MAJOR EP187 CONTINGENT RESOURCES UPGRADE **29 MAY 2023**

LNG SCALE DISCOVERED RESOURCE DELINEATED IN EP187

- Successful 2022 Beetaloo work program has resulted in the certification of an LNG scale resource as independently assessed by Netherland, Sewell & Associates, Inc. ("NSAI") for Empire's wholly owned and operated EP187:
  - **270% increase in 2C Contingent Resources to 1,739 PJ representing an average Estimated Ultimate Recovery ("EUR") per well of 7.9 PJ**
  - **217% increase in 1C Contingent Resources to 304 PJ representing an average EUR per well of 6.2 PJ**
  - **129% increase in 3C Contingent Resources to 3,507 PJ representing an average EUR per well of 9.3 PJ**
- Due to the high calorific value of the Empire's EP187 gas, NSAI assessed sales volumes in PJ have a higher energy content than equivalent dry gas volumes.

	EP187 Contingent Resources: Net Sales Gas (PJ)		
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)
Total	304	1,739	3,507
Average EUR Per Well Location	6.2	7.9	9.3

Comments from Managing Director Alex Underwood:

"The Empire team is delighted to share these outstanding results with shareholders. The volumes delineated in EP187 represent a nationally significant resource of low CO2 gas. Warnings abound from multiple sources that Australia faces material gas shortfalls in years ahead, a view that I share given the enduring role of gas. The Beetaloo and more particularly Empire's resource has the potential to service domestic demand gaps and international sales via LNG. At an assumed gas contract price of $10 / GJ, each development well in EP187 could produce between $62 million and $95 million of revenue over its life, compared to a development cost of ~$20 million in the pilot phase and or ~$15 million in larger development scenarios. NSAI has identified over 200 2C drilling locations, representing LNG scale development potential.

Following the recent green light from the NT Government to move into production, the Empire team is progressing towards development drilling and cash flow. Our current capital resources allow us to proceed to a final investment decision on the pilot project this year without raising any further capital in the near term. This will allow the team to focus on further value accretive work including field development planning, indigenous consultation, regulatory approvals and gas sales negotiations."

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Empire Energy Group Limited ("Empire") is pleased to announce a major upgrade to its independently assessed EP187 Contingent and Prospective Resources. The resources estimate for Empire's wholly owned and operated EP187 permit has been prepared by Netherland, Sewell & Associates, Inc. ("NSAI"), a worldwide leader of petroleum property analysis to industry, financial organisations and government agencies.

NSAI has assessed EP187 Contingent and Prospective Resources in Petajoules ("PJ"), as well as Billion Cubic Feet ("BCF"), reflecting the high calorific value of the produced gas as demonstrated by each of the three wells which have been production tested in EP187. The high calorific value of Empire's raw wellhead gas has resulted in a conversion factor of 1.15 TJ per mmscf, as opposed to 1.055TJ per mmscf for dry gas (i.e. methane only). This may allow Empire to attract a price premium for its gas in gas sales scenarios.

EP187 Contingent Resources

The revised estimate of the Contingent Resources for EP187 includes the technical results from Empire's successful 2022 drilling, fracture stimulation and extended production testing campaign that included the following activities.

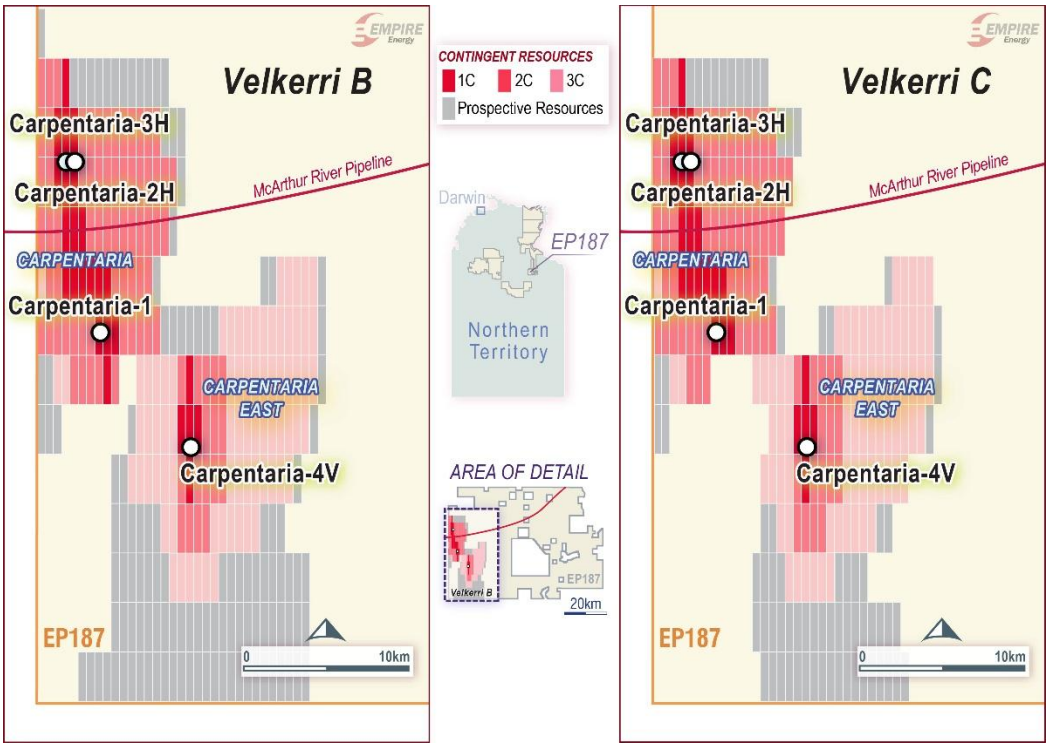
- Carpentaria-2H ("C-2H") which was fracture stimulated over 21 stages, along a 927 metre (3,041 foot) horizontal section and production tested;
- Carpentaria-3H ("C-3H") which was drilled, fracture stimulated across 40 stages along an effective 1,989 metre (6,526 foot) horizontal section and production tested; and
- Carpentaria-4V ("C-4V") which was drilled in the adjoining fault block to the Carpentaria-1, C-2H and C-3H wells. C-4V proved the continuity of the Carpentaria shale play into the adjoining Carpentaria East fault block. The thickness of the stacked shale sequence has proven to be consistent throughout the EP187 area and validated the modelled depth, continuity, and thickness of the Velkerri shales into that area of the basin.

The C-2H and C-3H operational results demonstrate that Empire can cost-effectively deliver 3-kilometre hydraulically stimulated horizontal wells utilising Australia's existing rig and frack spread fleet. 3-kilometre horizontal wells represent Empire's intended well design for future development of the Carpentaria Project in EP187. Contingent Resources have been estimated using a combination of deterministic and probabilistic methods based on step out locations from current well control using this well design with a 500m lateral drainage offset.

NSAI assessed EP187 Contingent Resources are as set out in the below:

Reservoir	As at 30 April 2023 Unrisked Contingent Resources (100% and Net) Sales Gas (BCF)			As at 30 April 2023 Unrisked Contingent Resources (100% and Net) Sales Gas (PJ)		
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)
Velkerri C	125	718	1,448	148	852	1,717
Velkerri B	131	732	1,476	156	868	1,750
Velkerri Intra A/B	-	7	14	-	8	16
Velkerri A	-	10	20	-	12	24
Total*	**256**	**1,467**	**2,958**	**304**	**1,739**	**3,507**

**Empire derived arithmetic summation of NSAI deterministic and probabilistic resources estimations*
The estimated Contingent Resources are those quantities of petroleum that may potentially be recovered from known accumulations by the application of future development projects not currently considered to be commercial. The Contingent Resources shown in this report are contingent upon (1) demonstration of the economic viability of project development, (2) development of infrastructure, (3) a sales contract, and (4) commitment to develop the resources. The project maturity subclass for these Contingent Resources is development pending.



Map showing Velkerri B and Velkerri C Contingent Resources and Prospective Resources Nominal Well Locations

Number of EP187 Well Locations*						
Reservoir	Contingent Resources			Prospective Resources		
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
Velkerri C	24	106	180	49	73	73
Velkerri B	25	108	186	58	110	126
Total	**49**	**214**	**366**	**107**	**183**	**199**

**Well location numbers are cumulative within each resources category*

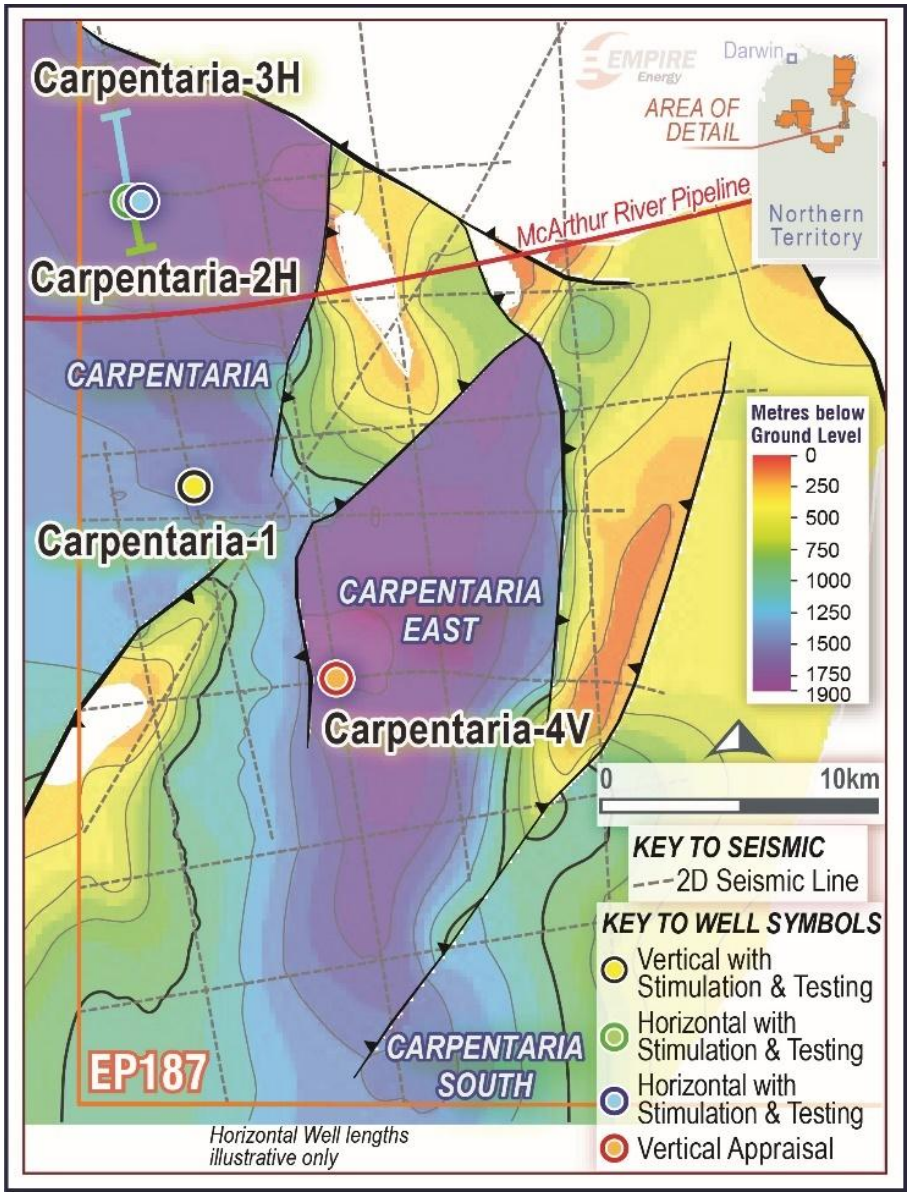
EP187 Prospective Resources

The results of NSAI's EP187 Prospective Resources assessment is summarised in the table below. A more detailed summary of Prospective Resources can be found at Appendix A.

Prospective Resources are those areas proximal to the Contingent Resources areas where uncertainty in mapping is still evident due to a lack of well control. Future additional step-out drilling may allow Empire to convert some of this Prospective Resources base to Contingent Resources. However, Empire's current focus for EP187 is on commercialising its significant discovered resource base.

EP187 Area	As at 30 April 2023 Unrisked Prospective Resources (100% and Net) Sales Gas (BCF)			As at 30 April 2023 Unrisked Prospective Resources (100% and Net) Sales Gas (PJ)		
	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
Carpentaria	477	1,081	1,927	566	1,281	2,284
Carpentaria East	861	1,584	3,190	1,020	1,878	3,782
Carpentaria South	172	323	580	204	383	688
Total*	**1,510**	**2,988**	**5,697**	**1,790**	**3,542**	**6,754**

**Empire derived arithmetic summation of NSAI deterministic and probabilistic resources estimations*
The estimated Prospective Resources quantities of petroleum that may potentially be recovered by the application of future development projects relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.



Map showing depth to base of Velkerri B shale across the Greater Carpentaria project area

This ASX release has been authorised by the Board of Directors

For queries about this release, please contact:

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APPENDIX A
EMPIRE ENERGY EP187
NET CONTINGENT RESOURCES
INDEPENDENTLY ASSESSED BY NETHERLAND, SEWELL & ASSOCIATES, INC

Area	Reservoir	As at 30 April 2023 Unrisked Contingent Resources (100% and Net) Sales Gas (BCF)			As at 30 April 2023 Unrisked Contingent Resources (100% and Net) Sales Gas (PJ)		
		Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
Carpentaria	Velkerri C	95	562	713	113	666	846
	Velkerri B	102	571	712	120	678	844
	Velkerri Intra B-A	-	7	14	-	8	16
	Velkerri A	-	10	21	-	12	24
Carpentaria East	Velkerri C	30	156	735	35	185	871
	Velkerri B	30	161	764	36	190	906
	Velkerri Intra B-A	-	-	-	-	-	-
	Velkerri A	-	-	-	-	-	-
TOTAL*	**ALL**	**256**	**1,467**	**2,958**	**304**	**1,739**	**3,507**

**Empire derived arithmetic summation of NSAI deterministic and probabilistic resources estimations*

The estimated Contingent Resources are those quantities of petroleum that may potentially be recovered from known accumulations by the application of future development projects not currently considered to be commercial. The Contingent Resources shown in this report are contingent upon (1) demonstration of the economic viability of project development, (2) development of infrastructure, (3) a sales contract, and (4) commitment to develop the resources. The project maturity subclass for these Contingent Resources is development pending.

APPENDIX B
EMPIRE ENERGY EP187
NET PROSPECTIVE RESOURCES
INDEPENDENTLY ASSESSED BY NETHERLAND, SEWELL & ASSOCIATES, INC

Area	Reservoir	As at 30 April 2023 Unrisked Prospective Resources (100% and Net) Sales Gas (BCF)			As at 30 April 2023 Unrisked Prospective Resources (100% and Net) Sales Gas (MMBOE)			As at 30 April 2023 Unrisked Prospective Resources (100% and Net) Sales Gas (PJ)		
		Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
Carpentaria	Velkerri C	12	137	170	2	23	28	15	162	201
	Velkerri B	13	170	206	2	28	34	15	202	244
	Velkerri Intra B-A	147	291	644	24	49	107	174	345	763
	Velkerri A	305	483	908	51	80	151	362	573	1,076
Carpentaria East	Velkerri C	140	220	275	23	37	46	165	260	326
	Velkerri B	142	281	403	24	47	67	169	334	478
	Velkerri Intra B-A	158	340	864	26	57	144	187	403	1,024
	Velkerri A	421	743	1,648	70	124	275	499	881	1,954
Carpentaria South	Velkerri C	50	81	102	8	14	17	59	97	121
	Velkerri B	41	95	141	7	16	23	49	112	167
	Velkerri Intra B-A	13	28	71	2	5	12	15	33	84
	Velkerri A	68	119	267	11	20	44	81	141	316
TOTAL*	**ALL**	**1,510**	**2,988**	**5,697**	**252**	**498**	**949**	**1,790**	**3,542**	**6,754**

**Empire derived arithmetic summation of NSAI deterministic and probabilistic resources estimations*

The estimated Prospective Resources are those quantities of petroleum that may potentially be recovered by the application of future development projects relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

APPENDIX C
EMPIRE ENERGY TOTAL NORTHERN TERRITORY
NET CONTINGENT AND PROPSECTIVE RESOURCES
INDEPENDENTLY ASSESSED BY NETHERLAND, SEWELL & ASSOCIATES, INC

Zone	As at 30 April 2023 Unrisked Contingent Resources (100% and Net)						As at 30 April 2023 Unrisked Prospective Resources (100% and Net)					
	Liquids (MMBBL)			Sales Gas (BCF)			Liquids (MMBBL)			Gas (BCF)		
	Estimate			Estimate			Estimate			Estimate		
	Low (1C)	Best (2C)	High (3C)	Low (1C)	Best (2C)	High (3C)	Low (1U)	Best (2U)	High (3U)	Low (1U)	Best (2U)	High (3U)
Kyalla*	0.8	3	11.1	0.8	4.5	28	88	378	1,571	184	857	4,891
Mid Velkerri*	0.1	0.5	3	313.3	1,620	3,346	76	386	1,938	9,683	29,756	86,341
Barney Creek*	-	-	-	-	-	-	-	-	-	1,633	11,053	45,380
Total*	**0.9**	**3.5**	**14.1**	**314**	**1,625**	**3,374**	**164**	**764**	**3,509**	**11,500**	**41,666**	**136,612**

**Empire derived arithmetic summation of NSAI deterministic and probabilistic resources estimations*

The estimated volumes for Kyalla and Barney Creek as well as a portion of those presented in this table for the Mid Velkerri were originally presented in reports issued by NSAI in May 2020 and February 2022. Because no new data has been acquired, these volumes have not been updated

The estimated Prospective Resources are those quantities of petroleum that may potentially be recovered by the application of future development projects relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

APPENDIX D
DISCLOSURES UNDER ASX LISTING RULE 5

LR 5.25.1	Contingent and Prospective Resources estimates for EP187 were assessed as of 30 April 2023. Empire confirms that it is not aware of any new information or data that materially affects the information included and that all the material assumptions and technical parameters supporting the estimates continue to apply and have not materially changed.
LR 5.25.2	Petroleum resources are classified in accordance with the Petroleum Resource Management System (PRMS) sponsored by the Society of Petroleum Engineers (SPE). Both Contingent Resources and Prospective Resources classes are being reported.
LR 5.25.3	Disclosed as unrisked Contingent Resources and Prospective Resources
LR 5.25.4	Petroleum-initially-in-place numbers not disclosed
LR 5.25.5	All references to petroleum resources quantities in this announcement represent Empire's equity interest in the relevant asset.
LR 5.25.6	The deterministic method was used to prepare the estimates of all Contingent Resources and the Velkerri C and B shales Prospective Resources in the NSAI report. The probabilistic method was used to prepare the estimates of Velkerri Intra B-A and Velkerri A Shale Prospective Resources in the NSAI report. These estimates are presented herein using arithmetic aggregation as specified by the PRMS. The aggregate of 1C and 1U may be a conservative estimate and the aggregate 3C and 3U may be an optimistic estimate due to the portfolio effect of arithmetic summation.
LR 5.25.7	Contingent and Prospective resources reported in units of equivalency used a conversion factor of 6,000 cubic feet of gas per barrel of oil equivalent Sales gas resources are after a deduction for the removal of CO_2 and inerts. The energy content of the sales gas resources is approximately 1.186 PJ per BCF. The effective energy content of the gross (100 percent) gas resources is 1.150 PJ per BCF.
LR 5.26	Not applicable
LR 5.27.1	Contingent Resources have been categorised and reported as 1C, 2C and 3C
LR 5.27.2	Not applicable
LR 5.27.3	An arithmetic summation by category (that is 1C, 2C and 3C) has been used for Contingent Resources
LR 5.27.4	Not applicable
LR 5.28.1	Prospective Resources have been categorised as 1U (low estimate), 2U (best estimate) and 3U (high estimate)

LR 5.28.2	The estimated Prospective Resources quantities of petroleum that may potentially be recovered by the application of future development projects relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.
LR 5.41 **LR 5.42**	The estimates of petroleum reserves were prepared in accordance the SPE-PRMS guidelines under the supervision of Mr John G. Hattner, Senior Vice President, and Mr Joseph M. Wolfe, Vice President, of Netherland, Sewell & Associates, Inc. The estimates of Contingent and Prospective Resources in the Northern Territory were prepared in accordance with the SPE-PRMS guidelines and are based on, and fairly represent, information and supporting documentation under the supervision of Geoscientist Dr Alex Bruce, Chief Geoscientist, Empire Energy Group Limited, a qualified person as defined under ASX Listing Rule 5.11. Dr Bruce has consented to the use of the resource estimates figures in the form and context in which they appear in this release. Dr Bruce is a full-time employee of Empire Energy Group Limited. Dr Bruce earned a Bachelor of Science with majors in Geology and Environmental Geography from the University of Sydney, Australia, and first-class honours in Geology / Geophysics from the University of New South Wales, Sydney. Dr Bruce holds a PhD from the University of New South Wales in Geology and Artificial Intelligence and holds a Graduate Certificate in Geostatistics from Edith Cowan University, Perth, Australia. Dr Bruce is a member of the American Association of Petroleum Geologists (AAPG) and the Society of Petroleum Engineers (SPE). Furthermore, Dr Bruce has over 20 years of relevant experience in operating oil and gas companies with much of that time in resource estimation, and as such has sufficient experience to qualify as a Reserves and Resources Evaluator as defined in Chapter 19 or the ASX Listing Rules. The resource assessment was independently carried out by Mr John G. Hattner, Senior Vice President, and Mr Joseph M. Wolfe, Vice President, of Netherland, Sewell & Associates, Inc. in accordance with the SPE-PRMS guidelines. Messrs Hattner and Wolfe meet the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules. Mr Hattner is a Licensed Professional Geophysicist in the State of Texas, USA and Mr Wolfe is a Licensed Professional Engineer in the State of Texas, USA. Messrs Hattner and Wolfe have consented to the use of the resource estimates figures in the form and context in which they appear in this release. Mr Hattner has over 42 years of relevant experience. His qualifications include an MBA from Saint Mary's College of California, Master of Science in Geological Oceanography, Florida State University, and a Bachelor of Science in Geology from University of Miami. Mr Wolfe has over 14 years of relevant experience. His qualifications include a Master of Petroleum Engineering from Texas A&M and a Bachelor of Science in Mathematics from Northwestern State University.