# **DEGOLYER AND MACNAUGHTON**

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# **DEGOLYER AND MACNAUGHTON**

5001 Spring Valley Road Suite 800 East Dallas, Texas 75244

REPORT
as of
DECEMBER 31, 2012
on the
PROSPECTIVE RESOURCES
attributable to
CERTAIN PROSPECTS
owned by
CGX RESOURCES INC.
in the
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

NI 51-101

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# **FOREWORD**

Scope of Investigation

This report presents estimates, as of December 31, 2012, of the prospective

petroleum resources of various prospects located in the Corentyne license block offshore Guyana. This report is being prepared on behalf of CGX Resources Inc. (CGX). CGX has represented that it currently owns a 100-percent working interest in these prospects under the terms of the exploration and production licenses issued (Table P1).

CGX has represented that upon completion of the primary term of any current exploration and/or production license, it intends to secure an extension or additional license for any discovered prospect. Also, CGX intends to proceed with development and operation of any commercially viable discovered prospect. Based on these representations, we have included as prospective resources certain quantities that, if discovered, may be produced after the expiration of the current primary license.

This report has been prepared pursuant to the Canadian Securities National Instrument 51-101 (NI 51-101) Standards of Disclosure For Oil and Gas Activities Section 5.9 where the value of the properties cannot be determined on the basis of recent financial transactions related to the property, such as acquisition cost, but where the resources quantities and estimate of fair value associated with the interests of the reporting issuer are based on a professional valuator. DeGolyer and MacNaughton has been engaged by CGX to undertake the determination of such quantities. Pursuant to section 5.9 of NI 51-101 and Section 5.3.5 of COGE Handbook Volume 1:

"The range of uncertainty of estimated recoverable volumes may be represented by either deterministic scenarios, or by probabilistic distributions. Resource quantities are provided as low, best, and high estimates."

The prospective resources quantities in this report are expressed as gross prospective resources. Gross prospective resources are defined as the total estimated petroleum that is potentially recoverable after December 31, 2012. The prospects are located in the Corentyne license block offshore Guyana.

The prospective resources estimated herein are those quantities of petroleum that are potentially recoverable from accumulations yet to be discovered. Because of the uncertainty of commerciality and the lack of sufficient exploration drilling, the prospective resources estimated herein cannot be classified as contingent resources or reserves. The prospective resources estimates in this report are not provided as a means of comparison to contingent resources or reserves. Table P1 summarizes ownership, potential hydrocarbon phase, prospect location, and economic related metrics for the prospect portfolio presented herein. Tables 1 through 5 summarize the prospective resources volumes and Pg's for the prospect portfolio estimated herein. Tables 7 and 8 summarize the prospective resources truncated volumes and P<sub>e</sub>'s for the prospect portfolio estimated herein. Tables 9 and 10 summarize the prospective resources volumes and various potential target parameters for the prospect portfolio estimated herein. Tables 11 and 12 summarize the prospective resources potential present worth estimated herein. Tables 13 and 14 summarize the prospective resources potential production profiles and potential cost schedules.

At the request of CGX, a model was prepared to estimate potential values that might be realized from the prospective resources estimated herein should these prospective resources be successfully discovered and developed. A possibility exists that the prospects will not result in successful discoveries and development, in which case there could be no potential present worth at 10 percent. 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.

The potential values of the prospective resources estimated herein are expressed in terms of potential present worth at 10 percent. Potential present worth at 10 percent is defined as potential future net revenue discounted at a specified arbitrary discount rate compounded monthly over the expected period of realization. Potential future net revenue is that revenue that might be derived from the sale of the total estimated prospective resources recoverable after December 31, 2012, after deductions for operating expenses, capital costs, taxes, and royalties. In this report, potential present worth values were estimated using a discount rate of 10 percent. A potential present worth at 10 percent per prospective resources quantity methodology was utilized to develop a potential present worth at 10 percent estimate for the prospective resources probabilistically modeled. This methodology is discussed in more detail in the Valuation of Resources section of this report. Solution gas and condensate are included in the estimation of the potential present worth at 10 percent per barrel distribution applied to the primary streams; therefore these secondary stream estimates are not summarized in the truncated, TEFS-adjusted, volumetric tables.

Potential present worth at 10 percent estimates are shown in this report for the prospective resources after adjustment for the probability of geologic and economic success in discovering and developing a commercially viable field. These potential present worth at 10 percent estimates are provided as a means of comparison to the potential present worth at 10 percent estimates of other prospective resources and do not provide a means of direct comparison to the potential present worth estimates attributable to contingent resources or the present worth estimates attributable to reserves. The probability adjustment process takes into account the probability of an economically viable discovery and the probability of development of the petroleum prospect.

These potential present worth at 10 percent estimates do not take into consideration the uncertainties associated with market and political conditions. The estimates are expressed in terms of potential present worth discounted at 10 percent. All potential present worth at 10 percent estimates presented in this report are expressed in United States dollars (U.S.\$). The total failure scenario for potential present worth at 10 percent estimation recognizes the chance that zero wells encounter economic prospective resources. This probability of no positive present worth is intrinsic to all prospect portfolios.

Estimates of prospective resources should be regarded only as estimates that may change as additional information becomes available. Not only are such prospective resources estimates based on that information which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information. Prospective resources quantities estimates should not be confused with those quantities that are associated with contingent resources or reserves due to the additional risks involved. The quantities that might actually be recovered, should they be discovered and developed, may differ significantly from the estimates presented herein.

**Authority** 

This report was authorized by Kerry Sully, President and CEO, CGX.

# Source of Information

In the preparation of this report we have relied, without independent verification,

upon information furnished by or on behalf of CGX with respect to the property interests to be evaluated, subsurface data as they pertain to the target objectives and prospects, and various other information and technical data that were accepted as represented. This report was based on data available as of December 31, 2012.

# DEFINITION of PROSPECTIVE RESOURCES

Petroleum resources included in this report are classified as prospective resources and have been prepared in accordance with NI 51-101 guidelines. Because of the lack of commerciality or sufficient development drilling, the prospective resources estimated herein cannot be classified as contingent resources or reserves. The petroleum resources are classified as follows:

*Prospective Resources* – Those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects.

The estimation of resources quantities for a prospect is subject to both technical and commercial uncertainties and, in general, may be quoted as a range. The range of uncertainty reflects a reasonable range of estimated potentially recoverable quantities. In all cases, the range of uncertainty is dependent on the amount and quality of both technical and commercial data that are available and may change as more data become available.

Low, Best, High, and Mean Estimates – Estimates of petroleum resources in this report are expressed using the terms low estimate, best estimate, high estimate, and mean estimate to reflect the range of uncertainty.

A detailed explanation of the probabilistic terms used herein and identified with an asterisk (\*) is included in the Glossary of Probabilistic Terms bound with this report. For probabilistic estimates of petroleum resources, the low estimate reported herein is the  $P_{90}^*$  quantity derived from probabilistic analysis. This means that there is at least a 90-percent probability that, assuming the prospect is discovered and developed, the quantities actually recovered will equal or exceed the low estimate. The best (median) estimate is the  $P_{50}^*$  quantity derived from probabilistic analysis. This means that there is at least a 50-percent probability that, assuming the prospect is discovered and developed, the quantities actually recovered will equal or exceed the best (median) estimate. The high estimate is the  $P_{10}^*$  quantity derived from probabilistic analysis. This means that there is at least a 10-percent probability that, assuming the prospect is discovered and developed, the quantities actually recovered will equal or exceed the

high estimate. The expected value\* (EV), an outcome of the probabilistic analysis, is the mean estimate.

Uncertainties Related to Prospective Resources – The quantity of petroleum discovered by exploration drilling depends on the number of prospects that are successful as well as the quantity that each success contains. Reliable forecasts of these quantities are, therefore, dependent on accurate predictions of the number of discoveries that are likely to be made if the entire portfolio of prospects is drilled. The accuracy of this forecast depends on the portfolio size, and an accurate assessment of the probability of geologic success\* (Pg).

Probability of Geologic Success –  $P_g$  is defined as the probability of discovering reservoirs that flow petroleum at a measurable rate.  $P_g$  is estimated by quantifying the probability of each of the following individual geologic factors: trap, source, reservoir, and migration. The product of these four probabilities or chance factors is computed as  $P_g$ .

In this report estimates of prospective resources are presented both before and after adjustment for P<sub>g</sub>. Total prospective resources estimates are based on the probabilistic summation of the quantities for the total inventory of prospects.

Application of  $P_g$  to estimate the  $P_g$ -adjusted prospective resources quantities does not equate prospective resources with reserves or contingent resources.  $P_g$ -adjusted prospective resources quantities cannot be compared directly to or aggregated with either reserves or contingent resources. Estimates of  $P_g$  are interpretive and are dependent on the quality and quantity of data currently made available. Future data acquisition, such as additional drilling or seismic acquisition, can have a significant effect on  $P_g$  estimation. These additional data are not confined to the study area, but also include data from similar geologic settings or technological advancements that could affect the estimation of  $P_g$ .

Predictability versus Portfolio Size – The accuracy of forecasts of the number of discoveries that are likely to be made is constrained by the number of prospects in the exploration portfolio. The size of the portfolio and P<sub>g</sub> together are helpful in gauging the limits on the reliability of these forecasts. A high P<sub>g</sub>, which indicates a high chance

of discovering measurable petroleum, may not require a large portfolio to ensure that at least one discovery will be made (assuming the  $P_g$  does not change during drilling of some of the prospects). By contrast, a low  $P_g$ , which indicates a low chance of discovering measurable petroleum, could require a large number of prospects to ensure a high confidence level of making even a single discovery. The relationship between portfolio size,  $P_g$ , and the probability of a fully unsuccessful drilling program that results in a series of wells not encountering measurable hydrocarbons is referred to herein as the predictability versus portfolio size relationship\* (PPS). It is critical to be aware of PPS, because an unsuccessful drilling program, which results in a series of wells that do not encounter measurable hydrocarbons, can adversely affect any exploration effort, resulting in a negative present worth.

For a large prospect portfolio, the  $P_g$ -adjusted mean estimate of the prospective resources quantity should be a reasonable estimate of the recoverable petroleum quantities found if all prospects are drilled. When the number of prospects in the portfolio is small and the  $P_g$  is low, the recoverable petroleum actually found may be considerably smaller than the  $P_g$ -adjusted mean estimate would indicate. It follows that the probability that all of the prospects will be unsuccessful is smaller when a large inventory of prospects exist.

Prospect Technical Evaluation Stage – A prospect can often be subcategorized based on its current stage of technical evaluation. The different stages of technical evaluation relate to the amount of geologic, geophysical, engineering, and petrophysical data as well as the quality of available data.

Prospect – A prospect is a potential accumulation that is sufficiently well defined to be a viable drilling target. For a prospect, sufficient data and analyses exist to identify and quantify the technical uncertainties, to determine reasonable ranges of geologic chance factors and engineering and petrophysical parameters, and to estimate prospective resources.

Lead – A lead is less well defined and requires additional data and/or evaluation to be classified as a prospect. An example would be a poorly defined closure mapped using sparse regional seismic data in a basin

containing favorable source and reservoir(s). A lead may or may not be elevated to prospect status depending on the results of additional technical work. A lead must have a  $P_{\rm g}$  equal to or less than 0.05 to reflect the inherent technical uncertainty.

Play – A project associated with a prospective trend of potential prospects, but which requires more data acquisition and/or evaluation in order to define specific leads or prospects.

Threshold Economic Field Size – The threshold economic field size (TEFS) is the minimum amount of the producible petroleum required to recover the total capital and operating expenditure used to establish the potential accumulation as having a potential present worth at 10 percent equal to zero using the mid-price.

Probability of Economic Success – The probability of economic success ( $P_e$ ) is defined as the probability that a given discovery will be economically viable. It takes into account  $P_g$ , TEFS,  $P_{TEFS}$ , capital costs, operating expenses, the proposed development plan, the economic model (discounted cash flow analysis), and other business and economic factors.  $P_e$  is calculated as follows:

$$P_{\rm e} = P_{\rm g} \times P_{\rm TEFS}$$

Probability of Threshold Economic Field Size – The probability of threshold economic field size (Ptefs) is defined as the probability of discovering an accumulation that is large enough to be economically viable. Ptefs is estimated by using the prospective resources potential recoverable quantities distribution in conjunction with the TEFS. The probability associated with the TEFS can be determined graphically from the potential gross recoverable quantities distribution.

# ESTIMATION of PROSPECTIVE RESOURCES

Estimates of prospective resources were prepared by the use of standard geological and engineering methods generally accepted by the petroleum industry. The method or combination of methods used in the analysis of the targeted reservoirs was tempered by experience with similar reservoirs, stage of development, and quality and completeness of basic data.

The probabilistic analysis of the prospective resources in this study considered the uncertainty in the amount of petroleum that may be discovered and the  $P_{\rm g}$ . The uncertainty analysis addresses the range of possibilities for any given volumetric parameter. Low, best, high, and mean estimates of prospective resources were estimated to address this uncertainty. The  $P_{\rm g}$  analysis addresses the probability that the identified prospect will contain petroleum that flows at a measurable rate. The  $P_{\rm e}$  analysis addresses the probability that the prospective resources will be economically viable.

Standard probabilistic methods were used in the uncertainty analysis. Probability distributions were estimated from representations of porosity, petroleum saturation, net hydrocarbon thickness, geometric correction factor\*, recovery efficiency, fluid properties, and potential productive area for each prospect. These representations were prepared based on known data, analogy, and other standard estimation methods including experience. Statistical measures describing the probability distributions of these representations were identified and input to a Monte Carlo simulation to produce low estimate, best estimate, high estimate, and mean estimate prospective resources for each prospect.

Estimates of recovery efficiency presented in this report incorporate potential rock and fluid properties as well as development options, costs, economic parameters, and product prices. Potential development profiles have been truncated to eliminate potential negative cash flows. Consequently, the resulting recovery efficiency may be less than the potential recovery efficiency due to these economic considerations. Recovery efficiency estimates presented herein are subject to change upon selection of economic variables different from those used in the preparation of this report.

Estimates of prospective resources and related distributions herein are the results of probabilistic estimation. These estimates are expressed as a distribution rather than a single value. Probabilistic

outcomes involve thousands of iterations using distributions. Deterministic estimations utilizing non-stochastic mathematical operations (addition, subtraction, multiplication, and division) performed on the prospective resources distributions estimated herein produce results that are not statistically comparable. Such calculations and comparisons to these probabilistic outcomes are included herein to comply with PRMS guidelines.

Nonassociated gas is gas at initial reservoir conditions with no crude oil present in the reservoir. Gas-cap gas is gas at initial reservoir conditions and is in communication with an underlying oil zone. Solution gas is gas dissolved in crude oil at initial reservoir conditions. In known accumulations, solution gas and gas-cap gas are sometimes produced together, and as a whole, referred to as associated gas. Prospective raw natural gas quantities (nonassociated and associated) included herein are defined as the total gas potentially producible from the prospective reservoirs before any reduction for shrinkage for potential field and/or platform handling, separation, processing, fuel usage, flaring, reinjection, and/or pipeline losses. Prospective sales-gas quantities included herein are defined as the total gas to be produced from the reservoirs, measured at the point of delivery, after reduction for fuel usage, flare, and shrinkage resulting from field separation and processing. However, it is not certain whether prospective reservoirs will be gas bearing, oil bearing, or water bearing. Prospective resources volumes in this report are identified herein as oil, raw natural gas, sales gas, condensate, or solution gas.

In this report gas quantities are expressed in English units at a temperature base of 60 degrees Fahrenheit (°F) and at a pressure base of 14.7 pounds per square inch absolute (psia). Gas quantities have been converted to barrels of oil equivalent (BOE) using 6,000 standard cubic feet of gas per barrel.

In this report, six potential accumulations are referred to as prospects to reflect the current stage of technical evaluation.

# Quantitative Risk

Assessment and the Application of  $P_g$  Minimum, modal, and maximum representations of potential productive area were interpreted from maps, available seismic data, and/or analogy. Low, mean, and high representations for the petrophysical parameters (porosity,

petroleum saturation, and net hydrocarbon thickness), and engineering parameters (recovery efficiency and fluid properties) were also made based on available well data, regional data, analog field data, and global experience. Individual probability distributions for rock volume and petrophysical and engineering parameters were produced from these representations and are summarized in Tables 9 and 10.

The distributions for the variables were derived from (1) scenario-based interpretations, (2) the geologic, geophysical, petrophysical, and engineering data available, (3) local, regional, and global knowledge, and (4) field and case studies in the literature. The parameters used to model the recoverable quantities were potential productive area, net hydrocarbon thickness, geometric correction factor, porosity, petroleum saturation, formation volume factor, and recovery efficiency. Minimum, mean, and maximum representations were used to statistically model and shape the input P<sub>90</sub>, P<sub>50</sub>, and P<sub>10</sub> parameters. Potential productive area and net hydrocarbon thickness were modeled using truncated lognormal distributions. Truncated normal and triangular distributions were used to model geometric correction factor, formation volume factor, and recovery efficiency. Porosity and petroleum saturation were modeled using truncated normal distributions. Latin hypercube sampling was used to better represent the tails of the distributions.

Each individual volumetric parameter was investigated using a probabilistic approach with attention to variability. Deterministic data were used to anchor and shape the various distributions. The net rock volume parameters had the greatest range of variability, and therefore had the greatest impact on the uncertainty of the simulation. The volumetric parameter variability was based on the structural and stratigraphic uncertainties due to the depositional environment and quality of the seismic data. Analog field data were statistically incorporated to derive uncertainty limits and constraints on the net pore volume. Uncertainty associated with the depth conversion, seismic interpretation, gross sand thickness mapping, and net hydrocarbon thickness assumptions were also derived from studies of analogous reservoirs, multiple interpretative scenarios, and sensitivity analyses.

A  $P_{\text{g}}$  analysis was applied to estimate the quantities that may actually result from drilling these prospects. In the  $P_{\text{g}}$  analysis, the  $P_{\text{g}}$  estimates were made for each prospect from the product of the probabilities of the four geologic chance factors: trap, reservoir, migration, and source.

Estimates of gross prospective resources and the  $P_g$  estimates, as of December 31, 2012, evaluated herein are shown in Tables 1 through 5. The prospective oil, sales gas, and raw natural gas resources are organized at the prospect level. The prospective solution gas and condensate resources are organized at the reservoir level. The  $P_g$ -adjusted mean estimate of the prospective resources was then made by the probabilistic product of  $P_g$  and the resources distributions for the prospect. These results were then stochastically summed (zero dependency) to produce the total  $P_g$ -adjusted mean estimate prospective resources.

Application of the  $P_g$  factor to estimate the  $P_g$ -adjusted prospective resources quantities does not equate prospective resources with reserves or contingent resources.  $P_g$ -adjusted estimates of prospective resources quantities cannot be compared directly to or aggregated with either reserves or contingent resources. Estimates of  $P_g$  are interpretive and are dependent on the quality and quantity of data currently available. Future data acquisition, such as additional drilling or seismic acquisition can have a significant effect on  $P_g$  estimation. These additional data are not confined to the area of study, but also include data from similar geologic settings or from technological advancements that could affect the estimation of  $P_g$ .

# Application of Pe

TEFS required for prospect economic success was estimated. TEFS was used

to truncate and redistribute the estimated prospective resources probability distributions. The truncated, TEFS-adjusted, P<sub>e</sub>-adjusted estimates of the prospective resources were then estimated by the probabilistic product of P<sub>e</sub> and the truncated, TEFS-adjusted prospective resources distributions for each of the individual prospects. These results were then stochastically (zero dependency) summed and redistributed to produce the truncated, TEFS-adjusted, P<sub>e</sub>-adjusted prospective resources estimates.

Estimates, as of December 31, 2012, of the truncated, TEFS-adjusted gross prospective resources evaluated herein are summarized in Tables 6 through 8.

Application of the  $P_e$  factor to estimate the  $P_e$ -adjusted prospective resources quantities does not equate prospective resources with contingent resources or reserves. Estimates of  $P_e$  are interpretive and are

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dependent on the quality and quantity of data currently available. Future data acquisition, technical developments, or changing economic scenarios can have a significant effect on  $P_{\rm e}$  estimation. These additional data are not confined to the area of study, but also include data from similar geologic settings or technological advancements that could affect the estimation of  $P_{\rm e}$ .

# VALUATION of PROSPECTIVE RESOURCES

The estimates of potential present worth of future net revenue discounted at 10 percent that could be realized for the prospective resources estimated in this report are dependent on the successful discovery and development of the prospects evaluated herein. The estimated potential present worth at 10 percent of the prospective resources evaluated in this report is to be used for comparison and ranking of these prospective resources against other prospective resources only. The estimated potential present worth at 10 percent for the prospective resources cannot be compared directly to, equated with, or aggregated with the present worth estimates that could be realized from contingent resources or reserves, nor are these potential present worth at 10 percent estimates an assessment of the fair market value of the properties evaluated herein.

Deterministic and probabilistic methodologies were used to estimate potential present worth at 10 percent that could be realized should the prospective resources estimated herein be both successfully discovered and developed.

Probabilistic methods were used estimate the potential prospective resources quantities. Deterministic models incorporated various economic factors and development practices based on the potential probabilistic prospective resources quantities estimated. The following were estimated deterministically: operating expenses, capital costs, prices (U.S.\$70.18 low-price scenario, U.S.\$89.00 mid-price scenario, and U.S.\$107.82 high-price scenario per barrel, not escalated, and U.S.\$4.00 low-price scenario, U.S.\$5.00 mid-price scenario, and U.S.\$6.00 high-price scenario per thousand cubic feet for sales gas, not escalated), potential production, depreciation, taxes, time value of money, field life, development well costs, development timing, and abandonment costs, with consideration of other factors. The sales gas prices were provided by CGX. These economic factors and potential development practices are summarized in Tables 13 and 14. CGX data were modeled using a potential present worth discount rate of 10 percent for various field sizes and field development maturity. These data inherently contain variation in the economic assumptions, transportation, drilling, and other infrastructure installation costs. These deterministically estimated economic schedules allowed for the probabilistic estimation of potential present worth at 10 percent per unit of resources based on three prospective resources quantity estimates: low, most likely, and high. These three deterministic-based potential present worth at 10 percent per unit of resources

(low, most likely, and high) estimates were used to construct probabilistic distribution of potential present worth per unit of volume. These distributions were used to assign potential value assuming the successful discovery and development of each respective prospect.

The estimates of potential present worth at 10 percent that could be realized for the truncated, TEFS-adjusted mean estimate prospective resources are presented after adjustment for P<sub>e</sub>. Potential present worth at 10 percent per volume methodology was used in the quantitative risk assessment in conjunction with the truncated, TEFS-adjusted P<sub>e</sub>-adjusted prospective resources to estimate potential present worth at 10 percent. (The Glossary of Probabilistic Terms bound with this report presents relevant equations and definitions).

Potential present worth at 10 percent for the truncated, TEFS-adjusted, Pe-adjusted prospective resources has been estimated by deriving a potential present worth value at 10 percent versus various-sized field developments based on economic modeling results. Estimated potential present worth at 10 percent for the prospective resources considered the timing and costs of exploration, drilling, appraisal and development costs, and other information depending on the prospect.

Potential present worth at 10 percent estimation considers potential exploration success against potential exploration failure. Exploration success probabilistically incorporates TEFS, P<sub>e</sub>-adjusted volumes, net ownership, and potential present worth at 10 percent per volume. Exploration failure probabilistically incorporates the probability of economic failure and the exploration dry hole cost. The resulting estimation of volumes, probabilities of economic success and failure, ownership, and exploration drilling costs can range from positive potential present worth at 10 percent to negative potential present worth at 10 percent could result for a prospect with a small truncated, TEFS-adjusted volume, a low P<sub>e</sub>, a low-to-moderate positive potential present worth at 10 percent per volume, and a high exploration well cost. Consideration of the "failure leg" for any exploration appraisal estimation is standard industry practice. A detailed explanation of the relevant variables and formula is presented under the definition of Potential Present Worth in the Glossary of Probabilistic Terms bound with this report.

The estimated TEFS for the prospects are summarized in Table P1. Various distributions of potential present worth at

10 percent per barrel of oil equivalent were used in the simulation. For each prospect, the input modal potential present worth at 10 percent per barrel of oil equivalent is summarized in Table P1.

The estimated potential present worth at 10 percent, expressed in thousands of U.S.\$, of the truncated, TEFS-adjusted, P<sub>e</sub>-adjusted prospective resources attributable to the license area if the prospects were successfully discovered and developed, is summarized in Tables 11 and 12. The current exploration portfolio of potential oil and gas accumulations includes six prospects: four of these prospects were estimated to yield negative potential present worth at 10 percent. For this report, the four uneconomic prospects have been included in the estimation of portfolio potential gross and truncated prospective volumes; however, these four uneconomic prospects have not been included in the estimation of portfolio potential present worth at 10 percent.

Application of  $P_e$  to estimate the  $P_e$ -adjusted prospective resources does not equate prospective resources and their associated values with contingent resources or reserves.  $P_e$ -adjusted prospective resources quantities and their associated values cannot be compared directly to or aggregated with either contingent resources or reserves and their associated values. Estimates of  $P_e$  are interpretive and are dependent on the quality and quantity of data currently made available. Future changes in the fiscal environment and/or the infrastructure of the area can change these values significantly.

An estimation of PPS quantifies the inherent uncertainties associated with the probability that none of the prospects within the portfolio will result in successful discovery. The probability of failure for the economic prospects within the portfolio (Eagle Deep Gas and Kabukalli) evaluated herein has been estimated to be between 70 and 85 percent. Moreover, the current set of geologic chance factors and  $P_{\rm e}$ 's in the portfolio result in an estimated mean number of zero potential economic discoveries. This estimate assumes drilling the two economic prospects in the current portfolio, as well as the assumption that the critical geologic and economic chance factors as interpreted do not significantly change due to the exploratory drilling, potential development, and the resulting interpretation of the petroleum system.

Summation of the success case gross mean prospective resources quantities presented in Tables 13 and 14 for planning purposes is not warranted. This total success case scenario is not likely and is

associated with a probability of occurrence of less than 1 percent. This scenario should not be used for decision making or predictive outcomes of the portfolio evaluated herein.

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.

# SUMMARY and CONCLUSIONS

Prospective resources in six prospects have been identified in the Corentyne license block offshore Guyana. The prospective resources presented below are based on a statistical aggregation method. Estimates of the gross prospective oil, sales gas, solution gas, and condensate resources, as of December 31, 2012, are summarized as follows, expressed in English units in thousands of barrels (10³bbl) and millions of cubic feet (10⁶ft³):

|   | Low<br>Estimate | Best<br>Estimate | High<br>Estimate | Mean<br>Estimate |
|---|-----------------|------------------|------------------|------------------|
| Gross Prospective Oil Resources, 10³bbl                                   | 534,506         | 778,610          | 1,134,262        | 812,893          |
| Gross Prospective Sales Gas Resources,<br>10 <sup>6</sup> ft <sup>3</sup> | 3,577,550       | 6,943,044        | 12,306,221       | 7,569,222        |
| Gross Prospective Solution Gas  | , ,             | , ,              | , ,              | , ,              |
| Resources, $10^6 \mathrm{ft^3}$   | 507,507         | 695,769          | 953,914          | 717,182          |
| Gross Prospective Condensate Resources, 10 <sup>3</sup> bbl               | 576,831         | 743,465          | 958,272          | 758,188          |

- 1. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean, respectively.
- 2. Pg and Pe 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 are 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.

Estimates of the gross truncated, TEFS-adjusted prospective oil and sales gas resources, as of December 31, 2012, are summarized as follows, expressed in English units in thousands of barrels (10³bbl) and millions of cubic feet (10°ft³):

|  | Low<br>Estimate | Best<br>Estimate | High<br>Estimate | Mean<br>Estimate |
|--|-----------------|------------------|------------------|------------------|
| Gross Truncated, TEFS-Adjusted Prospective<br>Oil Resources, 10 <sup>3</sup> bbl | 472.405         | 828.252          | 1.452.147        | 911,685          |
| Gross Truncated, TEFS-Adjusted Prospective                                       | 472,400         | 020,202          | 1,402,147        | 311,000          |
| Sales Gas Resources, 10 <sup>6</sup> ft <sup>3</sup>                             | 4,372,940       | 7,323,588        | 12,610,687       | 7,927,404        |

### Notes:

- 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. Pg and Pe 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 are 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.

The gross truncated, TEFS-adjusted,  $P_e$ -adjusted mean estimate prospective oil and sales gas resources, as of December 31, 2012, are summarized as follows, expressed in English units in thousands of barrels (10 $^3$ bbl) and millions of cubic feet (10 $^6$ ft $^3$ ):

|   | Mean            |
|---|-----------------|
|   | <b>Estimate</b> |
| Gross Truncated, TEFS-Adjusted, Pe-Adjusted Prospective Oil Resources, 103bbl                         | 117,313         |
| Gross Truncated, TEFS-Adjusted, $P_e$ -Adjusted Prospective Sales Gas Resources, $10^6 \mathrm{ft}^3$ | 1,496,266       |

- 1. Application of any geological or economic chance factor does not equate prospective resources with contingent resources or reserves.
- 2. Recovery efficiency is applied to prospective resources in this table.
- 3. The prospective resources presented above are based on the statistical aggregation method.
- 4. 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.

The following table summarizes the net potential present worth at 10 percent, that might be realized from the production and sale of the truncated, TEFS-adjusted, P<sub>e</sub>-adjusted prospective oil and sales gas resources of the various prospects evaluated herein, using the potential present worth at 10 percent per prospective resources quantity methodology, as of December 31, 2012, expressed in thousands of U.S. dollars (10<sup>3</sup> U.S.\$):

|   | Potential Present Worth at 10 Percent       |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
|   | Low<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | Best<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | High<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | Mean<br>Estimate<br>(10 <sup>3</sup> U.S.\$) |  |  |  |
| $\label{eq:control_problem} \begin{split} \text{Net Truncated, TEFS-Adjusted,} \\ P_{\text{e}}\text{-Adjusted Prospective Oil Resources} \end{split}$ | 135,949                                     | 305,382                                      | 685,978                                      | 372,766                                      |  |  |  |
| Net Truncated, TEFS-Adjusted, $P_{e}$ -Adjusted Prospective Sales Gas Resources   | 392,493                                     | 881,657                                      | 1,980,465                                    | 1,076,200                                    |  |  |  |

- 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. Estimates of potential present worth at 10 percent for prospective resources is 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 potential present worth at 10 percent for prospective resources presented above are 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.

The arithmetic summation method was used to aggregate resources quantities above the field, property, or project level. The prospective resources quantities aggregated by the arithmetic summation method for the prospects evaluated in this report are presented in the prospective resources tables bound with this report.

Submitted,

DeGOLYER and MacNAUGHTON

Texas Registered Engineering Firm F-716

SIGNED: March 19, 2013



John W. Wallace, P.E. Executive Vice President DeGolyer and MacNaughton

# GLOSSARY of PROBABILISTIC TERMS

- 1C Denotes low estimate scenario of contingent resources.
- 2C Denotes best estimate scenario of contingent resources.
- 3C Denotes high estimate scenario of contingent resources.

Accumulation – The term accumulation is used to identify an individual body of moveable petroleum. A known accumulation (one determined to contain reserves or contingent resources) must have been penetrated by a well. The well must have clearly demonstrated the existence of moveable petroleum by flow to the surface or at least some recovery of a sample of petroleum through the well. However, log and/or core data from the well may establish an accumulation, provided there is a good analogy to a nearby and geologically comparable known accumulation.

Arithmetic Summation – The process of adding a set of numbers that represent estimates of resources quantities at the reservoir, prospect, or portfolio level and estimates of PPW<sub>10</sub> at the prospect or portfolio level. Statistical aggregation yields different results.

Best (Median) Estimate – The best (median) estimate is the P<sub>50</sub> quantity. P<sub>50</sub> means there is a 50 percent chance that an estimated quantity, such as a prospective resources volume or associated quantity, will be equaled or exceeded.

Contingent Resources – Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable due to one or more contingencies.

Based on assumptions regarding future conditions and their impact on ultimate economic viability, projects currently classified as Contingent Resources may be broadly divided into three groups:

Marginal Contingent Resources – Those quantities associated with technically feasible projects that are either currently economic or projected to be economic under reasonably forecasted improvements in commercial conditions but are not committed for development because of one or more contingencies.

Sub-Marginal Contingent Resources – Those quantities associated with discoveries for which analysis indicates that technically feasible development projects would not be economic and/or other contingencies would not be satisfied under current or

reasonably forecasted improvements in commercial conditions. These projects nonetheless should be retained in the inventory of discovered resources pending unforeseen major changes in commercial conditions.

*Undetermined Contingent Resources* – Where evaluations are incomplete such that it is premature to clearly define ultimate chance of commerciality, it is acceptable to note that project economic status is "undetermined."

Economic Multiple (EM) – See PW/BOE

Expected Value – The expected value (EV) is the probability-weighted average of the parameter being estimated, where probability values from the probability distribution are used as the weighting factors. Parameter values (abscissa) and probabilities (ordinate) are the Cartesian pairs (e.g., gross recoverable volumes and P90), which define the probability distribution. These parameters are probability-weighted and summed to yield the resulting expected value. The equation for computing the expected value is as follows:

$$EV = \sum_{i=1}^{n} (P_i)(V_i)$$

where: P = probability from probability distribution, ordinate

V = parameter value, abscissa

i = a specific value in an ordered sequence of values

n = the total number of samples

The expected value is the algebraic sum of all of the products obtained by multiplying the parameter quantity and its associated probability of occurrence. The expected value is sometimes called the mean estimate or the statistical mean. In a probabilistic analysis, the expected value is the only quantity that can be treated arithmetically (by addition, subtraction, multiplication, or division). All other quantities, such as median  $(P_{50})$ , mode,  $P_{90}$ , and  $P_{10}$ , require probabilistic techniques for scaling or aggregation.

The probability associated with the statistical mean depends on the variance of the distribution from which the mean is calculated. The mean estimate is the statistical mean (the probability-weighted average), which typically has a probability in the  $P_{45}$  to  $P_{15}$  range. Therefore, if a successful discovery occurs, the probability of the accumulation containing the statistical mean volume or greater is usually between 45 and 15 percent.

The expected value is the preferred quantity to use for the best estimate in probabilistic estimates of prospective resources. The  $P_{90}$  and  $P_{10}$  quantity is often used for the low and high estimates, respectively, of prospective resources. Aggregation or scaling of  $P_{90}$ ,  $P_{50}$ , and  $P_{10}$  quantities should be done probabilistically, not arithmetically.

Geometric Correction Factor – The geometric correction factor (GCF) is a geometry adjustment correction that takes into account the relationship of the potential fluid contact to the geometry of the reservoir and trap. Input parameters used to estimate the geometric correction factor include trap shape, length-to-width ratio, potential reservoir thickness, and the height of the potential trapping closure (potential hydrocarbon column height).

High Estimate – The high estimate is the  $P_{10}$  quantity.  $P_{10}$  means there is a 10-percent chance that an estimated quantity, such as a prospective resources volume or associated quantity, will be equaled or exceeded.

Lead – A lead is less well defined and requires additional data and/or evaluation to be classified as a prospect. An example would be a poorly defined closure mapped using sparse regional seismic data in a basin containing favorable source and reservoir(s). A lead may or may not be elevated to prospect status depending on the results of additional technical work. A lead must have a Pg equal to or less than 0.05 to reflect the inherent technical uncertainty.

Low Estimate – The low estimate is the P<sub>90</sub> quantity. P<sub>90</sub> means there is a 90 percent chance that an estimated quantity, such as a prospective resources volume or associated quantity, will be equaled or exceeded.

Mean Estimate – In accordance with petroleum industry standards, the mean estimate is the probability-weighted average, which typically has a probability in the P<sub>45</sub> to P<sub>15</sub> range, depending on the variance of prospective resources volume or associated value. Therefore, the probability of a prospect or accumulation containing the probability-weighted average volume or greater is usually between 45 and 15 percent. The mean estimate is the preferred probabilistic estimate of resources volumes.

*Median* – Median is the P<sub>50</sub> quantity, where the P<sub>50</sub> means there is a 50 percent chance that a given variable (such as prospective resources, porosity, or water saturation) is equaled or exceeded. The median of a data set is a number such that half the measurements are below the median and half are above.

The median is an acceptable, and one of the preferred, quantities to use for the best estimate in probabilistic estimations of prospective resources.

Migration Chance Factor – Migration chance factor (Pmigration) is defined as the probability that a trap either predates or is coincident with petroleum migration and that there exists vertical and/or lateral migration pathways linking the source to the trap.

*Mode* – The mode (MO) is the quantity that occurs with the greatest frequency in the data set and therefore is the quantity that has the greatest probability of occurrence. However, the mode may not be uniquely defined, as is the case in multimodal distributions.

The mode is an acceptable, but not preferred, quantity to use for the best estimate in probabilistic estimations of prospective resources.

Net Entitlement Interest – A production sharing agreement (PSA) or a production sharing contract (PSC) allows a company to be reimbursed for its share of the capital and operating expenses and to share in the profits. The reimbursements and profit proceeds (less the extraordinary profits tax (EPT)) are converted to a barrel-equivalent volume by dividing by the weighted-average price of oil or gas. The ratio of this barrel-equivalent volume and the gross volume is a net entitlement interest. As such, the resulting entitlement interest may vary with product price, costs, timing of production, and other factors.

Net Revenue Interest – The share of production after all royalty burdens and interests owned by others have been deducted.

 $P_e$ -adjusted Mean Estimate – The  $P_e$ -adjusted mean estimate, or "economic risk-adjusted mean estimate," is a probability-weighted average of the hydrocarbon quantities potentially recoverable if a prospect portfolio were drilled, or if a family of similar prospects were drilled. The  $P_e$ -adjusted mean estimate is a "blended" quantity. It is a mean estimation of volumetric uncertainty, geologic ( $P_g$ ), and economic risk (chance). This statistical measure considers and quantifies the economic success and economic failure outcomes. Consequently, it represents the average or mean "economic" volumes resulting from economically viable drilling and exploration. The  $P_e$ -adjusted best estimate is calculated as follows:

# $P_e$ -adjusted mean estimate = $P_e \times$ mean estimate

*P<sub>g</sub>-adjusted Mean Estimate* – The P<sub>g</sub>-adjusted mean estimate, or "geologic risk-adjusted mean estimate," is a probability-weighted average of the hydrocarbon quantities potentially recoverable if a prospect portfolio were drilled, or if a family

of similar prospects were drilled. The  $P_g$ -adjusted mean estimate is a "blended" quantity. It is a mean estimation of both volumetric uncertainty and geological risk (chance). This statistical measure considers and quantifies the geological success and geological failure outcomes. Consequently, it represents the average or mean "geologic" outcome of a drilling and exploration program. The  $P_g$ -adjusted mean estimate is calculated as follows:

# $P_g$ -adjusted mean estimate = $P_g \times$ mean estimate

 $P_n$  Nomenclature – This report uses the convention of denoting probability with a subscript representing the greater than cumulative probability distribution. As such, the notation  $P_n$  indicates the probability that there is an n-percent chance that a specific input or output quantity will be equaled or exceeded. For example,  $P_{90}$  means there is a 90 percent chance that a variable (such as prospective resources, porosity, or water saturation) is equaled or exceeded.

Play – A project associated with a prospective trend of potential prospects, but which requires more data acquisition and/or evaluation in order to define specific leads or prospects.

Potential Present Worth at 10 Percent – Potential present worth at 10 percent (PPW<sub>10</sub>) is defined as potential future net revenue discounted at 10 percent compounded monthly over the expected period of realization. PPW<sub>10</sub> is statistically aggregated at the prospect level. The estimation is probabilistically modeled using distributions (except WI, P<sub>f</sub>, and P<sub>e</sub>, which are constants) in the following equation:

$$PPW_{10} = \left[ \left( P_e \times TVol \times WI \times \frac{PW}{BOE} \right) \right] - \left( P_f \times DHC \times WI \right)$$

where:  $PPW_{10}$  = potential present worth at 10 percent –

probabilistically determined from the Monte Carlo simulation

 $P_e$  = probability of economic success – constant

TVol = potential gross recoverable volume, truncated, TEFS-adjusted – distribution

WI = working interest - constant

PW/BOE = present worth at 10 percent per barrel of oil equivalent (EM, economic multiple) – *distribution* 

P<sub>f</sub> = probability of economic failure – constant

DHC = dry hole cost estimate - distribution

Predictability versus Portfolio Size – The number of prospects in a prospect portfolio influences the reliability of the forecast of drilling results. The relationship between predictability versus portfolio size (PPS) is also known in the petroleum industry literature as "Gambler's Ruin." The relationship of probability to portfolio size is described by the binomial probability equation given as follows:

$$P_x^n = (C_x^n)(p)^x(1-p)^{n-x}$$

where:  $P_{x^n}$  = the probability of x successes in n trials

 $C_{x^n}$  = the number of mutually exclusive ways that x successes can be arranged in n trials

p = the probability of success for a given trial (for petroleum exploration, this is  $P_g$ )

x = the number of successes (e.g., the number of discoveries)

n = the number of trials (e.g., the number of wells to be drilled)

Note: For the case of n successive dry holes,  $C_{x^n}$  and p each equals 1, so the probability of failure is the quantity (1-p) raised to the number of trials.

Probability of Economic Failure – The probability of economic failure ( $P_f$ ) is defined as the probability that a given discovery will not be economically viable. It takes into account  $P_g$ ,  $P_{TEFS}$ , TEFS, capital costs, operating expenses, the proposed development plan, the economic model (discounted cash flow analyses), and other business and economic factors.  $P_f$  is calculated as follows:

$$P_f = 1 - P_e$$

Probability of Economic Success – The probability of economic success (P<sub>e</sub>) is defined as the probability that a given discovery will be economically viable. It takes into account P<sub>g</sub>, P<sub>TEFS</sub>, TEFS, capital costs, operating expenses, the proposed development plan, the economic model (discounted cash flow analyses), and other business and economic factors. P<sub>e</sub> is calculated as follows:

$$P_e = P_g \times P_{TEFS}$$

Probability of Geologic Success – The probability of geologic success  $(P_g)$  is defined as the probability of discovering reservoirs that flow petroleum at a measurable rate.  $P_g$  is estimated by quantifying with a probability each of the following individual geologic chance factors: trap, source, reservoir, and migration. The product of the probabilities of these four chance factors is  $P_g$ .

Probability of TEFS – The probability of threshold economic field size ( $P_{TEFS}$ ) is defined as the probability of discovering an accumulation that is large enough to be economically viable.  $P_{TEFS}$  is estimated by using the prospective resources recoverable volumes distribution in conjunction with the TEFS. The probability associated with the TEFS can be determined graphically from the prospective gross recoverable volumes distribution.

Prospect – A prospect is a potential accumulation that is sufficiently well defined to be a viable drilling target. For a prospect, sufficient data and analyses exist to identify and quantify the technical uncertainties, to determine reasonable ranges of geologic chance factors and engineering and petrophysical parameters, and to estimate prospective resources. In addition, a viable drilling target requires that 70 percent of the median potential production area be located within the block or license area of interest.

*Prospective Resources* – Those quantities of petroleum that are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects.

PW/BOE – The potential present worth at 10 percent per barrel of oil equivalent is represented by a distribution in the probabilistic modeling of the PPW<sub>10</sub>. The distribution is estimated from various economic assumptions, the current fiscal regime, various potential production profiles, various cost schedules, and success case (discovery) discounted cash flow analyses. The success case discounted cash flows for the prospect(s) account for all costs, taxes, royalties, government takes, related tranches, various entitlements, discounted at 10 percent compounded monthly over the expected period of realization. Working interest is not included in this statistical metric.

Raw Natural Gas – Raw natural gas is the total gas produced from the reservoir prior to processing or separation and includes all nonhydrocarbon components as well as any gas equivalent of condensate.

Reservoir Chance Factor – The reservoir chance factor (P<sub>reservoir</sub>) is defined as the probability associated with the presence of porous and permeable reservoir quality rock.

Sales Gas – Sales Gas is defined as the total gas to be potentially produced from the reservoirs, measured at the point of delivery, after reduction for projected fuel usage, flare, and shrinkage resulting from field separation and processing.

Source Chance Factor – The source chance factor (P<sub>source</sub>) is defined as the probability associated with the presence of a hydrocarbon source rock rich enough, of sufficient volume, and in the proper spatial position to charge the prospective area or areas.

Standard Deviation – Standard deviation (SD) is a measure of distribution spread. It is the positive square root of the variance. The variance is the summation of the squared distance from the mean of all possible values. Since the units of standard deviation are the same as those of the sample set, it is the most practical measure of population spread.

$$\sigma = \sqrt{\sigma^2} = \sqrt{\frac{\sum_{i=1}^{n} (x_i - \mu)^2}{n-1}}$$

where:  $\sigma$  = standard deviation

 $\sigma^2$  = variance

n = sample size

 $x_i$  = value in data set

 $\mu$  = sample set mean

Statistical Aggregation – The process of probabilistically aggregating distributions that represent estimates of resources quantities at the reservoir, prospect, or portfolio level and estimates of PPW<sub>10</sub> at the prospect or portfolio level. Arithmetic summation yields different results.

Threshold Economic Field Size – The threshold economic field size (TEFS) is the minimum amount of the producible petroleum required to recover the total capital and operating expenditure used to establish the potential accumulation as having a potential present worth at 10 percent equal to zero using the mid-price scenario.

*Trap Chance Factor* – The trap chance factor (P<sub>trap</sub>) is defined as the probability associated with the presence of a structural closure and/or a stratigraphic trapping configuration with competent vertical and lateral seals, and the lack of any post migration seal integrity events or breaches.

Truncated Mean Estimate – The truncated mean estimate is the resulting statistical mean calculated from the truncation of the resources distribution by the threshold economic field size.

Truncated Volumes – The truncated volumes estimates are the resulting probabilistically determined volumes from the truncation of the prospective resources distribution by the threshold economic field size. This truncated distribution produces a new set of statistical metrics.

Variance – The variance ( $\sigma^2$ ) is a measure of how much the distribution is spread from the mean. The variance sums up the squared distance from the mean of all possible values of x. The variance has units that are the squared units of x. The use of these units limits the intuitive value of variance.

$$\sigma^2 = \frac{\sum_{i=1}^{n} (x_i - \mu)^2}{n - 1}$$

where:  $\sigma^2$  = variance

n = sample size

x<sub>i</sub> = value in data set

 $\mu$  = sample set mean

Working Interest – Working interest prospective resources are that portion of the gross prospective resources to be potentially produced from the properties attributable to the interests owned by "Company" before deduction of any associated royalty burdens, net profits payable or government profit share. Working interest is a percentage of ownership in an oil and gas lease granting its owner the right to explore, drill and produce oil and gas from a tract of property. Working interest owners are obligated to pay a corresponding percentage of the cost of leasing, drilling, producing and operating a well or unit. The working interest also entitles its owner to share in production revenues with other working interest owners, based on the percentage of working interest owned.



# TABLE P1 PROSPECT PORTFOLIO SUMMARY as of DECEMBER 31, 2012 for CGX RESOURCES INC. in CERTAIN PROSPECTS CORENTYNE LICENSE BLOCK OFFSHORE GUYANA

| Prospect   | Country | Basin           | Block     | Threshold Modal Potential Economic Field Present Worth at 10% per BOE (10³BOE) (U.S.\$) |      | Statistical Modal Exploration Well Cost Estimate (10 <sup>3</sup> U.S.\$) | Working<br>Interest<br>(decimal) | Prospect<br>Potential<br>Fluid |  |
|------------|---------|-----------------|-----------|---|------|---|----------------------------------|--------------------------------|--|
| Eagle Deep | Guyana  | Guyana Suriname | Corentyne | 42,000  | -    | 150,000   | 1.00                             | Oil                            |  |
| Kabukalli  | Guyana  | Guyana Suriname | Corentyne | 23,000  | 7.25 | 125,000   | 1.00                             | Oil                            |  |
| Simiri     | Guyana  | Guyana Suriname | Corentyne | 23,000  | -    | 125,000   | 1.00                             | Oil                            |  |
| Crabwood   | Guyana  | Guyana Suriname | Corentyne | 23,000  | -    | 125,000   | 1.00                             | Oil                            |  |
| Buteo      | Guyana  | Guyana Suriname | Corentyne | 23,000  | -    | 110,000   | 1.00                             | Oil                            |  |
| Eagle Deep | Guyana  | Guyana Suriname | Corentyne | 42,000  | 6.51 | 150,000   | 1.00                             | Gas                            |  |

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# TABLE 1 **ESTIMATE of the GROSS PROSPECTIVE OIL RESOURCES** as of **DECEMBER 31, 2012** CGX RESOURCES INC.

**CERTAIN OIL PROSPECTS** 

CORENTYNE LICENSE BLOCK **OFFSHORE GUYANA** 

|                       | Gross Prospective Oil Re |                 |           |                       |                       |                       | Resources Summ        | ary                     |                          |
|-----------------------|--------------------------|-----------------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|--------------------------|
|                       |                          |                 |           |                       |                       |                       |                       | Probability             | _                        |
|                       |                          |                 |           | Low                   | Best                  | High                  | Mean                  | of Geologic             | P <sub>g</sub> -Adjusted |
|                       |                          |                 |           | Estimate              | Estimate              | Estimate              | Estimate              | Success, P <sub>g</sub> | Mean Estimate            |
| Prospect              | Country                  | Basin           | Block     | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (decimal)               | (10 <sup>3</sup> bbl)    |
| Eagle Deep            | Guyana                   | Guyana Suriname | Corentyne | 29,049                | 82,703                | 225,377               | 108,500               | 0.140                   | 15,190                   |
| Kabukalli .           | Guyana                   | Guyana Suriname | Corentyne | 207,228               | 465,372               | 1,085,209             | 573,628               | 0.150                   | 86,268                   |
| Simiri                | Guyana                   | Guyana Suriname | Corentyne | 5,478                 | 12,269                | 29,365                | 15,295                | 0.210                   | 3,212                    |
| Crabwood              | Guyana                   | Guyana Suriname | Corentyne | 4,386                 | 12,149                | 33,187                | 16,000                | 0.210                   | 3,360                    |
| Buteo                 | Guyana                   | Guyana Suriname | Corentyne | 28,247                | 81,785                | 185,837               | 99,470                | 0.175                   | 17,407                   |
| Statistical Aggregate |                          |                 |           | 534,506               | 778,610               | 1,134,262             | 812,893               | 0.154                   | 125,437                  |
| Arithmetic Summation  |                          |                 |           | 274,388               | 654,278               | 1,558,976             | 812,893               | 0.154                   | 125,437                  |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean respectively.
- 3. Pa is defined as the probability of discovering reservoirs which flow petroleum at a measurable rate.
- 4. Pa has been rounded for presentation purposes. Multiplication using this presented Pa may yield imprecise results. Dividing the P<sub>q</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>q</sub>.
- 5. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- Recovery efficiency is applied to prospective resources in this table.
- 7. Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate. Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 8. Summations may vary from those shown here due to rounding.
- 9. 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.



# TABLE 2 ESTIMATE of the GROSS PROSPECTIVE SALES GAS RESOURCES

as of DECEMBER 31, 2012 for CGX RESOURCES INC. in the

EAGLE DEEP GAS PROSPECT CORENTYNE LICENSE BLOCK OFFSHORE GUYANA

|                       |         |                 |           |                                    | Gross F                            | Prospective Sales G                | as Resources Sum                   | ımary                   |                                    |
|-----------------------|---------|-----------------|-----------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------|------------------------------------|
|                       |         |                 |           |                                    |                                    |                                    |                                    | Probability             |                                    |
|                       |         |                 |           | Low                                | Best                               | High                               | Mean                               | of Geologic             | P <sub>g</sub> -Adjusted           |
|                       |         |                 |           | Estimate                           | Estimate                           | Estimate                           | Estimate                           | Success, P <sub>g</sub> | Mean Estimate                      |
| Prospect              | Country | Basin           | Block     | (10 <sup>6</sup> ft <sup>3</sup> ) | (decimal)               | (10 <sup>6</sup> ft <sup>3</sup> ) |
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne | 3,577,550                          | 6,943,044                          | 12,306,221                         | 7,569,222                          | 0.208                   | 1,574,398                          |
| Statistical Aggregate |         |                 |           | 3,577,550                          | 6,943,044                          | 12,306,221                         | 7,569,222                          | 0.208                   | 1,574,398                          |
| Arithmetic Summation  |         |                 |           | 3.577.550                          | 6.943.044                          | 12.306.221                         | 7.569.222                          | 0.208                   | 1.574.398                          |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean respectively.
- 3. Pq is defined as the probability of discovering reservoirs which flow petroleum at a measurable rate.
- P<sub>g</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>g</sub> may yield
  imprecise results. Dividing the P<sub>g</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>g</sub>.
- 5. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 6. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 8. Summations may vary from those shown here due to rounding.
- 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.



## TABLE 3 ESTIMATE of the GROSS PROSPECTIVE RAW NATURAL GAS RESOURCES as of

DECEMBER 31, 2012 for

CGX RESOURCES INC. in the

EAGLE DEEP GAS PROSPECT CORENTYNE LICENSE BLOCK

OFFSHORE GUYANA

|                       |         |                 |           |           | Gross Pros                         | spective Raw Natura                | ective Raw Natural Gas Resources Summary |                         |                                    |  |  |
|-----------------------|---------|-----------------|-----------|-----------|------------------------------------|------------------------------------|--|-------------------------|------------------------------------|--|--|
|                       |         |                 |           |           |                                    |                                    |  | Probability             |                                    |  |  |
|                       |         |                 |           | Low       | Best                               | High                               | Mean                                     | of Geologic             | P <sub>g</sub> -Adjusted           |  |  |
|                       |         |                 |           | Estimate  | Estimate                           | Estimate                           | Estimate                                 | Success, P <sub>g</sub> | Mean Estimate                      |  |  |
| Prospect              | Country | Basin           | Estimate  |           | (10 <sup>6</sup> ft <sup>3</sup> ) | (10 <sup>6</sup> ft <sup>3</sup> ) | (10 <sup>6</sup> ft <sup>3</sup> )       | (decimal)               | (10 <sup>6</sup> ft <sup>3</sup> ) |  |  |
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne | 3,888,641 | 7,347,136                          | 12,818,980                         | 7,967,602                                | 0.208                   | 1,657,261                          |  |  |
| Statistical Aggregate |         |                 |           | 3,888,641 | 7,347,136                          | 12,818,980                         | 7,967,602                                | 0.208                   | 1,657,261                          |  |  |
| Arithmetic Summation  |         |                 |           | 3,888,641 | 7,347,136                          | 12,818,980                         | 7,967,602                                | 0.208                   | 1,657,261                          |  |  |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. 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.
- 3.  $P_q$  is defined as the probability of discovering reservoirs which flow petroleum at a measurable rate.
- P<sub>g</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>g</sub> may yield
  imprecise results. Dividing the P<sub>g</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>g</sub>.
- 5. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 6. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 8. Summations may vary from those shown here due to rounding.
- 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.



## TABLE 4 ESTIMATE of the GROSS PROSPECTIVE SOLUTION GAS RESOURCES

as of DECEMBER 31, 2012 for

CGX RESOURCES INC.

Grass Prospective Solution Gas Poscuroes Summary

in

CERTAIN OIL PROSPECTS
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

|                       |                    |                |           | Gross Prospective Solution Gas Resources Summary |                                    |                                    |                                    |                         |                                    |  |  |  |
|-----------------------|--------------------|----------------|-----------|--|------------------------------------|------------------------------------|------------------------------------|-------------------------|------------------------------------|--|--|--|
|                       |                    |                |           |  |                                    |                                    |                                    | Probability             |                                    |  |  |  |
|                       |                    |                |           | Low  | Best                               | High                               | Mean                               | of Geologic             | P <sub>g</sub> -Adjusted           |  |  |  |
|                       |                    |                |           | Estimate   | Estimate                           | Estimate                           | Estimate                           | Success, P <sub>g</sub> | Mean Estimate                      |  |  |  |
| Prospect              | Objective          | Basin          | Block     | (10 <sup>6</sup> ft <sup>3</sup> )               | (10 <sup>6</sup> ft <sup>3</sup> ) | (10 <sup>6</sup> ft <sup>3</sup> ) | (10 <sup>6</sup> ft <sup>3</sup> ) | (decimal)               | (10 <sup>6</sup> ft <sup>3</sup> ) |  |  |  |
| Eagle Deep            | Campanian DSs      | Guyana Surinam | Corentyne | 24,402   | 71,942                             | 198,490                            | 95,738                             | 0.140                   | 13,403                             |  |  |  |
| Kabukalli             | Campanian Clastics | Guyana Surinam | Corentyne | 111,160  | 325,754                            | 880,102                            | 431,025                            | 0.140                   | 60,343                             |  |  |  |
| Kabukalli             | Albian Carbonate   | Guyana Surinam | Corentyne | 18,141   | 54,410                             | 162,262                            | 74,983                             | 0.210                   | 15,746                             |  |  |  |
| Simiri                | Albian Carbonate   | Guyana Surinam | Corentyne | 4,572  | 10,596                             | 25,242                             | 13,351                             | 0.210                   | 2,804                              |  |  |  |
| Crabwood              | Albian Carbonate   | Guyana Surinam | Corentyne | 3,556  | 10,433                             | 30,215                             | 14,125                             | 0.210                   | 2,966                              |  |  |  |
| Buteo                 | Masstrichtian      | Guyana Surinam | Corentyne | 23,554   | 69,459                             | 172,549                            | 87,960                             | 0.175                   | 15,393                             |  |  |  |
| Statistical Aggregate |                    |                |           | 507,507  | 695,769                            | 953,914                            | 717,182                            | 0.154                   | 110,656                            |  |  |  |
| Arithmetic Summation  |                    |                |           | 185,386  | 542,593                            | 1,468,860                          | 717,182                            | 0.154                   | 110,656                            |  |  |  |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. 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.
- 3.  $P_q$  is defined as the probability of discovering reservoirs which flow petroleum at a measurable rate.
- P<sub>g</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>g</sub> may yield
  imprecise results. Dividing the P<sub>g</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>g</sub>.
- 5. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 6. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 8. Summations may vary from those shown here due to rounding.
- 9. 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.



## TABLE 5 ESTIMATE of the GROSS PROSPECTIVE CONDENSATE RESOURCES

as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in the
EAGLE DEEP GAS PROSPECT

EAGLE DEEP GAS PROSPECT CORENTYNE LICENSE BLOCK OFFSHORE GUYANA

|                       |                    |                |           | Gross Prospective Condensate Resources Summary |                       |                       |                       |                         |                          |  |  |  |
|-----------------------|--------------------|----------------|-----------|--|-----------------------|-----------------------|-----------------------|-------------------------|--------------------------|--|--|--|
|                       |                    |                |           |  |                       |                       |                       | Probability             |                          |  |  |  |
|                       |                    |                |           | Low  | Best                  | High                  | Mean                  | of Geologic             | P <sub>g</sub> -Adjusted |  |  |  |
|                       |                    |                |           | Estimate                                       | Estimate              | Estimate              | Estimate              | Success, P <sub>q</sub> | Mean Estimate            |  |  |  |
| Prospect              | Target Zone        | Area/Basin     | Block     | (10 <sup>3</sup> bbl)                          | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (decimal)               | (10 <sup>3</sup> bbl)    |  |  |  |
| Eagle Deep            | Upper Turonian BFF | Guyana Surinam | Corentyne | 113,776  | 321,215               | 710,757               | 378,666               | 0.208                   | 78,763                   |  |  |  |
| Eagle Deep            | Lower Turonian BFF | Guyana Surinam | Corentyne | 112,724  | 319,936               | 711,015               | 379,522               | 0.208                   | 78,941                   |  |  |  |
| Statistical Aggregate |                    |                |           | 576,831  | 743,465               | 958,272               | 758,188               | 0.208                   | 157,703                  |  |  |  |
| Arithmetic Summation  |                    |                |           | 226,500  | 641,152               | 1,421,772             | 758,188               | 0.208                   | 157,703                  |  |  |  |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean respectively.
- 3. Pq is defined as the probability of discovering reservoirs which flow petroleum at a measurable rate.
- 4. P<sub>g</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>g</sub> may yield imprecise results. Dividing the P<sub>g</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>g</sub>.
- 5. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 6. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 8. Summations may vary from those shown here due to rounding.
- 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.



## TABLE 6 ESTIMATE of the GROSS PROSPECTIVE OIL RESOURCES TRUNCATED and ADJUSTED for TEFS as of

DECEMBER 31, 2012

CGX RESOURCES INC.

CERTAIN OIL PROSPECTS
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

|                       |         |                 |           | Gross Truncated, TEFS-Adjusted Prospective Oil Resources Summary |                       |                       |                       |                         |                          |  |  |  |  |
|-----------------------|---------|-----------------|-----------|--|-----------------------|-----------------------|-----------------------|-------------------------|--------------------------|--|--|--|--|
|                       |         |                 |           |  |                       |                       |                       | Probability             |                          |  |  |  |  |
|                       |         |                 |           | Low  | Best                  | High                  | Mean                  | of Economic             | P <sub>e</sub> -Adjusted |  |  |  |  |
|                       |         |                 |           | Estimate   | Estimate              | Estimate              | Estimate              | Success, P <sub>e</sub> | Mean Estimate            |  |  |  |  |
| Prospect              | Country | Basin           | Block     | (10 <sup>3</sup> bbl)  | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (10 <sup>3</sup> bbl) | (decimal)               | (10 <sup>3</sup> bbl)    |  |  |  |  |
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne | 50,216   | 99,589                | 245.780               | 125,658               | 0.114                   | 14,319                   |  |  |  |  |
| Kabukalli             | Guyana  | Guyana Suriname | Corentyne | 262,851  | 502,934               | 1,128,142             | 610,558               | 0.136                   | 83,131                   |  |  |  |  |
| Simiri                | Guyana  | Guyana Suriname | Corentyne | 24,114   | 30,696                | 51,020                | 34,227                | 0.037                   | 1,258                    |  |  |  |  |
| Crabwood              | Guyana  | Guyana Suriname | Corentyne | 24,206   | 32,235                | 57,490                | 36,872                | 0.044                   | 1,611                    |  |  |  |  |
| Buteo                 | Guyana  | Guyana Suriname | Corentyne | 37,783   | 86,908                | 190,931               | 104,371               | 0.163                   | 16,995                   |  |  |  |  |
| Statistical Aggregate |         |                 |           | 472,405  | 828,252               | 1,452,147             | 911,685               | 0.129                   | 117,313                  |  |  |  |  |
| Arithmetic Summation  |         |                 |           | 399,170  | 752,362               | 1,673,362             | 911,685               | 0.129                   | 117,313                  |  |  |  |  |

- 1. TEFS is defined as the threshold economic field size.
- 2. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 3. 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.
- 4.  $P_e$  is defined as the probability of discovering economic resources.
- P<sub>e</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>e</sub> may yield
  imprecise results. Dividing the P<sub>e</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>e</sub>.
- 6. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 7. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 9. Summations may vary from those shown here due to rounding.
- 10. 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.



## TABLE 7 **ESTIMATE of the GROSS PROSPECTIVE SALES GAS RESOURCES** TRUNCATED and ADJUSTED for TEFS

as of **DECEMBER 31, 2012** for CGX RESOURCES INC. in the **EAGLE DEEP GAS PROSPECT** CORENTYNE LICENSE BLOCK **OFFSHORE GUYANA** 

> Gross Truncated, TEFS-Adjusted Prospective Sales Gas Resources Summary **Probability** Best High Mean of Economic P<sub>e</sub>-Adjusted **Estimate Estimate Estimate** Success, P. **Mean Estimate**  $(10^6 ft^3)$  $(10^6 ft^3)$  $(10^6 ft^3)$ (10<sup>6</sup>ft<sup>3</sup>) (decimal) 7.323.588 12.610.687 7.927.404 0.189 1.496.266

**Estimate Prospect** Country **Basin Block**  $(10^6 ft^3)$ Eagle Deep Guvana Guyana Suriname Corentyne 4.372.940 Statistical Aggregate 4,372,940 7,323,588 7,927,404 0.189 1,496,266 12,610,687 Arithmetic Summation 4,372,940 7,323,588 12,610,687 7,927,404 1,496,266 0.189

Low

- 1. TEFS is defined as the threshold economic field size.
- 2. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 3. 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.
- 4. Pe is defined as the probability of discovering economic resources.
- 5. P<sub>e</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>e</sub> may yield imprecise results. Dividing the P<sub>e</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>e</sub>.
- 6. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 7. Recovery efficiency is applied to prospective resources in this table.
- 8. Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate. Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 9. Summations may vary from those shown here due to rounding.
- 10. 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.



## TABLE 8 ESTIMATE of the GROSS PROSPECTIVE RAW NATURAL GAS RESOURCES TRUNCATED and ADJUSTED for TEFS

as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in the
EAGLE DEEP GAS PROSPECT
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

Gross Truncated, TEFS-Adjusted Prospective Raw Natural Gas Resources Summary

|                       |         |                 | Gross Truncated, TET 3-Adjusted Prospective Naw Natural Gas Nessources Summary |                                    |                                    |                                    |                                    |   |   |  |  |  |  |
|-----------------------|---------|-----------------|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|---|--|--|--|--|
|                       |         |                 | <b>5.</b> .  | Low<br>Estimate                    | Best<br>Estimate                   | High<br>Estimate                   | Mean<br>Estimate                   | Probability<br>of Economic<br>Success, P <sub>e</sub> | P <sub>e</sub> -Adjusted<br>Mean Estimate |  |  |  |  |
| Prospect              | Country | Basin           | Block  | (10 <sup>6</sup> ft <sup>3</sup> ) | (decimal)   | (10 <sup>6</sup> ft <sup>3</sup> )        |  |  |  |  |
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne  | 4,753,196                          | 7,749,829                          | 13,136,132                         | 8,344,636                          | 0.189   | 1,575,017                                 |  |  |  |  |
| Statistical Aggregate |         |                 |  | 4,753,196                          | 7,749,829                          | 13,136,132                         | 8,344,636                          | 0.189   | 1,575,017                                 |  |  |  |  |
| Arithmetic Summation  |         |                 |  | 4.753.196                          | 7.749.829                          | 13.136.132                         | 8.344.636                          | 0.189   | 1.575.017                                 |  |  |  |  |

- 1. TEFS is defined as the threshold economic field size.
- 2. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 3. Low, best, high, and mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean respectively.
- 4. Pe is defined as the probability of discovering economic resources.
- P<sub>e</sub> has been rounded for presentation purposes. Multiplication using this presented P<sub>e</sub> may yield
  imprecise results. Dividing the P<sub>e</sub>-adjusted mean estimate by the mean estimate yields the precise P<sub>e</sub>.
- 6. Application of any geological and economic chance factor does not equate prospective resources to contingent resources or reserves.
- 7. Recovery efficiency is applied to prospective resources in this table.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 9. Summations may vary from those shown here due to rounding.
- 10. 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.



TABLE 9
PROBABILITY DISTRIBUTIONS
for
MONTE CARLO SIMULATION
as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in
CERTAIN OIL PROSPECTS
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

|            | Potential          |  |                  |                 |                 |                 |                   |                 |
|------------|--------------------|--|------------------|-----------------|-----------------|-----------------|-------------------|-----------------|
| Prospect   | Target             | Parameter                                    | P <sub>100</sub> | P <sub>90</sub> | P <sub>50</sub> | P <sub>10</sub> | P <sub>0</sub>    | Mean            |
| Eagle Deep | Campanian DSs      | Productive area, acres                       | 722              | 1,384           | 3,428           | 6.979           | 8,797             | 3,823           |
| 3.5        |                    | Net hydrocarbon thickness, feet              | 93.7             | 145.6           | 254.6           | 451.6           | 870.4             | 281.3           |
|            |                    | Geometric correction factor, decimal         | 0.81             | 0.86            | 0.94            | 0.99            | 1.00              | 0.93            |
|            |                    | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00              | 1.00            |
|            |                    | Porosity, decimal                            | 0.142            | 0.165           | 0.190           | 0.216           | 0.250             | 0.190           |
|            |                    | Oil saturation, decimal                      | 0.600            | 0.641           | 0.700           | 0.759           | 0.800             | 0.700           |
|            |                    | Formation volume factor, Bo                  | 1.556            | 1.492           | 1.413           | 1.335           | 1.279             | 1.410           |
|            |                    | Recovery efficiency, decimal                 | 0.058            | 0.097           | 0.149           | 0.199           | 0.236             | 0.149           |
|            |                    | Prospective OOIP, barrels                    | 68,448,960       | 210,840,200     | 585,489,100     | 1,461,562,000   | 4,383,892,000     | 733,625,000     |
|            |                    | Prospective gross ultimate recovery, barrels | 8,544,467        | 29,049,290      | 82,702,510      | 225,376,600     | 679,497,400       | 108,500,000     |
|            |                    | Solution gas, cubic feet                     | 5,473,327,000    | 24,402,370,000  | 71,941,780,000  | 198,490,000,000 | 722,483,600,000   | 95,738,260,000  |
| Kabukalli  | Campanian clastics | Productive area, acres                       | 2,725            | 5,290           | 13,144          | 26,776          | 33,759            | 14,657          |
|            |                    | Net hydrocarbon thickness, feet              | 82.8             | 132.5           | 226.4           | 390.0           | 726.2             | 247.5           |
|            |                    | Geometric correction factor, decimal         | 0.81             | 0.86            | 0.94            | 0.99            | 1.00              | 0.93            |
|            |                    | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00              | 1.00            |
|            |                    | Porosity, decimal                            | 0.142            | 0.165           | 0.190           | 0.216           | 0.250             | 0.190           |
|            |                    | Oil saturation, decimal                      | 0.600            | 0.641           | 0.700           | 0.759           | 0.800             | 0.700           |
|            |                    | Formation volume factor, Bo                  | 1.556            | 1.492           | 1.413           | 1.335           | 1.279             | 1.410           |
|            |                    | Recovery efficiency, decimal                 | 0.081            | 0.130           | 0.199           | 0.266           | 0.315             | 0.198           |
|            |                    | Prospective OOIP, barrels                    | 236,481,000      | 725,585,200     | 2,000,097,000   | 4,869,169,000   | 14,221,370,000    | 2,474,744,000   |
|            |                    | Prospective gross ultimate recovery, barrels | 39,739,630       | 134,592,600     | 374,149,900     | 1,005,510,000   | 2,939,874,000     | 488,484,800     |
|            |                    | Solution gas, cubic feet                     | 25,007,510,000   | 111,160,400,000 | 325,754,000,000 | 880,102,100,000 | 3,125,856,000,000 | 431,024,700,000 |
| Kabukalli  | Albian Carbonate   | Productive area, acres                       | 928              | 1,741           | 4,292           | 8,723           | 10,991            | 4,785           |
|            |                    | Net hydrocarbon thickness, feet              | 55.6             | 88.3            | 150.9           | 259.6           | 493.2             | 165.0           |
|            |                    | Geometric correction factor, decimal         | 0.80             | 0.86            | 0.94            | 0.99            | 1.00              | 0.93            |
|            |                    | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00              | 1.00            |
|            |                    | Porosity, decimal                            | 0.103            | 0.125           | 0.150           | 0.176           | 0.212             | 0.150           |
|            |                    | Oil saturation, decimal                      | 0.601            | 0.641           | 0.700           | 0.759           | 0.799             | 0.700           |
|            |                    | Formation volume factor, Bo                  | 1.556            | 1.492           | 1.413           | 1.335           | 1.280             | 1.410           |
|            |                    | Recovery efficiency, decimal                 | 0.080            | 0.130           | 0.199           | 0.266           | 0.317             | 0.198           |
|            |                    | Prospective OOIP, barrels                    | 42,201,880       | 121,681,400     | 342,091,900     | 858,827,300     | 2,678,648,000     | 427,413,700     |
|            |                    | Prospective gross ultimate recovery, barrels | 5,435,933        | 21,945,530      | 63,938,510      | 178,786,700     | 460,529,700       | 85,143,150      |
|            |                    | Solution gas, cubic feet                     | 4,601,347,000    | 18,140,630,000  | 54,409,600,000  | 162,261,700,000 | 438,554,700,000   | 74,983,230,000  |



TABLE 9 - PROBABILITY DISTRIBUTIONS - (Continued)

| Prospect | Potential<br>Target | Parameter                                    | P <sub>100</sub> | P <sub>90</sub> | P <sub>50</sub> | P <sub>10</sub> | $P_0$           | Mean           |
|----------|---------------------|--|------------------|-----------------|-----------------|-----------------|-----------------|----------------|
| Simiri   | Albian Carbonate    | Productive area, acres                       | 541              | 631             | 1,066           | 1,843           | 2,199           | 1,155          |
|          |                     | Net hydrocarbon thickness, feet              | 55.8             | 88.3            | 150.9           | 259.5           | 483.4           | 165.0          |
|          |                     | Geometric correction factor, decimal         | 0.80             | 0.86            | 0.94            | 0.99            | 1.00            | 0.93           |
|          |                     | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00            | 1.00           |
|          |                     | Porosity, decimal                            | 0.104            | 0.125           | 0.150           | 0.176           | 0.210           | 0.150          |
|          |                     | Oil saturation, decimal                      | 0.600            | 0.641           | 0.700           | 0.759           | 0.800           | 0.700          |
|          |                     | Formation volume factor, Bo                  | 1.556            | 1.492           | 1.413           | 1.335           | 1.283           | 1.411          |
|          |                     | Recovery efficiency, decimal                 | 0.059            | 0.097           | 0.149           | 0.199           | 0.240           | 0.149          |
|          |                     | Prospective OOIP, barrels                    | 15,407,680       | 39,510,100      | 84,898,940      | 193,209,400     | 496,080,300     | 103,851,400    |
|          |                     | Prospective gross ultimate recovery, barrels | 1,783,008        | 5,477,767       | 12,269,310      | 29,365,490      | 67,619,190      | 15,295,280     |
|          |                     | Solution gas, cubic feet                     | 1,317,137,000    | 4,572,461,000   | 10,595,660,000  | 25,242,240,000  | 80,223,380,000  | 13,351,210,000 |
| Crabwood | Albian Carbonate    | Productive area, acres                       | 245              | 441             | 1,077           | 2,185           | 2,747           | 1,200          |
|          |                     | Net hydrocarbon thickness, feet              | 55.7             | 88.4            | 150.9           | 259.9           | 481.0           | 165.0          |
|          |                     | Geometric correction factor, decimal         | 0.80             | 0.86            | 0.94            | 0.99            | 1.00            | 0.93           |
|          |                     | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00            | 1.00           |
|          |                     | Porosity, decimal                            | 0.103            | 0.125           | 0.150           | 0.176           | 0.212           | 0.150          |
|          |                     | Oil saturation, decimal                      | 0.601            | 0.641           | 0.700           | 0.759           | 0.799           | 0.700          |
|          |                     | Formation volume factor, Bo                  | 1.555            | 1.492           | 1.413           | 1.335           | 1.281           | 1.410          |
|          |                     | Recovery efficiency, decimal                 | 0.058            | 0.097           | 0.149           | 0.199           | 0.238           | 0.149          |
|          |                     | Prospective OOIP, barrels                    | 6,014,519        | 32,026,130      | 84,183,220      | 214,966,400     | 700,753,600     | 106,669,200    |
|          |                     | Prospective gross ultimate recovery, barrels | 852,027          | 4,385,796       | 12,149,300      | 33,187,460      | 112,120,600     | 15,999,820     |
|          |                     | Solution gas, cubic feet                     | 684,632,100      | 3,555,932,000   | 10,432,700,000  | 30,214,960,000  | 102,562,800,000 | 14,124,680,000 |
| Buteo    | Maastrichtian       | Productive area, acres                       | 577              | 1,089           | 2,684           | 5,456           | 6,868           | 2,990          |
|          |                     | Net hydrocarbon thickness, feet              | 56.0             | 97.9            | 154.5           | 243.3           | 401.2           | 164.3          |
|          |                     | Geometric correction factor, decimal         | 0.80             | 0.86            | 0.94            | 0.99            | 1.00            | 0.93           |
|          |                     | Net to gross ratio, decimal                  | 1.00             | 1.00            | 1.00            | 1.00            | 1.00            | 1.00           |
|          |                     | Porosity, decimal                            | 0.142            | 0.165           | 0.190           | 0.216           | 0.248           | 0.190          |
|          |                     | Oil saturation, decimal                      | 0.601            | 0.641           | 0.700           | 0.759           | 0.799           | 0.700          |
|          |                     | Formation volume factor, Bo                  | 1.567            | 1.502           | 1.423           | 1.345           | 1.290           | 1.420          |
|          |                     | Recovery efficiency, decimal                 | 0.145            | 0.201           | 0.299           | 0.399           | 0.476           | 0.300          |
|          |                     | Prospective OOIP, barrels                    | 34,668,300       | 102,637,300     | 275,944,200     | 618,959,000     | 1,641,878,000   | 333,468,700    |
|          |                     | Prospective gross ultimate recovery, barrels | 7,569,396        | 28,247,000      | 81,784,740      | 185,837,300     | 510,313,100     | 99,469,980     |
|          |                     | Solution gas, cubic feet                     | 6,283,022,000    | 23,553,720,000  | 69,458,980,000  | 172,549,400,000 | 535,417,500,000 | 87,959,940,000 |



TABLE 10
PROBABILITY DISTRIBUTIONS
for
MONTE CARLO SIMULATION
as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in the
EAGLE DEEP GAS PROSPECT
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

|            | Potential          |   |                  |                   |                   |                    |                    |                   |
|------------|--------------------|---|------------------|-------------------|-------------------|--------------------|--------------------|-------------------|
| Prospect   | Target             | Parameter                                       | P <sub>100</sub> | P <sub>90</sub>   | P <sub>50</sub>   | P <sub>10</sub>    | P <sub>0</sub>     | Mean              |
|            |                    |   |                  |                   |                   |                    |                    |                   |
| Eagle Deep | Upper Turonian BFF | Productive area, acres                          | 3,897            | 7,396             | 18,245            | 37,067             | 46,651             | 20,319            |
|            |                    | Net hydrocarbon thickness, feet                 | 138.0            | 192.4             | 243.3             | 307.7              | 429.8              | 247.5             |
|            |                    | Geometric Correction Factor, decimal            | 1.00             | 1.00              | 1.00              | 1.00               | 1.00               | 1.00              |
|            |                    | Net to gross ratio, decimal                     | 1.00             | 1.00              | 1.00              | 1.00               | 1.00               | 1.00              |
|            |                    | Porosity, decimal                               | 0.142            | 0.165             | 0.190             | 0.216              | 0.248              | 0.190             |
|            |                    | Gas saturation, decimal                         | 0.600            | 0.641             | 0.700             | 0.759              | 0.799              | 0.700             |
|            |                    | Formation volume factor, Bg                     | 180              | 193               | 210               | 227                | 240                | 210               |
|            |                    | Recovery efficiency, decimal                    | 0.511            | 0.572             | 0.650             | 0.728              | 0.786              | 0.650             |
|            |                    | Prospective OGIP, cubic feet                    | 858,625,400,000  | 2,156,128,000,000 | 5,388,344,000,000 | 11,427,480,000,000 | 20,173,970,000,000 | 6,143,032,000,000 |
|            |                    | Prospective gross ultimate recovery, cubic feet | 524,065,300,000  | 1,373,538,000,000 | 3,472,783,000,000 | 7,337,589,000,000  | 13,567,650,000,000 | 3,986,556,000,000 |
|            |                    | Condensate, barrels                             | 29,096,124       | 113,776,330       | 321,215,464       | 710,757,386        | 1,783,845,194      | 378,666,397       |
| Eagle Deep | Lower Turonian BFF | Productive area, acres                          | 3,872            | 7,389             | 18,228            | 37,091             | 46,632             | 20,319            |
| ,          |                    | Net hydrocarbon thickness, feet                 | 133.9            | 192.3             | 243.3             | 307.5              | 446.2              | 247.5             |
|            |                    | Geometric Correction Factor, decimal            | 1.00             | 1.00              | 1.00              | 1.00               | 1.00               | 1.00              |
|            |                    | Net to gross ratio, decimal                     | 1.00             | 1.00              | 1.00              | 1.00               | 1.00               | 1.00              |
|            |                    | Porosity, decimal                               | 0.142            | 0.165             | 0.190             | 0.216              | 0.250              | 0.190             |
|            |                    | Gas saturation, decimal                         | 0.600            | 0.641             | 0.700             | 0.759              | 0.800              | 0.700             |
|            |                    | Formation volume factor, Bg                     | 179              | 193               | 210               | 227                | 240                | 210               |
|            |                    | Recovery efficiency, decimal                    | 0.513            | 0.572             | 0.650             | 0.728              | 0.785              | 0.650             |
|            |                    | Prospective OGIP, cubic feet                    | 926,923,600,000  | 2,074,016,000,000 | 5,371,623,000,000 | 11,171,610,000,000 | 22,519,040,000,000 | 6,117,604,000,000 |
|            |                    | Prospective gross ultimate recovery, cubic feet | 519,481,400,000  | 1,317,755,000,000 | 3,576,678,000,000 | 7,219,860,000,000  | 14,754,280,000,000 | 3,981,046,000,000 |
|            |                    | Condensate, barrels                             | 35,172,034       | 112,723,601       | 319,936,478       | 711,014,612        | 1,752,823,278      | 379,521,688       |



# TABLE 11 POTENTIAL PRESENT WORTH at 10 PERCENT of the NET PROSPECTIVE OIL RESOURCES TRUNCATED, TEFS-ADJUSTED, and P<sub>e</sub>-ADJUSTED as of

as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in

CERTAIN OIL PROSPECTS
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

Truncated, TEFS-Adjusted, P<sub>e</sub>-Adjusted, Net

|                       |         |                 |           | Oil R                                       | esent Worth Summary                          |  |  |
|-----------------------|---------|-----------------|-----------|---|--|--|--|
| Prospect              | Country | Basin           | Block     | Low<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | Best<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | High<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | Mean<br>Estimate<br>(10 <sup>3</sup> U.S.\$) |
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne | -   | -  | -  | -  |
| Kabukalli             | Guyana  | Guyana Suriname | Corentyne | 135,949                                     | 305,382                                      | 685,978                                      | 372,766                                      |
| Simiri                | Guyana  | Guyana Suriname | Corentyne | -   | -  | -  | -  |
| Crabwood              | Guyana  | Guyana Suriname | Corentyne | -   | -  | -  | -  |
| Buteo                 | Guyana  | Guyana Suriname | Corentyne | -   | -  | -  | -  |
| Statistical Aggregate |         |                 |           | 135,949                                     | 305,382                                      | 685,978                                      | 372,766                                      |
| Arithmetic Summation  |         |                 |           | 135,949                                     | 305,382                                      | 685,978                                      | 372,766                                      |

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. Low, best, high, and, mean estimates in this table are  $P_{90}$ ,  $P_{50}$ ,  $P_{10}$ , and mean, respectively.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 4. Negative values are denoted with parentheses.
- 5. Potential present worth in this table refers to CGX's net interest.
- 6. The potential present worth quantities in this table do not represent a fair market value evaluation.
- 7. Estimates of potential present worth at 10 percent for prospective resources do not consider adjustments for political and/or environmental uncertainties.
- 8. A possibility exists that the prospects will not result in successful discoveries and development, in which case there would be no positive potential present worth.
- Estimated potential present worth of prospective resources is not comparable to present worth estimates of contingent resources or reserves.
- 10. TEFS is defined as the threshold economic field size.
- 11. Pe is defined as the probability of discovering economic prospective resources.
- 12. Summations may vary from those shown here due to rounding.
- 13. 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.



# TABLE 12 POTENTIAL PRESENT WORTH at 10 PERCENT of the NET PROSPECTIVE SALES GAS RESOURCES TRUNCATED, TEFS-ADJUSTED, and P<sub>e</sub>-ADJUSTED as of DECEMBER 31, 2012

as of
DECEMBER 31, 2012
for
CGX RESOURCES INC.
in the
EAGLE DEEP GAS PROSPECT
CORENTYNE LICENSE BLOCK
OFFSHORE GUYANA

Truncated, TEFS-Adjusted, P<sub>e</sub>-Adjusted, Net Sales Gas Resources Potential Present Worth Summary

| Prospect              | Country | Basin           | Block     | Low<br>Estimate<br>(10 <sup>3</sup> U.S.\$) | Best<br>Estimate<br>(10³ U.S.\$) | High<br>Estimate<br>(10³ U.S.\$) | Mean<br>Estimate<br>(10³ U.S.\$) |  |  |  |  |  |
|-----------------------|---------|-----------------|-----------|---|----------------------------------|----------------------------------|----------------------------------|--|--|--|--|--|
| Eagle Deep            | Guyana  | Guyana Suriname | Corentyne | 392,493                                     | 881,657                          | 1,980,465                        | 1,076,200                        |  |  |  |  |  |
| Statistical Aggregate |         |                 |           | 392,493                                     | 881,657                          | 1,980,465                        | 1,076,200                        |  |  |  |  |  |
| Arithmetic Summation  |         |                 |           | 392,493                                     | 881,657                          | 1,980,465                        | 1,076,200                        |  |  |  |  |  |

#### Notes:

- 1. Low, best, high, and mean estimates follow the NI 51-101 guidelines for prospective resources.
- 2. 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.
- Arithmetic summation of probabilistic estimates produces invalid results except for the mean estimate.
   Arithmetic summation of probabilistic estimates is presented in this table in compliance with NI 51-101 guidelines.
- 4. Negative values are denoted with parentheses.
- 5. Potential present worth in this table refers to CGX's net interest.
- 6. The potential present worth quantities in this table do not represent a fair market value evaluation.
- 7. Estimates of potential present worth at 10 percent for prospective resources do not consider adjustments for political and/or environmental uncertainties.
- 8. A possibility exists that the prospects will not result in successful discoveries and development, in which case there would be no positive potential present worth.
- Estimated potential present worth of prospective resources is not comparable to present worth estimates of contingent resources or reserves.
- 10. TEFS is defined as the threshold economic field size.
- 11.  $P_e$  is defined as the probability of discovering economic prospective resources.
- 12. Summations may vary from those shown here due to rounding.
- 13. 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.



## TABLE 13 GROSS POTENTIAL QUANTITIES, EXPENSES, and COSTS for the MEAN TRUNCATED VOLUME as of DECEMBER 31, 2012 for

for CGX RESOURCES INC. in the KABUKALLI OIL PROSPECT CORENTYNE LICENSE BLOCK

OFFSHORE GUYANA

(All monetary values are expressed in thousands of U.S. dollars)

|       | Potential<br>Oil and<br>Condensate | Potential<br>Gas                   |           |             |                 |                            |           |           |                  |                       |
|-------|------------------------------------|------------------------------------|-----------|-------------|-----------------|----------------------------|-----------|-----------|------------------|-----------------------|
|       | Quantities                         | Quantities                         |           | Potential O | perating Expens | es, 10 <sup>3</sup> U.S.\$ |           | Potential | Capital Costs, 1 | 0 <sup>3</sup> U.S.\$ |
| Year  | (10 <sup>3</sup> bbl)              | (10 <sup>6</sup> ft <sup>3</sup> ) | Fixed     | Variable    | Transport       | Abandonment                | Total     | Drilling  | Facility         | Total                 |
| 2012  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2013  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2014  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2015  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2016  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 325,000   | 616,462          | 941,462               |
| 2017  | 11,594                             | 9,650                              | 0         | 0           | 0               | 0                          | 0         | 600,000   | 678,231          | 1,278,231             |
| 2018  | 28,282                             | 23,515                             | 100,000   | 32,850      | 29,287          | 0                          | 162,137   | 600,000   | 176,308          | 776,308               |
| 2019  | 35,633                             | 29,597                             | 120,000   | 46,613      | 41,553          | 0                          | 208,166   | 400,000   | 6,000            | 406,000               |
| 2020  | 32,299                             | 26,835                             | 120,000   | 42,253      | 37,666          | 0                          | 199,919   | 0         | 0                | 0                     |
| 2021  | 28,013                             | 23,282                             | 120,000   | 36,646      | 32,669          | 0                          | 189,316   | 0         | 0                | 0                     |
| 2022  | 25,930                             | 21,553                             | 120,000   | 33,922      | 30,241          | 0                          | 184,162   | 0         | 0                | 0                     |
| 2023  | 24,752                             | 20,575                             | 120,000   | 32,380      | 28,867          | 0                          | 181,247   | 0         | 0                | 0                     |
| 2023  | 23,965                             | 19,922                             | 120,000   | 31,351      | 27,949          | 0                          | 179,300   | 0         | 0                | 0                     |
| 2024  | 23,390                             | 19,445                             | 120,000   | 30,599      | 27,279          | 0                          | 177,879   | 0         | 0                | 0                     |
| 2025  | 22,939                             | 19,071                             | 120,000   | 30,009      | 26,753          | 0                          | 176,762   | 0         | 0                | 0                     |
| 2026  | 22,558                             | 18,755                             | 120,000   | 29,511      | 26,753          | 0                          | 175,762   | 0         | 0                | 0                     |
|       |                                    |                                    |           |             |                 | 0                          |           | 0         | 0                | 0                     |
| 2028  | 22,241                             | 18,490                             | 120,000   | 29,095      | 25,939          |                            | 175,034   |           |                  |                       |
| 2029  | 21,903                             | 18,200                             | 120,000   | 28,653      | 25,543          | 0                          | 174,196   | 0         | 0                | 0                     |
| 2030  | 21,116                             | 17,527                             | 120,000   | 27,622      | 24,622          | 0                          | 172,244   | 0         | 0                | 0                     |
| 2031  | 19,924                             | 16,524                             | 120,000   | 26,062      | 23,229          | 0                          | 169,290   | 0         | 0                | 0                     |
| 2032  | 18,877                             | 15,642                             | 120,000   | 24,691      | 22,005          | 0                          | 166,696   | 0         | 0                | 0                     |
| 2033  | 18,024                             | 14,926                             | 120,000   | 23,574      | 21,009          | 0                          | 164,583   | 0         | 0                | 0                     |
| 2034  | 17,319                             | 14,337                             | 120,000   | 22,652      | 20,186          | 0                          | 162,838   | 0         | 0                | 0                     |
| 2035  | 16,798                             | 13,902                             | 120,000   | 21,971      | 19,579          | 0                          | 161,550   | 0         | 0                | 0                     |
| 2036  | 16,414                             | 13,581                             | 120,000   | 21,468      | 19,130          | 0                          | 160,598   | 0         | 0                | 0                     |
| 2037  | 16,096                             | 13,316                             | 120,000   | 21,052      | 18,759          | 0                          | 159,810   | 0         | 0                | 0                     |
| 2038  | 15,810                             | 13,077                             | 120,000   | 20,678      | 18,426          | 0                          | 159,104   | 0         | 0                | 0                     |
| 2039  | 15,551                             | 12,861                             | 120,000   | 20,339      | 18,123          | 0                          | 158,462   | 0         | 0                | 0                     |
| 2040  | 15,318                             | 12,667                             | 120,000   | 20,035      | 17,852          | 0                          | 157,886   | 0         | 0                | 0                     |
| 2041  | 15,106                             | 12,490                             | 120,000   | 19,757      | 17,604          | 0                          | 157,361   | 0         | 0                | 0                     |
| 2042  | 14,911                             | 12,326                             | 120,000   | 19,501      | 17,376          | 0                          | 156,877   | 0         | 0                | 0                     |
| 2043  | 14,729                             | 12,175                             | 120,000   | 19,263      | 17,164          | 0                          | 156,427   | 0         | 0                | 0                     |
| 2044  | 14,559                             | 12,033                             | 120,000   | 19,040      | 16,965          | 0                          | 156,005   | 0         | 0                | 0                     |
| 2045  | 14,389                             | 11,891                             | 120,000   | 18,818      | 16,767          | 0                          | 155,585   | 0         | 0                | 0                     |
| 2046  | 14,162                             | 11,703                             | 120,000   | 18,522      | 16,503          | 0                          | 155,024   | 0         | 0                | 0                     |
| 2047  | 7,955                              | 6,140                              | 120,000   | 10,404      | 9,270           | 0                          | 139,674   | 0         | 0                | 0                     |
| 2048  | 0                                  | 0                                  | 0         | 0           | 0               | 18,000                     | 18,000    | 0         | 0                | 0                     |
| 2049  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2050  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2051  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2052  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2052  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2054  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2055  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2056  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2056  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
|       | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                |                       |
| 2058  |                                    | 0                                  | 0         | 0           | 0               | 0                          |           | 0         | 0                | 0                     |
| 2059  | 0                                  |                                    |           |             |                 |                            | 0         |           |                  | 0                     |
| 2060  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2061  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2062  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2063  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2064  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2065  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2066  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2067  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2068  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2069  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2070  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| 2071  | 0                                  | 0                                  | 0         | 0           | 0               | 0                          | 0         | 0         | 0                | 0                     |
| Total | 610,558                            | 506,008                            | 3,580,000 | 779,332     | 694,624         | 18,000                     | 5,071,956 | 1,925,000 | 1,477,000        | 3,402,000             |

- 1.  $\mathrm{P_g}$  and  $\mathrm{P_e}$  have not been applied to the quantities, expenses, or costs in this table.
- There is no certainty that any portion of the prospective resources summarized herein will be discovered;and, if discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources estimated herein.
- 3. Application of Pg and Pe to the quantities, expenses, or costs in this table, does not in anyway equate these to reserves or contingent resources.



# TABLE 14 GROSS POTENTIAL QUANTITIES, EXPENSES, and COSTS for the MEAN TRUNCATED VOLUME as of DECEMBER 31, 2012 for CGX RESOURCES INC.

in the EAGLE DEEP GAS PROSPECT CORENTYNE LICENSE BLOCK OFFSHORE GUYANA

(All monetary values are expressed in thousands of U.S. dollars)

|              | Potential<br>Oil and<br>Condensate | Potential<br>Raw Natural<br>Gas    | Potential<br>Sales Gas             |                  |                    |                    |                            |                    |                    |                    |                      |
|--------------|------------------------------------|------------------------------------|------------------------------------|------------------|--------------------|--------------------|----------------------------|--------------------|--------------------|--------------------|----------------------|
|              | Quantities                         | Quantities                         | Quantities                         |                  | Potential O        | perating Expense   | es, 10 <sup>3</sup> U.S.\$ |                    | Potential          | Capital Costs, 1   | 03 U.S.\$            |
| Year         | (10 <sup>3</sup> bbl)              | (10 <sup>6</sup> ft <sup>3</sup> ) | (10 <sup>6</sup> ft <sup>3</sup> ) | Fixed            | Variable           | Transport          | Abandonment                | Total              | Drilling           | Facility           | Total                |
| 2012         | 0                                  | 0                                  | 0                                  | 0                | 0                  |                    | 0                          | 0                  |                    |                    |                      |
| 2012<br>2013 | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2013         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2015         | 0                                  | 0                                  | 0                                  |                  | 0                  | 0                  | 0                          | 0                  |                    | -                  |                      |
| 2016         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 150,000<br>480,000 | 684,000<br>918,000 | 834,000<br>1,398,000 |
| 2017         | 28,829                             | 194,073                            | 184,370                            | 61,500           | 49,621             | 67,644             | 0                          | 178,765            | 480,000            | 310,000            | 790,000              |
|              | 60,450                             | 409,950                            | 389,452                            | 82,000           | 104,259            |                    | 0                          | 328,699            | 720,000            | 9,000              | 729,000              |
| 2018         |                                    |                                    |                                    |                  |                    | 142,440<br>166,990 | 0                          |                    |                    | 9,000              | 729,000              |
| 2019<br>2020 | 68,372<br>63,623                   | 493,088<br>493,088                 | 468,433<br>468,433                 | 82,000<br>82,000 | 119,982<br>114,045 | 162,241            | 0                          | 368,972<br>358,286 | 0                  | 0                  | 0                    |
| 2020         | 59,153                             | 493,088                            | 468,433                            | 82,000           | 108,458            |                    | 0                          | 348,228            | 0                  | 0                  | 0                    |
| 2021         | 54,950                             | 493,088                            | 468,433                            | 82,000           | 103,203            | 157,771<br>153,567 | 0                          | 338,770            | 0                  | 0                  | 0                    |
|              |                                    |                                    |                                    |                  |                    |                    | 0                          |                    | 0                  | 0                  | 0                    |
| 2023         | 50,963                             | 493,088                            | 468,433                            | 82,000           | 98,220             | 149,581            |                            | 329,801            |                    | -                  |                      |
| 2024         | 47,285                             | 493,088                            | 468,433                            | 82,000           | 93,622             | 145,902            | 0                          | 321,524            | 0                  | 0                  | 0                    |
| 2025         | 44,001                             | 493,088                            | 468,433                            | 82,000           | 89,518             | 142,619            | 0                          | 314,137            | 0                  | 0                  | 0                    |
| 2026         | 40,957                             | 493,088                            | 468,433                            | 82,000           | 85,712             | 139,574            | 0                          | 307,286            | 0                  | 0                  | 0                    |
| 2027         | 38,179                             | 493,088                            | 468,433                            | 82,000           | 82,240             | 136,797            | 0                          | 301,037            | 0                  | 0                  | 0                    |
| 2028         | 35,656                             | 493,088                            | 468,433                            | 82,000           | 79,086             | 134,273            | 0                          | 295,359            | 0                  | 0                  | 0                    |
| 2029         | 33,360                             | 493,088                            | 468,433                            | 82,000           | 76,216             | 131,977            | 0                          | 290,193            | 0                  | 0                  | 0                    |
| 2030         | 31,232                             | 493,088                            | 468,433                            | 82,000           | 73,556             | 129,849            | 0                          | 285,405            | 0                  | 0                  | 0                    |
| 2031         | 29,280                             | 493,088                            | 468,433                            | 82,000           | 71,116             | 127,897            | 0                          | 281,013            | 0                  | 0                  | 0                    |
| 2032         | 26,622                             | 475,685                            | 451,901                            | 82,000           | 66,575             | 121,759            | 0                          | 270,334            | 0                  | 0                  | 0                    |
| 2033         | 19,667                             | 364,118                            | 345,912                            | 82,000           | 50,072             | 92,490             | 0                          | 224,562            | 0                  | 0                  | 0                    |
| 2034         | 12,625                             | 239,420                            | 227,449                            | 82,000           | 32,541             | 60,509             | 0                          | 175,050            | 0                  | 0                  | 0                    |
| 2035         | 7,963                              | 153,476                            | 145,803                            | 82,000           | 20,698             | 38,659             | 0                          | 141,356            | 0                  | 0                  | 0                    |
| 2036         | 5,022                              | 97,776                             | 92,887                             | 82,000           | 13,121             | 24,577             | 0                          | 119,698            | 0                  | 0                  | 0                    |
| 2037         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 14,000                     | 14,000             | 0                  | 0                  | 0                    |
| 2038         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2039         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2040         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2041         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2042         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2043         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2044         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2045         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2046         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2047         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2048         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2049         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2050         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2051         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2052         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2053         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2054         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2055         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2056         | 0                                  | 0                                  | 0                                  | Ö                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2057         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2058         | 0                                  | 0                                  | 0                                  | ő                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2059         | 0                                  | 0                                  | 0                                  | Õ                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2060         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2061         | 0                                  | 0                                  | 0                                  | Ö                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2062         | 0                                  | 0                                  | Õ                                  | ő                | 0                  | 0                  | ő                          | Õ                  | 0                  | 0                  | 0                    |
| 2063         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2064         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2064         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2066         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2067         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2067         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2068         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2069         | 0                                  | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  | 0                  | 0                  | 0                    |
| 2070         |                                    | 0                                  | 0                                  | 0                | 0                  | 0                  | 0                          | 0                  |                    | 0                  | 0                    |
|              | 759.499                            |                                    |                                    |                  |                    |                    |                            |                    | 1 830 000          |                    |                      |
| Total        | 758,188                            | 8,344,636                          | 7,927,404                          | 1,619,500        | 1,531,860          | 2,427,115          | 14,000                     | 5,592,475          | 1,830,000          | 1,921,000          | 3,751,000            |

## Notes:

Potential

Potential

- P<sub>g</sub> and P<sub>e</sub> have not been applied to the quantities, expenses, or costs in this table.
- There is no certainty that any portion of the prospective resources summarized herein will be discovered;and, if discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources estimated herein.
- 3. Application of  $P_g$  and  $P_e$  to the quantities, expenses, or costs in this table, does not in anyway equate these to reserves or contingent resources.