

GASTAR EXPLORATION LTD
Form 10-K
March 10, 2011
Table of Contents

Index to Financial Statements

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

x Annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934
For the Fiscal Year Ended December 31, 2010

OR

.. 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: 001-32714

GASTAR EXPLORATION LTD.

(Exact name of registrant as specified in its charter)

Alberta, Canada
(State or other jurisdiction of
incorporation or organization)

98-0570897
(I.R.S. Employer
Identification No.)

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

1331 Lamar Street, Suite 1080

Houston, Texas
(Address of principal executive offices)

77010
(Zip Code)

(713) 739-1800

(Registrant's telephone number, including area code)

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

Common Stock, No Par Value
(Title of Class)

NYSE Amex, LLC
(Name of Exchange on which registered)

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

None

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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.

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.

Large accelerated filer Accelerated filer
Non-accelerated filer Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2010 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$138.1 million based on the closing price of \$3.61 per share on the NYSE Amex, LLC.

The number of shares of the registrant's Common Stock, no par value per share outstanding as of March 8, 2011 was 64,178,911.

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Documents incorporated by reference:

The information required by Part III of Form 10-K (Items 10, 11, 12, 13 and 14 thereunder) is incorporated by reference herein from portions of the registrant's definitive proxy statement relating to its 2011 annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days of December 31, 2010.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2010

TABLE OF CONTENTS

	Page
PART I	
Item 1.	
<u>Business</u>	1
<u>Overview</u>	1
<u>Our Strategy</u>	1
<u>Natural Gas and Oil Activities</u>	2
<u>Markets and Customers</u>	7
<u>Competition</u>	8
<u>Seasonal Nature of Business</u>	9
<u>U.S. Governmental Regulation</u>	9
<u>Regulation of Exploration and Production</u>	9
<u>U.S. Environmental Regulation</u>	12
<u>Industry Segment and Geographic Information</u>	16
<u>Insurance Matters</u>	16
<u>Filings of Reserve Estimates with Other Agencies</u>	16
<u>Employees</u>	17
<u>Corporate Offices</u>	17
<u>Available Information</u>	17
Item 1A.	
<u>Risk Factors</u>	18
<u>Risks Related to Our Business</u>	18
<u>Risks Related to Our Common Shares</u>	32
Item 1B.	
<u>Unresolved Staff Comments</u>	33
Item 2.	
<u>Properties</u>	33
<u>Production, Prices and Operating Expenses</u>	33
<u>Drilling Activity</u>	34
<u>Exploration and Development Acreage</u>	34
<u>Undeveloped Acreage Expirations</u>	35
<u>Productive Wells</u>	35
<u>Natural Gas and Oil Reserves</u>	35
Item 3.	
<u>Legal Proceedings</u>	39
Item 4.	
<u>Removed and reserved for future use</u>	39
PART II	
Item 5.	
<u>Market for Registrant's Common Equity and Related Shareholder Matters and Issuer Purchases of Equity Securities</u>	40
<u>Market Information</u>	40
<u>Shareholders</u>	40
<u>Dividends</u>	40
<u>Recent Sales of Unregistered Securities; Use of Proceeds from Unregistered Securities</u>	40
Item 6.	
<u>Selected Financial Data</u>	41
Item 7.	
<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	41
<u>Overview</u>	41
<u>Financial Highlights</u>	43
<u>Results of Operations</u>	43
<u>Liquidity and Capital Resources</u>	49
<u>Off-Balance Sheet Arrangements</u>	51

Table of Contents

Index to Financial Statements

	Page
	52
	52
	53
	57
Item 7A.	58
	58
	59
	59
Item 8.	59
Item 9.	59
Item 9A.	59
	59
	59
	60
	61
Item 9B.	62
PART III	
Item 10.	63
Item 11.	63
Item 12.	63
Item 13.	63
Item 14.	63
PART IV	
Item 15.	63

Table of Contents

Index to Financial Statements

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (Form 10-K) includes forward looking information that is intended to be covered by the forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical fact included or incorporated by reference in this Form 10-K are forward-looking statements, including without limitation all statements regarding future plans, business objectives, strategies, expected future financial position or performance, expected future operational position or performance, budgets and projected costs, future competitive position or goals and/or projections of management for future operations. In some cases, you can identify a forward-looking statement by terminology such as may, will, could, should, expect, plan, project, intend, anticipate, believe, potential, pursue, target or continue, the negative of such terms or variations thereon, or other comparable terminology. Forward-looking statements may include statements that relate to, among other things, our:

Financial position;

Business strategy and budgets;

Anticipated capital expenditures;

Drilling of wells, including the anticipated scheduling and results of such operations;

Natural gas and oil reserves;

Timing and amount of future production of natural gas, natural gas liquids, oil and condensate;

Operating costs and other expenses;

Cash flow and anticipated liquidity;

Prospect development; and

Property acquisitions and sales.

The forward-looking statements contained in this report are largely based on our expectations for the future, which reflect certain estimates and assumptions made by our management. These estimates and assumptions reflect our best judgment based on currently known market conditions, operating trends and other factors. Although we believe such estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control. As such, management's assumptions about future events may prove to be inaccurate. For a more detailed description of the risks and uncertainties involved, see Item 1A. Risk Factors in Part I. of this Form 10-K. We do not intend to publicly update or revise any forward-looking statements as a result of new information, future events, changes in circumstances or otherwise. These cautionary statements qualify all forward-looking statements attributable to us, or persons acting on our behalf. Management cautions all readers that the forward-looking statements contained in this report are not guarantees of future performance, and we cannot assure any reader that such statements will be realized or that the events and circumstances they describe will occur. Factors that could cause actual

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

results to differ materially from those anticipated or implied in the forward-looking statements herein include, but are not limited to:

the supply and demand for natural gas and oil;

low and/or declining prices for natural gas and oil;

natural gas and oil price volatility;

worldwide political and economic conditions and conditions in the energy market;

our ability to raise capital to fund capital expenditures or repay or refinance debt upon maturity;

the ability and willingness of our current or potential counterparties, third-party operators or vendors to enter into transactions with us and/or to fulfill their obligations to us;

failure of our joint interest partners to fund any or all of their portion of any capital program;

iii

Table of Contents

Index to Financial Statements

the ability to find, acquire, market, develop and produce new natural gas and oil properties;

uncertainties about the estimated quantities of natural gas and oil reserves;

strength and financial resources of competitors;

availability and cost of material and equipment, such as drilling rigs and transportation pipelines;

availability and cost of processing and transportation;

changes or advances in technology;

uncertainties in the estimation of proved reserves and in the projection of future rates of production and timing of development expenditures;

the risks associated with exploration, including cost overruns and the drilling of non-economic wells or dry wells, operating hazards inherent to the natural gas and oil business and down hole drilling and completion risks that are generally not recoverable from third parties or insurance;

potential mechanical failure or under-performance of significant wells or pipeline mishaps;

environmental risks;

possible new legislative initiatives and regulatory changes potentially adversely impacting our business and industry, including, but not limited to, national healthcare, cap and trade, hydraulic fracturing, state and federal corporate income taxes, retroactive royalty or production tax regimes, changes in environmental regulations, environmental risks and liability under federal, state and local environmental laws and regulations;

effects of the application of applicable laws and regulations, including changes in such regulations or the interpretation thereof;

potential losses from pending or possible future claims, litigation or enforcement actions;

potential defects in title to our properties or lease termination due to lack of activity or other disputes with mineral lease and royalty owners, whether regarding calculation and payment of royalties or otherwise;

the weather, including the occurrence of any adverse weather conditions and/or natural disasters affecting our business;

ability to find and retain skilled personnel; and

any other factors that impact or could impact the exploration of natural gas or oil resources, including, but not limited to, the geology of a resource, the total amount and costs to develop recoverable reserves, legal title, regulatory, natural gas administration, marketing and operational factors relating to the extraction of natural gas and oil.

You should not unduly rely on these forward-looking statements in this Form 10-K, as they speak only as of the date of this Form 10-K. Except as required by law, we undertake no obligation to publicly update, revise or release any revisions to these forward-looking statements after the date on which they are made to reflect new information, events or circumstances occurring after the date of this Form 10-K or to reflect the occurrence of unanticipated events.

Unless otherwise indicated or required by the context, (i) all references included in this Form 10-K to Gastar, the Company, we, us, and our refer to Gastar Exploration Ltd. and its subsidiaries and predecessors, (ii) all dollar amounts appearing in this Form 10-K are stated in United States (U.S.) dollars unless otherwise noted in Australian dollars (AU\$) and (iii) all financial data included in this Form 10-K have been prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP).

As of the opening of trading on August 3, 2009, a common share consolidation on the basis of one (1) common share for five (5) common shares (the 1-for-5 Reverse Split) became effective. All common share and per share amounts reported in this Form 10-K have been reported on a post reverse split basis.

Table of Contents

Index to Financial Statements

PART I

Item 1. Business

Overview

We are an independent energy company engaged in the exploration, development and production of natural gas and oil in the United States. Our principal business activities include the identification, acquisition, and subsequent exploration and development of natural gas and oil properties with an emphasis on prospective deep structures identified through seismic and other analytical techniques as well as unconventional natural gas reserves, such as shale resource plays. We are pursuing natural gas exploration in the deep Bossier gas play in the Hilltop area of East Texas and the Marcellus Shale in the Appalachian area of West Virginia and central and southwestern Pennsylvania. We also conduct limited coal bed methane (CBM) development activities within the Powder River Basin of Wyoming and Montana.

We are a Canadian corporation, incorporated in Alberta in 1987 and subsisting under the *Business Corporations Act* (Alberta). Our principal office is currently located at 1331 Lamar Street, Suite 1080, Houston, Texas 77010, and our telephone number is (713) 739-1800. During mid-March 2011, we will be relocating our principal office to 1331 Lamar Street, Suite 650, Houston, Texas 77010. Our website address is <http://www.gastar.com>. Information on our website or about us on any other website is not incorporated by reference into this Form 10-K and does not constitute a part of this report. Our common shares are listed on the NYSE Amex under the symbol GST .

Our Strategy

Our strategy is to increase stockholder value by delivering sustainable reserves growth and improved operating results from our existing assets. We recognize that there may be periods, such as the recent economic downturn or declines in product prices that make it difficult to fully execute this strategy on a short-term basis. We intend to implement our strategy by focusing on:

continued exploitation of existing East Texas and Marcellus Shale assets with a focus on areas that we believe are prospective for natural gas and oil with relatively high liquids content,

active management of our domestic drilling program and

effective management and utilization of technological expertise.

Continue Exploitation of Existing East Texas and Marcellus Sale Assets

At December 31, 2010, our East Texas portfolio includes 28 productive wells. We have identified numerous potential drilling locations on our East Texas acreage position at December 31, 2010 of 33,400 gross (19,200 net) acres that provide opportunities to increase production and cash flow through the drilling of potentially high return Bossier wells.

Our producing assets in West Virginia and Pennsylvania include one tested vertical Marcellus Shale well that is awaiting connection to a pipeline, one horizontal Marcellus Shale well that is awaiting hydraulic fracturing (fracing) and 16 recently drilled shallow Devonian wells as well as other producing wells in the area. During 2010, we increased our acreage exposure to approximately 87,700 gross (79,700 net) acres and drilling activities in the Marcellus Shale, and we intend to continue to do so in 2011. In September 2010, we formed a joint venture (the Atinum Joint Venture) with an affiliate of Atinum Partners Co., Ltd, a Korean investment firm, under which we are pursuing a three-year development program of our Marcellus Shale assets in West Virginia and Pennsylvania. We also acquired 62,000 net acres of leasehold in the Marcellus Shale concentrated in Preston, Randolph, Tucker and Pendleton Counties, West Virginia (the Marcellus Acquisition) in December 2010.

Table of Contents

Index to Financial Statements

Actively Manage Our Domestic Drilling Program

We believe operating a large portion of our East Texas and Marcellus Shale properties enables us to control the timing and cost of our drilling budget as well as control operating costs and the marketing of our production. We have assembled an experienced team of operating professionals with the specialized skills needed to plan and execute the drilling and completion of the deep, high-temperature and high-pressure wells targeting the deep Bossier formation.

We believe that our drilling activity during 2010 in East Texas expanded our acreage that is prospective for future drilling. Continued success in the Bossier formations, specifically our Donelson #4 well, coupled with middle Bossier success in the Streater #1 well, further confirms our belief that we have multiple years of drilling opportunities remaining in East Texas. Our drilling plans, however, are dependent upon numerous variable factors, including, but not limited to, natural gas and oil prices, drilling costs, leasehold expirations and availability of capital, rigs, equipment and crews. If natural gas prices continue to be projected below \$5.00 per Mcf, as evidenced in futures markets, we expect that our East Texas Bossier drilling operations will likely be reduced to a level required to maintain leases. During 2010, we also began initial testing of two shallower potential oil bearing formations, the Eagle Ford Shale and Glen Rose formations, on our East Texas Bossier acreage position.

We also believe the expansion of our net acreage in the Marcellus Shale and entry into the Atinum Joint Venture during 2010, coupled with our own successful Marcellus Shale completion and offset operator success, will provide us with a multi-year inventory of drilling opportunities in that area. While we plan to accelerate the development of our Marcellus acreage, our initial focus will be in a prospectively liquids-rich area with subsequent focus on drilling acreage in order to hold that acreage by production prior to lease term expirations.

Manage and Utilize Technological Expertise

We believe that 3-D seismic analysis, enhanced natural gas recovery processes, horizontal drilling and other advanced drilling technologies and production techniques are valuable tools that improve drilling results and ultimately enhance production and returns. We believe that utilizing these technologies and production techniques in exploring for, developing and exploiting natural gas and oil properties have helped us reduce drilling risks, lower finding costs and provide for more efficient production of natural gas and oil from our properties.

Natural Gas and Oil Activities

The following provides an overview of our major natural gas and oil projects during 2010. While actively pursuing specific exploration and development activities in each of the following areas, we continue to review other opportunities. There is no assurance that new drilling opportunities will be identified or that any new drilling opportunities will be successful if drilled.

Hilltop Area, East Texas

The majority of our drilling activities in 2010 were in the Bossier play in the Hilltop area of East Texas, approximately midway between Dallas and Houston in Leon and Robertson Counties, where, at December 31, 2010, we held leases covering approximately 33,400 gross (19,200 net) acres. The Bossier play is an unconventional play characterized by Jurassic-age series of sands deposited in an ancient deepwater environment in mini-basins or depositional lows and on the flanks of structures that existed at the time of deposition. Wells in this area target multiple potentially productive natural gas formations and are typically characterized by high initial production and attractive long-lived per well reserves. We also commenced drilling activities in the Eagle Ford Shale and Glen Rose formations to test the oil potential in these zones. We drilled 2 gross (1.7 net) Bossier formation wells and 1 gross (1 net) well in the Eagle Ford and 1 gross (1 net) well in the Glen Rose zones in 2010.

Table of Contents

Index to Financial Statements

In late October 2009, we began drilling the Donelson #4 well, a vertical lower Bossier test. The well was originally drilled to a total depth of approximately 19,000 feet. Following operational issues encountered while attempting to log the well, the well was sidetracked and re-drilled. While re-drilling, the well experienced a significant gas pressure kick and had to be plugged back to approximately 15,600 feet to re-drill to a revised total depth of 18,800 feet. This second re-drilling operation was completed in May 2010. The well was completed in the lower B-6 Bossier zone, which flowed at an initial gross sales rate of 8.6 million cubic feet of natural gas (MMcf) per day. That initial completion was placed behind a temporary plug and a lower B-5 Bossier zone was completed at an initial gross sales rate of 10.7 MMcf per day. The upper B-5 zone was completed and initially produced at a gross sales rate of 10.0 MMcf per day. The B-5 and B-6 zones were subsequently commingled and produced together at an initial gross sales rate of 16.0 MMcf per day. During the three months ended December 31, 2010, the well produced at an average gross sales rate of 10.8 MMcf per day. Three additional zones that have been attributed proved non-producing reserves remain to be completed at future dates. As of December 31 2010, our net cost incurred to drill and complete the Donelson #4 well, net of reimbursements under existing well control insurance policies, was approximately \$9.5 million. We have a 67% before payout working interest and an approximate 50% before payout net revenue interest in the well.

In March 2010, we commenced a recompletion of the Belin #1 well in the Lanier Sand, a lower Bossier zone, at approximately 16,700 feet. The zone was fracture stimulated and, during initial flow back operations, the well produced significant amounts of formation sand, which we believe resulted from a casing failure at approximately 16,700 feet. We successfully repaired the damaged portion of the casing and returned the well to production in late June 2010. During the three months ended December 31, 2010, the well produced at an average gross sales rate of 5.7 MMcf per day. As of December 31, 2010, our net cost incurred to drill and complete the Belin #1 well was \$11.2 million. We have a 50% before payout working interest and an approximate 37% before payout net revenue interest in the well.

In August 2010, we began drilling the Streater #1 well, a middle Bossier well. This well was successfully completed in a single middle Bossier zone at a depth of 17,800 feet during September 2010. During the three months ended December 31, 2010, the well produced at an average gross sales rate of 5.8 MMcf per day. We plan to complete this well in two additional zones once the current reservoir pressure declines from its current pressure. As of December 31, 2010, our net cost incurred to drill and complete the Streater #1 well was \$7.4 million. We have a 100% before payout working interest and an approximate 78% before payout net revenue interest in the well.

We drilled the Wildman 6H, a horizontal well, in the Glen Rose formation and completed it with a single stage fracture stimulation. The Wildman 6H well was completed using a slotted liner which did not allow for the multi-stage fracture stimulation of the horizontal wellbore where several natural fractures were observed. Currently, the well is producing approximately 30 barrels of oil per day. Recognizing that our original completion approach was not optimal, we decided to further test the Glen Rose formation. Subsequently, we drilled two other wells to test the Glen Rose formation, another horizontal well, the Wildman 8H, and a vertical well, the Williams #2. The Wildman 8H and Williams #2 were fracture stimulated and completed in late February 2011. The initial seven-day Wildman 8H flowing production averaged over 250 barrels of oil per day and in excess of 1,300 barrels of fracture stimulation fluids per day. While these initial results are encouraging, we plan on continuing to monitor production for an extended period of time before continuing with horizontal development of the Glen Rose formation. The Williams #2 is flowing naturally from the initial stimulation and will be placed on artificial lift in order for us to evaluate the vertical Glen Rose formation potential.

We have also begun testing the Eagle Ford Shale/Woodbine formation with one recent well in East Texas, the Wildman 7H. The Wildman 7H is a horizontal well intended to test the Eagle Ford Shale/Woodbine formation, but due to horizontal drilling issues, the well was re-targeted and the horizontal lateral drilled in a slightly deeper transitional limestone zone known as the False Buda. The well was fracture stimulated with a 16-stage completion. Micro-seismic information was gathered during the completion process and processing and interpretation of that data revealed that our fracture stimulation did not extend upward as anticipated in order

Table of Contents**Index to Financial Statements**

to allow communication with the Eagle Ford Shale/Woodbine formation. The Wildman 7H was placed on artificial lift in mid-February 2011 and production is currently averaging 120 barrels of oil per day and in excess of 1,500 barrels of water per day. We plan to drill a subsequent well, the Wildman 9H, based on the production results observed to date from the Wildman 7H well. We expect the horizontal lateral in the Wildman 9H well will be targeted within the portion of the Eagle Ford Shale/Woodbine formation that was originally the target of the Wildman 7H well. Drilling of the Wildman 9H well is scheduled to commence in mid-March 2011, subject to rig availability.

As of December 31, 2010, we were drilling the Belin #2 well, an exploration well testing the deep Bossier in a separate fault block near the Belin #1 well. The well has reached total depth of 19,650 feet and encountered approximately 130 net feet of pay in the lower Bossier formation within five separate sand intervals. We plan to complete the well in two initial zones and, depending upon the availability of fracture stimulation services, expect the first of these initial completions to be online by the end of April 2011. We have a 67% before payout working interest and an approximate 50% before payout net revenue interest in the well.

For the year ended December 31, 2010, net production from the Hilltop area averaged 18.6 million cubic feet of natural gas equivalent (MMcfe) per day. For the three months ended December 31, 2010, net production from the Hilltop area averaged approximately 23.8 MMcfe per day. At December 31, 2010, proved reserves attributable to the Hilltop area were approximately 45.0 billion cubic feet of natural gas equivalent (Bcfe), representing 90% of our total proved reserves and 83% of which is proved developed. The following table provides production and operational information about the Hilltop area for the periods indicated:

	For the Years Ended December 31,		
	2010	2009	2008
Production:			
Natural gas (MMcfe)	6,756	7,959	6,361
Oil (MBbl)	8	2	4
Total production (MMcfe)	6,803	7,971	6,383
Natural gas (MMcfd)	18.5	21.8	17.4
Oil (MBod)	0.0	0.0	0.0
Total (MMcfd)	18.6	21.8	17.5
Average realized sales prices before hedging activity:			
Natural gas (per Mcf)	\$ 3.49	\$ 3.04	\$ 7.30
Oil (per Bbl)	\$ 73.10	\$ 53.64	\$ 102.53
Average realized sales price after hedging activity:			
Natural gas (per Mcf)	\$ 4.05	\$ 4.57	\$ 6.84
Selected operating expenses (in thousands):			
Production taxes	\$ 40	\$ 35	\$ 16
Lease operating expenses	4,399	4,023	4,515
Transportation, treating and gathering	4,038	336	
Selected operating expenses per Mcfe:			
Production taxes	\$ 0.01	\$ 0.00	\$ 0.00
Lease operating expenses	\$ 0.65	\$ 0.50	\$ 0.71
Transportation, treating and gathering	\$ 0.59	\$ 0.04	
Production costs (1)	\$ 1.14	\$ 0.42	\$ 0.54

- (1) Production costs include natural gas and oil lease operating expense, gathering and workover expense and excludes ad valorem and severance taxes.

Table of Contents

Index to Financial Statements

For the fiscal year 2011, we currently anticipate that we will drill approximately 3 gross (1.5 net) deep Bossier wells, 2 gross (2.0 net) Eagle Ford Shale wells and 2 gross (2.0 net) Glen Rose wells in East Texas and conduct up to 2 gross (1.7 net) recompletions in existing wells.

Appalachia West Virginia and Central and Southwestern Pennsylvania

The Marcellus Shale is Devonian aged shale that underlies much of the Appalachian region of Pennsylvania, New York, Ohio, West Virginia and adjacent states. The shallow depth of the Marcellus Shale and its low permeability make the Marcellus Shale an unconventional exploration target. Advancements in two technologies, hydraulic stimulation and horizontal drilling, have produced promising results in the Marcellus Shale. These developments have resulted in increased leasing and drilling activity in the area, primarily focusing on natural gas and condensate in an area located near large Eastern U.S. natural gas markets. At December 31, 2010, our acreage position in the play, assuming that the drilling carry discussed below has been fully funded, was approximately 87,700 gross (79,700 net) acres, the entirety of which is believed to be in the core, over-pressured area of the Marcellus Shale play and is in close proximity to wells being drilled by other operators.

In October 2009, we commenced drilling our first vertical Marcellus Shale well, the Yoho #1 well in West Virginia. We successfully drilled the well to a depth of 6,600 feet, which was completed and tested in January 2010 at a stabilized gross rate of 1.5 MMcf and 120 barrels of condensate per day, with no water production at approximately 1,000 psi of flowing tubing pressure. We currently are waiting for a connection to a pipeline and do not expect sales until late third quarter 2011.

On September 21, 2010, we entered into our Atinum Joint Venture pursuant to a purchase and sale agreement with Atinum Marcellus I, LLC, an affiliate of Atinum Partners Co. Ltd., a Korean investment firm. Pursuant to the agreement, upon closing on November 1, 2010, we assigned to Atinum for \$70.0 million an initial 21.43% interest in all of our existing Marcellus Shale assets in West Virginia and Pennsylvania, consisting of approximately 37,600 gross (34,200 net) acres and a 50% working interest in 16 producing shallow conventional wells and one non-producing vertical Marcellus Shale well (the Atinum Joint Venture Assets). Atinum paid us approximately \$30.0 million in cash upon closing. Additionally, Atinum is obligated to fund its 50% share of drilling, completion and infrastructure costs, and will pay an additional \$40.0 million in the form of a drilling carry obligation by funding 75% of our 50% share of those same costs. Upon completion of the funding of the drilling carry, we will make additional assignments, as necessary, to Atinum as a result of which Atinum will own a 50% interest in the Atinum Joint Venture Assets.

We are pursuing an initial three-year development program that calls for the Atinum Joint Venture to drill one horizontal Marcellus Shale well during the remainder of 2010 and a minimum of 12 horizontal wells in 2011 and 24 horizontal wells in each of 2012 and 2013. An initial Area of Mutual Interest (AMI) has been established for potential additional acreage acquisitions in Ohio and New York along with the counties in West Virginia and Pennsylvania in which the existing Atinum Joint Venture Assets are located. Within the initial AMI, we will act as operator and are obligated to offer any future lease acquisitions to Atinum on a 50/50 basis, and Atinum will pay us on an annual basis an amount equal to 10% of lease bonuses and third party leasing costs up to \$20.0 million and 5% of such costs on activities above \$20.0 million. Until June 30, 2011, Atinum will have the right to participate in any future leasehold acquisitions made by us outside of the initial AMI and within West Virginia or Pennsylvania on terms identical to those governing the existing Atinum Joint Venture.

In December 2010, we completed the Marcellus Acquisition for \$28.9 million. The acquisition consisted of approximately 62,000 net acres of leasehold in the Marcellus Shale concentrated in Preston, Tucker, Pocahontas, Randolph and Pendleton Counties, West Virginia, including a gathering system comprised of 41 miles of four and six inch steel pipeline, a salt water disposal well, and five conventional wells producing approximately 500 Mcf per day (gross) of natural gas. The Marcellus Acquisition acreage is outside the initial AMI with Atinum, and Atinum has informed us that it does not intend to acquire a 50% interest on the same terms as the initial joint

Table of Contents**Index to Financial Statements**

venture. We believe their decision was due to the timing of the transaction and limited prior operational results within the initial Atinum Joint Venture AMI. We plan to drill two horizontal Marcellus wells on the Marcellus Acquisition acreage during 2011 in order to further evaluate, or de-risk, the acreage and to provide data that could allow for the possible marketing of a second joint venture on our Marcellus Acquisition acreage.

During 2010, we participated in the drilling of seven horizontal Marcellus Shale wells in Butler County, Pennsylvania with Rex Energy as operator. The vertical portion of those wells, the Grossick wells, was drilled in 2010. The operator has informed us that the horizontal portions of the seven wells will be commenced in March 2011 to be followed by completion of the wells in succession with expected initial sales in the fourth quarter of 2011. Also during 2010, we commenced the drilling of our first operated horizontal well, the Wengerd 1H, in Marshall County, West Virginia. The Wengerd 1H has been drilled to total depth and cased and is awaiting the availability of fracture stimulation services in order to be completed.

During the year ended December 31, 2010, we drilled 1 gross (1 net) shallow vertical well in shallower Devonian formations resulting in 16 gross (14.8 net) total shallow wells drilled by us in the area. As of the filing date of this Form 10-K, all 16 wells are on production. For the year ended December 31, 2010, net production from the Appalachian area averaged 0.4 MMcfe per day. At December 31, 2010, proved reserves attributable to the Appalachia area were approximately 2.8 Bcfe, representing 6% of our total proved reserves. The following table provides production and operational information about the Appalachia area for the periods indicated:

	For the Years Ended December 31,		
	2010	2009	2008
Production:			
Natural gas (MMcf)	118	121	75
Oil (MBbl)	2	2	1
Total production (MMcfe)	133	135	81
Natural gas (MMcfd)	0.3	0.3	0.2
Oil (MBod)	0.0	0.0	0.0
Total (MMcfd)	0.4	0.4	0.2
Average realized sales prices:			
Natural gas (per Mcf)	\$ 4.02	\$ 4.02	\$ 7.59
Oil (per Bbl)	\$ 71.14	\$ 55.14	\$ 82.85
Selected operating expenses (in thousands):			
Production taxes	\$ 30	\$ 30	\$ 39
Lease operating expenses	393	437	96
Transportation, treating and gathering	1		
Selected operating expenses per Mcfe:			
Production taxes	\$ 0.23	\$ 0.23	\$ 0.48
Lease operating expenses	\$ 2.96	\$ 3.25	\$ 1.18
Transportation, treating and gathering	\$ 0.01		
Production costs (1)	\$ 2.88	\$ 3.15	\$ 0.97

- (1) Production costs include natural gas and oil lease operating expense, gathering and workover expense and excludes ad valorem and severance taxes.

Table of Contents

Index to Financial Statements

For the fiscal year 2011, we currently anticipate that we will drill and complete approximately 13 gross (7.0 net) operated horizontal wells and 7 gross (1.3 net) non-operated horizontal wells and commence drilling operations on an additional 15 gross (7.5 net) horizontal wells in the Marcellus Shale.

Powder River Basin, Wyoming and Montana

At December 31, 2010, we owned an average non-operated working interest of approximately 40% in approximately 43,400 gross (19,600 net) acres within the Powder River Basin of Wyoming and Montana. We drilled one gross (0.5 net) well to prevent lease termination in Wyoming during 2010 due to low natural gas prices in the area. Some well maintenance expenditures were incurred during 2010. Drilling in 2011 is anticipated to be limited due to continued weakness in natural gas prices in the area. As a result of the 2010 decrease in drilling activity and reduced compression, our Powder River Basin production averaged 1.9 MMcfe per day for the year ended December 31, 2010 down from 3.2 MMcf per day in 2009.

Markets and Customers

The success of our operations is dependent primarily upon prevailing and future prices for natural gas and, to a lesser extent, oil and condensate. The markets for natural gas and oil have historically been and currently continue to be volatile. Natural gas and oil prices are beyond our control.

Our current East Texas production has access to major intrastate and interstate pipeline systems. We contract to sell natural gas from our properties with spot market contracts that vary with market forces on a daily basis. While overall natural gas prices at major markets, such as Henry Hub in Erath, Louisiana, may have some impact on regional prices, the regional natural gas price at our production facilities may move somewhat independently of broad industry price trends. Because some of our operations are located in specific regions, we are directly impacted by regional natural gas prices in those regions regardless of pricing at major market hubs. We do not own or operate any natural gas lines or distribution facilities and rely on third parties to construct additional interstate pipelines to increase our ability to bring our production to market. Any significant change affecting these facilities or our failure to obtain timely access to existing or future facilities on acceptable terms could restrict our ability to conduct normal operations. Delays in the commencement of operations of new pipelines, the unavailability of new pipelines or other facilities due to market conditions, mechanical reasons or otherwise could have an adverse impact on our results of operations and financial condition.

There are limited natural gas purchaser and transporter alternatives currently available in our Hilltop area of East Texas, where ETC Texas Pipeline, Ltd. (ETC) provides for the treating, purchase and transportation of substantially all of our natural gas production from this area. Our deep Bossier production is transported to the Katy Hub in Katy, Texas, where numerous parties are available to purchase our natural gas production. Our Powder River Basin natural gas is sold under spot market contracts to major pipeline and natural gas marketing companies. Our shallow West Virginia production is sold on the spot market to regional pipeline companies. Our Marcellus Shale production currently is subject to pipeline infrastructure and access constraints in the area. Numerous midstream pipeline projects have been proposed for the area, but until such projects are completed, we will likely continue to incur delays in getting our Marcellus Shale production to sales.

Our very limited oil and condensate production in Texas and the Appalachian Basin in West Virginia is sold under spot sales transactions at market prices. The availability and price responsiveness of the multiple oil and condensate purchasers provides for a highly competitive and liquid market for oil sales.

During December 2010, we, along with Atinum, entered into a gas purchase agreement with SEI Energy, LLC (SEI) with respect to our Marshall County, West Virginia production. The initial term of the gas purchase agreement is five years with the option to extend the term of the gas purchase agreement for an additional five year period. Our Marshall County, West Virginia production is dedicated to SEI for the term of the gas purchase agreement. SEI will purchase all hydrocarbon production, including all natural gas, condensate and natural gas

Table of Contents

Index to Financial Statements

liquids. SEI will utilize the new Caiman Energy Midstream, LLC (Caiman) midstream facilities, including its 120.0 MMcf per day Fort Beeler processing plant located in Marshall County, West Virginia for transporting and processing. In order to secure access to the Caiman facilities, we, Atinum and SEI dedicated all hydrocarbons purchased and produced in Marshall County, West Virginia for a term of ten years.

In March 2008, we entered into formal agreements with ETC for the treating, purchase and transportation of substantially all of our natural gas production from the Hilltop area of East Texas (the ETC Contract). The ETC Contract was effective as of September 1, 2007 and has a term of 10 years. ETC currently provides us with 50.0 MMcf per day of treating capacity and 150.0 MMcf per day of transportation capacity of production from our wells located in Leon and Robertson Counties, Texas.

On November 16, 2009, concurrent with the sale of our Hilltop gathering system in East Texas, our wholly-owned subsidiary entered into a gas gathering agreement effective November 1, 2009 with Hilltop Resort GS, LLC (the Hilltop Gathering Agreement) for a term of 15 years. The Hilltop Gathering Agreement covers delivery of our gross production of natural gas in the Hilltop area of East Texas to certain delivery points provided under the ETC Contract as well as additional delivery points that, from time to time, may be added. We also are obligated to connect new wells that we drill within the area covered by the agreement to the gathering system. The Hilltop Gathering Agreement provides for a minimum quarterly gathering gross production volume of 50.0 MMcf per day (35.0 MMcf per day net to us) times the number of days in the quarter for five years from the effective date of November 1, 2009. If quarterly production is less than the minimum quarterly requirement, the gathering fee is payable on such deficit. If excess quarterly production exists, such excess is carried forward to offset any future deficit quarters. The gathering fee on the initial gross 25 Bcf of production is \$0.325 per Mcf, reducing in steps to \$0.225 per Mcf when cumulative gross production reaches 300 Bcf.

For the years ended 2010, 2009 and 2008, ETC accounted for 86%, 85% and 79%, respectively, of our natural gas and oil revenues, excluding realized hedge impact. Enserco Energy, Inc. (Enserco) accounted for 9%, 13% and 19% of our natural gas and oil revenues, for the years ended 2010, 2009 and 2008, respectively, excluding realized hedge impact. ETC purchases substantially all of our East Texas natural gas production, and Enserco purchases substantially all of our Powder River Basin natural gas production. Management believes that the loss of either ETC or Enserco would not have a long-term material adverse impact on our financial position or results of operations, as there are other purchasers operating in the areas.

Competition

The natural gas and oil industry is intensely competitive and speculative in all of its phases. We encounter competition from other natural gas and oil companies in all areas of our operations. In seeking suitable natural gas and oil properties for acquisition, we compete with other companies operating in our areas of interest, including large natural gas and oil companies and other independent operators, many of whom have greater financial resources and, in many instances, have been engaged in the exploration and production business for a much longer time than we have. Many of our competitors also have substantially larger operating staffs than we do. Many of these competitors not only explore for and produce natural gas and oil but also market natural gas and oil and other products on a regional, national or worldwide basis. These competitors may be able to pay more for productive natural gas and oil properties and exploratory prospects and define, evaluate, bid for and purchase a greater number of properties and prospects than us. In addition, these competitors may have a greater ability to continue exploration activities during periods of low market prices. Our ability to acquire additional properties and to discover reserves in the future will depend on our ability to evaluate and select suitable properties and to consummate transactions in a highly competitive environment.

Prices of our natural gas and oil production are controlled by market forces. Competition in the natural gas and oil exploration industry, however, also exists in the form of competition to acquire leases and obtain favorable transportation prices. We are smaller and have a more limited operating history than most of our

Table of Contents

Index to Financial Statements

competitors and may have difficulty acquiring additional acreage and/or projects and may have difficulty arranging for the transportation of our production. We also face competition in obtaining natural gas and oil drilling rigs and in providing the manpower to operate them and provide related services.

Seasonal Nature of Business

Generally, the demand for natural gas decreases during the summer months and increases during the winter months. Seasonal anomalies such as mild winters or abnormally hot summers sometimes lessen this fluctuation. In addition, certain natural gas users utilize natural gas storage facilities and purchase some of their anticipated winter requirements during the summer. This can also lessen seasonal demand fluctuations. Seasonal weather conditions and lease stipulations can limit our drilling and producing activities and other natural gas and oil operations in certain areas. These seasonal anomalies can increase competition for equipment, supplies and personnel during the spring and summer months, which could lead to shortages and increase costs or delay our operations.

U.S. Governmental Regulation

Our natural gas and oil exploration, production and related operations are subject to extensive rules and regulations promulgated in the United States. These laws and regulations, all of which are subject to change from time to time, include matters relating to land tenure; drilling and production practices, such as discharge permits and the spacing of wells; the disposal of water resulting from operations and the processing, handling and disposal of hazardous materials, such as hydrocarbons and naturally occurring radioactive materials; bonding requirements; ongoing obligations for licensing; reporting requirements; marketing and pricing policies; royalties; taxation; and foreign trade and investment.

Failure to comply with governmental rules and regulations can result in substantial penalties. Furthermore, we could be liable for personal injuries, property damage, spills, discharge of hazardous materials, reclamation costs, remediation, clean-up costs and other environmental damages as a consequence of acquiring a natural gas or oil prospect or acreage.

The regulatory burden on the natural gas and oil industry increases our cost of doing business and affects our financial condition. Although we believe we are in substantial compliance with all applicable laws and regulations, we are unable to predict the future cost or impact of complying with such laws because those laws and regulations are frequently amended or reinterpreted. We are unable to predict what additional legislation or amendments may be proposed that will affect our operations or when any such proposals, if enacted, might become effective. We do not expect that any of these laws would affect us in a materially different manner than any other similarly sized natural gas and oil company operating in the United States.

Regulation of Exploration and Production

Regulation of Production

The production of natural gas and oil is subject to extensive regulation under a wide range of federal, state and local statutes, rules, orders and regulations. Federal, state and local statutes and regulations require, among other things, permits for drilling operations, drilling bonds and reports concerning operations. The states in which we own and operate properties have regulations governing conservation matters, including some provisions for the unitization or pooling of the natural gas and oil properties; the establishment of maximum rates of production from natural gas and oil wells; the spacing of wells; and the plugging and abandonment of wells and removal of related production equipment. These and other regulations can limit the amount of the natural gas and oil we can produce from our wells, limit the number of wells we can drill, or limit the locations at which we can conduct drilling operations. Moreover, each state generally imposes a production or severance tax with respect to production and sale of natural gas, natural gas liquids and crude oil within its jurisdiction.

Table of Contents

Index to Financial Statements

Regulation of Sales of Natural Gas

The price at which we buy and sell natural gas is currently not subject to federal rate regulation and, for the most part, is not subject to state regulation. However, with regard to our physical purchases and sales of these energy commodities, and any related hedging activities that we undertake, we are required to observe anti-market manipulation laws and related regulations enforced by the Federal Energy Regulatory Commission (FERC) and/or the Commodity Futures Trading Commission (CFTC). See the discussion below of Other Federal Laws and Regulations Affecting Our Industry Energy Policy Act of 2005 . Should we violate the anti-market manipulation laws and regulations, we could also be subject to related third party damage claims by, among others, market participants, sellers, royalty owners and taxing authorities. In addition, pursuant to Order 704 (defined below), we may be required to annually report to FERC on May 1 of each year information regarding natural gas purchase and sale transactions depending on the volume of natural gas transacted during the prior calendar year. See the discussion below of Other Federal Laws and Regulations Affecting Our Industry FERC Market Transparency Rules.

Regulation of Availability, Terms and Cost of Pipeline Transportation

The availability, terms and cost of transportation can significantly affect sales of natural gas. FERC regulates interstate natural gas pipeline transportation rates and service conditions, which affect the marketing of natural gas produced by us and the revenues received by us for sales of such natural gas. FERC requires interstate pipelines to offer available firm transportation capacity on an open access, non-discriminatory basis to all natural gas shippers. FERC frequently reviews and modifies its regulations regarding the transportation of natural gas with the stated goal of fostering competition within all phases of the natural gas industry. In addition, with respect to production onshore or in state waters, the intra-state transportation of natural gas would be subject to state regulatory jurisdiction as well.

The ability of our facilities to deliver natural gas into third party natural gas pipeline facilities is directly impacted by the gas quality specifications required by those pipelines. In 2006, FERC issued a policy statement on provisions governing gas quality and interchangeability in the tariffs of interstate gas pipeline companies and a separate order declining to set generic prescriptive national standards. FERC strongly encouraged all natural gas pipelines subject to its jurisdiction to adopt, as needed, gas quality and interchangeability standards in their FERC gas tariffs modeled on the interim guidelines issued by a group of industry representatives headed by the Natural Gas Council (the NGC+ Work Group), or to explain how and why their tariff provisions differ. We have no way to predict, however, whether FERC will approve of gas quality specifications that materially differ from the NGC+ Work Group s interim guidelines for such an interconnecting pipeline.

State laws and regulations generally govern the gathering and intrastate transportation of natural gas. Natural gas gathering systems in the states in which we operate are generally required to offer services on a non-discriminatory basis, and are subject to state ratable take and common purchaser statutes. Ratable take statutes generally require gatherers to take, without undue discrimination, natural gas production that may be tendered to the gatherer for handling. Similarly, common purchaser statutes generally require gatherers to purchase without discrimination in favor of one producer over another producer or one source of supply over another source of supply.

Other Federal Laws and Regulations Affecting Our Industry

Energy Policy Act of 2005. Under the Energy Policy Act of 2005 (the EAct 2005), Congress made it unlawful for any entity, including otherwise non-jurisdictional producers of natural gas, to use any deceptive or manipulative device or contrivance in connection with the purchase or sale of natural gas or the purchase or sale of transportation services regulated by the FERC that violates the FERC s rules. FERC s rules implementing the provision of EAct 2005 make it unlawful for any entity in connection with the purchase or sale of natural gas subject to the jurisdiction of FERC, or the purchase or sale of transportation services subject to the jurisdiction of

Table of Contents

Index to Financial Statements

FERC, directly or indirectly, to use or employ any device, scheme or artifice to defraud; to make any untrue statement of material fact or omit to make any such statement necessary to make the statements made not misleading; or to engage in any act or practice that operates as a fraud or deceit upon any person. EPCRA 2005 also gives the FERC authority to impose civil penalties for violations of the Natural Gas Act and the Natural Gas Policy Act up to \$1,000,000 per day per violation. While EPCRA 2005 reflects a significant expansion of the FERC's enforcement authority, we do not anticipate that we will be affected by that statute any differently than other producers of natural gas.

FERC Market Transparency Rules. In 2007, FERC issued a final rule on the annual natural gas transaction reporting requirements, as amended by subsequent orders on rehearing (Order 704). Under Order 704, wholesale buyers and sellers of more than 2.2 million MMBtu of physical natural gas in the previous calendar year including interstate and intrastate natural gas pipelines, natural gas gatherers, natural gas processors and natural gas marketers are now required to report on Form No. 552 on May 1 of each year aggregate volumes of natural gas purchased or sold at wholesale in the prior calendar year to the extent such transactions utilize, contribute to or may contribute to the formation of price indices. It is the responsibility of the reporting entity to determine which individual transactions should be reported based on the guidance of Order 704.

Additional proposals and proceedings that might affect the natural gas industry are pending before Congress, FERC and the courts. We cannot predict the ultimate impact of these or the above regulatory changes to our natural gas operations. We do not believe that we would be affected by any such FERC action materially differently than other natural gas companies with whom we compete.

Additional proposals and proceedings that might affect the natural gas industry are considered from time to time by Congress, FERC, state regulatory bodies and the courts. We cannot predict when or if any such proposals might become effective or their effect, if any, on our operations. The natural gas industry historically has been closely regulated; thus, there is no assurance that the less stringent regulatory approach recently pursued by FERC and Congress will continue indefinitely into the future. We do not believe that we will be affected by any action taken in a materially different way than other natural gas producers, gatherers and marketers with which we compete.

Federal Regulation of Sales and Transportation of Crude Oil. The oil industry is also extensively regulated by numerous federal, state and local authorities. Prices for crude oil and condensate are not currently regulated and are made at negotiated prices. Nevertheless, Congress could reenact price controls in the future.

In a number of instances, however, the ability to transport and sell such products on interstate pipelines is dependent on pipelines whose rates, terms and conditions of service are subject to FERC jurisdiction under the Interstate Commerce Act (ICA). The ICA requires that pipelines maintain a tariff on file with FERC. The tariff sets forth the established rate as well as the rules and regulations governing the service. The ICA requires, among other things, that rates on interstate common carrier pipelines be just and reasonable. The ICA permits challenges to existing rates and authorizes FERC to investigate such rates to determine whether they are just and reasonable. If, upon completion of an investigation, FERC finds that the existing rate is unlawful, it is authorized to require the carrier to refund the revenues in excess of the prior tariff collected during the pendency of the investigation and, in some cases, reparations for the two (2) year period prior to the filing of a complaint. We do not believe, however, that these regulations affect us any differently than other producers.

Intrastate oil pipeline transportation rates are subject to regulation by state regulatory commissions. The basis for intrastate oil pipeline regulation and the degree of regulatory oversight and scrutiny given to intrastate oil pipeline rates varies from state to state. Insofar as effective interstate and intrastate rates are equally applicable to all comparable shippers, we believe that the regulation of oil transportation rates will not affect our operations in any way that is of material difference from those of our competitors who are similarly situated.

Further, interstate and intrastate common carrier oil pipelines must provide service on a non-discriminatory basis. Under this open access standard, common carriers must offer service to all similarly situated shippers

Table of Contents

Index to Financial Statements

requesting service on the same terms and under the same rates. When oil pipelines operate at full capacity, access is governed by pro-rationing provisions set forth in the pipelines' published tariffs. Accordingly, we believe that access to oil pipeline transportation services generally will be available to us to the same extent as to our similarly situated competitors.

Our operations are subject to extensive and continually changing regulation affecting the natural gas and oil industry. Many departments and agencies, both federal and state are authorized by statute to issue, and have issued, rules and regulations binding on the natural gas and oil industry and its individual participants. The failure to comply with such rules and regulations can result in substantial penalties. The regulatory burden on the natural gas and oil industry increases our cost of doing business and, consequently, affects our profitability. We do not believe that we are affected in a significantly different manner by these regulations than are our competitors.

U.S. Environmental Regulation

Our U.S. natural gas and oil exploration and production operations, and similar operations that we do not operate but in which we own a working interest, are subject to stringent federal, regional, state and local environmental laws and regulations governing environmental protection as well as the discharge of substances into the environment. Environmental laws are implemented principally by the U.S. Environmental Protection Agency (EPA), the Department of Transportation, the Department of the Interior and other comparable state agencies. These laws and regulations may require that permits, including drilling permits, be obtained before conducting regulated activities; restrict the types, quantities and concentrations of various substances that can be released into the environment as a result of natural gas and oil drilling, production and processing activities; suspend, limit or prohibit construction, drilling and other activities in certain lands lying within wilderness, wetlands and other protected areas; require remedial measures to mitigate pollution from historical and on-going operations such as the use of pits and plugging of abandoned wells and impose liabilities for pollution resulting from such operations; and restrict injection of liquids into subsurface strata that may contaminate groundwater. Governmental authorities have the power to enforce compliance with their laws, regulations and permits, and violations may result in the issuance of injunctions limiting or prohibiting operations as well as administrative, civil and even criminal penalties. The effects of these laws and regulations, as well as the assessment of other laws or regulations that are adopted in the future, could have a material adverse impact on our operations and other operations in which we own an interest.

We believe that we are in substantial compliance with existing applicable environmental laws and regulations. However, it is possible that new environmental laws and regulations or the modification or more stringent enforcement of existing laws and regulations could have a material adverse effect on our operations and other operations in which we own an interest. As a general matter, the recent trend in environmental legislation and regulation is toward stricter standards, and this trend will likely continue. To date, we have not been required to expend significant capital expenditures or other resources in order to satisfy existing applicable environmental laws and regulations. However, there is no assurance that costs to comply with existing and any new environmental laws and regulations in the future will not be material. In addition, if substantial liabilities to third parties or governmental entities are incurred, the payment of such claims may reduce or eliminate the funds available for project investment or result in loss of our properties. Moreover, a serious incident of pollution may result in the suspension or cessation of operations in the affected area. Although we maintain insurance coverage against costs of clean-up operations, no assurance can be given that we are fully insured against all such potential risks. The imposition of any of these liabilities or compliance obligations on us may have a material adverse effect on our financial condition and results of operations.

Table of Contents

Index to Financial Statements

The following is a summary of some of the more significant existing environmental laws to which our business operations are subject.

Hazardous Substances and Water

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund law and analogous state laws impose strict, and, under certain circumstances, joint and several liability without regard to fault or legality of conduct on persons who are considered to have contributed to the release of a hazardous substance into the environment. These persons include the owner or operator of the site where the release occurred and companies that transported, disposed or arranged for the disposal of the hazardous substance released at the site. Under CERCLA, such persons may be liable for the costs of cleaning up the hazardous substances that have been released into the environment, for damages to natural resources and for the costs of certain health studies. CERCLA also authorizes the EPA and, in some cases, third parties to take actions in response to threats to the public health or the environment and to seek to recover from the responsible classes of persons the costs they incur. It is not uncommon for neighboring land owners and other third parties to file claims for personal injury and property damage allegedly caused by the hazardous substances released into the environment. Although CERCLA currently excludes petroleum and natural gas, natural gas liquids, liquefied natural gas or synthetic gas useable for fuel from the definition of hazardous substance, our operations as well as other operations in which we own an interest may generate materials that are subject to regulation as hazardous substances under CERCLA. The scope of financial liability under CERCLA involves inherent uncertainties.

The Resource Conservation and Recovery Act (RCRA) and comparable state programs regulate the management, treatment, storage and disposal of hazardous and non-hazardous solid wastes. Our operations, and other operations in which we own an interest, generate wastes, including hazardous wastes that are subject to RCRA and comparable state laws. We believe that these operations are currently complying in all material respects with applicable RCRA requirements. Although RCRA currently exempts certain natural gas and oil exploration and production wastes from the definition of hazardous waste, we cannot assure you that this exemption will be preserved in the future. Repeal or modification of the exception or similar exemptions in state law could increase the amount of hazardous waste we are required to manage and dispose of and could cause us to incur increased operating cost, which could have a significant impact on us as well as the natural gas and oil industry in general.

We currently own, lease, own a working interest in, or operate numerous properties that for many years have been used by third parties for the exploration and production of natural gas and oil. Although we abide by operating and disposal practices that were standard in the industry at the time, hazardous substances, wastes or hydrocarbons may have been released on or under the properties owned or leased by us or in which we own an interest, or on or under other locations, including off-site locations, where such substances have been taken for disposal or recycling. In addition, many of these properties have been operated by third parties or by previous owners or operators whose treatment and disposal of hazardous substances, wastes, or hydrocarbons was not under our control. These properties and the substances disposed or released on them may be subject to CERCLA, RCRA and analogous state laws. Under such laws, we could be required to remove previously disposed substances and wastes (including substances disposed of or released by prior owners or operators), remediate contaminated property (including groundwater contamination) or perform remedial plugging or pit closure operations to prevent future contamination.

Water Discharges

Our operations and other operations in which we own a working interest are subject to the Clean Water Act (CWA) as well as the Oil Pollution Act (OPA) and analogous state laws. These laws and their implementing regulations impose detailed requirements and strict controls regarding the discharge of pollutants, including spills and leaks of oil and other substances, into federal and state waters, including wetlands. In addition, depending on

Table of Contents

Index to Financial Statements

the location, discharges from or the use of water in our operations may be subject to regulation by regional or local regulatory authorities. Under the CWA and the OPA, any unauthorized release of pollutants from operations could cause us to become subject to the costs of remediating a release; administrative, civil or criminal fines or penalties; or OPA specified damages, such as damages for loss of use and natural resource damages. In addition, in the event that spills or releases of produced water from natural gas and oil production operations were to occur, we would be subject to spill notification and response requirements under the CWA or the equivalent state regulatory program. Depending on the nature and location of these operations, spill response plans may also have to be prepared and implemented.

Our natural gas and oil exploration and production operations, and other operations in which we own an interest, generate produced water as a waste material, which is subject to regulation under the CWA, the Safe Drinking Water Act (SDWA) or an equivalent state regulatory program. Naturally occurring groundwater is also typically produced by CBM production in our operations or in other operations in which we own an interest. This produced water is disposed of by injection into the subsurface through disposal wells permitted under the SDWA or an equivalent state regulatory program, discharge to surface water in compliance with permits issued by regulatory agencies pursuant to the CWA or an equivalent state program, or in evaporation ponds. To date, we believe that all necessary surface discharge or disposal well permits have been obtained and that the produced water has been discharged into the produced water disposal wells in substantial compliance with such obtained permits and applicable environmental laws. Nonetheless, in connection with CBM production in the Powder River Basin, a concern of many operators in the Powder River Basin is the potential for opposition by individuals or groups to the issuance of a permit for the discharge or disposal of water generated by production activities. Such opposition could result in delays, limitations or denials with respect to environmental or other approvals necessary to develop our acreage in the Powder River Basin, which could adversely affect our financial condition or results of operations.

Hydraulic fracturing is an important and common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations. Hydraulic fracturing involves the injection of water, sand and chemical additives under pressure into rock formations to stimulate gas production. The process is typically regulated by state oil and gas commissions but is not subject to regulation at the federal level. However, due to public concerns raised regarding potential impacts of hydraulic fracturing on groundwater quality, legislative and regulatory efforts at the federal level and in some states have been initiated to require or make more stringent the permitting and compliance requirements for hydraulic fracturing operations. Legislation was proposed in the recently ended session of Congress to provide for federal regulation of hydraulic fracturing and to require disclosure of the chemicals used in the fracturing process, and such legislation could be introduced in the current session of Congress. Moreover, the EPA has commenced a study of the potential environmental impacts of hydraulic fracturing activities, with results of the study anticipated to be available by late 2012, and a committee of the House of Representatives is also conducting an investigation of hydraulic fracturing practices. In addition, some states have adopted, and other states are considering adopting, regulations that could restrict hydraulic fracturing in certain circumstances. If new federal or state laws or regulations that significantly restrict hydraulic fracturing are adopted, such legal requirements could increase our costs of compliance, restrict or limit our production of natural gas or oil, and delay or reduce the availability of fractionation services.

Recently, there have been public concerns expressed about naturally occurring radioactive materials (NORMs) being detected in waste water resulting from hydraulic fracturing, especially in the Marcellus Shale area. This concern could result in further regulation in the treatment, storage, handling and discharge of waste water generated from these activities, which if implemented, could limit drilling or increase the cost of drilling in the region.

Air Emissions

The Clean Air Act (CAA) and comparable state laws and regulations govern emissions of various air pollutants through the issuance of permits and the imposition of other requirements. Air emissions from some equipment found at our operations or other operations in which we own an interest, such as gas compressors, are

Table of Contents

Index to Financial Statements

potentially subject to regulations under the CAA or equivalent state and local regulatory programs, although many small air emission sources are expressly exempt from such regulations. To the extent that these air emissions are regulated, they are generally regulated by permits issued by state regulatory agencies. To date, we believe that no unusual difficulties have been encountered in obtaining air permits. However, there is no assurance that in the future, we will not be required to incur capital expenditures in connection with maintaining or obtaining operating permits and approvals addressing air emission-related issues.

Our CBM production operations involve the use of gas-fired compressors to produce or transport gas that is produced. Emissions of combustible by-products from compressors at one location may be large enough to subject the compressors to CAA and comparable state air quality regulation requirements for pre-construction and operating permits. To date, we believe that such gas-fired compressors that have been operated by us or at other operations in which we own a working interest have been operated in substantial compliance with obtained permits and the applicable federal, state and local laws and regulations without undue cost to or burden on our business activities. Another air emission associated with CBM operations that may be subject to regulation and permitting requirements is particulate matter resulting from construction activities and vehicle traffic. To date, we do not believe there has been any unusual difficulty in complying with requirements related to particulate matter.

Climate Change

In response to findings that emissions of carbon dioxide, methane, and other greenhouse gases (GHGs) present an endangerment to public health and the environment because emissions of such gasses are contributing to the warming of the Earth 's atmosphere and other climate changes, the EPA has adopted regulations under existing provisions of the CAA that require a reduction in emissions of GHGs from motor vehicles and also may trigger construction and operating permit review for GHG emissions from certain stationary sources. The EPA has asserted that the final motor vehicle GHG emission standards triggered Prevention of Significant Deterioration (PSD) and Title V permit requirements for stationary sources, commencing when the motor vehicle standards took effect on January 2, 2011. The EPA has published its final rule to address the permitting of GHG emissions from stationary sources under the PSD and Title V permitting programs, pursuant to which these permitting programs have been tailored to apply to certain stationary sources of GHG emissions in a multi-step process, with the largest sources first subject to permitting. It is anticipated that facilities required to obtain PSD permits for their GHG emissions also will be required to reduce those emissions according to best available control technology standards for GHG that have yet to be developed. These EPA rulemakings could adversely affect our operations and restrict or delay our ability to obtain air permits for new or modified facilities. With regards to the monitoring and reporting of GHGs, on November 30, 2010, the EPA published a final rule expanding its existing GHG emissions reporting rule published in October 2009 to include onshore and offshore oil and natural gas production and onshore oil and natural gas processing, transmission, storage, and distribution activities, which may include certain of our operations, beginning in 2012 for emissions occurring in 2011.

In addition, Congress has actively considered legislation to reduce emissions of GHGs, and almost one-half of the states have already taken legal measures to reduce emissions of GHGs, primarily through the planned development of GHG emission inventories and/or regional GHG cap and trade programs. Most of these cap and trade programs work by requiring either major sources of emissions or major producers of fuels to acquire and surrender emission allowances, with the number of allowances available for purchase reduced each year until the overall GHG emission reduction goal is achieved. These allowances would be expected to escalate significantly in cost over time. The adoption of any legislation or regulations that requires reporting of GHGs or otherwise limits emissions of GHGs from our equipment and operations could require us to incur costs to reduce emissions of GHGs associated with our operations or could adversely affect demand for the oil and natural gas that we produce. Finally, it should be noted that some scientists have concluded that increasing concentrations of GHGs in the Earth 's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, floods and other climatic events; if any such effects were to occur, they could have an adverse effect on our exploration and production interests and operations.

Table of Contents

Index to Financial Statements

Endangered Species Act

The federal Endangered Species Act, as amended (ESA) and similar state laws and other regulatory initiatives restrict activities that may affect endangered or threatened species or their habitats. While some of our operations may be located in or near areas that are designated as habitat for endangered or threatened species, we believe that we are in substantial compliance with the ESA. In these areas, we may be obligated to develop and implement plans to avoid potential adverse impacts to protected species, and we may be prohibited from conducting operations in certain locations or during certain seasons, such as breeding and nesting seasons, when our operations could have an adverse effect on the species. It is also possible that a federal or state agency could order a complete halt to our activities in certain locations if it is determined that such activities may have a serious adverse effect on a protected species. The presence of protected species or the designation of previously unidentified endangered or threatened species could impair our ability to timely complete well drilling and development and could cause us to incur additional costs or become subject to operating restrictions or bans in the affected areas.

Other Laws and Regulations

Our operations and other operations in which we own a working interest are also impacted by regulations governing the handling, transportation, storage and disposal of naturally occurring radioactive materials. Furthermore, owners, lessees and operators of natural gas and oil properties are also subject to increasing civil liability brought by surface owners and adjoining property owners. Such claims are predicated on the damage to or contamination of land resources occasioned by drilling and production operations and the products derived there from and are often based on negligence, trespass, nuisance, strict liability or fraud.

Industry Segment and Geographic Information

We operate in one industry segment, which is the exploration, development and production of natural gas and oil. As a result of the sale of our Australian operations in July 2009, our current operational activities are conducted in and our consolidated revenues are generated from markets exclusively in the United States, and we have no long-lived assets located outside of the United States.

Insurance Matters

As is common in the oil and natural gas industry, we do not insure fully against all risks associated with our business either because such insurance may have been unavailable, because premium costs are considered not in line with our deemed exposure or the risk was deemed acceptable to self-insure. A loss not fully covered by insurance could have a materially adverse effect on our financial position, results of operations or cash flows.

We maintain insurance at industry customary levels to limit our financial exposure in the event of a substantial environmental claim resulting from sudden, unanticipated and accidental discharges of certain prohibited substances into the environment. Such insurance might not cover the complete amount of such a claim and would not cover fines or penalties for a violation of an environmental law nor would it cover a gradual pollution loss. In analyzing our operations and insurance needs, and in recognition that we have a large number of individual well locations with varied geographical distribution, we compared premium costs to the likelihood of material loss of production. Based on this analysis, we have elected, at this time, not to carry loss of production or business interruption insurance for our operations. We carry limited property insurance. Our control of well limits is based upon our assessment of the risk and consideration of the cost of the insurance.

Filings of Reserve Estimates with Other Agencies

Annually, we file with the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) revised forms related to our oil and natural gas reserves. The forms provide additional information to ensure compliance with Canadian National Instrument 51-101, Standards of Disclosure for Oil and Gas Activities (NI 51-101), as required by the Alberta Securities Commission and the Toronto Stock Exchange. The filings

Table of Contents

Index to Financial Statements

do not affect any of our filings with the U.S. Securities and Exchange Commission (SEC) and are not considered part of this Form 10-K. The Form 51-101F1, Statement of Reserves Data and Other Oil and Gas Information , revised Form 51-101F2, Report of Reserve Data by Independent Qualified Reserves Evaluator , and revised Form 51-101F3, Report of Management and Directors on Oil and Gas Disclosure for the year ended December 31, 2009 were filed during 2010 and can be found for viewing by electronic means on SEDAR at www.sedar.com.

Employees

As of March 7, 2011, we had 36 employees, all of whom are full time. We use the services of independent consultants and contractors to perform various professional services, including reservoir engineering, land, legal, regulatory reporting, environmental and tax services. On those properties where we are not the operator, we rely on outside operators to drill, produce and market our natural gas and oil. Our employees do not belong to a union or have a collective bargaining organization. Management considers its relationship with its employees to be good.

Corporate Offices

Our current corporate office is located at 1331 Lamar Street, Suite 1080, Houston, Texas 77010, where we lease 9,332 square feet. During mid-March 2011, we will be relocating our corporate office to 1331 Lamar Street, Suite 650, Houston, Texas 77010, where we will lease 12,823 square feet. Additionally, we rent 6,375 square feet of office space in Clarksburg, West Virginia.

Available Information

Our website address is <http://www.gastar.com>. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act are made available free of charge on our website as soon as reasonably practicable after we have electronically filed the material with or furnished it to the SEC.

The public may also read and copy any materials we have filed with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet website that contains our reports, proxy and information statements and our other SEC filings. The address of that site is www.sec.gov.

None of the information on our website should be considered incorporated into or a part of this Form 10-K.

We also make available free of charge on our internet website at www.gastar.com under the corporate governance tab our:

Code of Ethics;

Terms of Reference of our Audit Committee;

Terms of Reference of our Governance Committee;

Terms of Reference of our Compensation Committee;

Terms of Reference of our Nominating Committee;

Reserves Review Committee Mandate; and

Whistleblower Procedure.

Table of Contents

Index to Financial Statements

Item 1A. Risk Factors

In addition to the other information set forth elsewhere in this Form 10-K, you should carefully consider the following material risk factors associated with our business and the oil and gas industry in which we operate. If any of the events described below occur, our business, financial condition, results of operations, liquidity or access to the capital markets could be materially adversely affected. There may be additional risks that are not presently material or known.

An investment in Gastar is subject to risks inherent in our business. The trading price of our common shares will be affected by the performance of our business relative to, among other things, competition, market conditions and general economic and industry conditions. The value of an investment in Gastar may decrease, resulting in a loss.

Risks Related to Our Business

We have incurred significant net losses since our inception and may incur additional significant net losses in the future.

With the exception of the one-time sale of our Australian properties in 2009, we have not been profitable since we started our business. Excluding after tax gains on the sale of assets, we incurred net losses of \$12.5 million, \$92.4 million and \$5.4 million for the years ended December 31, 2010, 2009 and 2008, respectively. Our capital has been employed in an increasingly expanding natural gas and oil exploration and development program, with our focus on finding significant natural gas and oil reserves and producing from them over the long-term rather than focusing on achieving immediate net income. The uncertainties described in this Item 1A Risk Factors and elsewhere in this Form 10-K may impede our ability to ultimately find, develop and exploit natural gas and oil reserves. Our failure to achieve profitability in the future could materially adversely affect our ability to raise additional capital and continue our exploration and development program.

Natural gas and oil prices are volatile and further declines in natural gas and oil prices would continue to significantly and negatively affect our financial condition and results of operations. Additionally, our results are subject to commodity price fluctuations related to seasonal and market conditions and reservoir and production risks.

The success of our business greatly depends primarily on the market prices of natural gas and, to a lesser extent, oil. The higher market prices are, the more likely it is that we will be financially successful. On the other hand, declines in natural gas or oil prices may have a material adverse affect on our financial condition, profitability and liquidity. Lower prices also may reduce the amount of natural gas or oil that we can produce economically. Natural gas and oil commodity prices are set by broad market forces, which have been and will likely continue to be volatile in the future. Prices for natural gas and oil are subject to wide fluctuations in response to relatively minor changes in the supply of and demand for natural gas or oil, market uncertainty and a variety of additional factors that are beyond our control. These factors include:

The domestic and foreign supply and demand of natural gas and oil;

Overall economic conditions and market uncertainty;

Weather conditions;

Political conditions in the Middle East and other oil producing regions, such as Venezuela;

Domestic and foreign governmental regulations; and

The price and availability of alternative fuels.

Table of Contents

Index to Financial Statements

Our success is influenced by natural gas prices in the specific areas where we operate, and these prices may be lower than prices at major markets.

Regional natural gas prices may move independent of broad industry price trends. Because some of our operations are located outside major markets, we are directly impacted by regional natural gas prices regardless of Henry Hub or other major market pricing. During 2010, approximately 89% of our production was priced based on the Katy Hub basis point and 9% was priced on the Colorado Interstate Gas (CIG) basis point. Continued prices for natural gas below \$5.00 per Mcf may compel us to limit our drilling operations in our Hilltop area to focusing on lease maintenance. CIG natural gas prices are volatile and historically have traded at significantly less than Henry Hub prices, primarily due to limitations in available pipeline capacity for natural gas deliveries out of the Rocky Mountain area. CIG natural gas prices may decline further if supplies of natural gas in the Rocky Mountains increase. Our West Virginia natural gas production is priced using the Columbia Gas Appalachia Pool. At December 31, 2010, the Henry Hub price was \$4.19 per MMBtu, compared to our key basis point pricing of \$4.14 per MMBtu at the Katy Hub, \$4.16 per MMBtu for CIG and \$4.27 per MMBtu for the Columbia Gas Appalachia Pool. Low natural gas prices in any or all of the areas where we operate would negatively impact our financial condition and results of operations.

The limited availability or high costs of hydraulic fracturing services in the Appalachia and East Texas areas could adversely affect our ability to execute our exploration and development plans within our budget and on a timely basis.

Our industry is cyclical and, from time to time, there is a shortage of materials, equipment, supplies and services, such as drilling rigs, fracture stimulation services and tubulars, well servicing equipment, gathering systems and transportation pipelines. During these periods, the costs and delivery times of those materials, equipment, supplies and services necessary to execute our drilling program are substantially greater. Shortages of fracturing equipment and crews required for complex horizontal well completions in the Appalachia Marcellus Shale and East Texas deep Bossier and other zones could delay or adversely affect our development and exploration operations or cause us to incur significant expenditures that are not included in our capital budget. Delays could also have an adverse effect on our results of operations, including the timing of the initiation of production from new wells. See Federal and state legislation and regulatory initiatives relating to hydraulic fracturing could result in increased costs and additional operating restrictions or delays. for a discussion of legislative and regulatory initiatives that could significantly restrict hydraulic fracturing and therefore make it more difficult or costly for us to perform hydraulic fracturing.

Hedging of our production may result in losses or prevent us from benefiting to the fullest extent possible from increases in prices for natural gas and oil.

We have entered into New York Mercantile Exchange (NYMEX) futures contracts as hedges on 6.8 Bcf of natural gas production in 2011. Although these hedges may partially protect us from declines in natural gas prices, the use of these arrangements also may limit our ability to benefit from significant increases in the prices of natural gas.

Approximately 34% of our proved reserves are classified as proved developed non-producing or proved undeveloped and may ultimately prove to be less than estimated.

At December 31, 2010, approximately 34% of our total proved reserves were classified as proved developed non-producing or proved undeveloped. It will take substantial capital to recomplete or drill our non-producing and undeveloped locations. Our estimate of proved reserves at December 31, 2010 assumes that we will spend significant development capital expenditures to develop these reserves, including an estimated \$4.8 million and \$8.3 million in 2011 and 2012, respectively. Further, our drilling efforts may be delayed or unsuccessful, and actual reserves may prove to be less than current reserve estimates, which could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Table of Contents

Index to Financial Statements

Approximately 89% of our natural gas and oil revenues and 89% of our total proved reserves as of and for the year ended December 31, 2010 were attributable to our properties in East Texas. Any disruption in production, development of proved reserves, or our ability to process and sell natural gas from this area would have a material adverse effect on our results of operations or reduce future revenues.

Our current production is geographically concentrated in East Texas. Production of the natural gas in East Texas could unexpectedly be disrupted or curtailed due to reservoir or mechanical problems. Our natural gas produced from this area contains levels of carbon dioxide and hydrogen sulfide that are above levels accepted by gas purchasers. This production must be treated by the purchaser. A majority of our East Texas production is processed by the purchaser. If the purchaser's facilities ceased to operate, were destroyed or otherwise needed replacement, it could require 60 to 90 days to replace or repair these facilities. A 60 to 90 day curtailment of our East Texas production could reduce current revenues by an estimated \$4.0 million to \$6.0 million, before the impact of hedges, with a corresponding reduction in our cash flow. Moreover, an unexpected delay in developing proved reserves in this area due to capital constraints or changes in development plan could reduce future revenues.

There are a limited number of natural gas purchasers and transporters in the Hilltop area of East Texas. The loss of our current purchaser and transporter and an inability to locate another purchaser and transporter would have a material adverse effect on our financial condition and results of operations.

There are a limited number of natural gas transporters in the Hilltop area in East Texas. For the year ended December 31, 2010, ETC accounted for substantially all of our revenues from this area. If ETC were to cease purchasing and transporting our natural gas and we were unable to contract with another transporter, it would have a material adverse effect on our financial condition, future cash flows and the results of operations.

Natural gas and oil reserves are depleting assets, and the failure to replace our reserves would adversely affect our production and cash flows.

Our future natural gas and oil production depends on our success in finding or acquiring new reserves. If we fail to replace reserves, our level of production and cash flows would be adversely impacted. Production from natural gas and oil properties decline as reserves are depleted, with the rate of decline depending on reservoir characteristics. Our total proved reserves will decline as reserves are produced unless we conduct successful exploration and development activities and/or acquire properties containing proved reserves. Our ability to make the necessary capital investment to maintain or expand our asset base of natural gas and oil reserves would be impaired to the extent cash flow from operations is reduced and external sources of capital become limited or unavailable. Further, we may not be successful in exploring for, developing or acquiring additional reserves, which could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Exploration is a high risk activity, and our participation in drilling activities may not be successful.

Our future success will largely depend on the success of our exploration drilling program. Participation in exploration drilling activities involves numerous risks, including the risk that no commercially productive natural gas or oil reservoirs will be discovered. The cost of drilling, completing and operating wells is often uncertain, and drilling operations may be curtailed, delayed or canceled as a result of a variety of factors, including, but not limited to:

Unexpected drilling conditions;

Blowouts, fires or explosions with resultant injury, death or environmental damage;

Pressure or irregularities in formations;

Equipment failures or accidents;

Adverse weather conditions;

Table of Contents

Index to Financial Statements

Compliance with governmental requirements and laws, present and future; and

Shortages or delays in the availability of drilling rigs and the delivery of equipment.

We use available seismic data to assist in the location of potential drilling sites. Even when properly used and interpreted, 2-D and 3-D seismic data and other visualization techniques are only tools used to assist geoscientists in identifying subsurface structures and hydrocarbon indicators. They do not allow the interpreter to know conclusively if hydrocarbons are present or economically producible. Poor results from our drilling activities would have a material adverse affect on our financial condition, future cash flows and results of operations. In addition, using seismic data and other advanced technologies involves substantial upfront costs and is more expensive than traditional drilling strategies, and we could incur losses as a result of these expenditures.

Reserve estimates depend on many factors and assumptions, including various assumptions that are based on conditions in existence as of the dates of the estimates, that may turn out to be inaccurate. Any material inaccuracies in these reserve estimates or underlying assumptions could materially affect the quantities and present values of our reserves.

The process of estimating natural gas and oil reserves is complex. It requires interpretations of available technical data and various assumptions, including assumptions relating to economic factors. Any significant inaccuracies in these interpretations or assumptions could materially affect the estimated quantities and present value of reserves.

There are many uncertainties inherent in estimating natural gas and oil reserves and their values, many of which are beyond our control. Reservoir engineering is a subjective process of estimating underground accumulations of natural gas or oil that cannot be measured in an exact manner. Estimates of economically recoverable natural gas or oil reserves and of future net cash flows necessarily depend on many variables and assumptions, such as:

Historical natural gas or oil production from that area, compared with production from other producing areas;

Assumptions concerning the effects of regulations by governmental agencies;

Assumptions concerning future prices;

Assumptions concerning future operating costs;

Assumptions concerning severance and excise taxes; and

Assumptions concerning development costs and workover and remedial costs.

Any of these variables or assumptions could vary considerably from actual results. For these reasons, estimates of the economically recoverable quantities of natural gas or oil attributable to any particular group of properties, classifications of those reserves based on risk recovery and estimates of the future net cash flows expected from them prepared by different engineers, or by the same engineer at different times, may vary substantially. Because of this, our reserve estimates may materially change at any time.

You should not consider the present values of estimated future net cash flows referred to in this Form 10-K to be the current market value of the estimated reserves attributable to our properties. For 2010 and 2009, the estimated discounted future net cash flows from proved reserves are based on the 12-month unweighted arithmetic average of the first-day-of-the-month prices and costs in effect when the estimate is made, and for 2008, the estimated discounted future net cash flows from proved reserves are based on the December 31, 2008 spot price and costs in effect when the estimate was made. Current or actual future prices and costs may be materially higher or lower. Actual future net cash flows also will

be affected by factors such as:

The amount and timing of actual production;

Supply and demand for natural gas or oil;

Table of Contents

Index to Financial Statements

Actual prices received for natural gas in the future being different than those used in the estimate;

Curtailments or increases in consumption of natural gas or oil;

Changes in governmental regulations or taxation; and

The timing of both production and expenses in connection with the development and production of natural gas or oil properties. In this Form 10-K, the net present value of estimated future net revenues at December 31, 2010 is calculated using the 12-month unweighted arithmetic average of the first-day-of-the-month price and a 10% discount rate. This price and rate are not necessarily the most appropriate price or discount factor based on prices and interest rates in effect from time to time and risks associated with our reserves or the natural gas and oil industry in general.

Our estimates of proved reserves have been prepared under current SEC rules, which went into effect for fiscal years ending on or after December 31, 2009, and may make comparisons to prior periods difficult and could limit our ability to book additional proved undeveloped reserves in the future.

This Form 10-K presents estimates of our proved reserves as of December 31, 2010 and 2009, which have been prepared and presented under current SEC rules. These rules require SEC reporting companies to prepare their reserves estimates using revised reserve definitions and revised pricing based on 12-month unweighted first-day-of-the-month average pricing. The previous rules required that reserve estimates be calculated using year-end pricing. Under the current rules, the pricing that was used for estimates of our reserves as of December 31, 2010 and 2009 was based on an unweighted average 12-month West Texas Intermediate posted price of \$75.96 and \$57.65 per Bbl for oil, respectively, and a Henry Hub spot price of \$4.38 and \$3.87 per MMBtu, respectively, for natural gas, as compared to \$41.00 per Bbl for oil and \$5.71 per MMBtu for natural gas as of December 31, 2008. As a result of these changes, direct comparisons to our previously-reported reserves amounts may be more difficult.

Under current SEC requirements, subject to limited exceptions, proved undeveloped reserves may only be booked if they relate to wells scheduled to be drilled within five years of the date of booking. This rule may limit our potential to book additional proved undeveloped reserves as we pursue our drilling program, particularly as we develop our acreage in the Hilltop area in East Texas and the Marcellus Shale in West Virginia and Pennsylvania. Moreover, we may be required to write down our proved undeveloped reserves if we do not drill and develop those reserves within the required five-year timeframe.

Future downward revisions of the present value of our proved reserves and increased drilling expenditures without current additions to proved reserves may lead to write downs in the carrying value of our natural gas and oil properties. We are subject to the full cost ceiling limitation which has resulted in past write-downs of estimated net reserves and may result in a write-down in the future if commodity prices continue to decline.

Under the full cost method of accounting, we are subject to quarterly calculations of a ceiling or limitation on the amount of our oil and gas properties that can be capitalized on our balance sheet. We may experience write downs of the carrying value of our oil and gas properties in the future if the present value of our proved natural gas and oil reserves is lower than our remaining unamortized capitalized costs. If the net capitalized costs of our oil and gas properties exceed the cost ceiling, we are subject to a ceiling test write-down of our estimated net reserves to the extent of such excess. If required, it would reduce earnings and impact stockholders' equity in the period of occurrence and result in lower amortization expense in future periods. The discounted present value of our proved reserves is a major component of the ceiling calculation and represents the component that requires the most subjective judgments. The risk that we will be required to write down the carrying value of oil and natural gas properties increases when natural gas and crude oil prices are depressed or volatile. In addition, a write-down of proved oil and natural gas properties may occur if we experience substantial downward

Table of Contents

Index to Financial Statements

adjustments to our estimated proved reserves, if there are differences in timing between the incurrence of significant costs of exploration or development activities and the recognition of significant proved reserves resulting from such activities and if we experience unsuccessful drilling activities. Expense recorded in one period may not be reversed in a subsequent period even though higher natural gas and crude oil prices may have increased the ceiling applicable in the subsequent period.

Our inability to meet a financial covenant contained in our revolving credit facility may adversely affect our liquidity, financial condition or results of operations.

We are subject to certain financial covenants which we are required to maintain under our revolving credit facility related to our working capital, cash flow and interest coverage ratio. If we breach a financial covenant and we are unable to cure such violation or obtain waivers from our lenders under the revolving credit facility within the applicable cure periods, such violation will constitute an event of default under the revolving credit facility, and our lenders could terminate any commitments they have to make available further funds, accelerate the due dates for the payments of all outstanding indebtedness and exercise their remedies as a secured creditor with respect to the collateral securing the revolving credit facility, which is substantially all of our natural gas and oil properties.

If the counterparties to the derivative instruments we use to hedge our business risks default or fail to perform, we may be exposed to risks we had sought to mitigate, which could materially adversely affect our financial condition and results of operations.

We use hedges to mitigate our natural gas price risk with counterparties. If our counterparties fail or refuse to honor their obligations under these derivative instruments, our hedges of the related risk will be ineffective. This is a more pronounced risk to us in view of the recent stresses suffered by financial institutions. We cannot provide assurance that our counterparties will honor their obligations now or in the future. A counterparty's insolvency or inability or unwillingness to make payments required under terms of derivative instruments with us could have a material adverse effect on our financial condition and results of operations. At the date of filing of this Form 10-K, our only counterparties were BP Corporation North America Inc., Bank of Montreal, J.P. Morgan Ventures Energy Corporation and Credit Suisse Energy LLC.

We are subject to various legal proceedings and claims. The cost of defending these lawsuits and any future lawsuits and any resulting judgments could be significant and could have a material adverse effect upon our financial condition.

We are subject to various significant legal proceedings and claims arising outside of the normal course of business. No assurance can be given regarding the outcome of these legal proceedings, and additional claims may arise. We are vigorously defending the Company in these matters. This litigation, regardless of outcome or merit, however, can result in substantial costs and diversion of resources from our business. These costs would be reflected in terms of dollar outlay as well as the amount of time, attention and other resources that our management would have to appropriate to the defense of such claims. Considerable legal, accounting and other professional services expenses related to these matters have been incurred to date and significant expenditures may continue to be incurred in the future. Although we cannot predict the ultimate outcome of these matters or the liability that could potentially result, continuing defense costs and any adverse outcome could adversely affect our business, financial condition and results of operations. For more information on our significant currently outstanding legal proceedings, see Note 15, "Commitments and Contingencies Litigation", to our consolidated financial statements included in this Form 10-K.

Deficiencies of title to our leased interests could significantly affect our financial condition.

Our practice in acquiring exploration leases or undivided interests in natural gas and oil leases is not to incur the expense of retaining lawyers to examine the title to the mineral interest prior to executing the lease. Instead, we rely upon the judgment of lease brokers and others to perform the field work in examining records in the appropriate governmental or county clerk's office before leasing a specific mineral interest. This practice is

Table of Contents

Index to Financial Statements

widely followed in the industry. Prior to drilling an exploration well, the operator of the well will typically obtain a preliminary title review of the drillsite lease or spacing unit within which the proposed well is to be drilled to identify any obvious deficiencies in title to the well and, if there are deficiencies, to identify measures necessary to cure those defects to the extent reasonably possible. It does happen, from time-to-time, that the examination made by the operator's title lawyers reveals that the lease or leases are invalid, having been purchased in error from a person who is not the rightful owner of the mineral interest desired. In these circumstances, we may not be able to proceed with our exploration and development of the lease site or may incur costs to remedy a defect, which could affect our financial condition and results of operations. We currently are involved in a title litigation matter in East Texas. See Note 15, Commitments and Contingencies – Litigation.

We are subject to complex laws and regulations, which may expose us to significant costs and liabilities and adversely affect the cost, manner or feasibility of conducting our business.

Our natural gas and oil exploration and production interest and operations are subject to stringent and complex federal, state, provincial and local laws and regulations relating to the operation and maintenance of our facilities, including laws regulating removal of natural resources from the ground and the discharge of materials into the environment and otherwise relating to environmental protection. Natural gas and oil operations are also subject to federal, state, provincial and local laws and regulations which seek to maintain health and safety standards by regulating the design and use of drilling methods and equipment.

These government authorities require various permits, including drilling permits, before conducting regulated activities and we cannot assure you that such permits will be received. The failure or delay in obtaining the requisite approvals or permits may adversely affect our business, financial condition and results of operations. Additionally, these laws and regulations impose numerous obligations and restrictions that are applicable to our interests and operations including, but not limited to:

Drilling and abandonment bonds or other financial responsibility assurances;

Restriction on types, quantities and concentration of materials that can be released into the environment;

Reports concerning operations;

Spacing of wells;

Limits or prohibitions on drilling activities on certain lands lying within wilderness, wetlands and other protected areas;

The application of specific health and safety criteria addressing worker protection;

The imposition of substantial liabilities for pollution resulting from our operations;

Limitations on access to properties, particularly in the Powder River Basin;

Taxation; and

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Other regulatory controls on operating activities.

In addition, regulatory agencies have from time to time imposed price controls and limitations on production by restricting the flow rate of wells below actual production capacity in order to conserve supplies of natural gas and oil.

Failure to comply with these laws and regulations applicable to our interests and operations could result in the assessment of administrative, civil and criminal penalties, the imposition of investigatory or remedial obligations and the issuance of orders enjoining or limiting some or all of our operations, any of which could have a material adverse affect on our financial condition. Legal requirements are sometimes unclear or subject to reinterpretation and may be frequently changed in response to economic or political conditions. As a result, it is hard to predict the ultimate cost of compliance with these requirements or their affect on our interests and

Table of Contents

Index to Financial Statements

operations. In addition, existing laws or regulations, as currently interpreted or reinterpreted in the future, or future laws or regulations may have a material adverse effect on our financial condition, future cash flows and the results of operations.

Federal and state legislation and regulatory initiatives relating to hydraulic fracturing could result in increased costs and additional operating restrictions or delays.

Hydraulic fracturing is an important and common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations. The process involves the injection of water, sand and chemicals under pressure into the formation to fracture the surrounding rock and stimulate production. The process is typically regulated by state oil and natural gas commissions but is not subject to regulation at the federal level. The EPA has commenced a study of the potential environmental impacts of hydraulic fracturing activities, with results of the study anticipated to be available by late 2012, and a committee of the House of Representatives is also conducting an investigation of hydraulic fracturing practices. Legislation was introduced in the recently completed session of Congress to provide for federal regulation of hydraulic fracturing and to require disclosure of the chemicals used in the fracturing process, and such legislation could be introduced in the current session of Congress. In addition, some states have adopted, and other states are considering adopting, regulations that could restrict hydraulic fracturing in certain circumstances. For example, New York has imposed a de facto moratorium on the issuance of permits for high-volume, horizontal hydraulic fracturing until state-administered environmental studies are finalized, a draft of which must be published by June 1, 2011 followed by a 30-day comment period. Further, Pennsylvania has adopted a variety of regulations limiting how and where fracturing can be performed and Wyoming has adopted legislation requiring drilling operators conducting hydraulic fracturing activities in that state to publicly disclose the chemicals used in the fracturing process.

Hydraulic fracturing is the primary production method used to produce reserves located in the Marcellus Shale formation and East Texas area. If new laws or regulations at the federal, state and/or provincial levels that significantly restrict hydraulic fracturing are adopted, such laws could make it more difficult or costly for us to perform hydraulic fracturing. In addition, if hydraulic fracturing is regulated at the federal level, exploration and production activities that entail hydraulic fracturing could be subject to additional regulation and permitting requirements and attendant permitting delays and potential increases in costs. Restrictions on hydraulic fracturing could also reduce the amount of oil and natural gas that we are ultimately able to produce from our reserves. Individually or collectively, such new legislation or regulation could lead to operational delays or increased operating costs and could result in additional burdens that could increase the costs and delay the development of unconventional oil and natural gas resources from shale formations that are not commercial without the use of hydraulic fracturing. This could have a material adverse effect on our business, financial condition and results of operations.

Our operations are subject to environmental and operational safety laws and regulations that may expose us to significant costs and liabilities.

There is inherent risk of incurring significant environmental costs and liabilities in the performance of our operations as a result of our handling of petroleum hydrocarbons and wastes, air emissions and wastewater discharges related to our operations, and historical industry operations and waste disposal practices. Under certain environmental laws and regulations, we could be subject to strict, joint and several liabilities for the removal or remediation of previously released materials or property contamination. Private parties, including the owners of properties upon which our wells are drilled and facilities where our petroleum hydrocarbons or wastes are taken for reclamation or disposal, also may have the right to pursue legal actions to enforce compliance as well as to seek damages for non-compliance with environmental laws and regulations or for personal injury or property or natural resource damages. Changes in environmental laws and regulations occur frequently, and any changes that result in more stringent or costly waste control, handling, storage, transport, disposal or cleanup requirements could require us to make significant expenditures to attain and maintain compliance and may otherwise have a material adverse effect on our own results of operations, competitive position or financial condition.

Table of Contents

Index to Financial Statements

The process of drilling for and producing natural gas and oil involves many operating risks that can cause substantial losses, and we may not have enough insurance to cover these risks adequately.

The natural gas and oil business involves many operating hazards, such as:

Well blowouts, fires and explosions;

Surface craterings and casing collapses;

Uncontrollable flows of natural gas, oil or well fluids;

Pipe and cement failures;

Formations with abnormal pressures;

Stuck drilling and service tools;

Pipeline ruptures or spills;

Natural disasters; and

Releases of toxic natural gas.

Any of these events could cause substantial losses to us as a result of:

Injury or death;

Damage to and destruction of property, natural resources and equipment;

Pollution and other environmental damage;

Regulatory investigations and penalties;

Suspension of operations; and

Repair and remediation costs.

We could also be responsible for environmental damage caused by previous owners of property from whom we purchased leases. As a result, we may incur substantial liabilities to third parties or governmental entities. Although we maintain what we believe is appropriate and customary insurance for these risks, the insurance may not be available or sufficient to cover all of these liabilities. If these liabilities are not covered by our insurance, paying them could reduce or eliminate the funds available for exploration, development or acquisitions or result in the loss of our properties.

Certain U.S. federal income tax deductions currently available with respect to oil and gas exploration and development may be eliminated as a result of future legislation.

President Obama's budget proposal for the fiscal year 2011 recommended the elimination of certain key U.S. federal income tax preferences currently available to oil and gas exploration and production companies. These changes include, but are not limited to, (i) the repeal of the percentage depletion allowance for oil and gas properties, (ii) the elimination of current deductions for intangible drilling and development costs, (iii) the elimination of the deduction for U.S. production activities, and (iv) the increase in the amortization period from two years to seven years for geophysical costs paid or incurred in connection with the exploration for, or development of, oil or gas within the United States.

It is unclear whether any such changes will actually be enacted or, if enacted, how soon any such changes could become effective. The passage of any legislation as a result of the budget proposal or any other similar change in U.S. federal income tax law could affect certain tax deductions that are currently available with respect to oil and gas exploration and production.

Table of Contents

Index to Financial Statements

Our natural gas and oil sales and our related hedging activities expose us to potential regulatory risks.

The Federal Trade Commission, the FERC, and the CFTC hold statutory authority to monitor certain segments of the physical and futures energy commodities markets. These agencies have imposed broad regulations prohibiting fraud and manipulation of such markets. With regard to our physical sales of natural gas and oil and any related hedging activities that we undertake, we are required to observe the market-related regulations enforced by these agencies, which hold substantial enforcement authority. Our sales may also be subject to certain reporting and other requirements. Failure to comply with such regulations, as interpreted and enforced, could have a material adverse effect on our business, results of operations, financial condition and our ability to make cash distributions to our unitholders.

To the extent that we enter into transportation contracts with natural gas pipelines that are subject to FERC regulation, we are subject to FERC requirements related to use of such capacity. Any failure on our part to comply with the FERC's regulations and policies, or with an interstate pipeline's tariff, could result in the imposition of civil and criminal penalties.

The enactment of the Dodd-Frank Act could have an adverse impact on our ability to hedge risks associated with our business.

Congress recently adopted comprehensive financial reform legislation that establishes federal oversight and regulation of the over-the-counter derivatives market and entities, including us, that participate in that market. The new legislation, known as the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act), was signed into law by the President on July 21, 2010 and requires CFTC and the SEC to promulgate rules and regulations implementing the new legislation within 360 days from the date of enactment. In its rulemaking under the Dodd-Frank Act, the CFTC has proposed regulations to set position limits for certain futures and option contracts in the major energy markets and for swaps that are their economic equivalents. Certain bona fide hedging transactions or positions would be exempt from these position limits. It is not possible at this time to predict when the CFTC will finalize these regulations. The financial reform legislation may also require us to comply with margin requirements and with certain clearing and trade-execution requirements in connection with our derivative activities, although the application of those provisions to us is uncertain at this time. The financial reform legislation may also require the counterparties to our derivative instruments to spin off some of their derivatives activities to a separate entity, which may not be as creditworthy as the current counterparty. The new legislation and any new regulations could significantly increase the cost of derivative contracts (including through requirements to post collateral which could adversely affect our available liquidity), materially alter the terms of derivative contracts, reduce the availability of derivatives to protect against risks we encounter, reduce our ability to monetize or restructure our existing derivative contracts, and increase our exposure to less creditworthy counterparties. If we reduce our use of derivatives as a result of the legislation and regulations, our results of operations may become more volatile and our cash flows may be less predictable, which could adversely affect our ability to plan for and fund capital expenditures. Finally, the legislation was intended, in part, to reduce the volatility of oil and natural gas prices, which some legislators attributed to speculative trading in derivatives and commodity instruments related to oil and natural gas. Our revenues could therefore be adversely affected if a consequence of the legislation and regulations is to lower commodity prices. Any of these consequences could have a material adverse effect on us, our financial condition and our results of operations.

Climate change legislation or regulations restricting emissions of greenhouse gases could result in increased operating costs and reduced demand for the oil and natural gas we produce.

In response to findings that emissions of GHGs present an endangerment to public health and the environment, the EPA has adopted regulations under existing provisions of the CAA that would require a reduction in emissions of GHGs from motor vehicles and also may trigger PSD and Title V permit requirements for GHG emissions from certain stationary sources when the motor vehicle standards took effect on January 2, 2011. The EPA rules have tailored the PSD and Title V permitting programs to apply to certain stationary

Table of Contents

Index to Financial Statements

sources of GHG emissions in a multi-step process, with the largest sources first subject to permitting. These EPA rulemakings could adversely affect our operations and restrict or delay our ability to obtain air permits for new or modified facilities. The EPA also published a final rule on November 30, 2010 expanding its existing GHG emissions reporting rule to include onshore and offshore oil and natural gas production and onshore oil and natural gas processing, transmission, storage, and distribution activities, which may include certain of our operations, beginning in 2012 for emissions occurring in 2011. In addition, Congress has actively considered legislation to reduce emissions of GHGs, and almost one-half of the states have already taken legal measures to reduce emissions of GHGs, primarily through the planned development of GHG emission inventories and/or regional GHG cap and trade programs. The adoption of any legislation or regulations that requires reporting of GHGs or otherwise limits emissions of GHGs from our equipment and operations could require us to incur costs to reduce emissions of GHGs associated with our operations or could adversely affect demand for the oil and natural gas we produce.

The CBM which we produce in the Powder River Basin may be drained by offsetting production wells.

Our drilling locations in the Powder River Basin are spaced primarily using 80-acre spacing. Producing wells located on the 80-acre spacing units contiguous with our drilling locations may drain the acreage underlying our wells. We do not operate these properties and have limited ability to exercise influence over operations for these properties. The success and timing of drilling, development and exploitation activities on properties operated by others depend on a number of factors that are beyond our control. Likewise, as a result of our dependence on the operator and other working interest owners for these projects, we are limited in our ability to drill wells to protect against drainage. Although there has not been a material number of offsetting wells drilled adjacent to our properties at this time, if a substantial number of productive wells are drilled on spacing units adjacent to our properties, they may decrease our revenue and could have an adverse impact on the economically recoverable reserves of our properties that are susceptible to such drainage.

Our Powder River Basin CBM wells typically have a shorter reserve life and lower rates of production than conventional natural gas wells, which may adversely affect our profitability and our ability to recognize proved reserves from this basin during periods of low natural gas prices.

The shallow coal from which we produce CBM in the Powder River Basin typically have a two to six year reserve life and have lower total reserves and produce at lower rates than most conventional natural gas wells. We depend on drilling a large number of wells each year to replace production and reserves in the Powder River Basin and to distribute operational expenses over a larger number of wells. A decline in natural gas prices could make certain wells uneconomical because production rates are lower on an individual well basis and may be insufficient to cover operational costs. The extended decline in gas prices through 2009 combined with the revised pricing methodology under the new SEC rules, described in more detail above, had a negative impact on our reserves in the Powder River Basin. As of December 31, 2010, we recognized minimal proved undeveloped reserves in the Powder River Basin. Our proved developed reserves in the Powder River Basin had only nominal value at such date.

Our ability to market our natural gas and oil may be impaired by capacity constraints and availability of the gathering systems and pipelines that transport our natural gas and oil.

The availability of a ready market for our natural gas production, particularly in the Appalachian area, depends on the proximity of our reserves to and the capacity of natural gas gathering systems, pipelines and trucking or terminal facilities. We do not own or operate any natural gas lines or distribution facilities and rely on third parties to construct additional interstate pipelines to increase our ability to bring our production to market. We enter into agreements with companies that own pipelines used to transport natural gas from the wellhead to contract destination. Those pipelines are limited in size and volume of natural gas flow.

Our Marcellus Shale production currently is subject to pipeline infrastructure and access constraints and delays in the area. Numerous midstream pipeline projects have been proposed for the area, but until such projects are completed, we will likely continue to incur delays in getting our Marcellus Shale production to sales. Our

Table of Contents

Index to Financial Statements

development of Marcellus Shale properties may be limited or delayed. Should production begin, other outstanding contracts with other producers and developers could interfere with our access to a natural gas line to deliver natural gas to the market. In West Virginia and southwestern Pennsylvania, key issues to development include limited pipeline infrastructure and access, water access and disposal issues to support operations and limited industry services. All of these factors could have an adverse effect on our ability to effectively conduct exploration and development activities.

Delays in the commencement of operations of new pipelines, the unavailability of the new pipelines or other facilities due to market conditions, mechanical reasons or otherwise could have an adverse impact on our results of operations and financial condition. Further, interstate transportation and distribution of natural gas is regulated by the federal government through the FERC. FERC sets rules and carries out administratively the oversight of interstate markets for natural gas and other energy policy.

Additionally, state regulators have powers over sale, supply and delivery of natural gas and oil within their state borders. While we do employ certain companies to represent our interests before state regulatory agencies, our interests may not receive favorable rulings from any state agency, or some future occurrence may drastically alter our ability to enter into contracts or deliver natural gas to the market.

In recent years, pipeline capacity for natural gas deliveries out of the Rocky Mountain area has been, at times, significantly constrained resulting in an oversupply and creating substantial discounts on spot natural gas prices received for regional production. This has had a substantial impact on the prices received for natural gas production from Wyoming and Montana, as compared to Gulf Coast natural gas prices. While a recently completed interstate pipeline has alleviated the problem by providing access to the Midwest interstate pipelines and markets, the relief may be offset over time by the expected increase in supply of natural gas available in the Rocky Mountains.

Competition in the natural gas and oil industry is intense. We are smaller and have less operating history than many of our competitors, and increased competitive pressure could adversely affect our results of operations.

We operate in a highly competitive environment. We compete with other natural gas and oil companies in all areas of our operations, including the acquisition of exploratory prospects and proven properties. Our competitors include major integrated natural gas and oil companies, numerous independent natural gas and oil companies, individuals and drilling and income programs. Many of our competitors are large, well-established companies that have substantially larger operating staffs and greater capital resources than we do and, in many instances, have been engaged in the natural gas and oil business for a much longer time than we have. These companies may be able to pay more for exploratory prospects and productive natural gas and oil properties and may be able to define, evaluate, bid for and purchase more properties and prospects than our financial and human resources permit. In addition, these companies may be able to spend more on the existing and changing technologies that we believe are and will be increasingly important to the current and future success of natural gas and oil companies. Our ability to explore for natural gas and oil prospects and to acquire additional properties in the future will depend on our ability to conduct our operations, to evaluate and select suitable properties and to consummate transactions in this highly competitive environment. Increased competitive pressure could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Acquisition prospects are difficult to assess and may pose additional risks to our operations.

Where appropriate, we may evaluate and pursue acquisition opportunities on terms our management considers favorable. The successful acquisition of natural gas and oil properties requires an assessment of:

Recoverable reserves;

Exploration potential;

Table of Contents

Index to Financial Statements

Future natural gas and oil prices;

Operating costs;

Potential environmental and other liabilities; and

Permitting and other environmental authorizations required for our operations.

In connection with such an assessment, we would expect to perform a review of the subject properties that we believe to be generally consistent with industry practices. Nonetheless, the resulting conclusions are inexact and their accuracy inherently uncertain, and such an assessment may not reveal all existing or potential problems, nor will it necessarily permit a buyer to become sufficiently familiar with the properties to fully assess their merits and deficiencies. Inspections may not always be performed on every facility or well, and structural and environmental problems are not necessarily observable even when an inspection is undertaken. Future acquisitions could pose additional risks to our operations and financial results, including:

Problems integrating the purchased operations, personnel or technologies;

Unanticipated costs;

Diversion of resources and management attention from our exploration business;

Entry into regions or markets in which we have limited or no prior experience; and

Potential loss of key employees, particularly those of the acquired organization.

We cannot control the activities on properties we do not operate, which may affect the timing and success of our future operations.

Other companies operate some of the properties in which we have an interest. As a result, we have a limited ability to exercise influence over operations for these properties or their associated costs. Our dependence on the operator and other working interest owners for these projects and our limited ability to influence operations and associated costs could have a material adverse affect on the realization of our targeted returns on capital in drilling or acquisition activities. The success and timing of our drilling and development activities on properties operated by others therefore depend upon a number of factors that are outside of our control, including:

Timing and amount of capital expenditures;

The operator's expertise and financial resources;

Approval of other participants in drilling wells; and

Selection of technology.

Technological changes could affect our operations.

The natural gas and oil industry is characterized by rapid and significant technological advancements and introductions of new products and services utilizing new technologies. As others use or develop new technologies, we may be placed at a competitive disadvantage, and competitive pressures may force us to implement such new technologies at substantial costs. In addition, many other natural gas and oil companies have greater financial, technical and personnel resources that may allow them to enjoy technological advantages and may in the future allow them to implement new technologies before we can. We may be unable to respond to such competitive pressures and implement such technologies on a timely basis or at an acceptable cost. If one or more of the technologies that we currently use or may implement in the future were to become obsolete or if we are unable to use the most advanced commercially available technology, it could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Table of Contents

Index to Financial Statements

We depend on our key personnel, the loss of which could adversely affect our operations and financial performance.

We depend, to a large extent, on the services of a limited number of senior management personnel and directors. Particularly, the loss of the services of our chief executive officer and chief financial officer could negatively impact our future operations. We have employment agreements with these key members of our senior management team; although, we do not maintain key-man life insurance on any of our senior management. We believe that our success is also dependent on our ability to continue to retain the services of skilled technical personnel. Our inability to retain skilled technical personnel could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Some of our directors may not be subject to suit in the United States.

Two of our directors are citizens of Canada. As a result, it may be difficult or impossible to effect service of process within the United States upon those directors, to bring suit against them in the United States or to enforce in the U.S. courts any judgment obtained there against them predicated upon any civil liability provisions of the U.S. federal securities laws. Investors should not assume that Canadian courts will enforce judgments of U.S. courts obtained in actions against those directors predicated upon the civil liability provisions of the U.S. federal securities laws or the securities or "blue sky" laws of any state within the United States or will enforce, in original actions, liabilities against those directors upon the U.S. federal securities laws or any such state securities or blue sky laws.

Current and future economic conditions in the United States and key international markets may materially adversely impact our operating results.

Our operations are affected by local, national and international economic conditions and the condition of the natural gas and oil industry. The United States and other world economies are slowly recovering from a recession, which began in 2008 and has extended into 2010. Although growth has resumed, it is modest and certain economic data indicates the United States and worldwide economies may require some time to recover. There are likely to be significant long-term effects resulting from the recession and credit market crisis, including a future global economic growth rate that is slower than what was experienced in recent years. In addition, more volatility may occur before a sustainable, yet lower, growth rate is achieved. Global economic growth drives demand for energy from all sources, including fossil fuels. A lower future economic growth rate will result in decreased demand growth for our natural gas production and crude oil, as well as lower commodity prices, which will reduce our cash flows from operations and our profitability.

Continued market deterioration could also jeopardize the performance of certain counterparty obligations, including those of our insurers, customers and financial institutions. Although we assess the creditworthiness of our counterparties, prolonged business decline or disruptions as a result of economic slow down or lower commodity prices could lead to changes in a counterparty's liquidity and increase our exposure to credit risk and bad debts. In the event any such party fails to perform, our financial results could be adversely affected and we could incur losses and our liquidity could be negatively impacted.

Table of Contents

Index to Financial Statements

Risks Related to Our Common Shares

Our common share price has been and is likely to continue to be highly volatile.

The trading price of our common shares are subject to wide fluctuations in response to a variety of factors, including quarterly variations in operating results, announcements of drilling and rig activity, economic conditions in the natural gas and oil industry, general economic conditions or other events or factors that are beyond our control.

In addition, the stock market in general and the market for natural gas and oil exploration companies, in particular, have experienced large price and volume fluctuations that have often been unrelated or disproportionate to the operating results or asset values of those companies. These broad market and industry factors may seriously impact the market price and trading volume of our common shares regardless of our actual operating performance. In the past, following periods of volatility in the overall market and in the market price of a company's securities, securities class action litigation has been instituted against certain natural gas and oil exploration companies. If this type of litigation were instituted against us following a period of volatility in our common shares trading price, it could result in substantial costs and a diversion of our management's attention and resources, which could have a material adverse effect on our financial condition, future cash flows and the results of operations.

Future issuances of our common shares may adversely affect the price of our common shares.

The future issuance of a substantial number of common shares into the public market, or the perception that such an issuance could occur, could adversely affect the prevailing market price of our common shares. A decline in the price of our common shares could make it more difficult to raise funds through future offerings of our common shares or securities convertible into common shares.

Our ability to issue an unlimited number of our common shares under our articles of incorporation may result in dilution or make it more difficult to effect a change in control of the Company, which could adversely affect the price of our common shares.

Unlike most corporations formed in the United States, our Amended and Restated Articles of Incorporation chartered under the laws of the Province of Alberta, Canada permit the board of directors to issue an unlimited number of new common shares without shareholder approval, subject only to the rules of the NYSE Amex LLC or any future exchange on which our common shares might trade. The issuance of a large number of common shares could be affected by our directors to thwart a takeover attempt or offer for us by a third party, even if doing so would not benefit our shareholders, which could result in the common shares being valued less in the market. The issuance or the threat of issuance of a large number of common shares at prices that are dilutive to the outstanding common shares could also result in the common shares being valued less in the market.

We are able to issue shares of preferred stock with greater rights than our common shares.

Our Amended and Restated Articles of Incorporation authorize our board of directors to issue one or more series of preferred shares and set the terms of the preferred shares without seeking any further approval from our shareholders. Any preferred shares that are issued may rank ahead of our common shares in terms of dividends, liquidation rights, or voting rights. If we issue preferred shares, it may adversely affect the market price of our common shares.

Because we have no plans to pay dividends on our common shares, shareholders must look solely to appreciation of our common shares to realize a gain on their investment.

We do not anticipate paying any dividends on our common shares in the foreseeable future. We currently intend to retain any future earnings to finance the expansion of our business. In addition, our revolving credit facility contains covenants that prohibit us from paying cash dividends as long as such debt remains outstanding. The payment of future dividends, if any, will be determined by our board of directors in light of conditions then

Table of Contents**Index to Financial Statements**

existing, including our earnings, financial condition, capital requirements, restrictions in financing agreements, business conditions and other factors. Accordingly, shareholders must look solely to appreciation of our common shares to realize a gain on their investment, which may not occur.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our properties consist primarily of natural gas and oil leases in the following areas:

Hilltop area of East Texas;

Marcellus Shale in West Virginia and southwestern Pennsylvania; and

Powder River Basin in Wyoming and Montana.

Additional information concerning our interests and related natural gas and oil activities in these areas is described under Item 1 Business of this Form 10-K.

Production, Prices and Operating Expenses

The following table presents information regarding the production volumes, average sales prices received and selected data per Mcfe associated with our sales of natural gas and oil for the periods indicated. Oil and condensate are compared with natural gas in terms of cubic feet of natural gas equivalents. One barrel of oil or condensate is the energy equivalent of six Mcf of natural gas.

	For the Years Ended December 31,		
	2010	2009	2008
Production:			
Natural gas (MMcf)	7,593	9,266	8,482
Oil (MBbl)	10	4	5
Total production (MMcfe)	7,654	9,291	8,510
Natural gas (MMcfd)	20.8	25.4	23.2
Oil (MBod)	0.0	0.0	0.0
Total (MMcfd)	21.0	25.5	23.3
Average sales price before hedging activity:			
Natural gas (per Mcf)	\$ 3.51	\$ 3.06	\$ 6.92
Oil (per Bbl)	\$ 72.63	\$ 54.46	\$ 98.39
Average sales price after realized hedging activity:			
Natural gas (per Mcf)	\$ 4.06	\$ 4.36	\$ 6.63
Selected operating expenses (in thousands):			
Production taxes	\$ 370	\$ 439	\$ 1,324
Lease operating expenses	6,679	6,572	7,567

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Transportation, treating and gathering	4,654	1,547	2,002
Depreciation, depletion and amortization	9,306	16,484	24,451
General and administrative expense	14,638	15,649	14,299
Selected operating expenses per Mcfe:			
Production taxes	\$ 0.05	\$ 0.05	\$ 0.16
Lease operating expenses	\$ 0.87	\$ 0.71	\$ 0.89
Transportation, treating and gathering	\$ 0.61	\$ 0.17	\$ 0.24
Depreciation, depletion and amortization	\$ 1.22	\$ 1.77	\$ 2.87
General and administrative expense	\$ 1.91	\$ 1.68	\$ 1.68
Production costs (1)	\$ 1.39	\$ 0.76	\$ 1.00

- (1) Production costs include natural gas and oil lease operating expense, gathering and workover expense and excludes ad valorem and severance taxes.

Table of Contents**Index to Financial Statements****Drilling Activity**

The following table shows our drilling activity for the periods indicated. In the table, gross refers to wells in which we have a working interest, and net refers to gross wells multiplied by our working interest in such wells.

	For the Years Ended December 31,					
	2010		2009		2008	
	Gross	Net	Gross	Net	Gross	Net
Exploratory wells:						
Productive	2.0	2.0	9.0	8.6	9.0	7.2
Non-productive						
Total	2.0	2.0	9.0	8.6	9.0	7.2
Development wells:						
Productive	3.0	2.2	2.0	1.2	9.0	4.6
Non-productive						
Total	3.0	2.2	2.0	1.2	9.0	4.6

On December 31, 2010, we had a total of 14 gross (7.5 net) wells in the process of being drilled, including 4 gross (3.7 net) wells in the Hilltop area of East Texas and 10 gross (3.8 net) wells in the Appalachia areas of West Virginia and Pennsylvania

Exploration and Development Acreage

The following table sets forth our ownership interest in undeveloped and developed acreage in the areas indicated where we own a working interest as of December 31, 2010. Gross acreage represents the total number of acres in which we own a working interest. Net acreage represents our proportionate working interest resulting from our ownership in gross acres.

	Undeveloped Acreage		Developed Acreage	
	Gross	Net	Gross	Net
Hilltop area, East Texas	24,049	13,247	9,397	5,978
Appalachia area, West Virginia and Pennsylvania (1)				
Acreage in Atinum Joint Venture	18,724	17,079	840	828
Other	64,543	58,710	3,552	3,115
Total Appalachia area	83,267	75,789	4,392	3,943
Powder River Basin, Wyoming and Montana	22,741	10,789	20,682	8,770
Total	130,057	99,825	34,471	18,691

- (1) We believe that substantially all of our Appalachia acreage is prospective for the Marcellus Shale. Acreage included in the Atinum Joint Venture assumes that our joint venture partner has earned their full joint venture interest.

Table of Contents**Index to Financial Statements****Undeveloped Acreage Expirations**

The table below summarizes by year our undeveloped acreage scheduled to expire.

As of December 31,	Gross Acres	Net Acres	% of Total Undeveloped	
			Gross Acres	Net Acres
2011	14,144	13,779	11%	14%
2012	13,874	8,965	11%	9%
2013	28,904	26,047	22%	26%
2014	14,005	11,897	11%	12%
2015 and thereafter	28,250	23,788	22%	24%

We have lease acreage that is generally subject to lease expiration if initial wells are not drilled within a specified period, generally not exceeding three to five years. As is customary in the natural gas and oil industry, we can retain our interest in undeveloped acreage by drilling activity that establishes commercial production sufficient to maintain the leases or by payment of delay rentals during the primary term of such a lease. In the Appalachia area, we have drilled 16 wells in shallower Devonian formations, which will retain for the life of production our interest in certain undeveloped acreage for possible future deeper drilling in the Marcellus Shale. We do not expect to lose significant lease acreage because of failure to drill due to inadequate capital, equipment or personnel. However, based on our evaluation of prospective economics, we have allowed acreage to expire and may allow additional acreage to expire in the future.

Of the 13,799 net acres expiring in 2011, we are currently focusing on the expiring acreage in the Hilltop and Appalachia areas, where approximately 3,227 and 10,423 acres, respectively, are scheduled to expire in 2011. We have already extended or are in the process of extending the 3,227 acres in East Texas. In the Appalachia area, we have already extended or are in the process of extending approximately 6,253 acres, with current plans of either divesting the remaining 4,170 acres or letting such leases expire. In the Powder River Basin area, 129 net acres are expiring in 2011.

Productive Wells

The following table sets forth our working interest ownership in productive wells in the areas indicated as of December 31, 2010. Gross represents the total number of wells in which we own a working interest. Net represents our proportionate working interest resulting from our ownership in gross wells. Productive wells are wells that are currently capable of producing natural gas or oil. Wells that are completed in more than one producing horizon are counted as one well.

	Natural Gas		Productive Wells Oil		Total Wells	
	Gross	Net	Gross	Net	Gross	Net
	Hilltop area, East Texas	24.0	16.4	4.0	4.0	28.0
Appalachia, West Virginia and Pennsylvania	25.0	15.8	16.0	13.6	41.0	29.4
Powder River Basin, Wyoming and Montana	513.0	225.5			513.0	225.5
Total	562.0	257.7	20.0	17.6	582.0	275.3

Natural Gas and Oil Reserves***Reserve Estimation***

The SEC rules expand the definition of natural gas and oil producing activities to include the extraction of saleable hydrocarbons from oil sands, shale, coal beds or other nonrenewable natural resources that are intended to be upgraded into synthetic natural gas or oil and activities undertaken with a view to such extraction. The use

Table of Contents

Index to Financial Statements

of new technologies is now permitted in the determination of proved reserves if those technologies have been demonstrated empirically to lead to reliable conclusions about reserve volumes. Proved reserves must be estimated using the unweighted average of first-day-of-the-month commodity prices over the preceding 12-month period, rather than the end-of-period price, when estimating whether reserve quantities are economical to produce. Likewise, the unweighted 12-month average price is used to compute depreciation, depletion and amortization. Subject to limited exceptions, proved undeveloped reserves may only be booked if they relate to wells scheduled to be drilled within five years of the date of booking.

Third Party Review of Reserves Estimates

The reserves estimates shown herein have been independently evaluated by Netherland, Sewell & Associates, Inc. (NSAI), a worldwide leader of petroleum property analysis for industry and financial organizations and government agencies. NSAI was founded in 1961 and performs consulting petroleum engineering services under Texas Board of Professional Engineers Registration No. F-002699. A copy of NSAI s summary reserve report is included as Exhibit 99.1 to this Form 10-K.

Within NSAI, the technical persons primarily responsible for preparing the reserves estimates set forth in the NSAI reserves report incorporated herein are Mr. Dan Paul Smith and Mr. William (Bill) J. Knights. Mr. Smith has been practicing consulting petroleum engineering at NSAI since 1980. He is a Registered Professional Engineer in the State of Texas (License No. 49093) and has over 30 years of practical experience in petroleum engineering and in the estimation and evaluation of reserves. He graduated from Mississippi State University in 1973 with a Bachelor of Science Degree in Petroleum Engineering. Mr. Knights has been practicing consulting petroleum geology at NSAI since 1991. He is a Certified Petroleum Geologist and Geophysicist in the State of Texas (License No. 1532) and has over 30 years of practical experience in petroleum geosciences, with over 20 years experience in the estimation and evaluation of reserves. He graduated from Texas Christian University in 1981 with a Bachelor of Science Degree in Geology and in 1984 with a Master of Science Degree in Geology. Both technical principals meet or exceed the requirements regarding qualifications, independence, objectivity and confidentiality set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers; both are proficient in judiciously applying industry standard practices to engineering and geoscience evaluations as well as applying SEC and other industry reserves definitions and guidelines.

Qualifications of Technical Persons and Internal Controls Over Reserves Estimates

The preparation of our reserve estimates are completed in accordance with our prescribed internal control procedures and are subject to management review. We maintain an internal technical team consisting of our Senior Reservoir Engineer and several geoscience professionals, who work closely with NSAI to ensure the integrity, accuracy and timeliness of data furnished to NSAI in their reserve review and estimation process. Throughout the year, our internal technical team meets regularly with representatives of NSAI to review properties and discuss methods and assumptions used in NSAI s preparation of the year-end reserve estimates. We provide historical information to NSAI for our largest producing properties, including with respect to ownership interest, oil and gas production, well test data, commodity prices and operating and development costs. NSAI performs an independent analysis, and differences are reviewed with our senior management. In some cases, additional meetings are held to review additional reserve work performed by our technical team related to any identified reserve differences. Historical variances between our internal reserve estimates and NSAI s estimates have been less than 5%. In addition, our Board of Directors has a reserves review committee, which is chaired by an independent director. The reserves review committee meets at least once a year and is specifically designated to review the year-end reserves reporting and the reserves estimation process, while our senior management reviews and approves any internally estimated significant changes to our proved reserves on a quarterly basis. The year-end NSAI reserve report is reviewed by the reserves review committee, together with representatives of NSAI and our internal team.

Table of Contents**Index to Financial Statements**

Since 2006, all of our reserve estimates have been reviewed and approved by our Senior Reservoir Engineer, who reports directly to our Chief Financial Officer. Our Senior Reservoir Engineer attended Texas A&M University and graduated in 1978 with a Bachelor of Science degree in Reservoir Engineering and has been involved in evaluations and the estimation of reserves and resources for over 28 years. During the year, our technical team may also perform separate, detailed technical reviews of reserve estimates for significant acquisitions or for properties with problematic indicators such as excessively long lives, sudden changes in performance or changes in economic or operational conditions.

Technologies Used in Reserves Estimation

Proved reserves are those quantities of oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations. The term reasonable certainty implies a high degree of confidence that the quantities of oil and/or natural gas actually recovered will equal or exceed the estimate. The SEC allows the use of techniques that have been proven effective by actual production from projects in the same reservoir or an analogous reservoir or by other evidence using reliable technology that establishes reasonable certainty. Reliable technology is a grouping of one or more technologies (including computational methods) that have been field tested and have been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation. To achieve reasonable certainty, our technical team employs technologies that have been demonstrated to yield results with consistency and repeatability. The technologies and economic data used in the estimation of our proved reserves include, but are not limited to, empirical evidence through drilling results and well performance, well logs, geologic maps and available downhole and production data, seismic data, well test data and reservoir simulation modeling.

Estimated Proved Reserves

Our proved reserves information as of December 31, 2010 included in this Form 10-K was estimated by NSAI using standard engineering and geosciences procedures and methods used in the petroleum industry. The technical personnel responsible for preparing the reserve estimates at NSAI meet the requirements regarding qualifications, independence, objectivity and confidentiality set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers.

In accordance with SEC regulations, estimates of our proved reserves and future net revenues as of December 31, 2010 were made using benchmark prices that are the 12-month unweighted arithmetic average of the first-day-of-the-month price for natural gas and oil prices (SEC pricing). Key natural gas prices utilized were the Henry Hub price of \$4.38 per MMBtu, the Katy Hub price of \$4.32 per MMBtu, the CIG price of \$3.95 per MMBtu and the Columbia Appalachia Gas Pool price of \$4.50 per MMBtu and an oil price of \$75.96 per barrel. These prices are held constant in accordance with SEC guidelines for the life of the wells included in the reserve reports but are adjusted by lease in accordance with sales contracts and for energy content, quality, transportation, compression and gathering fees and regional price differentials. Estimated quantities of proved reserves and future net revenues are affected by natural gas and oil prices, which have fluctuated significantly in recent years. All of our proved reserves are located within the United States.

The following table summarizes our estimated proved reserves as of December 31, 2010.

	Total Proved Reserves			Total
	Producing	Non-producing	Undeveloped	
Natural gas (MMcf)	32,825	8,747	8,319	49,891
Oil (MBbls)	36	9	17	62
Total proved reserves (MMcfe)	33,039	8,800	8,420	50,259
Standardized measure of discounted future net cash flow (in thousands)	\$ 47,858	\$ 12,232	\$ 7,192	\$ 67,282

Table of Contents**Index to Financial Statements*****Pricing Assumptions***

In accordance with the SEC pricing guidelines, our December 31, 2010 report of estimated proved reserves and future net revenues were made using the 12-month unweighted arithmetic average of the first-day-of-the-month prices. These prices are held constant in accordance with SEC guidelines for the life of the wells included in the reserve report but are adjusted by lease in accordance with sales contracts and for energy content, quality, transportation, compression and gathering fees and regional price differentials.

The following table summarizes our proved reserves by geographic area as of December 31, 2010:

SEC Pricing Case Proved Reserves (1)

	Natural Gas (MMcf)	Oil (MBbls)	MMcfe	% Proved Developed	PV-10 (2) (in thousands)
Hilltop area, East Texas	44,826	31	45,011	83%	\$ 63,264
Appalachia, West Virginia and Pennsylvania	2,608	31	2,791	81%	3,116
Powder River Basin, Wyoming and Montana	2,420		2,420	81%	814
Other	37		37	100%	88
Total	49,891	62	50,259	83%	\$ 67,282

- (1) Key natural gas prices utilized were the Henry Hub price of \$4.38 per MMBtu, the Katy Hub price of \$4.32 per MMBtu, the CIG price of \$3.95 per MMBtu and the Columbia Appalachia Gas Pool price of \$4.50 per MMBtu and an oil price of \$75.96 per barrel.
- (2) PV-10 represents the present value, discounted at 10% per annum, of estimated future net revenue before income tax of our estimated proved reserves. PV-10 is a non-U.S. GAAP financial measure because it excludes the effects of income taxes. We believe that PV-10 is a useful measure for evaluating the relative monetary significance of our oil and natural gas properties. Further, investors may use the measure as a basis for comparison of the relative size and value of our reserves to other companies. PV-10 should not be considered as an alternative to standardized measure of discounted future net cash flows as defined under U.S. GAAP. We presently have approximately \$34.6 million of net operating loss carryforwards, \$50.7 million of foreign tax credit carryforwards and \$198.6 million of remaining property tax basis for Federal income tax purposes. Based on these carryforwards and current and future property tax basis, no future income taxes have been included in the determination of discounted future net cash flows.

In addition to the SEC Pricing Case proved reserves, NSAI also prepared estimates of our year-end proved reserves using the NYMEX Strip Pricing commodity price assumptions as of December 31, 2010.

NYMEX Strip Pricing Case Proved Reserves (1)

	Natural Gas (MMcf)	Oil (MBbls)	MMcfe	% Proved Developed	PV-10 (2) (in thousands)
Hilltop area, East Texas	55,722	34	55,924	71%	\$ 91,451
Appalachia, West Virginia and Pennsylvania	3,059	32	3,248	82%	5,011
Powder River Basin, Wyoming and Montana	6,671		6,671	31%	2,912
Other	41		41	100%	113
Total	65,493	66	65,884	68%	\$ 99,487

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

- (1) The NYMEX Strip Pricing Case assumptions were based on the forward closing prices on the NYMEX for crude oil and natural gas as of December 31, 2010. For gas volumes, the price was based on a Henry Hub natural gas price, which increased monthly from \$4.22 per MMBtu to \$7.01 per MMBtu over the life of the properties until 2023 when the pricing was held flat . For oil, the price was based on a crude oil price which

Table of Contents

Index to Financial Statements

increased from \$88.81 per Bbl to \$95.24 per Bbl during the life of the properties until 2023 when the price was held flat. The natural gas and oil prices were adjusted by lease for contract terms, energy content, transportation fees and regional price differentials (together the NYMEX Case). We presently have approximately \$34.6 million of net operating loss carryforwards, \$50.7 million of foreign tax credit carryforwards and \$198.6 million of remaining property tax basis for Federal income tax purposes. Based on these carryforwards and current and future property tax basis, no future income taxes have been included in the determination of discounted future net cash flows.

Proved Undeveloped Reserves (PUDs)

As of December 31, 2010, our PUDs totaled 8.4 Bcfe. Approximately 88% of our PUDs at year-end 2010 were associated with East Texas, 6% to the Appalachia area and 6% to the Powder River Basin. The December 31, 2010 PUDs consisted of one gross (0.67 net) wells in East Texas, two gross (1.0 net) vertical wells in Appalachia and 5 gross (2.4 net) wells in the Powder River Basin. During 2010, we converted 5.9 Bcfe of PUD reserves to proved developed reserves and had positive revisions of PUDs of 1.6 Bcfe, primarily due to an increase in East Texas PUD reserves due to offset performance. Capital costs incurred relating to the development of PUDs were approximately \$8.8 million in 2010. Estimated future development costs relating to the development of 2010 year-end PUDs is \$9.0 million of which 2011 and 2012 expenditures are \$1.1 million and \$7.3 million, respectively. All PUDs are scheduled to be drilled by 2013. All of our PUD reserves at December 31, 2010 are scheduled for development within five years from the date recorded as PUD reserves. As of December 31, 2010, none of our PUD reserves have remained undeveloped for five years or more after having been disclosed as PUD reserves.

Item 3. Legal Proceedings

Information about our legal proceedings is set forth in Note 15, Commitments and Contingencies Litigation to our consolidated financial statements, which begin on page F-1 of this Form 10-K.

Item 4. Removed and reserved for future use.

Table of Contents**Index to Financial Statements****PART II****Item 5. Market for Registrant's Common Equity and Related Shareholder Matters and Issuer Purchases of Equity Securities****Market Information**

Our common stock is traded on the NYSE Amex LLC under the symbol GST and until July 6, 2009 on the Toronto Stock Exchange under the symbol YGA. On July 6, 2009, we voluntarily delisted our common shares on the Toronto Stock Exchange. The following table sets forth the high and low sales prices of our common stock for the 2010 and 2009 annual periods.

	NYSE Amex	
	High	Low
2010:		
Fourth quarter	\$ 5.44	\$ 3.46
Third quarter	\$ 4.27	\$ 2.85
Second quarter	\$ 5.77	\$ 3.40
First quarter	\$ 5.70	\$ 4.25
2009:		
Fourth quarter	\$ 5.06	\$ 4.12
Third quarter	\$ 5.13	\$ 1.90
Second quarter	\$ 3.20	\$ 1.85
First quarter	\$ 3.95	\$ 2.10

The last reported sale price of our common shares on the NYSE Amex on March 8, 2011 was \$4.66.

Shareholders

As of March 8, 2011, there were 386 shareholders of record who owned our common shares.

Dividends

We have never declared or paid any cash dividends on our common stock. We anticipate that we will retain future earnings, if any, to satisfy our operational and other cash needs and do not anticipate paying any cash dividends on our common stock in the foreseeable future. In addition, our revolving credit facility prohibits us from paying cash dividends as long as such debt remains outstanding. Pursuant to the provisions of the *Business Corporations Act* (Alberta), we are prohibited from declaring or paying a dividend if there are reasonable grounds for believing that (1) we are, or would after the payment be, unable to pay our liabilities as they become due or (2) the realizable value of our assets would thereby be less than the aggregate of our liabilities and stated capital of all classes.

Recent Sales of Unregistered Securities; Use of Proceeds from Unregistered Securities

We did not have any sales of unregistered securities during the year ended December 31, 2010.

Table of Contents**Index to Financial Statements****Item 6. Selected Financial Data**

The following table presents selected historical financial data as of and for the periods indicated. The selected consolidated financial data are derived from our audited consolidated financial statements. The following selected historical financial data should be read in connection with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and the audited Consolidated Financial Statements and related notes included elsewhere in this Form 10-K.

The year ended December 31, 2010 includes litigation settlement expense of \$21.7 million. The years ended December 31, 2009, 2008, 2007 and 2006 include impairment of natural gas and oil properties of \$68.7 million, \$14.2 million, \$28.5 million and \$56.3 million, respectively. The years ended December 31, 2009 and 2007 reflect gains on sale of assets of \$211.2 million and \$38.5 million, respectively. Additionally, the years ended December 31, 2009 and 2007 include expenses related to the early extinguishment of debt of \$15.9 million and \$15.7 million, respectively.

	2010	As of and for the Years Ended December 31,			
		2009	2008	2007	2006
		(in thousands, except per share data)			
Consolidated Statements of Operations:					
Revenues	\$ 42,768	\$ 32,869	\$ 63,219	\$ 34,565	\$ 26,765
Loss from operations	\$ (15,019)	\$ (76,930)	\$ (976)	\$ (42,514)	\$ (71,070)
Net income (loss)	\$ (12,460)	\$ 48,846	\$ (5,361)	\$ (30,540)	\$ (84,839)
Income (loss) per share:					
Basic	\$ (0.25)	\$ 1.06	\$ (0.13)	\$ (0.75)	\$ (2.50)
Diluted	\$ (0.25)	\$ 1.06	\$ (0.13)	\$ (0.75)	\$ (2.50)
Weighted average common shares outstanding					
Basic	49,814	46,103	41,420	40,566	34,003
Diluted	49,814	46,166	41,420	40,566	34,003
Consolidated Balance Sheets:					
Property, plant and equipment, net	\$ 215,115	\$ 162,661	\$ 252,527	\$ 157,120	\$ 160,826
Total assets	\$ 247,352	\$ 296,238	\$ 288,437	\$ 261,750	\$ 228,889
Long-term liabilities	\$ 14,295	\$ 18,371	\$ 5,095	\$ 137,076	\$ 98,627
Total shareholders' equity	\$ 207,391	\$ 164,896	\$ 101,582	\$ 95,269	\$ 98,342

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**Overview**

We are an independent energy company engaged in the exploration, development and production of natural gas and oil in the United States. Our principal business activities include the identification, acquisition, and subsequent exploration and development of natural gas and oil properties with an emphasis on prospective deep structures identified through seismic and other analytical techniques as well as unconventional natural gas reserves, such as shale resource plays. We are pursuing natural gas exploration in the deep Bossier gas play in the Hilltop area of East Texas and the Marcellus Shale in the Appalachia area of West Virginia and central and southwestern Pennsylvania. We also conduct CBM development activities within the Powder River Basin of Wyoming and Montana. We are a Canadian corporation incorporated in Alberta in 1987. We are publicly traded on the NYSE Amex LLC under the ticker symbol `GST`.

As a result of the sale of our Australian operations in July 2009, our current operational activities are conducted exclusively in the United States, and we have no long-lived assets outside of the United States. As of December 31, 2010, our major assets consist of approximately 33,400 gross (19,200 net) acres in the Bossier play in the Hilltop area of East Texas, approximately 87,700 gross (79,700 net) acres in the Marcellus Shale in West

Table of Contents

Index to Financial Statements

Virginia and southwestern Pennsylvania and approximately 43,400 gross (19,600 net) acres in the Powder River Basin of Wyoming and Montana. During the past three years, we spent approximately \$280.9 million in acreage, seismic, capitalized interest, drilling advances, reserve acquisition and exploratory and development drilling on this acreage. We have not attained positive net income from operations in the past three years. There can be no assurance that operating income and net earnings will be achieved in future periods. As we continue the exploitation and development drilling in the Hilltop area and in Appalachia, we expect to show further improvement in our operations.

Our financial results depend upon many factors which significantly affect our results of operations including the following:

The level and success of exploration and development activity;

The sales prices of natural gas and oil;

The level of total sales volumes of natural gas and crude oil; and

The availability of and our ability to raise the capital necessary to meet our cash flow and liquidity needs.

We plan our activities and budget based on then current future period sales price assumptions, given the inherent volatility of natural gas and oil prices that are influenced by many factors beyond our control. We focus our efforts on increasing natural gas and oil reserves and production and strive to control costs at an appropriate level. Our future earnings and cash flows are dependent on our ability to manage our overall cost structure to a level that allows for profitable production. Our future earnings will also be impacted by the changes in the fair market value of hedges we execute to mitigate the volatility in natural gas and oil prices in future periods.

Like other natural gas and oil exploration and production companies, we face natural production declines. As initial reservoir pressures are depleted, natural gas and oil production from a given well will decrease. Thus, a natural gas and oil exploration and production company depletes part of its asset base with each unit of natural gas and oil it produces. We attempt to overcome this natural decline by adding reserves in excess of what we produce through successful drilling or acquisition. Our future growth will depend on our ability to continue to add reserves in excess of our production. We will maintain our focus on adding reserves through drilling and acquisitions, while placing a clear priority on lowering our cost of replacing reserves. Consistent with our stated strategies, we will emphasize maintaining a high-quality inventory of drilling locations, while also focusing on improving our capital and cost efficiency.

2010 Highlights

Atinum Joint Venture. On September 21, 2010, we entered into the Atinum Joint Venture. Pursuant to the related purchase and sale agreement with Atinum, upon closing on November 1, 2010, we assigned to Atinum an initial 21.43% interest in all of our existing Marcellus Shale assets in West Virginia and Pennsylvania, which consisted of approximately 37,600 gross (34,200 net) acres and a 50% working interest in 16 producing shallow conventional wells and one non-producing vertical Marcellus Shale well, in a transaction valued at \$70.0 million. Atinum paid us approximately \$30.0 million in cash at the closing. Additionally, Atinum is obligated to fund its 50% share of drilling, completion and infrastructure costs, and will pay an additional \$40.0 million in the form of a drilling carry by funding 75% of our 50% share of those same costs. Upon completion of the funding of the drilling carry, we will make additional assignments to Atinum, as necessary, so Atinum will own a 50% interest in the Atinum Joint Venture Assets.

We are pursuing an initial three-year development program that calls for the drilling of one horizontal Marcellus Shale well during the remainder of 2010, a minimum of 12 horizontal wells in 2011 and 24 horizontal wells in each of 2012 and 2013. An initial AMI was established for potential additional acreage acquisitions in Ohio and New York along with the counties in West Virginia and Pennsylvania in which the existing Atinum

Table of Contents

Index to Financial Statements

Joint Venture Assets are located. Within the initial AMI, we will act as operator and are obligated to offer any future AMI lease acquisitions to Atinum on a 50/50 basis, and Atinum will pay us on an annual basis an amount equal to 10% of lease bonuses and third party leasing costs up to \$20.0 million and 5% of such costs on activities above \$20.0 million. Until June 30, 2011, Atinum will have the right to participate in any future leasehold acquisitions made by us outside of the initial AMI and within West Virginia or Pennsylvania on terms identical to those governing the existing Atinum Joint Venture.

ClassicStar Mare Lease Litigation Settlement. In November 2010, we entered into a final settlement agreement and comprehensive general release with respect to the seven *In re ClassicStar Mare Lease Litigation* matters that we were involved in (collectively, the *ClassicStar Mare Lease Litigation*). Pursuant to such settlement agreement, we are required to pay to the plaintiffs an aggregate of \$21.2 million in cash, including an initial \$18.0 million payment paid late in December 2010 and the remaining \$3.2 million as a non-interest bearing payment obligation consisting of sixteen consecutive monthly payments, the first of which was in the amount of \$150,000 and was paid in January 2011 and the next fifteen of which shall be \$200,000 each, in exchange for dismissal of the plaintiffs' claims in all seven cases.

Public Offering of Common Shares. In December 2010, we completed an underwritten public offering of 13,800,000 common shares at a public offering price of \$4.00 per share. The aggregate net proceeds from the offering totaled approximately \$52.5 million after deducting underwriting discounts and offering expenses of approximately \$2.7 million. The proceeds from the offering were used to fund the \$28.9 million purchase of the Marcellus Acquisition discussed below and to fund the \$18.0 million settlement payment discussed above.

Marcellus Shale Leasehold Acquisition. In December 2010, we completed an acquisition of approximately 62,000 net acres of leasehold in the Marcellus Shale concentrated in Preston, Tucker, Pocahontas, Randolph and Pendleton Counties, West Virginia, for approximately \$28.9 million. The acquired assets include a gathering system comprised of 41 miles of four and six inch steel pipe, a salt water disposal well and five conventional wells producing approximately 500 Mcf per day (gross) of natural gas (the *Marcellus Acquisition*). Our Atinum Joint Venture partner elected not to participate in this acquisition under the existing agreement terms.

Financial Highlights

Our consolidated financial statements reflect total revenue of \$42.8 million on total volumes of 7.7 Bcfe for the year ended December 31, 2010. Our operating loss for the year ended December 31, 2010 was \$15.0 million and included depreciation, depletion and amortization expense of \$9.3 million and litigation settlement expense of \$21.7 million.

Results of Operations

The following is a comparative discussion of the results of operations for the periods indicated. It should be read in conjunction with the consolidated financial statements and the related notes to the consolidated financial statements, which begin on page F-1.

For additional information about production volumes, prices of natural gas and oil and selected operating expenses, see Item 2. Properties Production, Prices and Operating Expenses.

Table of Contents**Index to Financial Statements**

The following table provides a summary of our revenues, production and operating expenses for the periods indicated:

	Year Ended December 31,		
	2010	2009	2008
	(In thousands, except per unit amounts)		
Revenues:			
Natural gas and oil revenues	\$ 31,554	\$ 40,636	\$ 56,690
Unrealized natural gas hedge gain (loss)	11,214	(7,767)	6,529
Total revenues	\$ 42,768	\$ 32,869	\$ 63,219
Production:			
Gas (MMcf)	7,593	9,266	8,482
Oil (MBbl)	10	4	5
Total equivalents (MMcfe)	7,654	9,291	8,510
Natural gas (MMcfd)	20.8	25.4	23.2
Oil (MBod)	0.0	0.0	0.0
Total (MMcfd)	21.0	25.5	23.3
Sales price per unit:			
Avg. gas price per Mcf excluding hedging	\$ 3.51	\$ 3.06	\$ 6.92
Avg. gas price per Mcf including hedging	\$ 4.06	\$ 4.36	\$ 6.63
Avg. oil price per Bbl	\$ 72.63	\$ 54.46	\$ 98.39
Operating expenses:			
Production taxes	\$ 370	\$ 439	\$ 1,324
Lease operating expense	6,679	6,572	7,567
Transportation, treating and gathering	4,654	1,547	2,002
Depreciation, depletion and amortization	9,306	16,484	24,451
Impairment of oil and gas properties		68,729	14,217
General and administrative expenses	14,638	15,649	14,299
Selected data per Mcfe:			
Lease operating, transportation and production taxes	\$ 1.53	\$ 0.92	\$ 1.28
General and administrative expenses	\$ 1.91	\$ 1.68	\$ 1.68
Depreciation, depletion and amortization	\$ 1.22	\$ 1.77	\$ 2.87

Year Ended December 31, 2010 compared to Year Ended December 31, 2009

Revenues. Natural gas and oil revenues were \$31.6 million for the year ended December 31, 2010, down 22% from \$40.6 million for the year ended December 31, 2009. Average daily production on an equivalent basis was 21.0 MMcfe per day for the year ended December 31, 2010 compared to 25.5 MMcfe per day for the same period in 2009. This decrease in revenues was the result of an 18% decrease in production and a 6% decrease in prices. The decrease in production is primarily due to delays in new wells coming on production to offset the production decline on existing wells and lower Belin #1 production due to the well not producing for the majority of the second quarter of 2010 compared to the first half of 2009 benefitting from the initial high rates of production from the well. During 2010, our East Texas production averaged 18.6 MMcfe per day compared to 2009 production of 21.8 MMcfe per day, a 15% decrease. Production in Wyoming and other areas declined by approximately 35%, primarily due to lower Wyoming production resulting from reductions in compression to reduce cash costs and only one Wyoming well being drilled in 2010.

Table of Contents**Index to Financial Statements**

During the year ended December 31, 2010, approximately 94% of our total natural gas production was hedged, of which only 45% had price ceiling limitations. The realized effect of hedging on natural gas sales for the year ended December 31, 2010 was an increase of \$4.1 million in revenues resulting in an increase in total natural gas price received from \$3.51 per Mcf to \$4.06 per Mcf. The realized hedge impact includes a reduction of \$1.4 million for non-cash amortization of prepaid put purchase and call sale premiums. Excluding the non-cash amortization, the realized effect of hedging was an increase in revenues of \$5.6 million comprised of \$8.4 million of NYMEX hedge gains offset by \$1.7 million of regional basis losses and deferred put premium payments of \$1.1 million.

Unrealized natural gas hedge gain was \$11.2 million for the twelve months ended December 31, 2010 compared to an unrealized natural gas hedge loss of \$7.8 million for the twelve months ended December 31, 2009. The increase in unrealized natural gas hedge impact was the result of the benefit from lower future NYMEX gas prices offset by lower hedged volumes and losses related to basis differentials.

Production taxes. We reported production taxes of approximately \$370,000 for the year ended December 31, 2010, down from \$439,000 for the year ended December 31, 2009. The decrease was primarily the result of lower revenues in Wyoming due to lower production volumes.

Lease operating expenses. We reported lease operating expenses of \$6.7 million for the year ended December 31, 2010, up slightly from \$6.6 million for the year ended December 31, 2009. This increase was primarily due to higher non-recurring workover expense. Our lease operating expenses were \$0.87 per Mcfe for the year ended December 31, 2010, up 23% from \$0.71 per Mcfe for the same period in 2009. Excluding workover expense and other non-recurring costs, our lease operating expenses were \$5.9 million or \$0.77 per Mcfe for the year ended December 31, 2010, compared to \$6.0 million or \$0.62 per Mcfe for the same period in 2009.

	Lease Operating Expense For the Year Ended December 31, 2010		Lease Operating Expense For the Year Ended December 31, 2009		% Change of \$ per Mcfe
	(in thousands)	(\$ per Mcfe)	(in thousands)	(\$ per Mcfe)	
Hilltop area, East Texas	\$ 4,399	\$ 0.65	\$ 4,023	\$ 0.50	29%
Other	\$ 2,280	\$ 2.68	2,549	\$ 1.93	39%
Total	\$ 6,679	\$ 0.87	\$ 6,572	\$ 0.71	23%

The 29% increase from December 31, 2009 to December 31, 2010 in lease operating expense per Mcfe for the Hilltop area, East Texas was primarily the result of lower volumes and higher non-recurring workover costs. Workover costs in the Hilltop area, East Texas for 2010 and 2009 were \$760,000 and \$344,000, or \$0.11 per Mcfe and \$0.04 per Mcfe, respectively. The 39% increase from December 31, 2009 to December 31, 2010 in lease operating expense per Mcfe in Other was primarily related to Powder River Basin CBM production declines.

Transportation, treating and gathering. We reported transportation expenses of \$4.7 million for the year ended December 31, 2010, up from \$1.5 million for the year ended December 31, 2009. This increase was primarily due to gathering charges in East Texas under the Hilltop Gathering Agreement, effective November 2009 in conjunction with the sale of our Hilltop Gathering System, partially offset by lower transportation costs in Wyoming as a result of lower production. The twelve months ended December 31, 2010 included \$1.3 million of charges under the Hilltop Gathering Agreement due to actual production volumes being less than minimum contractual volume requirements.

Depreciation, depletion and amortization. Depreciation, depletion and amortization (DD&A) was \$9.3 million for the year ended December 31, 2010, down from \$16.5 million for the year ended December 31, 2009. The decrease in DD&A expense was the result of a 31% decrease in DD&A rate per Mcfe and an 18% decrease

Table of Contents**Index to Financial Statements**

in production volumes primarily attributable to delays in drilling and operational issues on the Belin #1. The DD&A rate for the year ended December 31, 2010 was \$1.22 per Mcfe, as compared to \$1.77 for the same period in 2009. The decrease in the DD&A rate is primarily due to lower proved costs due to ceiling impairments recorded during 2009 and gathering sales proceeds credited to proved property costs in late 2009.

Impairment of natural gas and oil properties. We did not record an impairment of natural gas and oil properties for the year ended December 31, 2010. We recorded an impairment of natural gas and oil properties of \$68.7 million for the year ended December 31, 2009. The 2009 impairment was the result of a significant decline in natural gas prices at March 31, 2009. Henry Hub natural gas prices at March 31, 2009 declined 37% from December 31, 2008 prices resulting in estimated future net revenues being based on a weighted average price of \$2.64, held constant, discounted at 10% plus unproven properties at historical costs.

General and administrative expenses. We reported general and administrative expenses of \$14.6 million for the year ended December 31, 2010, down from \$15.6 million for the year ended December 31, 2009. Non-cash stock-based compensation expense, which is included in general and administrative expenses, was \$2.8 million and \$3.5 million for the years ended December 31, 2010 and 2009, respectively. This decrease in stock-based compensation expense was due primarily to the decision in March 2009 to pay the 2008 management bonuses of \$801,000 in vested restricted common shares in lieu of cash. Excluding stock-based compensation expense, general and administrative expense decreased \$229,000 to \$11.8 million for the year ended December 31, 2010 compared to \$12.1 million for the year ended December 31, 2009. This decrease was primarily due to a \$1.1 million decrease in bonus expense due to a one-time bonus paid in 2009 in conjunction with the sale of the Australian Assets and a \$1.3 million decrease in contract labor expense offset by higher legal costs of \$1.5 million related to litigation matters and the payment of 2008 management bonuses in restricted common shares rather than in cash.

Litigation settlement expense. We reported litigation settlement expense of \$21.7 million for the twelve months ended December 31, 2010 primarily resulting from our settlement with the plaintiffs of the seven ClassicStar Mare Lease Litigation suits in December 2010 (for additional information regarding the settlement of this matter, as well as our other significant currently outstanding legal proceedings, see Note 15, Commitments and Contingencies Litigation), to our consolidated financial statements included in this Form 10-K).

Interest expense. We reported interest expense of \$150,000 for the year ended December 31, 2010 compared to \$4.0 million for the year ended December 31, 2009. Interest expense excludes \$633,000 and \$10.8 million of capitalized interest in 2010 and 2009, respectively, which related to capital expenditures for undeveloped projects in East Texas, West Virginia and southwestern Pennsylvania. Excluding capitalized interest, interest expense decreased \$14.8 million from December 31, 2009 to December 31, 2010 due to the payoff of substantially all outstanding debt in conjunction with the sale of our Australian Assets in July 2009.

Early extinguishment of debt. We did not record early extinguishment of debt expense for the year ended December 31, 2010. In conjunction with the repayment of our revolving credit facility, the term loan and the 12³/₄% senior secured notes during 2009, we reported debt extinguishment expense of \$15.9 million for the year ended December 31, 2009, comprised of \$8.9 million of early prepayment penalty on the term loan and the 12³/₄% senior secured notes and \$7.0 million of unamortized deferred financing costs on the debt retired.

Gain on sale of unproved properties. We did not record a gain on sale of assets for the year ended December 31, 2010. In July 2009, we sold our non-producing Australian Assets, for approximately \$250.4 million, including gross reserve certification target proceeds and before transaction costs of approximately \$1.5 million, resulting in a pre-tax gain on sale of \$211.2 million for the year ended December 31, 2009.

Warrant derivative loss. For the year ended December 31, 2010 we reported a \$205,000 unrealized gain related to the fair value measurement of our warrants outstanding compared to a \$205,000 unrealized loss at December 31, 2009.

Table of Contents**Index to Financial Statements**

Foreign transaction gain (loss). We reported a foreign transaction gain of \$353,000 for the year ended December 31, 2010 compared to a gain of \$3.8 million for the year ended December 31, 2009. The decrease in foreign transaction gain was primarily due to Australian exchange rate fluctuations and a decrease in our Australian denominated cash and accounts receivable balances arising from the sale of the Australian Assets in 2009.

Provision for income tax expense (benefit). We reported \$804,000 of income tax benefit for the year ended December 31, 2010 compared to \$70.3 million of income tax expense related to the gain on the sale of the Australian Assets for the year ended December 31, 2009. The income tax benefit for the twelve months ended December 31, 2010 is primarily due to a \$1.0 million downward adjustment of the tax expense related to the sale of the Australian Assets after final review from the Australian Tax Office partially offset by withholding tax on the interest income earned from the Australian term deposit and a benefit for previously accrued state income taxes. At maturity on June 1, 2010, the term deposit was used to settle the tax liability resulting from the 2009 sale of the Australian Assets.

Year Ended December 31, 2009 compared to Year Ended December 31, 2008

Revenues. Natural gas and oil revenues were \$40.6 million for the year ended December 31, 2009, down 28% from \$56.7 million for the year ended December 31, 2008. Average daily production on an equivalent basis was 25.5 MMcfe per day in 2009, compared to 23.3 MMcfe per day in 2008. This decrease in revenues was the result of a 34% decrease in prices, partially offset by a 9% increase in production, primarily due to our Bossier drilling and recompletion activity. During 2009, our East Texas production averaged 21.8 MMcfe per day compared to 2008 production of 17.4 MMcfe per day, a 25% increase. Production in Wyoming and other areas declined by approximately 38%, primarily due to lower Wyoming production resulting from reductions in compression and no new Wyoming wells being drilled in 2009.

During 2009, approximately 72% of our total natural gas production was hedged. The realized effect of hedging on natural gas and oil revenues for the year ended December 31, 2009 was an increase of \$12.0 million in revenues, resulting in an increase in total natural gas price received from \$3.06 per Mcf to \$4.36 per Mcf.

Unrealized natural gas hedge loss of \$7.8 million represents the mark-to-market impact of our derivative contracts outstanding at December 31, 2009. Effective October 1, 2008, we elected to discontinue hedge accounting on all then existing and future derivative contracts.

Production taxes. We reported production taxes of approximately \$439,000 for the year ended December 31, 2009, down from \$1.3 million for the year ended December 31, 2008. The decrease was the result of lower revenues in Wyoming due to lower gas prices and production.

Lease operating expenses. We reported lease operating expenses of \$6.6 million for the year ended December 31, 2009, down from \$7.6 million for the year ended December 31, 2008. This decrease was primarily due to lower costs in Wyoming and lower non-recurring workover expense. Our lease operating expenses were \$0.71 per Mcfe for the year ended December 31, 2009, down 20% from \$0.89 per Mcfe for the comparable period in 2008. Excluding workover expense and other non-recurring costs our lease operating expenses were \$0.62 per Mcfe for the year ended December 31, 2009, compared to \$0.76 per Mcfe for the same period in 2008.

	Lease Operating Expense For the Year Ended December 31, 2009		Lease Operating Expense For the Year Ended December 31, 2008		% Change of \$ per Mcfe
	(in thousands)	(\$ per Mcfe)	(in thousands)	(\$ per Mcfe)	
Hilltop area, East Texas	\$ 4,023	\$ 0.50	\$ 4,515	\$ 0.71	-29%
Other	2,549	\$ 1.93	3,052	\$ 1.43	35%
Total	\$ 6,572	\$ 0.71	\$ 7,567	\$ 0.89	-20%

Table of Contents**Index to Financial Statements**

The 29% decrease in per Mcfe for 2009 for East Texas was primarily the result of higher volumes and lower non-recurring workover costs. Workover costs in East Texas for 2009 and 2008 were \$344,000 and \$1.1 million, or \$0.04 and \$0.17, respectively. The 35% increase in Other was primarily related to Powder River Basin CBM production declines.

Transportation and treating. We reported transportation expenses of \$1.5 million for the year ended December 31, 2009, down from \$2.0 million for the year ended December 31, 2008. This decrease reflected lower CBM production volumes in Wyoming partially related to the release of certain compressors as part of a program to reduce overall lease operating costs. Our Powder River Basin CBM production decreased from 5.5 MMcf in 2008 to 3.2 MMcf in 2009. The decrease in Wyoming was partially offset by gathering charges in Texas under the Hilltop Gathering Agreement effective November 2009.

Depreciation, depletion and amortization. Depreciation, depletion and amortization was \$16.5 million for the year ended December 31, 2009, down from \$24.5 million for the year ended December 31, 2008. The decrease in DD&A expense was the result of a 38% decrease in DD&A rate per Mcfe partially offset by a 9% increase in production, primarily attributable to new East Texas wells drilled and recompleted during 2009. The DD&A rate for the year ended December 31, 2009 was \$1.77 per Mcfe, as compared to \$2.87 for the comparable period in 2008. The decrease in rate is primarily due to lower proved costs due to additional ceiling impairments and gathering sales proceeds, partially offset by lower proved reserves due to a 35% decline in natural gas prices between the periods. The decrease in natural gas prices resulted in lower economic reserve limits thus reducing total reserves.

Impairment of natural gas and oil properties. Impairment of U.S. natural gas and oil properties was \$68.7 million for the year ended December 31, 2009, compared to \$14.2 million for the year ended December 31, 2008. The 2009 impairment was the result of a significant decline in natural gas prices at March 31, 2009. Henry Hub natural gas prices at March 31, 2009 declined 37% from December 31, 2008 prices resulting in estimated future net revenues being based on a weighted average price of \$2.64, held constant, discounted at 10% plus unproven properties at historical costs. The 2008 impairment is the result of net natural gas and oil property costs, as adjusted, exceeding the sum of estimated future net revenues using the weighted average price of \$4.56 per Mcf at December 31, 2008, held constant, discounted at 10% plus unproven properties at historical costs.

General and administrative. We reported general and administrative expenses of \$15.6 million for the year ended December 31, 2009, up from \$14.3 million for the year ended December 31, 2008. Non-cash stock-based compensation expense, which is included in general and administrative expenses, was \$3.5 million and \$3.1 million for the years ended December 31, 2009 and 2008, respectively. This increase in stock-based compensation expense was due to the March 2009 payment of 2008 management bonuses of \$801,000 in vested restricted common shares in lieu of cash bonuses. Excluding stock-based compensation expense, general and administrative expense increased \$932,000 to \$12.1 million for the year ended December 31, 2009. This increase was primarily due to higher legal costs of \$1.8 million related to ongoing litigation matters and the inclusion of \$1.1 million of performance bonus related to the successful sale of the Australian Assets partially offset by lower personnel costs and the payment of 2008 management bonuses in restricted common shares.

Interest expense. We reported interest expense of \$4.0 million for the year ended December 31, 2009, compared to \$5.9 million for the year ended December 31, 2008. Interest expense excludes \$10.8 million and \$12.2 million of capitalized interest in 2009 and 2008, respectively, which related to capital expenditures for undeveloped projects in Texas, West Virginia, southwestern Pennsylvania and Australia. Excluding capitalized interest, interest expense decreased \$3.3 million in 2009 due to the payoff of substantially all outstanding debt in conjunction with the sale of our Australian Assets in July 2009.

Early extinguishment of debt. In conjunction with the repayment of the revolving credit facility, the \$25 million term loan and the 12³/₄% senior secured notes we reported debt extinguishment expense of \$15.9 million for the year ended December 31, 2009, comprised of \$8.9 million of early prepayment penalty on

Table of Contents

Index to Financial Statements

the \$25.0 million term loan and the 12^{3/4}% senior secured notes and \$7.0 million of unamortized deferred financing costs on the debt retired.

Gain on sale of unproved properties. In July 2009, we sold our non-producing Australian Assets, for approximately \$250.4 million, including gross reserve certification target proceeds, before transaction costs of approximately \$1.5 million, resulting in a pre-tax gain on sale of \$211.2 million.

Warrant derivative loss. For the year ended December 31, 2009, we reported a \$205,000 non-cash loss related to the fair value remeasurement of our warrants outstanding.

Foreign transaction gain (loss). We reported a foreign transaction gain of \$3.8 million for the year ended December 31, 2009, compared to a loss of \$74,000 for the year ended December 31, 2008. The increase in foreign transaction gain was due to an increase in Australian denominated cash and term deposits partially offset by Australian denominated taxes payable liability.

Provision for income taxes. We reported \$70.3 million of income tax expense for the year ended December 31, 2009 primarily related to the \$69.9 million of Australian income taxes on the sale of our Australian Assets due on June 1, 2010. The U.S. tax provision of \$375,000 represents one time withholding tax of \$200,000 and \$175,000 of state margin tax resulting from the Australia asset sale. We incurred no income tax expense for the year ended December 31, 2008.

Liquidity and Capital Resources

Overview. Our primary sources of liquidity and capital resources are internally generated cash flows from operating activities or asset sales, availability under our revolving credit facility and access to capital markets, to the extent available. In addition, our Atinum Joint Venture will provide a cash source for our Marcellus Shale development program by providing carried interest funding of up to \$40.0 million of our share of drilling and completion costs on joint venture wells. We continually evaluate our capital needs and compare them to our capital resources and ability to raise funds in the financial markets. We adjust capital expenditures in response to changes in natural gas and oil prices, drilling results and cash flow.

For the year ended December 31, 2010, we reported cash flow used in operating activities of \$6.0 million, net cash used in investing activities of \$43.7 million, and net cash provided by financing activities of \$35.2 million. As a result of these activities, our cash and cash equivalents decreased by \$14.4 million, resulting in a December 31, 2010 balance of cash and cash equivalents of \$7.4 million. Net cash provided by operating activities decreased \$19.4 million from 2009 primarily due to lower natural gas and oil revenues resulting from decreased production volumes and lower realized natural gas prices including the effects of hedging. Cash flow from investing activities decreased \$170.0 million primarily due to proceeds from the sale of natural gas and oil properties in 2009 and higher capital costs during 2010. During 2010, our financing activities primarily related to raising proceeds from the issuance of 13,800,000 common shares for net proceeds of \$52.5 million and the repayment of our short-term loan for \$17.0 million. Total capital expenditures, including lease acquisitions, for the year ended December 31, 2010 were \$61.8 million.

At December 31, 2010, we had a net working capital deficit of approximately \$2.8 million, including \$3.2 million of accrued litigation settlement liabilities, primarily related to the ClassicStar Mare Lease Litigation settlement.

With the closing of the Atinum Joint Venture in November 2010 and the settlement of the ClassicStar Mare Lease Litigation in December 2010, we believe we are in an improved position to execute our long-term business plan. The ClassicStar Mare Lease Litigation settlement has removed significant uncertainty surrounding our commitments and contingencies and will reduce our ongoing legal expenses in the future. The Atinum Joint Venture will allow us to accelerate the development of our Marcellus Shale assets.

Table of Contents**Index to Financial Statements**

In December 2010, we completed an underwritten public offering of 13,800,000 common shares at a public offering price of \$4.00 per share. The aggregate net proceeds from the offering totaled approximately \$52.5 million after deducting underwriting discounts and offering expenses of approximately \$2.7 million. The proceeds from the offering were used to fund the \$28.9 million purchase of Marcellus Acquisition and to fund the \$18.0 million ClassicStar Mare Lease Litigation settlement payment and general corporate purposes.

After using the proceeds from the July 2009 sale of the Australian Assets to repay all of our then outstanding debt, we have continued to maintain a low leverage ratio as we ended 2010 with no long-term debt and \$47.5 million of availability under our revolving credit facility.

Future capital and other expenditure requirements. Capital expenditures for 2011, excluding acquisitions, are projected to be approximately \$83.6 million, consisting of drilling, completion and infrastructure costs of \$30.5 million in East Texas and \$23.7 million in Appalachia and an additional \$22.5 million in lease acquisition costs, \$3.5 million for seismic and \$3.4 million for capitalized interest and other costs. We plan on funding this capital activity through existing cash balances, internally generated cash flow from operating activities, access to availability under our revolving credit facility, a possible joint venture for the development of our Marcellus Acquisition acreage and possibly accessing the capital markets with either debt or equity securities. Our capital expenditures and the scope of our drilling activities may change as a result of several factors, including, but not limited to, changes in natural gas and oil prices, costs of drilling and completion and leasehold acquisitions and drilling results.

Commodity Hedging Activities. Our operating cash flow is sensitive to many variables, the most significant of which is the volatility of prices for natural gas. Prices for these commodities are determined primarily by prevailing market conditions including national and worldwide economic activity, weather, infrastructure capacity to reach markets, supply levels and other variable factors. These factors are beyond our control and are difficult to predict.

To mitigate some of the potential negative impact on cash flow caused by changes in natural gas prices, we have entered into financial commodity costless collars, index swaps, basis and fixed price swaps and put and call options to hedge natural gas price risk. In addition to NYMEX swaps and collars and fixed price swaps, we have also entered into basis only swaps. With a basis only swap, we have hedged the difference between the NYMEX price and the price received for our natural gas production at the specific delivery location. As of December 31, 2010, the following derivative transactions were outstanding with the associated notational volumes and weighted average underlying hedge prices:

Settlement Period	Derivative Instrument	Average Daily Volume	Total of Notional Volume	Base Fixed Price	Floor (Long)	Short Put	Ceiling (Short)
		(in MMBtu s)					
2011	Put spread	2,673	981,550	\$	\$ 6.00	\$ 4.00	\$
2011	Costless collar	15,320	4,903,450		6.12	4.19	7.65
2011	Fixed price swap	2,000	730,000	6.11			
2011	Short calls	2,500	225,000				9.15
2011	Basis - HSC (1)	10,167	1,839,000	(0.23)			
2011	Basis - CIG (2)	800	292,000	(1.21)			
2012	Put spread	13,028	4,770,420		6.00	4.00	
2012	Costless collar	5,410	1,979,580		6.00	4.00	7.39

(1) East Houston-Katy Houston Ship Channel

(2) Inside FERC Colorado Interstate Gas, Rocky Mountains

At December 31, 2010, the estimated fair value of all of our commodity derivative instruments was a net asset of \$15.2 million, comprised of current and noncurrent assets and liabilities. In conjunction with certain derivative hedging activity, we deferred the payment of certain put premiums for the production month period

Table of Contents

Index to Financial Statements

July 2010 through December 2012. At December 31, 2010, we had a current commodity derivative premium payable of \$3.5 million and a long-term commodity derivative premium payable of \$4.7 million. The put premium liabilities are payable monthly as the hedge production month becomes the prompt production month.

By removing the price volatility from a portion of our natural gas for 2010, 2011 and 2012, we have mitigated, but not eliminated, the potential effects of changing prices on our operating cash flow for those periods. While mitigating negative effects of falling commodity prices, certain derivative contracts also limit the benefits we could receive from increases in commodity prices. For additional information on the impact of changing prices on our financial position, see Item 7A. Quantitative and Qualitative Disclosure about Market Risk .

As of December 31, 2010, all of our economic derivative hedge positions were with a multinational energy company or large financial institutions, which are not known to us to be in default on their derivative positions. Credit support for our open derivatives at December 31, 2010 is provided under the revolving credit facility through intercreditor agreements or open credit accounts of up to \$5.0 million. We are exposed to credit risk to the extent of non-performance by the counterparties in the derivative contracts discussed above; however, we do not anticipate non-performance by such counterparties.

Revolving Credit Facility. On October 28, 2009, we executed an amended and restated revolving credit facility, which matures on January 2, 2013. At December 31, 2010, there were no amounts outstanding under the revolving credit facility. The revolving credit facility has a borrowing base of \$47.5 million with current availability of \$30.5 million as of March 10, 2011.

The borrowing base is subject to scheduled redeterminations on the first day of May and the first day of November each year prior to scheduled facility maturity on January 2, 2013. However, we and the lenders may request one additional unscheduled redetermination annually. Our most recent redetermination, which was completed during September 2010 and became effective on October 1, 2010, resulted in an increase in our borrowing base from \$40.0 million to \$47.5 million, primarily in connection with the Belin #1 well returning to production, the recent completion of three zones and the drilling of one new well. Pursuant to the revolving credit facility, the applicable interest rate margin varies from 1.0% to 2.0% in the case of borrowings based on the prime rate and from 2.5% to 3.5% in the case of borrowings based on LIBO rate, depending on the utilization percentage in relation to the borrowing base. Under the revolving credit facility, we are subject to certain financial covenants, including interest coverage ratio, a total net indebtedness to EBITDA ratio and current ratio requirement, and a limitation on our hedge positions.

At June 30, 2010, we were not in compliance with the 80% hedge limitation for 2011 under the revolving credit facility. We continued to be out of compliance with the 80% hedge limitation for 2011 under the revolving credit facility through December 31, 2010. We have been granted a waiver in regards to the hedge limitation through March 31, 2011 and in conjunction with such waiver, at December 31, 2010, we were in compliance with all financial covenants under the revolving credit facility. We expect to be in compliance with the 80% hedge limitation for 2011 prior to the expiration of the waiver on March 31, 2011. See Note 5, Long Term Debt Revolving Credit Facility.

Off-Balance Sheet Arrangements

As of December 31, 2010, we had no off-balance sheet arrangements. We have no plans to enter into any off balance sheet arrangements in the foreseeable future.

Table of Contents**Index to Financial Statements****Contractual Obligations**

The following table summarizes our future contractual obligations under these arrangements as of December 31, 2010:

	Total	2011	Payments Due by Period			2015	Thereafter
			2012	2013	2014		
			(in thousands)				
Office space leases (1)	\$ 2,577	\$ 354	\$ 485	\$ 488	\$ 499	\$ 449	\$ 302
Gathering system (2)	14,448	4,270	3,749	3,513	2,916		
Office equipment leases	24	10	10	4			
Drilling rigs	3,452	3,452					
Litigation settlement note payable	3,150	2,350	800				
Total contractual obligations	\$ 23,651	\$ 10,436	\$ 5,044	\$ 4,005	\$ 3,415	\$ 449	\$ 302

- (1) Houston office lease obligation expires August 31, 2016, and our West Virginia office lease commenced in December 2010 and expires on December 31, 2014.
- (2) Represents the minimum contractual gross daily volume commitment of 50,000 Mcf (35,000 net) per day for the period January 1, 2011 through October 31, 2014 relating to the sale of our Hilltop gathering system.

We maintain a liability for costs associated with the retirement of tangible long-lived assets. At December 31, 2010, our reserve for these obligations totaled \$7.2 million for which no contractual commitment exists. Information about this liability is set forth in Item 8. Financial Statements and Supplementary Data, Note 2, Summary of Significant Accounting Policies Asset Retirement Obligation of this Form 10-K.

We have employment agreements with our Chief Executive Officer and Chief Financial Officer which obligate us to pay a specified level of salary, target bonus and certain other payments and reimbursements to them during their employment and in the event of termination or change of control. Information about such payments is set forth in Item 11. Executive Compensation of this Form 10-K.

Commitments

In March 2008, we entered into long-term agreements with ETC for the gathering, treating, purchase and transportation of our natural gas production from the Hilltop area of East Texas (the ETC Contract). The ETC Contract expires September 1, 2017. Pursuant to the ETC Contract, ETC currently provides us with 50 MMcf per day of treating capacity and 150 MMcf per day of transportation capacity from our Hilltop wells, located in Leon and Robertson Counties, Texas.

On November 16, 2009, concurrent with our sale of the Hilltop gathering system in East Texas, one of our wholly-owned subsidiaries entered into a gas gathering agreement, with Hilltop Resort for a term of fifteen years. The agreement covers delivery of our gross production of natural gas from the Hilltop area of East Texas to certain delivery points provided under the ETC Contract as well as additional delivery points that may be added. We are also obligated to connect new wells that we drill within the area covered by the agreement to the gathering system. The agreement provides for a minimum quarterly gathering gross production volume of 50.0 MMcf per day (35.0 MMcf per day net to us) times the number of days in the quarter for five years from the effective date of November 1, 2009. If quarterly production is less than the minimum quarterly requirement, the gathering fee is payable on such deficit. If excess quarterly production exists, such excess is carried forward to offset any future deficit quarters. The gathering fee on the initial gross 25.0 Bcf of production is \$0.325 per Mcf, reducing in steps to \$0.225 per Mcf when cumulative gross production reaches 300.0 Bcf. For the year ended December 31, 2010, we paid \$1.3 million of charges to Hilltop Resort as a result of actual production volumes being less than minimum contractual volume requirements. There is no assurance that we will meet our minimum quarterly requirements in the future.

Table of Contents

Index to Financial Statements

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon the Consolidated Financial Statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, related disclosure of contingent assets and liabilities, proved natural gas and oil reserves and the related disclosures in the accompanying consolidated financial statements. Certain accounting policies involve judgments and uncertainties to such an extent that there is reasonable likelihood that materially different amounts could have been reported under different conditions, or if different assumptions had been used. We evaluate our estimates and assumptions on a regular basis. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates and assumptions used in preparation of our financial statements. Below, we have provided expanded discussion of our more significant accounting policies, estimates and judgments for our financial statements. We believe these accounting policies reflect the more significant estimates and assumptions used in preparation of the financial statements. Changes in these estimates and assumptions could materially affect our financial position, results of operations or cash flows. Management considers an accounting estimate or policy to be critical if:

It requires assumptions to be made that are uncertain at the time the estimate is made; and

Changes in the estimate or different estimates that could have been selected could have a material impact on our consolidated results of operations or financial condition.

All other significant accounting policies that we employ are presented in the notes to the consolidated financial statements. The following discussion presents information about the nature of our most critical accounting estimates, our assumptions or approach used and the effects of hypothetical changes in the material assumptions used to develop each estimate.

Full Cost Method of Accounting

We follow the full cost method of accounting for natural gas and oil operations, whereby all costs incurred in the acquisition, exploration and development of natural gas and oil reserves are initially capitalized into cost centers on a country-by-country basis whether or not the activities to which they apply are successful. Currently, our only cost center is the United States. These costs include land acquisition costs attributable to proved reserves, geological and geophysical expenditures, carrying charges on non-producing properties, costs of drilling and overhead charges directly related to acquisition, exploration and development activities. Capitalized costs also include salaries, employee benefits, costs of consulting services and other expenses that directly relate to our natural gas and oil activities. Interest costs related to unproved properties are also capitalized. Costs associated with production and general corporate activities are expensed in the period incurred. The capitalized costs of our natural gas and oil properties, plus an estimate of our future development and abandonment costs, are amortized on a unit-of-production method based on our estimate of total proved reserves, as determined by independent petroleum engineers. The percentage of total reserve volumes produced during the year is multiplied by the net capitalized investment plus future estimated development costs in those reserves to determine depletion expense for the period.

Costs of acquiring and evaluating unproved properties are initially excluded from depletion calculations. These unevaluated properties are assessed periodically to ascertain whether an impairment has occurred. When proved reserves are assigned or a property is considered to be impaired, the cost of the property or the amount of the impairment is added to the costs subject to depletion calculations.

Our financial position and results of operations would have been significantly different had we used the successful efforts method of accounting for our oil and gas activities, since we generally reflect a higher level of capitalized costs as well as a higher DD&A rate on our oil and natural gas properties.

Table of Contents**Index to Financial Statements*****Full Cost Ceiling Limitation***

The full cost method of accounting for natural gas and oil properties requires a quarterly calculation of a limitation on capitalized costs, often referred to as a full cost ceiling calculation. The ceiling is the present value of estimated future cash flow from proved natural gas and oil reserves reduced by future operating expenses, development expenditures, abandonment costs (net of salvage) to the extent not included in natural gas and oil properties pursuant to authoritative guidance and estimated future income taxes thereon. To the extent that our capitalized costs (net of accumulated depletion and deferred taxes) exceed the ceiling, the excess must be written off to expense. Once incurred, this impairment of natural gas and oil properties is not reversible at a later date even if natural gas and oil prices increase. The ceiling calculation dictates that the 12-month unweighted arithmetic average of the first-day-of-the-month prices and costs in effect are held constant indefinitely. Therefore, the future net revenues associated with the estimated proved reserves are not based on our assessment of future prices or costs, but rather are based on historical average prices and costs in effect at the time of the evaluation. If the net cost exceeds the ceiling, an impairment loss is recognized for the amount by which the net cost exceeds the ceiling and is shown as a reduction in natural gas and oil properties and as additional depletion. Proceeds from a sale of natural gas and oil properties will be applied against capitalized costs, with no gain or loss recognized, unless such a sale would significantly alter the rate of depletion or amortization.

In 2010, the key natural gas prices utilized were the Henry Hub price of \$4.38 per MMBtu, the Katy Hub price of \$4.32 per MMBtu, the CIG price of \$3.95 per MMBtu and the Columbia Gas Appalachia Pool price of \$4.50 per MMBtu and an oil price of \$75.96 per barrel. In applying the full cost method at December 31, 2010, we performed a ceiling test on the cost center properties whereby the net cost of natural gas and oil properties, net of related deferred income taxes (net cost), was limited to the sum of the estimated future net revenues from our proved reserves using the 12-month unweighted arithmetic average of the first-day-of-the-month prices for natural gas and oil held constant, discounted at 10%, and the lower of cost or fair value of unproved properties, adjusted for related income tax effects and we did not record a ceiling impairment for the year ended December 31, 2010. Ceiling impairments of \$68.7 million and \$14.2 million were required at December 31, 2009 and 2008, respectively. The calculation of our proved reserves could significantly impact our ceiling limitation used in determining whether an impairment of our capitalized costs is necessary.

The most likely factor to contribute to a ceiling test impairment is the price used to calculate the reserve limitation threshold. A significant reduction in the prices at a future measurement date could trigger a full cost ceiling impairment. A 10% decrease in prices would have reduced our ceiling impairment cushion by approximately \$11.9 million. A 10% increase in prices would have increased our ceiling impairment cushion by approximately \$10.4 million.

Natural Gas and Oil Reserves

All of the reserves data in this Form 10-K are estimates. Estimates of our natural gas and oil reserves were prepared in accordance with guidelines established by the SEC. Our estimate of proved reserves is based on the quantities of natural gas and oil which geological and engineering data demonstrate, with reasonable certainty, to be recoverable in the future years from known reservoirs under existing economic and operating conditions. Reservoir engineering is a subjective process of estimating underground accumulations of crude oil and natural gas. There are numerous uncertainties inherent in estimating quantities of proved natural gas and oil reserves. Uncertainties include the projection of future production rates and the expected timing of development expenditures. The accuracy of any reserve estimate is a function of the quality of available data, engineering and geological interpretation and judgment. For example, we must estimate the amount and timing of future operating costs, severance taxes, development costs and workover costs, all of which may vary considerably from actual results. In addition, as prices and cost levels change from year-to-year, the economics of producing the reserves may change and therefore, the estimate of proved reserves also may change. Any significant variance in these assumptions could materially affect the estimated quantity and value of our reserves. As a result, reserves estimates may be different from the quantities of natural gas and oil that are ultimately recovered.

Table of Contents

Index to Financial Statements

In addition, economic producibility of reserves is dependent on the natural gas and oil prices used in the reserves estimate. We based our December 31, 2010 reserves estimates on a 12-month unweighted average of the first-day-of-the month price, in accordance with SEC rules. However, natural gas and oil prices are volatile and, as a result, our reserves estimates will change in the future. Despite the inherent imprecision in these engineering estimates, our proved reserve volumes and values are used to calculate depletion and impairment provisions.

Depreciation, Depletion and Amortization

Units-of-production method is used to amortize our natural gas and oil properties. A change in the quantity of reserves could significantly impact our depletion expense. A reduction in proved reserves, without a corresponding reduction in capitalized costs, will increase our depletion rate. A 10% increase in reserves would have decreased our depletion expense for the year ended December 31, 2010 by approximately \$279,000, while a 10% decrease in reserves would have increased our depletion expense by approximately \$337,000.

Unproved Property Costs

Investments in unproved properties are not amortized until proved reserves associated with the properties can be determined or until impairment occurs. Unproved properties are evaluated quarterly for impairment on a field-by-field basis. If the results of an assessment indicate that an unproved property is impaired, the amount of impairment is subtracted from proved natural gas and oil property costs to be amortized.

At December 31, 2010, we had \$162.2 million allocated to unproved property costs, which was comprised primarily of unevaluated acreage costs. The unproven property costs are evaluated by the technical team and management to determine whether the property has potential attributable reserves. Therefore, the assessment made by our technical team and management of the potential reserves will determine whether costs are moved from the unproved category to the full-cost pool for depletion or whether an impairment is taken. A 10% increase or decrease in the unproved property balance would have increased or decreased our impairment cushion by approximately \$13.8 million, respectively, for the year ended December 31, 2010.

Asset Retirement Obligation

We have certain obligations to remove tangible equipment and restore land at the end of natural gas and oil production operations. Our removal and restoration obligations are primarily associated with plugging and abandoning wells. Pursuant to the FASB's guidance, we estimate asset retirement costs for all of our assets, inflation-adjust those costs to the forecasted abandonment date, discount that amount using a credit-adjusted-risk-free rate back to the date we acquired the asset or obligation to retire the asset and record an asset retirement obligation (ARO) liability in that amount with a corresponding addition to our capitalized cost. We then accrete the liability quarterly using the period-end effective credit-adjusted-risk-free rate. As new wells are drilled or purchased, their initial asset retirement cost and liability is calculated and recorded. Should either the estimated life or the estimated abandonment costs of a property change upon our quarterly review, a new calculation is performed using the same methodology of taking the abandonment cost and inflating it forward to its abandonment date and then discounting it back to the present using our credit-adjusted-risk-free rate. The carrying value of the ARO is adjusted to the newly calculated value with a corresponding offsetting adjustment to the asset retirement cost (included in the full-cost pool); therefore, abandonment costs will almost always approximate the estimate. When wells are sold, the related liability and asset costs are removed from the balance sheet.

Estimating the future asset removal costs is difficult and requires management to make estimates and judgments because most of the removal obligations are many years in the future and contracts and regulations often have vague descriptions of what constitutes removal. Asset removal technologies and costs are constantly changing, as are regulatory, political, environmental, safety and public relations considerations. Inherent in the estimate of the present value calculation of our AROs are numerous assumptions and judgments including the ultimate settlement amounts, inflation factors, credit-adjusted-risk-free-rates, timing of settlement and changes in the legal, regulatory, environmental and political environments.

Table of Contents**Index to Financial Statements**

There are many variables in estimating AROs. We primarily use the remaining estimated useful life from the year-end independent reserves report in estimating when abandonment could be expected for each property based on field or industry practices. We expect to see our calculations impacted significantly if interest rates move from their current levels, as the credit-adjusted-risk-free rate is one of the variables used on a quarterly basis. Our technical team developed a standard cost estimate based on historical costs, industry quotes and depth of wells. Unless we expect a well's plugging cost to be significantly different than a normal abandonment, we use this estimate. The resulting estimate, after application of an inflation factor and a discount factor, could differ from actual results, despite all of our efforts to make an accurate estimate.

Capitalized Interest

We capitalize interest on assets not being amortized, such as our drilling in progress expenditures and unproven natural gas and oil properties. The methodology for capitalizing interest on general funds begins with a determination of the borrowings applicable to our qualifying assets. The basis of this approach is the assumption that the portion of the interest costs that are capitalized on expenditures during an asset's acquisition period could have been avoided if the expenditures had not been made. This methodology takes the view that if funds are not required for drilling and unproved property expenditures then they would have been used to pay off other debt. We use our best judgment in determining which borrowings represent the cost of financing the acquisition of the assets. Currently, we only capitalize interest on our revolving credit facility. The interest to be capitalized for any period is derived by multiplying the average rate of interest times the average qualifying assets during the period. To qualify for interest capitalization, we must continue to make progress on the development of the assets. Capitalized interest was approximately \$633,000, \$10.8 million and \$12.2 million for 2010, 2009 and 2008, respectively.

Stock-Based Compensation

We report compensation expense for stock options and restricted common shares granted to officers, directors and employees using the fair value method and recognition provisions of the modified prospective method. Stock-based compensation costs are recorded over the requisite service period, which approximates the vesting period. The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes-Merton valuation pricing model. The fair value of restricted common shares granted is equal to the closing price on the day prior to the grant. The total fair value of all awards is expensed using the graded-vesting method, which recognizes compensation costs over the requisite service period for each separately vesting tranche of an award as though the award were, in substance, multiple awards.

The Black-Scholes-Merton valuation pricing model requires various highly judgmental assumptions including volatility, expected option life and forfeiture rate. If any of the assumptions used in the Black-Scholes-Merton valuation pricing model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period. The table below summarizes the key assumptions for the stock options granted during the period indicated:

	For the Year Ended December 31, 2010
Expected volatility	68.10%
Expected life (in years)	6.25
Expected forfeitures	9.80%

Fair Value Measurement

We maintain a commodity-price risk-management strategy that uses derivative instruments to minimize significant fluctuations that may arise from volatility in commodity prices. We use natural gas costless collars, index, basis and fixed price swaps and put and call options to hedge commodity price risk. We carry all derivative assets and liabilities at fair value.

Table of Contents

Index to Financial Statements

We determine the fair market values of financial instruments based on the fair value hierarchy established by the FASB. We utilize third-party broker quotes to access the reasonableness of forward commodity prices, volatility factors, discount rates and the valuation techniques used to measure the fair value of our derivative assets and liabilities, which are all traded in the over-the-counter market. We incorporate counterparty credit risk and our own credit risk within the fair value measurement of derivative assets and liabilities. Credit adjustments, if any, are applied to fair value measurements based on the historical default probabilities of the respective credit ratings assigned to the debt of our counterparties and to us, as published by the independent credit rating agencies.

Derivative Instruments and Hedging Activity

We currently utilize derivative instruments, which are placed with a multinational energy company or large financial institutions, to manage market risks resulting from fluctuations in commodity prices of natural gas and oil. Derivatives are recorded on the balance sheet at fair market value and changes in the fair market value of derivatives are recorded each period in current earnings. Gains and losses on derivatives are included in revenue in the period in which they occur. The resulting cash flows from derivatives are reported as cash flows from operating activities.

The counterparties to our derivative instruments are not known to be in default on their derivative positions. However, we are exposed to credit risk to the extent of nonperformance by the counterparty in the derivative contracts. We believe credit risk is minimal and do not anticipate such nonperformance by such counterparties.

Recent Accounting Developments

The following recently issued accounting pronouncements have been adopted or may impact the Company in future periods:

Business Combinations. In December 2010, the Financial Accounting Standards Board's (FASB) Emerging Issues Task Force (EITF) issued an amendment to previously issued guidance regarding the pro forma revenue and earnings disclosure requirements for business combinations. The amendments specify that if a public entity presents comparative financial statements, the entity should disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period only. The amendments also expand the supplemental pro forma disclosures under current guidance to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. This guidance is effective prospectively for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2010. Earlier application is permitted. The adoption of this guidance did not impact our operating results, financial position or cash flows.

Stock Compensation – Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades. In April 2010, the FASB's EITF issued an amendment to previously issued guidance regarding the classification of a share-based payment award as either equity or a liability. The amendments clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades should not be considered to contain a condition that is not a market, performance or service condition. Therefore, such an award should not be classified as a liability if it otherwise qualifies as equity. This guidance is effective for fiscal years and interim periods within those fiscal years beginning on or after December 15, 2010. Earlier application is permitted. This guidance should be applied by recording a cumulative-effect adjustment to the opening balance of retained earnings, and the cumulative-effect adjustment should be calculated for all awards outstanding as of the beginning of the fiscal year in which it is initially applied, as if the guidance had been applied consistently since the inception of the award. The cumulative-effect adjustment should be presented separately. The adoption of this guidance did not impact our operating results, financial position or cash flows.

Table of Contents

Index to Financial Statements

Derivatives and Hedging. In March 2010, the FASB issued an amendment to previously issued guidance regarding embedded credit derivatives. This amendment provides clarification of the scope exception for embedded credit derivatives that transfer credit risk only in the form of subordination of one financial instrument to another. All entities that enter into contracts containing an embedded credit derivative feature related to the transfer of credit risk that is not only in the form of subordination of one financial instrument to another will be affected by the amendment because the amendment clarifies that the embedded credit derivative scope exception per the guidance does not apply to such contracts. This amended guidance is effective at the beginning of the first fiscal quarter beginning after June 15, 2010. The adoption of this guidance did not impact our operating results, financial position or cash flows.

Fair Value Measurements. In January 2010, the FASB issued authoritative guidance related to improving disclosures about fair value measurements. This guidance requires separate disclosures of the amounts of transfers in and out of Level 1 and Level 2 fair value measurements and a description of the reason for such transfers. In the reconciliation for Level 3 fair value measurements using significant unobservable inputs, information about purchases, sales, issuances and settlements shall be presented separately. These disclosures are required for interim and annual reporting periods effective January 1, 2010, except for the disclosures related to the purchases, sales, issuances and settlements in the roll forward activity of Level 3 fair value measurements, which are effective on January 1, 2011. This guidance was adopted on January 1, 2010 and did not impact the Company's operating results, financial position or cash flows but did require additional disclosures regarding the fair value of financial instruments. See Note 7, Fair Value Measurements .

Variable Interest Entities. In June 2009, the FASB issued authoritative guidance related to variable interest entities which changes how a reporting entity determines when an entity that is insufficiently capitalized or is not controlled through voting rights should be consolidated and modifies the approach for determining the primary beneficiary of a variable interest entity. This guidance requires a reporting entity to provide additional disclosures about its involvement with variable interest entities and any significant changes in risk exposure due to that involvement. The guidance related to variable interest entities was effective on January 1, 2010 and did not have an impact on our operating results, financial position or cash flows.

Modernization of Natural Gas and Oil Reporting. In January 2009, the SEC issued revisions to the natural gas and oil reporting disclosures, Modernization of Oil and Gas Reporting, Final Rule (the Final Rule). In addition to changing the definition and disclosure requirements for natural gas and oil reserves, the Final Rule changed the requirements for determining quantities of natural gas and oil reserves. The Final Rule also changed certain accounting requirements under the full cost method of accounting for natural gas and oil activities. The amendments are designed to modernize the requirements for the determination of natural gas and oil reserves, aligning them with current practices and updating them for changes in technology. The Final Rule was effective for annual reports on Form 10-K for fiscal years ending on or after December 31, 2009. In addition, in January 2010, the FASB issued an accounting standards update relating to standards for extractive oil and gas activities. The accounting standards update amends existing standards to align the proved reserves calculation and disclosure requirements under U.S. GAAP with the requirements in the SEC rules. The Company adopted the new standards effective December 31, 2009. The new standards were applied prospectively as a change in estimate. In April 2010, the FASB issued a further accounting standards update regarding extractive oil and gas industries to incorporate in accounting standards the revisions to Rule 4-10 of the SEC's Regulation S-X. The amendment primarily consists of the addition and deletion of definitions of terms related to fossil fuel exploration and production arising from technology changes over the past several decades. The accounting guidance in Rule 4-10 did not change.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Commodity Price Risk

Our major commodity price risk exposure is to the prices received for our natural gas production. Realized commodity prices received for our production are the spot prices applicable to natural gas in the region produced. Prices received for natural gas are volatile and unpredictable and are beyond our control. For the year ended

Table of Contents

Index to Financial Statements

December 31, 2010, a 10% change in the prices received for natural gas production would have had an approximate \$2.7 million impact on our revenues prior to hedge transactions to mitigate our commodity pricing risk. See Note 9, Derivative Instruments and Hedging Activity.

Interest Rate Risk

At December 31, 2010, we did not have any long-term debt outstanding and as such, we were not exposed to interest rate risk.

Foreign Currency Exchange Risk

As of December 31, 2009, we had sold all of our Australian Assets. As a result, all of our revenues and capital expenditures and substantially all of our expenses are in U.S. dollars, thus limiting our exposure to foreign currency exchange risk. As part of the sale of the Australian Assets, we had a receivable outstanding until April 2010. This receivable exposed us to limited foreign currency exchange risk. Our term deposit of AU\$78.0 million (\$69.7 million) was pledged to pay accrued Australian taxes that were denominated in Australian dollars, thus negating any ultimate foreign currency exchange risk. The term deposit was surrendered on June 1, 2010 to settle the Australian tax liability.

Item 8. Financial Statements and Supplementary Data

The reports of our independent registered public accounting firms and our consolidated financial statements, related notes and supplementary information are presented beginning on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Form 10-K. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in reports that we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Our principal executive officer and principal financial officer have concluded that our current disclosure controls and procedures were effective as of December 31, 2010 at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our internal controls over financial reporting are designed to ensure that information required to be disclosed by us in the reports that are filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. These internal controls over financial reporting include controls and procedures designed to ensure that information required to be disclosed under the Exchange Act is accumulated and communicated to our management on a timely basis to allow decisions regarding required disclosure. Under the supervision and

Table of Contents

Index to Financial Statements

with the participation of our management, including our chief executive officer, chief financial officer and chief accounting officer, we evaluated the effectiveness of the design and operation of our internal controls over financial reporting as of December 31, 2010 based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Our internal control over financial reporting includes policies and procedures that (1) pertain to maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and board of directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of assets that could have a material effect on the financial statements.

Based on the assessment, our management has concluded that our internal control over financial reporting was effective as of December 31, 2010 based on the criteria listed herein. The results of management's assessment were reviewed with the Audit Committee of our Board of Directors.

Our internal control over financial reporting has been audited by BDO USA, LLP, an independent registered public accounting firm, as stated in their report which is included herein.

/s/ J. RUSSELL PORTER
J. Russell Porter
President and Chief Executive Officer
March 10, 2011

/s/ MICHAEL A. GERLICH
Michael A. Gerlich
Vice President and Chief Financial Officer
March 10, 2011

Changes in Internal Control over Financial Reporting

During the fourth quarter of 2010, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

Index to Financial Statements

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders

Gastar Exploration Ltd.

Houston, Texas

We have audited Gastar Exploration Ltd. (the Company) internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO Criteria). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the effectiveness of internal control over financial reporting of the Company based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Gastar Exploration Ltd. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the COSO Criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Gastar Exploration Ltd. and subsidiaries as of December 31, 2010 and 2009 and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2010 and our report dated March 10, 2011 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Dallas, Texas

March 10, 2011

Table of Contents

Index to Financial Statements

Item 9B. Other Information

None.

Table of Contents

Index to Financial Statements

PART III

Item 10. Directors and Executive Officers and Corporate Governance

The information regarding directors, executive officers, promoters and control persons required under Item 10 of Form 10-K will be contained in our Definitive Proxy Statement for our 2011 Annual Meeting of Stockholders (the Proxy Statement) under the headings Information about Directors, Director Nominees and Executive Officers , Section 16(b) Beneficial Ownership Reporting Compliance , Corporate Governance Code of Ethics , Corporate Governance Nomination of Directors , and Committee Information Audit Committee and is incorporated herein by reference. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A of the Exchange Act, as amended, not later than 120 days after December 31, 2010.

Item 11. Executive Compensation

The information required under Item 11 of Form 10-K will be contained in the Proxy Statement under the heading Executive Compensation and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required under Item 12 of Form 10-K will be contained in the Proxy Statement under the heading Security Ownership of Certain Beneficial Owners and Management and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required under Item 13 of Form 10-K will be contained in the Proxy Statement under the heading Committee Information and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required under Item 14 of Form 10-K will be contained in the Proxy Statement under the heading Independent Accountant, Fees and Policies and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statements and Schedules

(a)-1 Financial Statements and Schedules:

The financial statements are set forth beginning on Page F-1 of this Form 10-K. Financial statement schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.

Table of Contents**Index to Financial Statements****(b) Exhibits:**

The following is a list of exhibits filed as part of this Form 10-K. Where so indicated, exhibits, which were previously filed, are incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description
3.1	Amended and Restated Articles of Incorporation of Gastar Exploration Ltd. (incorporated herein by reference to Exhibit 3.1 the Company's Amendment No. 1 to Registration Statement on Form S-1/A filed October 13, 2005, Registration No. 333-127498).
3.2	Amended Bylaws of Gastar Exploration Ltd. dated as of June 3, 2010 (incorporated herein by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated June 4, 2010. File No. 001-32714).
3.3	Articles of Amendment and Share Structure attached to and forming part of the Amended and Restated Articles of Incorporation of Gastar Exploration Ltd, dated as of June 30, 2009. (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated July 1, 2009. File No. 001-32714).
3.4	Articles of Amendment attached to and forming part of the Amended and Restated Articles of Incorporation of Gastar Exploration Ltd, dated as of July 23, 2009 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated July 24, 2009. File No. 001-32714).
4.1	Indenture related to the 12 ^{3/4} % Senior Secured Notes due November 29, 2012, dated as of November 29, 2007, between Gastar Exploration USA, Inc., Gastar Exploration Ltd., Wells Fargo Bank, National Association, as Trustee and Collateral Agent and each of the other Guarantors party thereto (including the form of 12 ^{3/4} % Senior Secured Note due 2012) 2007 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K dated December 4, 2007. File No. 333-32714).
4.2	Supplemental Indenture dated as of February 16, 2009, related to the 12 ^{3/4} % Senior Secured Notes due 2012, between Gastar Exploration USA, Inc., Gastar Exploration Ltd., Wells Fargo Bank, National Association, as Trustee and Collateral Agent, and each of the other Guarantors party thereto. 2007 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K dated February 20, 2009. File No. 001-32714).
4.3	Agreement between Gastar Exploration Ltd. and GeoStar Corporation dated August 11, 2005 (incorporated by reference to Exhibit 4.17 of the Company's Amendment No. 1 to Registration Statement on Form S-1/A, filed on October 30, 2005. Registration No. 333-127498).
4.4	Facsimile of common share certificate of Gastar Exploration Ltd. (incorporated by reference to Exhibit 4.21 of the Company's Amendment No. 3 to Registration Statement on Form S-1/A, dated December 15, 2005. Registration No. 333-127498).
4.5	Warrant dated June 11, 2008, entitling GeoStar Corporation to acquire, subject to adjustments, 10,000,000 Gastar Exploration Ltd. common shares (incorporated by reference to Exhibit 4.1 of the Company's Current Report of Form 8-K dated June 13, 2008. File No. 001-32714).

Table of Contents

Index to Financial Statements

Exhibit Number	Description
10.1	Amended and Restated Credit Amendment dated October 28, 2009 to Credit Agreement dated November 29, 2007 among Gastar Exploration USA, Inc., the Guarantors party thereto and Amegy Bank National Association as Administrative Agent and Letter of Credit Issuer (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated November 3, 2009. File No. 001-32714).
10.2	Consent and First Amendment to Amended and Restated Credit Agreement dated November 20, 2009, by and among Gastar Exploration USA, Inc., the Guarantors party thereto, the Lenders party thereto, and Amegy Bank National Association, as Administrative Agent, (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K dated November 25, 2009. File No. 001-32714).
10.3	Second Amendment to Amended and Restated Credit Agreement dated June 24, 2010, by and among Gastar Exploration USA, Inc., the Guarantors party thereto, the Lenders party thereto and Amegy Bank National Association, as Administrative Agent (incorporated herein by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K dated June 28, 2010. File No. 001-32714).
10.4	\$17.0 Million Term Loan Agreement dated November 20, 2009 by and among Gastar Exploration Ltd., Amegy Bank National Association as Administrative Agent, and the Lenders party thereto (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated November 25, 2009. File No. 001-32714).
10.5	Second Lien Security Agreement (Pledge) effective as of November 20, 2009, by Gastar Exploration Ltd. in favor of Amegy Bank National Association as agent for the Lenders party to the \$17.0 Million Term Loan Agreement dated November 20, 2009 by and among Gastar Exploration Ltd., Amegy Bank National Association as Administrative Agent, and the Lenders party thereto (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K dated November 25, 2009. File No. 001-32714).
10.6	Term Loan dated as of February 16, 2009 among Gastar Exploration USA, Inc., Gastar Exploration Ltd., certain subsidiaries of Gastar Exploration Ltd., Wayzata Investment Partners LLC, as Administrative Agent and the lenders party thereto (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K dated February 20, 2009. File No. 001-32714).
10.7	Amended and Restated Intercreditor Agreement dated February 16, 2009, among Gastar Exploration USA, Inc., Gastar Exploration Ltd., each of the Guarantors party thereto, Amegy Bank National Association, as First Priority Agent, and Wells Fargo National Association, as Second Priority Agent (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K dated February 20, 2009. File No. 001-32714).
10.8	Common Share Purchase Agreement between Gastar Exploration Ltd. and Chesapeake Energy Corporation dated November 4, 2005 (incorporated by reference to Exhibit 4.19 of the Company's Amendment No. 2 to Registration Statement on Form S-1/A, filed on November 22, 2005. Registration No. 333-127498).
10.9	Common Share Purchase Agreement between Gastar Exploration Ltd. and Navasota Resources, L.P. dated as of May 9, 2007, in connection with the issuance and sale of 10,000,000 common shares (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated May 15, 2007. File No. 001-32714).

Table of Contents

Index to Financial Statements

Exhibit Number	Description
10.10	Ratification and Assumption of LOI between and among Gastar Exploration Ltd., Gastar Exploration Texas LP and Navasota Resources, L.P. dated May 9, 2007, with Letter of Intent dated April 27, 2007 between and among Gastar Exploration Ltd., Gastar Exploration Texas LP, Chesapeake Energy Corporation and Chesapeake Exploration Limited Partnership, attached thereto as Exhibit A (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K dated May 15, 2007. File No. 001-32714).
10.11	Settlement Agreement and Comprehensive General Release dated June 11, 2008 for the resolution of disputes between GeoStar Corporation and Gastar Exploration Ltd. (incorporated by reference to Exhibit 10.1 of the Company's Current Report of Form 8-K dated June 13, 2008. File No. 001-32714).
10.12	Sale Agreement dated July 2, 2009, by and among Gastar Exploration USA, Inc., Gastar Exploration New South Wales, Inc., Santos QNT Pty Ltd. and Santos International Holdings Pty Ltd. (incorporated herein by reference to Exhibit 10.1 to Gastar Exploration Ltd.'s Current Report on Form 8-K filed on August 6, 2009. File No. 001-32714).
10.13	Agency Agreement between and among ETC Texas Pipeline, Ltd., ETC Katy Pipeline, Ltd. Oasis Pipeline, L.P. and Gastar Exploration Texas, L.P. effective September 1, 2007 (incorporated herein by reference to Exhibit 10.1 of the Amendment No. 1 to the Company's Annual Report on Form 10-K/A for the fiscal year ended December 31, 2008 filed on October 20, 2009. File No. 001-32714).
10.14	Gas Gathering Agreement between Gastar Exploration Texas, LP, as Seller, and Hilltop Resort GS, LLC, as Buyer, dated November 16, 2009 and effective as of November 1, 2009 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated November 20, 2009. File No. 001-32714).
10.15	Purchase and Sale Agreement between Gastar Exploration Texas, LP, as Seller, and Hilltop Resort GS, LLC, as Buyer, dated November 16, 2009 (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K dated November 20, 2009. File No. 001-32714).
10.16	Purchase and Sale Agreement between Gastar Exploration Texas, LP, as Seller, and Navasota Resources LTD., LLP, as Buyer, dated November 16, 2009 (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K dated November 20, 2009. File No. 001-32714).
10.17	Purchase and Sale Agreement between Gastar Exploration Texas, LP, as Seller, and Presco, Inc., as Buyer, dated November 16, 2009 (incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K dated November 20, 2009. File No. 001-32714).
10.18	Agreement dated January 12, 2010, by and among Gastar Exploration Ltd., Palo Alto Investors, LLC and certain of its affiliates (incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated January 14, 2010. File No. 001-32714).
10.19	Purchase and Sale Agreement, dated September 21, 2010, by and between Gastar Exploration USA, Inc. and Atinum Marcellus I LLC (incorporated herein by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K dated September 24, 2010. File No. 001-32714).
10.20	Form of Participation Agreement (incorporated herein by reference to Exhibit 2.2 of the Company's Current Report on Form 8-K dated September 24, 2010. File No. 001-32714).
10.21	Form of the Final Settlement Agreement and Comprehensive General Release between and among James D. Lyon, Chapter 7 Trustee of ClassicStar LLC, Gastar Exploration Ltd., and other Individuals and Entities Set Forth Herein Effective November 1, 2010 (incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated November 2, 2010. File No. 001-32714).

Table of Contents

Index to Financial Statements

Exhibit Number	Description
10.22	Purchase and Sale Agreement, dated November 5, 2010, by and among MegaEnergy, Inc. and Saga Petroleum Corp. and Gastar Exploration USA, Inc. (incorporated herein by reference to Exhibit 10.1 on the Company's Current Report on Form 8-K dated December 20, 2010. File No. 001-32714).
10.23*	Employment Agreement dated March 23, 2005 by and among First Sourcenergy Wyoming and Montana, Inc., Gastar Exploration Ltd. and J. Russell Porter (incorporated by reference to Exhibit 10.2 of the Company's Registration Statement on Form S-1, filed on August 12, 2005. Registration No. 333-127498).
10.24*	First Amendment to Employment Agreement entered into by and between Gastar Exploration, Ltd, Gastar Exploration USA, Inc., f/k/a First Sourcenergy Wyoming and Montana, Inc., and J. Russell Porter as of July 25, 2008 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated July 28, 2008. File No. 001-32714).
10.25*	Second Amendment to Employment Agreement entered into by and between Gastar Exploration Ltd., Gastar Exploration USA, Inc. and J. Russell Porter as of February 3, 2011 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated February 7, 2011. File No. 001-32714).
10.26*	Employment Agreement dated April 26, 2005 by and among First Sourcenergy Wyoming and Montana, Inc., Gastar Exploration Ltd. and Michael A Gerlich (incorporated by reference to Exhibit 10.3 of the Company's Registration Statement on Form S-1, filed on August 12, 2005. Registration No. 333-127498).
10.27*	First Amendment to Employment Agreement entered into by and between Gastar Exploration, Ltd, Gastar Exploration USA, Inc., f/k/a First Sourcenergy Wyoming and Montana, Inc., and Michael A. Gerlich as of July 25, 2008 (incorporated by reference to Exhibit 10.2 of the Company's Current Report of Form 8-K dated July 28, 2008. File No. 001-32714).
10.28*	Form of Gastar officer stock option grant (incorporated herein by reference to Exhibit 10.10 of the Company's annual Report on form 10-K for the fiscal year ended December 31, 2005. File No. 001-32714).
10.29*	Gastar Exploration Ltd. 2006 Long-Term Stock Incentive Plan approved June 1, 2006 (incorporated herein by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006. File No. 001-32714).
10.30*	First Amendment to Gastar Exploration Ltd. 2006 Long-Term Stock Incentive Plan, effective as of April 1, 2009, approved June 4, 2009 (incorporated by reference to Exhibit 10.2 of the Company's Current Report of Form 8-K dated June 10, 2009. File No. 001-32714).
10.31*	Form of Indemnity Agreement for Directors and Certain Executive Officers (incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated December 19, 2006. File No. 001-32714).
10.32*	Form of Gastar Exploration Ltd. Employee Change of Control Severance Plan effective as of March 23, 2007 and as amended and restated effective February 15, 2008 (incorporated herein by reference to Exhibit 10.18 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007. File No. 001-32714).
14.1	Gastar Exploration Ltd. Code of Ethics, adopted effective December 15, 2005 (incorporated herein by reference to Exhibit 14.1 of the Company's Amendment No 4 to Registration Statement on Form S-1/A, dated December 22, 2005, Registration No. 333-27498).
21.1	Subsidiaries of Gastar Exploration Ltd.

Table of Contents

Index to Financial Statements

Exhibit Number	Description
23.1	Consent of BDO USA, LLP
23.2	Consent of Netherland, Sewell & Associates, Inc.
31.1	Certification of chief executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of chief financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of chief executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of chief financial officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.1	Report of Netherland, Sewell & Associates, Inc. dated January 24, 2011.

* Management contract or compensatory plan or arrangement.
Filed herewith.
Furnished herewith.

Table of Contents**Index to Financial Statements****SIGNATURES**

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GASTAR EXPLORATION LTD.

/s/ J. RUSSELL PORTER

J. Russell Porter, President, Chief Executive Officer and Chief Operating Officer (principal executive officer)

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ J. RUSSELL PORTER J. Russell Porter	President, Chief Executive Officer and Chief Operating Officer (principal executive officer)	March 10, 2011
/s/ MICHAEL A. GERLICH Michael A. Gerlich	Vice President and Chief Financial Officer (principal accounting officer)	March 10, 2011
/s/ FLOYD R. PRICE Floyd R. Price	Chairman of the Board	March 10, 2011
/s/ JOHN H. CASSELS John H. Cassels	Director	March 10, 2011
/s/ RANDOLPH C. COLEY Randolph C. Coley	Director	March 10, 2011
/s/ ROBERT D. PENNER Robert D. Penner	Director	March 10, 2011
/s/ JOHN M. SELSER SR. John M. Selser Sr.	Director	March 10, 2011

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets as of December 31, 2010 and 2009</u>	F-3
<u>Consolidated Statements of Operations for the Years Ended December 31, 2010, 2009 and 2008</u>	F-4
<u>Consolidated Statements of Shareholders' Equity for the Years Ended December 31, 2010, 2009 and 2008</u>	F-5
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2010, 2009 and 2008</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7

Table of Contents

Index to Financial Statements

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders

Gastar Exploration Ltd.

Houston, Texas

We have audited the accompanying consolidated balance sheets of Gastar Exploration Ltd. (the Company) and subsidiaries as of December 31, 2010 and 2009 and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2010. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Gastar Exploration Ltd. at December 31, 2010 and 2009, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 9 to the consolidated financial statements, effective January 1, 2009, the Company changed its method of accounting for certain common stock purchase warrants with the adoption of new guidance on determining whether an instrument is indexed to an entity's own stock. Also, as discussed in Note 2 to the consolidated financial statements, effective December 31, 2009, the Company changed its reserve estimates and related disclosures as a result of adopting new oil and natural gas reserve estimation and disclosure requirements.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Gastar Exploration Ltd.'s internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 10, 2011 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Dallas, Texas

March 10, 2011

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2010	2009
	(in thousands)	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 7,439	\$ 21,866
Term deposit		69,662
Accounts receivable, net of allowance for doubtful accounts of \$571 and \$609, respectively	4,034	5,336
Receivable from unproved property sale		19,412
Commodity derivative contracts	10,229	4,870
Prepaid expenses	1,191	669
Total current assets	22,893	121,815
PROPERTY, PLANT AND EQUIPMENT:		
Natural gas and oil properties, full cost method of accounting:		
Unproved properties, excluded from amortization	162,230	132,720
Proved properties	345,042	313,100
Total natural gas and oil properties	507,272	445,820
Furniture and equipment	1,175	867
Total property, plant and equipment	508,447	446,687
Accumulated depreciation, depletion and amortization	(293,332)	(284,026)
Total property, plant and equipment, net	215,115	162,661
OTHER ASSETS:		
Restricted cash	50	50
Commodity derivative contracts	8,482	10,698
Deferred charges, net	508	764
Drilling advances and other assets	304	250
Total other assets	9,344	11,762
TOTAL ASSETS	\$ 247,352	\$ 296,238
LIABILITIES AND SHAREHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 9,077	\$ 8,291
Revenue payable	4,331	4,621
Accrued interest	138	130
Accrued drilling and operating costs	1,490	736
Commodity derivative contracts	1,991	3,678
Commodity derivative premium payable	3,451	1,190
Accrued litigation settlement liability	3,164	
Short-term loan		17,000
Accrued taxes payable		75,887
Other accrued liabilities	2,024	1,438
Total current liabilities	25,666	112,971

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

LONG-TERM LIABILITIES:		
Commodity derivative contracts	1,521	4,047
Commodity derivative premium payable	4,725	8,176
Accrued litigation settlement liability	800	
Asset retirement obligation	7,249	5,943
Warrant derivative		205
Total long-term liabilities	14,295	18,371
Commitments and contingencies (Note 15)		
SHAREHOLDERS EQUITY:		
Preferred stock, no par value; unlimited shares authorized; no shares issued		
Common stock, no par value; unlimited shares authorized; 64,179,115 and 50,028,592 shares issued and outstanding at December 31, 2010 and 2009, respectively		
	316,346	263,809
Additional paid-in capital	23,200	20,782
Accumulated deficit	(132,155)	(119,695)
Total shareholders equity	207,391	164,896
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	\$ 247,352	\$ 296,238

The accompanying notes are an integral part of these consolidated financial statements.

F-3

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		
	2010	2009	2008
	(in thousands, except share and per share data)		
REVENUES:			
Natural gas and oil revenues	\$ 31,554	\$ 40,636	\$ 56,690
Unrealized natural gas hedge gain (loss)	11,214	(7,767)	6,529
Total revenues	42,768	32,869	63,219
EXPENSES:			
Production taxes	370	439	1,324
Lease operating expenses	6,679	6,572	7,567
Transportation, treating and gathering	4,654	1,547	2,002
Depreciation, depletion and amortization	9,306	16,484	24,451
Impairment of natural gas and oil properties		68,729	14,217
Accretion of asset retirement obligation	396	379	335
General and administrative expense	14,638	15,649	14,299
Litigation settlement expense	21,744		
Total expenses	57,787	109,799	64,195
LOSS FROM OPERATIONS	(15,019)	(76,930)	(976)
OTHER INCOME (EXPENSE):			
Interest expense	(150)	(3,993)	(5,853)
Early extinguishment of debt		(15,902)	
Investment income and other	1,347	1,267	1,542
Gain on sale of assets		211,162	
Unrealized warrant derivative gain (loss)	205	(205)	
Foreign transaction gain	353	3,764	(74)
INCOME (LOSS) BEFORE PROVISION FOR INCOME TAXES	(13,264)	119,163	(5,361)
Provision for income tax expense (benefit)	(804)	70,317	
NET INCOME (LOSS)	\$ (12,460)	\$ 48,846	\$ (5,361)
NET INCOME (LOSS) PER SHARE:			
Basic	\$ (0.25)	\$ 1.06	\$ (0.13)
Diluted	\$ (0.25)	\$ 1.06	\$ (0.13)
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:			
Basic	49,813,617	46,102,662	41,419,714
Diluted	49,813,617	46,210,424	41,419,714

The accompanying notes are an integral part of these consolidated financial statements.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF SHAREHOLDERS EQUITY

	Common Stock		Additional Paid-in Capital (in thousands, except share data)	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Shareholders Equity
	Shares	Amount				
Balance at December 31, 2007	41,639,481	\$ 249,980	\$ 14,366	\$ (509)	\$ (168,568)	\$ 95,269
Issuance of restricted shares, net of forfeitures	287,580					
Issuance of warrants			5,388			5,388
Stock based compensation			3,129			3,129
Comprehensive loss:						
Commodity derivatives reclassified to earnings and other				2,096		2,096
Unrealized gain on commodity derivative contracts				1,061		1,061
Net loss					(5,361)	(5,361)
Comprehensive loss						(2,204)
Balance at December 31, 2008	41,927,061	249,980	22,883	2,648	(173,929)	101,582
Cumulative effect of reclassification of warrants			(5,388)		5,388	
Issuance of shares cash, net of offering costs of \$771	7,300,000	13,829				13,829
Issuance of restricted shares, net of forfeitures	801,531		(260)			(260)
Stock based compensation			3,547			3,547
Comprehensive income:						
Commodity derivatives reclassified to earnings and other				(2,648)		(2,648)
Net income					48,846	48,846
Comprehensive income						46,198
Balance at December 31, 2009	50,028,592	263,809	20,782		(119,695)	164,896
Issuance of shares cash, net of offering costs of \$2,663	13,800,000	52,537				52,537
Issuance of restricted shares, net of forfeitures	349,502		(347)			(347)
Exercise of stock options, net of forfeitures	1,021					
Stock based compensation			2,765			2,765
Comprehensive loss:						
Net loss					(12,460)	(12,460)
Comprehensive loss						(12,460)

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Balance at December 31, 2010	64,179,115	\$ 316,346	\$ 23,200	\$	\$ (132,155)	\$ 207,391
------------------------------	------------	------------	-----------	----	--------------	------------

The accompanying notes are an integral part of these consolidated financial statements.

F-5

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

	2010	Years Ended December 31, 2009 (in thousands)	2008
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	\$ (12,460)	\$ 48,846	\$ (5,361)
Adjustments to reconcile net income (loss) to net cash (used in) provided by operating activities:			
Depreciation, depletion and amortization	9,306	16,484	24,451
Impairment of natural gas and oil properties		68,729	14,217
Stock-based compensation	2,765	3,547	3,129
Unrealized natural gas hedge (gain) loss	(11,214)	7,767	(6,529)
Realized loss (gain) on derivative contracts	1,437	(3,053)	
Amortization of deferred financing costs and debt discount	283	1,964	1,998
Accretion of asset retirement obligation	396	379	335
Loss on early extinguishment of debt		7,027	
Gain on sale of assets		(211,162)	
Unrealized warrant derivative (gain) loss	(205)	205	
Litigation settlement payable	3,150		
Changes in operating assets and liabilities:			
Restricted cash for hedging program			1,000
Accounts receivable	1,565	2,278	(1,946)
Commodity derivative contracts	1,232	2,893	
Prepaid expenses	(522)	151	228
Accrued taxes payable	(1,420)	75,887	
Accounts payable and accrued liabilities	(287)	(8,498)	8,488
Net cash (used in) provided by operating activities	(5,974)	13,444	40,010
CASH FLOWS FROM INVESTING ACTIVITIES:			
Development and purchase of natural gas and oil properties	(58,512)	(49,230)	(130,487)
Drilling advances	(300)	(6,044)	(7,485)
Acquisition of natural gas and oil properties	(28,887)		
Proceeds from sale of natural gas and oil properties	49,197	251,267	
Purchase of furniture and equipment	(308)	(42)	(328)
Purchase of term deposit	(4,855)	(69,662)	
Other			50
Net cash (used in) provided by investing activities	(43,665)	126,289	(138,250)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of common shares, net of issuance costs	52,537	13,829	
Proceeds from short-term loan		17,000	
Proceeds from term loan		25,000	
Proceeds from revolving credit facility			18,875
Repayment of 12 ³ / ₄ % senior secured notes		(100,000)	
Repayment of term loan		(25,000)	
Repayment of revolving credit facility		(18,875)	
Repayment of convertible senior unsecured subordinated debentures		(30,000)	
Repayment of subordinated unsecured notes		(3,250)	

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Repayment of short-term loan	(17,000)		
Decrease in restricted cash		20	4
Deferred financing charges	(27)	(2,466)	(388)
Other	(298)	(278)	48
Net cash provided by (used in) financing activities	35,212	(124,020)	18,539
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(14,427)	15,713	(79,701)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	21,866	6,153	85,854
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 7,439	\$ 21,866	\$ 6,153

The accompanying notes are an integral part of these consolidated financial statements.

F-6

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business

Gastar Exploration Ltd. (the Company or Parent) is an independent energy company engaged in the exploration, development and production of natural gas and oil in the United States (U.S.). The Company's principal business activities include the identification, acquisition, and subsequent exploration and development of natural gas and oil properties with an emphasis on prospective deep structures identified through seismic and other analytical techniques as well as unconventional natural gas reserves, such as shale resource plays. The Company currently is pursuing natural gas exploration in the deep Bossier gas play in the Hilltop area of East Texas and the Marcellus Shale play in the Appalachia area of West Virginia and central and southwestern Pennsylvania. The Company also conducts coal bed methane (CBM) development activities within the Powder River Basin of Wyoming and Montana.

2. Summary of Significant Accounting Policies

The consolidated financial statements of the Company are stated in U.S. dollars unless otherwise noted and have been prepared by management in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The preparation of these financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, related disclosure of contingent assets and liabilities, proved natural gas and oil reserves and the related disclosures in the accompanying consolidated financial statements. Actual results could differ from those estimates. Significant estimates with regard to these financial statements include the estimate of proved natural gas and oil reserve quantities and the related present value of estimated future net cash flows. See Note 19, Supplemental Oil and Gas Disclosures.

Reclassifications

Certain reclassifications of prior year balances have been made to conform to current year presentation; these reclassifications have no impact on net income (loss).

Subsequent Events

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through the date the financial statements were issued and has disclosed certain subsequent events in these consolidated financial statements, as appropriate.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and the consolidated accounts of all its subsidiaries. The wholly-owned subsidiaries included in these consolidated accounts are Gastar Exploration USA, Inc. (Gastar USA), Gastar Exploration Texas, Inc., Gastar Exploration Texas LP (Gastar Texas), Gastar Exploration Texas LLC, Gastar Exploration New South Wales, Inc. (Gastar New South Wales), Gastar Exploration Victoria, Inc. and, prior to 2009, Gastar Power Pty Ltd. (Gastar Power). All significant intercompany accounts and transactions have been eliminated in consolidation.

Cash and Cash Equivalents

Cash and cash equivalents, which includes short-term investments such as money market deposits with a maturity of three months or less when purchased, amounted to \$7.4 million and \$21.9 million as of December 31, 2010 and 2009, respectively. The Company maintains its cash in bank deposit accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant risk of loss.

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Term Deposit***

Term deposit represents the investment in interest bearing cash term deposits with a major foreign bank earning interest at rates of 4.19% (\$53.6 million) and 4.80% (\$16.1 million) with a maturity of June 1, 2010. These term deposits were pledged to the Australian Tax Office in connection with the sale of the Australian Assets. Upon maturity on June 1, 2010, the term deposits were used to settle the Australian tax liability resulting from the Australian property sale in 2009. See Note 3, Property, Plant and Equipment.

Accounts Receivable

Accounts receivable are reported net of the allowance for doubtful accounts. The allowance for doubtful accounts is determined based on a review of the Company's receivables. Receivable accounts are charged off when collection efforts have failed and the account is deemed uncollectible.

A summary of the activity related to the allowance for doubtful accounts is as follows:

	For the Years Ended		
	December 31,		
	2010	2009	2008
	(in thousands)		
Allowance for doubtful accounts, beginning of year	\$ 609	\$ 560	\$ 4,315
Expense		49	
Reductions	(38)		(3,755)
Allowance for doubtful accounts, end of year	\$ 571	\$ 609	\$ 560

Deferred Financing Costs and Debt Discount

Deferred financing costs include costs of debt financings undertaken by the Company, including commissions, legal fees and other direct costs of financing. Using the effective interest method, the deferred financing costs are amortized over the term of the related debt instrument to interest expense.

Debt discount is amortized over the term of the related debt utilizing the effective interest method.

The following table indicates deferred charges and related accumulated amortization as of the dates indicated:

	As of December 31,	
	2010	2009
	(in thousands)	
Deferred charges	\$ 1,974	\$ 1,947
Accumulated amortization	(1,466)	(1,183)
Deferred charges, net	\$ 508	\$ 764

Natural Gas and Oil Properties

The Company follows the full cost method of accounting for natural gas and oil operations, whereby all costs incurred in the acquisition, exploration and development of natural gas and oil reserves are initially capitalized into cost centers on a country-by-country basis and are amortized as reserves are produced, subject to a limitation that the capitalized costs not exceed the value of those reserves. With the sale of the Company's

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Australian Assets (as defined under Note 3, Property, Plant and Equipment Sale of Petroleum Exploration Licenses 238, 433 and 434 and Repayment of Debt) in 2009, the United States is the Company's only remaining cost center. Capitalized costs include land acquisition costs, geological and geophysical expenditures, carrying charges on non-producing properties, costs of drilling and overhead charges directly related to acquisition, exploration and development activities.

Costs capitalized, together with the costs of production equipment, are depleted and amortized on the unit-of-production method based on the estimated net proved reserves, as determined by independent petroleum engineers.

Costs of acquiring and evaluating unproved properties are initially excluded from depletion calculations. These unevaluated properties are assessed quarterly to ascertain whether an impairment has occurred. When proved reserves are assigned or the property is considered to be impaired, the cost of the property is added to costs subject to depletion calculations.

In applying the full cost method of accounting, the Company performs a quarterly ceiling test on the cost center properties whereby the net cost of natural gas and oil properties, net of related deferred income taxes (net cost), is limited to the sum of the estimated future net revenues from the Company's proved reserves using prices that are the 12-month unweighted arithmetic average of the first-day-of-the-month price for natural gas and oil prices held constant, discounted at 10%, and the lower of cost or fair value of unproved properties, adjusted for related income tax effects (ceiling). If the net cost exceeds the ceiling, an impairment loss is recognized for the amount by which the net cost exceeds the ceiling and is shown as a reduction in natural gas and oil properties and as additional depletion expense. Proceeds from a sale of natural gas and oil properties will be applied against capitalized costs, with no gain or loss recognized, unless such a sale would significantly alter the rate of depletion or amortization.

The Company's estimate of proved reserves is based on the quantities of natural gas and oil that engineering and geological analyses demonstrate, with reasonable certainty, to be recoverable from established reservoirs in the future under current operating and economic parameters. Netherland, Sewell & Associates, Inc. (NSAI) prepares a reserve and economic evaluation of all the Company's properties on a well-by-well basis utilizing information provided by the Company and information available from state agencies that collect information reported to it by the operators of Company's properties. As discussed below, the estimate of the Company's proved reserves as of December 31, 2010 and 2009 have been prepared and presented in accordance with current rules and accounting standards promulgated by the Securities and Exchange Commission (the SEC). These rules require SEC reporting companies to prepare their reserve estimates using revised reserve definitions and revised pricing based on a 12-month unweighted arithmetic average of the first-day-of-the-month price. The previous rules required that reserve estimates be calculated using year-end pricing.

Reserves and their relation to estimated future net cash flows impact the Company's depletion and impairment calculations. As a result, adjustments to depletion and impairment are made concurrently with changes to reserve estimates. The Company prepares its reserve estimates and the projected cash flows derived from these reserve estimates in accordance with SEC guidelines. NSAI adheres to the same guidelines when preparing the reserve report. The accuracy of the Company's reserve estimates is a function of many factors including the quality and quantity of available data, the interpretation of that data, the accuracy of various mandated economic assumptions and the judgments of the individuals preparing the estimates.

The Company's proved reserve estimates are a function of many assumptions, all of which could deviate significantly from actual results. As such, reserve estimates may materially vary from the ultimate quantities of natural gas, oil and natural gas liquids eventually recovered.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Capitalized Interest

The Company capitalizes interest on assets not being amortized related to specific projects such as its drilling in progress and unproven natural gas and oil property expenditures. The methodology for capitalizing interest on general funds begins with a determination of the borrowings applicable to the qualifying assets. The basis of this approach is the assumption that the portion of the interest costs that are capitalized on expenditures during an asset's acquisition period could have been avoided if the expenditures had not been made. This methodology takes the view that if funds are not required for construction then they would have been used to pay off debt. The primary debt instrument included in the rate calculation of capitalized interest incurred for the year-ended December 31, 2010 was the Company's Revolving Credit Facility (as defined under Note 5, "Long-Term Debt"). Currently, the Company only capitalizes interest on its Revolving Credit Facility. The interest to be capitalized for any period is derived by multiplying the average rate of interest times the average qualifying assets during the period, not to exceed the total interest on the qualifying debt instruments. To qualify for interest capitalization, the Company must continue to make progress on the development of the assets. Capitalized interest costs were approximately \$633,000, \$10.8 million and \$12.2 million for 2010, 2009 and 2008, respectively.

Furniture and Equipment

Furniture and equipment are recorded at historical cost and are depreciated on a straight-line basis over their estimated useful lives, which range from three to seven years.

Fair Value of Financial Instruments

The fair value of financial instruments is determined at discrete points in time based on relevant market information. Such estimates involve uncertainties and cannot be determined with precision. The estimated fair value of cash and cash equivalents, term deposit, accounts receivable, prepaid expenses, accounts and revenue payables and accrued liabilities approximates their carrying value due to their short-term nature. Derivative instruments are also recorded on the balance sheet at fair value.

Derivative Instruments and Hedging Activity

The Company uses derivative instruments in the form of natural gas costless collars, index swaps, basis swaps and put options to manage price risks resulting from fluctuations in commodity prices of natural gas and oil associated with future natural gas production. Derivative instruments are recorded on the balance sheet at fair market value and changes in the fair market value of derivatives are recorded each period in current earnings. Fair value is assessed, measured and estimated by obtaining forward commodity pricing, credit adjusted risk-free interest rates and, as necessary, estimated volatility factors. The fair values the Company reports in its consolidated financial statements change as estimates are revised to reflect actual results, changes in market conditions or other factors, many of which are beyond the Company's control. Gains and losses on derivatives are included in revenue in the period in which they occur. The resulting cash flows from derivatives are reported as cash flows from operating activities. See Note 9, "Derivative Instruments and Hedging Activity."

Prior to October 1, 2008, the Company designated and accounted for its derivative instruments as cash flow hedges. Accordingly, changes in the fair values of the Company's cash flow hedges were deferred and recorded in accumulated other comprehensive income, as appropriate, until recognized as natural gas and oil revenues in the Company's consolidated statements of operations as the hedged production was delivered and affected earnings. For all derivative instruments previously designated as cash flow hedges, the Company was required to assess the effectiveness of the hedging relationships at inception and on a quarterly basis.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Effective October 1, 2008, the Company discontinued hedge accounting on all existing derivative contracts and elected not to designate any additional derivative contracts as cash flow hedges. As a result, any subsequent changes in the fair values of discontinued cash flow hedging instruments or new derivative contracts for future production are recognized in unrealized natural gas hedge gain (loss) within the Company's consolidated statements of operations. Any gains or losses previously deferred under cash flow hedge accounting remained in accumulated other comprehensive income until the previously hedged production affected earnings or was no longer probable of occurring. All amounts previously recorded in other comprehensive income in 2008 were recorded in natural gas and oil revenues during 2009 as the hedged production was delivered. For 2009 and 2010, realized gains or losses from derivative contracts are included in natural gas and oil revenues in the Company's consolidated statement of operations.

Revenue Recognition

The Company uses the sales method of accounting for the sale of its natural gas and oil and records revenues from the sale of natural gas and oil when delivery to the customer has occurred and title has transferred. This recording of revenues occurs when natural gas or oil has been delivered to a pipeline or a tank lifting has occurred. Under the sales method, revenues are recorded based on the Company's net revenue interest, as delivered. When actual natural gas sales volumes exceed our delivered share of sales volumes, an over-produced imbalance occurs. To the extent an over-produced imbalance exceeds our share of the remaining estimated proved natural gas reserves for a given property, the Company records a liability. The Company had no material gas imbalances at December 31, 2010 and 2009.

The Company records its share of revenues based on production volumes and contracted sales prices. The sales price for natural gas and oil are adjusted for transportation cost and other related deductions. The transportation costs and other deductions are based on contractual or historical data and do not require significant judgment. Subsequently, these deductions and transportation costs are adjusted to reflect actual charges based on third party documents once received by the Company. In addition, natural gas and crude oil volumes sold are not significantly different from the Company's share of production.

The Company calculates and pays royalties on natural gas, crude oil and natural gas liquids in accordance with the particular contractual provisions of the lease. Royalty liabilities are recorded in the period in which the natural gas and oil are produced and are included in revenue payable on the Company's Consolidated Balance Sheet.

Asset Retirement Obligation

Asset retirement costs and liabilities associated with future site restoration and abandonment of tangible long-lived assets are initially measured at fair value which approximates the cost a third party would incur in performing the tasks necessary to retire such assets. The fair value is recognized in the financial statements as the present value of expected future cash expenditures for site restoration and abandonment. Subsequent to the initial measurement, the effect of the passage of time on the liability for the asset retirement obligation (accretion expense) and the amortization of the asset retirement cost, through depreciation, depletion and amortization, are recognized in the results of operations.

Foreign Currency Exchange

The consolidated financial statements of the Company are presented in U.S. dollars. The functional currency for the parent and all consolidated subsidiaries is U.S. dollars. Transactions in currencies other than the functional currency are recorded using the appropriate exchange rate at the time of the transaction.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The majority of the Company's operations are conducted in U.S. dollars. Prior to July 2009, the Company conducted natural gas and oil property development in Australia. The Australian Assets were sold in July 2009, prior to reaching commercial operations. As a result of the sale of the Australian Assets, the Company no longer has long lived assets outside of the U.S. Limited operations are conducted by the parent in Canada.

The Australian and Canadian records are maintained in the local currency and re-measured to the functional currency as follows: monetary assets and liabilities are converted using the balance sheet period-end date exchange rate, while the non-monetary assets and liabilities are converted using the historical exchange rate. Expenses and income items are converted using the weighted average exchange rates for the reporting period. Foreign transaction gains and losses are reported on the consolidated statement of operations.

Deferred Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as income in the period that includes the enactment date. The Company has established a valuation reserve to offset its net deferred tax asset since, on a more likely than not basis, such benefits are not considered recoverable at this time.

Earnings or Loss per Share

Basic earnings or loss per share is computed on the basis of the weighted average number of common shares outstanding. Diluted earnings or loss per share is computed based upon the weighted average number of common shares outstanding plus the incremental effect of the assumed issuance of common shares for all potentially dilutive securities. Diluted per share amounts reflect the potential dilution that could occur if securities or other contracts to issue common shares are exercised or converted to common shares. The treasury stock method is used to determine the dilutive effect of stock options, unvested restricted shares and warrants.

Stock-Based Compensation

The Company reports compensation expense for stock options and restricted common shares granted to officers, directors and employees using the fair value method. Stock-based compensation costs are recorded over the requisite service period, which approximates the vesting period. Stock-based compensation expense is recognized using the graded-vesting method, which recognizes compensation costs over the requisite service period for each separately vesting tranche of an award as though the award were, in substance, multiple awards.

The Company records stock-based compensation costs for stock options granted based on the grant-date fair value as calculated using the Black-Scholes-Merton option-pricing model. The Black-Scholes-Merton model requires various highly judgmental assumptions including volatility, forfeiture rates and expected option life. If any of the assumptions used in the Black-Scholes-Merton model change significantly, stock-based compensation expense for future grants may differ materially from that recorded in the current period. Stock-based compensation cost for restricted shares granted is estimated at the grant date based on the prior day's closing stock price.

Joint Venture Operations

The majority of the Company's natural gas and oil exploration activities are conducted jointly with others. These consolidated financial statements reflect only the Company's proportionate interest in such activities.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Industry Segment and Geographic Information

The Company operates in one industry segment, which is the exploration, development and production of natural gas and oil. Historically, the Company's operational activities have been conducted in the U.S. and Australia, with only the U.S. having revenue generating operating results. All Australian operations were sold on July 13, 2009. As a result, the Company's current operational activities and the Company's consolidated revenues are generated from markets exclusively in the U.S., and the Company has no long lived assets located outside the U.S.

Treasury Stock

The Company's common shares are without par value. Treasury stock purchases are recorded at cost as a reduction to common stock. Common shares are canceled upon repurchase.

Restricted Cash

The Company is required to maintain cash balances that are restricted by provisions of certain banking and other agreements. Restricted cash is invested in short-term instruments at market rates; therefore, the carrying value approximates fair value. Such cash is reported as restricted cash and is excluded from cash and cash equivalents in the consolidated balance sheets.

Recent Accounting Developments

The following recently issued accounting pronouncements have been adopted or may impact us in future periods:

Business Combinations. In December 2010, the Financial Accounting Standards Board (FASB)'s Emerging Issues Task Force (EITF) issued an amendment to previously issued guidance regarding the pro forma revenue and earnings disclosure requirements for business combinations. The amendments specify that if a public entity presents comparative financial statements, the entity should disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period only. The amendments also expand the supplemental pro forma disclosures under current guidance to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. This guidance is effective prospectively for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2010. Earlier application is permitted. The adoption of this guidance did not impact the Company's operating results, financial position or cash flows.

Stock Compensation - Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades. In April 2010, the FASB's EITF issued an amendment to previously issued guidance regarding the classification of a share-based payment award as either equity or a liability. The amendments clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades should not be considered to contain a condition that is not a market, performance or service condition. Therefore, such an award should not be classified as a liability if it otherwise qualifies as equity. This guidance is effective for fiscal years and interim periods within those fiscal years beginning on or after December 15, 2010. Earlier application is permitted. This guidance should be applied by recording a cumulative-effect adjustment to the opening balance of retained earnings, and the cumulative-effect adjustment should be calculated for all awards outstanding as of the beginning of the fiscal year in which it is initially applied, as if the guidance had been

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

applied consistently since the inception of the award. The cumulative-effect adjustment should be presented separately. The adoption of this guidance did not impact the Company's operating results, financial position or cash flows.

Derivatives and Hedging. In March 2010, the FASB issued an amendment to previously issued guidance regarding embedded credit derivatives. This amendment provides clarification of the scope exception for embedded credit derivatives that transfer credit risk only in the form of subordination of one financial instrument to another. All entities that enter into contracts containing an embedded credit derivative feature related to the transfer of credit risk that is not only in the form of subordination of one financial instrument to another will be affected by the amendment because the amendment clarifies that the embedded credit derivative scope exception per the guidance does not apply to such contracts. This amended guidance is effective at the beginning of the first fiscal quarter beginning after June 15, 2010. The adoption of this guidance did not impact the Company's operating results, financial position or cash flows.

Fair Value Measurements. In January 2010, the FASB issued authoritative guidance related to improving disclosures about fair value measurements. This guidance requires separate disclosures of the amounts of transfers in and out of Level 1 and Level 2 fair value measurements and a description of the reason for such transfers. In the reconciliation for Level 3 fair value measurements using significant unobservable inputs, information about purchases, sales, issuances and settlements shall be presented separately. These disclosures are required for interim and annual reporting periods effective January 1, 2010, except for the disclosures related to the purchases, sales, issuances and settlements in the roll forward activity of Level 3 fair value measurements, which are effective on January 1, 2011. This guidance was adopted on January 1, 2010 and did not impact the Company's operating results, financial position or cash flows but did require additional disclosures regarding the fair value of financial instruments. See Note 7, Fair Value Measurements.

Variable Interest Entities. In June 2009, the FASB issued authoritative guidance related to variable interest entities which changes how a reporting entity determines when an entity that is insufficiently capitalized or is not controlled through voting rights should be consolidated and modifies the approach for determining the primary beneficiary of a variable interest entity. This guidance requires a reporting entity to provide additional disclosures about its involvement with variable interest entities and any significant changes in risk exposure due to that involvement. The guidance related to variable interest entities was effective on January 1, 2010 and did not have an impact on the Company's operating results, financial position or cash flows.

Modernization of Natural Gas and Oil Reporting. In January 2009, the SEC issued revisions to the natural gas and oil reporting disclosures, Modernization of Oil and Gas Reporting, Final Rule (the Final Rule). In addition to changing the definition and disclosure requirements for natural gas and oil reserves, the Final Rule changed the requirements for determining quantities of natural gas and oil reserves. The Final Rule requires the use of the 12-month unweighted arithmetic average of the first-day-of-the-month prices for natural gas and oil, rather than the end-of-period price used prior to adoption of the Final Rule, in estimating reserves. The Final Rule also changed certain accounting requirements under the full cost method of accounting for natural gas and oil activities. The amendments are designed to modernize the requirements for the determination of natural gas and oil reserves, aligning them with current practices and updating them for changes in technology. The Final Rule was effective for annual reports on Form 10-K for fiscal years ending on or after December 31, 2009. In addition, in January 2010, the FASB issued an accounting standards update relating to standards for extractive oil and gas activities. The accounting standards update amends existing standards to align the proved reserves calculation and disclosure requirements under U.S. GAAP with the requirements in the SEC rules. The Company adopted the new standards effective December 31, 2009. The new standards were applied prospectively as a change in estimate. The application of this guidance will continue to result in future amounts recorded for depreciation, depletion and amortization and ceiling limitations being different from what would have been

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

recorded had the Final Rule not been mandated. In April 2010, the FASB issued a further accounting standards update regarding extractive oil and gas industries to incorporate in accounting standards the revisions to Rule 4-10 of the SEC's Regulation S-X. The amendment primarily consists of the addition and deletion of definitions of terms related to fossil fuel exploration and production arising from technology changes over the past several decades. The accounting guidance in Rule 4-10 did not change.

3. Property, Plant and Equipment

The amount capitalized as natural gas and oil properties was incurred for the purchase and development of various properties in the states of Texas, Pennsylvania, West Virginia, Wyoming and Montana in the U.S. The Company's Australian properties were sold in July 2009. The Company's total property, plant and equipment consists of the following:

	December 31, 2010	2009
	(in thousands)	
Natural gas and oil properties, full cost method of accounting:		
Unproved properties	\$ 162,230	\$ 132,720
Proved properties	345,042	313,100
Total natural gas and oil properties	507,272	445,820
Furniture and equipment	1,175	867
Total property and equipment	508,447	446,687
Impairment of proved natural gas and oil properties	(187,152)	(187,152)
Accumulated depreciation, depletion and amortization	(106,180)	(96,874)
Total accumulated depreciation, depletion and amortization	(293,332)	(284,026)
Total property and equipment, net	\$ 215,115	\$ 162,661

As of December 31, 2010, unproved properties not being amortized consisted of drilling in progress costs of \$17.6 million, acreage acquisition costs of \$126.4 million and capitalized interest of \$18.2 million. At December 31, 2009, unproved properties not being amortized consisted of drilling in progress costs of \$3.8 million, acreage acquisition costs of \$111.0 million, and capitalized interest of \$17.9 million. For the years ended December 31, 2010 and 2009, management's evaluation of unproved properties did not result in an impairment of unproved properties.

For the year ended December 31, 2010, management's ceiling test evaluation did not result in an impairment of proved properties. The December 31, 2010 ceiling test evaluation utilized a weighted average natural gas price of \$3.53 per Mcf. For the years ended December 31, 2009 and 2008, the results of management's ceiling test evaluation resulted in an impairment of proved properties of \$68.7 million and \$14.2 million, respectively. The 2009 proved property impairment was recorded at March 31, 2009 based on a weighted average natural gas price of \$2.64 per Mcf at March 31, 2009. The December 31, 2008 proved property impairment was calculated based on a weighted average natural gas price of \$4.56 per Mcf.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Atinum Joint Venture

In September 2010, the Company entered into a purchase and sale agreement with Atinum, an affiliate of Atinum Partners Co., Ltd, a Korean investment firm. Pursuant to the agreement, at the closing of the transactions on November 1, 2010, the Company assigned to Atinum an initial 21.43% interest in all of its existing Marcellus Shale assets in West Virginia and Pennsylvania, which consisted of approximately 37,600 gross (34,200 net) acres and a 50% working interest in 16 producing shallow conventional wells and one non-producing vertical Marcellus Shale well, in a transaction valued at \$70.0 million. Atinum paid the Company approximately \$30.0 million in cash at the closing and will pay an additional \$40.0 million over time for a drilling carry. Upon completion of the funding of the drilling carry, the Company will make additional assignments to Atinum, as necessary, so Atinum will own a 50% interest in the 34,200 net acres of Marcellus Shale rights initially owned by the Company. The terms of the drilling carry require Atinum to fund its ultimate 50% share of drilling, completion and infrastructure costs along with 75% of the Company's ultimate 50% share of those same costs until the \$40.0 million drilling carry has been satisfied. As of December 31, 2010, approximately \$38.5 million of drilling carry obligations remained outstanding.

The Company and Atinum are pursuing an initial three-year development program that calls for the partners to drill one horizontal Marcellus Shale well during the remainder of 2010, a minimum of 12 horizontal wells in 2011 and 24 horizontal wells in each of 2012 and 2013. An initial AMI was established for potential additional acreage acquisitions in Ohio and New York along with the counties in West Virginia and Pennsylvania in which the existing Atinum Joint Venture interests are located. Within the initial AMI, the Company will act as operator and is obligated to offer any future AMI lease acquisitions to Atinum on a 50/50 basis, and Atinum will pay the Company on an annual basis an amount equal to 10% of lease bonuses and third party leasing costs up to \$20.0 million and 5% of such costs on activities above \$20.0 million. Until June 30, 2011, Atinum will have the right to participate in any future leasehold acquisitions made by the Company outside of the initial AMI and within West Virginia or Pennsylvania on terms identical to those governing the existing Atinum Joint Venture.

Total cash consideration received by the Company was approximately \$30.0 million and reduced proved property and unproved property costs by approximately \$5.0 million and \$25.0 million, respectively.

Marcellus Shale Leasehold Acquisition

In December 2010, the Company completed a \$28.9 million Marcellus Shale acquisition. The acquisition consisted of approximately 62,000 net acres of leasehold in the Marcellus Shale concentrated in Preston, Tucker, Pocahontas, Randolph and Pendleton Counties, West Virginia, including a gathering system comprised of 41 miles of four and six inch steel pipe, a salt water disposal well and five conventional wells producing approximately 500 Mcf per day (gross) of natural gas. This acreage is not included in the Atinum Joint Venture and the counties will not be part of the related AMI.

Total cash consideration paid by the Company was \$28.9 million. The Company allocated \$19.9 million to unproved properties and \$9.0 million to proved properties based on the fair value of the assets acquired at the acquisition date.

Sale of Petroleum Exploration Licenses 238, 433, and 434 and Repayment of Debt

On July 13, 2009, Gastar New South Wales and Gastar USA, each wholly owned subsidiaries of the Company, completed the sale of all of the Company's 35% working interest in Petroleum Exploration Licenses (PEL) 238 (including Petroleum Production License 3), PEL 433, and PEL 434 in New South Wales, Australia and the concurrent sale of the Company's common shares of Gastar Power, the Company's wholly-owned subsidiary holding its 35% working interest in the Wilga Park Power Station (collectively, the Australian

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Assets), to Santos QNT Pty Ltd. and Santos International Holdings Pty Ltd. (collectively, Santos). The sale was made pursuant to a definitive sale agreement dated July 2, 2009 by and among Gastar New South Wales, Gastar USA and Santos.

The Australian Assets included the Company's interest in PEL 238, a CBM exploratory property covering approximately 2.2 million gross (761,400 net) acres, located in the Gunnedah Basin of New South Wales, as well as 1.9 million gross (664,000 net) acres in PEL 433, approximately 1.9 million gross (669,000 net) acres in PEL 434 and the Company's foreign subsidiary, Gastar Power, which acquired a 35% working interest in the Wilga Park Power Station in February 2009.

Including gross reserve certification target proceeds, the Australian Assets were sold for an aggregate purchase price of \$250.4 million (AU\$320.0 million), before transaction costs of \$1.5 million, resulting in a gain on the sale of assets of \$211.2 million. At March 31, 2010, the Company had received approximately \$248.9 million (AU\$318.0 million), excluding taxes and transaction expenses, with the balance to be paid upon receipt of certain government approvals. In April 2010, the final governmental approval was obtained and Santos remitted the remaining balance based on the current foreign exchange rate of approximately \$1.8 million (AU\$2.0 million) to the Company. The sale agreement also acknowledged the Company's retention of its right to future cash payments of up to \$10.0 million pursuant to a pre-existing farm-in agreement in the event certain production thresholds are reached on PEL 238. The Company follows the full cost method of accounting, which typically does not allow for gain on sale recognition involving less than 25% of the reserves in a given cost center. All of the Company's properties in Australia were sold to Santos; therefore, gain recognition on the sale of unproven property was deemed the proper accounting treatment.

The Company used the proceeds from the sale of the Australian Assets to (i) repay the \$13.0 million outstanding on its secured original revolving credit facility, (ii) repay in full its \$25.0 million term loan, (iii) repurchase all of its outstanding \$100.0 million 12³/₄% senior secured notes due December 31, 2012 at a price of 106.375% of par, plus accrued and unpaid interest, (iv) repay, at par, an initial \$10.3 million of its convertible subordinated debentures and (v) repay the remaining \$300,000 of subordinated unsecured notes payable (described in Note 5, Long-Term Debt).

Sale of East Texas Gas Gathering System

On November 16, 2009, the Company completed the sale of all of its interest in the Hilltop gas gathering system (the Hilltop Gathering System), located in Leon and Robertson Counties, Texas. The Company entered into a purchase and sale agreement with Hilltop Resort GS, LLC (Hilltop Resort), dated as of November 16, 2009 (the Hilltop Sale Agreement) pursuant to which the Company conveyed its 70% interest in the Hilltop Gathering System to Hilltop Resort for approximately \$19.1 million, net of transaction costs and expenses. The Company also entered into purchase and sale agreements dated November 16, 2009 with two existing working interest owners in the Hilltop area of East Texas, whereby the Company conveyed the remaining 30% of its interest in the Hilltop Gathering System for an aggregate \$2.7 million, net of working interest owner costs owed to the Company. Total consideration received by the Company was approximately \$21.8 million, net of transaction costs and expenses, and reduced proved property costs.

At the time of the sale, the Hilltop Gathering System was comprised of 20 miles of natural gas pipeline connected to 19 Company-operated wells, which produce from the middle and lower Bossier and Knowles formations in East Texas.

On November 16, 2009, concurrent with the Company's sale of its Hilltop Gathering System, Gastar Texas, a wholly-owned subsidiary entered into a gas gathering agreement (Hilltop Gathering Agreement) effective November 1, 2009, with Hilltop Resort for an initial term of 15 years. The Hilltop Gathering Agreement covers

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

delivery of the Company's gross production of natural gas in the Hilltop area of East Texas to certain delivery points provided under the gas sales contract, as well as additional delivery points that, from time to time, may be added. The Company is also obligated to connect new wells that it drills within the area covered by the Hilltop Gathering Agreement to the Hilltop Gathering System. The Hilltop Gathering Agreement provides for a minimum quarterly gathering gross production volume of 50.0 MMcf per day (35.0 MMcf per day net to the Company) times the number of days in the quarter for five years from the effective date of November 1, 2009. If quarterly production is less than the minimum quarterly requirement, the gathering fee is payable on such deficit. If excess quarterly production exists, such excess is carried forward to be used to offset any future deficit quarters. The gathering fee on the initial gross 25 Bcf of production is \$0.325 per Mcf, reducing in steps to \$0.225 per Mcf when cumulative gross production reaches 300 Bcf. For the year ended December 31, 2010, the Company paid \$1.3 million to Hilltop Resort as a result of not meeting minimum quarterly requirements. There is no assurance that the Company will meet its minimum quarterly requirements in the future.

4. Short-Term Loan

On November 20, 2009, the Parent, entered into a \$17.0 million secured short-term loan agreement with the lender parties and administrative agent thereto (the Short-Term Loan). Concurrent with the execution of the Short-Term Loan, the Parent drew \$17.0 million and used the proceeds, together with cash on hand, to repay all \$19.7 million of its outstanding 9.75% convertible senior unsecured subordinated debentures due November 20, 2009 (the Convertible Subordinated Debentures).

The Short-Term Loan bore interest at the floating prime rate of the lender. The prime rate at December 31, 2009 was 5.0% per annum. Amounts outstanding under the Short-Term Loan were repayable prior to maturity, together with all accrued and unpaid interest relating to the amount prepaid, without prepayment penalty. The Short-Term Loan contained various covenants, including restrictions on liens, restrictions on incurring other indebtedness without the lenders' consent, restrictions on dividends and other restricted payments and restrictions on entering into certain transactions.

Amounts outstanding under the Short-Term Loan were secured by a second priority lien on all of the issued and outstanding shares of Gastar USA, pursuant to the Second Lien Security Agreement (Pledge) dated November 20, 2009 (Second Lien), by and between the Company and the administrative agent for the lenders under the Short-Term Loan. Additionally, amounts outstanding under the Short-Term Loan were secured by a security interest in all funds of the Company on deposit with the administrative agent and each lender that was a party to the Short-Term Loan.

In order to provide for the Parent's borrowings under the Short-Term Loan and related repayments and the granting of the Second Lien, on November 20, 2009, Gastar USA, together with the Parent and certain of its subsidiaries as the guarantors (Subsidiary Guarantors), and the lenders and administrative agent party thereto, entered into the Consent and First Amendment to Amended and Restated Credit Agreement (the First Amendment) amending the Company's Revolving Credit Agreement. See Note 5, Long-Term Debt, Revolving Credit Facility.

The Short-Term Loan was repaid in full on January 8, 2010.

5. Long-Term Debt

Revolving Credit Facility

On November 29, 2007, concurrent with the closing of the sale of 12³/₄% Senior Secured Notes (described under 12³/₄% Senior Secured Notes), Gastar USA entered into a secured revolving credit facility (the Original Revolving Credit Facility) that provided for a first priority lien borrowing base. The Original Revolving Credit

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Facility was guaranteed by the Parent and all of its current domestic subsidiaries and all of its future domestic subsidiaries that may be formed during the term of the Original Revolving Credit Facility. The related guarantees under the Original Revolving Credit Facility were secured by a first priority lien on all domestic natural gas and oil properties currently owned by or later acquired by Gastar USA, excluding *de minimus* value properties as determined by the lender.

On July 13, 2009, the Company used a portion of the net proceeds from the sale of the Australian Assets to repay the \$13.0 million then outstanding under the Original Revolving Credit Facility.

On October 28, 2009, Gastar USA, together with the Parent and Subsidiary Guarantors, and the lenders, administrative agent and letter of credit issuer party thereto, entered into an amended and restated credit facility, amending and restating in its entirety the Original Revolving Credit Facility (the Revolving Credit Facility). The Revolving Credit Facility provided an initial borrowing base of \$47.5 million, with borrowings bearing interest, at the Company's election, at the prime rate or LIBO rate plus an applicable margin. Pursuant to the Revolving Credit Facility, the applicable interest rate margin varies from 1.0% to 2.0% in the case of borrowings based on the prime rate and from 2.5% to 3.5% in the case of borrowings based on LIBO rate, depending on the utilization percentage in relation to the borrowing base. An annual commitment fee of 0.50% is payable quarterly, based on the unutilized balance of the borrowing base. The Revolving Credit Facility has a scheduled maturity date of January 2, 2013.

In order to provide for the Company's borrowings under the Short-Term Loan and related repayments and the granting of the Second Lien on November 20, 2009, Gastar USA, together with the Parent and Subsidiary Guarantors and the lender parties and administrative agent thereto, entered into the First Amendment amending the Revolving Credit Facility. In addition to permitting the incurrence of debt under the Short-Term Loan, the First Amendment also amended the Revolving Credit Facility, by, among other things, reducing the borrowing base from \$47.5 million to \$30.5 million until the Short-Term Loan was repaid in full, at which time the borrowing base would be automatically increased to \$47.5 million until the next scheduled borrowing base redetermination. The borrowing base was increased to \$47.5 million from \$30.5 million subsequent to the repayment of the Short-Term Loan in January 2010.

The Revolving Credit Facility is guaranteed by the Parent and all its current domestic subsidiaries and all future domestic subsidiaries formed during the term of the Revolving Credit Facility. Borrowings and related guarantees under the Revolving Credit Facility are secured by a first priority lien on all domestic natural gas and oil properties owned by or later acquired by Gastar USA and its subsidiaries, excluding *de minimus* value properties as determined by the lender. The facility is secured by a first priority pledge of the stock of each domestic subsidiary, a first priority interest on all accounts receivable, notes receivable, inventory, contract rights, general intangibles and material property of the Issuer and 65% of the stock of each foreign subsidiary of Gastar USA.

The Revolving Credit Facility contains various covenants, including among others:

Restrictions on liens;

Restrictions on incurring other indebtedness without the lenders' consent;

Restrictions on dividends and other restricted payments;

Maintenance of a minimum consolidated current ratio as of the end of each quarter of not less than 1.0 to 1.0, as adjusted;

Maintenance of a maximum ratio of indebtedness to EBITDA on a rolling four quarter basis, as adjusted, of not greater than 4.0 to 1.0; and

F-19

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Maintenance of an interest coverage ratio on a rolling four quarter basis, as adjusted, of EBITDA to interest expense, as of the end of each quarter, to be less than 2.5 to 1.0.

All outstanding amounts owed under the Revolving Credit Facility become due and payable upon the occurrence of certain usual and customary events of default, including among others:

Failure to make payments under the Revolving Credit Facility;

Non-performance of covenants and obligations continuing beyond any applicable grace period; and

The occurrence of a Change of Control (as defined in the Revolving Credit Facility) of the Parent.

Should there occur a Change of Control of the Parent, then, five days after such occurrence, immediately and without notice, (i) all amounts outstanding under the Revolving Credit Facility shall automatically become immediately due and payable and (ii) the commitments shall immediately cease and terminate unless and until reinstated by the lender in writing. If amounts outstanding under the Revolving Credit Facility become immediately due, the obligation of Gastar USA, with respect to any commodity hedge exposure, shall be to provide cash as collateral to be held and administered by the lender as collateral agent.

Following our scheduled semi-annual borrowing base redetermination in May 2010, on June 24, 2010, Gastar USA, together with the other parties thereto, entered into the Second Amendment to the Amended and Restated Credit Agreement (the Second Amendment). The Second Amendment amended the Revolving Credit Facility, by, among other things, allowing the Company (i) to hedge up to 80% of the proved developed producing (PDP) reserves reflected in its reserve report using hedging other than floors and protective spreads, (ii) relatedly, to present to the administrative agent a report showing any PDP additions resulting from new wells or the conversion of proved developed non-producing reserves to PDP reserves since the last reserve report in order to hedge the revised PDP reserves, and (iii) removing limitations on hedging using floors and protective spreads. Additionally, the Second Amendment reduced the borrowing base under the Revolving Credit Facility to \$40.0 million from \$47.5 million, primarily in connection with delays in returning the Company's Belin #1 well, located in the Hilltop area of East Texas, to production following re-completion attempts. Subsequent to the redetermination of the borrowing base and entry into the Second Amendment, the Belin #1 well was returned to production from all zones. On October 1, 2010, the borrowing base was increased to \$47.5 million from the previous borrowing base of \$40.0 million.

As of December 31, 2010, the Company had nothing outstanding under the Revolving Credit Facility and the availability under the borrowing base was \$47.5 million. Borrowing base redeterminations are scheduled semi-annually in May and November of each calendar year, with the next redetermination scheduled for May 2011. The Company and the lenders may request one additional unscheduled redetermination annually.

At June 30, 2010, the Company was not in compliance with the 80% hedge limitation for 2011 under the Revolving Credit Facility; the Company was in compliance with all other financial covenants under the Revolving Credit Facility at such time. The Company was granted a waiver in regards to the hedge limitation through March 31, 2011 and in conjunction with such waiver, at December 31, 2010, the Company was in compliance with all financial covenants under the Revolving Credit Facility.

Credit support for the Company's open derivatives at December 31, 2010 is provided through inter-creditor agreements or open accounts.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

\$25.0 Million Term Loan

On February 17, 2009, Gastar USA drew \$25.0 million under a \$25.0 million term loan (the \$25.0 Million Term Loan) to fund current and future capital commitments and operating costs. The \$25.0 Million Term Loan bore interest at a fixed rate of 20% per annum and was to mature on February 15, 2012. The annual effective interest rate, after amortization of the fees paid to establish the \$25.0 Million Term Loan was 21.9%. The \$25.0 Million Term Loan contained various customary covenants, including restrictions on liens, restrictions on incurring other indebtedness without the lender's consent, restrictions on dividends and other restricted payments, and maintenance of various financial ratios consistent to the Original Revolving Credit Facility. Amounts outstanding under the \$25.0 Million Term Loan could be repaid prior to maturity, with a prepayment premium of 10% if repaid prior to December 31, 2009, and a prepayment premium of 5% if repaid between January 1, 2010 and December 31, 2010. Upon a Change of Control (as defined in the \$25.0 Million Term Loan), all amounts outstanding under the \$25.0 Million Term Loan were to be immediately due and payable.

Amounts outstanding under the \$25.0 Million Term Loan were secured by a first priority lien on Gastar USA's and certain of the Parent's subsidiaries' primary natural gas and oil assets and certain other properties. The \$25.0 Million Term Loan and other existing and future indebtedness incurred under the Company's Original Revolving Credit Facility were senior to the liens securing the 12³/₄% Senior Secured Notes.

On July 13, 2009, the Company used approximately \$27.5 million of the proceeds from the Australian Assets sale, described above, to repay in full, and thereby terminate, the \$25.0 Million Term Loan.

12³/₄% Senior Secured Notes

On November 29, 2007, Gastar USA sold \$100.0 million aggregate principal amount of 12³/₄% senior secured notes (the 12³/₄% Senior Secured Notes) at an issue price of 99.50% pursuant to an indenture, dated as of November 29, 2007 (the Base Indenture), by and among the Parent, Gastar USA, Wells Fargo Bank, National Association, as trustee and Collateral Agent (the Trustee) and certain subsidiaries of the Parent. The 12³/₄% Senior Secured Notes were fully and unconditionally guaranteed (the Guarantees) jointly and severally by Gastar USA, the Parent, and all of the Parent's existing and future material domestic subsidiaries. The 12³/₄% Senior Secured Notes and the Guarantees were secured by a second lien on Gastar USA's principal domestic natural gas and oil properties and other assets that also secured the Original Revolving Credit Facility, subject to certain exceptions. The 12³/₄% Senior Secured Notes were to mature on December 1, 2012. On February 16, 2009, the parties to the Indenture entered into a supplemental indenture with the Trustee to amend and modify the Indenture (the Supplemental Indenture and together with the Base Indenture, the Indenture) to enable the Company to enter into the \$25.0 Million Term Loan.

On July 13, 2009, Gastar USA initiated an offer (the Asset Sale Offer) to purchase any and all of its outstanding 12³/₄% Senior Secured Notes from the holders upon the terms and subject to the conditions set forth in the asset sale offer statement, dated July 13, 2009 (the Asset Sale Offer Statement). The Asset Sale Offer Statement was made in accordance with the terms of the Indenture.

The purpose of the Asset Sale Offer was to comply with the provisions of the Supplemental Indenture and the Base Indenture, whereby if the Company had major asset sale excess proceeds (as defined therein) following the receipt of net proceeds from a sale of assets, the Company was required to offer to purchase the maximum principal amount of 12³/₄% Senior Secured Notes that could be purchased with such major asset sale excess proceeds.

On August 6, 2009, the note-holders tendered to the Company the outstanding \$100.0 million principal amount of the 12³/₄% Senior Secured Notes at 106.375% of par, plus accrued and unpaid interest. On August 7, 2009, the Company used a portion of the net proceeds from the sale of the Australian Assets to retire in full the

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

12^{3/4}% Senior Secured Notes and to discharge all of its obligations under the Indenture by directly tendering payment of \$108.7 million, including accrued interest, to the note holders and ultimate cancellation of the 12^{3/4}% Senior Secured Notes by the Trustee.

Convertible Subordinated Debentures

In November 2004, the Company issued \$30.0 million of Convertible Subordinated Debentures. The Convertible Subordinated Debentures had a term of five years, were due November 20, 2009 and bore interest at 9.75% per annum, payable quarterly. As of September 30, 2009, a total of \$10.3 million of Convertible Subordinated Debentures had been tendered, at par, to the Company for early retirement. Concurrent with the execution of the Short-Term Loan on November 20, 2009, the Company drew \$17.0 million and used the proceeds, together with cash on hand, to repay all \$19.7 million of outstanding Convertible Subordinated Debentures.

Subordinated Unsecured Notes Payable

The Company's \$3.25 million 10.0% subordinated unsecured notes payable (the Subordinated Unsecured Notes Payable) matured from April to September 2009. As of December 31, 2009, the Company had repaid all outstanding amounts under the Subordinated Unsecured Notes Payable.

6. Asset Retirement Obligation

A summary of the activity related to the asset retirement obligation is as follows:

	For the Years Ended December 31,	
	2010	2009
	(in thousands)	
Asset retirement obligation, beginning of year	\$ 5,943	\$ 5,095
Liabilities incurred during period	1,023	652
Accretion expense	396	379
Revision in previous estimates and other	(113)	(183)
Asset retirement obligation, end of year	\$ 7,249	\$ 5,943

7. Fair Value Measurements

The Company's financial assets and liabilities are measured at fair value on a recurring basis. The Company discloses its recognized non-financial assets and liabilities, such as asset retirement obligations and other property and equipment, at fair value on a non-recurring basis. For non-financial assets and liabilities, the Company is required to disclose information that enables users of its financial statements to assess the inputs used to develop these measurements. As none of the Company's non-financial assets and liabilities were impaired during the period-ended December 31, 2010, and no other fair value measurements are required to be recognized on a non-recurring basis, no additional disclosures are provided at December 31, 2010.

As defined in the guidance, fair value is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). To estimate fair value, the Company utilizes market data or assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation.

Table of ContentsIndex to Financial Statements**GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

technique. These inputs can be readily observable, market corroborated or generally unobservable. The guidance establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted market prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. The Company's cash equivalents consist of short-term, highly liquid investments, which have maturities of 90 days or less, including sweep investments and money market funds.

Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 inputs are measured based on prices or valuation models that require inputs that are both significant to the fair value measurement and less observable from objective sources. These inputs may be used with internally developed methodologies or third party broker quotes that result in management's best estimate of fair value. The Company's valuation models consider various inputs including (a) quoted forward prices for commodities, (b) time value, (c) volatility factors and (d) current market and contractual prices for the underlying instruments. Level 3 instruments are natural gas costless collars, index, basis and fixed price swaps, put and call options and warrants. At each balance sheet date, the Company performs an analysis of all applicable instruments and includes in Level 3 all of those whose fair value is based on significant unobservable inputs.

As required, financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of fair value assets and liabilities and their placement within the fair value hierarchy levels. The determination of the fair values below incorporates various factors, including the impact of the counterparty's non-performance risk with respect to the Company's financial assets and the Company's non-performance risk with respect to the Company's financial liabilities. The Company has not elected to offset the fair value amounts recognized for multiple derivative instruments executed with the same counterparty, but report them gross on its condensed consolidated balance sheets.

The following tables set forth by level within the fair value hierarchy the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis as of December 31, 2010 and 2009:

	Fair value as of December 31, 2010			Total
	Level 1	Level 2	Level 3	
	(in thousands)			
Assets:				
Cash and cash equivalents	\$ 7,439	\$	\$	\$ 7,439
Restricted cash	50			50
Commodity derivative contracts			18,711	18,711
Liabilities:				
Commodity derivative contracts			(3,512)	(3,512)
Total	\$ 7,489	\$	\$ 15,199	\$ 22,688

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Fair value as of December 31, 2009			Total
	Level 1	Level 2	Level 3	
	(in thousands)			
Assets:				
Cash and cash equivalents	\$ 21,866	\$	\$	\$ 21,866
Term deposit	69,662			69,662
Restricted cash	50			50
Commodity derivative contracts			15,568	15,568
Liabilities:				
Commodity derivative contracts			(7,725)	(7,725)
Warrant derivative			(205)	(205)
Total	\$ 91,578	\$	\$ 7,638	\$ 99,216

The table below presents a reconciliation of the assets and liabilities classified as Level 3 in the fair value hierarchy for the years ended December 31, 2010 and 2009. Level 3 instruments presented in the table consist of net derivatives that, in management's opinion, reflect the assumptions a marketplace participant would have used at December 31, 2010 and 2009.

	For the Years Ended December 31,	
	2010	2009
	(in thousands)	
Balance at beginning of period	\$ 7,638	\$ 8,708
Total gains (losses) (realized or unrealized):		
included in earnings (1)	15,509	4,076
included in other comprehensive income		
Purchases		
Issuances		
Settlements	(7,948)	(5,146)
Transfers in and (out) of Level 3		
Balance at end of period	\$ 15,199	\$ 7,638
The amount of total gains (losses) for the period included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2010 and 2009	\$ 11,419	\$ (7,972)

(1) Included in natural gas and oil revenues and other income (expense) on the statement of operations. At December 31, 2010, the estimated fair value of cash and cash equivalents, accounts receivable, prepaid expenses, accounts and revenue payables and accrued liabilities approximates their carrying value due to their short-term nature.

The fair value guidance, as amended, establishes that every derivative instrument is to be recorded on the balance sheet as either an asset or liability measured at fair value. See Note 9, Derivative Instruments and Hedging Activity.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. Equity Compensation Plans

Share-Based Compensation Plan

At the annual meeting of shareholders held June 4, 2009 (the Annual Meeting), the Company's shareholders approved amendments to the Company's 2006 Long-Term Stock Incentive Plan (the 2006 Plan) that, effective as of April 1, 2009, merged the Company's Stock Option Plan (the 2002 Stock Option Plan) with and into the 2006 Plan so that all outstanding equity awards and all future equity awards to be made to employees, officers and directors would be under one plan—the 2006 Plan. The merging of the 2002 Stock Option Plan with and into the 2006 Plan resulted in the cessation of the existence of the 2002 Stock Option Plan and the transfer of all common shares previously reserved and available for issuance under the 2002 Stock Option Plan, including any common shares subject to outstanding stock option awards previously granted under the 2002 Stock Option Plan prior to the effective date of the amendments, to the common shares reserved under the 2006 Plan.

Additionally, the amendments to the 2006 Plan (a) provide that the Remuneration Committee, at its discretion, may provide, in an award agreement, that an individual who is granted an award under the 2006 Plan (a participant) may elect to have common shares withheld from or netted against the total number of common shares otherwise issuable to such participant pursuant to his award in order to pay the exercise or purchase price of such award and/or to satisfy all employer tax withholding obligations with respect to the participant's award under the 2006 Plan, (b) clarify that common shares issuable under the 2006 Plan and forfeited back to the 2006 Plan will be deemed not to have been issued under the 2006 Plan and will again be available for the grant of an award under the 2006 Plan, (c) provide that common shares withheld from or netted against an award granted under the 2006 Plan for payment of (1) the exercise or purchase price of an award and (2) all applicable employer tax withholding obligations associated with an award will be deemed not to have been issued under the 2006 Plan and will again be available for the grant of an award under the 2006 Plan, (d) provide that the maximum number of common shares that may be subject to stock options, bonus stock awards and stock appreciation rights granted to any one individual during any calendar year may not exceed 200,000 common shares (subject to adjustment pursuant to Section 11(a) of the 2006 Plan) and (e) provide that the definition of performance criteria in the 2006 Plan include a criteria relating to the growth of proved natural gas and oil reserves of the Company.

The Company's 2006 Plan authorizes the Company's Board of Directors to issue stock options, stock appreciation rights, bonus stock awards and any other type of award, which are consistent with the 2006 Plan's purposes to directors, officers and employees of the Company and its subsidiaries covering a maximum of 6.0 million common shares. The contractual lives and vesting periods for grants are determined by the Board of Directors at the time a grant is awarded. Recent stock option grants have an expiration of ten years. The vesting schedule for stock option grants has varied from two years to four years but generally has been over a four-year period vesting at 25% per year beginning on the first anniversary date of the grant. Stock options granted pursuant to the 2006 Plan have exercise prices determined by the Board of Directors, but an exercise price cannot be less than the market price on the date immediately prior to the date of grant as reported by any stock exchange on which the Company's common shares are listed. The vesting period for recent restricted common stock grants has been over four years with 25% vesting on the first, second, third, and fourth anniversaries, respectively, from the date of grant.

On August 3, 2009, the Company's common shares began trading on a post 1-for-5 reverse split (the 1-for-5 Reverse Split) basis. All common shares and per share information has been adjusted to reflect the 1-for-5 Reverse Split. See Note 11, Capital Stock.

At December 31, 2010, 1,543,675 common shares were available for future stock-based compensation grants under the 2006 Plan. All common shares issued upon the exercise of stock option grants or vesting of restricted share grants are authorized, issued by the Company and are fully paid and non-assessable.

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Determining Fair Value of Stock Options***

In determining the fair value of stock option grants, the Company utilized the following assumptions:

Valuation and Amortization Method. The Company estimates the fair value of stock option awards using the Black-Scholes-Merton valuation model. The fair value of all awards is expensed using the graded-vesting method .

Expected Life. The expected life of stock options granted represents the period of time that stock options are expected, on average, to be outstanding. The Company determined the expected life to be 6.25 years, based on historical information, for all stock options issued with four-year vesting periods and ten-year grant expirations.

Expected Volatility. Using the Black-Scholes-Merton valuation model, the Company estimates the volatility of its common shares at the beginning of the quarter in which the stock option is granted. The volatility is based on weighted average historical movements of the Company's common share price on the NYSE Amex over a period that approximates the expected life.

Risk-Free Interest Rate. The Company utilizes a risk-free interest rate equal to the rate of U.S. Treasury zero-coupon issues as of the date of grant with a term equivalent to the stock option's expected life.

Expected Dividend Yield. The Company has not paid any cash dividends on its common shares and does not anticipate paying any cash dividends in the foreseeable future. Consequently, a dividend yield of zero is utilized in the Black-Scholes-Merton valuation model.

Expected Forfeitures. Forfeitures of unvested stock option and restricted common shares are calculated at the beginning of the year as a percentage of all stock option and restricted common share grants. For 2010, 2009 and 2008, the Company used forfeiture rates in determining compensation expense of 9.8%, 6.5% and 6.0%, respectively.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes-Merton valuation pricing model. The table below summarizes the number of stock options granted and the fair value assumptions for the stock options granted for the period indicated:

	For the Years Ended December 31,		
	2010	2009	2008
Stock options granted during the period	80,000	266,300	
Expected life (in years)	6.25	6.25	
Expected volatility	68.10%	59.3% - 60.2%	
Risk-free interest rate	2.33% - 2.94%	1.97% - 2.81%	
Expected dividend rate	0.00%	0.00%	

The weighted average grant date fair value of stock options granted and the intrinsic value of stock options exercised are shown below for the periods indicated:

	For the Years Ended December 31,		
	2010	2009	2008
Weighted average grant date fair value per stock option granted	\$ 2.66	\$ 1.52	\$
Intrinsic value of stock options exercised (1)	\$ 7	\$	\$

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Grant date fair value of stock options vested	\$ 739	\$ 1,334	\$ 3,233
---	--------	----------	----------

- (1) Intrinsic value of stock options is calculated using the difference between the common share price on the date of exercise and the exercise price times the number of stock options exercised.

F-26

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Stock Option Activity

The following tables summarize certain information related to outstanding stock options under the Company's 2006 Plan as of and for the year ended December 31, 2010:

	Shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2009	1,292,300	\$ 12.13		
Granted	80,000	4.17		
Exercised	(3,000)	2.60		
Canceled/Expired	(117,200)	14.36		
Forfeited	(145,000)	10.54		
Outstanding at December 31, 2010	1,107,100	\$ 10.85		
Options vested and exercisable at December 31, 2010	817,825	\$ 13.33	5.73	\$ 96

	Shares	Weighted Average Fair Value per Share	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding non-vested options at December 31, 2009	422,383	\$ 7.19			
Granted	80,000	2.66			
Vested	(142,275)	5.20			
Forfeited	(70,833)	4.73			
Outstanding non-vested options at December 31, 2010	289,275	\$ 2.21	\$ 3.85	8.36	\$ 314

Unrecognized expense as of December 31, 2010 for all outstanding options is \$253,000 and will be recognized over a weighted average period of 2.36 years.

The total intrinsic value of options exercised during the year ended December 31, 2010 was \$7,000. There were no options exercised for the years ended December 31, 2009 and 2008. Intrinsic value of stock options is calculated using the difference between the common share price on the date of exercise and the exercise price times the number of stock options exercised.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Restricted Share Activity

The following table summarizes information related to restricted shares at December 31, 2010:

	Shares	Weighted Average Fair Value per Share	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Non-vested restricted shares outstanding at December 31, 2009	1,034,324	\$ 6.03		
Granted	440,550	4.84		
Vested	(312,785)	6.78		
Forfeited				
Outstanding non-vested restricted shares at December 31, 2010	1,162,089	\$ 5.38	8.47	\$ 4,997

The following table summarizes the weighted average grant date fair value of restricted shares granted and the total fair value of shares vested for the periods indicated:

	For the Years Ended December 31,		
	2010	2009	2008
	(in thousands, except per share data)		
Weighted average grant date fair value per restricted share	\$ 4.84	\$ 6.03	\$ 10.10
Total fair value of restricted shares vested	\$ 2,121	\$ 1,480	\$

Unrecognized compensation expense as of December 31, 2010 for all outstanding restricted share awards is \$2.6 million and will be recognized over a weighted average period of 2.36 years.

Stock-Based Compensation Expense

For the years ended December 31, 2010, 2009 and 2008, the Company recorded stock-based compensation expense for stock options and restricted shares granted using the fair-value method of \$2.8 million, \$3.5 million and \$3.1 million, respectively. All stock-based compensation costs were expensed and not tax affected, as the Company currently records no U.S. income tax expense.

As of December 31, 2010, the Company had approximately \$2.9 million of total unrecognized compensation cost related to unvested stock options and restricted shares, which is expected to be amortized over the following periods:

	Amount (in thousands)
2011	\$ 1,783

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

2012	790
2013	289
2014	38
Total	\$ 2,900

F-28

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****9. Derivative Instruments and Hedging Activity**

The Company maintains a commodity price risk management strategy that uses derivative instruments to minimize significant, unanticipated earnings fluctuations that may arise from volatility in commodity prices. The Company uses costless collars, index, basis and fixed price swaps and put and call options to hedge natural gas price risk.

Effective October 1, 2008, the Company elected to discontinue hedge accounting on all existing derivative contracts and elected not to designate any derivative contracts as cash flow hedges. Any hedge effectiveness related to the Company's previous cash flow hedging relationships were to remain in other comprehensive income until the underlying forecasted transactions affected earnings. As a result, for the years ended December 31, 2009 and 2008, the Company reported gains of \$2.6 million and \$22,000, respectively, which were reclassified into earnings as a result of previously discontinued cash flow hedges. As of December 31, 2009, all other comprehensive income had been reclassified to earnings. All derivative contracts are carried at their fair value on the balance sheet and all unrealized gains and losses are recorded in the statement of operations in unrealized natural gas hedge gain (loss), while realized gains and losses related to contract settlements are recognized in natural gas and oil revenues. For the years ended December 31, 2010 and 2008, the Company reported unrealized gains of \$11.2 million and \$6.5 million, respectively. For the year ended December 31, 2009, the Company reported an unrealized loss of \$7.8 million.

As of December 31, 2010, the following derivative transactions were outstanding with the associated notational volumes and weighted average underlying hedge prices:

Settlement Period	Derivative Instrument	Average Daily Volume	Total of Notional Volume	Base Fixed Price	Floor (Long)	Short Put	Ceiling (Short)
		(in MMBtu s)					
2011	Put spread	2,673	981,550	\$	\$ 6.00	\$ 4.00	\$
2011	Costless collar	15,320	4,903,450		6.12	4.19	7.65
2011	Fixed price swap	2,000	730,000	6.11			
2011	Short calls	2,500	225,000				9.15
2011	Basis - HSC (1)	10,167	1,839,000	(0.23)			
2011	Basis - CIG (2)	800	292,000	(1.21)			
2012	Put spread	13,028	4,770,420		6.00	4.00	
2012	Costless collar	5,410	1,979,580		6.00	4.00	7.39

(1) East Houston-Katy Houston Ship Channel

(2) Inside FERC Colorado Interstate Gas, Rocky Mountains

As of December 31, 2010, all of the Company's economic derivative hedge positions were with a multinational energy company or large financial institutions, which are not known to the Company to be in default on their derivative positions. Credit support for the Company's open derivatives at December 31, 2010 is provided under the Revolving Credit Facility through inter-creditor agreements or open credit accounts of up to \$5.0 million. The Company is exposed to credit risk to the extent of non-performance by the counterparties in the derivative contracts discussed above; however, the Company does not anticipate non-performance by such counterparties. None of the Company's derivative instruments contains credit-risk related contingent features.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

In conjunction with certain derivative hedging activity, the Company deferred the payment of certain put premiums for the production month period July 2010 through December 2012. The put premium liabilities become payable monthly as the hedge production month becomes the prompt production month. The Company began amortizing the deferred put premium liabilities during July 2010. The following table provides information regarding the deferred put premium liabilities for the periods indicated:

	December 31, 2010	December 31, 2009
	(in thousands)	
Current commodity derivative premium payable	\$ 3,451	\$ 1,190
Long-term commodity derivative premium payable	4,725	8,176
Total unamortized put premium liabilities	\$ 8,176	\$ 9,366

The following table provides information regarding the amortization of the deferred put premium liabilities by year as of December 31, 2010:

	Amortization (in thousands)
January - December 2011	\$ 3,451
January - December 2012	4,725
Total unamortized put premium liabilities	\$ 8,176

Warrants

The Company reclassified the fair value of its warrants to purchase common stock, which had exercise price reset features, from equity to liability status as if these warrants were treated as a derivative liability since their date of issue in June 2008. On January 1, 2009, the Company reclassified from additional paid-in capital, as a cumulative effect adjustment, \$5.4 million to beginning retained earnings and did not recognize any value to common stock warrant liability for representing the fair value of such warrants on such date. The fair value of these warrants to purchase common stock was zero as of December 31, 2010, and the Company recognized \$205,000 in unrealized gains in other income for the change in fair value of these warrants for the year ended December 31, 2010.

The following warrants to purchase common shares were outstanding as of December 31, 2010:

Warrants	Fair Value (in thousands)	Weighted Price per Share Range	Weighted Average Remaining Life in Years	Average Exercise Price
Outstanding 2,000,000	\$	(1)	0.9	(1)

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

- (1) The warrants are exercisable for \$13.75 per share in the event that, on or before June 11, 2011, the Company sells all or substantially all of its present natural gas and oil interests located in Leon and Robertson Counties in East Texas for net proceeds exceeding \$500.0 million. A sale or a series of sales of all or substantially all of the Company's present East Texas properties prior to June 11, 2011 for \$500.0 million or less will terminate the warrants. If the Company does not sell all or substantially all of these properties by June 11, 2011, the warrants will be exercisable for a six-month period commencing on that date at \$15.00 per share. The Company is not obligated to sell any of its East Texas properties. Fair value is based on the Black-Scholes-Merton model for option pricing.

F-30

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Additional Disclosures about Derivative Instruments and Hedging Activities

The tables below provide information on the location and amounts of derivative fair values in the consolidated statement of financial position and derivative gains and losses in the consolidated statement of operations for derivative instruments that are not designated as hedging instruments:

Fair Values of Derivative Instruments

	Balance Sheet Location	Fair Value	
		December 31, 2010	December 31, 2009
Derivative Assets (Liabilities)			
(in thousands)			
Derivatives not designated as hedging instruments			
Commodity derivative contracts	Current assets	\$ 10,229	\$ 4,870
Commodity derivative contracts	Other assets	8,482	10,698
Commodity derivative contracts	Current liabilities	(1,991)	(3,678)
Commodity derivative contracts	Long-term liabilities	(1,521)	(4,047)
Warrant derivative	Long-term liabilities		(205)
Total derivatives not designated as hedging instruments		\$ 15,199	\$ 7,638

Amount of Gain (Loss) Recognized in Income on Derivatives

	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives For the Year Ended	
		December 31, 2010	December 31, 2009
(in thousands)			
Derivatives not designated as hedging instruments			
Commodity derivative contracts	Unrealized natural gas hedge gain (loss)	\$ 11,214	\$ (7,767)
Warrant derivative	Unrealized warrant derivative gain (loss)	205	(205)
Total		\$ 11,419	\$ (7,972)

10. Capital Stock*Common Shares*

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

The Company's articles of incorporation allow the Company to issue an unlimited number of common shares without par value. On July 23, 2009, the Company filed an article of amendment to its Articles of Incorporation with the Registrar of Corporations of Alberta, Canada for the purpose of affecting a 1-for-5 Reverse Split. The Company's shareholders approved the reverse split at the 2008 Annual General and Special Meeting of Shareholders held on June 20, 2008 by a special resolution authorizing a reverse split of the Company's common shares on the basis of one (1) new common share for up to five (5) common shares outstanding or such fewer number of common shares as the Board of Directors may, in its sole discretion, approve at a later date. The Board of Directors approved the 1-for-5 Reverse Split on June 29, 2009. As of the opening of trading on August 3, 2009, the Company's common shares began trading on the NYSE Amex under the same symbol of "GST" on a post 1-for-5 Reverse Split basis. No scrip or fractional certificates were issued in

F-31

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

connection with the 1-for-5 Reverse Split. Shareholders who otherwise would have been entitled to receive fractional shares because they held a number of common shares not evenly divisible by five received a number of shares after rounding up to the next common share. All common share and per share amounts reported in this Form 10-K have been reported on a post 1-for-5 Reverse Split basis.

Effective July 6, 2009, the Company elected to voluntarily de-list its shares from trading on the Toronto Stock Exchange (TSX). The Company decided to delist from the TSX because trading on two exchanges had become unduly costly and burdensome without providing any significant additional liquidity for the Company's shareholders.

Preferred Shares

On June 30, 2009, the Company filed an amendment to its Articles of Incorporation to be effective as of June 30, 2009 with the Registrar of Corporations of Alberta, Canada for the purpose of creating and adding an unlimited number of preferred shares to the authorized capital of the Company. The Company's shareholders approved the amendment by special resolution at the 2007 Annual General and Special Meeting of Shareholders held on June 1, 2007. Pursuant to the amendment, the number of preferred shares which may be issued from time to time and the privileges, restrictions and conditions of such preferred shares when issued will be determined by the Board of Directors of the Company. At December 31, 2010, there were no preferred shares issued or outstanding.

Other Share Issuances

On May 22, 2009, the Company sold 7,300,000 of its common shares in an underwritten public offering to investors in the United States pursuant to the Company's Registration Statement on Form S-3, which was declared effective by the SEC on April 27, 2007, at a price of \$2.00 per share, or \$14.6 million before offering costs.

On December 13, 2010, the Company sold 13,800,000 of its common shares in an underwritten public offering to investors in the United States pursuant to the Company's Registration Statement on Form S-3, which was declared effective by the SEC on April 27, 2007, at a price of \$4.00 per share, or \$55.2 million before offering costs.

The following table provides information regarding the issuance and forfeitures of common shares pursuant to the Company's 2006 Plan for the periods indicated:

	For the Year Ended December 31,	
	2010	2009
Other share issuances:		
Restricted common shares granted	440,550	956,035
Restricted common shares vested	312,785	372,702
Stock options exercised	3,000	
Common shares forfeited (1)	93,027	98,715
Common shares canceled		55,789

- (1) Represents common shares forfeited in connection with the payment of estimated withholding taxes on restricted common shares that vested during the period and/or common shares forfeited in connection with the payment of estimated withholding taxes and to settle the exercise price in cashless option exercises.

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Shares Reserved***

The following table summarizes the components of common shares reserved at December 31, 2010:

Common shares reserved for the:	
Exercise of stock options	1,107,100
Exercise of warrants	2,000,000
Total common shares reserved	3,107,100

11. Interest and Debt Extinguishment Expense

The following tables summarize the components of interest and debt extinguishment expense for the periods indicated:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Interest expense:			
Cash and accrued	\$ 500	\$ 12,831	\$ 16,080
Amortization of deferred financing costs and debt discount	283	1,964	1,998
Capitalized interest	(633)	(10,802)	(12,225)
Total interest expense	\$ 150	\$ 3,993	\$ 5,853
Early extinguishment of debt:			
Call premium	\$	\$ 8,875	\$
Unamortized deferred financing costs and debt discount		7,027	
Total debt extinguishment expense	\$	\$ 15,902	\$

12. Related Party Transactions***Chesapeake Energy Corporation***

Chesapeake Energy Corporation (Chesapeake) acquired 6,781,767 common shares during 2005 to 2007 in private placement transactions. Chesapeake has the right to have an observer present at meetings of the Board of Directors.

As of December 31, 2010, Chesapeake owned 6,781,767 common shares, or 10.6%, of the Company s outstanding common shares.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Income Taxes

The following table summarizes the components of the Company's income (loss) before income taxes for the periods indicated:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
United States	\$ (13,916)	\$ (90,174)	\$ (300)
Foreign	652	209,337	(5,061)
Total income (loss) before income taxes	\$ (13,264)	\$ 119,163	\$ (5,361)

The Company's income tax expense consists of the following:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Current:			
Federal	\$	\$ 200	\$
State	(12)	175	
Foreign	(792)	69,942	
Provision for income taxes	\$ (804)	\$ 70,317	\$

The following table provides a reconciliation of the Company's effective tax rate from the U. S. 35% statutory rate for the periods indicated:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Expected income tax provision (benefit) at statutory rate	\$ (4,642)	\$ 41,707	\$ (1,876)
State tax, tax effected	(8)	114	46
Non-deductible stock-based compensation expense	(4,311)	271	1,095
Deferred tax effect of Canadian tax rate changes and other	(1,632)	1,849	3,416
Deferred tax effect of Australian tax rate changes and other		722	
Non-deductible portion of U.S. net operating loss due to dual loss limitation		2,035	
U.S. tax on deemed dividend distribution to Parent		200	
Foreign tax credit adjustment	(1,366)		
Australian tax rate differences and adjustment	(1,337)		

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Other	(95)	(169)	148
Other changes in valuation allowance	12,587	23,588	(2,829)
Actual income tax provision	\$ (804)	\$ 70,317	\$

F-34

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The components of the Company's U.S. deferred taxes are as follows:

	As of December 31,	
	2010	2009
	(in thousands)	
Deferred tax asset (liability):		
Capital assets	\$ (222)	\$ 7,058
Net operating loss carry forwards	16,115	
Foreign tax credit carry forwards	50,734	49,360
Valuation allowance	(66,627)	(56,418)
Net deferred tax asset	\$	\$

The Company utilized its U.S. net operating loss carry forwards in 2009 due to the U.S. gain recognition on the sale of the Australian Assets. The Company generated \$43.9 million of net operating loss for the year ending December 31, 2010 which, if not utilized, will expire in 2030. For U.S. federal income tax purposes, as of December 31, 2010, the Company has foreign tax credit carry forwards of \$50.7 million, which if not utilized, will expire in 2019. The utilization of the net operating loss carry forward and the foreign tax credit carry forward are dependent on the Company generating future taxable income and U.S. tax liability, as well as other factors.

The Company has the following approximate undeducted Canadian tax pools:

	As of December 31,	
	2010	2009
	(in thousands)	
Canadian and foreign exploration and development expense	\$ 1,955	\$ 1,766
Undeducted share and senior secure note issuance costs	\$ 2,786	\$ 1,645
Undeducted non-capital and capital loss carry forwards	\$ 68,333	\$ 60,540

For Canadian income tax purposes, the Company has net operating loss carry forwards, which if not utilized, began to expire in 2010 through 2030.

The components of the Company's Canadian deferred tax assets are as follows:

	As of December 31,	
	2010	2009
	(in thousands)	
Deferred tax asset:		
Capital assets	\$ 489	\$ 442
Share and senior secured note issuance costs	704	369
Tax loss carry forwards	17,022	15,026
Valuation allowance	(18,215)	(15,837)

Table of ContentsIndex to Financial Statements**GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Current authoritative guidance requires that the Company recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For a tax position meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority. At December 31, 2010, the Company did not have any unrecognized tax benefits that, if recognized, would affect the effective tax rate.

It is expected that the amount of unrecognized tax benefits may change in the next 12 months; however, the Company does not expect the change to have a significant impact on its financial condition or results of operations.

The Company is subject to examination of income tax filings in the U. S., various state jurisdictions and the foreign jurisdictions of Canada and Australia for the tax periods 2000 and forward due to the Company's continued loss position in such jurisdictions.

Estimated interest and penalties related to potential underpayment on any unrecognized tax benefits are classified as a component of general and administrative expense in the consolidated statement of operations. The Company has not recorded any interest or penalties associated with unrecognized tax benefits.

14. Earnings or Loss per Share

In accordance with the provisions of current authoritative guidance, basic earnings or loss per share is computed on the basis of the weighted average number of common shares outstanding during the periods. Diluted earnings or loss per share is computed based upon the weighted average number of common shares outstanding plus the assumed issuance of common shares for all potentially dilutive securities. Diluted amounts are not included in the computation of diluted loss per share, as such would be anti-dilutive.

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands, except per share and share data)		
Net income (loss)	\$ (12,460)	\$ 48,846	\$ (5,361)
Weighted average common shares outstanding basic	49,813,617	46,102,662	41,419,714
Incremental shares from outstanding stock options		2,783	
Incremental shares from unvested restricted shares		104,979	
Weighted average common shares outstanding diluted	49,813,617	46,210,424	41,419,714
Income (loss) per common share:			
Basic	\$ (0.25)	\$ 1.06	\$ (0.13)
Diluted	\$ (0.25)	\$ 1.06	\$ (0.13)
Common shares excluded from denominator as anti-dilutive:			
Stock options	949,314	1,650,875	1,929,750
Unvested restricted shares	100,078	436,034	506,780
Warrants	2,000,000	2,000,000	2,046,504
Convertible subordinated debentures			1,369,863
Total	3,049,392	4,086,909	5,852,897

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****15. Commitments and Contingencies*****Contractual Obligations***

The Company leases its office facilities and certain office equipment under non-cancelable operating lease agreements. For the years ended December 31, 2010, 2009 and 2008, office lease expense totaled approximately \$211,000, \$267,000 and \$240,000, respectively.

As of December 31, 2010, the Company's aggregate future minimum annual rental commitments under the non-cancelable leases for the next five years are as follows:

2011	\$ 4,634
2012	4,244
2013	4,005
2014	3,415
2015	449
Thereafter	302
	\$ 17,049

Litigation

Navasota Resources L.P. (Navasota) vs. First Source Texas, Inc., First Source Gas L.P. (now Gastar Exploration Texas LP) and Gastar Exploration Ltd. (Cause No. 0-05-451) District Court of Leon County, Texas 12th Judicial District. This lawsuit, dated October 31, 2005, contends that the Company breached Navasota's preferential right to purchase 33.33% of the Company's interest in certain natural gas and oil leases located in Leon and Robertson Counties and sold to Chesapeake Energy Corporation pursuant to a transaction closed November 4, 2005. The preferential right claimed is under an operating agreement dated July 7, 2000. The Company contends, among other things, that Navasota neither properly nor timely exercised any preferential right election it may have had with respect to the inter-dependent Chesapeake transaction. In July 2006, the District Court of Leon County, Texas issued a summary judgment in favor of the Company and Chesapeake. Navasota filed a Notice of Appeal to the Tenth Court of Appeals in Waco. Oral argument was heard on September 26, 2007 and the Court of Appeals issued its opinion on January 9, 2008 reversing the trial court's rulings, rendering judgment in favor of Navasota on its claims for breach of contract and specific performance, and remanding the case for further proceedings on Navasota's other counts, which include claims for suit to quiet title, trespass to try title, tortious interference with contract, conversion, money had and received, and declaratory relief. The Company and Chesapeake filed a motion for rehearing on February 6, 2008, which was denied on March 18, 2008. The Company and Chesapeake filed a joint Petition for Review in the Texas Supreme Court on May 13, 2008. On August 28, 2008, the Texas Supreme Court requested briefing on the merits. On January 9, 2009, the Texas Supreme Court denied the Petition for Review. On January 26, 2009, the Company and Chesapeake jointly filed a motion for rehearing in the Texas Supreme Court on its denial of the Petition for Review. On April 24, 2009, the Texas Supreme Court denied the Petition for Review.

Pursuant to a provision in the November 4, 2005 Purchase and Sale and Exploration Development Agreement with Chesapeake, Chesapeake acknowledged the existence of the Navasota lawsuit and claims and further agreed that if Navasota were to prevail on its claims, that Chesapeake would convey the affected interests it purchased from the Company to Navasota upon receipt of the purchase price and/or other consideration paid by Navasota. Therefore, the Company believes that Navasota's exercise of its rights of specific performance should impact only Chesapeake's assigned leasehold interests. However, in December 2008, Chesapeake stated to the Company that if the Texas Supreme Court were not to reverse the decision of the Tenth Court of Appeals, Chesapeake would seek rescission of the 2005 transaction and restitution of consideration paid, indicating that

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Chesapeake might assert such rescission and restitution as to the November 4, 2005 Purchase and Sale and Exploration Development Agreement; a November 4, 2005 Exploration and Development Agreement; and a November 4, 2005 Common Share Purchase Agreement. In its December 2008 communication, Chesapeake did not identify particular sums as to which it might seek restitution, but amounts paid to the Company in connection with the 2005 transaction could be asserted to include the \$76.0 million paid by Chesapeake for the purchase of 5.5 million common shares as part of the transaction in 2005 and/or other amounts. Chesapeake has amended its Answer to include cross-claims and counterclaims, including a claim for rescission.

On or about June 9, 2009, Navasota filed and served its Fourth Amended Petition, essentially re-pleading its previously-asserted claims against the Company and Chesapeake. Navasota has exercised its rights of specific performance, and Chesapeake assigned leases to Navasota in July 2009.

The case has been set for trial on July 26, 2011. The Company intends to vigorously defend all claims asserted in the suit.

Craig S. Tillotson v. S. David Plummer 2nd, Spencer Plummer 3rd, Tony Ferguson, John Parrott, Thomas Robinson, GeoStar Corporation, First Source Wyoming, Inc. GeoStar Financial Services Corporation, Gastar Exploration Ltd., Zeus Investments, LLC and John Does 1-10 (Civil No. 080412334). This lawsuit was filed on July 7, 2008 in Utah state court by Craig S. Tillotson (Tillotson), in which he alleges that he was fraudulently induced to invest in a mare leasing program operated by Classic Star LLC, (ClassicStar) a subsidiary of GeoStar Corporation (GeoStar), on the basis of certain verbal representations, and to convert interests in that program into shares of a working interest in the Powder River Basin. Tillotson asserts causes of action against all defendants including common law fraud, fraudulent inducement, statutory securities fraud under Utah state law, civil conspiracy and negligent misrepresentation, and asserts certain additional causes of action only against GeoStar, a GeoStar affiliate, and David and Spencer Plummer. The Company has not been served and has not yet answered or otherwise responded. The Company intends to vigorously defend the suit.

In re ClassicStar Mare Lease Litigation; In the United States District Court for the Eastern District of Kentucky (Master File No. 5:07-cv-353-JMH). As disclosed and more fully described in Note 17 to the Consolidated Financial Statements of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009, the Company and seven of its subsidiaries were named among several defendants in seven matters (known as *Raifman, West Hills Farms, AA-J Breeding, LLC, Goyak, Lyon, Stanwyck Glen Farms, LLC, and Premiere Thoroughbreds, LLC*) that had been consolidated for pretrial purposes as part of a multi-district litigation proceeding along with other matters to which the Company was not a party. Effective November 1, 2010, the Company and its subsidiaries entered into a Final Settlement Agreement and Comprehensive General Release (Settlement) with the plaintiffs in these seven matters. The Settlement was subject to approval by the United States Bankruptcy Court for the Eastern District of Kentucky overseeing the bankruptcy of ClassicStar LLC, which court approved the settlement by an order dated November 24, 2010. The District Court overseeing the seven litigation matters entered a final order dismissing the plaintiffs' causes of action with prejudice on December 17, 2010. Pursuant to the Settlement of the seven *In re ClassicStar Mare Lease Litigation* matters, the Company agreed to pay to the plaintiffs an aggregate of \$21.2 million in cash in exchange for a release of all claims by the plaintiffs in the seven matters. The agreed amount included an initial \$18.0 million payment that was paid late in the fourth quarter of 2010. The Company is obligated to pay the remaining \$3.2 million as a non-interest bearing payment obligation consisting of sixteen monthly payments, the first of which was \$150,000 and was paid in January 2011 and the next fifteen of which shall be \$200,000 each.

Midway Land & Development Inc. v. EnCana Oil & Gas (USA), Inc. v. Navasota Resources, LTD, LLP, Alta Mesa Resources LP f/k/a Navasota Resources, Inc., and Navasota Resources LTD., LLP and Gastar Exploration Texas LP and Gastar Exploration, LTD.; In the District Court of Robertson County, Texas, 82ND Judicial

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

District (Judge Stem), (Cause No. 08-12-18,265-CV). Gastar Exploration Texas LP and Gastar Exploration, Ltd. were served as third-party defendants by EnCana Oil & Gas (USA), Inc. on September 8, 2009. The Company understands that the underlying action between Midway Land & Development Inc. and EnCana Oil & Gas (USA), Inc. has been pending since 2008. In the underlying action, Midway seeks to recover from the EnCana defendants a 2.5% working interest on certain wells located on lands within an area of mutual interest incorporated in a Joint Operating Agreement dated July 7, 2000 (JOA), between First Source Texas, Inc., as operator, and Navasota Resources, Inc. and Kentex Energy, LLC (Midway s predecessor in interest). Under the Area of Mutual Interest (AMI) agreement, it is alleged that each of the parties has the right to acquire an interest in any lease or a mineral interest acquired by any of the other parties on land situated within the AMI (for consideration set forth in the JOA). The Gastar defendants, among others, own or claim interests in lands that Midway contends are within the AMI. The EnCana defendants seek declaratory relief from the Court declaring that the AMI provision in the JOA is unenforceable because it does not include a legally sufficient description of the lands within the AMI. Further, the EnCana defendants seek to have a stipulation dated September 9, 2003 related to the AMI also declared unenforceable under the Statute of Frauds. It is alleged that the stipulations provides that Kentex (Midway s predecessor in interest) shall be vested with an undivided five percent after payout working interest in each oil and gas well located on the leases listed on Exhibit A to the Stipulation. The Company has answered the lawsuit and discovery is proceeding. Recently, the Company reached an agreement with the EnCana defendants which will result in the dismissal or non-suit of the Company from the lawsuit.

Gastar Exploration Texas L.P. vs. J. Ken Welch d/b/a W-S-M Oil Company, et al; Cause No. 0-09-117 in the 87th Judicial District Court of Leon County, Texas. This lawsuit, filed on March 12, 2009, is a suit for trespass to try title and, in the alternative, to quiet title, to an undivided mineral interest under several Company oil and gas leases covering approximately 4,273.7 gross acres (the Leases). In this suit the Company contends that certain oil and gas leases claimed by the defendants have expired according to their terms and that the defendants failure to release those leases constitutes a trespass upon and cloud on the Leases. The defendants have responded with a General Denial and produced a portion of the documents the Company sought in its Request for Production of Documents. They have also served their own requests for admissions and production of documents, to which the Company has responded. After repeated demands, the defendants have promised to comply and produce certain documents they obtained from third parties through depositions on written questions. The defendants have filed their own counterclaim asserting various theories of recovery. The defendants claim that their leases are still valid and that they own a working interest and/or an overriding royalty in the Company s Belin No. 1H well located in Leon County. The parties attended mediation but no settlement was reached. Depositions of the defendants are scheduled for March 2011. A trial date has not been set for this case. The Company believes it has gathered evidence to diminish the defendant s interest ownership claims and will continue to vigorously pursue this claim.

The Company has been expensing legal defense costs on these proceedings as they are incurred. With respect to the *Navasota Resources, Tillotson and Midway Land & Development* matters, the Company has not accrued a liability for settlement or other resolution of these proceedings because, in the Company s judgment, the incurrence or amount of such liabilities is either not probable or not reasonably estimable.

The Company is party to various legal proceedings arising in the normal course of business. The ultimate outcome of each of these matters cannot be absolutely determined, and the liability the Company may ultimately incur with respect to any one of these matters in the event of a negative outcome may be in excess of amounts currently accrued for with respect to such matters. Net of available insurance and performance of contractual defense and indemnity obligations, where applicable, management does not believe any such matters will have a material adverse effect on the Company s financial position, results of operations or cash flows.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

For the year ended December 31, 2010, the Company recorded \$21.7 million in litigation settlement expense in the Consolidated Statement of Operations, the majority of which related to the ClassicStar Mare Lease Litigation settlements and short-term and long-term accrued litigation settlement liabilities of \$3.2 million and \$800,000, respectively, on the Consolidated Balance Sheet at December 31, 2010.

Commitments

In March 2008, the Company entered into formal agreements with ETC Texas Pipeline, Ltd. (ETC) for the gathering, treating, purchase and transportation of the Company's natural gas production from the Hilltop area of East Texas (the ETC Contract). The ETC Contract was effective September 1, 2007 and has a term of 10 years. ETC currently provides the Company 50.0 MMcf per day of treating capacity and 150.0 MMcf per day of transportation capacity of production from the Company's wells, located in Leon and Robertson Counties, Texas.

On November 16, 2009, concurrent with the Company's sale of its Hilltop Gathering System, Gastar Texas, a wholly-owned subsidiary entered into a gas gathering agreement (Hilltop Gathering Agreement) effective November 1, 2009, with Hilltop Resort for an initial term of 15 years. The Hilltop Gathering Agreement covers delivery of the Company's gross production of natural gas in the Hilltop area of East Texas to certain delivery points provided under the ETC Contract, as well as additional delivery points that, from time to time, may be added. The Company is also obligated to connect new wells that it drills within the area covered by the Hilltop Gathering Agreement to the Hilltop Gathering System. The Hilltop Gathering Agreement provides for a minimum quarterly gathering gross production volume of 50.0 MMcf per day (35.0 MMcf per day net to the Company) times the number of days in the quarter for five years from the effective date of November 1, 2009. If quarterly production is less than the minimum quarterly requirement, the gathering fee is payable on such deficit. If excess quarterly production exists, such excess is carried forward to be used to offset any future deficit quarters. The gathering fee on the initial gross 25 Bcf of production is \$0.325 per Mcf, reducing in steps to \$0.225 per Mcf when cumulative gross production reaches 300 Bcf. For the year ended December 31, 2010, the Company paid \$1.3 million to Hilltop Resort as a result of not meeting minimum quarterly requirements. There is no assurance that The Company will meet its minimum quarterly requirements in the future.

Restoration, Removal and Environmental Liabilities

The Company is subject to various regulatory and statutory requirements relating to the protection of the environment. These requirements, in addition to contractual agreements and management decisions, result in the accrual of estimated future removal and site restoration costs. These costs are initially measured at a fair value and are recognized in the consolidated financial statements as the present value of expected future cash flows. Subsequent to the initial measurement, the effect of the passage of time on the liability for the asset retirement obligation (accretion expense) and the amortization of the asset retirement obligation cost are recognized in the results of operations. Costs attributable to these commitments and contingencies are expected to be incurred over an extended period of time and are to be funded mainly from the Company's cash provided by operating activities. Although the ultimate impact of these matters on net earnings cannot be determined at this time, it could be material for any quarter or year. At December 31, 2010, the Company had total liabilities of \$7.2 million related to asset retirement obligations recorded as long-term liabilities. Due to the nature of these obligations, the Company cannot determine precisely when the payments will be made to settle these obligations. See Note 6, Asset Retirement Obligation.

Indemnifications

Indemnifications in the ordinary course of business have been provided pursuant to provisions of purchase and sale contracts, service agreements, joint venture agreements, operating agreements and leasing agreements.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

In these agreements, the Company may indemnify counterparties if certain events occur. These indemnification provisions vary on an agreement by agreement basis. In some cases, there are no pre-determined amounts or limits included in the indemnification provisions and the occurrence of contingent events that will trigger payment, if any, is difficult to predict.

Employment Agreements

The Company entered into employment agreements with its Chief Executive Officer and its Chief Financial Officer, effective February 24, 2005 (as amended July 25, 2008 and February 3, 2011) and May 17, 2005 (as amended July 25, 2008), respectively. The agreements set forth, among other things, annual compensation, and adjustments thereto, bonus payments, fringe benefits, termination and severance provisions. The agreements renew annually; however, they may be terminated at any time with or without cause.

The Company also has entered into agreements with these executives, who are acting at the Company's request to be officers of the Company, to indemnify them to the fullest extent permitted by law against any and all damages, liabilities, costs, charges or expenses suffered by or incurred by the individuals as a result of their service. The nature of the indemnification agreements prevents the Company from making a reasonable estimate of the maximum potential amount it could be required to pay to the beneficiary of such indemnification agreements.

16. Concentration of Risk and Significant Customers

Approximately 89%, 90% and 77% of the Company's natural gas and oil revenues for the years ended December 31, 2010, 2009 and 2008, respectively, were derived from production from producing wells in the Hilltop area of East Texas.

For the years ended 2010, 2009 and 2008, ETC accounted for 86%, 85% and 79%, respectively, of natural gas and oil revenues, excluding realized hedge impact. For the years ended 2010, 2009 and 2008, Enserco Energy, Inc. (Enserco) accounted for 9%, 13% and 19%, respectively, of natural gas and oil revenues, excluding realized hedge impact.

ETC treats, transports and purchases substantially all of the Company's East Texas production, and Enserco purchases the Company's Powder River Basin natural gas production. There are limited natural gas purchase and transportation alternatives currently available in the Hilltop area of East Texas. If ETC were to cease purchasing and transporting the Company's natural gas and the Company was unable to obtain timely access to existing or future facilities on acceptable terms, or in the event of any significant change affecting these facilities, including delays in the commencement of operations of any new pipelines or the unavailability of the new pipelines or other facilities due to market conditions, mechanical reasons or otherwise, the Company's ability to conduct normal operations would be restricted. However, the Company believes that the loss of ETC or Enserco would not have a long-term material adverse impact on the Company's financial position or results of operations, as there are other purchasers operating in the areas.

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****17. Statement of Cash Flows Supplemental Information**

The following is a summary of supplemental cash paid and non-cash transactions disclosed in the notes to the consolidated financial statements:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Cash paid for interest	\$ 497	\$ 14,202	\$ 16,109
Cash paid for taxes	616		
Cash paid for debt extinguishment		8,875	
Non-cash transactions:			
Term deposit surrendered for accrued taxes	\$ 70,446	\$	\$
Capital expenditures excluded from accounts payable and accrued costs	2,725	(5,125)	(4,905)
Asset retirement obligation included in natural gas and oil properties	910	516	443
Drilling advances application	246	10,247	5,384
GeoStar settlement			2,476

18. Quarterly Consolidated Financial Data Unaudited

The following tables summarize the Company's results of operations by quarter for the years ended December 31, 2010 and 2009:

	2010			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(in thousands, except share and per share data)			
Revenues	\$ 16,136	\$ 5,765	\$ 14,144	\$ 6,723
Income (loss) from operations (1)	7,363	(3,040)	(16,420)	(2,922)
Income (loss) before income taxes	8,544	(2,441)	(16,423)	(2,944)
Net income (loss)	9,393	(2,498)	(16,411)	(2,944)
Income (loss) per share:				
Basic	\$ 0.19	\$ (0.05)	\$ (0.33)	\$ (0.06)
Diluted	\$ 0.19	\$ (0.05)	\$ (0.33)	\$ (0.06)
Weighted average number of shares:				
Basic	48,997,016	49,042,874	49,148,207	52,066,371
Diluted	49,486,656	49,042,874	49,148,207	52,066,371

- (1) Loss from operations for the three months ended September 30, 2010 and December 31, 2010 include litigation settlement expense of \$21.2 million and \$594,000, respectively.

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

	2009			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(in thousands, except share and per share data)			
Revenues	\$ 13,265	\$ 7,536	\$ 4,263	\$ 7,805
Loss from operations (1)	(69,035)	(1,266)	(5,944)	(685)
Income (loss) before income taxes (2)	(70,187)	(2,393)	174,268	17,475
Net income (loss) (3)	(70,187)	(2,393)	108,492	12,934
Income (loss) per share:				
Basic	\$ (1.69)	\$ (0.05)	\$ 2.21	\$ 0.26
Diluted	\$ (1.69)	\$ (0.05)	\$ 2.21	\$ 0.26
Weighted average number of shares:				
Basic	41,452,423	44,854,954	48,990,509	48,994,268
Diluted	41,452,423	44,854,954	49,107,492	49,277,432

- (1) Loss from operations for the three months ended March 31, 2009 includes an impairment to natural gas and oil properties of \$68.7 million.
- (2) Income before income taxes includes a gain on sale of unproved properties of \$193.4 million and \$17.8 million for the three months ended September 30, 2009 and December 31, 2009, respectively.
- (3) Net income includes an after tax gain on sale of unproved properties of \$127.6 million and \$13.6 million for the three months ended September 30, 2009 and December 31, 2009, respectively.

19. Supplemental Oil and Gas Disclosures Unaudited**Capitalized Costs Relating Oil and Producing Activities**

The following table presents the Company's aggregate capitalized costs relating to natural gas and oil producing activities for the periods indicated:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Proved properties:			
United States	\$ 345,042	\$ 313,100	\$ 308,499
Australia			604
Total proved properties	345,042	313,100	309,103
Unproved properties:			
United States	162,230	132,720	118,723
Australia			23,137
Total unproved properties	162,230	132,720	141,860
Total natural gas and oil properties	507,272	445,820	450,963
Less:			
Impairment of proved natural gas and oil properties			
United States	(187,152)	(187,152)	(118,423)

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

Australia			(604)
Accumulated depreciation, depletion and amortization	(105,447)	(96,315)	(79,985)
Net capitalized costs	\$ 214,673	\$ 162,353	\$ 251,951

F-43

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Pursuant to authoritative guidance for accounting for asset retirement obligations, net capitalized costs include related asset retirement costs of approximately \$5.4 million, \$4.4 million and \$3.9 million at December 31, 2010, 2009 and 2008, respectively.

The Company sold its remaining Australian Assets in July 2009. See Note 3, Property, Plant and Equipment.

Costs Incurred in Oil and Gas Property Acquisition, Exploration and Development Activities

The following table sets forth costs incurred related to the Company's natural gas and oil activities for the years ended December 31, 2010, 2009 and 2008:

	United States	Australia (in thousands)	Total
For the year ended December 31, 2010:			
Unproved property acquisition	\$ 54,799	\$	\$ 54,799
Unproved property divestment	(25,289)		(25,289)
Proved property divestment	(4,872)		(4,872)
Exploration	12,648		12,648
Development	24,166		24,166
Total costs incurred	\$ 61,452	\$	\$ 61,452
For the year ended December 31, 2009:			
Unproved property acquisition	\$ 13,997	\$ 14,457	\$ 28,454
Unproved property divestment		(37,594)	(37,594)
Proved property divestment	(21,783)	(604)	(22,387)
Exploration	12,731		12,731
Development	13,653		13,653
Total costs incurred	\$ 18,598	\$ (23,741)	\$ (5,143)
For the year ended December 31, 2008:			
Unproved property acquisition	\$ 32,590	\$ 8,835	\$ 41,425
Unproved property GeoStar settlement	39,606	(9,015)	30,591
Proved property GeoStar settlement	882		882
Exploration	26,050		26,050
Development	34,799		34,799
Total costs incurred	\$ 133,927	\$ (180)	\$ 133,747

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Results of Operations for Oil and Gas Producing Activities***

The following table sets forth the Company's results of operations for oil and gas producing activities for the periods indicated:

	For the Year Ended December 31,		
	2010	2009	2008
	(in thousands, except per Mcfe data)		
Natural gas and oil sales, including unrealized natural gas hedge	\$ 42,768	\$ 32,869	\$ 63,219
Production expenses	(11,703)	(8,558)	(10,893)
Impairment of natural gas and oil properties		(68,729)	(14,217)
Depreciation, depletion and amortization	(9,131)	(16,331)	(24,310)
Results of producing activities	\$ 21,934	\$ (60,749)	\$ 13,799
Depreciation, depletion and amortization per Mcfe	\$ 1.19	\$ 1.76	\$ 2.86

The results of producing activities exclude interest charges and general corporate expenses and represent United States activities only due to no producing operations activities in Australia during 2010, 2009 and 2008.

In accordance with current authoritative guidance, estimates of the Company's proved reserves and future net revenues are made using benchmark prices that are the 12-month unweighted arithmetic average of the first-day-of-the-month prices for natural gas and oil and were used in the Company's reserve valuation as of December 31, 2010 and 2009. The following table provides the key natural gas and oil prices used as of the periods indicated to calculate reserves:

	As of December 31,	
	2010	2009
Natural gas (per MMBtu):		
Henry Hub	\$ 4.38	\$ 3.87
Katy Hub	\$ 4.32	\$ 3.68
CIG	\$ 3.95	\$ 3.04
Columbia Gas Appalachia	\$ 4.50	\$ 4.05
Oil (per Bbl)	\$ 75.96	\$ 57.65

These prices are held constant in accordance with SEC guidelines for the life of the wells included in the reserve report but are adjusted by lease in accordance with sales contracts and for energy content, quality, transportation, compression and gathering fees and regional price differentials. Estimated quantities of proved reserves and future net revenues are affected by natural gas prices and oil prices, which have fluctuated significantly in recent years.

Net Proved and Proved Developed Reserve Summary

Reserve Estimation. The reserve information presented below is based on estimates of net proved reserves as of December 31, 2010, 2009, and 2008 that were prepared by NSAI. A copy of NSAI's summary reserve report is included as Exhibit 99.1 to this Form 10-K. Proved oil and gas reserves are the estimated quantities of crude oil and natural gas which geological and engineering data demonstrate with reasonable certainty to be economically producible in future years from known reservoirs under existing economic conditions, operating methods and governmental

regulations (i.e., prices and costs as of the date the estimate is made). Proved developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with

F-45

Table of Contents**Index to Financial Statements****GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

existing equipment and operating methods. Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances. Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time. The Company's proved developed and proved undeveloped reserves are located only in the United States.

The following table sets forth changes in estimated net proved and proved developed and undeveloped reserves for the years ended December 31, 2010, 2009 and 2008:

Change in Proved Reserves

	Natural Gas (MMcf) (1)	Oil (MBbl) (2)	MMcfe (1) Equivalents (3)
Proved reserves as of December 31, 2007	54,822	9	54,876
2008 Activity:			
Extensions and discoveries	15,186		15,186
Revisions of previous estimates (4)	2,159	8	2,207
Production	(8,482)	(5)	(8,512)
Proved reserves as of December 31, 2008	63,685	12	63,757
2009 Activity:			
Extensions and discoveries	1,716	56	2,052
Revisions of previous estimates (5)	(7,603)	3	(7,585)
Production	(9,266)	(4)	(9,290)
Proved reserves as of December 31, 2009	48,532	67	48,934
2010 Activity:			
Extensions and discoveries	5,639	67	6,039
Revisions of previous estimates	2,837	(44)	2,576
Production	(7,593)	(10)	(7,654)
Purchases in place	1,527	6	1,565
Sales in place	(1,050)	(25)	(1,200)
Proved reserves as of December 31, 2010	49,892	61	50,260

(1) Million cubic feet or million cubic feet equivalent, as applicable

(2) Thousand barrels

(3) Oil volumes have been converted to equivalent natural gas volumes using a conversion factor of six cubic feet of natural gas to one barrel of oil.

(4)

Edgar Filing: GASTAR EXPLORATION LTD - Form 10-K

The 2008 upward revision of previous estimates is primarily attributable to performance revisions in the Hilltop area of east Texas reduced by the impact of lower natural gas prices. Natural gas prices decreased approximately 25% from December 31, 2007 to December 31, 2008, resulting in a decrease in proved reserves of approximately 10,754 MMcf.

- (5) The 2009 downward revision of previous estimates of natural gas is primarily attributable to lower natural gas prices. The December 31, 2009 reserve report utilized a 12-month unweighted first-day-of-the-month price compared to the utilization of the year end spot price on December 31, 2008 resulting in a decrease in

F-46

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

price of approximately 35% and a decrease in proved reserves of approximately 11,300 MMcf from December 31, 2008 to December 31, 2009. Natural gas negative impact was partially offset by upward performance revisions, primarily in the Hilltop area of East Texas.

Proved Developed and Undeveloped Reserves

	Natural Gas (MMcf) (1)	Oil (MBbl) (2)	MMcfe (1) Equivalents (3)
December 31, 2008			
Proved developed reserves	40,239	12	40,311
Proved undeveloped reserves	23,446		23,446
Total	63,685	12	63,757
December 31, 2009			
Proved developed reserves	35,527	34	35,731
Proved undeveloped reserves	13,005	33	13,203
Total	48,532	67	48,934
December 31, 2010			
Proved developed reserves	41,572	45	41,842
Proved undeveloped reserves	8,320	16	8,416
Total	49,892	61	50,258

(1) Million cubic feet or million cubic feet equivalent, as applicable

(2) Thousand barrels

(3) Oil volumes have been converted to equivalent natural gas volumes using a conversion factor of six cubic feet of natural gas to one barrel of oil.

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves

Certain information concerning the assumptions used in computing the valuation of proved reserves and their inherent limitations are discussed below. The Company believes that such information is essential for a proper understanding and assessment of the data presented.

For the year ended December 31, 2010 and 2009, future cash inflows were computed using the 12-month unweighted arithmetic average of the first-day-of-the-month prices for natural gas and oil relating to the Company's proved reserves to the year-end quantities of those reserves. For the years ended December 31, 2010 and 2009, calculations were made using prices of \$4.38 per MMBtu and \$3.87 per MMBtu for natural gas, respectively, and \$75.96 per barrel and \$57.65 per barrel for oil, respectively. For the year ended December 31, 2008, future cash inflows were computed using end of year pricing of natural gas and oil allowed under previous guidance relating to the Company's proved reserves to the year-end quantities of those reserves. For the year ended December 31, 2008, the calculations were made using prices of \$5.71 per MMBtu for natural gas and \$41.00 per barrel for oil. These prices are held constant in accordance with SEC guidelines for the life of the wells included in the reserve report but are adjusted by lease in accordance with sales contracts and for energy content, quality, transportation, compression and gathering fees and regional price differentials. The Company also includes its standard overhead charges pursuant to the respective property joint operating agreements in the calculation of its future cash flows.

Table of Contents

Index to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The assumptions used to compute estimated future cash inflows do not necessarily reflect the Company's expectations of actual revenues or costs, nor their present worth. In addition, variations from the expected production rate could also result directly or indirectly from factors outside of the Company's control, such as unexpected delays in development, changes in prices or changes in regulatory or environmental policies. The reserve valuation further assumes that all reserves will be disposed of by production. However, if reserves are sold in place, additional economic considerations could also affect the amount of cash eventually realized.

Future development and production costs are computed by estimating the expenditures to be incurred in developing and producing the proved oil and gas reserves at the end of the year, based on year-end costs and assuming continuation of existing economic conditions.

Future income tax expenses are computed by applying the appropriate year-end statutory tax rates, with consideration of future tax rates already legislated, to the future pre-tax net cash flows relating to the Company's proved oil and gas reserves. Permanent differences in oil and gas related tax credits and allowances are recognized. The Company does not currently estimate any future income tax expense based on the future pre-tax net cash flows.

A 10% annual discount rate was used to reflect the timing of the future net cash flows relating to proved oil and gas reserves.

Management does not rely upon the following information in making investment and operating decisions. Such decisions are based upon a wide range of factors, including estimates of probable as well as proved reserves and varying price and cost assumptions considered more representative of a range of possible economic conditions that may be anticipated.

Table of ContentsIndex to Financial Statements**GASTAR EXPLORATION LTD. AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The standardized measure of discounted future net cash flows relating to proved natural gas and oil reserves is presented below:

	United States (in thousands)
December 31, 2008:	
Future cash inflows	\$ 291,004
Future production costs	(72,265)
Future development costs	(51,274)
Future income taxes (1)	
Future net cash flows	167,465
10% annual discount for estimated timing of cash flows	(57,376)
Standardized measure of discounted future cash flows	\$ 110,089
December 31, 2009:	
Future cash inflows	\$ 148,002
Future production costs	(57,949)
Future development costs	(24,099)
Future income taxes (1)	
Future net cash flows	65,954
10% annual discount for estimated timing of cash flows	(20,331)
Standardized measure of discounted future cash flows	\$ 45,623
December 31, 2010:	
Future cash inflows	\$ 180,677
Future production costs	(61,249)
Future development costs	(20,699)
Future income taxes (1)	
Future net cash flows	98,729
10% annual discount for estimated timing of cash flows	(31,447)
Standardized measure of discounted future cash flows	\$ 67,282

- (1) Based on current tax carry forwards and current and future property tax basis, no future taxes payable have been included in the determination of discounted future net cash flows.

Table of ContentsIndex to Financial Statements

GASTAR EXPLORATION LTD. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Changes in Standardized Measure of Discounted Future Net Cash Flows

The principal sources of changes in the standardized measure of future net cash flows are as follows:

	United States (in thousands)
December 31, 2007	\$ 132,232
Extensions and discoveries, less related costs	22,634
Sale of natural gas and oil, net of production costs	(45,796)
Revisions of previous quantity estimates	5,241
Net change in income tax	
Net change in prices and production costs	(48,698)
Accretion of discount	13,223
Development costs incurred	20,056
Net change in estimated future development costs	4,850
Change in production rates (timing) and other	6,347
December 31, 2008	110,089
Extensions and discoveries, less related costs	2,782
Sale of natural gas and oil, net of production costs	(32,078)
Revisions of previous quantity estimates	(8,982)
Net change in income tax	
Net change in prices and production costs	(63,016)
Accretion of discount	11,009
Development costs incurred	12,368
Net change in estimated future development costs	12,497
Change in production rates (timing) and other	954
December 31, 2009	45,623
Extensions and discoveries, less related costs	10,277
Sale of natural gas and oil, net of production costs	(19,851)
Purchases of reserves in place	544
Sales of reserves in place	(1,966)
Revisions of previous quantity estimates	3,133
Net change in income tax	
Net change in prices and production costs	16,970
Accretion of discount	4,307
Development costs incurred	6,357
Net change in estimated future development costs	1,621
Change in production rates (timing) and other	267
December 31, 2010	\$ 67,282