

## Independent Reserves Estimate as at 30 June 2014

Byron Energy Limited ("Byron or the Company") (ASX:BYE) is pleased to provide a summary of the independent reserves estimate for the Company's projects in the shallow waters of the Gulf of Mexico, covering South Marsh Island Block 6 ("SM 6"), South Marsh Island Block 70/71 ("SM 71"), Eugene Island Block 63/76 ("EI 76") and Grand Isle Block 95 ("GI 95").

The independent reserves estimates were prepared by Collarini Associates ("Collarini"), based in Houston, Texas, USA.

As at 30 June 2014 Byron has 16 blocks in the shallow waters of the Gulf of Mexico. Attachment 1 contains a list of individual leases. At this stage reserves and/or prospective resources have been attributed to four projects, covering six leases, comprising SM 6, SM 71, EI 76 and GI 95. The remaining leases cover projects at an early stage of exploration and have not had any reserves or prospective resources assigned to them.

The combined reserves, net to Byron, for SM 6, SM 71, EI 76 and GI 95 are:-

<b>Byron Energy Limited Reserves (Net to Byron)</b>			
<b>Reserve Class 1 July 2014</b>	<b>Oil MBBL*</b>	<b>Gas MMCF*</b>	<b>MBOE (6:1)*</b>
Proved (1P)	1,883	27,205	6,418
Probable Reserves	2,907	42,896	10,055
Proved and Probable (2P)	4,790	70,101	16,473
Possible Reserves	2,132	19,200	5,333
Proved, Probable and Possible (3P)	6,922	89,301	21,806

\*MBBL = thousand barrels; MMCF = million cubic feet; MBOE = thousand barrels of oil equivalent ("BOE") with a BOE determined using a ratio of 6,000 cubic feet of natural gas to one barrel of oil – 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency.

Attachment 2 contains the reserves breakdown by project as well as key assumptions.

In addition, the combined prospective best case un-risked resources for SM 6, SMI 71, EI 76 and GI 95 are:-

<b>Byron Energy Limited Prospective Resources (Net to Byron)</b>			
<b>Best Estimate Unrisked 1 July 2014</b>	<b>Oil MBBL</b>	<b>Gas MMCF</b>	<b>MBOE (6:1)</b>
<b>Total Prospective Resource</b>	<b>11,753</b>	<b>274,492</b>	<b>57,502</b>

\*The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

## Independent Reserves Estimate (Cont.)

Attachment 3 contains the prospective resources by project together with key assumptions.

Byron has a 100% working interest and is the operator, through its wholly owned subsidiary Byron Energy Inc, of each project. Byron has an 81.25% net revenue interest in each of SM 6, SM 71 and EI 76 and a 79.75% net revenue interest in GI 95.

SM 6 is the most advanced of Byron's salt dome projects and Byron recently drilled a well on this block intersecting net hydrocarbon bearing sands. SM 71 and EI 76 are two of the more advanced of Byron's remaining salt dome projects while GI 95 is a conventional non salt dome gas project.

SM 6, SM 71, EI 76 and GI 95 do not have any existing production or production facilities and the reserves attributable to these projects are undeveloped.

Commenting on the reserves report, Byron's CEO Mr Maynard Smith said, "The Company is pleased with the result. This is the first time that the Company has reported its reserves in line with the classification and reporting requirements of the Petroleum Resources Management System ("SPE-PRMS") as now required by Australian Securities Exchange Listing Rule 5. With four separate projects containing an estimated 4.8 million barrels of oil and 70.1 bcf of gas in the 2P category (undeveloped net to Byron), including three salt dome projects with significant oil potential, the Company has an excellent platform for future growth."

Mr Smith added, "Our reserves at 30 June 2014 are not comparable with the reserves reported in 2013 because of the move to SPE-PRMS and the change in our lease holdings over the last year. Notwithstanding these changes, it is pleasing that we are able to report a small increase in aggregate 2P undeveloped reserves, from 16.428 million barrels of oil equivalent to 16.473 million barrels of oil equivalent - gas reserves increased from 69.98 BCF to 70.1 BCF while oil reserves increased marginally, from 4.78 million barrels to 4.79 million barrels."

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### **Reserves and Resources Methodology**

*The deterministic method has been used to compile Reserves and Resource estimates. The aggregate 1P may be a very conservative estimate and the aggregate 3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation. Prospective Resources have not been adjusted for risk using the chance of discovery.*

### **Reserves and Resources Governance**

*As this is the first report prepared pursuant to ASX Listing Rule 5, the Company is presently reviewing the reserves and resources governance arrangements and internal controls to be put into place in respect to reserve reporting including the frequency and scope of these reviews.*

### **Competent Persons Statement**

*The information in this report that relates to oil and gas reserves and resources was compiled by technical employees of independent consultants Collarini Associates, under the supervision of Mr Mitch Reece BSc PE. Mr Reece is the President of Collarini Associates and is a registered professional engineer in the State of Texas and a member of the Society of Petroleum Evaluation Engineers (SPEE), Society of Petroleum Engineers (SPE), and American Petroleum Institute (API). The reserves and resources included in this report have been prepared using definitions and guidelines consistent with the 2007 Society of Petroleum Engineers (SPE)/World Petroleum Council (WPC)/American Association of Petroleum Geologists (AAPG)/Society of Petroleum Evaluation Engineers (SPEE) Petroleum Resources Management System (PRMS). The reserves and resources information reported in this Statement are based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr Reece. Mr Reece is qualified in accordance with the requirements of ASX Listing Rule 5.41 and consents to the inclusion of the information in this report of the matters based on this information in the form and context in which it appears.*

## Attachment 1

### Properties

At 30 June 2014, Byron's portfolio of properties in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA comprised:-

Properties	Operator*	Interest WI/NRI* (%)	Area (Km <sup>2</sup> )	Comments
South Marsh Island Block 6	Byron	100.00/81.25	20.23	Included in this reserves report
South Marsh Island Block 70	Byron	100.00/81.25	22.13	Included in this reserves report
South Marsh Island Block 71	Byron	100.00/81.25	12.16	Included in this reserves report
West Cameron Block 263	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
East Cameron Block 154	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
East Cameron Block 155	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
East Cameron Block 190	Byron	100.00/81.25	20.23	Relinquished in July 2014; not included in this report
Eugene Island Block 190	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
Eugene Island Block 191	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
Eugene Island Block 210	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
Eugene Island Block 63	Byron	100.00/81.25	20.23	Included in this reserves report
Eugene Island Block 76	Byron	100.00/81.25	20.23	Included in this reserves report
Grand Isle Block 95	Byron	100.00/79.75	18.37	Included in this reserves report
Grand Isle Block 63	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
Grand Isle Block 72	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report
Grand Isle Block 73	Byron	100.00/81.25	20.23	Early stage of evaluation; not included in this report

\* Through a wholly owned subsidiary, Byron Energy Inc

\*\* WI = working interest and NRI = net revenue interest i.e. net of royalties

## Attachment 2

Byron Energy Limited Reserves (Net to Byron)			
Reserve Class 1 July 2014	Oil MMBL*	Gas MMCF*	MBOE (6:1)*
<b>SM 6 (Undeveloped)</b>			
Proved (1P)	1,193	13,908	3,511
Probable Reserves	1,797	3,368	2,358
Proved and Probable (2P)	2,990	17,276	5,869
Possible Reserves	1,344	-3,944	687
Proved, Probable and Possible (3P)	4,334	13,332	6,556
<b>SM 71 (Undeveloped)</b>			
Proved (1P)	664	358	724
Probable Reserves	257	139	280
Proved and Probable (2P)	921	497	1,004
Possible Reserves	475	256	518
Proved, Probable and Possible (3P)	1,396	753	1,522
<b>EI 76 (Undeveloped)</b>			
Proved (1P)	0	0	0
Probable Reserves	706	1,141	896
Proved and Probable (2P)	706	1,141	896
Possible Reserves	261	421	331
Proved, Probable and Possible (3P)	967	1,562	1,227
<b>GI 95 (Undeveloped)</b>			
Proved (1P)	26	12,939	2,183
Probable Reserves	147	38,248	6,521
Proved and Probable (2P)	173	51,187	8,704
Possible Reserves	52	22,467	3,797
Proved, Probable and Possible (3P)	225	73,654	12,501
<b>Grand Total (Undeveloped)</b>			
Proved (1P)	1,883	27,205	6,418
Probable Reserves	2,907	42,896	10,055
Proved and Probable (2P)	4,790	70,101	16,473
Possible Reserves	2,132	19,200	5,333
Proved, Probable and Possible (3P)	6,922	89,301	21,806

\*Possible gas reserves are negative because two reservoirs that are treated as gas bearing for the proved and probable cases are treated as oil bearing for the possible case. This results in a reduction in total gas reserves with an increase in total oil reserves. The reductions in gas reserves for the possible cases appear as a negative value.

## Attachment 2 (Cont.)

Reserves Material Oil and Gas Projects – SM 6, SM 71, EI 76 and GI 95	
LR 5.31.1 – Material economic assumptions used to calculate the estimates of petroleum reserves	<p><b>Oil and gas prices</b> – oil prices used in this report represent NYMEX base, starting on July 1, 2014 of \$US 103.84 per barrel with a final price of \$US 88.22 per barrel on December 1, 2021 and held constant there after gas prices used in this report represent Henry Hub base, starting on July 1, 2014, of \$US 4.14 per MMBtu, rising to a final price of \$US 6.07 per MMBtu on December 1, 2026.</p> <p><b>Costs</b> – gross capital costs and gross operating costs were estimated for each project by Byron and reviewed for reasonableness by Collarini.</p> <p><b>Discount rate</b> - pre-tax discount rate of 10%.</p>
LR 5.31.2 Operator or non-operator interests	Byron Energy Inc, a wholly owned subsidiary of Byron Energy Limited, is the operator of the leases and has a 100% working interest in each project.
LR 5.31.3 Permits or Licenses	South Marsh Island Block 6 (“SM 6”), South Marsh Island Block 70/71 (“SM 71”), Eugene Island Block 63/76 (“EI 76”) and Grand Isle Block 95 (“GI 95”) all of which are located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA
LR 5.31.4 Description of:	
<ul style="list-style-type: none"> <li>Basis for confirming commercial producibility and booking reserves.</li> </ul>	<p><b>SM 6, SM 71, EI 76</b> – The commercial producibility of undeveloped reserves is based on close analogy to nearby production from similar stratigraphic sands and which exhibit a similar trapping style.</p> <p><b>GI 95</b> – commercial producibility of undeveloped reserves is based on producing horizons in the old GI 95 field, no longer on production, but has produced over 950 billion cubic feet of gas, much of this production is associated with seismic amplitudes, along with AVO attributes.</p>
Analytical procedures used to estimate the petroleum reserves	<p><b>SM 6, SM 71 and EI 76</b> – Undeveloped reserves are estimated using a combination of structure mapping from 3D and Anisotropic RTM seismic or conventional depth processed 3D and Anisotropic RTM depth processed 3D. In addition well logs, including logs from Byron Energy SM 6 #1 BP02 well drilled in July 2014, and production histories of previously producing wells on these blocks and adjacent blocks have been incorporated into the evaluations.</p> <p><b>GI 95</b> – Undeveloped reserves are estimated using a combination of structure mapping from conventionally processed Pre-Stack Time 3D seismic. In addition, well logs and production histories of previously producing wells on this block and adjacent blocks have been incorporated into the evaluations.</p>
Proposed extraction method and any specialised processing required following extraction	<p><b>SM 6, SM 71 and EI 76</b> – Water drive reservoirs with sand control completions.</p> <p><b>GI 95</b> – Use of compression for depletion drive reservoirs and sand control completions.</p>
LR 5.31.5 – Estimated quantities to be recovered	See table above at the start of Attachment 2.



## Attachment 2 (Cont.)

LR 5.31.6 – Underdeveloped petroleum reserves	
Status of the project	<i>These development projects are targeting undeveloped reserves and will require production infrastructure to be constructed, subject to successful drilling, as there is no existing production infrastructure in these blocks.</i>
When development is anticipated	<i>Drilling will be targeted within the current lease terms – before July 2015 for SM 6, before July 2017 for SM 71, before May 2018 for EI 76 and before September 2017 for GI 95.</i>
Marketing arrangements	<i>Gulf of Mexico has a well-established oil and gas marketing infrastructure making sale of commercial oil and gas production virtually certain.</i>
Access to transportation infrastructure	<i>Gulf of Mexico has a well-established and accessible transportation infrastructure which allows relatively quick access to market.</i>
Environmental approvals required	<i>Prior to drilling Byron will need to obtain (i) approval for an Exploration Plan (EP) for each project, except SM 6 where Byron already has an EP, from the Bureau of Ocean Energy Management (“BOEM”), and (ii) a permit to drill from the Bureau of Safety and Environmental Enforcement (“BSEE”), which Byron expects to obtain in normal course.</i>
LR 5.31.7 – Unconventional petroleum resources	<i>Not applicable, as Byron does not have unconventional resources.</i>
LR 5.31.8 Why in the absence of 1P, 2P and 3P have been determined and reported	<i>1P is zero for EI 76 as per PRMS definition of proven reserves. 2P reserves are those reserves up-dip of old production while the 3P reserves are fault blocks with demonstrated sands between previously productive areas.</i>
LR 5.32 – Project estimates that have materially changed from when the estimates were previously reported	<i>A comparison to last year’s petroleum reserves is not applicable as this is the first year that the Company has reported its reserves in line with the classification and reporting requirements of the Petroleum Resources Management System (“SPE-PEMS”) as required by Australian Securities Exchange Listing Rule 5 – Additional Reporting on Mining and Oil &amp; Gas Production and Exploration Activities.</i>

## Attachment 3

<b>Byron Energy Limited Prospective Resources (Net to Byron)</b>			
<b>Best Estimate Unrisked 1 July 2014</b>	<b>Oil MBBL*</b>	<b>Gas MMCF*</b>	<b>MBOE (6:1)*</b>
<b>SM 6</b>			
Total Prospective Resource	7,205	118,396	26,938
<b>SM 71</b>			
Total Prospective Resource	1,661	746	1,785
<b>EI 76</b>			
Total Prospective Resource	2,583	114,894	21,732
<b>GI 95</b>			
Total Prospective Resource	304	40,456	7,047
<b>Grand Total</b>			
Total Prospective Resource*	11,753	274,492	57,502

\*The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons

## Attachment 3 (Cont.)

<b>Estimates of prospective resources- Material Oil and Gas Projects – SM 6, SM 71, EI 76 and GI 95</b>	
LR 5.35.1 – Permits or Licence	<i>South Marsh Island Block 6 (“SM 6”), South Marsh Island Block 70/71 (“SM 71”), Eugene Island Block 63/76 (“EI 76”) and Grand Isle Block 95 (“GI 95”) all of which are located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA</i>
LR 5.35.2 – Basis on which the prospective resources are estimated	<i>Prospective resources have been identified near the existing undeveloped reserves, at the same or deeper stratigraphical levels but are deemed isolated from mapped reserves.</i>
Any further exploration activities, including studies, further data acquisition and evaluation work to be undertaken and the expected timing	<i>Over the next 2-3 years, further geological and geophysical work such as seismic reprocessing will further mature these prospective resources and lead to exploration drilling.</i>
LR 5.35.3 – Assessment of the chance of discovery and chance of development associated with the reported estimates of prospective resources	<i>The chance of discovery is considered moderate as the prospective resources are near undeveloped reserves and in a proven oil and gas producing province. There is a risk that exploration will not result in sufficient volumes of oil and/or gas for a commercial development.</i>
LR 5.35.4 – Explanation of how the estimates were adjusted for risk	<i>Prospective resources are un-risked and have not been adjusted for an associated chance of discovery and a chance of development.</i>
LR 5.36. – Provision of information in relation to a material oil and gas project that have materially changed from the previously reported estimates.	A comparison to last year’s prospective resources is not applicable as this is the first year that the Company has reported its reserves in line with the classification and reporting requirements of the Petroleum Resources Management System (“SPE-PRMS”) as required by Australian Securities Exchange Listing Rule 5 – Additional Reporting on Mining and Oil & Gas Production and Exploration Activities.
Explanation of the new data information and how it has affected the estimates of petroleum resources	
Any changes or additions to the information provided	