



Greenfields Petroleum Corporation

17th August 2017

Rapidly growing low-cost production through revitalising mature fields

Houston-based Greenfields Petroleum (GNF) was established in 2008 to acquire interests in undeveloped oil and gas fields overseas. In 2009, GNF became involved in a Production Sharing Agreement (PSA) in the shallow Caspian Sea off Azerbaijan - an exciting relatively new address for oil & gas. Neighbours include supermajors BP and Total & who have proved up billion-barrel oil and multi-trillion cubic feet gas projects.

Oil production expected to double to 10,000 boepd within 24 months

Following the collapse of the Soviet Union, Azerbaijan offered up its prime oil and gas projects to international companies. GNF now has an 80% interest in the impressive Bahar Project and is undertaking workover and recompletions to boost production to close on 18,000 boepd in 2020.

Potential waterflood to begin in 2018 to further boost oil production

Waterflood will allow oil recoveries to be significantly improved and give the project a longer life. Existing infrastructure from previous operations will significantly reduce capex. Interpretation of new 3D seismic should help define the dynamic simulations allowing returns to be maximised.

Exciting deeper plays to be farmed out to a major

At depth, GNF has enviable large-scale opportunities which represent highly attractive farm-in opportunities for a major E&P company. GNF should benefit from the upside without needing to finance this work.

DCF analysis reveals upside potential of 300%

Discounting forecast cash flows from just the program of recompletions and workover gives a target price of C\$0.62. We initiate coverage of Greenfields Petroleum with a Conviction buy stance.

Table: Financial overview							
Year to end Dec	2015A	2016A	2017E	2018E*			
Revenue (US\$m)	1.56	15.23	42.32	88.52			
Net income (US\$m)	(7.52)	99.16	(7.11)	46.43			
EPS (US\$)	(0.34)	1.52	(0.04)	0.08			

Source: Company accounts & Align Research

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

CONVICTION BUY

Price target \$0.62CAD



Key data

EPIC	GNF
Share price	C\$0.20
52 week	C\$0.35/C\$0.145
high/low	
Listing	TSXV
Shares in issue	179,807,812
Market Cap	C\$35.96m
Sector	Energy

12 month share price chart



Analyst details

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IMPORTANT: Greenfields Petroleum Corporation is a research client of Align Research. Align Research & a director of Align Research holds an interest in the shares of GNF. For full disclaimer information please refer to the last page of this document.

NOTE – Price target adjusts for anticipated share count increase to 235,807,812 shares.

^{* 2018} Estimates based upon share count of 235,807,812 shares

Business overview

Greenfields' Petroleum Projects

• Azerbaijan – Greenfields' 100%-owned subsidiary Bahar Energy Limited (BEL) has an 80% participating interest in an Exploration, Rehabilitation, Development and Production Sharing Agreement (ERDPSA) with the State Oil Company of Azerbaijan (SOCAR) covering the Bahar Project. This comprises 76,500 acres of producing oil and gas fields which lie offshore of Azerbaijan, in the shallow waters of the Caspian Sea. Total 2P reserves stand at 40 million barrels of oil equivalent with a conservative asset valuation of \$318 million. Currently, production is around 4,550 barrels of oil equivalent per day (boped) and is planned to rise to almost 18,000 boepd in 2020.

Strategy

Greenfields Petroleum (GNF) focuses on discovered greenfield projects (hence the name) which are essentially undeveloped international oil and gas fields. Normally, such fields require further delineation and infrastructure but have current or near-term production and often come with significant upside potential through the application of technology. The end result of this strategy is that "below the ground risk" for shareholders are significantly lowered when compared to traditional exploration plays.

Drilling exploration wells worldwide is thought to have a success rate of less than 10%. However, with "greenfields", companies have already taken that significant exploration risk and found hydrocarbon resources. Exploration companies have made discoveries but for a number of reasons have failed to capitalise on the full potential of these. This might be because there was no market for hydrocarbons when they were discovered or that the necessary technical skills might not have been available at the time.

Houston-based GNF looks internationally for such greenfield opportunities which frequently offer good upside potential in terms of size and scale. This is because such plays in North America are rare and over-priced. The company has identified numerous such greenfields worldwide, including areas where the management team have had operating experience and a good local network of contacts. Following the company's detailed analysis of the available opportunities, the team chose to exploit such an opportunity in the Caspian Sea in Azerbaijan.

GNF targets the high value generation that comes with the development phase of a project-where there is substantial scope to add value. This is achieved by delineating further reserves and the development of the production operations. In the mature phase, when production begins to plateau, the company would normally seek to sell its interest. However, the project might be retained if the initial development work had identified upside potential from a program of further exploitation or exploration. What is so attractive about greenfield prospects is that often this exploration upside can come at little or no additional cost, but can provide a substantial uplift in the valuation of the project.

In addition, Greenfield Petroleum plans to expand its oil and gas assets through further farm-ins and the acquisition of other Production Sharing Agreements (PSA) from foreign governments in a move to replicate the success that has been seen in Azerbaijan.

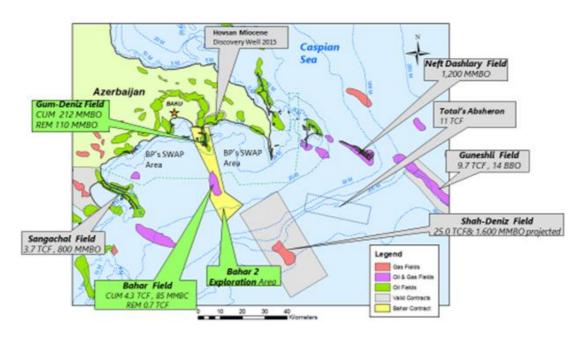
Note: US dollars are used throughout this report, unless otherwise stated.



Projects

GNF is focused on the development and production of proven oil and gas reserves in the Republic of Azerbaijan, with operations in the **Bahar Gas Field** and **Gum Deniz Oil Field**. These fields have impressive oil and gas resources but the platforms and production equipment on site had become rundown due to a lack of investment over many years following the collapse of the Soviet Union in 1991. After the Soviet Union broke up, SOCAR had no money and so offered up some of the best acreage to international oil and gas companies to develop.

The Bahar Project comprises 76,500 acres of producing oil and gas fields which lay offshore of Azerbaijan in shallow water (up to 10 meters deep) of the Caspian Sea. The Bahar Project was awarded by SOCAR as a concession under ERDPSA.



Location of the Gum-Deniz Field, Bahar Field and Bahar 2 Exploration Area. Source: Company (1 - 25% recovery factor, 2 - 75% recovery factor)

The Bahar Project is located south of the Absheron Peninsula and to the east of Baku, Azerbaijan. Currently, the main development activities are the Gum Deniz and Bahar fields, with exploration planned to begin at the Bahar 2 Exploration Area (BE-2). Neighbouring projects consist of a number of large oil and gas discoveries, with reserves amounting to multi-billion barrels of oil and multi-trillion cubic feet (Tcf) of gas. These include BP's prolific Shah Deniz field, located south east of the Bahar area, which is estimated to contain nearly 25 tcf of potential gas.

Background

Greenfields Petroleum Corporation was established in 2008 as a vehicle to exploit undeveloped international oil and gas fields. CEO John Harkins joined Greenfields Petroleum in summer 2008, teaming up with founding partners Alex Warmath and Richard MacDougal both of whom he had previously worked with at Anadarko Petroleum Corporation.

Three years previously, Warmath and MacDougal formed a company called GFI (Greenfield International) with two large greenfields in Thailand and Indonesia. This company went public on the TSXV, raising \$70 million and two year later was ultimately acquired for \$290 million by Salamander. The two founders had established a highly viable business model which has been shown to be successful. We believe that GNF bears all the hallmarks of being GFI Mark II.

In December 2009, GNF acquired a one-third interest in Bahar Energy Limited (BEL) which entered an ERDPSA with SOCAR and its affiliate SOCAR Oil Affiliate (SOA) concerning an offshore block known as the Bahar Project in Azerbaijan and which was adjudicated in May 2010 and became effective in October 2010. Baghlan Group (BVI) (Baghlan) and another party equally held the remaining two-thirds interest in BEL.

The contractor parties in the ERDPSA are BEL and SOA and whom currently have a respective 80% and 20% participating interest. BEL formed Bahar Energy Operating Company Limited (BEOC), to act as the not for profit operator of Bahar Project and which is tasked with the redevelopment of the Gum Deniz Oil Field and Bahas Gas Field.

November 2010 saw the IPO of the company on the TSX Venture Exchange, raising C\$36 million at C\$8.50 per common share, to invest in the project. This provided part of the finance necessary to fund the initial refurbishment of the oil and gas fields. **Production increased sufficiently to achieve the necessary targets so that in March 2014 the development and production rights of project were secured for a 25-year term until 2035**.

However, in 2014, Baghlan failed to fund its share of production costs of BEL to the tune of \$22.1 million. Under the terms of their agreement, GNF had to pay the default amount and in return would receive a share of Baghlan's dividends as recompense. The company borrowed \$25 million from third-party lender Heaney to satisfy this payment.

Matters seem to have gone from bad to worse for GNF's partner.

In 2012, Baghlan had borrowed \$150 million from BNP Paribas to acquire the remaining one-third interest in BEL. By the end of 2014, Baghlan had defaulted on this loan and was put into receivership. In July 2015, liquidators PWC were appointed by the BVI Courts to sell Baghlan's interests. In August 2016, GNF acquired Baghlan's 66.67% stake in BEL, for a consideration of \$66 million, consisting of \$6 million cash and forgiving \$60.3 million default funding that was owed to GNF.

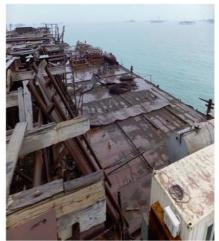
In August 2016, the acquisition was completed resulting in GNF owning a 100% stake in BEL. Next, the company restructured its debts, resulting in the issue of new shares to a number of lenders to repay loans. Following the financial restructuring, Alex Warmath and Richard MacDougal retired from the board in October 2016 and their positions were filled by Geir Segemo and David Fransen. Segemo and Fransen are affiliated with GNF's senior lender and major shareholder Vitol Energy (Vitol), which holds a 49% equity stake in the company.



Operations

The Bahar Project is located in the South Caspian basin of the Caspian Sea, the largest land locked sea on earth. The region is one of the oldest oil-producing areas in the world and an increasingly important source of global energy production.

The facilities include 54 offshore platforms, multiple pipelines and 16.8 kilometres of causeways from an offshore island into the shallow waters of the Caspian Sea. Five pipelines transport gas and liquids from offshore rigs into surface facilities located directly onshore from these fields. Some of the gas field platforms are up to 70 years old and the contractor parties have been investing heavily in refurbishing the infrastructure.





BH Platform 83/162 Production Deck – photographs of before and after 2016 refurbishment. Source: Company

The company's own workforce is looking after the refurbishing work, at a price which represents a substantially lower cost than quoted by service companies. To refurbish a platform costs c.\$700,000 and takes three months. Each platform generally has three wells and involves recompleting the well to a depth of 4,500 meters with new 2-\% inch tubing.

Since gaining a 100% interest in BEL, the GNF management team has been able to substantially reduce costs. The lower oil price has allowed contracts with suppliers to be renegotiated on more favourable terms. At the same time, the company has benefitted significantly from exchange rate fluctuations which have followed the Azerbaijan central bank's decision to float the domestic currency - the manat - in December 2015.

At the same time, the workforce continues to be substantially reduced. BEOC had initially employed around 1,550 people, but that headcount has now been reduced to 830, with a total of 760 expected by the year-end.

Altogether, these measures have allowed operating costs to fall from \$89 million to \$22 million, which is equivalent to \$12 a barrel. There is also scope for costs to fall by another \$5 million by the end of 2018, but that would probably represent an end to these savings.

GNF has strong supportive partners in the energy and commodities company Vitol and the upstream oil & gas company Arawak whom provides operational and technical support, including exploration management and reservoir modelling.

Reserves

The P1 + P2 reserves at the Bahar Project stand at 10.2 mmbo and 168 bcf, which equates to a combined 40 mmboe. The asset valuation based on these reserves is \$318 million (at a 10% discount rate).

Greenfields	Proved	Proved	Total	Total	Total	Total 3P
Net Interest ¹	Producing	Developed	Proved	Probable	2P	
Oil mmb	0.15	2.2	5.1	5.1	10.2	14.2
Gas bcf	3.9	104	108.8	59.6	168.4	223
Total NGL mmb	0.01	1.1	1.11	0.61	1.72	2.6
Total BOE mmb	0.8	20.6	24.4	15.6	40.0	53.7
NPV 10% \$ million	2.4	117	138	180	318	469

¹Restated to reflect 100% ownership of Bahar Energy Limited as of August 2016

GLJ estimated Greenfields Reserves as at 31st December 2016. Source: Company

These reserves and asset valuation numbers are based on three important assumptions. Firstly, a gas price of \$2.69/mcf and the repayment of the historical \$40 million SOCAR carry. Secondly, a capital cost for refurbishing 17 gas platforms of \$18 million. Thirdly, operating costs that are 12% lower at \$22-25 million following the combined effects of the devaluation of the Azeri manat, renegotiated prices for services and a continued reduction in personnel.

Oil and gas sales

Oil is sold to SOCAR Marketing and it is lifted every 6 to 10 days and transported by pipeline to Novorossiysk, a Russian port on the Black Sea. GNF pays transport costs of around \$2.46 per barrel and has been able to achieve a price per barrel equivalent to 96% of Brent Crude.

Gas is sold at the lease line to SOCAR at a price of \$2.68/mcf which represents the best gas price paid in the country. All the Bahar gas is used domestically, as Azerbaijan is a large consumer of gas and currently imports gas from Russia and Iran, while maintaining gas exports to Georgia and Turkey.



Transportation systems. Source: The Company



Terms of Production Sharing Agreement

The initial obligations of the PSA included paying \$2 million upfront and achieving two target production rates (TPR1 & TPR2). Failure to achieve these targets within a three-year period would have resulted in the loss of the project. The TPR1 and TRP2 were achieved in March and April 2014 and as a result from 17th April 2014 SOA was obliged to start paying its share of production costs as well as repaying the cost of SOCAR's carry.

Up until that time, BEL had to carry the costs attributable to SOA's 20% participating interest, which by the end of Q1 2016 totalled some \$40 million. Having achieved the TRP1, in May 2015, the partners in the ERDPSA secured the development and production rights for the project for a 25-year term until 2035.

Out of gross production, a 10% share is provided free of cost to SOCAR as Compensatory Production - in essence a royalty that comes off production to give the net sales revenue. Apart from Compensatory Production, there are no taxes or royalties to be paid.

After deducting operating costs, there is a split between cost oil and profit oil. A certain percentage is considered to be cost oil from which recoverable costs can be recouped by the contractor parties. Cost oil less capital costs and finance costs goes to the contractor parties with BEL receiving an 80% share and SOA 20%.

"R" factor	SOCAR Share	Contractor Parties' Share
Up to 1.25	40%	60%
1.25 – 2.00	50%	50%
2.00 - 2.75	70%	30%
2.75 – 3.00	80%	20%
Greater than 3.00	90%	10%

R factors in the Bahar PSA. Source: Company

Profit oil is the portion of the hydrocarbons which are reserved to compensate for taking risks and being successful. Profit oil is divided between the contractor parties and SOCAR with an R Factor or split of revenues where the R factor is the ratio between cumulative revenue and cumulative costs. An R factor of 1.0 is achieved when the operation has paid out. The share of profit oil which goes to the contractor parties is split between them on the same basis as cost oil.

Strategy for growth

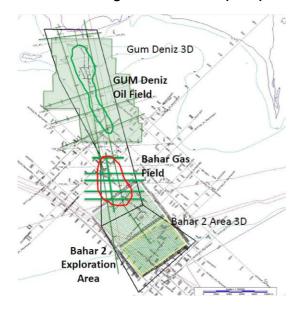
Greenfields has substantial immediate growth potential in Azerbaijan. The Bahar Project represents a stable PSA structure with good commercial terms and no taxes. The project has been demonstrated to have robust economics, and production has delivered good returns.

Wholly-owned BEOC is well positioned for expansion, with a long list of exploration growth opportunities in Gum Deniz, Bahar and Bahar 2. The PSA has a goodly number of prospects and leads which range from drill-ready developments right through to new exploration plays. Volumetric evaluation based on a probabilistic basis has defined Pmean Recoverable Reserves of 350 mmboe with P10 upside of 523 mmboe.

Identified prospects	PMean Reserves	P90	P50	P10
Gum Deniz	621 Bcf	275	550	1050
Bahar	215 mmb	86	207	301
Bahar 2	175 Bcf	81	162	287
Prospect inventory total	796 Bcf + 215 mmb = 350 mmboe			

Inventory of prospect. Source: Company

Potential opportunities within the Gum Deniz oil field include: a water flood of the existing field (2017-18 Phase1), the resumption of oil field development drilling (2018+), drilling of the deeper Miocene gas target below the existing oil fields (2018), development of the non-associated gas in the oil field (2018) and horizontal drilling of oil wells (2018).



Bahar PSA Seismic. Source: Company

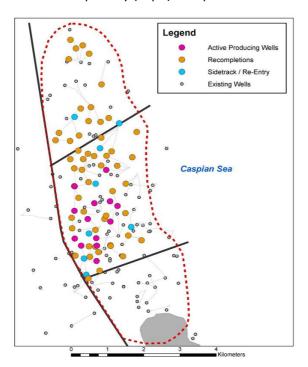
There are also attractive growth opportunities in drilling new gas wells in the Bahar gas field, plus scope for gas exports sales to Europe through the Shah Deniz Trans-Antolian Natural Gas Pipeline (TANAP) (2019) and re-pressurising the Bahar SP oil reservoir by waterflood. The new 3D seismic for Gum Deniz (102 km²) and 2D for Bahar (50 liner km) is currently being processed and interpreted. The analysis of this newly acquired seismic will provide both static and dynamic model simulations of the two fields, which is expected to allow for improved returns from the projects over future years.



Workover and recompletions

The Gum Deniz and Bahar program of workovers and recompletions is ongoing with the current focus on growing gas sales volumes while the oil price remains low. Workovers involve any kind of intervention in the wellbore, whereas recompletions involve repeating or repairing the original completion. In both cases the purpose is to restore a well's productivity.

Phase 1 of the Bahar gas well recompletions involve a total of 51 wells over a five-year period. New gas wells are planned to be drilled after the recompletion program is completed and results so far have been impressive. Well #209 was the second well drilled in the last ten years and recorded initial production flowing (IPF) of 9.5 mmcfd and 445 barrels of condensate per day (bcpd) in September 2010.

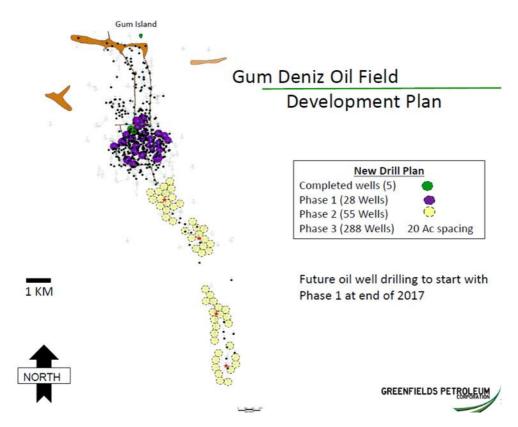


Phase 1 of the Bahar gas well recompletions. Source: Company

The team is focused on keeping operating costs low and continuing the recompletions and workovers which have been highly successful and represent a reasonably modest cost. Moving ahead, the plan is to expand this program and install more electronic submersible pumps (ESP) which have allowed Gum Deniz oil production to greatly improve. ESP can effectively double daily oil production from a well as previously gas lift was used.

Ideally, GNF will have three rigs for workovers and two modular rigs for fishing. Modular rigs come at a cost of \$1.2 million apiece and are being used for the offshore platforms. With each module weighing in at under 4 tonnes, they are much more easily moved by crane. In 2017, capital expenditure is budgeted to total \$18.8 million, which includes \$9.1 million to be spent on workovers (gas \$6.7 million & oil \$2.4 million) along with platform and flowline refurbishments (gas \$4 million & oil \$4.2 million). A total of \$3.0 million was raised in June 2017 in a private placing which will provide capital investment into Bahar which should

really kick off the refurbishment of gas wells. This investment will provide: a modular rig, platform refurbishment steel, tubulars and additional gas well recompletion equipment.



Gum Deniz oil field development plan. Source: Company

The Gumiz Deniz development drilling program is to restart in 2018. Phase 1 involves a total of 28 new oil wells being drilled and the team are planning to use lower cost 2,000 HP rigs.

Gross production in May 2017 was 4,550 boepd, and the planned investment this year in workover and recompletions should allow production to rise to 6,000 boepd by the year-end. The current schedule is to more than double existing production to over 13,000 boepd in 2018 with a target of almost 18,000 boepd in 2020.

	2017	2018	2019	2020	2021	2022	2023	2024
Production								
Oil (bopd)	1,284	1,971	3,126	4,270	5,319	5,758	5,371	4,628
Gas (mmcfpd)	30	67	83	82	66	48	38	57
Average (boepd)	6,284	13,138	16,959	17,937	16,652	13,758	11,704	14,128

	2025	2026	2027	2028	2029	2030	2031
Production							
Oil (bopd)	3,772	3,332	2,801	2,205	1,753	1,345	977
Gas (mmcfpd)	49	40	33	26	27	30	27
Average (boepd)	11,939	9,999	8,301	6,538	6,253	6,345	5,477

Table: ERDPSA production forecast for the program of gas and oil workovers and recompletions. Source: Company



Oil waterflood

The Greenfields team are developing plans to waterflood the Gum Deniz oil field. Drilling represents the primary recovery method whilst techniques such as waterflood are regarded as secondary recovery methods. Waterflood requires water to be injected into the reservoir through injector wells to increase reservoir pressure and thereby stimulate production and drive the oil towards the producing wells.

By and large only 10% of oil in a reservoir can be extracted in primary depletion, but with waterflood that percentage can be increased and the production rate of a reservoir can be maintained over a longer period of time. The effects can be seen within three to six months, but it is best to give it a year or more before judging the overall impact on oil production. Waterfloods have been seen to be effective over a twenty-year period and are used to increase the recovery factor. In some cases, waterflooding has even served to double or triple the recovery factor.

Pilot waterflooding of the oil field is expected to begin within the next twelve months which would represent Phase 1 of this programme. Oil production from a waterflood would be in addition to the production shown in the table at the bottom of the previous page.

To activate this advanced recovery programme would require initial capital expenditure in the range of \$15 - 20 million. This could potentially be raised on admission to AIM later this year. Despite the potentially high level of possible returns from such a program, the capital expenditure should be allowed to be kept reasonably low as existing oil wells are available to use as injectors or collection wells.

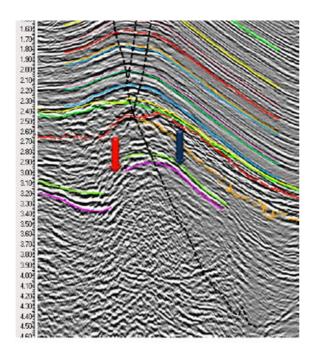
Waterflooding has already been used successfully in the Gum Deniz oil field in the SP zone in the late 1900s, but the scale of this work was limited to one area and the other side of the fault remains untouched.

New 3D seismic has been acquired which is being incorporated into revised field development plan to help improve the potential returns. The static and dynamic simulation models that are being developed and the upgraded reserve figures determined by CPR consultants will provide the information on which such a development can be designed, modelled and valued.

Deep Opportunities

There are a number of potentially large opportunities at depth including drilling the deeper Miocene Prospect, recovering the Bahar Field SP oil layer and the Bahar 2 exploration area.

Analysis of seismic data has indicated a possible pressure ramp in the Upper Miocene at the Gum Deniz Miocene Prospect which could highlight the presence of a reservoir. The thickness of the Miocene strata varies between 150 to 180 metres across the Gum Deniz Miocene Prospect. The A Prospect covers an area which is judged in size to be between a minimum of 4-6 km² and a maximum of 13-15km². The B Prospect is deemed to be similar to Hovsan, which was an Absheron PSA discovery onshore in 2015 where initial production was 27mmscfd and 1,400 barrels of condensate. The Miocene well has an estimated target depth of 4,750 metres. These prospects in Gum Deniz block are estimated to have PMean reserves of 621 Bcf.



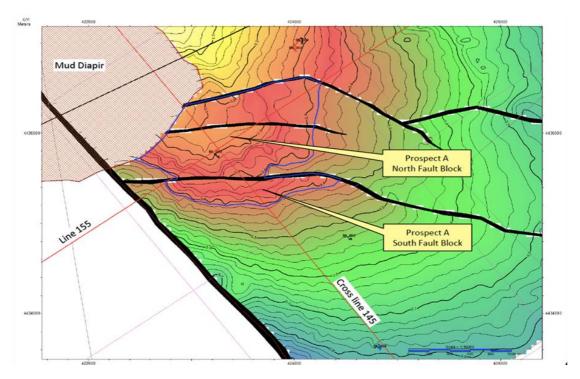
Gum Deniz Miocene Prospect. Source: Company

The Bahar Field SP Oil Layer represents the largest undrained hydrocarbons initially in place (HCIIP) by volume. It is estimated to contain 61% of the oil in place at the project as of 2015. Consultants ERA, using hydrodynamics, have estimated a stock-tank oil initially in place (STOIPP – the volume of oil in the reservoir prior to production) of around 860 million barrels of oil. The NW part of the Bahar Field in the SP has not been developed. In the late 1990s, SOCAR produced most of the available gas but the remaining oil rim was not extracted.

The acquisition of 3D seismic to define the outline of the field and oil-water contact (OWC - the surface in the reservoir above which oil mainly occurs and below which is largely water) is required ahead of a possible pilot re-pressurising project probably along with well development drilling. These prospects in Bahar block are estimated to have PMean reserves of 215 million barrels.



Seismic covering the Bahar 2 exploration area shows what looks to be mud diaper lead flat spots and deeper flat-spots. A flat spot in seismic can appear when there is a gas filled porous rock overlying a liquid-filled porous rock and can indicate the presence of hydrocarbons. These prospects in the Bahar 2 block have been estimated to also have PMean reserves of 175 Bcf.



Bahar 2 exploration area structure – Unit VI TWT (two-way time) structure Source: Company

These more complex deep opportunities have potentially large returns, but require big budgets and come with considerably greater risk than GNF is prepared to accept. For example, the required commitment of the Miocene well and seismic on the Bahar field comes with a price tag of \$30 - 60\$ million. Consequently GNF is seeking to farm out these deep opportunities to a major.

Financials & Current Trading

Since March 2016 Greenfields has had a 100% interest in BEL and the revenue figures over the years 2012 to 2016 reflect this. The financials show revenue from the one-third share interest in the PSA for the years 2012 to 2015, with results for 2016 for the first time showing the full revenue and operating profits from BEL. The large profit in 2016 mainly stems from the net gain of the acquisition of the remaining two-thirds interest in BEL.

Y/E 31 Dec US\$'000	2012A	2013A	2014A	2015A	2016A
Revenue	2,737	2,432	2,044	1,555	15,231
Pre-tax profit/loss	-16,075	-3,278	-7,324	-7.524	99,193
Net profit/loss	-16,075	-3,278	-7,324	-7,524	99,193

GNF five-year trading history. Source: Company accounts

2016 results

Production for 2016 in the Gum Deniz oil field averaged 884 bopd, 29.5% lower than the previous year. Production in the Bahar gas field averaged 18.6 mcfpd, which was 1.6% higher than in 2015.

In all, a total of \$5 million was spent on twenty workovers. Nine of them were in the Bahar field, which cost \$3.4 million and successfully added about 8.8 mmcfpd of new production and thereby served to offset declines in other producing wells. Construction activity involved the refurbishment of nine platforms in the Bahar fields plus new piles and support structures for the Gum Deniz causeway system. In addition, 649 metres of high pressure gas lift line were replaced. Most importantly, the static and dynamic reservoir simulation models for Gum Deniz and Bahar were initiated in June 2016, with completion expected imminently.

In August 2016, the company acquired the remaining 66.67% interest from the liquidators of Baghlan for \$6 million cash and a release and discharge of \$60.7 million in liabilities owed to BEL, BEOC and the company. **GNF underwent a series of restructuring transactions in September 2016 which reduced the overall level of debt from \$86.6 million at the interim stage to \$44.2 million by the year-end.** The company recorded a net gain on the acquisition of \$81.5 million. An additional \$8.5 million, which represented the present value of Baghlan's future dividends owed to the company, was recognised as income. In addition, as a result of the restructuring there were gains associated with the settlement of long term loans and debentures of \$24.1 million and \$13.7 million respectively.



2017 Q1 results

During the period, gross entitlement volumes from the ERDPSA averaged 865 bopd for crude oil and 20.7mmcfpd for natural gas (or 4,309 boepd), which represented a 14% improvement compared with the comparable quarter last year. In Q1 2016 the company's share of production was 1,052 boepd as it only had a one-third share at this stage.

BEL's entitlement was 3,591 boepd, which represents 83.6% of the gross entitlement. It had been hoped that production in the quarter would have been higher but there was limited availability of crane barges which resulted in a slower pace in carrying out scheduled workovers.

In the quarter, BEL realised an average oil price of \$48.20 per barrel, 56% higher than in the comparable period in 2016. BEL realised a natural gas price of \$3.96 per mcf in both Q1 2017 and Q12016 as it was the contractually constant fixed price. In the period, the company made a loss of \$1.4 million, which represented a loss per share of \$0.01.

Recent developments

In April 2017 Greenfields was able to announce reserve figures as at year-end 2016 and which had been evaluated by independent engineers GLJ Petroleum Consultants Ltd. Total proved reserves were evaluated at 24.4mmb through the company's interest in BEL. This figure represents a 236% increase compared to the reserves as at year-end 2015. Total proved plus probable reserves (2P) were evaluated at 40 mmboe at the end of 2016.

Also in April 2017, the company announced that Bahar Energy entered into a Protocol in relation to SOA's shortfall in funding its 20% of project expenses. SOA's shortfall totalled \$40 million (from April 2014 to the end of 2016) and is to be repaid to BEL from SOA's share of cost recovery. From 1st Jan 2017 to 1st Jan 2020, all funds generated from rehabilitation that are allocated to SOA for profit petroleum and to SOCAR as Compensatory Petroleum will be placed in a separate fund and used to fund SOA's monthly cash call obligations.

Risks

Geological risks

There are a series of technical risk factors concerning the amount of understanding of the geology of the project areas, the mineralisation style being targeted and the distribution and magnitude of the indicators that have been identified in exploration work.

Political risk

There are political risks involved in companies operating in Azerbaijan. The oil industry is arguably the most susceptible sector of the market to political risks largely due to its importance to the host county's economy.

Oil price risks

Oil prices are highly cyclical and changes in the price could have a negative or positive impact on the valuation of the company's projects and revenue from the sales of hydrocarbons. Over the past decade, the price of oil has been highly volatile, trading in a range of \$140 to \$28 and currently Brent Crude trades around the \$47 level.

Exchange rate risks

Movements in the value of currencies will have an effect on the company's accounts on translation from Azeri manat into US dollars. Fluctuations in the value of the Azeri manat against the US dollar may have an effect on the valuation GNF is awarded by the stock market.

Future funds

The market for raising funds for small cap companies may have improved from the worse conditions eighteen months ago, however the equity market does continue to be difficult, especially for resources companies. Some recent fund raisings in the oil sector have seen share prices being undermined by incoming investors demanding substantial discounts to provide the necessary capital.



Board of Directors

Michael J. Hibberd, B.A., M.B.A., LL.B - Chairman of the Board

Michael is the Chairman and President of MJH Services Inc., a corporate finance advisory business that was established in 1995. He is currently Chairman of Canacol Energy Ltd., former Chairman of Heritage Oil Plc and Heritage Oil Corporation, and Vice-Chairman of Heritage Oil Plc, which are all public oil and gas companies. Michael is also a Director of Montana Exploration Corp., PetroFronteir Corp. and Pan Orient Energy Corp.

Garry P. Mihaichuk, B.Sc., M.B.A. – Director and Chair of Nominating and Governance & Compensation Committee

Garry was previously senior officer of TransCanada Pipelines Ltd., Amoco Corporation and Husky Energy Inc.

Geir Segemo - Director

Geir is a member of the finance and investment group at Vitol Group. Prior to joining Vitol in 2007, he spent 13 years in the energy teams of various investment banks, including Dresdner Kleinwort Benson and JPMorgan. Geir is a board member of New Age (Africa Global Energy) Ltd. He holds a B.Sc. in Economics from the Wharton School.

Gerald F. Clark, B.A., M.B.A. – Director and Chair of the Audit Committee

Gerald has over 35 years of diverse experience in the energy industry, having served in various senior management/executive officer positions at Amoco, Shell, Reliant Resources, Output Exploration, GFI, and most recently Ciris Energy. His background is in finance, business development, corporate planning and M&A.

John W. Harkins – Greenfields Petroleum Director, President and Chief Executive Officer

John has over thirty years of diverse international energy experience managing commercial efforts to find, capture and exploit international energy and midstream businesses in more than twenty-five countries. He gained his experience in negotiations, finance & business development through positions with Amoco, TransCanada Pipelines and Anadarko.

David B. Fransen – Director

David has served as the Managing Director of Vitol SA Geneva since 2002 and is a member of the board of directors of Vitol Group. He has a wide range of experience within the Vitol Group, from gasoline trading and various management positions to the creation of Vitol's central management information system. Prior to joining Vitol in 1986, David was with British Petroleum. He holds a BSC (Hons.) in Mathematics and Computer Science from Royal Holloway College, London.

Management Team

John W. Harkins - Chief Executive Officer

See previous page.

Norman G. Benson - Chief Operating Officer

Norman has over 30 years of international and domestic O&G experience. His expertise comes from positions in engineering, operations and business development for Amoco, FIOC, Anadarko and Greenfields.

Jose Perez-Bello - Chief Financial Officer

Jose was appointed Senior Vice President, Chief Financial Officer and Treasurer of the Corporation in June 2017. Previously he had been Vice President and Controller of the Corporation since 2012. Jose has more than thirty years of combined experience in energy and manufacturing industries where he held leading roles in finance and accounting, economic and commercial analysis, strategic planning and forecasting and internal auditing. Before joining GNF, Jose provided financial management expertise on a project basis to several ventures including GFI Oil & Gas, Brunel Energy and Enron Wind. He holds BBA from a Venezuelan university and an MBA from the Bauer School of Business at the University of Houston.



Forecasts

We initiate coverage of Greenfields Petroleum with forecasts for the current financial year and for the full year 2018. The company is seeing increased oil and gas revenues from its improved ownership position and as a result of workovers and recompletions.

We estimate an operating loss of \$0.7 million for 2017. Our expectation is that the weighted average number shares will rise by 173% due to the shares issued as a result of the restructuring in 2016, along with shares issued or expected to be issued in 2017, including a placing at the proposed AIM flotation (where we have assumed that a total of US\$17.5 million or C\$22.4 million is raised at C\$0.40 per share) later this year. We forecast a basic loss per share of \$0.04.

US\$'000s y/e 31 December	2015A	2016A	2017E	2018E
Revenues				
Petroleum and natural gas	-	14,422	42,320	82,060
Management service fees	1,555	809	-	-
	1,555	15,231	42,320	82,060
Expenses				
Operating	-	9,341	22,308	22,494
Impairment of accounts receivable	-	2,875	8,000	12,000
Marketing and transportation	-	52	120	240
Administration	5,048	5,552	2,600	2,680
Depreciation and amortization	34	4,021	10,000	14,000
•	5,082	21,841	43,028	51,414
Profit/(loss) from operating activities	(3,527)	(6,610)	(708)	30,646
Income from acquisition transaction				
Income from fair value of future dividends	-	8,467	-	-
Gain on acquisition	-	81,524	-	-
Income (expense) from debt restructuring				
Gain on settlement of long term loan	-	24,137	-	-
Gain on settlement of debentures	_	13,672	-	-
Other financing costs	-	(13,854	-	-
Fair value of warrants issued	_	(546)	_	-
Other income (expense)				
Income on investment in joint venture	2,305	992	-	-
Interest income	3,203	3,420		
Interest expense	(12.457)	(10,803)	(6,000)	(9.000)
Foreign exchange gain/(loss)	2,925	(1,206)	(500)	(2000)
Change in fair value of derivative liability	27	-	100	250
Income (loss) before income tax	(7,524)	99,163	(7,108)	19,896
Total comprehensive income/(loss)	(7,524)	99,163	(7,108)	46,431
Per share				
Income/(loss) per share, basic and diluted	(\$0.34)	\$1.52	(\$0.04)	\$0.08
Weighted average number of shares	21,982,877	65,464,178	176,283,101	245,413,976
Total shares plus options & warrants				335,717,729

Table: GNF summary forecasts. Source Company accounts and Align Research

Valuation

A lot of value has been created at GNF over recent years which, in our opinion, seems to not yet be reflected in the share price. Over the last fifteen months the company has emerged with a 100% stake in the operating company, compared with the 33.34% previously held. The restructuring in September 2016 saw a number of lenders accepting shares for the repayment of loans. This had the effect of cleaning up the balance sheet ahead of a future period of what we anticipate will be both rapid and sustainable growth for the company.

We have sought to value GNF based on the cash flow from the ERDPSA as a contractor party to the government. Within the terms of this agreement, 10% of total production is delivered to SOCAR free of charge as Compensatory Production and SOCAR's affiliate SOA receives 20% of the cash flow that goes to the shareholders in BEL, i.e. the contractor parties. There are no additional taxes, duties or royalties charged.

Our model has been conservatively formulated based on studying managements plans, the cash flow forecast based on GNF's most recent fifteen-year outlook and based on the reserves as at the end of 2016, which were announced in April 2017, coupled with the latest development plans.

The current production plans purely cover workover and recompletions, with the focused gas workover schedule to bring gas production on at a fast pace. Once all the workover rigs have been sourced production is expected to rise from 30 mmcfpd in 2017 to a high of 83 mmcfpd in 2019. Overall, average gross production is planned to rise from 6,284 boepd in 2017 to reach a high of 17,937 boepd in 2020 with a gas and oil split of 76%/24%.

Looking at future oil prices, we have used estimates which are significantly more conservative than those provided for Brent Crude in the US Energy Information Administration's (EIA) Annual Energy Outlook 2017. Currently the company receives approximately 96% of Brent Crude on oil sales, so we have used a similar discount for the price received for oil and condensate against Brent over the life of the project.

Operating costs per barrel of oil equivalent (boe) are expected to be mainly affected by two factors. Firstly, the team has successfully reduced the workforce in 2017 but due to severance payments, the company will not benefit from the final \$5 million savings due to a reduction in the headcount until 2018. Secondly, cost per boe over the life of the project is shown to fall as variable costs add to production and costs of gas production are very low. In 2021, costs per boe begin to rise as cash from revenues starts to go into the abandonment fund in addition to operating costs. As production naturally begins to decline, the cost per boe increases as some of the costs are fixed.

The key assumptions made include: corporate overheads, interest charges, taxes and the carry owned by SOCAR. Corporate overheads or administration charges gradually rise from \$2.6 million in 2017 to \$3 million in 2022 and beyond that at a similar annual increase. Debt currently stands at \$45 million and it is assumed it is paid off over the next ten years. It is also assumed that no tax will paid over the next six years in the US. Even when tax starts being paid in 2023, a proportion of US taxes are expected to be offset by the tax credit. In years 2017 to 2020, the \$40 million carry owed by SOCAR will be repaid. BEL will take all the cash flow going to SOCAR for Compensatory Petroleum until these funds are recouped.



	2017	2018	2019	2020	2021	2022	2023	2024
Production								
Oil (bopd)	1,284	1,971	3,126	4,270	5,319	5,758	5,371	4,628
Gas (mmcf)	30	67	83	82	66	48	38	57
Average (boepd)	6,284	13,138	16,959	17,937	16,319	13,758	11,704	14,128
Compensatory	-		-			-		-
Petroleum (10%)								
Oil (bopd)	128	197	313	427	532	576	537	65
Gas (mmcfpd)	3	7	8	8	7	5	4	6
Average (boepd)	628	1,364	1,646	1,794	1,632	1,376	1,170	1,065
Pricing (\$)								
Brent oil price	49.91	50.00	50.00	55.00	60.00	65.00	68.00	70.00
Oil & condensate	45.92	46.00	46.00	50.60	55.20	59.80	62.56	64.40
(PSA netback)								
Gas (with	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69
protocol pricing)								
Revenues US\$m								
Oil	21.52	33.09	52.49	78.86	107.17	125.68	122.64	108.79
Gas	29.34	65.53	81.19	80.21	64.56	46.95	37.17	55.76
Total revenues	50.87	98.63	133.68	159.08	171.73	172.63	159.82	164.54
Operating Costs	27.89	26.46	29.57	32.18	34.42	40.48	43.318	44.74
Сарех	18.82	27.59	52.18	98.81	54.14	30.30	8.06	3.06
ERDPSA Net Cash	4.16	44.58	51.93	28.09	83.17	101.86	108.44	116.72
Flows								
Cash flows US\$m								
SOA Cash Flow	(0.88)	4.48	4.12	(1.96)	8.43	12.35	14.48	17.42
(20% contractor								
party)								
SOCAR Cash Flow	-	-	-	15.91	17.17	17.26	15.98	7.10
(Compensatory								
petroleum)								
BEL Cash Flow	1.56	27.79	29.84	(7.83)	33.72	49.41	57.91	69.67
(80% contractor								
party)								
SOFAZ Cash Flow	3.48	12.31	17.97	21.96	23.85	22.82	20.07	22.52

Table: ERDPSA forecast revenue and cash flows from the program of gas and oil workover and recompletions. Source: Company & Align Research

Based on these assumptions we have determined a Net Present Value using discount rates of 10% and 12%.

\$ million	2017	2018	2019	2020	2021	2022	2023	2024
80% BEL Cash	1.56	27.79	29.84	(7.83)	33.74	49.41	57.91	69.67
flow								
GNF admin costs	2.60	2.68	2.75	2.84	2.92	3.01	3.10	3.19
Interest charges	6.00	5.40	4.80	4.20	3.60	3.00	1.80	1.80
Pre-tax profit	(7.04)	19.71	22.29	(14.87)	27.20	43.41	52.41	64.68
Tax	-	-	-	-	-	-	5.24	6.46
Net income	(7.04)	19.71	22.29	(14.87)	27.20	43.41	47.17	58.21
Discount factor	1.0000	1.1363	1.2913	1.4674	1.6675	1.8949	2.1539	2.4469
NPV	(7.04)	17.34	17.26	(10.13)	16.31	22.91	21.91	23.79

	US\$ million
Total Net Present Value	102.34
Terminal value PV	54.16
NPV + Terminal Value	156.51
Less debt	45.00
NPV for Greenfield Petroleum	111.51

Table: Greenfields Petroleum Net Present Value using a 12% discount rate. Source: Align Research

We have sought to adjust for risk in selecting to use the NPV(12) figure of \$111.51 million. Based on the current number of shares in issue (179,807,812), this equates to an initial target price of US\$0.62 or C\$0.80 per share.

Discount rate	10%	12%
NPV US\$ million	181.64	156.51
Less debt	45.00	45.00
Total NPV For Greenfields Petroleum	136.64	111.51
Per share US\$	0.76	0.62
Per share C\$	0.98	0.80

Table: Net Present Value results for Greenfields Petroleum. Source: Align Research

The company intends to list on AIM later this year. We have assumed that AIM admission is accompanied by a placing to raise a total of US\$17.5 million (C\$22.4 million) at C\$0.40 per share. This is estimated to take the number of shares in issue to 235,807,812. On this basis, the target price would be US\$0.47 of C\$0.62.

NOTE – We have not adjusted the net debt figure for this cash raise as we assume the application of the funds to the waterfloods at the Gum Deniz fields.

It does seem, in our opinion, that GNF has been largely overlooked by investors and hence why the stock is currently materially below our valuation. That might be about to change however as moving ahead a healthy flow of news seems to be developing.

In the early autumn, investors are likely to learn more about the static and dynamic model which is being developed to allow for improved returns from the Bahar field. The Competent Persons Report (CPR) is being handled by the leading energy resource consulting firm GLJ in Calgary. By the end of September, the NI 51-101 (Standards for Disclosure for Oil and Gas Activities) reserve report is expected to be published outlining updated P1 and P2 numbers.



Then there is likely to be the approval of this reserve report by SOCAR. This report will provide the basis on which to determine project economics and the Internal Rate of Return (IRR) on the secondary recovery of the oil.

At the same time, there could be more news on the strategy for the exploitation of the deeper plays and the results of any discussions with the major active within the Caspian Sea which could form potential farm-in partners. Any initial deal is likely to provide for the acquisition of 3D seismic data and its interpretation; and focus attention on the stock.

All these stages will allow further value to be created. The plan is to potentially seek a listing on AIM before the year-end to access new investors. Towards this goal, investors are likely to see GNF gaining a higher profile that befits a company with strongly growing oil and gas production profile, cash flow and earnings plus exploration upside funded by third parties.

On the back of this news flow, we look forward over the coming months to being given the opportunity to revisit our target price, once sufficient information becomes available to place an initial valuation on the waterflood of the oil. We initiate our coverage of Greenfields Petroleum with a target price of C\$0.62 (in, importantly, adjusting for the anticipated share count increase on the intended AIM dual list) and a Conviction Buy stance.

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