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 20, 2011. The McDaniel Orca Exploration Report evaluated, as at 31 December 2010, Orca Exploration Group Inc.'s (the "Company" or "Orca Exploration") Tanzanian natural gas reserves for the period to the end of its licence in October 2026. 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 utilising 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 out of country 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	-	-	289,500	-	-	191,205
Developed Non-Producing	-	-	-	-	-	-
Undeveloped	-	-	79,733	-	-	47,773
Total Proved	-	-	369,232	-	-	238,978
Probable	-	-	81,540	-	-	50,090
Total Proved plus Probable	-	-	450,773	-	-	289,068

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	418,448	267,242	180,706	128,202	94,605
Developed Non-Producing	-	-	-	-	-
Undeveloped	125,581	82,654	54,973	36,612	24,108
Total Proved	544,029	349,896	235,679	164,813	118,714
Probable	125,504	71,329	41,879	25,228	15,487
Total Proved plus Probable	669,533	421,225	277,559	190,042	134,201

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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 Canadian Oil and Gas Evaluation (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 5.5.4 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 5of the COGE Handbook.

(6) "Company Gross Reserves" are the total of the Company's working and/or royalty interest share after Tanzania Petroleum Development Corporation ("TPDC") back-in and before deduction of royalties owned by others. It represents 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) In the McDaniel Orca Exploration Report, it has been assumed that 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. McDaniel has taken the view that this 'back in' right should be treated as a TPDC working interest and therefore the Gross Property reserves have been adjusted for the volumes of natural 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 7%, or a total of 35,025 MMcf.

Additional Information Concerning Future Net Revenue – (Undiscounted)

(US$000s)	**Revenue**	**Royalties**	**Operat-ing Costs**	**Develop-ment Costs**	**Abandon-ment and Reclamation Costs**	**Future Net Revenue Before Income Taxes**	**Income Taxes**	**Future Net Revenue After Income Taxes**
Total Proved Reserves	876,861	-	217,710	115,122	-	544,029	-	544,029
Total Proved plus Probable	1,057,273	-	229,128	158,612	-	669,533	-	669,533

1. Revenue is net of Additional Profits Tax which is a form of royalty

Future Net Revenue by Production Group

	Future Net Revenue Before Future Income Tax Expenses Discounted at 10%	Net Unit Value Before Income Taxes Discounted at 10% ($/Mcf)
(US$000s)		
Proved		
Light and Medium Crude Oil[(1)]	-	-
Natural Gas[(2)]	235,679	0.99
Proved plus Probable		
Light and Medium Crude Oil[(1)]	-	-
Natural Gas[(2)]	277,559	0.96

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 2010 in estimating the Company's reserves data using forecast prices and costs. The Company received an average gas price of US$3.75/Mcf in 2010.

		Songo Songo gas prices		
	Brent crude	Proved	Proved plus probable	Annual inflation %
Year	US$/bbl	US$/Mcf	US$/Mcf	
2011	85.00	3.56	3.56	2
2012	87.20	3.98	3.98	2
2013	89.50	5.61	5.49	2
2014	92.30	5.61	5.49	2
2015	95.20	5.72	5.77	2
2016	98.30	5.84	5.89	2
2017	100.30	5.92	5.97	2
2018	102.30	5.99	6.05	2
2019	104.20	6.07	6.13	2
2020	106.40	6.15	6.21	2
2021	108.50	6.24	6.29	2
2022	110.70	6.32	6.38	2
2023	112.80	6.37	6.44	2

The price of gas for the industrial sector is based on a formula related to heavy fuel oil prices and includes caps and floors. This has been reflected in the above pricing.

The price of natural gas for the power sector is set by reference to a base price of $1.90/MMBTU in 2008 escalated at 2% per annum plus an estimation of the Songas transportation tariff and Orca marketing and connection fees as determined by the energy regulator, EWURA.

The price of natural gas sold to Wazo Hill is based on the contracted prices as set out in the 2008 gas sales agreement with Tanzania Portland Cement Company plus an estimation of the Songas transportation tariff as determined by the energy regulator, EWURA.

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 2010 against such reserves as at 31 December 2009:

	Gross Associated and Non-Associated Natural Gas (Bcf)		
	Proved	**Probable**	**Proved plus Probable**
Reserves at 31 December 2009	**384.9**	**105.3**	**490.2**
Extensions	-	-	-
Improved recovery	-	-	-
Technical revisions	(2.4)	(23.8)	(26.2)
Discoveries	-	-	-
Acquisitions	-	-	-
Dispositions	-	-	-
Economic factors	-	-	-
Production	(13.7)	-	(13.7)
Reserves at 31 December 2010	**369.2**	**81.5**	**450.8**

During 2010 no significant new geological or geophysical data were acquired to alter the evaluation of original gas in place. The decrease in reserves over 2009 is primarily due to the need to increase production from SS-10 and drill new wells on the Songo Songo field to sustain production following the discovery of tubing corrosion in the existing producing wells. TPDC has the right to back into these wells and earn a higher profit share.

Following a corrosion logging survey in Q4 2010, Orca suspended production from SS-5, reduced flow rates from the other wells and expedited the tie-in of SS-10, the new onshore well.

The corrosion study also recommended that SS-9 be taken out of production by the end of Q1 2012, subject to re-logging of the well in September 2011 to confirm its condition. Accordingly, the Company has determined that a new high producing onshore deviated well ("SS-A") should be drilled in 2011 to ensure adequate deliverability when SS-9 is taken off stream. In addition SS-10 will be upgraded to increase deliverability. The Company is currently looking to contract a land rig to undertake this work programme within a tight timeframe.

UNDEVELOPED RESERVES

The following table details the undeveloped reserves for the years ended 31 December 2008, 2009 and 2010:

	As of December 31, 2010 Natural Gas	
Proved Undeveloped	1st Attributed (MMcf)	Booked (MMcf)
Prior to 2008	60,953	60,953
2008	-	135,927
2009	-	84,221
2010	-	79,733
Probable Undeveloped	1st Attributed (MMcf)	Booked (MMcf)
Prior to 2008	103,152	103,152
2008	-	63,746
2009	-	65,832
2010	-	50,960

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 have decreased slightly due to decreased offtake rates associated with the delay in the plant expansion..

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. The decrease in 2010 is due to the increase in the proved recovery factor compared to 2009.

The undeveloped reserves will be developed by the drilling of new wells as and when required to meet the demands for gas by consumers.

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)		
2011	49,036	49,036
2012	41,141	41,141
2013	2,423	2,423
2014	2,437	2,435
Remaining Years	20,084	45,763
Total Undiscounted	115,122	158,612

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's 2011 work programme principally includes the drilling of the new onshore deviated well, SS-A, the enhancement of SS-10, the drilling of La Tosca in the Po Valley and the purchase of long lead items for SSW. Whilst there should be sufficient funds to undertake this work programme in 2011, the Company will look to secure a financing facility and/or raise new equity to cover the 2012 exploration activity.

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Land Holdings

The following table set out the developed and undeveloped land holdings of the Company as at 31 December 2010:

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

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 2010 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**	**0.8**
Total Tanzania	**5.0**	**5.0**	**1.0**	**0.8**

The SS-10 well drilled in 2007 was tied into the gas processing plant in January 2011. TPDC is deemed to have backed into this well. The implications and workings of the 'back in' are currently being discussed with TPDC and may lead to future modifications in the way the gross reserves are calculated

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	-	-	-	-

ITALY

Longastrino

During November 2010, Orca Exploration signed an agreement with Northern Petroleum plc. to acquire between 70% and 75% of the Longastrino Block in the Po Basin onshore Italy. This acquisition was Orca's second entry into Italy during 2010.

Under the terms of the farm in with Northern Petroleum, Orca will pay 100% of the costs of the La Tosca-1 well up to Euro 4.3 million and 70% thereafter for the drilling phase of the well. If the well is tested and completed, then Orca will earn an additional 5% by paying 100% of the testing costs up to Euro 1.3 million and 75% thereafter. The Company will also pay back costs of Euro 0.6 million.

Work is currently in progress to secure a site from which to drill the La Tosca-1 well, scheduled for Q4 2011.

Elsa

In May 2010, Orca committed approximately US$13 million to earn a 15% interest in the Petroceltic operated Elsa discovery block and 11 adjacent licenses. The Elsa field has a large volume of known oil in place, and an appraisal well was planned for Q4 2010 to determine the quality of the crude.

However, recent worldwide concerns about offshore drilling caused by the blowout of the Macondo well in the U.S. Gulf has led the Italian government to pass a law that excludes drilling in the Italian seas within 5 nautical miles of the coastline and 12 nautical miles in the region of protected marine parks. Petroceltic has submitted an application to the Ministry of Economic Development ("MSE") to suspend the license, and as a result all work towards the drilling of well Elsa-2 has ceased. Orca is not liable to any costs associated with the drilling of Elsa-2 until such time as a rig contract is signed.

EXPLORATION AND DEVELOPMENT ACTIVITY

The following table summarizes the Company's drilling results for the year ended 31 December 2010.

	Songo Songo	
	2010	
	Gross	**Net** [(1)]
Exploration		
Natural Gas	-	-
Suspended	-	-
Dry and Abandoned	-	-
Total Exploration	-	-
Development		
Natural Gas	-	-
Suspended	-	-
Dry and Abandoned	-	-
Total Development	-	-
Total	-	-

Tanzania

No wells were drilled in 2010.

Following a corrosion logging survey in Q4 2010, Orca suspended production from one of the Tanzanian wells, SS-5, reduced flow rates from the other wells and expedited the tie-in of SS-10, the new onshore well.

The corrosion study recommended that SS-9 be taken out of production by the end of Q1 2012, subject to re-logging of the well in September 2011 to confirm its condition. Accordingly, the Company has determined that a new high producing onshore deviated well ("SS-A") should be drilled in 2011 to ensure adequate deliverability when SS-9 is taken off stream. In addition SS-10 will be upgraded to increase deliverability. The Company is currently looking to contract a land rig to undertake this work programme within a tight timeframe. The estimated cost is US$35 million.

Italy

The Company is scheduled to drill the La Tosca-1 well in the Po Valley Basin in Q4 2011. The estimated cost to the Company is circa US$8 million including past costs.

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 currently 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 Production Sharing Agreement ("PSA"), the Company is required to pay Tanzanian income tax, but this is recovered by 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.

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 2010.

	Year ended 31 December 2010
(US$000)	
Lease acquisition and retention	-
Geological and geophysical	457
Drilling and completion	1,141
Production equipment	-
Infrastructure	1,582
Capitalized general and administrative	-
Development	6
Decommissioning asset	-
Total (1)	**3,186**
Cost by category	
Acquisition of proved properties	-
Acquisition of unproved properties	-
Exploration costs	182
Development costs	3,004
Other costs	-
Total	**3,186**

Notes
(1) These costs represent the gross property costs and do not take into account any TPDC back-in.
(2) The geological and geophysical include costs incurred on Songo Songo West.

Further analysis of capital expenditures

The tables below summarize the Company's quarterly capital expenditures for the year ended 31 December 2010.

	Quarter ended			
(US$000)	**31 December 2010**	**30 September 2010**	**30 June 2010**	**31 March 2010**
Property acquisitions and retention	-	-	-	-
Geological and geophysical including drilling and completion and production equipment	607	502	320	169
Development and facilities	383	692	492	15
Power development		6	-	-
	990	1,200	812	184

Personnel

As at December 31, 2010, the Company had a full time complement of 24 full-time personnel, excluding approximately four consultants and contract personnel who devoted the majority of their time to the Company. In addition the Company employs an additional 30 employees who are recharged to Songas for the operatorship of the gas processing plant.

Location	Number of full time personnel
Tanzania – Head office	24
Tanzania – Songo Songo Island (Operatorship)	30
	54

PRODUCTION ESTIMATES

The following table discloses for each product type the total volume of production estimated by McDaniel for 2011 in the estimates of future net revenue from proved and proved plus probable reserves disclosed above under the heading “Oil and Natural Gas Reserves and Net Present Value of Future Net Revenue”.

2011 Forecast Production

(MMcf)	Proved	Proven plus Probable
Songo Songo natural gas	14,906	14,906

PRODUCTION HISTORY

The following tables disclose the Company’s quarterly average gross daily production (before TPDC profit share) for the year ended 31 December 2010.

Average Property Gross Daily Production

(MMcfpd)	Quarter ended			
	31 December 2010	30 September 2010	30 June 2010	31March 2010
Songo Songo natural gas	39.3	40.1	33.0	34.9

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 2010 for each product type.

(MMcf)	Natural Gas
Songo Songo gas field	13,444