

OIL & GAS

March 18, 2011

# PetroFrontier Corp.

## Crikey, Mate! A Potential Bakken Analog In The Outback

Recommendation: **Buy (S)**

Target Price: **C\$12.00**

### Company Statistics:

Stock Symbol: **PFC - TSXV**

Price: **C\$3.40**

Share Outstanding:

Basic: **47.7 MM**

Fully Diluted: **51.8 MM**

Management: **7.1 MM**

Market Cap: **C\$162.3 MM**

Market Float: **C\$138.1 MM**

Long-term Debt: **C\$0.0 MM**

Working Capital: **C\$57.0 MM**

Average Daily Trading Volume: **~152,000**

High – Low (Since Jan 13): **C\$4.18 - C\$1.20**

### Company Description:

PetroFrontier Corp is a Canadian based international oil and gas company focused on developing an extensive exploration acreage position of both conventional and unconventional onshore oil and gas assets in Australia's Southern Georgina Basin. The Company trades on the TSX Venture Exchange.

**Disclosure statements located at the back and inside back cover**

Unless otherwise noted, all figures are in US\$

This morning we are initiating coverage on PetroFrontier Corp. with a Buy (S) recommendation and \$12.00 target.

PetroFrontier's four exploration permits located onshore Australia encompass over 13.6 MM (gross) acres with independent P50 estimates identifying over 27 billion barrels of gross, unrisks, undiscovered, recoverable oil resources. Given the increasing scarcity of underexplored, prospective onshore hydrocarbon basins with attractive fiscal terms in stable economic and political environments, PetroFrontier is in an enviable position with its exposure to the unconventional Lower Arthur Creek hot shale formation in the Southern Georgina Basin.

Based on the massive resource potential of PetroFrontier's extensive land position in the Southern Georgina Basin, we believe that investors should consider adding the stock as a high risk/high reward element of a diversified international portfolio.

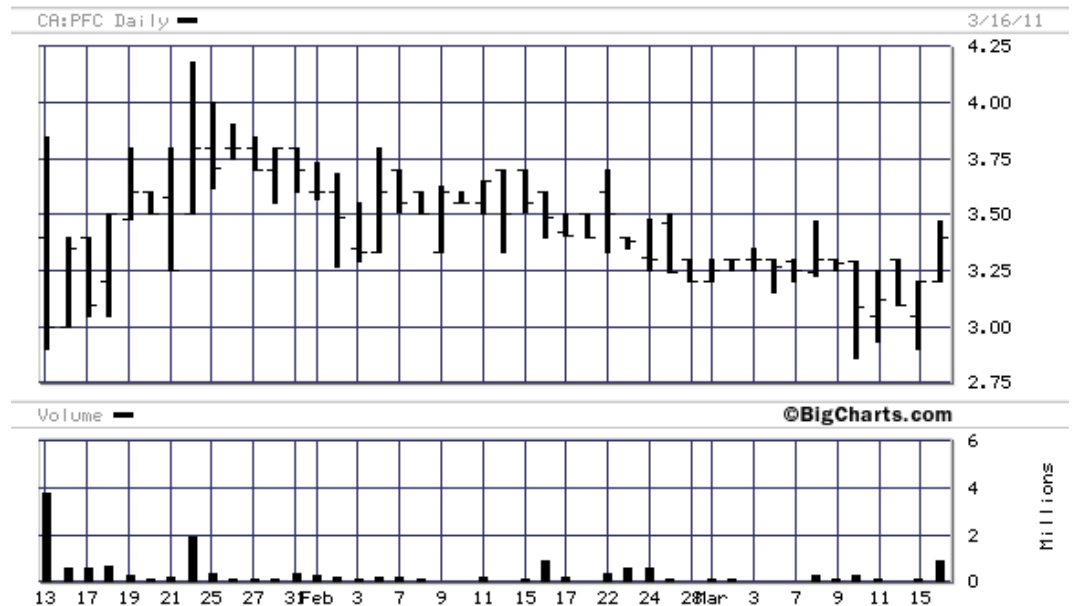
Commodity Forecasts	2008A	2009A	2010A	2011E	2012E
NYMEX WTI (US\$/Bbl)	\$99.53	\$61.89	\$79.50	\$90.00	\$95.00
ICE Brent Crude (\$US/Bbl)	\$97.64	\$62.13	\$79.71	\$94.00	\$97.00
NYMEX Gas (US\$/MMBtu)	\$8.85	\$4.01	\$4.37	\$4.75	\$5.00

# Investment Highlights

PetroFrontier offers investors exposure to a substantial acreage position onshore Australia in an underexplored basin possessing analogous geology to the unconventional Saskatchewan and North Dakota Bakken oil shale play. With an enormous independent unconventional resource estimate for its land base, the Company is well positioned for significant value creation with four potential high-impact drilling catalysts expected in 2011.

**Figure 1**

**Price Chart**



Source: BigCharts (March 17/11)

## Background

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- PetroFrontier Corp. was formed on December 31, 2010 as a result of the amalgamation of Pendulum Capital Corporation, a capital pool company and Australia Energy Corp (AEC). PetroFrontier operates in Australia through its wholly owned subsidiary, PetroFrontier (Australia) Pty Ltd.
- AEC was incorporated on February 6, 2009 and subsequently acquired from each of Rodinia Oil Corp. (ROZ-TSXV, Not Rated) and Odin Capital Inc. all of their respective interests in a farmout agreement with Texalta Petroleum Ltd. (TEX.A-TSXV, Not Rated), acquiring the right to earn up to a 60% working interest in each of Exploration Permits (EP) 103 & EP 104, situated in the Southern Georgina Basin, Northern Territory, Australia by paying 100% of the exploration costs up to a total of C\$10 MM.
- This original agreement was amended a number of times, the latest decreasing AEC's participating share amount to C\$5 MM, and reducing AEC's interests to a 50% working interest. AEC has since paid this amount in full to earn its 50% working interest and operatorship in EP 103 & 104. As of late 2010, the full C\$5 MM has been expended on both EP 103 & 104, resulting in AEC and partner Texalta each paying their proportionate working interest share of future expenditures on a go-forward basis.
- In September 2009, AEC obtained a Ryder Scott resource evaluation showing un-risked, undiscovered prospective (recoverable) oil resources of 11.3 billion barrels (P50, gross acreage) from unconventional and conventional targets.
- In November 2009, AEC closed a private placement of C\$9.2 MM at \$1.00/share.
- In April 2010, AEC entered into two additional farm-outs with publicly listed Baraka Petroleum Ltd. (BKP-ASX) earning AEC an undivided 50% working interest in EP 127 & 128 comprising 7.9 MM gross undeveloped acres. Under the terms of the farmout agreement, to earn its 50% interest, AEC became the operator and agreed to pay for 100% of the minimum work program obligations on the permits, drilling one exploration well 20 m into the Lower Arthur Creek formation and commissioning a resource report on the lands. EP 127 & EP 128 offset AEC's other permits to the north, west and south in the Southern Georgina Basin, Northern Territory, Australia.
- Effective October 7, 2010 AEC announced it had agreed to acquire Northern Territory Oil's (NTO) entire 25% working interest in EP 127 & 128, bringing AEC's total working interest in EP 127 & 128 to 75%.
- Following the finalized farm-in agreements, AEC commenced a Phase II seismic program, consisting of approximately 540 km of 2D seismic on both EP 103 and 104 to evaluate both conventional carbonate ramp prospects as well as a massive unconventional shale oil prospect identified from the Phase I program.
- In November 2010, AEC obtained another Ryder Scott resource evaluation showing un-risked, undiscovered prospective (recoverable) oil resources of 27.5 billion barrels (P50, gross acreage) from both unconventional and conventional targets.
- On December 31, 2010, Pendulum Capital Corporation and AEC completed the amalgamation to form PetroFrontier Corp, which began trading on the TSX Venture Exchange under the symbol "PFC" on January 13, 2011. The Company also closed a concurrent \$58.5 million financing at \$2.00 per share.

## Highlights

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- **Large Underexplored Land Base With High Average Working Interest And Operatorship** - PetroFrontier holds an enormous exploration land position consisting of approximately 13.6 MM gross (8.7 net) acres across four exploration permits (EP 103,104,127,128) located in the Northern Territory of onshore Australia in the Southern Georgina Basin. PetroFrontier holds a 50% working interest in EP 103 & 104, a 75% working interest in EP 127 & 128 and operatorship in all four permits.
- **Enormous Independent Estimate Of Unrisked Recoverable Oil** - According to an independent resource evaluation by Ryder Scott released November 1, 2010, the P50 estimate of gross unrisked prospective (recoverable) oil resources across PetroFrontier's acreage was 27.5 billion barrels. The resource estimate evaluated four potential conventional oil reservoirs, comprising approximately 1.1 billion barrels of gross recoverable oil of the total estimate, and the potential Lower Arthur Creek unconventional shale reservoir, comprising approximately 26.4 billion barrels of the total estimate.
- **Lower Arthur Creek Hot Shale A Potential Bakken Analog** - The Lower Arthur Creek organic rich shale formation holds a world-class total organic carbon content of approximately 5%, is believed to be the primary hydrocarbon source rock in the Southern Georgina Basin as well as a potential extensive unconventional shale oil reservoir. The Lower Arthur Creek hot shale has yet to be tested in any wells; however there are strong technical similarities between the Lower Arthur Creek and the prolific unconventional Bakken oil shale formation in the Williston Basin of Canada and the US.
- **Phase I Exploration Drilling Program Provides Potential Near-Term Catalysts** - PetroFrontier's fully-funded Phase I 2011 drilling program will consist of four exploration wells, two horizontal followed by two vertical. The two horizontal wells are anticipated to primarily target the unconventional Lower Arthur Creek zone and are planned to be stimulated using multi-stage fracture technology. PetroFrontier has also proposed a 20 well horizontal multi-stage fracturing drilling program designed to test the regionally distributed unconventional Lower Arthur Creek shale on EP 103 as an exclusive operation and will be entitled to 100% of the production from any resulting discovery. These four wells provide potential catalyst events in the near term as Management expects Phase I drilling to finish by the end of August.
- **Attractive Fiscal Regime And Operating Environment** - The Northern Territory of Australia has attractive oil and gas fiscal terms consisting of a 10% lessor royalty paid to the government, with an additional sliding scale royalty based on cumulative production ranging 2.5-5% paid to Native Stakeholders for each of PetroFrontier's exploration permits. Along with a corporate tax rate of 30%, the fiscal regime is attractive in comparison to international standards. Australia also provides a stable economic, legal and political environment in which to operate and in the event PetroFrontier discovers oil in commercial amounts, the Company would realize pricing closely linked to the international Brent Crude oil marker.
- **Strong Financial Condition, Significant Insider Ownership** - PetroFrontier is currently debt-free, has substantial positive working capital of approximately C\$57 MM, and management and director interests are highly aligned with the Company supported by insider ownership of approximately 14.9% (basic).

## Catalysts

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- PetroFrontier has outlined an initial Phase I drilling program of four exploration wells (two horizontal and two vertical) to drill on their lands. The first well to be drilled by PetroFrontier will be the first horizontal and multi-stage fracture stimulated well on EP 103, Baldwin-2, which will be a twin to the D&A Baldwin-1 vertical well, drilled in 1990. Baldwin-2 will be followed by the Company's second horizontal well, Macintyre-2 on EP 127. The vertical wells, Ross-2 on EP 103 and Owen-3 on EP 104, will be drilled updip to test the conventional resource potential identified in previously drilled stratigraphic wells. PetroFrontier initially anticipates well costs for horizontal and vertical wells to average approximately \$5 MM and \$2 MM, respectively.
- Conditional upon successful drilling of initial wells, PetroFrontier has outlined a contingent 20 well horizontal drilling program on EP in addition to further seismic acquisition. The horizontal well program will be designed to test the regionally distributed unconventional Lower Arthur Creek shale zone. Baldwin-2 will be drilled as the first well of the 20 horizontal well program on EP 103.
- Pursuant to the joint operating agreement between PetroFrontier and Texalta for EP 103, Texalta has elected not to participate in the 20 well program and subsequently PetroFrontier will pay 100% of the costs of the 20 well program and will be entitled to 100% of the production from any resulting discovery. Texalta will retain the option to reinstate its rights by paying its share of all liabilities and expenses incurred in PetroFrontier's exclusive operations plus a premium of 400% on Texalta's 50% share of the costs of drilling and testing.
- PetroFrontier expects to commence drilling operations on Baldwin-2 by mid-April to early-May which will have a 1,000 m horizontal leg and is anticipated to take three weeks to drill. After drilling operations are completed on Baldwin-2, the Company plans to suspend the well and drill Macintyre-2 on EP 127, and fracture stimulate the wells after drilling operations have concluded.
- Phase I of the initial drilling program (Baldwin-2, Macintyre-2, Ross-2, and Owen-3) is expected to be completed by the end of August 2011.

## Australia

- Australia is an island continent and the world's sixth largest country. Lying between the Indian and Pacific oceans, the country is approximately 4,000 km from east to west and 3,200 km from north to south, with a coastline 37,735 km long. Australia is the world's thirteenth largest economy, and ranks highly internationally in human development, quality of life, health care, life expectancy, economic freedom and political rights.

Figure 2

Map of Australia



Source: CIA WorldFactbook

- The Australian economy is dominated by its service sector, representing 68% of Australian GDP. The agricultural and mining sectors comprise 10% of GDP, and account for 57% of the country's exports. Australia currently imports approximately 55% of its oil, and wishes to reduce foreign reliance on oil. In contrast, Australia is a net exporter of Liquefied Petroleum Gas (principally propane and butane). Both the federal government of Australia and the state government of the Northern Territory are supportive of domestic oil and gas exploration and development and have implemented favourable fiscal regimes to attract investment.
- Australia is an energy resource-rich country with significant petroleum, natural gas and coal reserves. The country's energy consumption is dominated by coal, which

fuels a large amount of the country's power generation; however, Australia is facing increasing dependence on foreign energy sources as consumption growth has historically exceeded domestic production growth.

- Australia's oil reserves are mostly located offshore of the north-western and south-eastern parts of the country. According to the 2009 BP Statistical Survey, Australia had proved oil reserves of 4.2 billion barrels. The two largest areas with petroleum reserves are the Bass Strait off Southern Australia with 1.8 billion barrels, and the Carnarvon basin off Western Australia with 1.1 billion barrels.
- Australia's total oil production in 2009 reached approximately 559,000 B/d, with estimated consumption of approximately 941,000 B/d. Australia's largest petroleum producing basins are the Carnarvon Basin in northwestern Australia and the Gippsland Basin in the Bass Strait. While production from the Carnarvon Basin is mostly exported, production from the Gippsland Basin in southeastern Australia is predominantly used in domestic refining. The Carnarvon Basin currently accounts for 63% of Australian production of crude oil, condensate and liquefied petroleum gas. Production from the Gippsland Basin peaked in the mid 1980s and has declined since.
- According to the 2009 BP Statistical Survey, Australia had proved gas reserves of 109 Tcf at the end of 2009, comprising approximately 1.6% of the world's total proved gas reserves. In 2009, Australia produced approximately 4.1 Bcf/d.
- Oil and gas companies involved in Australia include Australia Pacific LNG, Origin Energy, Conoco Phillips, Chevron, Shell, ExxonMobil, Santos, AWE Ltd., Nexus Energy, PTTEP, Woodside Energy, Apache Corp., Inpex Corp., and Rodinia Oil Corp.

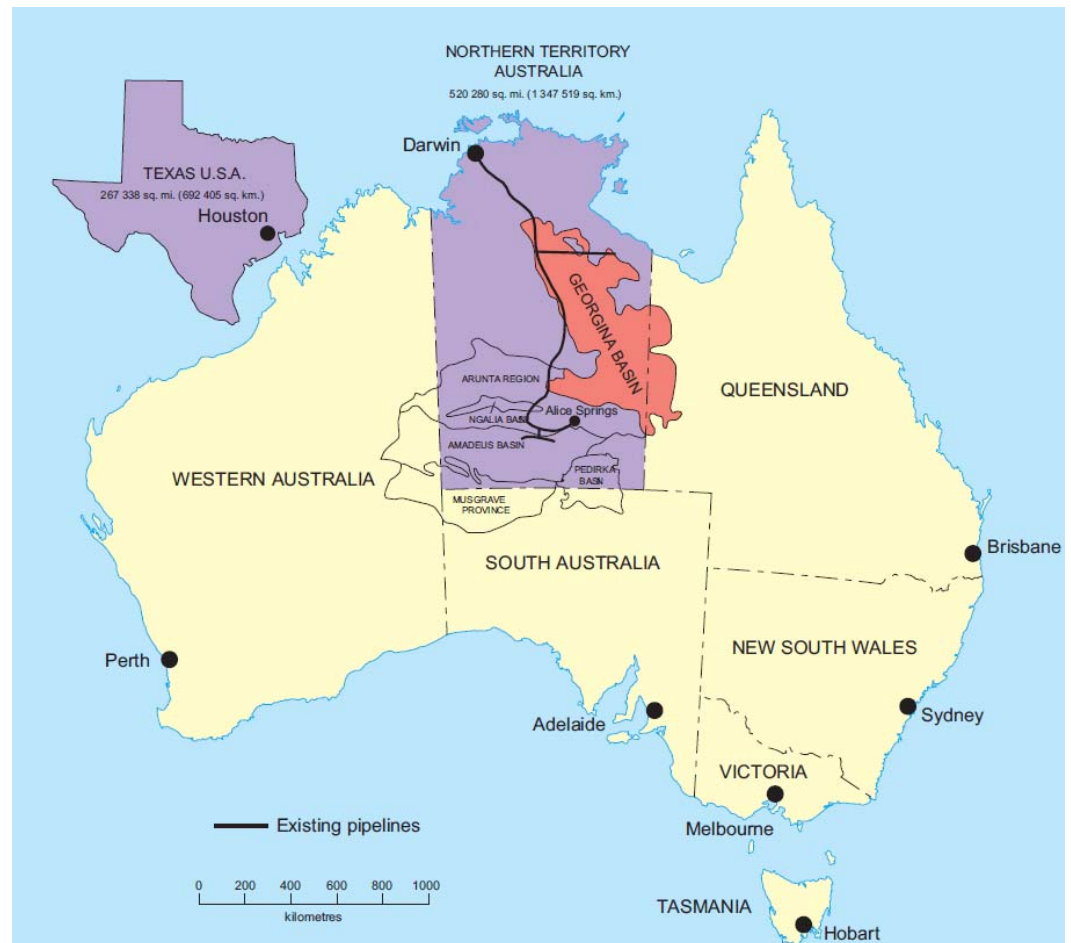


## Georgina Basin

- PetroFrontier's four exploration permits are located in the southern region of the Georgina Basin, in what is believed to be the most prospective region. The Georgina Basin extends across the majority of the central-eastern part of the Northern Territory, and is considered to be one of the most prospective undeveloped onshore oil provinces in the Northern Territory.
- The Southern Georgina Basin is located approximately 250 km northeast of the city of Alice Springs and 1,000 km southeast of Darwin, the coastal capital city of the Northern Territory. Darwin has an LNG facility and export terminal, currently running with excess capacity. A major north-south pipeline travels to the west of PetroFrontier's acreage connecting the Amadeus Basin to the southwest with Darwin. PetroFrontier's acreage is also bisected by several secondary roads connecting to highways, and is in close proximity to a major railway line.

Figure 3

Location of Australia's Georgina Basin



Sources: The Georgina Basin 2006, G. Ambrose, P. Putnam

- Exploration in the Southern Georgina Basin has resulted in no hydrocarbon production to date; however, the basin is considered to be highly underexplored (less than 1 well per 5,500 km<sup>2</sup>) and has limited and poor quality seismic data coverage over a large area of more than 100,000 km<sup>2</sup>. Additionally a significant amount of the



exploration activity that has occurred in the basin to date has targeted mineral deposits; however, the potential prospectivity of the basin has been supported by oil and gas shows in a number of petroleum stratigraphic wells.

- Exploration interest in the Northern Territory has also grown significantly in recent years, as approximately 90% of the Territory's prospective onshore basins are currently under license or application, compared to less than 10% a few years ago. To the end of 2009 cumulative oil production from the Northern Territory was 6.9 MMB, and cumulative gas production from the Northern Territory was 17.2 Bcf.
- Despite no discoveries to date in the Georgina Basin, the location of the basin and information from previous exploration efforts indicate an active Cambrian era petroleum system in the region, with numerous oil and gas shows and oil-mature source rocks present (Lower Arthur Creek hot shale). The basin is considered to have all the prerequisites needed for hydrocarbon source-rock, reservoir-rock and trap formation and timing.
- Geologic data gathered thus far indicates the Georgina Basin holds a potential analog to the highly productive Williston Basin which spans North Dakota, Montana and Saskatchewan and contains the prolific Bakken oil shale formation, the largest unconventional oil shale play in North America. Recently, the USGS has estimated the Bakken formation to hold 3.0-4.3 billion barrels of undiscovered technically recoverable oil in North Dakota and Montana. The Bakken oil shale is believed to be very similar to the Lower Arthur Creek hot shale in the Southern Georgina Basin, and both shales have high TOC (Total Organic Carbon Content). Both formations exhibit natural fractures and preliminary well data from the Southern Georgina Basin suggests that the Lower Arthur Creek oil shales may be more highly fractured than the Bakken, thus requiring less fracture stimulation.
- In addition to the Williston Basin providing a stratigraphical and lithological analog for the Georgina Basin, there are also comparisons within Australia to the producing Amadeus Basin located to the southwest in the Northern Territory. In two fields, located south and west of Alice Springs, the Palm Valley field and the Mereenie field have discovered and produced both light oil and natural gas in commercial amounts for several years, providing encouraging analog conventional discoveries in relative close proximity to PetroFrontier's acreage.
- The advances in horizontal drilling and multiple fracture stimulation technology of unconventional shale formations in North America in recent years has attracted attention to international oil shale zones such as the potentially very large Lower Arthur Creek hot shale in the Southern Georgina Basin. It is important to note however, that the Lower Arthur Creek hot shale has yet to be tested and proven commercially productive in any wells.

## Management & Board

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### Management

PetroFrontier's management team consists of the following individuals:

**Paul J. Bennett** (Chief Executive Officer and Director) - Mr. Bennett has been the Chief Executive Officer and a director of PetroFrontier's predecessor company AEC since its formation on February 6, 2009. Mr. Bennett has over 37 years of experience in geoscience, mining and oil and gas exploration, development and production. Prior to joining AEC, he held executive and senior management positions with ExxonMobil in the US, the UK and Canada. In these roles, he supervised technical geological and geophysical teams in the Gulf of Mexico, the North Sea, Western Canada, Newfoundland and Nova Scotia. He is a director of ♦Uranium Participation Corp. and Armistice Resources Corp.

**Matthew J. Philipchuk** (President and Director) - Matthew Philipchuk has been the President and a director of PetroFrontier's predecessor company AEC since its formation on February 6, 2009 and is one of the founders of the Company. With over 13 years of energy industry experience, Mr. Philipchuk has held senior positions with both private and public companies, including Rodinia Oil Corp., WIN Energy Corporation, Phi capital Inc. and Odin Capital Inc.

**Shane Kozak** (Chief Financial Officer, VP Finance, Corporate Secretary) - Mr. Kozak has been the Chief Financial Officer, Vice President of Finance and Corporate Secretary of PetroFrontier's predecessor company AEC since April 1, 2010. He has held senior finance positions with both public and private companies including Keyera Facilities Income Fund, Win Energy Corporation, Severo Energy Corp, and Rodinia Oil Corp.

**Peter A. Philipchuk** (VP Exploration) - Peter Philipchuk has been the Vice President Exploration of PetroFrontier's predecessor company AEC since its formation on February 6, 2009 and is one of the founders of the Company. He is currently the Chief Executive Officer and Chairman of Odin Capital Inc. During the last 30 years, he has worked as an independent geologist originating and participating in oil and gas ventures in Western Canada, the US and Australia. Mr. Philipchuk has previously held positions with Sproule Associates Ltd, Texaco, Mobil Oil and several junior oil and gas companies in Western Canada.

**Richard Parkes** (Operations Manager) - Richard Parkes has been the Operations Manager of PetroFrontier's predecessor company AEC since May 3, 2010. He is a 25 year geology professional with a broad spectrum of industry experience. Richard has previously held positions at Santos, where he was responsible for its operations at Palm Valley and Mereenie in the Amadeus Basin (adjacent to the Southern Georgina Basin).

- ♦ During the past twenty-four months, Cormark Securities Inc., either on its own or as a syndicate member, participated in the underwriting of securities and provided financial advice regarding the stock market insight and financial analysis regarding potential transactions for Uranium Participation Corp.

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**Board Of Directors**

PetroFrontier's Board of Directors includes:

**Robert J. Iverach** (Chairman) - Mr. Iverach is presently counsel with Burstall Winger LLP and acts as a Chairman of the Board for Rodinia Oil Corp., FoodChek Systems Inc., and Innovative Wireline Solutions Inc. and as a director of Veresen Inc.

**Dr. James W. Buckee** - Before joining AEC, Dr. Buckee served as the President and Chief Executive Officer of Talisman Energy (formerly BP Canada Inc.), a position he held for 15 years before retiring in October 2007.

**C. Kent Jespersen** - Mr. Jespersen currently serves as Chair and Chief Executive Officer of La Jolla Resources International Ltd.

**Martin P. McGoldrick** - Mr. McGoldrick has held various senior management positions within the energy industry, including senior roles with Bow Valley Industries Ltd. and TransAlta Corporation.

**Al Kroontje** – Mr Kroontje currently serves as a director of ♦Novus Energy Inc., Polar Star Mining Ltd. and Border Petroleum Ltd.

**Donald J. Rae** – Mr Rae currently serves as President and CEO of ♦Coral Hill Energy Ltd.; and formerly the President and CEO of Wave Energy Ltd.

**Paul J. Bennett** – CEO of PetroFrontier.

**Matthew J. Philipchuk** – President of PetroFrontier.

♦ During the past twenty-four months, Cormark Securities Inc., either on its own or as a syndicate member, participated in the underwriting of securities for these companies

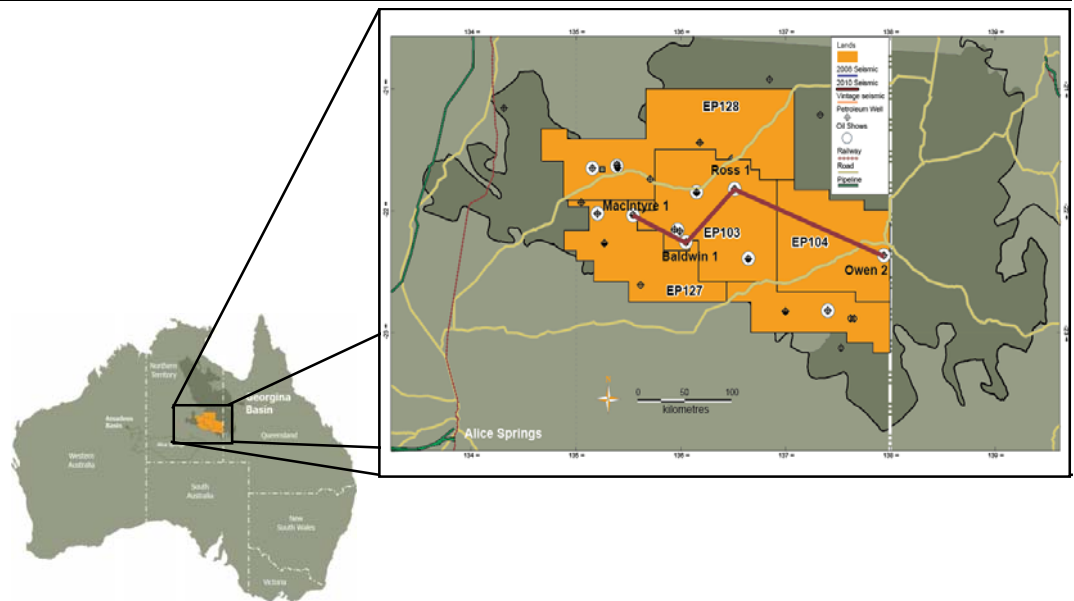
## Assets

PetroFrontier through its wholly owned subsidiary, Petrofrontier (Australia) Pty Ltd. currently holds interests in four exploration permits located in the Northern Territory of onshore Australia, including:

- A 50% working interest and operatorships in Exploration Permits (EP) 103 and 104, with partner Texalta Petroleum Ltd. holding the remaining 50%.
- A 75% working interest and operatorships in Exploration Permits (EP) 127 and 128, with partner Baraka Petroleum Ltd. holding the remaining 25%

**Figure 4**

### PetroFrontier Exploration Permits



Sources: Cormark Securities, Company Reports

### EP 103 & 104

- PetroFrontier and co-owner Texalta Petroleum Ltd. each own a 50% working interest in EP 103 and 104, comprising approximately 5.7 MM gross acres. Under the terms of the exploration permits and upon a commercial discovery, PetroFrontier and Texalta will pay a base 10% government lessor royalty on production, and an additional sliding scale 2.5%-5.0% native stakeholder royalty based upon cumulative volumes of oil and gas produced. The combined royalty, along with a 30% corporate tax rate, results in an attractive fiscal regime relative to world standards.
- The exploration permits for EP 103 & 104 were granted on November 21, 2006, and PetroFrontier and partner Texalta entered into a joint operating agreement on November 15, 2007. The exploration permits carry a five-year term, with the potential for three six-month extensions to May 20, 2013. Current outstanding minimum work requirements for the permits require two exploration wells in each permit to be drilled by the expiry date of May 20, 2013, for estimated costs of C\$3.2 MM for each permit.
- PetroFrontier has recently proposed a 20 well horizontal multi-stage fracturing drilling program designed to test the unconventional Lower Arthur Creek hot shale formation on EP 103. This is due to the Lower Arthur Creek unconventional

formation being regionally distributed and varying in thickness and reservoir characteristics, requiring multiple locations to fully evaluate the areal extent and productivity of the play. PetroFrontier has also indicated that future development may include the use of multi-lateral wells, which are expected to lower overall development costs and increase production per well.

- Texalta has elected not to participate in the 20 well program and PetroFrontier will carry out the program as an exclusive operation, by paying 100% of the associated costs to be entitled to 100% of the production from any resulting discovery. Texalta will retain the option to reinstate its rights by paying its share of all back costs incurred in PetroFrontier's exclusive operations plus a premium of 400% on the 50% share of the cost of drilling and testing.
- In addition to EP 103 and 104, PetroFrontier and Texalta have entered into an agreement to work together for the acquisition and development of further oil and gas rights within a specific area in the Georgina Basin. If additional rights are acquired, under the terms of this agreement PetroFrontier would hold a 60% participating interest with Texalta holding the remaining 40%. Also under the agreement, either party can acquire additional lands within the agreed area independently but must offer the other party its participating interest. If a discovery is made under this agreement, the parties have agreed to pay their proportionate share of royalties as defined under EP 103 and 104.
- PetroFrontier's first horizontal multi-stage fracture stimulated well, Baldwin-2 on EP 103 will be a twin to the existing Baldwin-1 vertical stratigraphic well drilled in 1990 which encountered oil shows. The Baldwin-2 well will be primarily targeting the unconventional Lower Arthur Creek hot shale formation and will be the first well of the 20 horizontal well program outlined for EP 103 as described above. Baldwin-2 will be located approximately 300 m away from the previously drilled Baldwin-1 vertical well, and be used as a pilot well to drill the horizontal leg through the reservoir. Baldwin-2 will also perforate and test one secondary conventional target, the Hagen Member which will be tested in the vertical section of the well.
- PetroFrontier also plans to drill two vertical wells, Ross-2 and Owen-3 on EP 103 & 104, respectively. Ross-2 and Owen-3 will be primarily targeting large conventional anticline structures, identified using new seismic and located up-dip from previous vertical stratigraphic wells drilled (Ross-1 and Owen-2).

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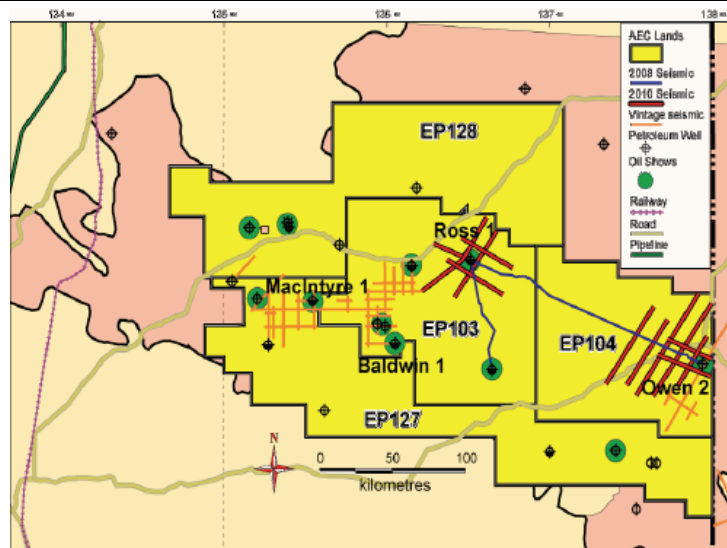
#### EP 127 & 128

- PetroFrontier holds a 75% working interest and operatorship of EP 127 & 128 located contiguous to EP 103 & 104 and comprising approximately 7.8 MM acres. It acquired an initial 50% interest and operatorship in the two exploration permits through a farm-in agreement with Baraka Petroleum on April 1, 2010. Subsequently the Company executed a sale and purchase agreement with Northern Territory Oil Pty. Ltd (NTO) effective October 7, 2010 whereby it agreed to purchase NTO's entire 25% working interest in EP 127 & 128 for total consideration of C\$2 MM (\$1 MM cash, \$1 MM issuance of treasury securities). The acquisition of NTO's interest increased PetroFrontier's working interest from 50% to 75% in EP 127 & 128.
- Under the terms of the farm-in agreement with Baraka, PetroFrontier agreed to pay 100% of the costs to undertake the minimum work program, and drill one horizontal exploration well into the Arthur Creek shale zone on either EP 127 or EP 128 to acquire its initial 50% working interest in the exploration permits.
- Under the terms of the exploration permits and upon a commercial discovery, PetroFrontier and Baraka will pay a 10% government lessor royalty and an additional sliding scale 3.0-5.0% native stakeholder royalty based upon cumulative volumes of

oil and gas produced. The combined royalty, along with a 30% corporate tax rate, results in an attractive fiscal regime relative to world standards.

- The Macintyre-2 well on EP 127 will follow the Baldwin-2 well on EP 103 and will also be a horizontal multi-stage fracture stimulated well primarily targeting the unconventional Lower Arthur Creek hot shale formation. Macintyre-2 will use the previously drilled Macintyre-1 stratigraphic well as a pilot well for the horizontal leg of the well. The Macintyre-1 vertical stratigraphic well was drilled in 1989 by Pacific Oil and Gas Pty. Ltd. and encountered oil and gas shows. Macintyre-2 will also include at least one secondary conventional target in the Oolitic Shoal, which will be tested in the vertical section of the well.

**Figure 5 PetroFrontier Exploration Permits Showing Well Locations & Existing Seismic**



Source: Company Reports

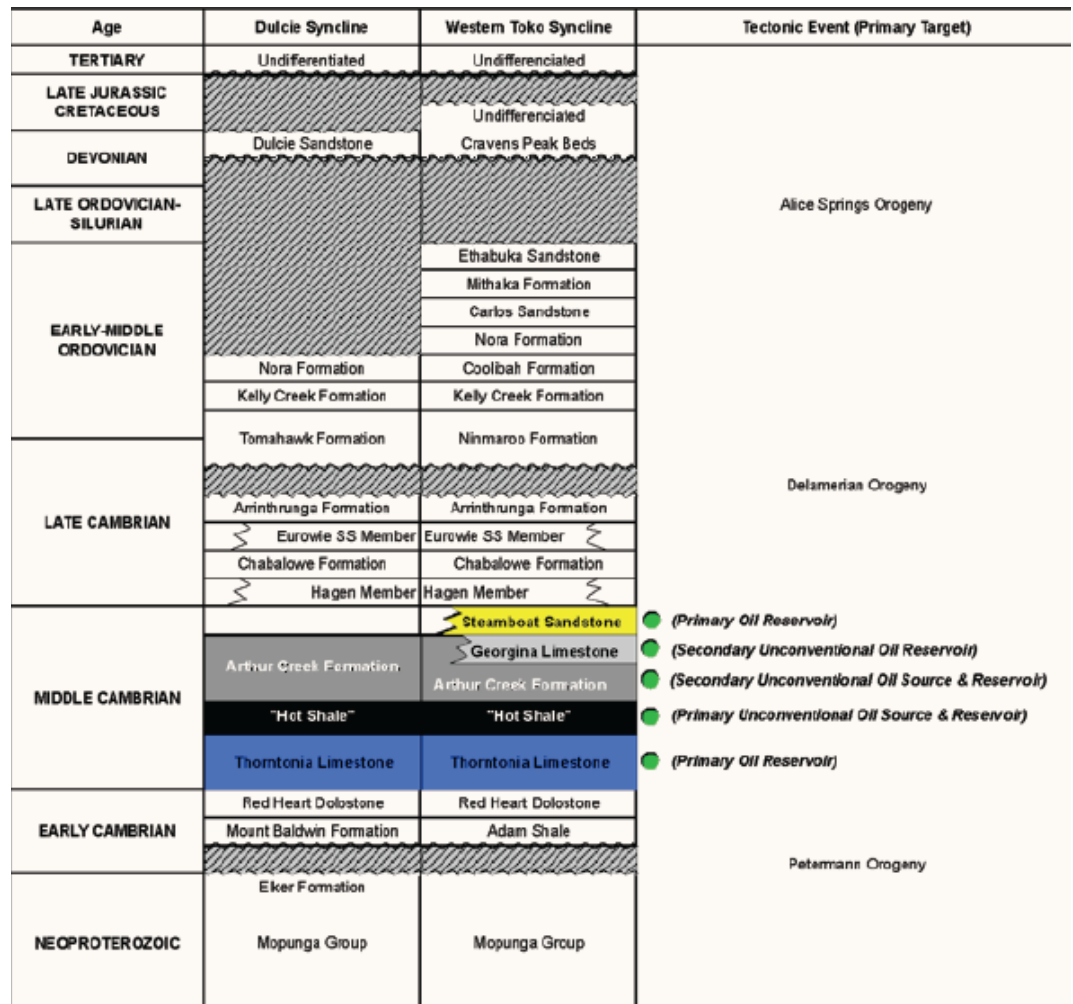
### Independent Resource Report

- On November 1, 2010 PetroFrontier released the results of an independent resource assessment performed by Ryder Scott on the potential of both unconventional and conventional targets in exploration permits 103,104,127 and 128 summarized in Figure 7 below.
- The unconventional play type evaluated in the Ryder Scott report is the Lower Arthur Creek organic rich hot shale,. The resource report indicates the Lower Arthur Creek hot shale holds world class total organic carbon content (TOC) levels of over 5%, as well as multiple potential oil reservoirs in the inter-bedded fine sands, silts and porous carbonate zones, and holds a potential stratigraphical and lithological analog to the prolific Bakken oil shale play in North America. Ryder Scott has identified the biggest play risk as being technical and economic in nature for the unconventional Lower Arthur Creek formation.
- PetroFrontier has identified at least 13 previously drilled wells on its land prospective for the unconventional Lower Arthur Creek hot shale formation; however, it is important to note that this zone has never been tested in any wells to date. Out of the wells evaluated on PetroFrontier’s lands encountering the Arthur Creek hot shale zone, thicknesses range from 5-45 m. The wells also include several secondary potential bypassed payzones in both conventional and unconventional targets.
- Additionally, Ryder Scott addressed resources associated with conventional play types on PetroFrontier’s acreage. The four conventional play types assigned



resources in the report consist of structural traps containing the Thornton formation and Hagen Member carbonate reservoirs, and combined structural-stratigraphic pinch-out traps containing upper Steamboat Sandstones and Dolomitic Shoal reservoirs. In the conventional carbonate zones, at least 11 wells on PetroFrontier lands had live oil shows and some with associated gas. In addition, the Company has identified several untested potential bypassed oil payzones in numerous old dry holes. The conventional zones will be tested as secondary targets in the vertical section of the two horizontal wells Baldwin-2 and Macintyre-2, and as primary targets in the two vertical wells, Ross-2 and Owen-3.

**Figure 6 Stratigraphic Column of the Southern Georgina Basin**



Source: Company Reports

**Figure 7 PetroFrontier Resource Evaluation Summary**

Conventional and Unconventional Resources	Unrisk. Undisc. OOIP (MMB) Est.			Unrisk. Undisc. Recoverable OOIP (MMB) Est.		
	Low (P90)	Best (P50)	High (P10)	Low (P90)	Best (P50)	High (P10)
Thorntonia	3,548	6,278	10,700	556	1,026	1,838
Steamboat Sand	238	526	975	25	58	121
Hagen	155	273	460	16	31	58
Dolomitic Shoal	7	12	19	1	1	2
EP 103 & EP 104 Arthur Creek Shale	137,229	192,190	257,899	8,879	18,883	27,799
EP 127 & EP 128 Arthur Creek Shale	54,758	76,649	102,908	4,850	7,535	11,093
<b>Total</b>	<b>195,935</b>	<b>275,928</b>	<b>372,961</b>	<b>14,327</b>	<b>27,534</b>	<b>40,911</b>

Sources: Cormark Securities, Ryder Scott

## Valuation and Recommendation

### Capitalization

- PetroFrontier has 47.7 MM shares outstanding (basic) which, at a recent closing price of C\$3.40, gives the Company a C\$162 MM market capitalization. Net of approximately \$57 MM in cash on hand currently, PetroFrontier's enterprise value equates to C\$105 MM.
- Common share equivalents include approximately 4.0 MM options for a total of 51.7 MM shares (f.d.). Officers and directors own approximately 7.1 MM shares or approximately 15% of the total outstanding on a basic basis.

### Valuation

- Using conservative chance of success estimates for the conventional targets relative to independent engineer estimates, and a 5% chance of success estimate attributed to the unconventional Lower Arthur Creek hot shale target, we calculate total net risked recoverable resource potential of 811 MMB for PetroFrontier. At its current share price, and using Ryder Scott's independent P50 estimate of net resource potential, we calculate PetroFrontier to be trading at an EV per undiscovered risked recoverable barrel of C\$0.13.
- As the prospectivity of PetroFrontier's acreage lies predominantly within the unconventional Lower Arthur Creek hot shale formation in the South Georgina Basin, a potential analog to the Bakken oil shale formation in North America, we believe it appropriate to illustrate the potential valuation of PetroFrontier by applying recent North Dakota land sale prices prospective for the Bakken. Applying a conservative sale price of \$1,000 per acre, and assuming that only 15% of the Company's net acreage is prospective for the Lower Arthur Creek hot shale, implies a potential value of over \$25.00 per share for PetroFrontier, illustrating the material upside the Company offers, even under conservative land price estimates.
- We have based our target price on an estimate of the net risked resource potential across PetroFrontier's acreage using Ryder Scott's independent resource estimates and valuing the risked barrels at a conservative \$1.00/B to account for uncertainty with respect to the amount of capital required to potentially develop a discovery. We note that the risked NPV of PetroFrontier's recoverable resource exposure across its four exploration permits valued at \$1.00/B (excluding the current cash position) equates to \$15.67 per share. By applying an additional 30% capital and timing risk factor to our calculation to help capture the potential for financing risks and delays in starting drilling activity and development, and the Company's current cash balance, we calculate a NAV and risked NPV per share of C\$12.08 for PetroFrontier.
- It is important to note that in our valuation, we do not account for PetroFrontier's exclusive operation of 20 horizontal wells on EP 103 for which it will hold 100% working interest in all discoveries and production (unless partner Texalta pays the back-in fees). Should the exclusive operation be successful, the potential net value to PetroFrontier would materially increase as a result of its 100% working interest in the horizontal program, providing potential further upside for the Company.

**Figure 8 PetroFrontier Risked Resource Estimate**

	Gross Mean Un-Risked Rec. Reserve Pot. (MMBOE)	PFC Working Interest	Net Mean Un-Risked Rec. Res. Pot. (MMBOE)	Cormark Risk Factor	Mean Risked Rec. Res. Pot. (MMBOE)	Est. NPV10 \$/BOE	Est. NPV US\$MM	Risked NPV \$/share
<b>Exploration Assets</b>								
EP 103 - Conventional	617.4	50%	308.7	10%	30.9	\$1.00	\$30.9	\$0.60
EP 103 - Unconventional	13,228.0	50%	6,614.0	5%	330.7	\$1.00	\$330.7	\$6.39
EP 104 - Conventional	473.0	50%	236.5	10%	23.7	\$1.00	\$23.7	\$0.46
EP 104 - Unconventional	5,655.0	50%	2,827.5	5%	141.4	\$1.00	\$141.4	\$2.73
EP 127 - Conventional	26.1	75%	19.6	10%	2.0	\$1.00	\$2.0	\$0.04
EP 127 - Unconventional	2,723.0	75%	2,042.3	5%	102.1	\$1.00	\$102.1	\$1.97
EP 128 - Conventional	0.0	75%	NA	NA	NA	NA	NA	NA
EP 128 - Unconventional	4,812.0	75%	3,609.0	5%	180.5	\$1.00	\$180.5	\$3.49
<b>Unrisked + Risked Res.</b>	<b>27,534</b>		<b>15,658</b>		<b>811</b>		<b>\$811</b>	<b>\$15.67</b>
Capital and Timing Risk							30.0%	
Risked Exploration Upside (adjusted for capital risk)							\$567.8	\$10.97
Cash (\$MM)							\$57.0	\$1.10
<b>Total Corporate (US\$MM)</b>							<b>\$624.8</b>	<b>\$12.07</b>
Exchange Rate (US\$/C\$)							1.0000	
<b>Total Corporate (C\$MM)</b>							<b>\$624.8</b>	<b>\$12.07</b>
Options/Warrants Proceeds (C\$MM)							\$0.6	\$0.01
Fully-diluted Shares Outstanding (MM)							51.8	
<b>NAV + Risked NPV per Share (C\$)</b>								<b>\$12.08</b>

Sources: Cormark Securities Inc., Company Reports

**Recommendation**

- PetroFrontier provides a unique opportunity for international investors as it has assembled a large and highly prospective acreage position in an extremely underexplored basin within an attractive operating and fiscal environment that has the potential for multi-billion barrel exposure from the unconventional Lower Arthur Creek hot shale formation. The possibility exists for the Company to establish a new, large unconventional oil resource play, made accessible through recent advances in drilling and completions technology.
- We believe investors should add PetroFrontier to a junior international portfolio for exposure to higher risk, high-impact exploration upside, supported by drilling catalysts occurring in the near term. We are initiating coverage on PetroFrontier with a Buy (S) rating and \$12.00 target price.

**Risks To Forecast**

- Geologic and engineering risks associated with the finding and ultimate recovery of oil and gas reserves in quantities estimated in determining the Company's value. It is important to note that no commercial hydrocarbons have been discovered on any of PetroFrontier's prospects to date and there is no assurance any commercial hydrocarbons will be discovered as a result of the proposed exploration activities. Additionally, the unconventional Lower Arthur Creek hot shale formation is untested and unproven in any wells.
- Independent engineers have identified the biggest risk in the unconventional Arthur Creek hot shale play as being whether it will be technically and economically viable to produce the resources. This is relative to risk in conventional play types where typically it is whether or not the resources will be discovered.
- International geopolitical and/or sovereign risk, which can restrict the Company's ability to carry out business, including but not limited to, changes in government and/or negative changes to the fiscal regime.

- The ability to fund intended spending programs, given that PetroFrontier does not have a source of ongoing cash flow.
- Volatility in oil and gas prices, which may materially affect the market's view of the value of the Company's assets.
- Sector rotation risk.

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**Recommendation  
Terminology**

Cormark's recommendation terminology is as follows:

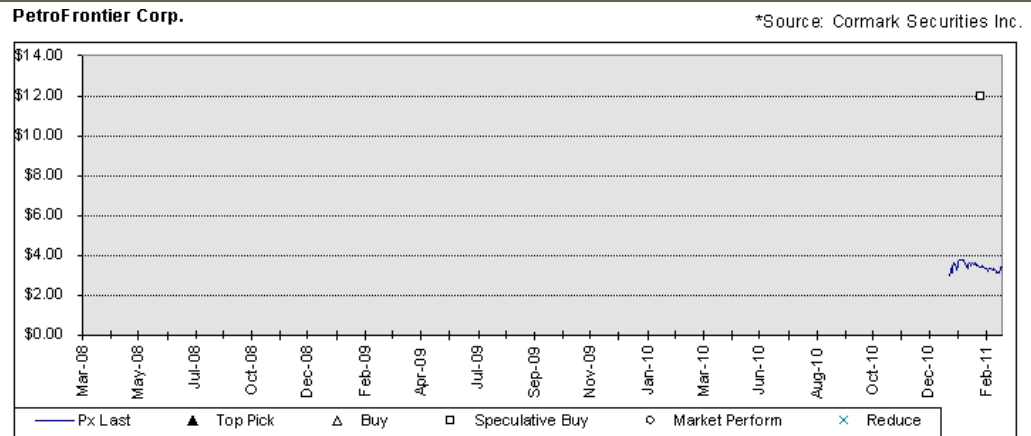
<b>Top Pick</b>	our best investment ideas, the greatest potential value appreciation
<b>Buy</b>	expected to outperform its peer group
<b>Market Perform</b>	expected to perform with its peer group
<b>Reduce</b>	expected to underperform its peer group

Our ratings may be followed by "(S)" which denotes that the investment is *speculative* and has a higher degree of risk associated with it.

Additionally, our target prices are based on a 12-month investment horizon.

Figure 9

Disclosure Chart



Disclosure Statement

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Does the analyst or a member of the analyst's household have a financial interest in the securities of this company?  Yes  No

If YES

1) Is it a long and/or short position?

2) What type of security is it?

\*Does Cormark and / or one or more entities affiliated with Cormark beneficially own common shares (or any other class of common equity securities) of this company which constitutes more than 1% of the presently issued and outstanding shares of this company?  Yes  No

If the material operations of this issuer were viewed in the past 12 months, were  N/A  Yes  No any travel expenses paid or reimbursed by the issuer?

Does the analyst or Cormark and / or one or more entities affiliated with Cormark have any  Yes  No other material conflict of interest with the issuer?

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Market Perform	20%	Market Perform	36%
Reduce	1%	Reduce	0%
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Recommendation / Target Chg	Date	C\$
	18-Feb-11	12.00 (B-S)

\*Information updated monthly on or about the 5th of each month. Updated March 17, 2011

Source: Cormark Securities Inc.

Analyst Certification

We, David Beddis and Will Hares, hereby certify that the views expressed in this research report accurately reflect our personal views about the subject company(ies) and its (their) securities. We also certify that we have not been, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

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