Estimation of the Prospective Resources of the Mina El Carmen Block, Argentina for Black Gold Exploration Corp.

(As of July 15, 2023)

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Introduction

This report was prepared by Sproule International Limited ("Sproule") at the request of Mr. Daniel Buffone, President of Argentina Operations at Spinell S.A., a subsidiary of BGX - Black Gold Exploration Corp. (hereinafter the "Company" or "BGX"). The effective date of this report is July 15, 2023. The report was prepared during October and December 2021 for the purpose of assessing the potential hydrocarbon resources of Spinell S.A. 100% interest in Mina El Carmen Block in Argentina and updated in July 2023 to reflect the change of ownership to BGX. The report consisted of an estimation of the unrisked and risked best estimate prospective P&NG resources on the Company's lands.

Evaluation Scope

Resource Estimation Guidelines

The resource data presented in this report, which includes prospective resource volumes, was prepared in accordance with the Canadian Oil and Gas Evaluation Handbook (the “COGE Handbook”). The COGE Handbook is incorporated by reference in National Instrument 51-101 (“NI 51-101”).

The COGE Handbook Section 1.3.5 defines prospective resources as 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 may be further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be subclassified based on project maturity.

The prospective resources were estimated using the Company’s data, comparison with analogous fields in Argentina and North America, and volumetric calculations based on available data, including published data and Sproule’s internal files which were used to estimate all reservoir parameters.

Property

This report presents an evaluation of the prospective resources on the Company’s lands. The Company’s lands are in the Mina El Carmen Block located in Chubut Province, Argentina and are currently undeveloped. The Company’s property is at a conceptual stage of development.

Development Plan

Currently, the Company does not have a plan to develop the Mina El Carmen Block. At the request of the Company, Sproule provided recommendations regarding initial steps to be taken before creating a development plan for the Mina El Carmen Block. The initial steps will gather the geological data necessary to reduce the risk of development and to better estimate the hydrocarbon potential of the Company's lands.

Evaluation Data and Procedures

At the request of the Company, no economic evaluation was completed for the prospective P&NG resources on the Company's lands.

Sources of Data

Various data, pertinent to the evaluation of the prospective resources located on the Company's lands, were obtained from public data sources and the Company as follows:

Public sources of Data

- literature and other published information regarding hydrocarbon production in the Chubut province
- Sproule's non-confidential internal files
- analogous reservoir data from public domain

Company sources of Data

- previous study on the potential of the Mina El Carmen Block
- historical drilling and log data of the Mina El Carmen Block
- analogous well logs

Accuracy and Reliance on Data

All property descriptions, legal titles, drilling and log data of the Mina El Carmen Block and other field data that were obtained from the Company or from public sources were accepted as represented, without any further investigation by Sproule.

Investment Decisions

The prospective resource estimations provided in this report were conducted using very old and low quality data over the Company's land and some data from neighboring fields in the Chubut province, Argentina. Therefore, the results of these estimations should be used cautiously in making investment decisions.

Field Inspections

In the preparation of this evaluation, field inspections of the properties were not performed. The relevant engineering and geoscience data were obtained from the Company, from public sources and from the non-confidential files at Sproule. No material information regarding the resource evaluation would have been obtained by an on-site visit.

Evaluation Software

For this evaluation, Sproule utilized the GeoX software (version 5.8) developed by GeoKnowledge to complete the probabilistic assessment and the PRIZM module in the Geographix software suite for the petrophysical analysis. The functionality of the program is not the responsibility of Sproule, and results were accepted as calculated by the model. Sproule's responsibility is limited to the quality of the data input and reasonableness of the outcoming results.

Evaluation Results and Presentations

Evaluation Standards

This report has been prepared by Sproule using current geological and engineering knowledge, techniques, and computer software. It has been prepared within the Code of Ethics of the Association of Professional Engineers and Geoscientists of Alberta ("APEGA").

The prospective resource estimates presented in this report was prepared in accordance with the COGE Handbook. It adheres in all material aspects to the principles and definitions established by the Calgary Chapter of the Society of Petroleum Evaluation Engineers. The COGE Handbook is incorporated by reference in NI 51-101.

Report Contents

This report is included in one (1) volume which consists of an Introduction, Summary, Discussion, and Appendices. The Introduction includes the summary of evaluation standards and procedures and pertinent author certificates; the Summary includes high-level summaries of the evaluation; and the Discussion includes general commentaries pertaining to the evaluation of the prospective resources. Resource definitions, abbreviations, units and conversion factors are included in Appendices A and B, respectively.

Erroneous Data

Sproule reserves the right to review all calculations made, referred to, or included in this report and to revise the estimates as a result of erroneous data supplied by the Company or information that exists but was not made available to us, which becomes known subsequent to the preparation of this report.

Cautionary Statements

Data Quality

The accuracy of prospective resource estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data provided at the time this report was prepared, the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that the estimates are based on very old and low quality data and as additional data or reservoir evaluation information becomes available subsequent to the report effective date; then revision of the estimates may be required. These revisions may be material.

Forward-Looking Statements

The evaluation process involves modeling to reasonably predict future outcomes. Inherent in the modeling process, however, are limitations which may indirectly affect scenarios and forecasts of future events.

This report contains forward-looking statements including expectations of future production. Information concerning prospective resources may also be deemed to be forward-looking as estimates involve the implied assessment 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 actual results to differ from those anticipated. These risks include, but are not limited to: the geological and development risks, the underlying risks of the oil and gas industry (i.e., corporate commitment, regulatory approval, 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 resource estimations; the uncertainty of estimates and projections relating to production; costs and expenses; health, safety and environmental factors; commodity prices; and exchange rate fluctuation.

Equivalent Volumes

BOE's (or 'McfGE's' or other applicable units of equivalency) may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf:1 bbl (or 'An McfGE conversion ratio of 1 bbl:6 Mcf') is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

Rounding

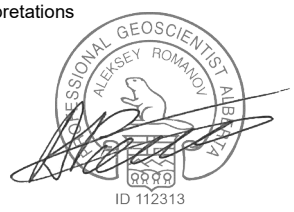
Due to rounding, certain totals may not be consistent from one presentation to the next.

Certification

Report Preparation

The report entitled “Estimation of the Prospective Resources of the Mina El Carmen Block, Argentina for Black Gold Exploration Corp. as of July 15, 2023” was prepared by the following Sproule personnel:

Project Leader
Preparation of:
Geological Interpretations



Jul. 27, 2023
Alexey Romanov, Ph.D., P. Geo.
Senior Manager, Geoscience

Preparation of:
Probabilistic Modelling

Jul. 27, 2023
Suryanarayana Karri, P.Geoph.
Petrophysical Specialist

Preparation of:
Technical Volumes

Jul. 27, 2023
Steven J. Golko, P.Eng.
Senior VP, Reservoir Services

Responsible Member Validation

This report has been reviewed and validated in accordance with the Professional Practice Management Plan of Sproule by the following Responsible Member of Sproule International Limited (APEGA Permit #: P-06151).

Meghan Klein, P.Eng.
Senior Manager, Engineering
DATE: Jul. 27, 2023 **RM APEGA ID #:** 84981

Certificate of Qualification

Alexey Romanov, Ph.D., P.Geo.

I, Alexey Romanov, Senior Manager, Geoscience of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degrees:
   a. Ph.D. Eng. (2007), Kazan State Technological University, Kazan, Russia
   b. M.Sc. Reservoir Evaluation and Management (2004), Heriot-Watt University, Edinburgh, UK
   c. M.Sc. (Honours), Petroleum Geology (2003), Kazan State University, Kazan, Russia

2. I am a registered professional:
   a. Professional Geoscientist (P.Geo.), Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Society of Petroleum Engineers (SPE)
   b. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   c. Canadian Society of Petroleum Geologists (CSPG)

4. I am a qualified reserves evaluator and reserves auditor as defined in:
   a. the “Canadian Oil and Gas Evaluation Handbook” as promulgated by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and,
   b. the “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information” as promulgated by the Society of Petroleum Engineers and incorporated into the “Petroleum Resource Management System” (SPE-PRMS).

5. My contribution to the report entitled “Estimation of the Prospective Resources of the Mina El Carmen Block, Argentina for Black Gold Exploration Corp. as of July 15, 2023” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule.

6. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Spinell S.A. or Black Gold Exploration Corp.

Jul 27, 2023

Alexey Romanov, Ph.D., P.Geo.

Certificate of Qualification

Suryanarayana Karri, P.Geoph.

I, Suryanarayana Karri, Petrophysical Specialist of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degrees:
   a. M.Sc. Engineering Physics and Instrumentation (1983), Osmania University, Hyderabad, India

2. I am a registered professional:
   a. Professional Geophysicist (P.Geoph.), Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Society of Petroleum Engineers (SPE)
   c. The Society of Petrophysicists and Well Log Analysts (SPWLA)
   d. American Association of Petroleum Geologists (AAPG)

4. I am a qualified reserves evaluator and reserves auditor as defined in:
   a. the “Canadian Oil and Gas Evaluation Handbook” as promulgated by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and,
   b. the “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information” as promulgated by the Society of Petroleum Engineers and incorporated into the “Petroleum Resource Management System” (SPE-PRMS).

5. My contribution to the report entitled “Estimation of the Prospective Resources of the Mina El Carmen Block, Argentina for Black Gold Exploration Corp. as of July 15, 2023” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule.

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Jul 27, 2023

Suryanarayana Karri, P.Geoph.

Certificate of Qualification

Steven J. Golko, P.Eng.

I, Steven J. Golko, Senior VP, Consulting Services of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degree:
   a. B.Sc. Petroleum Engineering (2006), University of Alberta, Edmonton AB, Canada

2. I am a registered Professional:
   a. Professional Engineer (P.Eng.) Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Society of Petroleum Engineers (SPE)
   c. Society of Petroleum Evaluation Engineers (SPEE)

4. I am a qualified reserves evaluator and reserves auditor as defined in:
   a. the “Canadian Oil and Gas Evaluation Handbook” as promulgated by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and,
   b. the “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information” as promulgated by the Society of Petroleum Engineers and incorporated into the “Petroleum Resource Management System” (SPE-PRMS).

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Steven J. Golko, P.Eng.

Certificate of Qualification

Meghan Klein, P.Eng.

I, Meghan M. Klein, Senior Manager, Engineering of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degree:
   a. B.A.Sc. Geological Engineering (2005), University of Waterloo, Waterloo, ON, Canada

2. I am a registered professional:
   a. Professional Engineer (P.Eng.), Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Society of Petroleum Engineers (SPE)

4. I am a qualified reserves evaluator and reserves auditor as defined in:
   a. the “Canadian Oil and Gas Evaluation Handbook” as promulgated by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and,
   b. the “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information” as promulgated by the Society of Petroleum Engineers and incorporated into the “Petroleum Resource Management System” (SPE-PRMS).

5. My contribution to the report entitled “Estimation of the Prospective Resources of the Mina El Carmen Block, Argentina for Black Gold Exploration Corp. as of July 15, 2023” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule.

6. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Spinell S.A. or Black Gold Exploration Corp.

Meghan M. Klein, P.Eng.

Summary

This report consists of the evaluation of the unrisked and risked Prospective P&NG Resources in the Mina El Carmen Block, Argentina for Black Gold Exploration Corp.

The resource definitions and ownership classification used in this evaluation are the standards defined by the COGE Handbook reserve and resource definitions and are consistent with NI 51-101. The COGE Handbook Section 1.3.5 defines prospective resources as 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.

The scope of work was to assess the unrisked and risked potential hydrocarbon resources of the Company's interests in the Mina El Carmen Block in Argentina. The detailed work included:

- undertake a review of all available data provided by the Company such as well logs, well files, geological maps, test results, core analyses for the Mina El Carmen Block; and the well logs and maps for the neighboring gas fields;
- review existing regional studies, internet search materials, and data to find the best analogues;
- review the geological work performed by other evaluators, including the area structural concept and seismic interpretations;
- determine the ranges of the reservoir parameters (i.e. net pay, porosity, water saturation) and aerial extent of potential prospects;
- build probabilistic models using GeoX software by Schlumberger to estimate the unrisked Low, Best and High undiscovered petroleum initially in place;
- estimate the range of recovery factors for the probabilistic recoverable volume estimate runs;
- estimate the geological chance of success (GCoS) risk factor;
- estimate the Mean risked Company-interest prospective resources;
- estimate chance of development (COD) risk and thus chance of commerciality (COC) risk (product of GCoS and COD).

This report includes estimates of the prospective gas and oil resources in the Mina El Carmen Block, Argentina. The Company interest estimates of Petroleum Initially-in-Place and prospective resources in this block per prospect and aggregated for gas and oil are present in Table S-1 below. Note that the Company working interest in Mina El Carmen Block shown is 100 percent, representing the working interest at July 15, 2023.

Table S-1
Company Interest Low, Best, and High Estimates of Undiscovered PIIP and Prospective Resources in Mina El Carmen Block, Argentina
(as of July 15, 2023)

Gross Volumes (100% WI)

Prospect	Fluid Type[7,8]	Undiscovered Petroleum Initially-In-Place (UPIIP) [9]			Prospective Resources [4]			
		Unrisked			Unrisked			Risked[5,6]
		Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Best[2]
Prospect 1	Raw Gas (MMcf)	478.3	1392.0	2614.0	351.9	1044.4	1982.3	219.3
Prospect 2	Raw Gas (MMcf)	790.3	1529.7	2445.3	582.3	1147.4	1859.3	241.0
Prospect 3	Raw Gas (MMcf)	105.8	522.6	1151.2	78.5	392.3	860.0	82.4
Prospect 4	Raw Gas (MMcf)	621.4	1514.3	2673.3	462.2	1135.8	2009.5	238.5
Prospects 5	Oil (Mbbl)	661.9	2902.2	6187.4	105.5	522.7	1119.8	109.8
Prospects 6	Oil (Mbbl)	596.4	2118.8	4264.0	94.7	381.9	786.0	80.2

Probabilistically Aggregated Gross Volumes (100% WI)

Prospects	Fluid Type[7,8]	Undiscovered Petroleum Initially-In-Place (UPIIP) [9]			Prospective Resources [4]			
		Unrisked			Unrisked			Risked[6]
		Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Best[2]
Prospect 1, 2, 3, 4	Raw Gas (MMcf)	3,138.1	4,924.	7,028.9	2,332.7	3,698.	5,288.9	776.6
Prospect 5, 6	Oil (Mbbl)	1,883.7	4,957.1	9,081.1	302.7	891.1	1,689.6	187.1

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Prospective Resources are sub-classified as Prospective - Prospects (Risked = Best*21%)

(5) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the geological chance of success

(6) Risked: A 21 percent geological chance of success (79 percent chance of no discovery)

(7) Oil resources are presented in **thousands of barrels**

(8) Gas (raw) resources are presented in **millions of cubic feet before processing (i.e., shrinkage and natural gas liquid recovery)**

(9) UPIIP represents that quantity of petroleum that is estimated, as of July 15, 2023, to be contained in accumulations yet to be discovered

All undiscovered in place or prospective oil resources in this report are presented in thousands of barrels of oil and all undiscovered in place or prospective gas resources are presented in millions of cubic feet of raw gas, respectively.

Discussion

Lands

The Company's Mina El Carmen Block in Argentina is located in the province of Ghubut, about 30 km north of Comodoro Rivadavia city, as shown in Figure 1. Geologically, it is located on the northern flank of the Golfo San Jorge Basin. The Mina El Carmen Block is approximately 4,800 acres in size.

Geological Evaluation

The prospective resource estimates in this report are based on the work conducted by Sproule, details of which are described below. After reviewing and analyzing all available data, Sproule created a conceptual structure model to determine potential hydrocarbon traps withing the block. Using the well data from Mina El Carmen Block and analogue fields, Sproule estimated the ranges of reservoir parameters and used probabilistic method to estimate the potential initial volumes of gas and oil in place (undiscovered PIIP).

Geological Setting

The Golfo San Jorge Basin, located in the central part of Patagonia, was the first basin to be developed commercially and is the most prolific hydrocarbon producing basin in Argentina. One-third of its areal extent, estimated at 180,000 km^2, is located offshore. The first commercial oil well was drilled in 1907 near Comodoro Rivadavia city. Since 1907 more than 35,000 wells have been drilled in the basin, out of which nearly 1,650 are onshore exploratory wells and only 26 are located offshore (Claudio A. Sylwan at el, 2008)[1].

The Golfo San Jorge Basin is a Jurassic to Tertiary in age intracratonic, mainly extensional basin. Normal faults are the most common and control the most economically important traps basin wide. They usually show rollovers in the downthrown blocks while 4-way closures in the upthrown blocks are less common. Faulted and tilted blocks with closures against faults represent effective traps. Horst structures, limited by opposite dipping normal faults are likely related to the near presence of half graben structures (Claudio A. Sylwan, 2001)[2].

After the discovery of oil in the northern flank of the basin in 1907, the geological studies in the other portions of the basin (i.e. southern flank, western sector) resulted in a stratigraphic nomenclature which is not homogeneous for the entire basin, though, some of the major units are recognized under the same name in the whole basin. The stratigraphic column shown in Figure 2, is a synthesis of the nomenclature of the basin, according to the geographic sector of occurrence.

The wells in Mina El Carmen Block penetrated the following deposits (starting from the oldest):

- So called **"Economical Basement"** which consists mainly of Middle to Late Jurassic volcanics, volcanoclastics and to a lesser degree, sedimentary rocks. Regionally, this complex is interbedded with marine sediments to the west, while it interfingers with continental deposits to the east;
- **Pozo D-129 Formation** which is dominated by generally small sized clastics. The depositional environment grades from deep lacustrine to fluvial. Deep lacustrine environments are represented by dark to black shales and mudstones with high organic content, which are the most important source rock for hydrocarbon in the basin;
- **Mina El Carmen Formation** which is dominated by sandstones of fluvio-deltaic depositional environments, thin and showing an irregular distribution;
- **Comodoro Rivadavia Formation** with lithological composition characterized by the presence of white lithic tuffs, greyish white sandstones and conglomerate with volcanic clasts and quartz, tuffaceous sandstones and red and yellow shales;
- **San Diego and Valle "C" Members** of the Yacimiento El Trebol Formation dominated by abundant sandstones, thought to have been deposited by deltaic fans;
- **Glauconitico Member** of the Salamanka Formation which represents the first Tertiary marine transgression from the Atlantic in the Golfo San Jorge Basin and contains a glauconitic sandstone layer that produce hydrocarbons in the northern flank of the basin;
- **Pehuenche (Rio Chico) Formation** which consists mainly of multicolored shales, fine tuffs, tuffaceous sandstones and conglomerates.

Sproule's Resource Estimation

Sproule used a probabilistic method to estimate the prospective resources within the Mina El Carmen Block. The ranges of area and all reservoir parameters including net thickness, porosity, water saturation and formation volume factor were input as distributions and were estimated by Sproule using all available data including well logs and well files in the block, and data from the public domain. The P_{90}, P_{10}, P_{50} and Mean values for each reservoir parameter were estimated from these distributions and were used as inputs for the probabilistic analysis of hydrocarbons in place. To estimate the recoverable volumes (prospective resources), Sproule used the ranges of recovery factors as inputs for the probabilistic runs. The chance of discovery or geological chance of success (GCoS) was also estimated to facilitate estimation of the risked prospective resources (for the mean volumes only). Finally, Sproule estimated the chance of commerciality (product of the chance of development and GCoS).

As was mentioned above, the ranges of all reservoir parameters were estimated using interpreted distributions. The low and high end of each distribution were checked for reasonableness and adjusted if needed. The input parameters and distribution types used in the probabilistic modeling are outlined in Table 1. The geological interpretation and determination of the geological parameters are discussed in more detail in following section.

Table 1
Input Parameters for the Probabilistic Model of the Mina El Carmen Block in Argentina
(as of July 15, 2023)

Prospects	Parameter	Distribution Type	P90	Mean	P10	Data Source
Prospect 1 Gas	Area (ac)	LNP1P99	95.8	205.8	347.6	Estimates
	Net Reservoir Thickness (m)	LNP1P99	3.1	5.4	8.1	Logs
	Porosity (%)	LN2HiLo	17.1	20.9	25.0	Analogue, logs
	Gas Saturation (%)	StrBeta	62.4	73.1	83.0	Analogue
	Gas Formation Factor, Bg (scf/scf)	NormMS	0.0212	0.0175	0.015	Estimates
	Recovery Factor, Gas (%)	Normal_P99_P1	66.3	75.0	83.7	Analogue
Prospect 2 Gas	Area (ac)	LNP1P99	77.3	113.6	155.5	Estimates
	Net Reservoir Thickness (m)	LNP1P99	7.8	11.5	15.6	Logs
	Porosity (%)	LN2HiLo	16.5	19.6	22.9	Analogue, logs
	Gas Saturation (%)	StrBeta	62.4	73.1	83.0	Analogue
	Gas Formation Factor, Bg (scf/scf)	NormMS	0.0212	0.0175	0.015	Estimates
	Recovery Factor, Gas (%)	Normal_P99_P1	66.3	75.0	83.7	Analogue
Prospect 3 Gas	Area (ac)	LNP1P99	92.6	186.0	305.7	Estimates
	Net Reservoir Thickness (m)	LNP1P99	0.6	2.2	4.5	Logs
	Porosity (%)	LN2HiLo	17.1	20.9	25.0	Analogue, logs
	Gas Saturation (%)	StrBeta	62.4	73.1	83.0	Analogue
	Gas Formation Factor, Bg (scf/scf)	NormMS	0.0212	0.0175	0.015	Estimates
	Recovery Factor, Gas (%)	Normal_P99_P1	66.3	75.0	83.7	Analogue
Prospect 4 Gas	Area (ac)	LNP1P99	97.5	217.0	372.3	Estimates
	Net Reservoir Thickness (m)	LNP1P99	5.6	6.5	7.5	Logs
	Porosity (%)	LN2HiLo	15.6	17.7	20.0	Analogue, logs
	Gas Saturation (%)	StrBeta	62.4	73.1	83.0	Analogue
	Gas Formation Factor, Bg (scf/scf)	NormMS	0.0212	0.0175	0.015	Estimates
	Recovery Factor, Gas (%)	Normal_P99_P1	66.3	75.0	83.7	Analogue
Prospect 5 Oil	Area (ac)	LNP1P99	44.3	187.4	397.8	Estimates
	Net Reservoir Thickness (m)	LNP1P99	5.6	6.5	7.5	Logs
	Porosity (%)	LN2HiLo	18.8	19.4	20.0	Analogue, logs
	Oil Saturation (%)	StrBeta	49.7	60.0	70.3	Analogue
	Oil Formation Factor, Bo (bbl/STB)	NormMS	1.23	1.25	1.27	Estimates
	Recovery Factor, Oil (%)	Normal_P99_P1	11.1	18.0	25.0	Analogue
Prospect 6 Oil	Area (ac)	LNP1P99	40.2	136.9	274.5	Estimates
	Net Reservoir Thickness (m)	LNP1P99	5.6	6.5	7.5	Logs
	Porosity (%)	LN2HiLo	18.8	19.4	20.0	Analogue, logs
	Oil Saturation (%)	StrBeta	49.7	60.0	70.3	Analogue
	Oil Formation Factor, Bo (bbl/STB)	NormMS	1.23	1.25	1.27	Estimates
	Recovery Factor, Oil (%)	Normal_P99_P1	11.1	18.0	25.0	Analogue

Determination of Prospects

The drilling in the Mina El Carmen Block started in 1928 with the drilling of C-1 well and finished in 1944 when the wells C-11 and C-12 were drilled. The location of the wells is shown in Figure 1. No tested or produced hydrocarbons were recorded within the block. Gas shows were indicated on the lithological logs in C-4 and C-5 wells in the Glauconitico zone, and water with gas was mentioned in the well C-1 in San Diego zone. Also, in the C-12 well, log interpretation showed the potential presence of oil in Mina El Carmen zone.

The only well tested within the Mina El Carmen Block was C-11, in which every sandy interval was perforated with no hydrocarbon flow reported. The C-12 well was cored in each sand (except in the Mina El Carmen zone), but no hydrocarbons were present in the core. As a result, the drilling was abandoned in the block, although there was a production from the Glauconitico zone in the Mina Salamanca gas field located about six kilometers to the southwest of the Mina El Carmen Block.

Sproule correlated and picked the tops of the zones in all available logs in the block, either wireline or lithological. Due to very old vintage and low quality data, those tops are not precise but were used regardless to build a structure model in the block. Table 2 showing tops for the major zones is presented below.

Table 2

Tops of Major Zones Used in Evaluation on Mina El Carmen Block

Well	C-1		C-2		C-3		C-4		C-5		C-6		C-7		C-8		C-9		C-10		C-11		C-12	
Zone	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**	**MD, m**	**SS, m**
Base Pehuenche	134	37.6	127.8	39.6	149.2	41.5	175.8	41.6	171	32.2	236	21.8	108	41.6	471	88.4	474	71.1	175	87.8	237	73	130	42
Top Glauconitico	140	-140	146.6	-147	151.3	-151	155.2	-155	110.3	-110	152.2	-152	153.2	-153	120.6	-121	90.9	-90.9	78.2	-78.2	87	-87	143	-143
Base Valle "C"	298.4	-298.4									295.2	-295	270.4	-270	237.2	-237	198.9	-199	187.2	-187.2	205	-205	295	-295
Top San Diego	383.4	-383.4									375.2	-375	328.4	-328	303.1	-303	240.9	-241	252.2	-252.2	262	-262	373	-373
Base San Diego	637.4	-637.4									606.7	-607	454.4	-454					474.2	-474.2	470	-470	613	-613
Top Mina Del Carmen																			673.2	-673.2	755	-755	928	-928
Base Mina Del Carmen																					790	-790	961	-961
Top Pozo D-129																							1023	-1023
Base Pozo D-129																								
"Economical Basement"																					805	-805		
TD	772.6	-772.6	177.1	-177	177.3	-177	179.4	-179	168.3	-168	631.2	-631	518.4	-518	357.6	-358	338.9	-339	717.2	-717.2	945	-945	1103	-1103
Alt.	**171.6**		**167.4**		**190.7**		**217.4**		**203.2**		**257.8**		**149.6**		**559.4**		**545.1**		**262.8**		**310**		**172**	

Based on a few available wireline logs in the Mina El Carmen Block, Sproule grouped the sand intervals into the sand packages for which the prospects were identified. These sand packages were made the main targets for assessment of the Mina El Carmen area. They are:

- Glauconitico and Valle “C” (G+VC)
- San Diego (SD)
- Mina El Carmen (MEC)

The example of log showing the tops of the targets is shown in Figure 3.

Using correlated tops of the zones in the wells, Sproule built the structural model introducing, where necessary, the normal faults to compensate the missing intervals in the wells or changes in sub-sea depth of the zone tops between the wells. This was achieved by building cross sections in different directions. Two important cross sections running SW-NE and S-N are shown in Figures 4 and 5.

Sproule considered potential hydrocarbon traps within the block which formed by the normal faults with the reservoir rock (sand) juxtaposed against the impermeable rock (shale). Based on structural interpretation, as shown in Figures 4 and 5, six prospects (numbered 1 through 6) were identified in the Mina El Carmen Block. Four prospects were assessed for gas and the other two for oil accumulations. Three gas prospects (1 through 3) are in the G+VC package, one gas prospect (#4) is in the SD package, and two oil prospects (5 and 6) are in the MEC package.

For each prospect, Sproule estimated the ranges of area extent and reservoir parameters which were used to estimate petroleum initial-in-place (PIIP) and prospective resources.

Area

There is no seismic coverage over the Mina El Carmen Block. To estimate the area ranges for gas prospects, Sproule built the structure maps on the top of Glauconitico and San Diego zones (Figures 6 and 7). Due to limited well control, no structure map for the MEC zone was created. The maximum areas (P_1) were calculated within a fault block of the licence area, truncated by the highest structure level of known reported water in any well (Figures 8 and 9). The minimum area (P_{99}) was estimated to be 60 acres from a spacing unit in the near-by producing Mina Salamanca gas field. For oil prospects, the minimum area (P_{99}) was set at 20 acres based on Sproule’s experience, while the maximum areas (P_{01}) were calculated to be entire fault blocks within the licence area (Figure 10). P_{10}, P_{50} and P_{90} values of area extent were estimated using lognormal distribution.

Net Reservoir Thickness

To estimate the net reservoir thickness ranges, Sproule conducted an independent petrophysical analysis of five wells, namely C-7, C-9, C-10, C-11, and C-12, with digital well log data. The Glauconitico, Valle C, San Diego and Mina El Carmen sandstone intervals were analyzed. These wells are of older vintage dating back to the 1940’s and hence the log data consisted of only resistivity and spontaneous potential (SP). The

petrophysical analysis with limited logs is a challenge in determining reasonable reservoir parameters for porosity and shale volume for these wells.

The volume of shale was estimated from the SP log using the following equation:

$$Vsh_{SP} = 0 < \frac{(SP - SP_{clean})}{(SP_{shl} - SP_{clean})} < 1$$

Where, Vsh_{SP} is the volume of shale from the Spontaneous Potential log. The term *SP* is the measured Spontaneous Potential value of the formation in millivolts, SP_{clean} is the clean matrix Spontaneous Potential value, SP_{shl} is the Spontaneous Potential value in shale. Since only the SP log is available, it is used as a proxy to identify porous intervals and an approximate porosity was estimated using the following equation:

$$\phi_e = 0 < \frac{\phi_{\max}(SP - SP_{shale})}{SP_{clean} - SP_{shale}} < \phi_{\max}$$

Where, φ_e is the effective porosity (PHIE), φ_{max} is the maximum expected porosity from the local knowledge (varied by reservoir zone), *SP* is the spontaneous potential value in millivolts, SP_{clean} is the spontaneous potential value in a clean sandstone, and SP_{shale} is the spontaneous potential values in a shale. The effective porosity values computed carry a large uncertainty.

The net reservoir was estimated using a volume of shale cut-off of 50 percent and an effective porosity cut-off of 10 percent. The ranges of net thickness were determined from petrophysical evaluation as observed minimum and maximum net reservoirs in evaluated wells for particular height of each trap for each zone.

Porosity

To estimate the porosity ranges, Sproule use the calculated porosities in the wells with available digital data as was described above. The lowest observed porosities in evaluated wells for a particular height of each trap for each zone were set as the minimum values. The highest calculated porosities were set at P_{10} values as based on some limited data from the Mina Salamanca field and general knowledge; Sproule believes that the maximum porosity could be higher and reflected it in the P_{10}-P_{01} range.

Gas/Oil Saturation

It is very challenging to estimate reliable water saturation (Sw) values using very old and low quality well log data. To build a saturation distribution, Sproule used internal data and general knowledge of similar deposits and set up the minimum and maximum water saturations for the gas prospects at 10 and 50 percent (90 and 50 percent of gas saturation), and for the oil prospects at 20 and 60 percent of Sw (or 80 and 40 percent of oil saturation).

Formation Volume Factor

To estimate the formation volume factor for gas (Bg), Sproule used the pressure and temperature gradients for the northern flank of Golfo San Jorge Basin, found in literature, and calculated the ranges of potential formation pressure and temperature using the depth ranges of each sand packages (G+VC and SD). The gas compressibility factor was estimated using Brill and Beggs correlation.

To estimate the formation volume factor for oil (Bo), Sproule used data found in literature about the oil pools in the Golfo San Jorge Basin. Assuming normal pressure reservoir with low GOR oil of 15-30 API, Sproule estimated the range of Bo between 1.2 and 1.3.

Recovery Factor

The recovery factor ranges for gas and oil were estimated using analogous data and Sproule's general knowledge of similar pools in North America taking in consideration the depth, reservoir property, type of hydrocarbon and presence of formation water. For the maximum value of oil recovery, the use of waterflood application was assumed. The range of recovery factors for gas was estimated at 60 to 90 percent, while the range of recovery factors for oil was estimated at 6 to 30 percent.

Gas Surface Loss

Note that gas-in-place volumes and prospective resources are presented in cubic feet of raw gas. No surface loss was applied to raw gas volumes.

Geological Chance of Success

The chance of discovery is defined as the estimated probability that exploration activities will confirm the existence of a significant accumulation of potentially recoverable petroleum. The prospects on Company's Mina El Carmen Block carry high risk mostly due to negative results during the exploration drilling in the block. The data adequacy assessment matrix (Figure 11), proposed by Rose and Associates, was employed to estimate the risk for each geologic parameter. Probabilities were assigned for each exploration geology component. Although the reservoir presence and reservoir quality are proved within the block through the well logs and core data, the presence of traps and, to some degree, hydrocarbon migration have low certainty and carry risk. The resultant geological chance of success value was estimated to be 21 percent, as summarized in Table 3 below.

Table 3 Estimation of the Geological Chance of Success (GCoS)					
Prospects	**Trap and Seal[1]**	**Reservoir Presence[2]**	**Reservoir Quality[3]**	**Source and Migration[4]**	**GCoS**
1, 2, 3, 4, 5, 6	0.3	1	1	0.7	0.210

1) Trap and Seal [fraction] is the probability that the trap area and top-seal conditions are sufficient to contain at least one accumulation in the play with minimum hydrocarbon volume or more.

2) Reservoir Presence [fraction] is the probability that the reservoir thickness condition is sufficient to contain at least one accumulation with minimum hydrocarbon volume or more.

3) Reservoir Quality [fraction] is the probability that the reservoir condition is of sufficient quality to allow recovery of minimum hydrocarbon volumes or more from at least one accumulation.

4) Source and Migration [fraction] is the probability that the source richness, maturation, migration and timing conditions are sufficient to charge at least one accumulation with the minimum recoverable hydrocarbon volume or more.

Prospective Resource Assessment

There is a great deal of uncertainty in the ranges of some basic reservoir parameters, such as area, net hydrocarbon pay thickness, fluid composition and water saturation. In the event of a discovery, the actual values may vary significantly from those estimated by Sproule, affecting the volume of hydrocarbon estimated to be present. Some other factors, such as gas composition, density and oil viscosity, may affect the volume of oil or gas that can be recovered. Recovery of the resources may also be affected by well performance, reliability of production and process facilities.

Sproule has assessed the prospective resources in the Mina El Carmen Block using probabilistic models developed in GeoX. Table 4 below presents the unrisked undiscovered petroleum initially-in-place and also the unrisked prospective resources in the block for both gas (prospects 1 through 4) and oil (prospects 5 and 6). In the table, the volumes in place and prospective resources are shown for each prospect, and also for aggregated gas and oil prospects, respectively. The mean values of oil and gas prospective resources were risked using the estimated geological chance of success. Note that the Company interest for the Mina El Carmen Block shown is 100 percent.

Table 4
Low, Best, and High Estimates of Undiscovered PIIP and Prospective Resources for International Iconic Gold Exploration Corp. in Mina El Carmen Block, Argentina
(as of July 15, 2023)

Gross Volumes (100% WI)

Prospect	Fluid Type[7,8]	Undiscovered Petroleum Initially-In-Place (UPIIP)[9]			Prospective Resources[4]			
		Unrisked			Unrisked			Risked[5,6]
		Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Best[2]
Prospect 1	Raw Gas (MMcf)	478.3	1392.0	2614.0	351.9	1044.4	1982.3	219.3
Prospect 2	Raw Gas (MMcf)	790.3	1529.7	2445.3	582.3	1147.4	1859.3	241.0
Prospect 3	Raw Gas (MMcf)	105.8	522.6	1151.2	78.5	392.3	860.0	82.4
Prospect 4	Raw Gas (MMcf)	621.4	1514.3	2673.3	462.2	1135.8	2009.5	238.5
Prospects 5	Oil (Mbbl)	661.9	2902.2	6187.4	105.5	522.7	1119.8	109.8
Prospects 6	Oil (Mbbl)	596.4	2118.8	4264.0	94.7	381.9	786.0	80.2

Probabilistically Aggregated Gross Volumes (100% WI)

Prospects	Fluid Type[7,8]	Undiscovered Petroleum Initially-In-Place (UPIIP)[9]			Prospective Resources[4]			
		Unrisked			Unrisked			Risked[6]
		Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Best[2]
Prospect 1, 2, 3, 4	Raw Gas (MMcf)	3,138.1	4,924.	7,028.9	2,332.7	3,698.	5,288.9	776.6
Prospect 5, 6	Oil (Mbbl)	1,883.7	4,957.1	9,081.1	302.7	891.1	1,689.6	187.1

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Prospective Resources are sub-classified as Prospective - Prospects (Risked = Best*21%)

(5) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the geological chance of success

(6) Risked: A 21 percent geological chance of success(79 percent chance of no discovery)

(7) Oil resources are presented in **thousands of barrels**

(8) Gas (raw) resources are presented in **millions of cubic feet before processing (i.e., shrinkage and natural gas liquid recovery)**

(9) UPIIP represents that quantity of petroleum that is estimated, as of July 15, 2023, to be contained in accumulations yet to be discovered

These resources have not yet been discovered and there is no certainty that any portion will be discovered. Even if discovered, there is no certainty that it will be commercially viable to produce any portion of the resources.

Engineering Evaluation

Chance of Development Risk and Chance of Commerciality

The chance of development risk factor was estimated by Sproule by identifying the key non-technical contingencies specific to the Company's potential project assuming a discovery is made and assigning a probability that each will be overcome to facilitate the project proceeding. The non-technical contingencies, the chance of resolving each contingency and the aggregate chance of development risk factor are detailed in Table 5 below. The key non-technical contingencies are Infrastructure and Market Access and Social License.

Table 5
Chance of Development Risk Factor
(as of July 15, 2023)

Contingencies	Chance of Development
Regulatory Approval	1
Economic Factors	0.4
Corporate Commitment	0.5
Market Access	1
Political Factors	0.9
Social License	0.95
Aggregate Chance of Development	**0.171**

Prospective resources carry the risk related to chance of discovery or geological chance of success (GCoS), as well as the chance of development (CoD) if a discovery is made, as described above. Sproule estimated the chance of discovery of the prospective resources to be 21 percent (Table 3). Combined with the above chance of development risk (17.1 percent), a 3.6 percent chance of commerciality (CoC) should be applied to the unrisked best estimate prospective resources volumes to reflect the risked for chance of commerciality prospective resources.

Thus, the Company interest best estimate risked prospective resources volumes (risked for both GCoS and CoD) in the Mina El Carmen Block were estimated to be in total 132.8 million cubic feet of raw gas and 32 thousand barrels of oil, as shown in Table 6 below.

Table 6
Company Interest Estimates of Risked for the Chance of Commerciality Prospective Resources in Mina El Carmen Block, Argentina
(as of July 15, 2023)

Prospect	Fluid Type[8,9]	Undiscovered Petroleum Initially-In-Place (UPIIP)[10]			Prospective Resources [4]				
		Unrisked			Unrisked			Risked[5,6] for GCoS	Risked[7] for CoC
		Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Best[2]	Best[2]
Prospect 1	Raw Gas (MMsf)	478.3	1392.0	2614.0	351.9	1044.4	1982.3	219.3	37.5
Prospect 2	Raw Gas (MMcf)	790.3	1529.7	2445.3	582.3	1147.4	1859.3	241.0	41.2
Prospect 3	Raw Gas (MMcf)	105.8	522.6	1151.2	78.5	392.3	860.0	82.4	14.1
Prospect 4	Raw Gas (MMcf)	621.4	1514.3	2673.3	462.2	1135.8	2009.5	238.5	40.8
Probabilistically Aggregated Prospects 1, 2, 3, 4	Raw Gas (MMcf)	3138.1	4924.0	7028.9	2332.7	3698.0	5288.9	776.6	132.8
Prospect 5	Oil (Mbbl)	661.9	2902.2	6187.4	105.5	522.7	1119.8	109.8	18.8
Prospects 6	Oil (Mbbl)	596.4	2118.8	4264	94.7	381.9	786.0	80.2	13.7
Probabilistically Aggregated Prospects 5, 6	Oil (Mbbl)	1883.7	4957.1	9081.1	302.7	891.1	1689.6	187.1	32.0

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Prospective Resources are sub-classified as Prospective - Prospects (Risked = Best*21%)

(5) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the geological chance of success

(6) Risked for GCoS: A 21 percent geological chance of success (79 percent chance of no discovery)

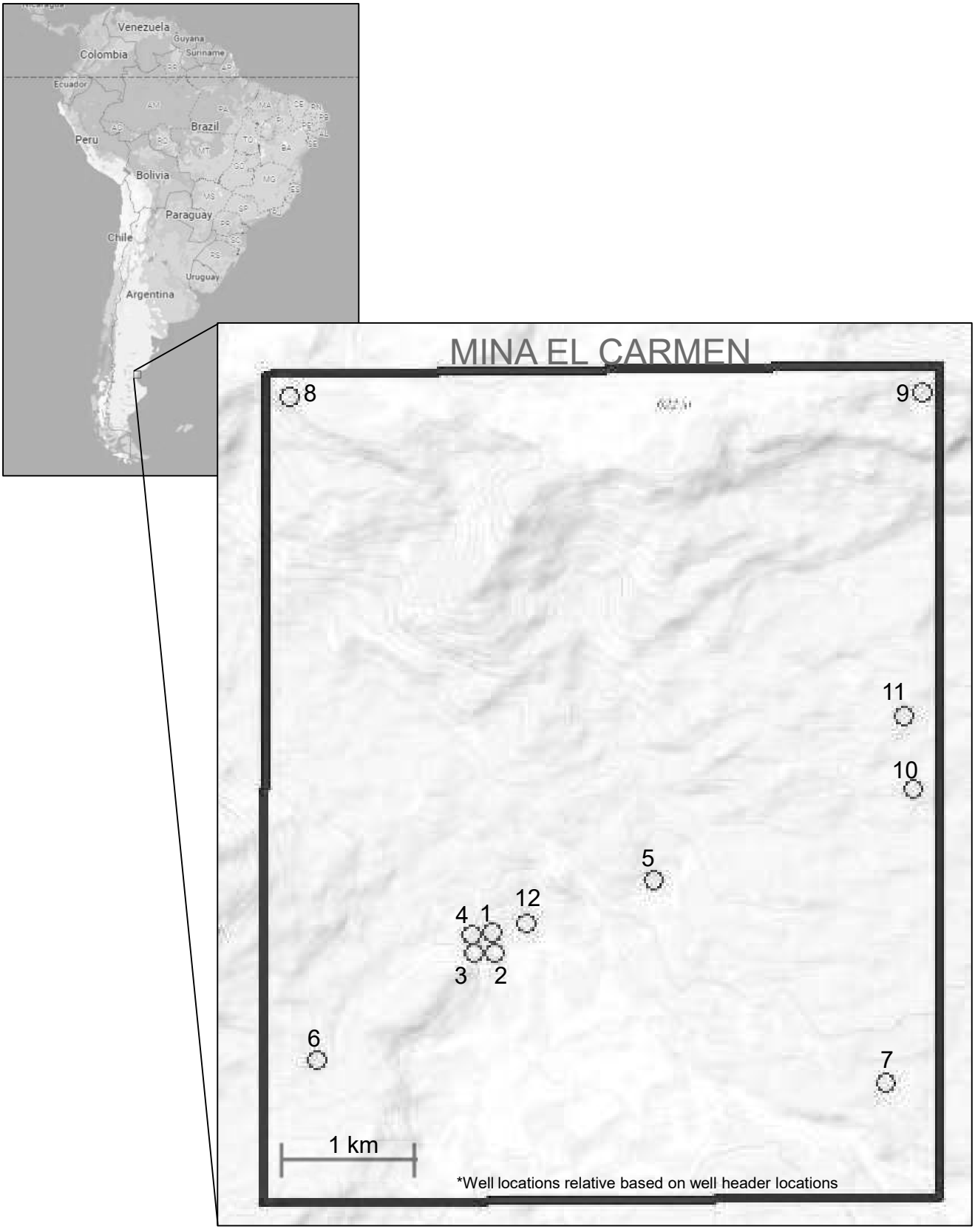
(7) Risked for CoC: A 3.6 percent chance of commerciality (combined geological chance of success and chance of development; CoC=GCoS*CoD or 21%*17.1%=3.6%)

(8) Oil resources are presented in thousands of barrels

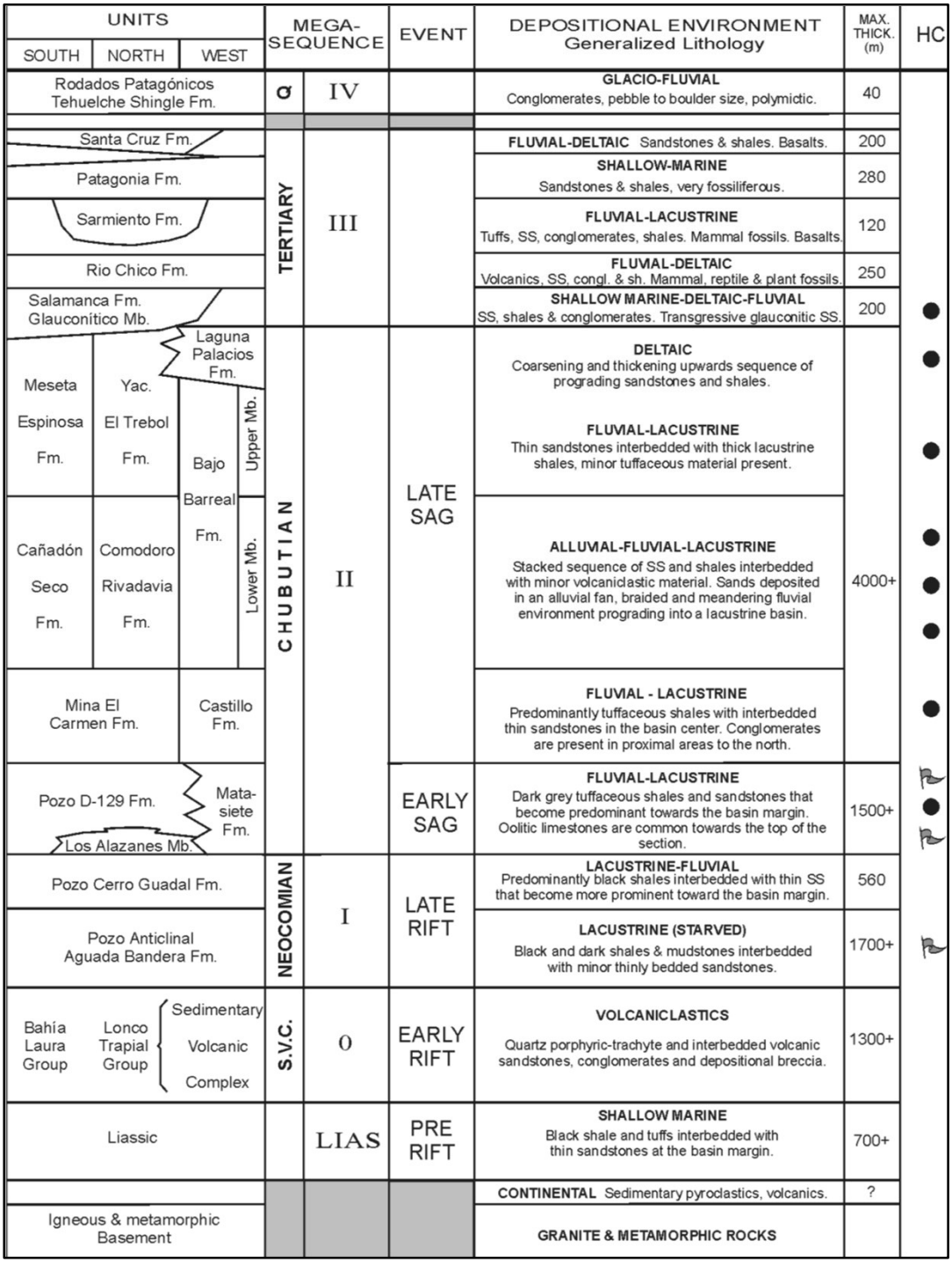
(9) Gas (raw) resources are presented in millions of cubic feet before processing (i.e., shrinkage and natural gas liquid recovery)

(10) UPIIP represents that quantity of petroleum that is estimated, as of July 15, 2023, to be contained in accumulations yet to be discovered

These resources have not yet been discovered and there is no certainty that any portion will be discovered. Even if discovered, there is no certainty that it will be commercially viable to produce any portion of the resources.

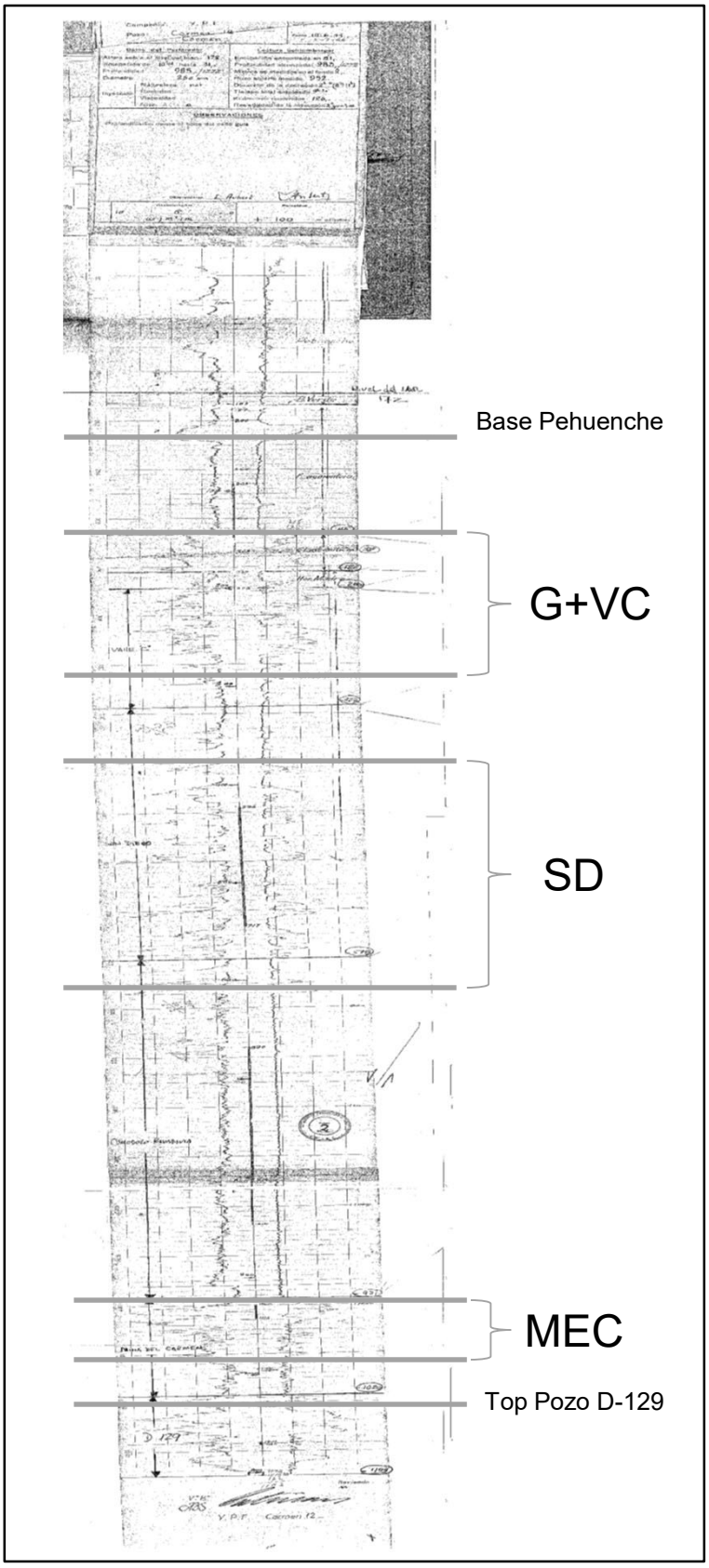


Map of Mina El Carmen Block in Argentina



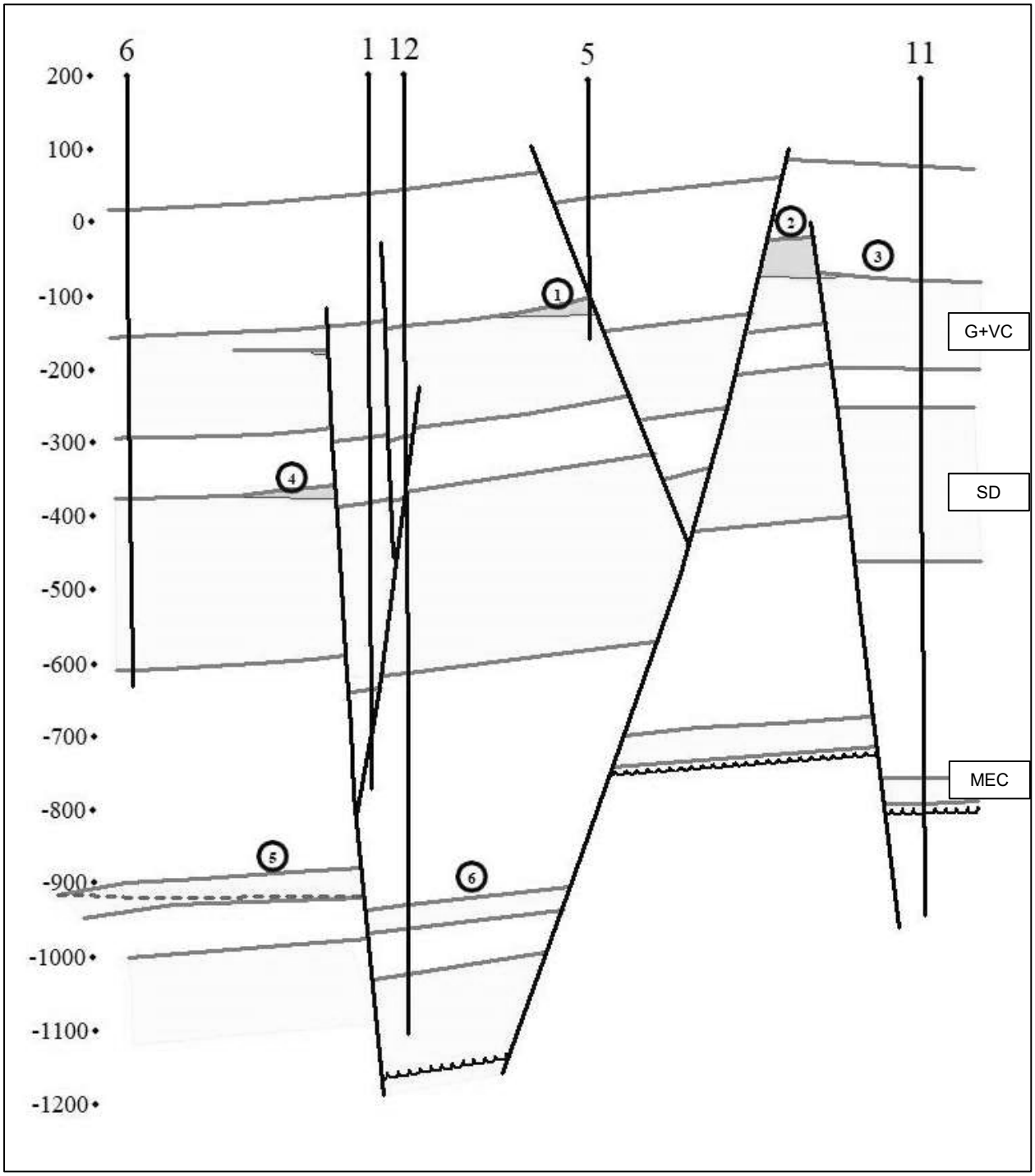
Source: Sylwan, 2001

Stratigraphic Chart of the Golfo San Jorge Basin



Target Zones in C-12 Well

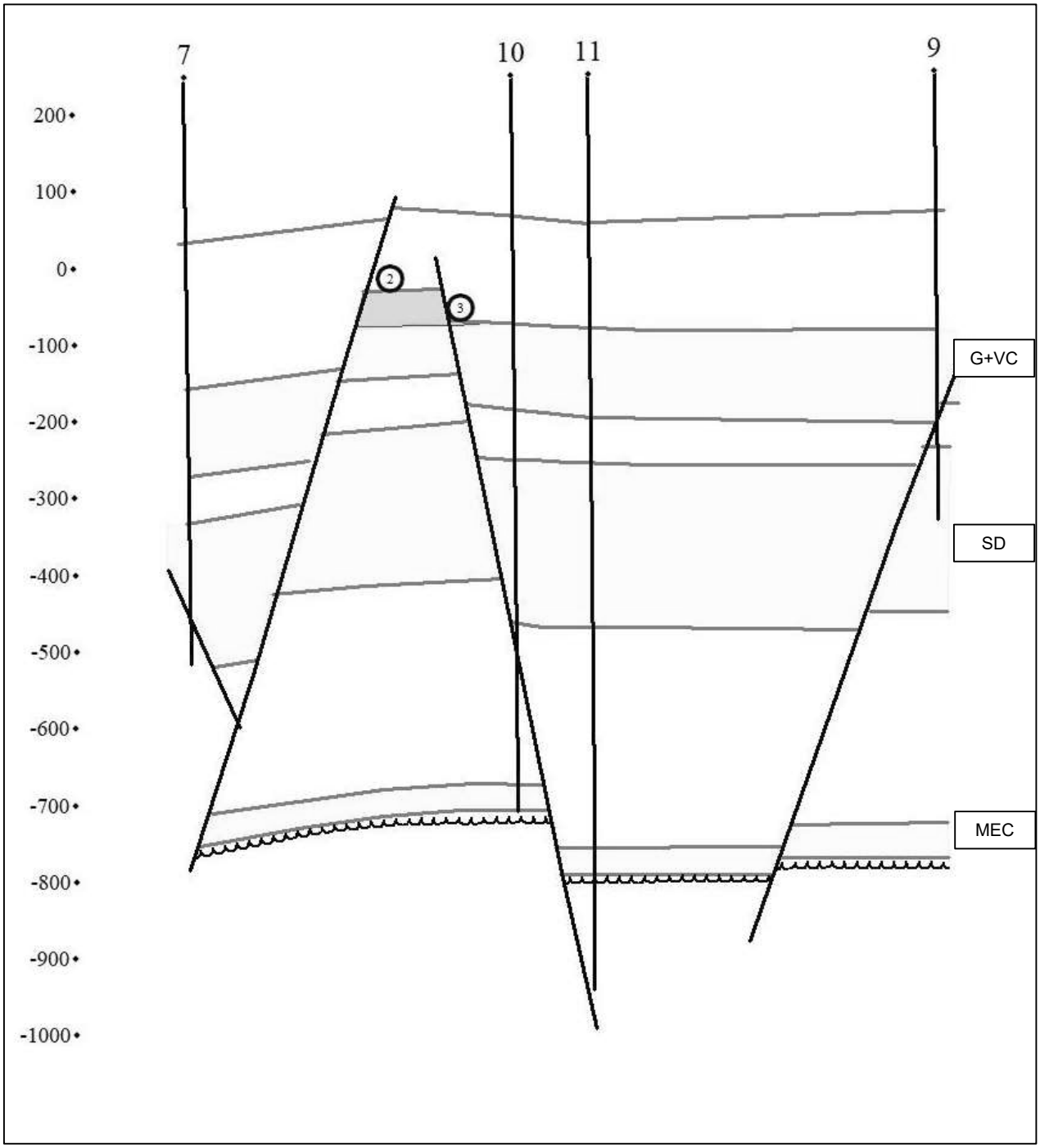
SW NE



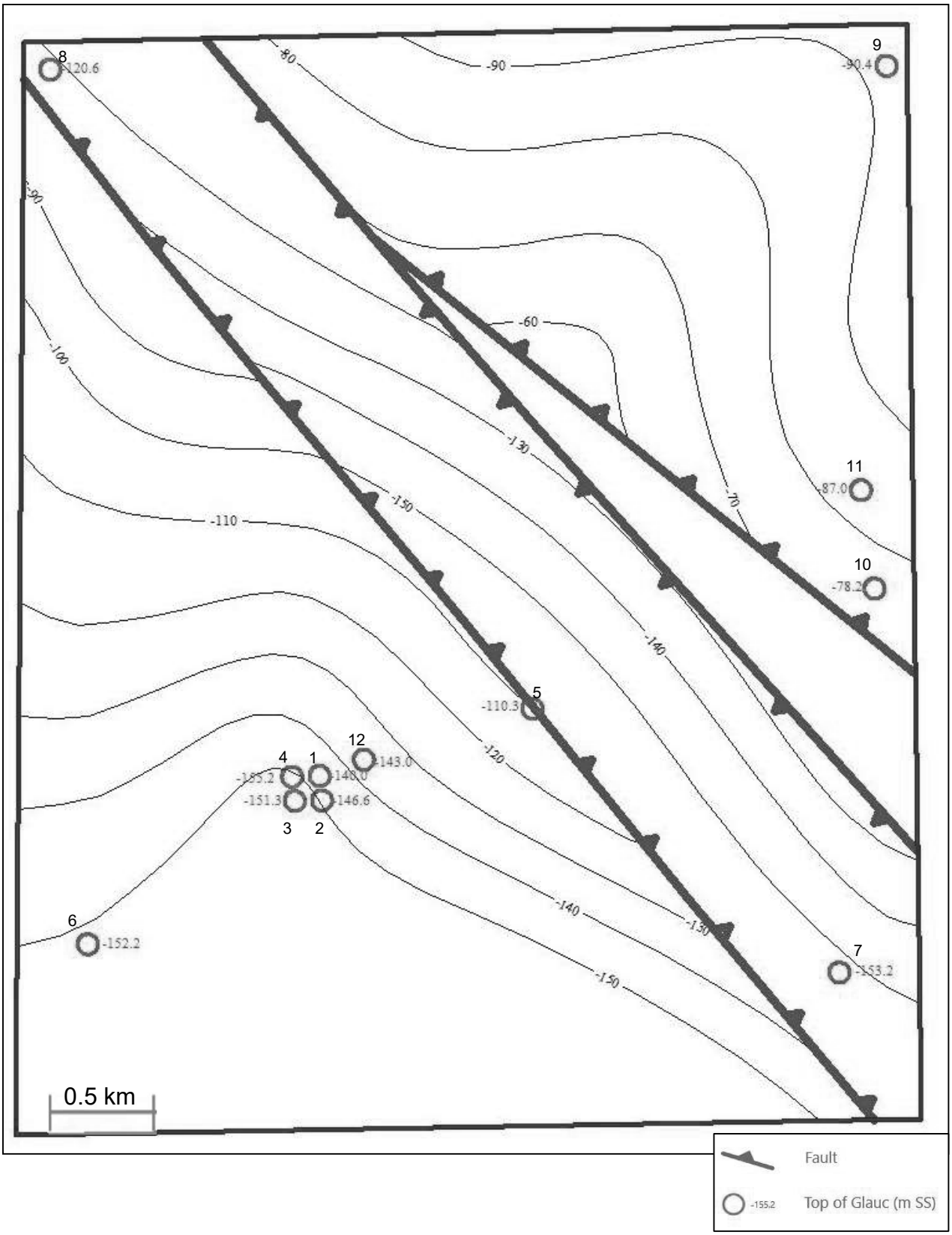
SW-NE Cross Section

Sproule

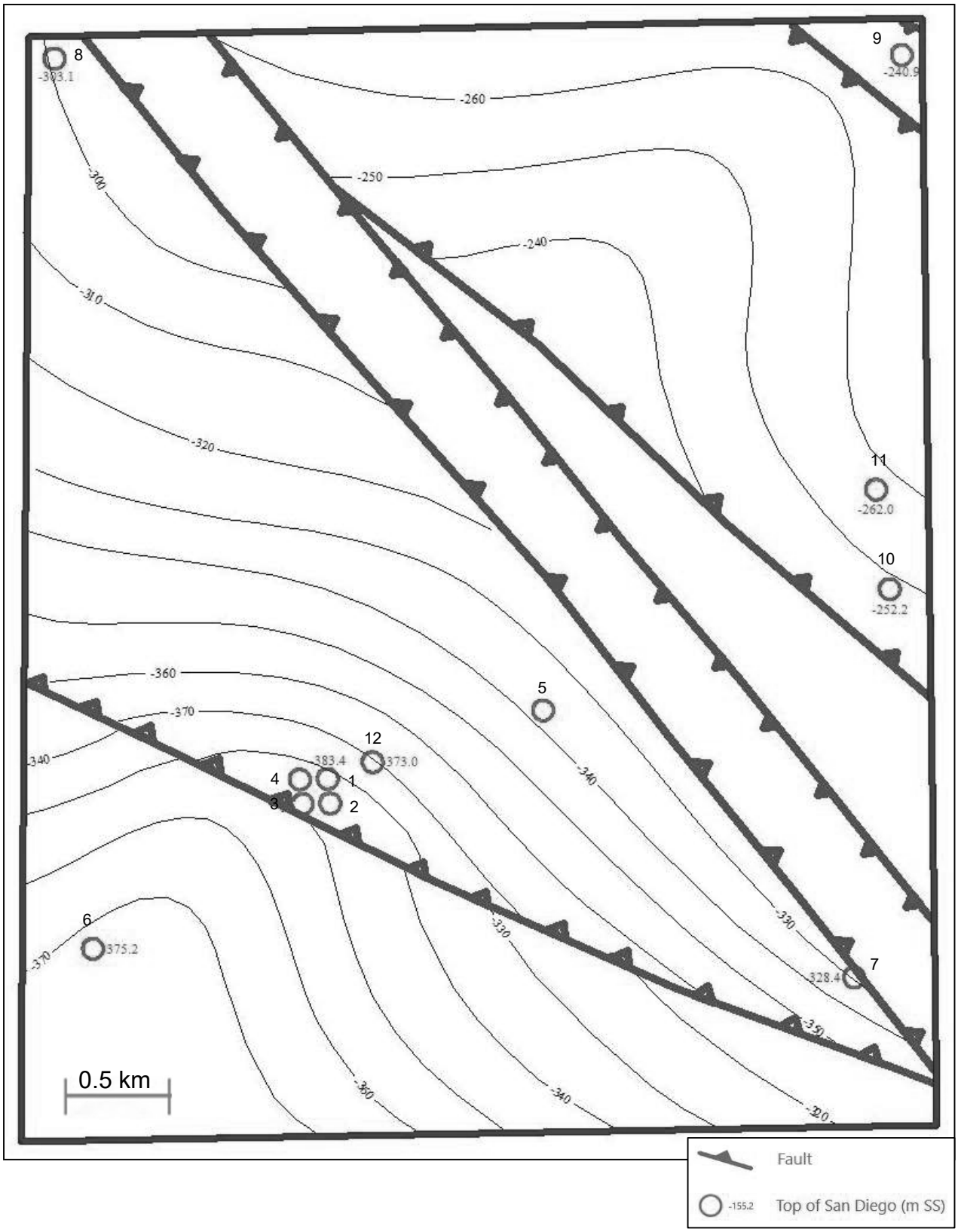
S N



S-N Cross Section

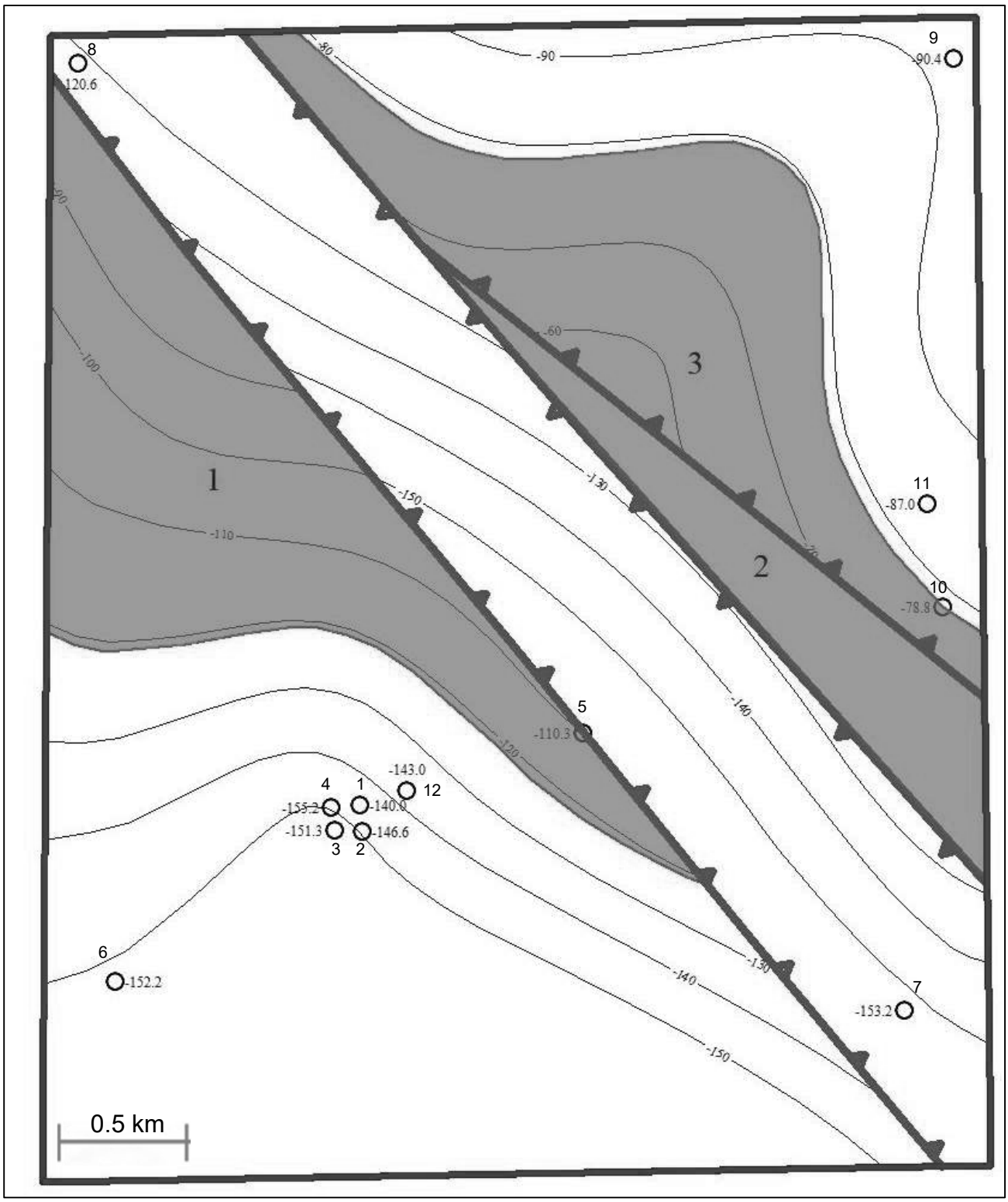


Glauconitico Zone Structure Map of Mina El Carmen Block, Argentina

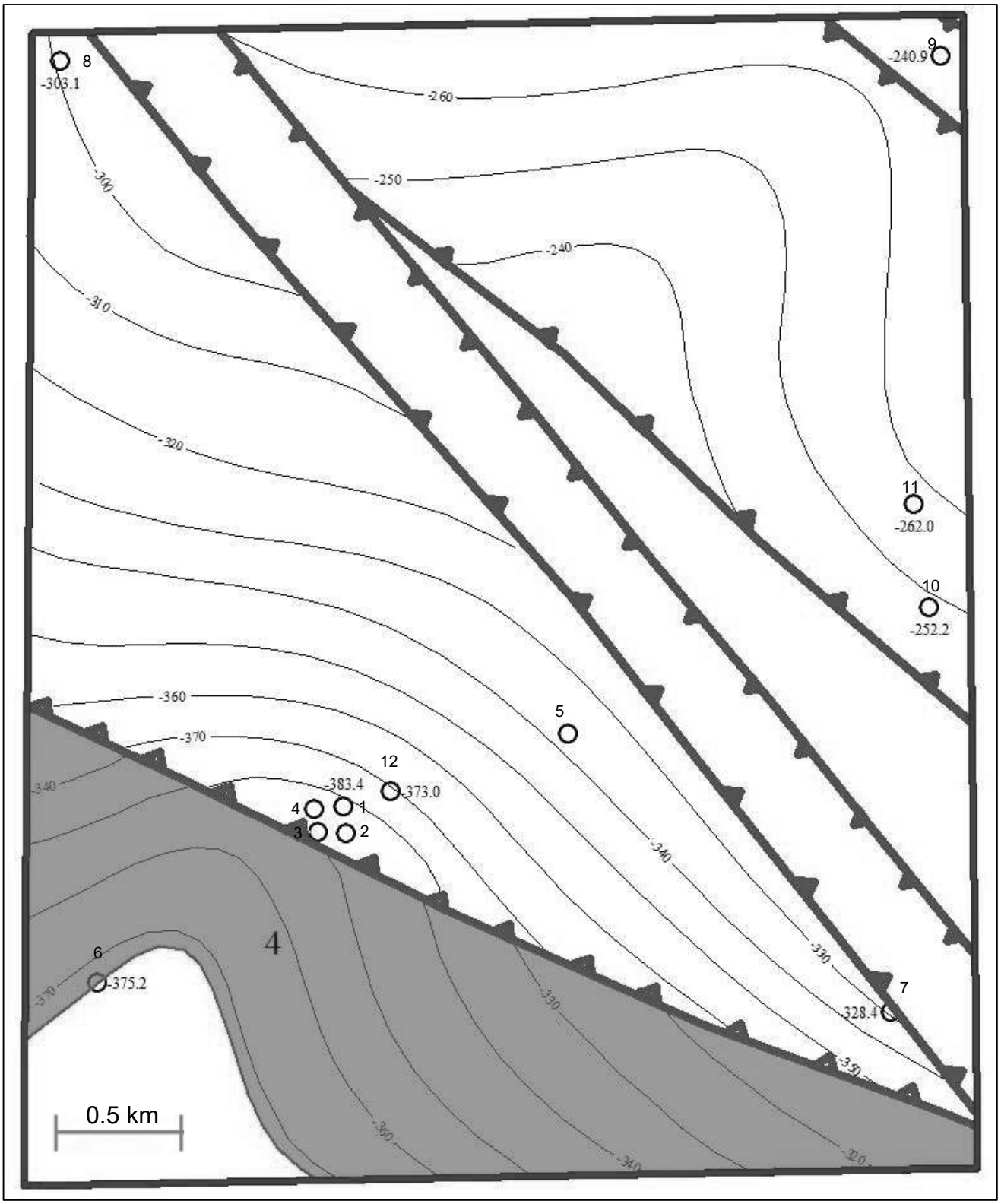


San Diego Zone Structure Map of Mina El Carmen Block, Argentina

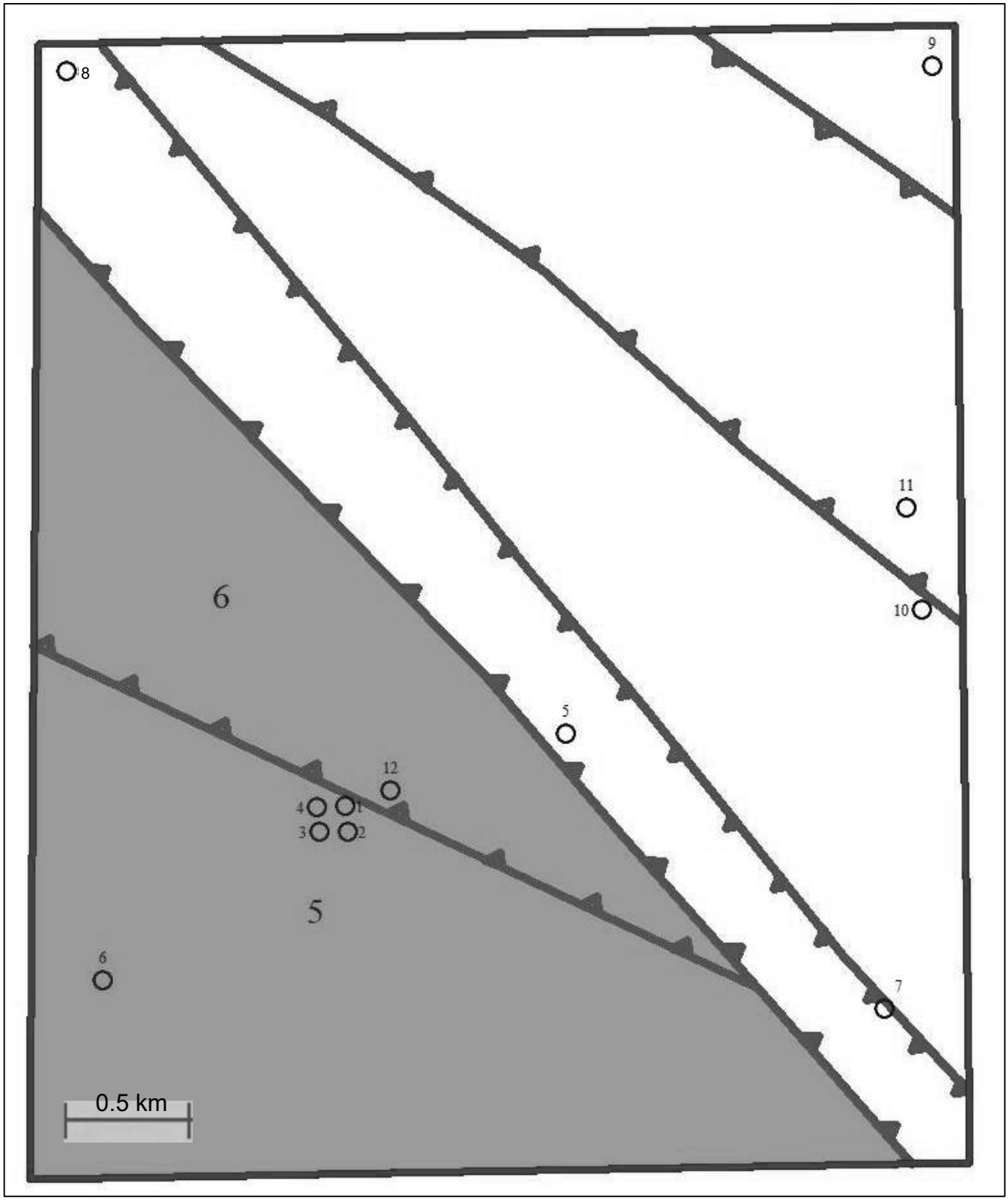
Sproule



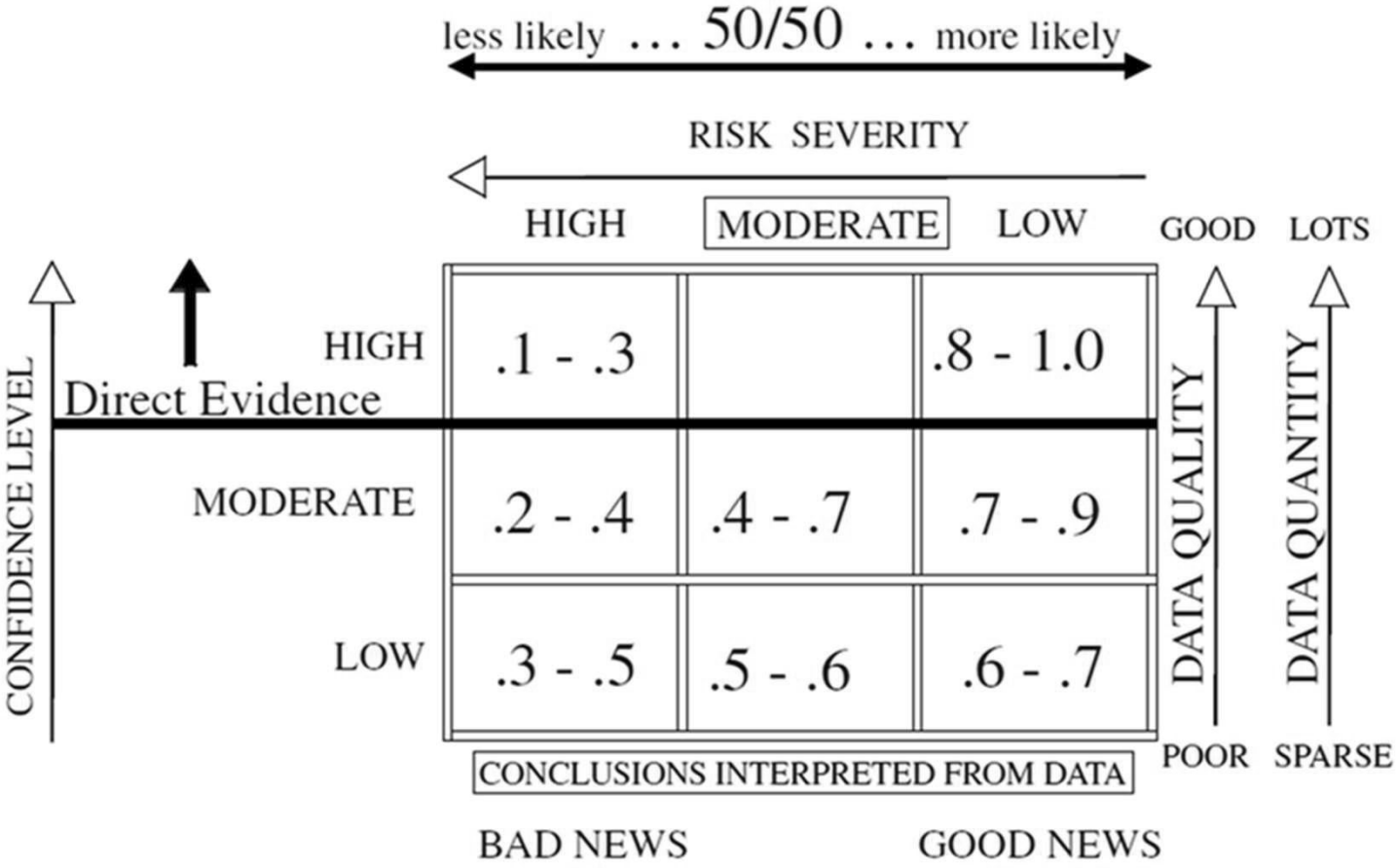
Glauconitico Zone Structure Map and Prospects of Mina El Carmen Block, Argentina



San Diego Zone Structure Map and Prospect of Mina El Carmen Block, Argentina



Mina El Carmen Zone Prospects



Data Adequacy Assessment Matrix for Risk Analysis (From: Peter Rose, 2001)

Recommendations

As could be seen in the section describing the risk analysis, the major risk of hydrocarbon discovery in the Mina El Carmen Block is a presence of traps and seals, and, to lesser degree, hydrocarbon migration. To reduce these risks, Sproule recommends the Company undertake the following steps:

- To prove the structural setting within the block, the seismic has to be acquired. A 3D seismic survey would work the best;
- After processing and interpreting the seismic data, the most favorable well location needs to be chosen taking into consideration the areal extent and height of potential hydrocarbon accumulation;
- During the drilling, a drill stem test can be run to test the presence of hydrocarbons followed by perforation and flow test of most promising intervals;
- In case of a positive result, smaller potential hydrocarbon accumulations will be tested with similar approach.

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3. P. Rose. Risk Analysis and Management of Petroleum Exploration Ventures. AAPG Methods in Exploration Series, No. 12. (2001)

Appendix A —Resources Definitions

The table below identifies the categories that form the basis of our classification of resources and values presented in this report. The definitions used in this report are those set out in the Petroleum Resources Management System (PRMS) as sponsored by Society of Petroleum Engineers (“SPE”), World Petroleum Council (“WPC”), American Association of Petroleum Geologists (“AAPG”), Society of Petroleum Evaluation Engineers (“SPEE”), Society of Exploration Geophysicists (“SEG”), Society of Petrophysicists and Well Log Analysts (“SPWLA”), and the European Association of Geoscientists & Engineers (“EAGE”).

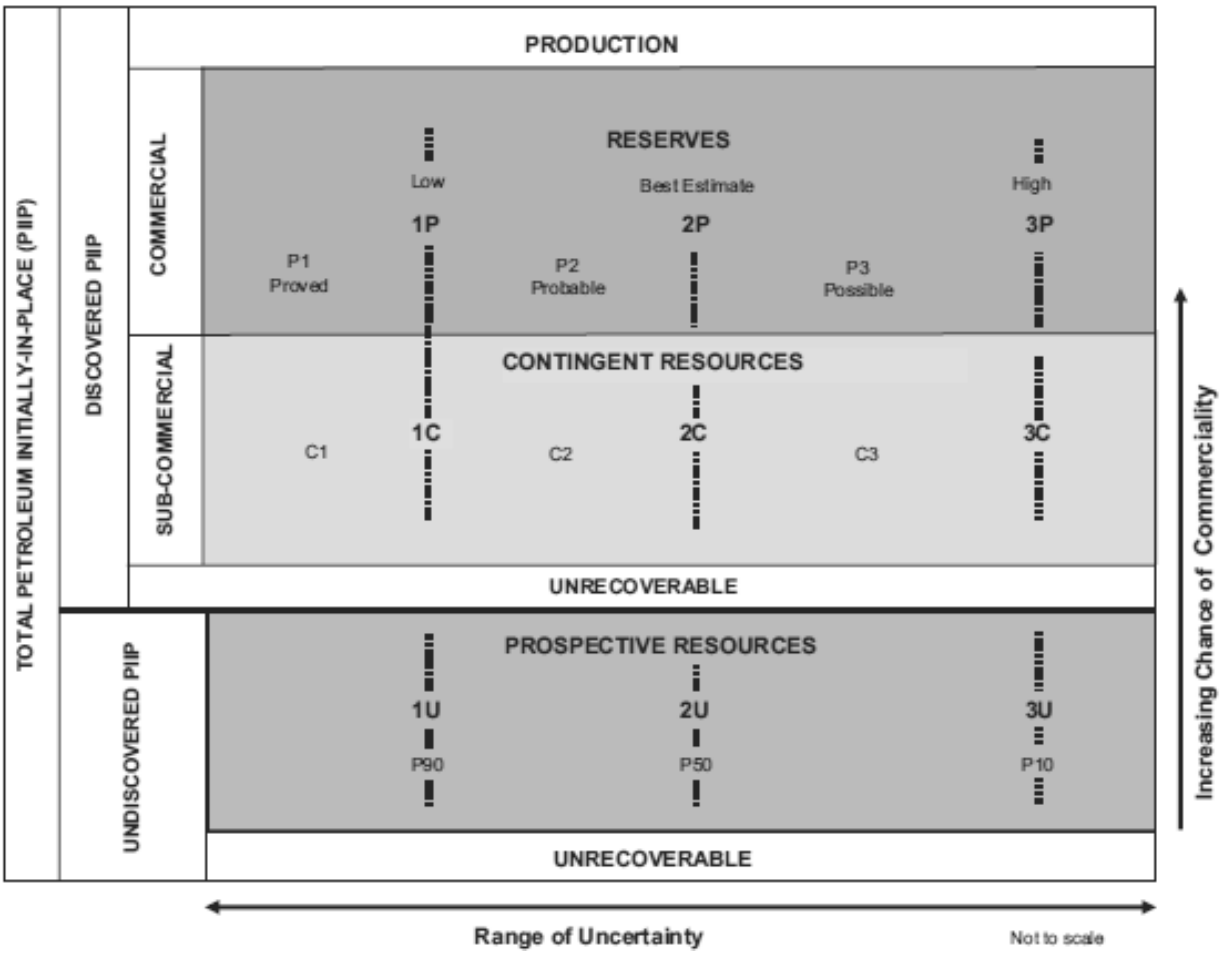
These definitions have been adopted by the Canadian Oil and Gas Evaluation Handbook as amended from time to time (the “COGE Handbook”), maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and incorporated into Canadian National Instrument 51-101 (NI 51-101) by reference. The product types are as defined in NI 51-101 and are only applicable to reports prepared according to NI 51-101 requirements as identified in the Introduction section of this report.

Although not all the definition groupings may be applicable to this report, they have been included here to ensure appropriate context of the definitions that do apply to this report. Guidance on the application of, and further explanation of, the definitions in this Appendix can be found in either PRMS or the COGE Handbook as applicable.

Resources Categories	Included	Excluded
Petroleum Initially-in-Place	-	✓
Prospective Resources	✓	-
Contingent Resources	-	✓
Reserves	-	✓

1. **Resources** encompass all petroleum quantities that originally existed on or within the earth’s crust in naturally occurring accumulations, including discovered and undiscovered plus quantities already produced. Total Resource is equivalent to Petroleum Initially-in-Place (PIIP).

The following figure illustrates the relationship of the different resources within the PRMS Resources classification framework and aids in placing the subsequent definitions in context.



2. Total **Petroleum Initially-in-Place** is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations and is potentially producible. 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.

3. **Undiscovered Petroleum Initially-in-Place** is that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered. The potentially recoverable portion of Undiscovered PIIP is referred to as Prospective Resources; the remainder is unrecoverable

4. **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. Discovered PIIP includes production, Reserves and Contingent Resources; the remainder is unrecoverable.

5. **Discovery** is the confirmation of the existence of an accumulation of a significant quantity of potentially recoverable petroleum.

6. A **Known Accumulation** is one that has been penetrated by a well that has demonstrated the existence of a significant quantity of potentially recoverable petroleum.

7. **Prospective Resources** are those quantities of petroleum estimated, as of a give date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of geologic discovery and a chance of development. Prospective Resources are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be sub-classified based on project maturity.

8. **Contingent Resources** are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development projects not currently considered to be commercial due to one or more contingencies. Contingent Resources have an associated chance of development.

9. **Reserves** are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, from a given date forward, based on:

    - analysis of drilling, geological, geophysical and engineering data;
    - the use of established technology;
    - specified economic conditions, which are generally accepted as being reasonable, and shall be disclosed; and
    - a maximum remaining reserve life of 50 years.

    Reserves are classified according to the degree of certainty associated with the estimates.

10. **Proved Reserves** are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

11. **Probable Reserves** are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.

12. **Possible Reserves** are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves. Possible reserves have not been considered in this report.

Other criteria that must also be met for the categorization of reserves are provided in Section 3.1 of PRMS or Section 1.4.7.2.1 of the COGE Handbook.

Each of the reserves categories (proved, probable, and possible) may be divided into developed or undeveloped categories.

13. **Developed Reserves** are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (e.g., when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing.

14. **Developed Producing Reserves** are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

15. **Developed Non-Producing Reserves** are those reserves that either have not been on production, or have previously been on production, but are shut in, and the date of resumption of production is unknown.

16. **Undeveloped Reserves** are those reserves expected to be recovered from known accumulations where a significant expenditure (e.g., when compared to the cost of drilling and completing a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable, possible) to which they are assigned and are expected to be developed within a limited time.

In multi-well pools, it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities, and completion intervals in the pool and their respective development and production status.

Levels of Certainty for Reported Reserves

The qualitative certainty levels contained in the definitions 10, 11 and 12 are applicable to individual reserves entities, which refers to the lowest level at which reserves estimates are made, and to reported reserves, which refers to the highest level sum of individual entity estimates for which reserve estimates are made.

Reported total reserves estimated by deterministic or probabilistic methods, whether comprised of a single reserves entity or an aggregate estimate for multiple entities, should target the following levels of certainty under a specific set of economic conditions:

a. There is a 90% probability that at least the estimated proved reserves will be recovered.

b. There is a 50% probability that at least the sum of the estimated proved reserves plus probable reserves will be recovered.

c. There is a 10% probability that at least the sum of the estimated proved reserves plus probable reserves plus possible reserves will be recovered.

A quantitative measure of the probability associated with a reserves estimate is generated only when a probabilistic estimate is conducted. The majority of reserves estimates will be performed using deterministic methods that do not provide a quantitative measure of probability. In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods.

Levels of Certainty for Resources

The same levels of certainty as described above for reserves, represented by a probability distribution of the low, best and high volume estimates, can be applied to Contingent and Prospective Resources as reflected with the 1C, 2C, 3C, C1, C2 and C3; or 1U, 2U and 3U resources categories and shown on the resources classification figure on the horizontal axis.

Additional clarification of certainty levels associated with resources estimates and the effect of aggregation is provided in Sections 2.2 and 4.2 of PRMS or Section 5.7 of the COGE Handbook. Whether deterministic or probabilistic methods are used, evaluators are expressing their professional judgement as to what are reasonable estimates.

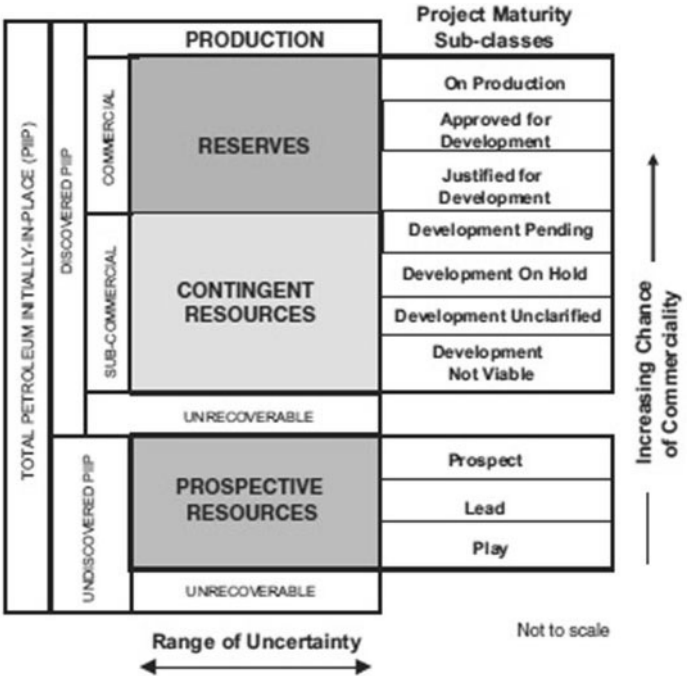
17. **Chance of Commerciality** is the product of the chance of geologic discovery and the chance of development and is used to estimate risked resources by multiplying with the resource volumes. The chance of geologic discovery for Contingent Resources is 100 percent, thus the Chance of Commerciality of Contingent Resources is equal to the chance of development. The Chance of Commerciality is used to estimate the level of maturity of the resource classification as reflected by its' use as an axis on the right side of the Resources Classification Framework as shown in the following figure.

18. **Chance of Development** is the estimated probability that a known accumulation, once discovered, will be commercially developed. The Chance of Development is the product of the contingencies applicable to a particular project. The applicable contingencies may include one or more of the following:

a. **Evaluation Drilling –** the geological continuity of the reservoir needs to be confirmed to reduce the distance from proven productivity;
b. **Regulatory Approval** – Approval from the applicable regulatory agency or agencies has not been received;
c. **Economic Factors –** The future product pricing and capital costs may not be at a level or sufficiently defined - and may also include other underlying factors including market conditions, exchange rates, fiscal terms and taxes - to establish the economic viability of the project;
d. **Corporate Commitment –** The final investment decision and endorsement from the Company and / or the project co-venturers has not been made, nor is there a reasonable expectation these can be arranged in a reasonable time frame, such that the project can move forward. A technically mature and feasible field development plan may also need to be developed;
e. **Timing of Production or Development –** The current development plan may not commence within a reasonable time period;
f. **Market Access –** Infrastructure or access to existing facilities may not be in place or sales contracts have not been executed that will allow the production products to access viable markets;
g. **Technology Under Development –** The technology required to commercially develop the area is not currently available nor is it under active development;
h. **Legal Factors –** Factors that have been brought forward regarding the ability to explore, produce and sell the hydrocarbons;
i. **Political Factors –** Political unrest may impede the development in the area;
j. **Social License –** One or more of the jurisdictions in which the project area is located has policies in place that restrict certain types of development due to environmental concerns.

19. **Chance of Geologic Discovery** (or just Chance of Discovery) is the estimated probability that exploration activities will confirm the existence of a significant accumulation or potentially recoverable petroleum. The Chance of Geologic Discovery is the product of one or more applicable geologic factors which include:
    a. **Source** – The presence of source rock in reasonable proximity to the target that has generated, or is generating, hydrocarbon from organic material trapped in the rock;
    b. **Migration –** There is a path that allowed for the migration of the hydrocarbon from the source to the reservoir;
    c. **Reservoir** – The presence of rock with sufficient thickness, porosity, and permeability to be commercially productive;
    d. **Trap (or Seal) –** The reservoir rock is bounded by impermeable layers prior to the time of migration that has allowed the migrating hydrocarbon to accumulate within the reservoir rock;
    e. **Structure –** the geometry of the anticipated accumulation is able to contain the migrating hydrocarbons in the form of a stratigraphic and / or structural trap. This factor may not apply to unconventional resources, or accumulations that are pervasive throughout a large area and

not significantly affected by hydrodynamic influences such as coal-bed methane, gas hydrates, natural bitumen, tight oil, tight gas or oil shale.



The **Project Maturity Sub-class** represents the maturity of the project and sets out the associated actions required to move the project towards commercial production. The boundaries between the different levels of project maturity are normally project decision gates and can vary from organization to organization dependent upon the established internal approval process for project expenditures.

20. A **Play** is the lowest and least defined level of Prospective Resources and is a project associated with a prospective trend of potential prospects, but which requires more data acquisition and/or evaluation to define specific leads or prospects.

21. A **Lead** is the next level or Prospective Resources and is a project that is poorly defined and requires additional data acquisition and/or evaluation.

22. A **Prospect** is the best defined level of Prospective Resources and represents a project that is sufficiently well defined to represent a viable drilling target, although remains undiscovered.

23. **Development Not Viable** is the lowest level of Contingent Resources and represents a discovered accumulation for which there are contingencies resulting in there being no current plans to develop or acquire additional data at the time due to limited commercial potential.

24. **Development Not Clarified** is the second lowest level of Contingent Resources and is a discovered accumulation where project activities are under evaluation and where justification as a commercial development is unknown based on available information. A plan for future evaluation should exist but further study or appraisal work will be ongoing in order to establish the actions necessary to move the project forward to commercial maturity.

25. **Development On Hold** is the second highest level of Contingent Resources and represents a discovered accumulation where project activities are on hold and/or where justification as a commercial development may be subject to significant delay.

26. **Development Pending** is the highest level of Contingent Resources and represents a discovered accumulation where development activities are ongoing to justify commercial development in the foreseeable future.

27. **Justified for Development** is the lowest level of Reserves and represents a development project that has reasonable forecast commercial conditions at the time or reporting and there are reasonable expectations that all necessary approvals/contracts will be obtained.

28. **Approved for Development** is the second level of Reserves and represents a development project that is commercial under the current and/or forecast conditions, has received all approvals and/or contracts necessary for development including the commitment of capital funds and implementation of the development of the project is underway.

29. **On Production** is the highest level of Reserves and reflects the operational execution phase of one or more development projects with the Reserves currently producing or capable of production, including Developed Producing and Developed Non-Producing Reserves.

30. **Remaining Recoverable Reserves** are the total remaining recoverable reserves associated with the acreage in which the Company has an interest.

31. **Company Gross Reserves** are the Company's working interest share of the remaining reserves, before deduction of any royalties.

32. **Company Net Reserves** are the gross remaining reserves of the properties in which the Company has an interest, less all Crown, freehold, and overriding royalties and interests owned by others plus all royalty interest volumes received.

33. **Net Production Revenue** is income derived from the sale of net reserves of oil, non-associated and associated gas, and gas by-products, less all capital and operating costs.

34. **Fair Market Value** is defined as the price at which a purchaser seeking an economic and commercial return on investment would be willing to buy, and a vendor would be willing to sell, where neither is under compulsion to buy or sell and both are competent and have reasonable knowledge of the facts.

35. **Barrels of Oil Equivalent (BOE) Reserves** is the sum of the oil reserves, plus the gas reserves divided by a conversion factor, plus the natural gas liquid reserves, all expressed in barrels or thousands of barrels. Equivalent reserves can also be expressed in thousands of cubic feet of gas equivalent (McfGE) using the same conversion factor. Normally the conversion factor represents an approximation of the nominal heating content or calorific value equivalent to a barrel of oil.

36. **Oil (or Crude Oil)** is a mixture consisting mainly of pentanes and heavier hydrocarbons that exists in the liquid phase in reservoirs and remains liquid at atmospheric pressure and temperature. Crude oil may contain small amounts of sulphur and other non-hydrocarbons, but does not include liquids obtained from the processing of natural gas. Crude oil volumes are further divided into Product Types, for reporting purposes.

37. **Gas (or Natural Gas)** is a mixture of lighter hydrocarbons that exist either in the gaseous phase or in solution in crude oil in reservoirs, but are gaseous at atmospheric conditions. Natural gas may contain sulphur or other non-hydrocarbon compounds. Natural Gas volumes are further divided into Product Types, for reporting purposes.

38. **Non-Associated Gas** is an accumulation of natural gas in a reservoir where there is no crude oil.

39. **Associated Gas** – the gas cap overlying a crude oil accumulation in a reservoir.

40. **Solution Gas** – gas dissolved in crude oil.

41. **Natural Gas By Products** – those components that can be removed from natural gas including, but not limited to, ethane, propane, butanes, pentanes plus, condensate, and small quantities of non-hydrocarbons.

Product Types sub-classify the principle product types of petroleum, crude oil, gas and by-products, into specific groupings based on the properties of the hydrocarbon and the properties of the accumulation and reservoir rock from which it is found. Regulatory agencies may define in legislation the production types they require to be used for reporting purposes in their jurisdiction. The Canadian Securities Associations (CSA) defines the following Product Types for reporting purposes in National Instrument 51-101, effective July 1, 2015.

Crude Oil

I) **Light Crude Oil** means crude oil with a relative density greater than 31.1 degrees API gravity;

II) **Medium Crude Oil** means crude oil with a relative density greater than 22.3 degrees API gravity and less than or equal to 31.1 degrees API gravity;

III) **Heavy Crude Oil** means crude oil with a relative density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity;

IV) **Tight Oil** means crude oil:

a. contained in dense organic rich rocks, including low-permeability shales, siltstones and carbonates, in which the crude oil is primarily contained in microscopic pore spaces that are poorly connected to one another, and

b. that typically requires the use of hydraulic fracturing to achieve economic production rates;

V) **Bitumen** means a naturally occurring solid or semi-solid hydrocarbon:

a. consisting mainly of heavier hydrocarbons, with a viscosity greater than 10,000 millipascal-seconds (mPa·s) or 10,000 centipoise (cP) measured at the hydrocarbon's original temperature in the reservoir and at atmospheric pressure on a gas-free basis, and

b. that is not primarily recoverable at economic rates through a well without the implementation of enhanced recovery methods;

VI) **Synthetic Crude Oil** means a mixture of liquid hydrocarbons derived by upgrading bitumen, kerogen or other substances such as coal, or derived from gas to liquid conversion and may contain sulphur or other compounds;

Natural Gas

VII) **Conventional Natural Gas** means natural gas that has been generated elsewhere and has migrated as a result of hydrodynamic forces and is trapped in discrete accumulations by seals that may be formed by localized structural, depositional or erosional geological features;

VIII) **Coal Bed Methane** means natural gas that

a) primarily consists of methane, and

b) is contained in a coal deposit;

IX) **Shale Gas** means natural gas:

a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the natural gas is primarily adsorbed on the kerogen or clay minerals, and

b) that usually requires the use of hydraulic fracturing to achieve economic production rates;

X) **Synthetic Gas** means a gaseous fluid:

a) generated as a result of the application of an in-situ transformation process to coal or other hydrocarbon-bearing rock, and

b) comprised of not less than 10% by volume of methane;

XI) **Gas Hydrate** means a naturally occurring crystalline substance composed of water and gas in an ice-lattice structure;

By-Products

XII) **Natural Gas Liquids** means those hydrocarbon components that can be recovered from natural gas as a liquid including, but not limited to, ethane, propane, butanes, pentanes plus, and condensates.

XIII) **Sulphur** is a non-hydrocarbon elemental by-product of gas processing and oil refining.

Appendix B — Abbreviations, Units and Conversion Factors

This appendix contains a list of abbreviations found in Sproule reports, a table comparing Imperial and Metric units, and conversion tables used to prepare this report.

Abbreviations

ADR	abandonment, decommissioning and reclamation
AFE	authority for expenditure
AOF	absolute open flow
APO	after pay out
B_g	gas formation volume factor
B_o	oil formation volume factor
BOE	barrels of oil equivalent
bpd	barrels per day
bopd	barrels of oil per day
boepd	barrels of oil equivalent per day
bfpd	barrels of fluid per day
BPO	before pay out
BS&W	basic sediment and water
BTU	British thermal unit
bwpd	barrels of water per day
CF	casing flange
CGR	condensate-gas ratio
D&A	dry and abandoned
DCQ	daily contract quantity
DPIIP	discovered petroleum initially-in-place
DSU	drilling spacing unit
DST	drill stem test
EOR	enhanced oil recovery
EPSA	exploration and production sharing agreement
FPSO	floating production, storage and off-loading vessel
FVF	formation volume factor
g/cc	gram per cubic centimetre
GIIP	gas initially-in-place
GOR	gas-oil ratio
GORR	gross overriding royalty
GRV	gross rock volume
GWC	gas-water contact
HCPV	hydrocarbon pore volume
ID	inside diameter

IOR	improved oil recovery
IPR	inflow performance relationship
IRR	internal rate of return
k	permeability
KB	kelly bushing
LKH	lowest known hydrocarbons
LKO	lowest known oil
LNG	liquefied natural gas
LPG	liquefied petroleum gas
McfGE	thousands of cubic feet of gas equivalent
Mcfpd	thousands of cubic feet per day
md	millidarcies
MDT	modular formation dynamics tester
MPR	maximum permissive rate
MRL	maximum rate limitation
NCI	net carried interest
NGL	natural gas liquids
NORR	net overriding royalty
NPI	net profits interest
NRA	no reserves assigned
NRI	net revenue interest
NPV	net present value
NRV	net rock volume
NTG	net-to-gross
OD	outside diameter
OGIP	original gas in place
OIIP	oil initially-in-place
OOIP	original oil in place
ORRI	overriding royalty interest
OWC	oil-water contact
P1	proved
P2	probable
P3	possible
P&NG	petroleum and natural gas
PI	productivity index
ppm	parts per million
PSU	production spacing unit
PSA	production sharing agreement
PSC	production sharing contract
PVT	pressure-volume-temperature
RFT	repeat formation tester
RT	rotary table

SCAL	special core analysis
SS	subsea
TPIIP	total petroleum initially-in-place
TVD	true vertical depth
UPIIP	undiscovered petroleum initially-in-place
WGR	water-gas ratio
WI	working interest
WOR	water-oil ratio
2D	two-dimensional
3D	three-dimensional
4D	four-dimensional
1P	proved
2P	proved plus probable
3P	proved plus probable plus possible
^{o}API	degrees API (American Petroleum Institute)

Imperial and Metric Units

Imperial Units			Metric Units	
M (10^3)	thousand	**Prefixes**	k (10^3)	kilo
MM (10^6)	million		M (10^6)	mega
B (10^9)	billion		G (10^9)	giga
T (10^{12})	trillion		T (10^{12})	tera
Q (10^{15})	quadrillion		P (10^{15})	peta
in.	inches	**Length**	cm	centimetres
ft	feet		m	metres
mi	miles		km	kilometres
ft^2	square feet	**Area**	m^2	square metres
ac	acres		ha	hectares
cf or ft^3	cubic feet	**Volume**	m^3	cubic metres
scf	standard cubic feet			
gal	gallons		L	litres
Mcf	thousand cubic feet			
MMcf	million cubic feet			
Bcf	billion cubic feet		e^6m^3	million cubic metres
bbl	barrels		m^3	cubic metres
Mbbl	thousand barrels		e^3m^3	thousand cubic metres
stb	stock tank barrels		stm^3	stock tank cubic metres
bbl/d	barrels per day	**Rate**	m^3/d	cubic metre per day
Mbbl/d	thousand barrels per day		e^3m^3/d	thousand cubic metres
Mcf/d	thousand cubic feet per day		e^3m^3/d	thousand cubic metres
MMcf/d	million cubic feet per day		e^6m^3/d	million cubic metres
Btu	British thermal units	**Energy**	J	joules
oz	ounces	**Mass**	g	grams
lb	pounds		kg	kilograms
ton	tons		t	tonnes
lt	long tons			
psi	pounds per square inch	**Pressure**	Pa	pascals
			kPa	kilopascals (10^3)
psia	pounds per square inch absolute			
psig	pounds per square inch gauge			
°F	degrees Fahrenheit	**Temperature**	°C	degrees Celsius
°R	degrees Rankine		K	degrees Kelvin
M$	thousand dollars	**Dollars**	k$	1 kilodollar

Imperial and Metric Units (Cont'd)

Imperial Units			Metric Units	
sec	second	**Time**	s	second
min	minute		min	minute
hr	hour		h	hour
d	day		d	day
wk	week			week
mo	month			month
yr	year		a	annum

Conversion Tables

Conversion Factors — Metric to Imperial		
cubic metres (m^3) (@ 15°C)	x 6.29010	= barrels (bbl) (@ 60°F), water
m^3 (@ 15°C)	x 6.3300	= bbl (@ 60°F), Ethane
m^3 (@ 15°C)	x 6.30001	= bbl (@ 60°F), Propane
m^3 (@ 15°C)	x 6.29683	= bbl (@ 60°F), Butanes
m^3 (@ 15°C)	x 6.29287	= bbl (@ 60°F), oil, Pentanes Plus
m^3 (@ 101.325 kPaa, 15°C)	x 0.0354937	= thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)
1,000 cubic metres (10^3m^3) (@ 101.325 kPaa, 15°C)	x 35.49373	= Mcf (@ 14.65 psia, 60°F)
hectares (ha)	x 2.4710541	= acres
1,000 square metres (10^3m^2)	x 0.2471054	= acres
10,000 cubic metres (ha·m)	x 8.107133	= acre feet (ac-ft)
$m^3/10^3m^3$ (@ 101.325 kPaa, 15° C)	x 0.0437809	= Mcf/Ac.ft. (@ 14.65 psia, 60°F)
joules (j)	x 0.000948213	= Btu
megajoules per cubic metre (MJ/m^3) (@ 101.325 kPaa, 15°C)	x 26.714952	= British thermal units per standard cubic foot (Btu/scf) (@ 14.65 psia, 60°F)
dollars per gigajoule ($/GJ)	x 1.054615	= $/Mcf (1,000 Btu gas)
metres (m)	x 3.28084	= feet (ft)
kilometres (km)	x 0.6213712	= miles (mi)
dollars per 1,000 cubic metres ($/10^3m^3$)	x 0.0288951	= dollars per thousand cubic feet ($/Mcf) (@ 15.025 psia) B.C.
($/10^3m^3$)	x 0.02817399	= $/Mcf (@ 14.65 psia) Alta.
dollars per cubic metre ($/m^3$)	x 0.158910	= dollars per barrel ($/bbl)
gas/oil ratio (GOR) (m^3/m^3)	x 5.640309	= GOR (scf/bbl)
kilowatts (kW)	x 1.341022	= horsepower
kilopascals (kPa)	x 0.145038	= psi
tonnes (t)	x 0.9842064	= long tons (LT)
kilograms (kg)	x 2.204624	= pounds (lb)
litres (L)	x 0.2199692	= gallons (Imperial)
litres (L)	x 0.264172	= gallons (U.S.)
cubic metres per million cubic metres ($m^3/10^6m^3$) (C_3)	x 0.177496	= barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia)
$m^3/10^6m^3$) (C_4)	x 0.1774069	= bbl/MMcf (@ 14.65 psia)
$m^3/10^6m^3$) (C_{5+})	x 0.1772953	= bbl/MMcf (@ 14.65 psia)
tonnes per million cubic metres ($t/10^6m^3$) (sulphur)	x 0.0277290	= LT/MMcf (@ 14.65 psia)
millilitres per cubic meter (mL/m^3) (C_{5+})	x 0.0061974	= gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf)
(mL/m^3) (C_{5+})	x 0.0074428	= gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf)
Kelvin (K)	x 1.8	= degrees Rankine (°R)
millipascal seconds (mPa·s)	x 1.0	= centipoise
density (kg/m3), ρ	ρ÷1000x141.5-131.5	= °API

Conversion Tables (Cont'd)

Conversion Factors — Imperial to Metric		
barrels (bbl) (@ 60°F)	x 0.15898	= cubic metres (m^3) (@ 15°C), water
bbl (@ 60°F)	x 0.15798	= m^3 (@ 15°C), Ethane
bbl (@ 60°F)	x 0.15873	= m^3 (@ 15°C), Propane
bbl (@ 60°F)	x 0.15881	= m^3 (@ 15°C), Butanes
bbl (@ 60°F)	x 0.15891	= m^3 (@ 15°C), oil, Pentanes Plus
thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)	x 28.17399	= m^3 (@ 101.325 kPaa, 15°C)
Mcf (@ 14.65 psia, 60°F)	x 0.02817399	= 1,000 cubic metres (10^3m^3) (@ 101.325 kPaa, 15°C)
acres	x 0.4046856	= hectares (ha)
acres	x 4.046856	= 1,000 square metres (10^3m^2)
acre feet (ac-ft)	x 0.123348	= 10,000 cubic metres (10^4m^3) (ha·m)
Mcf/ac-ft (@ 14.65 psia, 60°F)	x 22.841028	= $10^3m^3/m^3$ (@ 101.325 kPaa, 15°C)
Btu	x 1054.615	= joules (J)
British thermal units per standard cubic foot (Btu/Scf)	x 0.03743222	= megajoules per cubic metre (MJ/m^3)
(@ 14.65 psia, 60°F)		(@ 101.325 kPaa, 15°C)
$/Mcf (1,000 Btu gas)	x 0.9482133	= dollars per gigajoule ($/GJ)
$/Mcf (@ 14.65 psia, 60°F) Alta.	x 35.49373	= $/$10^3m^3$ (@ 101.325 kPaa, 15°C)
$/Mcf (@ 15.025 psia, 60°F), B.C.	x 34.607860	= $/$10^3m^3$ (@ 101.325 kPaa, 15°C)
feet (ft)	x 0.3048	= metres (m)
miles (mi)	x 1.609344	= kilometres (km)
dollars per barrel ($/bbl)	x 6.29287	= dollars per cubic metre ($/m^3$)
GOR (scf/bbl)	x 0.177295	= gas/oil ratio (GOR) (m^3/m^3)
horsepower	x 0.7456999	= kilowatts (kW)
psi	x 6.894757	= kilopascals (kPa)
long tons (LT)	x 1.016047	= tonnes (t)
pounds (lb)	x 0.453592	= kilograms (kg)
gallons (Imperial)	x 4.54609	= litres (L) (.001 m^3)
gallons (U.S.)	x 3.785412	= litres (L) (.001 m^3)
barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia) (C_3)	x 5.6339198	= cubic metres per million cubic metres ($m^3/10^6m^3$)
bbl/MMcf (C_4)	x 5.6367593	= ($m^3/10^6m^3$)
bbl/MMcf (C_{5+})	x 5.6403087	= ($m^3/10^6m^3$)
LT/MMcf (sulphur)	x 36.063298	= tonnes per million cubic metres ($t/10^6m^3$)
gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf) (C_{5+})	x 161.3577	= millilitres per cubic meter (mL/m^3)
gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf) (C_{5+})	x 134.3584	= (mL/m^3)
degrees Rankine (°R)	x 0.555556	= Kelvin (K)
centipoises	x 1.0	= millipascal seconds (mPa·s)
°API	(°APIx131.5)x 1000/141.5	= density (kg/m3)