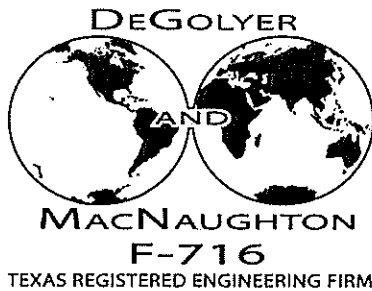


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January 15, 2018

Cooperatieve KMG EP UA  
Strawinskylaan 819, WTC, Tower A, 8 floor, 1077  
XX Amsterdam  
The Netherlands

Subject: Reserves, contingent resources, and prospective resources estimates as of  
December 31, 2017, for various assets within various licenses within the  
Republic of Kazakhstan

Ladies and Gentlemen:

Pursuant to your request, we have prepared estimates, as of December 31, 2017, of the extent of the proved, probable, and possible oil, condensate, natural gas liquids (NGL), and gas reserves, estimates of the value of the proved, proved-plus-probable, and proved-plus-probable-plus-possible reserves, and estimates of the extent only of the oil, condensate, and gas contingent resources of certain fields in which KazMunaiGas Exploration Production JSC (KMG EP) has represented that it owns or controls an interest either directly or through its 95.1-percent interest in Cooperatieve KMG EP UA (Cooperatieve KMG). These subsidiary enterprises consist of AO Embamunaigas (EMG), AO Ozenmunaigas (OMG), and TOO Ural Oil and Gas (UOG). All of the fields evaluated are located in the Republic of Kazakhstan.

We have also estimated the extent and potential present worth of the oil and gas prospective resources of various assets within various license blocks located in the Republic of Kazakhstan in which Cooperatieve KMG has represented that it intends to acquire an ownership interest in the future.

The results presented herein are subject to the definitions, assumptions, explanations, qualifications, and conclusions contained in our "Report as of December 31, 2017 on Reserves and Revenue and Contingent Resources of Certain Fields and Licenses owned or controlled by KazMunaiGas Exploration Production

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JSC Republic of Kazakhstan PRMS Case” (the Reserves and Contingent Resources Report) and in our “Report as of December 31, 2017 on the Prospective Resources and Potential Revenue attributable to Various Prospects owned or controlled by KazMunaiGas Exploration Production JSC in Various License Blocks Republic of Kazakhstan” (the Prospective Resources Report). It should be noted that, without reference to the Reserves and Contingent Resources Report and the Prospective Resources Report, the information presented herein is susceptible to being misunderstood and should be used with caution.

Reserves estimated herein are expressed as net oil and condensate, NGL, and sales gas reserves. The estimated net proved, probable, and possible oil, condensate, NGL, and sales gas reserves, as of December 31, 2017, as presented in the Reserves and Contingent Resources Report are summarized as follows, expressed in English units in thousands of barrels ( $10^3$ bbl) and millions of cubic feet ( $10^6$ ft<sup>3</sup>) and in metric units in thousands of metric tons ( $10^3$ mt) and millions of cubic meters ( $10^6$ m<sup>3</sup>):

Reserves Category	Net Reserves					
	English Units			Metric Units		
	Oil and Condensate ( $10^3$ bbl)	NGL ( $10^3$ bbl)	Sales Gas ( $10^6$ ft <sup>3</sup> )	Oil and Condensate ( $10^3$ mt)	NGL ( $10^3$ mt)	Sales Gas ( $10^6$ m <sup>3</sup> )
Proved Developed	607,560	6,717	257,957	83,330	569	7,304
Proved Undeveloped	130,980	8,266	244,930	17,544	701	6,935
<b>Total Proved</b>	<b>738,540</b>	<b>14,983</b>	<b>502,887</b>	<b>100,874</b>	<b>1,270</b>	<b>14,239</b>
Probable	305,692	5,909	262,821	41,922	500	7,443
Possible	349,794	2,715	110,149	48,159	231	3,121

Notes:

1. Probable and possible reserves have not been risk adjusted to make them comparable to proved reserves.
2. KMG EP has represented that it owns 47.55-percent interest and controls 50 percent of the management of the UOG subsidiary. Estimated reserves attributable to these interests, including the 2.45-percent interest not owned by KMG EP, are included herein as net reserves.

Contingent resources estimated in this letter are reported as net oil and condensate and sales gas contingent resources. The net oil, condensate, and sales gas contingent resources estimated herein cannot be classified as reserves. The net oil and condensate and sales gas contingent resources estimates presented herein are provided as a means of comparison to other contingent resources and do not provide a direct comparison to reserves. The estimated net 1C, 2C, and 3C contingent resources, as of December 31, 2017, as presented in the Reserves and

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Contingent Resources Report are summarized as follows, expressed in English units in thousands of barrels ( $10^3$ bbl) and millions of cubic feet ( $10^6$ ft<sup>3</sup>) and in metric units in thousands of metric tons ( $10^3$ mt) and millions of cubic meters ( $10^6$ m<sup>3</sup>):

	<u>Net Contingent Resources</u>		
	<u>English Units</u>		
	<u>1C</u>	<u>2C</u>	<u>3C</u>
<b>Marginal</b>			
Oil and Condensate, $10^3$ bbl	24,587	75,487	124,327
Sales Gas, $10^6$ ft <sup>3</sup>	181,288	339,743	386,459
<b>Sub-Marginal</b>			
Oil and Condensate, $10^3$ bbl	2,574	4,565	43,935
Sales Gas, $10^6$ ft <sup>3</sup>	18,558	133,369	200,045
<b>Total</b>			
Oil and Condensate, $10^3$ bbl	27,161	80,052	168,262
Sales Gas, $10^6$ ft <sup>3</sup>	199,846	473,112	586,504
	<u>Metric Units</u>		
	<u>1C</u>	<u>2C</u>	<u>3C</u>
<b>Marginal</b>			
Oil and Condensate, $10^3$ mt	3,384	10,376	17,071
Sales Gas, $10^6$ m <sup>3</sup>	5,132	9,622	10,942
<b>Sub-Marginal</b>			
Oil and Condensate, $10^3$ mt	337	558	5,998
Sales Gas, $10^6$ m <sup>3</sup>	526	3,778	5,666
<b>Total</b>			
Oil and Condensate, $10^3$ mt	3,721	10,934	23,069
Sales Gas, $10^6$ m <sup>3</sup>	5,658	13,400	16,608

Notes

1. Application of any risk factor to contingent resources quantities does not equate contingent resources with reserves.
2. There is no certainty that it will be commercially viable to produce any portion of the contingent resources evaluated herein.
3. Contingent resources with an economic status of Undetermined have been estimated to be zero.

The estimated KMG EP future net revenue and KMG EP present worth to be derived from the production and sale of the estimated net proved, proved-plus-probable, and proved-plus-probable-plus-possible reserves, as of December 31, 2017, as presented in the Reserves and Contingent Resources Report are summarized as follows, expressed in thousands of United States dollars ( $10^3$ U.S.\$).

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<u>Reserves Category</u>	<u>KMG EP</u>	
	<u>Future Net Revenue (10<sup>3</sup>U.S.\$)</u>	<u>Present Worth at 10 Percent (10<sup>3</sup>U.S.\$)</u>
Proved Developed	7,686,350	3,932,730
Proved Undeveloped	1,010,083	320,456
<b>Total Proved</b>	<b>8,696,433</b>	<b>4,253,186</b>
Proved plus Probable	12,219,431	5,170,119
Proved plus Probable plus Possible	16,354,653	5,839,502

Note: Values for probable and possible reserves have not been risk adjusted to make them comparable to values for proved reserves.

Prospective resources have been evaluated in various license blocks in the Republic of Kazakhstan. The prospective resources estimates presented below were based on the statistical aggregation method. Estimates of the gross oil, sales gas, condensate, and solution gas prospective resources, as of December 31, 2017, as presented in the Prospective Resources Report are summarized as follows, expressed in English units in thousands of barrels (10<sup>3</sup>bbl) and millions of cubic feet (10<sup>6</sup>ft<sup>3</sup>) and in metric units in thousands of metric tons (10<sup>3</sup>mt) and millions of cubic meters (10<sup>6</sup>m<sup>3</sup>):

	<u>Gross Prospective Resources</u>			
	<u>Low Estimate</u>	<u>Best Estimate</u>	<u>High Estimate</u>	<u>Mean Estimate</u>
<b>English Units</b>				
Gross Oil Prospective Resources, 10 <sup>3</sup> bbl	773,813	1,417,838	2,114,832	1,455,001
Gross Sales Gas Prospective Resources, 10 <sup>6</sup> ft <sup>3</sup>	1,604,495	2,330,394	2,813,976	2,381,549
Gross Condensate Prospective Resources, 10 <sup>3</sup> bbl	172,897	298,993	440,190	307,435
Gross Solution Gas Prospective Resources, 10 <sup>6</sup> ft <sup>3</sup>	341,280	662,737	1,073,622	700,359
<b>Metric Units</b>				
Gross Oil Prospective Resources, 10 <sup>3</sup> mt	106,002	194,224	289,703	199,315
Gross Sales Gas Prospective Resources, 10 <sup>6</sup> m <sup>3</sup>	45,434	65,989	79,682	67,437
Gross Condensate Prospective Resources, 10 <sup>3</sup> mt	20,957	36,242	53,356	37,265
Gross Solution Gas Prospective Resources, 10 <sup>6</sup> m <sup>3</sup>	9,664	18,766	30,401	19,832

1. Low, best, high, and mean estimates in this table are P<sub>90</sub>, P<sub>50</sub>, P<sub>10</sub>, and mean, respectively.
2. P<sub>g</sub> and P<sub>e</sub> have not been applied to the volumes in this table.
3. Application of any geological or economic chance factor does not equate prospective resources with contingent resources or reserves.
4. Recovery efficiency is applied to prospective resources in this table.
5. The prospective resources presented above were based on the statistical aggregation method.
6. There is no certainty that any portion of the prospective resources estimated herein will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources evaluated.

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The following table summarizes the KMG EP potential present worth at 10 percent that might be realized from the production and sale of the truncated, TEFS-adjusted,  $P_e$ -adjusted oil and sales gas prospective resources of the various prospects evaluated in the Prospective Resources Report, using the potential present worth at 10 percent per prospective resources quantity methodology, as of December 31, 2017, expressed in thousands of United States dollars ( $10^3$ U.S.\$):

	<b>KMG EP Potential Present Worth at 10 Percent</b>			
	<b>Low Estimate (<math>10^3</math>U.S.\$)</b>	<b>Best Estimate (<math>10^3</math>U.S.\$)</b>	<b>High Estimate (<math>10^3</math>U.S.\$)</b>	<b>Mean Estimate (<math>10^3</math>U.S.\$)</b>
KMG EP Truncated, TEFS-Adjusted, $P_e$ -Adjusted Oil Prospective Resources	794,634	949,074	1,133,529	958,232
KMG EP Truncated, TEFS-Adjusted, $P_e$ -Adjusted Sales Gas Prospective Resources	-	-	-	-

Notes:

1. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean, respectively.
2. Estimates of potential present worth at 10 percent for prospective resources are not comparable to present worth estimates of contingent resources or reserves.
3. Estimates of potential present worth at 10 percent for prospective resources do not consider adjustments for political and/or environmental uncertainties.
4. Estimates of the KMG EP potential present worth at 10 percent for prospective resources presented above were based on the statistical aggregation method.
5. A possibility exists that the prospects will not result in successful discovery and development, in which case there would be no potential present worth at 10 percent.
6. There is no certainty that any portion of the prospective resources estimated herein will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources evaluated.
7. Prospects designated with a hyphen (-) were estimated to yield a negative potential present worth at 10 percent and were not included at the request of Cooperative KMG.
8. KMG EP has represented that it owns 47.55-percent interest and controls 50 percent of the management of the UOG subsidiary. The estimated KMG EP potential present worth at 10 percent attributable to these interests, including the 2.45-percent interest not owned by KMG EP, are included herein as net KMG EP potential present worth at 10 percent.

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Information used in the preparation of this letter was obtained from KMG EP. In the preparation of this letter we have relied, without independent verification, upon information furnished by KMG EP with respect to ownership, production, and various other information and data that were accepted as represented. A field examination of the properties was not considered necessary for the purposes of this letter.

Submitted,

*De Golyer and MacNaughton*

DeGOLYER and MacNAUGHTON  
Texas Registered Engineering Firm F-716



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