Deloitte.

Connaught Oil & Gas Ltd.

Competent person's report

UK Onshore - Petroleum Exploration and Development Licence 183

Effective date: June 1, 2017

Deloitte LLP
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July 25, 2017

Connaught Oil & Gas Ltd.
1300, 530 – 8th Avenue SW
Calgary AB, Canada
T2P 3S8

Attention: Mr. Thomas Ruissen

RE: Competent Person's Report as of June 1, 2017
UK Onshore - Petroleum Exploration and Development Licence 183

Pursuant to your request, Deloitte LLP (Deloitte) has reviewed the Kirkham Abbey and Cadeby exploration projects of Connaught Oil & Gas Ltd. (COGL), associated with the Petroleum Exploration and Development Licence 183 (PEDL 183). PEDL 183 is located on the eastern coast of the central United Kingdom, in the area of Kingston upon Hull. The current operator of the licence is Rathlin Energy (UK) Limited (Rathlin), a wholly owned subsidiary of COGL.

Deloitte has prepared independent estimates of Contingent and Prospective Resources for the accumulations identified by COGL, with an effective date of June 1, 2017. In addition to resource estimates, economic forecasts have been prepared for the West Newton Kirkham Abbey Shoal and the West Newton Cadeby Reef accumulations, which represent viable drilling targets as of the effective date. For this report, viable drilling targets are defined as Undiscovered Prospects and/or Contingent Resources. Although the West Newton Slope deposits were deemed drillable leads, economics have not been completed at this time due to lack of information.

Resource estimates have been prepared in accordance with the 2007 Petroleum Resource Management System (PRMS) prepared by the Society of Petroleum Engineers (SPE), and approved by the World Petroleum Congress (WPC), American Association of Petroleum Geologists (AAPG), and the Society of Petroleum Evaluation Engineers (SPEE). The PRMS has been applied according to the guidelines released by the SPE in 2011.

The extent and character of ownership and all factual data supplied by COGL were accepted as presented (see Representation Letter attached within).

This report contains forward looking statements including expectations of future capital expenditures. Information concerning resources may also be deemed to be forward looking as estimates imply that the resources described can be profitably produced in the future. These statements are based on current expectations that involve a number of risks and uncertainties, which could cause the actual results to differ from those anticipated. These risks include, but are not limited to: the underlying risks of the oil and gas industry (i.e. operational risks in development, exploration and production; potential delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of resources estimates; the uncertainty of estimates and projections relating to costs and expenses, political and environmental factors), and commodity price and exchange rate fluctuation.

A Boe conversion ratio of six (6) Mcf : one (1) barrel has been used within this report. This conversion ratio is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

This report has been prepared for the exclusive use of COGL. This report is not to be reproduced, distributed or made available, in whole or in part, to any other person, company, regulatory body or organization without the complete content of the report and the prior knowledge and written consent of Deloitte.

It has been a pleasure to perform this evaluation for you, and we trust it is sufficient to meet your current requirements. Should you have any questions, please contact our office.

Yours truly,

Original signed by: "Robin G. Bertram"

Robin Bertram, P.Eng.
Partner
Financial Advisory | Resource Evaluation & Advisory
Deloitte LLP

Deloitte.

Independent petroleum consultants consent

The undersigned firm of Independent Qualified Reserves Evaluators and Auditors of Calgary, Alberta, Canada has prepared an independent evaluation of resources and value of certain oil and gas assets of the interests of Connaught Oil & Gas Ltd.. It hereby gives consent to the use of its name and to the said estimates. The effective date of this evaluation is June 1, 2017.

This report has been prepared for the exclusive use of Connaught Oil & Gas Ltd. and no part thereof shall be reproduced, distributed or made available to any other person, company, regulatory body or organization without the complete context of this report and the knowledge and consent of Deloitte.

In the course of the evaluation, Connaught Oil & Gas Ltd. provided Deloitte personnel with basic information which included land, well and accounting (product prices and operating costs) information; reservoir and geological studies, estimates of on-stream dates for certain properties, contract information, budget forecasts and financial data. Other engineering, geological or economic data required to conduct the evaluation and upon which this report is based, were obtained from public records, other operators and from Deloitte non confidential files. The extent and character of ownership and accuracy of all factual data supplied for the independent evaluation, from all sources, has been accepted.

A "Representation Letter" dated July 24, 2017 and signed by both the President & Chief Operating Officer and the Sr. Vice President & Chief Financial Officer was received from Connaught Oil & Gas Ltd. prior to the finalization of this report. This letter specifically addressed the accuracy, completeness and materiality of all the data and information that was supplied to us during the course of our evaluation of Connaught Oil & Gas Ltd. resources and net present values. This letter is included within.

A field inspection and environmental/safety assessment of the properties was beyond the scope of the engagement of Deloitte and none was carried out. The "Representation Letter" received from Connaught Oil & Gas Ltd. provided assurance that no additional information necessary for the completion of our assignment would have been obtained by a field inspection.

The accuracy of any resource and production estimates is a function of the quality and quantity of available data and of engineering interpretation and judgment. While resource and production estimates presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision either upward or downward. Deloitte reserves the right to review all calculations referred to or included in this report and to revise the estimates in light of erroneous data supplied or information existing but not made available which becomes known subsequent to the preparation of this report.

Revenue projections presented in this report are based in part on forecasts of market prices, current exchange rates, inflation, market demand and government policy which are subject to uncertainties and may in future differ materially from the forecasts herein. Present values of future net revenues documented in this report do not necessarily represent the fair market value of the reserves evaluated herein.

PERMIT TO PRACTICE

Deloitte LLP
Permit Number: P-11444

The Association of Professional Engineers
and Geoscientists of Alberta

Deloitte.

Certificate of qualification

I, I. J. Olsen, a Professional Engineer, of 700, 850 – 2nd Street Avenue S.W., Calgary, Alberta, Canada hereby certify that:

1. I am an employee of Deloitte LLP, which did prepare an evaluation of certain oil and gas assets of the interests of Connaught Oil & Gas Ltd. The effective date of this evaluation is June 1, 2017.

2. I do not have, nor do I expect to receive any direct or indirect interest in the properties evaluated in this report or in the securities of Connaught Oil & Gas Ltd.

3. I attended the University of Alberta and graduated with a Bachelor of Science Degree in Chemical Engineering in 2007; that I am a Registered Professional Engineer in the Province of Alberta; and I have in excess of nine years of engineering experience.

4. I am a Qualified Reserves Evaluator as defined in the Canadian Oil and Gas Evaluation Handbook, Volume 1, Section 3.2.

5. A personal field inspection of the properties was not made; however, such an inspection was not considered necessary in view of information available from the files of the interest owners of the properties and the appropriate provincial regulatory authorities.

Original signed by: "I. J. Olsen"
I. J. Olsen, P. Eng.

July 21, 2017
Date

Deloitte.

Certificate of qualification

I, D. L. Horbachewski, a Professional Geologist, of 700, 850 – 2nd Street S.W., Calgary, Alberta, Canada hereby certify that:

1. I am an employee of Deloitte LLP, which did prepare an evaluation of certain oil and gas assets of the interests of Connaught Oil & Gas Ltd. The effective date of this evaluation is June 1, 2017.

2. I do not have, nor do I expect to receive any direct or indirect interest in the properties evaluated in this report or in the securities of Connaught Oil & Gas Ltd.

3. I attended the University of Calgary and graduated with a Bachelor of Science Degree in Geology in 1999; that I am a Registered Professional Geologist in the Province of Alberta; and I have in excess of seventeen years of evaluations experience.

4. I am a Qualified Reserves Auditor as defined in the Canadian Oil and Gas Evaluation Handbook, Volume 1, Section 3.2.

5. A personal field inspection of the properties was not made; however, such an inspection was not considered necessary in view of information available from the files of the interest owners of the properties and the appropriate provincial regulatory authorities.

Original signed by: "D. L. Horbachewski"
D. L. Horbachewski, P. Geol.

July 21, 2017
Date

Connaught
oil & gas ltd.

July 24, 2017

Deloitte LLP
700, 850 - 2nd Street SW
Calgary, Alberta
T2P 0R8

Re: Standard Representation Letter
Resource Evaluation

Regarding the evaluation of our Company's oil and gas resources effective June 1, 2017 (the "effective date"), we herein confirm to the best of our knowledge and belief as of the effective date of the resource evaluation, the following representations and information made to you during the course and conduct of the evaluation.

1. We (the "Client") have made available to you (the "Evaluator") certain records, information and data relating to the evaluated properties that we confirm is, with the exception of immaterial items, complete and accurate as of the effective date of the resource evaluation including the following:

    a. asset ownership;
    b. all technical information including geological, engineering and production and test data;
    c. definition and delineation of the area and /or properties to be evaluated;
    d. determination and definition of geological formations and the resources thereof to be reviewed.

2. We confirm that our Company, through our wholly owned subsidiary Rathlin Energy (UK) Limited, has satisfactory title to all of the assets, whether tangible, intangible or otherwise, for which accurate and current ownership information has been provided.

3. With the possible exception of items of an immaterial nature, we confirm as of the effective date of the evaluation that:

    a. This letter provides assurance that no additional information necessary for the completion of your assignment would have been obtained by a field inspection.
    b. Except as disclosed to you, the producing trend and status of each evaluated well or entity in effect throughout the three month period preceding the effective date of the evaluation are consistent with those that existed for the same well or entity immediately prior to this period.
    c. Between the effective date of the report and the date of this letter, nothing has come to our attention that has materially affected or could materially affect the resources and the economic value of these resources that has not been disclosed to you.

Yours truly,
Connaught Oil & Gas Ltd.

Thomas J. Ruissen
President & Chief Operating Officer

Brett Statham, CA
Sr. Vice-President & Chief Financial Officer

Evaluation procedure

Definitions and methodology

Effective as of March 2017

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Procedure

Deloitte has prepared estimates of resources and reserves in accordance with the process published in the Petroleum Resources Management System (PRMS) and Guidelines for Application of the PRMS. The reader is referred to the documents for a complete description of the particular process quoted as follows.

Resources or reserves evaluation

A "Resources or Reserves evaluation" is the process whereby a qualified reserves evaluator estimates the quantities and values of oil and gas resources or reserves by interpreting and assessing all available pertinent data. The value of an oil and gas asset is a function of the ability or potential ability of that asset to generate future net revenue, and it is measured using a set of forward-looking assumptions regarding resources or reserves, production, prices, and costs. Evaluations of oil and gas assets, in particular reserves, include a discounted cash flow analysis of estimated future net revenue.

Reserves audit

A "Reserves audit" is the process carried out by a qualified reserves auditor that results in a reasonable assurance, in the form of an opinion, that the reserves information has in all material respects been determined and presented according to the principles and definitions adopted by the Society of Petroleum Evaluation Engineers (SPEE) (Calgary Chapter), and Association of Professional Engineers and Geoscientists of Alberta (APEGA) and are, therefore free of material mis-statement.

The reserves evaluations prepared by the company have been audited, not for the purpose of verifying exactness, but the reserves information, company policies, procedures, and methods used in estimating the reserves will be examined in sufficient detail so that Deloitte can express an opinion as to whether, in the aggregate, the reserves information presented by the company are reasonable.

Deloitte may require its own independent evaluation of the reserves information for a small number of properties, or for a large number of properties as tests for the reasonableness of the company's evaluations. The tests to be applied to the company's evaluations insofar as their methods and controls and the properties selected to be re-evaluated will be determined by Deloitte, in its sole judgment, to arrive at an opinion as to the reasonableness of the company's evaluations.

Reserves review

A "Reserves review" is the process whereby a reserves auditor conducts a high-level assessment of reserves information to determine if it is plausible. The steps consist primarily of enquiry, analytical procedure, analysis, review of historical reserves performance, and discussion with the company's reserves management staff.

"Plausible" means the reserves data appear to be worthy of belief based on the information obtained by the independent qualified reserves auditor in carrying out the aforementioned steps. Negative assurance can be given by the independent reserves auditor, but an opinion cannot. For example, "Nothing came to my attention that would indicate the reserves information has not been prepared and presented in accordance with principles and definitions adopted by the SPEE (Calgary Chapter), and APEGA (Practice Standard for the Evaluation of Oil and Gas Reserves for Public Disclosure).

Reviews do not require examination of the detailed document that supports the reserves information, unless this information does not appear to be plausible.

Resource and reserve definitions

Resource classification

Resources are classified by Deloitte in accordance with the definitions prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG) and Society of Petroleum Evaluation Engineers (SPEE). This document is known as the Petroleum Resource Management System (PRMS). The reader is referred to the document for a complete description of Resources and only the particular definitions are quoted as follows.

Resource and reserve classification

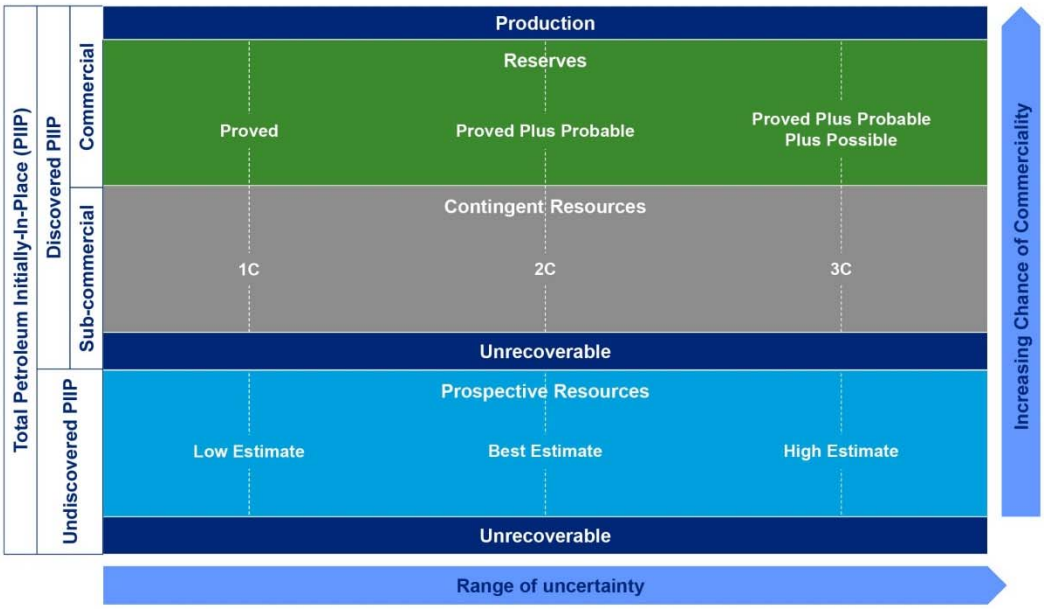


Image adapted from: SPE-PRMS, 2007

The term "resources" as used herein is intended to encompass all quantities of petroleum naturally occurring on or within the Earth's crust, discovered and undiscovered (recoverable and unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum whether currently considered "conventional" or "unconventional."

The following definitions apply to the major subdivisions within the resources classification:

Total petroleum initially-in-place (PIIP) is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations. It includes that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production plus those estimated quantities in accumulations yet to be discovered (equivalent to "total resources").

Discovered petroleum initially-in-place is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production.

Production is the cumulative quantity of petroleum that has been recovered at a given date.

Multiple development projects may be applied to each known accumulation, and each project will recover an estimated portion of the initially-in-place quantities. The projects shall be subdivided into commercial and sub-commercial, with the estimated recoverable quantities being classified as reserves and contingent resources respectively, as defined below.

Reserves are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.

Contingent resources are those quantities of petroleum estimates, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation

is insufficient to clearly assess commerciality. Contingent resources are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by their economic status.

An accumulation is an individual body of petroleum-in-place. The key requirement to consider an accumulation as "known," and hence containing reserves or contingent resources, is that it must have been discovered, that is, penetrated by a well that has established through testing, sampling, or logging, the existence of significant quantity of recoverable hydrocarbons.

Undiscovered petroleum initially-in-place is that quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.

Prospective resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development. Prospective resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

Unrecoverable is that portion of discovered or undiscovered petroleum initially-in-place quantities which is estimated, as of a given date, not to be recoverable by future development projects. A portion of these quantities may become recoverable in the future as commercial circumstances change or technological developments occur; the remaining portion may never be recovered due to physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

In specialized areas, such as basin potential studies, alternative terminology has been used; the total resources may be referred to as total resource base or hydrocarbon endowment. Total recoverable or estimated ultimate recovery (EUR) may be termed basin potential. The sum of reserves, contingent resources, and prospective resources may be referred to as "remaining recoverable resources." When such terms are used, it is important that each classification component of the summation also be provided. Moreover, these quantities

should not be aggregated without due consideration of the varying degrees of technical and commercial risk involved with their classification.

Reserve classification

Reserves are classified by Deloitte in accordance with the definitions and guidelines found in the PRMS.

Evaluations may assess recoverable quantities and categorize results by uncertainty using the deterministic incremental (risk based) approach, the deterministic scenario (cumulative) approach, or probabilistic methods.

The following summarizes the definitions for each reserves category in terms of both the deterministic (incremental and scenario) approach and also provides the probability criteria if probabilistic methods are applied.

> **Proved reserves** are those quantities of petroleum, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.
>
> If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90 percent probability that the quantities actually recovered will equal or exceed the estimate.
>
> **Probable reserves** are those additional reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than proved reserves but more certain to be recovered than possible reserves.
>
> It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated proved plus probable reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50 percent probability that the actual quantities recovered will equal or exceed the 2P estimate.

Developed reserves are expected quantities to be recovered from existing wells and facilities.

Reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor compared to the cost of a well. Where required facilities become unavailable, it may be necessary to reclassify developed reserves and undeveloped. Developed reserves may be further sub-classified as producing or non-producing.

Developed producing reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.

Improved recovery reserves are considered producing only after the improved recovery project is in operation.

Developed non-producing reserves include shut-in and behind-pipe reserves.

In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.

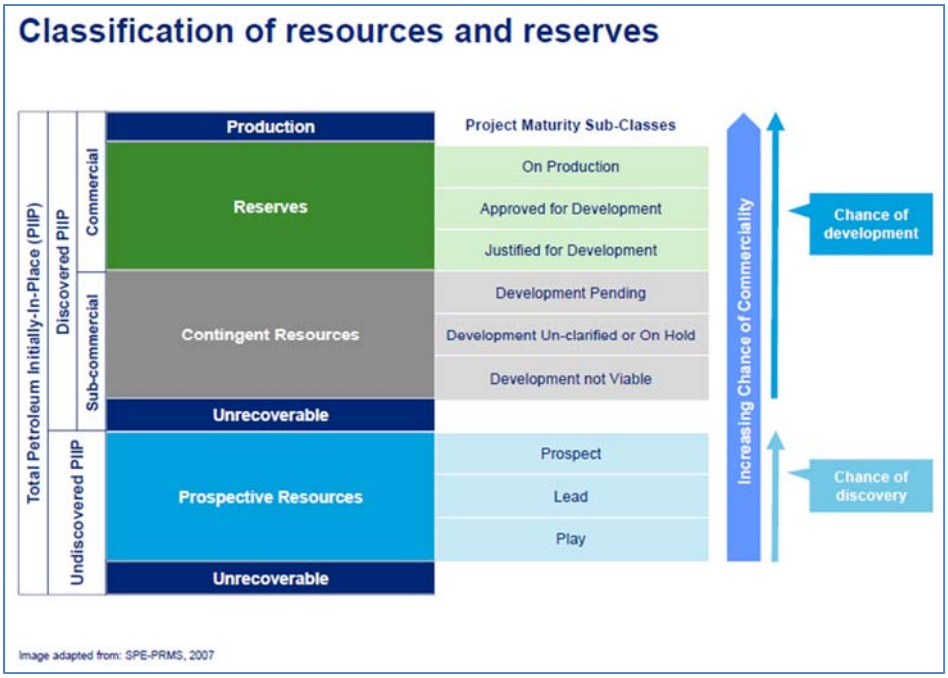
Undeveloped reserves are quantities expected to be recovered through future investments: (1) from new wells on undrilled acreage in known accumulations, (2) from deepening existing wells to different (but known) reservoir, (3) from infill wells that will increase recovery, or (4) where a relatively large expenditure (e.g. when compared to the cost of drilling a new well) is required to (a) recomplete an existing well of (b) install production or transportation facilities for primary or improved recovery projects.

Possible reserves are those additional reserves which analysis of geoscience and engineering data indicate are less likely to be recoverable then probable reserves.

The total quantities ultimately recovered from the project have a low probability to exceed the sum of proved plus probable plus possible (3P), which is equivalent to the high estimate scenario. When probability methods are used, there should be at least a 10 percent probability that the actual quantities recovered will equal or exceed the 3P estimate.

Project Maturation Subclasses

In addition to classification as reserves, contingent resources, or prospective resources, Deloitte sub-classifies based on Project Maturity as outlined within the definitions and guidelines for the PRMS.



As illustrated in the above figure, identified projects are sub-classified according to project maturity, reflecting the business decisions required for a project to move into commercial production. The intention of the project maturity is to provide a qualitative ranking of the chance of commerciality. The following guidelines define the project maturity sub-classes:

- **On production –** The project is producing and selling petroleum to markets as at the effective date. A portion of the project may be classified as undeveloped; however, all approvals and contracts must be in place with capital funding committed. If a part of the development plan is still subject to approval and/or commitment of funds, this part should be classified as a separate project in the appropriate subclass.
- **Approved for development –** All approvals and necessary contracts are in place, and capital funding has been committed. Construction for required facilities should be underway or due to start immediately. Only a completely unforeseeable change in circumstances that is beyond the control of the developers would be an acceptable reason for failure of the project to be developed within a reasonable time frame.

- **Justified for development –** This subclass covers the period between (a) the operator and its partners agreeing that the project is commercially viable and deciding to proceed with development on the basis of an agreed development plan (i.e., there is "firm intent"), and (b) the point at which all approvals and contracts are in place (particularly regulatory approval of the development plan, where relevant) and a "final investment decision" has been made by the developers to commit the necessary capital funds. In PRMS, the recommended benchmark is that development would be expected to be initiated within 5 years of assignment to this subclass.
- **Development pending –** Projects that have active technical activity, such as appraisal drilling or detailed evaluation that is designed to confirm commerciality and/or to determine the optimum development scenario. In addition, it may include projects that have nontechnical contingencies, provided these contingencies are currently being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame. Such projects would be expected to have a high probability of becoming a commercial development (i.e., a high chance of commerciality).
- **Development unclarified** or **on hold -** *On Hold* would generally be where a project is considered to have at least a reasonable chance of commerciality, but where there are major non-technical contingencies (e.g., environmental issues) that need to be resolved before the project can move toward development. *Unclarified* projects are still under evaluation (e.g., a recent discovery) or require significant further appraisal to clarify the potential for development, and where the contingencies have yet to be fully defined. In such cases, the chance of commerciality may be difficult to assess with any confidence.
- **Development not viable –** Projects which have been deemed technically viable; however, assessment indicates insufficient potential to warrant any further appraisal activities or any direct efforts to remove commercial contingencies. Projects in this subclass would be expected to have a low chance of commerciality.
- **Prospect –** A project associated with a potential accumulation that is sufficiently well defined to represent a viable drilling target.
- **Lead –** A project associated with a potential accumulation that is currently poorly defined and requires more data acquisition and/or evaluation in order to be classified as a prospect.

- **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.

Resource and reserve estimation

Deloitte generally assigns reserves to properties via deterministic methods. Probabilistic estimation techniques are typically used where there is a low degree of certainty in the information available and is generally used in resource evaluations. This will be stated within the detailed property reports.

Deterministic

Reserves and resources were estimated either by i) volumetric, ii) decline curve analysis, iii) material balance techniques, or iv) performance predictions.

Volumetric reserves were estimated using the wellbore net pay and an assigned drainage area or, where sufficient data was available, the reservoir volumes calculated from isopach maps. Reservoir rock and fluid data were obtained from available core analysis, well logs, PVT data, gas analysis, government sources, and other published information either on the evaluated pool or from a similar reservoir in the immediate area. In mature (producing) reservoirs decline curve analysis and/or material balance was utilized in all applicable evaluations.

Probabilistic

Because of the uncertainty inherent in reservoir parameters, probabilistic analysis, which is based on statistical techniques, provides a formulated approach by which to obtain a reasonable assessment of the petroleum initially in place and/or the recoverable resource. Probabilistic analysis involves generating a range of possible outcomes for each unknown parameter and their associated probability of occurrence. When probabilistic analysis is applied to resource estimation, it provides a range of possible PIIPs or recoverable resources.

In preparing a resource estimate, Deloitte assesses the following volumetric parameters: areal extent, net pay thickness, porosity, hydrocarbon saturation, reservoir temperature, reservoir pressure, gas compressibility factor, recovery factor, and surface loss. A team of professional engineers and geologists experienced in probabilistic resource evaluation considers each of the parameters individually to estimate the most reasonable range of

values. Working from existing data, the team discusses and agrees on the low (P_{90}) and high (P_{10}) values for each parameter. To help test the reasonableness of the proposed range, a minimum (P_{99}) and maximum (P_1) value are also extrapolated from the low and high values. After ranges have been established for each parameter, these independent distributions are used to determine a P_{90}, P_{50}, and P_{10} result which comprise Deloitte's estimated range of PIIP or recoverable resource.

It is important to note that the process used to determine the final P_{10}, P_{90}, and P_{50} results involves multiplying the various volumetric parameters together. This yields results which require adjustments to maintain an appropriate probability of occurrence. For example, when calculating total reservoir volume (Area x Pay), the chance of getting a volume greater than the P_{10} Area x P_{10} Pay is less than 10 percent – the chance of getting the calculated result is only 3.5 percent ($p_{3.5}$). As you multiply additional P_{10} values, the probability of achieving the calculated value becomes less likely. Similarly, multiplying P_{90} parameters together will yield a result that has a probability greater than P_{90}. As such, when multiplying independent distributions together the results must be adjusted via interpolation to determine final P_{90} and P_{10} values.

The results appearing in this report represent interpolated P_{90} and P_{10} values. As defined by PRMS, the P_{50} estimate is the "best estimate" for reporting purposes.

Licence ownership and maps

Ownership of Production Exploration and Development Licences was accepted as factual and no investigation of title by Deloitte was made to verify the records.

Well maps included within this report represent all of the company's interests that were evaluated in the specified area.

Geology

An initial review of each property is undertaken to establish the produced maturity of the reservoir being evaluated. Where extensive production history exists a geologic analysis is not conducted since the remaining hydrocarbons can be determined by productivity analysis.

For properties that are not of a mature production nature a geologic review is conducted. This work consists of:

- developing a regional understanding of the play,
- assessing reservoir parameters from the nearest analogous production,
- analysis of all relevant well data including logs, cores, and tests to measure net formation thickness (pay), porosity, and initial water saturation,
- Auditing of client mapping or developing maps to meet Deloitte's need to establish volumetric hydrocarbons-in-place.

Procedures specific to the project are discussed in the body of the report.

Royalties and taxes

General

All royalties and taxes, including the lessor and overriding royalties, are based on government regulations, negotiated leases, or farm-out agreements that were in effect as of the evaluation effective date. If regulations change, the net after royalty recoverable reserve volumes may differ materially.

Deloitte utilizes a variety of reserves and valuation products in determining the result sets.

Capital and operating considerations

Operating and capital costs were based on current costs escalated to the date the cost was incurred, and are in current year dollars. The economic runs provide the escalated dollar costs as found in the Pricing Table 1 in the Price and Market Demand section.

Reserves estimated for constant prices and costs (optional), are based on un-escalated operating and capital costs.

Capital costs were either provided by the Company (and reviewed by Deloitte for reasonableness) or determined by Deloitte taking into account well capability, facility requirement, and distance to markets. Facility expenditures for shut-in gas are forecast to occur prior to the well's first production.

Operating costs were determined from historical data on the property as provided by the evaluated Company. If this data was not available or incomplete, the costs were based on Deloitte experience and historical database. Operating costs are defined into three types.

The first type, variable ($/Unit), covers the costs directly associated with the product production. Costs for processing, gathering and compression are based on raw gas volumes. Over the life of the project the costs are inflated in escalated runs to reflect the increase in costs over time. In a constant dollar review the costs remain flat over the project life.

The second type, fixed plant or battery ($/year), is again a fixed component over the project life and reflects any gas plant or battery operating costs allocated back to the evaluated group. The plant or battery can also be run as a separate group and subsequently consolidated at the property level.

The third type takes the remaining costs that are not associated with the first two and assigns them to the well based on a fixed and variable component. A split of 65 percent fixed and 35 percent variable assumes efficiencies of operation over time, i.e.: the well operator can reduce the number of monthly visits as the well matures, workovers may be delayed, well maintenance can also be reduced. The basic assumption is that the field operator will continue to find efficiencies to reduce the costs over time to maintain the overall $/Boe cost. Thus as the production drops over time the 35 percent variable cost will account for these efficiencies. If production is flat all the costs will also remain flat. Both the fixed and variable costs in this type are inflated in the escalated case and held constant in the constant dollar review. These costs also include property taxes, lease rentals, government fees, and administrative overhead.

In reserve evaluations conducted for purposes of NI 51-101, or, if an economic analysis was prepared for a resource evaluation, well abandonment and reclamation costs have been included and these costs were either provided by the company (and reviewed by Deloitte for reasonableness) or based on area averages (only the base abandonment costs were utilized and no consideration for groundwater protection, vent flow repair costs, or gas migration costs were considered). If there were multiple events to abandon the costs were increased by a 25 percent factor. Site reclamation costs were based on information provided by the company or based on area averages. For undeveloped reserve estimates for undrilled locations, both abandonment and site reclamation costs are also included for the purpose of determining whether reserves should be attributed to that property in the first year in which the reserves are considered for attribution to the property.

Price and market demand forecasts

Base case forecast effective March 31, 2017

The attached price and market forecasts have been prepared by Deloitte, based on information available from numerous government agencies, industry publications, oil refineries, natural gas marketers, and industry trends.

The prices are Deloitte's best estimate of how the future will look, based on the many uncertainties that exist in both the domestic Canadian and international petroleum industries. Inflation forecasts and exchange rates, an integral part of the forecast, have also been considered.

In preparing the price forecast Deloitte considers the current monthly trends, the actual and trends for the year to date, and the prior year actual in determining the forecast. The base forecast for both oil and gas is based on NYMEX futures in US dollars.

The crude oil and natural gas forecasts are based on yearly variable factors weighted to higher percent in current data and reflecting a higher percent to the prior year historical. These forecasts are Deloitte's interpretation of current available information and while they are considered reasonable, changing market conditions or additional information may require alteration from the indicated effective date.

Deloitte Resource Evaluation & Advisory
International Forecast
Base Case Forecast Effective March 31 2017
Real Prices

		Crude Oil Pricing															
		Average WTI Spot US$/bbl Real	Alaskan North Slope US$/bbl Real	California Kern River US$/bbl Real	Louisiana Heavy Sweet US$/bbl Real	Louisiana Light Sweet US$/bbl Real	MARS Blend US$/bbl Real	Wyoming Sweet US$/bbl Real	Brent Spot US$/bbl Real	Gulf Coast Argus Sour Crude Index ASCI US$/bbl Real	Average OPEC Basket US$/bbl Real	Venezuelan Merey US$/bbl Real	Nigerian Bonny Light US$/bbl Real	Arabia UAE Dubai Feteh US$/bbl Real	Mexico Maya US$/bbl Real	Russia Urals US$/bbl Real	Indonesia Minas US$/bbl Real
F	2017	$52.00	$44.00	$46.50	$49.50	$50.00	$45.50	$47.75	$53.00	$45.50	$51.00	$45.00	$53.40	$51.00	$45.50	$51.50	$49.00
o	2018	$54.00	$46.00	$48.50	$51.50	$52.00	$47.50	$49.75	$55.00	$47.50	$53.00	$47.00	$55.40	$53.00	$47.50	$53.50	$51.00
r	2019	$57.00	$49.00	$51.50	$54.50	$55.00	$50.50	$52.75	$58.00	$50.50	$56.00	$50.00	$58.40	$56.00	$50.50	$56.50	$54.00
e	2020	$60.00	$52.00	$54.50	$57.50	$58.00	$53.50	$55.75	$61.00	$53.50	$59.00	$53.00	$61.40	$59.00	$53.50	$59.50	$57.00
c	2021	$65.00	$57.00	$59.50	$62.50	$63.00	$58.50	$60.75	$66.00	$58.50	$64.00	$58.00	$66.40	$64.00	$58.50	$64.50	$62.00
a	2022	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
s	2023	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
t	2024	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2025	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2026	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2027	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2028	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2029	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2030	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2031	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2032	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2033	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2034	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2035	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2036	$70.00	$62.00	$64.50	$67.50	$68.00	$63.50	$65.75	$71.00	$63.50	$69.00	$63.00	$71.40	$69.00	$63.50	$69.50	$67.00
	2036+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

				Natural Gas Pricing						Ethanol
		USD to GBP Exchange Rate	USD to EUR Exchange Rate	NYMEX Henry Hub US$/Mcf Real	Permian Waha US$/Mcf Real	San Juan Ignacio US$/Mcf Real	Rocky Mtn. Opal US$/Mcf Real	UK NBP US$/Mcf Real	India Domestic Gas US$/Mcf Real	U.S. CBOT Ethanol US$/gal. Real
F	2017	1.250	1.050	$3.20	$2.95	$2.95	$2.95	$5.20	$2.70	$1.50
o	2018	1.250	1.050	$3.25	$3.00	$3.00	$3.00	$5.25	$3.05	$1.50
r	2019	1.250	1.050	$3.30	$3.05	$3.05	$3.05	$5.30	$3.10	$1.50
e	2020	1.250	1.050	$3.35	$3.10	$3.10	$3.10	$5.35	$3.15	$1.50
c	2021	1.250	1.050	$3.40	$3.15	$3.15	$3.15	$5.40	$3.20	$1.50
a	2022	1.250	1.050	$3.50	$3.25	$3.25	$3.25	$5.50	$3.25	$1.50
s	2023	1.250	1.050	$3.65	$3.40	$3.40	$3.40	$5.65	$3.35	$1.50
t	2024	1.250	1.050	$3.85	$3.60	$3.60	$3.60	$5.85	$3.50	$1.50
	2025	1.250	1.050	$4.00	$3.75	$3.75	$3.75	$6.00	$3.70	$1.50
	2026	1.250	1.050	$4.05	$3.80	$3.80	$3.80	$6.05	$3.85	$1.50
	2027	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.90	$1.50
	2028	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2029	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2030	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2031	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2032	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2033	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2034	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2035	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2036	1.250	1.050	$4.10	$3.85	$3.85	$3.85	$6.10	$3.95	$1.50
	2036+	1.250	1.050	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Venezuelan Merey replaced BCF-17 in the OPEC basket March 1, 2009.

Deloitte Resource Evaluation & Advisory
International Forecast
Base Case Forecast Effective March 31 2017
Escalated Prices

				Crude Oil Pricing															Natural Gas					Ethanol
		USD to GBP Exchange Rate	USD to EUR Exchange Rate	Average WTI Spot US$/bbl Escalated	Alaska North Slope US$/bbl Escalated	California Kern River US$/bbl Escalated	Louisiana Heavy Sweet US$/bbl Escalated	Louisiana Light Sweet US$/bbl Escalated	MARS Blend US$/bbl Escalated	Wyoming Sweet US$/bbl Escalated	Brent Spot US$/bbl Escalated	Gulf Coast Argus Sour Crude Index US$/bbl Escalated	Average OPEC Basket US$/bbl Escalated	Venezuelan Merey US$/bbl Escalated	Nigerian Bonny Light US$/bbl Escalated	Arabia UAE Dubai Fateh US$/bbl Escalated	Mexico Maya US$/bbl Escalated	Russia Urals US$/bbl Escalated	Indonesia Minas US$/bbl Escalated	NYMEX Henry Hub US$/Mcf Escalated	Permian Waha US$/Mcf Escalated	San Juan Ignacio US$/Mcf Escalated	Rocky Mtn. Opal US$/Mcf Escalated	UK NBP US$/Mcf Escalated	U.S. CBOT Ethanol US$/gal. Escalated
H	2007	2.010	1.384	$75.40	$67.03	$59.48	$72.88	$75.40	$66.81	$67.28	$75.83	N/A	$72.35	N/A	$78.60	$71.32	$63.04	$73.06	$76.88	$6.92	$6.18	$6.05	$3.60	$2.81	$0.00
i	2008	1.852	1.470	$99.57	$91.24	$87.20	$103.62	$100.82	$94.61	$88.38	$96.85	N/A	$94.05	N/A	$100.24	$93.48	$83.83	$94.51	$100.25	$8.86	$7.44	$7.20	$6.52	$6.14	$1.84
s	2009	1.565	1.393	$61.65	$54.84	$48.66	$58.78	$60.29	$56.51	$51.73	$61.49	N/A	$60.86	N/A	$53.01	$61.65	$56.41	$60.70	$39.23	$3.95	$3.43	$3.34	$3.14	$4.53	$1.72
t	2010	1.546	1.328	$79.40	$72.17	$72.83	$78.16	$79.32	$75.60	$70.44	$79.68	$75.60	$77.38	$69.68	$70.70	$78.04	$70.07	$78.01	$0.00	$4.39	$4.16	$4.09	$3.94	$6.48	$1.80
o	2011	1.604	1.392	$94.88	$98.47	$103.11	$107.12	$108.03	$105.37	$87.41	$111.26	$105.37	$107.45	$97.88	$88.28	$106.19	$98.95	$109.19	$0.00	$4.00	$3.88	$3.82	$3.80	$9.03	$2.51
r	2012	1.586	1.286	$94.11	$98.35	$103.69	$107.18	$107.19	$104.82	$85.04	$111.99	$104.82	$109.50	$100.11	$111.61	$109.11	$99.74	$110.50	$55.32	$2.75	$2.64	$2.64	$2.67	$9.47	$2.31
i	2013	1.565	1.329	$97.91	$95.85	$101.38	$105.80	$106.19	$101.80	$89.97	$108.64	$101.80	$105.51	$96.71	$111.41	$105.51	$98.06	$108.05	$107.54	$3.73	$3.62	$3.64	$3.64	$10.66	$2.04
c	2014	1.647	1.329	$93.26	$86.45	$90.38	$96.16	$94.25	$92.95	$83.50	$99.02	$92.95	$96.19	$86.79	$100.77	$96.61	$85.79	$98.01	$98.63	$4.39	$4.28	$4.28	$4.34	$8.24	$1.93
a	2015	1.529	1.110	$48.69	$41.34	$44.75	$48.38	$48.32	$46.57	$41.59	$52.39	$46.57	$49.52	$41.17	$52.99	$50.96	$44.02	$51.94	$49.24	$2.63	$2.43	$2.45	$2.45	$6.53	$1.50
l	2016	1.355	1.107	$43.15	$33.26	$37.02	$40.49	$40.34	$36.37	$38.65	$43.56	$36.37	$40.68	$33.96	$43.95	$41.32	$36.40	$42.09	$41.05	$2.52	$2.29	$2.30	$2.30	$4.66	$1.53
F	2017	1.250	1.050	$52.00	$44.00	$46.50	$49.50	$50.00	$45.50	$47.75	$53.00	$45.50	$51.00	$45.00	$53.40	$51.00	$45.50	$51.50	$49.00	$3.20	$2.95	$2.95	$2.95	$5.20	$1.50
o	2018	1.250	1.050	$55.10	$46.90	$49.45	$52.55	$53.05	$48.45	$50.75	$56.10	$48.45	$54.05	$47.95	$56.50	$54.05	$48.45	$54.55	$52.00	$3.30	$3.05	$3.05	$3.05	$5.35	$1.55
r	2019	1.250	1.050	$59.30	$51.00	$53.60	$56.70	$57.20	$52.55	$54.90	$60.35	$52.55	$58.25	$52.00	$60.75	$58.25	$52.55	$58.80	$56.20	$3.45	$3.15	$3.15	$3.15	$5.50	$1.55
e	2020	1.250	1.050	$63.65	$55.20	$57.85	$61.00	$61.55	$56.75	$59.15	$64.75	$56.75	$62.60	$56.25	$65.15	$62.60	$56.75	$63.15	$60.50	$3.55	$3.30	$3.30	$3.30	$5.70	$1.60
c	2021	1.250	1.050	$70.35	$61.70	$64.40	$67.65	$68.20	$63.30	$65.75	$71.45	$63.30	$69.30	$62.80	$71.85	$69.30	$63.30	$69.80	$67.10	$3.70	$3.40	$3.40	$3.40	$5.85	$1.60
a	2022	1.250	1.050	$77.30	$68.45	$71.20	$74.55	$75.10	$70.10	$72.60	$78.40	$70.10	$76.20	$69.55	$78.85	$76.20	$70.10	$76.75	$73.95	$3.85	$3.60	$3.60	$3.60	$6.05	$1.65
s	2023	1.250	1.050	$78.85	$69.80	$72.65	$76.00	$76.60	$71.50	$74.05	$79.95	$71.50	$77.70	$70.95	$80.40	$77.70	$71.50	$78.25	$75.45	$4.10	$3.85	$3.85	$3.85	$6.35	$1.70
t	2024	1.250	1.050	$80.40	$71.20	$74.10	$77.55	$78.10	$72.95	$75.55	$81.55	$72.95	$79.25	$72.35	$82.00	$79.25	$72.95	$79.85	$76.95	$4.40	$4.15	$4.15	$4.15	$6.70	$1.70
	2025	1.250	1.050	$82.00	$72.65	$75.55	$79.10	$79.65	$74.40	$77.05	$83.20	$74.40	$80.85	$73.80	$83.65	$80.85	$74.40	$81.45	$78.50	$4.70	$4.40	$4.40	$4.40	$7.05	$1.75
	2026	1.250	1.050	$83.65	$74.10	$77.10	$80.65	$81.25	$75.90	$78.60	$84.85	$75.90	$82.45	$75.30	$85.35	$82.45	$75.90	$83.05	$80.05	$4.85	$4.55	$4.55	$4.55	$7.25	$1.80
	2027	1.250	1.050	$85.35	$75.60	$78.65	$82.30	$82.90	$77.40	$80.15	$86.55	$77.40	$84.10	$76.80	$87.05	$84.10	$77.40	$84.70	$81.65	$5.00	$4.70	$4.70	$4.70	$7.45	$1.85
	2028	1.250	1.050	$87.05	$77.10	$80.20	$83.95	$84.55	$78.95	$81.75	$88.30	$78.95	$85.80	$78.35	$88.80	$85.80	$78.95	$86.40	$83.30	$5.10	$4.80	$4.80	$4.80	$7.60	$1.85
	2029	1.250	1.050	$88.80	$78.65	$81.80	$85.60	$86.25	$80.55	$83.40	$90.05	$80.55	$87.50	$79.90	$90.55	$87.50	$80.55	$88.15	$84.95	$5.20	$4.90	$4.90	$4.90	$7.75	$1.90
	2030	1.250	1.050	$90.55	$80.20	$83.45	$87.30	$87.95	$82.15	$85.05	$91.85	$82.15	$89.25	$81.50	$92.35	$89.25	$82.15	$89.90	$86.65	$5.30	$5.00	$5.00	$5.00	$7.90	$1.95
	2031	1.250	1.050	$92.35	$81.80	$85.10	$89.05	$89.70	$83.80	$86.75	$93.70	$83.80	$91.05	$83.15	$94.20	$91.05	$83.80	$91.70	$88.40	$5.40	$5.10	$5.10	$5.10	$8.05	$2.00
	2032	1.250	1.050	$94.20	$83.45	$86.80	$90.85	$91.50	$85.45	$88.50	$95.55	$85.45	$92.85	$84.80	$96.10	$92.85	$85.45	$93.55	$90.15	$5.50	$5.20	$5.20	$5.20	$8.20	$2.00
	2033	1.250	1.050	$96.10	$85.10	$88.55	$92.65	$93.35	$87.15	$90.25	$97.45	$87.15	$94.70	$86.50	$98.00	$94.70	$87.15	$95.40	$92.00	$5.65	$5.30	$5.30	$5.30	$8.35	$2.05
	2034	1.250	1.050	$98.00	$86.80	$90.30	$94.50	$95.20	$88.90	$92.05	$99.40	$88.90	$96.60	$88.20	$100.00	$96.60	$88.90	$97.30	$93.80	$5.75	$5.40	$5.40	$5.40	$8.55	$2.10
	2035	1.250	1.050	$100.00	$88.55	$92.10	$96.40	$97.10	$90.70	$93.90	$101.40	$90.70	$98.55	$90.00	$102.00	$98.55	$90.70	$99.25	$95.70	$5.85	$5.50	$5.50	$5.50	$8.70	$2.15
	2036	1.250	1.050	$102.00	$90.30	$93.95	$98.35	$99.05	$92.50	$95.80	$103.45	$92.50	$100.50	$91.80	$104.00	$100.50	$92.50	$101.25	$97.60	$5.95	$5.60	$5.60	$5.60	$8.90	$2.20
	2036+	1.250	1.050	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Notes: Venezuelan Merey replaced BCF-17 in the OPEC basket March 1, 2009.

Executive summary

Connaught Oil & Gas Ltd. (COGL) commissioned Deloitte LLP (Deloitte) to provide an independent assessment of the petroleum resources on Petroleum Exploration and Development Licence (PEDL) 183 located onshore Northeast England, near Kingston upon Hull (Figure 1). This assessment focuses on the Kirkham Abbey and Cadeby Formations. Probabilistic estimates of contingent and prospective resources have been included for low, best, and high cases.

COGL has identified three project areas on PEDL 183: West Newton, Spring Hill, and Ellerby. The potential intervals for all three projects are the Kirkham Abbey and Cadeby Formations of the Permian-aged Zechstein Group.

The West Newton and Spring Hill project areas are located on the east side of the licence. The Ellerby project lies in the center of the licence. COGL has identified several targets within the West Newton area: the Kirkham Abbey Shoal and Slope, and the Cadeby Reef and Slope. Within the Spring Hill and Ellerby area, COGL has identified the Kirkham Abbey Shoal and the Cadeby Reef as the potential targets.

COGL has interpreted a three component 3D seismic dataset over the West Newton project and several 2D seismic datasets over the Spring Hill and Ellerby projects. The Company has defined each project area by the interpretation of 2D and 3D data sets and has mapped the targeted formations. Deloitte has independently reviewed COGL's seismic interpretations and mapping and found them to be reasonable.

Deloitte derived the estimated volumes by preparing a stochastic analysis of the target reservoirs. The petroleum initially in-place (PIIP) volume ranges are summarized in the table below.

Summary of resources

The following tables outline the resources which are attributable to each defined project. All volumes have been assigned a maturity subclass, which has been determined based on the level of exploration information available. The chance of discovery associated with the prospective volumes has been estimated to be 51 percent for the Kirkham Abbey and 26 percent for the Cadeby, and is detailed in the Geologic risk section. Contingent resources are already discovered, and therefore, do not have an associated chance of discovery. For the volumes that are classified as Contingent resources, the sub-classification assigned is Development Unclarified. The associated chance of commerciality for these volumes has been estimated to be 60 percent, and is described in the resource categorization section. The resource volumes presented below are un-risked values. Risk factors are detailed by individual project for reference only.

Summary of resources on company working interest lands[1]

	Gross (MBoe)				Working interest (MBoe)			
Resource class	**Low**	**Best**	**High**	**Mean**	**Low**	**Best**	**High**	**Mean**
Contingent oil resources	-	-	-	-	-	-	-	-
Contingent gas resources	15,563	30,787	61,411	35,682	15,563	30,787	61,411	35,682
Contingent NGL resources	260	581	1,330	721	260	581	1,330	721
Total contingent resource[3]	**15,874**	**31,506**	**62,554**	**36,363**	**15,874**	**31,506**	**62,554**	**36,363**
Unrecoverable[2]	9,133	17,452	33,294	19,814	9,133	17,452	33,294	19,814
Total discovered OOIP	-	-	-	-	-	-	-	-
Total discovered OGIP[4]	25,007	48,959	95,849	56,177	25,007	48,959	95,849	56,177
Total discovered PIIP[4]	**25,007**	**48,959**	**95,849**	**56,177**	**25,007**	**48,959**	**95,849**	**56,177**
Prospective oil resources	135,460	198,738	288,977	207,831	135,460	198,738	288,977	207,831
Prospective gas resources	44,050	71,875	130,255	82,036	44,050	71,875	130,255	82,036
Prospective NGL resources	871	1,510	2,819	1,739	871	1,510	2,819	1,739
Total prospective resource[3]	**199,372**	**281,087**	**392,832**	**291,476**	**199,372**	**281,087**	**392,832**	**291,476**
Unrecoverable[2]	249,284	360,682	562,504	388,969	249,284	360,682	562,504	388,969
Total undiscovered OOIP	395,975	546,130	768,586	569,042	395,975	546,130	768,586	569,042
Total undiscovered OGIP	52,682	95,639	186,749	111,404	52,682	95,639	186,749	111,404
Total undiscovered PIIP[4]	**448,656**	**641,769**	**955,336**	**680,446**	**448,656**	**641,769**	**955,336**	**680,446**
Total PIIP[3]	**540,449**	**717,509**	**951,018**	**736,623**	**540,449**	**717,509**	**951,018**	**736,623**

Notes:

1) Effective June 1, 2017
2) Unrecoverable includes surface loss/shrinkage on prospective volumes
3) Value represents a stochastic sum
4) Value represents an arithmetic sum. May not add exactly due to rounding.

Summary of contingent resources by maturity subclass

Resource Subclass	P_{50} Acreage (acres)	Working interest	Gross[3]				Net attributable[3]				Risk factor[1]	Operator[2]
			Low	Best	High	Mean	Low	Best	High	Mean		
Oil & Liquids Contingent Resources per asset (Mbbl)												
Development Unclarified												
West Newton Kirkham Abbey Shoal	4,532	100%	260	581	1,330	721	260	581	1,330	721	60%	Rathlin
Total for Oil & Liquids[4] (Mbbl)			260	581	1,330	721	260	581	1,330	721		
Natural Gas Prospective Resources per asset (MMcf)												
Development Unclarified												
West Newton Kirkham Abbey Shoal	4,532	100%	93,377	184,724	368,466	214,093	93,377	184,724	368,466	214,093	60%	Rathlin
Total for Natural Gas[4] (MMcf)			93,377	184,724	368,466	214,093	93,377	184,724	368,466	214,093		

Notes: 1) "Risk Factor" for Contingent Resources, means the chance or probability that the volumes will be commercially extracted.
2) "Operator" is name of the company that operates the asset.
3) "Gross" are 100% of the reserves and/or resources attributable to the licence whilst "Net attributable" are those attributable to Rathlin Energy (UK) Limited.
4) Totals are summed stochastically.

Summary of prospective resources by maturity subclass

Resource Subclass	P_{50} Acreage (acres)	Working Interest	Gross[3]				Net attributable[3]				Risk Factor[1]	Operator[2]
			Low	Best	High	Mean	Low	Best	High	Mean		
Oil & Liquids Prospective Resources per asset (Mbbl)												
Prospect												
West Newton Kirkham Abbey Slope	1,313	100%	75	170	385	208	75	170	385	208	51%	Rathlin
West Newton Cadeby Reef	1,006	100%	41,387	75,448	136,733	83,862	41,387	75,448	136,733	83,862	26%	Rathlin
West Newton Cadeby Slope	1,803	100%	21,304	41,751	82,863	48,349	21,304	41,751	82,863	48,349	26%	Rathlin
Lead												
Ellerby Kirkham Abbey Shoal	4,815	100%	183	549	1,636	788	183	549	1,636	788	51%	Rathlin
Ellerby Cadeby Reef	470	100%	10,712	25,643	62,993	32,986	10,712	25,643	62,993	32,986	26%	Rathlin
Spring Hill Kirkham Abbey Shoal	2,427	100%	96	273	857	413	96	273	857	413	51%	Rathlin
Spring Hill Cadeby Reef	618	100%	13,760	34,118	82,384	42,963	13,760	34,118	82,384	42,963	26%	Rathlin
Total for Oil & Liquids[4] (Mbbl)			136,330	200,248	291,797	209,569	136,330	200,248	291,797	209,569		
Natural Gas Prospective Resources per asset (MMcf)												
Prospect												
West Newton Kirkham Abbey Slope	1,313	100%	27,160	53,944	105,856	61,729	27,160	53,944	105,856	61,729	51%	Rathlin
West Newton Cadeby Reef	1,006	100%	8,530	21,580	55,534	28,429	8,530	21,580	55,534	97	26%	Rathlin
West Newton Cadeby Slope	1,803	100%	4,370	11,987	33,450	16,572	4,370	11,987	33,450	54	26%	Rathlin
Lead												
Ellerby Kirkham Abbey Shoal	4,815	100%	64,079	173,959	470,613	235,019	64,079	173,959	470,613	235,019	51%	Rathlin
Ellerby Cadeby Reef	470	100%	2,364	7,454	22,976	10,924	2,364	7,454	22,976	37	26%	Rathlin
Spring Hill Kirkham Abbey Shoal	2,427	100%	32,364	86,943	252,930	124,814	32,364	86,943	252,930	124,814	51%	Rathlin
Spring Hill Cadeby Reef	618	100%	2,969	9,847	31,368	14,732	2,969	9,847	31,368	138	26%	Rathlin
Total for Natural Gas[4] (MMcf)			264,298	431,250	781,530	492,218	264,298	431,250	781,530	421,887		

Notes: 1) "Risk Factor" for Prospective Resources, means the chance or probability of discovering hydrocarbons in sufficient quantity for them to be tested to the surface (i.e. the geological chance of success). This, then, is the chance or probability of the Prospective Resource maturing into a Contingent Resource.
2) "Operator" is name of the company that operates the asset.
3) "Gross" are 100% of the reserves and/or resources attributable to the licence whilst "Net attributable" are those attributable to Rathlin Energy (UK) Limited.
4) Totals are summed stochastically and will not equal the arithmetic sum.

Conclusions

Deloitte has completed an independent assessment of eight separate projects within COGL's 100 percent owned Production Exploration and Development Licence 183.

Overall, the resources estimates originally presented by COGL to Deloitte are technically justifiable and are not materially different from the independent analysis. In most cases, differences in reported volumes are due to the statistical methodology and approach towards probabilistic aggregation. Based on COGL's company presentation, the COGL internal estimates were completed with a deterministic approach to defining the levels of certainty, whereas Deloitte employs a full probabilistic approach based on lognormal parameter distributions and Monte Carlo aggregation.

While the technical inputs are very similar, the outcome varies somewhat due to the difference in methodology.