OIL AND GAS RESERVES AND NET PRESENT VALUE OF FUTURE NET REVENUE

In accordance with National Instrument 51-101 – Standard of Disclosure for Oil and Gas Activities, McDaniel & Associates Consultants Ltd. ("McDaniel"), independent petroleum engineering consultants, prepared a report (the "McDaniel Orca Exploration report") dated April, 2008. The McDaniel Orca Exploration Report evaluated, as at 31 December 2007, the Company's Tanzanian natural gas reserves. The tables below are a summary of the natural gas reserves of the Company and the net present value of future net revenue attributable to such reserves as evaluated in the McDaniel Orca Exploration Report based forecast price and cost assumptions. The tables summarize the data contained in the McDaniel Orca Exploration Report and as a result may contain slightly different numbers due to rounding. The net present value of future net revenue attributable to the Company's reserves is stated without provision for interest costs and general and corporate administrative costs, but after providing for estimated royalties, production costs, development costs, other income, future capital expenditures, and well abandonment costs for only those wells assigned reserves by McDaniel. It should not be assumed that the undiscounted or discounted net present value of future net revenue attributable to the Company's reserves estimated by McDaniel represent the fair market value of those reserves. Other assumptions and qualifications relating to costs, prices for future production and other matters are summarized herein. The recovery and reserve estimates of the Company's natural gas reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual reserves may be greater than or less than the estimates provided herein.

The McDaniel Orca Exploration Report is based on certain factual data supplied by the Company and McDaniel's opinion of reasonable practice in the industry. The extent and character of ownership and all factual data pertaining to the Company's petroleum properties and contracts (except for certain information residing in the public domain) were supplied by Orca Exploration to McDaniel and accepted without any further investigation. McDaniel accepted this data as presented and neither title searches nor field inspections were conducted.

Reserves Data – Forecast Prices and Costs

Summary of Oil and Gas Reserves

	Company Gross Reserves			Company Net Reserves		
	Light and Medium Crude Oil	Natural Gas Liquids	Natural Gas	Light and Medium Crude Oil	Natural Gas Liquids	Natural Gas
	Mbbl	*Mbbl*	*MMcf*	*Mbbl*	*Mbbl*	*MMcf*
Proved						
Developed Producing	-	-	247,620	-	-	159,070
Developed Non-Producing	-	-	-	-	-	-
Undeveloped	-	-	60,949	-	-	51,041
Total Proved	-	-	308,569	-	-	210,111
Probable	-	-	165,036	-	-	113,826
Total Proved plus Probable	-	-	473,605	-	-	323,938

Net Present Value of Future Net Revenue of Oil and Gas Reserves

	Before Future Income Tax Expenses[8] and Discounted at				
	0%	5%	10%	15%	20%
(US$000s)					
Proved					
Developed Producing	318,216	191,110	125,589	88,988	66,977
Developed Non-Producing	-	-	-	-	-
Undeveloped	65,750	65,713	57,139	47,703	39,509
Total Proved	383,966	256,823	182,728	136,690	106,487
Probable	188,713	114,750	72,199	46,613	30,657
Total Proved plus Probable	572,679	371,573	254,927	183,303	137,144

	After Future Income Tax Expenses[8] and Discounted at				
	0%	5%	10%	15%	20%
(US$000s)					
Proved					
Developed Producing	318,216	191,110	125,589	88,988	66,977
Developed Non-Producing	-	-	-	-	-
Undeveloped	65,750	65,713	57,139	47,703	39,509
Total Proved	383,966	256,823	182,728	136,690	106,487
Probable	188,713	114,750	72,199	46,613	30,657
Total Proved plus Probable	572,679	371,573	254,927	183,303	137,144

Notes:

(1) The crude oil and natural gas reserves estimates presented in the McDaniel Orca Exploration Report have been based on the definitions and guidelines prepared by the Standing Committee on Reserves Definitions of the CIM (Petroleum Society) as presented in the COGE Handbook. A summary of those definitions is presented below.

(2) Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, from a given date forward, based on (i) analysis of drilling, geological, geophysical and engineering data; (ii) the use of established technology; and (iii) specified economic conditions, which are generally accepted as being reasonable, and shall be disclosed.

(3) Reserves are classified according to the degree of certainty associated with the estimates:
  - (a) Proved reserves are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.
  - (b) Probable reserves are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.
  - (c) Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves.
  - (d) Other criteria that must also be met for the categorization of reserves are provided in Section 5.5 of the COGE Handbook.

(4) Each of the reserves categories (proved, probable and possible) may be divided into developed and undeveloped categories:
  - (a) Developed reserves are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (for example, when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing.
  - (b) Developed producing reserves are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

(c) Developed non-producing reserves are those reserves that either have not been on production, or have previously been on production, but are shut in, and the date of resumption of production is unknown.

(d) Undeveloped reserves are those reserves expected to be recovered from known accumulations where a significant expenditure (for example, when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable, possible) to which they are assigned.

(5) The qualitative certainty levels referred to in the definitions above are applicable to individual reserves entities (which refers to the lowest level at which reserves calculations are performed) and to reported reserves (which refers to the highest level sum of individual entity estimates for which reserves estimates are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions:

(a) at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves;

(b) at least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves; and

(c) at least a 10 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable plus possible reserves.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in Section 5.5.3 of the COGE Handbook.

(6) "Company Gross Reserves" are the total of the Company's working and/or royalty interest share after TPDC back-in before deduction of royalties owned by others, and represent the Company's percentage working interest in the property gross reserves.

(7) "Company Net Reserves" are the total of the Company's working and/or royalty interest share after deducting the amounts attributable to royalties owned by others and additional profits tax, and represent the Company's share of total Cost Gas and Profit Gas.

(8) See "Tax Horizon" for details of tax treatment.

(9) There are no state royalties in the Songo Songo PSA.

(10) "TPDC back-in" In their reserve report as at 31 December 2007 McDaniel associates has assumed that the Tanzania Petroleum Development Corporation ("TPDC") will exercise its right to 'back in' to the field development by contributing 20% of the costs of the future wells, including SS-10 and a proportion of the infrastructure and operating costs, in return for a 20% increase in the profit share for the production emanating from these wells. In 2007, McDaniel has taken the view that this 'back in' right should be treated as a TPDC working interest and therefore the Gross reserves have been adjusted for the volumes of Additional Gas that are allocated to TPDC for their working interest share. The average effective TPDC working interest in proved plus probable reserves over the life of the licence is 5%, or a total of 25.9 Bcf. The economic effect of this had been reflected in the Net Additional Gas reserves in 2006, but the working interest had not been shown in the Gross reserves. The implications and workings of the 'back in' are still to be discussed in detail with TPDC.

Additional Information Concerning Future Net Revenue – (Undiscounted)

(US$000s)	Revenue	Royalties	Operating Costs	Development Costs	Abandonment and Reclamation Costs	Future Net Revenue Before Income Taxes	Income Taxes	Future Net Revenue After Income Taxes
Total Proved Reserves	989,536	-	477,215	128,355	-	383,966	-	383,966
Total Proved plus Probable	1,348,551	-	513,841	262,031	-	572,679	-	572,679

Future Net Revenue by Production Group

	Future Net Revenue Before Future Income Tax Expenses Discounted at 10%
(US$000s)	
Proved	
Light and Medium Crude Oil[(1)]	-
Natural Gas[(2)]	182,728
Proved plus Probable	
Light and Medium Crude Oil[(1)]	-
Natural Gas[(2)]	254,927

Notes:

(1) Including solution gas and other by-products.
(2) Including by-products, but excluding solution gas from oil wells.

Pricing Assumptions – Forecast Prices, Costs and Gas Sales

McDaniel employed the following gas sales, pricing and inflation rate assumptions as of 31 December 2007 in estimating the Company's reserves data using forecast prices and costs.

		Songo Songo gas prices		
	Brent crude	Proved	Proved plus probable	Annual inflation %
Year	US$/bbl	US$/Mcf	US$/Mcf	
2008	89.00	3.71	3.52	2
2009	85.70	3.67	3.74	2
2010	82.20	3.82	3.85	2
2011	78.50	4.00	3.76	2
2012	77.40	4.52	4.12	2
2013	76.20	5.02	4.62	2
2014	77.70	5.18	4.80	2
2015	79.30	5.28	5.00	2
2016	80.80	5.37	5.18	2
2017	82.50	5.46	5.27	2
2018	84.10	5.56	5.36	2
2019	85.80	5.65	5.46	2
2020	87.50	5.75	5.55	2
2021	89.30	5.85	5.65	2
2022	91.10	5.96	5.75	2
2023	92.92	6.06	5.86	2
2024	94.78	6.17	5.96	2
2025	96.68	6.28	6.07	2
2026	98.61	6.39	6.18	2

The price of Additional Gas for the industrial sector is based on a formula related to heavy fuel oil prices.

Additional Gas for the power sector is based on $1.87/MMBTU in 2008 plus Songas, marketing and connection fees of $0.04 /MMBTU plus 2% inflation. The base price was increased to $2.50 /MMBTU starting in 2012 with the same pricing adjustments.

Additional Gas for Wazo Hill is based on $3.70 /GJ in 2008 plus Songas, marketing and connection fees of $0.04 /MMBTU plus 2% inflation.

RECONCILIATIONS OF CHANGES IN RESERVES AND FUTURE NET REVENUE

Reserves Reconciliation

The following table sets forth a reconciliation of the Company's total gross working interest proved and proved plus probable reserves as at 31 December 2007 against such reserves as at 31 December 2006:

	Gross Associated and Non-Associated Natural Gas (Bcf)	
	Proved	Proved plus Probable
Reserves at 31 December 2006	**265.8**	**415.1**
Extensions	-	-
Improved recovery	-	-
Technical revisions	50.5	66.2
Discoveries	-	-
Acquisitions	-	-
Dispositions	-	-
Economic factors	-	-
Production	(7.7)	(7.7)
Reserves at 31 December 2007	**308.6**	**473.6**

The increase in the proven and probable reserves has arisen from improved volumetric structural mapping, the 2007 pressure and gas production data and the SS-10 development well results.

UNDEVELOPED RESERVES

The following table details the undeveloped reserves for the years ended 31 December 2005, 2006 and 2007:

Year	Reserve Category	Property Gross (Bcf)	Company Gross (Bcf)
2007	Proved Undeveloped(i)	64.4	60.9
2006	Proved Undeveloped	46.3	46.3
2005	Proved Undeveloped	60.7	60.7
2007	Probable Undeveloped(i)	104.2	100.0
2006	Probable Undeveloped	112.3	112.3
2005	Probable Undeveloped	108.6	108.6

Notes

(i) The 2007 numbers have been shown are at the Property Gross level to be consistent with prior years. In 2007 McDaniels has accounted for the TPDC back in as a working interest, after allowing for this back in the 2007 proved undeveloped and probable undeveloped reserve volumes are 60.9 Bcf and 100 Bcf respectively

The following discussion generally describes the basis on which the Company attributes proved and probable undeveloped reserves and its plans for developing those undeveloped reserves.

Proved Undeveloped Reserves

Proved undeveloped reserves were assigned for the acceleration of the recovery of the total proved reserves prior to the licence expiry through higher production rates than assumed in the proved producing reserves production forecast. The higher production rates were forecast to be a result of one new well in 2007 and 2008 and the installation of compression. The estimated original gas in place and reserves (recoverable during the forecast life of the field) were the same in both the proved producing reserves case and the total proved reserves case.

Probable Undeveloped Reserves

Probable undeveloped reserves were assigned for the development of areas of the pool that are further away from well control than assigned in the proved reserves case.

SIGNIFICANT FACTORS OR UNCERTAINTIES AFFECTING RESERVES DATA

The process of estimating reserves is complex. It requires significant judgments and decisions based on available geological, geophysical, engineering, and economic data. These estimates may change substantially as additional data from ongoing development activities and production performance becomes available and as economic conditions impacting oil and gas prices and costs change. The reserve estimates contained herein are based on current production forecasts, prices and economic conditions. The Company's reserves are evaluated by McDaniel, an independent petroleum engineering firm.

As circumstances change and additional data become available, reserve estimates also change. Estimates made are reviewed and revised, either upward or downward, as warranted by the new information. Revisions are often required due to changes in well performance, prices, economic conditions and governmental restrictions.

Although every reasonable effort is made to ensure that reserve estimates are accurate, reserve estimation is an inferential science. As a result, the subjective decisions, new geological or production information and a changing environment may impact these estimates. Revisions to reserve estimates can arise from changes in year end oil and gas prices, and reservoir performance. Such revisions can be either positive or negative.

FUTURE DEVELOPMENT COSTS

The table below sets out the development costs deducted in the estimation of future net revenue attributable to proved and probable reserves using forecast prices and costs.

	Forecast Prices and Costs	
	Proved	Proved plus Probable
(US$000s)		
2008	7,800	7,800
2009	2,958	2,958
2010	33,189	78,446
2011	3,078	54,369
2012	3,139	3,139
Remaining Years	78,191	115,319
Total Undiscounted	128,355	262,031

The Company estimates that it will have sufficient funds to finance the future development costs disclosed above. The Company typically has available three sources of funding to finance its capital expenditure program; internally generated cash flow from operations, senior and subordinated debt financing when appropriate and new equity issues, if available on favourable terms.

The Company expects to fund its 2008 capital expenditure programme principally from the balance of the equity raised during the 2007 private placement and internally generated cash flows and funds from a US5 million overdraft which is currently being put in place. In addition, the Company has no bank borrowings and there is scope for utilising debt funding once sufficient gas contracts are in place.

Land Holdings

The following table set out the developed and undeveloped land holdings of the Company as at 31 December 2007:

	Developed		Undeveloped		Total	
	Gross[1]	Net[2]	Gross[1]	Net[2]	Gross[1]	Net[2]
Songo Songo	53,623	50,942	-	-	53,623	50,942
Total Tanzania	53,623	50,942	-	-	53,623	50,942

Notes:

(1) "Gross" refers to the total acres of the property in which Orca Exploration or its subsidiaries have an interest.
(2) "Net" refers to the total acres in which Orca Exploration or its subsidiaries have an interest, multiplied by the effective working interest percentage owned therein after taking into account the expected TPDC "back-in" rights.

GAS WELLS

The following table summarizes the Company's interest as at 31 December 2007 in wells that are producing and non-producing.

	Producing Wells		Non-Producing Wells	
	Natural Gas		Natural Gas	
	Gross	Net	Gross	Net
Songo Songo	5.0	5.0	1	0.8
Total Tanzania	5.0	5.0	1	0.8

The SS-10 well drilled in 2007 will be tied in to the gas processing plant during 2008. It is anticipated that TPDC will contribute 20% of the costs of SS-10 well drilled when it exercises its right of "back in" the details of which are still to be discussed.

PROPERTIES WITH NO ATTRIBUTED RESERVES

The following table summarizes the gross and net acres of unproved properties in which the Company has an interest and also the number of net acres for which the Company's rights to explore, develop or exploit will, absent further action, expire within one year.

	Gross Acres	Net Acres	Net Acres Expiring Within One Year	Nature, cost and timing of work commitments US$'000
Songo Songo	-	-		-
Total Tanzania	-	-		-

EXPLORATION AND DEVELOPMENT ACTIVITY

The following table summarizes the Company's drilling results for the year ended 31 December 2007.

	Songo Songo 2007	
	Gross	Net (1)
Exploration		
Natural Gas	-	-
Suspended	-	-
Dry and Abandoned	-	-
Total Exploration	-	-
Development		
Natural Gas	1	0.8
Suspended	-	-
Dry and Abandoned	-	-
Total Development	1	0.8
Total	1	0.8

Note (1) It has been assumed that TPDC will back in for 20% of the costs of the SS-10 well in return for a 20% share of the production volumes that will emanate from the well.

In 2007, the Company drilled and completed the SS-10 development well, which is due to be tied-in during 2008. The first quarter of 2007 saw the successful completion of the removal of over 5,000 feet of wireline and two pressure gauges from the SS-9 well that were left in the hole in 1997. As a result, the gas deleiverability of the SS-9 well has increased by 30 MMcfpd to 55 MMcfpd.

ADDITIONAL INFORMATION CONCERNING ABANDONMENT AND RECLAMATION COSTS

The estimates of well abandonment costs included in the McDaniel Orca Exploration Report as deductions in arriving at future net revenue are as follows:

	Songo Songo		
	Constant Prices and Costs	Forecast Prices and Costs	
	Proved Reserves	Proved Reserves	Proved Plus Probable Reserves
(US$000s)			
Undiscounted	-	-	-
Discounted at 10% per year	-	-	-

Under the terms of the PSA, Orca Exploration is not liable for abandonment and reclamation costs as it is envisaged that the wells will continue to produce after Orca Exploration has relinquished the licence.

TAX HORIZON

Under the terms of the PSA, the Company is liable to Tanzanian income tax, but this is paid on behalf of the Company, through the profit sharing arrangements with TPDC. Where income tax is accrued, the Company's revenue will be grossed up by the tax due and the tax will be shown as a tax in the Company's accounts. However, the income tax has no material impact on the cash flows emanating from the PSA and accordingly it has not been identified as a separate cash flow stream in the analysis of the net present values under both the constant and forecast price cases.

The Company does not pay any royalties. However, under the terms of the PSA, in the event that all costs have been recovered with an annual return of 25% plus the percentage change in the United States Industrial Goods Producer Price Index ("PPI"), an Additional Profits Tax ("APT") is payable at a rate of 25% of the Company's profit share. This rate can increase to 55% of the Company's profit share where all costs have been recovered with an annual return of 35% plus the PPI.

The APT can have a significant impact on the project economics as measured by the net present value of the cash streams emanating under the PSA. Higher revenue in the initial years leads to a rapid payback of the project costs and consequently accelerates the payment of the APT. Therefore, the terms of the PSA rewards the Company for taking higher risks by incurring capital expenditure in advance of revenue generation.

The APT has been netted off against revenue rather than identified as a separate cash flow stream in the analysis of the net present values under both the constant and forecast price cases, as its payment and calculation is determined by the terms of the PSA and is applicable only to reserves within the Songo Songo PSA rather than as income tax expense as are most corporate income taxes.

COSTS INCURRED

The following table summarizes the Company's property acquisition costs, exploration costs and development costs for the year ended 31 December 2007.

	Year ended 31 December 2007
(US$ 000)	
Lease acquisition and retention	-
Geological and geophysical	1,118
Drilling and completion	42,949
Production equipment	181
Infrastructure	2,267
Capitalized general and administrative	-
Business development	146
Decommissioning asset	-
Total (1)	**46,661**
Cost by category	
Acquisition of proved properties	-
Acquisition of unproved properties	-
Exploration costs	
Development costs	46,661
Other costs	
Total	**46,661**

Note (1) These costs represent the gross property costs and do not take into account any TPDC back-in.

The total drilling and completion costs include US$2.4 million of costs associated with the remedial work on SS-9 which is not cost recoverable under the PSA, and US$4.4 million of well inventory of which US$3.0 million is in relation to casing.

Further analysis of capital expenditures

The tables below summarize the Company's quarterly capital expenditures for the year ended 31 December 2007.

(US$000)	Quarter ended 31 December 2007	30 September 2007	30 June 2007	31 March 2007
Property acquisitions and retention	-	-	-	-
Geological and geophysical including drilling and completion and production equipment	11,001	9,636	12,954	10,657
Development and facilities	468	315	1,205	279
Business development	5	6	26	109
	11,474	9,957	14,185	11,045

Personnel

As at December 31, 2007, the Company had a full time complement of 15 full-time personnel, excluding approximately three consultants and contract personnel who devoted the majority of their time to the Company. In addition the Company employs an additional 26 employees who are 100% recharged to Songas for the operatorship of the gas processing plant and maintenance of the wells.

Location	Number of full time personnel
Tanzania – Head office	15
Tanzania – Songo Songo Island (Operatorship)	32
	47

PRODUCTION ESTIMATES

The following table discloses for each product type the total volume of production estimated by McDaniel for 2008 in the estimates of future net revenue from proved reserves disclosed above under the heading "Oil and Natural Gas Reserves and Net Present Value of Future Net Revenue".

2008 Forecast Production

(MMcfpd)	Proved	Proven plus Probable
Songo Songo natural gas (1)	30.0	35.0

Note (1) The daily production forecast have been stated at the property gross level and do not make any adjustment for the effective working interest associated with the TPDC back-in. This is to enable the reader to draw a comparison with the actual 2007 production history .

PRODUCTION HISTORY

The following tables disclose the Company's quarterly average gross daily production (before TPDC profit share) for the year ended 31 December 2007.

Average Property Gross Daily Production

(MMcfpd)	Quarter ended			
	31 December 2007	30 September 2007	30 June 2007	31March 2007
Songo Songo natural gas	27.3	26.3	12.6	18.4

Production Volume by Field

The following table discloses for each important field, and in total, the Company's gross production volumes for the year ended 31 December 2007 for each product type.

(MMcf)	Natural Gas
Songo Songo gas field	7,731