill hole locations.

Mobil's drilling operations, preceded by a ground based magnetics survey, commenced on October 2, 1983 and consisted of five cored holes totalling 987.75 metres, 814.19 metres of which was cored. The drilling targeted two horizons in the Permian sequence:

- Cygnet Coal Measures equivalents
- Faulkner Group containing the Mersey Coal Measures equivalents

Sedimentological studies were also undertaken to enable, in conjunction with the additional stratigraphic information, an environmental map of the Permian to be drawn and to make recommendations on future drilling.

Conga Oil Pty Ltd began work in 1984 and during the period to 1987 focused most of its work on undertaking reviews of the basin. During 1987, after a reported seepage was relocated and analysed, the company began a systematic exploration programme in the region. Recognising the need to be able to map sub-dolerite structure, Conga Oil firstly attempted to extend the gravity and magnetics databases in the Tasmanian Basin. Whilst this has helped in defining regional trends and lineations, the lack of subsurface control and the limitations of the methods themselves limited the usefulness of these techniques for the purpose of identifying potential hydrocarbon traps. Good quality seismic imaging of structure beneath the dolerite still remained an essential but difficult to achieve exploration tool.

The work completed by Conga Oil established that: -

- Oil had definitely been generated and that active seeps were observed in certain areas;
- Source rock studies of vitrinite reflectance and conodont alteration index confirmed that Ordovician carbonates exposed around the region were within the oil window;
- Permian and younger rocks blanket most of the region and obscure distribution;
- Basin development began in the late Precambrian, was most active in the Cambrian, but continued up to Middle Devonian times.

After 1988 exploration continued in the newly incorporated and expanded area of EL 1/88. Despite earlier discouraging seismic acquisition data results, due dominantly to the widespread coverage of dolerites onshore Tasmania, Conga Oil elected to attempt the acquisition of additional seismic data both on the main island and North Bruny Island in the vicinity of Johnson's seep. Additional data was acquired offshore in Storm Bay utilising AGSO's Rig seismic vessel. The seismic acquired was disappointing with data quality of the records very poor to the point that none of the sections are adequate for the purposes of identifying and mapping a petroleum traps.

During 1990, several scientific and exploration focused papers were produced and in 1991 Shell Australia reprocessed some marine and land seismic data. In 1991, Dr David Leaman produced a progress report on the interpretation of gravity and magnetics data in EL 1/88.

In 1992, Condor Oil took over responsibility for exploration and during this period up to and including 1994 produced several consultants' reports. During 1994 the stratigraphic wells, Shittim #1 (1751m) and Gilgal #1 (50m), were drilled on Bruny Island.

During 1995, Conga Oil incorporated GSLM Pty Ltd and assigned to it the title to EL 1/88 and gave over the role of exploration project manager Condor Oil became an equity holder in GSLM Pty Ltd. Two further ELs were then added to the portfolio and GSLM Pty Ltd increased its exploration efforts. Collaborative studies with a number of individual consultants and agencies were initiated and a considerable amount of data and an improvement in the company's understanding of the basin achieved. The Bureau of Mineral Resources undertook Rock Evaluation studies, Honours students at the University of Tasmania provided basin studies, Shell Development Australia reprocessed some earlier seismic data, BHP provided analyses in oil geochemistry, the State Mines Department acquired gravity and seimic data, CSIRO provided analyses of seep studies and geochemistry and Eugene Domack completed studies on the maturation and depositional environment of the Tasmanite oil shale.

At the request of the Mines Department an independent consultant was employed to assess the significance of the gas encountered at Shittim#1. The consultant, Mr Mulready (14 September 1995) concluded that the hole had established that a seal, reservoir and gas were present and that the results encouraged further investigation of the basin depocentre located in central Tasmania. On the basis of this report, GSLM then focussed its exploration activities in this area of the basin. Concurrent with this work, Trent J. Woods, University of Tasmania, investigated the timing of potential hydrocarbon generation from Palaeozoic sediments and the characterisation of potential reservoirs of the Lower Parmeener Supergroup. Financial support was provided by GSLM.

During late 1995 the Australian Geological Survey Organisation (AGSO) undertook a land based seismic survey over parts of the basin.

During 1996, a third stratigraphic well, Jericho #1 was pre-collared and drilled to a depth of 640m on Bruny Island.

The stratigraphic holes were located for the following reasons:

- Onshore and offshore seismic existed in the area and needed velocity control, which was only obtainable by a downhole shot so that previous processing could be repeated with actual real velocities.
- Historic records indicated that the area had numerous seeps of both oil and gas and that at least five shallow wildcat holes had been drilled but were depth limited because of previous technology.
- Results of gravity and magnetics surveys indicated that North Bruny Island is located on a basement high, with a good potential regional trap for oil and gas.
- Modern geochemical oil exploration methods indicated that there were crude oil seeps in creeks and around old drill sites that warranted investigation.
- A recent Mines Department hole on the neck of Bruny Island had discovered oil in loose sand at 30m depth.

All three holes recorded petroleum hydrocarbons in a gaseous state.

- Shittim#1 recorded tar with zeolites in the fractured dolerite and gas from 810 metres depth. The hole was drilled onto 1021 metres without reaching the unconformity due, according to reports, to over pressured gas.
- Gilgal#1 recorded gas at its total depth of 51 metres.
- Jericho#1 recorded gas from 15 metres to the bottom of the hole at 228 metres.

During 1996, GSLM contracted Robert S Young, a U.S.A. based consulting Petroleum Geologist, to review the potential of oil and gas in the Tasmanian onshore Basin. The primary focus of Young's review involved analysing the work undertaken up to that date from a Petroleum Systems perspective. In this sense, he set about identifying whether the basic building blocks for the potential commercial producton of hydrocarbons existed within the Tasmanian Basin.

Young concluded that:

- With some 270 seeps and shows, which have been studied geochemically and have identified at least four mature oils, that it was very probable there are several possible hydrocarbon sources in the Tasmanian Basin. Geochemical comparisons of seeps show that the most likely source would be the Ordovician of the Gordon Group Limestones. Ratios of C27:C28:C29 Steranes are identical between seeps of the Bruny Island Johnson well and the Ordovician Gordon Limestone and the predominance of C27 Steranes and the abundant diasteranes in Tasmanian bitumens suggests a widespread algae and clay rich source rock.

- Conodonts colour indicates that much of the Gordon Limestone, particularly in central and southern Tasmania, is in the oil and gas windows. This limestone is expected to underlay Permian and Triassic sediments in much of the Tasmanian Basin. He also included the Permian Quamby Mudstone, "Freshwater Sequence" and Preolenna coal Measures as other potential source rocks. In all three rock units of which the total organic carbon may reach 25%, vitrinite reflectance data and fossil pollen colours show that these source rocks are within the oil window over large areas of the basin.

- Reservoirs are very easily envisioned in the shallow marine Ordovician Limestones as palaeokarsts, reefal or fractural. Since limestones are considered source material, migration would be minimal. Additional potential reservoirs are within the Siluro-Devonian sandstones of the Eldon and Tiger Range Groups and within sandstones of the Permian Bundella Formation, Faulkner Group and Liffey Sandstone of the Lower Parmeener Super Group. Measured porosities in the Faulkner and Liffey are 13% and 12% respectively, while other Permian sandstones in the northern area of the licence have porosities averaging 16% and horizontal permeabilities ranging up to 386 millidarcies.

- Evaporites are most efficient seals mainly because they offer very little or no pore space; however, the long-term sealing properties of very fine grained, water wet porous rocks such as shales are also remarkably efficient in the absence of open fractures. This is due to the displacement pressure barrier effect created by capillary pressure between oil and water in rock pores. It is anticipated that the Ordovician Limestones reservoirs would be sealed by additional limestone within the Gordon Group or by the Turo Tillite above the unconformity. Good seals of shale and silts are found throughout the Permian-Triassic sedimentary sequence. The Jurassic dolerite sills also make excellent cap rock for the Permian-Triassic reservoirs.

- Defining traps and structural features within the basin is very difficult to impossible without good reflection seismic records. To date, there has been very little reflection seismic data and most of the data is poor quality due to the extensive dolerite cover over a large part of the basinal sediments. Relatively good quality seismic data has been obtained in areas where the dolerite cover is thin or absent. The results of the seismic work on the TASGO project show that an improvement in data quality and penetration of recordings through the dolerite can be achieved and this will aid in better defining structural traps. The present gravity and magnetics, which have been extensively used to date, have been able to define regional structural elements of mostly Palaeozoic. Structures in the Permian, or younger, are probably going to be faulted, and of low relief.

- Except in unusual circumstances, most untrapped oil in sedimentary basins originates from synclinal drainage areas that surround the trap itself. Thus, migration distances commonly range in tens rather than hundreds of miles, particularly on strongly structured or faulted basins.

During 1997, several reports on various aspects of the petroleum potential of the basin were produced. Four stratigraphic wells were planned and drilled. Lonnavale #1 was pre-collared and drilled to 557m; Hunterston #1 was pre-collared and drilled to 336m; Bridgewater #1 was pre-collared and drilled to 252m and Pelham 31 was pre-collared and drilled to 503m. Reports on all these wells were provided to Mineral Resources Tasmania.

1998 saw the conclusion and release of results of TASGO Project, a joint Federal and State Government project initiated to expand understanding of Tasmanian mineral and petroleum potential. G.E. Carne produced a report on "An Evaluation of the Oil and Gas Potential of Tasmania and during 1999, Dr. L. Wakefield produced a report titled "Independent Geologist's Report on the Exploration prospectivity of the Onshore Tasmanian Basin. GSLM produced a paper for the 2000 APEA Journal titled, "Petroleum Systems in Tasmania's Frontier Onshore Basins".

During 2001, GSLM completed 660 line kilometres of regional seismic survey TB01 over part of the area of SEL 13/98. At the conclusion of the seismic programme an environmental report was submitted to the Department of Primary Industry, Water and the Environment's Threatened Species Unit. Robertson Research Australia Pty Ltd processed the data with final and migrated stacks completed for all lines. The preliminary results of the interpretation identified several potential anticlinal/domal traps. Two small anticlinal structures were identified in the Parmeener Supergroup beneath the Longford basin and one in the Tertiary infill of the Longford Basin. Six potential traps were recognised in the Central Highlands area where gently dipping anticlines in the Parmeener almost directly overlie and reflect more steeply dipping anticlines beneath the Devonian unconformity. These Devonian structures are probably mainly within the Wurawina Supergroup and contained within the Devonian fold-thrust belt. Based on these seismic results GSLM planned the next regional seismic survey, TB02 a 1075 line kilometre programme designed to acquire further regional data, to define structures identified during the TB01 survey and to place lines close to wells that were drilled and pre-collared in 1997. GSLM continued its relationship with the University of Tasmania through the ARC-SPIRT joint research program with the appointment of three PhD students.

During 2002 and 2003 GSLM continued to work on the 2D seismic data acquired during 2001 and a report on an analysis of the Longford Sub-basin was also completed. Approval was obtained to re-enter and deepen (1700m) the stratigraphic well, Hunterston#1. The well was eventually terminated at a depth of 1324m, which was carried out as part of a farm-in process whereby OME Resources Australia Pty Ltd was to earn a 5% interest in the licence. Hydrocarbon gas was noted at various depths while coring and analyses of gas samples confirmed the presence of Helium gas (>1.0%) from the formations below the Tasmania Basin. Further details on the joint venture with OMERA are contained below in Section 4.5.2.

4.4 FUTURE EXPLORATION PROGRAM

As part of its submission to the Minister regarding renewal of Permit SEL 13/98, dated 10 September 2004, the company submitted a detailed and costed programme of works covering the full five years of the of the renewed licence. Stated in the application was the company's acknowledgement that the work programme would be modified to take into account exploration results as they became available.

As the MEE method allows committed and approved expenditures for future exploration programmes to be included in the base A&S has included the next twelve months proposed expenditures in its valuation of the property.

The Exploration Philosophy supporting this programme is based on the research carried out mainly in the last five years during which the company has identified the two petroleum systems referred to earlier. The company considers the mainly oil prone Gondwana Petroleum System (GPS) in the northern section of the basin to be more prospective than the mainly gas prone Larapintine Petroleum System (LPS) to the south. Furthermore, they have established that faulting is much more intense in the southern half of the basin thereby reducing trap size and increasing the risk of seal breaching. Additionally, the centre of the basin has not been uplifted to the extent of areas in the Central Highlands and in the south, suggesting that the source rocks were/have been in the generating kitchen for much longer than in the highlands.

They therefore propose to implement an exploration programme that concentrates seismic exploration in the central parts of the Tasmanian Basin but one that also explores the potential of the LPS under the Central Highlands.

To date, GSLM has not drilled seismically defined targets and the aims of this programme will be to define accurately as many targets as possible before drilling exploration holes. Stratigraphic wells will also be drilled in order to increase geological and petrophysical knowledge of what is still a frontier basin. Additional to this field work, GSLM plans to continue with research and development work in conjunction with the University of Tasmania. Research work will include lithological, petrographic, geochemical and palaeontological data gathering from the field and from cores, data plotting and syntheses. All data will be included on a three-dimensional computer model of Tasmania.

4.4.1 Seismic Acquisition

Over the next five years a total of approximately 2000 line kilometres of seismic data acquisition is planned with 1600km to expand the regional coverage and 400km to more closely define discovered structures. As was the case with the survey TB01, the lines have been located wherever possible along roads in order to minimise the impact of the survey on private land and on environmentally sensitive areas.

During the next twelve months three Stages of acquisition are planned.

Stage 1	Will build on the initial interpretation of the seismic survey TB01 that indicated the presence of a number of anticlinal structures. Approximately 145 line km of seismic survey is planned starting late december 2004 to further define identified structures.
Stage 2	The initial interpretation of the seismic survey TB01 indicated the presence of a large anticlinal structure. To further define this structure it is planned to acquire approximately 52 line km of seismic as soon as possible after the acquisition of Stage 1. A number of wells were drilled and collared in 1997. It is planned to acquire approximately 108 line km of seismic data in the immediate vicinity of the wells, Lonnavale#1, Pelham#1 and Bridgewater#1 in order to evaluate the potential for drilling ahead on these wells.
Stage 3	Will involve continuing the regional grid over the Tasmanian Basin. 704 line km will be acquired to expand seismic coverage to the South, Southeast and East parts of the Tasmanian Basin. A long regional line is planned to extend to Cockle Creek in the far south of the basin and shorter lines are planned towards the Florentine Valley in the west and to the eastern limit of the lease area. The western line will allow a tie of the Ordovician geology of the Florentine Valley to TB01 profiles and the eastern line is expected to show progressive thinning of Permian units eastwards. The southern line should yield important information concerning both petroleum systems.

Environmental, heritage and indigenous approvals have been given in the past for a programmes similar to TB02 and a renewal of these approvals will be sought from DPIWE and others during Q4 '04. Similarly, the existing approvals to operate vibroseis trucks on Tasmanian roads have expired; an application for renewal will be sought for DIER. Permission to operate the vibroseis trucks on council or on private property will be sought in a similar fashion to the approvals obtained for the TB01 survey.

Interpretation will be carried out either in-house, in conjunction with the Earth Sciences School of the University of Tasmania or by contractors. The 660 line kilometres of seismic survey acquired during the TB01 survey were processed by Robertson Research in Perth with final and migrated stacks produced for all lines. Various preliminary interpretations have been made as part of the SPIRT programme and GSLM will commission an independent expert to prepare a report to consolidate these interpretations. This consolidated interpretation report will be submitted to Mineral Resources Tasmania by 1 December 2004.

4.4.2 Drilling Program

During the course of the five-year work programme four Stratigraphic wells have been budgeted; although GSLM has indicated that it is possible that one or more of these will be replaced by exploration wells depending on the success of the seismic programme. During the first twelve months it is proposed to drill a stratigraphic well in the Longford Sub-basin, which will be designed to test Gondwana Petroleum System beneath the Tertiary. This well (Lachish#1) will provide information on the Tertiary of the Longford Basin and on the petrophysical, seal, reservoir and source rock characteristics of the Parmeener Supergroup under the Longford Sub-Basin. Down hole seismic will allow a re-interpretation of the seismic profiles of the Permo-Triassic beneath the Longford Basin obtained in TB01. Lachish#1 is planned at a location near the Valleyfield Road, approximately 9km west of Conara on the "Stockwell" property. Lachish#1 is situated close to the intersection of two seismic lines TB01-PT and TB01-TE and is planned to be drilled and cored to a depth of about 2000m. Approvals for Lachish#1 have been granted by MRT. The approvals have expired and well programmes will be re-submitted.

Table 4.4-1:- Annual Budget for period 1 October 2004 to 30 September 2005.

Activity	Q4 '04	Q1 '05	Q2 '05	Q3 '05
Planning & Supervision	40	40	40	40
R&D	40	40	40	40
Seismic Interpretation	30			
Stage 1 Seismic	95	600		
Stage 2 Seismic	80	1100	100	
Stage 3 Seismic		100	2686	30
Lachish#1 well				200
Quarterly Total	285	1880	2866	310
Annual Total				**5341**

Figures expressed in $'000.

4.5 VALUATION OF EXPLORATION INTEREST

A range of values has been placed on GSLM's exploration licence using the Multiple of Exploration Expenditure Method and the Joint Venture Method.

4.5.1 Multiple of Exploration Expenditure Method

Records of exploration expenditure for the area have been reviewed for the period commencing April 1980 through to 30 June 2004. In our review and calculations, no allowance has been made for any exploration expenditures incurred since 30 June 2004. A&S has determined that a total of $21.874 million has been spent on exploration activities during this period.

SEL 13/98 has, since 1984, in one form or another been explored as intensively as practical given the limited resources of GSLM and its predecessor companies. Exploration expenditures in the early years have been focused on early stage exploration activities including such things as seep sampling and analysis, field mapping, desk top studies and research activities aimed at developing a greater understanding of the sedimentological and hydrocarbon generative aspects of the basin however, as this knowledge base developed and their understanding increased the company's exploration efforts have, in more recent years, been focused on acquiring reflection seismic data and in drilling stratigraphic wells in an attempt to resolve the structural complexities of the basin. Indications of hydrocarbons have been encountered in many of these stratigraphic wells. At this stage, it is reasonable to state that the earlier seismic data has provided some insight into the structural styles developed in the basin and that several leads have been identified. None of these features could be described at this stage as being of prospect status but the planned seismic during late 2004 and 2005 should provide more information and provide the company with greater comfort on the integrity of one of the features that they are planning to drill towards the end of 2005.

As we have seen, considerable geologic knowledge of the petroleum prospectivity of the Tasmanian Basin has been gained during this period and despite its current status as a frontier basin, a great deal of technical data has been recorded, collated, synthesised and published, to the extent that its prospectivity for the discovery of commercial hydrocarbons is significantly greater than previously believed. Based on the information that has been presented to A&S and our own investigations we have assumed that Effective Exploration Expenditures to be in the order of $15.842 million. See Table 4.5-1 for a review of this data.

Table 4.5-1: Exploration Expenditures and Effective Expenditures Review of Area Covered by SEL 13/98.

Date	EL	Item	Actual Expenditure	EEM	Effective Expenditure
5/1981 to 6/1988	EL 30/80	BHP, Mobil – no break up available	$3.357m	50%	$1.679m
6/1984 to 6/1988	EL 10/84	Conga – no break up available			
7/1989 to 6/1989	EL 1/88	no break up available	$0.420m	40%	$0.168m
7/1989 to 6/1990	EL 1/88	no break up available	$0.037m	40%	$0.015m
7/1990 to 6/1991	EL 1/88	no break up available	$0.037m	40%	$0.015m
7/1991 to 6/1992	EL 1/88	no break up available	$0.074m	40%	$0.030m
7/1992 to 6/1993	EL 1/88	no break up available	$0.157m	40%	$0.063m
7/1993 to 6/1994	EL 1/88	Geology, admin,	$0.086m	40%	$0.034m
7/1994 to 6/1995	EL 1/88	Geology, drilling, admin.	$0.331m	70%	$0.232m
7/1995 to 6/1996	EL 1/88	GSLM – no expenditures	$0.000m		$0.000m
7/1996 to 6/1997	EL 1/88	Geology, geochem., drilling, admin.	$0.905m	70%	$0.633m
	EL 9/95	Geology, geochem, drilling, admin	$0.078m	50%	$0.039m
	El 21/95	No expenditures	$0.000m		$0.000m
7/1997 to 6/1998	EL 1/88	Geol, geophy, geochem, drill,admin.	$0.348m	70%	$0.243m
	EL 9/95	Geol, geochem, drilling, admin.	$0.453m	70%	$0.317m
	EL 21/95	Geol, geophy, drilling, admin.	$0.097m	50%	$0.048m
7/1998 to 6/1999	EL 1/88	Admin.	$0.089m	70%	$0.062m
	EL 9/95	Geol, admin.	$0.090m	50%	$0.045m
	EL 21/95	Admin.	$0.089m	50%	$0.045m
7/1999 to 6/2001	SEL 13/98	Geophysicis, admin.	$2.729m	80%	$2.183m
7/2001 to 6/2002	SEL 13/98	Geology, geophy, drilling, admin.	$1.283m	90%	$1.155m
7/2002 to 6/2003	SEL 13/98	Geology, geophy, drilling, admin.	$2.027m	90%	$1.824m
7/2003 to 6/2004	SEL 13/98	Geoph, drilling, admin.	$0.376m	80%	$0.301m
9/2004 to 9/2005	SEL 13/98	Geophysics, drilling, admin.	$5.311m	100%	$5.311m
	New Appl.				
		Total	**$21.874m**		**$15.842m**

EEM - is the Exploration Expenditure Multiplier that is derived from an evaluation of the value added to a property from the exploration activities that have been undertaken.

We have applied a Prospectivity Multiplier range of 1.5 to 1.9 on the basis that the exploration activities have identified the presence of two separate Petroleum Systems within the Tasmanian Basin. Source, maturation, expulsion and migration have been proved, reservoir and seals identified and some preliminary indications of trapping mechanisms shown to exist. Accordingly, it is our opinion that GSLM and its predecessors have demonstrated that all of the basic prerequisites required for the potential accumulation of commercial volumes of hydrocarbons have been proved to be present within the basin and the area of the tenement.

GSLM holds a 100% interest in the oil and gas exploration rights of this permit. A value has been placed on GSLM's exploration interests using the Multiples of Exploration Expenditure Method in the range $23.763 million to $30.100 million.

Table 4.5-2:- Valuation of SEL 13/98 Using Multiples of Exploration Expenditure Method

Item	Low Value	High Value
Permit Exploration Expenditure	$21.874m	$21.874m
Effective Exploration Expenditure	15.842m	$15.842m
Prospectivity Enhancement Multiplier	1.5	1.9
Equity holding (%)	100%	100%
Value	**$23.763m**	**$30.100m**

4.5.2 Joint Venture Method

On 10 May 2002 GSLM entered into a joint venture agreement with OME Resources Australia Pty Ltd (OMERA) by which OMERA was able to earn a joint venture interest in SEL 13/98 by conducting drilling and related work. The agreement between GSLM and OMERA established the Tasmanian Exploration Joint venture (TEJV). Stage 1 of this work related to the expenditure of $1,000,000 to complete the deepening drilling/coring of Hunterston#1 well and other activities for a 5% interest in the licence. As at 30 September 2002 GSLM recognised that OMERA had expended $663,536 on on-ground exploration. OMERA contended that expenditure incurred to 30 September 2002 had amounted to approximately $1,216,956.

Following an application from GSLM and OMERA, Mineral Resources Tasmania published details of changes to SEL 13/98 for public comment. The coal bed methane rights associated with SEL 13/98 were removed and awarded to OMERA. GSLM retained 100% interest in the remaining oil and gas exploration rights of SEL 13/98.

There was an optional Stage 2 where an expenditure of a further $2,000,000 on on-ground exploration would earn a further 10% interest in the licence. The TEJV agreement also allowed OMERA to earn 50% interest in the coal bed methane resources of SEL 13/98 by funding and carrying out an exploration program that includes the drilling of at least six test wells before 1 June 2004. This agreement was terminated when the coal bed methane rights were severed from SEL 13/98.

On the basis of Stage 1 of the original agreement, OMERA was to earn 5% interest by expending $1 million on exploration activities. This implies a value for 100% interest of $20 million at the time of the agreement, i.e., 10 May 2002. As this was an agreement to joint venture, it can be safely assumed that GSLM accepted that a reasonable value for the licence was $20 million and that the farm-in party, OMERA, believed that the value was also acceptable. The exploration work funded by OMERA proved successful in that further knowledge was gained from the Hunterston#1 well and natural gas containing a significantly high helium gas analysis obtained. As a consequence, it can be safely assumed that the value of the SEL 13/98 Licence has been upgraded by this work.

Since that agreement was signed, a further $2.403 million has been expended on exploration. Therefore, it can be reasonably assumed that the value of this licence, as at the date of this valuation, was at least $22.5 million.

While this value is close to the lower end of the valuation range obtained using the Multiples of Exploration Expenditure method we have strong reservations about the validity of using this method given; the time frame since the joint venture agreement was signed, and the expenditures that would have added to the value of the asset. In this instance, A&S has decided that the valuation range determined using the Multiples of Exploration Expenditure method represent a more reasonable assessment of the value of the SEL 13/98 asset.

Table 4.5-3:- Valuation of SEL 13/98 Using Joint Venture Terms Method

Item	Value
Cost for 5% interest	$1.000m
Cost for 100% interest	$20.000m
Value of Asset at Agreement Date	$20.000m
Expenditure since Agreement Date	$2.403m
Current Value	**$22.403m**

5 REFERENCES

5.1 ACCESS TO SENIOR MANAGEMENT

In undertaking the review and valuations A&S received good cooperation from officers and directors of Great South Land Minerals. We are satisfied that we obtained sufficient information to be confident that our observations reasonably reflect the current situation at Great South Land Minerals.

5.2 SOURCES OF INFORMATION

A&S possessed some prior knowledge about the assets of Great South Land Minerals although we had not personally visited the property. The knowledge that we did possess came from a variety of sources, including discussions with previous and current consultants to Great South Land Minerals, consulting assignments on similar exploration projects, specialist industry intelligence reports, competitive analyses and acquisition intelligence.

Great South Land Minerals supplied detailed technical, commercial and financial information and a list of these references is to be found in Appendix I.

5.3 BUSINESS AND TECHNICAL PLANNING SYSTEMS

The principal source of reliability in future projections is the quality of technical and business planning that goes into developing the projections themselves. A&S believes that Great South Land Minerals has the technical and business planning resources and processes capable of providing reasonable projections.

6 GENERAL

6.1 QUALIFICATIONS

6.1.1 Anderson & Schwab

Anderson & Schwab is a management and financial consulting firm that has specialised in providing its services to the minerals industry for the past thirty-seven years. Its Australian subsidiary (Anderson & Schwab Australia Limited) was established in 1997.

Anderson & Schwab was the technical specialist to Morgan Stanley Australia Ltd when that firm provided the Specialist's opinion concerning the dual listing of RTZ-CRA in 1995. The company reviewed all of the global operations of both companies and assessed the value of their respective exploration interests. In 1996, it was the lead consultant in advising Australian Diamond Exploration NL in response to a takeover offer by Ashton Mining Limited. A&S has provided Specialist's advice to Grant Samuel when that company provided an Independent Expert's Report to Aberfoyle Limited in relation to the takeover offer by Western Metals NL. It also provided Specialist's advice to Grant Samuel and to KPMG Corporate Finance when both of those organisations provided the Expert's Reports on the takeover offer by Rio Tinto for North Limited and Ashton Mining Limited respectively. Anderson & Schwab formed part of the project team that undertook a review of the mining, environmental, legal and economic issues associated with the Ok Tedi Mine, PNG; reviewed and valued the coal assets of PT Kideco, a 12 million tonne per annum Indonesian based coal mining and exporting company, formed part of the strategic review team that evaluated and valued the WMC Corridor Sands Project, and recently reviewed and valued the minerals assets and Stuart Oil Shale Project of Southern Pacific Petroleum and valued the South Australian coal assets of Kumagai Australia Pty Ltd.

Ian Buckingham, Managing Director of Anderson & Schwab Australia, is the firm's lead consultant in preparation of this opinion for PKF. Mr Buckingham was the leader of A&S' teams that worked on the Aberfoyle, North's, Ashton, WMC, Ok Tedi, PT Kideco, Corridor Sands, Southern Pacific Petroleum and Kumagai valuation assignments. He has also undertaken a number of strategic development assignments on behalf of global mining groups.

6.1.2 Ian D. Buckingham

Ian Buckingham, is the Managing Director of Anderson & Schwab Australia, and holds an MBA from RMIT University, Bachelor of Applied Science (Applied Geology) from the Victorian Institute of Colleges and Fellowship and Associateship Diplomas in Geology. Mr. Buckingham is a Member PESA and AAPG.

Commencing his career as a base metals, gold and diamonds exploration geologist he moved into gas engineering and petroleum exploration and development before establishing himself as a resources analyst in stock broking and investment banking. As an analyst he analysed, evaluated and developed financial models for major mining and energy companies. Since joining Anderson & Schwab he has worked on many projects where his knowledge and expertise in areas such as due diligence, valuation, commercial and technical analyses, concept and strategic development, financial modelling and general management have been required.

6.2 FEES

A&S will be paid a professional fee plus reasonable expenses for the preparation of this report. The fee is not contingent on the conclusions set out in the report, or the conclusion of the proposed transaction.

6.3 COMPLIANCE

This report has been prepared in compliance with the requirements of the "Code and Guidelines for Technical Assessment and/or Valuation of Mineral and Petroleum Assets and Mineral and Petroleum Securities for independent Expert Reports" (The VALMIN Code).

6.4 DECLARATION

A&S has not previously worked on any assignment associated with Great South Land Minerals.

Neither A&S nor Ian D Buckingham have any business relationship with Great South land Minerals Limited or with any companies associated with those companies that could reasonably be regarded as being prejudicial to their ability to give an unbiased and independent assessment.

There is no present agreement, arrangement or understanding that A&S will at any time in the future undertake any assignment for Great South Land Minerals Limited or any company or organisation associated with them.

Other than as set out herein, neither A&S nor Ian D Buckingham nor any other person who contributed to this report has any interest in the company that is the subject of this report.

6.5 INDEMNITY

A&S and their associates have been indemnified by Great South Land Minerals Limited as to damages, losses and liabilities relating to or arising out of their engagement that do not arise from the fault of A&S or their associates.

6.6 CONSENT

A&S has given its written consent to the inclusion of this letter in PKF's IER to be provided to Great South land Minerals Limited's shareholders, pursuant to Australian regulatory requirements. As of this date, A&S has not withdrawn its consent. A&S has not been involved in the preparation of, or authorised or caused the issue of any other part of the documentation to be provided to Great South Land Minerals Limited's shareholders, other than this report.

Neither the whole, nor any part of this report, nor any reference thereto, may be included in or with, or attached to any document or used for any other purpose without the prior written consent of A&S to the form and context in which it appears and the purpose of its use.

All of the persons involved in the preparation of this report have consented to the use of this assessment report, for the purpose stated above and in the form and context in which it appears.

6.7 LIMITATION

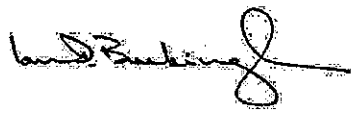
The statements and opinions contained in this report are given in good faith and, to a considerable extent; reliance has been placed on the information provided by Great South land Minerals Limited. All such information has been presented in a professional manner and A&S believes, on reasonable grounds, that it is true, complete as to material details, and not misleading. The work undertaken for the purpose of this report in no way constitutes a technical audit of any of the assets or records reviewed, and A&S does not warrant that its inquiries have realised all of the matters that an audit might disclose. A&S in no way guarantees or otherwise warrants the achievability of any forecasts used in this report.

6.8 FACTUAL AND CONFIDENTIALITY REVIEW

A draft copy of this report was provided to officers of Great South Land Minerals Limited for comments as to confidentiality issues, errors of fact or misinterpretation, or substantive disagreements on the assumptions that A&S has adopted. While A&S has withheld certain information deemed by Great South Land Minerals Limited to be confidential and included minor corrections and amendments in this final report as a result of comments received, neither the methodology nor conclusions were amended.

A&S gratefully acknowledge the assistance provided by the Directors and officers of Great South Land Minerals Limited in facilitating the preparation of this report.

ANDERSON & SCHWAB AUSTRALIA LIMITED



Ian Buckingham
Managing Director

APPENDIX I— REFERENCES

I.a COMPANY REPORTS AND PUBLICATIONS

Bendall, M., 1990, Permian Petroleum Potential Onshore Tasmania,

Bendall, M., Burrett, C.F., Askin, H., 2000, Petroleum Systems in Tasmania's Frontier Onshore Basins, APEA Journal 2000.

Burrett, C.F., 1996, Oil and Gas in the Onshore Tasmanian Basin, Report to Great South Land Minerals, 32pp.

Burrett, C.F., 1997(a), Report from the Shittim#1 Well January 1997, Great South Land Minerals.

Burrett, C.F., 1997(b), Report from the Shittim#1 Well March 1997, Great South Land Minerals.

Great South Land Minerals Limited, Annual Reports for 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004.

Great South Land Minerals Limited, Tasmanian Oil and Gas Explorer Attracts International Interest, Media Release 28 May 2004.

Great South Land Minerals Limited, 2004, Submission to Minister for Renewal of Exploration Licence SEL 13/98, 10 September 2004.

Great South Land Minerals Pty Ltd, Oil and Gas Prospectivity of the Tasmanian Basin: A Progress Report, 1995.

Great South Land Minerals Pty Ltd, Annual Report EL 1/88, 1995.

Great South Land Minerals Pty Ltd, Annual Report EL 1/88, EL 9/95, EL 21/95, 1996.

Leaman, D.E., 1987, Conga Oil Pty Ltd – Current Exploration Status – Project D'Entrecasteaux South east Tasmania, November 1987.

Mineral Resources Tasmania, REGIS Detailed Expenditure on Licences with Summary, Great South Land Minerals Limited, EL 1/88 from 01 July 1988 to 31 March 1999, Government of Tasmania.

Mineral Resources Tasmania, REGIS Detailed Expenditure on Licences with Summary, Great South Land Minerals Limited, EL 1/95 from 01 July 1996 to 31 March 1999, Government of Tasmania.

Mineral Resources Tasmania, REGIS Detailed Expenditure on Licences with Summary, Great South Land Minerals Limited, EL 21/95 from 01 July 1996 to 31 March 1999, Government of Tasmania.

Mineral Resources Tasmania, REGIS Detailed Expenditure on Licences with Summary, Great South Land Minerals Limited, SEL 13/98 from 10 June 1999 to 30 September 2001, Government of Tasmania.

Mineral Resources Tasmania, REGIS Detailed Expenditure on Licences with Summary, Great South Land Minerals Limited, SEL 13/98 from 10 June 1999 to 31 March 2004, Government of Tasmania.

Mobil Energy Minerals, Inc., 1984, Final Report on EL 30/80.

Mulready, N.J., 1995, Report on the Significance of Shittim#1 Well Stratigraphic Corehole, EL 1/88 North Bruny Island, Tasmania as at September 5th, 1995.

Randall, C-L., 1997, Palynology and Hydrocarbon Potential of the Lower Parmeener Supergroup in Tasmania, Unpublished Honours thesis, University of Tasmania Geology Dept. 83pp.

Wakefield, L., 1999, Independent Geologist's Report on the Exploration Prospectivity on the Onshore Tasmania Basin.

Woods, Trent J., 1995, Petroleum Prospectivity of the Palaeozoic, South-East Tasmania; An Investigation on the Timing of Potential Hydrocarbon Generation from Palaeozoic Sediments and Characterisation of Potential Reservoirs of the Lower Parmeener Supergroup, Research thesis submitted in partial fulfilment of the requirements for the Degree of Bachelor of Science with Honours.

Young, Robert S., 1996, Potential of Oil and Gas in the Tasmanian Onshore Basin, internal company report.

I.b ARTICLES

Pacheco, N., 2002, Helium, in U.S. Geological Survey Minerals Yearbook – 2002, 36.1-36.11.

VALMIN Code. (1998). *Australasian Institute of Mining and Metallurgy (AusIMM)*

I.c WEB SITES

GSLM Web site – www.gslm.com.au

Australian Stock Exchange – www.asx.com.

Bloomberg NEWS

Australian Worldwide Reports 'Initial Success' in Exploration

AWE

By James Paton

Jan. 29 (Bloomberg) -- **Australian Worldwide Exploration Ltd.**, the oil and gas producer that's embarked on its largest drilling campaign, has achieved "initial success" in exploration off Tasmania, Managing Director **Bruce Wood** said.

The Sydney-based company and its partners, including operator **Origin Energy Ltd.**, have found oil and gas at the Rockhopper well in the Bass Basin off Tasmania, Wood said in an interview. The companies have yet to determine the commercial potential of the resource, he said.

"We were looking at that as a gas prospect," Wood said in Sydney on Jan. 27. "Now it's a mixture of oil and gas."

The A$175 million ($157 million) drilling program will expand this year to include Indonesia. Exploration in New Zealand's Taranaki Basin may prove "transformational" should Australian Worldwide deliver further discoveries, said **John Young**, a resources analyst at Wilson HTM Investment Group.

"If unsuccessful, there will be some disappointment and the share price would probably respond accordingly," Young said yesterday by telephone from Melbourne.

Australian Worldwide has gained 12 percent in the last year compared with an advance of 34 percent for the benchmark S&P/ASX 200 Index. Analysts have 11 "buy" ratings on the stock and 1 "sell," data compiled by Bloomberg show.

Australian Worldwide plans "sustained" exploration during the next 12 months in Indonesia, aiming to sink its first well in the Asian country by the end of June, Wood said Jan. 27.

A gas discovery was made at the Redback South well in Western Australia, the company said in September. Proved and probable reserves reached 68.9 million barrels of oil equivalent at the end of June, Australian Worldwide said on its Web site.

While the exploration effort is in line with expectations, it is too early to gauge the commercial significance of the resources, Wood said. "We simply don't know."

To contact the reporter on this story: **James Paton** in Sydney **jpaton4@bloomberg.net**.

Last Updated: January 28, 2010 16:27 EST

APPENDIX M (continued)

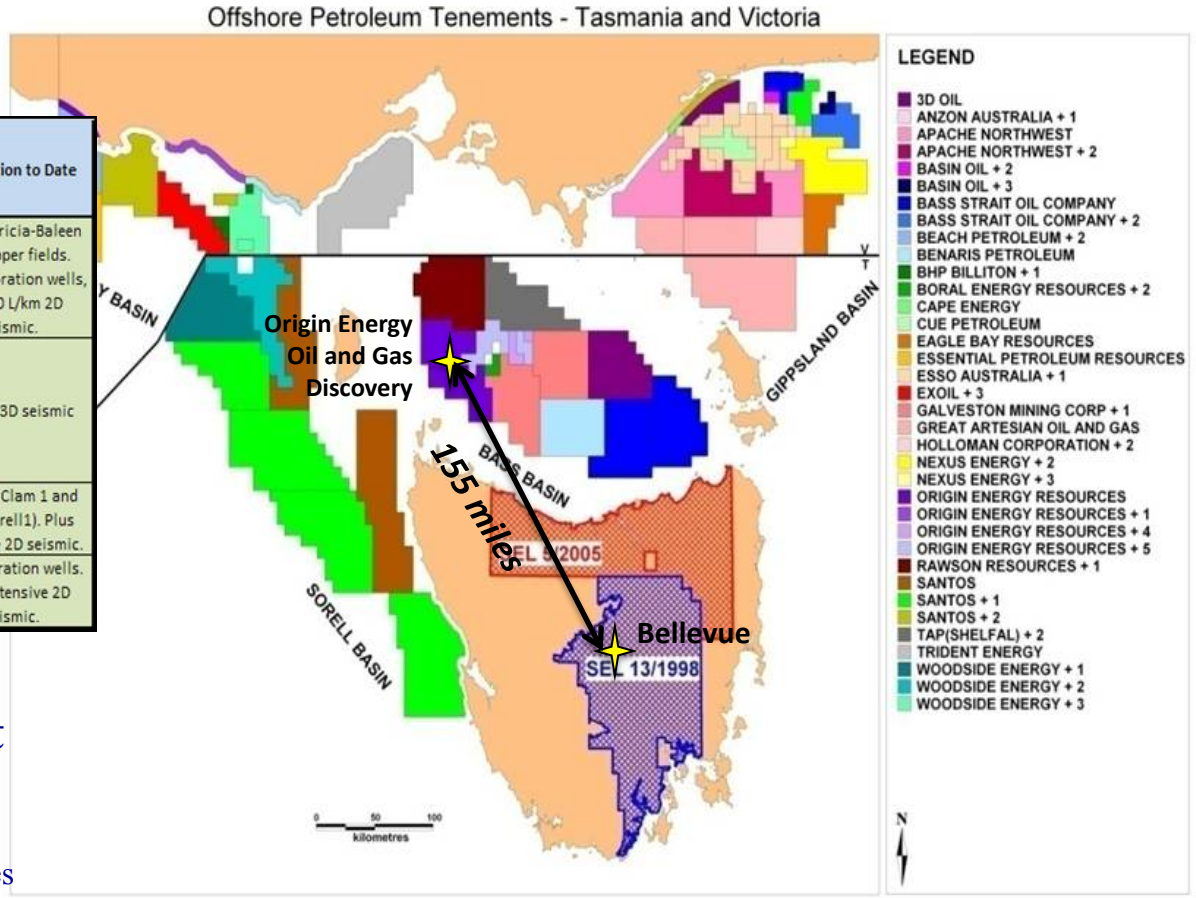
Exploration activity in offshore basins surrounding Tasmania

Numerous companies are exploring for oil and gas in offshore Mesozoic-Cenozoic basins around Tasmania. The Gippsland Basin has been a major source of both oil and gas, supplying almost 70% of Australia's production since the 1960s. More recently gas and condensate and a small amount of oil has been found in the Bass Basin by Origin Energy and partners, and further exploration is progressing. Recently, SANTOS has taken-up several leases and conducted seismic exploration in the Sorell Basin (Western Tasmania).

Lease Location (area)	Number of Tenements	Current Annual Production	Estimated Proven/Possible/Probable Oil/Gas in Place	Number of Producing Wells	Exploration to Date
Gippsland (46,000 km²)	44	3446.5 MMbl 4779.5 Tcf	4073.5 MMbl (2p). 403.8 MMbl est. 9617.6 MMMcf.	20	Sole, Patricia-Baleen and Kipper fields. 300 exploration wells, 80,000 L/km 2D seismic.
Otway (150,000 km²)	13	0.72 MMboe (gas)	1,875Bcf (gas)	6 (Minerva 1&2, Casino, La Bella, Geographe and Tylacine 1 &2)	2D and 3D seismic
Sorell	8	Nil	Unknown	Nil	2 wells (Clam 1 and Cape Sorell1). Plus extensive 2D seismic.
Bass	16	3.9 Bcf	279 Bcf	2 (Yolla Field)	35 Exploration wells. Plus extensive 2D Seismic.

Table: Offshore Oil Tenements - Tasmania and Victoria, (Current Production/Exploration)

Sources: Individual Company Profiles from Websites



GE Commercial Finance
Energy Financial Services

Leanne M. Bell
Managing Director

July 30, 2004

Board of Directors
Empire Energy Corporation International
11011 King Street, Suite 260
Overland Park, KS 66210

Att: Malcolm Bendall, CEO

Gentlemen:

This letter will confirm our interest in structuring certain financing related to the Tasmanian Pipeline described to us by Mr. Tad Ballantyne acting as advisor to Mr. Bendall. In an exploratory phone conversation, Mr. Ballantyne related the circumstances surrounding the potential benefits of acquiring the pipeline at this stage of development.

We understand the interest level and once your firm could obtain a Letter of Intent or an Option Agreement relating to the purchase of the pipeline, and we could obtain additional information regarding the specifics of this transaction, we would be able to propose a structure under which we could potentially provide capital for this investment. The capitalization structure would be determined by a number of factors, which would include the initial purchase price and revenue assumptions, among others. Once you have identified the price and terms under which the seller agrees please contact us and we would propose terms under which we could proceed.

Regards,

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