

ASX ANNOUNCEMENT

19 September 2019

OPERATIONS UPDATE AND ANNUAL RESERVES STATEMENT

Highlights

- Annual reserves update confirms significant progress being made by Otto in building its production business toward the strategic goal of 5000+ boepd by the end of 2020.
- Total Proved Reserves (1P) increase 49% to 3.670 MMboe (Net to Otto)
- SM 71 Proved Reserves (1P) replaces 82% of production through increased Economic Ultimate Recovery (EUR)
- Maiden Lightning Proved and Probable Reserves (2P) of 2.230 MMboe and 3P Reserves of 4.067 MMboe net to Otto recognized
- Second Lightning development well (Green #2) expected to be drilled in Q4 2019
- Green Canyon reserves booking pending finalisation of development plan in Q4 2019
- Mustang reserves booking pending finalisation of well testing and commencement of production in Q4 2019

Otto Energy (Otto, ASX:OEL) ("Otto" or the "Company") is pleased to provide the following operations update and report of estimates of reserves and resources as at 30 June 2019, which includes the maiden reserves booking for the Lightning discovery.

Total	Gro	oss (100%)			Otto Net	
		Gas		Oil	Gas	
	Oil (Mbbl)	(MMscf)	MBoe	(Mbbl)	(MMscf)	MBoe
Proved Producing	3,219	12,599	5,318	1,271	3,910	1,923
Proved Behind Pipe	682	3,765	1,310	265	1,118	452
Proved Undeveloped	1,927	11,117	3,779	746	3,292	1,295
Proven (1P)	5,828	27,481	10,407	2,282	8,320	3,670
Probable	6,094	19,823	9,398	2,417	6,101	3,434
Proven Plus Probable (2P)	11,922	47,304	19,806	4,699	14,421	7,103
Possible	3,664	34,468	9,409	1,371	10,072	3,049
Proven Plus Probable Plus						
Possible (3P)	15,586	81,772	29,214	6,070	24,492	10,152
Total Prospective Resource						
(best estimate, unrisked)				68,928	102,232	85,966

Reserves Summary 30 June 2019

Prospective Resources Cautionary Statement - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) 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.



Operations Update

South Marsh Island 71

The SM 71 field has now produced over 1.6 MMbbl of oil and 2.4 Bcf of gas since production commenced in March 2018. The production performance of the SM 71 field has given the joint venture sufficient confidence to consider the drilling of two additional wells, the SM 71 F-4 and F-5 wells. These additional wells are under review by Otto and are expected to commence drilling in the fourth quarter of 2019.

The SM 71 F-4 well is intended to test a D5 sand reservoir anomaly that is outboard of the main D5 field and if successful, would extend and prove up additional reserves in the D5 reservoir. The SM 71 F-5 well will test an area that the Operator believes will be poorly, if at all, drained by the existing wells in the D5 sand. First production from the completed wells would be expected in early 2020.

<u>Lightning</u>

First production commenced from the Lightning field in May 2019 following the successful discovery and development of the field. Production performance since start-up of the field in Q2 2019 has continued to deliver strong results from the Green #1 well with current gross production averaging approximately 11.9 MMscf/day and 360 bbl/day of condensate.

The joint venture is progressing the drilling of a second well, Green #2, in the field commencing in October 2019. The well will further evaluate the Tex Miss 1 and Tex Miss 2/3 reservoir units that are currently on production and will provide a second take-point in the field. It is expected that the Green #2 well will be completed for production in early 2020.

Subject to a successful outcome of reservoir evaluation planned for the Green #2 well, the joint venture would consider the potential for further wells in the field to fully develop the extensive area of the Lightning discovery. There is the potential for up to five wells being required to ultimately develop the entire Lightning accumulation.

<u>Green Canyon 21</u>

Subsequent to the successful completion of drilling operations in early August, the Green Canyon 21 "Bulleit" well has been suspended as a future production well. The operator, Talos Energy, Inc (NYSE:TALO) has been progressing plans to complete the discovery well in 1H 2020. The joint venture will undertake a review of the operator's plan of development in the coming month with formal commitment to the development expected shortly thereafter. Subject to the commitment to development outlined above, Otto will report maiden reserves from the GC21 discovery incorporating the development plans.

<u>Mustang</u>

The operator has sourced equipment required for the testing of the deep, high pressure Mustang discovery. With reservoir pressures at the discovery location of over 15,000 psi, specialised high-pressure equipment is required that is not commonly used. The initial testing will involve the perforation of various discovery intervals in order to understand reservoir deliverability and the design of a completion program to optimise ultimate production.



Once the testing phase of the discovery is completed, the joint venture would then plan for the installation of surface production equipment and the connection into a nearby sales pipeline to enable production to commence. This is expected to occur during Q4 2019, subject to the outcome of the impending test program.

Commenting on the operations update and reserves statement Otto Energy Managing Director Matthew Allen said:

"The previous year has delivered significant success for Otto in the development of our Gulf of Mexico business. We now have a very solid production and cashflow base that will support future growth over the long term. The outcome of this reserves review confirms the significance of the business that Otto is growing.

"With the potential to add further reserves from already completed drilling operations at Mustang and GC 21, Otto is working to complete a finance facility to fund developments."

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Otto Reserves and Resources Statement

Otto Energy Limited net reserves and resources for all fields as at 30 June 2019 are summarised below (see additional disclosures provided in the following pages and appendices):

Total	Gro	oss (100%)			Otto Net	
		Gas		Oil	Gas	
	Oil (Mbbl)	(MMscf)	MBoe	(Mbbl)	(MMscf)	MBoe
Proved Producing	3,219	12,599	5,318	1,271	3,910	1,923
Proved Behind Pipe	682	3,765	1,310	265	1,118	452
Proved Undeveloped	1,927	11,117	3,779	746	3,292	1,295
Proven (1P)	5,828	27,481	10,407	2,282	8,320	3,670
Probable	6,094	19,823	9,398	2,417	6,101	3,434
Proven Plus Probable (2P)	11,922	47,304	19,806	4,699	14,421	7,103
Possible	3,664	34,468	9,409	1,371	10,072	3,049
Proven Plus Probable Plus						
Possible (3P)	15,586	81,772	29,214	6,070	24,492	10,152
Total Prospective Resource						
(best estimate, unrisked)				68,928	102,232	85,966

Changes to reserves and resources since 30 June 2018:

	Otto Energy Limited Reserves (NRI Net to Otto) Total											
		Oil (Mbbl)		Gas (MMCF)					N	lboe	
Reserves Reconciliation	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining
	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019
Proved (1P)	2,226	(455)	512	2,282	1,372	(879)	7,827	8,320	2,455	(602)	1,816	3,669
Probable Reserves	3,668	-	(1,251)	2,417	2,833	-	3,267	6,100	4,140	-	(707)	3,433
Proved and Probable (2P)	5,894	(455)	(740)	4,699	4,205	(879)	11,095	14,420	6,595	(602)	1,109	7,102
Possible Reserves	1,890	-	(519)	1,371	1,613	-	8,459	10,072	2,159	-	891	3,050
Proved, Probable & Possible (3P)	7,784	(455)	(1,259)	6,070	5,818	(879)	19,553	24,492	8,754	(602)	2,000	10,152



South Marsh Island 71 Reserves and Resources Statement:

Comment on the changes to reserves and resources:

- SM 71 has now recovered over 1.6 MMbbl of oil and 2.4 Bcf of gas since production commenced in March 2018 and is currently producing approximately 3,200 bopd of oil and 3.4 Mscf/day of gas;
- **Production history:** Increase in D5 Sand Proved EUR reserves due to the high rate, water free production from the D5 reservoir;
- Higher gas-to oil ratio ("GOR") observed in F1 production which effectively increases the calculated gas in place and in turn decreases oil in place resulting in a negative revision to D5 estimated ultimate recoveries and therefore remaining reserves; and
- Removal of 68% of the B65 probable reserves as a result of remapping of the undeveloped B65 reservoir with recently reprocessed 2019 seismic indicating a smaller area of prospectivity than previously mapped.

SM 71	Gro	oss (100%)		Otto	Net (40.62	25%)
		Gas		Oil	Gas	
	Oil (Mbbl)	(MMscf)	MBoe	(Mbbl)	(MMscf)	MBoe
Proved Producing	2,918	2,575	3,347	1,185	1,046	1,360
Proved Behind Pipe	580	355	639	236	144	260
Proved Undeveloped	1,622	962	1,782	659	391	724
Proven (1P)	5,120	3,892	5,768	2,080	1,581	2,344
Probable	5,608	3,627	6,213	2,278	1,473	2,524
Proven Plus Probable (2P)	10,728	7,519	11,981	4,358	3,055	4,867
Possible	2,686	1,861	2,996	1,091	756	1,217
Proven Plus Probable Plus						
Possible (3P)	13,414	9,380	14,977	5,449	3,811	6,085
Total Prospective Resource						
(best estimate, unrisked)	3,665	49,569	11,927	1,489	20,137	4,845

Otto Energy Limited Reserves SM 71 (NRI Net to Otto) Gulf of Mexico, offshore Louisiana, USA												
		Oil (Mbbl)			Gas	(MMCF)			Μ	lboe	
Reserves Reconciliation	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining
	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019
SM 71 (developed & undeveloped)												
Proved (1P)	2,226	(454)	308	2,080	1,372	(819)	1,027	1,581	2,455	(590)	479	2,344
Probable Reserves	3,668	-	(1,390)	2,278	2,833	-	(1,360)	1,473	4,140	-	(1,617)	2,523
Proved and Probable (2P)	5,894	(454)	(1,082)	4,358	4,205	(819)	(332)	3,054	6,595	(590)	(1,138)	4,867
Possible Reserves	1,890	-	(798)	1,092	1,613	-	(857)	756	2,159	-	(941)	1,218
Proved, Probable & Possible (3P)	7,784	(454)	(1,881)	5,450	5,818	(819)	(1,189)	3,810	8,754	(590)	(2,079)	6,085

Otto holds a 50% working interest (40.625% net revenue interest) in SM 71 through a wholly owned subsidiary Otto Energy (Louisiana) LLC. The operator, Byron Energy Limited (ASX:BYE) holds the remaining 50% working interest.



Lightning Reserves and Resources Statement:

Comment on the changes to reserves and resources:

- Lightning (Green #1): The startup of production at Lightning in May 2019 has resulted in maiden additional Probable Reserves (2P) to Otto Energy of 2,235 Mboe significantly exceeding the pre-drill prospective resource of 1,300 Mboe
- Production from the Green #1 well began in 2Q 2019 and has plateaued at 12 Mscf/day and 360 bopd of condensate since July 2019.
- Lightning (Green #2): The joint venture is progressing the drilling of a second well, Green #2, in the field commencing in October 2019. Full field development may require up to five wells to fully develop the Lightning accumulation.

Lightning	Gro	oss (100%)		Otto) Net (28.56	59%)
		Gas		Oil	Gas	,
	Oil (Mbbl)	(MMscf)	MBoe	(Mbbl)	(MMscf)	MBoe
Proved Producing	301	10,024	1,971	86	2,864	563
Proved Behind Pipe	102	3,410	671	29	974	192
Proved Undeveloped	305	10,155	1,997	87	2,901	571
Proven (1P)	708	23,589	4,639	202	6,739	1,326
Probable	486	16,196	3,185	139	4,627	910
Proven Plus Probable (2P)	1,194	39,785	7,824	341	11,366	2,235
Possible	978	32,607	6,413	279	9,315	1,832
Proven Plus Probable Plus						
Possible (3P)	2,172	72,392	14,237	620	20,682	4,067
Total Prospective Resource						
(best estimate, unrisked)			-	-	-	-

Otto Energy Limited Reserves Lightning (NRI Net to Otto) Onshore Texas, USA												
	Oil (Mbbl)				Gas (MMCF)				Μ	lboe		
Reserves Reconciliation	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining	Remaining	Production	Additions & Revisions	Remaining
	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019	30/06/2018	2019	2019	30/06/2019
Total												
Proved (1P)	-	(2)	204	202	-	(61)	6,800	6,739	-	(12)	1,337	1,325
Probable Reserves	-	-	139	139	-	-	4,627	4,627	-	-	910	910
Proved and Probable (2P)	-	[2]	343	341	-	(61)	11,427	11,366	-	[12]	2,247	2,235
Possible Reserves	-	-	279	279	-	-	9,315	9,315	-	-	1,832	1,832
Proved, Probable & Possible (3P)	-	(2)	622	620	-	(61)	20,743	20,682	-	(12)	4,079	4,067

Note: gas volumes reported above exclude a 2% shrinkage factor

Otto holds a 37.5% working interest (28.569% net revenue interest) in Lightning through a wholly owned subsidiary Otto Energy USA Inc. The operator, Hilcorp, holds the remaining working interest.



Appendix A – Prospective Resource as at 30 June 2019

Refer to comments and notes below the tables for commentary on recent activity related to Prospective Resources.

Gulf Coast Package

				Pro	ospective	Resourc	es.		
Prospect Name	Working Interest	Net Revenue Interest		100%		Otto Net Revenue Interest			
ri ospect Name	Working interest		Gas Bcfe	Oil MMbbls	Mmboe	Gas Bcfe	Oil MMbbls	MMboe	
			Mean	Mean	Mean	Mean	Mean	Mean	
Beluga	37.50%	30.00%	21.25	1.21	4.75	6.38	0.36	1.43	
Mustang	37.50%	28.50%	37.80	2.26	8.56	10.77	0.64	2.44	
Oil Lake	37.50%	29.06%	6.73	3.34	4.46	1.95	0.97	1.30	
Tarpon	37.50%	29.06%	161.97	9.21	36.21	47.07	2.68	10.52	
Mallard	37.50%	29.63%	7.79	0.45	1.75	2.31	0.13	0.52	

¹ Mustang prospective reserves are pre-drill estimates. The Mustang well is currently being prepared for flow testing and analysis

Green Canyon 21

	Prospect Name				Pro	ospective	Resourc	es.		
		Working Interest	Net Revenue Interest	100%			Otto Net Revenue Interest			
	i i ospect Maine		Net Nevenue interest	Gas	Oil	Mmboe	Gas	Oil	MMboe	
				Bcfe	MMbbls	MINDUE	Bcfe	MMbbls	MMDOe	
				Mean	Mean	Mean	Mean	Mean	Mean	
ĺ	GC 21 Bulleit	16.67%	13.34%	9.43	12.93	14.50	1.26	1.72	1.93	

² GC 21 Bulleit prospective reserves are pre-drill estimates. The GC 21 development plan is being progressed by the Operator to complete the discovery well in 1H 2020. The joint venture will undertake a review of the operator's plan of development in the coming month with formal commitment to the development expected shortly thereafter.

Alaska Central North Slope

				Pro	ospective	Resour	ces		
Prospect Name	Working Interest	Net Revenue Interest		100%		Otto Net Revenue Interes			
	Working interest		Gas Bcfe	Oil MMbbls	Mmboe	Gas Bcfe	Oil MMbbls	MMboe	
			Mean	Mean	Mean	Mean	Mean	Mean	
Blackbird	10.80%	9 - 9.45%		28.40	28.40		2.56	2.56	
Helio	10.80%	9 - 9.45%		67.90	67.90		6.11	6.11	
Hellcat	10.80%	9 - 9.45%		74.30	74.30		6.69	6.69	
Skywagon	10.80%	9 - 9.45%		57.70	57.70		5.19	5.19	
Avenger	10.80%	9 - 9.45%		100.10	100.10		9.01	9.01	
Corsair	10.80%	9 - 9.45%		330.60	330.60		29.75	29.75	

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Comment on the changes to prospective resources:

- **Mustang (Thunder Gulch #1):** Otto announced on 23 July 2019 that the Thunder Gulch #1 well had successfully drilled to final total depth of 18,164 feet MD and that petrophysical evaluation had confirmed the well had intersected a minimum of 57 feet of net pay. Production casing has been run with the well set for completion and testing due to occur in the coming weeks. Subject to the results of well testing and commencement of production, Otto expects to convert the Mustang Prospective Resource into Reserves in the coming months.
- **Green Canyon 21 ("Bulleit"):** Otto announced on 8 August 2019 that the GC21 Bulleit well had successfully reached total depth of 15,675 feet MD. The well has intersected 140 feet TVD of net pay in the DTR-10 interval and a further approximately 110 feet TVD of net pay in the MP interval. The well has been suspended as a future production well. Otto expects to convert the GC21 Bulleit Prospective Resource into Reserves upon sanction of the field development expected in the coming months.
- Alaska Central North Slope: Otto notes that the operator of the Alaska North Slope, Pantheon Resources PLC (AIM: PANR) has announced that it will hold an Alaskan Project update in London on 24 September 2019. Pantheon has entered a partnership with eSeis Inc, a Houston based pioneer in high tech geophysics and seismic petrophysics, to support Pantheon furthering the geophysical and petrophysical understanding of the Alaskan Central North Slope exploration potential. Further information will be provided to the market following Pantheon's update.
- VR 232: VR232 is undergoing evaluation after Otto Energy acquired Byron Energy's (ASX:BYE) 50% interest and operatorship in VR 232 at no cost (announced to the ASX on 9 May 2019).

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Appendix B – Notes to Reserves and Resources Statement

Reserves and Resources Governance

Otto's reserves estimates are compiled annually. The operator of SM 71, Byron Energy, engages Collarini and Associates, a qualified external petroleum engineering consultant, to conduct an independent assessment of the SM 71 reserves on behalf of the joint venture. Collarini and Associates is an independent petroleum engineering consulting firm that has been providing petroleum consulting services in the USA for more than fifteen years. Collarini and Associates does not have any financial interest or own any shares in the Company. The fees paid to Collarini and Associates are not contingent on the reserves outcome of the reserves report.

Otto engages Ryde Scott Company, a qualified external petroleum engineering consultant, to conduct an independent assessment of the Lightning Field reserves on behalf of Otto. Ryder Scott Company is an independent petroleum engineering consulting firm that has been providing petroleum consulting services in the USA for more than fifty years. Ryder Scott Company does not have any financial interest or own any shares in the Company. The fees paid to Ryder Scott Company are not contingent on the reserves outcome of the reserves report.

Competent Persons Statement

The information in this report that relates to oil and gas reserves and resources at SM 71 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 Evaluation Engineers (SPEE), 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 Evaluation 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. 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.

The information in this report that relates to oil and gas reserves and resources at the Lightning Field was compiled by technical employees of independent consultants Ryder Scott Company, under the supervision of Mr. Ali Porbandarwala PE. Mr. Porbandarwala is a Senior Vice President at Ryder Scott Company and is a registered professional engineer in the State of Texas and a member of the Society of Petroleum Engineers (SPE). He has a B.S. Chemical Engineering from the University of Kansas and an MBA from the University of Texas. The reserves 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 (SPE) Petroleum Resources Management System (PRMS). The reserves information reported in this Statement are based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of Mr. Porbandarwala. Mr. Porbandarwala 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.

The information in this report that relates to oil and gas prospective resources in relation to the Gulf Coast Package (Mustang, Beluga, Oil Lake, Tarpon and Mallard) in the Gulf of Mexico was compiled by technical employees of Hilcorp Energy Company, the Operator of the Gulf Coast Package, and subsequently reviewed by Mr Ed Buckle B.S. Chemical Engineering (Magna Cum Laude) who has consented to the inclusion of such information in this report in the form and context in which it appears.

The information in this report that relates to oil and gas resources in relation to Green Canyon 21 (GC 21) in the Gulf of Mexico was compiled by technical employees of Talos Energy and reviewed by Mr Ed Buckle B.S. Chemical Engineering (Magna Cum Laude), who has consented to the inclusion of such information in this report in the form and context in which it appears.

Mr Buckle is an full-time contractor of the Company, with more than 30 years relevant experience in the petroleum industry and is a member of The Society of Petroleum Engineers (SPE). The 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 resources information included in this report are based on, and fairly represents, information and supporting documentation reviewed by Mr Buckle. Mr Buckle 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.

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Reserves Cautionary Statement

Oil and gas reserves and resource estimates are expressions of judgment based on knowledge, experience and industry practice. Estimates that were valid when originally calculated may alter significantly when new information or techniques become available. Additionally, by their very nature, reserve and resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate. As further information becomes available through additional drilling and analysis, the estimates are likely to change. This may result in alterations to development and production plans which may, in turn, adversely impact the Company's operations. Reserves estimates and estimates of future net revenues are, by nature, forward looking statements and subject to the same risks as other forward looking statements.

Prospective Resources Cautionary Statement

The estimated 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 appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Pricing Assumptions

Oil price assumptions used in the independent report represent forward prices (CME Nymex) as at 28 June 2019.

ASX Reserves and Resources Reporting Notes

- (i) The reserves and prospective resources information in this document is effective as at 30 June, 2019 (Listing Rule (LR) 5.25.1)
- The reserves and prospective resources information in this document has been estimated and is classified in accordance with SPE-PRMS (Society of Petroleum Engineers - Petroleum Resources Management System) (LR 5.25.2)
- (iii) The reserves and prospective resources information in this document is reported according to the Company's economic interest in each of the reserves and prospective resource net of royalties (LR 5.25.5)
- (iv) The reserves and prospective resources information in this document has been estimated and prepared using the probabilistic method (LR 5.25.6)
- (v) The reserves and prospective resources information in this document has been estimated using a ratio of 6,000 cubic feet of natural gas to one barrel of oil. This conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency (LR 5.25.7)
- (vi) The reserves and prospective resources information in this document has been estimated on the basis that products are sold on the spot market with delivery at the sales point on the production facilities (LR 5.26.5)
- (vii) The method of aggregation used in calculating estimated reserves was the arithmetic summation by category of reserves. As a result of the arithmetic aggregation of the field totals, 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 (LR 5.26.7 & 5.26.8)
- (viii) *Prospective resources are reported on a best estimate basis (LR 5.28.1)*
- (ix) For 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. 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 5.28.2)
- (x) The reserve numbers assume some investment over the life of the field outlined above.



<u>Glossary</u>

Bbl = barrels bcf = billion cubic feet Bcfe = billion cubic feet equivalent boe = barrels of oil equivalent Bopd = barrels of oil per day Btu = British Thermal Units EUR = Economic Ultimate Recovery Mcfg = thousand cubic of gas Mcfgpd = thousand cubic feet of gas per day MMcf = million cubic feet MBL = thousand barrels of oil MMBL = million barrels of oil Mboe = thousand barrels of oil equivalent MMboe = million barrels of oil equivalent MCF = thousand cubic feet mmbtu = million British Thermal Units