

### 2018 Annual Reserves Statement

Release Date: 31 July 2018

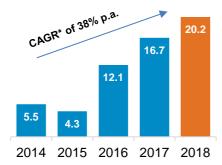
Senex Energy Limited (Senex, ASX:SXY) today released its estimate of reserves and contingent resources as at 30 June 2018, which included the inaugural reserves booking for Project Atlas and upgrades to the Western Surat Gas Project.

Senex engaged the services of DeGolyer and MacNaughton (D&M) and Netherland Sewell Associates (NSAI) to independently assess reserves and resources prior to reporting any updated estimates. D&M and NSAI are independent resource estimating firms with considerable experience in the Cooper Basin and the Surat Basin respectively.

### **Highlights**

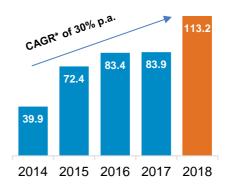
- Proved (1P) reserves of 20.2 mmboe, up 21% compared to 30 June 2017
- Proved and probable (2P) reserves of 113.2 mmboe, up 35% compared to 30 June 2017
- Project Atlas maiden 2P reserves booking of 144 petajoules (24.5 mmboe)
- 2P reserves life estimated at 19 years for gas and 8 years for oil at the end of FY18<sup>1</sup>
- Organic 2P three-year oil and gas reserves replacement ratio of 457%<sup>2</sup>

### 1P reserves - mmboe



### \*CAGR: Compound Annual Growth Rate

#### 2P reserves - mmboe



Commenting on the reserves statement Senex Managing Director and CEO Ian Davies said:

"The significant increase in both 1P and 2P reserves clearly demonstrates the Senex strategy in action as we build our east coast gas business and focus on the prolific western flank of the Cooper Basin.

"Most importantly, we made significant progress on our major gas projects during the 2018 financial year, culminating in a material maiden reserves booking for Project Atlas. In addition, our successful Phase 2 appraisal program in the Western Surat Gas Project delivered increases to both 1P and 2P reserves, further demonstrating the strong commerciality of the area."

<sup>&</sup>lt;sup>1</sup> Assumes gas reserves and production from initial production areas of the Western Surat Gas Project (Glenora and Eos only) and Project Atlas of 48 terajoules per day (~3 mmboe per annum) and steady-state oil production of 1 mmbbl per annum.

<sup>&</sup>lt;sup>2</sup> See notes to the Annual Reserves Statement for calculation methodology.



### **Senex Net Reserves and Contingent Resources**

Reserves as at 30 June 2018 are summarised below with additional disclosures provided in the following pages and appendices.

mmboe	1P Reserves	2P Reserves	2C Resources
Oil	2.5	8.3	5.3
Gas and gas liquids	17.7	104.8	-
Total as at 30 June 2018	20.2	113.2	5.3
Total as at 30 June 2017	16.7	83.9	208.1
Increase / (decrease)	21%	35%	(97%)

Changes to reserves and contingent resources since 30 June 2017:

- Project Atlas: The award of Project Atlas to Senex in September 2017 has resulted in a material increase in 2P reserves of 144 petajoules (24.5 mmboe). See page 5 for further details on Project Atlas
- Western Surat Gas Project: An increase in both 1P reserves (22 petajoules, 3.8 mmboe) and 2P reserves (43 petajoules, 7.2 mmboe) driven by positive subsurface performance from the 30-well Phase 2 appraisal program, the Mimas-2 core well, and continued refinement of the Field Development Plan (FDP).
- Don Juan acreage: Reserves reflect an increase in working interest from 45% to 100%, offset by a downward reserves revision through alignment of field development assumptions with the Western Surat Gas Project and estimation by NSAI.
- Cooper Basin oil: The movement in Cooper Basin 1P and 2P reserves after accounting for
  production was minor. The movement reflected positive drilling results at the Marauder and
  Growler fields and technical revisions across several fields based on individual performance and
  FDP updates.
- Cooper Basin unconventional gas: Reflecting the Company's strategic and capital focus on the western flank area of the Cooper Basin and following completion of the free-carry transfer with Beach Energy, estimates of 2C resources were reclassified as Prospective Resources.



### East coast gas dominated portfolio

Over the past several years Senex has made material steps to realise the potential in the Australian east coast gas market. The business has successfully evolved from operating with a single-asset, Cooper Basin oil focus to a multi-asset east coast gas focus with over 90% of 2P reserves attributed to high quality east coast gas development projects.

During the 2018 financial year Senex undertook a comprehensive review of its asset portfolio to concentrate on the high value opportunities ahead. Following the review, strategic focus and capital allocation are being prioritised to Senex's east coast gas development projects and its core western flank oil assets to drive a step-change in production, cash flow and earnings.

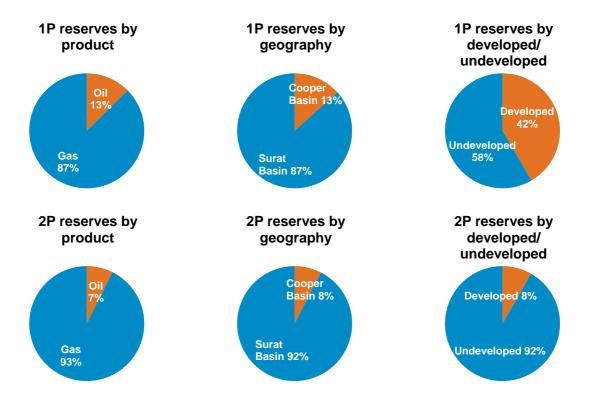
Commenting on the outlook for growth, Senex Managing Director and CEO Ian Davies said:

"Senex has booked Proved and Probable (2P) oil and gas reserves of over 110 million barrels of oil equivalent.

"2019 will be a transformational year for Senex as we rapidly progress to development of both Project Atlas and the Western Surat Gas Project, converting our material gas reserves position to production.

"Together with a continuing active drilling program in the Cooper Basin, the investment in Senex's Surat Basin gas assets will drive a step-change in production, cashflow and earnings in the near term, and importantly deliver new gas supply to the east coast of Australia", Mr Davies said.

### Breakdown of 1P and 2P reserves

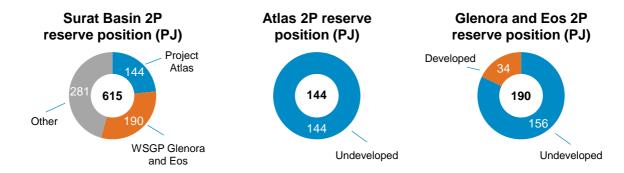




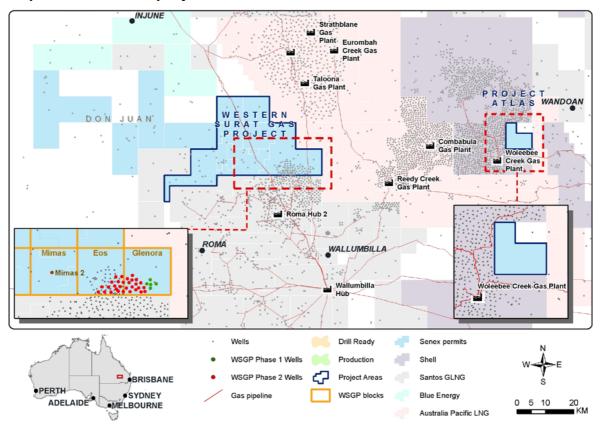
### East coast gas development projects

The Company's east coast gas portfolio is currently centred in Queensland's Surat Basin where it holds almost 2,000 km<sup>2</sup> of natural gas acreage.

Senex's major development focus in the near term is on Project Atlas and the Glenora and Eos blocks of the Western Surat Gas Project. Together these two project areas constitute 334 petajoules (PJ) (57 mmboe) of 2P reserves, of which around 90% is currently undeveloped. The conversion of these undeveloped 2P reserves to developed reserves and production is the overwhelming priority for Senex.



### Map of Surat Basin projects





### **Project Atlas**

Senex was awarded the high quality Project Atlas acreage in September 2017, and received its Petroleum Lease from the Queensland Government in March 2018. At the first reserves review since obtaining tenure, NSAI have estimated approximately 427 PJ of original gas-in-place (OGIP), and the proximity of producing wells to the north, west and south of the block resulted in the booking of 144 PJ (24.5 mmboe) of 2P reserves at 30 June 2018. This equates to a raw gas recovery factor of 37%.

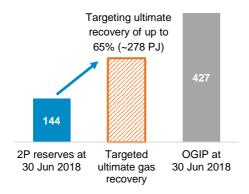
Based on current work to date, Senex is targeting ultimate recovery of up to 65% of OGIP over the life of the project, equating to approximately 278 PJ (47.3 mmboe) of recoverable gas.

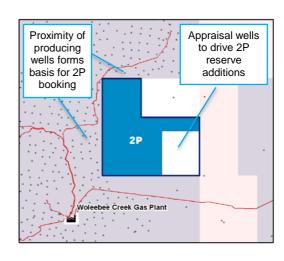
Commenting on the reserves booking for Project Atlas, Senex Managing Director and CEO Ian Davies said that Senex has a clear development path to enable the booking and maturation of additional reserves in FY19 and beyond.

"Project Atlas is set to be the premier asset in Senex's portfolio, delivering gas to Australian east coast domestic customers and driving growth in production, earnings and cash flow for Senex.

"This reserve booking is just the start of the journey in realising the potential of Project Atlas. In June 2018, Senex agreed an infrastructure partnership with Jemena to bring Project Atlas gas to the Wallumbilla Hub and the domestic market, ahead of gas marketing discussions with potential domestic customers." Mr Davies said.

## Project Atlas - 2P reserves and OGIP (PJ)





### NOTE ON THE PROJECT ATLAS RESERVE BOOKING PER ASX LISTING RULES

Project Atlas reserves have been estimated using deterministic methods; these estimates have been prepared in accordance with the Petroleum Resources Management System published by the Society of Petroleum Engineers (SPE PRMS).

Standard engineering and geoscience methods, or a combination of methods, including volumetric analysis, analogy, and reservoir modelling, were used. A substantial portion of these reserves are for undeveloped locations; such reserves are based on estimates of reservoir volumes and recovery efficiencies along with analogy of properties with similar geologic and reservoir characteristics. No contingent resources have been booked. See Appendix A for further disclosure related to Project Atlas.



# **SUMMARY INFORMATION Net Reserves and Contingent Resources**

### Proved (1P) Reserves

mmboe	Oil	Gas and Gas Liquids	Total	Developed	Undeveloped	Total
Surat Basin	-	17.5	17.5	5.7	11.8	17.5
Cooper Basin	2.5	0.1	2.7	2.7	-	2.7
Total 1P Reserves	2.5	17.7	20.2	8.4	11.8	20.2

Proportion of total proved reserves that are unconventional (coal seam gas): 87%

### Proved plus Probable (2P) Reserves

mmboe	Oil	Gas and Gas Liquids	Total	Developed	Undeveloped	Total
Surat Basin	-	104.6	104.6	5.7	98.9	104.6
Cooper Basin	8.3	0.2	8.6	3.7	4.8	8.6
Total 2P Reserves	8.3	104.8	113.2	9.4	103.7	113.2

Proportion of total proved reserves that are unconventional (coal seam gas): 92%

### **2C Contingent Resources**

mmboe	Oil	Gas and Gas Liquids	Total
Surat Basin	-	-	-
Cooper Basin	5.3	-	5.3
<b>Total Contingent Resources</b>	5.3	-	5.3

### **Reserves and Contingent Resources Movement**

mmboe	30 Jun 2017	Production	Acquisition & Divestment	Revisions	30 Jun 2018	Change %
1P Reserves	16.7	(0.8)	-	4.3	20.2	21%
2P Reserves	83.9	(0.8)	31.6	(1.5)	113.2	35%
2C Resources	208.1	_	-	(202.8)	5.3	(97%)

All numbers presented may not add due to rounding

### **FURTHER INFORMATION**

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### **ABOUT SENEX ENERGY**

Senex is an ASX listed oil and gas exploration and production company focused on generating shareholder value by growing reserves and production. It holds extensive onshore oil and gas acreage in the Cooper and Surat Basins, two of Australia's most prolific onshore energy regions. Senex is well capitalised and has built strong operating credentials over its 30-year history. Senex operates low cost oil producing assets in the Cooper Basin and is progressing a portfolio of gas projects including the Western Surat Gas Project and Project Atlas in Queensland.



### NOTES TO THE ANNUAL RESERVES STATEMENT

#### **Governance Arrangements and Internal Controls**

Senex prepares its petroleum reserves and contingent resources estimates in accordance with the Petroleum Resources Management System published by the Society of Petroleum Engineers (SPE PRMS). Unless otherwise stated, all references to reserves and resources in this statement relate to Senex's economic interest in those reserves and resources.

All estimates of petroleum reserves reported by Senex are prepared by, or under the supervision of, a qualified petroleum reserves and resources evaluator. To ensure the integrity and reliability of data used in the reserves estimation process, the raw data is reviewed and quality controlled by senior professional production, reservoir, petrophysical and geological staff at Senex. Access to the substantiated data is then restricted to authorised staff members. During each petroleum reserves review, this data is updated, analysed and checked against the previous year's data.

This reserves and resources statement is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a qualified petroleum reserves and resources evaluator, Mr David Spring BSc (Hons). Mr Spring is a member of the Society of Petroleum Engineers and is Executive General Manager of Exploration. He is a full-time employee of Senex. Mr Spring has approved this statement as a whole and has provided written consent to the form and context in which the estimated reserves, resources and supporting information are presented.

### **Calculation and Aggregation Method**

Petroleum reserves and contingent resources are aggregated by arithmetic summation by category of reserves and as a result the aggregate 1P estimate may be very conservative and the aggregate 3P estimate very optimistic, as the arithmetic method does not account for 'portfolio effects'. The deterministic method was used to prepare the estimates of reserves, and the probabilistic method was used to prepare the estimates of resources in this statement.

#### **External Assessment and Evaluation Date**

Senex has engaged the services of DeGolyer and MacNaughton (D&M) and Netherland Sewell Associates (NSAI) to independently assess the data and assess reserves and resources prior to Senex reporting any updated estimates. Senex reviews and updates its oil and gas reserves position on an annual basis and reports the updated estimates as of 30 June each year.

### **Conversion Factors and Reference Points**

In converting petajoules to million barrels of oil equivalent, Senex has applied the following conversion rates: Surat Basin gas: 1 mmboe = 5.880 PJ, Cooper Basin gas: 1 mmboe = 5.815 PJ.

The reference point for the Cooper Basin is the central processing plant at Moomba, South Australia. Fuel, flare and vent consumed to the reference point are included in reserves estimates (c. 6% of 2P oil reserves estimates may be consumed as fuel in operations depending on operational requirements). For the Surat Basin, the reference point is the Wallumbilla gas hub, Queensland. Fuel, flare and vent consumed to the reference point are excluded from reserves estimates (c. 10% of 2P gas reserves estimates have been assumed to be consumed as fuel in operations).

### **Reserves Replacement Ratio**

The organic reserves replacement ratio is calculated as the summation of the estimated reserves additions and revisions divided by estimated production for the period 1 July 2015 to 30 June 2018, before acquisitions and divestment.



## Appendix A – Material Changes to Reserves and Contingent Resources – Additional disclosures

### **Project Atlas**

- Description of Project: Project Atlas is high quality coal seam gas acreage of 58 square kilometres located south
  east of Wandoan in Queensland's Surat Basin. Senex was awarded the permit by the Queensland Government in
  September 2017 following a competitive tender, and is the 100% owner and operator. On the 29 March 2018
  Senex was awarded a Petroleum Lease (PL) and preliminary environmental approvals from the Queensland
  Government to develop Project Atlas for domestic gas supply.
- Analytical Procedure: Senex prepares its petroleum reserves and contingent resources estimates in accordance
  with the Petroleum Resources Management System published by the Society of Petroleum Engineers (SPE
  PRMS). The petroleum reserves are based on estimates of reservoir volumes and recovery efficiencies along with
  analogy comparisons to properties with similar geologic and reservoir characteristics. The Project Atlas block
  adjoins QGC blocks which are currently in development and for which significant public analogue data was
  available.
- Classification of Reserves: All Project Atlas reported reserves are classified as undeveloped and will be produced through future investment in approximately 100 wells and related downstream infrastructure. Reserve estimates are reported as 2P (zero 1P reserves) to reflect the status of development and production as at the reserve estimation date. Categorization of reserves is based upon an incremental well spacing concept.
- Material Economic Assumptions: The economic assumptions used to evaluate the project are commercially sensitive. The project economics have been determined using discounted cash flow methods in compliance with PRMS guidelines. Commerciality of the project was determined by using cost structures of analogous projects as well as internal modelling based on publicly available data of the Queensland gas market and coal seam gas industry and cost structures of existing Senex business activities. Domestic gas price assumptions are based on actual current prices as published by the ACCC, and reasonable, benchmarked estimates of forecast future prices.
- Proposed Extraction Method and Processing: The proposed extraction method is through a standard vertical
  open hole slotted liner well design. No specialised processing following extraction is anticipated beyond that
  ordinarily required for coal seam gas production. Dewatering will be required as with most coal seam gas
  production.
- Project Status: Project Atlas is commercially well advanced with major transportation and processing contracts already finalised. Initial field development plans have been prepared and development drilling is expected to begin subject to grant of remaining approvals, expected to be in mid-2019. Initial production is expected by the end of 2019. Senex has recently secured a path to the domestic market through a 25-year agreement with Jemena to build, own and operate gas processing and transportation infrastructure delivering Project Atlas gas to the Wallumbilla Hub. Gas marketing arrangements will follow finalisation of corporate and development financing expected in mid-2018. The Company is confident of securing gas sales agreements to underpin the project. In March 2018, Senex secured environmental approval from the State for a pilot scale development which also enabled the grant of a PL over the block. Baseline studies have commenced to inform subsequent environmental impact assessments that will support approval applications for the full field development, expected in mid-2019.