13 October 2015

# Empyrean Energy PLC ('Empyrean' or 'the Company') Updated Reserve Report

Empyrean, the profitable US onshore oil, gas and condensate exploration, development and production company with assets in Texas and California, is pleased to announce that an independent appraisal and updated report prepared by DeGolyer & MacNaughton, effective to 30 June 2015, has highlighted a further significant increase in the Company's Reserves and Resources at its flagship Sugarloaf AMI asset ('the Project'). The Project is located in the liquids rich core of the Eagle Ford Shale in Texas, USA.

## Highlights:

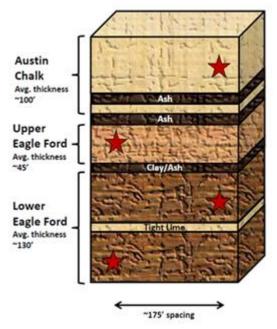
- Significant increases reported in all reserve categories in boe and NPV10 values, demonstrating the scalability of the Project:
  - o 13.84% increase in Proven Reserves (1P) to 6.58 MMboe (5.78 MMboe to Dec 2014)
  - 9.77% increase in Probable Reserves to 7.53 MMboe (6.86 MMboe to Dec 2014)
  - 11.63% increase in Proven plus Probable Reserves (2P) to 14.11 MMboe (12.64 MMboe to Dec 2014)
  - 10.90% increase in Proven plus Probable plus Possible Reserves (3P) to 23.19 MMboe (20.91 MMboe to Dec 2014)
  - 2P Reserves plus 2C Resources up 0.65% to 15.59 MMboe (15.49 MMboe to Dec 2014)
  - NPV (10) of 1P Reserves valued at approximately US\$45.7m (US\$43.8m to Dec 2014)
  - NPV (10) of 2P Reserves valued at approximately US\$135.9m (US\$121.7m to Dec 2014)
  - NPV (10) of 3P Reserves valued at approximately US\$294.7m (US\$263.5m to Dec 2014)
- Significant potential to increase future reserves:
- Upper Eagle Ford Shale is not included in report numbers Marathon's early partial delineation of this zone was announced post period end
- Further delineation of both the Upper Eagle Ford and Austin Chalk zones is anticipated

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 (EME 3%, net 2.25% after royalties)	Revised 30 June 2015 MMboe	Reported 31 Dec 2014 MMboe	Increase %
1P Reserves	6.58	5.78	13.84
2P Reserves	14.11	12.64	11.63
3P Reserves	23.19	20.91	10.90
2C Contingent Resources			
2P + 2C	15.59	15.49	0.65

**Empyrean CEO Tom Kelly said**, "The value of the Sugarloaf AMI continues to improve even in the current oil price environment. These figures for the Lower Eagle Ford and Austin Chalk prove the robust nature of the asset and the increasing potential for exploitation. An increase of more than 10% across all reserve categories highlights the on-going development by Marathon and underpins its confidence in the asset. Furthermore, there has been an improvement in the NPV at a 10% discount rate of 1P & 2P reserves, to US\$45.7m and US\$135.9m respectively, both representing a substantial premium to our current market capitalisation.

"Furthermore, the Upper Eagle Ford formation, which is a relatively new zone identified by Marathon for appraisal and development, is not included in these figures. As announced previously, we believe this represents an exciting development opportunity similar to the Austin Chalk 12 months ago, and therefore we anticipate that as this is further appraised and developed, our Reserves and Resources could rise further. This serves to reinforce the scalability of production at our flagship asset and its status as an attractive investment proposition. We remain optimistic about the development of the Sugarloaf AMI and believe that the long-term value of the project will be recognised in our valuation."



Stack and Frac Pilot

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 30 June 2015 and included in the DeGolyer & MacNaughton report is contained in the table below:

	NPV(10)US\$	NPV(10)US\$	% change
	million as at 33	million as at 31	
	June 2015	Dec 2014	
<b>1P Reserves</b>	45.7	43.8	4.3

2P Reserves	135.9	121.7	11.7
<b>3P Reserves</b>	294.7	263.5	11.8

\* 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.

The prices used in the Reserve Report were based upon NYMEX strip prices for oil and gas on 30 June 2015. The following table shows the basic pricing assumptions used:

Year	Oil Price US\$/barrel	Gas Price US\$/MMBTU
2015	55	2.77
2016	59	3.10
2017	62	3.26
2018	64	3.32
2019	66	3.39
2020	67	3.48
2021	68	3.59
2022	68	3.70
2023	68	3.82
2024	68	3.94
2025	68	4.07
2026	68	4.17
2027	68	4.31
2028 and thereafter	68	4.83

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

Marathon Oil (Operator)	55.0%
Baytex	28.1%
AWE Limited (via subsidiaries)	10.0%
Empyrean Energy PLC	3.0%

Texas Crude Energy	2.9%
Others	1.0%

### **Abbreviations**

Boe – barrel of oil equivalent 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\*\*

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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 241 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, subject to ongoing performance and reserve hurdles, 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.