RFC Ambrian

Oil & Gas

Armour Energy

Speculative Buy

Forging Ahead

18 January 2013

Price (A$)	**0.30**
Target Price (A$)	0.67
Ticker	AJQ
Market cap (A$m)	89
Estimated cash (A$m)	39
Acres (m)	33.4
EV/Acre (US$/acre)	1.44
Shares in issue	
Basic (m)	300
Fully diluted (m)	406.1
52-week	
High (A$)	0.50
Low (A$)	0.17
3m-avg daily vol (000)	311
3m-avg daily val (A$000)	80
Top shareholders (%)	
DGR Global	25.0
JPM AM	12.7
Och-Ziff	11.7
Board & Management	3.6
Total	**53.0**
Management	
Nicholas Mather	Chairman
Philip McNamara	CEO

Share Price Performance (A$)

Source: Bloomberg

RFC Ambrian has acted as Placing Agent for this company

Stuart Amor
+44 (0)20 3440 6826
stuart.amor@rfcambrian.com

We believe that the equity market is continuing to undervalue Armour Energy (Armour) substantially. We reiterate our **SPECULATIVE BUY** recommendation on the stock and our target price of A$0.67.

We estimate that Armour currently trades on an EV/acre multiple of ~US$1.44/acre and our target price equates to an EV/acre multiple of less than US$5/acre. These are substantial discounts to the peer group average EV/acre multiple of ~US$14/acre and our estimate of the average Australian unconventional farm-in multiple of ~US$20/acre. We believe that Armour management's ability to remain 'master of its own destiny' means that Armour should trade at a premium EV/acre multiple to its peers. Armour's fully funded 2013 work programme (including nine wells) could add substantial value to its acreage before any potential farm-out, unlike nearly all its peers which conducted their farm-outs before much drilling had taken place.

Since we initiated on Armour the company has discovered gas in the Glyde Sub-basin with its Glyde-1 side-tracked lateral well. The well flowed unassisted at 3.3MMcfpd, and the stock price more than doubled on the news. We believe this discovery has increased the chance of further conventional gas discoveries in the area. A planned 2013 FTG survey and geophysical study should further de-risk conventional targets in this sub-basin.

We believe that the equity market has severely overreacted to the drilling contractor dispute. An August 2012 dispute with its drilling contractor knocked ~30% off Armour's share price. We estimate that any additional cost of the dispute with the drilling contractor is likely to be only between A$1.2-2.0m, while the share price fall equates to a loss of ~A$30m in value. Part of the share price fall on the news might have been because it removed further 2012 drilling catalysts. However, 2013 drilling catalysts are now coming into view (we expect a new 2013 drilling contract to be signed shortly) and the recent share price rally has started to reflect this.

Armour's 2013 work programme should provide several near-term drilling catalysts that, should the wells prove successful, could boost the company's share price substantially. The company plans to drill nine wells in 2013, including two in the Glyde Sub-basin and a lateral hydraulically fractured well in the newly granted and highly prospective Queensland ATP 1087 permit.

What Has Changed Since our Initiation?

Armour has been busy since our initiation

We initiated cover with our report *Armour Energy — An Unconventional Opportunity*, 8 August 2012. In the five months since our initiation Armour has been busy, despite terminating its drilling contract and thus ending its 2012 drilling campaign early. Armour Energy has:

- **Completed drilling of the Glyde-1 lateral well**, which resulted in a significant gas discovery (the well free flowed gas at ~3.3MMcfpd).
- **Been granted Northern Territory tenements EP 174 and EP 190**, in addition to EP 171 and EP 176. EP 190 was a particularly important addition as part of the Glyde Sub-basin falls within this permit.
- **Assessed the mean prospective conventional gas resource base** of the Glyde Sub-basin at ~130Bcf.
- **Worked up several new conventional petroleum targets** in the four granted Northern Territory permits.
- **Completed the Native Title Agreement and been granted Queensland tenement ATP 1087.** The primary target Lawn Hill Shale contains a thick, organic-rich source rock section showing up to 8% gas recorded in mud logs during drilling of four petroleum exploration wells by Comalco in the early 1990s. These wells, in conjunction with substantial seismic data, delineate an immediate Lawn Hill Shale exploration target area of approximately 1,400km² within the eastern area of ATP 1087. In March 2012 MBA Petroleum Consultants assessed that the mean prospective gas resource in the Lawn Hill Shale within ATP 1087 was 22.5Tcf.
- **Identified a secondary unconventional shale gas target within the Riversleigh Shale.** The Riversleigh Shale has recorded significant gas shows of up to 2.5% on mud logs in the Argyle Creek 1 and Desert Creek 1 wells in the western areas of ATP 1087.
- **Identified a conventional oil and gas play within ATP 1087** in the basal Jurassic sand unit at the edge of the Nicholson Basin that has been confirmed in regional drilling as being porous and permeable. Armour has also identified a number of leads around the Lawn Hill and Riversleigh Shale sub-crops below the Carpentaria Basin.

Further unconventional farm-ins

In addition to the above, it is important to note that there have been three further Australian unconventional farm-ins. Our estimates of the farm-in multiple valuations (US$16-19/acre) are well above the current valuation that the equity market is putting on Armour's permits (~US$1/acre).

Central Petroleum has announced two farm-outs

Central Petroleum has announced two farm-outs that we estimate value its Australian permits in the Amadeus and South Georgina Basins at between US$16-19/acre. These tenements are located south-west of Armour's acreage

Santos has just farmed into McArthur Basin permits at a cost of ~US$16/acre

Furthermore, on 12 December 2012 Santos announced the execution of a farm-in agreement with Tamboran Resources in the McArthur Basin (permits EP 161, EP 162, EP 189 & EP (A) 299, just to the north-west of Armour's permits) that we estimate values these permits at ~US$16/acre. Under this farm-in agreement, Santos will spend an initial A$40m to earn a 50% interest in the ~6.2m acres (25,000km^2) these licences cover. It will then have an option to spend a further A$30m to earn a further 25% interest in these tenements. Santos has also agreed to acquire a 14% interest in Tamboran Resources for A$10m.

Valuation

Armour is hugely undervalued against its peer group

In our view Armour is hugely undervalued. It is the second cheapest stock among its peer group and it trades at an EV/acre multiple that is a fraction of the average implied farm-out multiple of recent relevant Australian transactions; it trades on an EV/acre multiple of just US$1.44/acre. Its peer group's weighted-average EV/acre multiple is US$13.55/acre. We believe that Armour should trade at a premium to many of its peers to reflect the strength of its management team and the fact that its work programme is fully funded through to the end of 2013. We estimate that the average relevant Australian unconventional farm-out multiple of 13 transactions since mid-2010 is ~US20/acre.

At our target price (TP) of A$0.67, Armour would still be at a significant discount to both its peer group average multiple and the average farm-out multiple; at this level, Armour would be trading at an EV/acre multiple of US$4.82. If we put Armour's valuation on the US$16/acre multiple of Santos' recent farm-in to four McArthur Basin permits, this would equate to an Armour share price of ~A$1.80.

Table 1: Australian Unconventional Oil and Gas Valuation Multiples

Company	Loc Cur	Share Price (loc cur)	Mkt Cap (US$m)	Net Debt (US$m)	EV (US$m)	Net Permit Area (MM acres)	Prosp Resources (MMboe)	EV/Acre (US$/acre)	EV/Prosp Resources (US$/boe)
Buru	A$	2.26	619	(50)	569	20.6	16,860	27.65	0.0337
New Standard	A$	0.30	92	(33)	58	13.4		4.35	
Drillsearch	A$	1.45	618	(101)	517	6.0		86.39	
Cooper	A$	0.60	196	(52)	144	3.6		40.23	
Icon	A$	0.24	128	(15)	113	2.5		46.03	
Central Petroleum	A$	0.14	187	(2)	185	68.0	16,100	2.73	0.0115
Falcon Oil & Gas	C$	0.23	160	(10)	151	5.3	36,000	28.41	0.0042
PetroFrontier	C$	0.38	30	(14)	16	13.9	25,650	1.12	0.0006
Norwest	A$	0.05	49	(4)	45	0.7		62.12	
Lakes Oil	A$	0.004	28	(1)	27	0.8		34.58	
Total/ Weighted average					**1,824**	**134.6**	**94,610**	**13.55**	**0.0097**
Armour	**A$**	**0.30**	**89**	**(40)**	**48**	**33.4**	**9,085**	**1.44**	**0.0053**

Note: Share prices as of 17 January 2013; Source: Company data, RFC Ambrian estimates

We believe the best peers for Armour are Australian and Canadian unconventional explorers with assets in Australia

We believe the best peers for Armour are Australian and Canadian unconventional explorers with assets in Australia (see Table 1 above). The EV/acre multiples for Armour's peer group cover a wide range, from just US$1.12/acre (PetroFrontier) to as much as US$86/acre (Drillsearch), reflecting each company's current/near-term conventional oil and gas production, booked reserves/resources, acreage prospectivity and acreage location (proximity to infrastructure and markets). PetroFrontier, the only stock cheaper than Armour, is struggling to fund its farm-out work programme commitments even after farming out a 65% interest to Statoil. Contrast this to Armour's fully funded, substantial 2013 work programme prior to any farm-out of its interest.

2013 Work Programme

The vast majority of Armour 2013 spending is on exploration

Armour has just published an updated timeline for its 2013 planned work programme, along with the budgeted cost for each item. The 2013 work programme envisages spending ~A$34m (we estimate Armour currently has a ~A$39m cash position). The vast majority of Armour's 2013 spending is on exploration (see below). Indeed, the programme includes the drilling of some nine wells. We believe that this work programme should deliver continual newsflow from 1Q13 to 4Q13.

The importance of the recent granting of Queensland ATP 1087 can be seen from the proportion of 2013 exploration spending (~56%) planned to be used towards this permit.

Figure 1: Armour 2013 Planned Work Programme

	2013F				Budget
	Q1	Q2	Q3	Q4	(A$ 000's)
EXPLORATION COSTS					
Northern Territory: EP 171 & EP 176					
Airborne FTG survey					700
Geophysical studies					500
2 Glyde sub-basin wells					3,000
Shale gas well					2,500
Queensland: ATP 1087					
Native Title Payment					250
2D Seismic (250km)					2,500
3 vertical + 1 lateral fracced wells					13,000
Victoria: PEP 166 & PEP 169					
Otway 1 well					1,250
Holdgate 2 well					4,250
Total exploration costs					**27,950**
OTHER COSTS					
Feasability studies/ marketing					1,700
Other overhead					4,300
Total other costs					**6,000**
Total exploration and other costs					**33,950**

Source: Company data

Northern Territory Work Programme

Airborne gravity and aeromagnetic survey

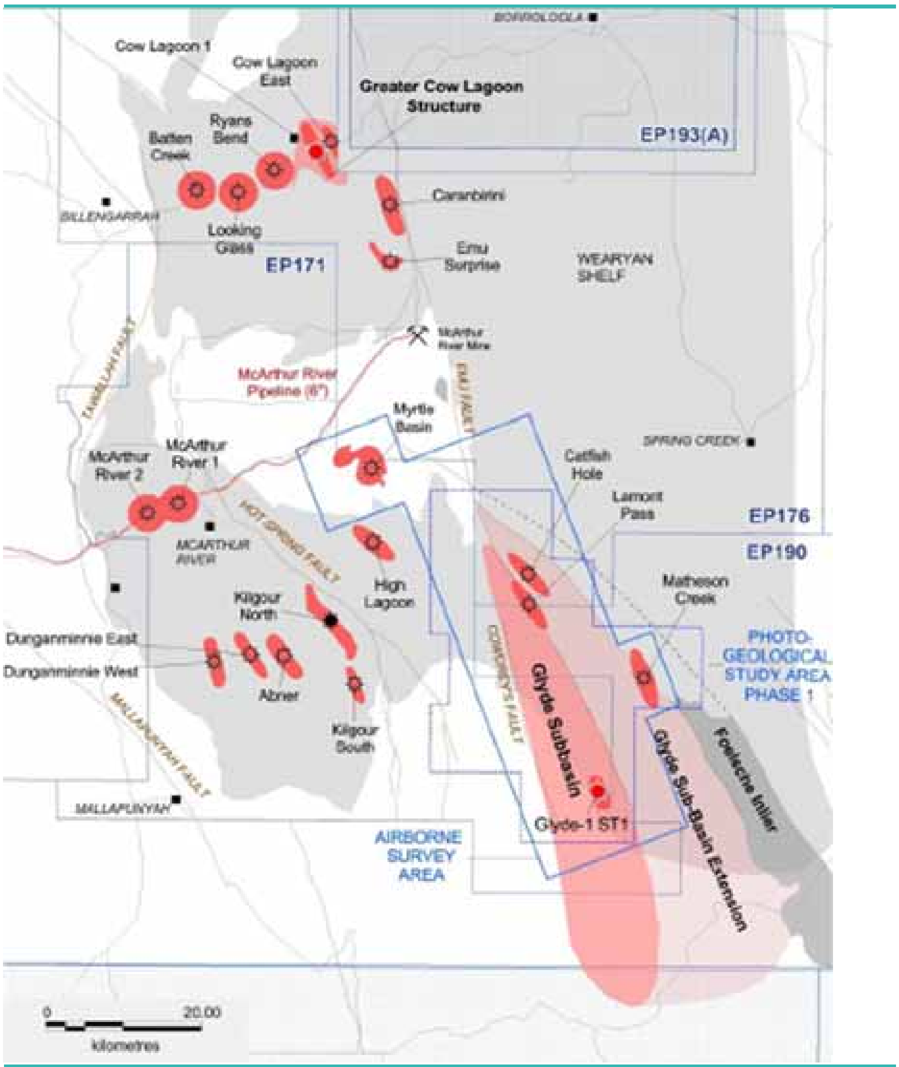
In 1Q13 Armour plans to undertake a 500km^2 airborne gravity and aeromagnetic survey over the Glyde Sub-basin to better define drilling targets. This type of survey proved very effective for Tullow in East Africa, where it helped focus the exploration effort on the most promising leads. We believe that the integration of seismic and aeromagnetic data should allow Armour to improve the definition of its prospects before drilling, and thus increase the chance of drilling success.

Depending on the results of the above gravity and aeromagnetic survey, Armour may perform a photo-geological study or a resistivity study over the same basin.

Three wells are likely to be drilled in 3Q13 and 4Q13

Once the results of these surveys have been analysed, Armour will choose two locations to drill wells targeting conventional gas resources and one location to drill a well targeting shale gas resources. These three wells are likely to be drilled in 3Q13 and 4Q13.

Figure 2: Northern Territory Conventional Gas/Condensate Targets



Source: Company data

Queensland Work Programme

Armour's first step is to reprocess the relatively extensive vintage 2D seismic

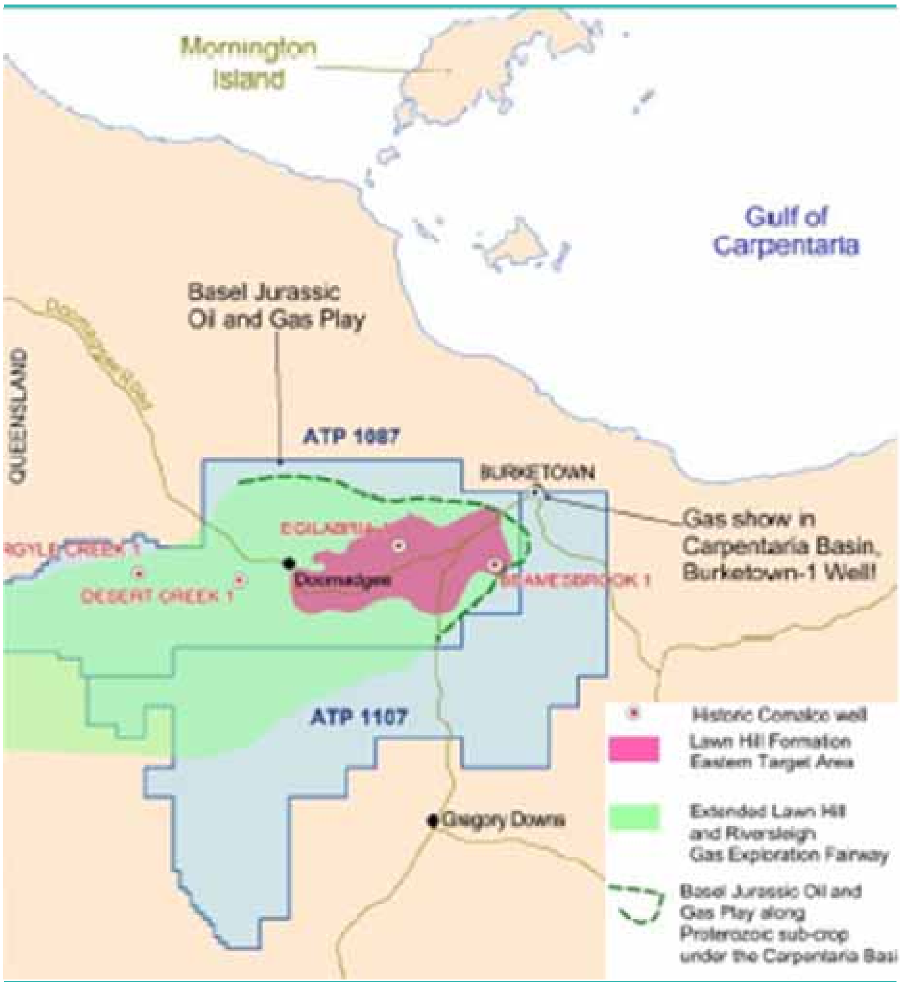
ATP 1087 comes with a lot more (and more promising in our view) data than any of Armour's Northern Territory permits did. Armour's first step is to reprocess the relatively extensive vintage 2D seismic. Armour also plans to shoot an additional 250km of 2D seismic to firm up potential conventional oil and/or gas leads in its newly identified Basal Jurassic oil and gas play at the edge of the Nicholson Basin.

The aim is to prove up the concept of a large-scale unconventional gas development and to test the South Nicholson Edge oil and/or gas conventional play

Once the interpretation of the seismic is completed, Armour will finalise drilling locations in the permit. It plans to drill three vertical wells and one lateral hydraulically fractured well in this permit in 2013. The aim is to prove up the concept of a large-scale unconventional gas development and to test the South Nicholson Edge oil and/or gas conventional play.

The current plan, is to drill an Egilabria-2 well to a vertical depth of ~1,750m in May 2013, close to the 1991 well drilled by Comalco. A subsequent 650m lateral side track is planned to be completed with a six-stage hydraulic fracture. Management expects this well to indicate the viability of commercial production from shale gas targets in the South Nicholson and Isa Superbasins.

Figure 3: Armour's Queensland Tenements and Play Types



Source: Company data

Victoria Work Programme

In PEP 166, Gippsland Basin, Armour is currently drilling the Yallourn Power-1 stratigraphic core hole to test the lateral extent, thickness and source rock potential of the Rintouls Creek Formation. Later in 2013 Armour plans to drill the Holdgate-2 well, in PEP 166, to finish earning a 51% interest in the licence.

In PEP 169, in the Otway Basin, Armour plans to drill the Otway-1 well adjacent to the Iona gas field and Iona gas processing plant in March 2013. This well is targeting gas flows of 5–10MMcfpd.

Resource Update

In addition to the 18.5Tcf of unconventional prospective mean gas resources within the Northern Territory permits EP 171 and EP 176, management now estimates that there is ~230Bcf of conventional prospective mean gas resources contained in just the greater Cow Lagoon region (~100Bcf) and the Glyde Sub-basin (~130Bcf). Queensland permit ATP 1087 has unconventional prospective mean gas resources of 22.5Tcf. The combined unconventional mean prospective liquid resources of these three permits are 2.2Bbbl.

Glyde Sub-basin

Since our initiation report Armour has announced that its Glyde-1 lateral well made a significant gas discovery, which flowed gas at ~3.3MMcfpd. The Glyde-1 lateral well flowed gas while drilling laterally though the Barney Creek Shale and the gas appeared to be flowing at high rates from natural fractures in the rock, probably connected to a conventional reservoir in the Coxco Dolomite below (normally we would expect to see such rates only from conventional gas reservoirs or from unconventional shales that had undergone hydraulic fracture stimulation). The well was at a measured depth of just 672m. Armour management estimates that the mean prospective conventional gas resources of the Glyde Sub-basin are ~130Bcf.

2012 Drilling Contract

On 24 August 2012 Armour announced that, in accordance with its drilling rig contract terms, it had suspended the drilling contractor from conducting further operations. During the drilling of its wells Armour had notified the contractor of detailed grounds for dissatisfaction that eventually gave rise to the suspension. Armour terminated the drilling agreement on 5 September 2012 on the basis that the contractor had been unable to remedy matters satisfactorily in relation to its performance obligations under the contract. The contractor is disputing the suspension/termination. We believe Armour's auditors will likely force Armour to make a provision in its accounts for the take-or-pay day rate element of the contract. We believe Armour has already paid/taken into account in its work programme cashflow projections all the other costs under the drilling contract.

According to Armour's prospectus, the rig day rate in its take-or-pay drilling contract was between A$17,000-29,000. The contract was for the period 1 May 2012 until 31 October 2012. Thus, we estimate that the contract was suspended/terminated for 69 days (24 August to 31 October). Using the day rates above this equates to a contingent take-or-pay obligation of between A$1.2-2.0m.

Should this dispute end up in court, we believe Armour's suspension/ termination of the contract is likely to be upheld. Certainly, Armour's drilling costs appear to have overrun their initial budget substantially. Planned drilling expenditure for eight vertical wells, one lateral well and one hydraulic fracture completion was A$11.1m, while the actual cost for just four vertical wells and one lateral well was ~A$9.8m. Given the above, we believe that the ~A$30m reduction in Armour's market cap on the announcement of the contractor dispute was not justified.

RFC Ambrian

Research Team

Metals & Mining		
Duncan Hughes, Head of Research	+44 (0)20 3440 6820	duncan.hughes@rfcambrian.com
Craig Foggo	+44 (0)20 3440 6822	craig.foggo@rfcambrian.com
Jessica Mauss	+44 (0)20 3440 6823	jessica.mauss@rfcambrian.com
Oil & Gas		
Stuart Amor, Head of Oil & Gas Research	+44 (0)20 3440 6826	stuart.amor@rfcambrian.com
Emily Ashford	+44 (0)20 3440 6821	emily.ashford@rfcambrian.com
Corporate Broking		
Caspar Shand Kydd, Head of Corporate Broking	+44 (0)20 3440 6814	caspar.shand-kydd@rfcambrian.com
Jonathan Williams	+44 (0)20 3440 6817	jonathan.williams@rfcambrian.com
Klara Kaczmarek	+44 (0)20 3440 6815	klara.kaczmarek@rfcambrian.com
Tommy Horton	+44 (0)20 3440 6824	tommy.horton@rfcambrian.com

RFC Ambrian Limited

London

Level 5, Condor House
10 St Paul's Churchyard
London EC4M 8AL
UK

Telephone +44 (0)20 3440 6800
Fax +44 (0)20 3440 6801

Sydney

Level 14
19-31 Pitt Street
Sydney NSW 2000
Australia

Telephone +61 2 9250 0000
Fax +61 2 9250 0001

Perth

Level 15, QV1 Building
250 St Georges Terrace
Perth WA 6000
Australia

Telephone +61 8 9480 2500
Fax +61 8 9480 2511

info@rfcambrian.com **www.rfcambrian.com**