## Empyrean Energy PLC ('Empyrean' or 'the Company')

## MAJOR UPGRADE TO SUGARLOAF AMI RESERVES AND RESOURCES

- Proven Reserves (1P) up 63% to 5.78 MMboe
- Probable Reserves up 130% to 6.86 MMboe
- Proven plus Probable Reserves (2P) up 94% to 12.64 MMboe
- Proven plus Probable plus Possible Reserves (3P) up 134% to 20.91 MMboe
- 2P Reserves plus 2C Resources up 49% to 15.49 MMboe
- NPV (10) of 1P Reserves valued in report at approximately US\$43.8 million
- NPV (10) of 2P Reserves valued in report at approximately US\$121.7 million
- NPV (10) of 3P Reserves valued in report at approximately US\$263.5 million
- 231 wells in production at the Project with 54 drilled wells undergoing completion operations
- Increased reserves attributable to successful appraisal of the Austin Chalk and a shift from contingent resource status into a reserve status
- Upper Eagle Ford now represents similar upside potential to where the Austin Chalk was 18 months ago

Empyrean, the profitable US onshore oil, gas and condensate exploration, development and production company with assets in Texas and California, is pleased to announce a significant increase in its Reserves and Resources at its flagship Sugarloaf AMI asset ('the Project') in the liquids rich core of the Eagle Ford Shale in Texas, USA, following the receipt of an independent appraisal and updated report prepared by DeGolyer & MacNaughton.

The Project, in which Empyrean has a 3% working interest, is operated by Marathon Oil Company, a subsidiary of US major Marathon Oil Corporation (NYSE: MRO) ('Marathon' or the 'Operator'). The figures below represent the Barrels of Oil Equivalent Reserves and Resources attributable to Empyrean's net revenue interest ('NRI') after royalties in the Project.

Sugarloaf AMI	Revised	Reported as at	Increase
(EME 3%, net 2.25% after	31 Dec 2014	31 Dec 2013	%
royalties)	MMboe	MMboe	
1P Reserves	5.78	3.54	63
2P Reserves	12.64	6.52	94
3P Reserves	20.91	8.92	134
2C Contingent Resources	2.85	3.87	(26)
2P + 2C	15.49	10.39	49

**Empyrean CEO Tom Kelly said,** "These are fantastic improvements to our reserves and resources. As anticipated, further appraisal and drilling of the overlying Austin Chalk wells along with continued success from optimisation initiatives in the Eagle Ford Shale and Austin

Chalk collectively have resulted in a very substantial increase in our reserves position at the Sugarloaf AMI.

"We anticipated a shift from contingent resources to reserves as further Austin Chalk wells were drilled and appraised. The excellent development rate during 2014 and, in particular, closer well spacing assumptions have resulted in assisting this conversion from contingent resource to reserves and an improvement in the volumes.

"Excellent upside potential from the relatively new productive zone, the Upper Eagle Ford formation, has now been identified by Marathon for further drilling and appraisal. The Upper Eagle Ford is already producing from a small number of wells and further pilot wells are already planned to test this productive zone.

"Although the fall in oil prices over the last 12 months has slightly impacted the Net Present Value at a 10% discount rate of Proven Reserves (1P), we are pleased to see that there has been a significant overall increase in both NPV10 of 2P and 3P reserves reflecting the increased potential of the Project. Our flagship asset continues to grow and represents a viable and attractive investment proposition even at current lower oil prices."

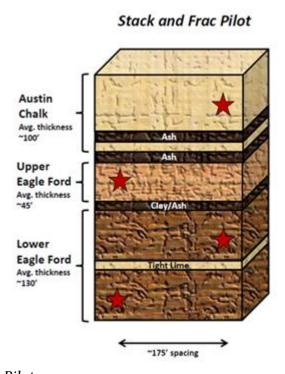


Figure 1: Stack and Frac Pilot

A summary of the Reserves and Contingent Resources, calculated on a NRI basis after royalties, and the Net Present Value using a 10% discount rate ('NPV(10)') as at 31 December 2014 and included in the DeGolyer & MacNaughton report is contained in the table below:

	NPV(10)US\$	NPV(10)US\$	% change
	million as at	million as at	
	31 Dec 2014	31 Dec 2013	
1P Reserves	44.3	52.9	(16)
2P Reserves	121.6	97.0	25
3P Reserves	260.22	139.5	87

# Explanations as to reasons for the above reported revisions to Reserves and Contingent Resources:

The revisions to the Reserves and Contingent Resources as reported above result substantially from the following new data and information:

- 1. Re-categorisation of Reserves and Contingent Resources as a result of additional wells being drilled.
- 2. Updated 1P, 2P and 3P type production curves based on recent additional performance data and changes to fracture stimulation design.
- 3. Revised economic assumptions including:
  - a. Updated forecast costs based on recent historic costs and trends;
  - b. Updated product pricing, with oil, condensate and NGL prices based on the NYMEX strip price for WTI oil as at the Evaluation Date, with differentials to account for product quality and regional pricing factors. NGLs are assumed to sell for one third the price of oil (previously approximately one half) on a per BOE basis. Natural gas prices are based on the NYMEX strip price as at the Effective Date for natural gas at Henry Hub, with a differential to reflect the local delivery point.
- 4. The Evaluation Date for the current assessment is 31 December 2014.
  - \* Empyrean has collaborated with its ASX listed partner at Sugarloaf, AWE Limited ('AWE'), to have DeGolyer & MacNaughton update reserves and resources at Sugarloaf and Empyrean notes that AWE has internally recognised additional potential in the Eagle Ford Shale associated with the commencement of pilot production and allocation of Contingent Resources in the Upper Eagle Ford sub-zone. All previous Eagle Ford production has been from the Lower Eagle Ford sub-zone. AWE anticipates that up to 488 wells may be required to fully develop the Upper Eagle Ford at a 40 acre well spacing over the same land area as the underlying Lower Eagle Ford Shale.

The prices used in the Reserve Report were based upon NYMEX strip prices for oil and gas on 1 January 2015. The following table shows the basic pricing assumptions used:

Year	Oil Price US\$/barrel	Gas Price US\$/MMBTU
2015	57.67	2.59
2016	62.33	2.92

2017	64.41	3.19
2018	65.40	3.31
2019	66.09	3.42
2020	66.47	3.55
2021	66.88	3.70
2022	67.22	3.87
2023	67.00	4.01
2024	67.00	4.14
2025	67.00	4.24
2026	67.00	4.34
2027	67.00	4.49
2028	67.00	5.03
2029 and thereafter	67.00	4.94

# Participants in the Sugarloaf AMI include (gross working interest basis):

Marathon Oil (Operator)	55%
Baytex	28.1%
AWE Limited (via subsidiaries)	10%
Empyrean Energy PLC	3%
Texas Crude Energy	2.9%
Others	1%

## **Abbreviations**

M- thousand

MM- million

MMBBLS - million barrels

Mcf – thousand cubic feet

MMcf – million cubic feet

MMBTU - million British Thermal Units

NYMEX - New York Mercantile Exchange

The information contained in this announcement was completed and reviewed by the Technical Director of Empyrean Energy Plc, Mr Frank Brophy BSc (Hons) who has over 40 years experience as a petroleum geologist.

#### \*\*ENDS\*\*

For further information please visit <a href="https://www.empyreanenergy.com">www.empyreanenergy.com</a> or contact the following:

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## **Notes to Editors:**

Empyrean Energy Plc is an AIM listed (Ticker: EME) profitable US on-shore oil and gas development and production company focused primarily on the advancement of its assets in Texas and California. The Company's portfolio represents a mix of assets at various stages of development. Its flagship project is the Sugarloaf AMI in the prolific Eagle Ford Shale, Texas, where it has a 3% working interest in approximately 24,000 gross acres (approximately 720 net acres) centrally positioned in the liquids rich sweet-spot within the field. Empyrean has an interest in over 231 gross producing wells with full development having the potential to reach over 1,000 wells and further upside potential from additional formations and closer well spacing. The Company has a term debt facility of up to US\$50 million with Macquarie Bank in place in order to develop this acreage which is operated by US major Marathon Oil Company.

Other assets include a 58% interest in the Eagle Oil Pool Development Project located in the San Joaquin Basin, southern California, a proven oil and gas province. Empyrean's large working interest in this project provides the Company with flexibility and leverage with potential high impact from success. Additionally, Empyrean has a 7.5% interest in the Sugarloaf Block A operated by ConocoPhillips in the Eagle Ford Shale, and a 10% working interest in the Riverbend Project in Texas currently producing from the Wilcox formation.