IVANHOE ENERGY INC
Form 10-K
March 16, 2010

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2009

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to __________

Commission file number: 000-30586

IVANHOE ENERGY INC.

(Exact name of registrant as specified in its charter)

Yukon, Canada	**98-0372413**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
654-999 Canada Place **Vancouver, British Columbia, Canada**	**V6C 3E1**
(Address of principal executive offices)	(Zip Code)

(604) 688-8323

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

Title of each class	Name of each exchange on which registered
Common Shares, no par value	Toronto Stock Exchange NASDAQ Capital Market

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. o Yes þ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. o Yes þ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. þ Yes o No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). o Yes o No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or

information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. þ
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of large accelerated filer , accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer þ	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). o Yes þ No

As of June 30, 2009, the aggregate market value of the registrant s common stock held by non-affiliates of the registrant was $346,054,578 based on the average bid and asked price as reported on the National Association of Securities Dealers Automated Quotation System National Market System.

Indicate the number of shares outstanding of each of the issuer s classes of common stock, as of the latest practicable date.

Class	Outstanding at March 10, 2010
Common Shares, no par value	324,928,513 shares

DOCUMENTS INCORPORATED BY REFERENCE

None

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CURRENCY AND EXCHANGE RATES

Unless otherwise specified, all reference to **dollars** or to **$** are to U.S. dollars and all references to **Cdn.$** are to Canadian dollars. The closing, low, high and average noon buying rates in New York for cable transfers for the conversion of Canadian dollars into U.S. dollars for each of the five years ended December 31 as reported by the Federal Reserve Bank of New York were as follows:

	2009	2008	2007	2006	2005
Closing	$ 0.96	$ 0.82	$ 1.01	$ 0.86	$ 0.86
Low	$ 0.77	$ 0.77	$ 0.84	$ 0.85	$ 0.79
High	$ 0.97	$ 1.01	$ 1.09	$ 0.91	$ 0.87
Average Noon	$ 0.88	$ 0.94	$ 0.94	$ 0.88	$ 0.83

The average noon rate of exchange reported by the Bank of Canada for conversion of U.S. dollars into Canadian dollars on March 10, 2010 was $.98 ($1.00 = Cdn.$1.02).

ABBREVIATIONS

As generally used in the oil and gas business and in this Annual Report on Form 10-K, the following terms have the following meanings:

Bbl	= barrel
Bbls/d	= barrels per day
Bopd	= barrels of oil per day
Boe	= barrel of oil equivalent
Boe/d	= barrels of oil equivalent per day
MBbl	= thousand barrels
MBbls/d	= thousand barrels per day
Mboe	= thousands of barrels of oil equivalent
Mboe/d	= thousands of barrels of oil equivalent per day
MMBbl	= million barrels
MMBls/d	= million barrels per day
Mcf	= thousand cubic feet
Mcf/d	= thousand cubic feet per day
MMBtu	= million British thermal units
MMcf	= million cubic feet
MMcf/d	= million cubic feet per day

When we refer to oil in **equivalents** , we are doing so to compare quantities of oil with quantities of gas or express these different commodities in a common unit. In calculating Bbl equivalents (Boe), we use a generally recognized industry standard in which one Bbl is equal to six Mcf. Boes may be misleading, particularly if used in isolation. The 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.

SELECT DEFINED TERMS

Ivanhoe Energy Inc. **Ivanhoe Energy** or **Ivanhoe** or **the Company**

The Company s proprietary, patented rapid thermal processing process (**RTP™ Process**) for heavy oil upgrading (**HTL™ Technology** or **HTL™**)

Syntroleum Corporation s (**Syntroleum**) proprietary technology (**GTL Technology** or **GTL**) to convert natural gas into ultra clean transportation fuels and other synthetic petroleum products

United States Securities and Exchange Commission **SEC**

Canadian Securities Administrators **CSA**

The Securities Act of 1933 (the **Act**)

Enhanced oil recovery **EOR**

Steam Assisted Gravity Drainage **SAGD**

Memorandum of Understanding	**MOU**
Toronto Stock Exchange	**TSX**

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this document are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995, Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or other future events, to be materially different from any future results, performance or achievements or other events expressly or implicitly predicted by such forward-looking statements. Such risks, uncertainties and other factors include:

- our short history of limited revenue, losses and negative cash flow from our current exploration and development activities in Canada, Ecuador, China and Mongolia;
- our limited cash resources and consequent need for additional financing;
- our ability to raise additional financing when it is required or on acceptable terms;
- the potential success of our heavy-to-light oil upgrading technology;
- the potential success of our oil and gas exploration and development properties in Canada, Ecuador, China and Mongolia;
- oil price volatility;
- oil and gas industry operational hazards and environmental concerns;
- government regulation and requirements for permits and licenses, particularly in the foreign jurisdictions in which we carry on business;
- title matters;
- risks associated with carrying on business in foreign jurisdictions;
- conflicts of interests;
- competition for a limited number of what appear to be promising oil and gas exploration properties from larger, more well-financed oil and gas companies; and
- other statements contained herein regarding matters that are not historical facts.

Forward-looking statements can often be identified by the use of forward-looking terminology such as may , expect , intend , estimate , anticipate , believe or continue or the negative thereof or variations thereon or similar termin
We believe that any forward-looking statements made are reasonable based on information available to us on the date such statements were made. However, no assurance can be given as to future results, levels of activity and achievements. Except as required by law, we undertake no obligation to update publicly or revise any forward-looking statements contained in this report. All subsequent forward-looking statements, whether written or oral, attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements.

AVAILABLE INFORMATION

Electronic copies of the Company s filings with the SEC and the CSA are available, free of charge, through its web site (www.ivanhoeenergy.com) or, upon request, by contacting its investor relations department at (604) 688-8323. Alternatively, the SEC and the CSA each maintains a website (www.sec.gov and www.sedar.com) that contains the Company s periodic reports and other public filings with the SEC and the CSA. The information on our website is not, and shall not be, deemed to be part of this Annual Report on Form 10-K.

ITEMS 1 AND 2 *BUSINESS AND PROPERTIES*

GENERAL

Ivanhoe Energy is an independent international heavy oil development and production company focused on pursuing long term growth in its reserve base and production using advanced technologies, including its HTL™ Technology. In addition, the Company also seeks to selectively expand its conventional oil and gas reserves base and production through conventional exploration and production activities, primarily in the Asia region. In the fourth quarter of 2009 the Company acquired a large, conventional oil exploration block in Mongolia s Nyalga basin to complement the heavy oil properties acquired in 2008.

Core operations now include Canada, China, Mongolia and Ecuador, with continued business development opportunities worldwide.

Consistent with the Company s intent to organize around geographically based subsidiaries, 2009 saw the addition of senior management talent allowing Canadian activities to organize as a separate subsidiary. The group structure now includes three subsidiaries with active field operations and one dedicated to business development activities. The subsidiaries with active field operations include the Asian subsidiary, Sunwing, with conventional oil production and conventional oil and gas exploration; the new Canadian subsidiary focusing on the Tamarack project and potential step-out opportunities in the Athabasca region; and the Latin American subsidiary focusing on the Pungarayacu field and other business development opportunities throughout Mexico, Central and South America. The Middle East remains an active area for the Company s business development activities. Ivanhoe Energy Inc. owns 100% of each of these subsidiaries, although the percentages are expected to decline as they develop their respective businesses and raise capital independently.

The Company s HTL™ Technology Group operates a state-of-the-art HTL™ testing facility in the Southwest Research Institute in San Antonio, Texas. The research facility and technology group hold dual roles in the Company. They pursue advancements in the HTL™ technology, building and protecting the Company s patent base, and support business development and project execution by upgrading sample heavy oils to lighter crudes to demonstrate the results available to projects employing the HTL™ technology.

This organizational structure has allowed the Company to engage potential strategic investors in targeted discussions about specific assets and regional alliances. Discussions are ongoing.

The Company s four reportable business segments are: Oil and Gas Integrated, Oil and Gas Conventional, Business and Technology Development and Corporate. Revenues, net income, capital expenditures and identifiable assets for these segments appear in Note 11 to the Consolidated Financial Statements.

On December 31, 2008, the SEC issued final rules relating to reserve definitions and related disclosure requirements. The rules are effective for estimates and disclosures made in annual reports on Form 10-K for fiscal years ended on or after December 31, 2009, including those in this report. The impact of the new rules on our reserves estimates also require us to modify our reserves disclosures this year to transition our reserves estimates from the old rules to the new rules. We have chosen to report our transition to the new rules in a manner that we believe best illustrates the impact of the changes on our reserves estimates and allows us to clearly present how our reserves estimates changed during 2009 as a result of our operational activities separate from the adoption of the new rules.

Oil and Gas

Integrated

Projects in this segment have two primary components. The first component consists of conventional exploration and production activities together with enhanced oil recovery techniques such as steam assisted gravity drainage. The second component consists of the deployment of the HTL™ Technology which will be used to upgrade heavy oil at facilities located in the field to produce lighter, more valuable crude. The Company has two such projects currently reported in this segment a heavy oil project in Alberta and a heavy oil property in Ecuador.

Conventional

Post the sale of the Company s U.S. operations it now explores for, develops and produces conventional crude oil and natural gas in China and Mongolia. The Company s development and production activities are conducted at the Dagang oil field located in China s Hebei Province and its exploration activities are conducted on the Zitong block located in Sichuan Province. In Mongolia the company is in the early exploration phase on Block XVI in the Nyalga basin, southeast of the capital Ulaanbaatar.

Business and Technology Development

The Company incurs various costs in the pursuit of HTL™ projects throughout the world. Such costs incurred prior to signing a MOU or similar agreement are considered to be business and technology development and are expensed as incurred. Upon executing a MOU to determine the technical and commercial feasibility of a project, including studies for the marketability for the project s products, the Company assesses whether the feasibility and related costs incurred have potential future value, are likely to lead to a definitive agreement for the exploitation of proved reserves and should be capitalized.

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Additionally, the Company incurs costs to develop, enhance and identify improvements in the application of the HTL™ technology it owns. The cost of equipment and facilities acquired, or construction costs for such purposes, are capitalized as development costs and amortized over the expected economic life of the equipment or facilities, commencing with the start up of commercial operations for which the equipment or facilities are intended.

Corporate

The Company s corporate segment consists of costs associated with the board of directors, executive officers, corporate debt, financings and other corporate activities.

Our authorized capital consists of an unlimited number of common shares without par value and an unlimited number of preferred shares without par value.

We were incorporated pursuant to the laws of the Yukon Territory of Canada, on February 21, 1995, under the name 888 China Holdings Limited. On June 3, 1996, we changed our name to Black Sea Energy Ltd., and on June 24, 1999, we changed our name to Ivanhoe Energy Inc.

Our principal executive office is located at Suite 654 999 Canada Place, Vancouver, British Columbia, V6C 3E1, and our registered and records office is located at 300-204 Black Street, Whitehorse, Yukon, Y1A 2M9.

CORPORATE STRATEGY

Importance of the Heavy Oil Segment of the Oil and Gas Industry

The global oil and gas industry is being impacted by the declining availability of replacement low cost reserves. This has resulted in volatility in oil markets and marked shifts in the demand and supply landscape. We believe that long term demand and the natural decline of conventional oil production will see the development of higher cost and lower value resources, including heavy oil.

Heavy oil developments can be segregated into two types: conventional heavy oil that flows to the surface without steam enhancement and non-conventional heavy oil and bitumen. While the Company focuses on the non-conventional heavy oil, both play an important role in Ivanhoe Energy s corporate strategy.

Production of conventional heavy oil has been steadily increasing worldwide, led by Canada and Latin America but with significant contributions from most other oil basins, including the Middle East and the Far East, as producers struggle to replace declines in light oil reserves. Even without the impact of the large non-conventional heavy oil projects in Canada and Venezuela, world heavy oil production has been increasingly more common. Refineries, on the other hand, have not been able to keep up with the need for deep conversion capacity, and heavy versus light oil price differentials have widened significantly.

With regard to non-conventional heavy oil and bitumen, a dramatic increase in interest and activity has been fueled by higher prices, in addition to various key advances in technology, including improved remote sensing, horizontal drilling, and new thermal techniques. This has enabled producers to more effectively access the extensive, heavy oil resources around the world.

These newer technologies, together with higher oil prices, have generated increased interest in heavy oil resources, although for profitable exploitation, key challenges remain, with varied weightings, project by project: 1) the requirement for steam and electricity to help extract heavy oil, 2) the need for diluent to move the oil once it is at the surface, 3) the heavy versus light oil price differentials that the producer is faced with when the product gets to market, and 4) conventional upgrading technologies limited to very large scale, high capital cost facilities. These challenges can lead to distressed assets, where economics are poor, or to stranded assets, where the resource cannot be economically produced and lies fallow.

Ivanhoe s Value Proposition

The Company s application of the HTL™ Technology seeks to address the four key heavy oil development challenges outlined above, and can do so at a relatively small minimum economic scale.

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Ivanhoe Energy s HTL upgrading is a partial upgrading process that is designed to operate in facilities as small as 10,000 to 30,000 barrels per day produced. This is substantially smaller than the minimum economic scale for conventional stand-alone upgraders such as delayed cokers, which typically operate at scales of over 100,000 barrels per day produced. The Company s HTL Technology is based on carbon rejection, a tried and tested concept in heavy oil processing. The key advantage of HTL is that it is a very fast process, as processing times are typically under a few seconds. This results in smaller, less costly facilities and eliminates the need for hydrogen addition, an expensive, large minimum scale step typically required in conventional upgrading. The Company s HTL Technology has the added advantage of converting the byproducts from the upgrading process into onsite energy, rather than generating large volumes of low value coke.

The HTL process offers significant advantages as a field-located upgrading alternative, integrated with the upstream heavy oil production operation. HTL provides four key benefits to the producer:

1. Virtual elimination of external energy requirements for steam generation and/or power for upstream operations.

2. Elimination of the need for diluent or blend oils for transport.

3. Capture of the majority of the heavy versus light oil value differential.

4. Relatively small minimum economic scale of operations suited for field upgrading and for smaller field developments.

The economics of a project are effectively dictated by the advantages that HTL™ can bring to a particular opportunity. The more stranded the resource and the fewer monetization alternatives that the resource owner has, the greater the opportunity the Company will have to establish the Ivanhoe Energy value proposition.

Implementation Strategy

We are an oil and gas company with a unique technology which addresses several major problems confronting the oil and gas industry today and we believe that we have a competitive advantage because of our patented technology. In addition, because we have experienced thermal recovery teams, we are in a position to add value and leverage our technology advantage by working with partners on stranded heavy oil resources around the world.

The Company s continuing strategy is as follows:

1. ***Build a portfolio of major HTL™ projects.*** Continue to deploy the personnel and the financial resources in support of our goal to capture additional opportunities for development projects utilizing the Company s HTL™ Technology.

2. ***Advance the technology.*** Additional development work will continue to advance the technology through the first commercial application and beyond.

3. ***Enhance the Company s financial position in anticipation of major projects.*** Implementation of large projects requires significant capital outlays. The Company is working on various financing plans and establishing the relationships required for the development activities of the future.

4. ***Build internal capabilities.*** During 2009, the Company added two key executives; one to take up the role of President and CEO of its Canadian subsidiary and one to fill the Corporate CFO role, vacated through retirement. In addition, the Company continued to build its internal technical capabilities through the addition of senior subsurface engineering talent as well as senior environmental leadership. These new staff will join existing execution teams as they advance the Company s first HTL™ projects. The existing upstream teams consist of a number of experienced heavy oil petroleum engineers and geologists complemented by a core team of geotechnical experts. The Houston-based HTL™ technology team is built on a number of engineers that have an extensive background in chemical and petroleum refining, project engineering and the development and management of intellectual property. The Company expects to

continue filling key positions as its projects advance.

5. ***Build the relationships needed for the future.*** Commercialization of the Company s technologies demands close alignment with partners, suppliers, host governments and financiers.

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INTEGRATED OIL AND GAS PROPERTIES

Tamarack Project

In July 2008, the Company announced the completion of the acquisition of Talisman Energy Canada s (**Talisman**) 100% working interests in two leases (Leases 10 and 6) located in the heart of the Athabasca oil sands region in the Province of Alberta, Canada. Lease 10 is a 6,880-acre contiguous block located approximately ten miles (16 km) northeast of Fort McMurray. Lease 6 is a small, un-delineated, 680-acre block, one mile (1.6 km) south of Lease 10. Once the acquisition was complete the development of Lease 10 became known as the **Tamarack Project** or **Tamarack** .

The Tamarack Project will provide the site for the application of Ivanhoe Energy s proprietary, HTL heavy oil upgrading technology in a major, integrated heavy oil project. Tamarack has a relatively high level of delineation (four wells per section). We believe that a high-quality reservoir is present and is an excellent candidate for thermal recovery utilizing the SAGD process. The high quality of the asset is expected to provide for favorable projected operating costs, including attractive steam-oil ratios (**SOR**) using SAGD development techniques.

The Company s HTL™ plants at Tamarack are projected ultimately to be capable of operating at production rates of approximately 50,000 barrels per day for approximately 25 years. The Company intends to integrate established SAGD thermal recovery techniques with its patented HTL upgrading process, producing and marketing a light, synthetic sour crude.

The Company has commenced planning its Project Tamarack development program in preparation for the submission of permits for an integrated HTL™ project. In general, thermal oil sands projects, including SAGD projects, require a period of initial development, including delineation, permitting and field development, which is followed by relatively stable operations for many years.

Ecuador Project

In October 2008, Ivanhoe Energy Ecuador Inc., an indirect wholly owned subsidiary, signed a contract with the Ecuador state oil companies Petroecuador and Petroproduccion to explore and develop Ecuador s Pungarayacu heavy oil field which is part of Block 20. Block 20 is an area of approximately 426 square miles, approximately 125 miles southeast of Quito, Ecuador s capital.

Under this contract Ivanhoe Energy Ecuador will use the Company s unique and patented HTL™ Technology, as well as provide advanced oilfield technology, expertise and capital to develop, produce and upgrade heavy crude oil from the Pungarayacu field. In addition, Ivanhoe Energy Ecuador has the right to conduct exploration and appraisal for lighter oil in the contract area and to use any light oil that it discovers to blend with the heavy oil for delivery to Petroproduccion.

The contract has an initial term of 30 years and has three phases. The first two phases include the evaluation of the field s production potential and the crude oil characteristics, as well as construction of the first HTL™ plant. The third phase involves full field development and will include drilling additional exploration and development wells. Additional HTL™ capacity will be added as necessary for expected production.

The Company was in the approval phase during the first half of 2009 which included obtaining environmental licenses. The Company succeeded in getting the necessary approvals and subsequently entered into the appraisal phase which would include obtaining permits to drill, undertaking seismic activity and drilling selected locations. Our analyses of old drilling core data from the Pungarayacu field suggest that there may be oil in the field that is lighter than the bitumen oil seeps that occur at the surface. During the drilling campaign undertaken more than 25 years ago, geologists on site reported that the oil in the drilling cores fluoresced colors indicative of lighter oil which would be inconsistent with bitumen. This coloration in other oil fields around the world is usually a sign of lighter oil. We will not be able to confirm this until we have results from our drilling and testing program currently underway.

To recover its investments, costs and expenses, and to provide for a profit, Ivanhoe Energy Ecuador will receive from Petroproduccion a payment of US$37.00 per barrel of oil produced and delivered to Petroproduccion. The payment will be indexed (adjusted) quarterly for inflation, starting from the contract date, using the weighted average of a basket of three U.S. Government-published producer price indices relating to steel products, refinery equipment and upstream oil and gas equipment.

CONVENTIONAL OIL AND GAS PROPERTIES

Following the disposition of our U.S. oil and gas assets, in California and Texas, (see Note 19 to the financial statements included in Item 8 in this Form 10-K), the Company s principal oil and gas properties are located in the Hebei and Sichuan Provinces in China. Set forth below is a description of these properties.

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The following table sets forth the estimated quantities of proved reserves and production attributable to our properties:

Property	Location	2009 Production (in MBoe)	Percentage of Total 2009 Production	12/31/2009 Proved Reserves (in MBoe)	Percentage of Total Estimated Proved Reserves
Dagang	Hebei Province, China	453	97%	1,032	94%
Other	China	13	3%	69	6%
Total		466	100%	1,101	100%

Note: See the Supplementary Disclosures About Oil and Gas Production Activities (Unaudited) , which follow the notes to our consolidated financial statements set forth in Item 8 in this Annual Report on Form 10-K, for certain details regarding the Company s oil and gas proved reserves, the estimation process and production by country. Estimates for our China operations were prepared by independent petroleum consultant GLJ Petroleum Consultants Ltd. We have not filed with nor included in reports to any other U.S. federal authority or agency, any estimates of total proved crude oil or natural gas reserves since the beginning of the last fiscal year.

Internal Control over Reserve Reporting

Independent qualified reserves evaluators prepare reserve estimates for each property at least annually and issue a report thereon. The reserve estimates are reviewed by our in-house Senior Engineering Advisor (**SEA**) who is familiar with the property. Our SEA has over 30 years of experience working as a Reservoir Engineering Specialist/Advisor for various international oil companies. His primary responsibilities in these positions included evaluating and recommending well configuration and steaming strategy, conducting reservoir enhancement opportunity assessments and evaluation, simulation of reservoir, reservoir management, development and implementation of depletion strategies, evaluation gas reserves, formulating and implementing reservoir technology development programs, evaluating gas cycling recovery performance and developing surveillance tools and reservoir management programs. He holds a Bachelor s Degree in Engineering Physics, University of Saskatchewan, Canada. He is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta, the Society of Petroleum Engineers and Canadian Institute of Mining, Metallurgy and Petroleum. Our Board of Directors reviews the current reserve estimates and related disclosures as presented by the independent qualified reserves evaluators in their reserve reports with a recommendation for approval. Our Board of Directors has approved the reserve estimates and related disclosures.

Special Note to Canadian Investors

Ivanhoe is a SEC registrant and files annual reports on Form 10-K; accordingly, our reserves estimates and securities regulatory disclosures are prepared based on SEC disclosure requirements. In 2003, certain Canadian securities regulatory authorities adopted *National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities* (**NI 51-101**) which prescribes certain standards that Canadian companies are required to follow in the preparation and disclosure of reserves and related information. We applied for, and received, exemptions from certain NI 51-101 disclosure requirements based on our adherence to SEC disclosure requirements, which differ in certain respects from the prescribed disclosure standards of NI 51-101.

In 2008, as a result of the enactment of amendments to NI 51-101, we were required to re-apply for, and received, exemptions from certain of the amended NI 51-101 requirements. These exemptions permit us to substitute disclosures based on SEC requirements for much of the annual disclosure required by NI 51-101 and to prepare our reserves estimates and related disclosures in accordance with SEC requirements, generally accepted industry practices in the U.S. as promulgated by the Society of Petroleum Engineers, and the standards of the Canadian Oil and Gas Evaluation Handbook (the **COGE Handbook**) modified to reflect SEC requirements.

The reserves quantities disclosed in this Annual Report on Form 10-K represent net proved reserves calculated on an average, first-day-of-the-month price during the 12-month period preceding the end of the year for 2009, and year-end constant price basis for 2008 and 2007 using the standards contained in SEC Regulations S-X and S-K and Accounting Standards Codification 932 Extractive Activities Oil and Gas-(section 235-55) formerly Statement of Financial Accounting Standards No. 69, Disclosures About Oil and Gas Producing Activities . Such information differs from the corresponding information prepared in accordance with Canadian disclosure standards under NI 51-101. The primary differences between the current SEC requirements and the NI 51-101 requirements are as follows:

SEC registrants apply SEC reserves definitions and prepare their reserves estimates in accordance with SEC requirements and generally accepted industry practices in the U.S. whereas NI 51-101 requires adherence to the definitions and standards promulgated by the COGE Handbook;

the SEC mandates disclosure of proved reserves calculated using an average, first-day-of-the-month price during the 12-month period preceding and existing costs only; whereas NI 51-101 requires disclosure of reserves and related future net revenues using forecasted prices, with additional constant pricing disclosure being optional;

the SEC mandates disclosure of reserves by geographic area only whereas NI 51-101 requires disclosure of more reserve categories and product types; and

the SEC leaves the engagement of independent qualified reserves evaluators to the discretion of a company s board of directors whereas NI 51-101 requires issuers to engage such evaluators.

The foregoing is a general and non-exhaustive description of the principal differences between SEC disclosure requirements and NI 51-101 requirements. Please note that the differences between SEC requirements and NI 51-101 may be material.

China

Production and Development

Our producing property in China is a 30-year production-sharing contract with China National Petroleum Corporation (**CNPC**), covering an area of 10,255 gross acres divided into three blocks in the Kongnan oilfield in Dagang, Hebei Province, China (the **Dagang field**). Under the contract, as operator, we funded 100% of the development costs to earn 82% of the net revenue from oil production until cost recovery. Effective September 1, 2009 the project reached cost recovery and the working interests changed to 51% CNPC and 49% for the Company. Our entire interest in the Dagang field will revert to CNPC at the end of the 20-year production phase of the contract or if we abandon the field earlier.

In January 2004, we negotiated farm-out and joint operating agreements with Richfirst Holdings Limited (**Richfirst**) a subsidiary of China International Trust and Investment Corporation (**CITIC**) whereby Richfirst paid $20.0 million to acquire a 40% working interest in the field after Chinese regulatory approvals, which were obtained in June 2004. The farm-out agreement provided Richfirst with the right to convert its working interest in the Dagang field into common shares in the Company at any time prior to eighteen months after closing the farm-out agreement. Richfirst elected to convert its 40% working interest in the Dagang field and in February 2006 we re-acquired Richfirst s 40% working interest.

From 2001 to the fourth quarter 2006 under the Petroleum Sharing Contract, we completed the pilot phase and entered the development phase and reached agreement with CNPC on a modified Overall Development Plan to reduce the scope of the development from 115 wells to 44 wells. The last 5 wells were drilled and placed on production in 2007. To date there has been 4,366 gross acres of a total of 12,097 acres relinquished through the terms of the contract. Commercial production commenced on January 1, 2009 as agreed by the parties following conversion of two wells to water injection for pressure maintenance purposes. Pursuant to the terms of the agreement, to the Company can recover from CNPC their share of operating costs, which is currently a 51% working interest.

No new development wells were drilled in 2009 or 2008. In 2009, we fracture stimulated 6 wells compared to 12 fracture stimulations in 2008. The year-end 2009 gross production rate was 1,660 Bopd compared to 1,700 Bopd at the end of 2008 and 1,900 Bopd at the end of 2007. We currently sell our crude oil at a three-month rolling average price of Cinta crude which historically averages approximately $3.00 per barrel less than West Texas Intermediate (**WTI**) price.

Exploration

In November 2002, we received final Chinese regulatory approval for a 30-year production-sharing contract (the **Zitong Contract**), with CNPC for the Zitong block, which covers an area of approximately 900,000 acres in the Sichuan basin. Under the Zitong Contract, we agreed to conduct an exploration program on the Zitong block consisting of two phases, each three years in length. The first three-year period was ultimately extended to December 31, 2007. The parties will jointly participate in the development and production of any commercially viable deposits, with production rights limited to a maximum of the lesser of 30 years following the date of the Zitong Contract or 20 years of continuous production. In 2006, we farmed-out 10% of our working interest in the Zitong block to Mitsubishi Gas Chemical Company Inc. of Japan (**Mitsubishi**) for $4.0 million. The Company completed the first phase under the Zitong Contract (**Phase I**). This included reprocessing approximately 1,649 miles of existing 2D seismic data and acquiring approximately 705 miles of new 2D seismic data, and interpreting this data. This was followed by drilling two wells, totaling an aggregate of 22,293 feet. Both wells encountered expected reservoirs and gas was tested on the second well, but neither well demonstrated commercially viable flow rates and both have been suspended. The Company may elect to reenter these wells to stimulate or drill directionally in the future.

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In December 2007, the Company and Mitsubishi (the **Zitong Partners**) made a decision to enter into the next three-year exploration phase (**Phase II**). By electing to participate in Phase II the Zitong Partners must relinquish 30%, plus or minus 5%, of the Zitong block acreage and complete a minimum work program involving the acquisition of approximately 200 miles of new seismic lines and approximately 23,700 feet of drilling (including the Phase I shortfall), with total gross remaining estimated minimum expenditures for this program of $23.1 million. The Phase II seismic line acquisition commitment was fulfilled in the Phase I exploration program. The Zitong Partners have no plans to acquire additional seismic data in Phase II. The Zitong Partners relinquished 15% of the Block acreage in 2008 and a further 10% was relinquished in 2009 to complete the end of the Phase I relinquishment requirement. The Zitong Partners contracted Sichuan Geophysical Company to conduct a complete review of the seismic data acquired to date on the block to select two Phase II drilling locations. Drilling is to commence in the second quarter of 2010 with expected completed drilling, completion and evaluation of the prospects finalized in late 2010. The Zitong Partners must complete the minimum work program or will be obligated to pay to CNPC the cash equivalent of the deficiency in the work program for that exploration phase. Following the completion of Phase II, the Zitong Partners must relinquish all of the remaining property except areas identified for development and future production. In the event of a discovery, the Zitong Partners believe it could be possible to negotiate to enter into a defined Phase III exploration commitment and ongoing development phase and reduce the amount of land relinquishment at this time.

Mongolia

Exploration

In November 2009, through a merger with PanAsian Petroleum Inc., a privately-owned corporation, the company acquired a Production-Sharing Contract **(the Nyalga contract**) for the Nyalga Block XVI in Mongolia. The block covers an area of approximately 4.2 million acres in the Khenti and Tov provinces and provides the Company with the exclusive rights to explore, develop and produce oil or gas within the block.

The exploration period is for five years in duration and consists of three phases of two years, one year and two years respectively, with the ability to nominate a two year extension following Phase I or Phase II. The minimum work obligations consist of $2.7 million for phase I, $1.0 million for phase II and $2.5 million for phase III. If in one year more than the minimum is expended, the excess can be applied to reduce the minimum expenditure in the next year of that phase. During the initial seismic a portion of the block, representing approximately 16% of the total, was declared by the Mongolian government to be a historical site and operations on that portion, being the Delgerkhaan area, were suspended. The Company received a letter from the Mineral Resources and Petroleum Authority of Mongolia **(the MRPAM)** in May 2008 which stated that the obligations under year one of phase one would be extended for one year from the time the Company is allowed access to the suspended area. To date access has not been allowed and discussions with MRPAM are ongoing. Seismic previously acquired has more than fulfilled the year obligation. The Company s plans are to perform additional 2D seismic in the first quarter 2010, process and interpret the results and to spud an initial exploration well in the last quarter 2010.

BUSINESS AND TECHNOLOGY DEVELOPMENT

Heavy to Light Oil Upgrading

RTP™ License and Patents

In April 2005, the Company acquired all the issued and outstanding common shares of Ensyn Group, Inc. (**Ensyn**) whereby we acquired an exclusive, irrevocable license to Ensyn s RTP™ Process for all applications other than biomass. Since Ivanhoe acquired the HTL™ technology, it has continued to expand its patent coverage to protect innovations to the HTL™ Technology as they are developed and to significantly extend the Ivanhoe s portfolio of HTL™ intellectual property. In the United States, Ivanhoe is the assignee of three granted U.S. patents and currently has three U.S. patent applications pending. Ivanhoe also has multiple patent applications pending in numerous other countries. In addition, Ivanhoe owns exclusive, irrevocable licenses to patents, patent applications, and technology for the rapid thermal processing process of petroleum.

Commercial Demonstration Facility

In 2004, Ensyn constructed a Commercial Demonstration Facility (**CDF**) to confirm earlier pilot test results on a larger scale and to test certain processing options. This facility, acquired by the Company as part of the Ensyn merger, was built in the Belridge field, a large heavy oil field owned by Aera. In March 2005, initial performance testing of the CDF was completed successfully and the results of the test were verified by two large independent consulting firms. The CDF demonstrated an overall processing capacity of approximately 1,000 Bbls/d based on whole oil from the Belridge California heavy oil fields and a hot reaction section capacity of approximately 300 Bbls/d.

During 2007, technical developments were led by two important test runs at the CDF: a High Quality configuration was demonstrated on Belridge whole oil vacuum tower bottoms (**VTBs**) and a key test was successfully completed processing Athabasca bitumen pursuant to a longstanding technology development agreement with ConocoPhillips Canada Resources Corp. These two key tests were the capstones of the CDF test program and we have now fulfilled the primary technical objectives of the CDF. The goals of the test program were: (1) to confirm in a substantially large facility the key results generated in the early Ensyn pilot plant runs of heavy oil and bitumen which formed the basis of the HTL™ intellectual property, and (2) to provide sufficient data for the design and construction of commercial HTL™ plants.

The Athabasca bitumen CDF test provided important technical information related to the design of full-scale HTL™ facilities. This test coupled with other test run data, correlated the performance of the CDF with earlier runs on the smaller scale pilot facility and validated the assumptions in Ivanhoe Energy s economic models.

Ivanhoe Energy is currently decommissioning of this plant and completion is planned for end of second quarter 2010. All future test work will be carried out in the FTF.

Feedstock Test Facility

The Company initiated the construction of the Feedstock Test Facility (**FTF**) during 2008 and the unit was successfully commissioned in March 2009. The state-of-the-art HTL™ testing facility is being used by Ivanhoe to support detailed engineering and design of commercial-scale HTL™ plants for Ivanhoe s Tamarack Project in Alberta, Canada, and Pungarayacu Project in Ecuador, and to test crudes associated with additional potential HTL™ projects. The FTF was installed at Southwest Research Institute (**SwRI**) in San Antonio, Texas. SwRI is a world-class technology center that operates testing facilities for numerous leading oil companies, as well as other technology-intensive organizations such as NASA, the Department of Energy and the Department of Defense. The FTF is a small 10-15 Bbls/d, highly flexible state-of-the-art HTL™ facility which will permit screening of global crude oil for current and potential partners in smaller volumes and at lower costs than required at the CDF. As we continue to advance our technology, this unit will form an integral part of the ongoing post-commercialization optimization of our products and processes. The FTF will provide additional data and will support the detailed engineering process once the first commercial target location and crude has been established. The FTF will also serve an integral part in supporting all of the Company s commercial operations.

Business Development

The Company pursues HTL™ business development opportunities globally, with an emphasis on creating value from stranded resources or resource accumulations considered too small to be economically viable using other technologies. As part of this strategy to focus on stranded resources the Company has in the past pursued projects incorporating its non-exclusive master license entitling us to use Syntroleum s proprietary GTL Technology to convert natural gas into ultra clean transportation fuels and other synthetic petroleum products in an unlimited number of projects with no limit on production volume. The Company s master license expires on the later of April 2015 or five years from the effective date of the last site license issued to the Company by Syntroleum. No such site licenses have been issued to date. These two technologies have formed the basis for the Company s business development activities in the Middle East. While discussions with various governments have at times reached advanced states, no definitive agreements have ever been signed. The Company continues to actively pursue business opportunities in the Middle East.

CERTAIN FACTORS AFFECTING THE BUSINESS

Competition

The oil and gas industry is highly competitive. Our position in the oil and gas industry, which includes the search for and development of new sources of supply, is particularly competitive. Our competitors include major, intermediate and junior oil and natural gas companies and other individual producers and operators, many of which have substantially greater financial and human resources and more developed and extensive infrastructure than we do. Our larger competitors, by reason of their size and relative financial strength, can more easily access capital markets than we can and may enjoy a competitive advantage in the recruitment of qualified personnel. They may be able to absorb the burden of any changes in laws and regulations in the jurisdictions in which we do business more easily than we can, adversely affecting our competitive position. Our competitors may be able to pay more for producing oil and natural gas properties and may be able to define, evaluate, bid for, and purchase a greater number of properties and prospects than we can. Further, these companies may enjoy technological advantages and may be able to implement new technologies more rapidly than we can. Our ability to acquire additional properties in the future will depend upon our ability to conduct efficient operations, to evaluate and select suitable properties, implement advanced technologies, and to consummate transactions in a highly competitive environment. The oil and gas industry also competes with other industries in supplying energy, fuel and other needs of consumers.

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Environmental Regulations

Our conventional oil and gas and HTL™ operations are subject to various levels of government laws and regulations relating to the protection of the environment in the countries in which we operate. We believe that our operations comply in all material respects with applicable environmental laws.

Environmental legislation imposes, among other things, restrictions, liabilities and obligations in connection with the generation, handling, storage, transportation, treatment and disposal of hazardous substances and waste and in connection with spills, releases and emissions of various substances to the environment. As well, environmental regulations are imposed on the qualities and compositions of the products sold and imported. Environmental legislation also requires that wells, facility sites and other properties associated with our operations be operated, maintained, abandoned and reclaimed to the satisfaction of applicable regulatory authorities. In addition, certain types of operations, including exploration and development projects and significant changes to certain existing projects, may require the submission and approval of environmental impact assessments. Compliance with environmental legislation can require significant expenditures and failure to comply with environmental legislation may result in the imposition of fines and penalties and liability for clean-up costs and damages. We anticipate that changes in environmental legislation may require, among other things, reductions in emissions to the air from our operations and result in increased capital expenditures.

Operations in Canada are governed by comprehensive Federal, Provincial and Municipal regulations. The Company is in the process of preparing a detailed regulatory application and Environmental Impact Assessment for submission to the Alberta Energy Resources Conservation Board and Alberta Environment. In addition, the Company will be required to obtain numerous ancillary approvals prior to commencing operations and will be subject to ongoing environmental monitoring and auditing requirements.

In April 2007, the Government of Canada announced its intent to introduce a set of regulations to limit emissions of greenhouse gas and air pollutants from major industrial facilities in Canada, although the details of the regulations have not been finalized. In the fall of 2009, the Government further expressed its intent that Canadian policy in this area be aligned with that of the U.S., which also remains under development. Consequently, attempts to assess the impact on our company are premature. We will continue to monitor the development of legal requirements in this area.

In the Province of Alberta, regulations governing greenhouse gas emissions from large industrial facilities came into effect July 1, 2007. These regulations cover industrial facilities emitting more than 100,000 tonnes (carbon dioxide equivalent) of greenhouse gas emissions annually and require a reduction by 12 percent in the greenhouse gas emissions per unit of production from each facility s average annual intensity over the period 2003 through 2005. Allowed compliance measures include participation in an Alberta emission-trading system or payment (at a rate of $15 per excess tonne of emissions) to Alberta s Climate Change and Emissions Management Fund. Impact on the overall operations of the company has not been material.

China and Ecuador continue to develop and implement more stringent environmental protection regulations and standards for different industries. Projects are currently monitored by governments based on the approved standards specified in the environmental impact statement prepared for individual projects.

Environmental Provisions

As at December 31, 2009, a $0.2 million provision for the removal of the FTF and $0.8 million for the removal of the CDF and restoration of the Aera site occupied by the CDF. The future cost of these obligations is estimated at $0.5 million and $0.8 million for the FTF and CDF, respectively. We do not make such a provision for our oil and gas production operations in China as there is no obligation on our part to contribute to the future cost to abandon the field and restore the site.

Government Regulations

Our business is subject to certain federal, state/provincial and local laws and regulations in the regions in which we operate relating to the exploration for, and development, production and marketing of, crude oil and natural gas, as well as environmental and safety matters. In addition, the Chinese government regulates various aspects of foreign company operations in China. Such laws and regulations have generally become more stringent in recent years both in the U.S., Canada, Ecuador and China, often imposing greater liability on a larger number of potentially responsible parties. Because the requirements imposed by such laws and regulations are frequently changed, we are not able to predict the ultimate cost of compliance.

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EMPLOYEES

As at December 31, 2009, we had 169 employees and consultants actively engaged in the business. None of our employees are unionized.

PRODUCTION, WELLS AND RELATED INFORMATION

See the Supplementary Disclosures About Oil and Gas Production Activities (Unaudited) , which follows the notes to our consolidated financial statements set forth in Item 8 in this Annual Report on Form 10-K, for information with respect to our oil and gas producing activities.

The following tables set forth, for each of the last three fiscal years, our average sales prices and average operating costs per unit of production based on our net interest after royalties. Average operating costs are for lifting costs (which include Windfall Levy) only and exclude depletion and depreciation, income taxes, interest, selling and administrative expenses.

	Average Sales Price			Average Operating Costs		
	2009	**2008**	**2007**	**2009**	**2008**	**2007**
Crude Oil ($/Boe)						
China	$ 53.60	$ 98.73	$ 64.86	$ 21.88	$ 43.92	$ 26.88

The following table sets forth the number of productive wells (both producing wells and wells mechanically capable of production) in which we held a working interest at the end of each of the last three fiscal years. Gross wells are the total number of wells in which a working interest is owned and net wells are the sum of fractional working interests owned in gross wells. All of our wells have multiple completions in different zones, but all completions for a well are in the same well bore hole.

	2009				**2008**		**2007**	
	Oil Wells		**Gas Wells**		**Oil Wells**	**Gas Wells**	**Oil Wells**	**Gas Wells**
	Gross	**Net**	**Gross**	**Net**				