

Examining the issues and challenges around the opening of new markets for Canadian oil and gas




## *Pipelines, politics & price*

### Energy Visions 2012

# Contents

Leader's message	1
Introduction	2
Politics	3
Pipelines	4
Price	6
PwC Top 100 highlights	9
Financial statistics – Year-end 2011	10
Operational statistics – Year-end 2011	14
Finding solutions to industry challenges	18
Contacts	20



Reynold Tetzlaff

## Leader's message

Almost from the time Imperial Oil brought in its Leduc No. 1 discovery in 1947, Canada's oil and gas business has been inextricably linked to energy demand in the United States. Oil and gas pipeline grids have been developed over the intervening 60-plus years to deliver three million barrels a day of crude oil and products and nearly 15 billion cubic feet a day of natural gas, and the vast majority of that heads south of the border.

In recent years, however, global investments in Canada have led to a development of our oil and gas resources on a scale not thought possible just a few short years ago. The result is that our capacity to produce oil and gas is coming perilously close to surpassing our ability to transport that product to markets in the United States.

At the same time, the federal government is beginning to shape a policy of market diversification: no longer will the United States be regarded as Canada's only market. Instead, it will be one of many potential markets for Canadian crude oil, refined products, and most recently, liquefied natural gas.

Industry has responded to these changing market signals. Enbridge Inc. is moving forward to obtain approval for its Northern Gateway project to deliver crude bitumen and synthetic crude oil to Kitimat on the west coast, where it will be loaded on tankers for delivery to markets in Asia, most specifically China. Similarly, Kinder Morgan is mulling a project that would double the capacity of its existing Trans Mountain pipeline between Edmonton and Vancouver, again to ship more bitumen and synthetic crude to Pacific Rim markets.

On the natural gas side, one project to export up to 10 million metric tonnes of liquefied natural gas (LNG) to Pacific Rim markets like Japan has won regulatory approval; and several more have been proposed.

Against this backdrop of opportunity, however, lies a litany of policy challenges, ranging from domestic environmental concerns related to pipeline and tanker shipments of crude oil from the largely pristine West Coast to international worries emanating from Washington that the United States might be in danger of losing one of its most reliable, secure and stable sources of energy.

As part of this year's Canadian Energy Report, we asked globally respected industry policy analysts and experts to provide their views on Canada's energy potential on the world stage.

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**Reynold Tetzlaff**  
Canadian National Energy Leader  
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## Introduction

*Canada's proved oil and gas reserves—more than 25 billion barrels of crude oil and liquids, another 150 billion barrels of economically recoverable bitumen and more than 40 trillion cubic feet of natural gas (and perhaps as much as 1,400 trillion cubic feet of in place tight gas)—are amongst the largest and most strategically important in the world.*

The country's success at attracting global capital, particularly from Asia, combined with game changing technological advances, has led to the development of these resources on a scale not even imaginable just five years ago and at a pace that is threatening to surpass infrastructure developments needed to move output to market.

In 2011, total Canadian crude production stood at 2.9 million barrels per day. By 2020, that number is forecast to reach 4.2 million barrels per day, according to a June 2011 forecast by the Canadian Association of Petroleum Producers.

Over the next five years, other forecasts suggest oil sands output will rise to three million barrels per day as 14 projects currently under construction are commissioned, adding 850,000 barrels a day to productive capacity. Another 14 projects comprising 780,000 barrels per day have been approved but have not yet begun construction, for total output additions of 1.633 million barrels per day between 2012 and 2017.

On the gas side, the National Energy Board, in a November 2011 production forecast, expects natural gas production to dip over the next couple of years to 13.1 billion cubic feet per day in 2015 from 13.5 billion cubic feet per day last year. Production is also expected to increase steadily over the next two decades, to 18 billion cubic feet per day in 2035, as supplies from deeper and more productive conventional, tight and shale gas reservoirs are brought on stream.

But if these production forecasts are to be realized, industry must overcome a daunting list of challenges, mostly around what to do with expanding output. Refinery capacity throughout

North America remains stagnant, and new pipeline capacity is required to move growing bitumen production to key refining markets in the United States, particularly those along the Gulf Coast.

At the same time, the factors that have contributed to Canada's growing productive capacity for crude oil and natural gas—horizontal wells with multi-stage fracture stimulation completions—are also at play in the United States, and Canadian producers will need to compete for market share with significant new shale gas and tight oil supplies in the United States.

In fact, some reports now circulating suggest that the U.S. will become significantly less dependent on foreign sources of oil in the next few years. Imports are projected to fall to just 4.5 million barrels a day by 2015, while crude oil and natural gas liquids production is projected by others to climb to 14.1 million barrels a day by 2020, an astonishing 74% increase from 2011 production of 8.1 million barrels per day. Various estimates suggest that as much as 1.7 million barrels a day of new light tight oil production could be coming from mid-continent plays in the United States by 2016. Crude oil from the Bakken play in North Dakota (880,000 barrels a day), Eagle Ford in Texas (390,000 barrels a day), Niobrara in Colorado/Wyoming (120,000 barrels a day) and Utica (around 100,000 barrels a day) could all be available by 2017 to the same Gulf Coast refinery markets being targeted by Canadian bitumen producers.

Against this backdrop, Canadian producers—already in a battle with environmental non-government organizations (ENGOS) over pipeline projects that would help secure existing U.S. markets and open up new overseas markets—are looking to the federal and provincial governments for policy leadership on the markets front, and are pushing for creation of a national energy strategy that would clearly outline Canada's future energy marketing goals and strategies to achieve those objectives.

## Politics

But again, the path ahead is fraught with challenges, factors which had considerable influence in President Barack Obama's decision late last year to deny TransCanada Corporation the presidential permit it needs to carry through with its Keystone XL project.

That refusal didn't sit well with Prime Minister Stephen Harper, who suggested in a September address to the United Nations General Assembly that approval of Keystone XL should be a "no brainer", in light of Washington's stated desire to ease its reliance on "conflict" oil and secure more stable crude supplies from "friendlier" suppliers like Canada and Brazil.

The Keystone rejection, while not seen as a catalyst for the development of a new Canadian national energy strategy, certainly focused Ottawa's attention on the need for such a policy, and on the dangers of continuing to put all its resource development options—read markets—in one basket.

"We cannot be in a situation where really our one and only energy partner can say no to our energy products," Harper told an audience of several hundred people at the Woodrow Wilson International Center. "The very fact that a no can be said underscores to our country that we must diversify our energy export markets."

While Obama's refusal to allow Keystone to proceed was seen as a major victory against the oil sands by environmentalists, the wider view remains that the decision was more political than environmental, and that TransCanada will eventually get its presidential permit, but not until after the U.S. elections this fall.

"If Nebraska approves a new route for Keystone XL (a new alignment, avoiding the controversial Sandhills area, was filed with the state in April) in 2012, the line is likely to be approved by the U.S. no matter who wins the 2012 U.S. presidential election," says David Goldwyn, of Washington-based Goldwyn Global Strategies LLC. "The determination of which line (Keystone XL, Enbridge Inc.'s Northern Gateway pipeline to Kitimat or an expanded Trans Mountain system being put forward by Kinder Morgan Energy Partners) gets built first will be decided by the shippers."

Earlier this month, TransCanada filed a new application with the U.S. State Department for a new pipeline segment from the Canada/U.S. border in Montana to Steele City, Nebraska. It will supplement the application with an alternative route in Nebraska as soon as that route is selected. Pending issuance of a Presidential Permit, TransCanada hopes to begin construction of Keystone XL in the first quarter next year, with completion slated for late 2014 or early 2015.

Keystone XL and other projects such as Seaway (a project advanced by Enbridge Inc. and Enterprise Products Partners L.P. to reverse an existing pipeline from the Gulf Coast to Cushing, Oklahoma) would soak up about half of the 1.6 million barrels per day of new Canadian bitumen production, but additional capacity to the Gulf, or to other markets, will eventually be needed.



## Pipelines

Expanded access to other markets is the focus of the two other major Canadian pipeline proposals: Enbridge's \$5.5 billion Northern Gateway project, which would run from Edmonton to Kitimat and deliver 520,000 barrels a day of diluted bitumen, and Kinder Morgan's \$5 billion proposal to more than double the capacity of its existing Trans Mountain system between Edmonton and Vancouver, providing another 550,000 barrels a day of takeaway capacity. In both, additional barrels of oil sands crude would be targeted primarily to growing refinery markets in Asia—read China—and the Pacific Rim.

However, both projects—like Keystone XL before them—face heavy opposition from environmental and First Nations organizations. In January, Canada's National Energy Board and the Canadian Environmental Assessment Agency began a joint review of Northern Gateway. More than 4,000 people have registered to speak at the hearings, which some say will delay completion

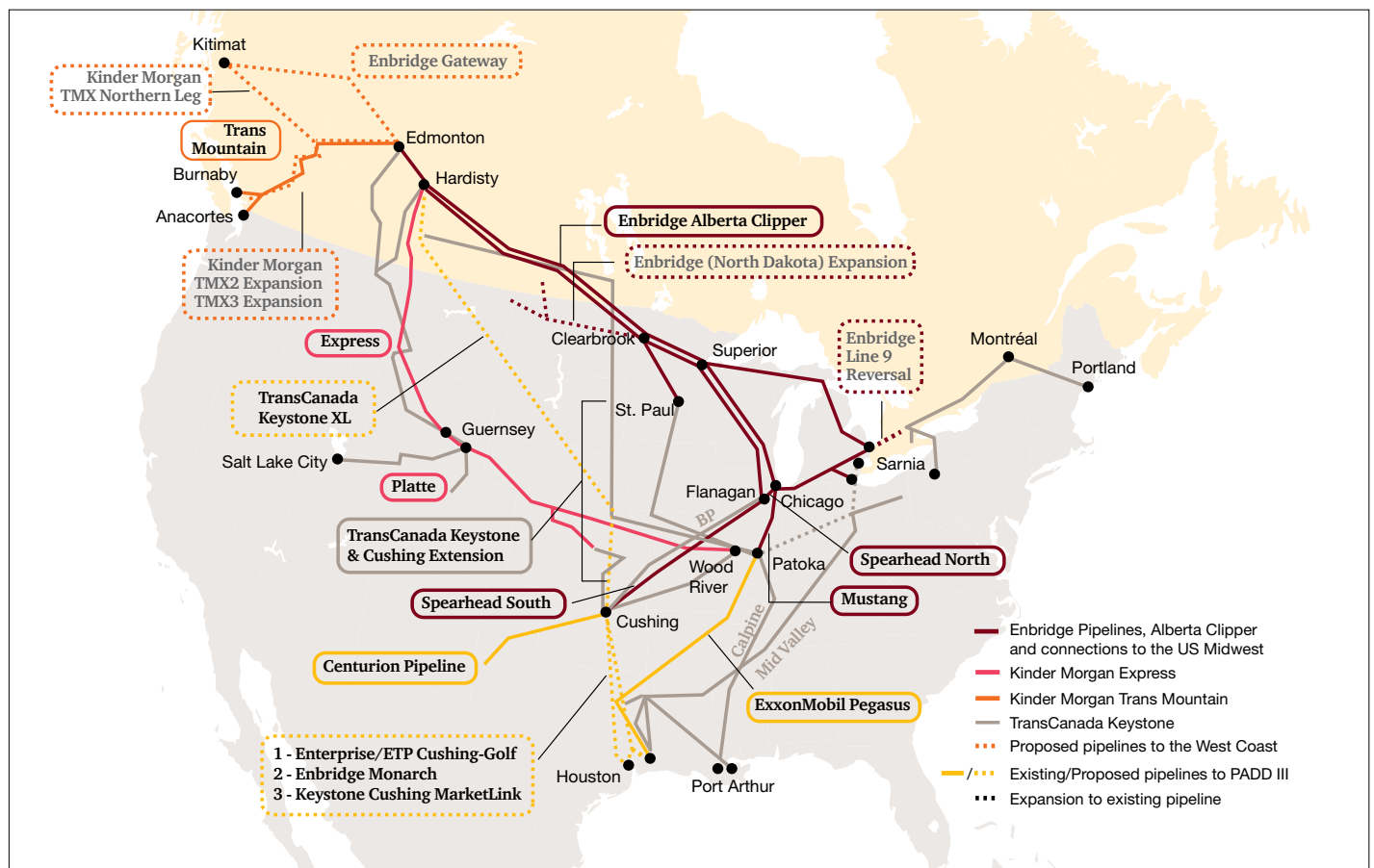
of the examination into 2014—a delay that prompted Prime Minister Stephen Harper and Natural Resources Minister Joe Oliver to voice concerns that special interest groups had taken over Canada's regulatory review process.

What is particularly challenging for the federal Government is the fact that some of the environmental groups protesting against Northern Gateway have received funding from powerful philanthropic organizations in the United States. This fact has even led to suggestions that Canada's regulatory process—in this case for a project that would lead to exports of oil to markets other than the United States—is being “gamed” by groups more interested in securing future energy supplies for the U.S. than in protecting wilderness areas in British Columbia.

To address such issues, Harper's administration, in its March federal budget, announced steps to further smooth the regulatory path for major

**Figure 1**

Canada & US Crude Oil Pipelines - all proposals. Source: CAPP





resource projects, including pipelines, and to set time limits for reviewing such initiatives from an environmental and economic perspective, hoping to avoid the kind of “Mob the mic” mentality that has beset the Northern Gateway review.

There were also measures in the budget requiring more detailed reporting from non-profits on their political activities, including the level of funding they receive from foreign benefactors, and even a few million dollars for more audits to ensure charities don’t spend more than the 10% of their funds on political advocacy.

The new regulatory regime is expected to particularly benefit Kinder Morgan. On April 10, 2012 the company concluded an open season for the additional Trans Mountain capacity and announced a few days later that it had received binding bids for 660,000 barrels per day of capacity on what would be a system capable of delivering 850,000 barrels a day to the Lower Mainland.

“We are extremely pleased with the strong commercial support that we received through the open season, which reinforces the appeal of our project and our approach,” Kinder Morgan Canada president Ian Anderson said. “This strong commercial support shows the market’s enthusiasm for expanding market access for Canadian crude by expanding an existing system”. These advancements will allow Kinder Morgan to better define the project and engage local communities.

Hoping to avoid the regulatory process that Enbridge faces with its Northern Gateway project, Kinder Morgan says it will conduct an “inclusive, extensive and thorough engagement on all aspects of the project” with local communities along the route, which mostly follows the existing Trans Mountain right-of-way, as well as with B.C. First Nations and ENGOs. It anticipates filing a regulatory application with the National Energy Board in 2014 and, pending approval, hopes to start construction in 2016, with the expansion operating by 2017.

Both Northern Gateway and the Trans Mountain expansion are being driven, in part, by a desire on the part of the federal government to diversify Canadian energy markets, which have historically been centered in the lower 48 States. That has led to an abundance of pipeline capacity from Canada that reaches only as far as the crude oil trading hub at Cushing, Oklahoma and a supply glut there that has prevented all North American crude producers from benefiting optimally from strong world crude prices over the last few years.

## Price

Given the glut, and the uncertainty over which pipeline projects will ultimately be built, differential volatility is expected to remain a factor for several years. Currently, the North American benchmark, West Texas Intermediate, trades at about a US\$20 a barrel discount to Brent, the most widely-traded international crude stream, while the Canadian equivalent, Edmonton light sweet, trades at a similar \$20 a barrel discount to WTI.

It is this differential, and the surge of crude coming out of the North Dakota and Montana Bakken plays, that has Canadian governments—not just at the federal level but also in Alberta—encouraging market diversity, with pipeline companies like Enbridge and Kinder Morgan doing what they can to facilitate such diversity, even within North America.

“The Bakken and Three Forks formations have catapulted North Dakota into the position of being one of the leading oil producing states in the U.S.,” Stephen Wuori, president, liquids pipelines for Enbridge, said in a news release. The company has increased the export capacity of its North Dakota system by almost 350% since 2008.

Enbridge is also taking steps to expand its west to east capacity within Canada. Its plan to reverse its Line 9 between Sarnia and Montreal, would relieve to a certain extent, the price pressure on WTI and ease the glut of barrels into the Cushing hub, Robert Johnston, director of global energy and natural resources for Eurasia Group, a New York-based energy consultancy, said in a recent research note.

“This strategy would also be politically advantageous for Alberta as it would allow the Ontario refining market to partially wean off Brent-type barrels imported from the east coast,” Johnston said in his note, adding that reversal would have a similar impact in the Quebec refining market.

But the more attractive option for producers in western Canada is to diversify export markets throughout the Pacific Rim in general, more specifically in Asia and most specifically in China, where refining capacity is expected to climb to 13 million barrels a day by 2015. Much of the new capacity will be tooled to accept heavier and more sour barrels, with sour capacity projected to rise to 5.3 million barrels per day by the end of 2015 from three million barrels per day in 2011.

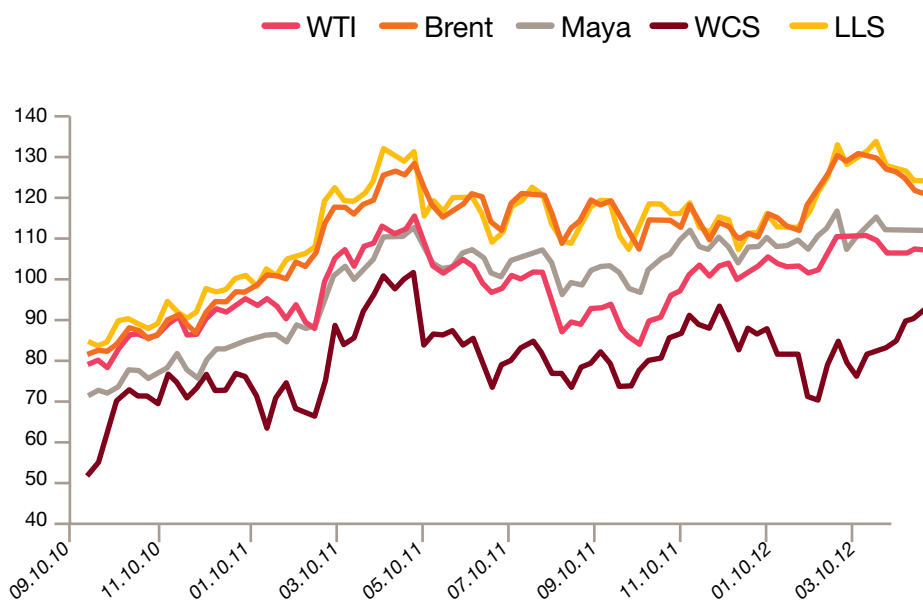
### Asian markets

Refining capacity in China is controlled by two state-owned companies: China National Petroleum Corporation (and its producer affiliate PetroChina Company Limited) and China Petroleum & Chemical Corporation Limited (known less formally as Sinopec). Each has diverse feedstock needs, with PetroChina tilted more to the lighter and sweeter barrel and Sinopec more deeply invested in heavier and more sour grades. It is this diversity that is driving China’s growing investment presence in North America, and which is expected to shape future investment forays, especially in Canada, where Asian investment seems to be more welcome, at least for now.

In the last decade or so, the autonomy of the national oil companies in China has grown dramatically, says Erica Downs, fellow, foreign policy with the John L. Thornton China Center at the Brookings Institution in Washington, D.C., and this has led to a subtle shift in

**Figure 2:**

Select crude spot prices, dollars per barrel (September 2010–April 2012)





the way the NOCs approach investment decisions such that corporate interests, in some cases, are advanced at the expense of national interests.

“What this leads to, sometimes, is fierce competition between the NOCs, and the acquisition of assets abroad is often linked to competition for market share at home,” Downs says, adding that NOC executives will often play the domestic energy security card to win political support for their external investment initiatives.

In this light, Sinopec is expected to become more aggressive in its efforts to acquire equity positions in Canadian producers. Recent acquisitions include Daylight Energy (shale gas and conventional oil), a 9% interest in Syncrude Canada (acquired from ConocoPhillips Canada) and a 50% stake in Total’s oil sands assets. Sinopec is also a partner with Enbridge in the Northern Gateway project, and has invested \$100 million to see that project through the regulatory process.

PetroChina, meanwhile, has acquired significant interests in the oil sands, through a 60% stake in Athabasca Oil Sands Corp., and shale gas, with Shell Canada.

Overall, Chinese investments in Canada have grown rapidly in the last few years, from \$900 million in 2005 to \$14.4 billion in 2010, nearly half focused on mining and oil extraction. China Investment Corp., the republic’s sovereign wealth fund, has an office in Toronto.

“Japan and South Korea are also actively involved in the Canadian shale gas and unconventional oil arenas,” Eurasia Group’s Johnston adds. “From the Canadian perspective, other significant foreign investments in shale gas are expected,” he says. “Recent investments and announcements by Petronas and Progress Energy, Chubu Electric and a consortium of Japanese utilities, Shell, Kogas, and others show that global interest in B.C. shale gas and associated LNG export plays to the Asian market remains strong.”

While there are some LNG export initiatives underway in the United States, Goldwyn suggests Canada may,

in fact, have something of an advantage in reaching the lucrative Asian markets, and not just because B.C. terminals are closer to potential markets. “Many U.S. politicians have a difficult time believing that we (United States) have enough natural gas, and as a result, there is some public fear of LNG exports,” he says.

China and other Asian importers have contracted most existing LNG export capacity through 2020, he adds, but the post-2020 market is virtually wide open. “The advantage will go to the first and fastest movers with the lowest cost of supply.”

And that timing could be critical, Johnston adds, noting that there are multiple competitors for the lucrative northeast Asia market in the years after 2018, from Australia, East Africa, the eastern Mediterranean region and even China.

### Canada’s National Energy Strategy

To encourage continued foreign investment—and perhaps to keep some control—Ottawa is contemplating a national energy strategy, but there

seems little consensus on what such a strategy should look like. Producers agree that a strategy would be beneficial, but worry that Ottawa would take too heavy a hand, revisiting in the minds of some producers the unpopular National Energy Program of the early 1980s.

Eurasia Group’s Johnston says there are a number of key challenges facing adoption of a national energy strategy, whatever form it might take. Certainly, the fact Prime Minister Harper and Alberta Premier Alison Redford enjoy strong majorities could help, but both will have difficulty aligning Alberta’s interests with those of Ontario and Quebec, particularly given political and economic uncertainty in those two provinces.

“Beyond that, the interests of Alberta and British Columbia have to be aligned with respect to oil sands exports, private sector and other stakeholders have to be integrated into the process and there needs to be a coherent and effective strategy on environmental reviews and coordination with First Nations groups,” he says.

**Figure 3:**

China investments in North America. Source: Erica Downs, Fellow, Foreign Policy - John L. Thornton China Center

Buyer	Seller	Asset	Country	Date	Value (\$mn)
PetroChina	Shell	Groundbirch, Montenev	Canada	2012	1000
Sinopec	Devon	Various	USA	2012	2200
PetroChina	AOSC	MacKay River	Canada	2012	673
Sinopec	Daylight Energy	Daylight Energy	Canada	2011	2532
CNOOC	OPTI	OPTI	Canada	2011	2070
CNOOC	Chesapeake	Niobara	USA	2011	1267
CNOOC	Chesapeake	Eagle Ford	USA	2010	2160
Sinopec	Conoco Phillips	Syncrude	Canada	2010	4600
PetroChina	AOSC	MacKay River, Dover	Canada	2009	1700































# Financial Statistics

## Exploration and Production Companies

### Financial statistics – PwC's Top 100

Company	Gross Revenues (\$ 000's) 2011 <sup>4</sup>	Gross Revenues (\$ 000's) 2010 <sup>4</sup>	Change (%)	Net Income/ (Loss) (\$ 000's) 2011	Net Income/ (Loss) (\$ 000's) 2010	Change (%)	EPS 2011 <sup>5</sup>	EPS 2010 <sup>5</sup>	Cash Flow from Ops. (\$ 000's) 2011	Cash Flow from Ops. (\$ 000's) 2010	CFPS 2011 <sup>6</sup>	CFPS 2010 <sup>6</sup>
Suncor Energy Inc. 	19,785,000	16,733,000	18.24%	4,304,000	3,829,000	12.41%	2.74	2.45	9,988,000	5,486,000	6.36	3.51
Canadian Natural Resources Limited 	15,497,000	14,304,000	8.34%	2,643,000	1,673,000	57.98%	2.41	1.54	6,243,000	6,282,000	5.69	5.78
Imperial Oil Limited  * <sup>7</sup>	9,738,000	8,085,000	20.45%	3,371,000	2,210,000	52.53%	3.98	2.61	4,489,000	3,207,000	5.30	3.79
Talisman Energy Inc.  <sup>3</sup>	8,099,770	7,086,060	14.31%	767,080	974,010	(21.25%)	0.75	0.96	2,779,660	3,240,520	2.72	3.19
Husky Energy Inc. 	7,519,000	6,021,000	24.88%	2,224,000	947,000	134.85%	2.40	1.11	5,092,000	2,222,000	5.49	2.60
EnCana Corporation  <sup>3,7</sup>	6,814,719	7,322,093	(6.93%)	126,528	1,205,919	(89.51%)	0.17	1.63	3,996,506	2,435,544	5.30	3.30
Nexen Inc.  <sup>7,8</sup>	6,113,000	5,457,000	12.02%	697,000	1,127,000	(38.15%)	1.32	2.15	2,497,000	2,392,000	4.73	4.56
Cenovus Energy Inc.	5,619,000	4,986,000	12.70%	1,478,000	1,081,000	36.73%	1.96	1.44	3,273,000	2,591,000	4.34	3.45
Canadian Oil Sands Limited	4,182,000	3,460,000	20.87%	1,144,000	1,189,000	(3.78%)	2.36	2.46	1,958,000	1,295,000	4.04	2.68
Penn West Petroleum Ltd.	3,667,000	3,054,000	20.07%	638,000	1,110,000	(42.52%)	1.37	2.51	1,407,000	1,217,000	3.02	2.75
Pacific Rubiales Energy Corp. <sup>3,7</sup>	3,341,940	1,712,553	95.14%	547,961	273,225	100.55%	2.04	1.01	1,205,038	968,785	4.49	3.58
Denbury Resources Inc.  * <sup>3,7</sup>	2,243,055	1,848,346	21.35%	566,740	294,293	92.58%	1.43	0.75	1,190,959	882,084	3.01	2.26
Crescent Point Energy Corp	2,191,189	1,535,764	42.68%	201,134	50,921	294.99%	0.73	0.22	1,322,971	816,454	4.80	3.53
Pengrowth Energy Corporation	1,453,735	1,368,713	6.21%	84,532	149,836	(43.58%)	0.25	0.50	693,083	686,847	2.05	2.29
ARC Resources Ltd.	1,438,200	1,213,700	18.50%	287,000	212,200	35.25%	1.00	0.82	902,700	677,000	3.15	2.62
Petrominerales Ltd.  <sup>3</sup>	1,404,263	1,080,895	29.92%	487,528	148,215	228.93%	4.77	1.48	773,900	614,400	7.57	6.14
Enerplus Corporation 	1,363,726	1,327,140	2.76%	109,437	(179,282)	161.04%	0.61	(1.02)	623,440	696,183	3.48	3.96
Harvest Operations Corp.	1,286,866	1,007,004	27.79%	(104,657)	(81,163)	(28.95%)	INA	INA	560,489	439,184	INA	INA
PetroBakken Energy Ltd.	1,195,476	1,008,556	18.53%	209,237	227,032	(7.84%)	1.12	1.23	721,302	561,655	3.86	3.04
Petrobank Energy and Resources Ltd.  <sup>8</sup>	1,195,476	1,008,556	18.53%	(7,629)	2,028,171	(100.38%)	(0.07)	19.43	700,271	1,158,094	6.43	11.09
Baytex Energy Corp.	1,305,814	1,003,295	30.15%	217,432	231,615	(6.12%)	1.88	2.08	571,860	461,406	4.94	4.14
Ultra Petroleum Corporation  * <sup>3,7</sup>	1,089,125	1,009,453	7.89%	447,990	478,718	(6.42%)	2.94	3.14	1,021,409	850,047	6.70	5.58
Bonavista Energy Corporation	1,044,414	938,726	11.26%	137,184	82,288	66.71%	0.85	0.63	567,166	542,436	3.51	4.15
Vermilion Energy Inc. 	1,031,570	727,805	41.74%	142,821	44,395	221.71%	1.57	0.53	447,092	421,282	4.91	5.03
MEG Energy Corp.	1,021,036	717,610	42.28%	63,837	49,558	28.81%	0.33	0.28	314,302	74,382	1.62	0.42
NAL Energy Corporation <sup>8</sup>	531,947	497,538	6.92%	(11,034)	59,025	(118.69%)	(0.07)	0.41	258,801	274,606	1.64	1.91
Progress Energy Resources Corp.	470,219	442,592	6.24%	148,445	(179,368)	182.76%	0.65	(0.89)	223,309	193,787	0.98	0.96
Connacher Oil and Gas Limited	462,262	281,358	64.30%	(114,105)	(44,669)	(155.45%)	(0.25)	(0.10)	142,423	66,432	0.31	0.15
TransGlobe Energy Corporation  <sup>3</sup>	444,621	277,156	60.42%	80,456	41,810	92.43%	1.11	0.63	62,898	58,718	0.86	0.88
Crew Energy Inc.	388,166	206,343	88.12%	(130,162)	17,818	(830.51%)	(1.28)	0.22	153,429	93,926	1.51	1.16
Peyto Exploration & Development Corp.	387,240	275,081	40.77%	128,183	200,414	(36.04%)	0.96	1.66	289,995	222,532	2.17	1.84
Trilogy Energy Corp.	380,998	290,841	31.00%	17,415	178,242	(90.23%)	0.15	1.56	215,753	165,041	1.86	1.44
NuVista Energy Ltd.	369,234	373,327	(1.10%)	(143,800)	(59,655)	(141.05%)	(1.47)	(0.67)	160,268	167,455	1.64	1.88
Legacy Oil + Gas Inc.	359,820	215,385	67.06%	19,167	20,275	(5.46%)	0.14	0.20	168,188	108,225	1.23	1.07
Advantage Oil & Gas Ltd. <sup>8</sup>	355,288	319,368	11.25%	(145,409)	40,920	(455.35%)	(0.92)	0.25	218,181	222,866	1.38	1.36
Coastal Energy Company  <sup>3,8</sup>	343,783	199,522	72.30%	46,814	(12,770)	466.58%	0.42	(0.12)	186,676	97,892	1.67	0.95
Tourmaline Oil Corp <sup>8</sup>	342,820	194,928	75.87%	42,681	8,813	384.30%	0.29	0.07	228,421	143,296	1.55	1.14
Bankers Petroleum Ltd  <sup>3</sup>	336,009	175,607	91.34%	35,582	10,848	228.01%	0.14	0.05	130,677	50,666	0.53	0.21
C&C Energia Ltd.  <sup>3</sup>	291,993	160,592	81.82%	30,893	29,879	3.39%	0.51	0.60	125,064	76,437	2.08	1.54
Birchcliff Energy Ltd.	264,587	189,978	39.27%	34,454	34,163	0.85%	0.27	0.27	142,897	95,768	1.12	0.76
Pace Oil & Gas Ltd.	250,279	172,962	44.70%	16,707	(40,246)	141.51%	0.35	(1.10)	91,007	44,682	1.91	1.22
Paramount Resources Ltd. 	241,713	184,395	31.08%	(231,990)	(90,011)	(157.74%)	(2.96)	(1.24)	84,960	59,178	1.08	0.82
Chinook Energy Inc. 	246,950	137,348	79.80%	(63,752)	(26,864)	(137.31%)	(0.30)	(0.17)	70,800	58,287	0.33	0.37
Perpetual Energy Inc.	247,809	260,217	(4.77%)	(95,920)	(100,719)	4.76%	(0.65)	(0.72)	60,428	199,882	0.41	1.43
Celtic Exploration Ltd.	224,703	222,041	1.20%	(27,926)	26,165	(206.73%)	(0.29)	0.29	122,629	154,993	1.27	1.72
Fairborne Energy Ltd.	205,766	234,637	(12.30%)	(74,264)	8,400	(984.10%)	(0.72)	0.08	118,107	137,391	1.15	1.31
Bellatrix Exploration Ltd.	200,187	115,676	73.06%	(5,949)	(4,985)	(19.34%)	(0.06)	(0.05)	98,192	44,272	0.99	0.44
Zargon Oil & Gas Ltd. 	191,533	179,472	6.72%	10,380	(12,878)	180.60%	0.36	(0.55)	73,256	61,669	2.54	2.63
Lone Pine Resources Inc.  * <sup>7</sup>	191,170	151,184	26.45%	34,803	32,825	6.03%	0.44	0.47	120,823	87,381	1.53	1.25
Guide Exploration Ltd.	188,191	207,831	(9.45%)	(212,807)	(1,083)	(19549.77%)	(2.50)	(0.01)	103,553	103,365	1.22	0.95
Angle Energy Inc.	186,872	119,355	56.57%	(10,771)	(25,283)	57.40%	(0.15)	(0.40)	99,111	49,834	1.38	0.79
BlackPearl Resources Inc.	179,443	142,867	25.60%	18,911	(86)	22089.53%	0.07	0.00	75,397	58,856	0.28	0.22
Parex Resources Inc.  <sup>3</sup>	169,201	2,701	6164.38%	15,455	(13,946)	210.82%	0.17	(0.21)	118,870	(6,375)	1.29	(0.09)
Compton Petroleum Corporation <sup>8</sup>	166,679	216,069	(22.86%)	21,443	(535,382)	104.01%	1.80	(407.91)	36,381	31,060	3.05	23.66
Bonterra Energy Corp.	162,277	118,980	36.39%	43,608	39,954	9.15%	2.25	2.12	97,409	66,238	5.03	3.51
















Capital Expenditures (\$ 000's) 2011	Capital Expenditures (\$ 000's) 2010	Change (%)	Total Assets (\$ 000's) 2011	Total Assets (\$ 000's) 2010	Change (%)	Market Capitalization (\$ 000's) 2011	Market Capitalization (\$ 000's) 2010	Change (%)	Working Capital (\$ 000's) 2011	Working Capital (\$ 000's) 2010	Total Debt as a % of Equity 2011	Total Debt as a % of Equity 2010	Debt to Capital Ratio (%) 2011	Debt to Capital Ratio (%) 2010
7,666,000	6,203,000	23.59%	74,777,000	68,607,000	8.99%	45,792,726	59,942,574	(23.61%)	3,814,000	(101,000)	27.9%	35.0%	21.8%	25.9%
5,642,000	5,189,000	8.73%	47,278,000	42,954,000	10.07%	41,829,949	48,379,109	(13.54%)	(1,253,000)	(1,597,000)	37.4%	41.7%	27.2%	29.4%
3,919,000	3,856,000	1.63%	25,429,000	20,580,000	23.56%	38,472,519	34,344,711	12.02%	(866,000)	(1,039,000)	9.1%	6.8%	8.3%	6.3%
5,118,450	4,962,820	3.14%	24,702,280	22,092,674	11.81%	13,258,063	22,546,716	(41.20%)	(1,232,769)	(487,971)	49.5%	45.7%	33.1%	31.4%
4,484,000	3,312,000	35.39%	32,426,000	28,050,000	15.60%	23,507,536	23,648,319	(0.60%)	2,054,000	1,181,000	22.0%	28.7%	18.0%	22.3%
5,054,200	5,699,771	(11.33%)	34,584,828	33,580,985	2.99%	13,908,707	21,418,967	(35.06%)	2,148,424	19,999	49.5%	45.3%	33.1%	31.2%
2,203,000	2,715,000	(18.86%)	20,068,000	19,647,000	2.14%	8,557,140	11,986,106	(28.61%)	263,000	1,086,000	52.4%	65.5%	34.4%	39.4%
2,662,000	2,106,000	26.40%	22,194,000	19,840,000	11.86%	25,524,702	25,049,024	1.90%	523,000	334,000	37.5%	40.9%	27.3%	29.0%
639,000	581,000	9.98%	8,620,000	7,132,000	20.86%	11,265,323	12,812,380	(12.07%)	720,000	138,000	26.9%	33.6%	21.2%	25.1%
1,871,000	1,584,000	18.12%	15,584,000	14,543,000	7.16%	9,517,015	10,958,825	(13.16%)	(720,000)	(795,000)	35.5%	32.1%	26.2%	24.3%
1,139,286	949,075	20.04%	5,555,929	3,953,892	40.52%	5,472,495	9,033,149	(39.42%)	560,960	183,781	35.6%	34.9%	26.2%	25.9%
1,648,008	2,034,873	(19.01%)	10,384,650	9,064,519	14.56%	6,014,514	7,641,097	(21.29%)	232,950	284,956	55.7%	55.3%	35.8%	35.6%
1,368,260	1,547,928	(11.61%)	8,734,446	7,943,884	9.95%	12,973,952	11,794,804	10.00%	(372,764)	(237,261)	18.8%	18.3%	15.8%	15.5%
599,034	336,485	78.03%	5,644,728	5,226,606	8.00%	3,876,636	4,166,587	(6.96%)	(137,287)	(109,237)	30.1%	32.9%	23.1%	24.7%
781,400	579,600	34.82%	5,323,900	5,060,100	5.21%	7,251,265	7,226,070	0.35%	(183,400)	73,600	24.1%	25.8%	19.4%	20.5%
707,860	438,560	61.41%	2,270,273	1,832,490	23.89%	1,645,656	3,428,475	(52.00%)	75,251	580,165	43.5%	62.0%	30.3%	38.3%
1,093,452	1,459,842	(25.10%)	5,723,312	5,489,181	4.27%	4,682,960	5,479,145	(14.53%)	(390,392)	(288,715)	27.7%	22.0%	21.7%	18.0%
1,458,450	620,132	135.18%	6,284,370	5,388,740	16.62%	INA	INA	INA	(265,577)	(20,280)	46.1%	41.1%	31.6%	29.1%
958,960	754,395	27.12%	6,477,282	5,865,005	10.44%	2,403,603	4,062,818	(40.84%)	(110,772)	(196,437)	53.5%	42.3%	34.8%	29.7%
1,131,504	1,373,917	(17.64%)	6,917,716	6,265,455	10.41%	1,125,714	2,682,467	(58.03%)	94,963	(194,522)	82.3%	62.3%	33.6%	27.7%
446,565	259,987	71.76%	2,461,810	1,981,023	24.27%	6,716,364	5,300,116	26.72%	(50,397)	(58,853)	50.5%	40.6%	33.6%	28.9%
1,440,715	1,618,856	(11.00%)	4,965,443	3,595,399	38.11%	4,606,702	7,287,727	(36.79%)	(255,995)	(56,964)	119.4%	137.0%	54.4%	57.8%
507,436	390,473	29.95%	3,924,160	3,444,555	13.92%	3,756,635	3,858,480	(2.64%)	(51,110)	(70,393)	54.0%	51.7%	35.1%	34.1%
547,726	424,764	28.95%	2,735,187	2,325,797	17.60%	4,375,035	4,113,499	6.36%	(55,525)	(737)	28.0%	28.9%	21.9%	22.4%
814,748	592,014	37.62%	6,201,049	5,043,265	22.96%	8,042,619	8,637,421	(6.89%)	1,475,245	1,325,695	44.0%	25.1%	30.5%	20.1%
231,476	272,243	(14.97%)	1,561,204	1,638,101	(4.69%)	1,190,723	1,906,862	(37.56%)	(120,442)	(47,722)	65.8%	52.1%	39.7%	34.2%
390,136	747,220	(47.79%)	2,646,471	2,434,900	8.69%	3,079,770	2,728,932	12.86%	8,552	(91,110)	17.9%	33.6%	15.2%	25.2%
151,108	235,112	(35.73%)	1,605,626	1,569,137	2.33%	340,678	594,733	(42.72%)	16,876	138,644	227.5%	162.0%	69.5%	61.8%
43,066	55,710	(22.70%)	536,143	345,604	55.13%	582,510	1,073,783	(45.75%)	142,735	88,224	16.9%	47.4%	14.5%	32.2%
339,333	234,447	44.74%	1,842,719	1,045,941	76.18%	1,349,921	1,535,029	(12.06%)	(113,627)	(40,068)	20.4%	21.7%	17.0%	17.8%
379,189	218,262	73.73%	1,800,252	1,475,253	22.03%	3,364,852	2,438,376	38.00%	40,232	(30,037)	46.3%	42.0%	31.6%	29.6%
315,468	157,246	100.62%	1,260,364	1,081,448	16.54%	4,362,559	1,414,955	208.32%	(77,696)	(32,495)	77.9%	51.7%	43.8%	34.1%
149,088	211,909	(29.65%)	1,373,705	1,533,824	(10.44%)	521,450	821,028	(36.49%)	(26,676)	(6,733)	38.3%	55.3%	27.7%	35.6%
399,952	459,039	(12.87%)	2,301,400	1,824,294	26.15%	1,501,352	1,978,495	(24.12%)	(43,826)	(20,995)	22.7%	19.8%	18.5%	16.5%
234,795	239,793	(2.08%)	1,972,789	1,965,945	0.35%	705,129	1,109,262	(36.43%)	(93,376)	(103,675)	27.3%	35.0%	21.4%	25.9%
163,200	137,470	18.72%	528,929	368,920	43.37%	1,706,178	664,888	156.61%	(49,808)	(58,949)	31.7%	38.8%	23.7%	27.3%
795,642	773,797	2.82%	2,711,024	1,816,043	49.28%	4,222,921	2,968,965	42.24%	(146,317)	(49,642)	3.7%	0.0%	3.5%	0.0%
233,254	116,505	100.21%	674,216	465,570	44.82%	1,086,638	1,860,442	(41.59%)	81,860	130,912	14.5%	7.5%	12.7%	6.9%
128,858	64,498	99.79%	533,505	289,172	84.49%	477,514	678,719	(29.64%)	57,408	75,399	0.0%	0.5%	0.0%	0.5%
219,648	245,476	(10.52%)	1,225,497	1,038,555	18.00%	1,723,740	1,193,733	44.40%	(48,598)	(3,956)	59.2%	55.7%	37.2%	35.8%
97,910	111,129	(11.90%)	738,530	681,527	8.36%	202,972	392,354	(48.27%)	(36,826)	(6,877)	34.7%	35.8%	25.8%	26.4%
483,470	249,831	93.52%	1,725,713	1,391,321	24.03%	3,630,095	2,377,077	52.71%	(45,535)	(48,177)	54.6%	47.1%	35.3%	32.0%
135,417	228,274	(40.68%)	745,403	877,017	(15.01%)	349,126	458,362	(23.83%)	(429)	(2,675)	31.6%	34.3%	24.0%	25.5%
165,364	292,112	(43.39%)	1,018,089	1,027,266	(0.89%)	171,951	582,757	(70.49%)	(61,296)	(29,793)	613.0%	197.3%	86.0%	66.4%
391,208	217,268	80.06%	1,079,923	750,346	43.92%	2,397,714	1,610,323	48.90%	(211,800)	(203,381)	18.8%	38.6%	15.8%	27.9%
177,079	225,956	(21.63%)	918,287	1,072,064	(14.34%)	303,678	432,575	(29.80%)	(32,767)	(115,307)	43.3%	50.8%	30.2%	33.7%
170,185	103,904	63.79%	580,422	477,054	21.67%	527,370	467,837	12.73%	(21,651)	(2,551)	31.8%	30.4%	24.1%	23.3%
84,816	87,047	(2.56%)	470,687	472,246	(0.33%)	400,177	607,453	(34.12%)	(21,971)	(19,844)	41.4%	55.5%	29.3%	35.7%
325,095	208,869	55.65%	990,301	711,351	39.21%	605,714	INA	INA	(30,064)	(293,137)	69.8%	0.0%	40.6%	0.0%
149,214	148,391	0.55%	671,057	869,652	(22.84%)	292,007	345,158	(15.40%)	(152,701)	(138,457)	35.0%	23.4%	25.9%	19.0%
167,891	286,020	(41.30%)	595,691	534,613	11.42%	462,520	597,341	(22.57%)	(11,902)	(14,509)	62.2%	43.9%	38.3%	30.5%
191,576	65,163	194.00%	606,521	572,410	5.96%	1,170,536	1,665,306	(29.71%)	37,825	144,032	0.0%	0.0%	0.0%	0.0%
430,721	41,319	942.43%	673,156	210,689	219.50%	754,853	665,776	13.38%	94,719	115,129	14.4%	0.0%	12.6%	0.0%
51,280	34,490	48.68%	673,308	864,920	(22.15%)	115,189	115,975	(0.68%)	(24,417)	(216,942)	35.1%	195.1%	25.9%	67.2%
49,540	77,672	(36.22%)	364,176	347,825	4.70%	1,008,314	992,305	1.61%	(51,576)	(17,905)	46.7%	44.9%	31.9%	31.0%

# Financial Statistics

## Exploration and Production Companies

### Financial statistics – PwC's Top 100

Company	Gross Revenues (\$ 000's) 2011 <sup>4</sup>	Gross Revenues (\$ 000's) 2010 <sup>4</sup>	Change (%)	Net Income/ (Loss) (\$ 000's) 2011	Net Income/ (Loss) (\$ 000's) 2010	Change (%)	EPS 2011 <sup>5</sup>	EPS 2010 <sup>5</sup>	Cash Flow from Ops. (\$ 000's) 2011	Cash Flow from Ops. (\$ 000's) 2010	CFPS 2011 <sup>6</sup>	CFPS 2010 <sup>6</sup>
Equal Energy Ltd. 	161,494	137,675	17.30%	(13,960)	(42,652)	67.27%	(0.44)	(1.73)	56,279	34,436	1.77	1.40
Freehold Royalties Ltd.	157,910	138,155	14.30%	55,259	49,349	11.98%	0.92	0.85	118,370	110,693	1.97	1.91
Twin Butte Energy Ltd.	146,577	101,876	43.88%	(19,021)	682	(2889.00%)	(0.14)	0.01	63,121	28,068	0.46	0.41
WestFire Energy Ltd.	142,822	43,432	228.84%	(52,667)	772	(6922.15%)	(0.83)	0.02	73,798	21,725	1.16	0.56
Whitecap Resources Inc.	136,370	25,991	424.68%	25,512	(8,321)	406.60%	0.40	(0.36)	79,008	5,635	1.24	0.24
Surge Energy Inc.	131,253	57,714	127.42%	2,095	(7,695)	127.23%	0.04	(0.21)	56,639	16,128	1.08	0.44
Vero Energy Inc.	126,837	108,874	16.50%	(74,919)	2,573	(3011.74%)	(1.53)	0.06	80,501	62,082	1.64	1.45
Ithaca Energy Inc.  <sup>3</sup>	124,778	136,414	(8.53%)	35,456	63,831	(44.45%)	0.14	0.35	102,279	91,578	0.40	0.50
Delphi Energy Corp.	126,887	113,727	11.57%	11,602	(16,984)	168.31%	0.10	(0.16)	68,300	57,899	0.59	0.55
Kodiak Oil & Gas Corp.  <sup>3 7</sup>	118,606	31,947	271.26%	3,830	(2,476)	254.68%	0.02	(0.02)	53,293	10,632	0.27	0.09
Anderson Energy Ltd.	118,292	86,457	36.82%	(22,444)	(124,787)	82.01%	(0.13)	(0.73)	54,309	40,332	0.31	0.24
Longview Oil Corp.	113,868	-	-	20,529	-	-	0.61	(300.00)	58,659	-	1.74	-
Arcan Resources Ltd.	104,969	55,575	88.88%	(779)	(7,118)	89.06%	(0.01)	(0.10)	44,889	19,630	0.58	0.28
Cequence Energy Ltd.	101,090	50,614	99.73%	(20,158)	(52,349)	61.49%	(0.14)	(0.75)	36,700	17,240	0.25	0.25
Canacol Energy Ltd.  <sup>3 9</sup>	98,336	21,103	365.98%	(10,885)	(22,841)	52.34%	(0.02)	(0.07)	47,795	(245)	0.09	0.00
Midway Energy Ltd.	95,559	39,627	141.15%	14,452	(1,012)	1528.06%	0.19	(0.02)	57,130	16,861	0.75	0.33
AvenEx Energy Corp.	95,360	69,282	37.64%	(2,744)	(21,693)	87.35%	(0.05)	(0.49)	37,344	25,179	0.68	0.57
Southern Pacific Resource Corp.	93,727	62,043	51.07%	14,280	8,197	74.21%	0.04	0.04	43,933	33,804	0.12	0.16
Renegade Petroleum Ltd. 	80,031	29,201	174.07%	(2,645)	(9,285)	71.51%	(0.04)	(0.21)	36,102	8,459	0.55	0.19
Painted Pony Petroleum Ltd.	73,936	58,283	26.86%	6,542	9,222	(29.06%)	0.11	0.20	44,884	35,474	0.75	0.77
Calvalley Petroleum Inc.  <sup>3</sup>	73,450	65,828	11.58%	21,098	15,030	40.37%	0.22	0.15	24,878	22,302	0.26	0.23
Pan Orient Energy Corp.  <sup>8</sup>	72,576	103,019	(29.55%)	23,696	23,424	1.16%	0.43	0.49	39,791	53,833	0.72	1.13
Terra Energy Corp.	71,107	79,857	(10.96%)	(6,889)	(2,020)	(241.04%)	(0.07)	(0.02)	17,761	26,952	0.18	0.27
Rock Energy Inc.	64,289	63,354	1.48%	(6,918)	849	(914.84%)	(0.19)	0.03	19,740	26,153	0.54	0.92
Winstar Resources Ltd.  <sup>3</sup>	60,544	52,877	14.50%	7,383	3,514	110.10%	0.21	0.10	34,309	33,421	0.98	0.95
Arsenal Energy Inc. 	58,466	43,666	33.89%	(2,545)	(6,291)	59.54%	(0.02)	(0.05)	25,301	11,083	0.20	0.09
Crocotta Energy Inc.	54,974	34,530	59.21%	(5,592)	(5,328)	(4.95%)	(0.07)	(0.08)	29,291	12,563	0.37	0.19
Novus Energy Inc.	53,137	20,209	162.94%	(808)	(7,234)	88.83%	0.00	(0.05)	19,022	2,905	0.11	0.02
RMP Energy Inc.	49,511	44,668	10.84%	(74,974)	20,001	(474.85%)	(0.93)	0.31	17,108	28,252	0.21	0.44
Insignia Energy Ltd.	49,087	38,006	29.16%	(11,983)	(5,374)	(122.98%)	(0.35)	(0.18)	26,789	11,388	0.78	0.38
Pinecrest Energy Inc. <sup>10</sup>	46,846	1,906	2357.37%	8,362	(1,650)	606.80%	0.05	(0.01)	26,707	(865)	0.16	(0.01)
Bellamont Exploration Ltd.	46,766	36,936	26.61%	(3,826)	(16,196)	76.38%	(0.03)	(0.12)	21,924	14,601	0.17	0.11
Parallel Energy Trust <sup>11</sup>	45,215	-	-	(39,768)	-	-	(1.19)	-	18,222	-	0.55	-
Eagle Energy Trust 	44,181	1,884	2245.56%	(1,214)	(3,214)	62.24%	(0.07)	(0.81)	14,312	5,370	0.83	1.35
Artek Exploration Ltd.	44,279	26,942	64.35%	(16,915)	(2,860)	(491.43%)	(0.44)	(0.10)	21,666	11,490	0.56	0.40
Open Range Energy Corp.	43,709	40,700	7.39%	(2,977)	4,150	(171.73%)	(0.05)	0.08	23,746	26,893	0.40	0.52
Dundee Energy Limited 	42,176	19,520	116.07%	(1,313)	(11,670)	88.75%	(0.01)	(0.07)	15,533	1,041	0.12	0.01
Sonde Resources Corp.	39,495	36,880	7.09%	(40,571)	(100,224)	59.52%	(0.65)	(1.64)	5,108	(465)	0.08	(0.01)
Second Wave Petroleum Inc.	38,605	25,504	51.37%	(8,595)	(4,599)	(86.89%)	(0.10)	(0.06)	13,304	7,269	0.15	0.09
Gastar Exploration Ltd.  <sup>3 7 8</sup>	37,435	32,591	14.86%	(731)	(12,870)	94.32%	(0.03)	(0.26)	10,127	(6,170)	0.41	(0.12)
Exall Energy Corporation	34,158	22,332	52.95%	6,960	4,177	66.63%	0.11	0.08	16,989	9,988	0.27	0.19
Waldron Energy Corporation	33,218	24,615	34.95%	(14,482)	(407)	(3458.23%)	(0.44)	(0.02)	15,364	8,570	0.47	0.42
DeeThree Exploration Ltd.	32,747	7,073	362.99%	(12,573)	(15,070)	16.57%	(0.22)	(0.65)	7,100	1,729	0.12	0.07
NiMin Energy Corp.  <sup>3 7</sup>	30,595	19,326	58.31%	(3,193)	(12,767)	74.99%	(0.05)	(0.22)	(705)	(1,015)	(0.01)	(0.02)
Yoho Resources Inc. <sup>12</sup>	29,523	25,523	15.67%	(4,470)	(2,718)	(64.46%)	(0.12)	(0.11)	14,073	13,472	0.38	0.55


#### Note:

1. INA: Information not available
2. Data obtained from Canoils. For companies not updated in the database as at May 1, 2012 were not included in the list
3. All USD balances were translated at 1.01966 per Oanda. All USD transactional accounts were translated at 0.9885 per Oanda
4. Only upstream Revenue included in the Gross Revenues
5. Earnings per Share are basic

6. Cash Flow per Share is calculated by PwC based on weighted average number of shares (basic) and Cash Flow from Operations
7. Revenue presented are net of Royalties
8. NCI excluded from Income / (Loss) and Debt / Equity ratio
9. Year ended June 30, 2011
10. Comparatives for December 31, 2010 are for a period of five months ended

11. Year end for 2011 is for the period March 10 to December 31
12. Year ended September 30, 2011

\* Reported under US GAAP












 Canadian companies with international operations

Capital Expenditures (\$ 000's) 2011	Capital Expenditures (\$ 000's) 2010	Change (%)	Total Assets (\$ 000's) 2011	Total Assets (\$ 000's) 2010	Change (%)	Market Capitalization (\$ 000's) 2011	Market Capitalization (\$ 000's) 2010	Change (%)	Working Capital (\$ 000's) 2011	Working Capital (\$ 000's) 2010	Total Debt as a % of Equity 2011	Total Debt as a % of Equity 2010	Debt to Capital Ratio (%) 2011	Debt to Capital Ratio (%) 2010
171,049	72,489	135.97%	466,554	392,486	18.87%	159,638	169,584	(5.87%)	19,914	(14,567)	81.6%	84.1%	44.9%	45.7%
37,136	58,068	(36.05%)	423,440	427,502	(0.95%)	1,186,740	1,212,625	(2.13%)	479	(6,479)	17.6%	23.1%	15.0%	18.8%
74,364	64,776	14.80%	340,664	345,710	(1.46%)	288,442	261,523	10.29%	(78,138)	(95,019)	44.2%	53.4%	30.7%	34.8%
180,787	64,797	179.01%	665,811	243,503	173.43%	383,926	275,554	39.33%	(6,360)	(21,823)	27.5%	4.1%	21.6%	4.0%
162,366	39,301	313.13%	641,671	211,893	202.83%	598,463	264,759	126.04%	(33,325)	(31,522)	34.4%	11.6%	25.6%	10.4%
166,526	102,976	61.71%	516,062	378,544	36.33%	563,586	408,368	38.01%	(27,158)	(18,810)	22.3%	11.7%	18.2%	10.5%
150,829	121,915	23.72%	384,673	422,114	(8.87%)	101,903	280,312	(63.65%)	18,985	(130,298)	97.5%	40.3%	49.4%	28.7%
126,903	65,128	94.85%	820,494	585,406	40.16%	568,471	695,747	(18.29%)	110,641	225,779	0.0%	0.0%	0.0%	0.0%
99,694	107,020	(6.85%)	447,073	386,737	15.60%	277,720	244,830	13.43%	(12,722)	(1,924)	30.7%	48.0%	23.5%	32.4%
542,215	186,795	190.27%	1,732,889	369,915	368.46%	2,499,065	1,175,840	112.53%	74,197	109,882	89.3%	13.4%	47.2%	11.8%
149,513	107,034	39.69%	460,319	378,404	21.65%	93,177	181,110	(48.55%)	(42,590)	(20,706)	106.2%	52.9%	51.5%	34.6%
39,319	-	-	514,062	-	-	473,114	-	-	(22,812)	-	31.3%	-	23.9%	-
233,681	125,292	86.51%	527,396	291,228	81.09%	486,849	497,968	(2.23%)	38,716	28,362	48.1%	10.0%	32.5%	9.1%
146,775	146,495	0.19%	491,365	409,381	20.03%	477,475	252,350	89.21%	(56,731)	(74,807)	3.0%	19.7%	3.0%	16.4%
74,063	27,056	173.74%	308,405	166,387	85.35%	542,335	379,320	42.98%	83,395	35,963	9.8%	1.0%	8.9%	1.0%
152,276	60,634	151.14%	320,111	176,679	81.18%	258,421	300,756	(14.08%)	(5,316)	(42,649)	61.9%	30.7%	38.2%	23.5%
50,749	13,595	273.29%	491,280	423,144	16.10%	279,677	325,148	(13.98%)	(43,765)	(23,355)	45.0%	22.7%	31.0%	18.5%
199,349	40,223	395.61%	871,360	349,197	149.53%	525,709	325,922	61.30%	259,519	59,929	101.7%	0.0%	50.4%	0.0%
115,859	99,509	16.43%	360,760	209,051	72.57%	224,195	224,465	(0.12%)	(76,416)	(45,782)	30.4%	20.3%	23.3%	16.9%
139,166	114,195	21.87%	478,656	244,579	95.71%	780,562	457,622	70.57%	68,291	(1,205)	0.0%	0.0%	0.0%	0.0%
25,656	17,763	44.44%	207,960	194,375	6.99%	165,829	488,571	(66.06%)	76,837	69,648	0.0%	0.0%	0.0%	0.0%
74,161	64,793	14.46%	371,276	296,709	25.13%	376,957	324,127	16.30%	48,651	26,768	0.0%	0.0%	0.0%	0.0%
25,322	80,979	(68.73%)	295,670	294,042	0.55%	54,963	126,435	(56.53%)	(9,172)	(14,235)	74.2%	67.3%	42.6%	40.2%
54,382	39,299	38.38%	189,149	165,692	14.16%	80,288	159,183	(49.56%)	(31,227)	(33,616)	23.4%	23.1%	19.0%	18.8%
36,725	36,526	0.54%	188,070	148,795	26.40%	136,630	183,456	(25.52%)	(776)	3,354	0.0%	0.0%	0.0%	0.0%
81,621	23,182	252.09%	170,986	92,596	84.66%	108,525	152,077	(28.64%)	(5,980)	(19,781)	94.9%	28.2%	48.7%	22.0%
71,171	27,190	161.75%	239,554	185,528	29.12%	318,904	114,650	178.15%	(27,736)	(34,244)	2.9%	28.5%	2.8%	22.2%
78,184	50,408	55.10%	180,826	125,388	44.21%	131,812	185,327	(28.88%)	(48,257)	(1,840)	44.4%	0.0%	30.8%	0.0%
103,108	54,016	90.88%	279,185	230,937	20.89%	214,559	163,145	31.51%	(13,353)	(6,168)	17.1%	1.1%	14.6%	1.1%
22,664	31,582	(28.24%)	161,217	166,687	(3.28%)	62,500	55,188	13.25%	(9,742)	(35,777)	0.0%	29.6%	0.0%	22.8%
138,054	79,564	73.51%	287,730	184,693	55.79%	463,634	474,989	(2.39%)	(26,975)	49,610	0.0%	0.0%	0.0%	0.0%
36,824	59,213	(37.81%)	138,003	141,864	(2.72%)	63,656	89,036	(28.50%)	(35,832)	(32,574)	35.2%	38.9%	26.0%	28.0%
423,425	-	-	397,086	-	-	323,298	-	-	(3,530)	-	19.6%	-	16.4%	-
27,349	110,309	(75.21%)	158,886	159,868	(0.61%)	186,363	183,995	1.29%	(3,171)	24,041	0.0%	0.0%	0.0%	0.0%
48,061	24,266	98.06%	167,836	150,074	11.84%	90,775	43,670	107.87%	(50,981)	(50,606)	44.5%	47.8%	30.8%	32.4%
71,696	46,548	54.03%	350,832	222,253	57.85%	139,726	115,803	20.66%	(47,137)	(47,523)	33.3%	29.6%	25.0%	22.8%
15,876	132,050	(87.98%)	186,616	170,704	9.32%	103,745	131,608	(21.17%)	(59,126)	(60,085)	81.3%	90.4%	44.7%	47.0%
76,602	56,145	36.44%	186,887	264,693	(29.39%)	165,098	224,907	(26.59%)	(20,907)	24,029	0.0%	12.8%	0.0%	11.3%
73,202	88,182	(16.99%)	223,198	167,276	33.43%	218,604	211,393	3.41%	(78,841)	(44,450)	69.6%	29.8%	41.0%	23.0%
73,319	90,400	(18.89%)	341,079	247,337	37.90%	209,813	275,954	(23.97%)	(18,242)	(2,773)	14.4%	0.0%	11.3%	0.0%
45,683	19,892	129.66%	94,665	48,259	96.16%	122,660	123,910	(1.01%)	(32,645)	(14,174)	63.6%	51.9%	38.9%	34.2%
49,548	61,616	(19.59%)	114,684	99,114	15.71%	41,886	74,650	(43.89%)	(35,046)	(17,266)	46.4%	14.9%	31.7%	13.0%
179,049	19,054	839.69%	213,239	65,334	226.38%	129,462	141,629	(8.59%)	(17,284)	28,505	5.1%	0.0%	4.8%	0.0%
17,905	11,695	53.10%	92,290	81,903	12.68%	43,309	101,796	(57.46%)	(2,681)	5,240	76.6%	112.2%	43.4%	52.9%
32,651	19,730	65.49%	140,061	124,119	12.84%	115,826	82,721	40.02%	(22,605)	(22,878)	17.0%	23.6%	14.5%	19.1%

# Financial Statistics

## Exploration and Production companies

### Operating statistics – PwC's Top 100

Company	Oil & Liquid Production bbls/d 2011	NG Production mmcf/d 2011	Total Production boe/d 2011	Total Production boe/d 2010	Change (%)	Liquids Price per bbl 2011 <sup>4</sup>	NG Price per mcf 2011 <sup>4</sup>	Proved Reserves (mBOE) 2011 <sup>5</sup>	Proved Reserves (mBOE) 2010 <sup>5</sup>	Change (%)	Probable Reserves (mBOE) 2011 <sup>5</sup>
Suncor Energy Inc. 	472,721	439,472	545,966	615,100	(11.24%)	85.30	3.55	4,028,000	3,900,000	3.28%	3,079,000
Canadian Natural Resources Limited 	389,053	1,257,000	598,553	632,191	(5.32%)	77.46	3.73	4,831,000	4,505,000	7.24%	2,707,000
Imperial Oil Limited 	255,000	254,000	297,333	293,667	1.25%	72.15	3.59	3,191,000	2,549,000	25.19%	2,012,500
Talisman Energy Inc. 	178,000	1,491,000	426,500	417,000	2.28%	107.04	5.92	1,487,600	1,382,500	7.60%	735,000
Husky Energy Inc. 	211,300	607,000	312,467	287,100	8.84%	82.72	3.55	1,172,000	1,081,000	8.42%	1,679,000
EnCana Corporation 	24,000	3,333,000	579,500	553,467	4.70%	84.38	4.90	2,737,000	2,785,000	(1.72%)	1,591,900
Nexen Inc. 	167,300	239,000	207,133	246,133	(15.85%)	105.21	4.31	1,007,500	1,010,833	(0.33%)	1,296,833
Cenovus Energy Inc.	134,239	656,000	243,572	252,020	(3.35%)	72.84	3.65	1,945,500	1,665,667	16.80%	715,167
Canadian Oil Sands Limited	106,015	-	106,015	107,280	(1.18%)	101.20	-	848,000	889,000	(4.61%)	914,000
Penn West Petroleum Ltd.	103,208	359,000	163,041	164,633	(0.97%)	83.22	3.78	497,500	481,167	3.39%	222,000
Pacific Rubiales Energy Corp. <sup>3</sup>	75,539	65,748	86,497	56,974	51.82%	98.88	5.74	383,800	285,500	34.43%	110,000
Denbury Resources Inc. 	60,736	29,542	65,660	72,927	(9.96%)	97.76	7.26	461,934	397,925	16.09%	INA
Crescent Point Energy Corp	66,604	43,172	73,799	61,623	19.76%	87.62	3.87	281,031	250,810	12.05%	143,747
Pengrowth Energy Corporation	37,539	218,601	73,973	74,693	(0.97%)	75.83	4.08	234,900	221,000	6.29%	95,600
ARC Resources Ltd.	31,654	310,600	83,416	73,954	12.79%	92.79	3.83	359,641	334,432	7.54%	212,733
Petrominerales Ltd. 	38,378	-	38,378	37,027	3.65%	90.83	-	31,796	43,986	(27.71%)	19,700
Enerplus Corporation 	33,487	251,068	75,332	83,139	(9.39%)	74.24	3.72	216,743	215,127	0.75%	98,908
Harvest Operations Corp.	38,434	112,360	57,161	49,397	15.72%	79.60	3.83	264,964	238,109	11.28%	240,505
PetroBakken Energy Ltd.	35,156	35,052	40,998	41,688	(1.65%)	88.65	3.92	118,890	102,003	16.56%	83,006
Petrobank Energy and Resources Ltd. 	35,156	35,052	40,998	41,688	(1.66%)	88.65	3.92	118,891	105,035	13.19%	177,207
Baytex Energy Corp.	42,021	48,700	50,132	44,341	13.06%	68.26	4.17	156,562	140,190	11.68%	95,613
Ultra Petroleum Corporation 	3,858	648,855	112,000	97,542	14.82%	83.81	4.10	829,507	731,710	13.37%	INA
Bonavista Energy Corporation <sup>7</sup>	26,758	255,000	69,332	66,259	4.64%	68.50	4.06	231,760	222,921	3.97%	109,629
Vermilion Energy Inc. 	22,334	77,207	35,202	32,132	9.55%	104.58	6.35	96,499	96,421	0.08%	49,733
MEG Energy Corp.	26,605	-	26,605	21,257	25.16%	58.74	-	708	606	16.83%	1,352
NAL Energy Corporation <sup>7</sup>	13,288	90,302	28,338	29,446	(3.76%)	77.62	3.54	66,151	70,991	(6.82%)	37,665
Progress Energy Resources Corp. <sup>7</sup>	5,710	226,407	43,444	40,932	6.14%	80.31	3.71	188,675	153,338	23.05%	134,359
Connacher Oil and Gas Limited <sup>7</sup>	13,703	4,124	14,493	10,699	35.47%	65.02	3.70	176,994	186,667	(5.18%)	326,758
TransGlobe Energy Corporation 	12,132	-	12,132	9,960	21.81%	100.41	-	28,148	20,455	37.61%	16,062
Crew Energy Inc.	10,993	68,756	22,452	13,689	64.02%	72.93	3.81	75,624	45,467	66.33%	61,650
Peyto Exploration & Development Corp.	3,856	189,653	35,465	23,728	49.47%	81.67	4.47	226,304	179,701	25.93%	97,101
Trilogy Energy Corp. <sup>7</sup>	8,046	119,802	28,012	22,787	22.93%	73.10	3.88	63,665	54,502	16.81%	24,913
NuVista Energy Ltd. <sup>7</sup>	8,180	104,250	25,556	28,343	(9.83%)	71.86	3.90	69,779	73,989	(5.69%)	40,306
Legacy Oil + Gas Inc. <sup>7</sup>	10,390	13,557	12,650	8,765	44.32%	77.61	4.02	52,404	48,060	9.04%	35,588
Advantage Oil & Gas Ltd.	6,230	130,075	27,909	24,129	15.67%	80.56	4.17	161,145	143,371	12.40%	94,293
Coastal Energy Company 	11,543	-	11,543	9,670	19.37%	100.22	-	62,489	14,489	331.29%	17,453
Tourmaline Oil Corp	3,346	165,966	31,007	17,856	73.65%	90.24	4.17	148,849	93,015	60.03%	120,948
Bankers Petroleum Ltd 	12,784	-	12,784	9,597	33.21%	72.00	-	172,400	120,249	43.37%	94,700
C&C Energia Ltd. 	8,455	-	8,455	5,842	44.73%	93.88	-	12,397	7,934	56.25%	4,307
Birchcliff Energy Ltd. <sup>7</sup>	4,450	82,116	18,136	13,079	38.67%	90.67	3.85	156,163	113,982	37.01%	119,277
Pace Oil & Gas Ltd.	6,245	46,772	14,040	11,405	23.10%	81.96	3.72	44,430	41,816	6.25%	25,201
Paramount Resources Ltd. 	3,833	81,600	17,426	13,029	33.75%	85.03	4.10	35,666	25,576	39.45%	17,349
Chinook Energy Inc. 	5,224	56,262	14,602	9,795	49.08%	79.47	3.75	32,167	37,416	(14.03%)	23,644
Perpetual Energy Inc.	2,027	130,200	23,727	25,428	(6.69%)	78.06	3.82	38,907	41,443	(6.12%)	41,509
Celtic Exploration Ltd.	3,789	74,539	16,212	17,304	(6.31%)	81.72	4.02	78,518	38,332	104.84%	59,946
Fairborne Energy Ltd. <sup>7</sup>	3,182	69,249	14,723	15,160	(2.88%)	75.57	4.20	44,281	50,017	(11.47%)	19,783
Bellatrix Exploration Ltd.	4,540	44,484	11,954	8,519	40.32%	81.47	4.05	41,762	24,842	68.11%	25,674
Zargon Oil & Gas Ltd. 	5,468	21,970	9,130	9,879	(7.59%)	82.09	3.45	20,998	22,394	(6.23%)	12,999
Lone Pine Resources Inc. 	3,747	78,452	16,823	12,880	30.64%	81.39	3.38	66,807	62,738	5.34%	46,015
Guide Exploration Ltd. <sup>7</sup>	4,070	47,818	12,040	14,800	(18.65%)	76.15	3.84	23,422	35,827	(34.62%)	14,688
Angle Energy Inc. <sup>7</sup>	5,409	46,522	13,163	9,243	42.41%	66.89	3.83	38,144	31,900	19.57%	35,665
BlackPearl Resources Inc.	7,460	0,960	7,620	6,951	9.63%	65.64	3.84	15,279	11,709	30.49%	20,531
Parex Resources Inc. 	5,345	-	5,345	86	6115.12%	99.20	-	4,953	1,066	364.63%	5,759
Compton Petroleum Corporation	2,191	67,000	13,347	17,402	(23.30%)	80.39	3.92	50,890	57,074	(10.84%)	25,282
Bonterra Energy Corp. <sup>7</sup>	4,461	11,163	6,322	5,628	12.32%	76.83	3.86	28,130	28,575	(1.56%)	13,019
















Probable Reserves (mBOE) 2010 <sup>5</sup>	Change (%)	Gas Leverage on Reserves 2011	Gas Leverage on Reserves 2010	Op. Costs per boe 2011	Op. Costs per boe 2010	Change (%)	Royalties per boe 2011	Royalties per boe 2010	G&A Costs per boe 2011	G&A Costs per boe 2010	Depletion Costs per boe 2011	Depletion Costs per boe 2010	Cash Flow per boe 2011 <sup>6</sup>	Cash Flow per boe 2010 <sup>6</sup>
3,325,000	(7.40%)	5%	6%	30.21	24.36	23.99%	(11.40)	(9.17)	INA	INA	19.83	16.94	50.12	24.44
2,397,000	12.93%	15%	16%	12.42	11.25	10.40%	(8.12)	(6.72)	1.07	0.92	16.35	18.76	28.58	27.22
2,831,000	(28.91%)	2%	4%	21.16	16.86	25.50%	INA	INA	10.76	9.98	7.04	6.97	41.36	29.92
744,200	(1.24%)	66%	63%	14.17	12.44	13.91%	(12.54)	(8.49)	2.77	2.44	12.55	11.76	17.86	21.29
1,318,000	27.39%	34%	37%	14.56	13.35	9.06%	(9.87)	(9.33)	1.69	0.48	17.51	14.52	44.65	21.20
1,711,167	(6.97%)	94%	96%	4.94	5.25	(5.91%)	INA	INA	1.63	1.85	15.98	16.96	18.89	12.06
1,123,167	15.46%	5%	6%	18.50	15.48	19.54%	INA	INA	3.97	4.76	16.39	16.20	33.03	26.63
737,333	(3.01%)	10%	12%	13.65	11.90	14.71%	(9.65)	(9.34)	3.32	2.67	14.57	14.15	36.82	28.17
877,000	4.22%	-	-	38.79	35.42	9.51%	(7.93)	(7.80)	0.85	0.80	9.84	10.96	50.60	33.07
179,000	24.02%	26%	30%	17.40	15.71	10.76%	(11.09)	(9.07)	2.39	2.41	19.46	19.45	23.64	20.25
39,800	176.38%	22%	32%	33.58	25.44	37.64%	INA	INA	5.09	4.32	17.70	15.90	38.17	46.68
INA	INA	23%	15%	22.00	19.42	13.29%	INA	INA	5.18	5.19	16.87	16.82	49.69	33.21
128,730	11.67%	4%	8%	11.16	11.03	1.26%	(13.95)	(12.56)	1.32	1.47	34.88	30.46	49.11	36.30
97,400	(1.85%)	40%	47%	14.15	13.09	8.09%	(10.29)	(9.27)	2.79	1.87	16.22	15.86	25.67	25.19
150,689	41.17%	66%	63%	9.70	9.70	(0.04%)	(7.20)	(7.14)	2.63	3.39	16.72	15.14	29.65	25.08
16,236	21.34%	-	-	12.12	8.43	43.77%	(11.60)	(8.75)	2.47	1.89	22.16	16.56	55.20	45.56
84,530	17.01%	42%	45%	10.23	9.59	6.65%	(8.92)	(7.36)	2.99	2.76	15.76	15.16	22.67	22.94
223,353	7.68%	21%	14%	16.80	14.73	14.03%	(9.37)	(8.58)	2.91	2.51	25.68	26.10	26.86	24.36
67,813	22.41%	14%	15%	12.21	8.18	49.27%	(12.41)	(9.34)	2.65	2.27	26.87	25.35	48.20	36.91
160,666	10.30%	14%	34%	12.21	8.18	49.29%	(12.41)	(9.34)	2.65	2.27	26.87	25.36	46.80	76.11
88,835	7.63%	9%	10%	11.43	10.62	7.63%	(11.59)	(10.56)	2.15	2.52	13.57	12.54	31.25	28.51
INA	INA	96%	96%	1.26	1.32	(4.55%)	INA	INA	0.65	0.68	8.36	6.99	24.99	23.88
87,828	24.82%	60%	65%	9.05	8.05	12.42%	(6.39)	(5.93)	0.95	0.86	12.39	11.22	22.41	22.43
45,908	8.33%	42%	44%	12.64	12.33	2.50%	(4.22)	(3.75)	3.47	3.65	18.42	15.66	34.80	35.92
1,313	2.97%	-	-	15.46	19.89	(22.27%)	(3.24)	(2.13)	5.74	4.69	12.81	12.62	32.37	9.59
32,955	14.29%	49%	51%	12.01	10.41	15.33%	(8.69)	(8.05)	2.50	2.39	18.70	18.68	25.02	25.55
99,559	34.95%	88%	90%	5.51	6.05	(8.86%)	(3.57)	(4.57)	0.97	0.94	15.10	24.44	14.08	12.97
322,766	1.24%	1%	2%	19.64	18.12	8.39%	(2.92)	(2.93)	5.81	4.81	23.06	20.45	26.92	17.01
9,985	60.86%	-	-	8.18	7.62	7.32%	(45.11)	(31.66)	4.00	4.02	7.83	7.98	14.20	14.15
29,093	111.91%	60%	66%	11.21	10.80	3.75%	(11.21)	(8.37)	1.72	1.95	19.01	15.81	18.72	18.80
79,977	21.41%	81%	86%	2.12	2.13	0.53%	(3.17)	(3.86)	0.38	0.42	10.08	9.66	22.40	25.69
23,694	5.15%	68%	71%	8.29	8.49	(2.40%)	(3.80)	(5.38)	1.18	1.83	15.55	15.87	21.10	19.84
39,084	3.13%	72%	73%	11.12	9.11	22.05%	(4.63)	(5.54)	2.12	1.85	17.10	15.56	17.18	16.19
29,731	19.70%	19%	22%	15.52	11.28	37.53%	(12.83)	(11.34)	3.05	2.68	31.31	32.97	36.43	33.83
100,285	(5.98%)	87%	86%	8.75	10.86	(19.37%)	(5.20)	(5.22)	2.18	2.87	15.01	14.15	21.42	25.31
12,654	37.92%	-	-	28.61	20.00	43.05%	(8.39)	(6.15)	4.57	4.32	17.62	11.12	44.31	27.74
65,166	85.60%	88%	87%	5.58	6.34	(12.09%)	(2.08)	(2.40)	1.02	1.29	13.98	14.83	20.18	21.99
117,327	(19.29%)	-	-	12.89	10.81	19.24%	(13.54)	(9.92)	2.92	3.11	8.37	6.48	27.98	14.49
4,630	(6.98%)	-	-	16.57	14.68	12.87%	(12.76)	(10.71)	2.41	1.97	20.72	16.51	40.53	35.85
87,154	36.86%	84%	80%	6.75	7.59	(11.02%)	(4.44)	(3.55)	3.74	3.30	10.84	10.79	21.59	20.06
25,191	0.04%	45%	51%	13.48	16.21	(16.84%)	(10.93)	(6.81)	3.10	3.18	13.18	29.56	17.76	10.73
14,511	19.56%	76%	75%	11.20	10.70	4.68%	(3.47)	(4.46)	2.66	3.19	59.21	33.40	13.36	12.44
25,043	(5.59%)	54%	58%	18.72	12.63	48.22%	(6.72)	(4.84)	3.71	6.45	20.74	18.29	13.28	16.30
39,464	5.18%	88%	93%	10.32	9.84	4.88%	(2.40)	(2.40)	3.48	3.72	13.38	24.30	6.98	21.54
28,556	109.92%	74%	79%	8.57	8.59	(0.23%)	(4.30)	(4.05)	0.79	0.73	23.96	19.02	20.72	24.54
22,953	(13.81%)	67%	77%	8.77	9.11	(3.73%)	(3.83)	(4.46)	2.76	2.44	45.72	19.76	21.98	24.83
17,601	45.87%	63%	63%	11.53	12.21	(5.55%)	(7.95)	(7.37)	2.83	3.03	14.53	15.40	22.50	14.24
9,772	33.02%	31%	34%	16.68	12.77	30.61%	(10.19)	(8.86)	4.74	4.23	15.29	13.65	21.98	17.10
43,328	6.20%	74%	71%	6.70	6.18	8.41%	INA	INA	2.25	2.10	14.83	14.41	19.67	18.59
28,279	(48.06%)	61%	63%	11.59	9.52	21.80%	(8.10)	(8.15)	3.52	2.73	20.63	14.79	23.56	19.14
27,796	28.31%	59%	66%	6.27	6.17	1.65%	(8.19)	(7.03)	2.28	3.40	13.53	13.99	20.63	14.77
13,130	56.37%	1%	4%	17.80	14.51	22.64%	(16.49)	(14.50)	2.49	2.75	22.21	22.78	27.11	23.20
4,788	20.28%	-	-	6.50	12.83	(49.34%)	(8.07)	(6.43)	8.00	387.19	31.16	55.27	60.88	(203.09)
26,604	(4.97%)	85%	89%	9.74	8.33	16.93%	(7.26)	(7.00)	3.15	3.57	11.92	14.08	7.47	4.89
10,822	20.30%	25%	24%	15.94	14.82	7.56%	(7.62)	(5.64)	2.94	2.83	14.17	10.93	42.22	32.24

# Financial statistics

## Exploration and Production Companies


### Operating statistics – PwC's top 100

Company	Oil & Liquid Production bbls/d 2011	NG Production mmcf/d 2011	Total Production boe/d 2011	Total Production boe/d 2010	Change (%)	Liquids Price per bbl 2011 <sup>4</sup>	NG Price per mcf 2011 <sup>4</sup>	Proved Reserves (mBOE) 2011 <sup>5</sup>	Proved Reserves (mBOE) 2010 <sup>5</sup>	Change (%)	Probable Reserves (mBOE) 2011 <sup>5</sup>
Equal Energy Ltd.  <sup>7</sup>	5,391	28,507	10,142	9,118	11.23%	65.31	3.81	34,854	25,857	34.80%	3,310
Freehold Royalties Ltd.	4,697	16,674	7,476	7,615	(1.82%)	78.53	3.13	3,434	3,524	(2.55%)	2,303
Twin Butte Energy Ltd. <sup>7</sup>	4,669	17,673	7,615	6,571	15.89%	77.66	3.95	20,925	22,923	(8.71%)	14,694
WestFire Energy Ltd. <sup>7</sup>	3,839	11,822	5,809	2,513	131.22%	75.96	3.76	28,899	8,185	253.08%	14,385
Whitecap Resources Inc. <sup>7</sup>	3,588	12,417	5,657	1,433	294.72%	81.58	3.84	25,625	8,257	210.33%	12,954
Surge Energy Inc.	3,604	14,133	5,960	3,026	96.95%	84.91	3.79	20,523	14,359	42.92%	11,684
Vero Energy Inc. <sup>7</sup>	2,226	42,073	9,238	8,522	8.40%	81.31	3.96	20,872	20,052	4.09%	13,774
Ithaca Energy Inc.  <sup>3</sup>	3,206	-	3,206	4,485	(28.52%)	110.18	-	26,133	22,298	17.20%	24,120
Delphi Energy Corp. <sup>7</sup>	2,538	37,992	8,870	8,086	9.69%	71.35	4.55	25,015	22,637	10.50%	15,085
Kodiak Oil & Gas Corp.  <sup>3</sup>	1,344	1,329	1,566	507	208.88%	85.06	8.12	39,832	11,504	246.24%	INA
Anderson Energy Ltd. <sup>7</sup>	2,422	31,620	7,692	7,566	1.66%	81.43	3.60	20,946	20,118	4.12%	13,380
Longview Oil Corp.	4,690	9,514	6,276	-	-	84.06	3.81	20,703	-	-	16,877
Arcan Resources Ltd	3,097	1,074	3,276	2,243	46.09%	99.57	3.98	21,582	13,823	56.13%	19,420
Cequence Energy Ltd. <sup>7</sup>	1,039	47,825	9,010	4,451	102.42%	82.30	4.03	35,078	27,331	28.34%	32,366
Canacol Energy Ltd.  <sup>3 7 9</sup>	7,051	-	7,051	2,254	212.82%	98.42	-	6,162	6,748	(8.68%)	INA
Midway Energy Ltd.	2,707	7,456	3,950	2,124	85.94%	86.09	3.82	16,696	11,601	43.93%	8,542
AvenEx Energy Corp.	2,256	16,737	5,045	3,965	27.25%	82.90	4.20	10,452	10,800	(3.22%)	4,530
Southern Pacific Resource Corp.	4,230	0.221	4,267	2,956	44.34%	70.54	3.71	120,783	6,808	1674.13%	60,217
Renegade Petroleum Ltd. 	2,398	0.555	2,491	1,090	128.52%	91.07	1.59	8,502	4,184	103.22%	4,299
Painted Pony Petroleum Ltd. <sup>7</sup>	1,622	15,589	4,220	2,849	48.15%	78.86	3.60	31,383	11,335	176.86%	105,494
Calvalley Petroleum Inc.  <sup>3</sup>	2,081	-	2,081	2,256	(7.76%)	107.14	-	14,962	15,547	(3.76%)	14,586
Pan Orient Energy Corp. 	2,030	-	2,030	3,884	(47.73%)	97.96	-	5,993	7,363	(18.61%)	13,005
Terra Energy Corp. <sup>7</sup>	1,169	30,182	6,199	6,842	(9.40%)	74.08	3.66	17,364	18,928	(8.26%)	16,580
Rock Energy Inc.	2,294	5,026	3,132	3,615	(13.36%)	68.52	3.77	9,780	8,574	14.08%	11,768
Winstar Resources Ltd.  <sup>3</sup>	1,215	2,610	1,650	1,791	(7.87%)	109.68	12.82	3,991	3,583	11.37%	7,753
Arsenal Energy Inc. 	1,824	2,440	2,231	2,092	6.61%	84.47	3.47	9,954	7,219	37.89%	5,768
Crocotta Energy Inc.	1,214	15,367	3,775	2,494	51.40%	74.69	3.90	17,477	9,808	78.19%	12,050
Novus Energy Inc.	1,495	2,854	1,971	1,115	76.77%	90.16	3.79	8,845	4,920	79.77%	5,712
RMP Energy Inc.	877	15,568	3,472	3,735	(7.05%)	86.22	3.86	14,398	10,535	36.67%	8,279
Insignia Energy Ltd.	902	14,768	3,363	2,903	15.84%	85.24	3.90	7,385	6,167	19.74%	8,001
Pinecrest Energy Inc. <sup>7 10</sup>	1,342	0.034	1,348	162	731.89%	77.25	3.68	5,320	1,107	380.76%	3,067
Bellamont Exploration Ltd. <sup>7</sup>	1,133	7,812	2,435	2,342	3.96%	79.70	3.97	6,755	6,402	5.52%	6,910
Parallel Energy Trust <sup>7 8</sup>	2,355	7,386	3,586	-	-	69.25	4.31	26,625	26,937	(1.16%)	4,270
Eagle Energy Trust 	1,376	-	1,376	726	89.53%	87.95	-	3,685	3,051	20.78%	3,989
Artek Exploration Ltd. <sup>7</sup>	997	8,195	2,363	1,808	30.66%	80.58	4.50	12,853	9,350	37.46%	10,029
Open Range Energy Corp.	323	24,159	4,349	3,783	14.95%	83.34	3.84	14,336	12,664	13.21%	11,216
Dundee Energy Limited  <sup>7</sup>	718	10,538	2,474	2,427	1.95%	77.74	4.50	12,792	11,676	9.56%	3,299
Sonde Resources Corp. <sup>7</sup>	765	12,187	2,796	2,870	(2.56%)	75.51	4.04	6,215	6,054	2.66%	3,292
Second Wave Petroleum Inc. <sup>7</sup>	1,110	3,445	1,684	1,397	20.56%	79.52	3.82	6,560	3,553	84.61%	4,390
Gastar Exploration Ltd.  <sup>3 7</sup>	167	20,049	3,509	3,166	10.82%	68.79	4.51	19,953	8,377	138.19%	9,882
Exall Energy Corporation <sup>7</sup>	970	0.749	1,094	877	24.74%	79.48	4.14	2,048	2,093	(2.15%)	2,526
Waldron Energy Corporation <sup>7</sup>	630	12,342	2,687	2,108	27.47%	75.79	3.82	5,966	6,744	(11.55%)	5,376
DeeThree Exploration Ltd. <sup>7</sup>	698	6,974	1,860	727	156.01%	85.86	3.71	7,398	1,320	460.42%	2,296
NiMin Energy Corp.  <sup>3</sup>	960	0.439	1,033	842	22.70%	85.45	4.04	19,618	17,347	13.09%	9,066
Yoho Resources Inc. <sup>11</sup>	569	11,435	2,475	2,269	9.08%	69.46	3.62	7,557	5,527	36.72%	6,272

#### Note:

1. INA: Information not available
2. Data obtained from Canoils. For companies not updated in the database as at May 1, 2012 were not included in the list
3. All USD balances were translated at 1.01966 per Oanda. All USD transactional accounts were translated at 0.9885 per Oanda
4. Prices are presented after hedging
5. Reserves are gross
6. Calculated by PwC based on Cash Flow from Operations

7. Liquids Price (per bbl) is the average of Oil, NGL price (per bbl) and /or Bitumen price (per bbl)
8. Year end for 2011 is for the period March 10 to December 31
9. Year ended June 30, 2011
10. Comparatives for December 31, 2010 are for a period of five months ended
11. Year ended September 30, 2011

- \* Reported under US GAAP
-  With international operations

Probable Reserves (mBOE) 2010 <sup>5</sup>	Change (%)	Gas Leverage on Reserves 2011	Gas Leverage on Reserves 2010	Op. Costs per boe 2011	Op. Costs per boe 2010	Change (%)	Royalties per boe 2011	Royalties per boe 2010	G&A Costs per boe 2011	G&A Costs per boe 2010	Depletion Costs per boe 2011	Depletion Costs per boe 2010	Cash Flow per boe 2011 <sup>6</sup>	Cash Flow per boe 2010 <sup>6</sup>
6,063	(45.41%)	51%	48%	11.22	10.76	4.23%	(8.93)	(8.81)	3.49	5.78	14.38	14.20	15.20	10.35
2,274	1.26%	21%	40%	4.68	4.16	12.53%	(1.54)	(1.47)	2.58	2.81	18.05	16.60	43.38	39.83
14,537	1.08%	53%	55%	15.75	13.64	15.45%	(10.37)	(8.65)	2.27	2.38	15.42	13.22	22.71	11.70
6,054	137.61%	37%	30%	16.39	17.74	(7.61%)	(7.94)	(5.16)	4.96	3.20	25.61	17.31	34.80	23.69
5,419	139.04%	24%	36%	11.91	12.73	(6.44%)	(7.93)	(7.44)	1.74	4.55	23.72	18.68	38.26	10.77
6,854	70.48%	39%	43%	15.58	15.25	2.16%	(8.06)	(7.35)	4.37	6.06	22.29	17.20	26.04	14.60
12,890	6.86%	332%	73%	8.37	8.02	4.38%	(4.26)	(3.72)	1.86	1.98	15.67	14.18	23.87	19.96
23,749	1.56%	-	-	40.77	23.87	70.76%	INA	INA	3.87	2.42	26.54	14.69	87.40	55.94
11,772	28.14%	76%	79%	6.84	7.44	(8.05%)	(6.41)	(4.89)	1.96	2.18	14.06	15.00	21.10	19.62
INA	INA	1%	1%	17.51	14.97	16.97%	INA	INA	13.46	27.34	22.14	18.47	74.84	20.99
11,570	15.64%	71%	82%	10.52	10.33	1.80%	(4.92)	(3.26)	3.36	3.04	18.85	16.53	19.34	14.60
-	-	22%	-	18.06	-	-	(14.18)	-	1.67	-	16.94	-	25.61	-
7,273	167.01%	6%	5%	22.35	13.57	64.66%	(16.32)	(17.96)	8.32	6.26	22.90	20.48	37.54	23.98
21,531	50.32%	87%	89%	9.02	10.89	(17.18%)	(4.18)	(3.55)	2.23	3.41	18.11	50.82	11.16	10.61
INA	INA	-	-	15.06	14.57	3.36%	INA	INA	5.44	11.63	12.47	14.91	18.57	(0.30)
5,106	67.29%	30%	32%	12.89	13.13	(1.85%)	(7.31)	(5.03)	3.42	5.47	16.23	16.02	39.63	21.75
4,489	0.93%	53%	58%	16.80	15.98	5.07%	(8.96)	(6.55)	10.04	11.25	16.74	16.40	20.28	17.40
171,738	(64.94%)	0%	2%	10.07	9.88	1.90%	(9.81)	(8.94)	6.12	3.77	22.38	26.50	28.21	31.33
2,159	99.12%	8%	2%	15.34	18.13	(15.40%)	(15.43)	(13.24)	6.67	11.76	33.94	31.75	39.71	21.26
21,203	397.54%	81%	65%	10.72	10.94	(2.03%)	(5.93)	(7.24)	2.58	2.19	19.18	23.08	29.14	34.12
16,251	(10.25%)	-	-	14.35	13.12	9.38%	(40.62)	(31.53)	6.59	5.46	6.17	7.44	32.75	27.08
24,572	(47.07%)	-	-	13.16	6.73	95.66%	(5.19)	(4.66)	7.80	2.70	14.82	6.22	40.72	37.97
12,116	36.85%	81%	81%	15.03	11.42	31.68%	(4.71)	(5.18)	3.61	3.82	10.21	10.16	7.85	10.79
7,336	60.42%	49%	52%	22.95	16.97	35.22%	(10.48)	(7.35)	5.59	3.91	22.11	14.74	17.27	19.82
8,058	(3.78%)	31%	29%	13.31	13.97	(4.72%)	(14.64)	(10.87)	14.90	10.78	19.35	15.90	56.97	51.12
3,248	77.60%	22%	12%	17.85	18.94	(5.74%)	(14.47)	(10.25)	4.88	4.59	15.84	16.82	31.08	14.51
6,297	91.38%	72%	69%	7.85	9.01	(12.90%)	(4.46)	(5.93)	3.90	3.97	15.04	14.39	21.26	13.80
4,409	29.57%	18%	19%	14.70	15.89	(7.49%)	(9.32)	(8.65)	8.31	12.85	39.28	45.49	26.45	7.14
6,150	34.63%	59%	84%	9.56	8.18	16.83%	(4.84)	(2.65)	3.91	2.48	27.32	20.47	13.50	20.72
8,483	(5.68%)	79%	76%	10.46	13.32	(21.47%)	(4.16)	(4.18)	2.96	3.21	17.48	17.16	21.82	10.75
700	338.29%	2%	4%	12.29	16.55	(25.75%)	(8.82)	(11.32)	5.82	41.84	25.53	22.97	54.29	(14.63)
5,117	35.02%	48%	61%	14.50	13.47	7.66%	(8.93)	(5.92)	4.23	3.49	25.76	35.68	24.67	17.08
2,478	72.32%	36%	33%	7.44	-	-	(9.19)	-	3.43	-	15.16	-	13.92	-
4,022	(0.82%)	-	-	11.17	10.25	8.98%	(24.73)	(22.99)	11.50	11.48	25.01	25.84	28.50	20.27
9,265	8.24%	76%	80%	11.61	12.62	(7.97%)	(10.14)	(7.02)	3.36	3.73	45.22	14.06	25.12	17.41
7,675	46.14%	92%	93%	3.56	4.98	(28.42%)	(2.50)	(2.78)	2.87	2.52	16.54	14.95	14.96	19.47
2,969	11.13%	85%	85%	14.35	12.80	12.11%	(7.04)	(6.81)	9.44	17.50	17.09	15.08	17.20	1.18
4,117	(20.04%)	76%	81%	15.21	12.45	22.24%	(4.40)	(4.43)	10.60	11.32	14.61	16.04	5.00	(0.44)
2,301	90.75%	27%	34%	23.40	19.39	20.64%	(4.04)	(5.83)	4.54	6.40	29.05	20.68	21.64	14.26
12,454	(20.65%)	77%	99%	6.66	5.96	11.68%	INA	INA	8.77	13.06	11.74	8.30	7.91	(5.42)
1,153	119.09%	10%	13%	10.55	6.52	61.82%	(22.82)	(23.99)	4.18	6.51	18.98	14.85	42.55	31.20
6,311	(14.82%)	73%	81%	8.81	10.11	(12.84%)	(4.22)	(3.69)	3.42	3.85	13.85	12.68	15.67	11.14
270	750.44%	45%	96%	14.32	8.72	64.14%	(8.92)	(3.86)	6.50	6.56	21.93	12.55	10.46	6.52
11,291	(19.71%)	0%	1%	30.31	30.57	(0.85%)	(17.42)	(15.83)	20.69	26.46	9.19	10.70	(1.87)	(3.30)
3,325	88.67%	78%	79%	6.20	5.40	14.88%	(3.88)	(3.89)	2.64	2.36	20.68	19.29	15.58	16.27

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## Finding solutions to industry challenges

In a continuously changing global economy, Canadian energy companies are presented with exciting opportunities to grow their business. But with new opportunities comes unique challenges that busy oil and gas organizations may not have the time or resources to manage. We can help.

### Challenge 1:

Changing market dynamics, including commodity prices, supply and demand and structures

Energy is a mature industry, but continues to evolve and experience changing market dynamics. Characterized by long project lead times and a boom-to-bust cycle, the oil and gas business requires careful strategic planning and long-term thinking to achieve success. Access to easy reserves has all but disappeared. Nonconventional plays—searching for reserves in deep water, and mining bitumen and shale—are more common in today's industry. Amidst these market dynamics, prices have continued to fluctuate up and down in drastic swings over recent years.

There is a clear competitive advantage for energy companies that can operate an efficient business, control costs and find ways to improve performance.

### How we can help

Using our deep understanding of finance, risk management/compliance, IT systems, operations and human resources, PwC helps clients identify and implement cost saving initiatives, improve processes and internal controls, identify and manage risk and improve quality. We also use our proven experience and knowledge to provide hands-on assistance to improve financial under-performance and cash-flow management. Our industry skills and understanding ensure tailored solutions to support your response to increasing regulation, competition, risk and costs. Areas we have helped companies improve performance include:

### Finance

- **Maintaining compliance and control:** Being accountable to the business and to the financial community, CFOs have put compliance and control on the top of the agenda. For many, responses have been tactical rather than strategic. More deeply embedded and sustainable solutions are now required. Flexibility to respond to future regulatory change is also increasingly important.
- **Driving efficiency:** The pressure to release resources and capacity has never been greater. Gains may come from the elimination of redundant activities, consolidations of activities (for example, through shared services), standardization and automation of processes. These steps have in some instances resulted in cost savings in excess of 50%.
- **Providing insight and challenge:** Insight takes different forms in different organizations. It involves delivery of an effective performance management framework, understanding the key business drivers and challenging and supporting business decisions around these drivers. Equipping finance to deliver effective support on these aspects requires tools and capabilities which are often new to the function.

### Capital projects and infrastructure

Whether related to infrastructure, construction of a new plant, building or system, capital projects require separate financing, management, governance and assurance. The challenge of developing and delivering capital projects is further intensified as the nature of projects themselves becomes more complex and demanding. For example, many projects need to be sited in very demanding locations in order to source more marginal reserves or gain



permitting. Projects are also becoming more technologically demanding as companies factor in the impact of evolving technologies, such as horizontal drilling and multistage fracking. Companies also have to contend with the ups and downs of labor and skills availability.

PwC is well-equipped to assist with the challenges facing companies and guide them through the steps they need to take throughout the capital project cycle to achieve the best outcomes. Our highly experienced specialist teams of industry experts, engineers, surveyors and project accountants work closely with companies to review capital project practices throughout the project lifecycle, including portfolio management, governance, project management, risk and quality management, procurement strategies, supply chain management and management reporting.

## **Challenge 2:**

**Accessing capital, larger workforces, better technology and effective risk management**

A large number of significant transactions in the past few years seem to be a strong indicator that the energy industry is once again focused on growing and expanding. The size and scale of energy companies continues to grow; the oilfield services sector is further consolidating, and upstream companies are buying access to important oil and gas reserves.

### **How we can help**

Whether a company is considering a transaction, joint venture agreement, production sharing agreement, divestiture or organic expansion, our energy professionals have the experience and deep industry understanding to deliver value and contribute to your success.

- **Mergers and acquisitions:**

We focus on the deal continuum from strategy through execution to post-deal integration, including financial and operational due diligence, accessing the capital markets and valuing, negotiating and structuring deals.

- **Strategic and valuation advice:**

We provide independent expert valuation advice for your business. For example, we evaluate the financial implications of corporate debt, restructuring, investments, mergers and joint-ventures. We advise on better managing assets and large capital investments amidst increased competition, or in times of uncertainty, and we evaluate technical, operational, market and financial risks.

- **Growth or divestments and developing exit strategies:**

Our specialists help you complete and extract the maximum value from your transactions.

- **Tax merger and acquisition**

**services:** Full realization of merger synergies requires exploring tax-related opportunities and protecting against tax-related risks. Some of the areas that our M&A tax professionals deliver more value to our clients include:

- Addressing key issues and identifying opportunities during due diligence
- Creating a flexible global structure
- Identifying statutory deadlines and current period filing requirements
- Re-evaluating the global tax strategy vis-à-vis the merger or acquisition
- Achieving an optimal long-terms global effective tax rate
- Reducing costs and contributing to overall synergy goals
- Evaluating and optimizing tax department structure, resources, processes and systems

- **Post transaction services:** We have post-transaction specialists who can assist you in areas of systems and process integration, human resources, and ways to achieve additional synergies from a completed transaction.

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This document is published by PwC as part of our Energy Visions program, a series of publications and events that provide context around issues affecting the oil and gas sector.

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