



# Baraka Energy & Resources Ltd

## Baraka Energy & Resources: Bakken Style Oil Shale play goes Down Under in Southern Georgina Basin

By Andrew McCrea

The Southern Georgina Basin in the Northern Territory represents one of the few remaining virtually unexplored onshore oil and gas basins in the world. Yet the rewards are potentially vast to the company that threads the needle in the Basin.

Very few wells have been drilled within the Basin by North American standards – relative to successful Bakken oil shale discoveries in North America.

Baraka Energy & Resource's (ASX: BKP) two Exploration Permits over 31,750 square kilometres (7.4 million acres) are situated over a potentially highly prospective part of the Southern Georgina Basin.

Ryder Scott Petroleum Consultants has estimated Baraka's unrisks, prospective Arthur Creek "Hot Shale" resource at 7.5 billion barrels (25% interest, P50 estimate).

Potential Bakken style oil plays in the Northern Territory are understandably exciting North American explorers, fund managers and investors given the scale of Bakken oil discoveries to date.

Tellingly, Canadian oil companies have arrived in the Southern Georgina Basin and by consolidating ownership of it, have provided a risked opportunity for Baraka. Baraka's fortunes are currently tied to well funded Toronto listed JV partner PetroFrontier Corp (TSX-V: PFC).

Pound for pound, Baraka offers investors an enormous independent, unconventional oil and gas exploration play. Investors in Baraka are the beneficiaries of the Canadian rush to drill the Southern Georgina Basin.

Baraka represents the earliest way investors can "play" an ASX-listed stock in the Southern Georgina Basin.

On a 5% risked valuation analysis guide, this would assign a risked valuation on Baraka of \$0.068 a share. At a 10% chance of success the implied share price guide would be \$0.12. At the higher risked valuation of 20% it would be valued at above \$0.20 a share. Altogether, this underscores a high risk/high potential return scenario.

There will likely be a "window" of opportunity on offer with the current valuation of Baraka – in the lead-up to spud date of first well by PetroFrontier Corp. As the drilling date nears for JV partner PetroFrontier's well expected in the next month, the Baraka share price is likely to be a beneficiary.

**Date:** May 2011  
**Price:** A\$0.018  
**Market Cap:** A\$35.1M

### 1 Year Share Price Graph



### Share Information

**Code:** BKP  
**Listing:** ASX  
**52 week High:** A\$0.03  
**52 week Low:** \$A0.003  
**Sector:** Oil & Gas  
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## History

Baraka Petroleum Ltd (as it was then known) was incorporated on 11 February 2005 in Australia. It listed on the ASX on 25 May 2005 and was involved in oil and gas exploration in Mauritania. Tenements were relinquished in Mauritania in 2009.

In mid-2009, a newly appointed board lodged a prospectus for a capital raising of \$2 million as well as signing a farm-in agreement with Northern Territory Oil to earn 75% of Exploration Permit 127 (EP 127) and Exploration Permit 128 (EP 128) in the Georgina Basin, onshore Australia. EP 127 comprises an area of 15,780 square kilometres and EP 128 comprises of 15,970 square kilometres and are two granted exploration permits.

EP 127 and EP 128 cover 7.4 million acres (31,750 square kilometres) in the south central part of the Northern Territory, to the south east of Tennant Creek and the north east of Alice Springs. EP 127 is 50 kilometres north of the Plenty Highway. EP 128 follows the path of the Sandover Highway, an all weather road.

Baraka's acreage partially surrounds PetroFrontier's (TSX-V: PFC) EP 103, and EP 104, and together all four permits cover 13.6 million acres over a very large, unconventional oil and gas exploration play.

### Recent Georgina Basin transaction history

- In April 2010, Australian Energy Corp (AEC), an unlisted company entered into an agreement with Baraka, to farm-in for a 50% working interest and operatorship in EP 127 and EP 128. In December 2010, AEC acquired an additional 25% interest in these blocks from Northern Territory Oil for \$2 million in cash and securities.
- Under the agreement, AEC has to commence drilling one well on either EP 127 or EP 128 and is to be drilled to completion to a minimum of 500 metres of horizontal drilling into the Basel Arthur Creek "Hot Shale".
- In November 2010, AEC obtained a Ryder Scott Petroleum Consultants resource evaluation that estimated unrisked, prospective oil resources to be 27.5 billion barrels (P50, gross acreage) from both unconventional and conventional targets in the Georgina Basin permits.
- After this agreement, Baraka owned a 25% interest in the two Exploration Permits (EP 127 and EP 128) as well as a 75% interest over 18,533 acres that form a 5 kilometre radius around the previously drilled Elkedra-7 well, which produced hydrocarbon shows in the past.
- PetroFrontier resulted from the merger of AEC and Pendulum Capital Corporation in October 2010 and owns a 75% interest in EP 127 and EP 128 as well as 50% interests in EP 103 and EP 104. Adding spice to the resurgent exploration interest in the Basin, PetroFrontier undertook a public offering in January 2011 by way of a Reverse Takeover and raised C\$58.5 million at C\$2.00 per share.
- PetroFrontier has further attempted to consolidate ownership of exploration permits in the Georgina Basin with a proposal in March 2011 to acquire another Canadian listed company Textalta Petroleum (TSX-V:TEX.A) which owns a 50% interest in EP 103 and EP 104.
- This will consolidate 100% ownership by PetroFrontier in EP 103 and EP 104 (removing a drilling "roadblock") which are adjacent to EP 127 and EP 128 where Baraka holds a 25% working interest in each permit.

Net proceeds of the public offering by PetroFrontier will fund its six-well exploration program into second half of 2011, and the acquisition of up to approximately 1,000 kilometres of additional 2D seismic.

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In March 2011, Baraka changed its name to Baraka Energy & Resources Ltd. The principal activities of Baraka are the exploration and development of oil and gas assets, with initial focus on the Georgina Basin in the Northern Territory. However, these activities may be extended into other energy and resource projects as Baraka is currently assessing a number of potential new projects to diversify their assets.



### Background on Georgina Basin

The Georgina Basin covers a massive area of more than 100,000 square kilometres of land mainly in the Northern Territory and part of Western Queensland. The onshore sedimentary basin is sparsely explored by modern oil and gas standards and is perhaps the most under-explored of its kind.

Despite the vast landmass, there has been exploration in the Georgina Basin with oil shows. Previous test wells drilled in the Georgina Basin have demonstrated oil shows and good quality source rocks, seals and reservoirs with target horizons ranging from 300 metres to 1000 metres.

To the south is the Amadeus Basin which is geologically similar to the Georgina Basin and has been producing oil and gas for a number of years from the Palm Valley and Mereenie fields.

The Georgina Basin is a green field area which makes up part of the Centralian Superbasin, comprising the Amadeus, Georgina and Wiso sub-basins. During the Cambrian era, the Central Australian plate was on the subtropical waters on the fringes of the Rodinia supercontinent.

The Georgina Basin began forming in the late Neoproterozoic time (540 million years ago) and subsequently was deposited with early Cambrian through Ordovician/Devonian sediments. In this period, the organic-rich Arthur Creek black marine shales were deposited, particularly in the Dulcie and Toko troughs. Similar Cambrian marine shales are the source rocks in the extremely productive fields of East Siberia, Oman and the Tarim Basin in China.

Above the Arthur Creek “Hot Shales” are the Thornton and Hagen Formations, both of which have been shown by previous drilling to show good reservoir properties and anhydrite seals.

The Georgina Basin therefore has all the attributes of a productive hydrocarbon province - evidence of a working petroleum system in the southern area of the Georgina Basin in the area of permits EP 127 and EP 128.

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## Oil Presence in the Southern Georgina Basin

The Lower Arthur Creek “Hot Shale” formation has strong technical similarities to, and analogous with, the unconventional Bakken Oil Shale in Canada and the US. While the Bakken is recognised as the largest and most successful unconventional reservoir in North America, we believe the Lower Arthur Creek also has the potential to become a very large unconventional play.

Large technical advances and success in horizontal drilling and multi-stage “frac stimulation” of unconventional oil shale plays in North America have made the oil shale zones like the Arthur Creek “Hot Shale” found in the Southern Georgina Basin prospective.

A total of only 29 wells have been drilled in the Southern Georgina Basin between 1962 to 1991 by the Geological Survey of the Northern Territory and Pacific Oil and Gas Pty. in the vicinity of Baraka’s permitted land. Even then a number of the wells were shallow stratigraphic wells drilled by mining companies and the Northern Territory government. While the co-ordinates of these 29 wells are still to be verified, many encountered oil and gas shows and high background gas readings.

In 1989-1991, Pacific Oil and Gas drilled eight wells, all of which had oil shows. Legacy wells had live oil shows and high background gas. Mining companies and previous oil and gas explorers drilled 29 wells on PetroFrontier’s lands in the Georgina Basin. Legacy wells were logged and cored, and although subsequently abandoned, many of these wells encountered oil shows with high background gas

A re-evaluation undertaken by AEC, now PetroFrontier, of the original 750 kilometres of seismic surveys indicates that all but two (Hunt-1 well and MacIntyre-1 well) of the previously drilled wells have been drilled off with no closure. The MacIntyre-1 well located within Baraka’s EP 127, encountered potential “pay” in the Arthur Creek “Hot Shale”. While none of the wells were classified as discoveries, there were numerous high background gas readings and gas and oil shows.

A hydrocarbon show was located in the Ethabuka-1 Well about three kilometres east of the Northern Territory/Queensland border where a gas flow of 6,000 to 7,000 cubic metres per day was recorded from Ordovician Kelly sandstones.

Intriguingly, Ordovician formations have not been tested on or in the vicinity of Baraka permits.

## Bakken Discoveries Prompt Unconventional Oil and Gas Exploration in Australia to Rise

The Bakken Formation is recognised as the largest and most successful unconventional reservoirs in North America which was initially discovered by geologist J.W. Nordquist in 1953. The US Geological Survey (USGS) conducted a study of the Bakken's potentially recoverable oil.

In April 2008, the USGS released a report, which estimated the amount of technically recoverable, undiscovered oil in the Bakken formation at 3.0 to 4.3 billion barrels (680,000,000 cubed metres). New rock fracturing technology, available at the start of 2008, caused a recent boom in Bakken production. By the end of 2010, oil production rates reached 458,000 barrels per day outstripping the capacity to ship oil out of the Bakken.

New York Stock Exchange-listed and US\$11.8 billion market valued Continental Resources Inc. (NYSE: CRI) has stated that the “Bakken play in the Williston basin could become the world’s largest discovery in the last 30-40 years,” as ultimate recovery from the overall play is now estimated at 24 billion barrels. This would make it the largest and most successful unconventional reservoir in North America, and may double total US oil resources from 20 to 40 billion barrels.

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This considerable increase has been made possible by the combined use of horizontal drilling, “fracking”, and a large number of wells drilled. Interestingly, some industry estimates are that recovery could be as high as 50% and the cost to bring the oil to market could be as low as US\$16 per barrel.

Another New York Stock Exchange listed company Hess Corp. (NYSE: HES) has made significant investments to develop the Bakken Shale and is the third largest oil producer in North Dakota. It expects to average 40,000 barrels a day of oil production this year from wells in North Dakota’s Bakken Shale formation.

North American oil explorers are world leaders in technology in extracting oil from the reservoirs that were overlooked because the oil wouldn’t flow from tight sands and shale rocks. There is a mini-rush underway as North American companies bring their expertise of natural gas and oil recovery using horizontal drilling and formation fracturing into the shale rocks.

Successful liberation of oil from the unconventional Bakken Oil Shale in Canada and the US has opened new frontiers for oil exploration in world markets in unconventional plays including Australia where there are geological similarities to the Bakken Formation. Water is mixed with sand and some chemicals and then pumped at high pressure into the well bore to shatter the Bakken Shale formation, which can be as hard as a driveway. The “fracking” creates fissures that free trapped oil and natural gas to flow up the well bore.

### Land Rush to Australia

Canadian listed oil and gas company Falcon Oil & Gas Ltd’s (TSX-V: FO) local 73% subsidiary Falcon Oil & Gas Australia Limited, holds a 100% working interest in four onshore exploration permits, covering almost the entirety of the Beetaloo Basin in the Northern Territory, Australia. The Beetaloo Basin is of Pre-Cambrian age and is situated approximately 600 kilometres south of Darwin. The property consists of four exploration permits which encompass approximately 28,326 kilometres (7,000,000 acres).

Multiple conventional and unconventional oil and gas opportunities have been identified. The Beetaloo Basin has more than 3,000 metres of sediment column in which two world class source rocks have been identified; the oil and gas generating Kyalla Shale and the gas generating Velkerri Shale. The main hydrocarbon plays in this large basin are in the shale reservoirs and in the sandstones adjacent to them. The sandstones have conventional porosities and permeabilities and numerous conventional structures have been mapped from over 2000 kilometres of 2D seismic. Eleven wells have already been drilled in the basin during the 1990s and all of the wells showed the presence of oil and gas.

Hess Corporation has also entered the Northern Territory and the race for conventional and unconventional oil with a recent farm-in agreement via Hess Australia. On May 2, 2011 Falcon Oil & Gas Ltd. announced that Falcon Oil & Gas Australia Ltd signed a Participation Agreement with Hess Australia (Beetaloo) Pty Ltd, an affiliate of Hess Corporation, for the acquisition of an interest in onshore Exploration Permits 76, 98 and 117 in the Beetaloo Basin, Northern Territory, Australia.

Hess will earn a 62.5 % working interest in approximately 25,200 square kilometres (6,227,500 acres) by making a payment to Falcon Australia, acquiring warrants in Falcon Oil & Gas Ltd., conducting an extensive seismic program, and drilling five wells to explore and appraise the Agreement Area. The seismic survey is anticipated to commence once necessary government and land users’ approvals are obtained. Under the terms of the letter of intent, Hess will make a US\$17.5 million payment to Falcon Australia upon completion of a Participation Agreement and a Joint Operating Agreement.

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Under the terms of the agreement, Hess will undertake a US\$40 million seismic acquisition program beginning in 2011. After completion, processing and interpretation of the seismic data Hess can elect to continue to the next phase of the work program which includes conducting a five-well program to explore and appraise the agreement area, beginning in 2012. Hess will cover the full cost of this work program. Falcon Australia plans to test the prospective intervals in the Shenandoah-1 wellbore in the third quarter of 2011.

### Upcoming Exploration Program

The drive by Canadian companies coming into the Northern Territory and Georgina Basin and consolidation of ownership is a notable recent development reflecting the geological similarities to the Bakken Formation and new technology brought to Australia to attempt to “unlock” a previously under-explored region.

PetroFrontier has acquired 2D seismic, and analysed legacy well logs and core samples taken by early explorers to the region.

PetroFrontier has committed to six exploratory wells in the Southern Georgina Basin. It has approved a capital expenditure budget of \$32 million in 2011 for the wells. The six planned exploratory wells consist of up to three unconventional horizontal wells and up to three conventional vertical wells. The planned 2D seismic program will be a further delineation to the approximately 550 kilometres of 2D seismic PetroFrontier acquired during last quarter 2010.

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 where Baraka is “free carried” to the completion of the well. Baldwin-2 will have a 1,000 metres 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. Macintyre-2 will be a twin to the historical MacIntyre -1 well, and will test conventional targets before entering the Arthur Creek Shale and complete as a horizontal well that will fracture and test the productivity of the shale.

Multiple locations will likely need to be tested to evaluate the productivity of the “Hot Shale” play given unconventional prospect is regionally distributed in varying thickness and varying reservoir characteristics.

PetroFrontier initially anticipates well costs for horizontal and vertical wells to average \$5 million and \$2 million, respectively. Each well will take approximately five to six weeks to drill, test and complete.

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. The proposed drilling technique will utilise horizontal drilling and “fracking”. It is believed this technology has yet to be used in Australia on this type of formation.

Conventional targets will be developed either with vertical or horizontal/multi-lateral wells, depending on their initial productivity, 3D seismic survey may be employed. Considerable additional seismic lines will be necessary to better understand the hydrocarbon potential of Baraka’s Exploration Permits.

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The initial six well program will include one horizontal well to a minimum of 500 metres into the Basel Arthur Creek “Hot Shale” on either EP 127 or EP 128, with Baraka Petroleum free carried to the completion of the well. A follow up 20 well campaigns is planned.

The multi well program is principally directed at finding unconventional oil and gas resources in the Lower Arthur Creek “Hot Shale” that underlies all four Exploration Permits, as well as testing zones that may naturally flow oil or gas.

Should the investigation result in an interpretation that is analogous to the Bakken model and the drilling and fracking indicate acceptable flow rates, the objective is to progress the project towards production.

### Ryder Scott Petroleum Consultants

Ryder Scott Petroleum Consultants evaluated Baraka’s concessions in the Georgina Basin and estimated the lands to hold a prospective resource potential of 76.65 billion barrels of oil (unrisked, P50 estimate). Ryder Scott estimated The Arthur Creek “Hot Shale” potential resource at 7.53 billion barrels and is the primary focus for PetroFrontier and Baraka.

Table 3B (Oil Volumes)						
Unrisked Estimates of Undiscovered OOIP and Prospective Recoverable Oil Resources in the Lower Arthur Creek “Hot Shale”						
Southern Georgina Basin – Northern Territory, Australia						
As of November 1, 2010						
Prospect	Unrisked Undiscovered OOIP (BBbls)			Unrisked Prospective (Recoverable) Oil Resources (BBbls)		
	Low	Best	High	Low	Best	High
EP 127	19.789	27.715	37.190	1.753	2.723	4.009
EP 128	34.969	48.934	65.718	3.097	4.812	7.084
<b>Total EP 127, EP128</b>	<b>54.758</b>	<b>76.649</b>	<b>102.908</b>	<b>4.850</b>	<b>7.535</b>	<b>11.093</b>

\*Source: Ryder Scott

PetroFrontier is targeting as its main source rock in the Georgina Basin a “Hot Shale” (high radioactive content) at the base of the Arthur Creek Formation of Middle Cambrian age.

Over the majority of Baraka’s Exploration Permits, the source beds are within the oil window. Organic content values reach 10% in the Arthur Creek “Hot Shale”. Based on work done by the Siberian Institute of Petroleum Geology, over 280 million barrels may have been expelled from these source rocks in the vicinity of Baraka’s permitted land.

Although the oil-rich shale has never been tested, the company has identified at least 13 old wells containing prospective oil-rich zones with strong background gas.

The oil reservoirs, source beds and traps of the Lower Arthur Creek hot shale are analogous to the unconventional Bakken Oil Shale play in Canada and the U.S. With the Bakken recognized as the largest and most successful unconventional reservoir in North America, the Lower Arthur Creek has the potential to be a very large unconventional play.

The company has identified more than 12 potential bypassed pay zones across its four exploration permits, with the primary zone of interest being the unconventional Lower Arthur Creek organic-rich “Hot Shale”.

The Elkedra-7 well was drilled to a very shallow 770 meters or 2,526 feet, when it encountered the top of the Arthur Creek Shale, by comparison the wells in North Dakota may go as deep as 10,000 feet to reach the productive shale formation, and produce optimum oil recoveries in a range from 5 to 15% of “oil in place” in areas that have high porosity and heavy fracturing.

The limited information that is currently available indicates that the Arthur Creek shale is shallower, with higher permeability, higher porosity, thicker pay, and has not tested any water. The small quantities of oil that were recovered from one drill stem test had an API of approximately 30 degrees, which can be considered light crude.

Oil shows of poor to fair quality have been recorded in a large number of wells, oil and gas generation has also occurred

Source is therefore a relatively low risk in the study area. The critical factor in evaluating the Georgina Basin is the definition and evaluation of effective reservoirs in the Cambrian section. The vertical and real distribution of the potential reservoirs and reservoir quality is currently poorly understood.

### Exploration Potential

In the 1960s, Australia was self-sufficient in oil but today is importing approximately 50% of its oil requirements. Any major discovery in the Georgina Basin could be a major benefit to Australia as an import substitution and assist in its balance of payments.

The unconventional Arthur Creek “Hot Shale” is the major current value driver for Baraka with the conventional resource would be considered secondary. What differentiates Baraka is its world class unconventional resource.

Any commercial discoveries on the Baraka Petroleum Permits have the potential to be of “company maker status”. In addition, any discoveries in EP 103 are likely to cause a re-rating of the Baraka share price in the lead up to drilling of EP 127 and EP 128, where Baraka has a 25% interest.

How large is the potential? The probability of success is difficult to determine given to our knowledge there has never been a horizontal well drilled into shale in Australia. It can be estimated and imputed.

One way of assessing the potential inherent in this play can be gleaned by a review of the historical development of the Bakken which was discovered in 1953, and is an oil bearing shale that covers 520,000 square kilometres or 128 million acres of the Williston Basin in Montana, North Dakota, and Saskatchewan.

This basin remained an exploration backwater, producing a total of 3,000 barrels per day up to 1995. The recent development of horizontal drilling, and new “fracking” techniques to release oil and gas from tight shale formations by U.S. oil and gas exploration groups has created a massive oil drilling and production boom on the Bakken.

By 2008 with the USGS estimating 3.0 to 4.3 billion barrels of technically recoverable oil was available in the Bakken, and recently a number of different entities claimed that this had increased up to 11 billion recoverable barrels. Continental Resources (NYSE: CLR) estimates that up to 24 billion barrels may be available and it is currently capitalized at US\$11.2 billion, owning 855,000 acres in the basin, which is the main driver of its growth in oil production.

The size of the permit holdings of both PetroFrontier and Baraka Petroleum in the Lower Arthur Creek Shales dwarf the acreage holdings of the various multibillion dollar oil companies exploring and producing in the Bakken including Hess.

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Total oil production from all sources in the Williston basin is expected to hit 700,000 barrels per day over the next four years. At a US\$100 per barrel oil price this will equate to annualized revenues of \$25.5 billion per year, so success in the Arthur Creek Shales has the potential to trigger a major revaluation of both Petro Frontier and Baraka Petroleum, and cause a major development boom across the Georgina Basin and other Australian basins that hold potential for unconventional oil and gas resources.

PetroFrontier has re-evaluated 29 wells that were drilled across their four permits, noting that many of them were logged, cored, recorded oil shows and were abandoned as unproductive based on the recovery technology of their time. PetroFrontier has identified 12 potential pay zones in a number of these wells that gave high background gas readings that were never tested.

In unconventional (shale oil and gas) play types, the rock in this type of unconventional accumulation is both source and reservoir. Like normal source rocks, they usually contain high total organic carbon content (TOC).

These types of oil reservoirs require a minimum total of 2% organic content for oil to flow, and that the Bakken averages an organic content of 8%. The total organic content in the Lower Arthur Creek “Hot Shale” is world class averaging more than 5%.

Given the increasing scarcity of underexplored, prospective onshore hydrocarbon basins with attractive fiscal terms in stable economic and political environments, Baraka is in an enviable position with its exposure to the unconventional Lower Arthur Creek “Hot Shale” formation in the Southern Georgina Basin.

### Additional Factors

A recent capital raising has meant that Baraka now has cash and liquid assets of \$5 million. Baraka is cashed up with minimal expenditure requirements going forward. Baraka is assessing other projects to diversify its asset base. The company also has a significant asset in tax losses of \$49 million generated from previous activities prior to 2009 before current management was in place.

Recently, PetroFrontier announced that rig mobilisation was further delayed due to road bans caused by significant flooding in Queensland this year. It needs to transport a drill rig 3,000 kilometres to the Southern Georgina Basin from Brisbane to the Northern Territory.

PetroFrontier’s exploration effort will ramp up with its large volume of upcoming 2D seismic work in the Northern Territory basin. PetroFrontier’s 1700 kilometre 2D program, planned for May-June start in the Georgina Basin EP-103 and EP-104, looks set to attract interest from major onshore contractors. Hess’ planned 3,600 kilometres 2D program in the Beetaloo Basin in the Northern Territory is likely to attract international bids into Australian scene.

Adding further spice, well regarded North American fund managers have also begun investing in companies exploring for oil in the Northern Territory with Bakken-style targets. Notably, Soros Fund Management LLC owns 9.4 million shares in PetroFrontier, or 21.5% of the company. The fund acquired additional shares in January 2011.

Effectively, this renders Soros Fund Management as an investor in EP 127 and EP 128 that is 25% owned and free-carried by Baraka and to be drilled by PetroFrontier.

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## Catalysts for re-rating of Baraka:

- Other activity by international oil and gas firms in Northern Territory
- Further consolidation of ownership in the Southern Georgina Basin
- Increased investment from North American investors in ASX-listed Bakken “style plays” like Baraka. Significant profits have been made by North American investors on the Bakken producing shale oil discoveries in North Dakota /Saskatchewan.
- Approaching spud date for EP 103 in May/June
- Drilling results of EP 103
- Approach of spud date for EP 127 or EP 128
- Drill results of EP 127 or EP 128
- Baraka is assessing other projects to diversify. An acquisition of a quality project could add additional valuation to Baraka shares
- Tax losses of \$49m offset against an acquisition of a company or project earning profits

## Valuation Guide

The exploration effort on Baraka’s permits is being funded by Toronto listed PetroFrontier. Baraka’s fortunes are currently tied to JV partner PetroFrontier and that company is well funded for its exploration program in the Basin - as is Baraka with its free-carry to completion of a well into EP 127 or EP 128.

Upcoming drilling on EP 103 by PetroFrontier in May-June (depending on date of rig arrival) should see the spotlight widen to Baraka. Baraka’s EP 127 and EP 128 tenements “ring-fence” PetroFrontier’s EP 103.

Baraka offers investors a near term high risk/high return exposure to the unconventional Lower Arthur Creek “Hot Shale” formation in the Southern Georgina Basin with technical similarities to the unconventional Saskatchewan and North Dakota Bakken oil shale play.

If PetroFrontier and Baraka successfully discover oil and or gas reserves on its Exploration Permits, the ability to monetise oil discoveries and generate revenues, will depend on capacity to connect to existing pipelines or truck oil to market. In the case of a discovery of natural gas, a new pipeline from the Southern Georgina Basin would likely be required.

However, there are a lot of contingencies in shale and unconventional exploration plays. Prospective resource estimates are large and promising, however there is a risk there could be significantly less than the estimate.

Given Baraka’s stated aim of diversifying its asset base, we would not discount that an acquisition could also change valuation dynamics of the company.

Baraka has a significant number of issued ordinary outstanding shares at 1.95 billion which, at a recent closing price of A\$0.018, gives the company an A\$35.1 million market capitalisation. With approximately \$5.0 million of cash on hand, Baraka’s enterprise value equates to A\$30 million.

Oil and gas explorers like Baraka carry high risk/high return scenarios (although we would expect a diversification by Baraka in 2011 would mitigate this risk somewhat). A dry hole in the Georgina Basin carries a probability. That Baraka is free carried through to undivided 25% working interest up to completion of a minimum of 500 meters of horizontal drilling into the Basel Arthur Creek Shale on either EP 127 or EP 128 - is a significant plus for a small explorer.

Despite the fact there have been oil and gas shows in past drilling; we have still risked Baraka’s unconventional prospective resource at only 5%, until the play is proven commercial. Imputing value to an unconventional resource is more difficult. The conventional resource is risked at 15%, in consideration of the fact that the oil is discovered. Ryder Scott used a higher geological chance of success of 16-22%.

On a 5% risked valuation analysis guide, this would assign a risked valuation on Baraka of \$0.068 a share. At a 10% chance of success the implied share price guide would be \$0.12. At the higher risked valuation of 20% it would be valued at above \$0.20 a share. Altogether, this underscores a high risk/high potential return scenario.

There will likely be a “window” of opportunity on offer with the current valuation of Baraka – in the lead-up to spud date of first well by PetroFrontier Corp. As the drilling date nears for JV partner PetroFrontier’s well expected in the next month, the Baraka share price is likely to be a beneficiary.

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