# Byron Energy Limited

**UPDATE** 

**DECEMBER 2015** 



## **IMPORTANT NOTICE**

#### Disclaimer

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### Forward looking statements

Statements in this presentation which reflect management's expectations relating to, among other things, production estimates, target dates, Byron's expected drilling program and the ability to fund exploration and development are forward-looking statements, and can generally be identified by words such as "will", "expects", "intends", "believes", "estimates", "anticipates" or similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements and may contain forward-looking information and financial outlook information. Statements relating to "reserves" are deemed to be forward-looking statements as they involve the implied assessment, based on certain estimates and assumptions, that some or all of the reserves described can be profitably produced in the future. These statements are not historical facts but instead represent management's expectations, estimates and projections regarding future events.

Although management believes the expectations reflected in such forward-looking statements are reasonable, forward-looking statements are based on the opinions, assumptions and estimates of management at the date the statements are made, and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. These factors include, but are not limited to, risks relating to: amount, nature and timing of capital expenditures; drilling of wells and other planned exploitation activities; timing and amount of future production of oil and natural gas; increases in production growth and proved reserves; operating costs such as lease operating expenses, administrative costs and other expenses; our future operating or financial results; cash flow and anticipated liquidity; our business strategy and the availability of lease acquisition opportunities; hedging strategy; exploration and exploitation activities and lease acquisitions; marketing of oil and natural gas; governmental and environmental regulation of the oil and gas industry; environmental liabilities relating to potential pollution arising from our operations; our level of indebtedness; industry competition, conditions, performance and consolidation; natural events such as severe weather, hurricanes and earthquakes; and availability of drilling rigs and other oil field equipment and services. Accordingly, readers are cautioned not to place undue reliance on such statements.

All of the forward-looking information in this presentation is expressly qualified by these cautionary statements. Forward-looking information contained herein is made as of the date of this document and Byron disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise, except as required by law. In relation to details of the forward looking drilling program, management advises that this is subject to change as conditions warrant, and we can provide no assurances that drilling rigs will be available.



## RESERVES INFORMATION

#### **Reserves Reporting**

Pursuant to ASX Listing Rules ("LR") the reserves and prospective resources information in this document:

- (i) is effective as at 30 June, 2014 (LR 5.25.1), except for Bivouac Peak where the effective date is 31 October 2015
- (ii) has been estimated and is classified in accordance with SPE-PRMS (Society of Petroleum Engineers Petroleum Resources Management System) (LR 5.25.2)
- (iii) is reported according to the Company's economic interest in each of the reserves and net of royalties (LR 5.25.5)
- (iv) has been estimated and prepared using the deterministic method; and 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; and prospective resources have not been adjusted for risk using the chance of discovery (LR 5.25.6)
- (v) has been estimated using a 6:1 BOE conversion ratio for gas to oil, 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency (LR 5.25.7)
- (vi) is reported on a best estimate basis for prospective resources (LR 5.28.1)
- (vii) is reported on an un-risked basis for prospective resources which have not been adjusted for an associated chance of discovery and a chance of development (LR 5.35.4)

**Prospective resources** - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations and these estimates have both an associated risk of discovery and a risk of development; and further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons (LR 5.28.2)

#### Other Reserves Information

Byron currently operates all of its properties which are held under standard oil and gas lease arrangements on the outer continental shelf of the Gulf of Mexico and in South Louisiana. The Company's working interest ownership (WI%), net revenue interest (NRI%) and lease expiry dates in relation to each of its properties are generally included in the Company's presentations and ASX releases which are available on the ASX or the Company's website.

### Competent Person's Statement re SM6, SM 71, EI 76 and GI 95- Collarini

The information in this presentation that relates to oil and gas reserves and resources was compiled by technical employees of independent consultants Collarini and Associates, under the supervision of Mr Mitch Reece BSc PE. Mr Reece is the President of Collarini and Associates and is a registered professional engineer in the State of Texas and a member of the Society of Petroleum Engineers (SPE), 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 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 (LR 5.41 and 5.42).

### Competent Person's Statement re Bivouac Peak - William Sack

The information in this presentation that relates to oil and gas prospective resources was compiled by Mr William Sack (BSc. Earth Sci./Physics, MSc. Geology, MBA), an Executive Director of Byron Energy Limited. Mr William Sack is a member of American Association of Petroleum Geologists. 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 release are based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr Sack. Mr Sack 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. (LR 5.41 and 5.42)



## **Byron Energy Ltd. -Board of Directors**

**Doug Battersby** – **Non-Executive Chairman** (*MSc Petroleum Geology and Geochemistry*) (11.7% shareholding in company) Petroleum geologist with over forty five years' technical and managerial oil and gas experience. Co-founded Eastern Star Gas, SAPEX and Darcy Energy. Formerly Technical Director at Petsec Energy.

Maynard Smith – Director and Chief Executive Officer (BSc Geophysics) (8.1% shareholding in company) Geophysicist with over forty years' technical and managerial experience predominantly in Gulf of Mexico. Co-founded Darcy Energy and Byron. Chief Operating Officer with Petsec Energy (1989-2000).

Prent Kallenberger – Director and Chief Operating Officer (BSc Geology, MSc Geophysics) (<1% shareholding in company) Geoscientist with over thirty years' experience in oil and gas. Generated prospects leading to the drilling of over 125 wells in the Gulf of Mexico and California. 12 years with Petsec Energy (Geophysical Manager 1992-1998 and Vice President of Exploration 2000-2006).

William Sack – Executive Director (BSc. Earth Sci./Physics, MSc. Geology, MBA) (<1% shareholding in company) Explorationist with 26 years experience in the Gulf of Mexico region in both technical and executive roles. Co-founder/Managing Partner of Aurora Exploration, LLC a private entity focused on GOM exploration, former Sr. VP Exploration with Bayou Bend Petroleum (a Lundin group TSX listed company) and previously served in various roles including VP Exploration & Joint Ventures with Petsec Energy.

Charles Sands – Non-Executive Director (BSc) (5% shareholding in company) Former director of Darcy Energy. Thirty years of broad based business and management experience in the USA. President of A. Santini Storage Company of New Jersey Inc.

Paul Young – Non-Executive Director (MA, ACA) (1.8% shareholding in company) Co-founder and executive director of corporate advisory business Baron Partners. Has been in merchant banking in Australia for more than 26 years. Director of Ambition Group, Australian Rural Capital. Former Chairman Peter Lehmann Wines and former director of Sapex.



## **Management Drilling and Production Track Record**

- Wells initiated by Byron executives Doug Battersby, Maynard Smith and Prent Kallenberger (prior to founding Byron) have produced 22 mmbo and 263 bcf of gas since 1992.
- This production was achieved through 71 producing wells, which were drilled from 86 attempts (an 83% success rate).
- Peak production from wells initiated by Byron executives was approximately 9,000 barrels of oil and 100 million cubic feet of gas per day.
- Between 2001 and 2012 Aurora lead by Bill Sack generated ~70 prospects and caused ~ 55 AEX wells to be drilled, of which 44 were productive (~80% success rate), producing 185 bcf of gas and 4.0 mmbo as of 2010. Peak rates reaching 135 million cubic feet of gas and 4,500 barrels of oil per day



## **Management Corporate Track Record**

Company	Date Invested	Exit Date	Exit Multiple of investment	Exit Mechanism
Petsec (ASX) – GOM Focus	1990-93	<b>September 30, 1997</b>	25.9 X	Sale of shares on ASX

Maynard Smith and Doug Battersby joined PETSEC in 1990 and Prent Kallenberger started in 1992; Petsec 2P reserves increased from zero in 1990 to 255 bcfe (42.5 mmboe) in 1997, 66% gas and 34% oil, with peak production of 100 mmcf/d and 9000 bopd; MS/DB obtained board approval to sell their shares in the second half of 1997.

Darcy Energy (Private) – GOM Focus June 30, 2000 December 31, 2005 10.8 X Private sale to IB DAIWA

Maynard Smith and Doug Battersby formed DARCY in 2000 and raised approximately \$US 5 million before Darcy was acquired by IB Daiwa for \$US 57.5 million in December 2005.

Eastern Star Gas (ASX) – CSG Focus 2000-2001 November, 2011 6.47 X Share swap with Santos

SANTOS acquired 100% of Eastern Star Gas (ESG) in November 2011 via a recommended Scheme of Arrangement under which ESG shareholders received 0.06803 Santos shares for every 1 ESG share held. Based on Santos share price at time of the offer of \$A13.23, the transaction valued ESG at A\$.90 per ESG share of \$924 million. Doug Battersby co-founded ESG and was a non-executive director until October 2008

Sapex (ASX) – Conventional + CSG 2007 October, 2008 20.0 X Cash/Share offer by Linc Energy

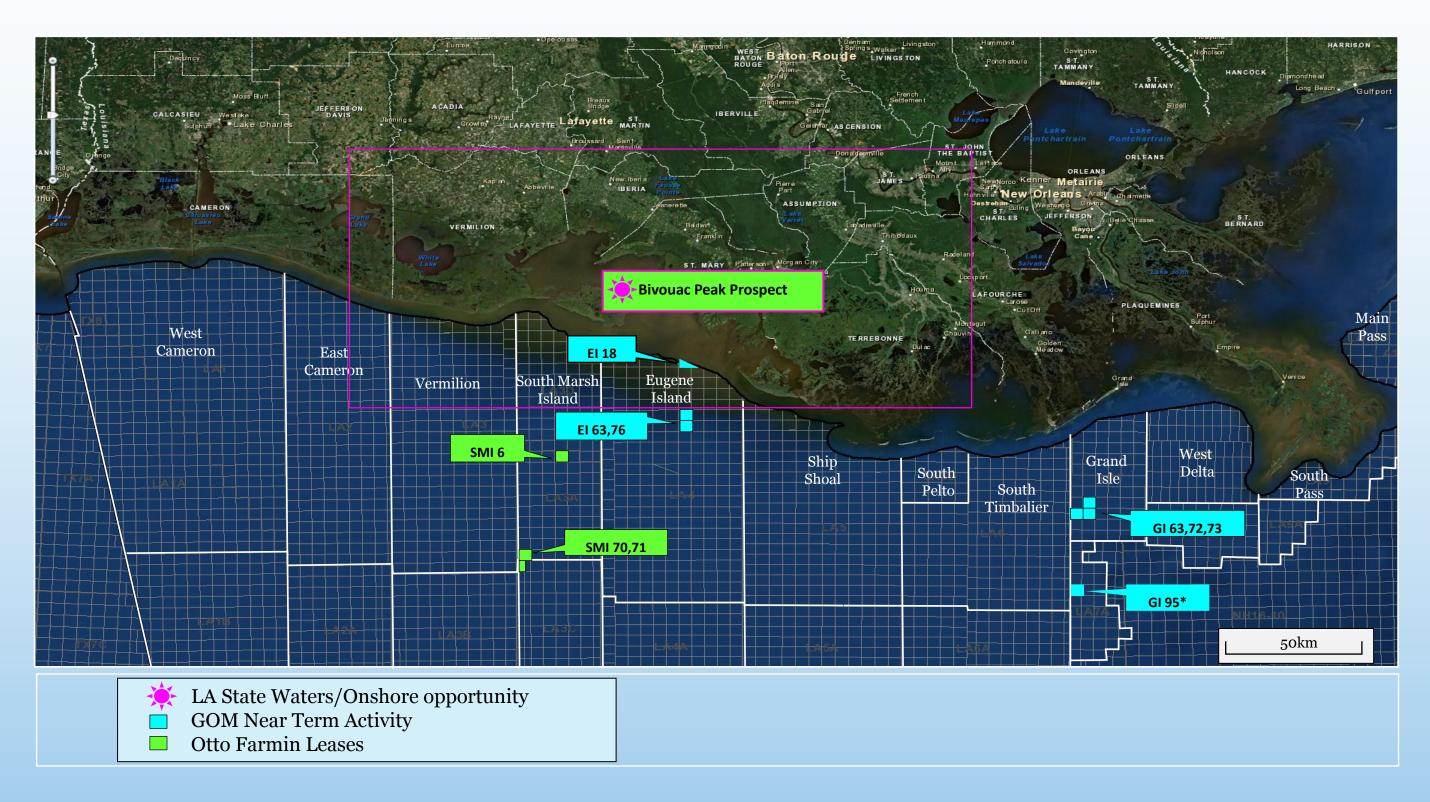
Linc Energy acquired 100% of SAPEX via a recommended Scheme of Arrangement for cash consideration of A\$0.72 per share and A\$0.50 per option, valuing SAPEX at A\$104.1 million. Doug Battersby co-founded SAPEX

Aurora Exploration, LLC (Private) – GOM 2000 2012 8.5 X Private asset sales Focus

William Sack Co-founded Aurora Exploration, LLC in 2000, (AEX) a private entity focused on generating and drilling GOM exploration opportunities, and under his leadership created substantial growth and monetized investments via multiple corporate level assets sales.



## Byron Energy – Opportunities September 2015 GOM & LA State Waters Locator





## Byron farms out Gulf of Mexico properties to Otto

### **Highlights**

- Byron Energy Limited has entered into a multi-well staged farm-out agreement with Otto Energy Limited that potentially injects \$US 17.3 million in capital into Byron's existing projects.
- This transaction accelerates Byron's drilling program in the Gulf of Mexico by partnering with a well-capitalised partner, reducing Byron's capital requirements while Byron retains operatorship and leverages its GOM expertise.
- Otto will earn a 50% working interest in Byron's SM 6 lease by paying a disproportionate share of drilling costs of the SM 6 #2 well and reimbursing a portion of Byron's past costs. Otto will then have an option to earn a 50% working interest in Byron's SM 70/71 leases by paying a disproportionate share of drilling costs of the SM 71 #1 well and reimbursing a portion of Byron's SM 70/71 past costs.
- Otto will also have an option to earn a 45% working interest in Byron's Bivouac Peak leases by paying a disproportionate share of drilling costs of the first well on the leases and reimbursing a portion of Byron's past costs.
- Byron will utilise the Hercules 264 jack up rig, as previously announced, to drill one well at SM 6, followed by an optional well at SM 71 beginning in the March 2016 quarter.
- Byron has also taken steps to place the SM6 lease on a path to production by executing a Production Handling Agreement with an offset operator and has applied for the necessary approvals with BOEM to modify the existing SM 6 caisson with the goal of establishing initial production in March 2017 quarter.

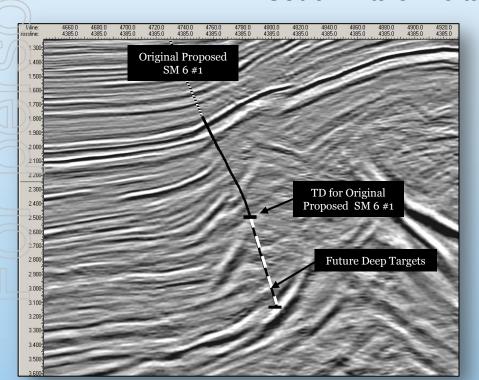


## **Employ the Right Technology**

## **RTM Depth Processing**

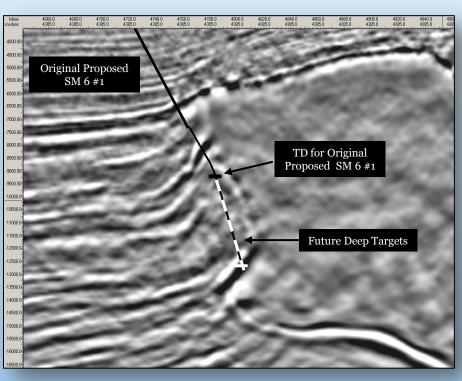
- Byron was an early adapter of Reverse Time Migration (RTM) processing on the GOM Shelf
- Utilizes the FULL wave equation to migrate unstacked seismic traces from the source to the receiver and back from the receiver to the source.
- The redundant nature of RTM (i.e., "two way migration") is a powerful tool that images complex geology such as salt domes.

### **South Marsh Island 6 Salt Dome Project**



Late 1990's 3D PreStack Time Migration Line 4392

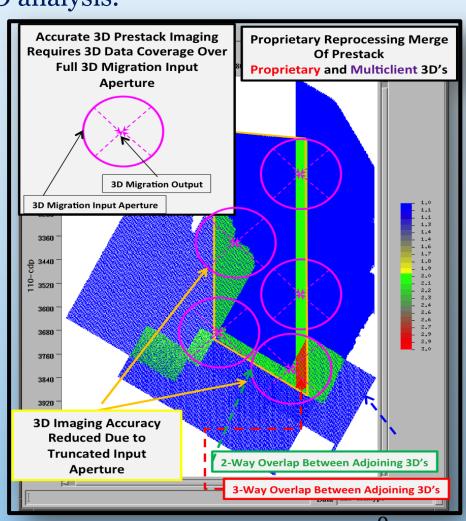
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2011 Anisotropic Reverse Time Migration (ARTM) Line 4392

### Merge and Reprocess "Legacy" Data

- Careful merging of older data volumes in transition zones between land marine acquisition has yielded high quality data and fills in the gaps in acquisition methods.
- Once volumes are correctly combined, amplitude, phase and frequency matching are the key to seamless data quality. Improved algorithms yield enhanced results.
- Once the final data is migrated on a pre stack basis, the end result is a data set with coverage that is unique, has been migrated with a better range of offsets and can be used for AVO analysis.



## South Marsh Island 6 Salt Dome Project

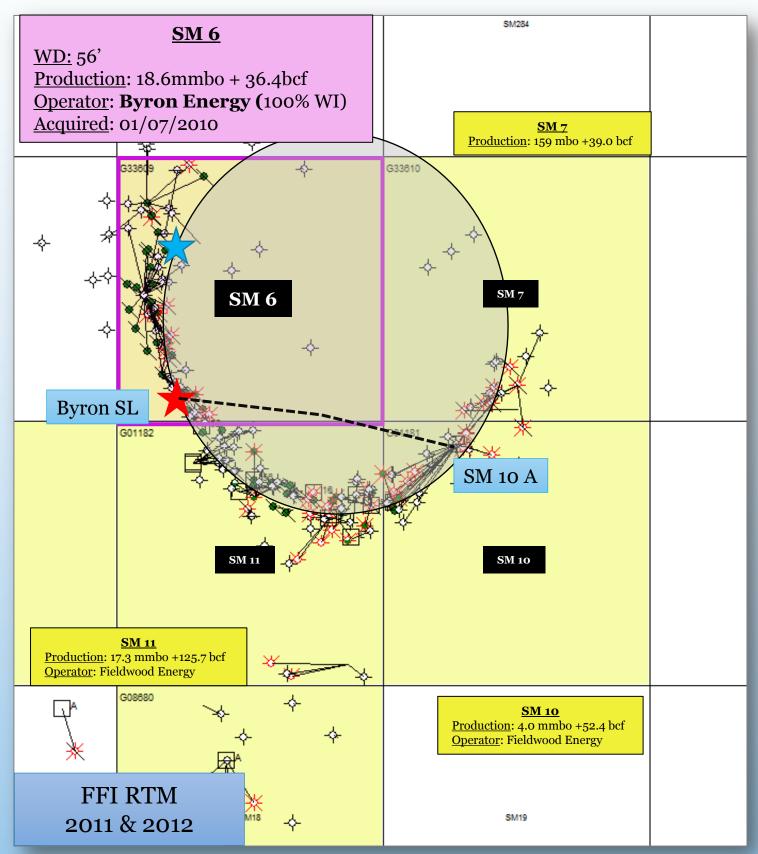
Operator:	Byron Energy Inc.
	Working Interest 100% Post Otto Earn-in 50%
	Net Revenue Interest 81.25% Post Otto Earn-in 40.625%
Acquired:	OCS Sale 210 March 2010
	\$321,696
Water Depth:	65'
<b>Block Production:</b>	18.5 mmbo + 37 BCF





## South Marsh Island 6 Location Map

Total Dome Production: 40 mmbo + 253 BCF



## **South Marsh Island Block 6**

- •Leased in March 2010
- •Acquired RTM 3D in 2011/2012
- •Drilled SM 6 001 well in 2014
  - •(cased and suspended inside caisson)
- •Lease held by Operations to 12/27/2015

### Go Forward Plan:

- •Submit SOP for Development through SM 10 A
  - install pipeline, deck and production equipment
- •Drill SM 6 #2 well early 2016 to prove up G20 Sand
  - •Drill under existing EP permit



## Collarini SM 6 Reserves (Undeveloped)

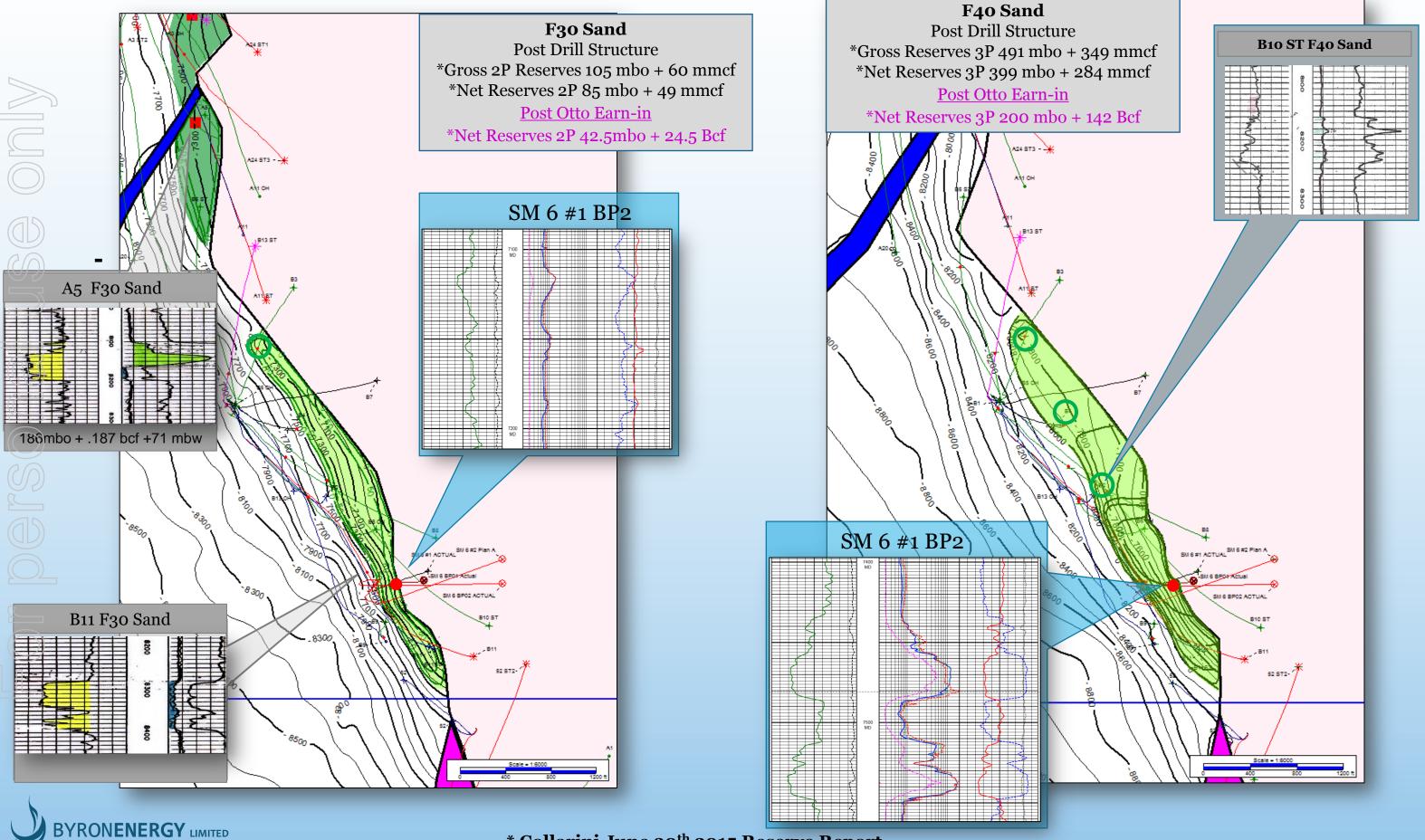
## Collarini July 1st, 2015 report

	Proved Reserves			Probable Reserves			Pos	sible Res	erves	Prospective Resource			
	MBO	MMCF	MBOE	МВО	MMCF	MBOE	MBO	MMCF	MBOE	MBO	MMCF	MBOE	
Total Gross	1,396	13,830	3,701	2,284	7,434	3,523	1,654	-4,854	845	8,868	145,718	33,154	
Total Net	1,134	11,237	3,007	1,856	6,040	2,863	1,344	-3,944	687	7,205	118,396	26,938	
Total Net (Post Otto Earn-in)	567	5,619	1,503	928				672 -1,972 343			59,198	13,469	

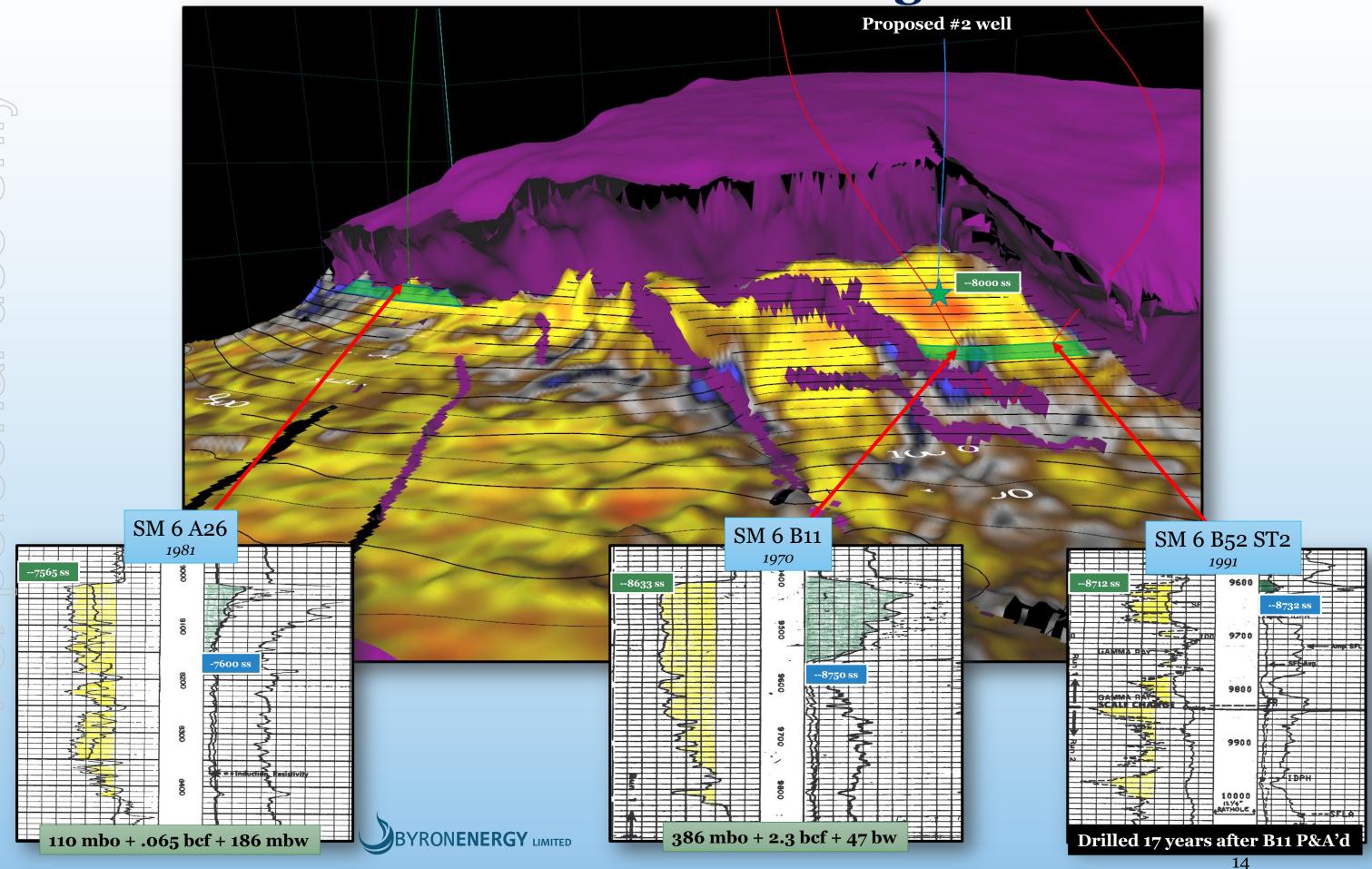
		1P			2P		3P			
	MBO	MMCF	MBOE	MBO	1BO MMCF MBOE			MMCF	MBOE	
Total Gross	1,396	13,830	3,701	3,680	21,264	7,224	5,334	16,410	8,069	
Total Net	1,134	11,237	3,007	2,990	17,277	5,870	4,334	13,333	6,556	
Total Net (Post Otto Earn-in)	567	5,619	1,503	1,495	8,639	2,935	2,167	6,667	3,278	



## **SM 6 #1 BP 2 Post Drill – F30/F40 Sands**

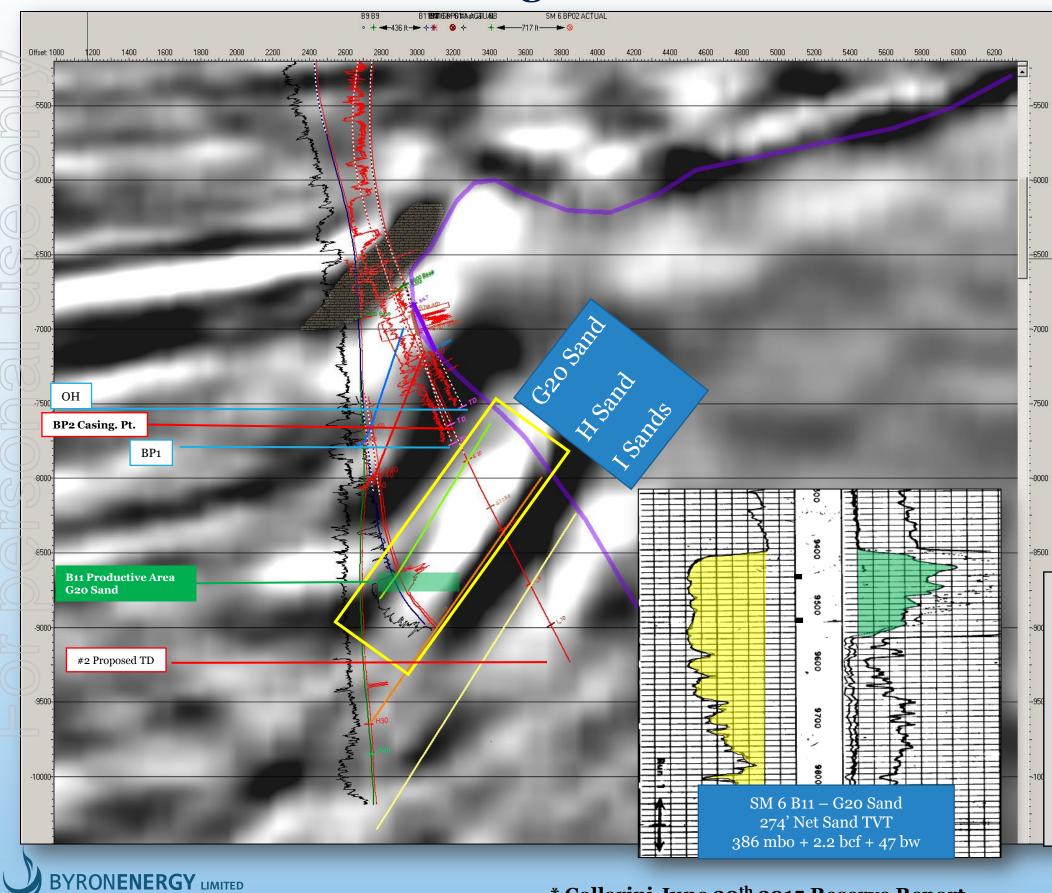


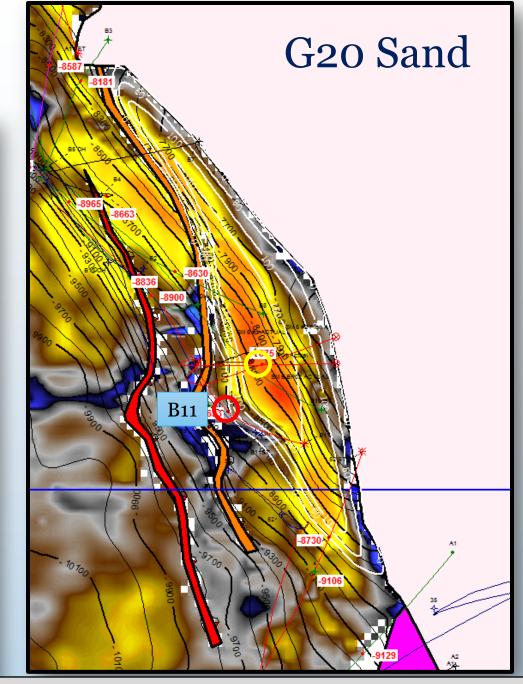
## SM 6 – G20 Production Along Salt Dome



## South Marsh Island 6 #2 Well

**G20 Sand Target** 





### **Expected G20 Reserves:**

Proved Gross Reserve: Probable Possible

402 mbo + 10.0 bcf 1,474 mbo + 1.0 bcf 1,347 mbo - 8.5 bcf

Total Net 3P

*Total Gross 3P* 3,223 mbo + 2.5 bcf 2,619 mbo + 2.0 bcf

Post Otto Earn-in Total Net 3P

1,310 mbo + 1.0 bcf

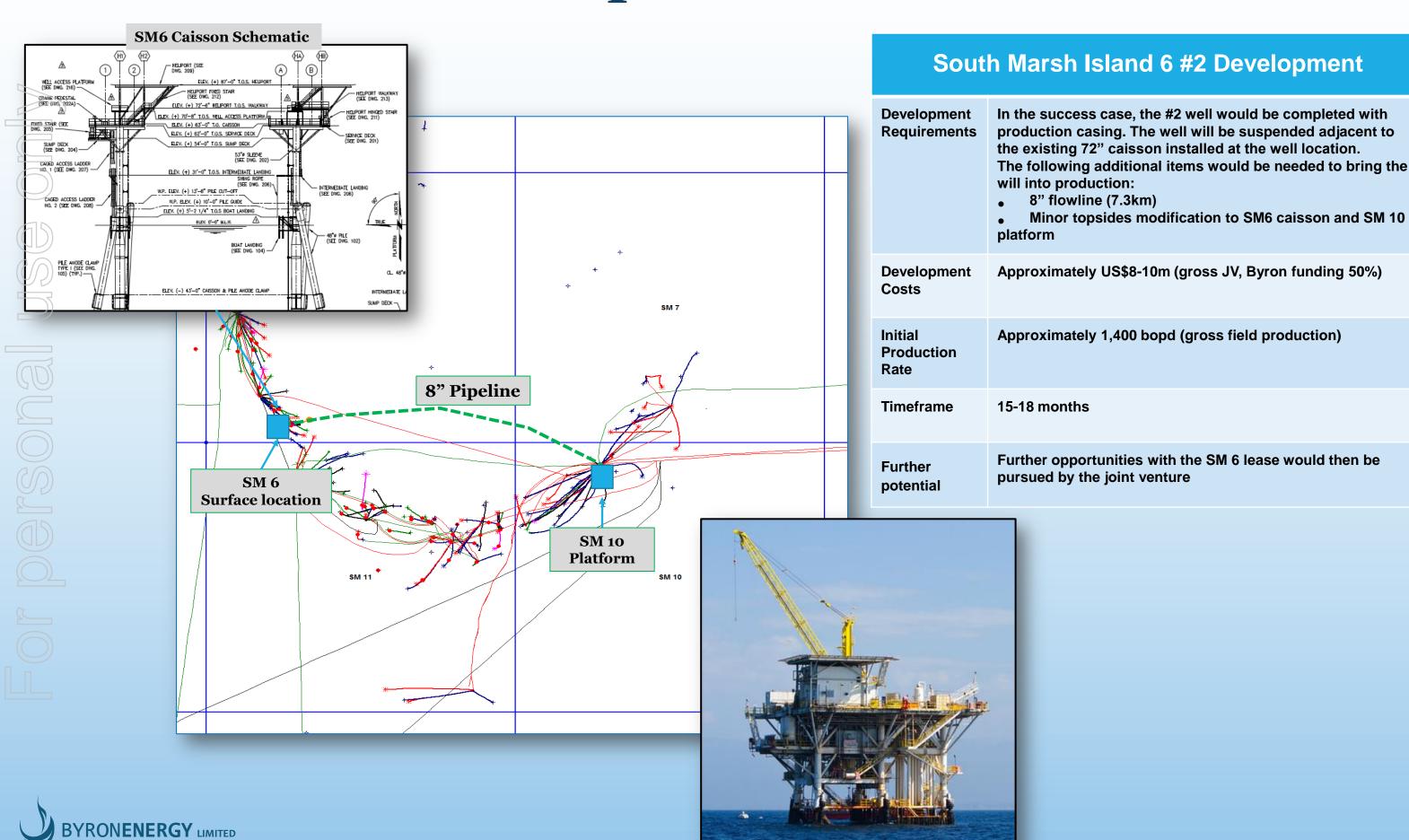
**Dry Hole Cost:** Case & Suspend: **Development: \$8.0 mm** 

**\$8.0** mm \$8.6 mm

\$2.7\* mm Net to Byron \$3.0\* mm Net to Byron \$4.0 mm Net to Byron

\* Before recovery of back costs

## SM 6 – Development Plan

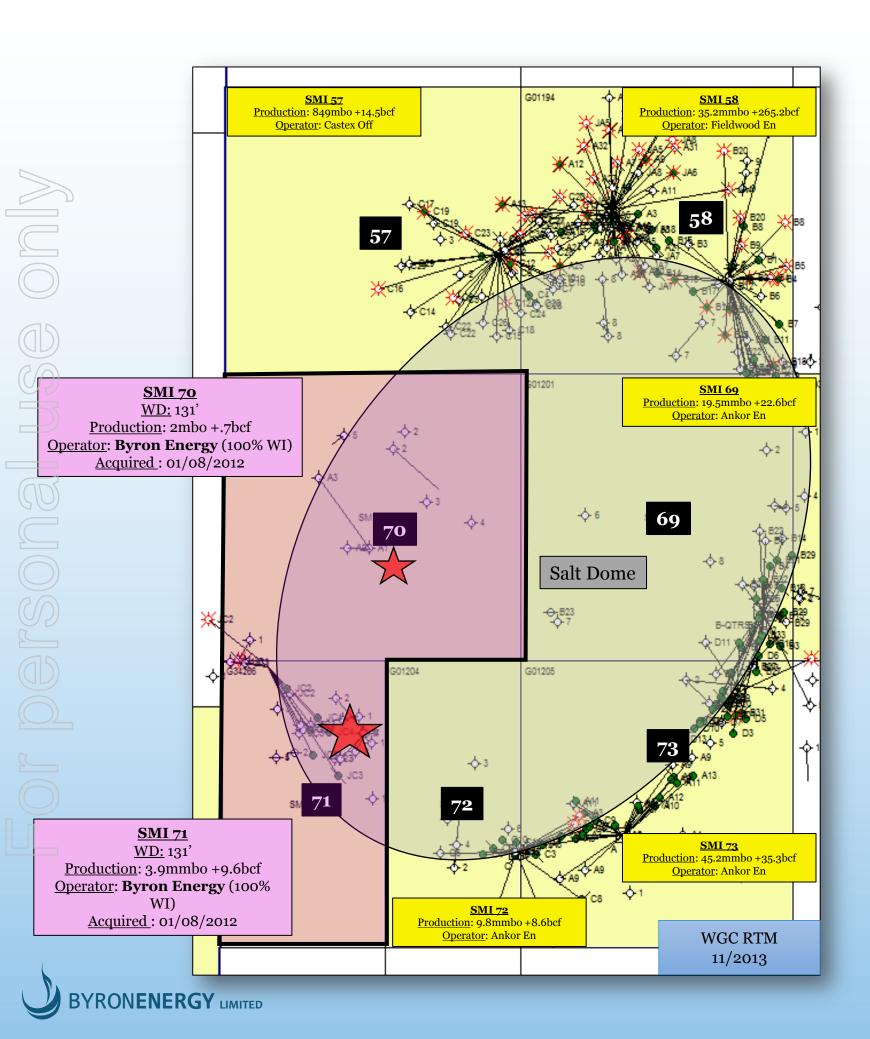


## South Marsh Island 70/71 Salt Dome Project

Operator:	Byron Energy Inc.
	Working Interest 100% Post Otto Option Exercise 50%
	Net Revenue Interest 81.25% Post Otto Option Exercise 40.625%
Acquired:	OCS Sale 222 June 2012
	\$166,620 Each Block
Water Depth:	131'
Combined Block Production:	3.9 mmbo + 10 BCF







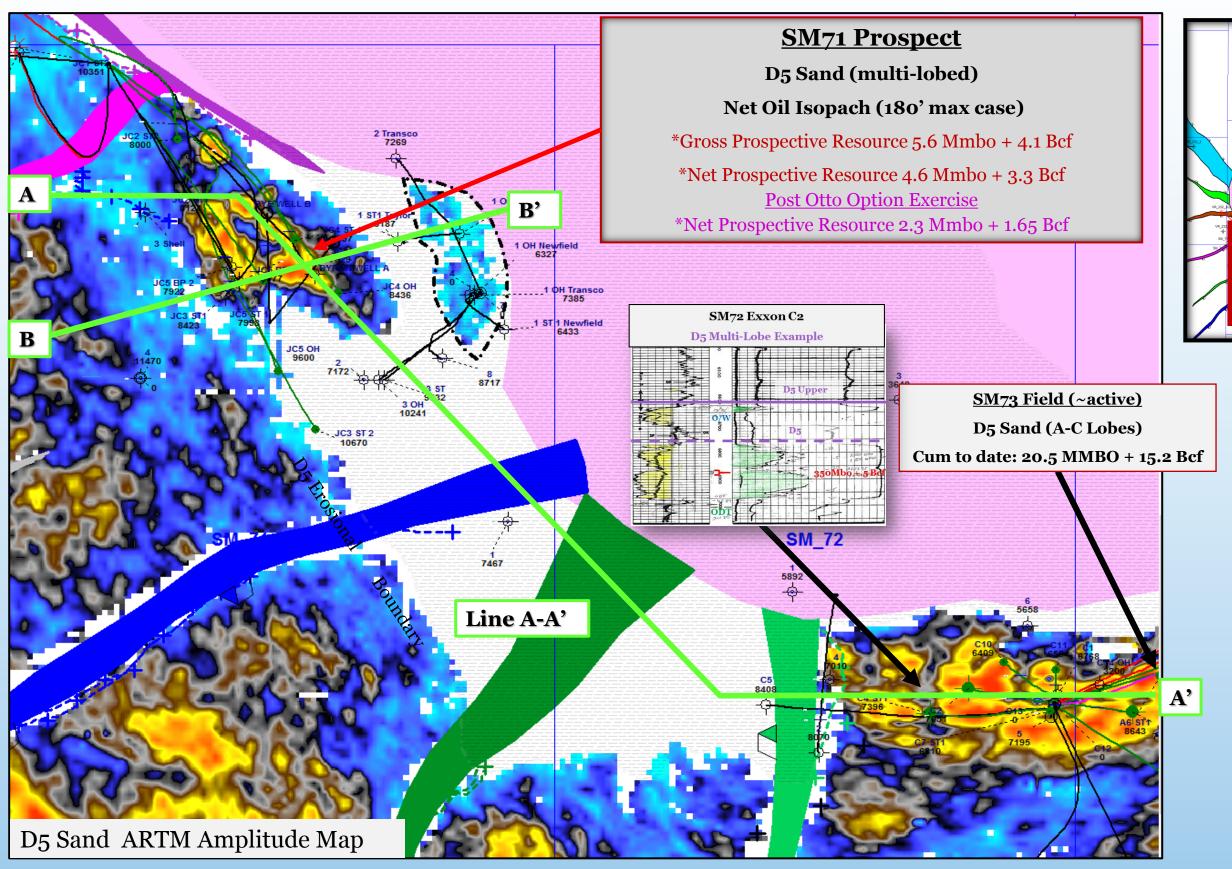
## SM 70/71 Location Map

Total Field Production 113 mmbo + 348 BCF

## SM 70/71 Salt Dome

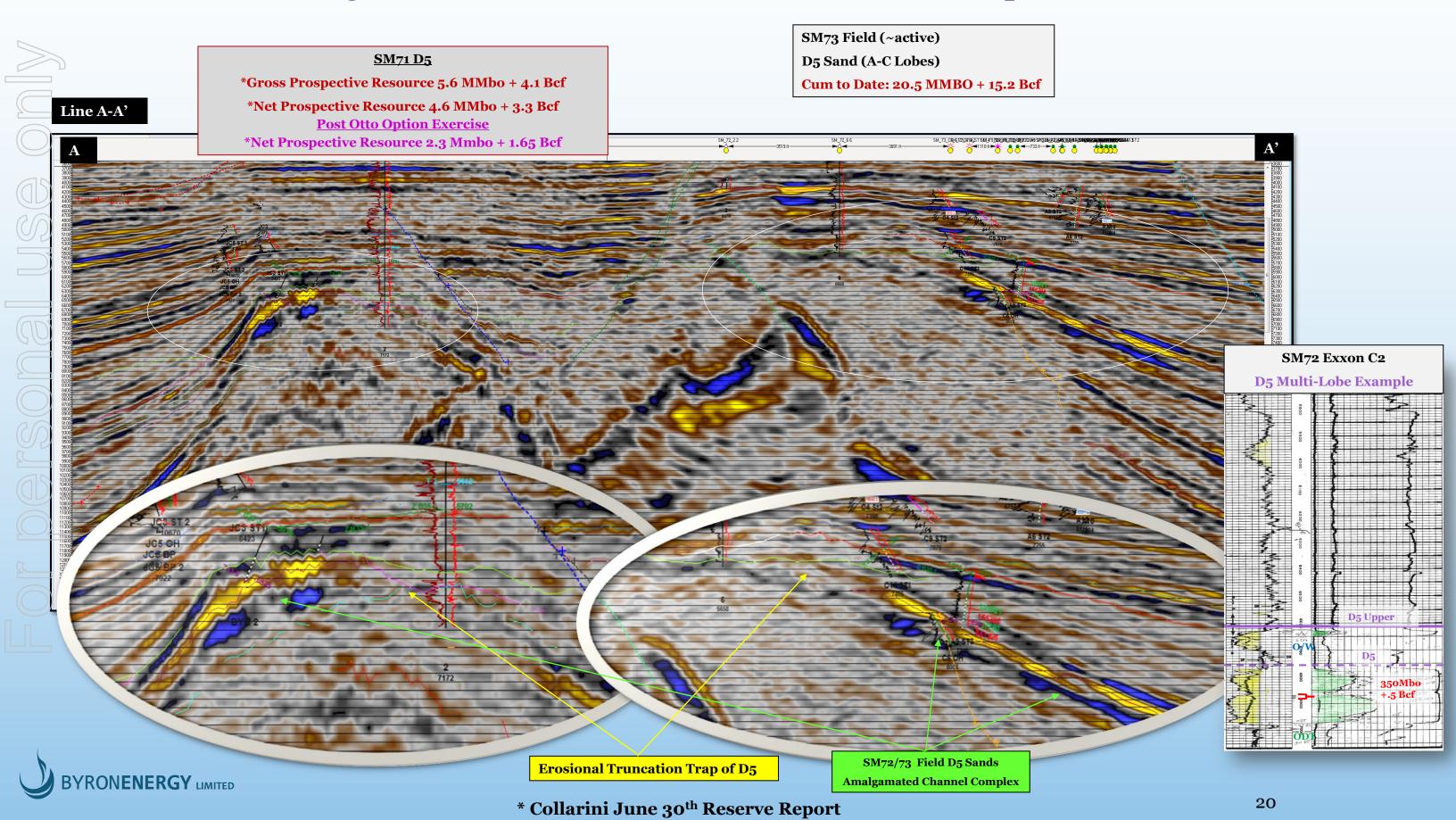
- SM 70 Dome has prolific oil production above 7500' TVD
  - 75 mmbo produced above 7500' TVD
- New RTM and Kirchhoff 3D migrations have defined the structural and stratigraphic setting for previously productive sands around the dome.
- Both RTM and Kirchhoff data show prospective areas of attic updip to production on SM71 at the J Sand level.
- Prospect Depths are 5500 tvd to 7000' TVD with large oil potential.
- Byron has mapped potential in the J Sand and the D5 sand on SM71
  - Both are prolific producers around the SM 70 dome

## **SM71 D5 Sand Prospect & Analog**





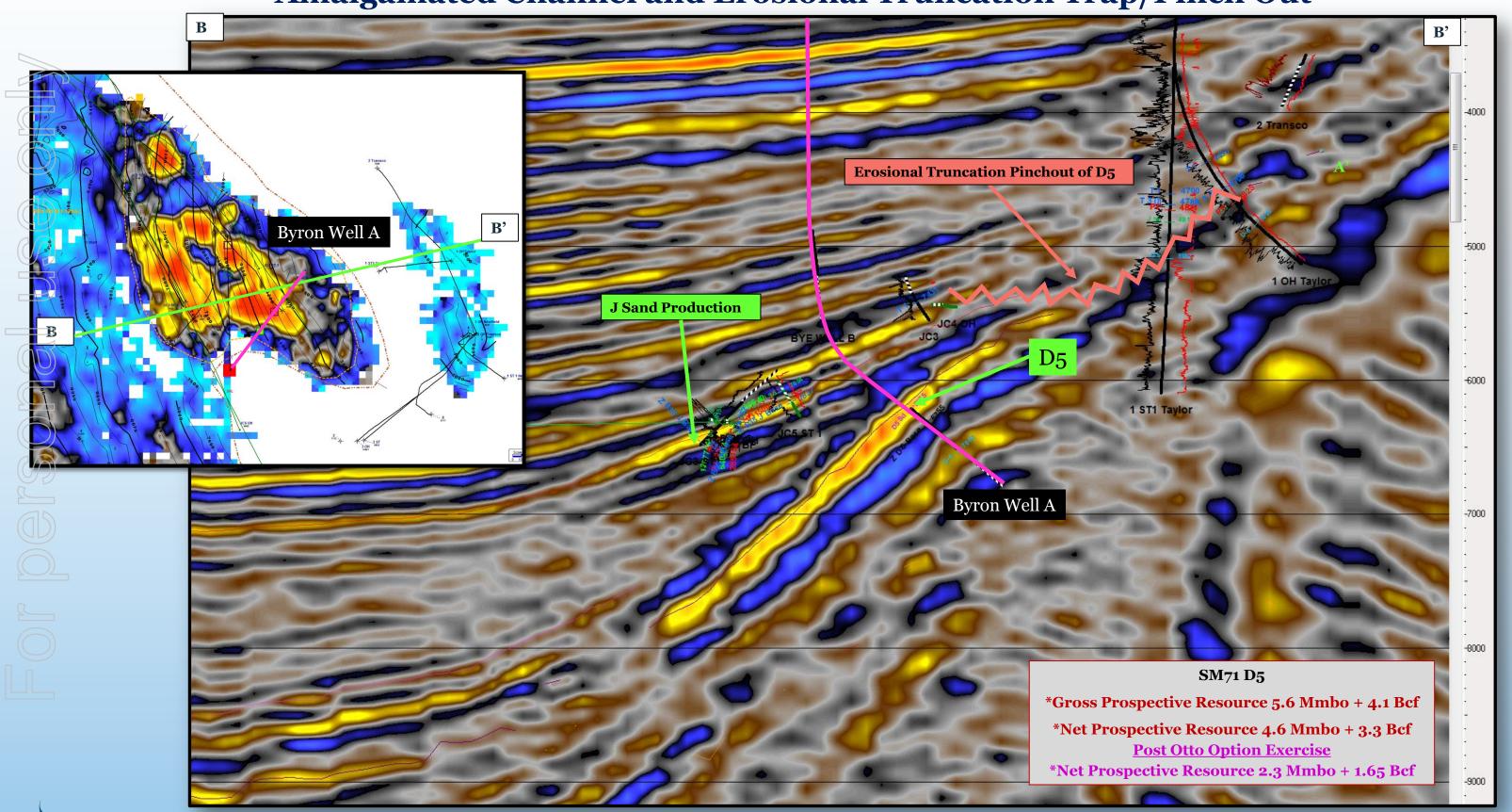
## SM71 D5 Sand Prospect & Analog (Amalgamated Channel and Erosional Truncation Trap elements)



## Line B-B'

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## SM71 D5 Sand Prospect (WG- ARTM Depth) Amalgamated Channel and Erosional Truncation Trap/Pinch Out



## Collarini SM 71 Reserves (Undeveloped)

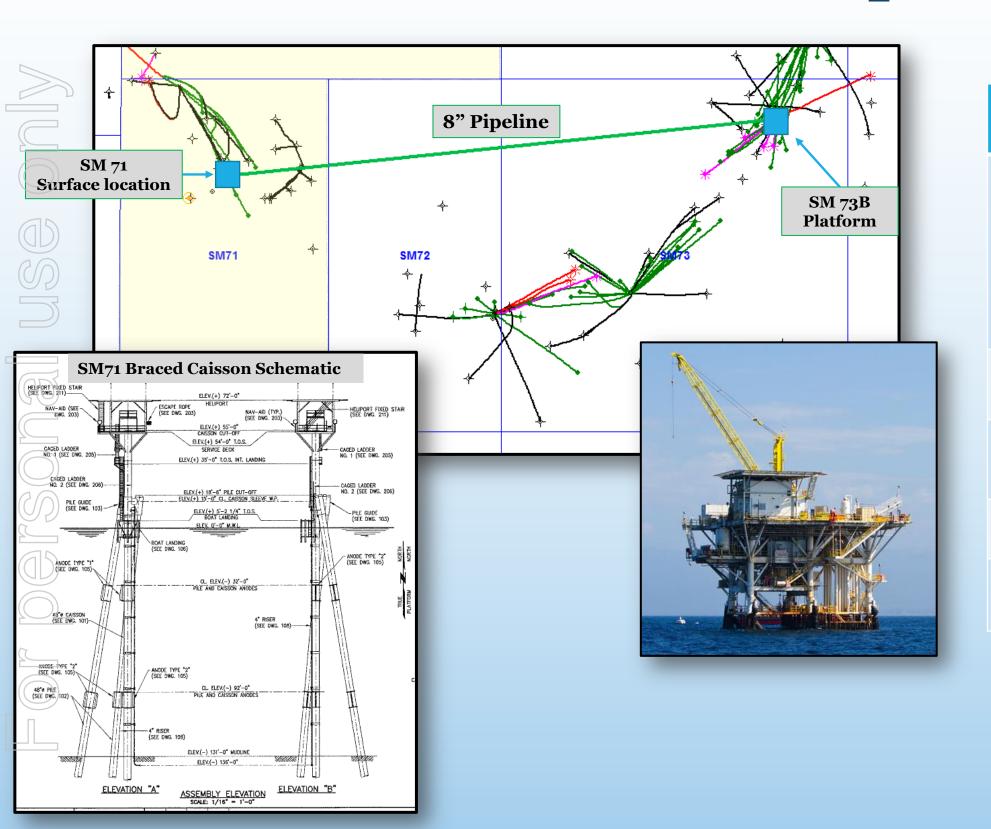
## Collarini July 1st, 2015 report

	Pı	roved Rese	rves	Probable Reserves			Pos	sible Res	serves	Prospective Resource			
	MBO MMCF MBOE				MMCF	MBOE	МВО	MMCF	MBOE	МВО	MMCF	MBOE	
Total Gross	613	331	668	231	126	252	436	338	492	5,604	4,135	6,293	
Total Net	498	269	543	188	102	205	354	275	400	4,553	3,360	5,113	
Total Net (Post Otto Option)	249	135	271	94	51	103	177	138	200	2,277	1,680	2,557	

		1P			2P		3P			
	MBO	MMCF	MBOE	MBO	MBO MMCF		MBOE MBO		MBOE	
Total Gross	613	331	668	844	457	920	1,280	795	1,413	
Total Net	498	269	543	686	371	748	1,040	646	1,148	
Total Net (Post Otto Option)	249	135	271	343	186	374	520	323	574	



## SM 71 – Development Plan



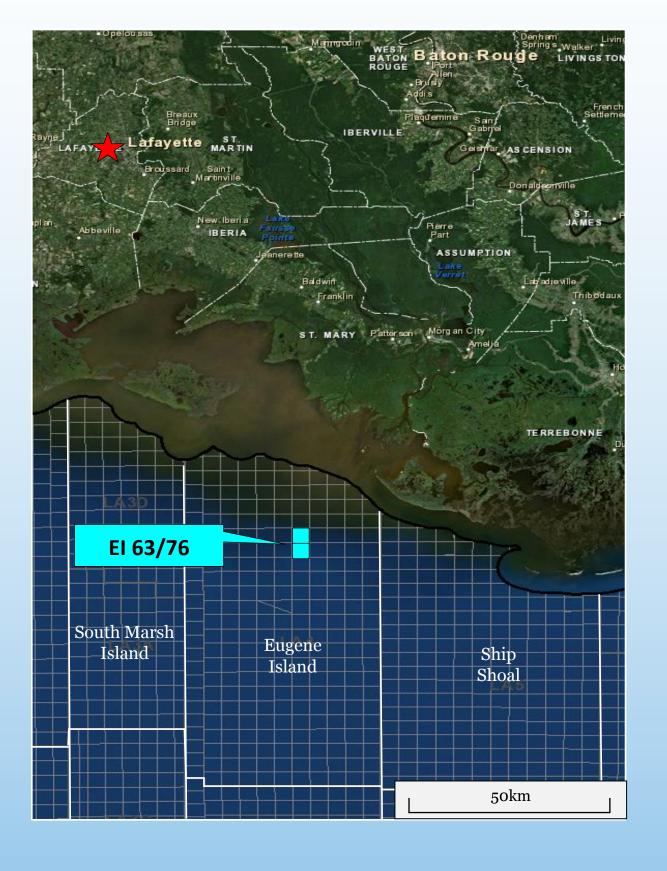
### **South Marsh Island 71 #1 Development**

Development Requirements	In the success case, the #1 well would be mudline suspended and completed for production after the installation of a braced caisson at the SM 71 surface location.  The following additional items would be needed to bring the well into production:  Braced caisson  Topside at SMI 71 and Topside modifications at SM 73 B  8" flowline (6.9 km)
Development Costs	Approximately US\$8- 10m (gross JV, Byron funding 50%)
Initial Production Rate	Approximately 2,000 bopd (gross field production)
Timeframe	15-18 months
Further potential	Further opportunities with the SM71 lease would then be pursued by the joint venture



## Eugene Island 63/76 Salt Dome Project

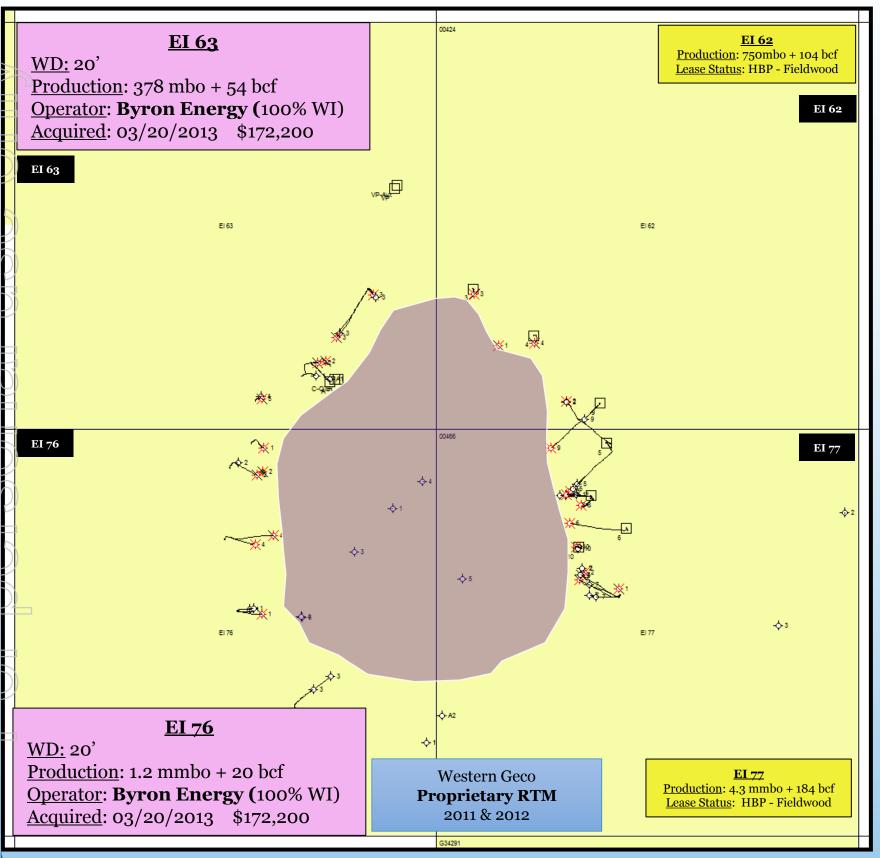
Operator:	Byron Energy Inc.
	Working Interest 100%
	Net Revenue Interest 81.25%
Acquired:	OCS Sale 227 March 2013
	\$172,200 Each Block
Water Depth:	20'
Combined Block Production:	1.5 mmbo + 74 BCF





## Eugene Island 63/76 Project

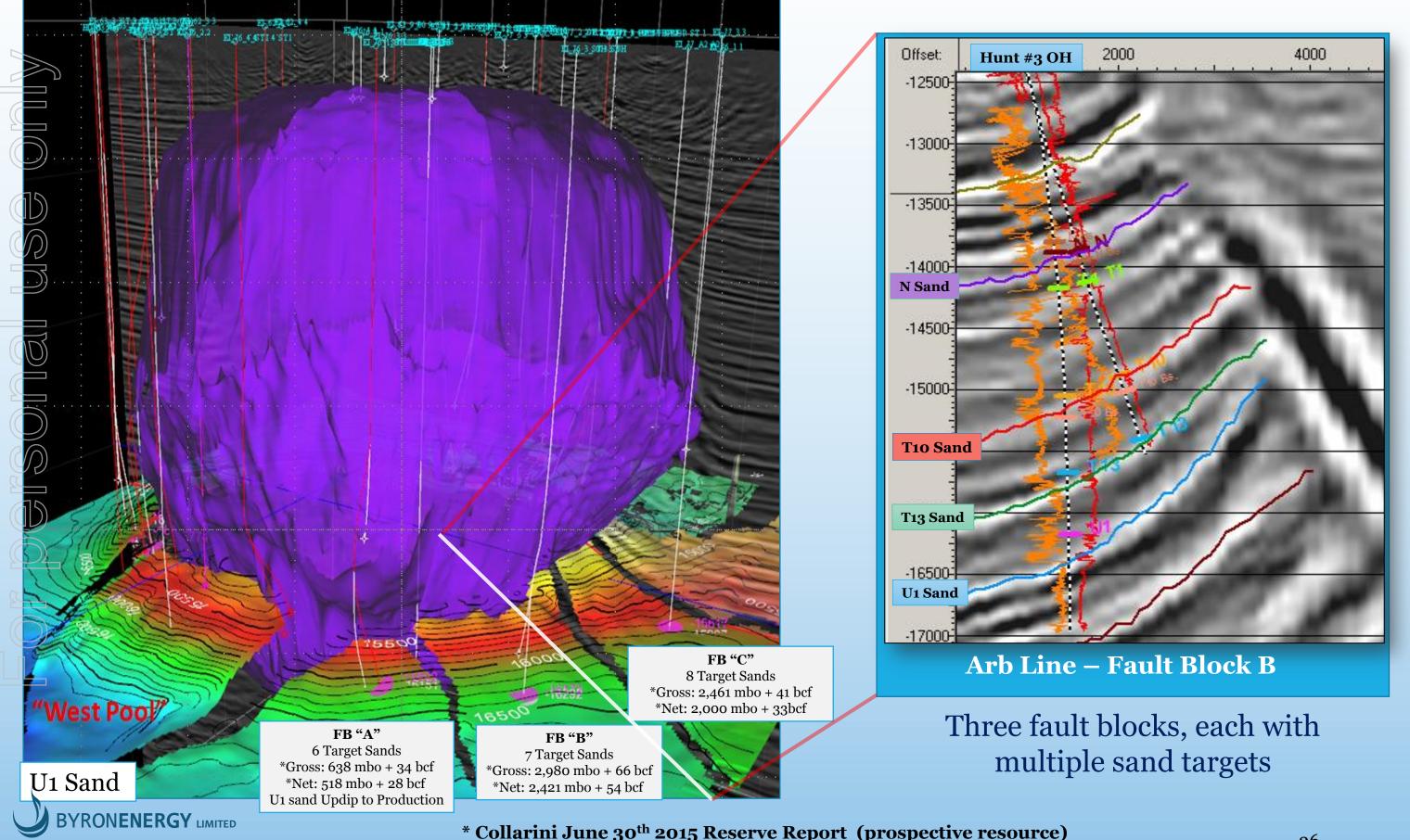
Total Dome Production: 6.6 mmbo + 362 bcf



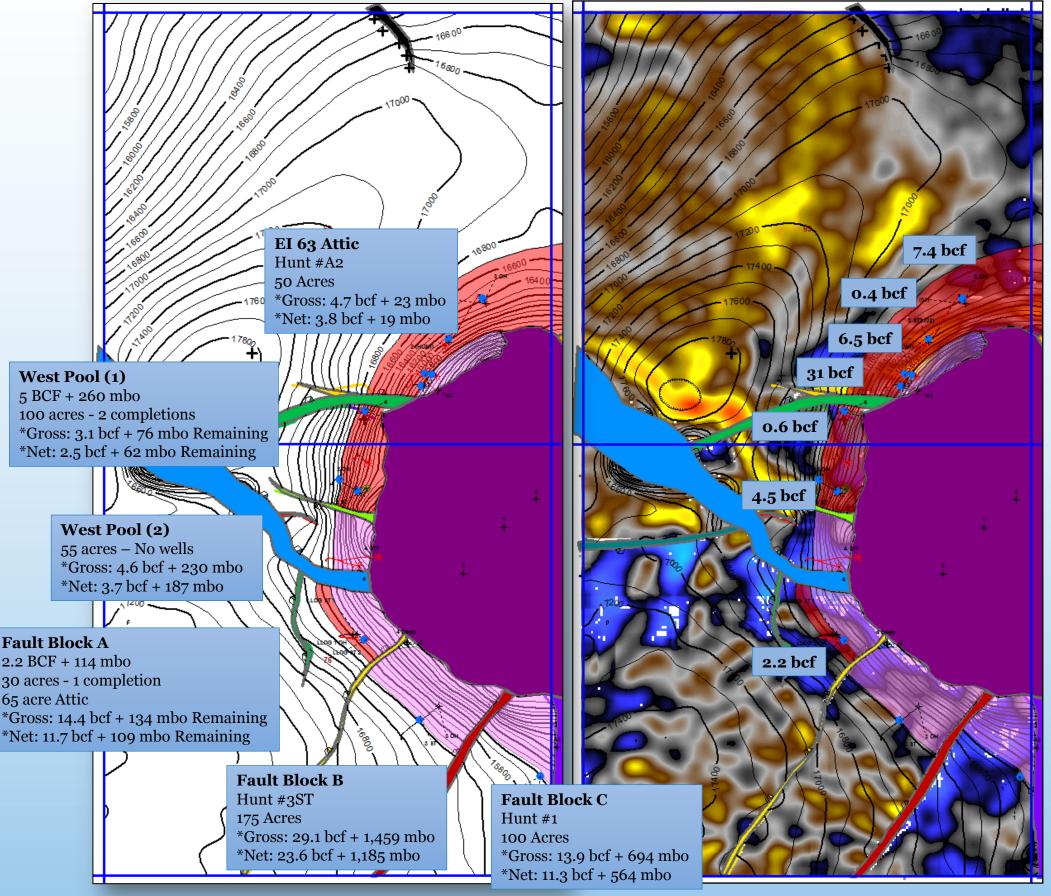
## EI 63/76 Salt Dome

- •Leased in March 2013
- •Byron Proprietary RTM Processing 2014
- •Interpretation of RTM indicates several fault blocks with potential to drill updip to production or sand rich wells on Byron acreage
- •Liquid rich potential in existing producing stratigraphic section
- •RTM allows excellent comparison of known productive areas to prospect areas

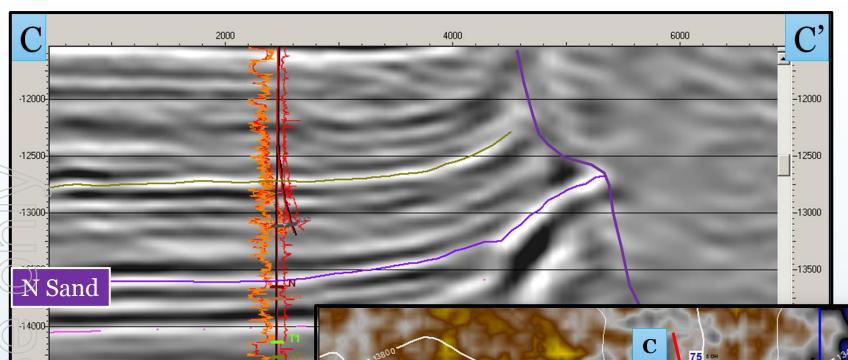
## EI 76 Southern Fault Blocks A, B & C



## EI 63/76 ARTM U1 Sand







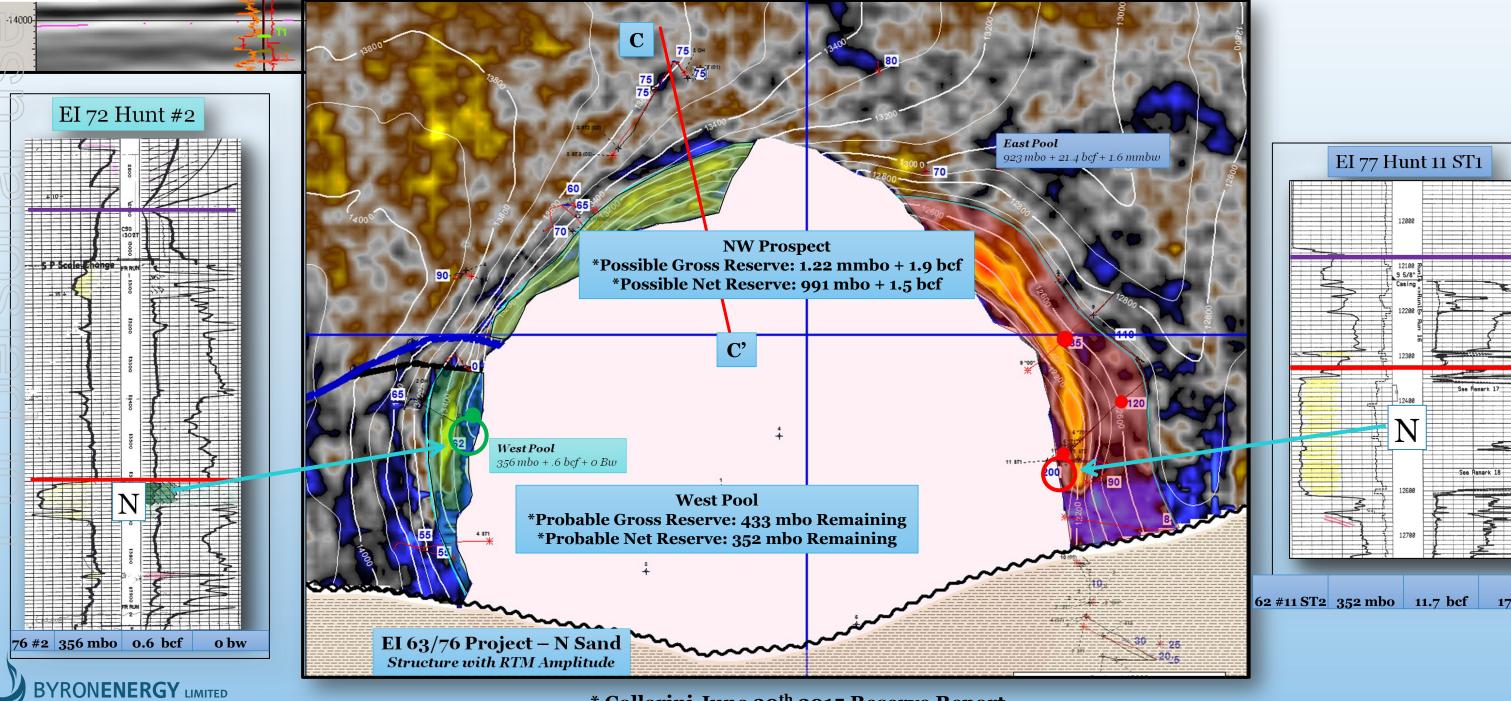
## EI 63 - N Sand Potential

### N Sand

- •Well Developed E W Oriented Channel Sand
- •Oil productive in EI 76, Gas productive in EI 62

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•Oil Potential in EI 63 – 1.22 mmbo



\* Collarini June 30<sup>th</sup> 2015 Reserve Report

## Collarini EI 63 Reserves (Undeveloped)

### Collarini July 1st, 2015 report

	Pi	oved Rese	erves	Pro	Probable Reserves			sible Re	serves	Prospective Resource			
	МВО	MMCF	MBOE	МВО	MMCF	MBOE	МВО	MMCF	MBOE	МВО	MMCF	MBOE	
Total Gross	0	0	0	433	700	550	527	852	669	8,764	211,513	44,016	
Total Net	0	0	0	352	569	447	428	692	543	7,121	171,854	35,763	

		1P			2P		3P					
	MBO	MMCF	MBOE	MBO	MMCF	MBOE	MBO	MMCF	MBOE			
Total Gross	0	0	0	433	700	550	960	1,552	1,219			
Total Net	0	0	0	352	569	447	780	1,261	990			



## EI 63/76 – Development Plan Full Scale Scenario





### BYRON ENERGY - GULF OF MEXICO OIL AND GAS RESERVES

Collarini Reserves Net to Byron June 30th 2015 * **														Cumulative Reserves BOE			
Reserves Category	Proved			Probable				Possible		Р	rospective	9	1P	2P	3P		
	Oil	Gas	Total	Oil	Gas	Total	Oil	Gas	Total	Oil	Gas	Total	Total	Total	Total		
Byron Operated Areas	<u>MBO</u>	MMcf	MBOE	<u>MBO</u>	MMcf	<u>MBOE</u>	<u>MBO</u>	MMcf	MBOE	MBO	MMcf	MBOE	<u>MBOE</u>	MBOE	MBOE		
SMI 6 Dome	1,134	11,237	3,007	1,856	6,040	2,863	1,344	-3,944	687	7,205	118,396	26,938	3,007	5,870	6,556		
SMI 70/71 Dome	498	269	543	188	102	205	354	275	400	4,553	3,360	5,113	543	748	1,148		
EI 63/76 Dome	0	0	0	352	569	447	428	692	543	7,121	171,854	35,763	0	447	990		
GI 95 Block	19	9,407	1,587	151	41,780	7,114	52	22,467	3,797	304	40,456	7,047	1,587	8,701	12,498		
Collarini Byron Reserve	1,651	20,913	,	2,547	48,491	10,629	2,178	19,490	,	19,183	334,066	74,861	5,137	15,765	21,192		

Collarini Reserves Net to Byron June 30th 2015 * ** (Post Otto earn-in at SMI 6 & option exercise at SMI 70/71)								<b>Cumulative Reserves BOE</b>							
Reserves Category		Proved		ı	Probable			Possible		Р	rospective	е	1P	2P	3P
	Oil	Gas	Total	Oil	Gas	Total	Oil	Gas	Total	Oil	Gas	Total	Total	Total	Total
Byron Operated Areas	MBO	MMcf	MBOE	<u>MBO</u>	<u>MMcf</u>	MBOE	<u>MBO</u>	<u>MMcf</u>	MBOE	MBO	<u>MMcf</u>	MBOE	MBOE	MBOE	MBOE
SMI 6 Dome	567	5,619	1,503	928	3,020	1,431	672	-1,972	343	3,603	59,198	13,469	1,503	2,935	3,278
SMI 70/71 Dome	249	135	271	94	51	103	177	138	200	2,277	1,680	2,557	271	374	574
EI 63/76 Dome	0	0	0	352	569	447	428	692	543	7,121	171,854	35,763	0	447	990
GI 95 Block	19	9,407	1,587	151	41,780	7,114	52	22,467	3,797	304	40,456	7,047	1,587	8,701	12,498
Collarini Byron Reserve	835	15,160	3,362	1,525	45,420	9,095	1,329	21,325	4,883	13,304	273,188	58,835	3,362	12,457	17,340

<sup>\*\*</sup> Note: EI 18, GI 62/72,73 & Bivouac Peak projects are not included in Collarini report. These projects are at various stages of evaluation with potential to further increase Byron's reserve position.



<sup>\*</sup> Note: Reported reserves represent undeveloped reserves

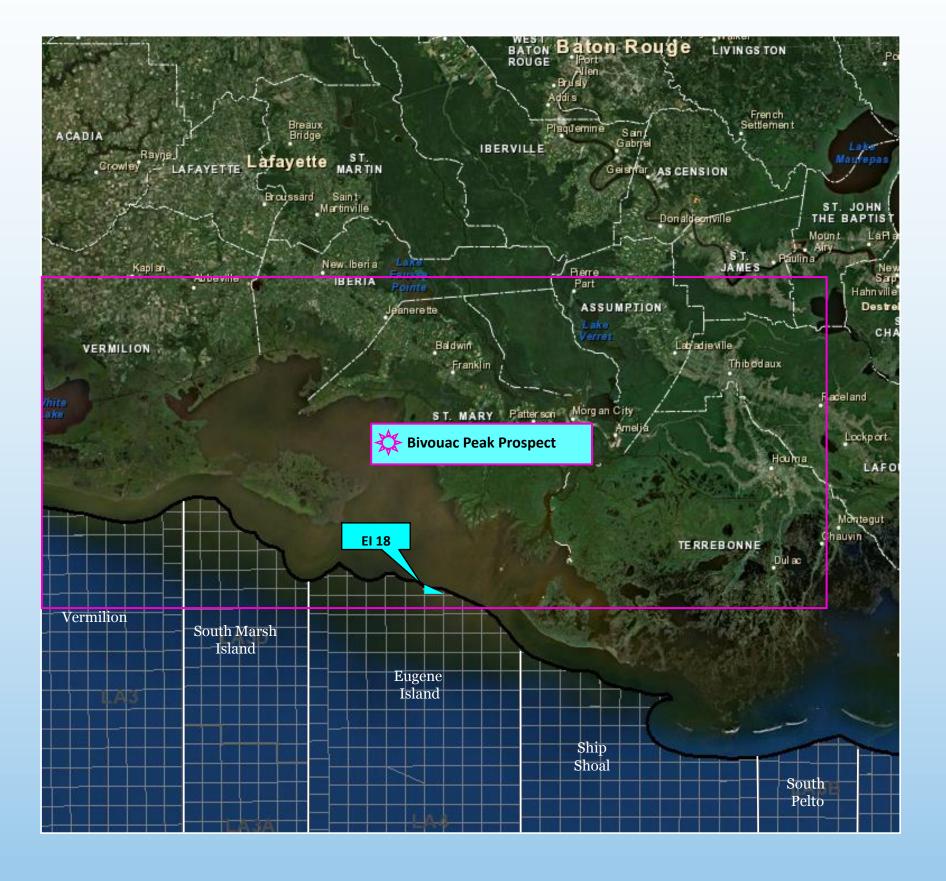
## Byron Capex & Opex per BOE Summary Collarini June 30<sup>th</sup> 2015

Capex per Boe 2015 Collarini Jun	Cumulative Capex of Reserves/Boe								
								3P and	
	Proved	Probable	Possible	Prospective	1P	2P	3P	Prospective	
SMI 6 Block (excl past cost)	\$16.63	\$9.86	\$6.60	\$5.25	\$16.63	\$13.33	\$12.62	\$6.70	
SMI 71 Block (excl past costs)	\$32.14	\$0.24	\$28.31	\$2.43	\$32.14	\$23.40	\$25.11	\$6.59	
El 76 Block (excl past costs)	\$0.00	\$40.92	\$4.43	\$8.87	\$0.00	\$40.92	\$20.90	\$9.19	
GI 95 Block (excl past costs)	\$10.23	\$7.86	\$0.16	\$7.78	\$10.23	\$8.29	\$5.82	\$6.53	
Total Byron Operated Areas Capex/Boe	\$16.30	\$9.65	\$3.49	\$7.03	\$16.30	\$11.82	\$9.69	\$7.61	
Opex per Boe 2015 Collarini June 30th 2015					Cumulative Opex of Reserves/Boe				
SMI 6 Block	\$5.55	\$3.94	\$16.14	\$3.64	\$5.55	\$4.77	\$5.96	\$4.09	
SMI 71 Block	\$5.40	\$5.61	\$3.62	\$3.85	\$5.40	\$5.45	\$4.82	\$4.02	
El 76 Block	\$0.00	\$17.70	\$19.89	\$4.59	\$0.00	\$17.70	\$18.90	\$4.98	
GI 95 Block	\$8.54	\$2.96	\$7.05	\$1.03	\$8.54	\$3.98	\$4.91	\$3.51	
Total Byron Operated Areas Opex/Boe	\$6.45	\$3.90	\$9.24	\$3.87	\$6.45	\$4.73	\$5.89	\$4.31	
(Capex + Opex)/Boe	\$22.76	\$13.55	\$12.73	\$10.89	\$22.76	\$16.55	\$15.58	\$11.92	



## **Bivouac Peak Prospect**

Operator:	Byron Energy Inc.
	Working Interest 90% Post Otto Earn-in 45%
	Net Revenue Interest 67.05% Post Otto Earn-in 33.525%
Acquired:	November 2015 from private Landowners. ~ 2400 acres
Water Depth:	Onshore Louisiana





## BIVOUAC PEAK: Multi-play Lease Block

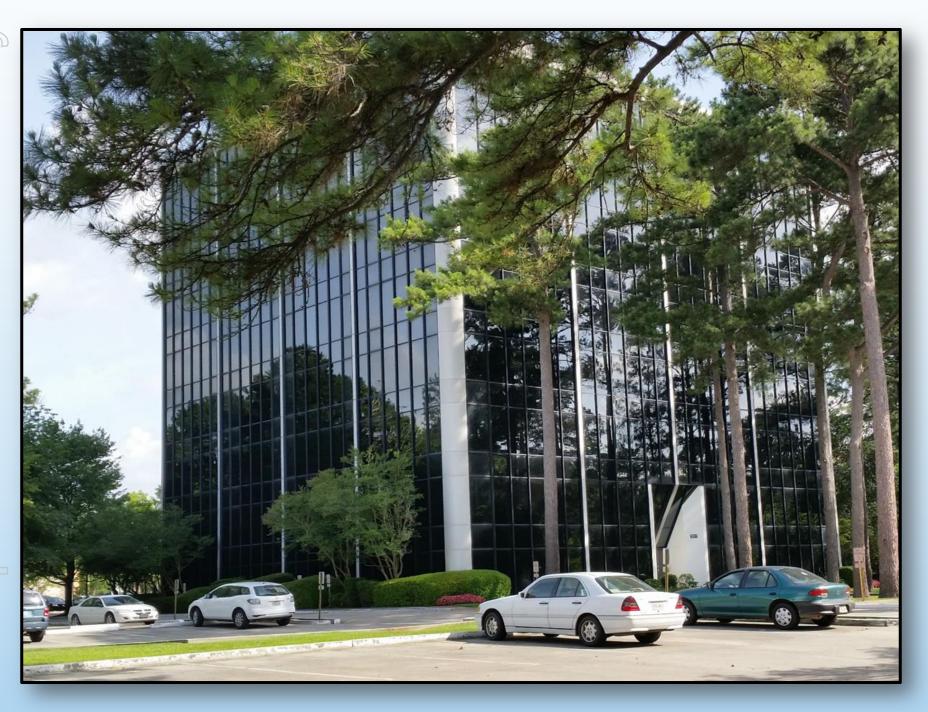
Lease: 2500 Acres

### Bivouac Peak #1 (will test prospect A) Event A • #1 Prospective Resource: \*Gross: 103 Bcf + 9.2Mmbo \*Net: 69.2 Bcf + 6.2 Mmbo (Post Otto Earn-in \*Net: 34.6 Bcf + 3.1 Mmbo) #1 Well Est Rates: 35 mmcfpd + 600 bopd/well • #1 Est Depth: 17,500' Tvd • #1 Est DHC: \$9-\$10mm #1 Estimated Completion: \$3mm ■ #1 Est Development: \$2-\$3mm ■ **Analogs:** Little Bay Field (>45Bcf), Dutch/MaryRose(~850 Bcfe) Bivouac Peak Prospects (A), (B) & (C) (Event A) (Stacked amplitudes and AVO attribute support): Event A Prospective Resource: \*Gross: 103 Bcf + 9.2Mmbo \*Net: 69.2 Bcf + 6.2 Mmbo (Post Otto Earn-in \*Net: 34.6 Bcf + 3.1 Mmbo) 220 – 350 acres; stacked objectives **Tests Middle Miocene ~ 17,000'** (Event B): Event B 175 – 220 acres; stacked objectives Tests Middle Miocene ~ 17,000' (Event C) Deep Lead: Event C >500-1000 acres Lead stage, Possibly tested, High reservoir risk



Additional seismic required, Lower Miocene objective

## Byron US Office - Lafayette Louisiana Suite 604, 201 Rue Iberville



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## **Defined Terms**

### <u>Defined Reserves and Resources Terms</u>

"BBl" or "Bbl" means barrel

"bo" means barrels of oil

"boe" means barrels of oil equivalent and have been calculated using liquid volumes of oil and condensate and treated volumes of gas converted using a ratio of 6 MSCF to 1bbl oil equivalent, unless otherwise stated

"cf" means standard cubic feet

"M" or "m" prefix means thousand

"MM" or "mm" prefix means million

"B", "b" prefix means billion

"pd" or "/d" suffix means per day

### Other defined Terms

"\$" or "US\$" means United States (US) dollars, unless otherwise stated

"NRI" means net revenue interest within leases

"WI" means working interest within leases

"NPW" means net present worth



There are a number of risks which may impact on the operating and financial performance of the Company and, therefore, on the value of its shares. Some of these risks can be mitigated by the Company's systems and internal controls, but many are outside of the control of the Company and the Board. There can be no guarantee that the Company will achieve its stated objectives or that any forward-looking statements will eventuate. An investment in a company with the characteristics of Byron could be considered speculative and an investor could lose most or all of any investment. There are also general risks associated with any investment in shares. A number of material risk factors which may adversely affect the Company and the value of its shares are set out below.

#### **Industry Risks**

#### Oil and gas exploration and development is a high risk activity

The Company's future success largely depends on the success of its exploration drilling programme. Participation in exploration drilling activities involves numerous risks, including the significant risk that no commercially productive natural gas or oil reservoirs will be discovered. The Company assumes additional risk as operator, particularly in drilling high pressure wells and high temperature wells in the Gulf of Mexico. The cost of drilling, completing and operating wells and of installing production facilities and pipelines is often uncertain. Drilling costs could be significantly higher if difficulties are encountered in drilling offshore exploration wells. The Company's drilling operations may be curtailed, delayed, cancelled or negatively impacted as a result of numerous factors, including title problems, weather conditions, compliance with governmental requirements and shortages or delays in the delivery or availability of material, equipment and fabrication yards. In periods of increased drilling activity resulting from high commodity prices, demand exceeds availability for drilling rigs, drilling vessels, supply boats and personnel experienced in the oil and gas industry in general and the offshore oil and gas industry in particular. This may lead to difficulty and delays in consistently obtaining certain services and equipment from vendors, obtaining drilling rigs and other equipment at favourable rates and scheduling equipment fabrication at factories and fabrication yards. This in turn may lead to projects d being delayed or experiencing increased costs.

#### Results may differ materially from estimates

Interpretations and estimates by Byron of its oil and natural gas reserves, including the estimates of ratio of oil to gas in certain circumstances, and the costs and timing associated with developing those reserves may not be accurate. Byron cannot provide assurance that its geo-scientific or other analysis will accurately predict the characteristics and potential reserves associated with its drilling prospects. Development of reserves may not yield expected results, or there may be delays or cost overruns which could adversely affect operational results and Byron's financial position.

Byron has no in house reservoir engineering capability, and therefore relies on the accuracy of the periodic reservoir reports provided by its independent third-party reservoir engineers. If those reports prove to be inaccurate, Byron's financial reports could have material misstatements. Further, Byron uses the reports of its independent reservoir engineers in its financial planning. If the reports of the outside reservoir engineers prove to be inaccurate, Byron may make mis-judgments in its financial planning.

### Pricing of oil and natural gas

Oil and natural gas prices are volatile and low prices could have a material adverse impact on cash flow and on Byron's business. Among the factors that can cause these fluctuations are:

- The domestic and foreign supply of natural gas and oil
- Overall economic conditions
- The level of consumer product demand
- Adverse weather conditions and natural disasters
- The price and availability of competitive fuels such as heating oil and coal
- $\bullet$  Political conditions in the Middle East and other natural gas and oil producing regions
- The level of LNG imports into USA
- Domestic and foreign governmental regulations
- Special taxes on production

### Development of undeveloped reserves may take longer and cost more than anticipated

Development of undeveloped reserves may take longer and cost more than presently anticipated. Delays could cause a reclassification of the status of reserves with a potential loss in value of those reserves and therefore any investment in Byron.

### Rapid growth and increased demands on resources

If Byron's development programme is successful, it is likely that it will experience a rapid growth in its operations which could place significant demand on managerial, operational and financial resources due to the need to manage relationships with business partners; difficulties in hiring, managing and retaining appropriate personnel and pressures for the development of information systems.



#### **Industry Risks (cont)**

#### Competitive forces are strong

Competition in the oil and natural gas industry is intense which may make it more difficult for Byron to acquire further properties, market oil and gas and secure trained personnel. There is also competition for capital available for investment, particularly since alternative forms of energy (in particular shale gas) have become more prominent. Most competitors possess and employ financial, technical and personnel resources substantially greater than those available to Byron. As a result increased costs of capital could have an adverse effect on Byron's business.

#### **Regulatory Risk**

Byron's oil and gas operations in the Gulf of Mexico, USA are subject to regulation at the US federal, state and local level and some of the laws, rules and regulations that govern operations carry substantial penalties for non-compliance. Rules and regulations affecting the oil and gas industry are under constant review for amendment or expansion. The regulatory response to the Deepwater Horizon incident and resulting oil spill has had the effect of delaying lease sales (although sales resumed in June 2012) but has also increased operating, financial (in particular insurance) and capital costs

In addition to possible increased costs, the imposition of increased regulatory based procedures may result in delays in being able to initiate or complete drilling programmes.

#### Ability to execute drilling and operating programmes

Shortages or increases in the cost of drilling rigs, equipment, supplies or personnel could delay or adversely affect Byron's operations which could have a material adverse effect on its business, financial condition and results. Where Byron is not the operator for its operations, it will not be able to control the timing of some of the exploration and development programmes or the rate of production of any non-operated assets. Where Byron is the operator it assumes additional responsibilities and risks. As the designated operator, Byron, under the BOEM regulations, will be required to post bonds for exploration and development activities as well as for production activities and future decommissioning obligations. There is the risk that the Company may not be able to obtain sufficient bonding and may have to collateralise obligations with cash. If the Company was unable to provide such bonds, it would not be able to proceed with its operating plans. In addition, as the designated operator Byron will have to demonstrate the required oil spill financial responsibility ("OSFR") under the Oil Pollution Act of 1990. The OSFR is based on worst case oil-spill discharge volume. Byron expects to demonstrate OSFR requirement through the purchase of OSFR insurance coverage, a method of demonstrating OSFR acceptable to the BOEM. If the Company was unable to demonstrate OSFR as required by the BOEM, it would not be able to proceed with its operating plans.

#### Offshore operations involve special risks that could affect operations adversely

Offshore operations are subject to a variety of operating risks specific to the marine environment including capsizing, collisions and damage or loss from hurricanes or other adverse weather conditions. These could result in substantial liabilities and impact on the Company's ability to fund ongoing exploration and development programmes.

Hurricanes in the Gulf of Mexico can have a significant impact on oil and gas operations. The effects from past hurricanes have included structural damage to fixed facilities, semi submersibles and jack-up drilling rigs.

### Dependence on third party pipelines and operators

Byron may in the future, depend on third party platforms and pipelines that provide processing and delivery options from its facilities. As these platforms and pipelines are not owned or operated by Byron, their continued operation is not within Byron's control. Revenues in the future may be adversely affected if Byron's ability to process and transport oil or natural gas through those platforms and pipelines is impaired. Part of Byron's strategy is to find suitable partners to drill and operate its assets in order to mitigate the costs associated with the development of its assets. As a result, other companies may from time to time drill, complete and operate properties in which Byron has an interest. Byron has limited ability to exercise influence over operations for these properties or their associated costs. The success and timing of Byron's drilling and development activities on properties operated (or to be operated) by other companies therefore depends upon a number of factors that are outside of Byron's control, including but not limited to finding suitable joint venture partners, timing and amount of capital expenditures.

### Future asset retirement obligations (AROs)

Byron is required to record a liability for the present value of AROs to plug and abandon inactive, non-producing wells, to remove inactive or damaged platforms, facilities and equipment and to restore land and seabed when production finishes. Estimating future costs is uncertain because most obligations are many years in the future, regulatory requirements will change and technologies are evolving which may make it more expensive to meet these obligations.

### Climate change

Byron's operations and the use of oil that may be produced by Byron generate greenhouse gas emissions. There is increasing recognition that energy consumption is a contributor to global warming, greenhouse effects and potentially climate change. A number of governments or governmental bodies, including those in the USA and Australia, have introduced or are contemplating regulatory change in response to the potential impacts of climate change and greenhouse gas emissions. These regulatory mechanisms could have a material adverse effect on Byron's operations and development projects.



#### **Business Risks**

#### **Commercial**

Byron is subject to the same commercial risks faced by all businesses, including the risk of litigation and other business disruptions.

#### Reliance on key employees

The responsibility of undertaking Byron's business is currently concentrated amongst a small number of key employees. The risks associated with this reliance have been mitigated, to a certain extent, through service agreements and through key employees owning equity in Byron. However the loss of these key employees or the inability to retain additional key employees as Byron's operations develop may have a detrimental impact on the Group.

Although Byron's key personnel have a considerable amount of experience and Byron believes they have been successful as a team, there is no guarantee or assurance that they will be successful in their objectives pursuant to this Prospectus in the future.

#### **Financing**

Byron's business plan, which includes participation in seismic data purchases, lease acquisitions and the drilling of exploration and development prospects, has required and is expected to continue to require capital expenditures. Byron may require additional financing to fund its planned growth. This additional financing may be in the form of equity, debt or a combination thereof. Byron may also obtain capital by farming out part of its working interest in one or more of its oil and gas properties. Byron's ability to raise additional capital will depend on the results of its operations and the status of various capital and industry markets at the time it seeks such capital. Accordingly, additional financing may not be available on acceptable terms, if at all. In the event additional capital resources are unavailable, Byron may be required to curtail its exploration and development activities. It is difficult to quantify the amount of financing Byron may need to fund its planned growth in the longer term. The amount of funding Byron may need in the future depends on various factors such as:

- •the Company's financial condition;
- •the success or otherwise of its exploration and development programme;
- •the type of projects in which Byron is involved; and
- •the lead time required to bring any discoveries to production.

Further, the availability of such funding may depend on:

- •the liquidity of the Company's shares at the time the Company seeks to raise funds;
- •the prevailing and forecast market price of oil and natural gas; and
- •the applicable economic conditions at the time the Company seeks to raise funds.

If Byron raises additional funds through the issue of equity securities, this may dilute the holdings of existing Shareholders. If Byron obtains additional capital by farming out part of its working interest in one or more of its oil and gas properties, the Company's share of reserves, future production and therefore oil and/or and gas revenues, if any, from those properties will be reduced.

#### **Insurance cover**

In accordance with industry practice Byron maintains insurance against some, but not all, of the operating risks to which its business is exposed. Byron currently has well control insurance coverage, property damage, general liability cover and oil spill insurance. However, Byron will not be insured against all potential risks and liabilities. For example, Byron does not expect to acquire business interruption risk insurance as it considers the cost to be prohibitive. In addition, as a result of a number of incidents and events in recent years including several hurricanes, the Deepwater Horizon drilling rig incident and the Japanese tsunami, insurance underwriters increased premiums for many of the coverages historically maintained by oil and gas companies operating in the Gulf of Mexico, and issued notices of cancellation and significant changes for a wide variety of cover. Future insurance coverage for the oil and gas industry could increase in cost and may include higher deductibles or retentions. In addition, some forms of insurance may become unavailable in the future or unavailable on terms that are economically acceptable. For example, in the future it may not be possible to insure against damage from hurricanes which could have adverse effects in that event.

#### **Management actions**

The Directors will, to the best of their knowledge, experience and ability (in conjunction with management) endeavour to anticipate, identify and manage the risks inherent in the activities of Byron, but without assuming any personal liability for the same, with the aim of eliminating, avoiding and mitigating the impact of risks on Byron's performance. The oil and natural gas business involves many uncertainties and operating risks including risks of development with potential cost overruns, equipment shortages and mechanical difficulties. Successful drilling of a well does not necessarily result in a profit on investment. Operating risks include fires, explosions, blow-outs, uncontrollable flows, casing collapses, abnormally pressured formations, environmental accidents, hazards, hurricanes and other natural disasters.



#### Business Risks (cont)

#### Profitability and impairment write-downs

Future operating results depend to a large extent on management's ability to successfully manage Byron going forward. Any inability to control the costs and organisational impacts of business growth or a failure to manage other issues arising from growth, could materially and adversely affect the Group's operating results and performance. Oil and gas property costs are accounted for under AASB 6 Exploration for and Evaluation of Mineral Resources. Costs of drilling exploratory wells are initially capitalised but expensed when a well is determined to be unsuccessful. If estimates are revised downwards there could be substantial impairment which would adversely affect profitability (although not cash).

#### Geographic concentration of activities

The geographic concentration of Byron's properties along the US Gulf Coast and adjacent waters of the Outer Continental Shelf means that some or all of the properties could be affected by the same event should the Gulf of Mexico experience severe weather, delays or decreases in production, changes in the status of pipelines, delays in the availability of transport and changes in the regulatory environment.

#### Concentration of ownership and control

The Board currently beneficially owns between approximately 35% of the Company's issued shares. As a result, these shareholders are in a position to significantly influence the outcome of matters requiring a shareholder vote, including the election of directors and the approval of significant corporate transactions where they are not excluded from voting. They also have a significant influence on any potential change in control of Byron whilst that level of shareholding is maintained.

#### **Prospective information**

No assurance as to future profitability or dividends can be given as they are dependent on future earnings and the capital requirements of the Company.

There can be no guarantee that the assumptions on which any prospective financial information or development strategies of the Board, or those upon which the Company bases its decisions to proceed, will ultimately prove to be valid or accurate. The prospective financial information and development strategies depend upon various factors which are outside the control of the Company.

### **Exchange Risk**

The functional currency of Byron is Australian dollars and the functional currency of its United States based subsidiaries is United States dollars. Byron has historically presented its financial statements in United States dollars, as the United States dollar is viewed as the best measure of performance for Byron because oil and gas, the dominant sources of revenue, are priced in United States dollars and its oil and gas operations are located in the United States with costs incurred in United States dollars.

As all Byron's operating assets are in the United States, the Company's presentation currency, the currency in which it reports its financial results, will be United States dollars. Accordingly, an Australian dollar investment in the Company is exposed to fluctuations between the Australian dollar and the United States dollar exchange rate. In particular, as most of the Company's capital and operating expenses will be in United States dollars any appreciation/depreciation in the Australian dollar against the United States dollar will effectively decrease/increase the quantum of those costs for Shareholders. In addition the Company's revenue is derived from United States dollar oil and gas sales. Any appreciation/depreciation of the Australian dollar against the United States dollar will effectively reduce/increase the value of that revenue for Shareholders.

Adverse exchange rate variations between the Australian dollar and the United States dollar may impact upon cash balances held in Australian dollars. Since most of Byron's operations are conducted in United States dollars, Byron generally maintains a substantial portion of its cash balances in United States dollar accounts. From time to time the Company may have substantial cash deposits in Australian dollar accounts. Until these funds are converted into United States dollars, the United States dollar value of the deposits will change as the exchange rate between the two currencies fluctuates.

The Company does not currently have in place any foreign exchange hedging arrangements. However, foreign exchange hedging strategies will be reviewed by the Company from time to time, implementation of any strategy will depend, inter alia, upon the foreign exchange hedging options available to the Company from time to time, the cash cost of entering into hedging transactions and the Company's capacity to pay for such costs.



#### General Risks

#### **Commercial**

Byron is subject to the same commercial risks faced by all businesses, including the risk of litigation and other business disruptions.

#### **Share market investments**

The Company's shares are quoted on the ASX, where their price may rise or fall. The shares carry no guarantee in respect of profitability, dividends or return of capital, or the price at which they may trade on the ASX. The value of the shares will be subject to the market and hence a range of factors outside of the control of the Company and the Directors and officers of the Company. Returns from an investment in the shares may also depend on general share market conditions, as well as the performance of the Company.

#### General economic and market conditions

Byron's operating and financial performance may be influenced by a variety of general economic and business conditions including the level of interest rates, international fiscal, monetary and regulatory policies and the level of inflation and economic growth. Prolonged deterioration in general economic conditions, including increases in interest rates, could have an adverse effect on Byron.

The above list of risk factors should not to be taken as exhaustive of the risks faced by the Company or by investors in the Company.

#### **Environmental Risks**

The natural gas and oil business involves a variety of operating risks, including but not limited to:

- Blowouts, fires and explosions.
- Surface cratering.
- Uncontrollable flows of underground natural gas, oil or formation water.
- Natural disasters.
- Environmental hazards such as natural gas leaks, oil spills, pipeline ruptures or discharges of toxic gases.

If any of the above events occur, we could incur losses as a result of:

- Injury or loss of life.
- Reservoir damage.
- Damage to and destruction of property or equipment.
- Pollution and other environmental damage.
- Clean-up responsibilities.
- Regulatory investigations and penalties.

USA domestic natural gas and oil operations are subject to extensive federal regulation and, with respect to federal leases, to interruption or termination by governmental authorities on account of environmental and other considerations. Natural gas and oil lessees are subject to liability for the costs of clean-up of pollution resulting from a lessee's operations, and may also be subject to liability for pollution damages.

Our operations are subject to numerous federal, state and local laws and regulations controlling the discharge of materials into the environment or otherwise relating to the protection of the environment. Such laws and regulations, among other things, impose absolute liability on the lessee for the cost of clean-up of pollution resulting from a lessee's operations, subject the lessee to liability for pollution damages, may require suspension or cessation of operations in affected areas, and impose restrictions on the injection of liquids into subsurface aquifers that may contaminate groundwater.

The operation of our oil and gas properties in the Gulf of Mexico is subject to numerous federal, state and local laws and regulations governing the discharge of materials into the environment or otherwise relating to environmental protection. Applicable U.S. federal environmental laws include, but are not limited to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), the Clean Water Act ("CWA"), the Clean Air Act ("CAA") and the Oil Pollution Act of 1990, as amended ('OPA").

The CERCLA, CWA and CAA govern environmental clean-up standards, require permits for air, water, underground injection, solid and hazardous waste disposal and set environmental compliance criteria. The OPA imposes a variety of requirements on "responsible parties" related to the prevention of oil spills and liability for damages resulting from such spills in United States waters. A "responsible party" includes the owner or operator of an onshore facility, pipeline or vessel, or the lessee or permittee of the area in which an offshore facility is located. OPA assigns liability to each responsible party for oil clean-up costs and a variety of public and private damages. While liability limits apply in some circumstances, a party cannot take advantage of liability limits if the spill was caused by gross negligence or wilful misconduct or resulted from violation of a federal safety, construction or operating regulation. If the party fails to report a spill or to cooperate fully in the clean-up, liability limits likewise do not apply. Few defenses exist to the liability imposed by OPA. OPA imposes ongoing requirements on a responsible party, including the preparation of oil spill response plans and proof of financial responsibility to cover environmental clean-up and restoration costs that could be incurred in connection with an oil spill.

