

# **ARMOUR ENERGY**

**ASX Announcement**  
**11<sup>th</sup> October 2010**

## **Armour Energy to focus on Northern gas province**

### **Highlights:**

- **Recently formed D'Aguilar subsidiary Armour Energy will focus on a new gas province in the Northern Territory.**
- **Project aimed at delivery of gas to both Queensland's Northern Economic Triangle and the Northern Territory.**
- **118,814km<sup>2</sup> of land area is currently under application in the Northern Territory.**
- **Historic strong gas shows and flows.**
- **Access and operational preparations prior to tenement grant are well advanced.**
- **Active exploration program planned.**
- **Conventional gas targets present early gas discovery and flow potential.**
- **40 Trillion Cubic Feet (TCF) of potential is outlined in gas bearing shales with similar characteristics to producing US shale gas reservoirs.**
- **Armour Energy to apply proven Coal Seam Gas and US Shale Gas techniques to exploration and development.**
- **Capital raisings planned by Armour Energy this year.**
- **Planned IPO and ASX listing scheduled for February 2011.**
- **Armour Energy executive and management are well experienced in major project and unconventional gas exploration and development.**

Further to the announcements to the ASX on 28 May and 26 July 2010, the Directors of D'Aguilar Gold Limited (D'Aguilar) are pleased to provide an update on activities of its subsidiary Armour Energy formed to focus on gas opportunities in northern Australia.

### **New province identified - extensive area applied for**

Armour is dedicated to the discovery and development of world class gas resources in an extensive new province in the Northern Territory. The area currently under application covers 118,814km<sup>2</sup> of the McArthur, South Nicholson and Georgina Basins. The area is host to numerous shows of gas, condensate, oil and bitumen in the proterozoic aged McArthur Group and Roper Group sediments as encountered by previous explorers including Amoco in the 1980s.

The area is also prospective for large shale gas resources which are expected to be comparable to or rival shale gas resources contained within known shale gas basins in the USA.

Armour has identified a core target area located within and adjacent to the fault bounded trough structure known as the Batten Trough. (Figure 1) The target sediments are the thickened sections of the gas rich Barney Creek Shale which has scope to host up to 40 TCF of gas in the area. Armour Energy is targeting 20TCF, equivalent to 21,100 Peta Joules (PJ), of shale gas in the Batten Trough.

Tenement review processes necessary prior to grant are well under way by Armour, with a focus on progressing Native Title discussions and negotiations with Traditional Owners.

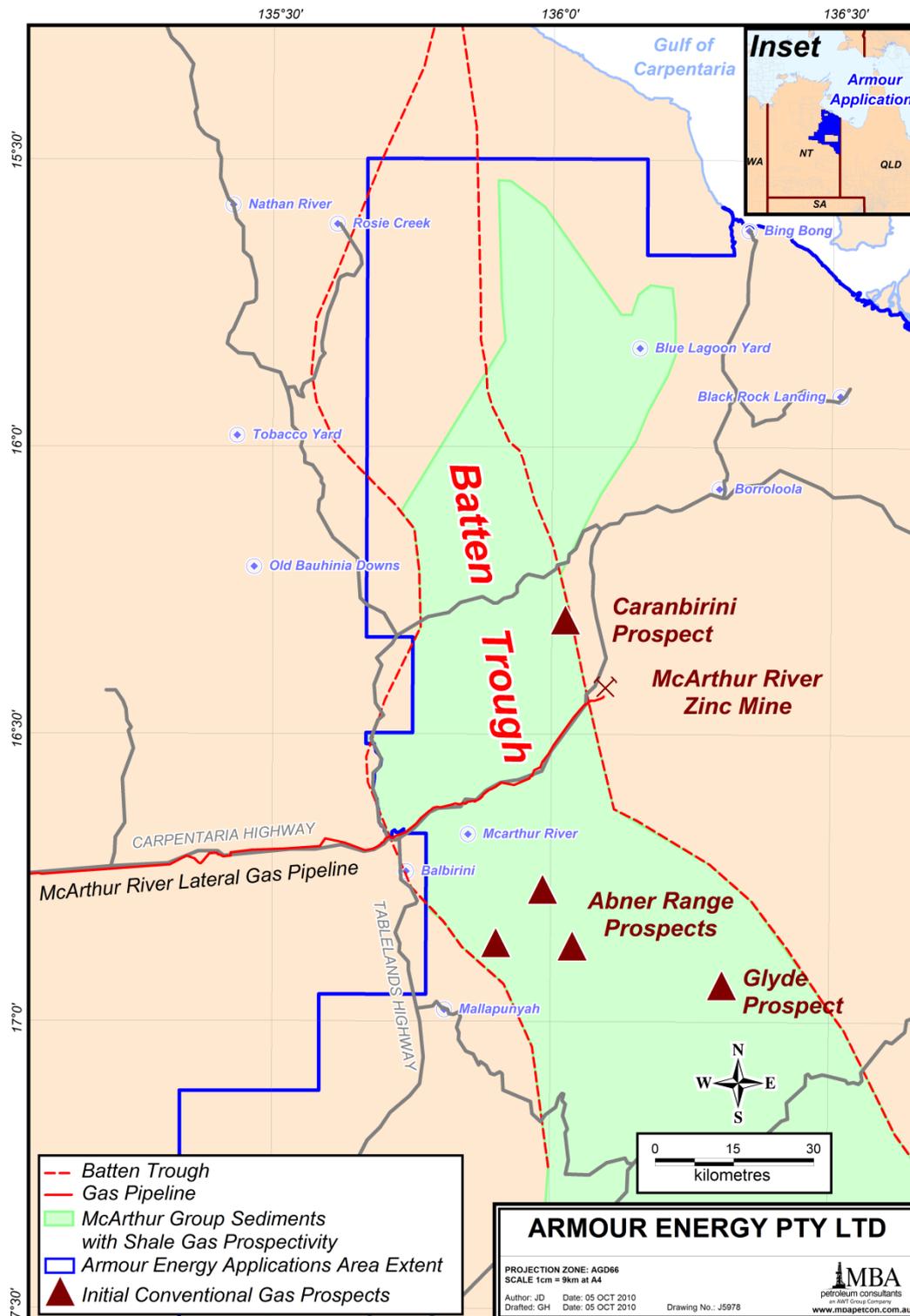


Figure 1: Armour Energy Conventional and Shale Gas Project Area – Northern Territory

## **Market opportunities identified**

Several short term and lower volume market domestic industrial and power generation opportunities have been identified in and near to the exploration area, or adjacent pipeline infrastructure. Early exploration targets and ultimately reserve definition and production plans have been selected to address these opportunities.

The project area is well positioned to service the Northern Economic Triangle of Queensland and local markets in the Northern Territory. "The Northern Economic Triangle (NET) is a commitment by the Queensland Government to foster sustainable economic, social and community growth through the emergence of Mount Isa, Townsville and Bowen as a triangle of mining, mineral processing and industrial development." \*

\*Source QLD Government Website

## **US shale gas exploration and development techniques to be applied**

Shale gas technology developed in the USA and commercially applied by a number of companies and operators in Texas, Wyoming, Oklahoma, Louisiana, Arkansas, North Dakota as well as Saskatchewan and British Columbia in Canada will be applied in the exploration of the area.

The geology of the Northern Territory target area demonstrates extensive target shale units with total organic carbon content, thermal maturity levels and thicknesses presenting comparable targets to the currently producing Haynesville, Barnett, Marcellus and Bakken Shales that are currently yielding high volume gas production in the USA.

Shale gas development and production relies on the production of gas from artificially fractured low permeability gas bearing shales which are penetrated by radiating horizontal lateral holes drilled off a vertical centre well. Armour's well depths are targeted at between 500 and 1500 metres within the project area.

On the basis of available information and an Australian operating environment, Armour Energy is targeting overall exploration and development costs of \$1.40 per GJ.

## **Shale gas importance**

Shale gas production in 2008 supplied approximately 2TCF of gas per year into the US gas market being equivalent to 9.1% of total US marketed gas production of 21.9TCF. In 2008 US shale gas production exceeded US coal bed methane production.\*

\*Source: US Energy Information Administration Website

In 2009, total Queensland gas production was estimated to be 232 PJ. Production from the expanding coal seam methane industry was estimated at 151 PJ having overtaken conventional gas production to now account for 65% of Queensland gas production.\*

\*Source: Queensland Government Website

Gas resource targets onshore in the NT have not previously attracted major commercial exploration efforts, owing to historic low gas prices, lack of available markets and a focus on conventional reservoir styles which were perceived to be limited in size potential.

Armour Energy's strategy relies, as with the emergence of the coal seam gas industry in Queensland 10 years ago, on the discovery of very large unconventional gas resources extractable with proven, but as yet untried methods in this area, along with the generation of high volume downstream industrial, power generation and export markets.

Armour Energy is targeting similar development of shale gas production in the Northern Territory and believes that shale gas production in the Northern Territory will ultimately provide a significant adjunct to energy supplies in both the Northern Territory and Northern Queensland.

### **Early gas flow potential in conventional targets**

In its Northern Territory project areas, Armour Energy has identified potential for shale gas plays in the Barney Creek Shale and potential to discover conventional gas accumulations in the Coxco Dolomite abutting the Barney Creek Shale along the Emu Fault Zone both North and South of the McArthur River Zinc Mine. A mineral exploration hole drilled at the Glyde River prospect in this area by Amoco in 1979 flowed gas and condensates at 140psi for 6 months before it was sealed at the surface. (See Figure 2)



Figure 2: Gas flow from Amoco mineral exploration borehole GR-79-9 at Glyde River 1979.  
Source private collection from 1979 exploration project

Mineral exploration drill holes in the area frequently encountered bitumen, residual oil, gas shows and gas flows further substantiating the presence of a mature petroleum system in the area. Armour has identified several targets adjacent to the Emu Fault Zone near both Glyde and Caranbirini along with other anticline related targets adjacent to the Abner Range. These targets provide immediate

potential for approximately 200 Billion cubic feet or approximately 210 PJ of gas with further potential to be identified in similar trap sites.

#### Units of gas measurement

Imperial Unit	Definition	Energy Equivalent for Methane
scf	1 Standard cubic feet of gas	1.055 MJ (Mega Joules)
mcf	1 Thousand scf	1.055 GJ (Giga Joules)
mmcf	1 Million scf	1.055 TJ (Tera Joules)
bcf	1000 Million scf = 1 Billion scf	1.055 PJ (Peta Joules)
tcf	1000 Billion scf = 1 Trillion scf	1055 PJ

#### Relatively low land use, social and environmental conflicts.

Armour is encouraged by the project's location in areas of manageable environmental and social impact with expected negligible impact on groundwater due to depth along with minimal land use conflict.

#### Capital raisings and ASX listing planned

Armour has planned underwritten capital raisings in the current quarter, followed by an IPO and ASX listing in February 2011.

#### Experienced Board and management in major projects and gas exploration

Armour's CEO, Mr Phil McNamara is highly experienced in the field of major project feasibility and development having recently headed the feasibility study and then successful negotiations with major Chinese constructors, financiers and customers for Waratah Coal. His previous appointments also saw him managing large coal development projects for Yanzhou Coal Australia, and prior to that Xstrata Coal.

Armour is well supported by a team of highly experienced and successful petroleum exploration experts and consultants and draws relevantly on the coal seam methane experience of its chairman and D'Aguilar CEO, Mr Nicholas Mather, who was instrumental in the early business development strategy, project acquisition and exploration programs for Arrow Energy and Bow Energy. He is currently a Non Executive Director of Bow Energy.

Mr Bill Stubbs, Chairman of D'Aguilar was also Chairman of Arrow Energy between 1998 and 2005, during its emergence as a major coal seam methane company, and his experience will be particularly relevant to the emergence of Armour Energy as a major gas company.



On behalf of the Board  
KM Schlobohm  
Company Secretary

Philip McNamara CEO Armour Energy

#### Competent Persons Statement

The information herein that relates to Exploration Results is based on information compiled by Nicholas Mather B.Sc (Hons) Geol., who is a Member of The Australian Institute of Mining and Metallurgy. Mr Mather is employed by Samuel Holdings Pty Ltd which provides certain consultancy services including the provision of Mr Mather as the Managing Director of D'Aguilar Gold Ltd (and a director of D'Aguilar Gold Ltd's subsidiaries).

Mr Mather has more than five years experience which is relevant to petroleum exploration geology being reported and to the activity which he is undertaking to qualify as a Competent Person for the purposes of the Listing Rules. This public report is issued with the prior written consent of the Competent Person(s) as to the form and context in which it appears.

## About D'Aguilar Gold

D'Aguilar Gold Limited is focused on generating exploration and development companies in a wide array of minerals.

Projects are conceived directly through the skills and experience of D'Aguilar's accomplished team of exploration geoscientists (with an enviable track record), not by the costly purchase of properties. Each project or exploration strategy is held in a separate subsidiary.

Focused and specialist management is then engaged in the subsidiary, with project specific finance raised in the subsidiary – faster and less dilutive to D'Aguilar. As the subsidiary project develops and starts to derisk the subsidiary is separately capitalised (seed raisings followed by an IPO).

Investors can choose to invest specifically in a particular project/commodity, or by investing in D'Aguilar, invest in the resource company generating business which retains a significant carried interest in each project.

D'Aguilar projects tend to be very large, targeting new provinces with the potential to make world-class discoveries. The exploration concepts are often novel. While increased metal prices and advances in technology can turn former sub-economic deposits into viable projects, D'Aguilar subsidiary projects frequently emerge from detailed reassessment and reinterpretation of large databases – looking at things from a new angle and with a different focus using state of the art techniques. The D'Aguilar Directors and Managers have in the past applied new exploration models to extensive tenement areas which have led to identification of new mineral provinces and the discovery of nationally significant resources. Similar efforts are now being dedicated to D'Aguilar.

D'Aguilar Gold currently holds 52 million shares (40%) in **Mt Isa Metals Limited** (ASX: MET) embarking on an exciting gold strategy in Burkina Faso, and 35.2 million shares (15.6%) in **Solomon Gold plc** (LSE: SOLG).

D'Aguilar is progressing the IPO and ASX listing of subsidiaries **AusNiCo Limited** (nickel and cobalt) and **Navaho Gold Pty Ltd** (gold and silver). AusNiCo Limited has successfully closed its IPO raising, and is set to make its ASX debut on 21 October 2010. Further, D'Aguilar has announced the proposed merger of its 86% owned **Ridge Exploration** (iron ore, titanium and aluminium) with Canadian-listed Coltstar Ventures Inc.

In the development pipeline, D'Aguilar is also progressing plans for other subsidiaries – **Anduramba Molybdenum** (molybdenum and copper) and **Barlyne Mining** (porphyry copper, gold and molybdenum) and its energy-focused subsidiary **Armour Energy**. Several other projects are at earlier stages of development, and will be announced to the market when exploration tenements have been secured.

D'Aguilar has 322,002,760 shares on issue.

Email: [info@daguilar.com.au](mailto:info@daguilar.com.au)

Electronic copies and more information are available on the Company website: [www.daguilar.com.au](http://www.daguilar.com.au)

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